

F.A.P. RYE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2008-006 TS	COOK	104*	1

104+4-1=107

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**PLANS FOR PROPOSED
FEDERAL AID HIGHWAY**

DISTRICT 1

VARIOUS LOCATIONS - SAFETY PROJECTS
TRAFFIC SIGNAL MODERNIZATION

F.A.P. ROUTE 330

US ROUTE 12/45-12/20/45 (MANNHEIM AVENUE)
FROM BELMONT AVENUE TO CERMAK ROAD

PROJECT: HSIP-0330(049)

SECTION 2008-006 TS
COOK COUNTY
D-91-356-08



LOCATION OF SECTION INDICATED THUS: - [rectangle] -

FOR INDEX OF SHEETS, SEE SHEET NUMBER 2

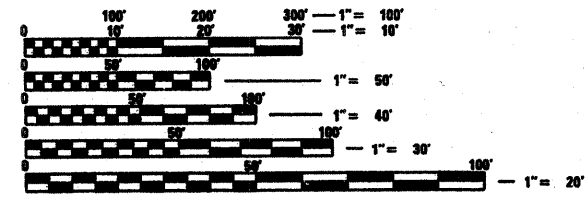
STANDARDS

- | | |
|--------------------|--------------------|
| STANDARD 424001-05 | STANDARD 814006-02 |
| STANDARD 606001-04 | STANDARD 867001-01 |
| STANDARD 701501-05 | STANDARD 867006-01 |
| STANDARD 701601-06 | STANDARD 862001-01 |
| STANDARD 701701-06 | STANDARD 873001-02 |
| STANDARD 701801-04 | STANDARD 877001-04 |
| STANDARD 720001-01 | STANDARD 878001-07 |
| STANDARD 720016-02 | STANDARD 880001-01 |
| STANDARD 780001-02 | STANDARD 880006-01 |
| STANDARD 805001-01 | STANDARD 886001-01 |
| STANDARD 814001-02 | 701901-01 |
| | 701421-02 |
| | 420101-04 |
| | 606301-04 |

LEYDEN AND PROVISO TOWNSHIP

PROJECT BEGINS

PROJECT ENDS



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.

BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "J.U.L.I.E." AT (800) 892-0123 OR 511 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE AND GAS UTILITIES. 48 HOUR NOTIFICATION IS REQUIRED.

SCALES { PLAN 1"=20'
INTERCONNECT 1"=50'

LOCATION MAP

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED Oct 17 20 08
Kevin M. O'Keefe
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

January 30 20 09
Charles J. Doversol
ENGINEER OF DESIGN AND ENVIRONMENT

January 30 20 09
Christina M. Reed
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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OF THE STATE OF ILLINOIS**

DISTRICT 1 BUREAU OF TRAFFIC: STEVE TRAVIADARYLE DREW (847) 705-4420

Rev.

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LOCATION OF WORK SUMMARY OF QUANTITIES U.S. RTE 12-45 (MANNHEIM RD.) AT BELMONT AV. & GRAND AV. * FULLERTON AV. ** ARMITAGE AV. NORTH/SOUTH RETAIL ENTR. HIRSCH AV. LAKE ST. & OTHERS (SEE NOTE) ST. CHARLES RD. WASHINGTON BLVD. & MADISON AV. GLADYS AV. CANTERBURY ST. & BALMORAL AV. *

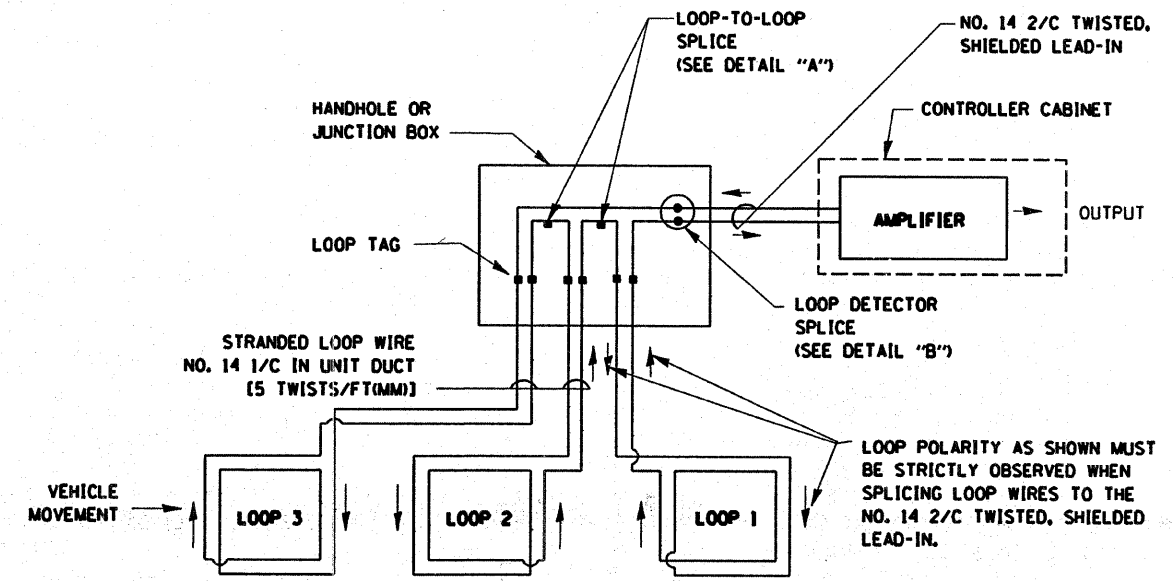
- NOTE:
* 90% FED 7.5% STATE 2.5% FRANKLIN PK.
** 90% FED 5% STATE 5% LEYDEN
+ 90% FED 5% STATE 3.75% MELROSE PK. 1.25% NLAKE CITY
◆ 90% FED 10% MELROSE
★ 90% FED 5% STATE 5% STONE PK.
◀ 90% FED 10% STATE 5% ROOSEVELT RD. CERMAK RD. & INTERCONNECT
■ 90% FED 5% STATE 5% BELLWOOD
▲ 90% FED 5% STATE 2.5% HILLSIDE 2.5% BELLWOOD
▬ 90% FED 5% STATE 5% HILLSIDE
● 90% FED 5% STATE 5% W. CHESTER

100% COST TO LOCAL AGENCY

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
US 122045 (MANNHEIM ROAD) FROM BELMONT AVENUE TO ST. CHARLES ROAD
SCALE: NTS SHEET NO. OF SHEETS STA. TO STA.

LOOP DETECTOR NOTES

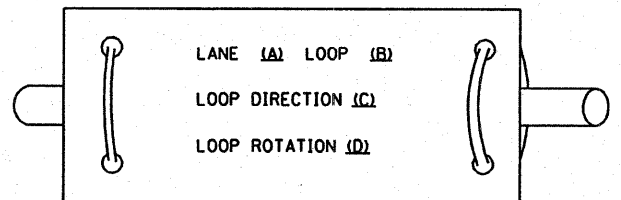
- EACH PAIR OF LOOP WIRES SHALL BE PLACED IN A SEPARATE UNIT DUCT FROM THE EDGE OF PAVEMENT TO THE HANDHOLE. SPACING BETWEEN THE HOLES DRILLED IN THE PAVEMENT SHALL NOT BE LESS THAN 6" (150 mm). UNIT DUCT SHALL BE INCLUDED IN THE COST OF THE LOOP WIRE.
- THE NUMBER OF LOOP TURNS SHALL BE AS RECOMMENDED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



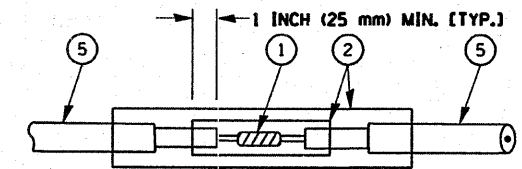
DETECTOR LOOP WIRING SCHEMATIC

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

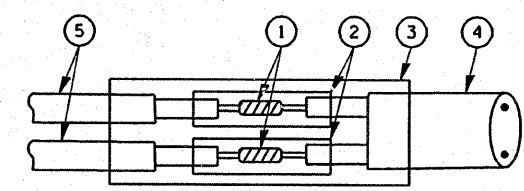
LOOP LEAD-IN CABLE TAG



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



**DETAIL "A"
LOOP-TO-LOOP SPLICE**



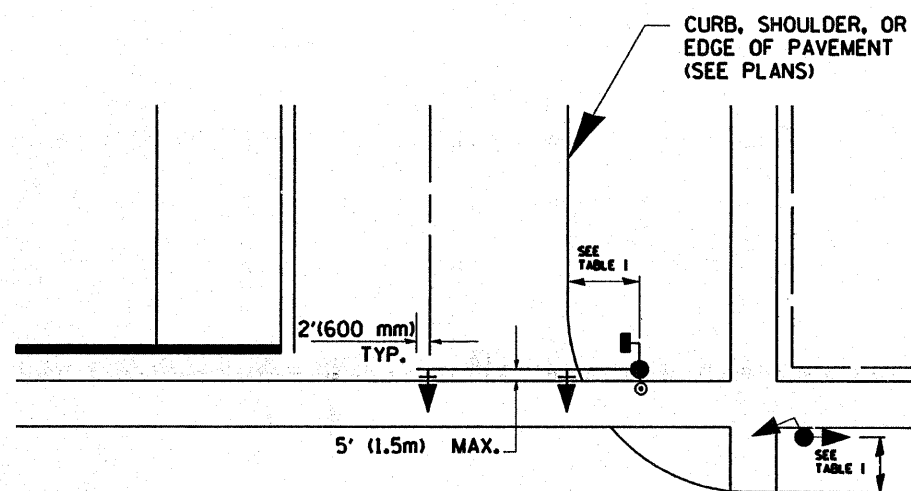
**DETAIL "B"
LOOP-TO-CONTROLLER SPLICE**

LOOP DETECTOR SPLICE

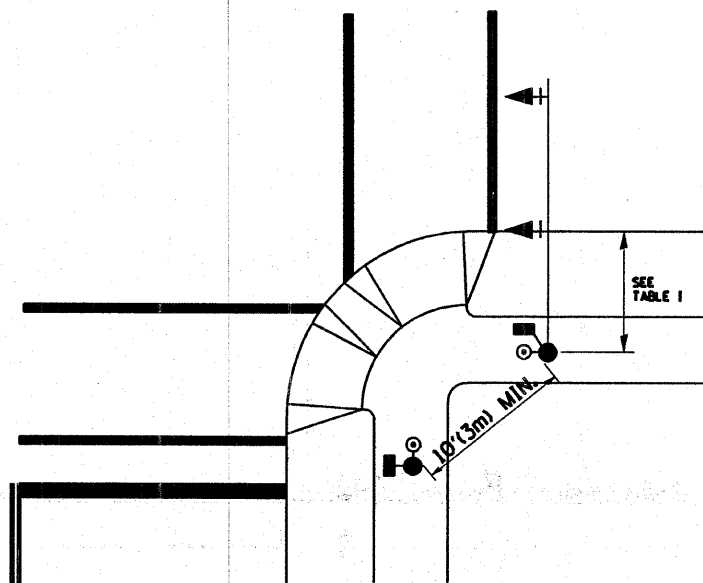
- WESTERN UNION SPLICE SOLDERED WITH ROSIN CORE FLUX. ALL EXPOSED SURFACES OF THE SOLDER SHALL BE SMOOTH.
- WCSMW 30/100 HEAT SHRINK TUBE, MINIMUM LENGTH 3" (75 mm), UNDERWATER GRADE.
- WCS 200/750 HEAT SHRINK TUBE, MINIMUM LENGTH 6" (150 mm), UNDERWATER GRADE.
- NO. 14 2/C TWISTED, SHIELDED CABLE.
-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

TRAFFIC SIGNAL MAST ARM AND POST

MAST ARM MOUNTED SIGNAL IN PROPOSED & FUTURE SIDEWALK AREA. INTERSECTION SHOWN WITH PEDESTRIAN SIGNAL AND PUSHBUTTON DETECTOR



PEDESTRIAN SIGNAL PUSHBUTTON



RECOMMENDED PUSHBUTTON LOCATIONS FOR ACCESSIBLE PEDESTRIAN SIGNALS SHALL BE IN ACCORDANCE WITH THE CURRENT MUTCD (SEE NOTE 1). TO MEET MUTCD REQUIREMENTS, PEDESTRIAN SIGNAL PUSHBUTTONS MAY HAVE TO BE MOUNTED ON A SEPARATE POST.

NOTES:

1. AT ACCESSIBLE PEDESTRIAN SIGNAL LOCATIONS WITH PEDESTRIAN ACTUATION, EACH PUSHBUTTON SHALL ACTIVATE BOTH THE WALK INTERVAL AND THE ACCESSIBLE PEDESTRIAN SIGNALS.

AT ACCESSIBLE PEDESTRIAN SIGNAL LOCATIONS, PUSHBUTTONS SHOULD CLEARLY INDICATE WHICH CROSSWALK SIGNAL IS ACTUATED BY EACH PUSHBUTTON. PUSHBUTTONS AND TACTILE ARROWS SHOULD HAVE HIGH VISUAL CONTRAST (SEE THE DEPARTMENT OF JUSTICE'S AMERICANS WITH DISABILITIES ACT STANDARDS FOR ACCESSIBLE DESIGN, 1991). TACTILE ARROWS SHOULD POINT IN THE SAME DIRECTION AS THE ASSOCIATED CROSSWALK. AT CORNERS OF SIGNALIZED LOCATIONS WITH ACCESSIBLE PEDESTRIAN SIGNALS WHERE PEDESTRIAN PUSHBUTTONS ARE PROVIDED, THE PUSHBUTTONS SHOULD BE SEPARATED BY THE DISTANCE OF AT LEAST 10 FT (3m). THIS ENABLES PEDESTRIANS WHO HAVE VISUAL DISABILITIES TO DISTINGUISH AND LOCATE THE APPROPRIATE PUSHBUTTON.

PUSHBUTTONS FOR ACCESSIBLE PEDESTRIAN SIGNALS SHOULD BE LOCATED AS FOLLOWS:

- A: ADJACENT TO A LEVEL ALL-WEATHER SURFACE TO PROVIDE ACCESS FROM A WHEELCHAIR, AND WHERE THERE IS AN ALL WEATHER SURFACE, WHEELCHAIR ACCESSIBLE ROUTE TO THE RAMP.
- B: WITHIN 5 FT (1.5m) OF THE CROSSWALK EXTENDED.
- C: WITHIN 10 FT (3m) OF THE EDGE OF CURB, SHOULDER, OR PAVEMENT.
- D: PARALLEL TO THE CROSSWALK TO BE USED (SEE MUTCD FIGURE 4E-2).
- E: NORMAL PEDESTRIAN PUSHBUTTON MOUNTING HEIGHT SHOULD BE 3.5 FT (1.05m) ABOVE ADJACENT SIDEWALK

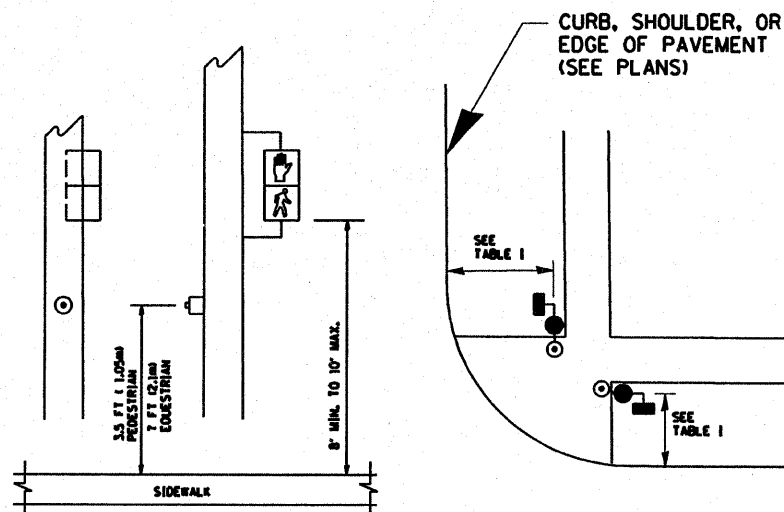
2. PEDESTRIAN SIGNAL FACES SHALL BE MOUNTED WITH THE BOTTOM OF THE HOUSING NOT LESS THAN 8 FT (2.4m) NOR MORE THAN 10 FT (3.0m) ABOVE THE SIDEWALK LEVEL AND SO THERE IS A PEDESTRIAN INDICATION IN THE LINE OF PEDESTRIANS' VISION WHICH PERTAINS TO THE CROSSWALK BEING USED.

3. THE BOTTOM OF THE HOUSING OF A VEHICLE SIGNAL FACE, NOT MOUNTED OVER A ROADWAY, SHALL BE AT LEAST 10 FT (3.0m) BUT NOT MORE THAN 15 FT (4.5m) ABOVE THE SIDEWALK OR, ABOVE THE PAVEMENT GRADE AT THE CENTER OF THE HIGHWAY IF NO SIDEWALKS EXIST.

4. THE BOTTOM OF THE HOUSING OF A VEHICLE SIGNAL FACE, MOUNTED OVER A ROADWAY, SHALL BE ACCORDING TO CURRENT STATE STANDARDS 877001 AND 877006. (16 FT (5m) MIN., 18 FT (5.5m) MAX., FROM HIGHEST POINT OF PAVEMENT)

PEDESTRIAN SIGNAL POST

PEDESTRIAN SIGNAL HEAD AND PEDESTRIAN PUSHBUTTON DETECTOR LOCATION



TYPICAL HIGH VISIBILITY CROSSWALK MARKING

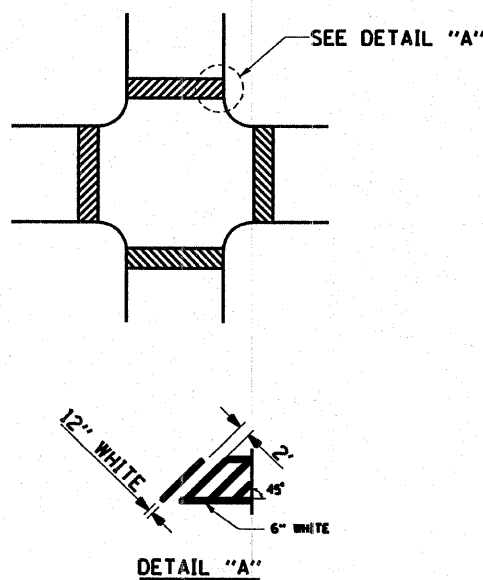


TABLE I

TRAFFIC SIGNAL EQUIPMENT	COMBINATION CONCRETE CURB AND GUTTER (MIN. DIST. FROM BACK OF CURB)	SHOULDER/NON-CURBED AREA (MIN. DIST. FROM EDGE OF PAVEMENT)
TRAFFIC SIGNAL MAST ARM POLE	6 FT (1.8m)	SHOULDER WIDTH + 2FT(0.6m), MINIMUM 10FT(3.0m)
TRAFFIC SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2FT(0.6m), MINIMUM 10FT(3.0m)
PEDESTRIAN SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2FT(0.6m), MINIMUM 10FT(3.0m)
PEDESTRIAN PUSHBUTTON	SEE NOTE 1	SEE NOTE 1

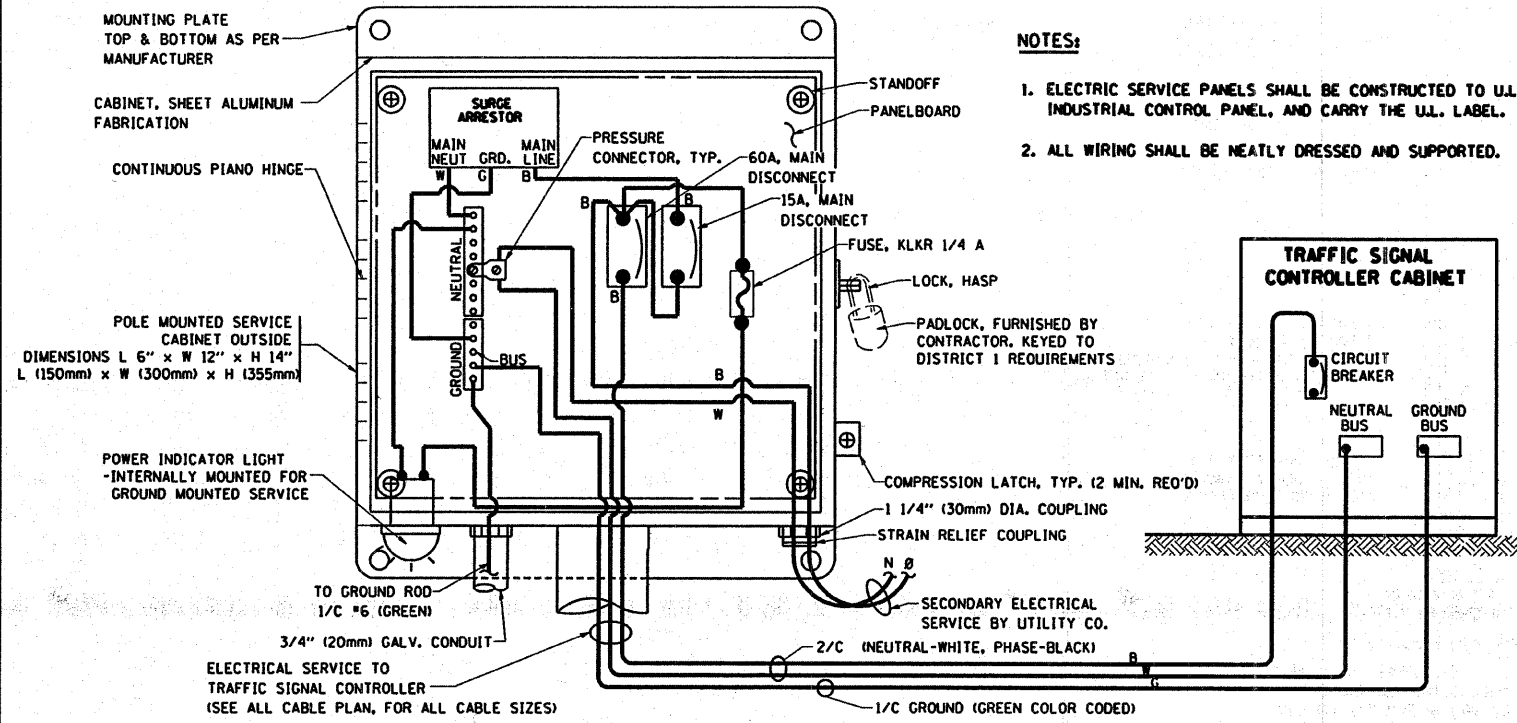
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		CHECKED - IDA.Z.	REVISED -
		DATE - 04/14/2008	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

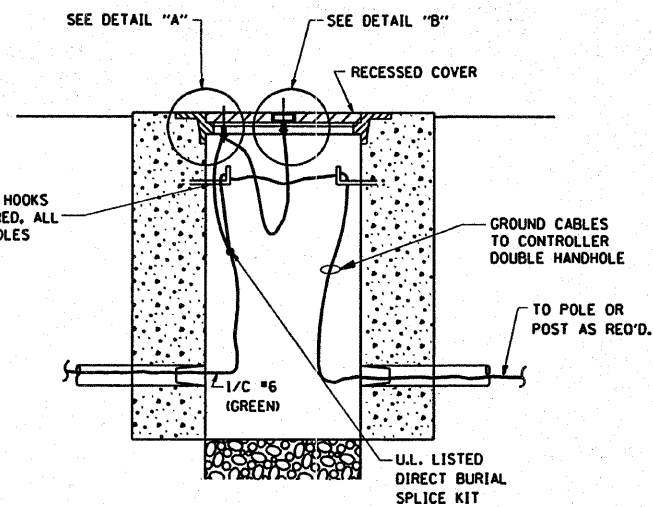
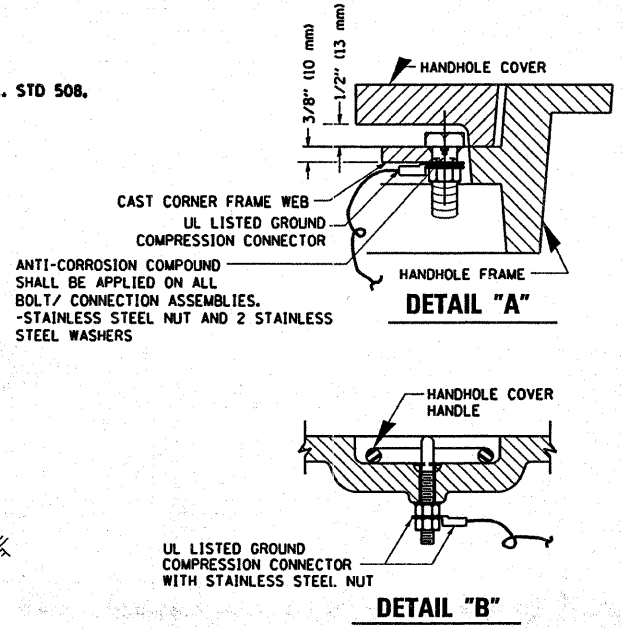
DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: NTS SHEET NO. 2 OF 4 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2008-006 TS	COOK	104	6
CONTRACT NO. 60E31			FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT	

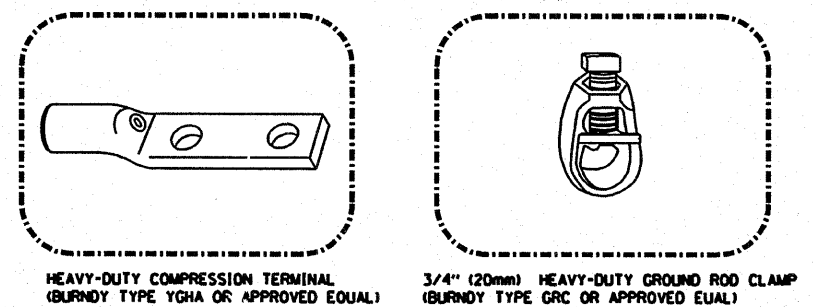


ELECTRICAL SERVICE - PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE)
SERVICE INSTALLATION POLE MOUNT (SHOWN)
 (NOT TO SCALE)

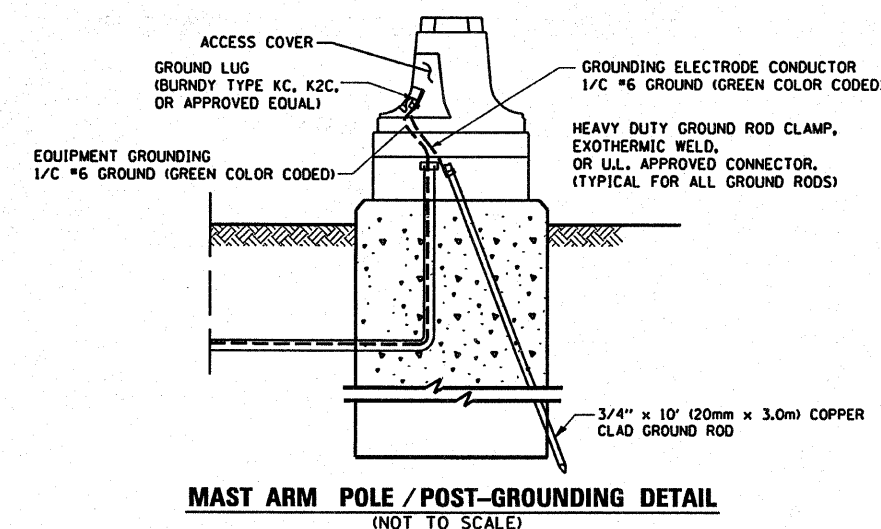
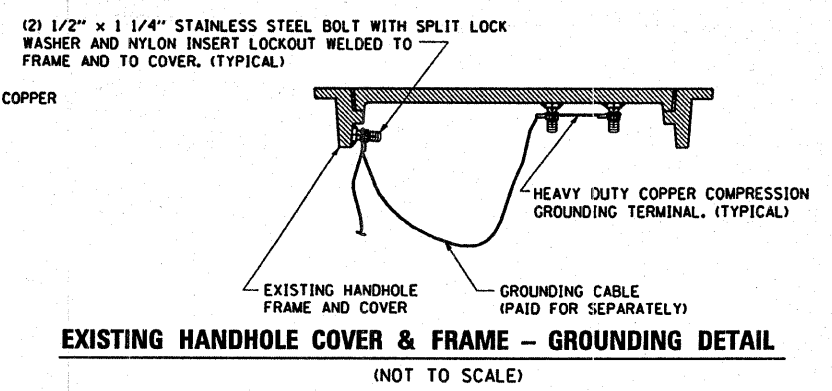
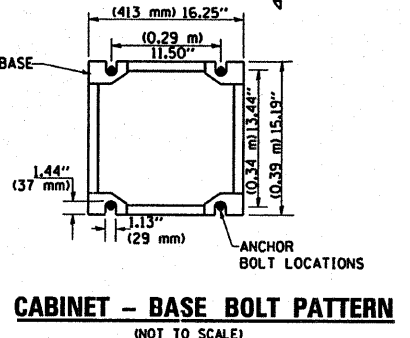
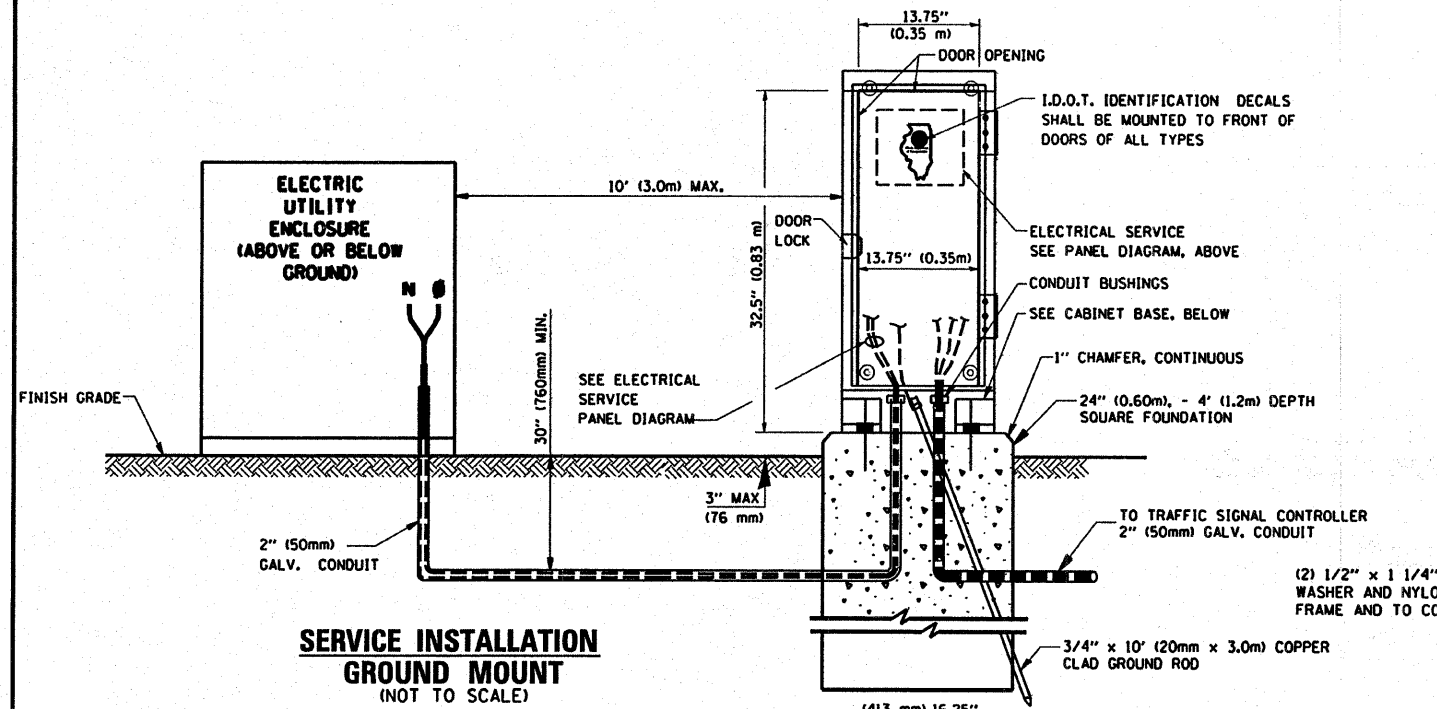


HANDHOLE COVER & FRAME - GROUNDING DETAIL
 (NOT TO SCALE)

- 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.



- 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.

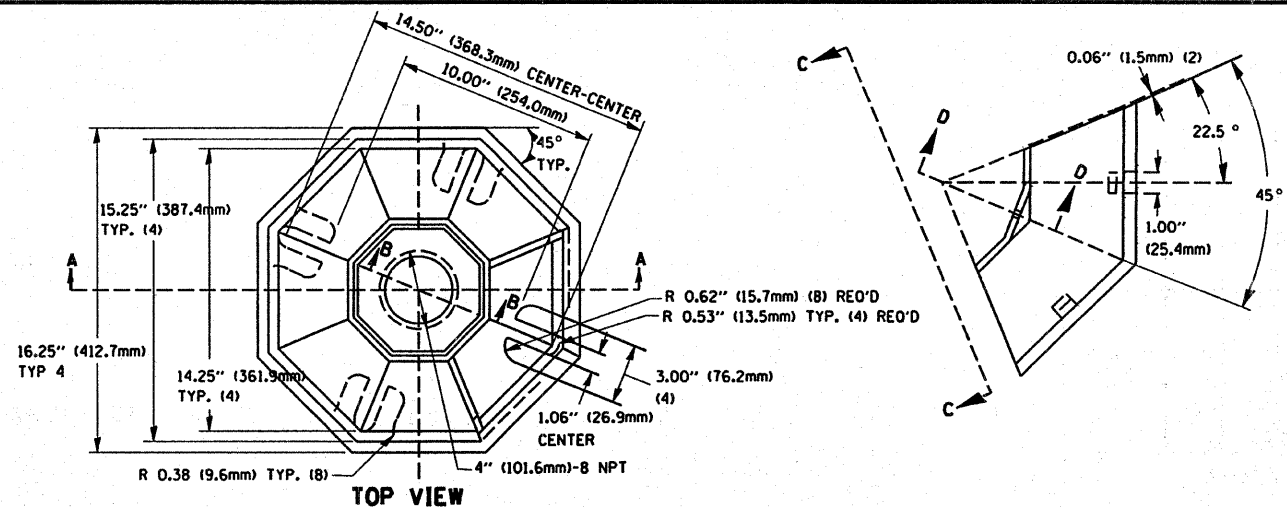


FILE NAME = c:\projects\traffic\1070027\us12.20.45.dgn	USER NAME = kenthaphxaybc	DESIGNED - D.A.D.	REVISED -
PLOT SCALE = 100.0000' / IN.	CHECKED - IDB.Z.	DRAWN - R.W.P.	REVISED -
PLOT DATE = 10/10/2008	DATE = 04/14/2008		REVISED -

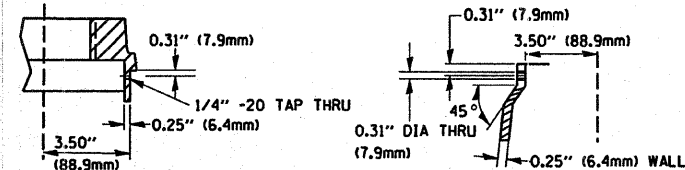
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

DISTRICT ONE		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
STANDARD TRAFFIC SIGNAL DESIGN DETAILS		330	2008-006 TS	COOK	104	7
SCALE: NTS	SHEET NO. 3 OF 4 SHEETS	STA.	TO STA.		CONTRACT NO. 60E31	
		FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

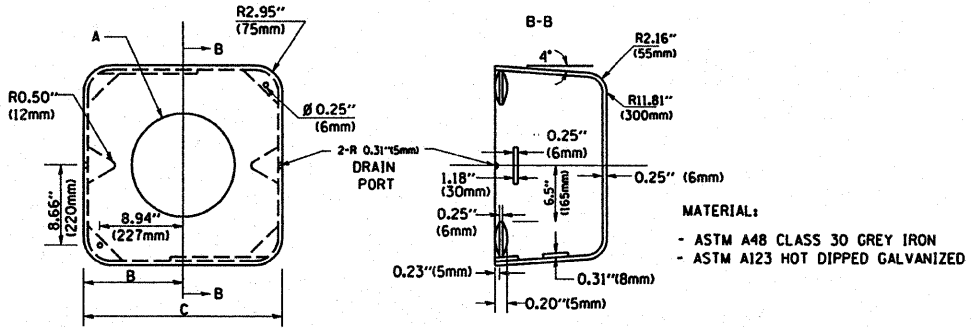
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SECTION B-B

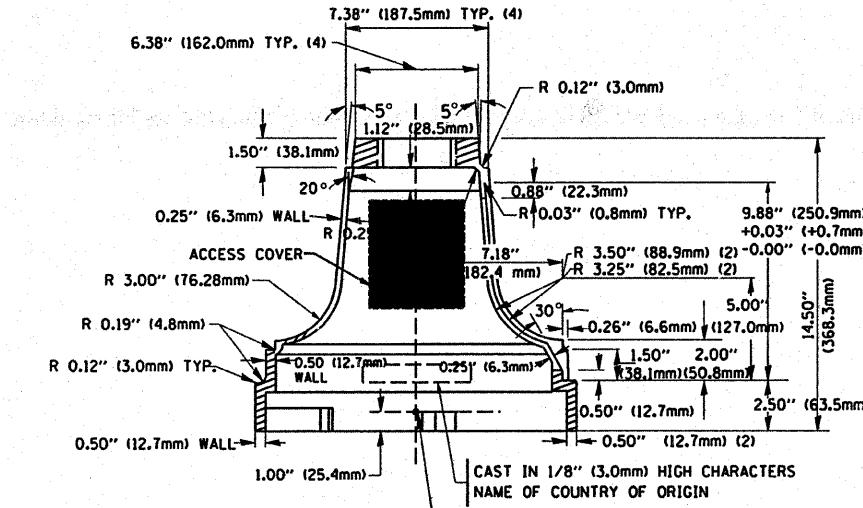


SECTION D-D

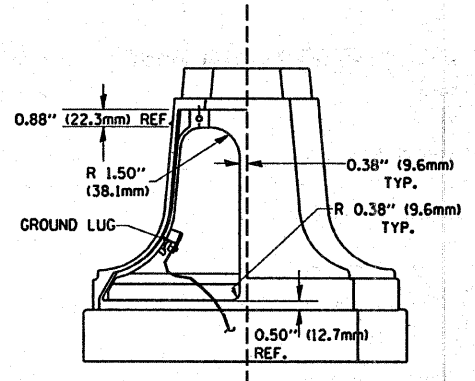


TYPE	A	B	C	HEIGHT	WEIGHT
I	Ø 10.125\"(257mm)	9.5\"(241mm)	19\"(483mm)	12\"(300mm)	24kg
II	Ø 11.125\"(283mm)	10.75\"(273mm)	21.5\"(546mm)	12\"(300mm)	26kg

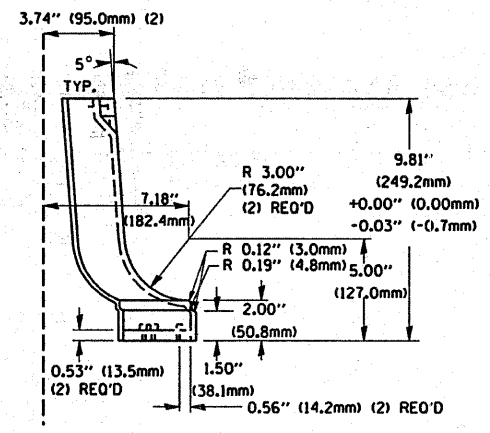
SHROUD DETAIL



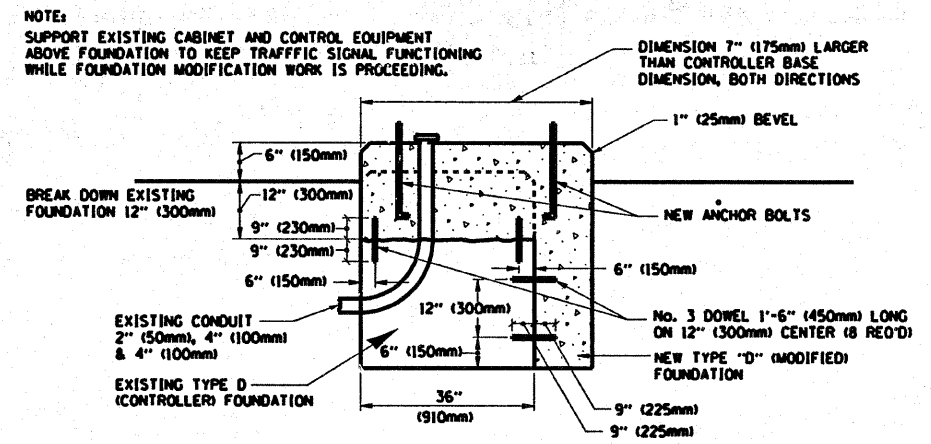
SECTION A-A



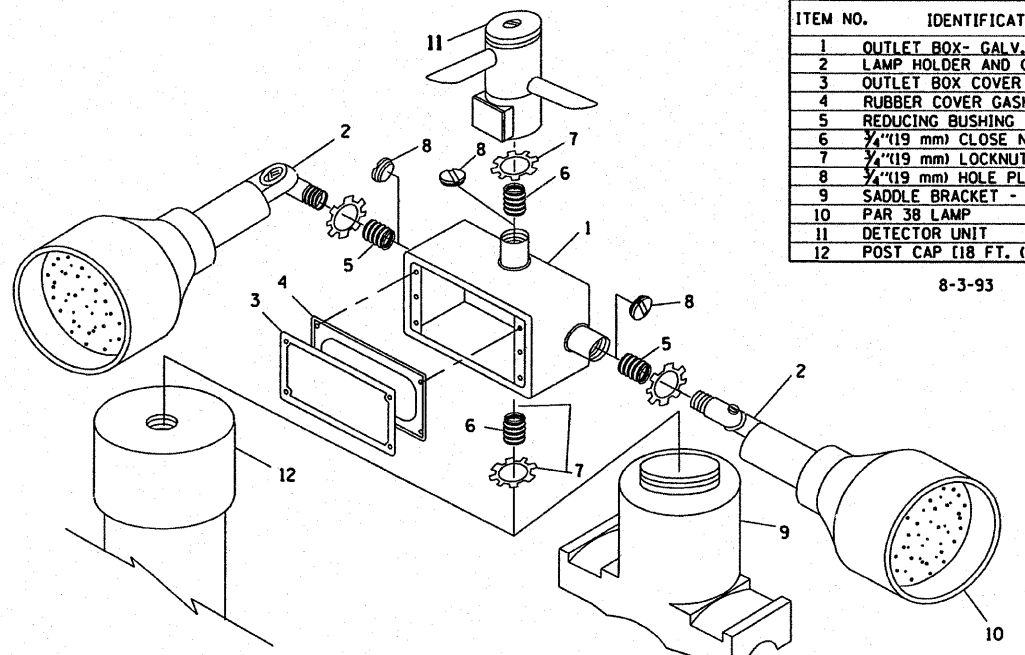
VIEW C-C



TRAFFIC SIGNAL POST - MOUNTING BASE - TYPE A



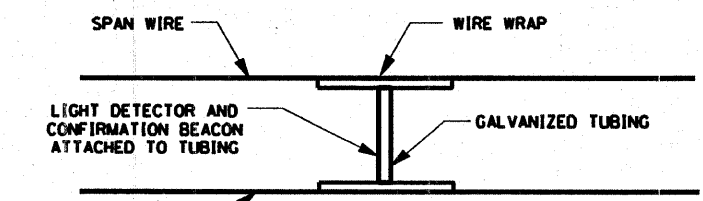
MODIFY EXISTING TYPE "D" FOUNDATION



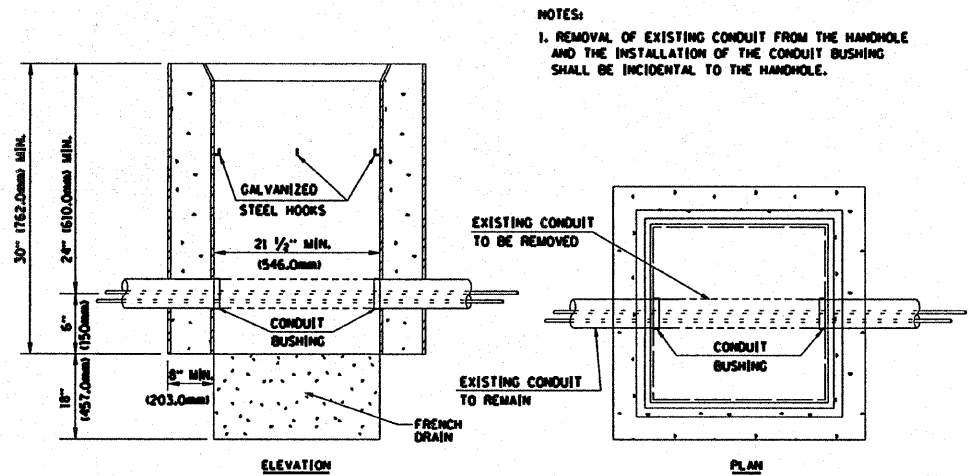
ITEM NO.	IDENTIFICATION
1	OUTLET BOX- GALV. 21 CU.IN. (0.000344 CU-M)
2	LAMP HOLDER AND COVER
3	OUTLET BOX COVER
4	RUBBER COVER GASKET
5	REDUCING BUSHING
6	3/4\"(19 mm) CLOSE NIPPLE
7	3/4\"(19 mm) LOCKNUT
8	3/4\"(19 mm) HOLE PLUG
9	SADDLE BRACKET - GALV.
10	PAR 38 LAMP
11	DETECTOR UNIT
12	POST CAP [18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

NOTES:

- ALL ELECTRICAL ITEMS, EXCEPT ITEMS #2 AND #11 SHALL BE ALUMINUM OR GALVANIZED
- ITEM #1- OZ/GEONEY 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\"(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.



LIGHT DETECTOR AND CONFIRMATION BEACON MOUNTING FOR TEMPORARY TRAFFIC SIGNALS



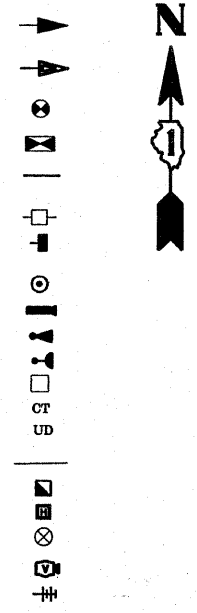
DETAIL HANDHOLE TO INTERCEPT EXISTING CONDUIT

MATCH LINE A-A

MATCH LINE B-B

TEMPORARY TRAFFIC SIGNAL LEGEND

- TEMPORARY TRAFFIC SIGNAL HEAD
- SPAN WIRE MOUNTED ORIGINAL LOCATION
- TEMPORARY TRAFFIC SIGNAL HEAD
- SPAN WIRE MOUNTED SECONDARY LOCATION
- TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT MINIMUM
- TEMPORARY CONTROLLER CABINET
- TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE
- TEMPORARY SERVICE INSTALLATION
- TEMPORARY PEDESTRIAN SIGNAL HEAD, BRACKET MOUNTED
- TEMPORARY PEDESTRIAN PUSHBUTTON DETECTOR
- MICROWAVE VEHICLE SENSOR
- EMERGENCY VEHICLE LIGHT DETECTOR
- CONFIRMATION BEACON
- VEHICLE DETECTOR, INDUCTION LOOP
- COMMON TRENCH
- UNIT DUCT
- G.S. CONDUIT IN TRENCH OR PUSHED
- HANDHOLE
- HEAVY-DUTY HANDHOLE
- EXISTING WOOD POLE
- VIDEO DETECTOR
- WIRELESS INTERCONNECT (ANTENNA)



EXISTING EQUIPMENT TO BE REMOVED LEGEND

- EXISTING SIGNAL HEAD TO BE REMOVED
- EXISTING SERVICE INSTALLATION TO BE REMOVED
- EXISTING STREET LIGHT, FOUNDATION AND LUMINAIRE TO REMAIN
- EXISTING CONTROLLER TO BE REMOVED
- EXISTING HANDHOLE TO BE REMOVED
- EXISTING PEDESTRIAN SIGNAL HEAD TO BE REMOVED
- EXISTING PEDESTRIAN PUSH BUTTON TO BE REMOVED
- EMERGENCY VEHICLE LIGHT DETECTOR TO BE REMOVED
- CONFIRMATION BEACON TO BE REMOVED
- EXISTING HEAVY-DUTY HANDHOLE TO BE REMOVED
- EXISTING SIGNAL POST AND FOUNDATION TO BE REMOVED
- EXISTING ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED
- EXISTING STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVED

NOTES FOR TEMPORARY TRAFFIC SIGNALS

1. ALL CONTROL EQUIPMENT INCLUDING EMERGENCY PRE-EMPTION AND COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNAL(S) SHALL BE FURNISHED BY THE CONTRACTOR.
2. ONLY CONTROLLERS SUPPLIED BY ONE OF THE DISTRICT APPROVED CLOSED LOOP EQUIPMENT MANUFACTURERS WILL BE APPROVED FOR USE AT TEMPORARY SIGNAL LOCATIONS. ALL CONTROLLERS USED FOR TEMPORARY TRAFFIC SIGNALS SHALL BE FULLY ACTUATED NEMA MICROPROCESSOR BASED WITH RS232 DATA ENTRY PORTS COMPATIBLE WITH EXISTING MONITORING SOFTWARE APPROVED BY IDOT DISTRICT 1, INSTALLED IN A NEMA T51 OR T52 CABINET. ONLY ONE BRAND OF CONTROLLER WILL BE ACCEPTED FOR ANY ONE CONTRACT.
3. ALL TRAFFIC SIGNAL SECTIONS AND PEDESTRIAN SIGNAL SECTIONS SHALL BE 12". HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL FURNISH ENOUGH CABLE SLACK TO RELOCATE HEADS TO ANY POSITION ON THE SPAN WIRE OR AT LOCATIONS ILLUSTRATED ON THE PLANS FOR CONSTRUCTION STAGING. THE TEMPORARY TRAFFIC SIGNAL SHALL REMAIN IN OPERATION DURING ALL SIGNAL HEAD RELOCATIONS. EACH TEMPORARY TRAFFIC SIGNAL HEAD SHALL HAVE ITS OWN CABLE FROM THE CONTROLLER CABINET TO THE SIGNAL HEAD.
4. ALL EXISTING STREET NAME AND INTERSECTION REGULATORY SIGNS SHALL BE REMOVED FROM EXISTING POLES, RELOCATED AND SECURELY FASTENED TO THE SIGNAL SPAN WIRE OR WOOD POLE AS DIRECTED BY THE ENGINEER.
5. ANY TEMPORARY SIGNAL WITHIN AN EXISTING CLOSED LOOP TRAFFIC SIGNAL SYSTEM SHALL BE INTERCONNECTED TO THAT SYSTEM USING SIMILAR BRAND CONTROL EQUIPMENT.
6. THE TEMPORARY TRAFFIC SIGNAL SHALL HAVE THE SIGNAL HEAD DISPLAYS, SIGNAL HEAD PLACEMENTS AND CONTROLLER PHASING MATCH THE EXISTING TRAFFIC SIGNAL, AT THE TIME OF THE TURN ON, IF NO TRAFFIC STAGING IS IN PLACE OR WILL NOT BE STAGED ON THE DAY OF THE TURN ON.

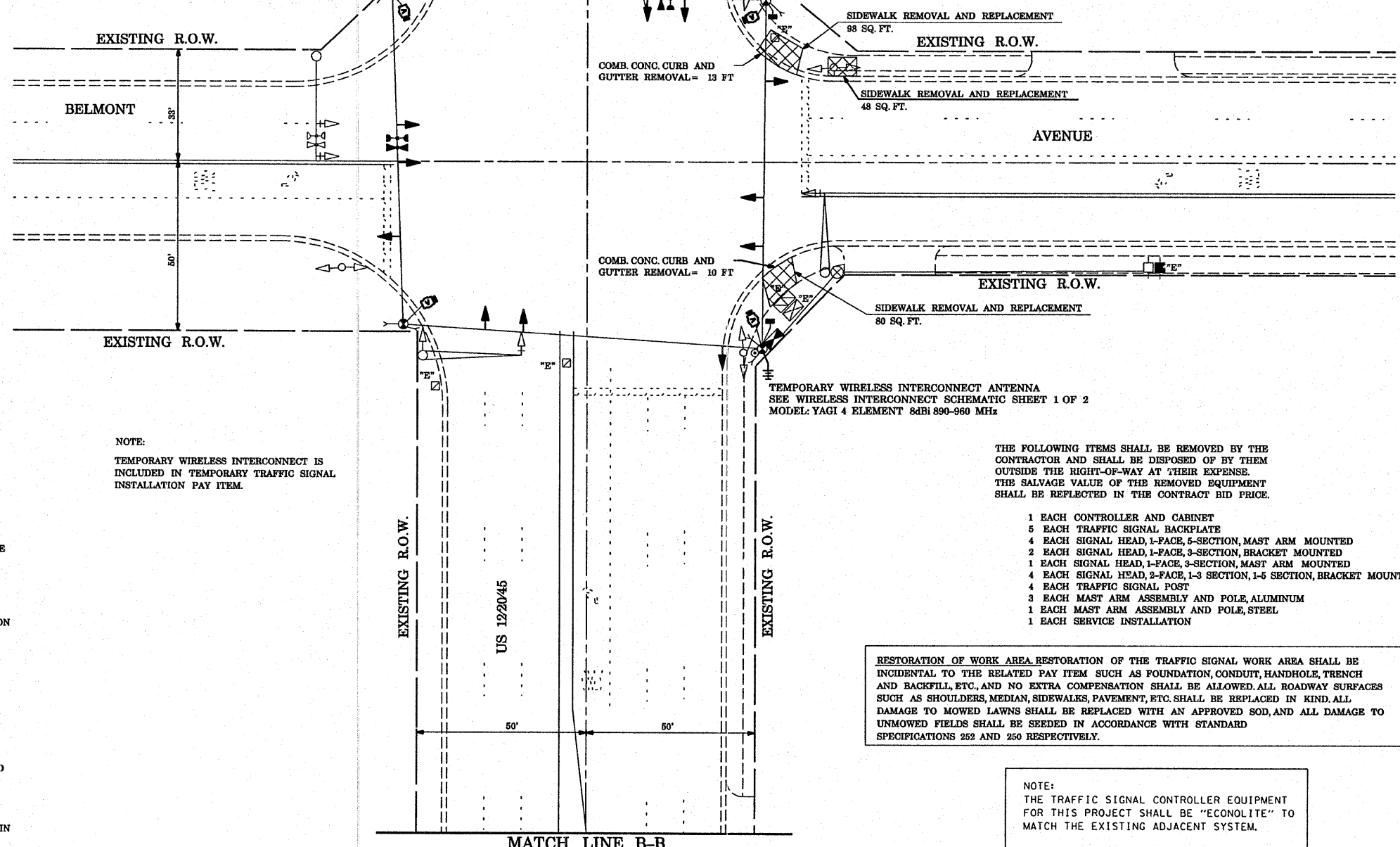
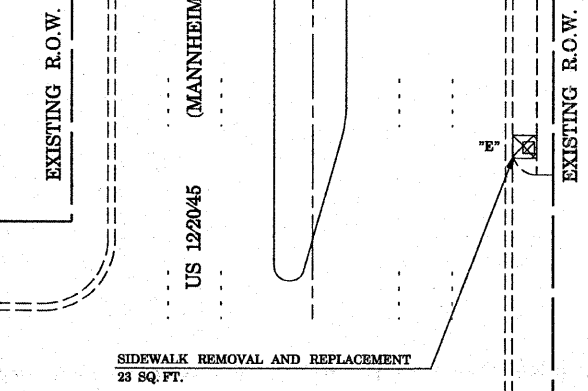
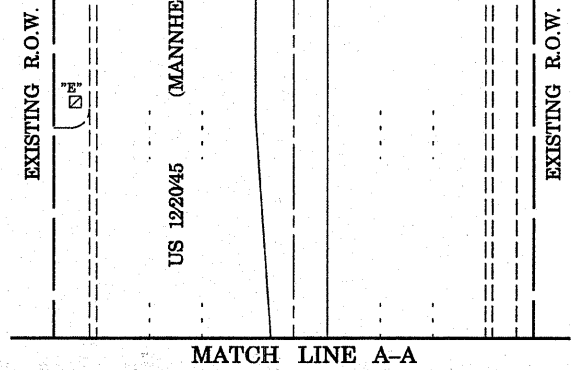
NOTE:
TEMPORARY WIRELESS INTERCONNECT IS INCLUDED IN TEMPORARY TRAFFIC SIGNAL INSTALLATION PAY ITEM.

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

- 1 EACH CONTROLLER AND CABINET
- 5 EACH TRAFFIC SIGNAL BACKPLATE
- 4 EACH SIGNAL HEAD, 1-FACE, 5-SECTION, MAST ARM MOUNTED
- 2 EACH SIGNAL HEAD, 1-FACE, 3-SECTION, BRACKET MOUNTED
- 1 EACH SIGNAL HEAD, 1-FACE, 3-SECTION, MAST ARM MOUNTED
- 4 EACH SIGNAL HEAD, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED
- 4 EACH TRAFFIC SIGNAL POST
- 3 EACH MAST ARM ASSEMBLY AND POLE, ALUMINUM
- 1 EACH MAST ARM ASSEMBLY AND POLE, STEEL
- 1 EACH SERVICE INSTALLATION

RESTORATION OF WORK AREA RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIAN, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

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



FILE NAME *	USER NAME = kanthphxybc	DESIGNED - N.B.	REVISED -
c:\projects\traffic\070027\us12_20_45.dgn		DRAWN - N.B.	REVISED -
		CHECKED - D.B.	REVISED -
		DATE - 09/04/2008	REVISED -

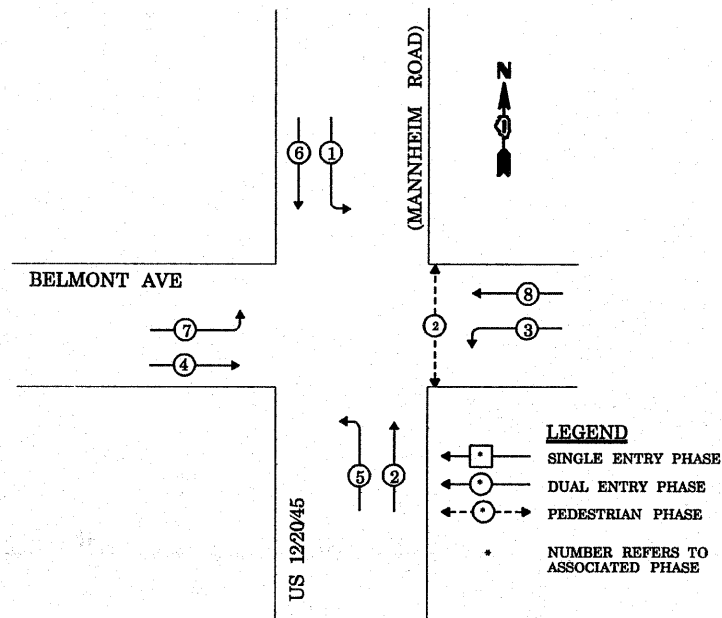
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL AND REMOVAL PLAN
US 12/2045 (MANNHEIM ROAD) AT BELMONT AVENUE

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2008-006 TS	COOK	104	9
FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT			CONTRACT NO. 60E31	

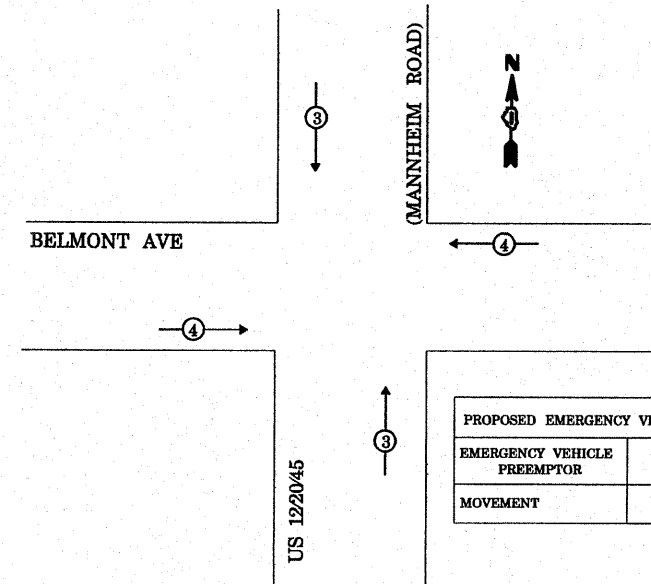
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CONTROLLER SEQUENCE

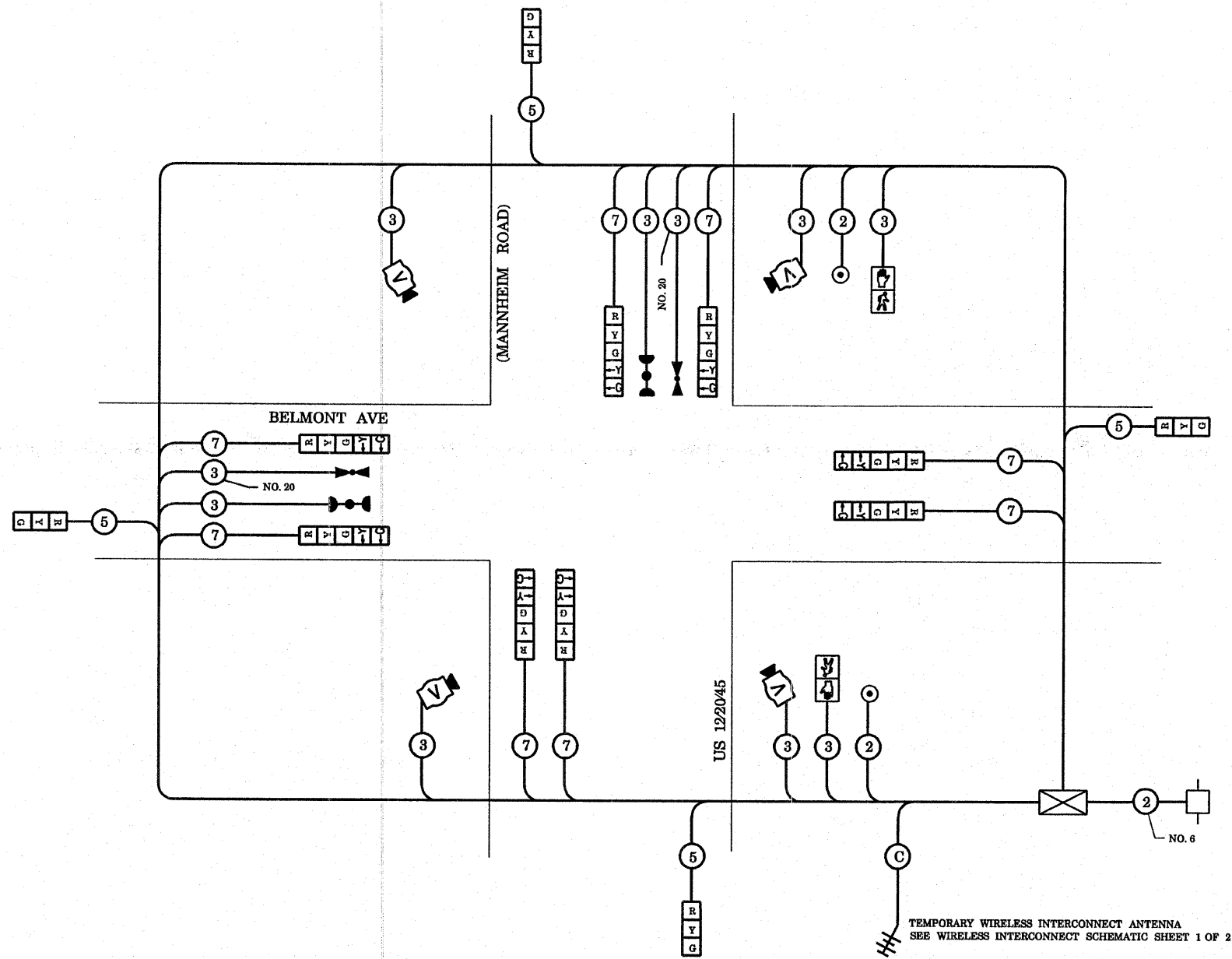


TEMPORARY PHASE DESIGNATION DIAGRAM

TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE



PROPOSED EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT		



TEMPORARY CABLE PLAN

TEMPORARY CABLE DIAGRAM LEGEND

-
-
-
-
-
-
-
-
-
-
-
-

* TEMPORARY WIRELESS INTERCONNECT IS INCLUDED IN TEMPORARY TRAFFIC SIGNAL INSTALLATION PAY ITEM

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

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE		% OPERATION	
SIGNAL (RED)	12	INCAND.	LED	0.50	102.00
(YELLOW)	12			0.25	75.00
(GREEN)	12			0.25	45.00
ARROW	16			0.10	19.20
PED. SIGNAL	2			1.00	50.00
CONTROLLER	1			1.00	100.00
ILLUM. SIGN				0.05	-
FLASHER				0.05	-
ENERGY COSTS TO:				TOTAL =	391.20
VILLAGE OF FRANKLIN PARK 9500 BELMONT AVENUE FRANKLIN PARK, IL 60131					
ENERGY SUPPLY CONTACT:	LINDA KLOC				
PHONE:	(708)410-5313				
COMPANY:	COMMONWEALTH EDISON				

FILE NAME =	USER NAME = kenthphxjbc	DESIGNED - N.B.	REVISED -
PROJECTS\traffic\107027\us12_20_45.dgn		DRAWN - N.B.	REVISED -
	PLOT SCALE = 1/8" = 1' IN.	CHECKED - D.B.	REVISED -
	PLOT DATE = 10/10/2008	DATE - 09/04/2008	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

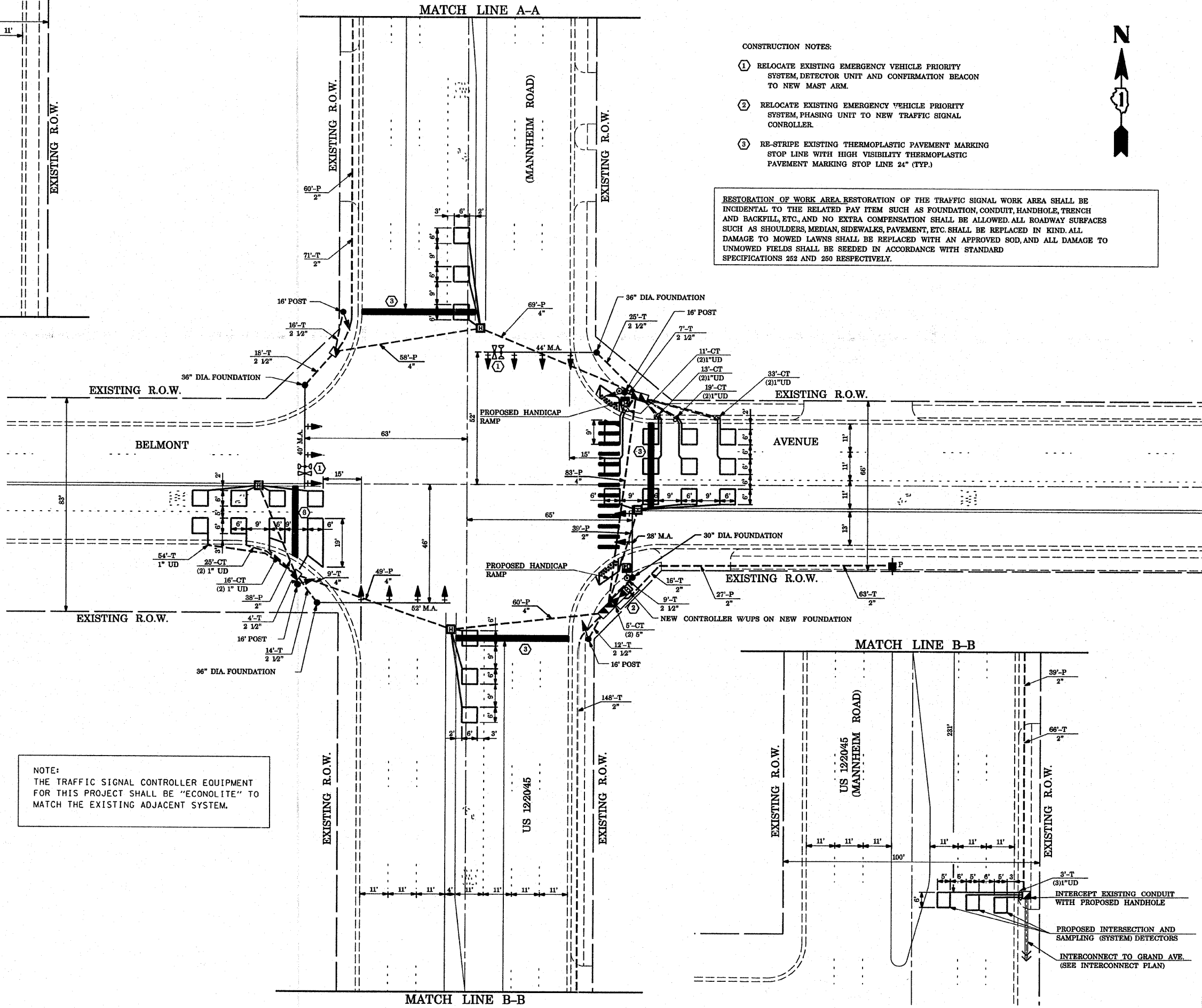
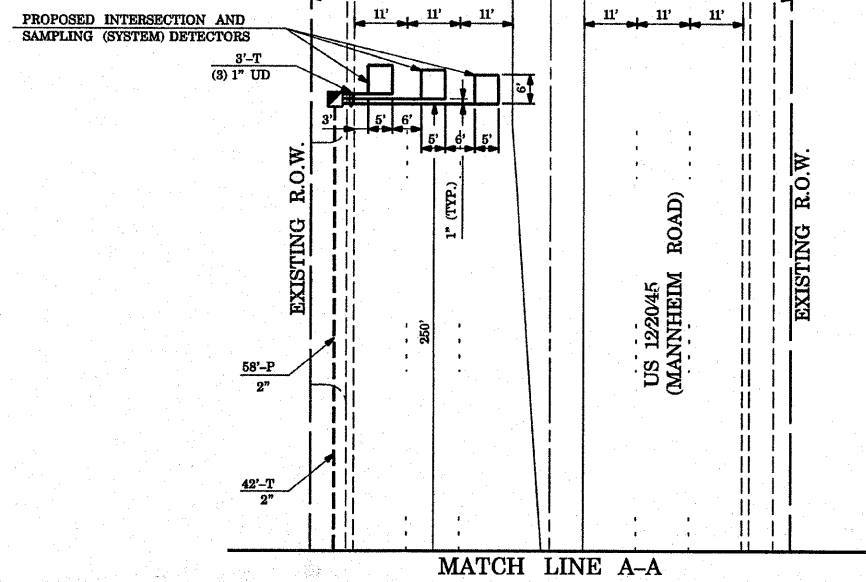
TEMPORARY CABLE PLAN
US 12/20/45 (MANNHEIM ROAD) AT BELMONT AVENUE

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2008-006 TS	COOK	100	10
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	
			CONTRACT NO. 60E31	



- CONSTRUCTION NOTES:
- RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, DETECTOR UNIT AND CONFIRMATION BEACON TO NEW MAST ARM.
 - RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT TO NEW TRAFFIC SIGNAL CONTROLLER.
 - RE-STRIPE EXISTING THERMOPLASTIC PAVEMENT MARKING STOP LINE WITH HIGH VISIBILITY THERMOPLASTIC PAVEMENT MARKING STOP LINE 24" (TYP.)

RESTORATION OF WORK AREA RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIAN, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.



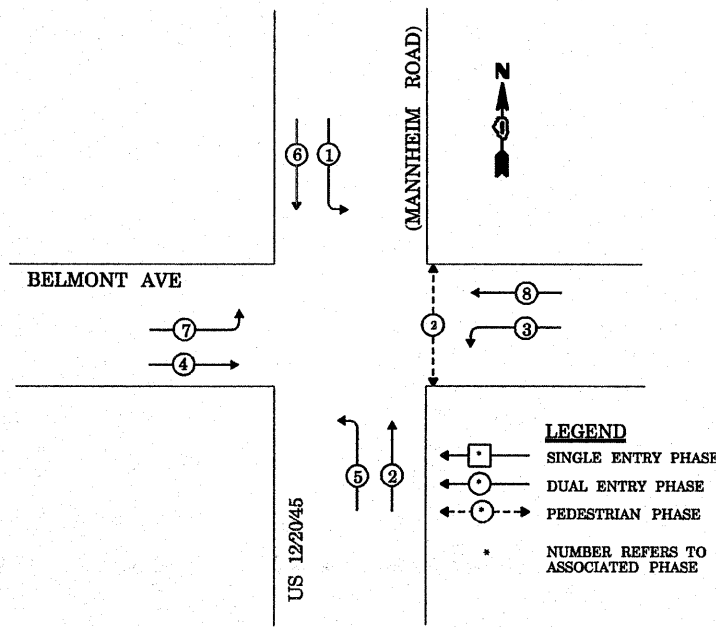
TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING
CONTROLLER		
RAILROAD CONTROL CABINET		
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNTED		
SIGNAL HEAD		
SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD, PEDESTRIAN		
SIGNAL POST		
MAST ARM ASSEMBLY AND POLE, STEEL		
MAST ARM ASSEMBLY AND POLE, ALUMINIUM		
COMMON TRENCH		
UNIT DUCT		
HANDHOLE		
HEAVY DUTY HANDHOLE		
DOUBLE HANDHOLE		
G.S.CONDUIT IN TRENCH OR PUSHED		
CAST IRON JUNCTION BOX		
SIGNAL HEAD OPTICALLY PROGRAMMED		
CONDUIT SPLICE		
WOOD POLE		
RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II		
VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE		
RAILROAD CONTROL CABINET		
ILLUMINATED SIGN, FIBER OPTIC "NO LEFT TURN"		
ILLUMINATED SIGN, FIBER OPTIC "NO RIGHT TURN"		
TELEPHONE CONNECTION		
PEDESTRIAN PUSHBUTTON DETECTOR		
DETECTOR LOOP, TYPE I		
PREFORMED DETECTOR LOOP		
VIDEO DETECTOR		
CLOSED CIRCUIT TV		
EMERGENCY VEHICLE SYSTEM DETECTOR		
CONFIRMATION BEACON		
UNINTERRUPTABLE POWER SUPPLY		
PEDESTRIAN SIGNAL HEAD WITH COUNTDOWN TIMER		

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

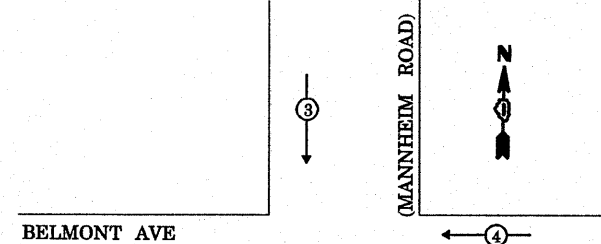
FILE NAME =	USER NAME = kanthapixaybc	DESIGNED - N.B.	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PROPOSED TRAFFIC SIGNAL PLAN		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
c:\projects\traffic\070027\us12_20_45.dgn		DRAWN - N.B.	REVISED -		US 122045 (MANNHEIM ROAD) AT BELMONT AVENUE		330	2008-006 TS	COOK	104	11
		PLLOT SCALE = 40.0000' / IN.	REVISED -		SCALE: 1" = 20'	SHEET NO.	OF SHEETS	STA.	TO STA.	CONTRACT NO. 60E31	
		PLLOT DATE = 10/10/2008	REVISED -						FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT	

CONTROLLER SEQUENCE



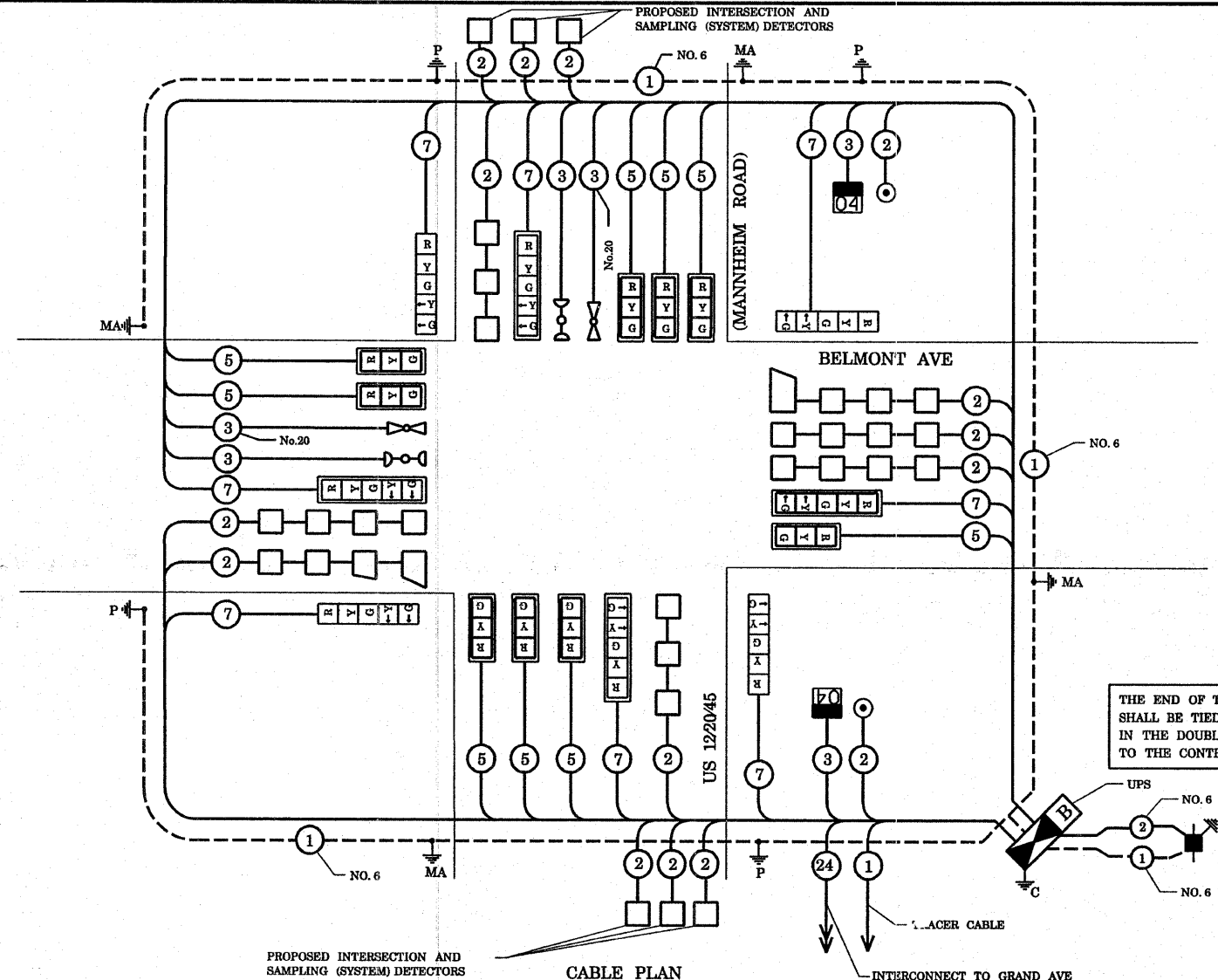
PHASE DESIGNATION DIAGRAM

EMERGENCY VEHICLE PREEMPTION SEQUENCE



PROPOSED EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT		

TYPE	NO. LAMPS	WATTAGE		% OPERATION	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	17	17	0.50	144.50	
(YELLOW)	17	25	0.25	106.25	
(GREEN)	17	15	0.25	63.75	
ARROW	16	12	0.10	19.20	
PED. SIGNAL	2	25	1.00	50.00	
CONTROLLER	1	100	1.00	100.00	
ILLUM. SIGN			0.05	-	
FLASHER				-	
ENERGY COSTS TO: VILLAGE OF FRANKLIN PARK					TOTAL = 483.70
4500 BELMONT AVENUE					
FRANKLIN PARK, IL 60131					
ENERGY SUPPLY CONTACT:		LINDA KLOC			
PHONE:		(708)410-5313			
COMPANY:		COMMONWEALTH EDISON			



CABLE PLAN
SCHEDULE OF QUANTITIES

QUANTITY	UNIT	ITEM	QUANTITY	UNIT	ITEM
249	SQ FT	PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH	4	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.
23	FOOT	COMBINATION CURB AND GUTTER REMOVAL	1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 28 FT.
249	SQ FT	SIDEWALK REMOVAL	1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 40 FT.
23	FOOT	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24	1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 44 FT.
0.1	L SUM	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 52 FT.
0.1	L SUM	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	16	FOOT	CONCRETE FOUNDATION, TYPE A
0.1	L SUM	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	4	FOOT	CONCRETE FOUNDATION, TYPE C
16.5	SQ FT	SIGN PANEL - TYPE 1	15	FOOT	CONCRETE FOUNDATION, TYPE E 30" DIAMETER
30	SQ FT	SIGN PANEL - TYPE 2	45	FOOT	CONCRETE FOUNDATION, TYPE E 36" DIAMETER
104	FOOT	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	13	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM
149	FOOT	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	13	EACH	INDUCTIVE LOOP DETECTOR
310	SQ FT	THERMOPLASTIC PAVEMENT MARKING REMOVAL	1152	FOOT	DETECTOR LOOP, TYPE I
406	FOOT	CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	2	EACH	PEDESTRIAN PUSH-BUTTON
100	FOOT	CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	1	EACH	TEMPORARY TRAFFIC SIGNAL INSTALLATION
9	FOOT	CONDUIT IN TRENCH, 4" DIA., GALVANIZED STEEL	2*	EACH	RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, DETECTOR UNIT
10	FOOT	CONDUIT IN TRENCH, 5" DIA., GALVANIZED STEEL	1*	EACH	RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT
261	FOOT	CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL	1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
319	FOOT	CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL	9	EACH	REMOVE EXISTING HANDHOLE
5	EACH	HANDHOLE	9	EACH	REMOVE EXISTING CONCRETE FOUNDATION
4	EACH	HEAVY-DUTY HANDHOLE	9	EACH	SIGNAL HEAD, L.E.D., 1-FACE, 3-SECTION, MAST ARM MOUNTED
2	EACH	DOUBLE HANDHOLE	4	EACH	SIGNAL HEAD, L.E.D., 1-FACE, 5-SECTION, BRACKET MOUNTED
624	FOOT	TRENCH AND BACKFILL FOR ELECTRICAL WORK	4	EACH	SIGNAL HEAD, L.E.D., 1-FACE, 5-SECTION, MAST ARM MOUNTED
1	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	2	EACH	PEDESTRIAN SIGNAL HEAD, L.E.D., 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
1	EACH	TRANSCIVER - FIBER OPTIC	9	EACH	TEMPORARY TRAFFIC SIGNAL TIMINGS
170	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	9	EACH	SERVICE INSTALLATION, POLE MOUNT
727	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	1	EACH	UNINTERRUPTIBLE POWER SUPPLY
1896	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	1	EACH	
1501	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	1	EACH	
3243	FOOT	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1-PAIR	1	EACH	
141	FOOT	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C	552	FOOT	ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C
552	FOOT	ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	539	FOOT	ELECTRIC CABLE IN CONDUIT, NO. 20 3C, TWISTED, SHIELDED

CABLE PLAN LEGEND

PROPOSED	EXISTING	DESCRIPTION
G	G	8" (200mm) TRAFFIC SIGNAL SECTION
R	R	12" (300mm) TRAFFIC SIGNAL SECTION
W	W	12" (300mm) PEDESTRIAN SIGNAL SECTION
W	W	12" (300mm) PEDESTRIAN SIGNAL SECTION
[Symbol]	[Symbol]	CONTROLLER CABINET
[Symbol]	[Symbol]	SERVICE INSTALLATION
[Symbol]	[Symbol]	TELEPHONE CONNECTION
[Symbol]	[Symbol]	MAGNETIC DETECTOR
[Symbol]	[Symbol]	PUSHBUTTON DETECTOR
[Symbol]	[Symbol]	VEHICLE DETECTOR, INDUCTION LOOP
[Symbol]	[Symbol]	2 DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
[Symbol]	[Symbol]	SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD
[Symbol]	[Symbol]	RAILROAD CONTROL CABINET
[Symbol]	[Symbol]	ILLUMINATED SIGN, FIBER OPTIC "NO LEFT TURN"
[Symbol]	[Symbol]	ILLUMINATE SIGN, FIBER OPTIC "NO RIGHT TURN"
[Symbol]	[Symbol]	GROUND ROD AT HANDHOLE, DOUBLE HANDHOLE, OR CONTROLLER
[Symbol]	[Symbol]	GROUND ROD AT POST OR MAST ARM POLE
[Symbol]	[Symbol]	GROUND ROD AT ELECTRIC SERVICE INSTALLATION
[Symbol]	[Symbol]	GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
[Symbol]	[Symbol]	FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F & SM12F
[Symbol]	[Symbol]	MICROWAVE VEHICLE SENSOR
[Symbol]	[Symbol]	VIDEO DETECTOR
[Symbol]	[Symbol]	CLOSED CIRCUIT TV
[Symbol]	[Symbol]	EMERGENCY VEHICLE LIGHT DETECTOR
[Symbol]	[Symbol]	CONFIRMATION BEACON
[Symbol]	[Symbol]	UNINTERRUPTIBLE POWER SUPPLY
[Symbol]	[Symbol]	PEDESTRIAN SIGNAL HEAD WITH COUNTDOWN TIMER

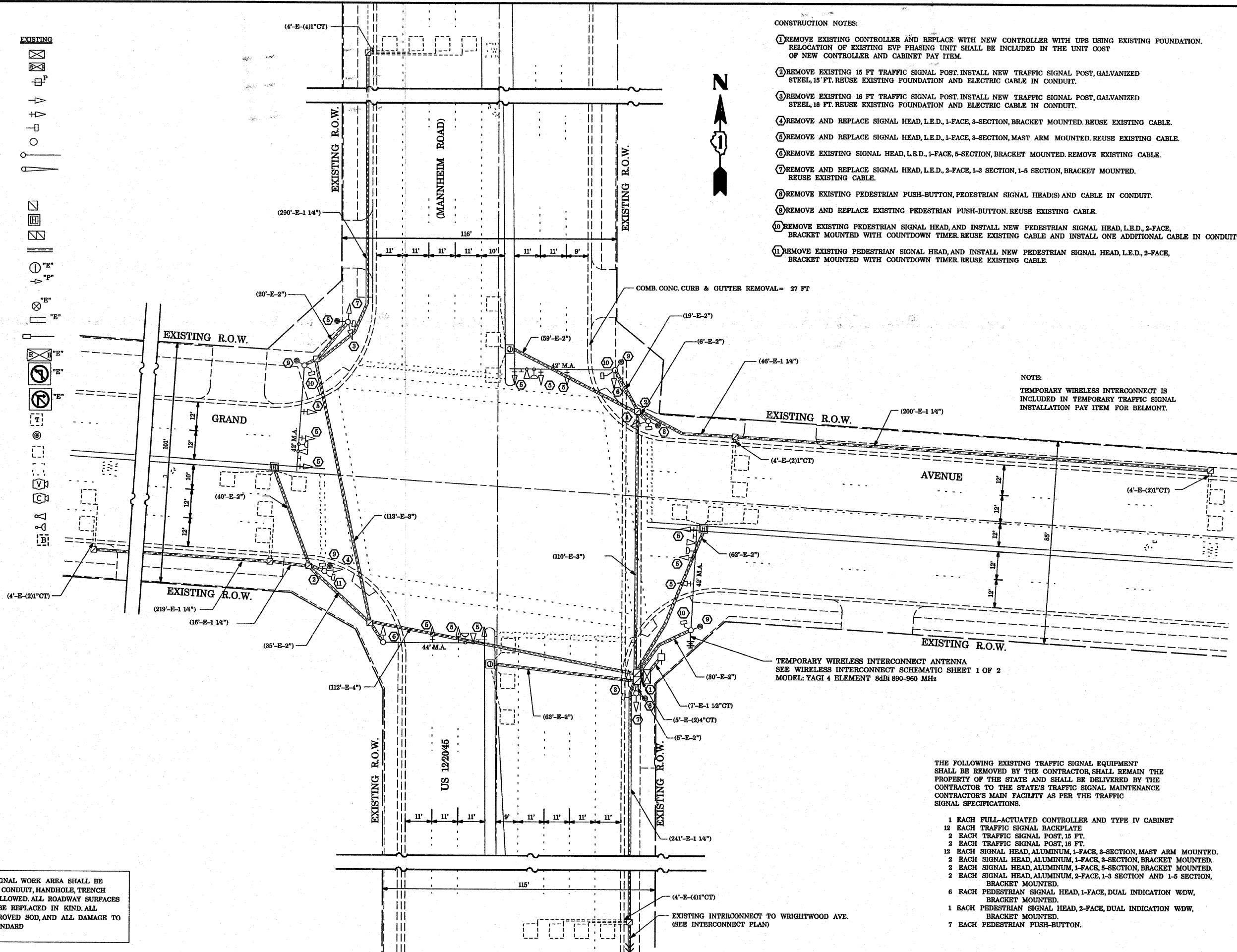
NOTE:
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

* 100% COST TO VILLAGE OF FRANKLIN PARK

FILE NAME =	USER NAME = kanthaphixjbc	DESIGNED - N.B.	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PROPOSED CABLE PLAN US 12/2045 (MANNHEIM ROAD) AT BELMONT AVENUE	SCALE: NTS	SHEET NO. OF SHEETS	STA. TO STA.	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
c:\projects\traffic\1078027\us12_20_45.dgn	PLOT SCALE = 1/8" = 1'-0"	DRAWN - N.B.	REVISED -						330	2008-006 TS	COOK	104	12
	PLOT DATE = 10/18/2008	CHECKED - D.B.	REVISED -	CONTRACT NO. 60E31		FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT					

TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING
CONTROLLER		
RAILROAD CONTROL CABINET		
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNTED		
SIGNAL HEAD		
SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD, PEDESTRIAN		
SIGNAL POST		
MAST ARM ASSEMBLY AND POLE, STEEL		
MAST ARM ASSEMBLY AND POLE, ALUMINIUM		
COMMON TRENCH		
UNIT DUCT		
HANDHOLE		
HEAVY DUTY HANDHOLE		
DOUBLE HANDHOLE		
G.S.CONDUIT IN TRENCH OR PUSHED		
CAST IRON JUNCTION BOX		
SIGNAL HEAD OPTICALLY PROGRAMMED		
CONDUIT SPLICE		
WOOD POLE		
RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II		
VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE		
RAILROAD CONTROL CABINET		
ILLUMINATED SIGN, FIBER OPTIC "NO LEFT TURN"		
ILLUMINATED SIGN, FIBER OPTIC "NO RIGHT TURN"		
TELEPHONE CONNECTION		
PEDESTRIAN PUSHBUTTON DETECTOR		
DETECTOR LOOP, TYPE I		
PREFORMED DETECTOR LOOP		
VIDEO DETECTOR		
CLOSED CIRCUIT TV		
EMERGENCY VEHICLE SYSTEM DETECTOR		
CONFIRMATION BEACON		
UNINTERRUPTABLE POWER SUPPLY		
WIRELESS INTERCONNECT (ANTENNA)		



CONSTRUCTION NOTES:

- 1 REMOVE EXISTING CONTROLLER AND REPLACE WITH NEW CONTROLLER WITH UPS USING EXISTING FOUNDATION. RELOCATION OF EXISTING EVP PHASING UNIT SHALL BE INCLUDED IN THE UNIT COST OF NEW CONTROLLER AND CABINET PAY ITEM.
- 2 REMOVE EXISTING 15 FT TRAFFIC SIGNAL POST. INSTALL NEW TRAFFIC SIGNAL POST, GALVANIZED STEEL, 15 FT. REUSE EXISTING FOUNDATION AND ELECTRIC CABLE IN CONDUIT.
- 3 REMOVE EXISTING 16 FT TRAFFIC SIGNAL POST. INSTALL NEW TRAFFIC SIGNAL POST, GALVANIZED STEEL, 16 FT. REUSE EXISTING FOUNDATION AND ELECTRIC CABLE IN CONDUIT.
- 4 REMOVE AND REPLACE SIGNAL HEAD, L.E.D., 1-FACE, 3-SECTION, BRACKET MOUNTED. REUSE EXISTING CABLE.
- 5 REMOVE AND REPLACE SIGNAL HEAD, L.E.D., 1-FACE, 3-SECTION, MAST ARM MOUNTED. REUSE EXISTING CABLE.
- 6 REMOVE EXISTING SIGNAL HEAD, L.E.D., 1-FACE, 5-SECTION, BRACKET MOUNTED. REMOVE EXISTING CABLE.
- 7 REMOVE AND REPLACE SIGNAL HEAD, L.E.D., 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED. REUSE EXISTING CABLE.
- 8 REMOVE EXISTING PEDESTRIAN PUSH-BUTTON, PEDESTRIAN SIGNAL HEAD(S) AND CABLE IN CONDUIT.
- 9 REMOVE AND REPLACE EXISTING PEDESTRIAN PUSH-BUTTON. REUSE EXISTING CABLE.
- 10 REMOVE EXISTING PEDESTRIAN SIGNAL HEAD, AND INSTALL NEW PEDESTRIAN SIGNAL HEAD, L.E.D., 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER REUSE EXISTING CABLE AND INSTALL ONE ADDITIONAL CABLE IN CONDUIT.
- 11 REMOVE EXISTING PEDESTRIAN SIGNAL HEAD, AND INSTALL NEW PEDESTRIAN SIGNAL HEAD, L.E.D., 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER REUSE EXISTING CABLE.

NOTE:
 TEMPORARY WIRELESS INTERCONNECT IS INCLUDED IN TEMPORARY TRAFFIC SIGNAL INSTALLATION PAY ITEM FOR BELMONT.

TEMPORARY WIRELESS INTERCONNECT ANTENNA
 SEE WIRELESS INTERCONNECT SCHEMATIC SHEET 1 OF 2
 MODEL: YAGI 4 ELEMENT 8dBi 890-960 MHz

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE STATE AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE STATE'S TRAFFIC SIGNAL MAINTENANCE CONTRACTOR'S MAIN FACILITY AS PER THE TRAFFIC SIGNAL SPECIFICATIONS.

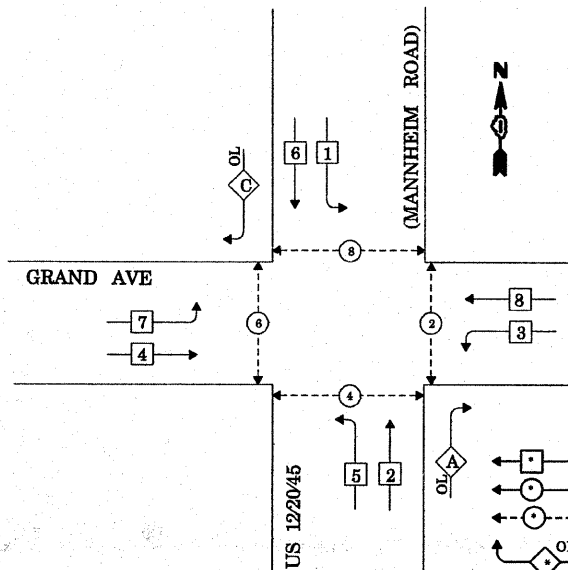
- 1 EACH FULL-ACTUATED CONTROLLER AND TYPE IV CABINET
- 12 EACH TRAFFIC SIGNAL BACKPLATE
- 2 EACH TRAFFIC SIGNAL POST, 15 FT.
- 2 EACH TRAFFIC SIGNAL POST, 16 FT.
- 12 EACH SIGNAL HEAD, ALUMINUM, 1-FACE, 3-SECTION, MAST ARM MOUNTED.
- 2 EACH SIGNAL HEAD, ALUMINUM, 1-FACE, 3-SECTION, BRACKET MOUNTED.
- 2 EACH SIGNAL HEAD, ALUMINUM, 1-FACE, 5-SECTION, BRACKET MOUNTED.
- 2 EACH SIGNAL HEAD, ALUMINUM, 2-FACE, 1-3 SECTION AND 1-5 SECTION, BRACKET MOUNTED.
- 6 EACH PEDESTRIAN SIGNAL HEAD, 1-FACE, DUAL INDICATION W/DW, BRACKET MOUNTED.
- 1 EACH PEDESTRIAN SIGNAL HEAD, 2-FACE, DUAL INDICATION W/DW, BRACKET MOUNTED.
- 7 EACH PEDESTRIAN PUSH-BUTTON.

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

RESTORATION OF WORK AREA RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIAN, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

FILE NAME =	USER NAME = kenthaphixybc	DESIGNED - N.B.	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EXISTING AND REMOVAL PLAN US 122045 (MANNHEIM ROAD) AT GRAND AVENUE			F.A.P. RTE. 330	SECTION 2008-006 T5	COUNTY COOK	TOTAL SHEETS 104	SHEET NO. 14
PLOT SCALE = 40.0000 * / IN.	CHECKED - D.B.	REVISOR -	SCALE: 1"=20'		SHEET NO.	OF SHEETS	STA.	TO STA.	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT	CONTRACT NO. 60E31	
PLOT DATE = 10/10/2008	DATE - 09/04/2008	REVISOR -										

CONTROLLER SEQUENCE



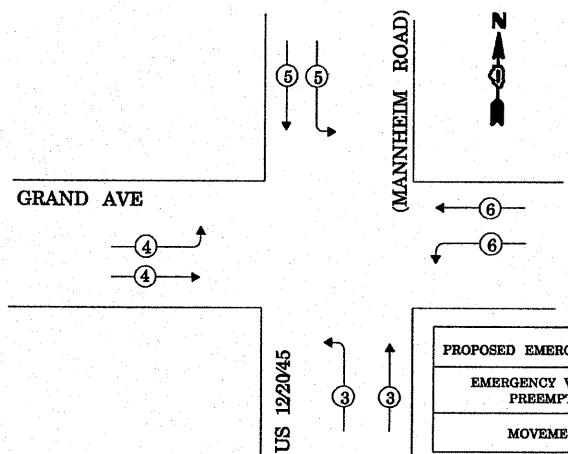
LEGEND
 SINGLE ENTRY PHASE
 DUAL ENTRY PHASE
 PEDESTRIAN PHASE
 OVERLAP
 NUMBER REFERS TO ASSOCIATED PHASE

PHASE DESIGNATION DIAGRAM

RIGHT TURN OVERLAP PHASE DESIGNATION

OVERLAP PHASE	PERMISSIVE PHASE	PROTECTED PHASE	DISPLAY
A =	2 +	3 -	2
C =	6 +	7 -	6

EMERGENCY VEHICLE PREEMPTION SEQUENCE



PROPOSED EMERGENCY VEHICLE PREEMPTORS

EMERGENCY VEHICLE PREEMPTOR	3	4	5	6
MOVEMENT	↖	↗	↘	↙

TYPE	NO. LAMPS	WATTAGE INCAND.	WATTAGE LED	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	20	17	0.50	170.00	
(YELLOW)	20	25	0.25	125.00	
(GREEN)	20	15	0.25	75.00	
ARROW	8	12	0.10	9.60	
PED. SIGNAL	8	25	1.00	200.00	
CONTROLLER	1	100	1.00	100.00	
ILLUM. SIGN					
FLASHER					
ENERGY COSTS TO: VILLAGE OF FRANKLIN PARK 4500 BELMONT AVENUE FRANKLIN PARK, IL 60131					TOTAL = 679.60
ENERGY SUPPLY CONTACT: LINDA KLOC PHONE: (708)410-5313 COMPANY: COMMONWEALTH EDISON					

FILE NAME = c:\projects\traffic\1070027\us12_20_45.dgn
 USER NAME = kanthaphaybc
 PLOT SCALE = 40.0000" / IN.
 PLOT DATE = 10/10/2008

DESIGNED - N.B.
 DRAWN - N.B.
 CHECKED - D.B.
 DATE - 09/04/2008

REVISED -
 REVISED -
 REVISED -
 REVISED -

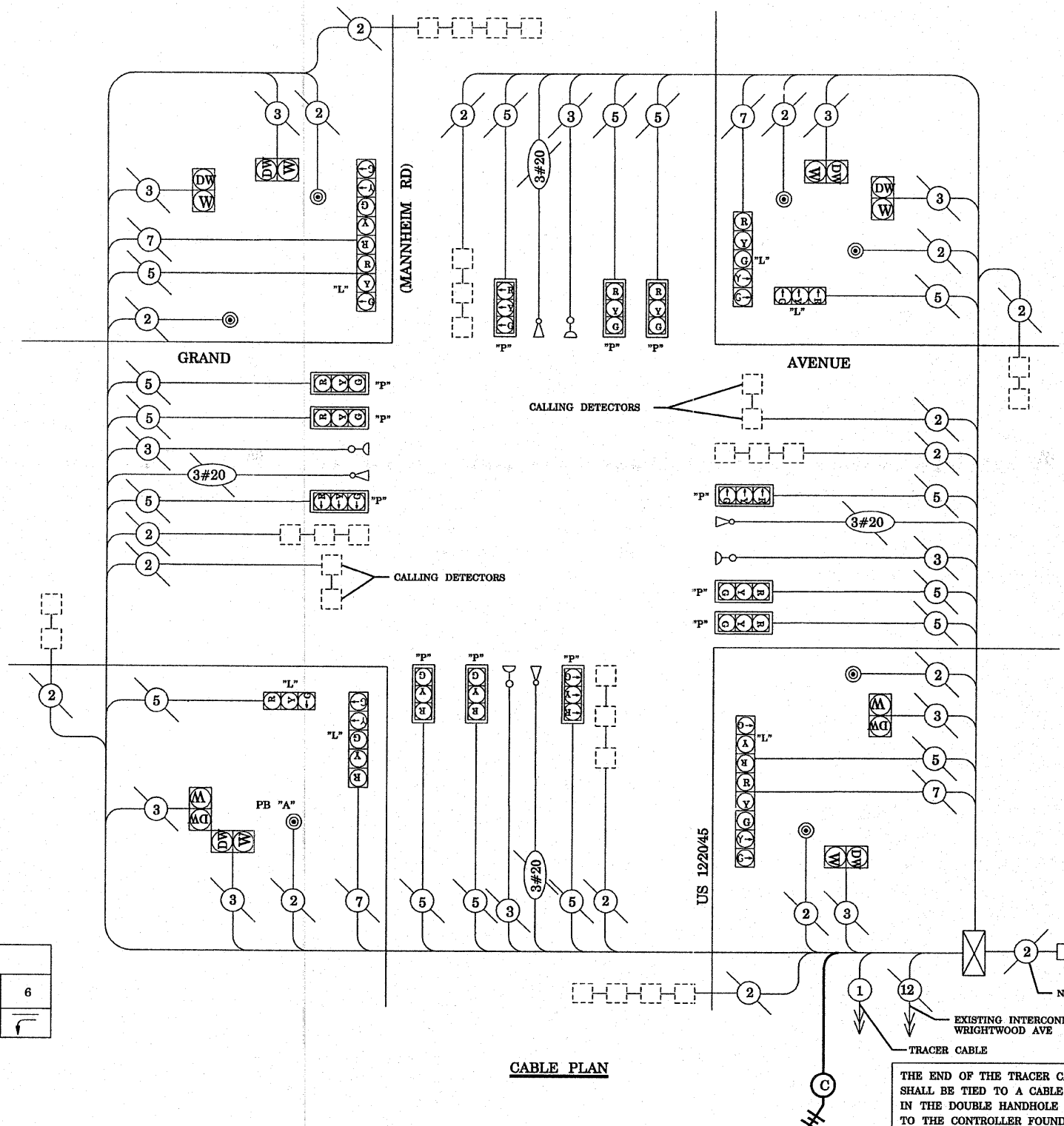
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

EXISTING CABLE PLAN
 US 12/20/45 (MANNHEIM ROAD) AT GRAND AVENUE

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2008-006 TS	COOK	104	15

CONTRACT NO. 60E31
 FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT



CABLE PLAN

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

THE END OF THE TRACER CABLE SHALL BE TIED TO A CABLE HOOK IN THE DOUBLE HANDHOLE CLOSEST TO THE CONTROLLER FOUNDATION.

TEMPORARY WIRELESS INTERCONNECT ANTENNA SEE WIRELESS INTERCONNECT SCHEMATIC SHEET 1 OF 2

NOTE:
 TEMPORARY WIRELESS INTERCONNECT IS INCLUDED IN TEMPORARY TRAFFIC SIGNAL INSTALLATION PAY ITEM FOR BELMONT AVENUE

NOTE:
 PUSHBUTTON "A" SHALL PLACE A CALL IN PHASES 4 AND 6

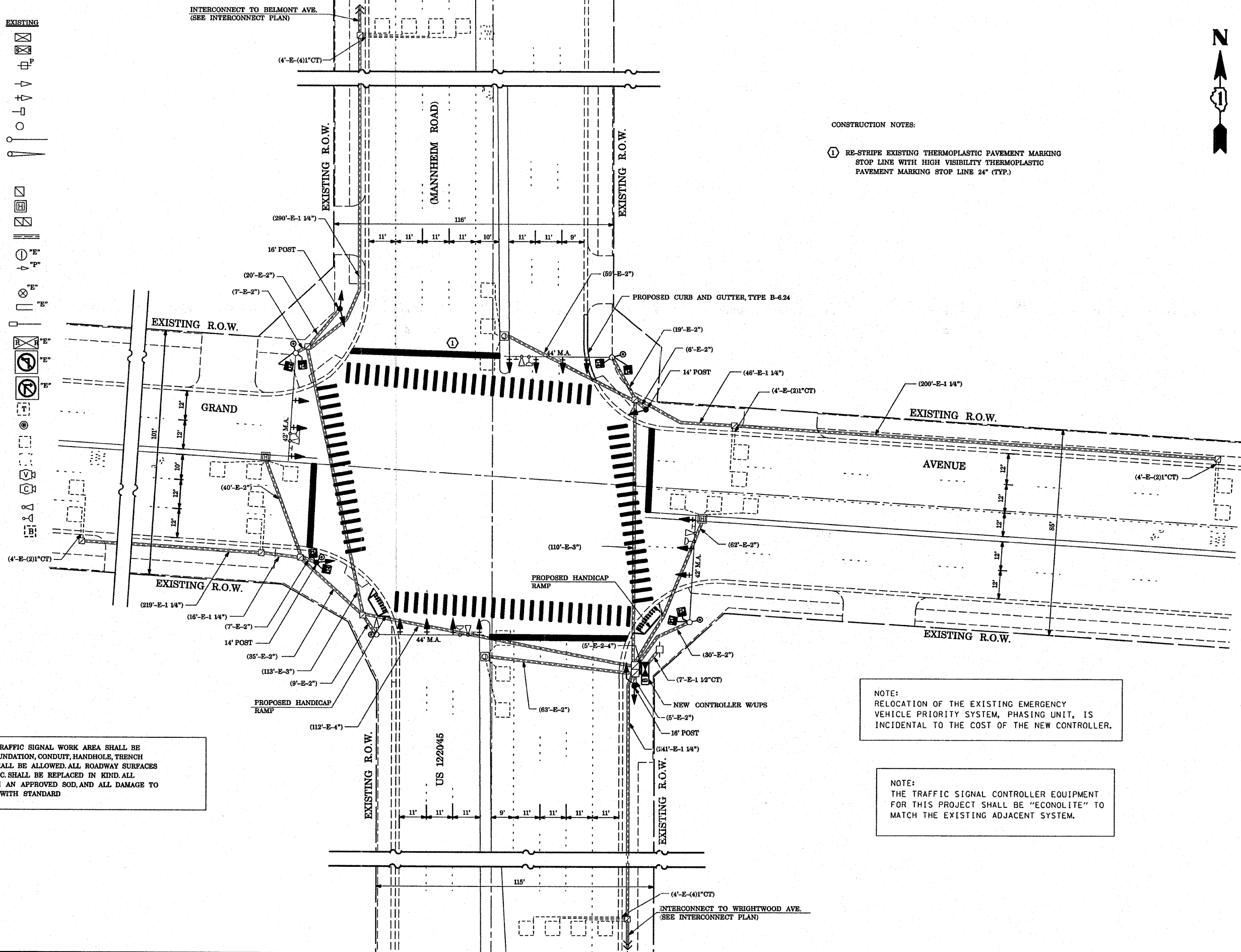
CABLE PLAN LEGEND

- | PROPOSED | EXISTING | |
|----------|----------|---|
| | | 8" (200mm) TRAFFIC SIGNAL SECTION |
| | | 12" (300mm) TRAFFIC SIGNAL SECTION |
| | | 12" (300mm) PEDESTRIAN SIGNAL SECTION |
| | | 12" (300mm) PEDESTRIAN SIGNAL SECTION |
| | | CONTROLLER CABINET |
| | | SERVICE INSTALLATION |
| | | TELEPHONE CONNECTION |
| | | MAGNETIC DETECTOR |
| | | PUSHBUTTON DETECTOR |
| | | VEHICLE DETECTOR, INDUCTION LOOP |
| | | VEHICLE DETECTOR, INDUCTION LOOP |
| | | SIGNAL FACE WITH BACKPLATE "P" INDICATES PROGRAMMED HEAD |
| | | RAILROAD CONTROL CABINET |
| | | ILLUMINATED SIGN, FIBER OPTIC "NO LEFT TURN" |
| | | ILLUMINATED SIGN, FIBER OPTIC "NO RIGHT TURN" |
| | | GROUND ROD AT HANDHOLE, DOUBLE HANDHOLE, OR CONTROLLER |
| | | GROUND ROD AT POST OR MAST ARM POLE |
| | | GROUND ROD AT ELECTRIC SERVICE INSTALLATION |
| | | GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN) |
| | | FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F & SM12F |
| | | MICROWAVE VEHICLE SENSOR |
| | | VIDEO DETECTOR |
| | | CLOSED CIRCUIT TV |
| | | EMERGENCY VEHICLE LIGHT DETECTOR |
| | | CONFIRMATION BEACON |
| | | UNINTERRUPTIBLE POWER SUPPLY |
| | | WIRELESS INTERCONNECT (ANTENNA) |



TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING
CONTROLLER		
RAILROAD CONTROL CABINET		
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNTED		
SIGNAL HEAD		
SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD, PEDESTRIAN		
SIGNAL POST		
MAST ARM ASSEMBLY AND POLE, STEEL		
MAST ARM ASSEMBLY AND POLE, ALUMINIUM		
COMMON TRENCH		
UNIT DUCT		
HANDHOLE		
HEAVY DUTY HANDHOLE		
DOUBLE HANDHOLE		
G.S.CONDUIT IN TRENCH OR PUSHED		
CAST IRON JUNCTION BOX		
SIGNAL HEAD OPTICALLY PROGRAMMED		
CONDUIT SPLICE		
WOOD POLE		
RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II		
VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE		
RAILROAD CONTROL CABINET		
ILLUMINATED SIGN, FIBER OPTIC "NO LEFT TURN"		
ILLUMINATED SIGN, FIBER OPTIC "NO RIGHT TURN"		
TELEPHONE CONNECTION		
PEDESTRIAN PUSHBUTTON DETECTOR		
DETECTOR LOOP, TYPE I		
PERFORMED DETECTOR LOOP		
VIDEO DETECTOR		
CLOSED CIRCUIT TV		
EMERGENCY VEHICLE SYSTEM DETECTOR CONFIRMATION BEACON		
UNINTERRUPTIBLE POWER SUPPLY		
PEDESTRIAN SIGNAL HEAD WITH COUNTDOWN TIMER		



CONSTRUCTION NOTES:
 ① RE-STRIPE EXISTING THERMOPLASTIC PAVEMENT MARKING STOP LINE WITH HIGH VISIBILITY THERMOPLASTIC PAVEMENT MARKING STOP LINE 24" (TYP.)

RESTORATION OF WORK AREA RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIAN, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

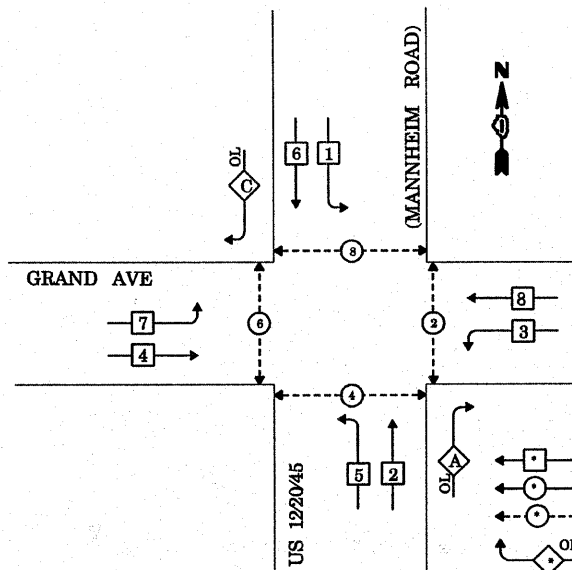
NOTE:
 RELOCATION OF THE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT, IS INCIDENTAL TO THE COST OF THE NEW CONTROLLER.

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

FILE NAME = c:\projects\traffic\1070027\us12_20_45.dgn	USER NAME = kanthaphaybc	DESIGNED - N.B.	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PROPOSED TRAFFIC SIGNAL PLAN US 12/20/45 (MANNHEIM ROAD) AT GRAND AVENUE	F.A.P. RTE. 330	SECTION 2008-006 TS	COUNTY COOK	TOTAL SHEETS 104	SHEET NO. 16	
PLOT SCALE = 40.0000' / IN.	CHECKED - D.B.	REVISED -	REVISED -			SCALE: 1" = 20'	SHEET NO. OF SHEETS	STA. TO STA.	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT	CONTRACT NO. 60E31
PLOT DATE = 10/10/2008	DATE = 09/04/2008	REVISED -	REVISED -								

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CONTROLLER SEQUENCE



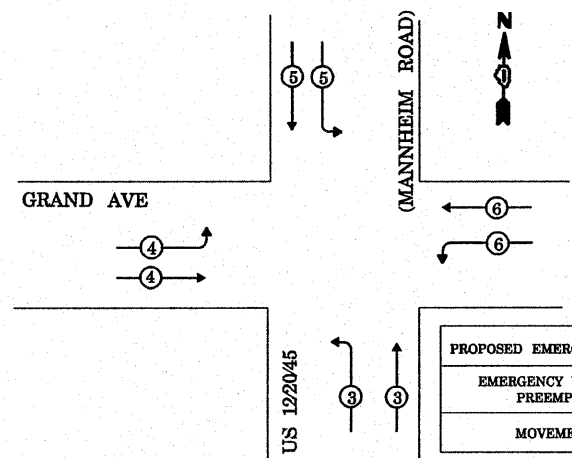
LEGEND
 SINGLE ENTRY PHASE
 DUAL ENTRY PHASE
 PEDESTRIAN PHASE
 OVERLAP
 NUMBER REFERS TO ASSOCIATED PHASE

PHASE DESIGNATION DIAGRAM

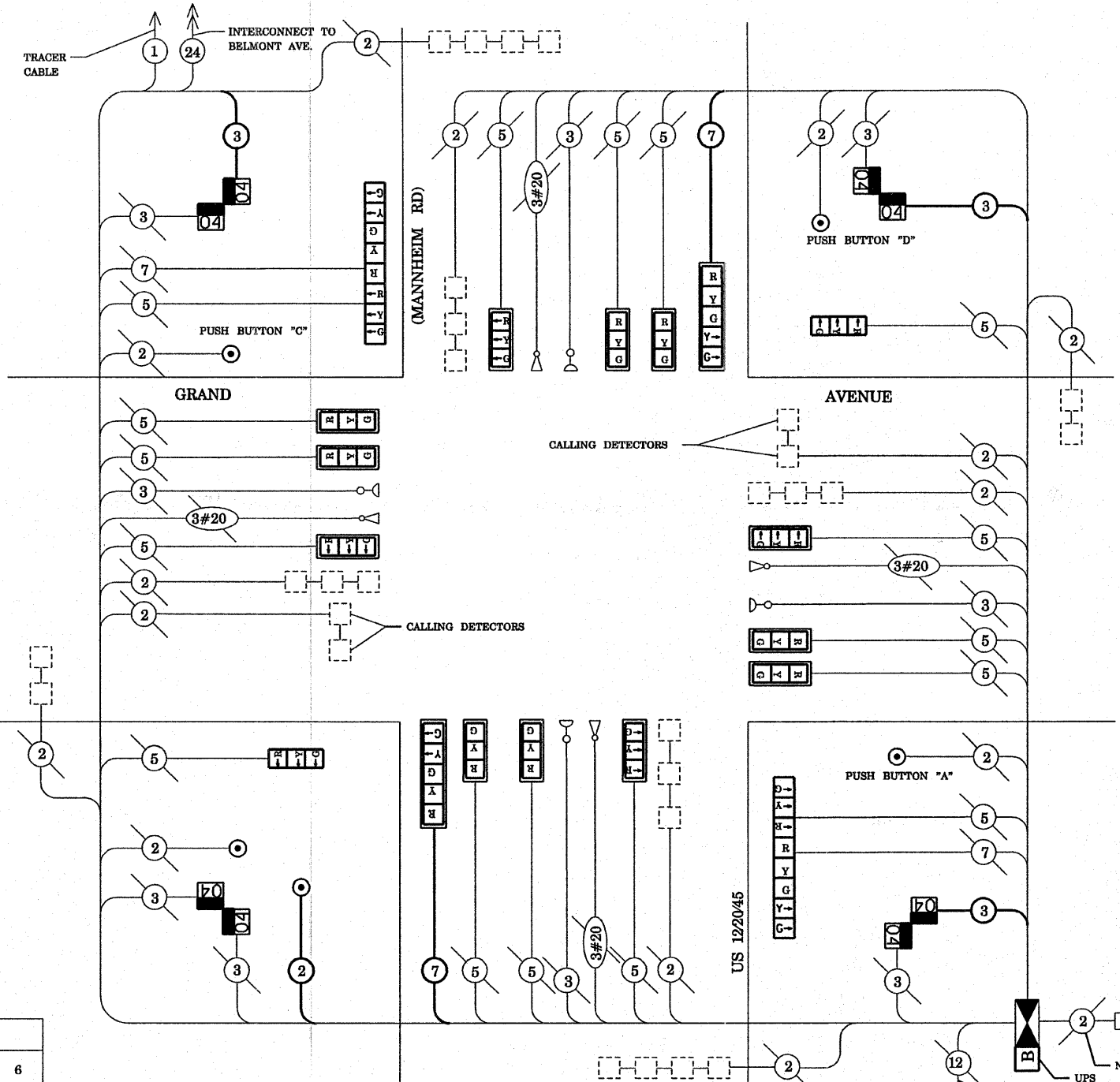
RIGHT TURN OVERLAP PHASE DESIGNATION

OVERLAP PHASE	PERMISSIVE PHASE	PROTECTED PHASE	DISPLAY
A =	2 +	3 -	2
C =	6 +	7 -	6

EMERGENCY VEHICLE PREEMPTION SEQUENCE



PROPOSED EMERGENCY VEHICLE PREEMPTORS				
EMERGENCY VEHICLE PREEMPTOR	3	4	5	6
MOVEMENT	↔	↔	↔	↔



CABLE PLAN

CABLE PLAN LEGEND

- | PROPOSED | EXISTING | |
|----------|----------|---|
| | | 8" (200mm) TRAFFIC SIGNAL SECTION |
| | | 12" (300mm) TRAFFIC SIGNAL SECTION |
| | | 12" (300mm) PEDESTRIAN SIGNAL SECTION |
| | | CONTROLLER CABINET |
| | | SERVICE INSTALLATION |
| | | TELEPHONE CONNECTION |
| | | MAGNETIC DETECTOR |
| | | PUSHBUTTON DETECTOR |
| | | VEHICLE DETECTOR, INDUCTION LOOP |
| | | DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED. |
| | | SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD |
| | | RAILROAD CONTROL CABINET |
| | | ILLUMINATED SIGN, FIBER OPTIC "NO LEFT TURN" |
| | | ILLUMINATED SIGN, FIBER OPTIC "NO RIGHT TURN" |
| | | GROUND ROD AT HANDHOLE, DOUBLE HANDHOLE, OR CONTROLLER |
| | | GROUND ROD AT POST OR MAST ARM POLE |
| | | GROUND ROD AT ELECTRIC SERVICE INSTALLATION |
| | | GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN) |
| | | FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F & SM12F |
| | | MICROWAVE VEHICLE SENSOR |
| | | VIDEO DETECTOR |
| | | CLOSED CIRCUIT TV |
| | | EMERGENCY VEHICLE LIGHT DETECTOR |
| | | CONFIRMATION BEACON |
| | | UNINTERRUPTIBLE POWER SUPPLY |
| | | PEDESTRIAN SIGNAL HEAD WITH COUNTDOWN TIMER |

SCHEDULE OF QUANTITIES

QUANTITY	UNIT	ITEM	QUANTITY	UNIT	ITEM
27	FOOT	COMBINATION CURB AND GUTTER REMOVAL	10	EACH	INDUCTIVE LOOP DETECTOR
27	FOOT	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24	5	EACH	PEDESTRIAN PUSH-BUTTON
0.1	L SUM	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	1328	FOOT	REMOVE ELECTRIC CABLE FROM CONDUIT
0.1	L SUM	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
0.1	L SUM	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	1	EACH	REMOVE EXISTING HANDHOLE
704	FOOT	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	12	EACH	SIGNAL HEAD, L.E.D., 1-FACE, 3-SECTION, MAST ARM MOUNTED
191	FOOT	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	2	EACH	SIGN/ HEAD, L.E.D., 1-FACE, 3-SECTION, BRACKET MOUNTED
1130	SQ FT	THERMOPLASTIC PAVEMENT MARKING REMOVAL	2	EACH	SIGNAL HEAD, L.E.D., 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	4	EACH	PEDESTRIAN SIGNAL HEAD, L.E.D., 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
1	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	1	EACH	UNINTERRUPTIBLE POWER SUPPLY
1	EACH	TRANSCEIVER - FIBER OPTIC			
157	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C			
526	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C			
379	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C			
2	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.			
2	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.			
14	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM			

THE END OF THE TRACER CABLE SHALL BE TIED TO A CABLE HOOK IN THE DOUBLE HANDHOLE CLOSEST TO THE CONTROLLER FOUNDATION.

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

NOTE: PUSHBUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4
 PUSHBUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8
 PUSHBUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8

TYPE	NO. LAMPS	WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	20	17	0.50	170.00
(YELLOW)	20	25	0.25	125.00
(GREEN)	20	15	0.25	75.00
ARROW	8	12	0.10	9.60
PED. SIGNAL	8	25	1.00	200.00
CONTROLLER	1	100	1.00	100.00
ILLUM. SIGN				
FLASHER				
ENERGY COSTS TO:				TOTAL = 679.60
VILLAGE OF FRANKLIN PARK 4500 BELMONT AVENUE FRANKLIN PARK, IL 60131				
ENERGY SUPPLY CONTACT: LINDA KLOC PHONE: (708)410-5313 COMPANY: COMMONWEALTH EDISON				

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

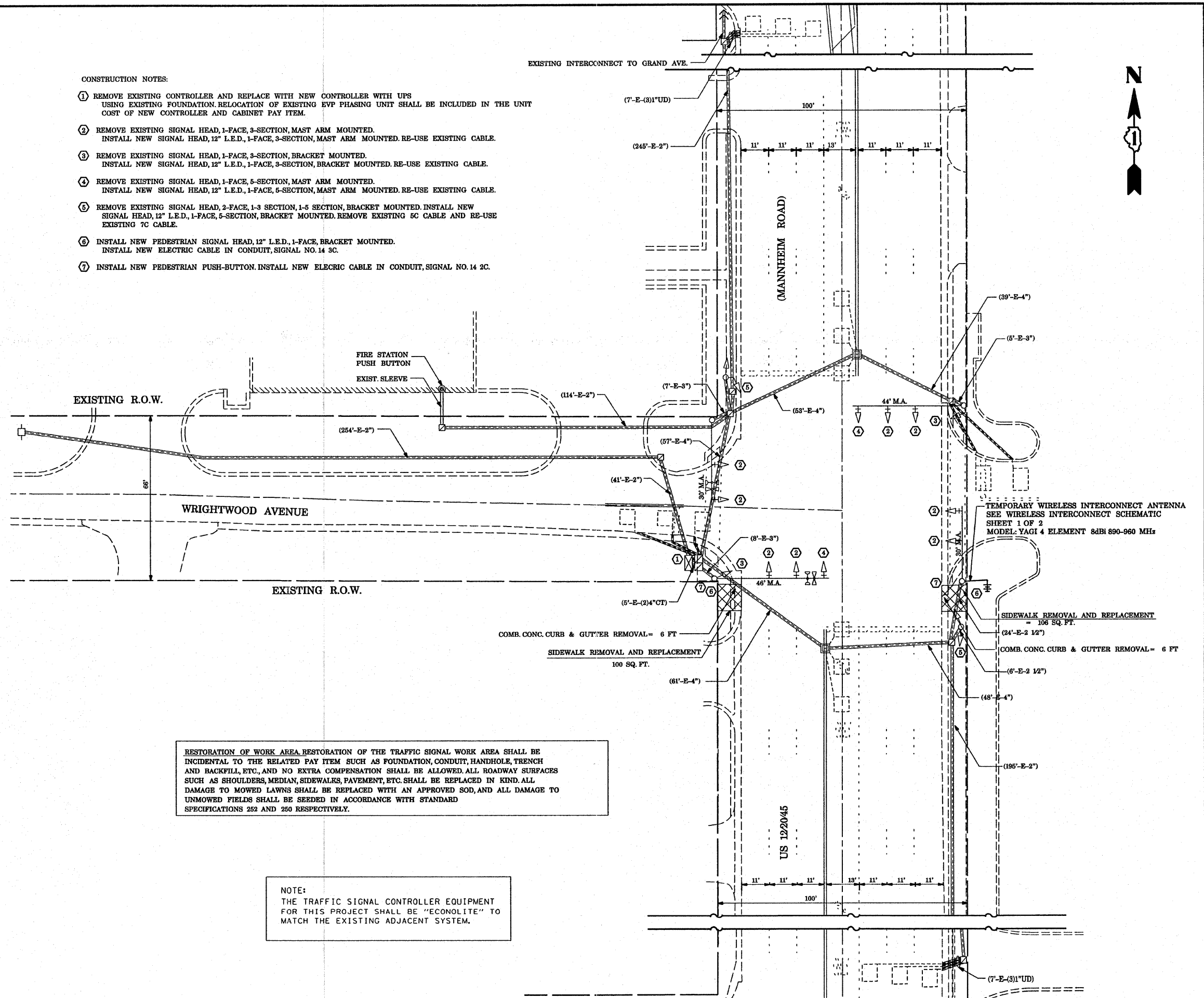
PROPOSED CABLE PLAN
 US 12/20/45 (MANNHEIM ROAD) AT GRAND AVENUE
 SCALE: NTS SHEET NO. OF SHEETS STA. TO STA.

TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING
CONTROLLER	[Symbol]	[Symbol]
RAILROAD CONTROL CABINET	[Symbol]	[Symbol]
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNTED	[Symbol]	[Symbol]
SIGNAL HEAD	[Symbol]	[Symbol]
SIGNAL HEAD WITH BACKPLATE	[Symbol]	[Symbol]
SIGNAL HEAD, PEDESTRIAN	[Symbol]	[Symbol]
SIGNAL POST	[Symbol]	[Symbol]
MAST ARM ASSEMBLY AND POLE, STEEL	[Symbol]	[Symbol]
MAST ARM ASSEMBLY AND POLE, ALUMINIUM	[Symbol]	[Symbol]
COMMON TRENCH	[Symbol]	[Symbol]
UNIT DUCT	[Symbol]	[Symbol]
HANDHOLE	[Symbol]	[Symbol]
HEAVY DUTY HANDHOLE	[Symbol]	[Symbol]
DOUBLE HANDHOLE	[Symbol]	[Symbol]
G.S.CONDUIT IN TRENCH OR PUSHED	[Symbol]	[Symbol]
CAST IRON JUNCTION BOX	[Symbol]	[Symbol]
SIGNAL HEAD OPTICALLY PROGRAMMED	[Symbol]	[Symbol]
CONDUIT SPLICE	[Symbol]	[Symbol]
WOOD POLE	[Symbol]	[Symbol]
RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II	[Symbol]	[Symbol]
VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE	[Symbol]	[Symbol]
RAILROAD CONTROL CABINET	[Symbol]	[Symbol]
ILLUMINATED SIGN, FIBER OPTIC "NO LEFT TURN"	[Symbol]	[Symbol]
ILLUMINATED SIGN, FIBER OPTIC "NO RIGHT TURN"	[Symbol]	[Symbol]
TELEPHONE CONNECTION	[Symbol]	[Symbol]
PEDESTRIAN PUSHBUTTON DETECTOR	[Symbol]	[Symbol]
DETECTOR LOOP, TYPE I	[Symbol]	[Symbol]
PERFORMED DETECTOR LOOP	[Symbol]	[Symbol]
VIDEO DETECTOR	[Symbol]	[Symbol]
CLOSED CIRCUIT TV	[Symbol]	[Symbol]
EMERGENCY VEHICLE SYSTEM DETECTOR	[Symbol]	[Symbol]
CONFIRMATION BEACON	[Symbol]	[Symbol]
UNINTERRUPTABLE POWER SUPPLY	[Symbol]	[Symbol]
WIRELESS INTERCONNECT (ANTENNA)	[Symbol]	[Symbol]

CONSTRUCTION NOTES:

- REMOVE EXISTING CONTROLLER AND REPLACE WITH NEW CONTROLLER WITH UPS USING EXISTING FOUNDATION. RELOCATION OF EXISTING EVP PHASING UNIT SHALL BE INCLUDED IN THE UNIT COST OF NEW CONTROLLER AND CABINET PAY ITEM.
- REMOVE EXISTING SIGNAL HEAD, 1-FACE, 3-SECTION, MAST ARM MOUNTED. INSTALL NEW SIGNAL HEAD, 12" L.E.D., 1-FACE, 3-SECTION, MAST ARM MOUNTED. RE-USE EXISTING CABLE.
- REMOVE EXISTING SIGNAL HEAD, 1-FACE, 3-SECTION, BRACKET MOUNTED. INSTALL NEW SIGNAL HEAD, 12" L.E.D., 1-FACE, 3-SECTION, BRACKET MOUNTED. RE-USE EXISTING CABLE.
- REMOVE EXISTING SIGNAL HEAD, 1-FACE, 5-SECTION, MAST ARM MOUNTED. INSTALL NEW SIGNAL HEAD, 12" L.E.D., 1-FACE, 5-SECTION, MAST ARM MOUNTED. RE-USE EXISTING CABLE.
- REMOVE EXISTING SIGNAL HEAD, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED. INSTALL NEW SIGNAL HEAD, 12" L.E.D., 1-FACE, 5-SECTION, BRACKET MOUNTED. REMOVE EXISTING 5C CABLE AND RE-USE EXISTING 7C CABLE.
- INSTALL NEW PEDESTRIAN SIGNAL HEAD, 12" L.E.D., 1-FACE, BRACKET MOUNTED. INSTALL NEW ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C.
- INSTALL NEW PEDESTRIAN PUSH-BUTTON. INSTALL NEW ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C.



RESTORATION OF WORK AREA RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIAN, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDING IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

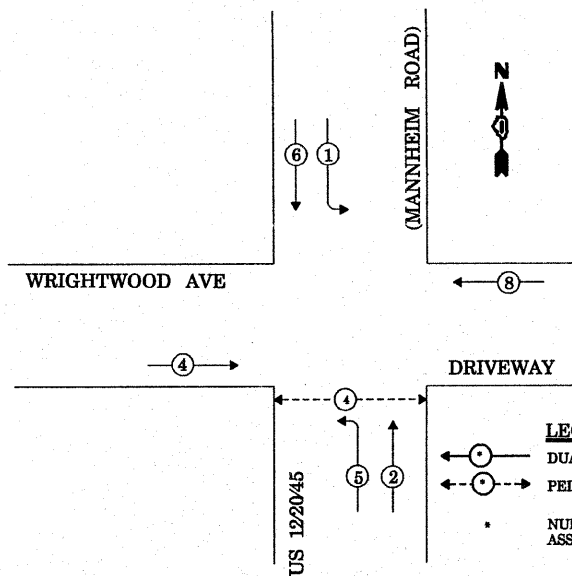
NOTE:
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE STATE AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE STATE'S TRAFFIC SIGNAL MAINTENANCE CONTRACTOR'S MAIN FACILITY AS PER THE TRAFFIC SIGNAL SPECIFICATIONS.

- 1 EACH FULL-ACTUATED CONTROLLER AND TYPE IV CABINET
- 10 EACH TRAFFIC SIGNAL BACKPLATE
- 8 EACH SIGNAL HEAD, L.E.D., 1-FACE, 3-SECTION, MAST ARM MOUNTED.
- 2 EACH SIGNAL HEAD, L.E.D., 1-FACE, 3-SECTION, BRACKET MOUNTED.
- 2 EACH SIGNAL HEAD, L.E.D., 1-FACE, 5-SECTION, MAST ARM MOUNTED.
- 2 EACH SIGNAL HEAD, L.E.D., 2-FACE, 1-3 SECTION AND 1-5 SECTION, BRACKET MOUNTED.

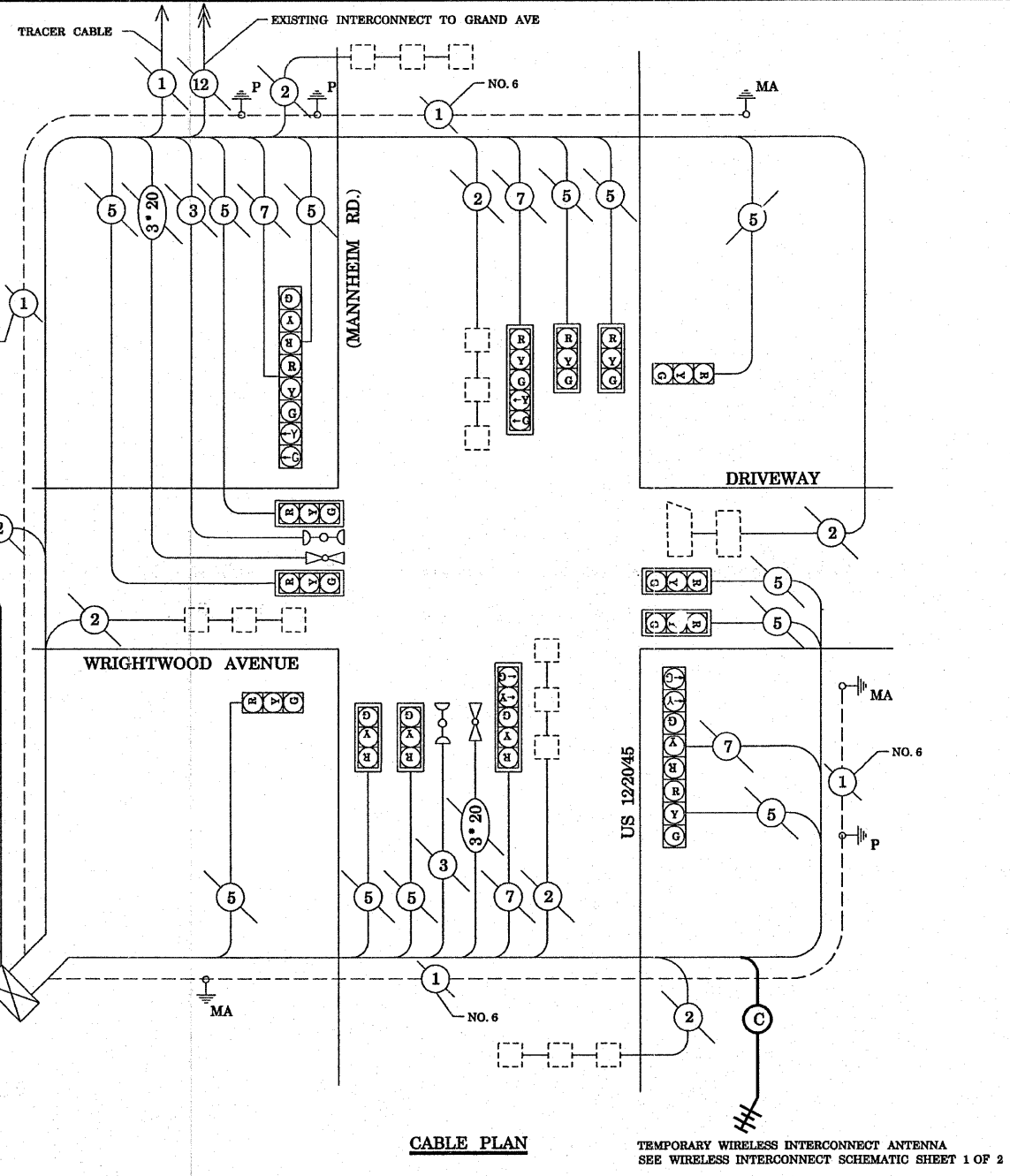
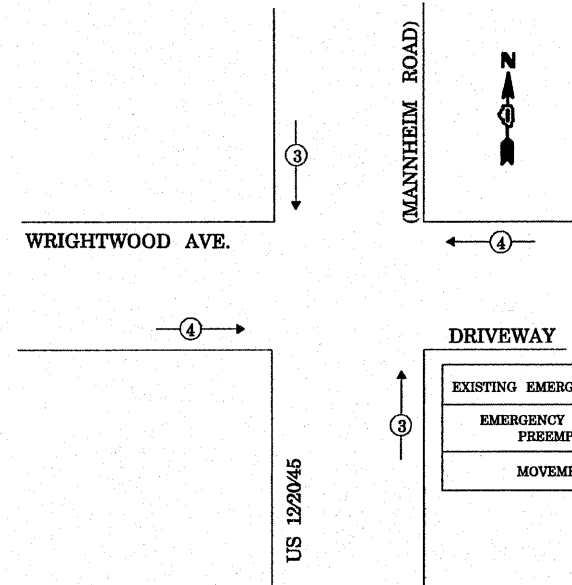
FILE NAME =	USER NAME = kentaphixjbc	DESIGNED - N.B.	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EXISTING AND REMOVAL PLAN US 1220/45 (MANNHEIM RD) AT WRIGHTWOOD AVE			F.A.P. RTE. 330	SECTION 2008-006 TS	COUNTY COOK	TOTAL SHEETS 104	SHEET NO. 18
ci:\projects\traffic\072027\us12_20_45.dgn	PLOT SCALE = 48.0000' / IN.	DRAWN - N.B.	REVISED -		SCALE: 1" = 20'	SHEET NO. OF SHEETS	STA. TO STA.	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT	CONTRACT NO. 60E31		
	PLOT DATE = 10/10/2008	CHECKED - D.B.	REVISED -									
		DATE - 09/04/2008	REVISED -									

CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM

EMERGENCY VEHICLE PREEMPTION SEQUENCE



CABLE PLAN LEGEND

- | PROPOSED | EXISTING | |
|----------|----------|---|
| [Symbol] | [Symbol] | 8" (200mm) TRAFFIC SIGNAL SECTION |
| [Symbol] | [Symbol] | 12" (300mm) TRAFFIC SIGNAL SECTION |
| [Symbol] | [Symbol] | 12" (300mm) PEDESTRIAN SIGNAL SECTION |
| [Symbol] | [Symbol] | 12" (300mm) PEDESTRIAN SIGNAL SECTION |
| [Symbol] | [Symbol] | CONTROLLER CABINET SERVICE INSTALLATION |
| [Symbol] | [Symbol] | TELEPHONE CONNECTION |
| [Symbol] | [Symbol] | MAGNETIC DETECTOR |
| [Symbol] | [Symbol] | PUSHBUTTON DETECTOR |
| [Symbol] | [Symbol] | VEHICLE DETECTOR, INDUCTION LOOP |
| [Symbol] | [Symbol] | 2 DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED. |
| [Symbol] | [Symbol] | SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD |
| [Symbol] | [Symbol] | "R" RAILROAD CONTROL CABINET |
| [Symbol] | [Symbol] | "B" ILLUMINATED SIGN, FIBER OPTIC "NO LEFT TURN" |
| [Symbol] | [Symbol] | "B" ILLUMINATE SIGN, FIBER OPTIC "NO RIGHT TURN" |
| [Symbol] | [Symbol] | HC GROUND ROD AT HANDHOLE, DOUBLE HANDHOLE, OR CONTROLLER |
| [Symbol] | [Symbol] | P GROUND ROD AT POST OR MAST ARM POLE |
| [Symbol] | [Symbol] | S GROUND ROD AT ELECTRIC SERVICE INSTALLATION |
| [Symbol] | [Symbol] | 1 GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN) |
| [Symbol] | [Symbol] | 24 FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F & SM12F |
| [Symbol] | [Symbol] | 24 MICROWAVE VEHICLE SENSOR |
| [Symbol] | [Symbol] | V VIDEO DETECTOR |
| [Symbol] | [Symbol] | C CLOSED CIRCUIT TV |
| [Symbol] | [Symbol] | ▲ EMERGENCY VEHICLE LIGHT DETECTOR |
| [Symbol] | [Symbol] | ○ CONFIRMATION BEACON |
| [Symbol] | [Symbol] | ■ UNINTERRUPTIBLE POWER SUPPLY |
| [Symbol] | [Symbol] | ⚡ WIRELESS INTERCONNECT (ANTENNA) |

CABLE PLAN

TEMPORARY WIRELESS INTERCONNECT ANTENNA
SEE WIRELESS INTERCONNECT SCHEMATIC SHEET 1 OF 2

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

TYPE	NO. LAMPS	WATTAGE INCAND.	WATTAGE LED	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	16		17	0.50	136.00
(YELLOW)	16		25	0.25	100.00
(GREEN)	16		15	0.25	60.00
ARROW	8		12	0.10	9.60
PED. SIGNAL			25	1.00	-
CONTROLLER	1		100	1.00	100.00
ILLUM. SIGN				0.05	-
FLASHER					-
ENERGY COSTS TO: VILLAGE OF FRANKLIN PARK 9600 BELMONT AVENUE FRANKLIN PARK, IL 60131					TOTAL = 405.60
ENERGY SUPPLY CONTACT: LINDA KLOC PHONE: (708)410-5313 COMPANY: COMMONWEALTH EDISON					

FILE NAME -	USER NAME -	DESIGNED -	REVISED -
c:\projects\traffic\1070027\us12_20_45.dgn	kanthaphixaybc	N.B.	N.B.
		DRAWN -	REVISED -
		N.B.	N.B.
		CHECKED -	REVISED -
		D.B.	N.B.
		DATE -	REVISED -
		09/04/2008	N.B.

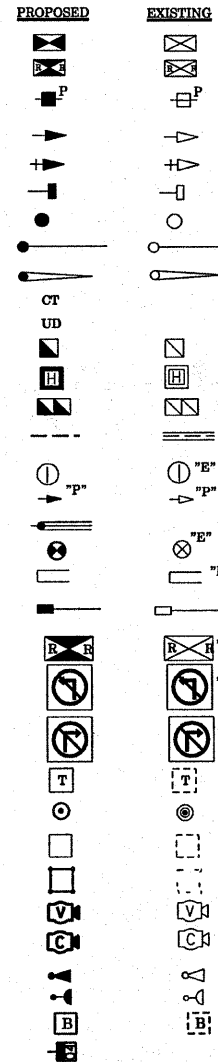
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING CABLE PLAN
US 12/20/45 (MANNHEIM ROAD) AT WRIGHTWOOD AVENUE
SCALE: NTS SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2008-006 TS	COOK	104	19
CONTRACT NO. 60E31				
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

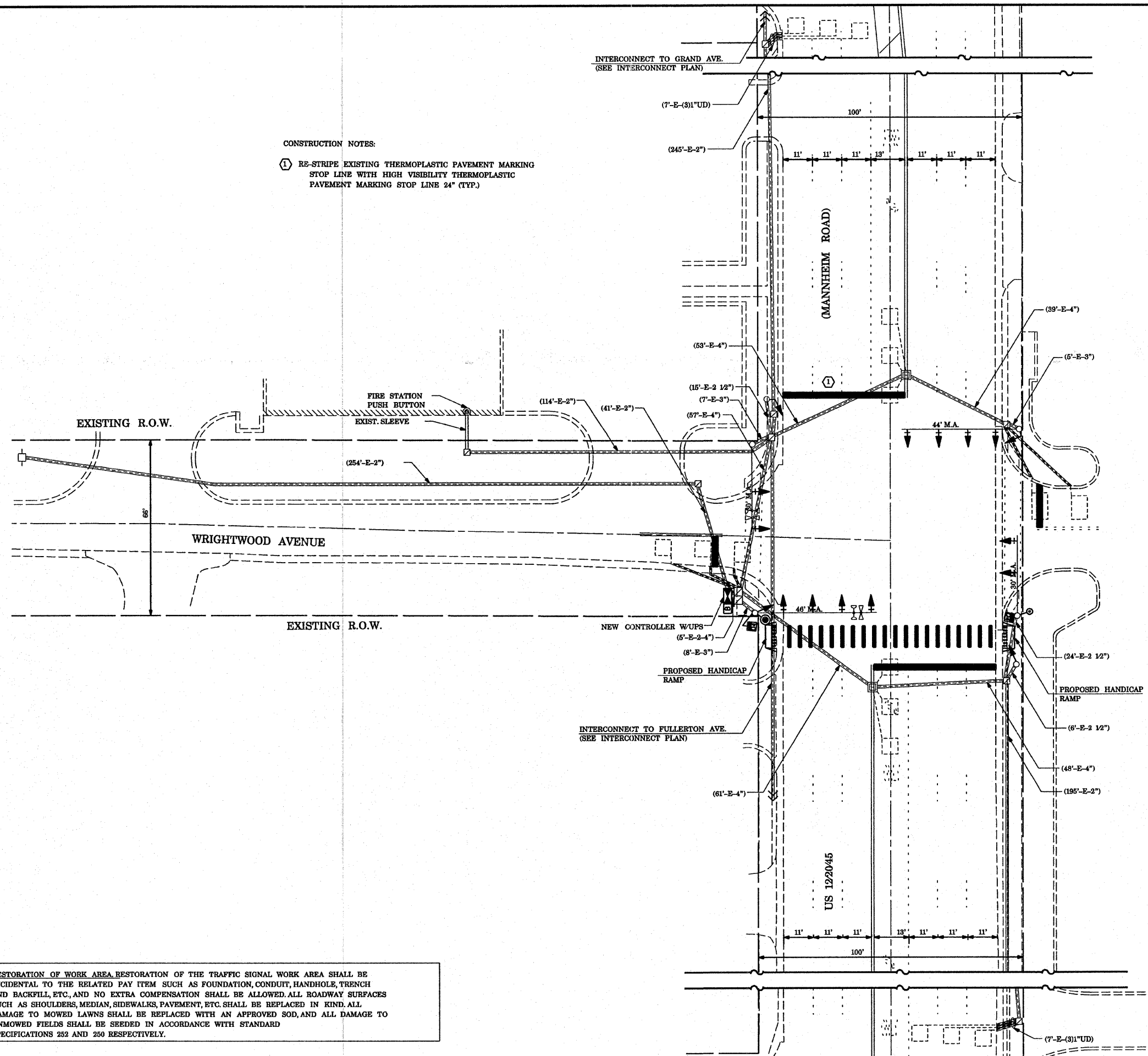
TRAFFIC SIGNAL LEGEND

- CONTROLLER
- RAILROAD CONTROL CABINET
- SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNTED
- SIGNAL HEAD
- SIGNAL HEAD WITH BACKPLATE
- SIGNAL HEAD, PEDESTRIAN
- SIGNAL POST
- MAST ARM ASSEMBLY AND POLE, STEEL
- MAST ARM ASSEMBLY AND POLE, ALUMINIUM
- COMMON TRENCH
- UNIT DUCT
- HANDHOLE
- HEAVY DUTY HANDHOLE
- DOUBLE HANDHOLE
- G.S.CONDUIT IN TRENCH OR PUSHED
- CAST IRON JUNCTION BOX
- SIGNAL HEAD OPTICALLY PROGRAMMED
- CONDUIT SPLICE
- WOOD POLE
- RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II
- VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE
- RAILROAD CONTROL CABINET
- ILLUMINATED SIGN, FIBER OPTIC "NO LEFT TURN"
- ILLUMINATED SIGN, FIBER OPTIC "NO RIGHT TURN"
- TELEPHONE CONNECTION
- PEDESTRIAN PUSHBUTTON DETECTOR
- DETECTOR LOOP, TYPE I
- PREFORMED DETECTOR LOOP
- VIDEO DETECTOR
- CLOSED CIRCUIT TV
- EMERGENCY VEHICLE SYSTEM DETECTOR
- CONFIRMATION BEACON
- UNINTERRUPTABLE POWER SUPPLY
- PEDESTRIAN SIGNAL HEAD WITH COUNTDOWN TIMER



CONSTRUCTION NOTES:

- ① RE-STRIP EXISTING THERMOPLASTIC PAVEMENT MARKING STOP LINE WITH HIGH VISIBILITY THERMOPLASTIC PAVEMENT MARKING STOP LINE 24" (TYP.)



NOTE:
RELOCATION OF THE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT, IS INCIDENTAL TO THE COST OF THE NEW CONTROLLER.

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

RESTORATION OF WORK AREA RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIAN, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDING IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

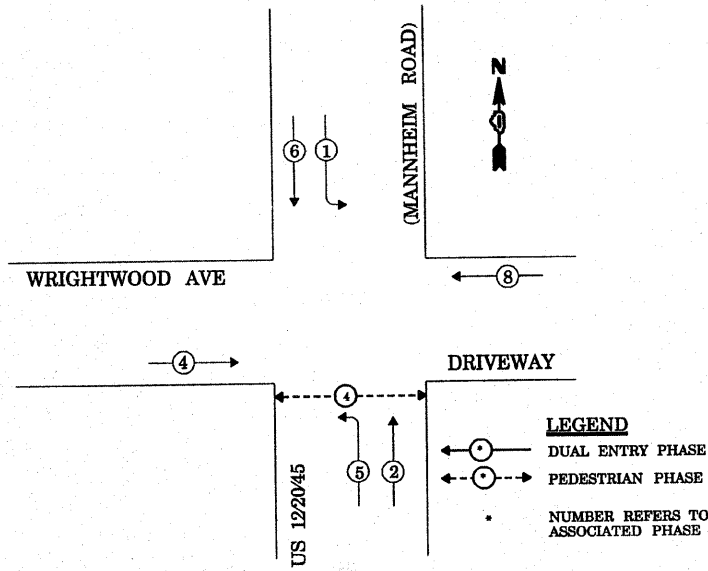
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PLOT DATE = 10/10/2008	DATE - 09/04/2008	REVISED -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

PROPOSED TRAFFIC SIGNAL PLAN
US 12/20/45 (MANNHEIM ROAD) AT WRIGHTWOOD AVENUE
SCALE: 1"=20'

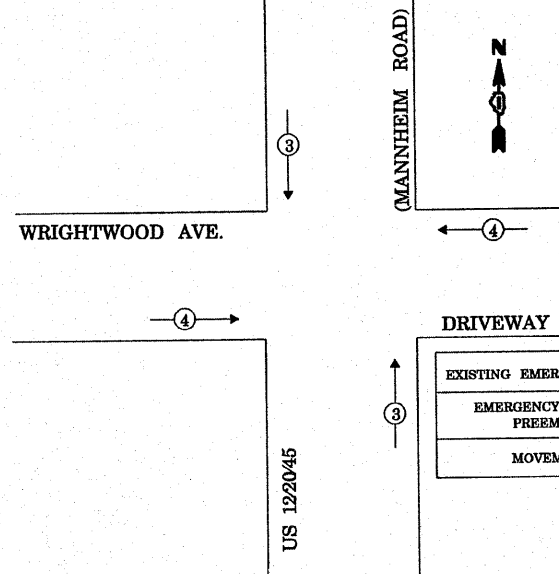
F.A.P. RTE. 330	SECTION 2008-006 TS	COUNTY COOK	TOTAL SHEETS 104	SHEET NO. 20
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	
CONTRACT NO. 60E31				

CONTROLLER SEQUENCE



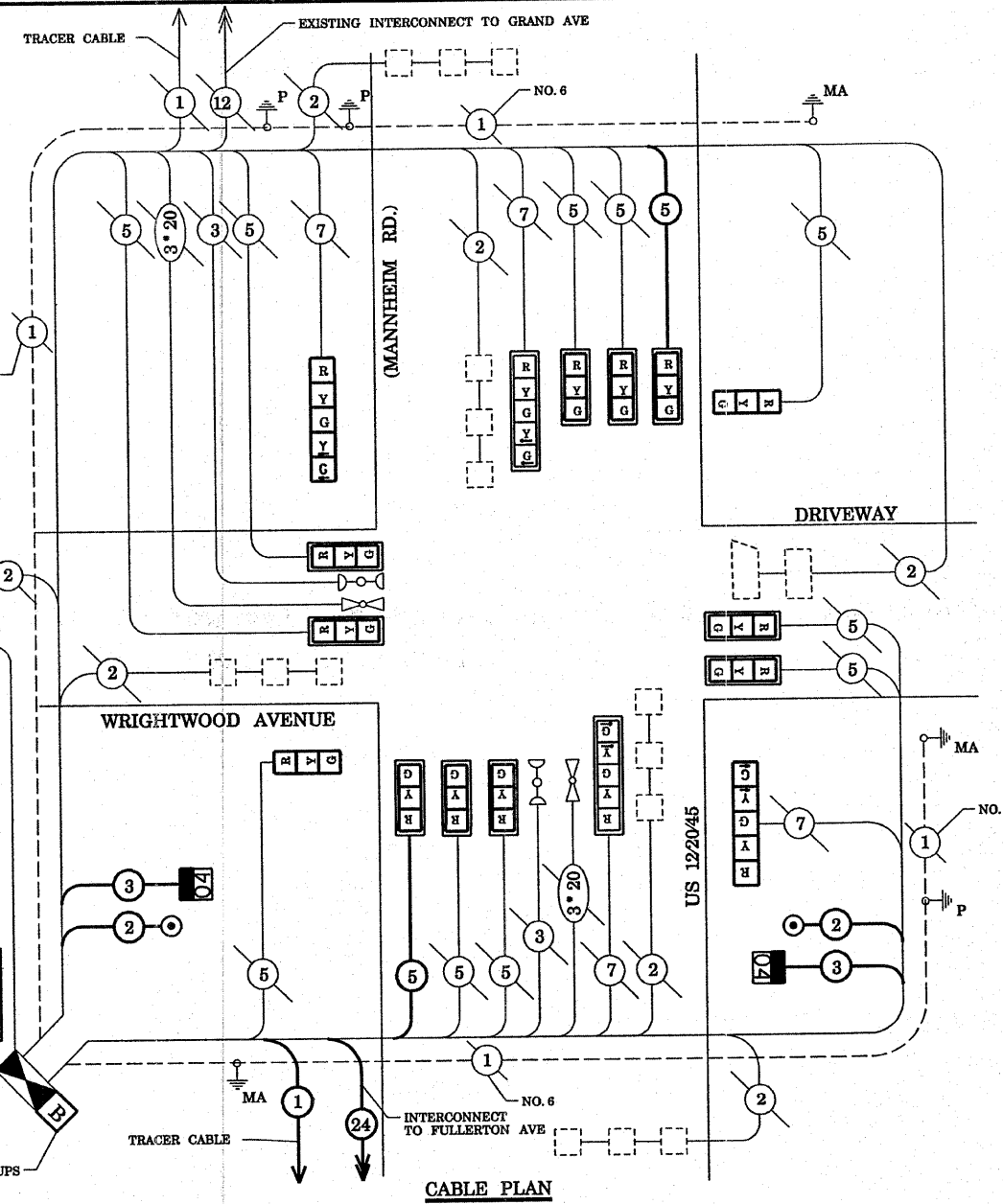
PHASE DESIGNATION DIAGRAM

EMERGENCY VEHICLE PREEMPTION SEQUENCE



EXISTING EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT		

THE END OF THE TRACER CABLE SHALL BE TIED TO A CABLE HOOK IN THE DOUBLE HANDHOLE CLOSEST TO THE CONTROLLER FOUNDATION.



CABLE PLAN LEGEND

- | PROPOSED | EXISTING | |
|----------|----------|---|
| | | 8" (200mm) TRAFFIC SIGNAL SECTION |
| | | 12" (300mm) TRAFFIC SIGNAL SECTION |
| | | 12" (300mm) PEDESTRIAN SIGNAL SECTION |
| | | 12" (300mm) PEDESTRIAN SIGNAL SECTION |
| | | CONTROLLER CABINET |
| | | SERVICE INSTALLATION |
| | | TELEPHONE CONNECTION |
| | | MAGNETIC DETECTOR |
| | | PUSHBUTTON DETECTOR |
| | | VEHICLE DETECTOR, INDUCTION LOOP |
| | | SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD |
| | | RAILROAD CONTROL CABINET |
| | | ILLUMINATED SIGN, FIBER OPTIC "NO LEFT TURN" |
| | | ILLUMINATED SIGN, FIBER OPTIC "NO RIGHT TURN" |
| | | GROUND ROD AT HANDHOLE, DOUBLE HANDHOLE, OR CONTROLLER |
| | | GROUND ROD AT POST OR MAST ARM POLE |
| | | GROUND ROD AT ELECTRIC SERVICE INSTALLATION |
| | | GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN) |
| | | FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F & SM12F |
| | | MICROWAVE VEHICLE SENSOR |
| | | VIDEO DETECTOR |
| | | CLOSED CIRCUIT TV |
| | | EMERGENCY VEHICLE LIGHT DETECTOR |
| | | CONFIRMATION BEACON |
| | | UNINTERRUPTIBLE POWER SUPPLY |
| | | PEDESTRIAN SIGNAL HEAD WITH COUNTDOWN TIMER |

SCHEDULE OF QUANTITIES

QUANTITIES	UNIT	ITEM	QUANTITIES	UNIT	ITEM
206	SQ FT	PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH	2	EACH	SIGNAL HEAD, L.E.D., 1-FACE, 5-SECTION, MAST ARM MOUNTED
12	FOOT	COMBINATION CURB AND GUTTER REMOVAL	2	EACH	SIGNAL HEAD, L.E.D., 1-FACE, 5-SECTION, BRACKET MOUNTED
206	SQ FT	SIDEWALK REMOVAL	2	EACH	PEDESTRIAN SIGNAL HEAD, L.E.D., 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
12	FOOT	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24	1	EACH	UNINTERRUPTIBLE POWER SUPPLY
0.1	L SUM	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501			
0.1	L SUM	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701			
0.1	L SUM	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801			
160	FOOT	THERMOPLASTIC PAVEMENT MARKING - LINE 12"			
120	FOOT	THERMOPLASTIC PAVEMENT MARKING - LINE 24"			
238	SQ FT	THERMOPLASTIC PAVEMENT MARKING REMOVAL			
1	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL			
1	EACH	TRANSCEIVER-FIBER OPTIC			
214	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C			
232	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C			
290	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C			
12	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM			
6	EACH	INDUCTIVE LOOP DETECTOR			
2	EACH	PEDESTRIAN PUSH-BUTTON			
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT			
10	EACH	SIGNAL HEAD, L.E.D., 1-FACE, 3-SECTION, MAST ARM MOUNTED			
2	EACH	SIGNAL HEAD, L.E.D., 1-FACE, 3-SECTION, BRACKET MOUNTED			

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

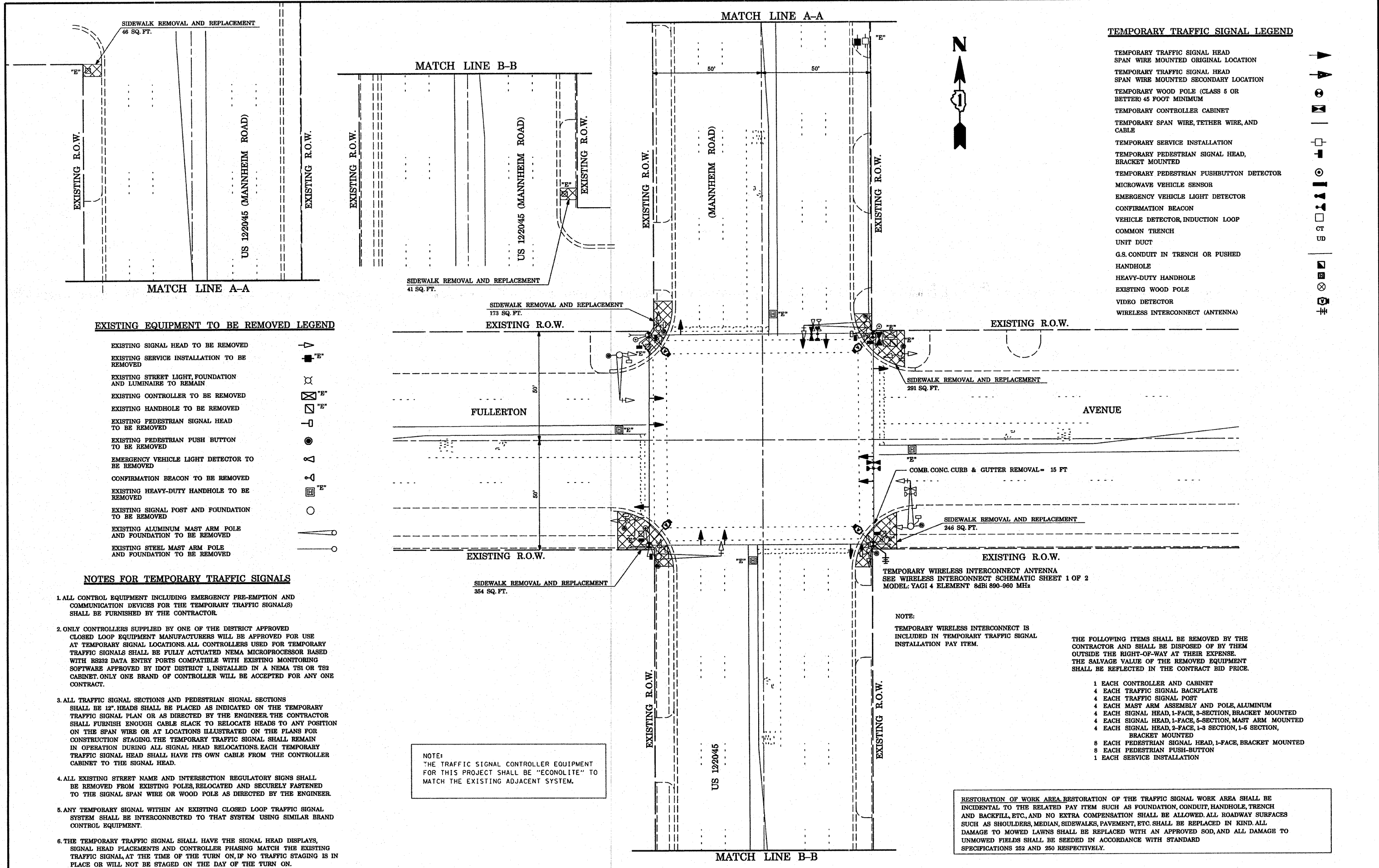
TYPE	NO. LAMPS	WATTAGE	% OPERATION	TOTAL WATTAGE
		INCAND. LED		
SIGNAL (RED)	16	17	0.50	136.00
(YELLOW)	16	25	0.25	100.00
(GREEN)	16	15	0.25	60.00
ARROW	8	12	0.10	9.60
PED. SIGNAL	2	25	1.00	50.00
CONTROLLER	1	100	1.00	100.00
ILLUM. SIGN			0.05	-
FLASHER				-
ENERGY COSTS TO: VILLAGE OF FRANKLIN PARK 9500 BELMONT AVENUE FRANKLIN PARK, IL 60131				TOTAL = 455.60
ENERGY SUPPLY CONTACT: LINDA KLOC PHONE: (708)410-5313 COMPANY: COMMONWEALTH EDISON				

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED CABLE PLAN
US 12/2045 (MANNHEIM ROAD) AT WRIGHTWOOD AVENUE

F.A.P. RTE. 330	SECTION 2008-006 TS	COUNTY COOK	TOTAL SHEETS 104	SHEET NO. 21
CONTRACT NO. 60E31		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT		

FILE NAME =	USER NAME = kanthapixybc	DESIGNED - N.B.	REVISED -
PROJECTS\traffic\1070027\us12.20.45.dgn		DRAWN - N.B.	REVISED -
		CHECKED - D.B.	REVISED -
		DATE - 09/04/2008	REVISED -



TEMPORARY TRAFFIC SIGNAL LEGEND

- TEMPORARY TRAFFIC SIGNAL HEAD
- SPAN WIRE MOUNTED ORIGINAL LOCATION
- TEMPORARY TRAFFIC SIGNAL HEAD
- SPAN WIRE MOUNTED SECONDARY LOCATION
- TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT MINIMUM
- TEMPORARY CONTROLLER CABINET
- TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE
- TEMPORARY SERVICE INSTALLATION
- TEMPORARY PEDESTRIAN SIGNAL HEAD, BRACKET MOUNTED
- TEMPORARY PEDESTRIAN PUSHBUTTON DETECTOR
- MICROWAVE VEHICLE SENSOR
- EMERGENCY VEHICLE LIGHT DETECTOR
- CONFIRMATION BEACON
- VEHICLE DETECTOR, INDUCTION LOOP
- COMMON TRENCH
- UNIT DUCT
- G.S. CONDUIT IN TRENCH OR PUSHED HANDHOLE
- HEAVY-DUTY HANDHOLE
- EXISTING WOOD POLE
- VIDEO DETECTOR
- WIRELESS INTERCONNECT (ANTENNA)



EXISTING EQUIPMENT TO BE REMOVED LEGEND

- EXISTING SIGNAL HEAD TO BE REMOVED
- EXISTING SERVICE INSTALLATION TO BE REMOVED
- EXISTING STREET LIGHT, FOUNDATION AND LUMINAIRE TO REMAIN
- EXISTING CONTROLLER TO BE REMOVED
- EXISTING HANDHOLE TO BE REMOVED
- EXISTING PEDESTRIAN SIGNAL HEAD TO BE REMOVED
- EXISTING PEDESTRIAN PUSH BUTTON TO BE REMOVED
- EMERGENCY VEHICLE LIGHT DETECTOR TO BE REMOVED
- CONFIRMATION BEACON TO BE REMOVED
- EXISTING HEAVY-DUTY HANDHOLE TO BE REMOVED
- EXISTING SIGNAL POST AND FOUNDATION TO BE REMOVED
- EXISTING ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED
- EXISTING STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVED

NOTES FOR TEMPORARY TRAFFIC SIGNALS

1. ALL CONTROL EQUIPMENT INCLUDING EMERGENCY PRE-EMPTION AND COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNAL(S) SHALL BE FURNISHED BY THE CONTRACTOR.
2. ONLY CONTROLLERS SUPPLIED BY ONE OF THE DISTRICT APPROVED CLOSED LOOP EQUIPMENT MANUFACTURERS WILL BE APPROVED FOR USE AT TEMPORARY SIGNAL LOCATIONS. ALL CONTROLLERS USED FOR TEMPORARY TRAFFIC SIGNALS SHALL BE FULLY ACTUATED NEMA MICROPROCESSOR BASED WITH RS232 DATA ENTRY PORTS COMPATIBLE WITH EXISTING MONITORING SOFTWARE APPROVED BY IDOT DISTRICT 1, INSTALLED IN A NEMA TS1 OR TS2 CABINET. ONLY ONE BRAND OF CONTROLLER WILL BE ACCEPTED FOR ANY ONE CONTRACT.
3. ALL TRAFFIC SIGNAL SECTIONS AND PEDESTRIAN SIGNAL SECTIONS SHALL BE 12". HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL FURNISH ENOUGH CABLE SLACK TO RELOCATE HEADS TO ANY POSITION ON THE SPAN WIRE OR AT LOCATIONS ILLUSTRATED ON THE PLANS FOR CONSTRUCTION STAGING. THE TEMPORARY TRAFFIC SIGNAL SHALL REMAIN IN OPERATION DURING ALL SIGNAL HEAD RELOCATIONS. EACH TEMPORARY TRAFFIC SIGNAL HEAD SHALL HAVE ITS OWN CABLE FROM THE CONTROLLER CABINET TO THE SIGNAL HEAD.
4. ALL EXISTING STREET NAME AND INTERSECTION REGULATORY SIGNS SHALL BE REMOVED FROM EXISTING POLES, RELOCATED AND SECURELY FASTENED TO THE SIGNAL SPAN WIRE OR WOOD POLE AS DIRECTED BY THE ENGINEER.
5. ANY TEMPORARY SIGNAL WITHIN AN EXISTING CLOSED LOOP TRAFFIC SIGNAL SYSTEM SHALL BE INTERCONNECTED TO THAT SYSTEM USING SIMILAR BRAND CONTROL EQUIPMENT.
6. THE TEMPORARY TRAFFIC SIGNAL SHALL HAVE THE SIGNAL HEAD DISPLAYS, SIGNAL HEAD PLACEMENTS AND CONTROLLER PHASING MATCH THE EXISTING TRAFFIC SIGNAL, AT THE TIME OF THE TURN ON, IF NO TRAFFIC STAGING IS IN PLACE OR WILL NOT BE STAGED ON THE DAY OF THE TURN ON.

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

NOTE:
TEMPORARY WIRELESS INTERCONNECT IS INCLUDED IN TEMPORARY TRAFFIC SIGNAL INSTALLATION PAY ITEM.

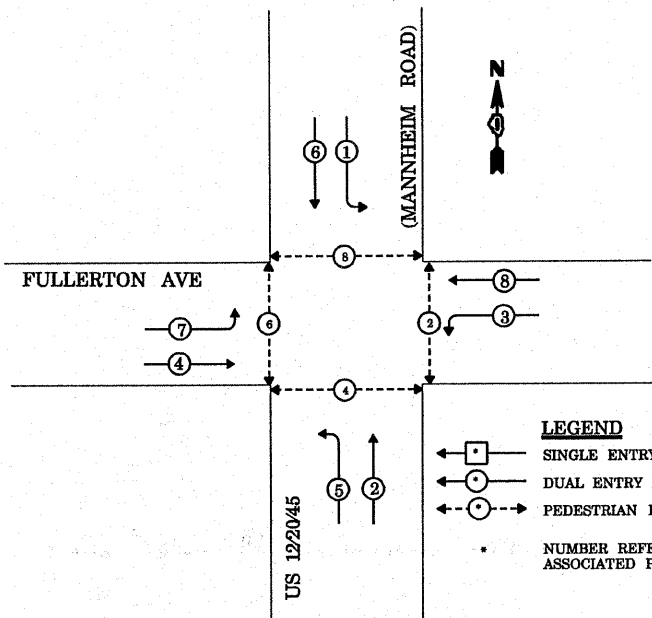
THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

- 1 EACH CONTROLLER AND CABINET
- 4 EACH TRAFFIC SIGNAL BACKPLATE
- 4 EACH TRAFFIC SIGNAL POST
- 4 EACH MAST ARM ASSEMBLY AND POLE, ALUMINUM
- 4 EACH SIGNAL HEAD, 1-FACE, 8-SECTION, BRACKET MOUNTED
- 4 EACH SIGNAL HEAD, 1-FACE, 8-SECTION, MAST ARM MOUNTED
- 4 EACH SIGNAL HEAD, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED
- 8 EACH PEDESTRIAN SIGNAL HEAD, 1-FACE, BRACKET MOUNTED
- 8 EACH PEDESTRIAN PUSH-BUTTON
- 1 EACH SERVICE INSTALLATION

RESTORATION OF WORK AREA RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIAN, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDING IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

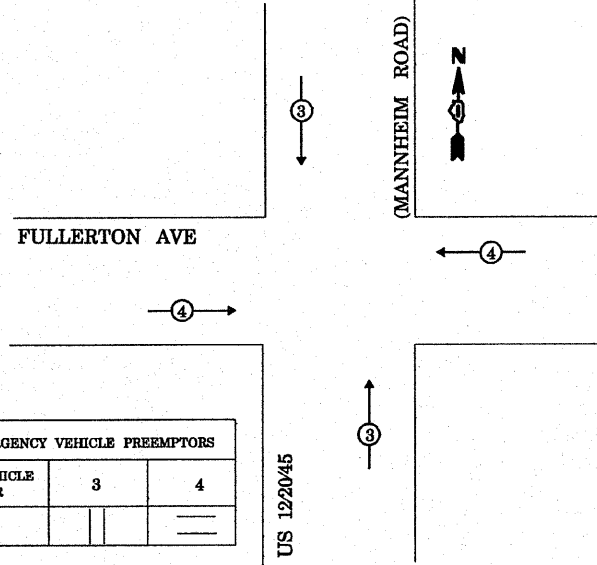
FILE NAME =	USER NAME = kanthaphixjbc	DESIGNED - N.B.	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TEMPORARY TRAFFIC SIGNAL AND REMOVAL PLAN			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
cr\projects\traffic\078027\us12_20_45.dgn		DRAWN - N.B.	REVISED -		US 12/2045 (MANNHEIM ROAD) AT FULLERTON AVENUE			330	2008-006 TS	COOK	104	22	
		CHECKED - D.B.	REVISED -		SCALE: 1" = 20'			SHEET NO.	OF SHEETS	STA.	TO STA.	CONTRACT NO. 60E31	
		DATE - 09/04/2008	REVISED -					FED. ROAD DIST. NO.	[ILLINOIS] FED. AID PROJECT				

CONTROLLER SEQUENCE



TEMPORARY PHASE DESIGNATION DIAGRAM

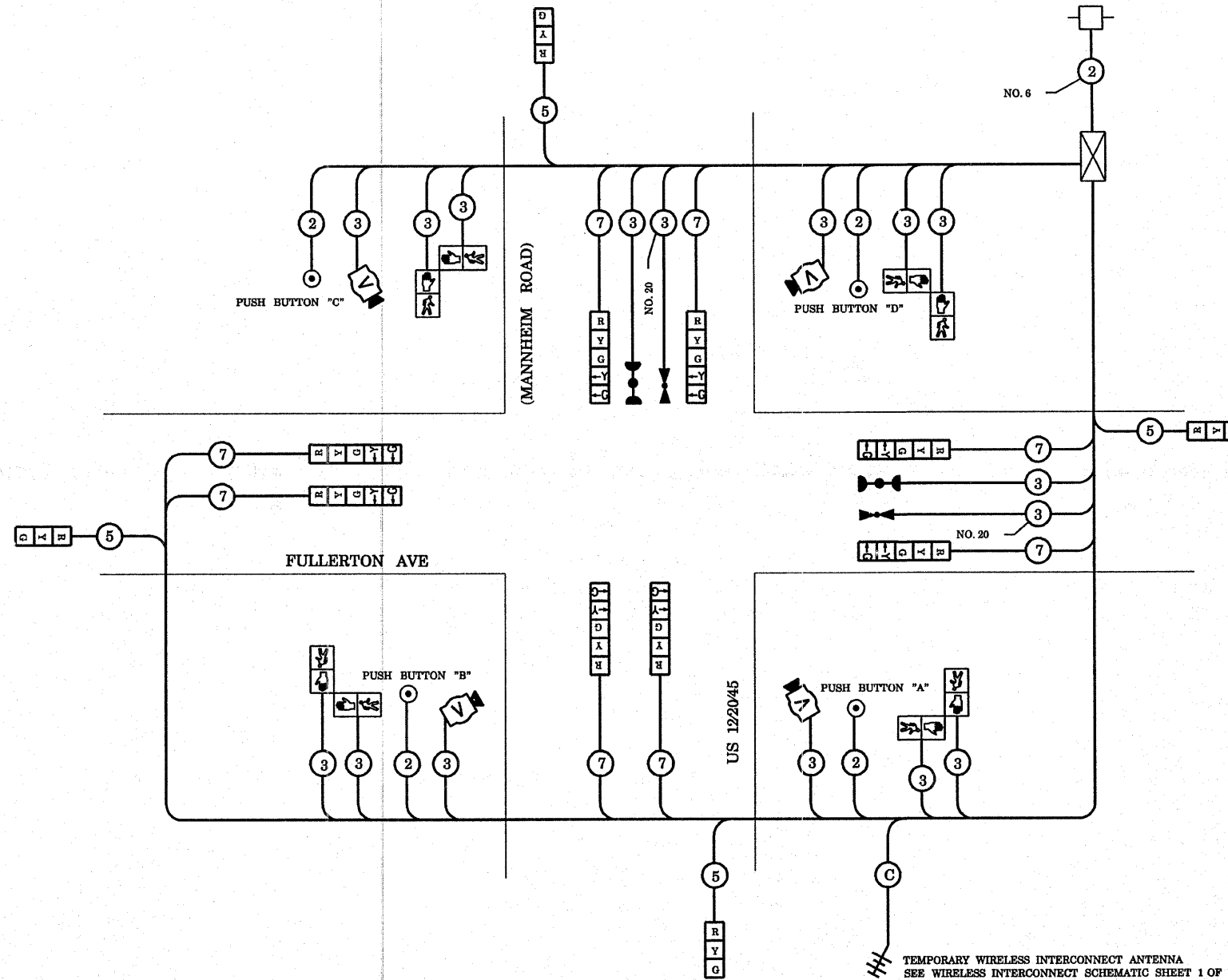
EMERGENCY VEHICLE PREEMPTION SEQUENCE



PROPOSED EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTOR	3	4	
MOVEMENT			

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE		% OPERATION	
SIGNAL (RED)	12	INCAND.	LED	0.50	102.00
(YELLOW)	12			0.25	75.00
(GREEN)	12			0.25	45.00
ARROW	16			0.10	19.20
PED. SIGNAL	8			1.00	200.00
CONTROLLER	1			1.00	100.00
ILLUM. SIGN				0.05	-
FLASHER				0.05	-
ENERGY COSTS TO:				TOTAL =	541.20
VILLAGE OF FRANKLIN PARK 4500 BELMONT AVENUE FRANKLIN PARK, IL 60131					
ENERGY SUPPLY CONTACT: LINDA KLOC PHONE: (708)410-5313 COMPANY: COMMONWEALTH EDISON					

FILE NAME =	DESIGNED - N.B.	REVISOR -
ci:\projects\traffic\1070027\us12_20_45.dgn	DRAWN - N.B.	REVISOR -
	CHECKED - D.B.	REVISOR -
	DATE - 09/04/2008	REVISOR -



TEMPORARY CABLE PLAN

TEMPORARY CABLE DIAGRAM LEGEND

- TEMPORARY TRAFFIC SIGNAL SECTION OR PEDESTRIAN SIGNAL SECTION, 12" (300 mm)
- TEMPORARY CONTROLLER CABINET
- TEMPORARY SERVICE INSTALLATION
- INDICATES NUMBER OF CONDUCTORS IN CABLE. ALL CONDUCTORS TO BE NUMBERED 14 AWG WIRE UNLESS OTHERWISE NOTED.
- EMERGENCY VEHICLE LIGHT DETECTOR
- CONFIRMATION BEACON
- PEDESTRIAN PUSHBUTTON DETECTOR
- VEHICLE DETECTOR, INDUCTION LOOP
- 12" (300 mm) PEDESTRIAN SIGNAL SECTION
- MICROWAVE VEHICLE SENSOR
- VIDEO DETECTOR
- WIRELESS INTERCONNECT (ANTENNA)

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

* TEMPORARY WIRELESS INTERCONNECT IS INCLUDED IN TEMPORARY TRAFFIC SIGNAL INSTALLATION PAY ITEM

NOTE:
PUSHBUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4
PUSHBUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6
PUSHBUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8
PUSHBUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CABLE PLAN
US 12/2045 (MANNHEIM ROAD) AT FULLERTON AVENUE

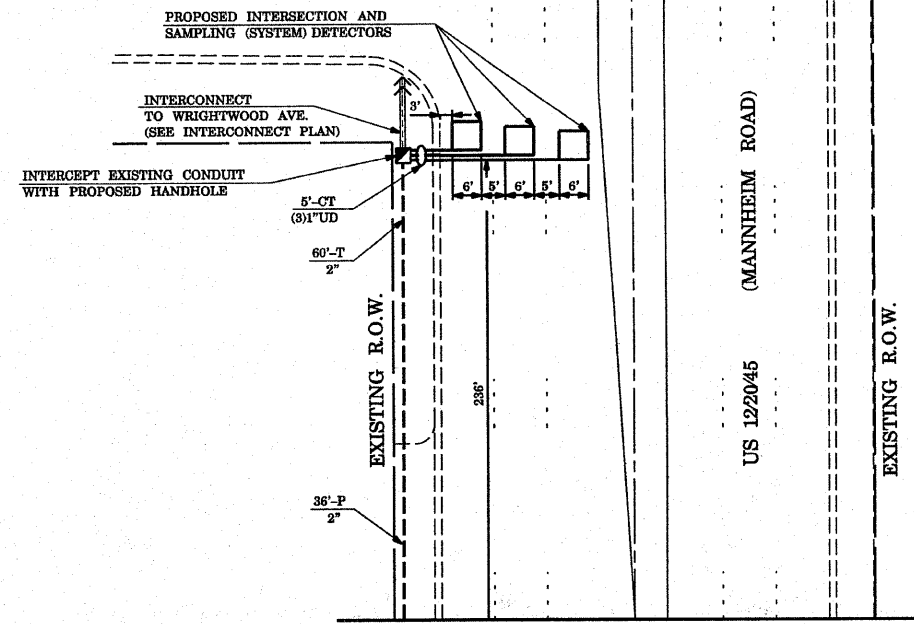
F.A.P. RTE. 330	SECTION 2008-006 TS	COUNTY COOK	TOTAL SHEETS 104	SHEET NO. 23
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 60E31	



CONSTRUCTION NOTES:

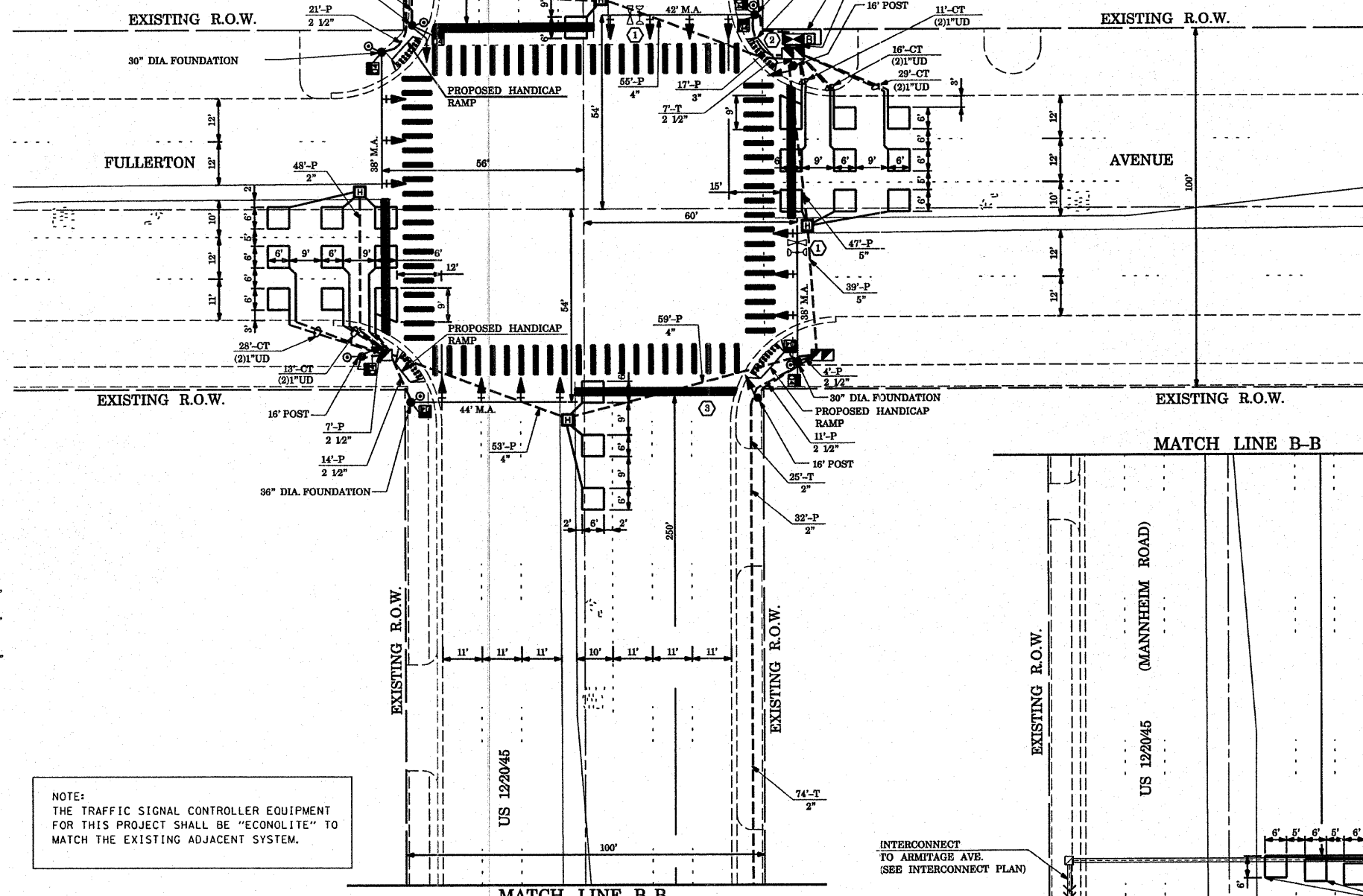
- ① RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, DETECTOR UNIT AND CONFIRMATION BEACON TO NEW MAST ARM.
- ② RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT TO NEW TRAFFIC SIGNAL CONTROLLER.
- ③ RE-STRIPES EXISTING THERMOPLASTIC PAVEMENT MARKING STOP LINE WITH HIGH VISIBILITY THERMOPLASTIC PAVEMENT MARKING STOP LINE 24" (TYP.)

RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC. AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIAN, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.



MATCH LINE A-A

MATCH LINE A-A



TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING
CONTROLLER		
RAILROAD CONTROL CABINET		
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNTED		
SIGNAL HEAD		
SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD, PEDESTRIAN		
SIGNAL POST		
MAST ARM ASSEMBLY AND POLE, STEEL		
MAST ARM ASSEMBLY AND POLE, ALUMINIUM		
COMMON TRENCH		
UNIT DUCT		
HANDHOLE		
HEAVY DUTY HANDHOLE		
DOUBLE HANDHOLE		
G.S.CONDUIT IN TRENCH OR PUSHED		
CAST IRON JUNCTION BOX		
SIGNAL HEAD OPTICALLY PROGRAMMED		
CONDUIT SPLICE		
WOOD POLE		
RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II		
VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE		
RAILROAD CONTROL CABINET		
ILLUMINATED SIGN, FIBER OPTIC "NO LEFT TURN"		
ILLUMINATED SIGN, FIBER OPTIC "NO RIGHT TURN"		
TELEPHONE CONNECTION		
PEDESTRIAN PUSHBUTTON DETECTOR		
DETECTOR LOOP, TYPE I		
PREFORMED DETECTOR LOOP		
VIDEO DETECTOR		
CLOSED CIRCUIT TV		
EMERGENCY VEHICLE SYSTEM DETECTOR		
CONFIRMATION BEACON		
UNINTERRUPTIBLE POWER SUPPLY		
PEDESTRIAN SIGNAL HEAD WITH COUNTDOWN TIMER		

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

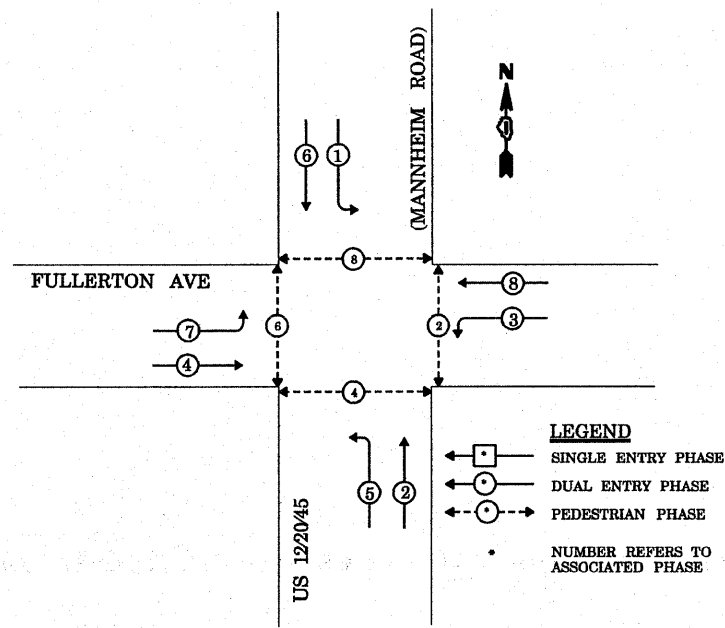
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED TRAFFIC SIGNAL PLAN
US 12/20/45 (MANNHEIM ROAD) AT FULLERTON AVENUE
SCALE: 1"=20'

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2008-006 TS	COOK	104	24
CONTRACT NO. 60E31				
FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT				

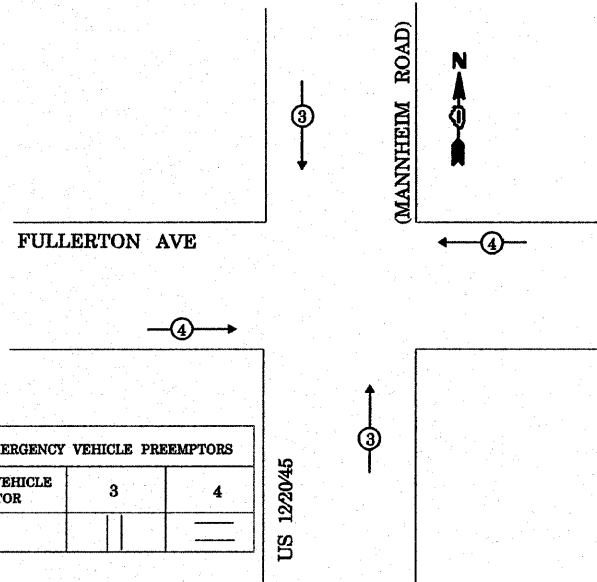
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ci:\projects\traffic\070027\us12_20_45.dgn	kanthaphixjbc	- N.B.	-
PLOT SCALE = 48.0000 "/ IN.	CHECKED	- D.B.	-
PLOT DATE = 10/10/2008	DATE	- 09/04/2008	-

CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM

EMERGENCY VEHICLE PREEMPTION SEQUENCE



PROPOSED EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT		

TYPE	NO. LAMPS	WATTAGE INCAND.	LED	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	18	17	0.50		153.00
(YELLOW)	18	25	0.25		112.50
(GREEN)	18	15	0.25		67.50
ARROW	16	12	0.10		19.20
PED. SIGNAL	8	25	1.00		200.00
CONTROLLER	1	100	1.00		100.00
ILLUM. SIGN			0.05		-
FLASHER					0.05
ENERGY COSTS TO: VILLAGE OF FRANKLIN PARK					TOTAL= 652.20

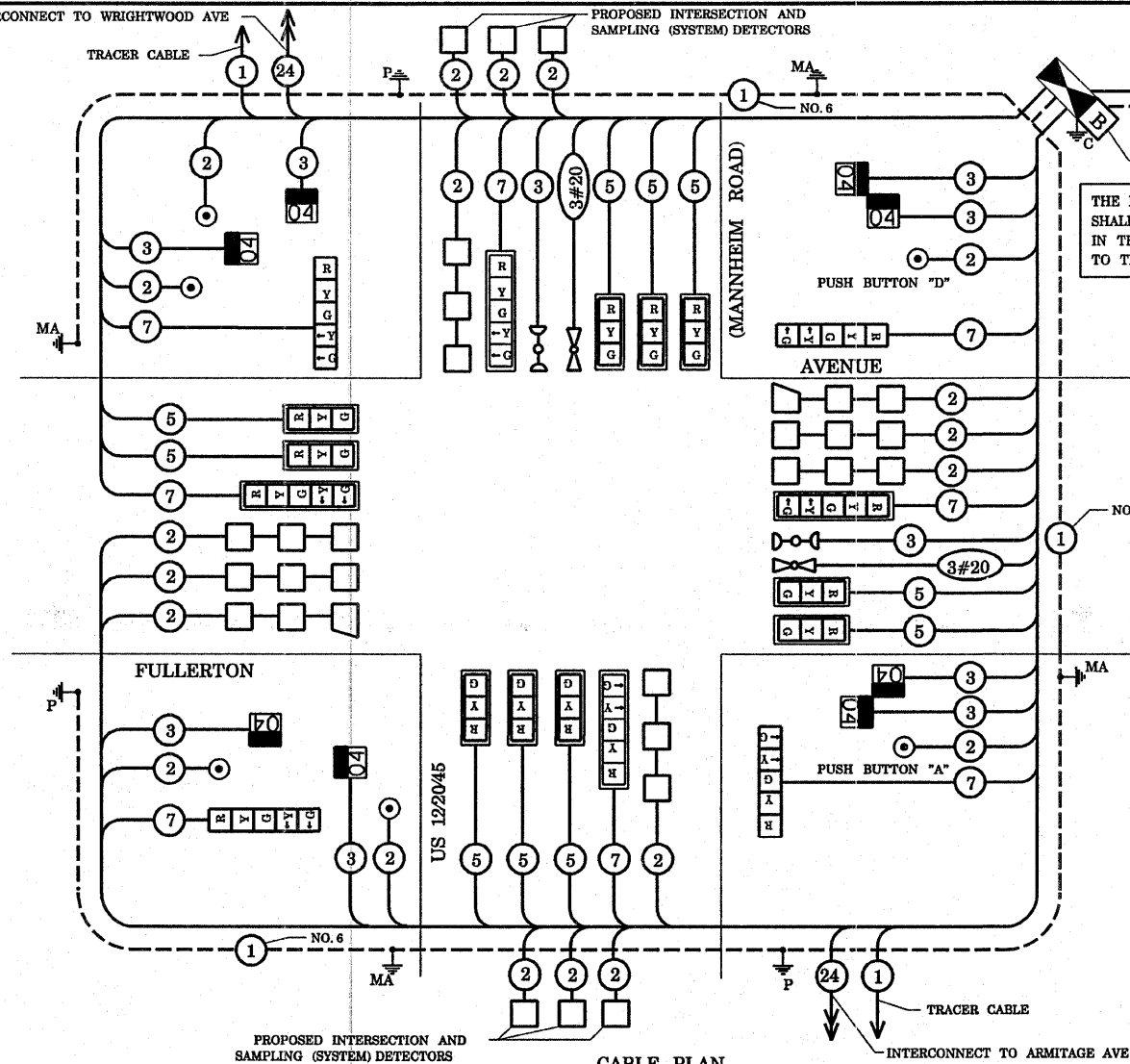
ENERGY SUPPLY CONTACT: LINDA KLOC
 PHONE: (708)410-5313
 COMPANY: COMMONWEALTH EDISON

FILE NAME =
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USER NAME = kenthphxybc
 DESIGNED - N.B.
 DRAWN - N.B.
 CHECKED - D.B.
 DATE - 09/04/2008

REVISOR -
 REVISION -
 REVISION -
 REVISION -

INTERCONNECT TO WRIGHTWOOD AVE



SCHEDULE OF QUANTITIES

QUANTITY	UNIT	ITEM
1151	SQ FT	PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH
15	FOOT	COMBINATION CURB AND GUTTER REMOVAL
1151	SQ FT	SIDEWALK REMOVAL
15	FOOT	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6-24
0.1	L SUM	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501
0.1	L SUM	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701
0.1	L SUM	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801
18	SQ FT	SIGN PANEL - TYPE 1
30	SQ FT	SIGN PANEL - TYPE 2
648	FOOT	THERMOPLASTIC PAVEMENT MARKING - LINE 12"
165	FOOT	THERMOPLASTIC PAVEMENT MARKING - LINE 24"
982	SQ FT	THERMOPLASTIC PAVEMENT MARKING REMOVAL
385	FOOT	CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL
7	FOOT	CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL
5	FOOT	CONDUIT IN TRENCH, 5" DIA., GALVANIZED STEEL
292	FOOT	CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL
67	FOOT	CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL
17	FOOT	CONDUIT PUSHED, 3" DIA., GALVANIZED STEEL
220	FOOT	CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL
86	FOOT	CONDUIT PUSHED, 5" DIA., GALVANIZED STEEL
4	EACH	HANDHOLE
4	EACH	HEAVY-DUTY HANDHOLE
2	EACH	DOUBLE HANDHOLE
397	FOOT	TRENCH AND BACKFILL FOR ELECTRICAL WORK
1	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL
1	EACH	TRANSCIVER - FIBER OPTIC
1014	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C
1260	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
1871	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C
1471	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C
3438	FOOT	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1-PAIR
162	FOOT	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C
447	FOOT	ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C

QUANTITY	UNIT	ITEM
277	FOOT	ELECTRIC CABLE IN CONDUIT, NO. 20 3C, TWISTED, SHIELDED
4	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.
2	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 38 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 42 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 44 FT.
16	FOOT	CONCRETE FOUNDATION, TYPE A
4	FOOT	CONCRETE FOUNDATION, TYPE C
30	FOOT	CONCRETE FOUNDATION, TYPE E 30" DIAMETER
30	FOOT	CONCRETE FOUNDATION, TYPE E 36" DIAMETER
14	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM
14	EACH	INDUCTIVE LOOP DETECTOR
1079	FOOT	DETECTOR LOOP, TYPE 1
6	EACH	PEDESTRIAN PUSH-BUTTON
1	EACH	TEMPORARY TRAFFIC SIGNAL INSTALLATION
2*	EACH	RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, DETECTOR UNIT
1*	EACH	RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
7	EACH	REMOVE EXISTING HANDHOLE
9	EACH	REMOVE EXISTING CONCRETE FOUNDATION
10	EACH	SIGNAL HEAD, L.E.D., 1-FACE, 3-SECTION, MAST ARM MOUNTED
4	EACH	SIGNAL HEAD, L.E.D., 1-FACE, 5-SECTION, BRACKET MOUNTED
4	EACH	SIGNAL HEAD, L.E.D., 1-FACE, 5-SECTION, MAST ARM MOUNTED
4	EACH	PEDESTRIAN SIGNAL HEAD, L.E.D., 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
2	EACH	PEDESTRIAN SIGNAL HEAD, L.E.D., 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
1	EACH	TEMPORARY TRAFFIC SIGNAL TIMINGS
1	EACH	SERVICE INSTALLATION, POLE MOUNT
1	EACH	UNINTERRUPTIBLE POWER SUPPLY

NOTE:
 PUSHBUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4
 PUSHBUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8

CABLE PLAN LEGEND

- PROPOSED**
- EXISTING**
- 8" (200mm) TRAFFIC SIGNAL SECTION
- 12" (300mm) TRAFFIC SIGNAL SECTION
- 12" (300mm) PEDESTRIAN SIGNAL SECTION
- 12" (300mm) PEDESTRIAN SIGNAL SECTION
- CONTROLLER CABINET
- SERVICE INSTALLATION
- TELEPHONE CONNECTION
- MAGNETIC DETECTOR
- PUSHBUTTON DETECTOR
- VEHICLE DETECTOR, INDUCTION LOOP
- DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
- SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD
- RAILROAD CONTROL CABINET
- ILLUMINATED SIGN, FIBER OPTIC "NO LEFT TURN"
- ILLUMINATED SIGN, FIBER OPTIC "NO RIGHT TURN"
- GROUND ROD AT HANDHOLE, DOUBLE HANDHOLE, OR CONTROLLER
- GROUND ROD AT POST OR MAST ARM POLE
- GROUND ROD AT ELECTRIC SERVICE INSTALLATION
- GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
- FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F & SM12F
- MICROWAVE VEHICLE SENSOR
- VIDEO DETECTOR
- CLOSED CIRCUIT TV
- EMERGENCY VEHICLE LIGHT DETECTOR
- CONFIRMATION BEACON
- UNINTERRUPTIBLE POWER SUPPLY
- PEDESTRIAN SIGNAL HEAD WITH COUNTDOWN TIMER

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

* 100% COST TO VILLAGE OF FRANKLIN PARK

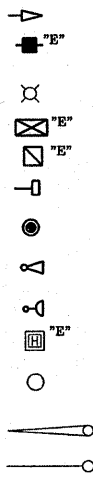
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

PROPOSED CABLE PLAN
 US 12/2045 (MANNHEIM ROAD) AT FULLERTON AVENUE
 SCALE: NTS SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2008-006 TS	COOK	104	25
CONTRACT NO. 60E31				
FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT				

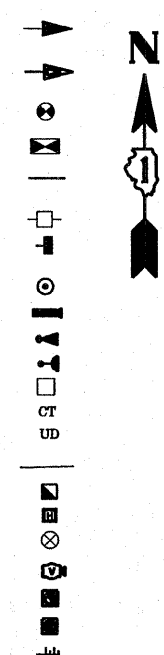
EXISTING EQUIPMENT TO BE REMOVED LEGEND

- EXISTING SIGNAL HEAD TO BE REMOVED
- EXISTING SERVICE INSTALLATION TO BE REMOVED
- EXISTING STREET LIGHT, FOUNDATION AND LUMINAIRE TO REMAIN
- EXISTING CONTROLLER TO BE REMOVED
- EXISTING HANDHOLE TO BE REMOVED
- EXISTING PEDESTRIAN SIGNAL HEAD TO BE REMOVED
- EXISTING PEDESTRIAN PUSH BUTTON TO BE REMOVED
- EMERGENCY VEHICLE LIGHT DETECTOR TO BE REMOVED
- CONFIRMATION BEACON TO BE REMOVED
- EXISTING HEAVY-DUTY HANDHOLE TO BE REMOVED
- EXISTING SIGNAL POST AND FOUNDATION TO BE REMOVED
- EXISTING ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED
- EXISTING STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVED



TEMPORARY TRAFFIC SIGNAL LEGEND

- TEMPORARY TRAFFIC SIGNAL HEAD
- SPAN WIRE MOUNTED ORIGINAL LOCATION
- TEMPORARY TRAFFIC SIGNAL HEAD
- SPAN WIRE MOUNTED SECONDARY LOCATION
- TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT MINIMUM
- TEMPORARY CONTROLLER CABINET
- TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE
- TEMPORARY SERVICE INSTALLATION
- TEMPORARY PEDESTRIAN SIGNAL HEAD, BRACKET MOUNTED
- TEMPORARY PEDESTRIAN PUSHBUTTON DETECTOR
- MICROWAVE VEHICLE SENSOR
- EMERGENCY VEHICLE LIGHT DETECTOR
- CONFIRMATION BEACON
- VEHICLE DETECTOR, INDUCTION LOOP
- COMMON TRENCH
- UNIT DUCT
- G.S. CONDUIT IN TRENCH OR PUSHED HANDHOLE
- HEAVY-DUTY HANDHOLE
- EXISTING WOOD POLE
- VIDEO DETECTOR
- ILLUMINATED SIGN "NO LEFT TURN"
- ILLUMINATED SIGN "NO RIGHT TURN"
- WIRELESS INTERCONNECT (ANTENNA)



CAUTION
WALK TIME SHORTENED WHEN TRAIN APPROACHES

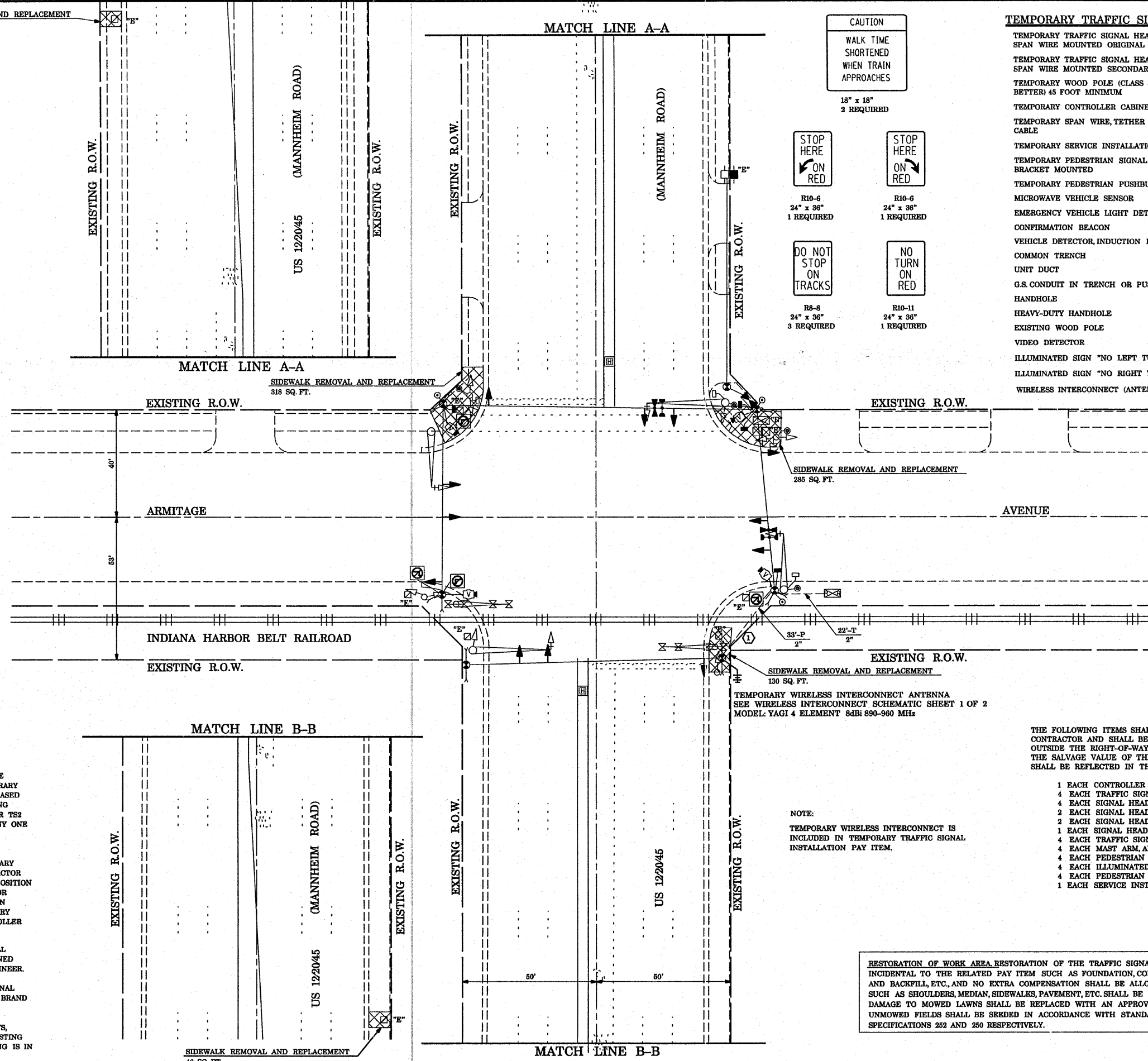
18" x 18"
2 REQUIRED

STOP HERE ON RED
R10-6
24" x 36"
1 REQUIRED

STOP HERE ON RED
R10-6
24" x 36"
1 REQUIRED

DO NOT STOP ON TRACKS
R8-8
24" x 36"
3 REQUIRED

NO TURN ON RED
R10-11
24" x 36"
1 REQUIRED



CONSTRUCTION NOTES:

- ① CONDUIT SHALL BE PLACED MINIMUM OF 4" UNDER THE TRACKS

NOTES FOR TEMPORARY TRAFFIC SIGNALS

1. ALL CONTROL EQUIPMENT INCLUDING EMERGENCY PRE-EMPTION AND COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNAL(S) SHALL BE FURNISHED BY THE CONTRACTOR.
2. ONLY CONTROLLERS SUPPLIED BY ONE OF THE DISTRICT APPROVED CLOSED LOOP EQUIPMENT MANUFACTURERS WILL BE APPROVED FOR USE AT TEMPORARY SIGNAL LOCATIONS. ALL CONTROLLERS USED FOR TEMPORARY TRAFFIC SIGNALS SHALL BE FULLY ACTUATED NEMA MICROPROCESSOR BASED WITH RS232 DATA ENTRY PORTS COMPATIBLE WITH EXISTING MONITORING SOFTWARE APPROVED BY IDOT DISTRICT 1, INSTALLED IN A NEMA TS1 OR TS2 CABINET. ONLY ONE BRAND OF CONTROLLER WILL BE ACCEPTED FOR ANY ONE CONTRACT.
3. ALL TRAFFIC SIGNAL SECTIONS AND PEDESTRIAN SIGNAL SECTIONS SHALL BE 12". HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL FURNISH ENOUGH CABLE SLACK TO RELOCATE HEADS TO ANY POSITION ON THE SPAN WIRE OR AT LOCATIONS ILLUSTRATED ON THE PLANS FOR CONSTRUCTION STAGING. THE TEMPORARY TRAFFIC SIGNAL SHALL REMAIN IN OPERATION DURING ALL SIGNAL HEAD RELOCATIONS. EACH TEMPORARY TRAFFIC SIGNAL HEAD SHALL HAVE ITS OWN CABLE FROM THE CONTROLLER CABINET TO THE SIGNAL HEAD.
4. ALL EXISTING STREET NAME AND INTERSECTION REGULATORY SIGNS SHALL BE REMOVED FROM EXISTING POLES, RELOCATED AND SECURELY FASTENED TO THE SIGNAL SPAN WIRE OR WOOD POLE AS DIRECTED BY THE ENGINEER.
5. ANY TEMPORARY SIGNAL WITHIN AN EXISTING CLOSED LOOP TRAFFIC SIGNAL SYSTEM SHALL BE INTERCONNECTED TO THAT SYSTEM USING SIMILAR BRAND CONTROL EQUIPMENT.
6. THE TEMPORARY TRAFFIC SIGNAL SHALL HAVE THE SIGNAL HEAD DISPLAYS, SIGNAL HEAD PLACEMENTS AND CONTROLLER PHASING MATCH THE EXISTING TRAFFIC SIGNAL, AT THE TIME OF THE TURN ON, IF NO TRAFFIC STAGING IS IN PLACE OR WILL NOT BE STAGED ON THE DAY OF THE TURN ON.

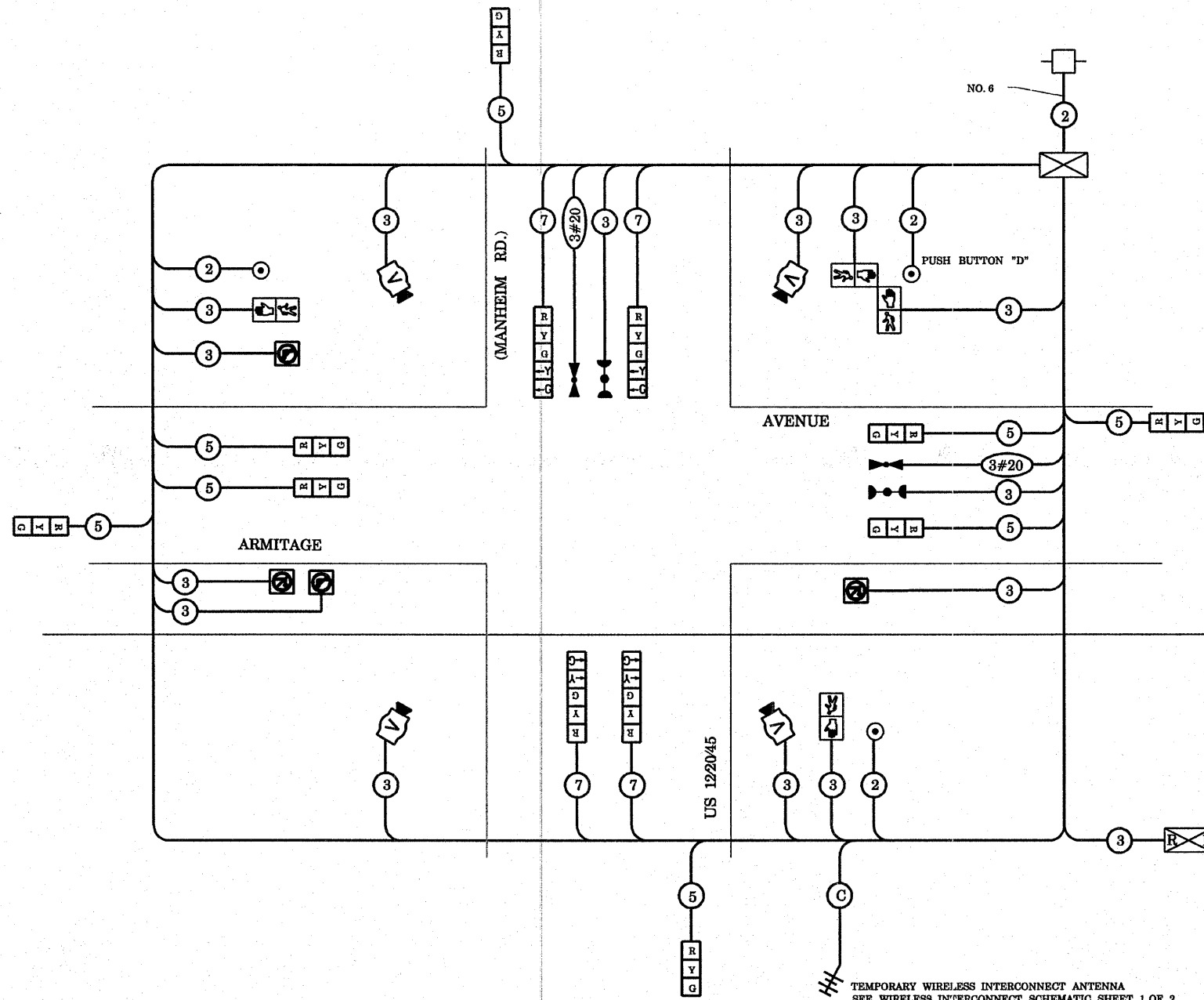
THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

- 1 EACH CONTROLLER AND TYPE IV CABINET
- 4 EACH TRAFFIC SIGNAL BACKPLATE
- 4 EACH SIGNAL HEAD, 1-FACE, 3-SECTION
- 2 EACH SIGNAL HEAD, 1-FACE, 5-SECTION
- 2 EACH SIGNAL HEAD, 2-FACE, 3-SECTION
- 1 EACH SIGNAL HEAD, 2-FACE, 1-3 SECTION
- 4 EACH TRAFFIC SIGNAL POST
- 4 EACH MAST ARM, ALUMINUM
- 4 EACH PEDESTRIAN PUSH-BUTTON
- 4 EACH ILLUMINATED SIGN, FIBER OPTIC
- 4 EACH PEDESTRIAN SIGNAL HEAD
- 1 EACH SERVICE INSTALLATION













NOTE:
TEMPORARY WIRELESS INTERCONNECT IS INCLUDED IN TEMPORARY TRAFFIC SIGNAL INSTALLATION PAY ITEM.

RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIAN, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

FILE NAME =	USER NAME = kenthphxybc	DESIGNED - N.B.	REVISED -	F.A.P. RTE. 330	SECTION 2008-006 TS	COUNTY COOK	TOTAL SHEETS 104	SHEET NO. 27
PROJECTS\traffic\1070027\us12_20_45.dgn		DRAWN - N.B.	REVISED -	TEMPORARY TRAFFIC SIGNAL AND REMOVAL PLAN				
		CHECKED - D.B.	REVISED -	US 12/2045 (MANNHEIM ROAD) AT ARMITAGE AVENUE				
		DATE - 09/04/2008	REVISED -	SCALE: 1"=20'	SHEET NO. OF SHEETS	STA. TO STA.	CONTRACT NO. 60E31	
				STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT		



TEMPORARY CABLE DIAGRAM LEGEND

-  TEMPORARY TRAFFIC SIGNAL SECTION OR PEDESTRIAN SIGNAL SECTION, 12" (300 mm)
-  TEMPORARY CONTROLLER CABINET
-  TEMPORARY SERVICE INSTALLATION
-  INDICATES NUMBER OF CONDUCTORS IN CABLE. ALL CONDUCTORS TO BE NUMBERED 14 AWG WIRE UNLESS OTHERWISE NOTED.
-  EMERGENCY VEHICLE LIGHT DETECTOR
-  CONFIRMATION BEACON
-  PEDESTRIAN PUSHBUTTON DETECTOR
-  VEHICLE DETECTOR, INDUCTION LOOP
-  12" (300 mm) PEDESTRIAN SIGNAL SECTION
-  MICROWAVE VEHICLE SENSOR
-  VIDEO DETECTOR
-  WIRELESS INTERCONNECT (ANTENNA)

* TEMPORARY WIRELESS INTERCONNECT IS INCLUDED IN TEMPORARY TRAFFIC SIGNAL INSTALLATION PAY ITEM

TEMPORARY WIRELESS INTERCONNECT ANTENNA
SEE WIRELESS INTERCONNECT SCHEMATIC SHEET 1 OF 2

TEMPORARY CABLE PLAN

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

NOTE:
PUSHBUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8

LD.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE		% OPERATION	
		INCAND.	LED		
SIGNAL (RED)	12		17	0.50	102.00
(YELLOW)	12		25	0.25	75.00
(GREEN)	12		15	0.25	45.00
ARROW			12	0.10	
PED. SIGNAL	4		25	1.00	100.00
CONTROLLER	1		100	1.00	100.00
ILLUM. SIGN	3			0.05	0.15
FLASHER				0.05	-
ENERGY COSTS TO: VILLAGE OF MELROSE PARK 1000 N. 25TH AVENUE MELROSE PARK, IL 60160					TOTAL = 422.15
ENERGY SUPPLY CONTACT: MR. MIKE BELL PHONE: (708) 410-5314 COMPANY: COMED					

FILE NAME =	USER NAME = kenthaphixaybc	DESIGNED - N.B.	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TEMPORARY CABLE PLAN US 122045 (MANNHEIM ROAD) AT ARMITAGE AVENUE	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
ci:\projects\traffic\1070027\us12.20.45.dgn		DRAWN - N.B.	REVISED -			330	2008-006 TS	COOK	104	28	
		CHECKED - D.B.	REVISED -			CONTRACT NO. 60E31					
		DATE - 09/04/2008	REVISED -			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					
				SCALE: NTS	SHEET NO. OF SHEETS	STA.	TO STA.				

SEQUENCE OF OPERATION

MOVEMENT																F				
PHASE	1 + 5				1 + 6				2 + 5				2 + 6			4 + 8				L
INTERVAL	1	2	3	4	5	6	7	8	9	10	11	12A	12B	13	14	15A	15B	A		
CHANGE TO		1+6	2+5	2+6		2+6	φ	φ	2+6			4+8				1+5	1+6	S		
U.S. RTE 12-45 (MANNHEIM RD.) NEAR RIGHT AND FAR RIGHT SPAN WIRE SIGNALS	N/B	R	R	R	R	R	R	G	G	G	G	G	G	Y	R	R	R	R		
U.S. RTE 12-45 (MANNHEIM RD.) FAR LEFT SPAN WIRE SIGNALS	N/B	R	R	R	R	R	R	G	G	G	G	G	G	Y	R	R	R	R		
U.S. RTE 12-45 (MANNHEIM RD.) NEAR RIGHT AND FAR RIGHT SPAN WIRE SIGNALS	S/B	R	R	R	R	G	G	R	R	R	G	G	Y	R	R	R	R	R		
U.S. RTE 12-45 (MANNHEIM RD.) FAR LEFT SPAN WIRE SIGNALS	S/B	R	R	R	R	G	G	R	R	R	G	G	Y	R	R	R	R	R		
ARMITAGE AVENUE ALL SIGNALS	E/B	R	R	R	R	R	R	R	R	R	R	R	R	R	G	G	Y	R	R	
ARMITAGE AVENUE ALL SIGNALS	W/B	R	R	R	R	R	R	R	R	R	R	R	R	R	G	G	Y	R	R	
PEDESTRIAN SIGNALS CROSSING U.S. RTE 12-45 (MANNHEIM RD.) ON NORTH SIDE OF ARMITAGE AVE.		H	H	H	H	H	H	H	H	H	H	H	H	H	*P	*FH	H	H	D	
PEDESTRIAN SIGNALS CROSSING ARMITAGE AVE. ON EAST SIDE OF U.S. RTE 12-45 (MANNHEIM RD.)		H	H	H	H	H	H	*P	*FH	H	*P	*FH	H	H	H	H	H	H	R	

* TO APPEAR ONLY UPON PUSHBUTTON ACTUATION

** FLASHING "H" IS TO TERMINATE AT THE COMPLETION OF THE PEDESTRIAN INTERVAL CLEARANCE.

φ THIS "H" OR FLASHING "H" INTERVAL MAY FINISH TIMING IN THE BIDIRECTIONAL STRAIGHT THROUGH MOVEMENT IF THE LEFT ARROW TIME IS NOT SUFFICIENT TO COMPLETE "H" OR FLASHING "H" INTERVALS.

P = ILLUMINATED PERSON = WALK

FH = ILLUMINATED FLASHING HAND = FLASHING DON'T WALK

H = ILLUMINATED SOLID HAND = DON'T WALK

PHASE 2+6 SHALL BE PLACED ON RECALL.

RAILROAD PREEMPTION SEQUENCE OF OPERATION

CHANGE FROM NORMAL SEQUENCE OF OPERATION INTERVAL NUMBER																PREEMPTOR NUMBER 3	PREEMPTOR NUMBER 4	PREEMPTOR NUMBER 2
	1	5	7	10	13													
CHANGE FROM EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER																2	3	
RAILROAD PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER	1A	1B	1C	1D	1E	1F	1G	1H	1J	1K	1L	1M	2	3	4	5	CLEAR TO NORMAL SEQUENCE	
U.S. RTE 12-45 (MANNHEIM RD.) NEAR RIGHT AND FAR RIGHT SPAN WIRE SIGNALS	N/B	R	R	R	G	G	G	R	R	G	G	R	R	G	Y	R	R	Δ
U.S. RTE 12-45 (MANNHEIM RD.) FAR LEFT SPAN WIRE SIGNALS	N/B	R	R	R	G	G	G	R	R	G	G	R	R	G	Y	R	R	Δ
U.S. RTE 12-45 (MANNHEIM RD.) NEAR RIGHT AND FAR RIGHT SPAN WIRE SIGNALS	S/B	R	Y	R	R	Y	R	R	R	Y	R	R	R	R	R	R	R	Δ
U.S. RTE 12-45 (MANNHEIM RD.) FAR LEFT SPAN WIRE SIGNALS	S/B	R	Y	R	R	Y	R	R	R	Y	R	R	R	R	R	R	R	Δ
ARMITAGE AVENUE ALL SIGNALS	E/B	R	R	R	R	R	R	Y	R	R	R	Y	R	R	R	R	G	Δ
ARMITAGE AVENUE ALL SIGNALS	W/B	R	R	R	R	R	R	Y	R	R	R	Y	R	R	R	R	G	Δ
PEDESTRIAN SIGNALS CROSSING U.S. RTE 12-45 (MANNHEIM RD.) ON NORTH SIDE OF ARMITAGE AVE.		H	H	H	H	H	H	FH	H	H	H	H	H	H	H	H	H	Δ
PEDESTRIAN SIGNALS CROSSING ARMITAGE AVE. ON EAST SIDE OF U.S. RTE 12-45 (MANNHEIM RD.)		H	H	H	FH	FH	H	H	H	H	H	H	H	H	H	H	H	Δ
INTERNALLY ILLUMINATED NRT SIGNS		NRT	NRT	NRT	NRT	NRT	NRT	NRT	NRT	NRT	NRT	NRT	NRT	NRT	NRT	NRT	NRT	Δ
INTERNALLY ILLUMINATED NLT SIGNS		NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	Δ

Δ RAILROAD PREEMPTION SEQUENCE SHALL PROVIDE THE PROPER CLEARANCE INTERVAL TO RESUME THE NORMAL SEQUENCE OF OPERATION OR PROPER CLEARANCE INTERVAL TO DISPLAY AN EMERGENCY VEHICLE INTERVAL (IF APPLICABLE) AFTER RAILROAD PREEMPTION INTERVAL 5 IS TERMINATED.

EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION

CHANGE FROM NORMAL SEQUENCE OF OPERATION INTERVAL NUMBER																PREEMPTOR NUMBER 3	PREEMPTOR NUMBER 4				
	1	5	5	7	7	10	10	13	13												
EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER	1A	1B	1C	1D	1E	1F	1G	1H	1J	1K	1L	1M	1N	1P	1Q	1R	1S	2	3	CLEAR TO NORMAL SEQUENCE	
CHANGE TO EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER	2 OR 3	2	1D	3	1F	2	1H	1J	3	2	1M	1N	3	1Q	1R	2	3	Δ			
U.S. RTE 12-45 (MANNHEIM RD.) NEAR RIGHT AND FAR RIGHT SPAN WIRE SIGNALS	N/B	R	R	R	R	G	G	G	Y	R	G	G	Y	R	R	R	R	R	G	R	Δ
U.S. RTE 12-45 (MANNHEIM RD.) FAR LEFT SPAN WIRE SIGNALS	N/B	R	R	R	R	G	G	G	Y	R	G	G	Y	R	R	R	R	R	G	R	Δ
U.S. RTE 12-45 (MANNHEIM RD.) NEAR RIGHT AND FAR RIGHT SPAN WIRE SIGNALS	S/B	R	G	Y	R	R	R	R	R	R	G	G	Y	R	R	R	R	R	G	R	Δ
U.S. RTE 12-45 (MANNHEIM RD.) FAR LEFT SPAN WIRE SIGNALS	S/B	R	G	Y	R	R	R	R	R	R	G	G	Y	R	R	R	R	R	G	R	Δ
ARMITAGE AVENUE ALL SIGNALS	E/B	R	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	G	R	G	Δ
ARMITAGE AVENUE ALL SIGNALS	W/B	R	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	G	R	G	Δ
PEDESTRIAN SIGNALS CROSSING U.S. RTE 12-45 (MANNHEIM RD.) ON NORTH SIDE OF ARMITAGE AVE.		H	H	H	H	H	H	H	H	H	H	H	H	H	FH	H	H	FH	H	H	Δ
PEDESTRIAN SIGNALS CROSSING ARMITAGE AVE. ON EAST SIDE OF U.S. RTE 12-45 (MANNHEIM RD.)		H	H	H	H	FH	H	FH	H	H	FH	FH	H	H	H	H	H	H	H	H	Δ

◇ EMERGENCY VEHICLE SEQUENCE SHALL PROVIDE THE PROPER CLEARANCE INTERVAL TO RESUME THE NORMAL SEQUENCE OF OPERATION OR PROPER CLEARANCE INTERVAL TO DISPLAY A DIFFERENT EMERGENCY INTERVAL AFTER EMERGENCY VEHICLE INTERVAL 2 OR 3 IS TERMINATED.

MATCH LINE A-A

R10-6 24" x 36" 1 REQUIRED	R10-6 24" x 36" 1 REQUIRED	R8-8 24" x 36" 3 REQUIRED	R10-11 24" x 36" 1 REQUIRED	18" x 18" 2 REQUIRED

RESTORATION OF WORK AREA RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIAN, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDING IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

INTERCONNECT TO FULLERTON AVE. (SEE INTERCONNECT PLAN)
INTERCEPT EXISTING CONDUIT WITH PROPOSED HANDHOLE
PROPOSED INTERSECTION AND SAMPLING (SYSTEM) DETECTORS

US 122045 (MANNHEIM ROAD)

155'-T
2"

MATCH LINE A-A

TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING
CONTROLLER		
RAILROAD CONTROL CABINET		
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNTED		
SIGNAL HEAD		
SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD, PEDESTRIAN		
SIGNAL POST		
MAST ARM ASSEMBLY AND POLE, STEEL		
MAST ARM ASSEMBLY AND POLE, ALUMINUM		
COMMON TRENCH		
UNIT DUCT		
HANDHOLE		
HEAVY DUTY HANDHOLE		
DOUBLE HANDHOLE		
G.S.CONDUIT IN TRENCH OR PUSHED		
CAST IRON JUNCTION BOX		
SIGNAL HEAD OPTICALLY PROGRAMMED		
CONDUIT SPLICE		
WOOD POLE		
RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II		
VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE		
RAILROAD CONTROL CABINET		
ILLUMINATED SIGN, FIBER OPTIC "NO LEFT TURN"		
ILLUMINATED SIGN, FIBER OPTIC "NO RIGHT TURN"		
TELEPHONE CONNECTION		
PEDESTRIAN PUSHBUTTON DETECTOR		
DETECTOR LOOP, TYPE I		
PREFORMED DETECTOR LOOP		
VIDEO DETECTOR		
CLOSED CIRCUIT TV		
EMERGENCY VEHICLE SYSTEM DETECTOR		
CONFIRMATION BEACON		
UNINTERRUPTABLE POWER SUPPLY		

EXISTING R.O.W.

ARMITAGE

EXISTING R.O.W.

INDIANA HARBOR BELT RAILROAD

EXISTING R.O.W.

CONSTRUCTION NOTES:

- RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, DETECTOR UNIT AND CONFIRMATION BEACON TO NEW MAST ARM.
- RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT TO NEW TRAFFIC SIGNAL CONTROLLER.
- RE-STRIPE EXISTING THERMOPLASTIC PAVEMENT MARKING STOP LINE WITH HIGH VISIBILITY THERMOPLASTIC PAVEMENT MARKING STOP LINE 24" (TYP.)
- CONDUIT SHALL BE PLACED MINIMUM OF 4" UNDER THE TRACKS

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

EXISTING R.O.W.

US 122045 (MANNHEIM ROAD)

EXISTING R.O.W.

MATCH LINE B-B

EXISTING R.O.W.

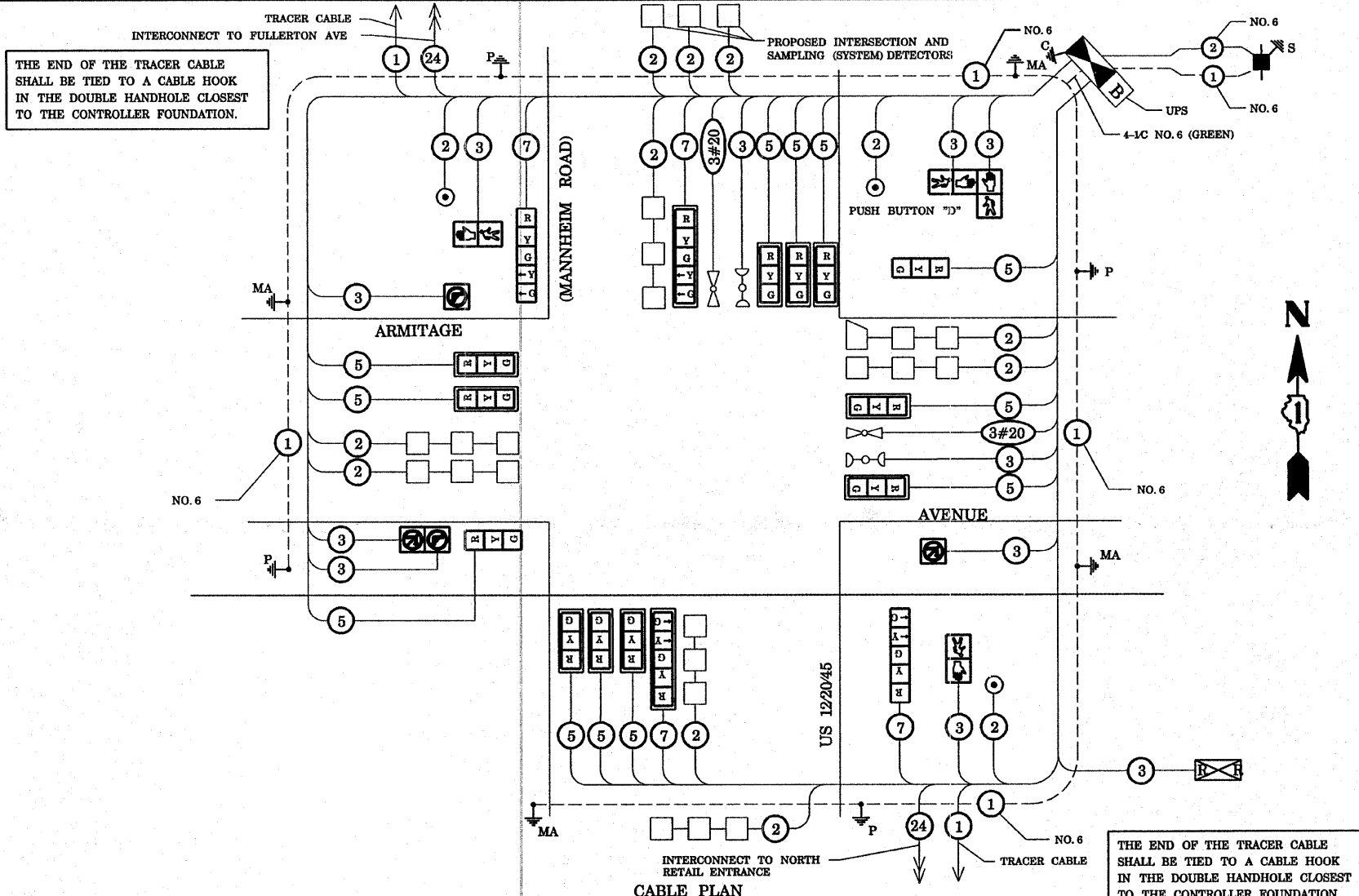
US 122045 (MANNHEIM ROAD)

EXISTING R.O.W.

INTERCEPT EXISTING CONDUIT WITH PROPOSED HANDHOLE
INTERCONNECT TO NORTH RETAIL ENTRANCE (SEE INTERCONNECT PLAN)

MATCH LINE B-B

FILE NAME = c:\projects\traffic\1070027\us12_20_45.dgn	USER NAME = kanthaphixaybc	DESIGNED - N.B.	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PROPOSED TRAFFIC SIGNAL PLAN US 122045 (MANNHEIM ROAD) AT ARMITAGE AVENUE				F.A.P. RTE. 330	SECTION 2008-006 TS	COUNTY COOK	TOTAL SHEETS 104	SHEET NO. 30
PLOT SCALE = 1/8" = 1'-0"	CHECKED - D.B.	REVISED -	REVISED -		SCALE: 1" = 20'	SHEET NO.	OF SHEETS	STA.	TO STA.	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT	CONTRACT NO. 60E31	
PLOT DATE = 10/18/2008	DATE = 09/04/2008	REVISED -	REVISED -										



THE END OF THE TRACER CABLE SHALL BE TIED TO A CABLE HOOK IN THE DOUBLE HANDHOLE CLOSEST TO THE CONTROLLER FOUNDATION.

THE END OF THE TRACER CABLE SHALL BE TIED TO A CABLE HOOK IN THE DOUBLE HANDHOLE CLOSEST TO THE CONTROLLER FOUNDATION.

CABLE PLAN LEGEND

- | PROPOSED | EXISTING | |
|----------|----------|---|
| | | 8" (200mm) TRAFFIC SIGNAL SECTION |
| | | 12" (300mm) TRAFFIC SIGNAL SECTION |
| | | 12" (300mm) PEDESTRIAN SIGNAL SECTION |
| | | 12" (300mm) PEDESTRIAN SIGNAL SECTION |
| | | CONTROLLER CABINET SERVICE INSTALLATION |
| | | TELEPHONE CONNECTION |
| | | MAGNETIC DETECTOR |
| | | PUSHBUTTON DETECTOR |
| | | VEHICLE DETECTOR, INDUCTION LOOP |
| | | DENOTES NUMBER OF CONDUCTORS, ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED. |
| | | SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD |
| | | RAILROAD CONTROL CABINET |
| | | ILLUMINATED SIGN, FIBER OPTIC "NO LEFT TURN" |
| | | ILLUMINATE SIGN, FIBER OPTIC "NO RIGHT TURN" |
| | | GROUND ROD AT HANDHOLE, DOUBLE HANDHOLE, OR CONTROLLER |
| | | GROUND ROD AT POST OR MAST ARM POLE |
| | | GROUND ROD AT ELECTRIC SERVICE INSTALLATION |
| | | GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN) |
| | | FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F & SM12F |
| | | MICROWAVE VEHICLE SENSOR |
| | | VIDEO DETECTOR |
| | | CLOSED CIRCUIT TV |
| | | EMERGENCY VEHICLE LIGHT DETECTOR |
| | | CONFIRMATION BEACON |
| | | UNINTERRUPTIBLE POWER SUPPLY |

CABLE PLAN SCHEDULE OF QUANTITIES

QUANTITY	UNIT	ITEM
825	SQ FT	PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH
825	SQ FT	SIDEWALK REMOVAL
0.1	L SUM	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501
0.1	L SUM	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701
0.1	L SUM	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801
68.5	SQ FT	SIGN PANEL - TYPE 1
30	SQ FT	SIGN PANEL - TYPE 2
272	FOOT	THERMOPLASTIC PAVEMENT MARKING - LINE 12"
134	FOOT	THERMOPLASTIC PAVEMENT MARKING - LINE 24"
264	SQ FT	THERMOPLASTIC PAVEMENT MARKING REMOVAL
449	FOOT	CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL
39	FOOT	CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL
10	FOOT	CONDUIT IN TRENCH, 4" DIA., GALVANIZED STEEL
191	FOOT	CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL
38	FOOT	CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL
342	FOOT	CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL
8	EACH	HANDHOLE
2	EACH	HEAVY-DUTY HANDHOLE
1	EACH	DOUBLE HANDHOLE
493	FOOT	TRENCH AND BACKFILL FOR ELECTRICAL WORK
1	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL
1	EACH	TRANSCIEVER - FIBER OPTIC
300	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C
1461	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
2092	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C
703	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C
2250	FOOT	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1-PAIR
103	FOOT	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C
669	FOOT	ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C
244	FOOT	ELECTRIC CABLE IN CONDUIT, NO. 20 3C, TWISTED, SHIELDED
128	FOOT	ELECTRIC CABLE IN CONDUIT, RAILROAD NO. 14 3C
2	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.

QUANTITY	UNIT	ITEM
2	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.
2	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 20 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 42 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 46 FT.
16	FOOT	CONCRETE FOUNDATION, TYPE A
4	FOOT	CONCRETE FOUNDATION, TYPE C
30	FOOT	CONCRETE FOUNDATION, TYPE E 30" DIAMETER
30	FOOT	CONCRETE FOUNDATION, TYPE E 36" DIAMETER
12	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM
10	EACH	INDUCTIVE LOOP DETECTOR
800	FOOT	DETECTOR LOOP, TYPE I
3	EACH	PEDESTRIAN PUSH-BUTTON
1	EACH	TEMPORARY TRAFFIC SIGNAL INSTALLATION
4	EACH	ILLUMINATED SIGN, L.E.D.
2*	EACH	RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, DETECTOR UNIT
1*	EACH	RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
6	EACH	REMOVE EXISTING HANDHOLE
9	EACH	REMOVE EXISTING CONCRETE FOUNDATION
10	EACH	SIGNAL HEAD, L.E.D., 1-FACE, 3-SECTION, MAST ARM MOUNTED
2	EACH	SIGNAL HEAD, L.E.D., 1-FACE, 3-SECTION, BRACKET MOUNTED
2	EACH	SIGNAL HEAD, L.E.D., 1-FACE, 5-SECTION, BRACKET MOUNTED
2	EACH	SIGNAL HEAD, L.E.D., 1-FACE, 5-SECTION, MAST ARM MOUNTED
2	EACH	PEDESTRIAN SIGNAL HEAD, L.E.D., 1-FACE, BRACKET MOUNTED
1	EACH	PEDESTRIAN SIGNAL HEAD, L.E.D., 2-FACE, BRACKET MOUNTED
1	EACH	TEMPORARY TRAFFIC SIGNAL TIMINGS
1	EACH	SERVICE INSTALLATION, POLE MOUNT
1	EACH	UNINTERRUPTIBLE POWER SUPPLY
1	EACH	RAILROAD PROTECTIVE LIABILITY INSURANCE
1	EACH	RAILROAD, FULL-ACTUATED CONTROLLER AND TYPE V CABINET (SPECIAL)

TYPE	NO. LAMPS	WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	16	17	0.50	136.00
(YELLOW)	16	25	0.25	100.00
(GREEN)	16	15	0.25	60.00
ARROW	8	12	0.10	9.60
PED. SIGNAL	4	25	1.00	100.00
CONTROLLER	1	100	1.00	100.00
ILLUM. SIGN	4	84	0.05	16.80
FLASHER			0.05	-
ENERGY COSTS TO:				TOTAL = 522.40
VILLAGE OF MELROSE PARK				
1000 N. 25TH AVENUE				
MELROSE PARK, IL 60160				
ENERGY SUPPLY CONTACT: MR. MIKE BELL				
PHONE: (708) 410-5314				
COMPANY: COMED				

NOTE:
PUSHBUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8

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

SEQUENCE OF OPERATION

MOVEMENT	1		6 1		5 2		6 2		8		F								
PHASE	1 + 5		1 + 6		2 + 5		2 + 6		4 + 8		L								
INTERVAL	1	2	3	4	5	6	7	8	9	10	11	12A	12B	13	14	15A	15B	S	
CHANGE TO	/		/		/		/		/		/		/		/		/		H
U.S. RTE 12-45 (MANNHEIM RD.) FAR RIGHT AND RIGHT MAST ARM SIGNALS	N/B	R	R	R	R	R	G	G	G	G	G	Y	R	R	R	R	R	R	
U.S. RTE 12-45 (MANNHEIM RD.) FAR LEFT AND END MAST ARM SIGNALS	N/B	R	R	R	R	R	G	G	G	G	Y	R	R	R	R	R	R	R	
U.S. RTE 12-45 (MANNHEIM RD.) FAR RIGHT AND RIGHT MAST ARM SIGNALS	S/B	R	R	R	R	G	G	R	R	R	G	Y	R	R	R	R	R	R	
U.S. RTE 12-45 (MANNHEIM RD.) FAR LEFT AND END MAST ARM SIGNALS	S/B	R	R	R	R	G	G	R	R	R	G	Y	R	R	R	R	R	R	
ARMITAGE AVENUE ALL SIGNALS	E/B	R	R	R	R	R	R	R	R	R	R	R	R	R	G	G	Y	R	R
ARMITAGE AVENUE ALL SIGNALS	W/B	R	R	R	R	R	R	R	R	R	R	R	R	R	G	G	Y	R	R
PEDESTRIAN SIGNALS CROSSING U.S. RTE 12-45 (MANNHEIM RD.) ON NORTH SIDE OF ARMITAGE AVE.		H	H	H	H	H	H	H	H	H	H	H	H	H	*P	*FH	H	H	D
PEDESTRIAN SIGNALS CROSSING ARMITAGE AVE. ON EAST SIDE OF U.S. RTE 12-45 (MANNHEIM RD.)		H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	A
																			R
																			K

* TO APPEAR ONLY UPON PUSHBUTTON ACTUATION

** FLASHING "FH" IS TO TERMINATE AT THE COMPLETION OF THE PEDESTRIAN INTERVAL CLEARANCE.

Φ THIS "FH" OR FLASHING "FH" INTERVAL MAY FINISH TIMING IN THE BIDIRECTIONAL STRAIGHT THROUGH MOVEMENT IF THE LEFT ARROW TIME IS NOT SUFFICIENT TO COMPLETE "FH" OR FLASHING "FH" INTERVALS.

P = ILLUMINATED PERSON = WALK

FH = ILLUMINATED FLASHING HAND = FLASHING DON'T WALK

H = ILLUMINATED SOLID HAND = DON'T WALK

PHASE 2+6 SHALL BE PLACED ON RECALL.

RAILROAD PREEMPTION SEQUENCE OF OPERATION

CHANGE FROM NORMAL SEQUENCE OF OPERATION INTERVAL NUMBER	PREEMPTOR NUMBER 3		PREEMPTOR NUMBER 4		PREEMPTOR NUMBER 2													
	1	5	7	10	13													
CHANGE FROM EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER																		
RAILROAD PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER	1A	1B	1C	1D	1E	1F	1G	1H	1J	1K	1L	1M	2	3	4	5	CLEAR TO NORMAL SEQUENCE	
CHANGE TO RAILROAD PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER	2	1C	2	2	1F	2	1H	2	1K	2	1M	2	3	4	5			
U.S. RTE 12-45 (MANNHEIM RD.) FAR RIGHT AND RIGHT MAST ARM SIGNALS	N/B	R	R	R	G	G	G	R	R	G	G	R	R	G	Y	R	R	Δ
U.S. RTE 12-45 (MANNHEIM RD.) FAR LEFT AND END MAST ARM SIGNALS	N/B	R	R	R	G	G	G	R	R	G	G	R	R	G	Y	R	R	Δ
U.S. RTE 12-45 (MANNHEIM RD.) FAR RIGHT AND RIGHT MAST ARM SIGNALS	S/B	R	Y	R	R	Y	R	R	R	Y	R	R	R	R	R	R	R	Δ
U.S. RTE 12-45 (MANNHEIM RD.) FAR LEFT AND END MAST ARM SIGNALS	S/B	R	Y	R	R	Y	R	R	R	Y	R	R	R	R	R	R	R	Δ
ARMITAGE AVENUE ALL SIGNALS	E/B	R	R	R	R	R	R	Y	R	R	R	Y	R	R	R	R	G	Δ
ARMITAGE AVENUE ALL SIGNALS	W/B	R	R	R	R	R	R	Y	R	R	R	Y	R	R	R	R	G	Δ
PEDESTRIAN SIGNALS CROSSING U.S. RTE 12-45 (MANNHEIM RD.) ON NORTH SIDE OF ARMITAGE AVE.		H	H	H	H	H	H	FH	H	H	H	H	H	H	H	H	H	Δ
PEDESTRIAN SIGNALS CROSSING ARMITAGE AVE. ON EAST SIDE OF U.S. RTE 12-45 (MANNHEIM RD.)		H	H	H	FH	FH	H	H	H	H	H	H	H	H	H	H	H	Δ
INTERNALLY ILLUMINATED NRT SIGNS		NRT	NRT	NRT	NRT	NRT	NRT	NRT	NRT	NRT	NRT	NRT	NRT	NRT	NRT	NRT	NRT	Δ
INTERNALLY ILLUMINATED NLT SIGNS		NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	Δ

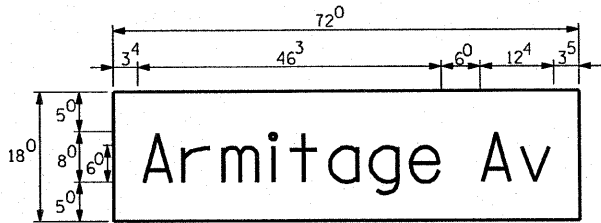
Δ RAILROAD PREEMPTION SEQUENCE SHALL PROVIDE THE PROPER CLEARANCE INTERVAL TO RESUME THE NORMAL SEQUENCE OF OPERATION OR PROPER CLEARANCE INTERVAL TO DISPLAY AN EMERGENCY VEHICLE INTERVAL (IF APPLICABLE) AFTER RAILROAD PREEMPTION INTERVAL 5 IS TERMINATED.

EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION

CHANGE FROM NORMAL SEQUENCE OF OPERATION INTERVAL NUMBER	PREEMPTOR NUMBER 3		PREEMPTOR NUMBER 4																	
	1	5	5	7																
EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER	1A	1B	1C	1D	1E	1F	1G	1H	1J	1K	1L	1M	1N	1P	1Q	1R	1S	2	3	CLEAR TO NORMAL SEQUENCE
CHANGE TO EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER	2	2	1D	3	1F	2	1H	1J	3	2	1M	1N	3	1Q	1R	2	3			◇
U.S. RTE 12-45 (MANNHEIM RD.) FAR RIGHT AND RIGHT MAST ARM SIGNALS	N/B	R	R	R	R	G	G	G	Y	R	G	G	Y	R	R	R	R	G	R	◇
U.S. RTE 12-45 (MANNHEIM RD.) FAR LEFT AND END MAST ARM SIGNALS	N/B	R	R	R	R	G	G	G	Y	R	G	G	Y	R	R	R	R	G	R	◇
U.S. RTE 12-45 (MANNHEIM RD.) FAR RIGHT AND RIGHT MAST ARM SIGNALS	S/B	R	G	Y	R	R	R	R	R	R	G	G	Y	R	R	R	R	G	R	◇
U.S. RTE 12-45 (MANNHEIM RD.) FAR LEFT AND END MAST ARM SIGNALS	S/B	R	G	Y	R	R	R	R	R	R	G	G	Y	R	R	R	R	G	R	◇
ARMITAGE AVENUE ALL SIGNALS	E/B	R	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	G	R	◇
ARMITAGE AVENUE ALL SIGNALS	W/B	R	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	G	R	◇
PEDESTRIAN SIGNALS CROSSING U.S. RTE 12-45 (MANNHEIM RD.) ON NORTH SIDE OF ARMITAGE AVE.		H	H	H	H	H	H	H	H	H	H	H	H	H	FH	H	H	FH	H	◇
PEDESTRIAN SIGNALS CROSSING ARMITAGE AVE. ON EAST SIDE OF U.S. RTE 12-45 (MANNHEIM RD.)		H	H	H	H	FH	FH	H	H	FH	FH	H	H	H	H	H	H	H	H	◇

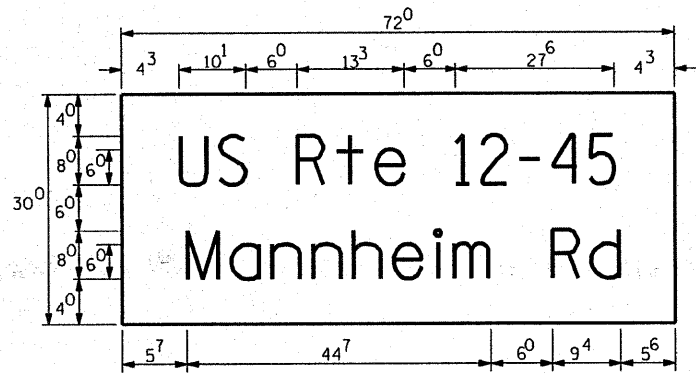
◇ EMERGENCY VEHICLE SEQUENCE SHALL PROVIDE THE PROPER CLEARANCE INTERVAL TO RESUME THE NORMAL SEQUENCE OF OPERATION OR PROPER CLEARANCE INTERVAL TO DISPLAY A DIFFERENT EMERGENCY INTERVAL AFTER EMERGENCY VEHICLE INTERVAL 2 OR 3 IS TERMINATED.

PANEL SIGN DESIGN TYPE 1



Sq. Ft. each
2.00 Sq. Ft. each
2 Required
Design Series D

PANEL SIGN DESIGN TYPE 2



Sq. Ft. each
.15 Sq. Ft. each
2 Required
Design Series C

SUPPORTING CHANNELS

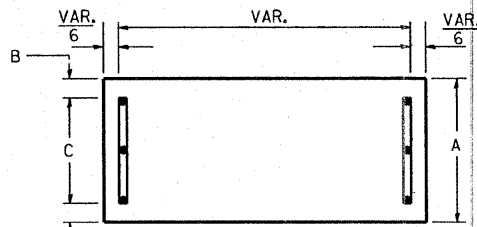
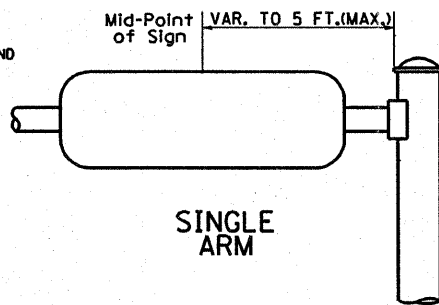


Table with 3 columns (A, B, C) and 2 rows (18", 2", 14")

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 834001, 834006 AND 834011, AS APPLICABLE, PLUS TWO (2) SIGN PANELS 2'-6" x 6'-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 HAVE A WHITE REFLECTORIZED LEGEND AND BORDER ON A GREEN REFLECTORIZED BACKGROUND, TYPE A SHEETING.
3. THE SIGN LENGTH SHOULD BE INCREASED IN 6-INCH INCREMENTS, BUT THE OVERALL LENGTH SHOULD NOT EXCEED 6'-0".
4. ALL BORDERS SHALL BE 3/8" WIDE AND CORNER RADIUS SHALL BE 2-1/4".
5. SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM SHALL BE USED FOR ALL SIGNS ATTACHED TO SIGNAL POLES AND POSTS. LOCAL SUPPLIERS OF THE SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM ARE:
* A.K.T. CORPORATION SCHAUMBURG, IL
* TUCKER COMPANY, INC. WAUWATOSA, WI
* AMERICAN FABRICATION CO. CHICAGO HEIGHTS, IL
* WESTERN TRAFFIC CONTROL INC. CICERO, IL
PARTS LISTING:
SIGN CHANNEL PART #HPN053 (MED. CHANNEL)
SIGN SCREWS 1/4" x 14 x 1" H.W.H. #3
BRACKETS SELF TAPPING WITH NEOPRENE WASHER
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.



SINGLE ARM

SUPPORTING CHANNELS

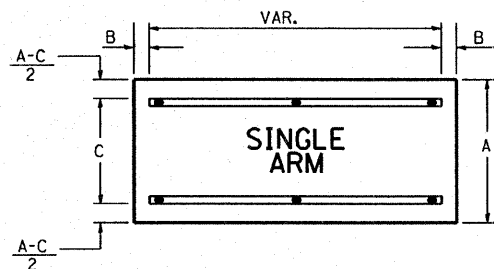
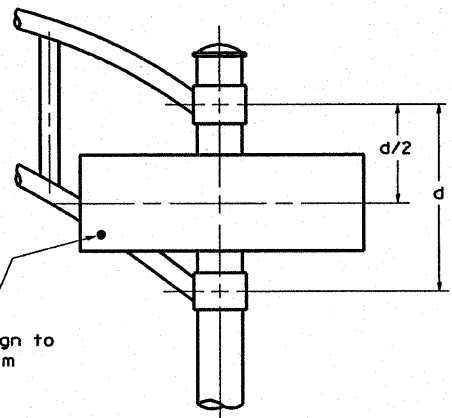


Table with 3 columns (A, B, C) and 2 rows (18", 2", 12"; 30", 2", 22")



DUAL ARM

SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM

Shall be used. See Note #5.

Upper Case To Lower Case Spacing Chart 8-6 Inch Series "C & D"

EXAMPLE, 2(3) DENOTES 3/8

Spacing chart for 8-6 inch series 'C & D' showing letter widths for various series (A-W-X, B, C-E-G, D-O-O-R, F, H-I-M-N, J-U, K-L, P, S, T, V, Y, Z).

Lower Case To Lower Case Spacing Chart 6 Inch Series "C & D"

Spacing chart for 6 inch series 'C & D' showing letter widths for various series (a-d-h-g-i-j, l-m-n-q, b-f-k-o-p, c, e, r, t-z, v-y, w, x).

Number To Number Spacing Chart 8 Inch Series "C & D"

Spacing chart for 8 inch series 'C & D' showing digit widths for series 0-9.

UPPER AND LOWER CASE LETTER WIDTHS

Table showing letter widths for 6 inch upper and lower case letters, 8 inch upper case letters, and 6 inch lower case letters across various series (C, D).

Table showing letter widths for 6 inch and 8 inch series across various series (C, D).

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

MAST ARM MOUNTED STREET NAME SIGNS US 12/2045 (MANNHEIM ROAD) AT ARMITAGE AVENUE

Table with project details: F.A.P. RTE. 330, SECTION 2008-006 TS, COUNTY COOK, TOTAL SHEETS 104, SHEET NO. 88, CONTRACT NO. 60E31, FED. ROAD DIST. NO., ILLINOIS FED. AID PROJECT.

Table with project details: FILE NAME, USER NAME, DESIGNED, DRAWN, PLOT SCALE, PLOT DATE, REVISIONS.

EXISTING EQUIPMENT TO BE REMOVED LEGEND

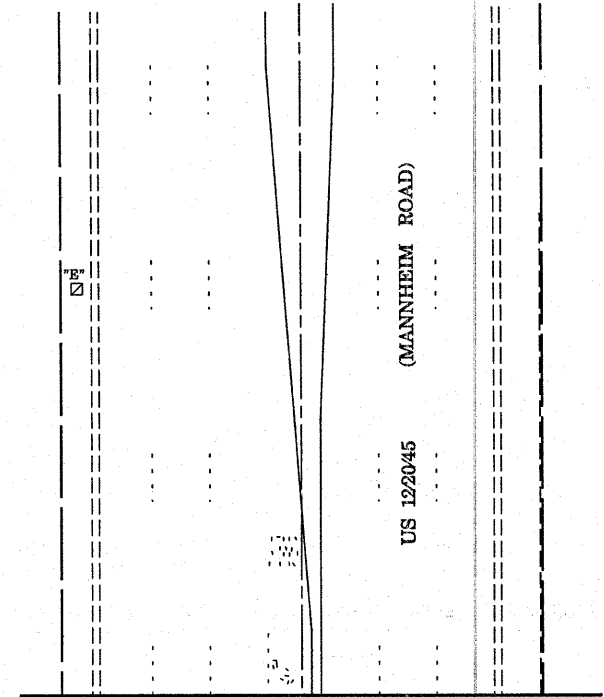
- EXISTING SIGNAL HEAD TO BE REMOVED
- EXISTING SERVICE INSTALLATION TO BE REMOVED
- EXISTING STREET LIGHT, FOUNDATION AND LUMINAIRE TO REMAIN
- EXISTING CONTROLLER TO BE REMOVED
- EXISTING HANDHOLE TO BE REMOVED
- EXISTING PEDESTRIAN SIGNAL HEAD TO BE REMOVED
- EXISTING PEDESTRIAN PUSH BUTTON TO BE REMOVED
- EMERGENCY VEHICLE LIGHT DETECTOR TO BE REMOVED
- CONFIRMATION BEACON TO BE REMOVED
- EXISTING HEAVY-DUTY HANDHOLE TO BE REMOVED
- EXISTING SIGNAL POST AND FOUNDATION TO BE REMOVED
- EXISTING ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED
- EXISTING STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVED

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

NOTES FOR TEMPORARY TRAFFIC SIGNALS

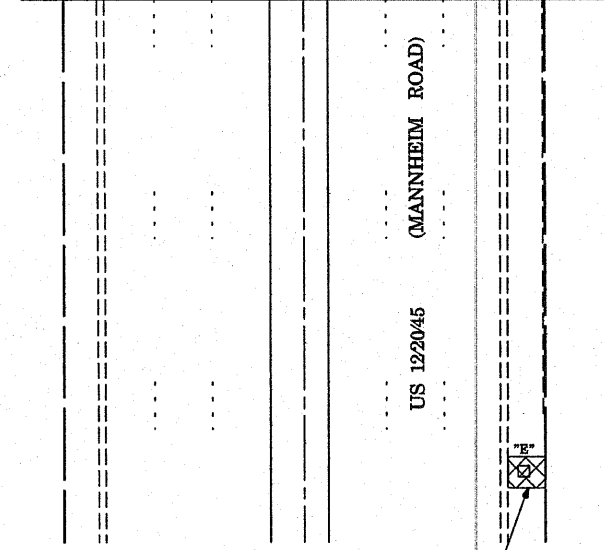
1. ALL CONTROL EQUIPMENT INCLUDING EMERGENCY PRE-EMPTION AND COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNAL(S) SHALL BE FURNISHED BY THE CONTRACTOR.
2. ONLY CONTROLLERS SUPPLIED BY ONE OF THE DISTRICT APPROVED CLOSED LOOP EQUIPMENT MANUFACTURERS WILL BE APPROVED FOR USE AT TEMPORARY SIGNAL LOCATIONS. ALL CONTROLLERS USED FOR TEMPORARY TRAFFIC SIGNALS SHALL BE FULLY ACTUATED NEMA MICROPROCESSOR BASED WITH RS232 DATA ENTRY PORTS COMPATIBLE WITH EXISTING MONITORING SOFTWARE APPROVED BY IDOT DISTRICT 1, INSTALLED IN A NEMA TS1 OR TS2 CABINET. ONLY ONE BRAND OF CONTROLLER WILL BE ACCEPTED FOR ANY ONE CONTRACT.
3. ALL TRAFFIC SIGNAL SECTIONS AND PEDESTRIAN SIGNAL SECTIONS SHALL BE 12". HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL FURNISH ENOUGH CABLE SLACK TO RELOCATE HEADS TO ANY POSITION ON THE SPAN WIRE OR AT LOCATIONS ILLUSTRATED ON THE PLANS FOR CONSTRUCTION STAGING. THE TEMPORARY TRAFFIC SIGNAL SHALL REMAIN IN OPERATION DURING ALL SIGNAL HEAD RELOCATIONS. EACH TEMPORARY TRAFFIC SIGNAL HEAD SHALL HAVE ITS OWN CABLE FROM THE CONTROLLER CABINET TO THE SIGNAL HEAD.
4. ALL EXISTING STREET NAME AND INTERSECTION REGULATORY SIGNS SHALL BE REMOVED FROM EXISTING POLES, RELOCATED AND SECURELY FASTENED TO THE SIGNAL SPAN WIRE OR WOOD POLE AS DIRECTED BY THE ENGINEER.
5. ANY TEMPORARY SIGNAL WITHIN AN EXISTING CLOSED LOOP TRAFFIC SIGNAL SYSTEM SHALL BE INTERCONNECTED TO THAT SYSTEM USING SIMILAR BRAND CONTROL EQUIPMENT.
6. THE TEMPORARY TRAFFIC SIGNAL SHALL HAVE THE SIGNAL HEAD DISPLAYS, SIGNAL HEAD PLACEMENTS AND CONTROLLER PHASING MATCH THE EXISTING TRAFFIC SIGNAL, AT THE TIME OF THE TURN ON, IF NO TRAFFIC STAGING IS IN PLACE OR WILL NOT BE STAGED ON THE DAY OF THE TURN ON.

MATCH LINE A-A

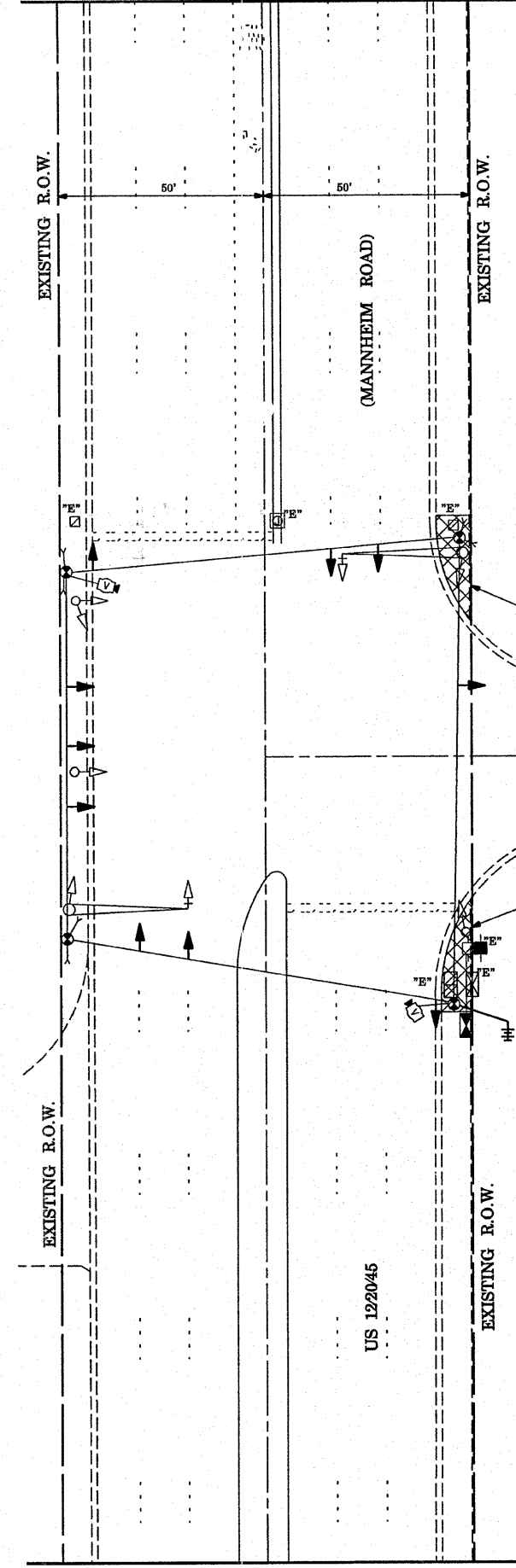


MATCH LINE A-A

MATCH LINE B-B



SIDEWALK REMOVAL AND REPLACEMENT
50 SQ. FT.



MATCH LINE B-B



TEMPORARY TRAFFIC SIGNAL LEGEND

- TEMPORARY TRAFFIC SIGNAL HEAD SPAN WIRE MOUNTED ORIGINAL LOCATION
- TEMPORARY TRAFFIC SIGNAL HEAD SPAN WIRE MOUNTED SECONDARY LOCATION
- TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT MINIMUM
- TEMPORARY CONTROLLER CABINET
- TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE
- TEMPORARY SERVICE INSTALLATION
- TEMPORARY PEDESTRIAN SIGNAL HEAD, BRACKET MOUNTED
- TEMPORARY PEDESTRIAN PUSHBUTTON DETECTOR
- MICROWAVE VEHICLE SENSOR
- EMERGENCY VEHICLE LIGHT DETECTOR
- CONFIRMATION BEACON
- VEHICLE DETECTOR, INDUCTION LOOP
- COMMON TRENCH
- UNIT DUCT
- G.S. CONDUIT IN TRENCH OR PUSHED
- HANDHOLE
- HEAVY-DUTY HANDHOLE
- EXISTING WOOD POLE
- VIDEO DETECTOR
- WIRELESS INTERCONNECT (ANTENNA)

NOTE:
TEMPORARY WIRELESS INTERCONNECT IS INCLUDED IN TEMPORARY TRAFFIC SIGNAL INSTALLATION PAY ITEM.

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

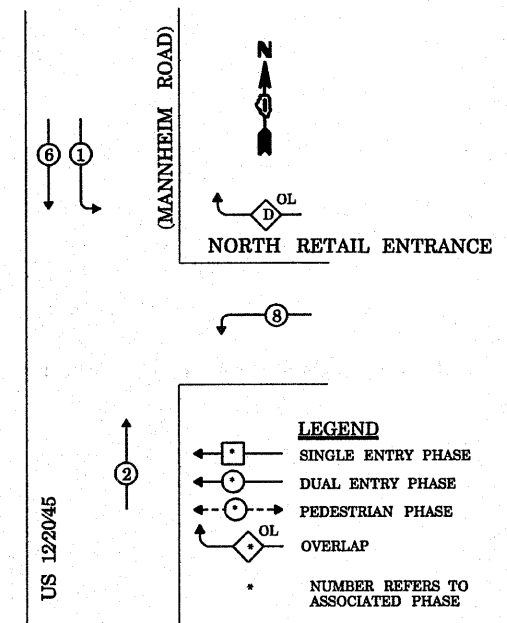
- 1 EACH CONTROLLER AND CABINET
- 2 EACH TRAFFIC SIGNAL BACKPLATE
- 4 EACH TRAFFIC SIGNAL POST
- 2 EACH MAST ARM ASSEMBLY AND POLE, ALUMINUM
- 3 EACH SIGNAL HEAD, 1-FACE, 3-SECTION, BRACKET MOUNTED
- 1 EACH SIGNAL HEAD, 1-FACE, 3-SECTION, MAST ARM MOUNTED
- 2 EACH SIGNAL HEAD, 1-FACE, 5-SECTION, BRACKET MOUNTED
- 1 EACH SIGNAL HEAD, 1-FACE, 5-SECTION, MAST ARM MOUNTED
- 1 EACH SIGNAL HEAD, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED
- 1 EACH SERVICE INSTALLATION

RESTORATION OF WORK AREA RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIAN, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

FILE NAME = c:\projects\traffic\1070027\us12_20_45.dgn	USER NAME = kanthaphixybc	DESIGNED - N.B.	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TEMPORARY TRAFFIC SIGNAL AND REMOVAL PLAN US 122045(MANNHEIM ROAD) AT NORTH RETAIL ENTRANCE			F.A.P. RTE. 330	SECTION 2008-006 TS	COUNTY COOK	TOTAL SHEETS 104	SHEET NO. 34	
	PLOT SCALE = 40.0000' / IN.	DRAWN - N.B.	REVISED -		SCALE: 1"=20'	SHEET NO.	OF	SHEETS	STA.	TO	STA.	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT
	PLOT DATE = 10/18/2008	CHECKED - D.B.	REVISED -									CONTRACT NO. 60E31	
		DATE - 09/04/2008	REVISED -										

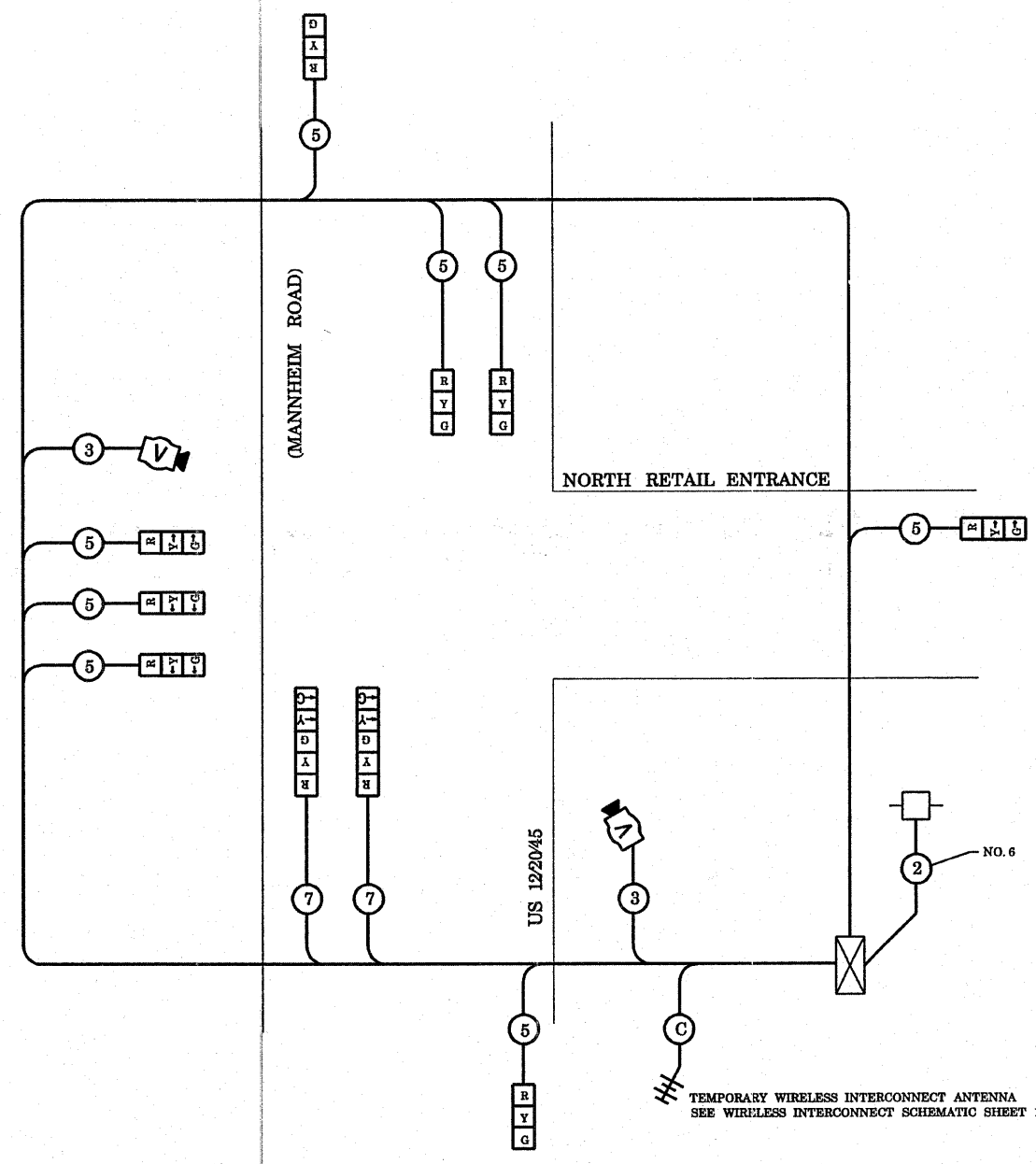


CONTROLLER SEQUENCE



TEMPORARY PHASE DESIGNATION DIAGRAM

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
D	= 8	+ 1



TEMPORARY CABLE DIAGRAM LEGEND

- TEMPORARY TRAFFIC SIGNAL SECTION OR PEDESTRIAN SIGNAL SECTION, 12" (300 mm)
- TEMPORARY CONTROLLER CABINET
- TEMPORARY SERVICE INSTALLATION
- INDICATES NUMBER OF CONDUCTORS IN CABLE. ALL CONDUCTORS TO BE NUMBERED 14 AWG WIRE UNLESS OTHERWISE NOTED.
- EMERGENCY VEHICLE LIGHT DETECTOR
- CONFIRMATION BEACON
- PEDESTRIAN PUSHBUTTON DETECTOR
- VEHICLE DETECTOR, INDUCTION LOOP
- 12" (300 mm) PEDESTRIAN SIGNAL SECTION
- MICROWAVE VEHICLE SENSOR
- VIDEO DETECTOR
- WIRELESS INTERCONNECT (ANTENNA)

* TEMPORARY WIRELESS INTERCONNECT IS INCLUDED IN TEMPORARY TRAFFIC SIGNAL INSTALLATION PAY ITEM

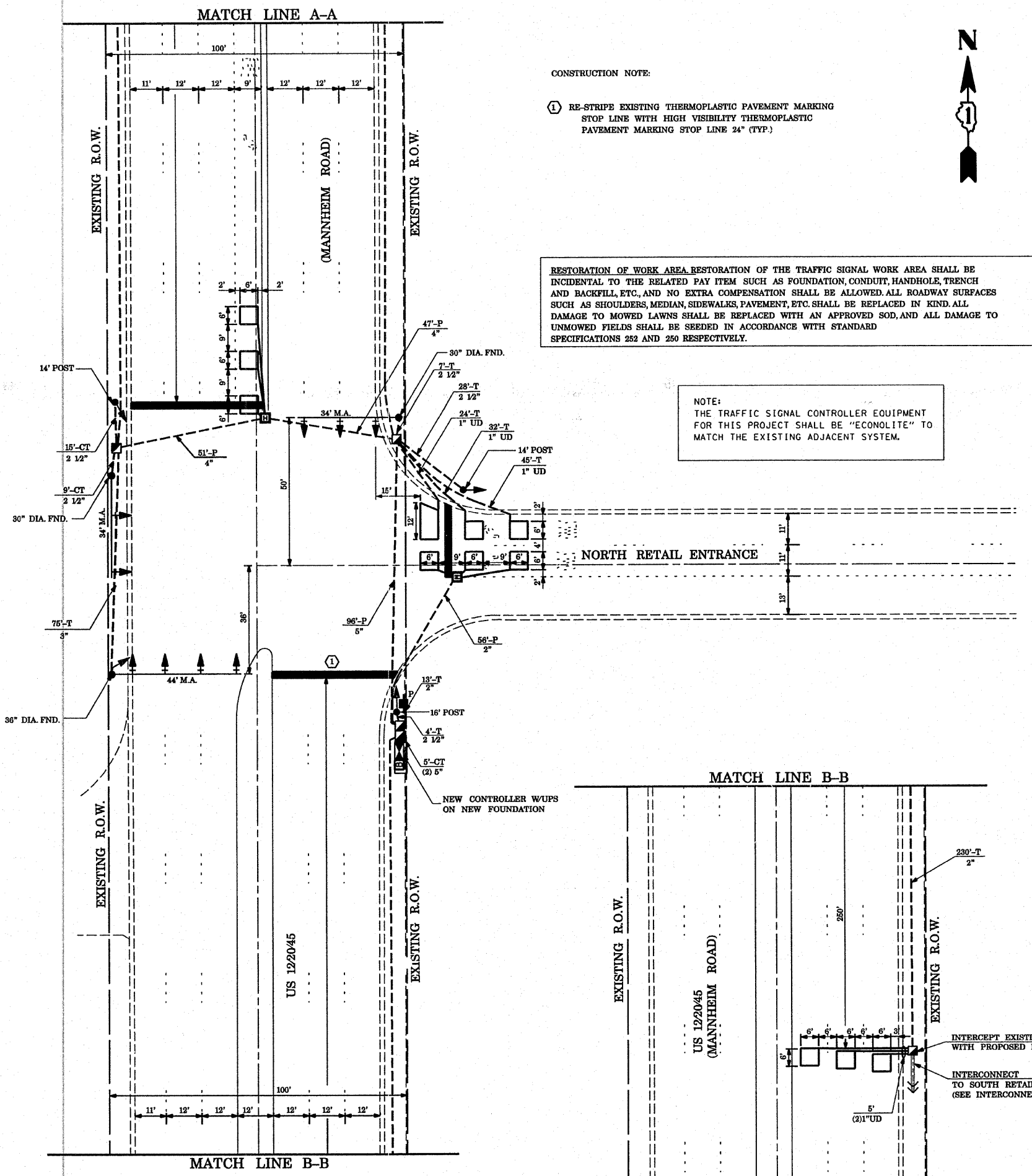
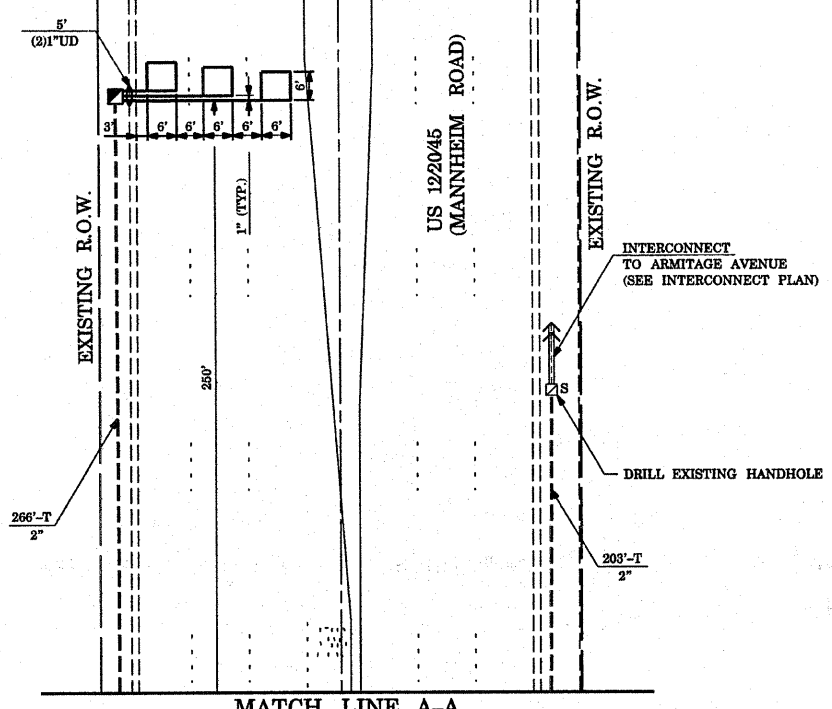
TEMPORARY CABLE PLAN

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

SCHEDULE OF QUANTITIES

QUANTITIES	UNIT	ITEM
1	EACH	TEMPORARY TRAFFIC SIGNAL INSTALLATION
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
3	EACH	REMOVE EXISTING HANDHOLE
6	EACH	REMOVE EXISTING CONCRETE FOUNDATION

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE		% OPERATION	
SIGNAL (RED)	10	INCAND.	17	0.50	85.00
(YELLOW)	10		25	0.25	62.50
(GREEN)	10		15	0.25	37.50
ARROW	4		12	0.10	4.80
PED. SIGNAL			25	1.00	-
CONTROLLER	1		100	1.00	100.00
ILLUM. SIGN				0.05	-
FLASHER					-
ENERGY COSTS TO: VILLAGE OF MELROSE PARK					TOTAL = 289.80
ENERGY SUPPLY CONTACT: MR. MIKE BELL PHONE: (708)410-5314 COMPANY: COMMONWEALTH EDISON					



CONSTRUCTION NOTE:
 (1) RE-STRIPE EXISTING THERMOPLASTIC PAVEMENT MARKING STOP LINE WITH HIGH VISIBILITY THERMOPLASTIC PAVEMENT MARKING STOP LINE 24" (TYP.)

RESTORATION OF WORK AREA RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIAN, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

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

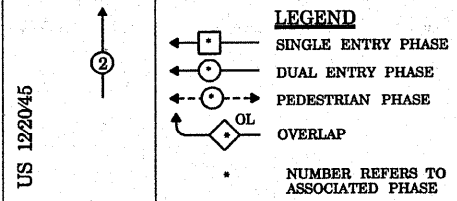
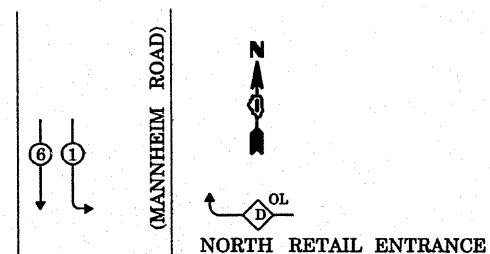
TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING
CONTROLLER	[Symbol]	[Symbol]
RAILROAD CONTROL CABINET	[Symbol]	[Symbol]
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNTED	[Symbol]	[Symbol]
SIGNAL HEAD	[Symbol]	[Symbol]
SIGNAL HEAD WITH BACKPLATE	[Symbol]	[Symbol]
SIGNAL HEAD, PEDESTRIAN	[Symbol]	[Symbol]
SIGNAL POST	[Symbol]	[Symbol]
MAST ARM ASSEMBLY AND POLE, STEEL	[Symbol]	[Symbol]
MAST ARM ASSEMBLY AND POLE, ALUMINIUM	[Symbol]	[Symbol]
COMMON TRENCH	[Symbol]	[Symbol]
UNIT DUCT	[Symbol]	[Symbol]
HANDHOLE	[Symbol]	[Symbol]
HEAVY DUTY HANDHOLE	[Symbol]	[Symbol]
DOUBLE HANDHOLE	[Symbol]	[Symbol]
G.S.CONDUIT IN TRENCH OR PUSHED	[Symbol]	[Symbol]
CAST IRON JUNCTION BOX	[Symbol]	[Symbol]
SIGNAL HEAD OPTICALLY PROGRAMMED	[Symbol]	[Symbol]
CONDUIT SPLICE	[Symbol]	[Symbol]
WOOD POLE	[Symbol]	[Symbol]
RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II	[Symbol]	[Symbol]
VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE	[Symbol]	[Symbol]
RAILROAD CONTROL CABINET	[Symbol]	[Symbol]
ILLUMINATED SIGN, FIBER OPTIC "NO LEFT TURN"	[Symbol]	[Symbol]
ILLUMINATED SIGN, FIBER OPTIC "NO RIGHT TURN"	[Symbol]	[Symbol]
TELEPHONE CONNECTION	[Symbol]	[Symbol]
PEDESTRIAN PUSHBUTTON DETECTOR	[Symbol]	[Symbol]
DETECTOR LOOP, TYPE I	[Symbol]	[Symbol]
PREFORMED DETECTOR LOOP	[Symbol]	[Symbol]
VIDEO DETECTOR	[Symbol]	[Symbol]
CLOSED CIRCUIT TV	[Symbol]	[Symbol]
EMERGENCY VEHICLE SYSTEM DETECTOR	[Symbol]	[Symbol]
CONFIRMATION BEACON	[Symbol]	[Symbol]
UNINTERRUPTABLE POWER SUPPLY	[Symbol]	[Symbol]

FILE NAME =	DESIGNED - N.B.	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION		PROPOSED TRAFFIC SIGNAL PLAN US 12/2045(MANNHEIM ROAD) AT NORTH RETAIL ENTRANCE			F.A.P. RTE. 330	SECTION 2008-006 TS	COUNTY COOK	TOTAL SHEETS 104	SHEET NO. 36
ci:\projects\traffic\1070227\us12_20_45.dgn	DRAWN - N.B.	REVISED -			SCALE: 1" = 20'			SHEET NO.	OF SHEETS	STA.	TO STA.	CONTRACT NO. 60E31
PLOT SCALE = 40.0000' / IN.	CHECKED - D.B.	REVISED -						FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
PLOT DATE = 10/10/2008	DATE - 09/04/2008	REVISED -										

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CONTROLLER SEQUENCE

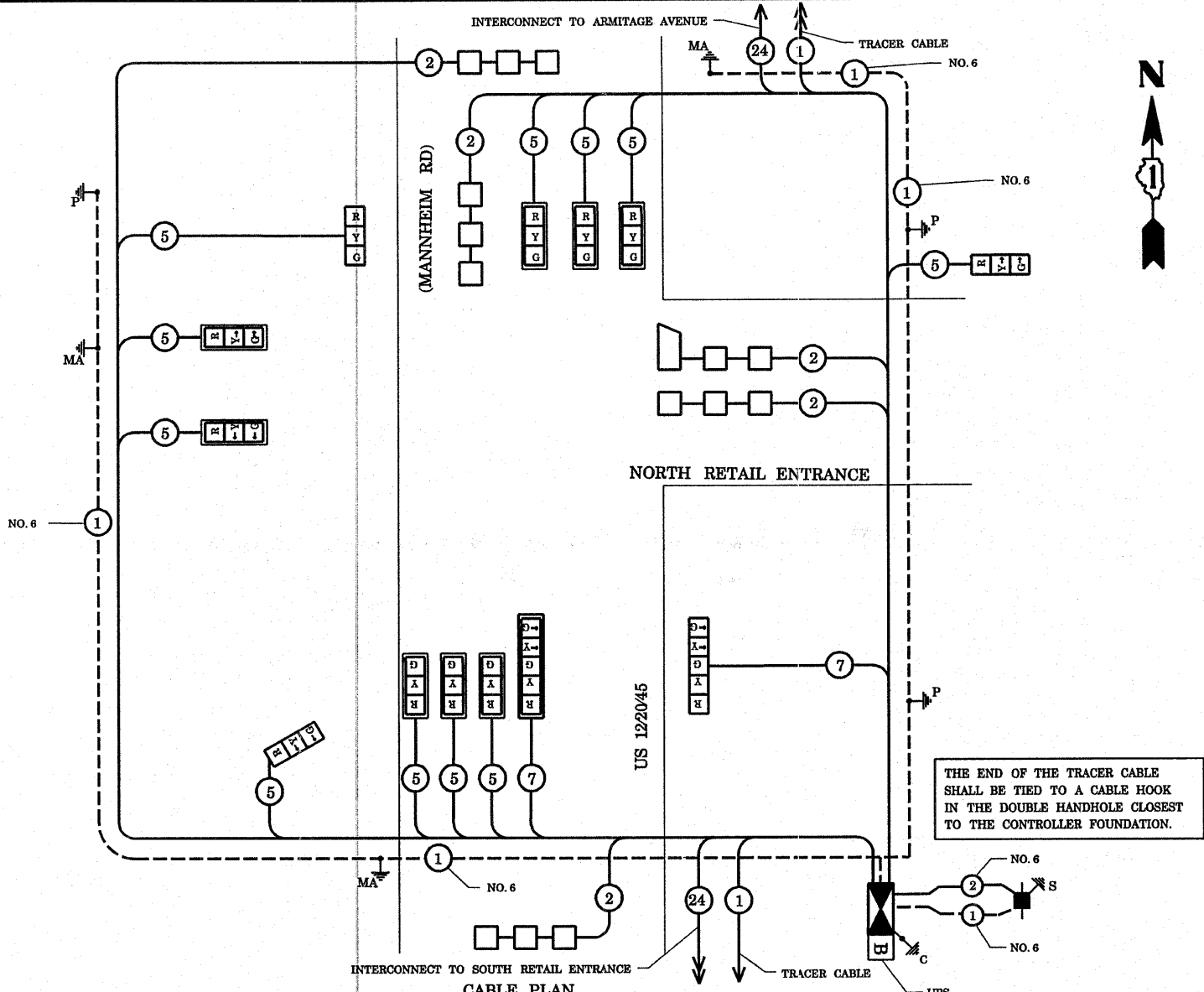


PHASE DESIGNATION DIAGRAM

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
D	= 8	+ 1

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

TYPE	NO. LAMPS	WATTAGE INCAND.	LED	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	13	17	0.50		110.50
(YELLOW)	13	25	0.25		81.25
(GREEN)	13	15	0.25		48.75
ARROW	4	12	0.10		4.80
PED. SIGNAL		25	1.00		-
CONTROLLER	1	100	1.00		100.00
ILLUM. SIGN			0.05		-
FLASHER				0.05	-
ENERGY COSTS TO: VILLAGE OF MELROSE PARK					TOTAL = 345.30
ENERGY SUPPLY CONTACT: MR. MIKE BELL					
PHONE: (708)410-5314					
COMPANY: COMMONWEALTH EDISON					



CABLE PLAN LEGEND

- | PROPOSED | EXISTING | |
|----------|----------|---|
| [Symbol] | [Symbol] | 8" (200mm) TRAFFIC SIGNAL SECTION |
| [Symbol] | [Symbol] | 12" (300mm) TRAFFIC SIGNAL SECTION |
| [Symbol] | [Symbol] | 12" (300mm) PEDESTRIAN SIGNAL SECTION |
| [Symbol] | [Symbol] | 12"(300mm) PEDESTRIAN SIGNAL SECTION |
| [Symbol] | [Symbol] | CONTROLLER CABINET |
| [Symbol] | [Symbol] | SERVICE INSTALLATION |
| [Symbol] | [Symbol] | TELEPHONE CONNECTION |
| [Symbol] | [Symbol] | MAGNETIC DETECTOR |
| [Symbol] | [Symbol] | PUSHBUTTON DETECTOR |
| [Symbol] | [Symbol] | VEHICLE DETECTOR, INDUCTION LOOP |
| [Symbol] | [Symbol] | DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED. |
| [Symbol] | [Symbol] | SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD |
| [Symbol] | [Symbol] | RAILROAD CONTROL CABINET |
| [Symbol] | [Symbol] | ILLUMINATED SIGN, FIBER OPTIC "NO LEFT TURN" |
| [Symbol] | [Symbol] | ILLUMINATED SIGN, FIBER OPTIC "NO RIGHT TURN" |
| [Symbol] | [Symbol] | GROUND ROD AT HANDHOLE, DOUBLE HANDHOLE, OR CONTROLLER |
| [Symbol] | [Symbol] | GROUND ROD AT POST OR MAST ARM POLE |
| [Symbol] | [Symbol] | GROUND ROD AT ELECTRIC SERVICE INSTALLATION |
| [Symbol] | [Symbol] | GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN) |
| [Symbol] | [Symbol] | FIBER OPTIC CABLE IN CONDUIT NO.62.5/25 2-MM12F & SM12F |
| [Symbol] | [Symbol] | MICROWAVE VEHICLE SENSOR |
| [Symbol] | [Symbol] | VIDEO DETECTOR |
| [Symbol] | [Symbol] | CLOSED CIRCUIT TV |
| [Symbol] | [Symbol] | EMERGENCY VEHICLE LIGHT DETECTOR |
| [Symbol] | [Symbol] | CONFIRMATION BEACON |
| [Symbol] | [Symbol] | UNINTERRUPTIBLE POWER SUPPLY |

CABLE PLAN SUMMARY OF QUANTITIES

QUANTITY	UNIT	ITEM	QUANTITY	UNIT	ITEM
356	SQ FT	PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH	1	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.
356	SQ FT	SIDEWALK REMOVAL	2	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 34 FT.
0.1	L SUM	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 44 FT.
0.1	L SUM	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	12	FOOT	CONCRETE FOUNDATION, TYPE A
0.1	L SUM	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	4	FOOT	CONCRETE FOUNDATION, TYPE C
15	SQ FT	SIGN PANEL - TYPE 2	30	FOOT	CONCRETE FOUNDATION, TYPE E 30" DIAMETER
110	FOOT	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	15	FOOT	CONCRETE FOUNDATION, TYPE E 36" DIAMETER
220	SQ FT	THERMOPLASTIC PAVEMENT MARKING REMOVAL	1	EACH	DRILL EXISTING HANDHOLE
712	FOOT	CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	9	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM
63	FOOT	CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	5	EACH	INDUCTIVE LOOP DETECTOR
75	FOOT	CONDUIT IN TRENCH, 3" DIA., GALVANIZED STEEL	548	FOOT	DETECTOR LOOP, TYPE I
10	FOOT	CONDUIT IN TRENCH, 5" DIA., GALVANIZED STEEL	1	EACH	TEMPORARY TRAFFIC SIGNAL INSTALLATION
56	FOOT	CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL	1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
98	FOOT	CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL	6	EACH	REMOVE EXISTING HANDHOLE
96	FOOT	CONDUIT PUSHED, 5" DIA., GALVANIZED STEEL	7	EACH	REMOVE EXISTING CONCRETE FOUNDATION
1	EACH	REMOVE EXISTING JUNCTION BOX	8	EACH	SIGNAL HEAD, L.E.D., 1-FACE, 3-SECTION, MAST ARM MOUNTED
4	EACH	HANDHOLE	3	EACH	SIGNAL HEAD, L.E.D., 1-FACE, 3-SECTION, BRACKET MOUNTED
2	EACH	HEAVY-DUTY HANDHOLE	1	EACH	SIGNAL HEAD, L.E.D., 1-FACE, 5-SECTION, BRACKET MOUNTED
1	EACH	DOUBLE HANDHOLE	1	EACH	SIGNAL HEAD, L.E.D., 1-FACE, 5-SECTION, MAST ARM MOUNTED
910	FOOT	TRENCH AND BACKFILL FOR ELECTRICAL WORK	1	EACH	TEMPORARY TRAFFIC SIGNAL TIMINGS
1	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	1	EACH	SERVICE INSTALLATION, POLE MOUNT
1	EACH	TRANSCEIVER - FIBER OPTIC	1	EACH	UNINTERRUPTIBLE POWER SUPPLY
2920	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C			
418	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C			
1151	FOOT	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1-PAIR			
30	FOOT	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C			
375	FOOT	ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C			
2	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.			

EXISTING EQUIPMENT TO BE REMOVED LEGEND

- EXISTING SIGNAL HEAD TO BE REMOVED
- EXISTING SERVICE INSTALLATION TO BE REMOVED
- EXISTING STREET LIGHT, FOUNDATION AND LUMINAIRE TO REMAIN
- EXISTING CONTROLLER TO BE REMOVED
- EXISTING HANDHOLE TO BE REMOVED
- EXISTING PEDESTRIAN SIGNAL HEAD TO BE REMOVED
- EXISTING PEDESTRIAN PUSH BUTTON TO BE REMOVED
- EMERGENCY VEHICLE LIGHT DETECTOR TO BE REMOVED
- CONFIRMATION BEACON TO BE REMOVED
- EXISTING HEAVY-DUTY HANDHOLE TO BE REMOVED
- EXISTING SIGNAL POST AND FOUNDATION TO BE REMOVED
- EXISTING ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED
- EXISTING STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVED

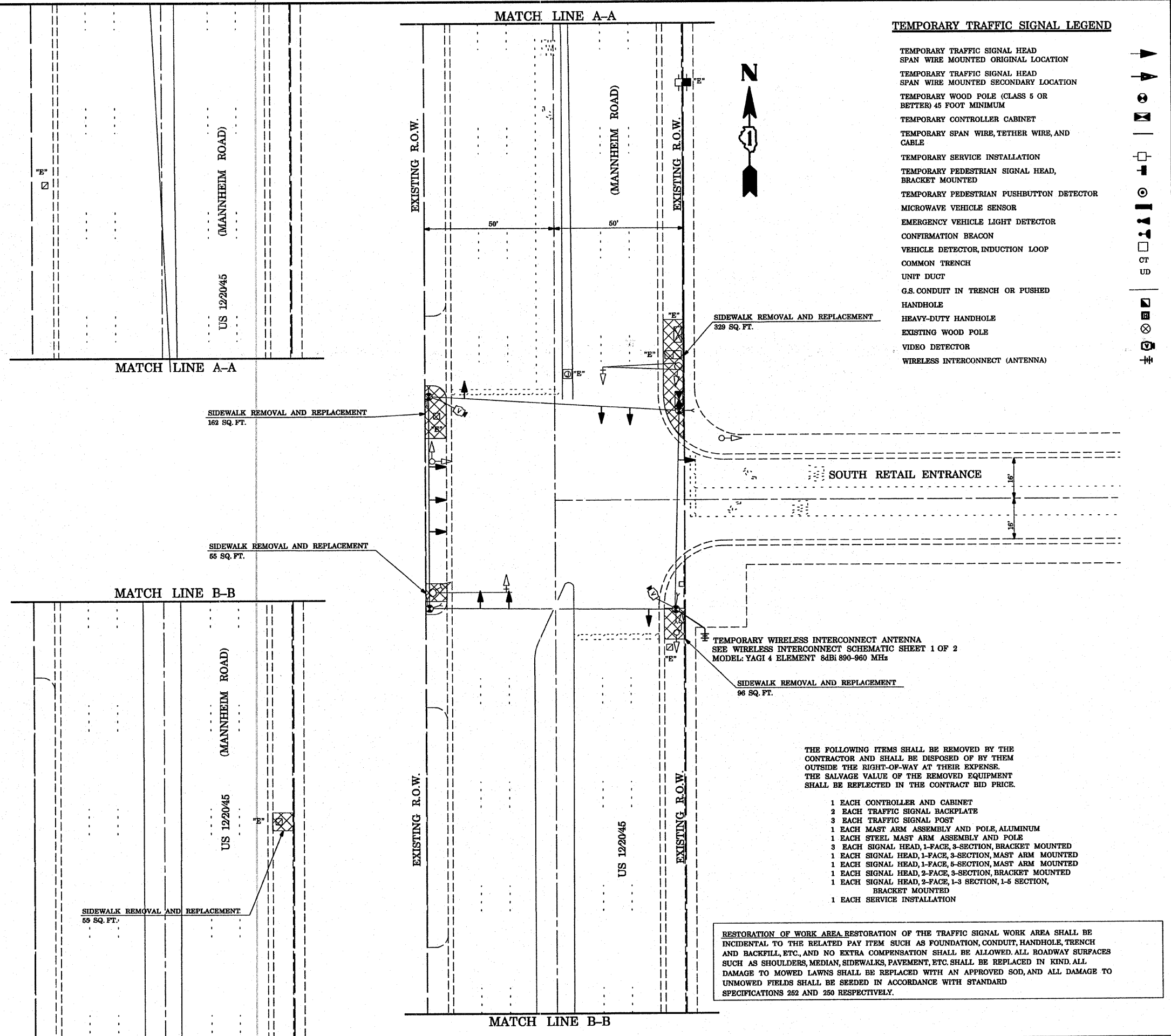
NOTE:
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

NOTES FOR TEMPORARY TRAFFIC SIGNALS

1. ALL CONTROL EQUIPMENT INCLUDING EMERGENCY PRE-EMPTION AND COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNAL(S) SHALL BE FURNISHED BY THE CONTRACTOR.
2. ONLY CONTROLLERS SUPPLIED BY ONE OF THE DISTRICT APPROVED CLOSED LOOP EQUIPMENT MANUFACTURERS WILL BE APPROVED FOR USE AT TEMPORARY SIGNAL LOCATIONS. ALL CONTROLLERS USED FOR TEMPORARY TRAFFIC SIGNALS SHALL BE FULLY ACTUATED NEMA MICROPROCESSOR BASED WITH RS232 DATA ENTRY PORTS COMPATIBLE WITH EXISTING MONITORING SOFTWARE APPROVED BY IDOT DISTRICT 1, INSTALLED IN A NEMA TS1 OR TS2 CABINET. ONLY ONE BRAND OF CONTROLLER WILL BE ACCEPTED FOR ANY ONE CONTRACT.
3. ALL TRAFFIC SIGNAL SECTIONS AND PEDESTRIAN SIGNAL SECTIONS SHALL BE 12". HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL FURNISH ENOUGH CABLE SLACK TO RELOCATE HEADS TO ANY POSITION ON THE SPAN WIRE OR AT LOCATIONS ILLUSTRATED ON THE PLANS FOR CONSTRUCTION STAGING. THE TEMPORARY TRAFFIC SIGNAL SHALL REMAIN IN OPERATION DURING ALL SIGNAL HEAD RELOCATIONS. EACH TEMPORARY TRAFFIC SIGNAL HEAD SHALL HAVE ITS OWN CABLE FROM THE CONTROLLER CABINET TO THE SIGNAL HEAD.
4. ALL EXISTING STREET NAME AND INTERSECTION REGULATORY SIGNS SHALL BE REMOVED FROM EXISTING POLES, RELOCATED AND SECURELY FASTENED TO THE SIGNAL SPAN WIRE OR WOOD POLE AS DIRECTED BY THE ENGINEER.
5. ANY TEMPORARY SIGNAL WITHIN AN EXISTING CLOSED LOOP TRAFFIC SIGNAL SYSTEM SHALL BE INTERCONNECTED TO THAT SYSTEM USING SIMILAR BRAND CONTROL EQUIPMENT.
6. THE TEMPORARY TRAFFIC SIGNAL SHALL HAVE THE SIGNAL HEAD DISPLAYS, SIGNAL HEAD PLACEMENTS AND CONTROLLER PHASING MATCH THE EXISTING TRAFFIC SIGNAL, AT THE TIME OF THE TURN ON, IF NO TRAFFIC STAGING IS IN PLACE OR WILL NOT BE STAGED ON THE DAY OF THE TURN ON.

TEMPORARY TRAFFIC SIGNAL LEGEND

- TEMPORARY TRAFFIC SIGNAL HEAD
- SPAN WIRE MOUNTED ORIGINAL LOCATION
- TEMPORARY TRAFFIC SIGNAL HEAD
- SPAN WIRE MOUNTED SECONDARY LOCATION
- TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT MINIMUM
- TEMPORARY CONTROLLER CABINET
- TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE
- TEMPORARY SERVICE INSTALLATION
- TEMPORARY PEDESTRIAN SIGNAL HEAD, BRACKET MOUNTED
- TEMPORARY PEDESTRIAN PUSHBUTTON DETECTOR
- MICROWAVE VEHICLE SENSOR
- EMERGENCY VEHICLE LIGHT DETECTOR
- CONFIRMATION BEACON
- VEHICLE DETECTOR, INDUCTION LOOP
- COMMON TRENCH
- UNIT DUCT
- G.S. CONDUIT IN TRENCH OR PUSHED HANDHOLE
- HEAVY-DUTY HANDHOLE
- EXISTING WOOD POLE
- VIDEO DETECTOR
- WIRELESS INTERCONNECT (ANTENNA)



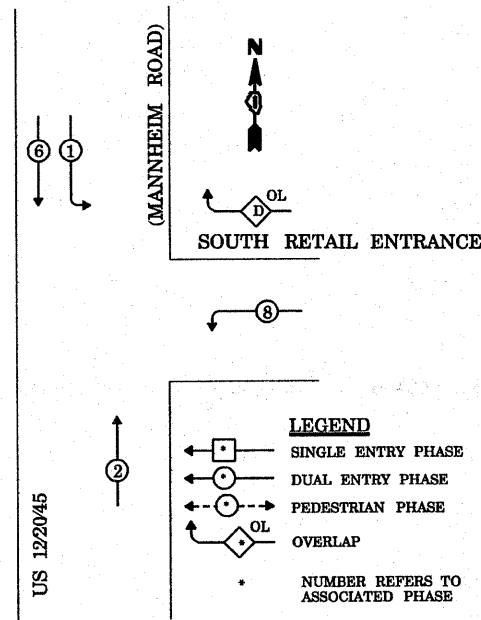
THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

- 1 EACH CONTROLLER AND CABINET
- 2 EACH TRAFFIC SIGNAL BACKPLATE
- 3 EACH TRAFFIC SIGNAL POST
- 1 EACH MAST ARM ASSEMBLY AND POLE, ALUMINUM
- 1 EACH STEEL MAST ARM ASSEMBLY AND POLE
- 3 EACH SIGNAL HEAD, 1-FACE, 3-SECTION, BRACKET MOUNTED
- 1 EACH SIGNAL HEAD, 1-FACE, 3-SECTION, MAST ARM MOUNTED
- 1 EACH SIGNAL HEAD, 1-FACE, 5-SECTION, MAST ARM MOUNTED
- 1 EACH SIGNAL HEAD, 2-FACE, 3-SECTION, BRACKET MOUNTED
- 1 EACH SIGNAL HEAD, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED
- 1 EACH SERVICE INSTALLATION

RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIAN, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOG, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

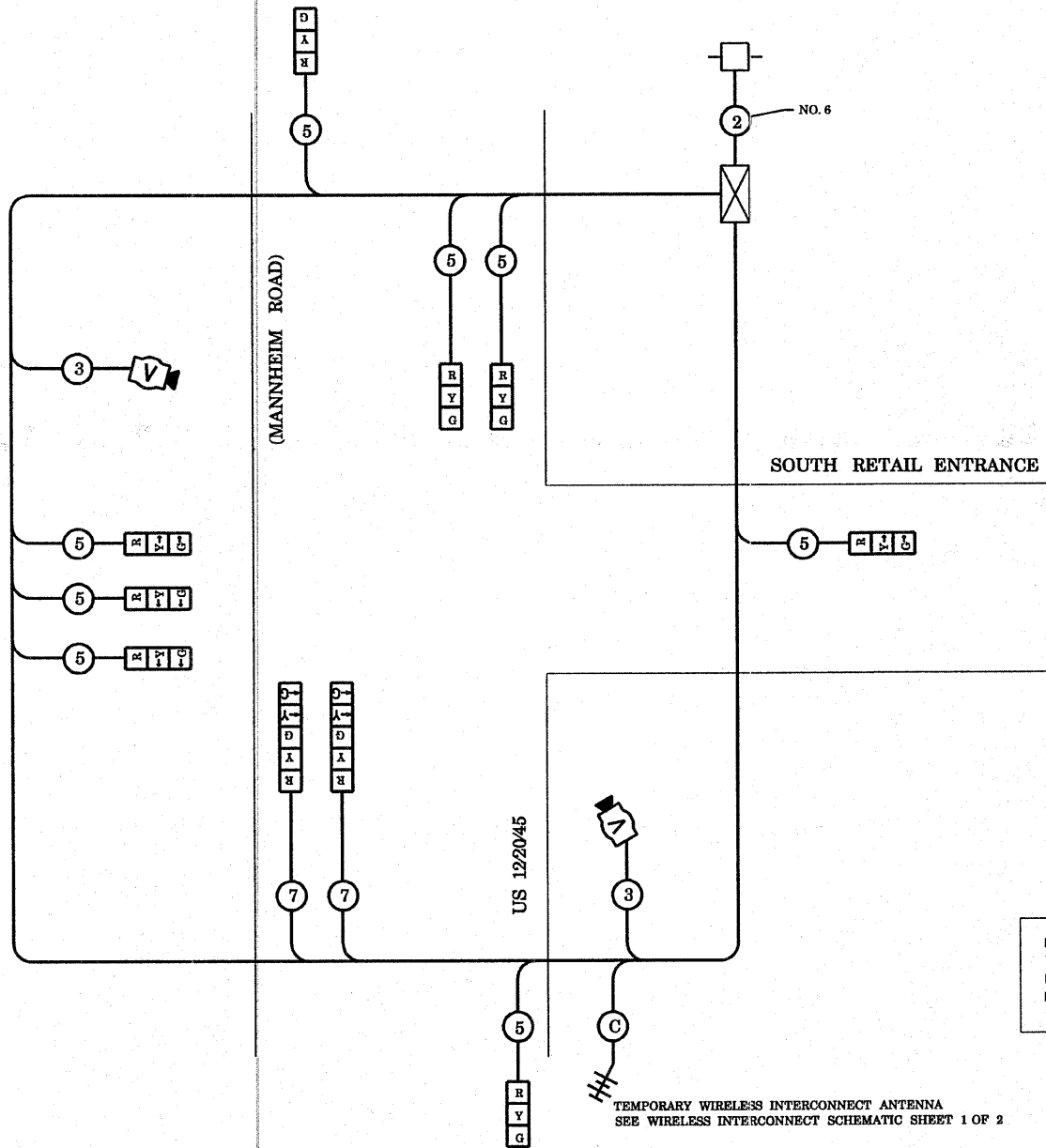
FILE NAME =	USER NAME = kanthaphix@bo	DESIGNED - N.B.	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TEMPORARY TRAFFIC SIGNAL AND REMOVAL PLAN US 12/20/45(MANNHEIM ROAD) AT SOUTH RETAIL ENTRANCE			F.A.P. RTE. 330	SECTION 2008-006 TS	COUNTY COOK	TOTAL SHEETS 104	SHEET NO. 39
PROJECTS\traffic\070027\us12_20_45.dgn		DRAWN - N.B.	REVISED -		SCALE: 1"=20'	SHEET NO.	OF SHEETS	STA.	TO STA.	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT	CONTRACT NO. 60E31
		CHECKED - D.B.	REVISED -									
		DATE - 09/04/2008	REVISED -									

CONTROLLER SEQUENCE



TEMPORARY PHASE DESIGNATION DIAGRAM

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
D	= 8	+ 1



TEMPORARY CABLE DIAGRAM LEGEND

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-
-
-
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-
-
-
-
-
-

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

TEMPORARY CABLE PLAN

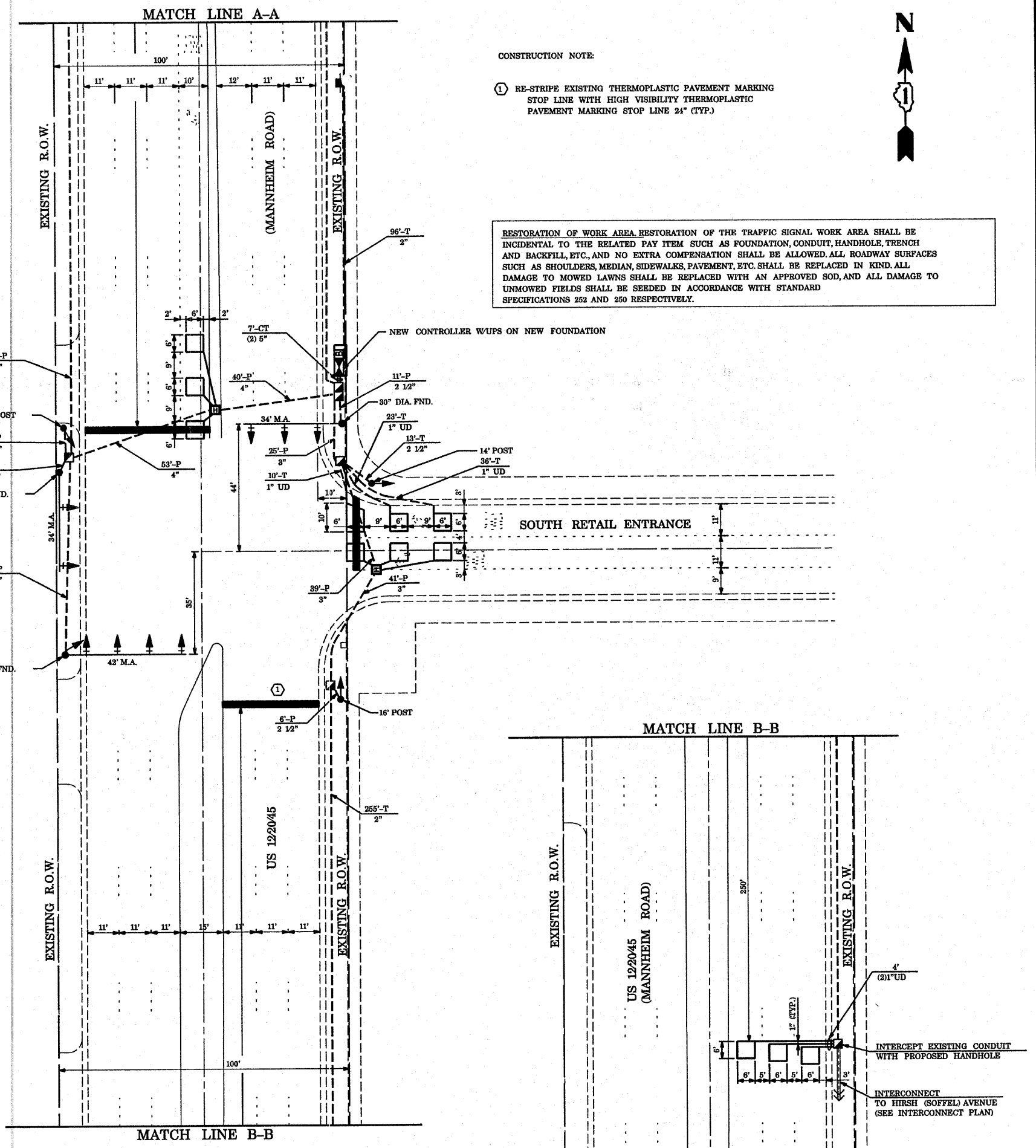
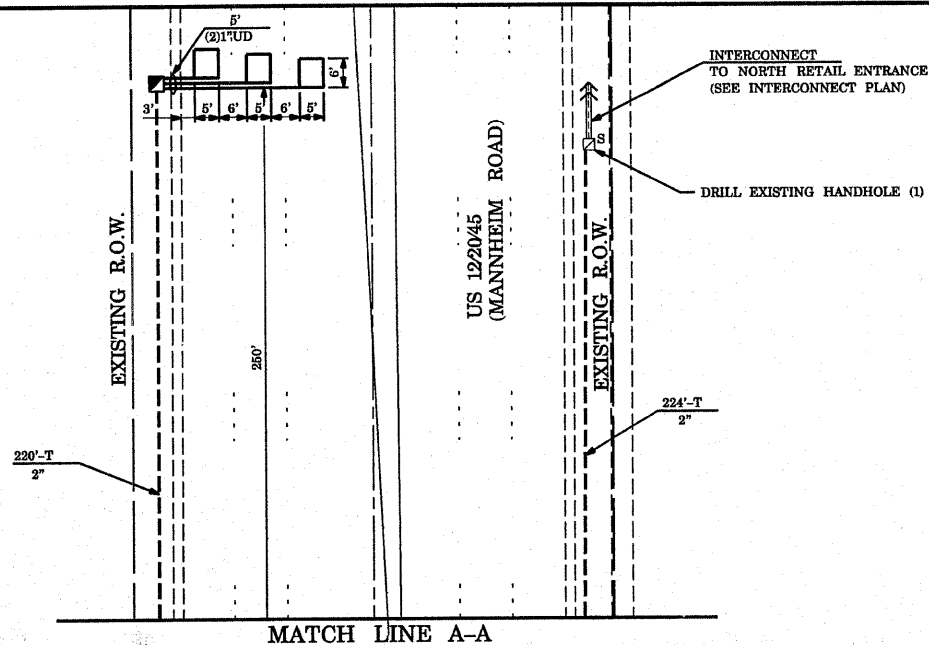
* TEMPORARY WIRELESS INTERCONNECT IS INCLUDED IN TEMPORARY TRAFFIC SIGNAL INSTALLATION PAY ITEM

SCHEDULE OF QUANTITIES

QUANTITIES	UNIT	ITEM
1	EACH	TEMPORARY TRAFFIC SIGNAL INSTALLATION
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
3	EACH	REMOVE EXISTING HANDHOLE
6	EACH	REMOVE EXISTING CONCRETE FOUNDATION

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE		% OPERATION	
		INCAND.	LED		
SIGNAL (RED)	10		17	0.50	85.00
(YELLOW)	6		25	0.25	37.50
(GREEN)	6		15	0.25	22.50
ARROW	12		12	0.10	14.40
PED. SIGNAL			25	1.00	-
CONTROLLER	1		100	1.00	100.00
ILLUM. SIGN				0.05	-
FLASHER				0.05	-
ENERGY COSTS TO: VILLAGE OF MELROSE PARK					TOTAL = 259.40
ENERGY SUPPLY CONTACT: MR. MIKE BELL (708)410-5314 COMMONWEALTH EDISON					

FILE NAME =	USER NAME = kanthaphixybc	DESIGNED - N.B.	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TEMPORARY CABLE PLAN US 12/2045(MANNHEIM RD) AT SOUTH RETAIL ENTRANCE	F.A.P. RTE. 330	SECTION 2008-006 TS	COUNTY COOK	TOTAL SHEETS 104	SHEET NO. 40	
ci:\projects\traffic\070027\us12_20_45.dgn		DRAWN - N.B.	REVISED -			SCALE: NTS		SHEET NO. OF SHEETS STA. TO STA.		CONTRACT NO. 60E31	
		CHECKED - D.B.	REVISED -			FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			
		DATE - 09/04/2008	REVISED -								



CONSTRUCTION NOTE:
 (1) RE-STRIPE EXISTING THERMOPLASTIC PAVEMENT MARKING STOP LINE WITH HIGH VISIBILITY THERMOPLASTIC PAVEMENT MARKING STOP LINE 24" (TYP.)

RESTORATION OF WORK AREA RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIAN, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDING IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

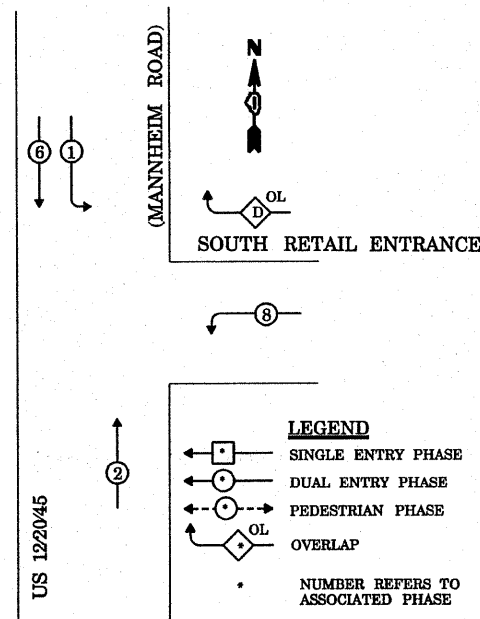
TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING
CONTROLLER		
RAILROAD CONTROL CABINET		
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNTED		
SIGNAL HEAD		
SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD, PEDESTRIAN		
SIGNAL POST		
MAST ARM ASSEMBLY AND POLE, STEEL		
MAST ARM ASSEMBLY AND POLE, ALUMINIUM		
COMMON TRENCH		
UNIT DUCT		
HANDHOLE		
HEAVY DUTY HANDHOLE		
DOUBLE HANDHOLE		
G.S.CONDUIT IN TRENCH OR PUSHED		
CAST IRON JUNCTION BOX		
SIGNAL HEAD OPTICALLY PROGRAMMED		
CONDUIT SPLICE		
WOOD POLE		
RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II		
VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE		
RAILROAD CONTROL CABINET		
ILLUMINATED SIGN, FIBER OPTIC "NO LEFT TURN"		
ILLUMINATED SIGN, FIBER OPTIC "NO RIGHT TURN"		
TELEPHONE CONNECTION		
PEDESTRIAN PUSHBUTTON DETECTOR		
DETECTOR LOOP, TYPE I		
PREFORMED DETECTOR LOOP		
VIDEO DETECTOR		
CLOSED CIRCUIT TV		
EMERGENCY VEHICLE SYSTEM DETECTOR		
CONFIRMATION BEACON		
UNINTERRUPTABLE POWER SUPPLY		

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

FILE NAME =	USER NAME = kanthaphixayba	DESIGNED - N.B.	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PROPOSED TRAFFIC SIGNAL PLAN			F.A.P. RTE. 330	SECTION 2008-006 TS	COUNTY COOK	TOTAL SHEETS 104	SHEET NO. 41	
ci:\projects\traffic\070027\us12_20_45.dgn		DRAWN - N.B.	REVISED -		US 12/2045(MANNHEIM ROAD) AT SOUTH RETAIL ENTRANCE			CONTRACT NO. 60E31					
PLOT SCALE = 48.0000' / IN.		CHECKED - D.E.	REVISED -		SCALE: 1"=20'	SHEET NO.	OF SHEETS	STA. TO STA.	FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT				
PLOT DATE = 10/10/2008		DATE = 09/04/2008	REVISED -										

CONTROLLER SEQUENCE



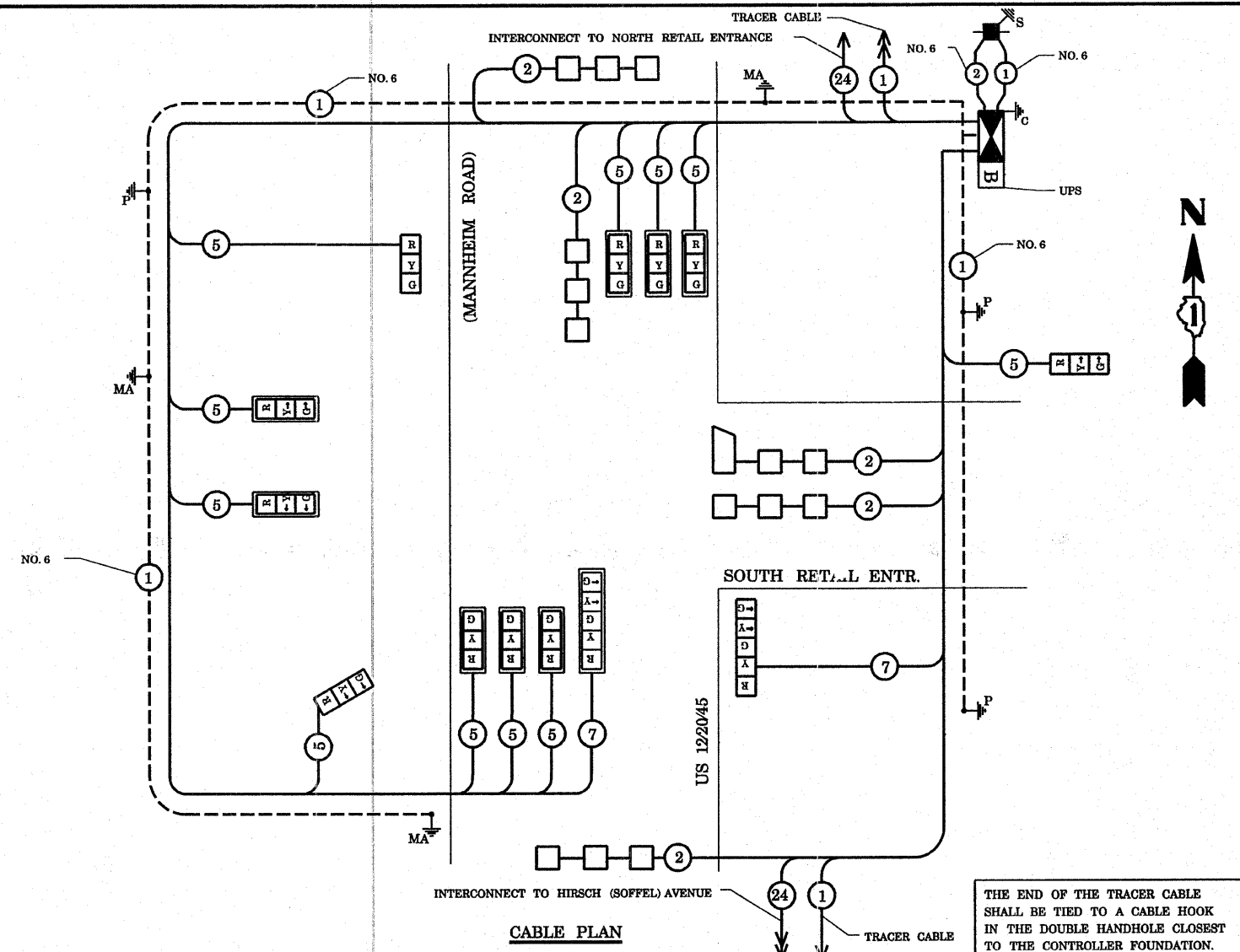
PHASE DESIGNATION DIAGRAM

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
D	= 8	+ 1

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

CABLE PLAN LEGEND

PROPOSED	EXISTING	DESCRIPTION
[G]	[G]	8" (200mm) TRAFFIC SIGNAL SECTION
[R]	[R]	12" (300mm) TRAFFIC SIGNAL SECTION
[W]	[W]	12" (300mm) PEDESTRIAN SIGNAL SECTION
[P]	[P]	12" (300mm) PEDESTRIAN SIGNAL SECTION
[C]	[C]	CONTROLLER CABINET
[S]	[S]	SERVICE INSTALLATION
[T]	[T]	TELEPHONE CONNECTION
[M]	[M]	MAGNETIC DETECTOR
[D]	[D]	PUSHBUTTON DETECTOR
[V]	[V]	VEHICLE DETECTOR, INDUCTION LOOP
[2]	[2]	DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
[R Y G]	[R Y G]	SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD
[R Y G P]	[R Y G P]	SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD
[R]	[R]	RAILROAD CONTROL CABINET
[E]	[E]	ILLUMINATED SIGN, FIBER OPTIC "NO LEFT TURN"
[E]	[E]	ILLUMINATED SIGN, FIBER OPTIC "NO RIGHT TURN"
[HC]	[HC]	GROUND ROD AT HANDHOLE, DOUBLE HANDHOLE, OR CONTROLLER
[P]	[P]	GROUND ROD AT POST OR MAST ARM POLE
[S]	[S]	GROUND ROD AT ELECTRIC SERVICE INSTALLATION
[1]	[1]	GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
[24]	[24]	FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F & SM12F
[V]	[V]	MICROWAVE VEHICLE SENSOR
[C]	[C]	VIDEO DETECTOR
[C]	[C]	CLOSED CIRCUIT TV
[E]	[E]	EMERGENCY VEHICLE LIGHT DETECTOR
[B]	[B]	CONFIRMATION BEACON
[B]	[B]	UNINTERRUPTIBLE POWER SUPPLY



SUMMARY OF QUANTITIES

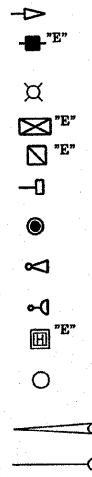
QUANTITY	UNIT	ITEM	QUANTITY	UNIT	ITEM
697	SQ FT	PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH	2	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 34 FT.
697	SQ FT	SIDEWALK REMOVAL	1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 42 FT.
0.1	L SUM	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	12	FOOT	CONCRETE FOUNDATION, TYPE A
0.1	L SUM	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	4	FOOT	CONCRETE FOUNDATION, TYPE C
0.1	L SUM	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	30	FOOT	CONCRETE FOUNDATION, TYPE E 30" DIAMETER
15	SQ FT	SIGN PANEL - TYPE 2	15	FOOT	CONCRETE FOUNDATION, TYPE E 36" DIAMETER
101	FOOT	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	1	EACH	DRILL EXISTING HANDHOLE
202	SQ FT	THERMOPLASTIC PAVEMENT MARKING REMOVAL	9	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM
571	FOOT	CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	5	EACH	INDUCTIVE LOOP DETECTOR
13	FOOT	CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	516	FOOT	DETECTOR LOOP, TYPE I
10	FOOT	CONDUIT IN TRENCH, 5" DIA., GALVANIZED STEEL	1	EACH	TEMPORARY TRAFFIC SIGNAL INSTALLATION
39	FOOT	CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL	1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
101	FOOT	CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL	6	EACH	REMOVE EXISTING HANDHOLE
100	FOOT	CONDUIT PUSHED, 3" DIA., GALVANIZED STEEL	6	EACH	REMOVE EXISTING CONCRETE FOUNDATION
93	FOOT	CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL	8	EACH	SIGNAL HEAD, L.E.D., 1-FACE, 3-SECTION, MAST ARM MOUNTED
1	EACH	REMOVE EXISTING JUNCTION BOX	3	EACH	SIGNAL HEAD, L.E.D., 1-FACE, 3-SECTION, BRACKET MOUNTED
5	EACH	HANDHOLE	1	EACH	SIGNAL HEAD, L.E.D., 1-FACE, 5-SECTION, BRACKET MOUNTED
2	EACH	HEAVY-DUTY HANDHOLE	1	EACH	SIGNAL HEAD, L.E.D., 1-FACE, 5-SECTION, MAST ARM MOUNTED
1	EACH	DOUBLE HANDHOLE	1	EACH	TEMPORARY TRAFFIC SIGNAL TIMINGS
635	FOOT	TRENCH AND BACKFILL FOR ELECTRICAL WORK	1	EACH	SERVICE INSTALLATION, POLE MOUNT
1	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	1	EACH	UNINTERRUPTIBLE POWER SUPPLY
1	EACH	TRANSCIVER - FIBER OPTIC			
1740	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C			
428	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C			
1020	FOOT	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1-PAIR			
113	FOOT	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C			
430	FOOT	ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C			
2	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.			
1	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.			

TYPE	NO. LAMPS	WATTAGE INCAND.	LED	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	13	17	0.50	110.50	
(YELLOW)	13	25	0.25	81.25	
(GREEN)	13	15	0.25	48.75	
ARROW	4	12	0.10	4.80	
PED. SIGNAL		25	1.00	-	
CONTROLLER	1	100	1.00	100.00	
ILLUM. SIGN			0.05	-	
FLASHER				0.05	-
ENERGY COSTS TO: VILLAGE OF MELROSE PARK TOTAL=					345.30
ENERGY SUPPLY CONTACT: MR. MIKE BELL					
PHONE: (708)410-5314					
COMPANY: COMMONWEALTH EDISON					

FILE NAME =	DESIGNED - N.B.	REVISOR -	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
ci:\projects\traffic\070227\us12_20_45.dgn	DRAWN - N.B.	REVISOR -	330	2008-006 TS	COOK	104	42	
PLOT SCALE = 40,0000' / IN.	CHECKED - D.B.	REVISOR -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION				PROPOSED CABLE PLAN	
PLOT DATE = 10/10/2008	DATE - 09/04/2008	REVISOR -	US 12/20/45(MANNHEIM ROAD) AT SOUTH RETAIL ENTRANCE				CONTRACT NO. 60E31	
			SCALE: NTS	SHEET NO. OF SHEETS	STA. TO STA.	FED. ROAD DIST. NO. (ILLINOIS) FED. AID PROJECT		

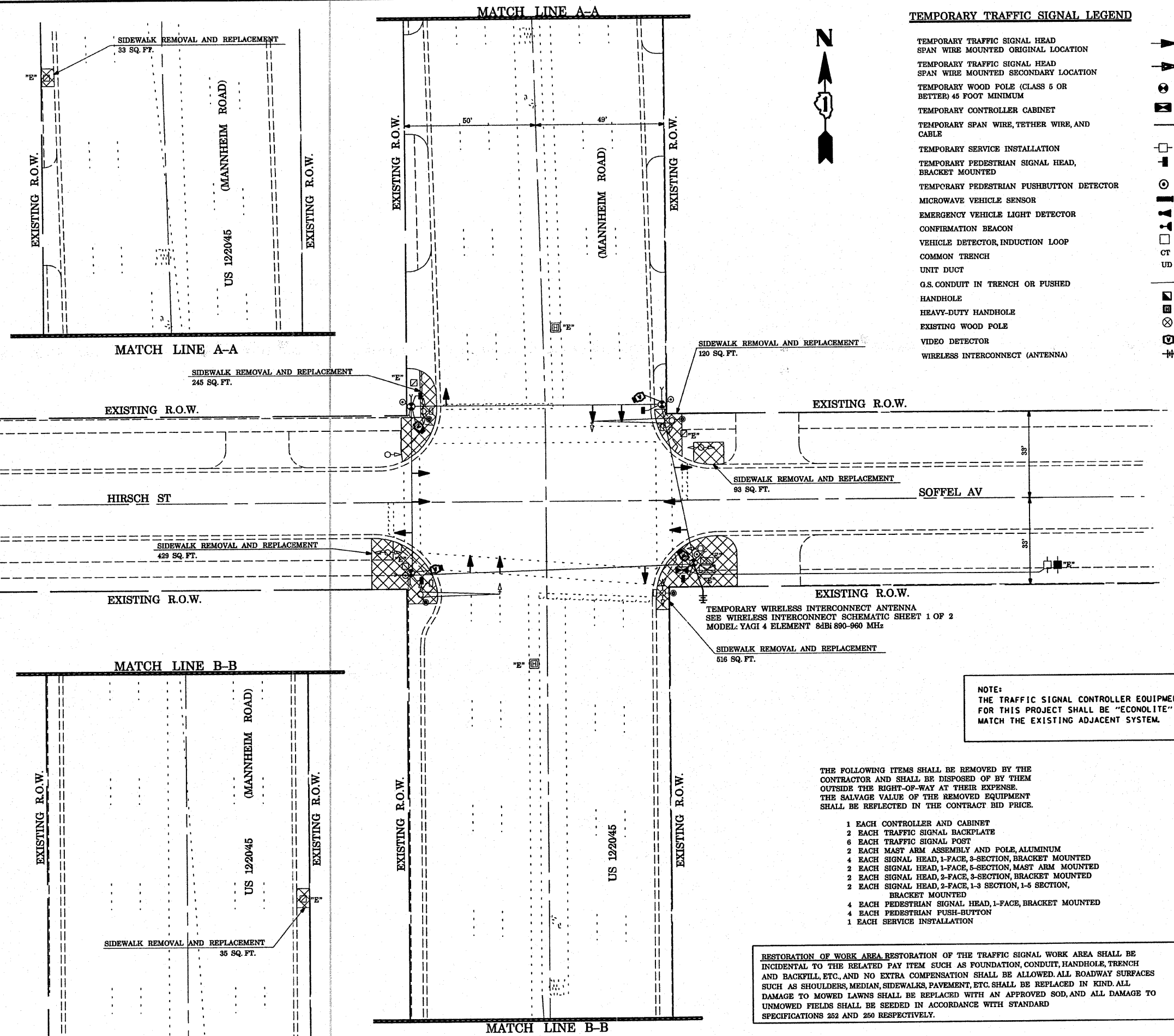
EXISTING EQUIPMENT TO BE REMOVED LEGEND

- EXISTING SIGNAL HEAD TO BE REMOVED
- EXISTING SERVICE INSTALLATION TO BE REMOVED
- EXISTING STREET LIGHT, FOUNDATION AND LUMINAIRE TO REMAIN
- EXISTING CONTROLLER TO BE REMOVED
- EXISTING HANDHOLE TO BE REMOVED
- EXISTING PEDESTRIAN SIGNAL HEAD TO BE REMOVED
- EXISTING PEDESTRIAN PUSH BUTTON TO BE REMOVED
- EMERGENCY VEHICLE LIGHT DETECTOR TO BE REMOVED
- CONFIRMATION BEACON TO BE REMOVED
- EXISTING HEAVY-DUTY HANDHOLE TO BE REMOVED
- EXISTING SIGNAL POST AND FOUNDATION TO BE REMOVED
- EXISTING ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED
- EXISTING STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVED



TEMPORARY TRAFFIC SIGNAL LEGEND

- TEMPORARY TRAFFIC SIGNAL HEAD
- SPAN WIRE MOUNTED ORIGINAL LOCATION
- TEMPORARY TRAFFIC SIGNAL HEAD
- SPAN WIRE MOUNTED SECONDARY LOCATION
- TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT MINIMUM
- TEMPORARY CONTROLLER CABINET
- TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE
- TEMPORARY SERVICE INSTALLATION
- TEMPORARY PEDESTRIAN SIGNAL HEAD, BRACKET MOUNTED
- TEMPORARY PEDESTRIAN PUSHBUTTON DETECTOR
- MICROWAVE VEHICLE SENSOR
- EMERGENCY VEHICLE LIGHT DETECTOR
- CONFIRMATION BEACON
- VEHICLE DETECTOR, INDUCTION LOOP
- COMMON TRENCH
- UNIT DUCT
- G.S. CONDUIT IN TRENCH OR PUSHED
- HANDHOLE
- HEAVY-DUTY HANDHOLE
- EXISTING WOOD POLE
- VIDEO DETECTOR
- WIRELESS INTERCONNECT (ANTENNA)



NOTES FOR TEMPORARY TRAFFIC SIGNALS

1. ALL CONTROL EQUIPMENT INCLUDING EMERGENCY PRE-EMPTION AND COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNAL(S) SHALL BE FURNISHED BY THE CONTRACTOR.
2. ONLY CONTROLLERS SUPPLIED BY ONE OF THE DISTRICT APPROVED CLOSED LOOP EQUIPMENT MANUFACTURERS WILL BE APPROVED FOR USE AT TEMPORARY SIGNAL LOCATIONS. ALL CONTROLLERS USED FOR TEMPORARY TRAFFIC SIGNALS SHALL BE FULLY ACTUATED NEMA MICROPROCESSOR BASED WITH RS232 DATA ENTRY PORTS COMPATIBLE WITH EXISTING MONITORING SOFTWARE APPROVED BY IDOT DISTRICT 1, INSTALLED IN A NEMA TS1 OR TS2 CABINET. ONLY ONE BRAND OF CONTROLLER WILL BE ACCEPTED FOR ANY ONE CONTRACT.
3. ALL TRAFFIC SIGNAL SECTIONS AND PEDESTRIAN SIGNAL SECTIONS SHALL BE 12" HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL FURNISH ENOUGH CABLE SLACK TO RELOCATE HEADS TO ANY POSITION ON THE SPAN WIRE OR AT LOCATIONS ILLUSTRATED ON THE PLANS FOR CONSTRUCTION STAGING. THE TEMPORARY TRAFFIC SIGNAL SHALL REMAIN IN OPERATION DURING ALL SIGNAL HEAD RELOCATIONS. EACH TEMPORARY TRAFFIC SIGNAL HEAD SHALL HAVE ITS OWN CABLE FROM THE CONTROLLER CABINET TO THE SIGNAL HEAD.
4. ALL EXISTING STREET NAME AND INTERSECTION REGULATORY SIGNS SHALL BE REMOVED FROM EXISTING POLES, RELOCATED AND SECURELY FASTENED TO THE SIGNAL SPAN WIRE OR WOOD POLE AS DIRECTED BY THE ENGINEER.
5. ANY TEMPORARY SIGNAL WITHIN AN EXISTING CLOSED LOOP TRAFFIC SIGNAL SYSTEM SHALL BE INTERCONNECTED TO THAT SYSTEM USING SIMILAR BRAND CONTROL EQUIPMENT.
6. THE TEMPORARY TRAFFIC SIGNAL SHALL HAVE THE SIGNAL HEAD DISPLAYS, SIGNAL HEAD PLACEMENTS AND CONTROLLER PHASING MATCH THE EXISTING TRAFFIC SIGNAL, AT THE TIME OF THE TURN ON, IF NO TRAFFIC STAGING IS IN PLACE OR WILL NOT BE STAGED ON THE DAY OF THE TURN ON.

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

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

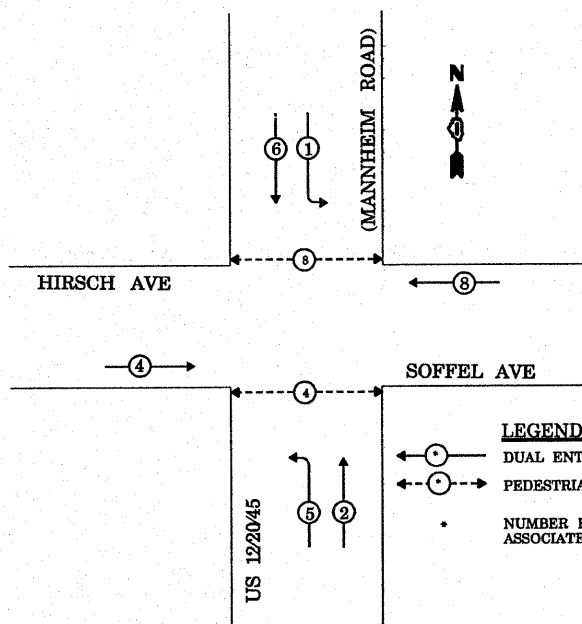
- 1 EACH CONTROLLER AND CABINET
- 2 EACH TRAFFIC SIGNAL BACKPLATE
- 6 EACH TRAFFIC SIGNAL POST
- 2 EACH MAST ARM ASSEMBLY AND POLE, ALUMINUM
- 4 EACH SIGNAL HEAD, 1-FACE, 3-SECTION, BRACKET MOUNTED
- 2 EACH SIGNAL HEAD, 1-FACE, 5-SECTION, MAST ARM MOUNTED
- 2 EACH SIGNAL HEAD, 2-FACE, 3-SECTION, BRACKET MOUNTED
- 2 EACH SIGNAL HEAD, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED
- 4 EACH PEDESTRIAN SIGNAL HEAD, 1-FACE, BRACKET MOUNTED
- 4 EACH PEDESTRIAN PUSH-BUTTON
- 1 EACH SERVICE INSTALLATION

RESTORATION OF WORK AREA RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC. AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIAN, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

FILE NAME =	USER NAME = kanthphixaybc	DESIGNED - N.B.	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TEMPORARY TRAFFIC SIGNAL AND REMOVAL PLAN				F.A.P. RTE. 330	SECTION 2008-006 TS	COUNTY COOK	TOTAL SHEETS 104	SHEET NO. 44
al\projects\traffic\1070027\us12_20_45.dgn		DRAWN - N.B.	REVISED -		US 12/20/45 (MANNHEIM RD) AT HIRSCH ST (SOFFEL AV)				CONTRACT NO. 60E31				
PLOT SCALE = 1/8" = 20'		CHECKED - D.B.	REVISED -		SCALE: 1" = 20'	SHEET NO.	OF	SHEETS	STA.	TO	STA.	FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT	
PLOT DATE = 10/10/2008		DATE - 09/04/2008	REVISED -										



CONTROLLER SEQUENCE

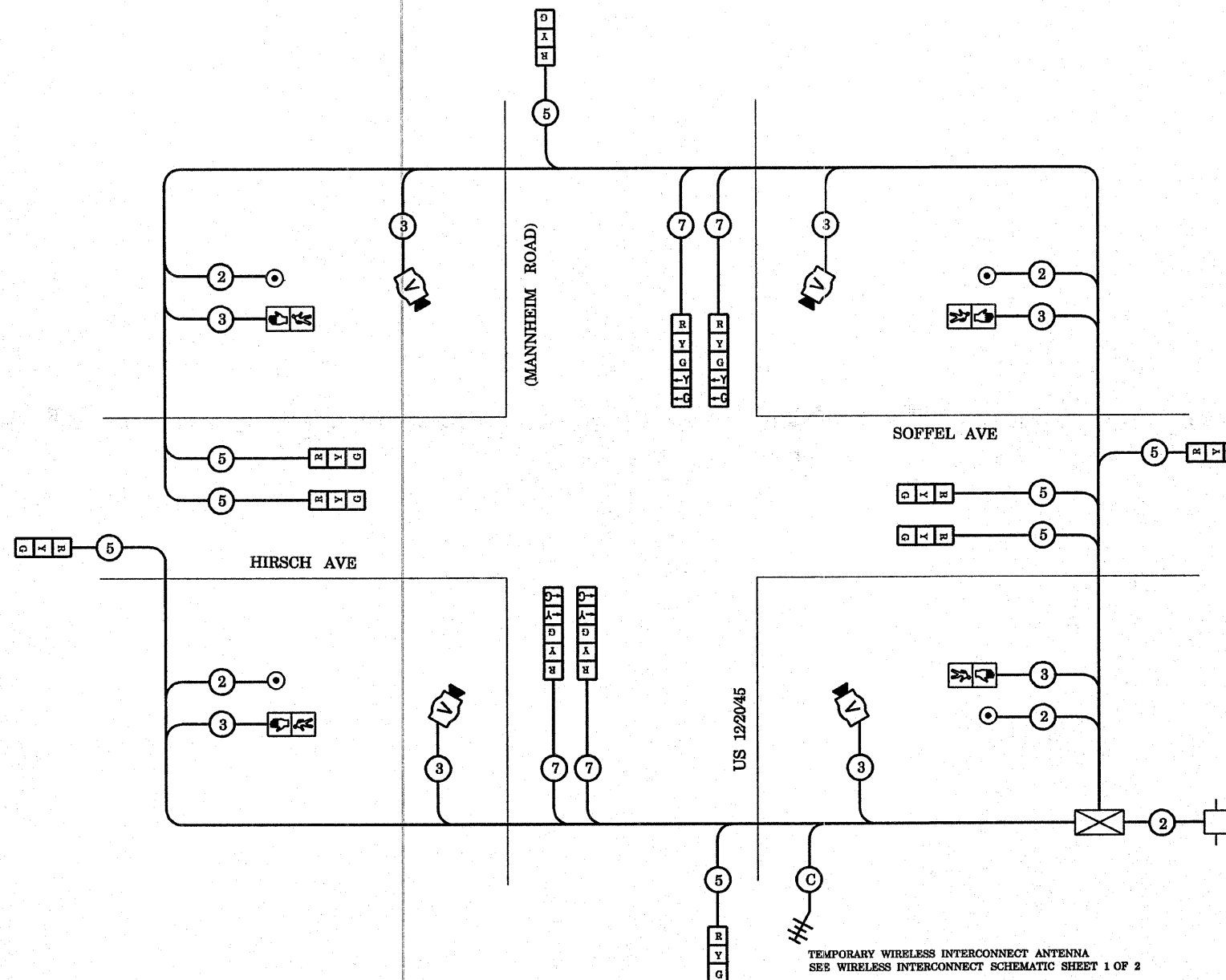


LEGEND
 ○ DUAL ENTRY PHASE
 ○ PEDESTRIAN PHASE
 * NUMBER REFERS TO ASSOCIATED PHASE

TEMPORARY PHASE DESIGNATION DIAGRAM

TEMPORARY CABLE DIAGRAM LEGEND

- TEMPORARY TRAFFIC SIGNAL SECTION OR PEDESTRIAN SIGNAL SECTION, 12" (300 mm)
- TEMPORARY CONTROLLER CABINET
- TEMPORARY SERVICE INSTALLATION
- INDICATES NUMBER OF CONDUCTORS IN CABLE. ALL CONDUCTORS TO BE NUMBERED 14 AWG WIRE UNLESS OTHERWISE NOTED.
- EMERGENCY VEHICLE LIGHT DETECTOR
- CONFIRMATION BEACON
- PEDESTRIAN PUSHBUTTON DETECTOR
- VEHICLE DETECTOR, INDUCTION LOOP
- 12" (300 mm) PEDESTRIAN SIGNAL SECTION
- MICROWAVE VEHICLE SENSOR
- VIDEO DETECTOR
- WIRELESS INTERCONNECT (ANTENNA)



TEMPORARY CABLE PLAN

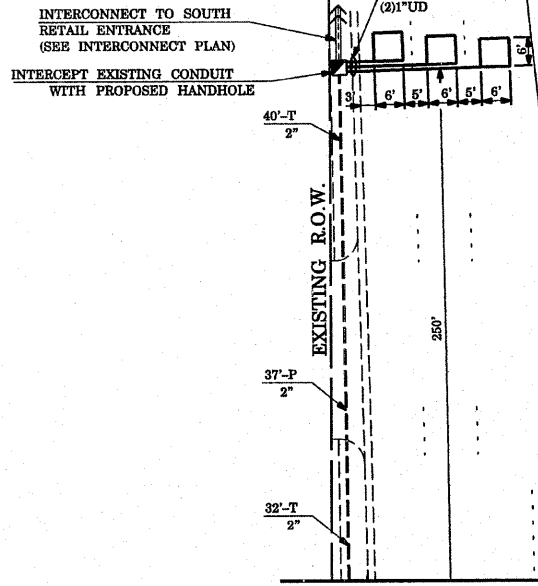
* TEMPORARY WIRELESS INTERCONNECT IS INCLUDED IN TEMPORARY TRAFFIC SIGNAL INSTALLATION PAY ITEM

TEMPORARY WIRELESS INTERCONNECT ANTENNA
 SEE WIRELESS INTERCONNECT SCHEMATIC SHEET 1 OF 2

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

TYPE	NO. LAMPS	WATTAGE		% OPERATION	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	12		17	0.50	102.00
(YELLOW)	12		25	0.25	75.00
(GREEN)	12		15	0.25	45.00
ARROW	8		12	0.10	9.60
PED SIGNAL	4		25	1.00	100.00
CONTROLLER	1		100	1.00	100.00
ILLUM. SIGN				0.05	-
FLASHER				0.05	-
ENERGY COSTS TO: VILLAGE OF MELROSE PARK					TOTAL = 431.60
ENERGY SUPPLY CONTACT: MR. MIKE BELL					
PHONE: (708)410-5314					
COMPANY: COMMONWEALTH EDISON					

FILE NAME =	USER NAME = kanthaphixybc	DESIGNED - N.B.	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TEMPORARY CABLE PLAN			F.A.P. RTE. 330	SECTION 2008-006 TS	COUNTY COOK	TOTAL SHEETS 104	SHEET NO. 45
ci:\projects\traffic\070027\us12_20_45.dgn		DRAWN - N.B.	REVISED -		US 12/2045 (MANNHEIM RD) AT HIRSCH(SOFFEL) AVE					CONTRACT NO. 60E31		
		CHECKED - D.B.	REVISED -		SCALE: NTS	SHEET NO.	OF SHEETS	STA.	TO STA.	FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT		
		DATE - 09/04/2008	REVISED -									

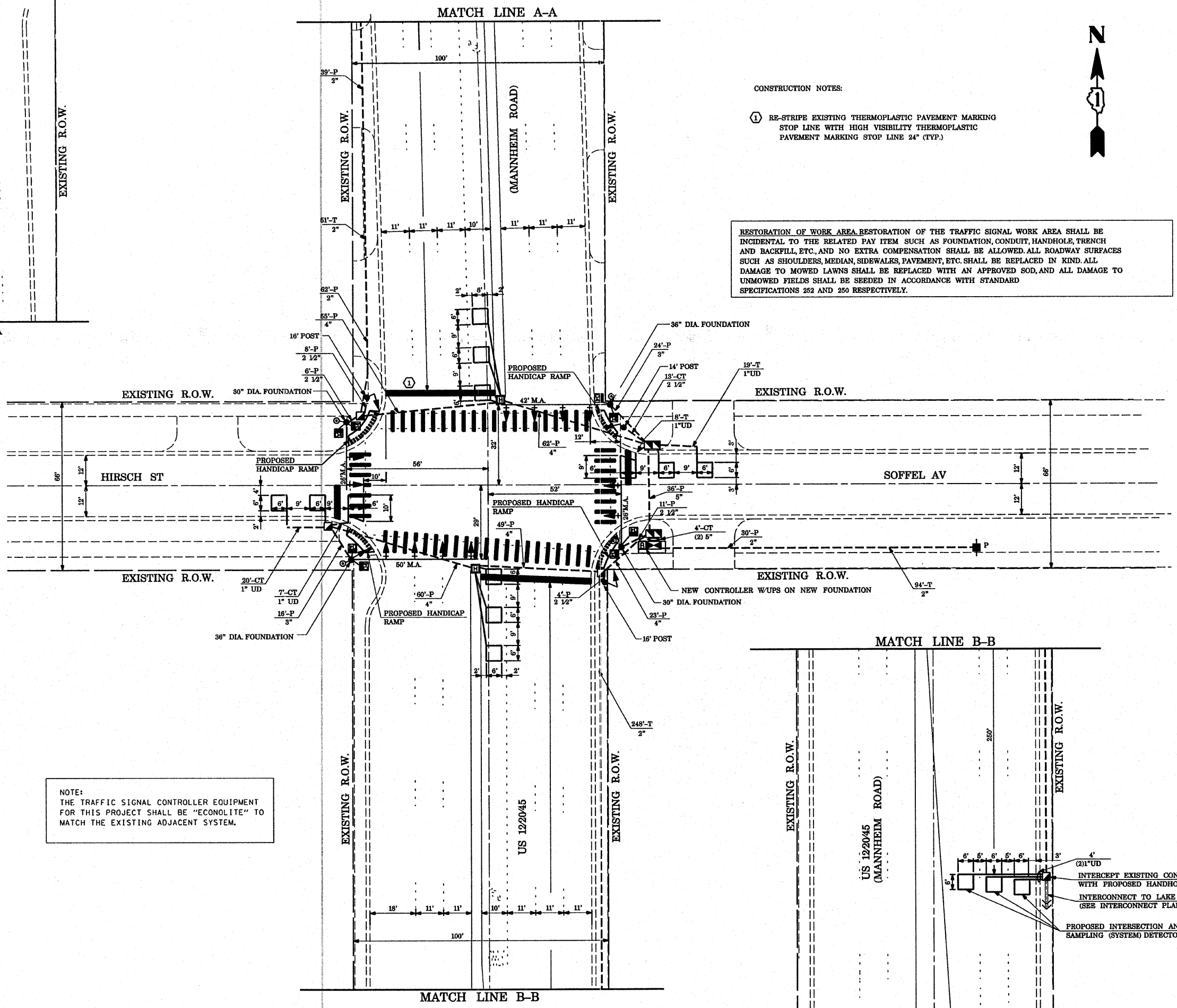


CONSTRUCTION NOTES:
 ① RE-STRIPE EXISTING THERMOPLASTIC PAVEMENT MARKING STOP LINE WITH HIGH VISIBILITY THERMOPLASTIC PAVEMENT MARKING STOP LINE 24" (TYP.)

RESTORATION OF WORK AREA RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIAN, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

TRAFFIC SIGNAL LEGEND

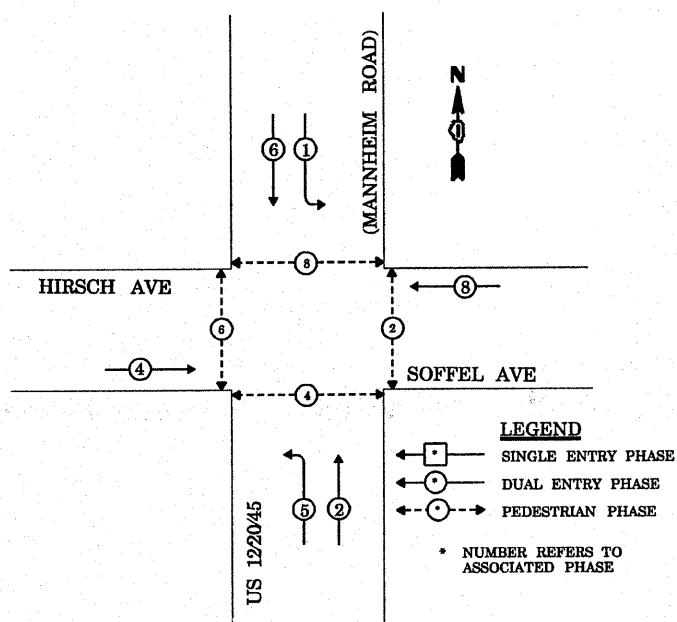
PROPOSED	EXISTING
CONTROLLER	
RAILROAD CONTROL CABINET	
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNTED	
SIGNAL HEAD	
SIGNAL HEAD WITH BACKPLATE	
SIGNAL HEAD, PEDESTRIAN	
SIGNAL POST	
MAST ARM ASSEMBLY AND POLE, STEEL	
MAST ARM ASSEMBLY AND POLE, ALUMINIUM	
COMMON TRENCH	
UNIT DUCT	
HANDHOLE	
HEAVY DUTY HANDHOLE	
DOUBLE HANDHOLE	
G.S.CONDUIT IN TRENCH OR PUSHED	
CAST IRON JUNCTION BOX	
SIGNAL HEAD OPTICALLY PROGRAMMED	
CONDUIT SPLICE	
WOOD POLE	
RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II	
VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE	
RAILROAD CONTROL CABINET	
ILLUMINATED SIGN, FIBER OPTIC "NO LEFT TURN"	
ILLUMINATED SIGN, FIBER OPTIC "NO RIGHT TURN"	
TELEPHONE CONNECTION	
PEDESTRIAN PUSHBUTTON DETECTOR	
DETECTOR LOOP, TYPE I	
PREFORMED DETECTOR LOOP	
VIDEO DETECTOR	
CLOSED CIRCUIT TV	
EMERGENCY VEHICLE SYSTEM DETECTOR	
CONFIRMATION BEACON	
UNINTERRUPTABLE POWER SUPPLY	
PEDESTRIAN SIGNAL HEAD WITH COUNTDOWN TIMER	



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

FILE NAME =	USER NAME = kanthaphix@bc	DESIGNED - N.B.	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PROPOSED TRAFFIC SIGNAL PLAN			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
et:\projects\traffic\1070027\us12_20_45.dgn		DRAWN - N.B.	REVISED -		US 12/2045 (MANNHEIM RD) AT HIRSCH ST (SOFFEL AV)			330	2008-006 TS	COOK	104	46
PLOT SCALE = 40.0000' / IN.		CHECKED - D.B.	REVISED -		SCALE: 1"=20'	SHEET NO.	OF SHEETS	STA.	TO STA.	CONTRACT NO. 60E31		
PLOT DATE = 10/10/2008		DATE = 09/04/2008	REVISED -					FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM

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

TYPE	NO. LAMPS	WATTAGE INCAND.	LED	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	16	17	0.50		136.00
(YELLOW)	16	25	0.25		100.00
(GREEN)	16	15	0.25		60.00
ARROW	8	12	0.10		9.60
PED. SIGNAL	8	25	1.00		200.00
CONTROLLER	1	100	1.00		100.00
ILLUM. SIGN			0.05		-
FLASHER					0.05
ENERGY COSTS TO: VILLAGE OF MELROSE PARK					TOTAL= 605.60
ENERGY SUPPLY CONTACT: MR. MIKE BELL					
PHONE: (708)410-5314					
COMPANY: COMMONWEALTH EDISON					

QUANTITY	UNIT	ITEM
1571	SQ FT	PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH
1571	SQ FT	SIDEWALK REMOVAL
0.1	L SUM	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501
0.1	L SUM	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701
0.1	L SUM	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801
27	SQ FT	SIGN PANEL - TYPE 1
30	SQ FT	SIGN PANEL - TYPE 2
456	FOOT	THERMOPLASTIC PAVEMENT MARKING - LINE 12"
114	FOOT	THERMOPLASTIC PAVEMENT MARKING - LINE 24"
716	SQ FT	THERMOPLASTIC PAVEMENT MARKING REMOVAL
465	FOOT	CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL
10	FOOT	CONDUIT IN TRENCH, 5" DIA., GALVANIZED STEEL
168	FOOT	CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL
25	FOOT	CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL
44	FOOT	CONDUIT PUSHED, 3" DIA., GALVANIZED STEEL
256	FOOT	CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL
36	FOOT	CONDUIT PUSHED, 5" DIA., GALVANIZED STEEL
5	EACH	HANDHOLE
2	EACH	HEAVY-DUTY HANDHOLE
2	EACH	DOUBLE HANDHOLE
470	FOOT	TRENCH AND BACKFILL FOR ELECTRICAL WORK
1	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL
1	EACH	TRANSCIEVER - FIBER OPTIC
553	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C
1177	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
2076	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 6C
715	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C
1867	FOOT	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1-PAIR

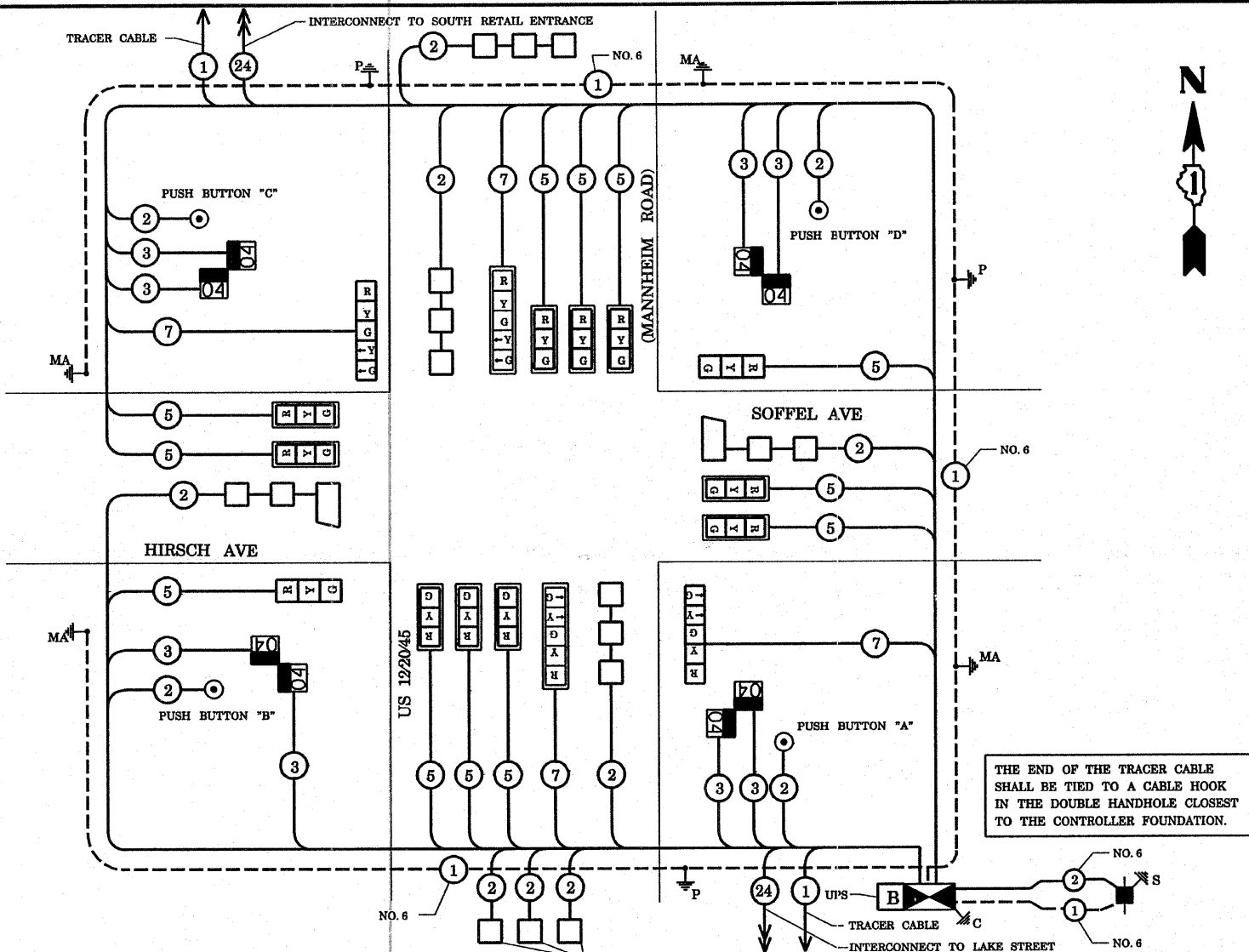
SUMMARY OF QUANTITIES

QUANTITY	UNIT	ITEM
143	FOOT	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C
459	FOOT	ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C
1	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.
2	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.
2	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 26 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 42 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 50 FT.
12	FOOT	CONCRETE FOUNDATION, TYPE A
4	FOOT	CONCRETE FOUNDATION, TYPE C
30	FOOT	CONCRETE FOUNDATION, TYPE E 30" DIAMETER
30	FOOT	CONCRETE FOUNDATION, TYPE E 36" DIAMETER
12	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM
8	EACH	INDUCTIVE LOOP DETECTOR
500	FOOT	DETECTOR LOOP, TYPE I
4	EACH	PEDESTRIAN PUSH-BUTTON
1	EACH	TEMPORARY TRAFFIC SIGNAL INSTALLATION
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
9	EACH	REMOVE EXISTING HANDHOLE
7	EACH	REMOVE EXISTING CONCRETE FOUNDATION
10	EACH	SIGNAL HEAD, L.E.D., 1-FACE, 3-SECTION, MAST ARM MOUNTED
2	EACH	SIGNAL HEAD, L.E.D., 1-FACE, 3-SECTION, BRACKET MOUNTED
2	EACH	SIGNAL HEAD, L.E.D., 1-FACE, 5-SECTION, BRACKET MOUNTED
2	EACH	SIGNAL HEAD, L.E.D., 1-FACE, 5-SECTION, MAST ARM MOUNTED
4	EACH	PEDESTRIAN SIGNAL HEAD, L.E.D., 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
1	EACH	TEMPORARY TRAFFIC SIGNAL TIMINGS
1	EACH	SERVICE INSTALLATION, POLE MOUNT
1	EACH	UNINTERRUPTIBLE POWER SUPPLY

CABLE PLAN LEGEND

PROPOSED	EXISTING	DESCRIPTION
[Symbol]	[Symbol]	8" (200mm) TRAFFIC SIGNAL SECTION
[Symbol]	[Symbol]	12" (300mm) TRAFFIC SIGNAL SECTION
[Symbol]	[Symbol]	12" (300mm) PEDESTRIAN SIGNAL SECTION
[Symbol]	[Symbol]	12" (300mm) PEDESTRIAN SIGNAL SECTION
[Symbol]	[Symbol]	CONTROLLER CABINET
[Symbol]	[Symbol]	SERVICE INSTALLATION
[Symbol]	[Symbol]	TELEPHONE CONNECTION
[Symbol]	[Symbol]	MAGNETIC DETECTOR
[Symbol]	[Symbol]	PUSHBUTTON DETECTOR
[Symbol]	[Symbol]	VEHICLE DETECTOR, INDUCTION LOOP
[Symbol]	[Symbol]	DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
[Symbol]	[Symbol]	SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD
[Symbol]	[Symbol]	RAILROAD CONTROL CABINET
[Symbol]	[Symbol]	ILLUMINATED SIGN, FIBER OPTIC "NO LEFT TURN"
[Symbol]	[Symbol]	ILLUMINATED SIGN, FIBER OPTIC "NO RIGHT TURN"
[Symbol]	[Symbol]	GROUND ROD AT HANDHOLE, DOUBLE HANDHOLE, OR CONTROLLER
[Symbol]	[Symbol]	GROUND ROD AT POST OR MAST ARM POLE
[Symbol]	[Symbol]	GROUND ROD AT ELECTRIC SERVICE INSTALLATION
[Symbol]	[Symbol]	GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
[Symbol]	[Symbol]	FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F & SM12F
[Symbol]	[Symbol]	MICROWAVE VEHICLE SENSOR
[Symbol]	[Symbol]	VIDEO DETECTOR
[Symbol]	[Symbol]	CLOSED CIRCUIT TV
[Symbol]	[Symbol]	EMERGENCY VEHICLE LIGHT DETECTOR
[Symbol]	[Symbol]	CONFIRMATION BEACON
[Symbol]	[Symbol]	UNINTERRUPTIBLE POWER SUPPLY
[Symbol]	[Symbol]	PEDESTRIAN SIGNAL HEAD WITH COUNTDOWN TIMER

NOTE:
PUSHBUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4
PUSHBUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6
PUSHBUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8
PUSHBUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED CABLE PLAN
US 12/20/45 (MANNHEIM RD) AT HIRSCH(SOFFEL) AVE

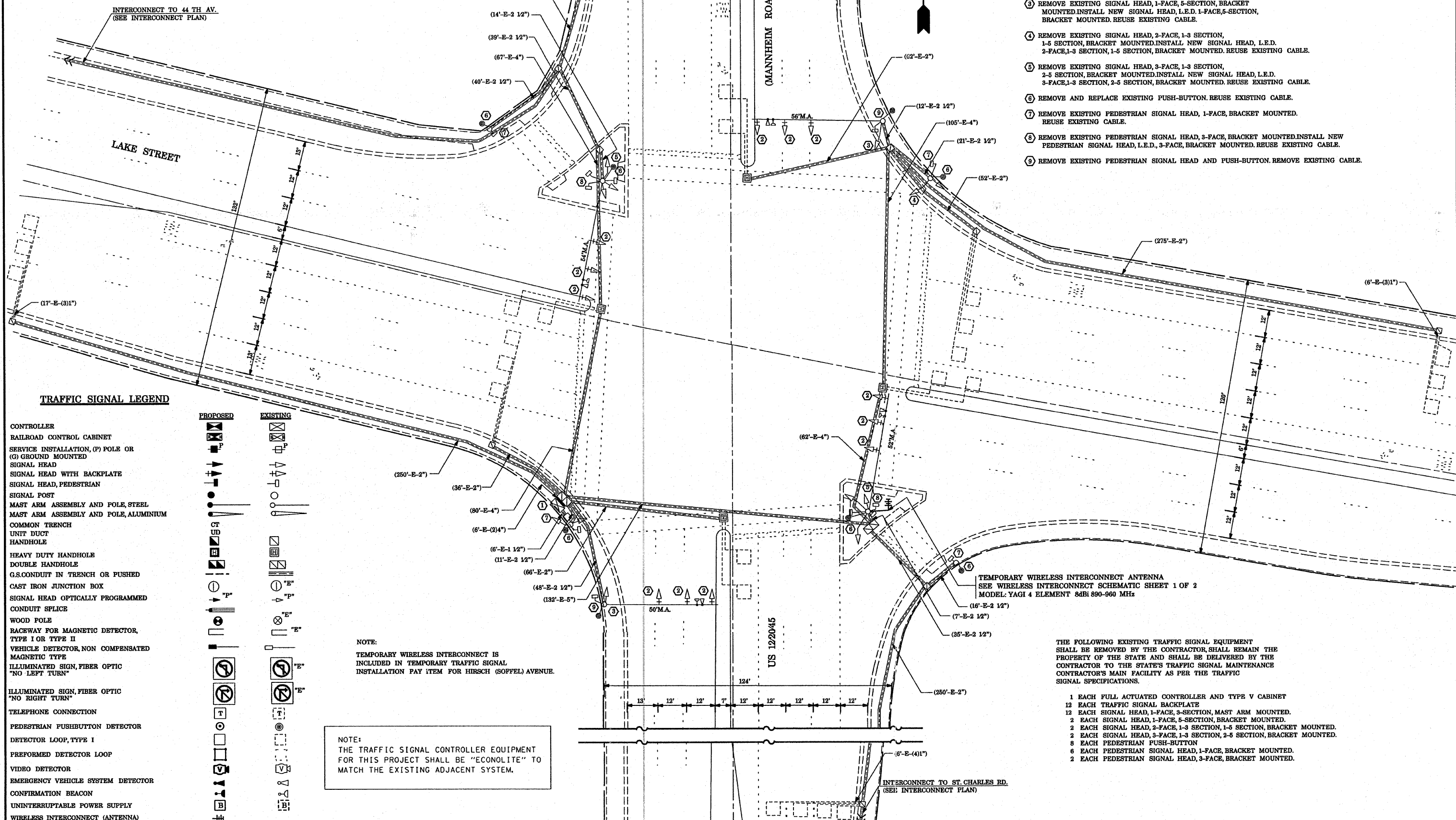
F.A.P. RTE. 330	SECTION 2008-006 TS	COUNTY COOK	TOTAL SHEETS 104	SHEET NO. 47
SCALE: NTS		SHEET NO. OF SHEETS STA. TO STA.		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

CONTRACT NO. 60E31

RESTORATION OF WORK AREA RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIAN, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

CONSTRUCTION NOTES:

- ① REMOVE EXISTING CONTROLLER AND REPLACE WITH NEW CONTROLLER WITH UPS USING EXISTING FOUNDATION. RELOCATION OF EXISTING EVP PHASING UNIT SHALL BE INCLUDED IN THE UNIT COST OF NEW CONTROLLER AND CABINET PAY ITEM.
- ② REMOVE EXISTING SIGNAL HEAD, 1-FACE, 3-SECTION, MAST ARM MOUNTED. INSTALL NEW SIGNAL HEAD, L.E.D. 1-FACE, 3-SECTION, MAST ARM MOUNTED. REUSE EXISTING CABLE.
- ③ REMOVE EXISTING SIGNAL HEAD, 1-FACE, 5-SECTION, BRACKET MOUNTED. INSTALL NEW SIGNAL HEAD, L.E.D. 1-FACE, 5-SECTION, BRACKET MOUNTED. REUSE EXISTING CABLE.
- ④ REMOVE EXISTING SIGNAL HEAD, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED. INSTALL NEW SIGNAL HEAD, L.E.D. 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED. REUSE EXISTING CABLE.
- ⑤ REMOVE EXISTING SIGNAL HEAD, 3-FACE, 1-3 SECTION, 2-5 SECTION, BRACKET MOUNTED. INSTALL NEW SIGNAL HEAD, L.E.D. 3-FACE, 1-3 SECTION, 2-5 SECTION, BRACKET MOUNTED. REUSE EXISTING CABLE.
- ⑥ REMOVE AND REPLACE EXISTING PUSH-BUTTON. REUSE EXISTING CABLE.
- ⑦ REMOVE EXISTING PEDESTRIAN SIGNAL HEAD, 1-FACE, BRACKET MOUNTED. REUSE EXISTING CABLE.
- ⑧ REMOVE EXISTING PEDESTRIAN SIGNAL HEAD, 3-FACE, BRACKET MOUNTED. INSTALL NEW PEDESTRIAN SIGNAL HEAD, L.E.D., 3-FACE, BRACKET MOUNTED. REUSE EXISTING CABLE.
- ⑨ REMOVE EXISTING PEDESTRIAN SIGNAL HEAD AND PUSH-BUTTON. REMOVE EXISTING CABLE.



TRAFFIC SIGNAL LEGEND

- | | | | |
|--|--|----------|--|
| CONTROLLER | | EXISTING | |
| RAILROAD CONTROL CABINET | | EXISTING | |
| SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNTED | | EXISTING | |
| SIGNAL HEAD | | EXISTING | |
| SIGNAL HEAD WITH BACKPLATE | | EXISTING | |
| SIGNAL HEAD, PEDESTRIAN | | EXISTING | |
| SIGNAL POST | | EXISTING | |
| MAST ARM ASSEMBLY AND POLE, STEEL | | EXISTING | |
| MAST ARM ASSEMBLY AND POLE, ALUMINIUM | | EXISTING | |
| COMMON TRENCH | | EXISTING | |
| UNIT DUCT | | EXISTING | |
| HANDHOLE | | EXISTING | |
| HEAVY DUTY HANDHOLE | | EXISTING | |
| DOUBLE HANDHOLE | | EXISTING | |
| G.S. CONDUIT IN TRENCH OR PUSHED | | EXISTING | |
| CAST IRON JUNCTION BOX | | EXISTING | |
| SIGNAL HEAD OPTICALLY PROGRAMMED | | EXISTING | |
| CONDUIT SPLICE | | EXISTING | |
| WOOD POLE | | EXISTING | |
| RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II | | EXISTING | |
| VEHICLE DETECTOR, NON COMPENSATED | | EXISTING | |
| MAGNETIC TYPE | | EXISTING | |
| ILLUMINATED SIGN, FIBER OPTIC "NO LEFT TURN" | | EXISTING | |
| ILLUMINATED SIGN, FIBER OPTIC "NO RIGHT TURN" | | EXISTING | |
| TELEPHONE CONNECTION | | EXISTING | |
| PEDESTRIAN PUSHBUTTON DETECTOR | | EXISTING | |
| DETECTOR LOOP, TYPE I | | EXISTING | |
| PERFORMED DETECTOR LOOP | | EXISTING | |
| VIDEO DETECTOR | | EXISTING | |
| EMERGENCY VEHICLE SYSTEM DETECTOR | | EXISTING | |
| CONFIRMATION BEACON | | EXISTING | |
| UNINTERRUPTIBLE POWER SUPPLY | | EXISTING | |
| WIRELESS INTERCONNECT (ANTENNA) | | EXISTING | |

NOTE:
TEMPORARY WIRELESS INTERCONNECT IS INCLUDED IN TEMPORARY TRAFFIC SIGNAL INSTALLATION PAY ITEM FOR HIRSCH (SOFFEL) AVENUE.

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

TEMPORARY WIRELESS INTERCONNECT ANTENNA
SEE WIRELESS INTERCONNECT SCHEMATIC SHEET 1 OF 2
MODEL: YAGI 4 ELEMENT 8dBi 890-960 MHz

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE STATE AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE STATE'S TRAFFIC SIGNAL MAINTENANCE CONTRACTOR'S MAIN FACILITY AS PER THE TRAFFIC SIGNAL SPECIFICATIONS.

- 1 EACH FULL ACTUATED CONTROLLER AND TYPE V CABINET
- 12 EACH TRAFFIC SIGNAL BACKPLATE
- 12 EACH SIGNAL HEAD, 1-FACE, 3-SECTION, MAST ARM MOUNTED.
- 2 EACH SIGNAL HEAD, 1-FACE, 5-SECTION, BRACKET MOUNTED.
- 2 EACH SIGNAL HEAD, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED.
- 2 EACH SIGNAL HEAD, 3-FACE, 1-3 SECTION, 2-5 SECTION, BRACKET MOUNTED.
- 8 EACH PEDESTRIAN PUSH-BUTTON
- 6 EACH PEDESTRIAN SIGNAL HEAD, 1-FACE, BRACKET MOUNTED.
- 2 EACH PEDESTRIAN SIGNAL HEAD, 3-FACE, BRACKET MOUNTED.

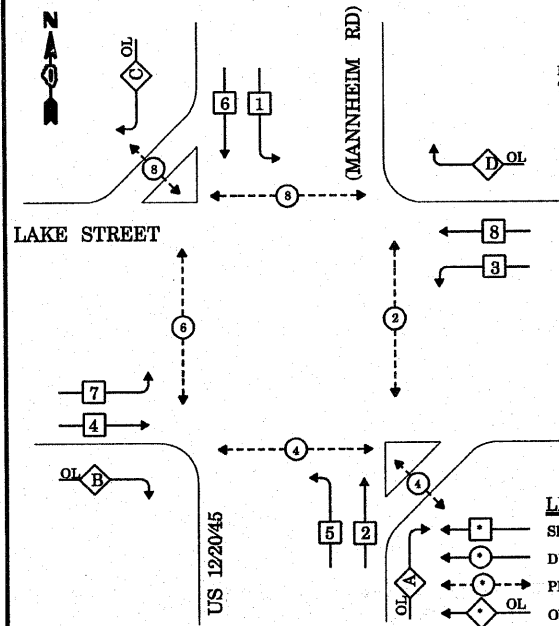
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ci:\projects\traffic\070027\us12_20_45.dgn		DRAWN - N.B.	REVISED -
		CHECKED - D.B.	REVISED -
		DATE - 09/04/2008	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING AND REMOVAL PLAN
US 12/2045 (MANNHEIM ROAD) AT LAKE AVENUE
SCALE: 1" = 20'
SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2008-006 TS	COOK	104	49
CONTRACT NO. 60E31				
FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT				

CONTROLLER SEQUENCE



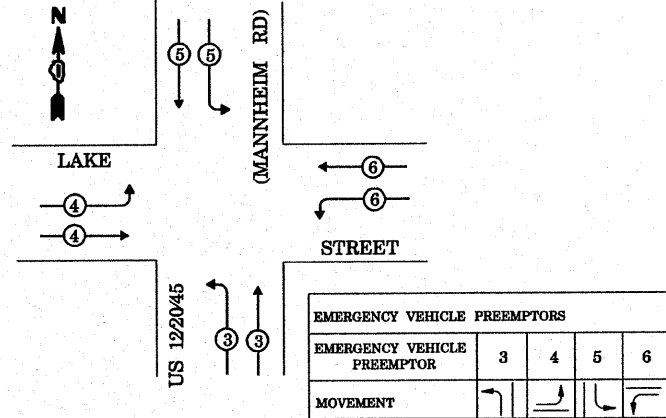
LEGEND
 SINGLE ENTRY PHASE
 DUAL ENTRY PHASE
 PEDESTRIAN PHASE
 OVERLAP
 NUMBER REFERS TO ASSOCIATED PHASE

PHASE DESIGNATION DIAGRAM

RIGHT TURN OVERLAP PHASE DESIGNATION

OVERLAP PHASE	PERMISSIVE PHASE	PROTECTED PHASE	DISPLAY
A =	2	3	2
B =	4	5	4
C =	6	7	6
D =	8	1	8

EMERGENCY VEHICLE PREEMPTION SEQUENCE

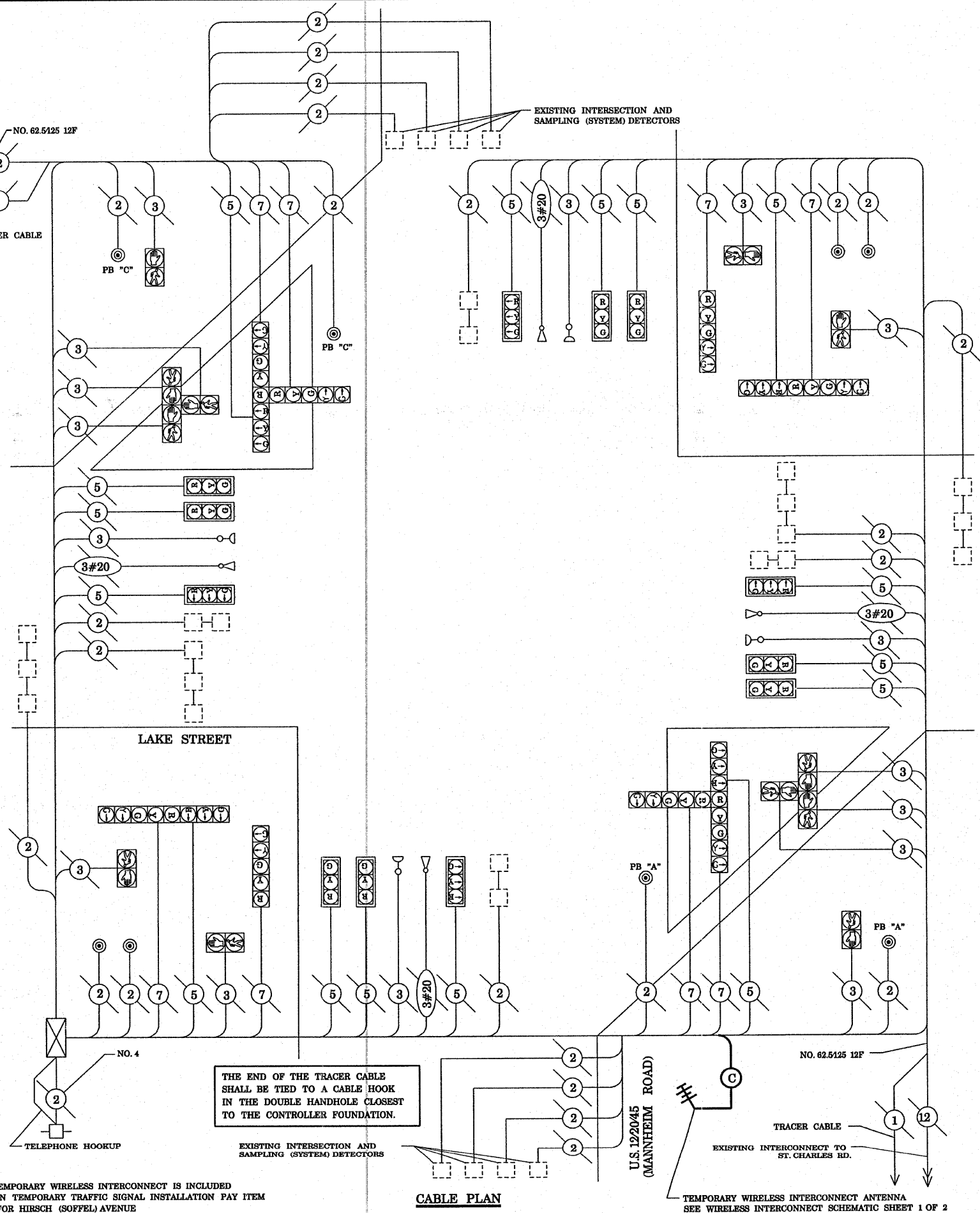


EMERGENCY VEHICLE PREEMPTORS				
EMERGENCY VEHICLE PREEMPTOR	3	4	5	6
MOVEMENT	→	→	→	→

TYPE	NO. LAMPS	WATTAGE INCAND.	LED	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	16	17		0.50	136.00
(YELLOW)	16	25		0.25	100.00
(GREEN)	16	15		0.25	60.00
ARROW	40	12		0.10	48.00
PED. SIGNAL	12	25		1.00	300.00
CONTROLLER	1	100		1.00	100.00
ILLUM. SIGN				0.05	-
FLASHER				0.05	-
ENERGY COSTS TO: VILLAGE OF MELROSE PARK					TOTAL = 744.00
ENERGY SUPPLY CONTACT: MR. MIKE BELL PHONE: (708)410-5314 COMPANY: COMMONWEALTH EDISON					

CABLE PLAN LEGEND

- | PROPOSED | EXISTING | |
|----------|----------|---|
| | | 8" (200mm) TRAFFIC SIGNAL SECTION |
| | | 12" (300mm) TRAFFIC SIGNAL SECTION |
| | | 12" (300mm) PEDESTRIAN SIGNAL SECTION |
| | | 12" (300mm) PEDESTRIAN SIGNAL SECTION |
| | | CONTROLLER CABINET |
| | | SERVICE INSTALLATION |
| | | TELEPHONE CONNECTION |
| | | MAGNETIC DETECTOR |
| | | PUSHBUTTON DETECTOR |
| | | VEHICLE DETECTOR, INDUCTION LOOP |
| | | DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED. |
| | | SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD |
| | | RAILROAD CONTROL CABINET |
| | | ILLUMINATED SIGN, FIBER OPTIC "NO LEFT TURN" |
| | | ILLUMINATED SIGN, FIBER OPTIC "NO RIGHT TURN" |
| | | GROUND ROD AT HANDHOLE, DOUBLE HANDHOLE, OR CONTROLLER |
| | | GROUND ROD AT POST OR MAST ARM POLE |
| | | GROUND ROD AT ELECTRIC SERVICE INSTALLATION |
| | | GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN) |
| | | FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F & SM12F |
| | | MICROWAVE VEHICLE SENSOR |
| | | VIDEO DETECTOR |
| | | CLOSED CIRCUIT TV |
| | | EMERGENCY VEHICLE LIGHT DETECTOR |
| | | CONFIRMATION BEACON |
| | | UNINTERRUPTIBLE POWER SUPPLY |
| | | WIRELESS INTERCONNECT (ANTENNA) |



THE END OF THE TRACER CABLE SHALL BE TIED TO A CABLE HOOK IN THE DOUBLE HANDHOLE CLOSEST TO THE CONTROLLER FOUNDATION.

* TEMPORARY WIRELESS INTERCONNECT IS INCLUDED IN TEMPORARY TRAFFIC SIGNAL INSTALLATION PAY ITEM FOR HIRSCH (SOFFEL) AVENUE

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

NOTE: PUSHBUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4
 PUSHBUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8

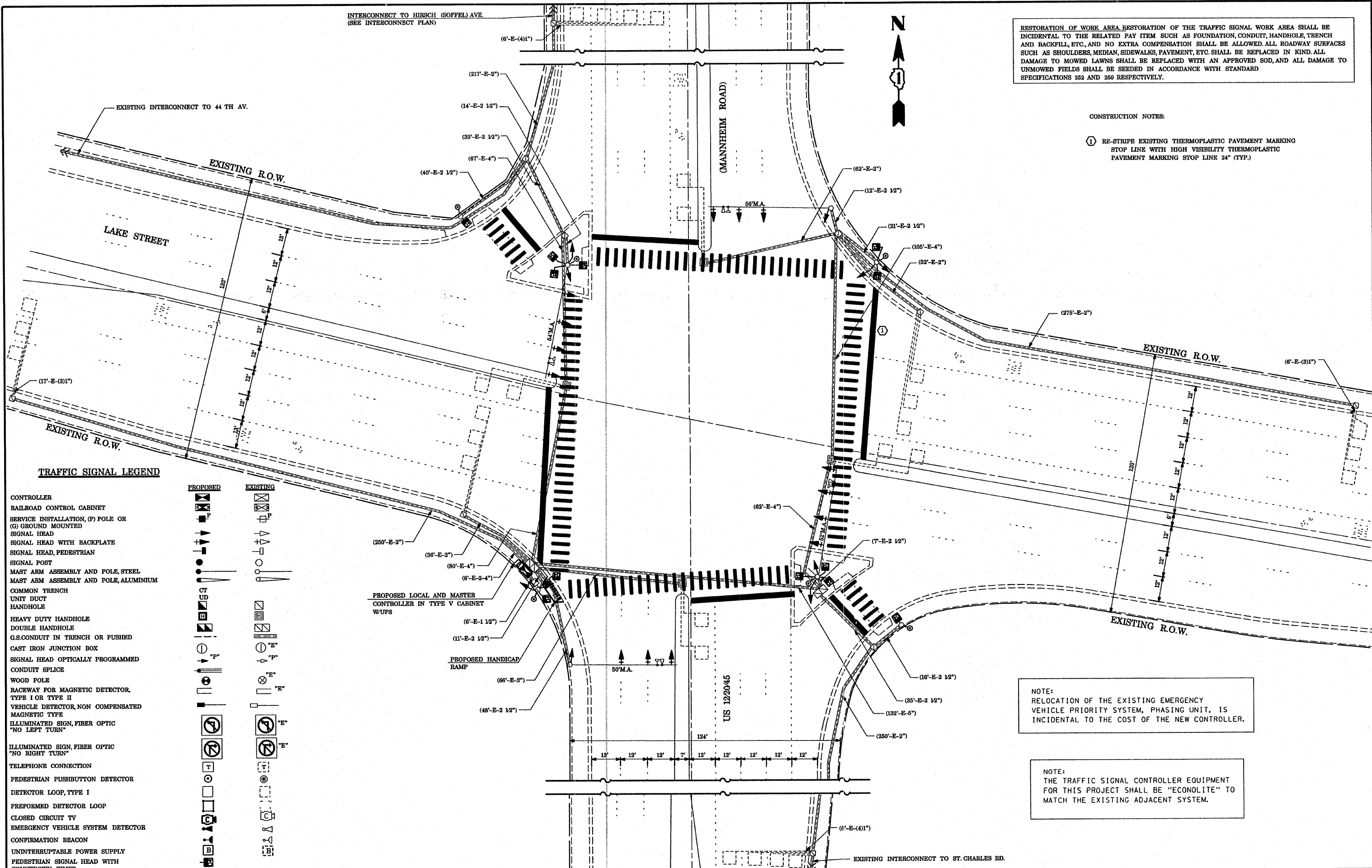
INTERCONNECT TO HIRSCH (SOFFEL) AVE.
(SEE INTERCONNECT PLAN)



RESTORATION OF WORK AREA RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIAN, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

CONSTRUCTION NOTES:

- ① RE-STRIPE EXISTING THERMOPLASTIC PAVEMENT MARKING STOP LINE WITH HIGH VISIBILITY THERMOPLASTIC PAVEMENT MARKING STOP LINE 24" (TYP.)



TRAFFIC SIGNAL LEGEND

- | | | | |
|--|--|----------|--|
| CONTROLLER | | EXISTING | |
| RAILROAD CONTROL CABINET | | EXISTING | |
| SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNTED | | EXISTING | |
| SIGNAL HEAD | | EXISTING | |
| SIGNAL HEAD WITH BACKPLATE | | EXISTING | |
| SIGNAL HEAD, PEDESTRIAN | | EXISTING | |
| SIGNAL POST | | EXISTING | |
| MAST ARM ASSEMBLY AND POLE, STEEL | | EXISTING | |
| MAST ARM ASSEMBLY AND POLE, ALUMINIUM | | EXISTING | |
| COMMON TRENCH | | EXISTING | |
| UNIT DUCT | | EXISTING | |
| HANDHOLE | | EXISTING | |
| HEAVY DUTY HANDHOLE | | EXISTING | |
| DOUBLE HANDHOLE | | EXISTING | |
| G.S.CONDUIT IN TRENCH OR PUSHED | | EXISTING | |
| CAST IRON JUNCTION BOX | | EXISTING | |
| SIGNAL HEAD OPTICALLY PROGRAMMED | | EXISTING | |
| CONDUIT SPLICE | | EXISTING | |
| WOOD POLE | | EXISTING | |
| RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II | | EXISTING | |
| VEHICLE DETECTOR, NON COMPENSATED | | EXISTING | |
| MAGNETIC TYPE | | EXISTING | |
| ILLUMINATED SIGN, FIBER OPTIC "NO LEFT TURN" | | EXISTING | |
| ILLUMINATED SIGN, FIBER OPTIC "NO RIGHT TURN" | | EXISTING | |
| TELEPHONE CONNECTION | | EXISTING | |
| PEDESTRIAN PUSHBUTTON DETECTOR | | EXISTING | |
| DETECTOR LOOP, TYPE I | | EXISTING | |
| PERFORMED DETECTOR LOOP | | EXISTING | |
| CLOSED CIRCUIT TV | | EXISTING | |
| EMERGENCY VEHICLE SYSTEM DETECTOR | | EXISTING | |
| CONFIRMATION BEACON | | EXISTING | |
| UNINTERRUPTABLE POWER SUPPLY | | EXISTING | |
| PEDESTRIAN SIGNAL HEAD WITH COUNTDOWN TIMER | | EXISTING | |

PROPOSED LOCAL AND MASTER CONTROLLER IN TYPE V CABINET W/UPS

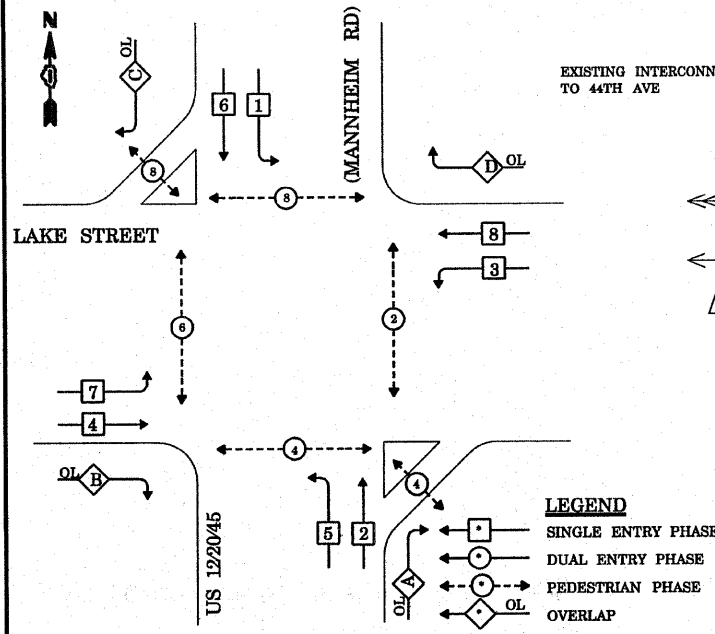
PROPOSED HANDICAP RAMP

NOTE:
RELOCATION OF THE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT, IS INCIDENTAL TO THE COST OF THE NEW CONTROLLER.

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

FILE NAME =	USER NAME = kanthaphixaybc	DESIGNED - N.B.	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PROPOSED TRAFFIC SIGNAL PLAN US 12/2045 (MANNHEIM ROAD) AT LAKE AVENUE			F.A.P. RTE. 330	SECTION 2008-006 TS	COUNTY COOK	TOTAL SHEETS 104	SHEET NO. 51
PROJECTS\traffic\1070027\us12_20_45.dgn		DRAWN - N.B.	REVISED -		SCALE: 1" = 20'	SHEET NO.	OF SHEETS	STA.	TO STA.	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT	CONTRACT NO. 60E31
PLOT SCALE = 48.0000' / IN.		CHECKED - D.B.	REVISED -									
PLOT DATE = 10/10/2008		DATE - 09/04/2008	REVISED -									

CONTROLLER SEQUENCE



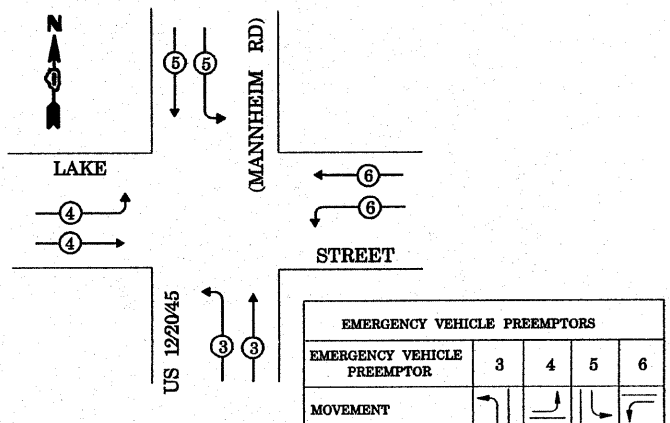
LEGEND
 SINGLE ENTRY PHASE
 DUAL ENTRY PHASE
 PEDESTRIAN PHASE
 OVERLAP
 NUMBER REFERS TO ASSOCIATED PHASE

PHASE DESIGNATION DIAGRAM

RIGHT TURN OVERLAP PHASE DESIGNATION

OVERLAP PHASE	PERMISSIVE PHASE	PROTECTED PHASE	DISPLAY
A	2	3	2
B	4	5	4
C	6	7	6
D	8	1	8

EMERGENCY VEHICLE PREEMPTION SEQUENCE



EMERGENCY VEHICLE PREEMPTORS				
EMERGENCY VEHICLE PREEMPTOR	3	4	5	6
MOVEMENT	→	→	→	→

TYPE	NO. LAMPS	WATTAGE INCAND.	LED	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	24	17		0.50	204.00
(YELLOW)	24	25		0.25	150.00
(GREEN)	24	15		0.25	90.00
ARROW	16	12		0.10	19.20
PED. SIGNAL	12	25		1.00	300.00
CONTROLLER	1	100		1.00	100.00
ILLUM. SIGN				0.05	-
FLASHER				0.05	-

ENERGY COSTS TO: **VILLAGE OF MELROSE PARK** TOTAL = 863.20

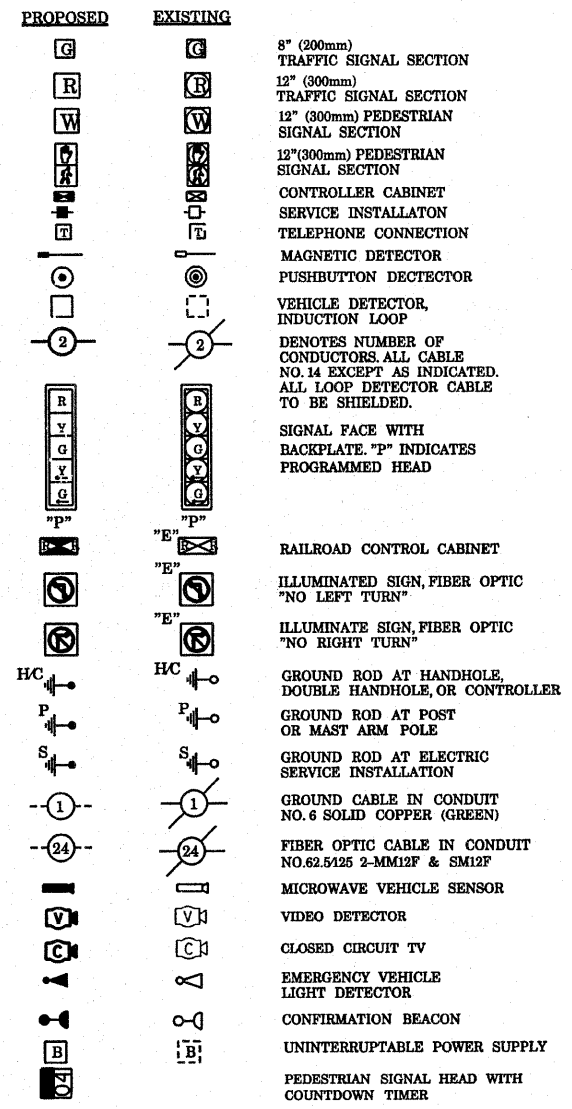
ENERGY SUPPLY CONTACT: **MR. MIKE BELL**
 PHONE: (708)410-5314
 COMPANY: COMMONWEALTH EDISON

NOTE:

PUSHBUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4
 PUSHBUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6
 PUSHBUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8
 PUSHBUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8

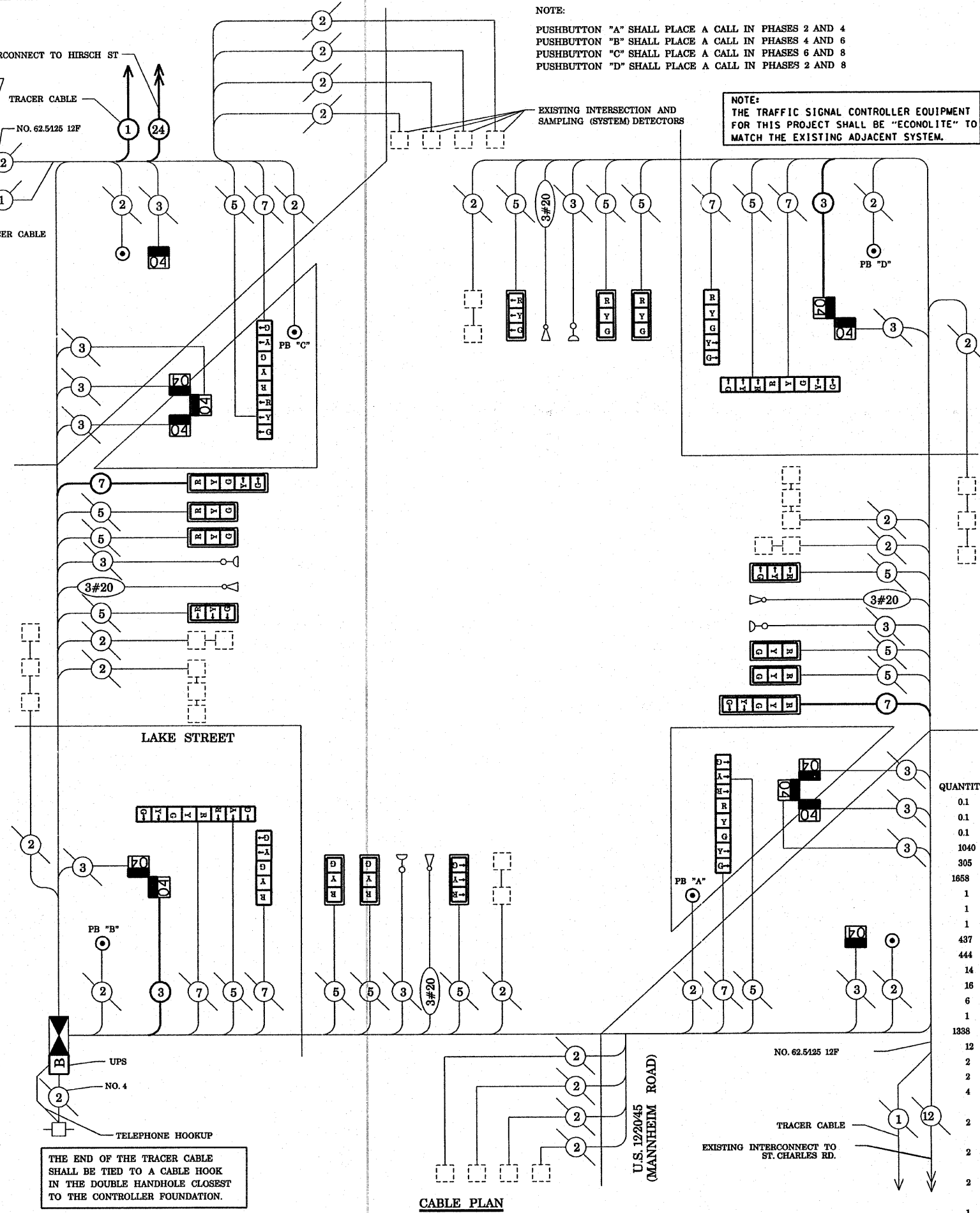
NOTE:
 THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

CABLE PLAN LEGEND



SCHEDULE OF QUANTITIES

QUANTITY	UNIT	ITEM
0.1	L SUM	TRAFFIC CONTROL AND PROTECTION, STANDARD 701601
0.1	L SUM	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701
0.1	L SUM	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801
1040	FOOT	THERMOPLASTIC PAVEMENT MARKING - LINE 12"
305	FOOT	THERMOPLASTIC PAVEMENT MARKING - LINE 24"
1658	SQ FT	THERMOPLASTIC PAVEMENT MARKING REMOVAL
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
1	EACH	FULL-ACTUATED CONTROLLER AND TYPE V CABINET, SPECIAL
1	EACH	MASTER CONTROLLER, SPECIAL
437	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
444	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C
14	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM
16	EACH	INDUCTIVE LOOP DETECTOR
6	EACH	PEDESTRIAN PUSH-BUTTON
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1338	FOOT	REMOVE ELECTRIC CABLE FROM CONDUIT
12	EACH	SIGNAL HEAD, L.E.D., 1-FACE, 3-SECTION, MAST ARM MOUNTED
2	EACH	SIGNAL HEAD, L.E.D., 1-FACE, 5-SECTION, BRACKET MOUNTED
2	EACH	SIGNAL HEAD, L.E.D., 1-FACE, 5-SECTION, MAST ARM MOUNTED
4	EACH	SIGNAL HEAD, L.E.D., 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED
2	EACH	PEDESTRIAN SIGNAL HEAD, L.E.D., 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
2	EACH	PEDESTRIAN SIGNAL HEAD, L.E.D., 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
2	EACH	PEDESTRIAN SIGNAL HEAD, L.E.D., 3-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
1	EACH	UNINTERRUPTIBLE POWER SUPPLY



CABLE PLAN

THE END OF THE TRACER CABLE SHALL BE TIED TO A CABLE HOOK IN THE DOUBLE HANDHOLE CLOSEST TO THE CONTROLLER FOUNDATION.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCALE:	NTS	SHEET NO.	OF	SHEETS	STA.	TO STA.	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
							330	2008-006 TS	COOK	104	52
										CONTRACT NO. 60E31	
										FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT	

FILE NAME	DESIGNED	REVISIONS
ci:\projects\traffic\070027\us12_20_45.dgn	- N.B.	-
	DRAWN - N.B.	REVISIONS -
	CHECKED - D.B.	REVISIONS -
	DATE - 09/04/2008	REVISIONS -

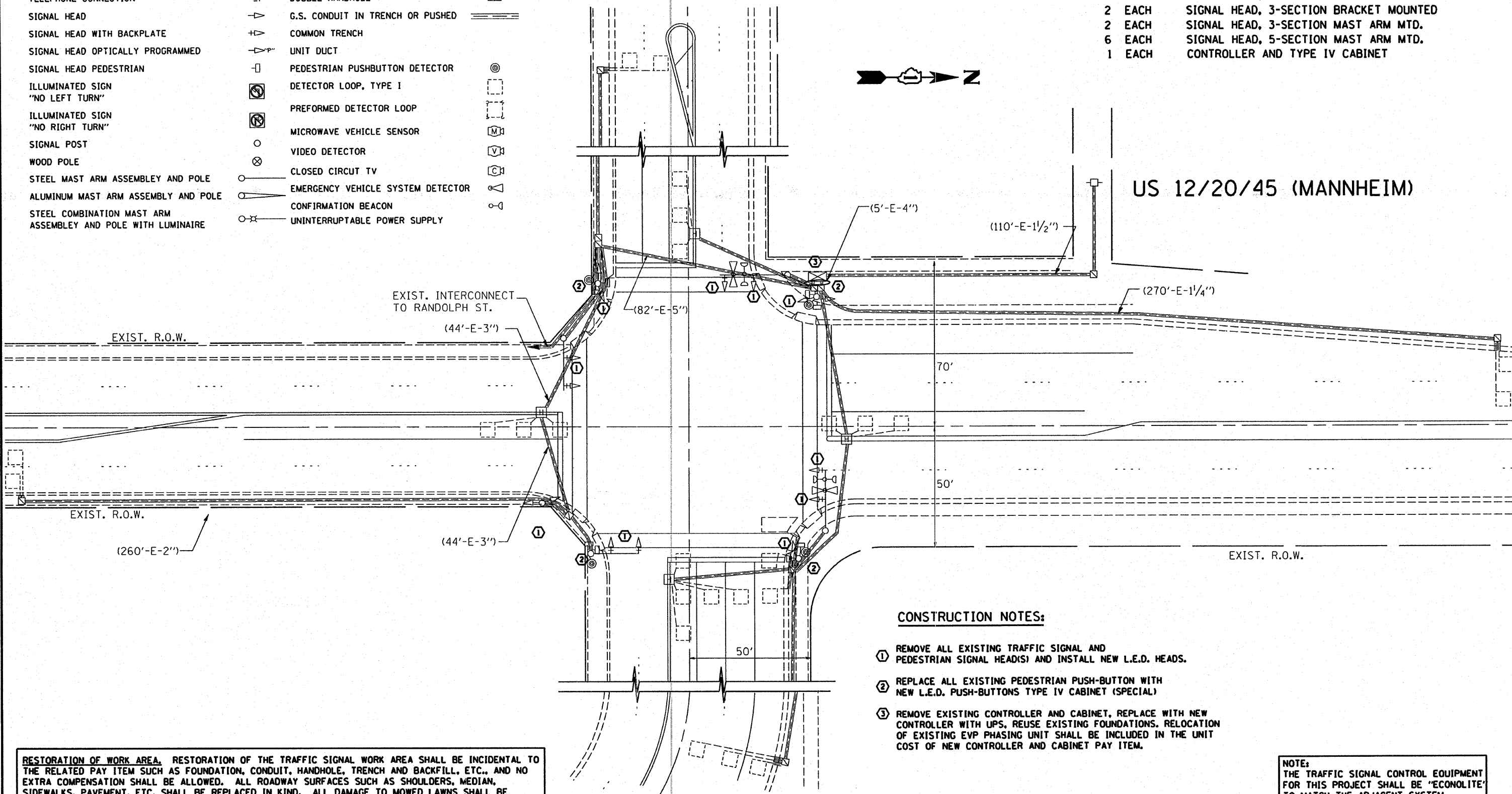
EXISTING TRAFFIC SIGNAL AND REMOVAL LEGEND

CONTROLLER CABINET		EXISTING	JUNCTION BOX		EXISTING
RAILROAD CONTROL CABINET			HANDHOLE		
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT			HEAVY DUTY HANDHOLE		
TELEPHONE CONNECTION			DOUBLE HANDHOLE		
SIGNAL HEAD			G.S. CONDUIT IN TRENCH OR PUSHED		
SIGNAL HEAD WITH BACKPLATE			COMMON TRENCH		
SIGNAL HEAD OPTICALLY PROGRAMMED			UNIT DUCT		
SIGNAL HEAD PEDESTRIAN			PEDESTRIAN PUSHBUTTON DETECTOR		
ILLUMINATED SIGN "NO LEFT TURN"			DETECTOR LOOP, TYPE I		
ILLUMINATED SIGN "NO RIGHT TURN"			PERFORMED DETECTOR LOOP		
SIGNAL POST			MICROWAVE VEHICLE SENSOR		
WOOD POLE			VIDEO DETECTOR		
STEEL MAST ARM ASSEMBLY AND POLE			CLOSED CIRCUIT TV		
ALUMINUM MAST ARM ASSEMBLY AND POLE			EMERGENCY VEHICLE SYSTEM DETECTOR		
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE			CONFIRMATION BEACON		
			UNINTERRUPTIBLE POWER SUPPLY		

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

- 6 EACH SIGNAL HEAD, 5-SECTION BRACKET MOUNTED
- 2 EACH SIGNAL HEAD, 3-SECTION BRACKET MOUNTED
- 2 EACH SIGNAL HEAD, 3-SECTION MAST ARM MTD.
- 6 EACH SIGNAL HEAD, 5-SECTION MAST ARM MTD.
- 1 EACH CONTROLLER AND TYPE IV CABINET

ST. CHARLES RD.



CONSTRUCTION NOTES:

- ① REMOVE ALL EXISTING TRAFFIC SIGNAL AND PEDESTRIAN SIGNAL HEAD(S) AND INSTALL NEW L.E.D. HEADS.
- ② REPLACE ALL EXISTING PEDESTRIAN PUSH-BUTTON WITH NEW L.E.D. PUSH-BUTTONS TYPE IV CABINET (SPECIAL)
- ③ REMOVE EXISTING CONTROLLER AND CABINET, REPLACE WITH NEW CONTROLLER WITH UPS, REUSE EXISTING FOUNDATIONS. RELOCATION OF EXISTING EVP PHASING UNIT SHALL BE INCLUDED IN THE UNIT COST OF NEW CONTROLLER AND CABINET PAY ITEM.

RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIAN, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

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

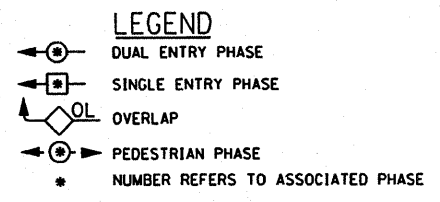
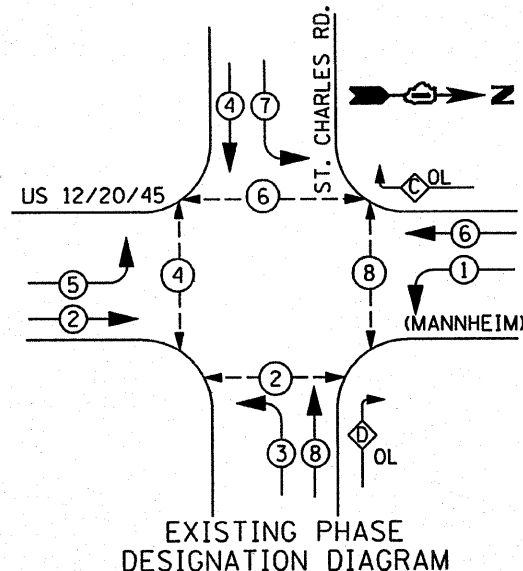
FILE NAME =	USER NAME = konthaphixaybc	DESIGNED - BCK	REVISED -
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	PLOT DATE = 10/10/2008	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING TRAFFIC SIGNAL AND REMOVAL PLAN
US 12/20/45 (MANNHEIM) @ ST. CHARLES RD.

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2008-006 TS	COOK	100	53
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	
			CONTRACT NO. 60E31	



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

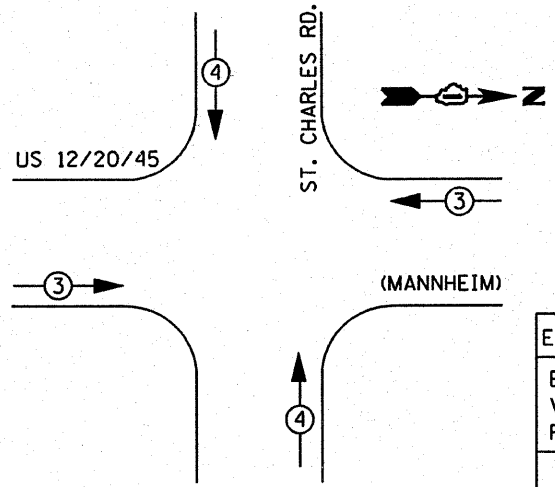
PUSHBUTTON "A" SHALL PLACE CALLS IN PHASES 2 AND 4
 PUSHBUTTON "B" SHALL PLACE CALLS IN PHASES 4 AND 6
 PUSHBUTTON "C" SHALL PLACE CALLS IN PHASES 6 AND 8
 PUSHBUTTON "D" SHALL PLACE CALLS IN PHASES 2 AND 8

EXISTING PHASE DESIGNATION DIAGRAM

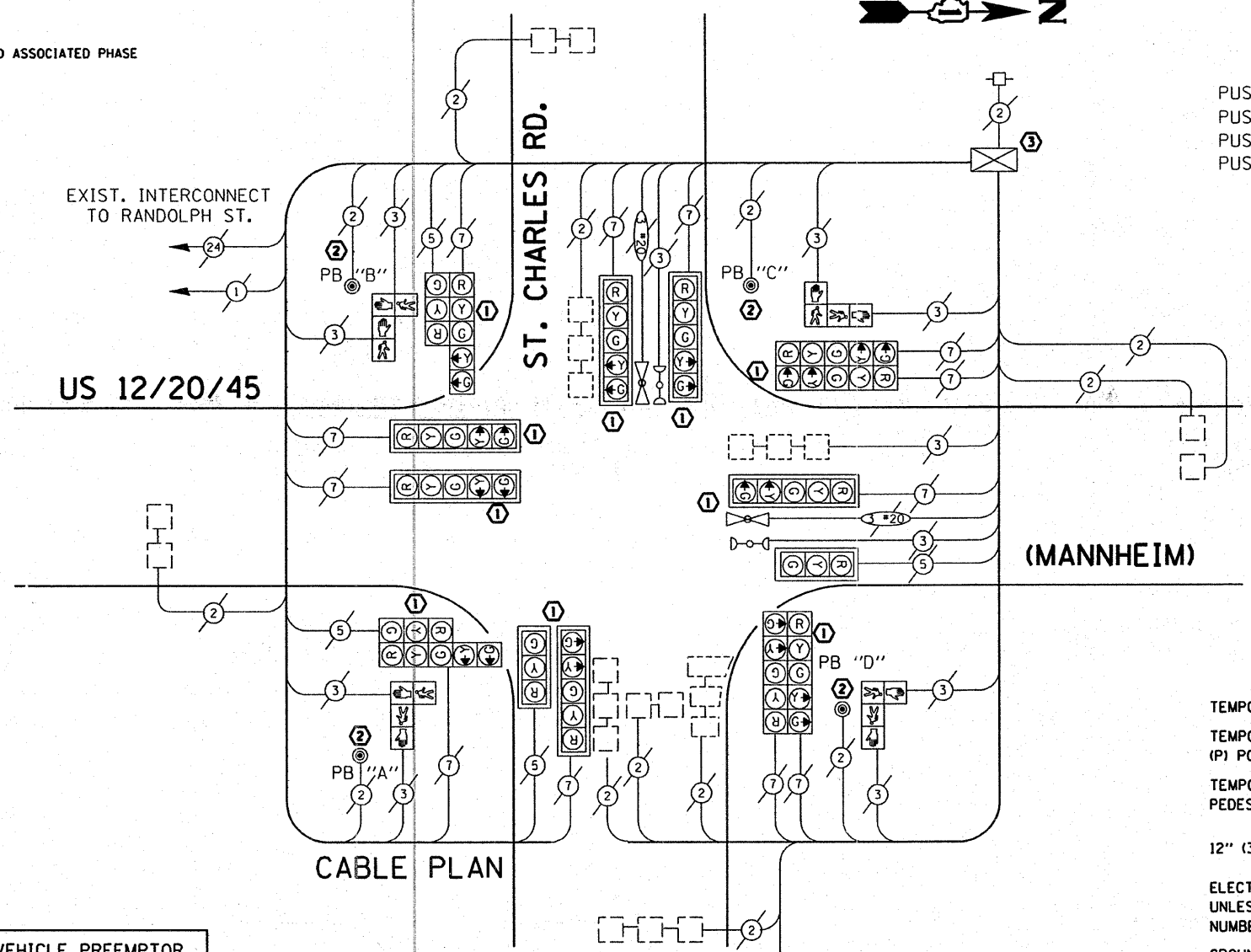
RIGHT TURN OVERLAP PHASE DESIGNATION

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE	DISPLAY
C =	6 +	7 -	6
D =	8 +	1 -	8

EXISTING SIGNAL INSTALLATION EMERGENCY VEHICLE PREEMPTION SEQUENCE



EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	→	↑



CABLE PLAN

EXISTING CABLE DIAGRAM LEGEND

	PROPOSED	EXISTING
TEMPORARY CONTROLLER CABINET	⊠	⊠
TEMPORARY SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT	⊠	⊠
TEMPORARY TRAFFIC SIGNAL SECTION OR PEDESTRIAN SIGNAL SECTION, 12" (300 mm)	R	R
12" (300 MM) PEDESTRIAN SIGNAL SECTION	⊠	⊠
ELECTRIC CABLE IN CONDUIT, NO. 14, UNLESS OTHERWISE NOTED. NUMBER OF CONDUCTORS AS NOTED	②	②
GROUND ROD AT (C) CONTROLLER, (H) HANDHOLE, (P) POST, (M) MAST ARM, OR (S) SERVICE	⊠	⊠
PEDESTRIAN PUSHBUTTON DETECTOR	⊠	⊠
VEHICLE DETECTOR, INDUCTION LOOP	⊠	⊠
CCTV DOME DRIVE UNIT	⊠	⊠
MICROWAVE VEHICLE SENSOR	⊠	⊠
VIDEO DETECTOR	⊠	⊠
CLOSED CIRCUIT TV	⊠	⊠
EMERGENCY VEHICLE SYSTEM DETECTOR	⊠	⊠
CONFIRMATION BEACON	⊠	⊠

TYPE	NO. LAMPS	WATTAGE (INCAND.)	LED	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	16	135	17	0.50	
(YELLOW)	16	135	25	0.25	
(GREEN)	16	135	15	0.25	
ARROW	24	135	12	0.10	
PED. SIGNAL	8	90	25	1.00	
CONTROLLER	1	100	100	1.00	
ILLUM. SIGN		84		0.05	
FLASHER				0.50	
ENERGY COSTS TO: TOTAL =					

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'-H-2" (6m-H-0.6m)
E - M. ARM POLE		SIGNAL POST	2 (1.0)	BRACKET MOUNTED	13 (4.0)
24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)	PEDESTRIAN SIGNAL	4 (1.2)
30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	ELECTRIC SERVICE	13.5 (4.1)
36" (900mm)	15 (4.6)	ELECTRIC SERVICE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
		GROUND CABLE	1 (0.5)	POST MOUNTED	6 (1.8)

RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIAN, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDING IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

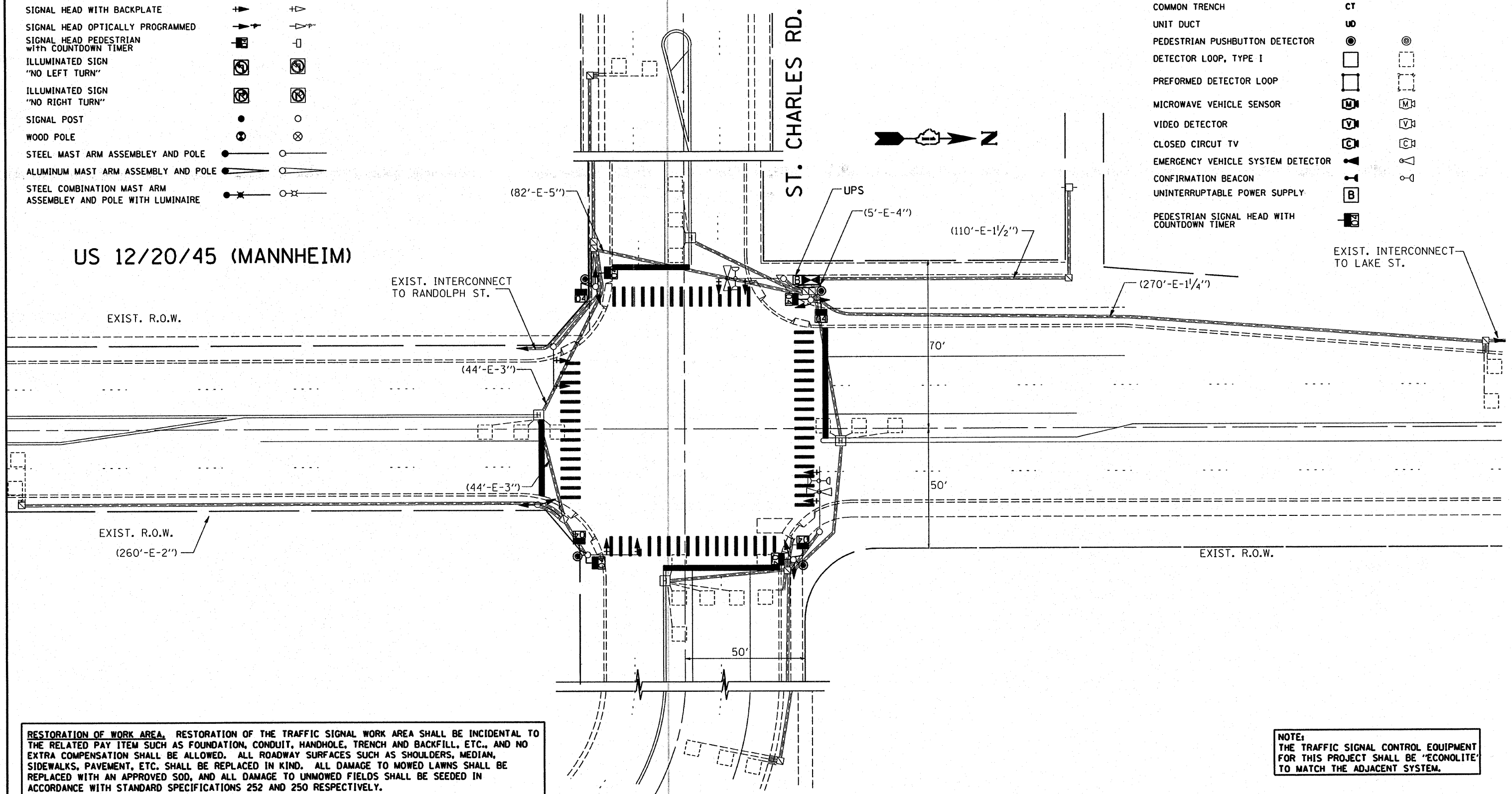
TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING
CONTROLLER CABINET		
RAILROAD CONTROL CABINET		
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT		
TELEPHONE CONNECTION		
SIGNAL HEAD		
SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD OPTICALLY PROGRAMMED		
SIGNAL HEAD PEDESTRIAN WITH COUNTDOWN TIMER		
ILLUMINATED SIGN "NO LEFT TURN"		
ILLUMINATED SIGN "NO RIGHT TURN"		
SIGNAL POST		
WOOD POLE		
STEEL MAST ARM ASSEMBLY AND POLE		
ALUMINUM MAST ARM ASSEMBLY AND POLE		
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE		

TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING
JUNCTION BOX		
HANDHOLE		
HEAVY DUTY HANDHOLE		
DOUBLE HANDHOLE		
G.S. CONDUIT IN TRENCH OR PUSHED		
COMMON TRENCH	CT	
UNIT DUCT	UD	
PEDESTRIAN PUSHBUTTON DETECTOR		
DETECTOR LOOP, TYPE I		
PERFORMED DETECTOR LOOP		
MICROWAVE VEHICLE SENSOR		
VIDEO DETECTOR		
CLOSED CIRCUIT TV		
EMERGENCY VEHICLE SYSTEM DETECTOR		
CONFIRMATION BEACON		
UNINTERRUPTIBLE POWER SUPPLY	B	
PEDESTRIAN SIGNAL HEAD WITH COUNTDOWN TIMER		

US 12/20/45 (MANNHEIM)

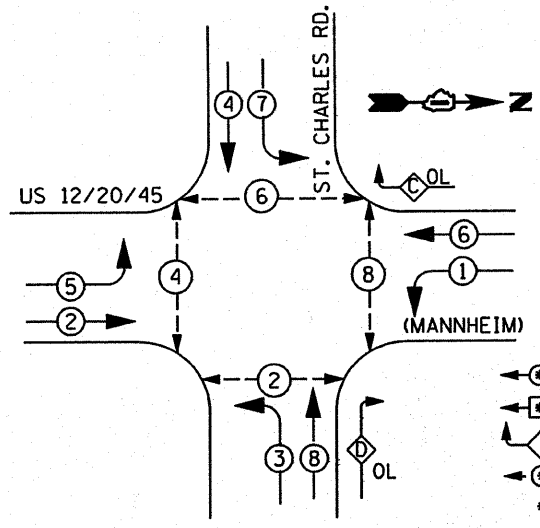


RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIAN, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

NOTE: THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE 'ECONOLITE' TO MATCH THE ADJACENT SYSTEM.

FILE NAME =	USER NAME = kanthaphixaybc	DESIGNED - BCK	REVISED -	<p align="center">STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</p> <p align="center">PROPOSED TRAFFIC SIGNAL PLAN US 12/20/45 (MANNHEIM) @ ST. CHARLES RD.</p>	F.A.P. RTE. 330	SECTION 2008-006 TS	COUNTY COOK	TOTAL SHEETS 100	SHEET NO. 55	
PROJECT = c:\projects\traffic\070027\us12_20_45.dgn	PLOT SCALE = 40.0000' / IN.	DRAWN - BCK	REVISED -		SCALE: 1"=20'	SHEET NO.	OF SHEETS	STA.	TO STA.	FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT
	PLOT DATE = 10/10/2008	CHECKED - DAD	REVISED -							CONTRACT NO. 60E31
		DATE -	REVISED -							

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



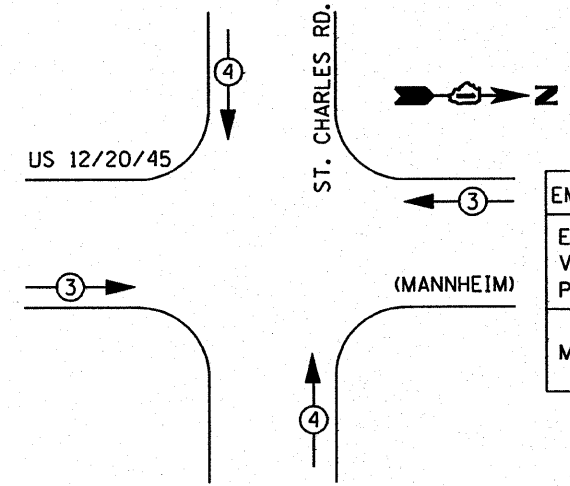
LEGEND
 DUAL ENTRY PHASE
 SINGLE ENTRY PHASE
 OVERLAP
 PEDESTRIAN PHASE
 * NUMBER REFERS TO ASSOCIATED PHASE

PHASE DESIGNATION DIAGRAM

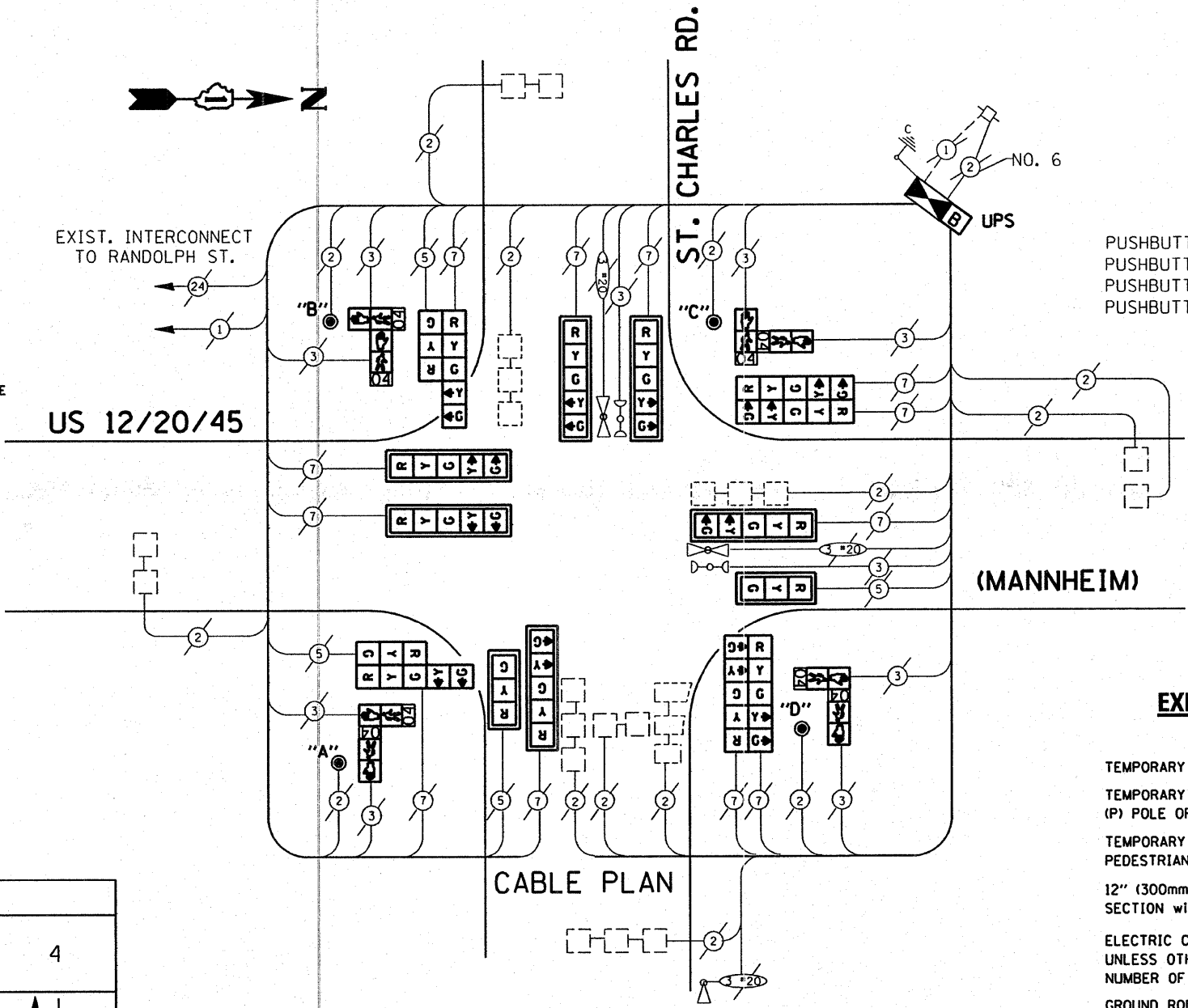
RIGHT TURN OVERLAP PHASE DESIGNATION

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE	DISPLAY
C	= 6 +	7 -	6
D	= 8 +	1 -	8

SIGNAL INSTALLATION EMERGENCY VEHICLE PREEMPTION SEQUENCE



EMERGENCY VEHICLE PREEMPTOR	
EMERGENCY VEHICLE PREEMPTOR	3 4
MOVEMENT	→ ← ↑ ↓



CABLE PLAN

PUSHBUTTON "A" SHALL PLACE CALLS IN PHASES 2 AND 4
 PUSHBUTTON "B" SHALL PLACE CALLS IN PHASES 4 AND 6
 PUSHBUTTON "C" SHALL PLACE CALLS IN PHASES 6 AND 8
 PUSHBUTTON "D" SHALL PLACE CALLS IN PHASES 2 AND 8

EXISTING CABLE DIAGRAM LEGEND

	PROPOSED	EXISTING
TEMPORARY CONTROLLER CABINET	[Symbol]	[Symbol]
TEMPORARY SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT	[Symbol]	[Symbol]
TEMPORARY TRAFFIC SIGNAL SECTION OR PEDESTRIAN SIGNAL SECTION, 12" (300 mm)	[Symbol]	[Symbol]
12" (300mm) PEDESTRIAN SIGNAL SECTION WITH COUNTDOWN TIMER	[Symbol]	[Symbol]
ELECTRIC CABLE IN CONDUIT, NO. 14, UNLESS OTHERWISE NOTED, NUMBER OF CONDUCTORS AS NOTED	[Symbol]	[Symbol]
GROUND ROD AT (C) CONTROLLER, (H) HANDHOLE, (P) POST, (M) MAST ARM, OR (S) SERVICE	[Symbol]	[Symbol]
PEDESTRIAN PUSHBUTTON DETECTOR	[Symbol]	[Symbol]
VEHICLE DETECTOR, INDUCTION LOOP	[Symbol]	[Symbol]
CCTV DOME DRIVE UNIT	[Symbol]	[Symbol]
MICROWAVE VEHICLE SENSOR	[Symbol]	[Symbol]
VIDEO DETECTOR	[Symbol]	[Symbol]
CLOSED CIRCUIT TV	[Symbol]	[Symbol]
EMERGENCY VEHICLE SYSTEM DETECTOR	[Symbol]	[Symbol]
CONFIRMATION BEACON	[Symbol]	[Symbol]

SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET (SPECIAL)	EACH	1
INDUCTIVE LOOP DETECTOR	EACH	10
SIGNAL HEAD, L.E.D. 1-FACE, 3 SECTION, MAST ARM MNTD.	EACH	2
SIGNAL HEAD, L.E.D. 1-FACE, 5 SECTION, MAST ARM MNTD.	EACH	6
SIGNAL HEAD, L.E.D. 2-FACE, 1-3, 1-5 SECT., BRKT. MNTD.	EACH	2
SIGNAL HEAD, L.E.D. 2-FACE, 5 SECTION, BRKT. MNTD.	EACH	2
PEDESTRIAN SIGNAL HEAD WITH COUNTDOWN TIMER L.E.D., 2-FACE, BRKT. MTD.	EACH	4
PEDESTRIAN PUSH-BUTTON	EACH	4
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	8
THERMOPLASTIC PAVEMENT MARKING LINE 12"	FOOT	552
THERMOPLASTIC PAVEMENT MARKING LINE 24"	FOOT	165
THERMOPLASTIC PAVEMENT MARKING REMOVAL	FOOT	756
REMOVE EXISTING TRAFFIC SIGNAL	EACH	1
UNINTERRUPTIBLE POWER SUPPLY EQUIPMENT	EACH	1
MAINTENANCE OF EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1

I.D.D.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				TOTAL WATTAGE	
TYPE	NO. LAMPS	WATTAGE (INCAND) LED	% OPERATION		
SIGNAL (RED)	16	135	17	0.50	136.00
(YELLOW)	16	135	25	0.25	100.00
(GREEN)	16	135	15	0.25	60.00
ARROW	24	135	12	0.10	28.80
PED. SIGNAL	8	90	25	1.00	200.00
CONTROLLER	1	100	100	1.00	100.00
ILLUM. SIGN		84		0.05	
FLASHER				0.50	
ENERGY COSTS TO:				TOTAL =	624.80

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'-H-2'-
E - M. ARM POLE		SIGNAL POST	2 (1.0)		16m+L-0.6m=
24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	PEDEST. PUSHBUTTON	4 (1.2)
36" (900mm)	15 (4.6)	ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
		GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
				POST MOUNTED	6 (1.8)

RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIAN, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

ENERGY SUPPLY CONTACT:
 PHONE: 708-410-5069
 COMPANY: COM. EDISON

FILE NAME =
 USER NAME = kanthaphixaybc
 DESIGNED - BCK
 DRAWN - BCK
 CHECKED - DAD
 PLOT SCALE = 40.0000" / IN.
 PLOT DATE = 10/10/2008

REVISOR -
 REVISION -
 REVISION -
 REVISION -
 REVISION -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

PROPOSED CABLE PLAN
 US 12/20/45 (MANNHEIM) @ ST. CHARLES RD.

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2008-006 TS	COOK	100	56
CONTRACT NO. 60E31				

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

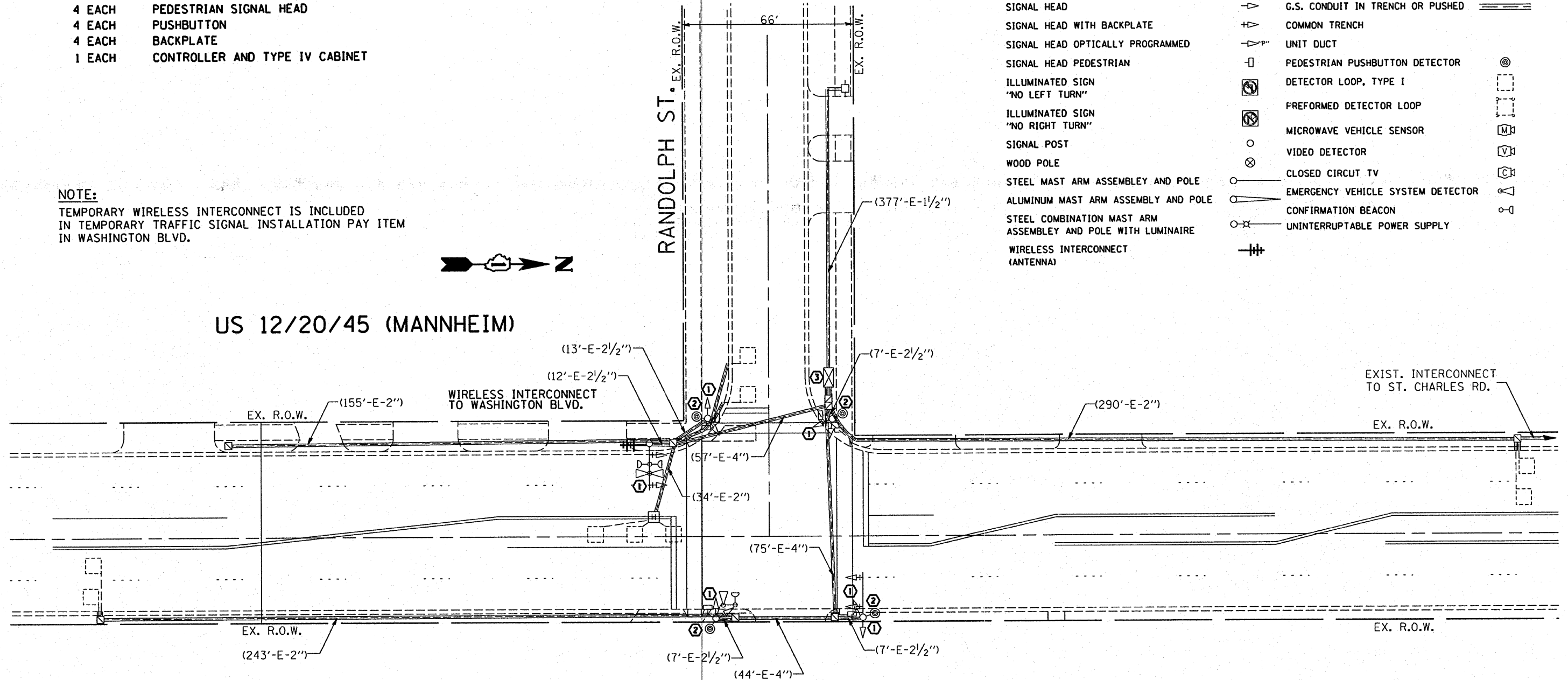
- 7 EACH SIGNAL HEAD, 3-SECTION
- 2 EACH SIGNAL HEAD, 3-SECTION BKT. MNTD.
- 1 EACH SIGNAL HEAD, 5-SECTION
- 2 EACH SIGNAL HEAD, 5-SECTION BKT. MNTD.
- 4 EACH PEDESTRIAN SIGNAL HEAD
- 4 EACH PUSHBUTTON
- 4 EACH BACKPLATE
- 1 EACH CONTROLLER AND TYPE IV CABINET

NOTE:

TEMPORARY WIRELESS INTERCONNECT IS INCLUDED IN TEMPORARY TRAFFIC SIGNAL INSTALLATION PAY ITEM IN WASHINGTON BLVD.



US 12/20/45 (MANNHEIM)



EXISTING TRAFFIC SIGNAL AND REMOVAL LEGEND

CONTROLLER CABINET	EXISTING	⊠	JUNCTION BOX	EXISTING	⊞
RAILROAD CONTROL CABINET	EXISTING	⊠	HANDHOLE	EXISTING	⊞
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT	EXISTING	⊠	HEAVY DUTY HANDHOLE	EXISTING	⊞
TELEPHONE CONNECTION	EXISTING	⊠	DOUBLE HANDHOLE	EXISTING	⊞
SIGNAL HEAD	EXISTING	⊠	G.S. CONDUIT IN TRENCH OR PUSHED	EXISTING	⊞
SIGNAL HEAD WITH BACKPLATE	EXISTING	⊠	COMMON TRENCH	EXISTING	⊞
SIGNAL HEAD OPTICALLY PROGRAMMED	EXISTING	⊠	UNIT DUCT	EXISTING	⊞
SIGNAL HEAD PEDESTRIAN	EXISTING	⊠	PEDESTRIAN PUSHBUTTON DETECTOR	EXISTING	⊞
ILLUMINATED SIGN "NO LEFT TURN"	EXISTING	⊠	DETECTOR LOOP, TYPE I	EXISTING	⊞
ILLUMINATED SIGN "NO RIGHT TURN"	EXISTING	⊠	PREFORMED DETECTOR LOOP	EXISTING	⊞
SIGNAL POST	EXISTING	⊠	MICROWAVE VEHICLE SENSOR	EXISTING	⊞
WOOD POLE	EXISTING	⊠	VIDEO DETECTOR	EXISTING	⊞
STEEL MAST ARM ASSEMBLY AND POLE	EXISTING	⊠	CLOSED CIRCUIT TV	EXISTING	⊞
ALUMINUM MAST ARM ASSEMBLY AND POLE	EXISTING	⊠	EMERGENCY VEHICLE SYSTEM DETECTOR	EXISTING	⊞
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE	EXISTING	⊠	CONFIRMATION BEACON	EXISTING	⊞
WIRELESS INTERCONNECT (ANTENNA)	EXISTING	⊠	UNINTERRUPTABLE POWER SUPPLY	EXISTING	⊞

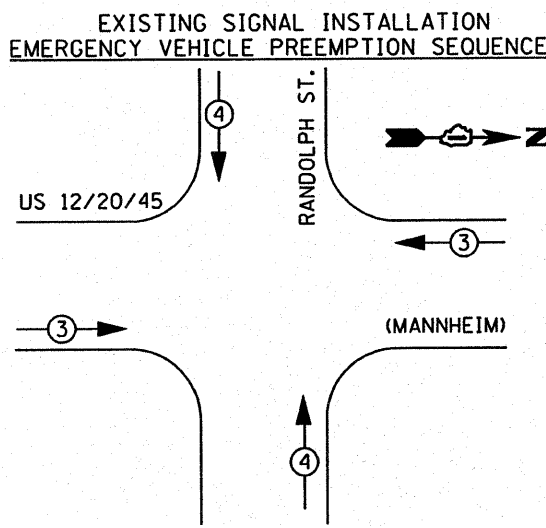
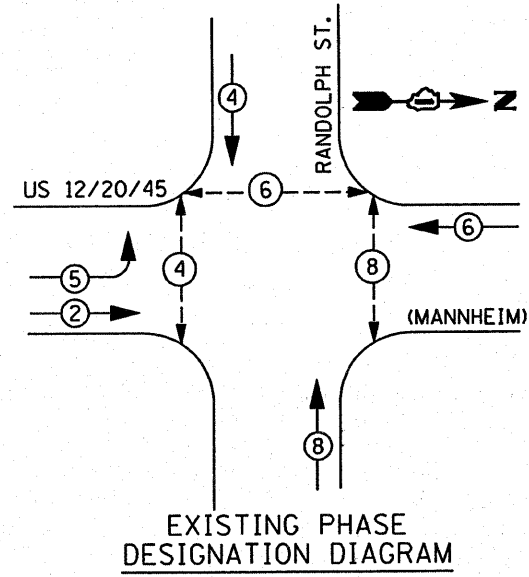
CONSTRUCTION NOTES:

- ① REMOVE ALL EXISTING TRAFFIC SIGNAL AND PEDESTRIAN SIGNAL HEAD(S) AND INSTALL NEW L.E.D. HEADS.
- ② REPLACE ALL EXISTING PEDESTRIAN PUSH-BUTTON WITH NEW L.E.D. PUSH-BUTTONS TYPE IV CABINET (SPECIAL)
- ③ REMOVE EXISTING CONTROLLER AND CABINET, REPLACE WITH NEW CONTROLLER WITH UPS, REUSE EXISTING FOUNDATIONS. RELOCATION OF EXISTING EVP PHASING UNIT SHALL BE INCLUDED IN THE UNIT COST OF NEW CONTROLLER AND CABINET PAY ITEM.

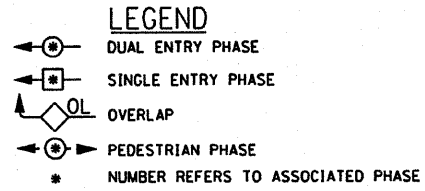
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NOTE:
THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE ADJACENT SYSTEM.

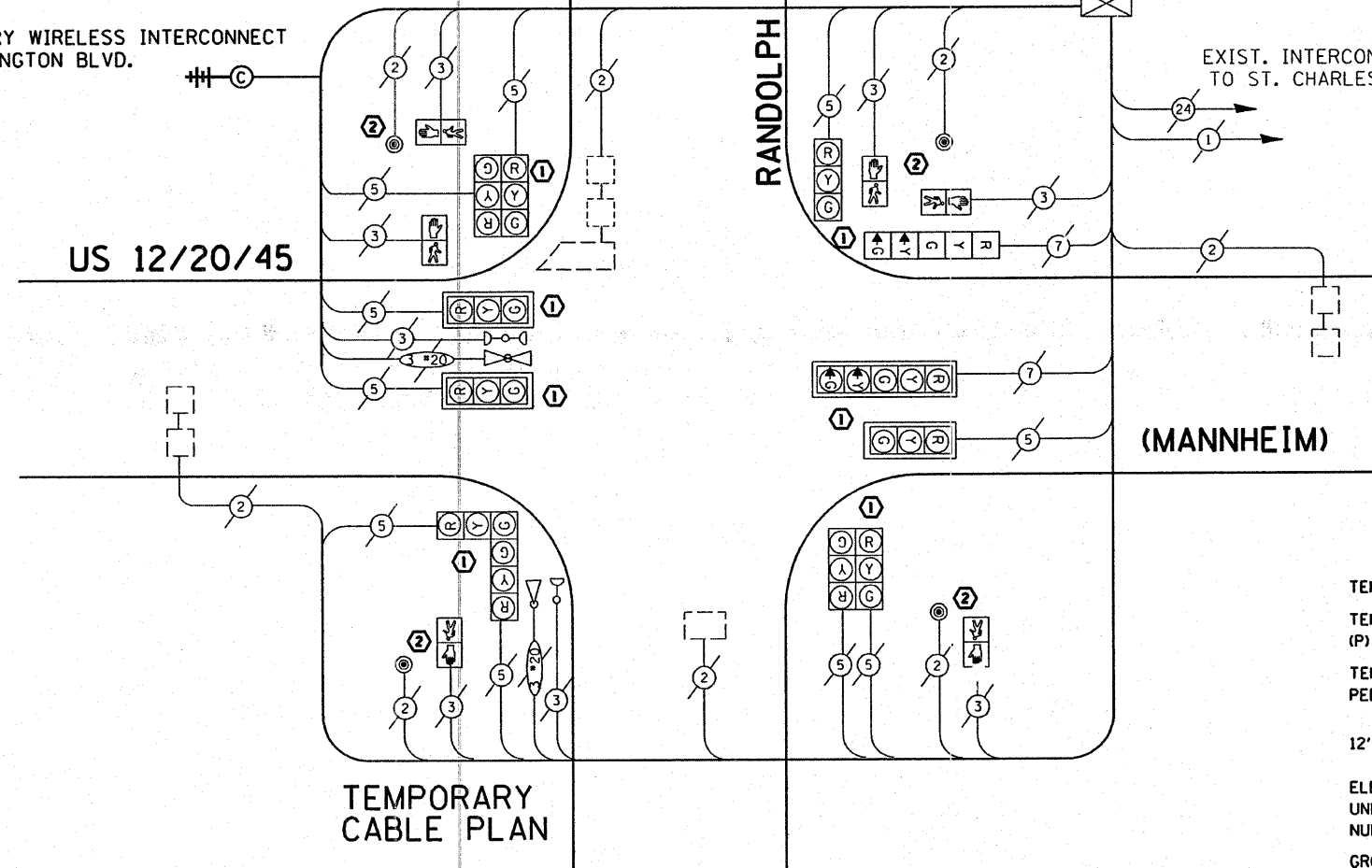
FILE NAME =	USER NAME = kenthaphixybc	DESIGNED - BCK	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EXISTING AND REMOVAL PLAN US 12/20/45 (MANNHEIM) @ RANDOLPH ST.	F.A.P. RTE. 330	SECTION 2008-006 TS	COUNTY COOK	TOTAL SHEETS 100	SHEET NO. 57	
ci:\projects\traffic\070027\us12_20_45.dgn		DRAWN - BCK	REVISED -			SCALE: 1"=20'	SHEET NO. OF SHEETS STA. TO STA.	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT	CONTRACT NO. 60E31	
		CHECKED - DAD	REVISED -								
		DATE -	REVISED -								



TEMPORARY EMERGENCY VEHICLE PREEMPTOR		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	→	↑



TEMPORARY WIRELESS INTERCONNECT TO WASHINGTON BLVD.



NOTE:
TEMPORARY WIRELESS INTERCONNECT IS INCLUDED IN TEMPORARY TRAFFIC SIGNAL INSTALLATION PAY ITEM IN WASHINGTON BLVD.

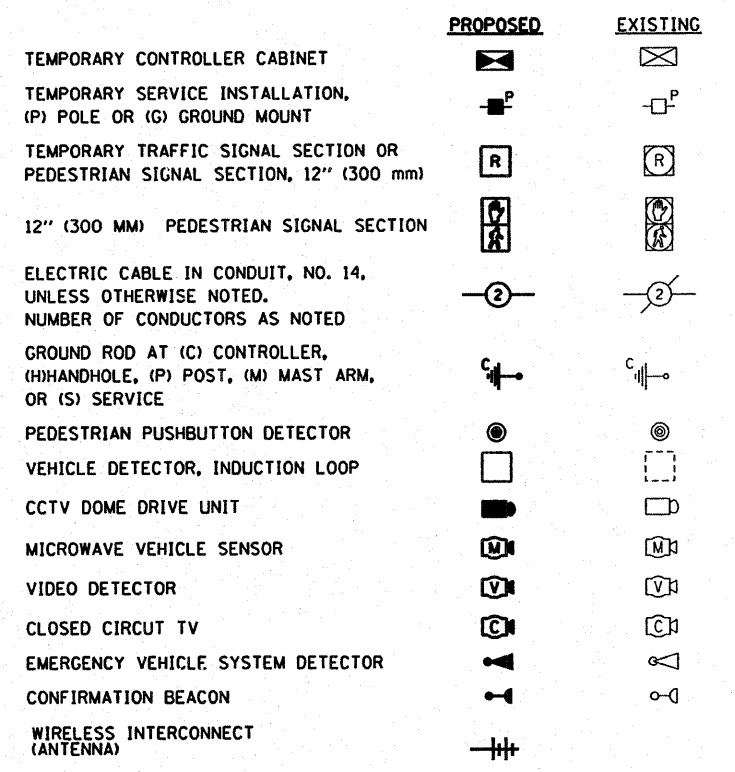
NOTE:
THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE ADJACENT SYSTEM.

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE (INCAN)	WATTAGE LED	% OPERATION	
SIGNAL (RED)	12	135	17	0.50	
(YELLOW)	12	135	25	0.25	
(GREEN)	12	135	15	0.25	
ARROW	4	135	12	0.10	
PED. SIGNAL	6	90	25	1.00	
CONTROLLER	1	100	100	1.00	
ILLUM. SIGN		84		0.05	

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'-H.-2'-
E - M. ARM POLE		SIGNAL POST	2 (1.0)	(6m-H.-0.6m)	
24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
36" (900mm)	15 (4.6)	ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
		GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
				POST MOUNTED	6 (1.8)

RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIAN, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

EXISTING CABLE DIAGRAM LEGEND



FILE NAME =
PROJECT: traffic\1070027\us12_20_45.dgn
DESIGNED - BCK
DRAWN - BCK
PLOT SCALE = 40.0000 "/>

USER NAME = kanthaphixaybc
DESIGNED - BCK
DRAWN - BCK
CHECKED - DAD
DATE -

REVISED -
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING CABLE PLAN
US 12/20/45 (MANNHEIM) @ RANDOLPH ST.
SCALE: SHEET NO. OF SHEETS STA. TO STA.

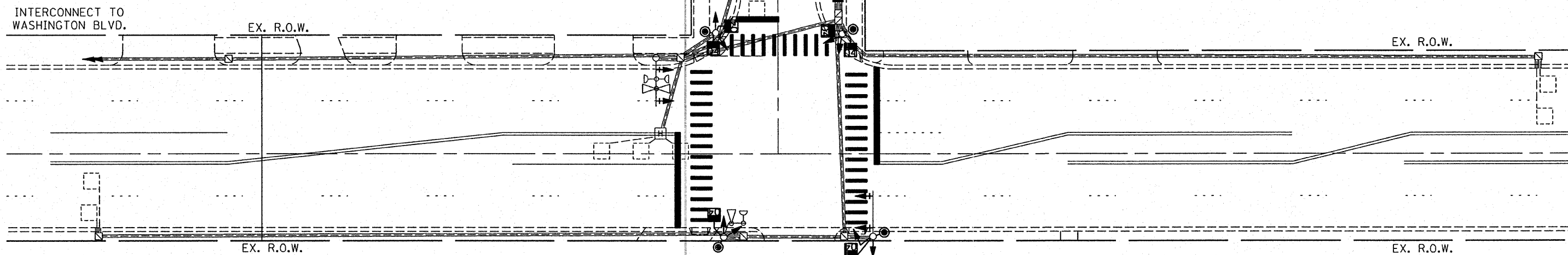
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2008-006 TS	COOK	100	58
CONTRACT NO. 60E31				
FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT				

TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING		PROPOSED	EXISTING
CONTROLLER CABINET			JUNCTION BOX		
RAILROAD CONTROL CABINET			HANDHOLE		
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT			HEAVY DUTY HANDHOLE		
TELEPHONE CONNECTION			DOUBLE HANDHOLE		
SIGNAL HEAD			G.S. CONDUIT IN TRENCH OR PUSHED		
SIGNAL HEAD WITH BACKPLATE			COMMON TRENCH	CT	
SIGNAL HEAD OPTICALLY PROGRAMMED			UNIT DUCT	UD	
SIGNAL HEAD PEDESTRIAN with COUNTDOWN TIMER			PEDESTRIAN PUSHBUTTON DETECTOR		
ILLUMINATED SIGN "NO LEFT TURN"			DETECTOR LOOP, TYPE I		
ILLUMINATED SIGN "NO RIGHT TURN"			PREFORMED DETECTOR LOOP		
SIGNAL POST			MICROWAVE VEHICLE SENSOR		
WOOD POLE			VIDEO DETECTOR		
STEEL MAST ARM ASSEMBLY AND POLE			CLOSED CIRCUIT TV		
ALUMINUM MAST ARM ASSEMBLY AND POLE			EMERGENCY VEHICLE SYSTEM DETECTOR		
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE			CONFIRMATION BEACON		
			UNINTERRUPTIBLE POWER SUPPLY		
			PEDESTRIAN SIGNAL HEAD WITH COUNTDOWN TIMER		



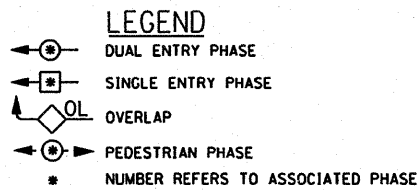
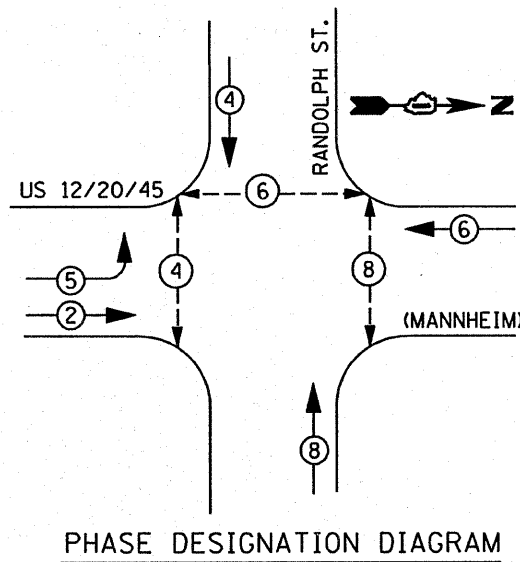
US 12/20/45 (MANNHEIM)



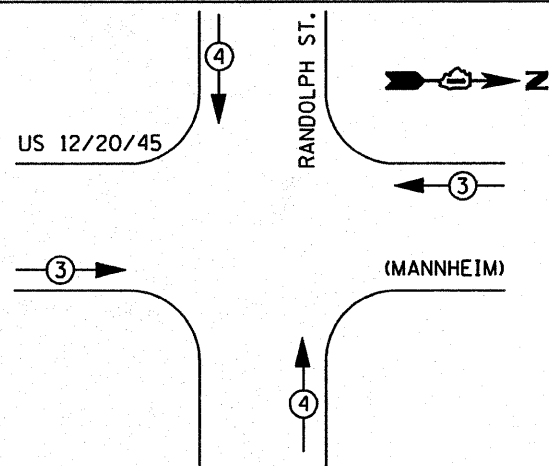
RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIAN, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

NOTE: THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE 'ECONOLITE' TO MATCH THE ADJACENT SYSTEM.

FILE NAME =	USER NAME = kanthapixaybc	DESIGNED - BCK	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PROPOSED TRAFFIC SIGNAL PLAN US 12/20/45 (MANNHEIM) @ RANDOLPH ST.	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
es:\projects\traffic\1070027\us12_20_45.dgn		DRAWN - BCK	REVISED -			330	2008-006 TS	COOK	100	59	
PLOT SCALE = 1/8" = 1' IN.		CHECKED - DAD	REVISED -			CONTRACT NO. 60E31					
PLOT DATE = 10/10/2008		DATE -	REVISED -			FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT					
				SCALE: 1"=20'		SHEET NO. OF SHEETS		STA. TO STA.			



SIGNAL INSTALLATION
EMERGENCY VEHICLE PREEMPTION SEQUENCE



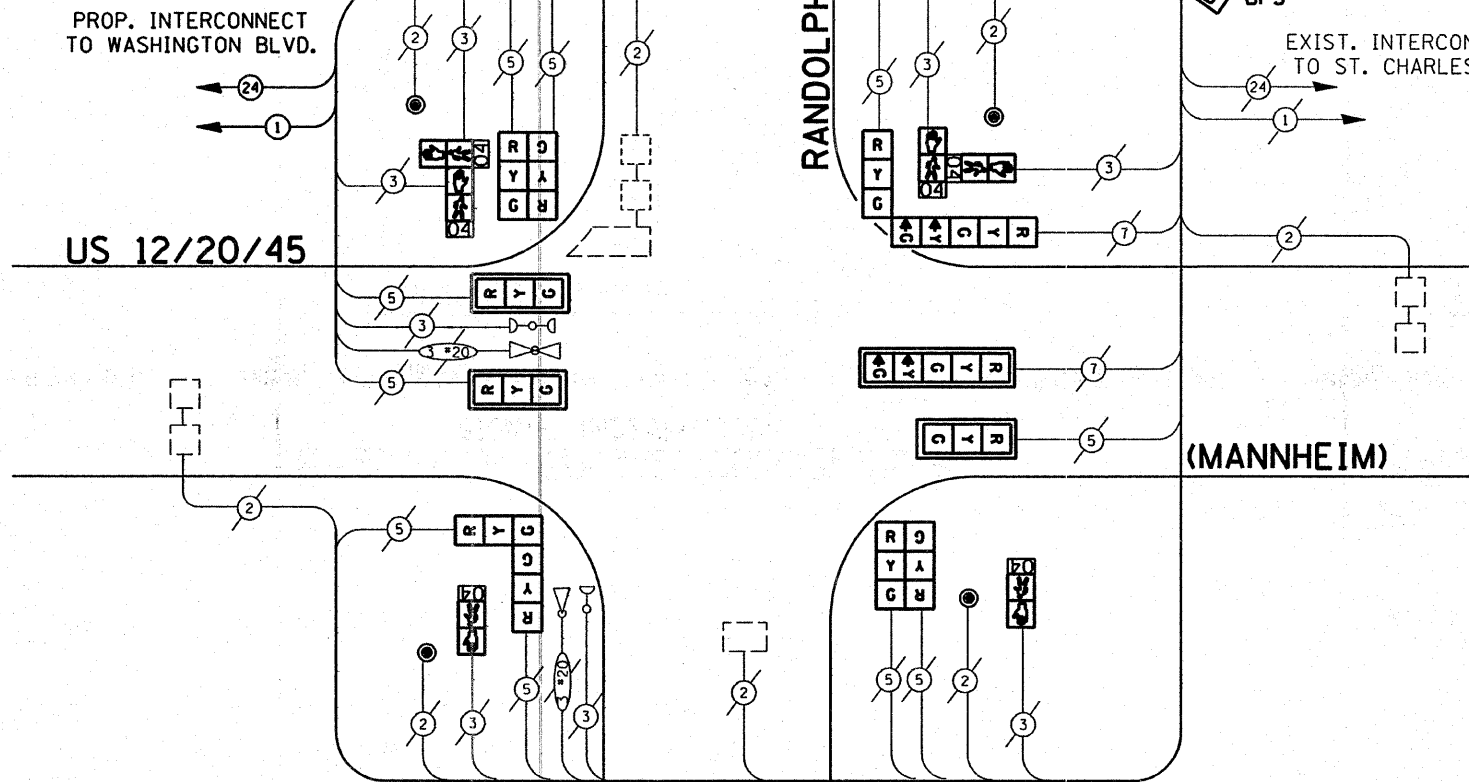
EMERGENCY VEHICLE PREEMPTOR		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	→	↑

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE (INCAND.)	LED	% OPERATION	
SIGNAL (RED)	12	135	17	0.50	102.00
(YELLOW)	12	135	25	0.25	75.00
(GREEN)	12	135	15	0.25	45.00
ARROW	4	135	12	0.10	4.80
PED. SIGNAL	6	90	25	1.00	150.00
CONTROLLER	1	100	100	1.00	100.00
ILLUM. SIGN		84		0.05	
FLASHER				0.50	

ENERGY COSTS TO: TOTAL = 476.80

ENERGY SUPPLY CONTACT:
 PHONE: 708-410-5069
 COMPANY: COM. EDISON

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'-H-2" (6m+L-0.6m)
E - M. ARM POLE		SIGNAL POST	2 (1.0)	BRACKET MOUNTED	13 (4.0)
24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)	PED. PUSHBUTTON	4 (1.2)
30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	ELECTRIC SERVICE	13.5 (4.1)
36" (900mm)	15 (4.6)	ELECTRIC SERVICE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
		GROUND CABLE	1 (0.5)	POST MOUNTED	6 (1.8)



SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET (SPECIAL)	EACH	1
TRANSCEIVER-FIBER OPTIC	EACH	1
INDUCTIVE LOOP DETECTOR	EACH	4
SIGNAL HEAD, L.E.D. 1-FACE, 3 SECTION, MAST ARM MNTD.	EACH	3
SIGNAL HEAD, L.E.D. 1-FACE, 5 SECTION, MAST ARM MNTD.	EACH	1
SIGNAL HEAD, L.E.D. 2-FACE, 1-3, 1-5 SECTION, BRKT. MNTD.	EACH	1
SIGNAL HEAD, L.E.D. 2-FACE, 3 SECTION, BRKT. MNTD.	EACH	3
PEDESTRIAN SIGNAL HEAD, L.E.D., 1-FACE, BRKT. MTD. with COUNTDOWN TIMER	EACH	2
PEDESTRIAN SIGNAL HEAD, L.E.D., 2-FACE, BRKT. MTD. with COUNTDOWN TIMER	EACH	2
PEDESTRIAN PUSH-BUTTON	EACH	4
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	4
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTIBLE POWER SUPPLY	EACH	1
THERMOPLASTIC PAVEMENT MARKING LINE 12"	FOOT	320
THERMOPLASTIC PAVEMENT MARKING LINE 24"	FOOT	90
THERMOPLASTIC PAVEMENT MARKING REMOVAL	FOOT	451
MAINTENANCE OF EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1

RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIAN, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

CABLE PLAN LEGEND

	PROPOSED	EXISTING
CONTROLLER CABINET	[Symbol]	[Symbol]
RAILROAD CONTROL CABINET	[Symbol]	[Symbol]
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT	[Symbol]	[Symbol]
TELEPHONE CONNECTION	[Symbol]	[Symbol]
GROUND ROD AT (C) CONTROLLER, (H) HANDHOLE, (P) POST, (M) MAST ARM, OR (S) SERVICE	[Symbol]	[Symbol]
FIBER OPTIC CABLE IN CONDUIT, NUMBER OF FIBERS AS NOTED	[Symbol]	[Symbol]
ELECTRIC CABLE IN CONDUIT, NO. 14, UNLESS OTHERWISE NOTED, NUMBER OF CONDUCTORS AS NOTED	[Symbol]	[Symbol]
GROUND CABLE IN CONDUIT NO. 6 COPPER (GREEN)	[Symbol]	[Symbol]
SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD	[Symbol]	[Symbol]
12" (300mm) RED WITH 8" (200mm) YELLOW AND GREEN TRAFFIC SIGNAL FACE	[Symbol]	[Symbol]
12" (300mm) TRAFFIC SIGNAL SECTION	[Symbol]	[Symbol]
12" (300mm) PEDESTRIAN SIGNAL SECTION with COUNTDOWN TIMER	[Symbol]	[Symbol]
ILLUMINATED SIGN "NO LEFT TURN"	[Symbol]	[Symbol]
ILLUMINATED SIGN "NO RIGHT TURN"	[Symbol]	[Symbol]
PUSHBUTTON DETECTOR	[Symbol]	[Symbol]
DETECTOR LOOP	[Symbol]	[Symbol]
PERFORMED DETECTOR LOOP	[Symbol]	[Symbol]
MICROWAVE VEHICLE SENSOR	[Symbol]	[Symbol]
VIDEO DETECTOR	[Symbol]	[Symbol]
CLOSED CIRCUIT TV	[Symbol]	[Symbol]
EMERGENCY VEHICLE SYSTEM DETECTOR	[Symbol]	[Symbol]
CONFIRMATION BEACON	[Symbol]	[Symbol]
UNINTERRUPTIBLE POWER SUPPLY	[Symbol]	[Symbol]

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

WASHINGTON BLVD.
MATCH LINE A

TEMPORARY TRAFFIC SIGNAL AND REMOVAL LEGEND

	PROPOSED	EXISTING		PROPOSED	EXISTING
TEMPORARY CONTROLLER CABINET			HEAVY-DUTY HANDHOLE		
TEMPORARY SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT			G.S. CONDUIT IN TRENCH OR PUSHED		
TEMPORARY TRAFFIC SIGNAL HEAD SPAN WIRE MOUNTED ORIGINAL LOCATION			TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE		
TEMPORARY TRAFFIC SIGNAL HEAD SPAN WIRE MOUNTED SECONDARY LOCATION			COMMON TRENCH	CT	
TEMPORARY PEDESTRIAN SIGNAL HEAD, BRACKET MOUNTED			UNIT DUCT	UD	
TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT (13.7m) MINIMUM			TEMPORARY PEDESTRIAN PUSHBUTTON DETECTOR		
EXISTING SIGNAL POST AND FOUNDATION TO BE REMOVED			DETECTOR LOOP, TYPE I		
STEEL MAST ARM ASSEMBLY AND POLE			PREFORMED DETECTOR LOOP		
ALUMINUM MAST ARM ASSEMBLY AND POLE			MICROWAVE VEHICLE SENSOR		
COMBINATION MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINAIRE			VIDEO DETECTOR		
EXISTING STREET LIGHT, FOUNDATION AND LUMINAIRE TO REMAIN			CLOSED CIRCUIT TV		
HANDHOLE			EMERGENCY VEHICLE SYSTEM DETECTOR		
			CONFIRMATION BEACON		
			WIRELESS INTERCONNECT (ANTENNA)		

RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIAN, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

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

- 8 EACH SIGNAL HEAD, 3-SECTION BKT. MNTD.
- 8 EACH SIGNAL HEAD, 1-FACE, 5-SECTION BKT. MNTD.
- 8 EACH PEDESTRIAN SIGNAL HEAD, 1-FACE
- 4 EACH SIGNAL POST
- 4 EACH MAST ARM ASSEMBLY AND POLE
- 8 EACH PEDESTRIAN PUSHBUTTON
- 4 EACH TRAFFIC SIGNAL BACKPLATE
- 1 EACH SERVICE INSTALLATION, POLE MOUNTED
- 1 EACH CONTROLLER AND TYPE IV CABINET

SIDEWALK REMOVAL AND REPLACEMENT
P.C.C. SIDEWALK 5' = 55 SQ.FT.

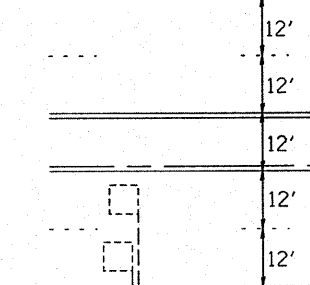
SIDEWALK REMOVAL AND REPLACEMENT
P.C.C. SIDEWALK 5' = 46 SQ.FT.

SIDEWALK REMOVAL AND REPLACEMENT
P.C.C. SIDEWALK 5' = 99 SQ.FT.

TEMPORARY WIRELESS INTERCONNECT ANTENNA
SEE WIRELESS INTERCONNECT SCHEMATIC SHEET 1 OF 2
MODEL: YAGI 4 ELEMENT 8dBI 890-690 MHZ

NOTE:
TEMPORARY WIRELESS INTERCONNECT IS INCLUDED
IN TEMPORARY TRAFFIC SIGNAL INSTALLATION PAY ITEM.

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



NOTES FOR TEMPORARY TRAFFIC SIGNALS

- ALL CONTROL EQUIPMENT INCLUDING EMERGENCY PRE-EMPTION AND COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNAL (S) SHALL BE FURNISH BY THE CONTRACTOR.
- ONLY CONTROLLERS SUPPLIED BY ONE OF THE DISTRICT APPROVED CLOSED LOOP EQUIPMENT MANUFACTURERS WILL BE APPROVED FOR USE AT TEMPORARY SIGNAL LOCATIONS. ALL CONTROLLERS USED FOR TEMPORARY TRAFFIC SIGNALS SHALL BE FULLY ACTUATED NEMA MICROPROCESSOR BASED WITH RS232 DATA ENTRY PORTS COMPATIBLE WITH EXISTING MONITORING SOFTWARE APPROVED BY IDOT DISTRICT 1. INSTALLED IN A NEMA TS1 OR TS2 CABINET. ONLY ONE BRAND OF CONTROLLER WILL BE ACCEPTED FOR ANY ONE CONTRACT.
- ALL CONTROLLERS USED FOR TEMPORARY SIGNALS SHALL MEET OR EXCEED THE REQUIREMENTS OF SECTION T632 OF THE "STANDARD SPECIFICATIONS FOR TRAFFIC CONTROL ITEMS" WITH REGARDS TO INTERNAL TIME BASE COORDINATION AND PREMPTION.
- ALL TRAFFIC SIGNAL SECTIONS AND PEDESTRIAN SIGNAL SECTIONS SHALL BE 12". HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL FURNISH ENOUGH CABLE SLACK TO RELOCATE HEADS TO ANY POSITION ON THE SPAN WIRE OR AT LOCATIONS ILLUSTRATED ON THE PLANS FOR CONSTRUCTION STAGING. THE TEMPORARY TRAFFIC SIGNAL SHALL REMAIN IN OPERATION DURING ALL SIGNAL HEAD RELOCATIONS. EACH TEMPORARY TRAFFIC SIGNAL HEAD SHALL HAVE ITS OWN CABLE FROM THE CONTROLLER CABINET TO THE SIGNAL HEAD.
- ALL EXISTING STREET NAME AND INTERSECTION REGULATORY SIGNS SHALL BE REMOVED FROM EXISTING POLES, RELOCATED AND SECURELY FASTENED TO THE SIGNAL SPAN WIRE OR WOOD POLE AS DIRECTED BY THE ENGINEER.
- ANY TEMPORARY SIGNAL WITHIN AN EXISTING CLOSED LOOP TRAFFIC SIGNAL SYSTEM SHALL BE INTERCONNECTED TO THAT SYSTEM USING SIMILAR BRAND CONTROL EQUIPMENT.

MATCH LINE B

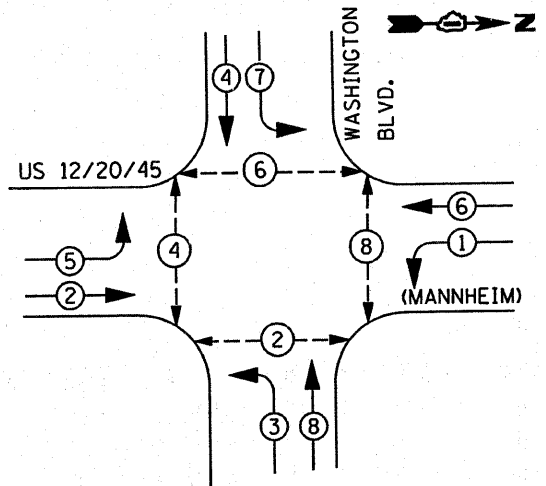
MATCH LINE B

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL PLAN
US 12/2045 (MANNHEIM) @ WASHINGTON BLVD.

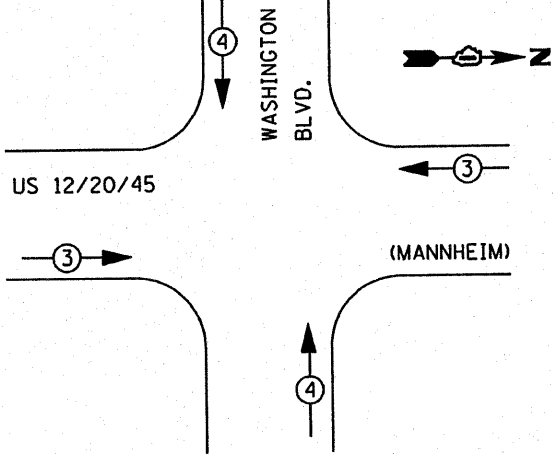
F.A.P. RTE. 330	SECTION 2008-006 TS	COUNTY COOK	TOTAL SHEETS 100	SHEET NO. 61
SCALE: 1"=20'		SHEET NO. OF SHEETS		STA. TO STA.
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

FILE NAME =	USER NAME = kanthaphixoybc	DESIGNED - BCK	REVISED -
es:\projects\traffic\070027\us12_20_45.dgn		DRAWN - BCK	REVISED -
	PLOT SCALE = 40.0000' / IN.	CHECKED - DAD	REVISED -
	PLOT DATE = 10/18/2008	DATE -	REVISED -



PHASE DESIGNATION DIAGRAM
DUAL ENTRY - ALL LEGS
PERMITTED LEFT TURN PHASING

**TEMPORARY SIGNAL INSTALLATION
EMERGENCY VEHICLE PREEMPTION SEQUENCE**

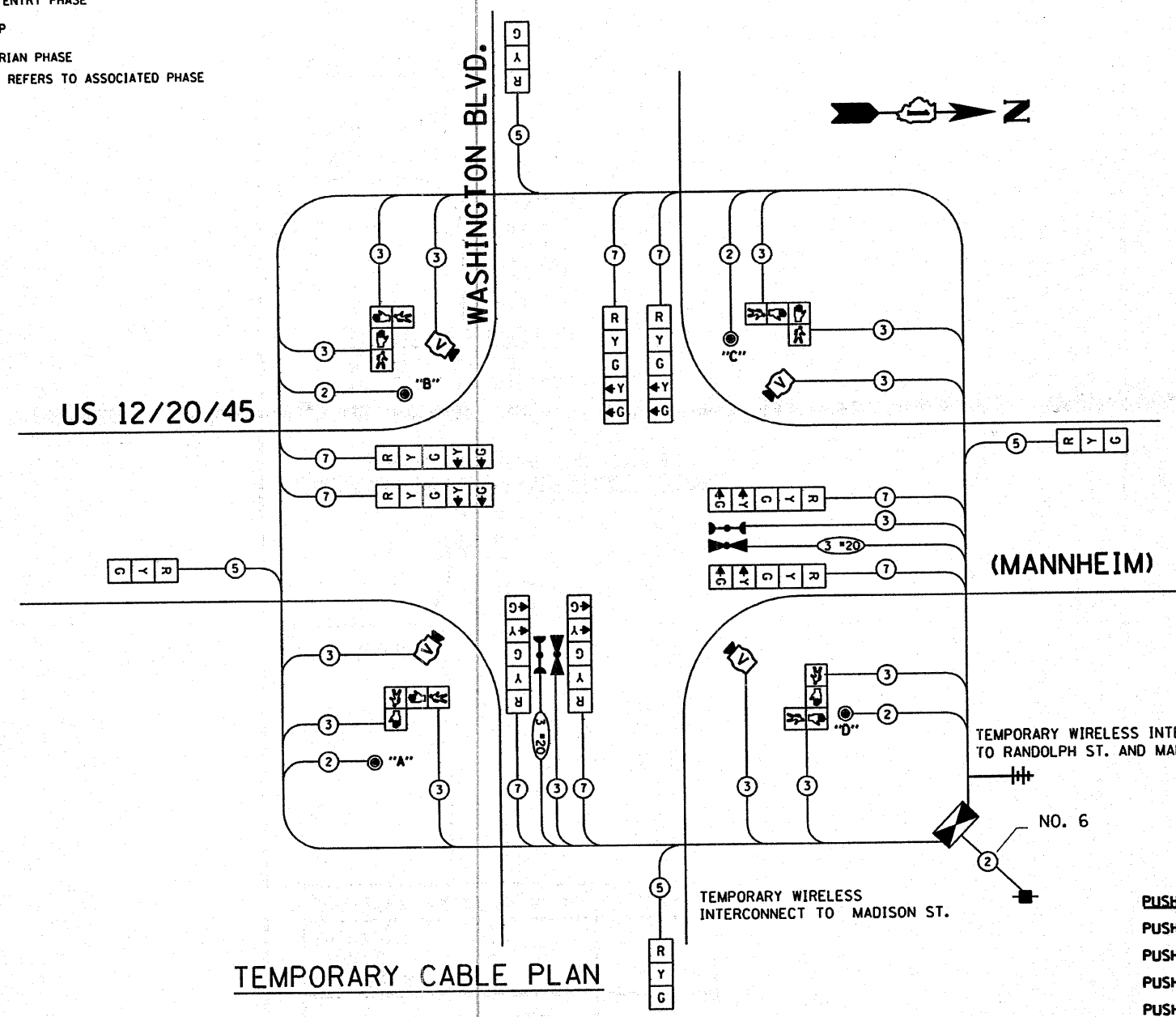


TEMPORARY EMERGENCY VEHICLE PREEMPTOR		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	→	↑

- LEGEND**
- ⊕ DUAL ENTRY PHASE
 - ⊖ SINGLE ENTRY PHASE
 - ⊕ OVERLAP
 - ⊕ PEDESTRIAN PHASE
 - * NUMBER REFERS TO ASSOCIATED PHASE

TEMPORARY CABLE DIAGRAM LEGEND

- | | PROPOSED | EXISTING |
|--|----------------|----------------|
| TEMPORARY CONTROLLER CABINET | ⊕ | ⊕ |
| TEMPORARY SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT | ⊕ ^P | ⊕ ^P |
| TEMPORARY TRAFFIC SIGNAL SECTION OR PEDESTRIAN SIGNAL SECTION, 12" (300 mm) | R | R |
| 12" (300 mm) PEDESTRIAN SIGNAL SECTION | ⊕ | ⊕ |
| ELECTRIC CABLE IN CONDUIT, NO. 14, UNLESS OTHERWISE NOTED. NUMBER OF CONDUCTORS AS NOTED | 2 | 2 |
| PEDESTRIAN PUSHBUTTON DETECTOR | ⊕ | ⊕ |
| VEHICLE DETECTOR, INDUCTION LOOP | ⊕ | ⊕ |
| MICROWAVE VEHICLE SENSOR | M | M |
| VIDEO DETECTOR | V | V |
| CLOSED CIRCUIT TV | C | C |
| EMERGENCY VEHICLE SYSTEM DETECTOR | E | E |
| CONFIRMATION BEACON | ⊕ | ⊕ |
| WIRELESS INTERCONNECT (ANTENNA) | ⊕ | ⊕ |



TEMPORARY CABLE PLAN

- PUSH-BUTTON NOTES:**
- PUSH-BUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4
 - PUSH-BUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6
 - PUSH-BUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8
 - PUSH-BUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8

NOTE:
PROPOSED TEMPORARY WIRELESS INTERCONNECT IS INCLUDED IN TEMPORARY TRAFFIC SIGNAL INSTALLATION PAY ITEM.

RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIAN, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

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

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. LAMPS	WATTAGE (INCAND.)	LED	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	12	135	17	0.50	102.00
(YELLOW)	12	135	25	0.25	75.00
(GREEN)	12	135	15	0.25	45.00
ARROW	16	135	12	0.10	19.20
PED. SIGNAL	8	90	25	1.00	200.00
CONTROLLER	1	100	100	1.00	100.00
ILLUM. SIGN		84		0.05	
FLASHER				0.50	
TOTAL =					541.20

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'-H-2" (6m+L-0.6m)
E - M. ARM POLE		SIGNAL POST	2 (1.0)	BRACKET MOUNTED	13 (4.0)
24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)	PED. PUSHBUTTON	4 (1.2)
30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	ELECTRIC SERVICE	13.5 (4.1)
36" (900mm)	15 (4.6)	ELECTRIC SERVICE	1 (0.5)	SERVICE TO GROUND	3.5 (4.1)
		GROUND CABLE	1 (0.5)	POST MOUNTED	6 (1.8)

ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION
TOTAL = 541.20

ENERGY SUPPLY CONTACT: 708-410-5069
PHONE: COM. EDISON
COMPANY:

FILE NAME =
USER NAME = kenthaphixaybc
DESIGNED - BCK
DRAWN - BCK
CHECKED - DAD
DATE -

REVISÉ -
REVISÉ -
REVISÉ -
REVISÉ -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TEMPORARY CABLE PLAN
US 12/20/45 (MANNHEIM) @ WASHINGTON BLVD.**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2008-006 TS	COOK	100	62
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 60E31	

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

WASHINGTON BLVD. MATCH LINE A

TRAFFIC SIGNAL LEGEND

		PROPOSED	EXISTING		
CONTROLLER CABINET				JUNCTION BOX	
RAILROAD CONTROL CABINET				HANDHOLE	
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT				HEAVY DUTY HANDHOLE	
TELEPHONE CONNECTION				DOUBLE HANDHOLE	
SIGNAL HEAD				G.S. CONDUIT IN TRENCH OR PUSHED	
SIGNAL HEAD WITH BACKPLATE				COMMON TRENCH	CT
SIGNAL HEAD OPTICALLY PROGRAMMED				UNIT DUCT	UD
SIGNAL HEAD PEDESTRIAN WITH COUNTDOWN TIMER				PEDESTRIAN PUSHBUTTON DETECTOR	
ILLUMINATED SIGN "NO LEFT TURN"				DETECTOR LOOP, TYPE I	
ILLUMINATED SIGN "NO RIGHT TURN"				PERFORMED DETECTOR LOOP	
SIGNAL POST				MICROWAVE VEHICLE SENSOR	
WOOD POLE				VIDEO DETECTOR	
STEEL MAST ARM ASSEMBLY AND POLE				CLOSED CIRCUIT TV	
ALUMINUM MAST ARM ASSEMBLY AND POLE				EMERGENCY VEHICLE SYSTEM DETECTOR	
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE				CONFIRMATION BEACON	
				UNINTERRUPTIBLE POWER SUPPLY	

PROPOSED INTERSECTION AND SAMPLING (SYSTEM) DET.

MATCH LINE A

US 12/20/45 (MANNHEIM)



EXISTING INTERCONNECT TO RANDOLPH ST.

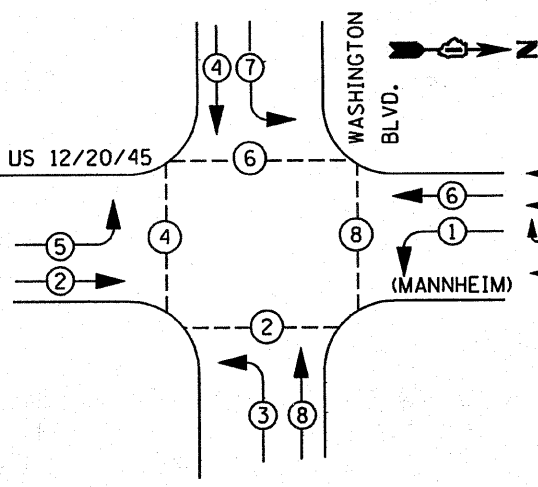
MATCH LINE B

PROPOSED INTERSECTION AND SAMPLING(SYSTEM) DETECTORS

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

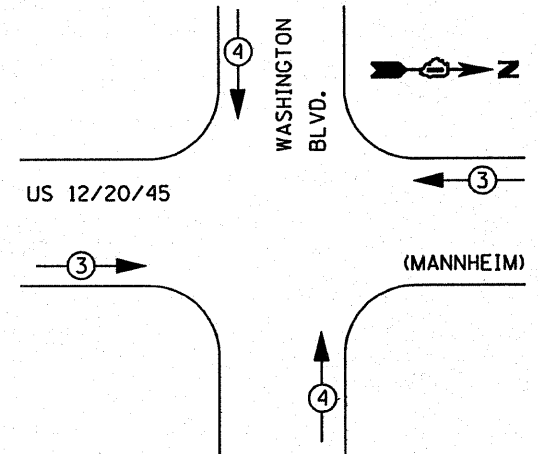
RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIAN, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

FILE NAME =	USER NAME = kenthphixjbc	DESIGNED - BCK	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PROPOSED TRAFFIC SIGNAL PLAN US 12/20/45 (MANNHEIM) @ WASHINGTON BLVD.	F.A.P. RTE. 330	SECTION 2008-006 TS	COUNTY COOK	TOTAL SHEETS 100	SHEET NO. 63	
PLT SCALE = 48.0000' / IN.	CHECKED - DAD	REVISED -	REVISED -			SCALE: 1"=20'	SHEET NO. OF SHEETS	STA. TO STA.	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT	CONTRACT NO. 60E31
PLT DATE = 10/10/2008	DATE -	REVISED -	REVISED -								
MATCH LINE B											



PHASE DESIGNATION DIAGRAM

PROPOSED SIGNAL INSTALLATION EMERGENCY VEHICLE PREEMPTION SEQUENCE



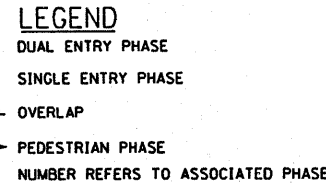
PROPOSED EMERGENCY VEHICLE PREEMPTOR			
EMERGENCY VEHICLE PREEMPTOR	3	4	
MOVEMENT	← →	↑ ↓	

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE (INCAND.)	WATTAGE (LED)	% OPERATION	
SIGNAL (RED) (YELLOW) (GREEN)	16	135	17	0.50	136.00
ARROW	16	135	12	0.10	19.20
PED. SIGNAL	8	90	25	1.00	200.00
CONTROLLER	1	100	100	1.00	100.00
ILLUM. SIGN		84		0.05	
FLASHER					0.50
ENERGY COSTS TO:					TOTAL = 689.20

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
D - CONTROLLER	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
E - M. ARM POLE	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'-H-2'
24" (600mm)	10 (3.0)	SIGNAL POST	2 (1.0)	BRACKET MOUNTED	13 (4.0)
30" (750mm)	15 (4.6)	CONTROLLER CAB.	1 (0.5)	PED. PUSHBUTTON	4 (1.2)
36" (900mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	ELECTRIC SERVICE	13.5 (4.1)
		ELECTRIC SERVICE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
		GROUND CABLE	1 (0.5)	POST MOUNTED	6 (1.8)

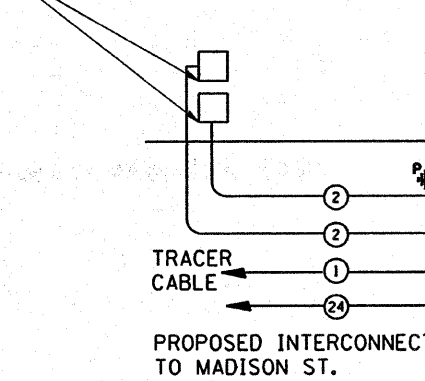
ENERGY SUPPLY CONTACT:
PHONE: 708-410-5069
COMPANY: COM. EDISON

FILE NAME =
USER NAME = kanthaphixaybc
DESIGNED - BCK
DRAWN - BCK
PLOT SCALE = 48.0000" / IN.
CHECKED - DAD
PLOT DATE = 10/10/2008
DATE



LEGEND

PROPOSED INTERSECTION AND SAMPLING(SYSTEM) DETECTORS



THE END OF THE TRACER CABLE SHALL BE TIED TO A CABLE HOOK IN THE DOUBLE HANDHOLE CLOSEST TO THE CONTROLLER FOUNDATION.

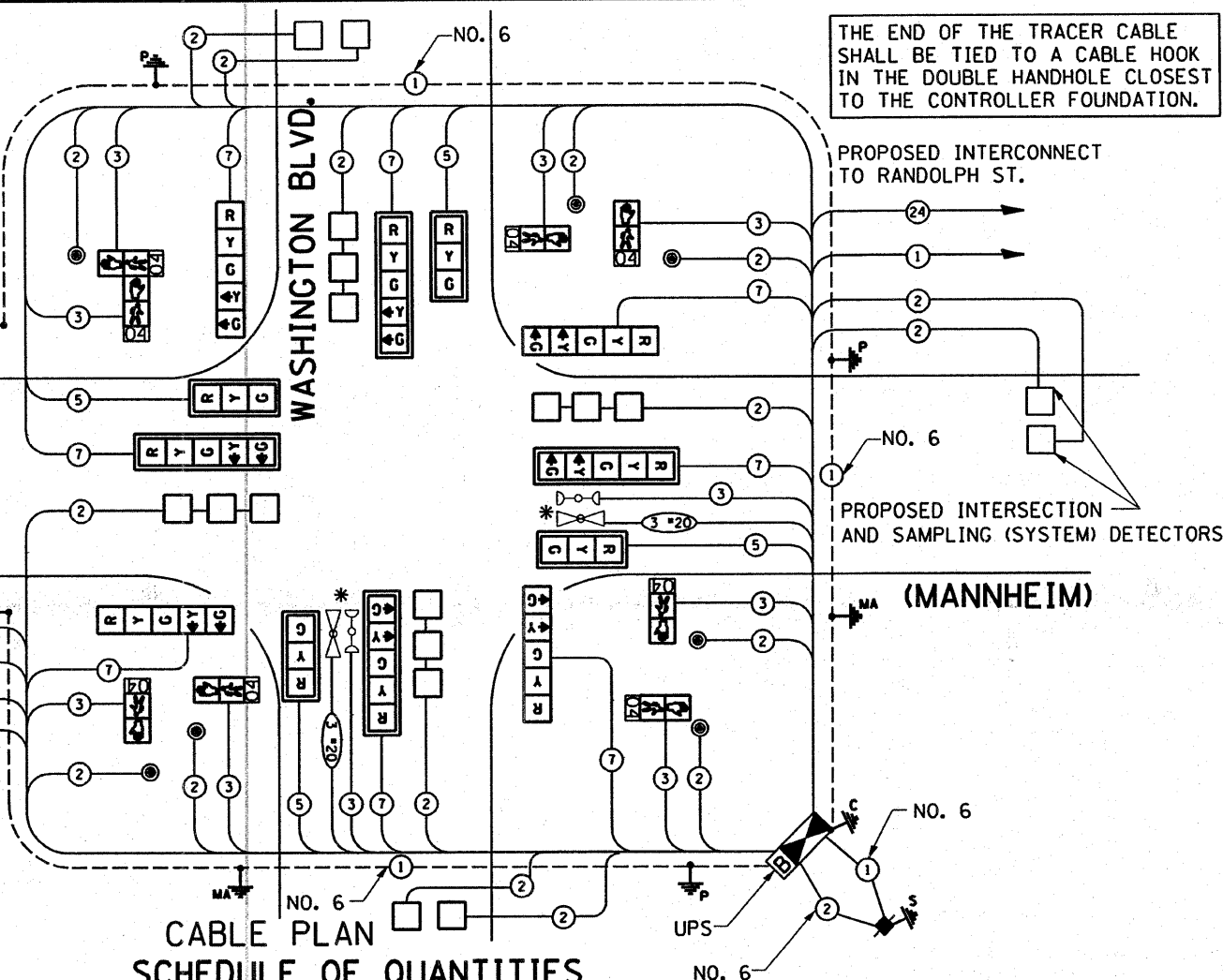
ITEM

PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SO. FT	200
SIGN PANEL-TYPE II	SO. FT	57.50
TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	L SUM	0.1
TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	0.1
TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	0.1
CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	FOOT	720
CONDUIT IN PUSH, 2" DIA., GALVANIZED STEEL	FOOT	401
CONDUIT IN PUSH, 2 1/2" DIA., GALVANIZED STEEL	FOOT	77
CONDUIT IN TRENCH, 2 1/2" DIA., GALVANIZED STEEL	FOOT	18
CONDUIT IN PUSH, 4" DIA., GALVANIZED STEEL	FOOT	385
CONDUIT IN TRENCH, 5" DIA., GALVANIZED STEEL	FOOT	11
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	741
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET(SPECIAL)	EACH	1
TRANSCIEVER-FIBER OPTIC	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	1984
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	1214
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	875
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	1595
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	2277
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C	FOOT	110
ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	FOOT	1334
*ELECTRIC CABLE IN CONDUIT, NO. 20 3C, TWISTED, SHIELDED	FOOT	320
STEEL MAST ARM ASSEMBLY AND POLE, 36 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 40 FT.	EACH	3

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
D - CONTROLLER	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
E - M. ARM POLE	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'-H-2'
24" (600mm)	10 (3.0)	SIGNAL POST	2 (1.0)	BRACKET MOUNTED	13 (4.0)
30" (750mm)	15 (4.6)	CONTROLLER CAB.	1 (0.5)	PED. PUSHBUTTON	4 (1.2)
36" (900mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	ELECTRIC SERVICE	13.5 (4.1)
		ELECTRIC SERVICE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
		GROUND CABLE	1 (0.5)	POST MOUNTED	6 (1.8)

ENERGY SUPPLY CONTACT:
PHONE: 708-410-5069
COMPANY: COM. EDISON

FILE NAME =
USER NAME = kanthaphixaybc
DESIGNED - BCK
DRAWN - BCK
PLOT SCALE = 48.0000" / IN.
CHECKED - DAD
PLOT DATE = 10/10/2008
DATE



CABLE PLAN SCHEDULE OF QUANTITIES

UNIT QUANTITY ITEM

HANDHOLE	EACH	8
SIDEWALK REMOVAL	SO FT	200
HEAVY-DUTY HANDHOLE	EACH	4
DOUBLE HANDHOLE	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16FT.	EACH	4
CONCRETE FOUNDATION, TYPE A	FOOT	16
CONCRETE FOUNDATION, TYPE C	FOOT	4
CONCRETE FOUNDATION, TYPE E 36-INCH DIA.	FOOT	60
UNINTERRUPTIBLE POWER SUPPLY	EACH	1
SIGNAL HEAD, L. E. D. 1-FACE, 3 SECTION, MAST ARM MNTD.	EACH	4
SIGNAL HEAD, L. E. D. 1-FACE, 5 SECTION, MAST ARM MNTD.	EACH	4
SIGNAL HEAD, L. E. D. 1-FACE, 1-5 SECT BRKT MNTD.	EACH	4
PEDESTRIAN PUSH-BUTTON	EACH	7
PEDESTRIAN SIGNAL HEAD, L. E. D., 1-FACE, BRKT. MNTD. with COUNTDOWN TIMER	EACH	6
PEDESTRIAN SIGNAL HEAD, L. E. D., 2-FACE, BRKT. MNTD. with COUNTDOWN TIMER	EACH	1
INDUCTIVE LOOP DETECTOR	EACH	12
DETECTOR LOOP TYPE I	FOOT	665
TRAFFIC SIGNAL BACKPLATE, ALUMINUM	EACH	8
TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	25
REMOVE EXISTING HANDHOLE	EACH	16
THERMOPLASTIC PAVEMENT MARKING LINE 12"	FOOT	528
THERMOPLASTIC PAVEMENT MARKING LINE 24"	FOOT	151
THERMOPLASTIC PAVEMENT MARKING REMOVAL	FOOT	781
*RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, DETECTOR UNIT	EACH	2
*RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING	EACH	1
TEMPORARY TRAFFIC SIGNAL TIMINGS	EACH	1

UNIT QUANTITY

CABLE PLAN LEGEND		PROPOSED	EXISTING
CONTROLLER CABINET		[Symbol]	[Symbol]
RAILROAD CONTROL CABINET		[Symbol]	[Symbol]
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT		[Symbol]	[Symbol]
TELEPHONE CONNECTION		[Symbol]	[Symbol]
GROUND ROD AT (C) CONTROLLER, (H)HANDHOLE, (P) POST, (M) MAST ARM, OR (S) SERVICE		[Symbol]	[Symbol]
FIBER OPTIC CABLE IN CONDUIT, NUMBER OF FIBERS AS NOTED		[Symbol]	[Symbol]
ELECTRIC CABLE IN CONDUIT, NO. 14, UNLESS OTHERWISE NOTED, NUMBER OF CONDUCTORS AS NOTED		[Symbol]	[Symbol]
GROUND CABLE IN CONDUIT NO. 6 COPPER (GREEN)		[Symbol]	[Symbol]
SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD		[Symbol]	[Symbol]
12" (300mm) RED WITH 8" (200mm) YELLOW AND GREEN TRAFFIC SIGNAL FACE		[Symbol]	[Symbol]
12" (300mm) TRAFFIC SIGNAL SECTION		[Symbol]	[Symbol]
12" (300mm) PEDESTRIAN SIGNAL SECTION with COUNTDOWN TIMER		[Symbol]	[Symbol]
ILLUMINATED SIGN "NO LEFT TURN"		[Symbol]	[Symbol]
ILLUMINATED SIGN "NO RIGHT TURN"		[Symbol]	[Symbol]
PUSHBUTTON DETECTOR		[Symbol]	[Symbol]
DETECTOR LOOP		[Symbol]	[Symbol]
PREFORMED DETECTOR LOOP		[Symbol]	[Symbol]
MICROWAVE VEHICLE SENSOR		[Symbol]	[Symbol]
VIDEO DETECTOR		[Symbol]	[Symbol]
CLOSED CIRCUIT TV		[Symbol]	[Symbol]
EMERGENCY VEHICLE SYSTEM DETECTOR		[Symbol]	[Symbol]
CONFIRMATION BEACON		[Symbol]	[Symbol]
UNINTERRUPTABLE POWER SUPPLY		[Symbol]	[Symbol]

* 100% COST TO VILLAGE OF BELLWOOD

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

RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIAN, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

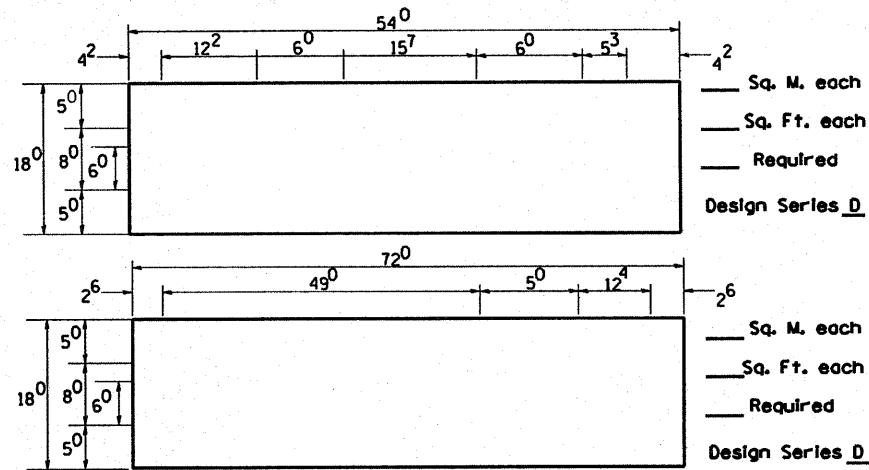
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

PROPOSED CABLE PLAN US 12/20/45 (MANNHEIM) @ WASHINGTON BLVD.

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

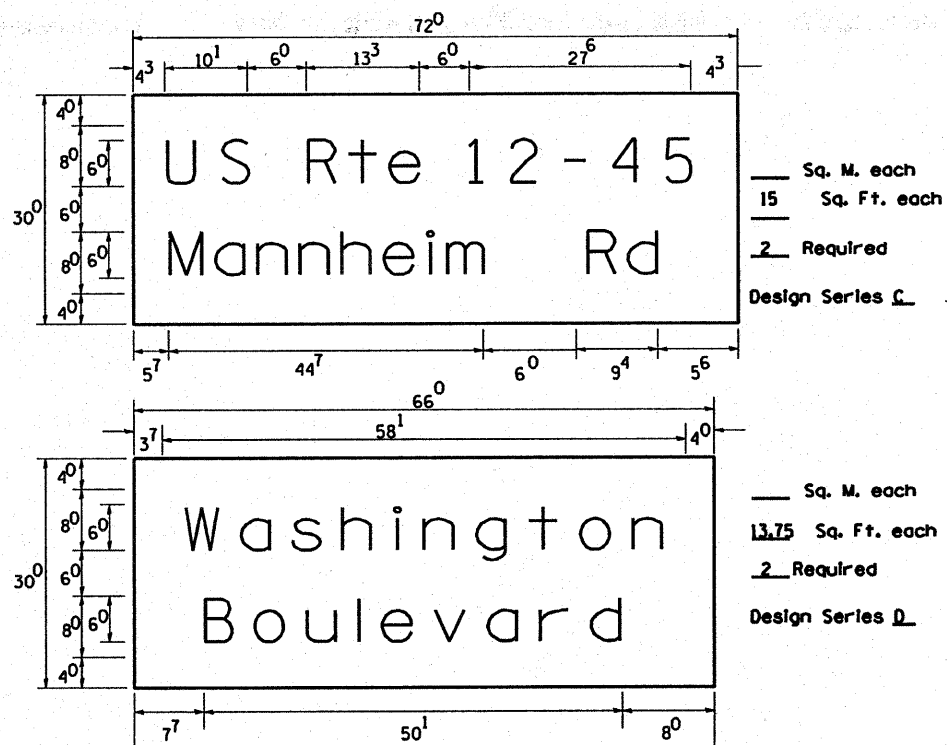
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2008-006 TS	COOK	100	64
CONTRACT NO. 60E31				
FED. ROAD DIST. NO. (ILLINOIS) FED. AID PROJECT				

PANEL SIGN DESIGN TYPE 1



NOTE: SIGN DIMENSIONS ARE IN ENGLISH UNITS

PANEL SIGN DESIGN TYPE 2



GENERAL NOTES

- 1. WHERE MAST ARM MOUNTED STREET NAME SIGNS ARE SPECIFIED... 2. ALL SIGNS SHALL HAVE A WHITE REFLECTORIZED LEGEND... 3. THE SIGN LENGTH SHOULD BE INCREASED IN 6-INCH INCREMENTS... 4. ALL BORDERS SHALL BE 3/4" WIDE... 5. SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM SHALL BE USED...

SUPPORTING CHANNELS

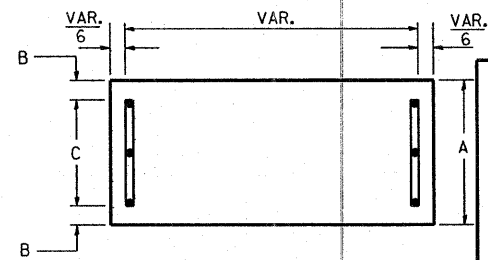
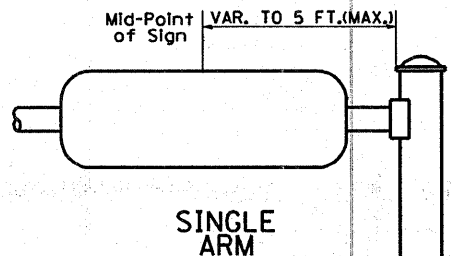


Table with 3 columns: A, B, C and values: 18", 2", 14"



SUPPORTING CHANNELS

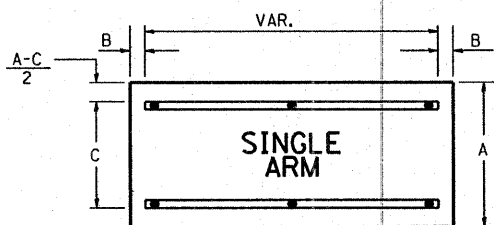
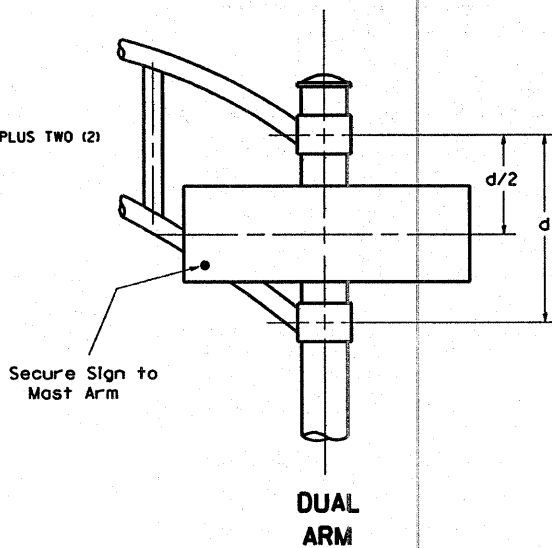


Table with 3 columns: A, B, C and values: 18", 2", 12" and 30", 2", 22"



SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM Shall be used. See Note #5.

Upper Case To Lower Case Spacing Chart 8-6 Inch Series "C & D"

Spacing chart for Upper Case To Lower Case, 8-6 Inch Series "C & D". Includes columns for First Letter and Second Letter.

Lower Case To Lower Case Spacing Chart 6 Inch Series "C & D"

Spacing chart for Lower Case To Lower Case, 6 Inch Series "C & D". Includes columns for First Letter and Second Letter.

Number To Number Spacing Chart 8 Inch Series "C & D"

Spacing chart for Number To Number, 8 Inch Series "C & D". Includes columns for First Number and Second Number.

EXAMPLE, 2 3/8 DENOTES 3 3/8

UPPER AND LOWER CASE LETTER WIDTHS

Table showing letter widths for 6 inch upper case letters, 8 inch upper case letters, and 6 inch lower case letters.

Table showing letter widths for 6 inch series and 8 inch series.

EXISTING TRAFFIC SIGNAL AND REMOVAL LEGEND

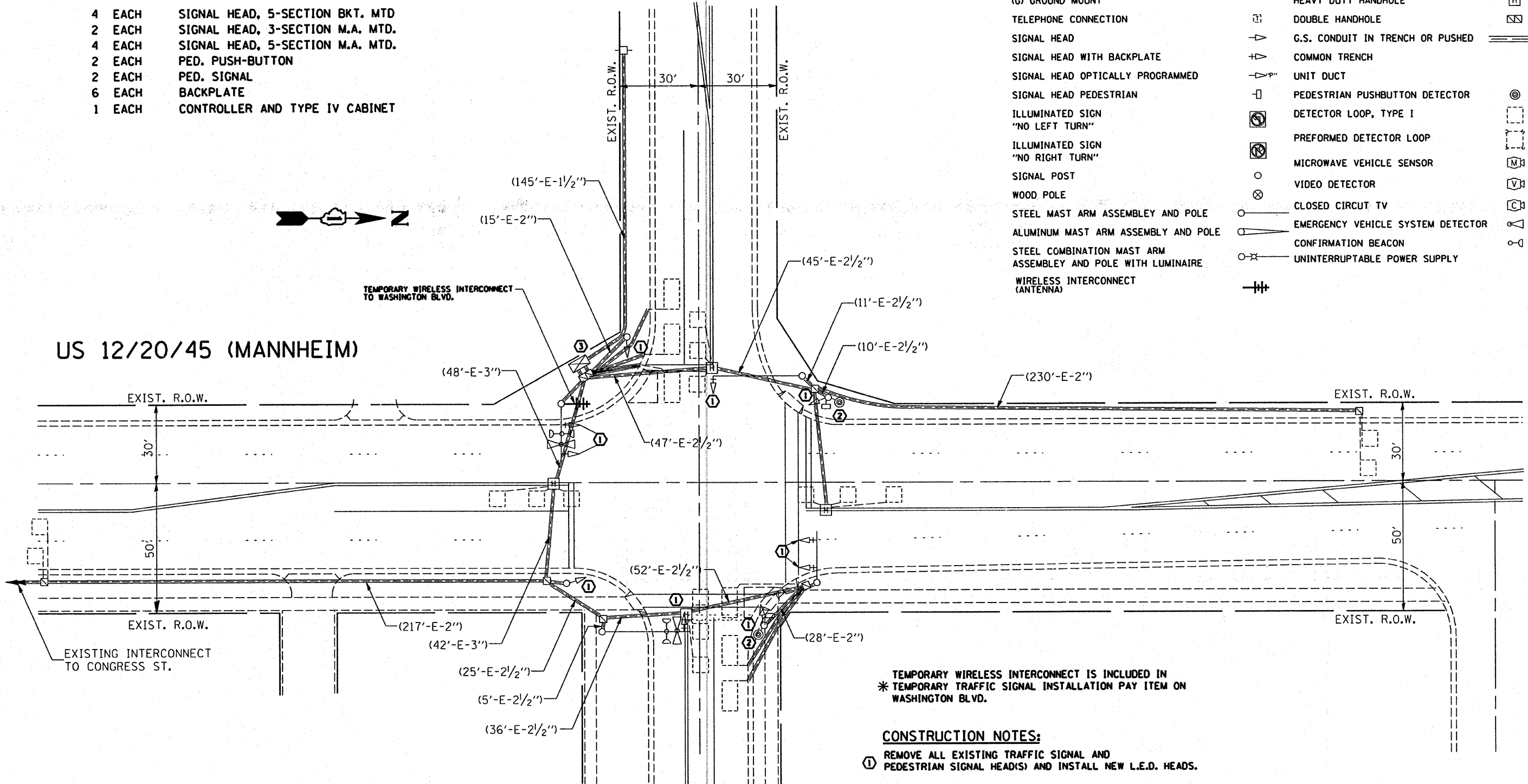
THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

- 4 EACH SIGNAL HEAD, 5-SECTION BKT. MTD
- 2 EACH SIGNAL HEAD, 3-SECTION M.A. MTD.
- 4 EACH SIGNAL HEAD, 5-SECTION M.A. MTD.
- 2 EACH PED. PUSH-BUTTON
- 2 EACH PED. SIGNAL
- 6 EACH BACKPLATE
- 1 EACH CONTROLLER AND TYPE IV CABINET

EXISTING		EXISTING	
CONTROLLER CABINET		JUNCTION BOX	
RAILROAD CONTROL CABINET		HANDHOLE	
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT		HEAVY DUTY HANDHOLE	
TELEPHONE CONNECTION		DOUBLE HANDHOLE	
SIGNAL HEAD		G.S. CONDUIT IN TRENCH OR PUSHED	
SIGNAL HEAD WITH BACKPLATE		COMMON TRENCH	
SIGNAL HEAD OPTICALLY PROGRAMMED		UNIT DUCT	
SIGNAL HEAD PEDESTRIAN		PEDESTRIAN PUSHBUTTON DETECTOR	
ILLUMINATED SIGN "NO LEFT TURN"		DETECTOR LOOP, TYPE I	
ILLUMINATED SIGN "NO RIGHT TURN"		PREFORMED DETECTOR LOOP	
SIGNAL POST		MICROWAVE VEHICLE SENSOR	
WOOD POLE		VIDEO DETECTOR	
STEEL MAST ARM ASSEMBLY AND POLE		CLOSED CIRCUIT TV	
ALUMINUM MAST ARM ASSEMBLY AND POLE		EMERGENCY VEHICLE SYSTEM DETECTOR	
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE		CONFIRMATION BEACON	
WIRELESS INTERCONNECT (ANTENNA)		UNINTERRUPTIBLE POWER SUPPLY	

MADISON STREET

US 12/20/45 (MANNHEIM)



TEMPORARY WIRELESS INTERCONNECT IS INCLUDED IN * TEMPORARY TRAFFIC SIGNAL INSTALLATION PAY ITEM ON WASHINGTON BLVD.

CONSTRUCTION NOTES:

- ① REMOVE ALL EXISTING TRAFFIC SIGNAL AND PEDESTRIAN SIGNAL HEAD(S) AND INSTALL NEW L.E.D. HEADS.
- ② REPLACE ALL EXISTING PEDESTRIAN PUSH-BUTTON WITH NEW L.E.D. PUSH-BUTTONS TYPE IV CABINET (SPECIAL)
- ③ REMOVE EXISTING CONTROLLER AND CABINET, REPLACE WITH NEW CONTROLLER WITH UPS, REUSE EXISTING FOUNDATIONS. RELOCATION OF EXISTING EVP PHASING UNIT SHALL BE INCLUDED IN THE UNIT COST OF NEW CONTROLLER AND CABINET PAY ITEM.

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

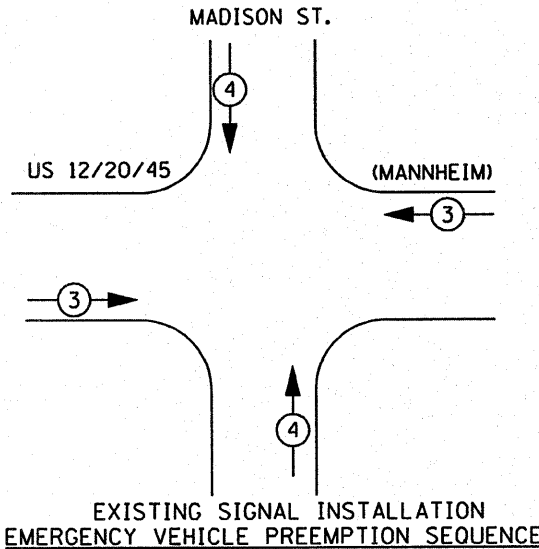
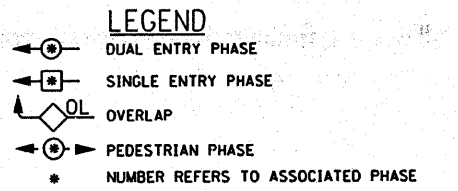
RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIAN, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

FILE NAME =	USER NAME = kanthaphixaybc	DESIGNED - BCK	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EXISTING AND REMOVAL PLAN US 12/20/45 (MANNHEIM) @ MADISON ST.	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
PROJECT =	DRAWN - BCK	REVISED -	330			2008-006 TS	COOK	100	66	
PLOT SCALE = 40.0000' / IN.	CHECKED - DAD	REVISED -	CONTRACT NO. 60E31							
PLOT DATE = 10/10/2008	DATE -	REVISED -	FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT							
				SCALE: 1"=20'	SHEET NO. OF SHEETS STA. TO STA.					

EXISTING CABLE DIAGRAM LEGEND

	PROPOSED	EXISTING
TEMPORARY CONTROLLER CABINET		
TEMPORARY SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT		
TEMPORARY TRAFFIC SIGNAL SECTION OR PEDESTRIAN SIGNAL SECTION, 12" (300 mm)		
12" (300 MM) PEDESTRIAN SIGNAL SECTION		
ELECTRIC CABLE IN CONDUIT, NO. 14, UNLESS OTHERWISE NOTED, NUMBER OF CONDUCTORS AS NOTED		
PEDESTRIAN PUSHBUTTON DETECTOR		
VEHICLE DETECTOR, INDUCTION LOOP		
MICROWAVE VEHICLE SENSOR		
VIDEO DETECTOR		
CLOSED CIRCUIT TV		
EMERGENCY VEHICLE SYSTEM DETECTOR		
CONFIRMATION BEACON		
WIRELESS INTERCONNECT (ANTENNA)		

PHASE DESIGNATION DIAGRAM



PROPOSED EMERGENCY VEHICLE PREEMPTOR

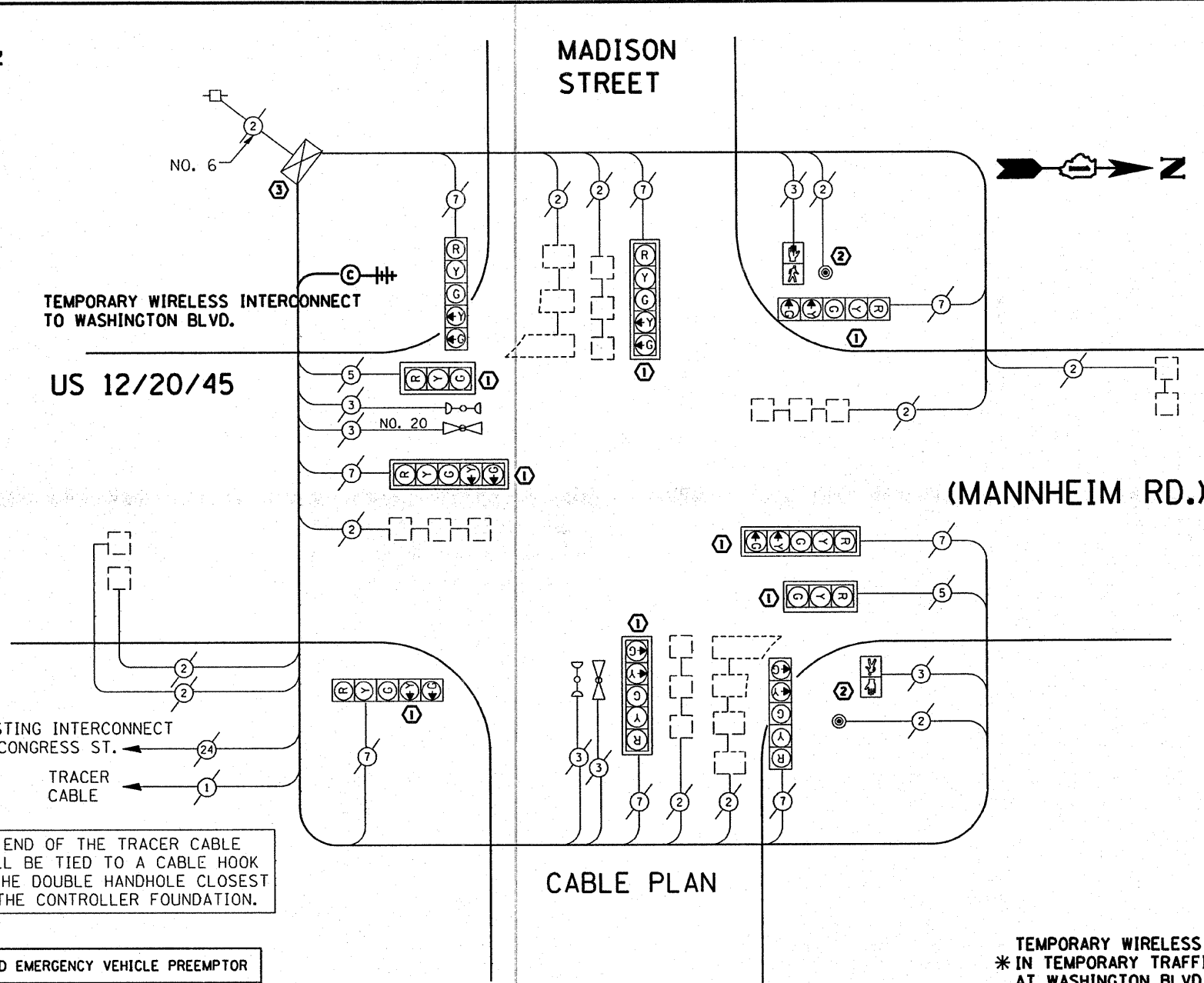
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT		

THE END OF THE TRACER CABLE SHALL BE TIED TO A CABLE HOOK IN THE DOUBLE HANDHOLE CLOSEST TO THE CONTROLLER FOUNDATION.

TEMPORARY WIRELESS INTERCONNECT TO WASHINGTON BLVD.

EXISTING INTERCONNECT TO CONGRESS ST.
TRACER CABLE

CABLE PLAN



TEMPORARY WIRELESS INTERCONNECT IS INCLUDED * IN TEMPORARY TRAFFIC SIGNAL INSTALLATION PAY ITEM AT WASHINGTON BLVD.

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. LAMPS	WATTAGE (INCANDESCENT)	WATTAGE (LED)	OPERATION	TOTAL WATTAGE
SIGNAL (RED)	10	135	17	0.50	
(YELLOW)	10	135	25	0.25	
(GREEN)	10	135	15	0.25	
ARROW	16	135	12	0.10	
PED. SIGNAL	2	90	25	1.00	
CONTROLLER	1	100	100	1.00	
ILLUM. SIGN		84		0.05	
FLASHER				0.50	
TOTAL =					

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'+L-2'
E - M. ARM POLE		SIGNAL POST	2 (1.0)	(6m+L-0.6m)=	
24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
36" (900mm)	15 (4.6)	ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
		GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
				POST MOUNTED	6 (1.8)

ENERGY COSTS TO: **TOTAL =**

ENERGY SUPPLY CONTACT: _____
PHONE: 708-410-5069
COMPANY: COM. EDISON

RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIAN, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

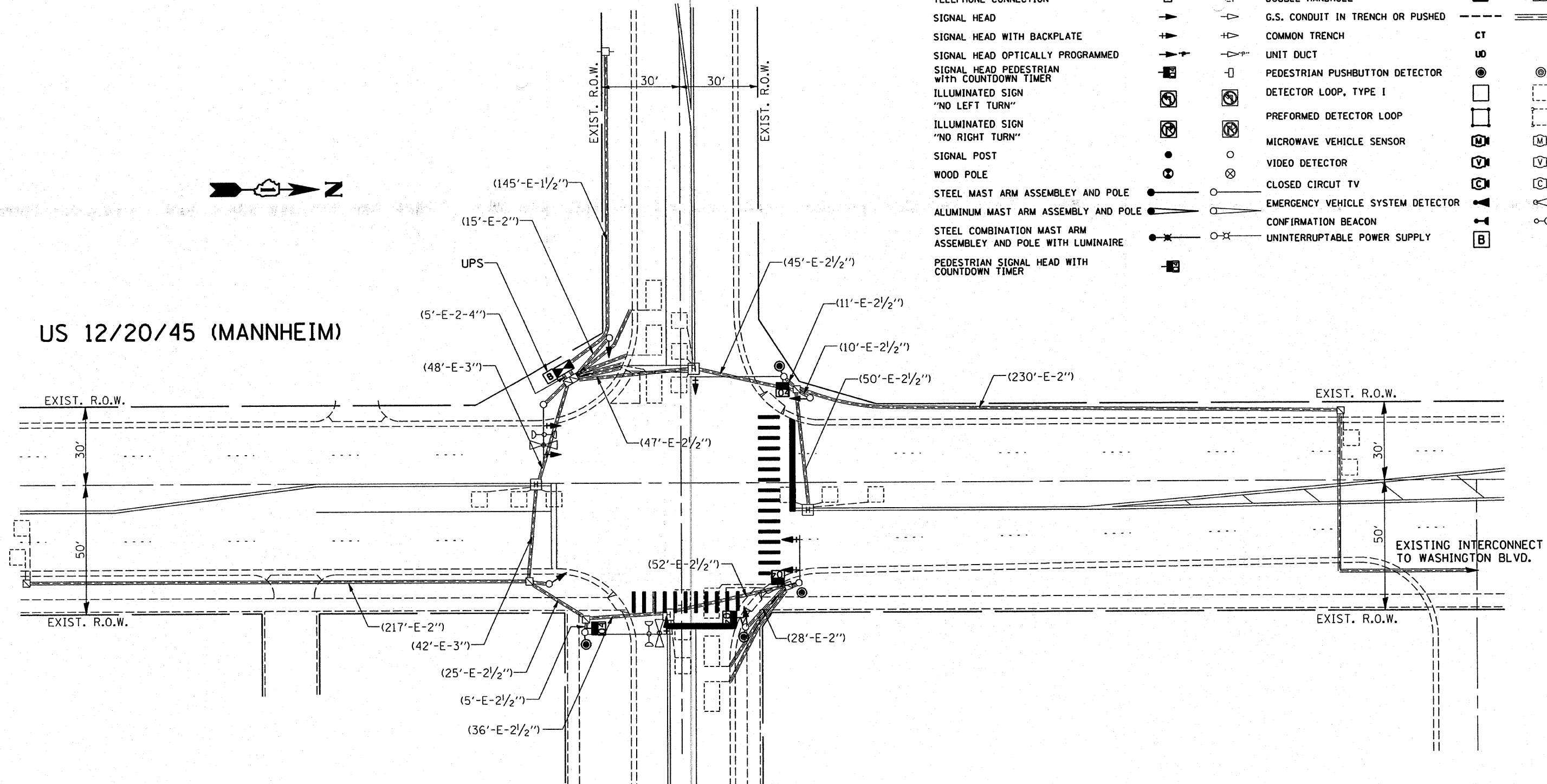
NOTE: THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE ADJACENT SYSTEM.

MADISON STREET

US 12/20/45 (MANNHEIM)

TRAFFIC SIGNAL LEGEND

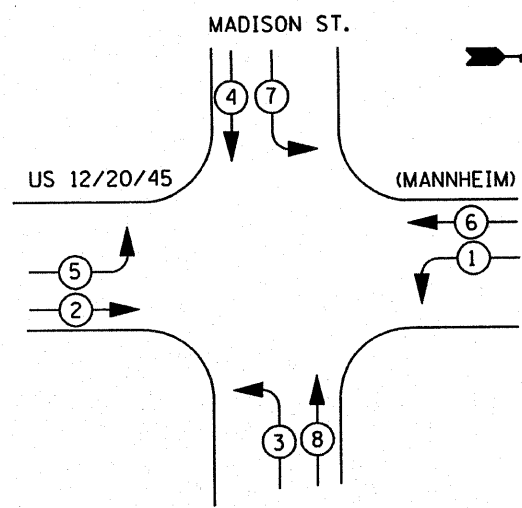
	PROPOSED	EXISTING		PROPOSED	EXISTING
CONTROLLER CABINET			JUNCTION BOX		
RAILROAD CONTROL CABINET			HANDHOLE		
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT			HEAVY DUTY HANDHOLE		
TELEPHONE CONNECTION			DOUBLE HANDHOLE		
SIGNAL HEAD			G.S. CONDUIT IN TRENCH OR PUSHED		
SIGNAL HEAD WITH BACKPLATE			COMMON TRENCH	CT	
SIGNAL HEAD OPTICALLY PROGRAMMED			UNIT DUCT	UD	
SIGNAL HEAD PEDESTRIAN WITH COUNTDOWN TIMER			PEDESTRIAN PUSHBUTTON DETECTOR		
ILLUMINATED SIGN "NO LEFT TURN"			DETECTOR LOOP, TYPE I		
ILLUMINATED SIGN "NO RIGHT TURN"			PREFORMED DETECTOR LOOP		
SIGNAL POST			MICROWAVE VEHICLE SENSOR		
WOOD POLE			VIDEO DETECTOR		
STEEL MAST ARM ASSEMBLY AND POLE			CLOSED CIRCUIT TV		
ALUMINUM MAST ARM ASSEMBLY AND POLE			EMERGENCY VEHICLE SYSTEM DETECTOR		
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE			CONFIRMATION BEACON		
PEDESTRIAN SIGNAL HEAD WITH COUNTDOWN TIMER			UNINTERRUPTABLE POWER SUPPLY	B	



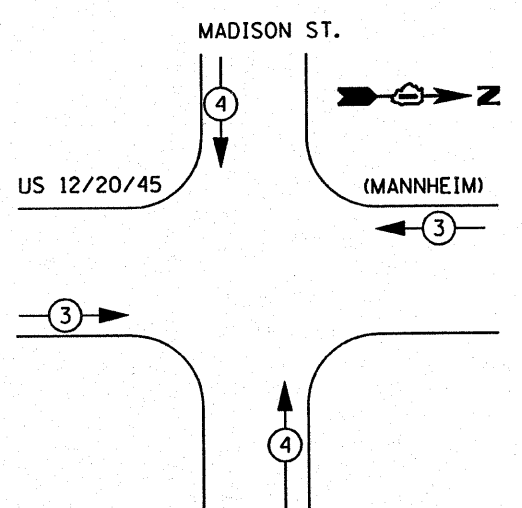
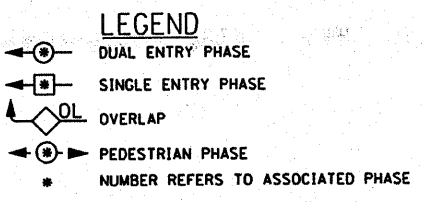
RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIAN, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

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

FILE NAME =	USER NAME = konthaphixaybc	DESIGNED - BCK	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PROPOSED TRAFFIC SIGNAL PLAN US 12/20/45 (MANNHEIM) @ MADSION ST.	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
ci:\projects\traffic\1070027\us12_20_45.dgn		DRAWN - BCK	REVISED -			330	2008-006 TS	COOK	100	68	
PLOT SCALE = 40.0000 / IN.		CHECKED - DAD	REVISED -			CONTRACT NO. 60E31					
PLOT DATE = 10/10/2008		DATE -	REVISED -			FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT					
				SCALE: 1"=20'	SHEET NO. OF SHEETS	STA. TO STA.					



PHASE DESIGNATION DIAGRAM



SIGNAL INSTALLATION EMERGENCY VEHICLE PREEMPTION SEQUENCE

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	WATTAGE LED	% OPERATION	
SIGNAL (RED)	10	135	17	0.50	85.00
(YELLOW)	10	135	25	0.25	67.50
(GREEN)	10	135	15	0.25	37.50
ARROW	16	135	12	0.10	19.20
PED. SIGNAL	2	90	25	1.00	50.00
CONTROLLER	1	100	100	1.00	100.00
ILLUM. SIGN		84		0.05	

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'-H-2"
E - M. ARM POLE		SIGNAL POST	2 (1.0)	6m-H-0.6m)	
24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
36" (900mm)	15 (4.6)	ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
		GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
				POST MOUNTED	6 (1.8)

ENERGY COSTS TO: TOTAL = 359.20

ENERGY SUPPLY CONTACT: PHONE: 708-410-5069 COMPANY: COM. EDISON

FILE NAME = USER NAME = kanthaphixaybc

DESIGNED - BCK REVISIONS -

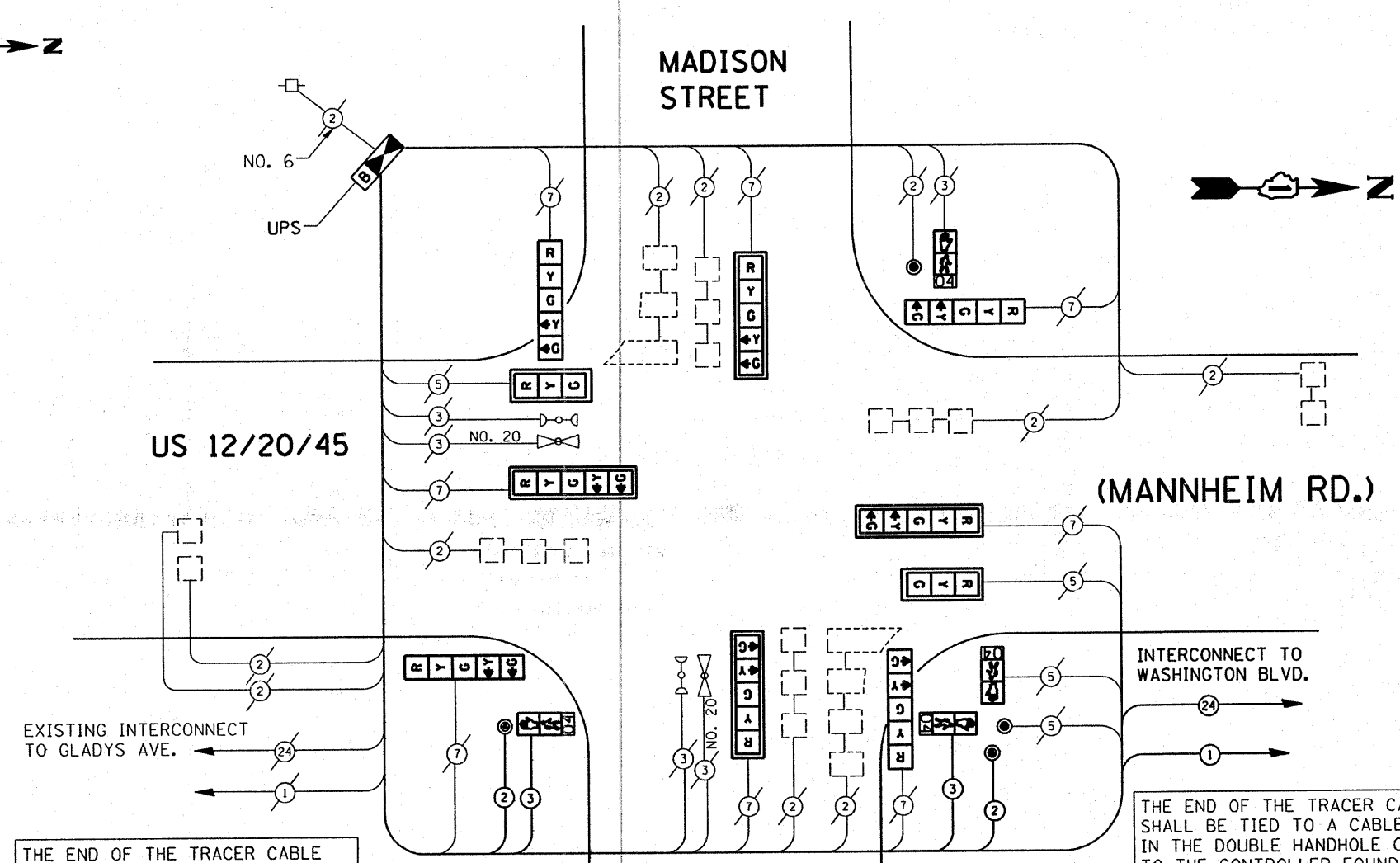
DRAWN - BCK REVISIONS -

CHECKED - DAD REVISIONS -

DATE - REVISIONS -

PLOT SCALE = 48.0000" / IN.

PLOT DATE = 10/10/2008



THE END OF THE TRACER CABLE SHALL BE TIED TO A CABLE HOOK IN THE DOUBLE HANDHOLE CLOSEST TO THE CONTROLLER FOUNDATION.

PROPOSED EMERGENCY VEHICLE PREEMPTOR		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	→	↑ ↓

ITEM	UNIT	QUANTITY
TRANSCEIVER-FIBER OPTIC	EACH	1
INDUCTIVE LOOP DETECTOR	EACH	9
THERMOPLASTIC PAVEMENT MARKING LINE 12"	FOOT	216
THERMOPLASTIC PAVEMENT MARKING LINE 24"	FOOT	75
THERMOPLASTIC PAVEMENT MARKING REMOVAL	FOOT	310
MAINTENANCE OF EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET (SPECIAL)	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	457
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	475
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	6
PEDESTRIAN PUSH-BUTTON	EACH	4
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
SIGNAL HEAD, L.E.D. 1-FACE, 3 SECTION, MAST ARM MNTD.	EACH	2
SIGNAL HEAD, L.E.D. 1-FACE, 5 SECTION, MAST ARM MNTD.	EACH	4
SIGNAL HEAD, L.E.D. 1-FACE, 5 SECTION, BRKT. MNTD.	EACH	4
PEDESTRIAN SIGNAL HEAD, L.E.D., 1-FACE, BRKT. MTD. with COUNTDOWN TIMER	EACH	4
UNINTERRUPTIBLE POWER SUPPLY	EACH	1

THE END OF THE TRACER CABLE SHALL BE TIED TO A CABLE HOOK IN THE DOUBLE HANDHOLE CLOSEST TO THE CONTROLLER FOUNDATION.

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

CABLE PLAN LEGEND

	PROPOSED	EXISTING
CONTROLLER CABINET	[Symbol]	[Symbol]
RAILROAD CONTROL CABINET	[Symbol]	[Symbol]
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT	[Symbol]	[Symbol]
TELEPHONE CONNECTION	[Symbol]	[Symbol]
GROUND ROD AT (C) CONTROLLER, (H) HANDHOLE, (P) POST, (M) MAST ARM, OR (S) SERVICE	[Symbol]	[Symbol]
FIBER OPTIC CABLE IN CONDUIT, NUMBER OF FIBERS AS NOTED	[Symbol]	[Symbol]
ELECTRIC CABLE IN CONDUIT, NO. 14, UNLESS OTHERWISE NOTED. NUMBER OF CONDUCTORS AS NOTED	[Symbol]	[Symbol]
GROUND CABLE IN CONDUIT NO. 6 COPPER (GREEN)	[Symbol]	[Symbol]
SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD	[Symbol]	[Symbol]
12" (300mm) RED WITH 8" (200mm) YELLOW AND GREEN TRAFFIC SIGNAL FACE	[Symbol]	[Symbol]
12" (300mm) TRAFFIC SIGNAL SECTION	[Symbol]	[Symbol]
12" (300mm) PEDESTRIAN SIGNAL SECTION with COUNTDOWN TIMER	[Symbol]	[Symbol]
ILLUMINATED SIGN "NO LEFT TURN"	[Symbol]	[Symbol]
ILLUMINATED SIGN "NO RIGHT TURN"	[Symbol]	[Symbol]
PUSHBUTTON DETECTOR	[Symbol]	[Symbol]
DETECTOR LOOP	[Symbol]	[Symbol]
PERFORMED DETECTOR LOOP	[Symbol]	[Symbol]
MICROWAVE VEHICLE SENSOR	[Symbol]	[Symbol]
VIDEO DETECTOR	[Symbol]	[Symbol]
CLOSED CIRCUIT TV	[Symbol]	[Symbol]
EMERGENCY VEHICLE SYSTEM DETECTOR	[Symbol]	[Symbol]
CONFIRMATION BEACON	[Symbol]	[Symbol]
UNINTERRUPTIBLE POWER SUPPLY	[Symbol]	[Symbol]

RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIAN, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

PROPOSED CABLE PLAN US 12/2045 (MANNHEIM) @ MADISON STREET

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2008-006 TS	COOK	100	69

SCALE: SHEET NO. OF SHEETS STA. TO STA. FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT CONTRACT NO. 60E31

EXISTING TRAFFIC SIGNAL AND REMOVAL LEGEND

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

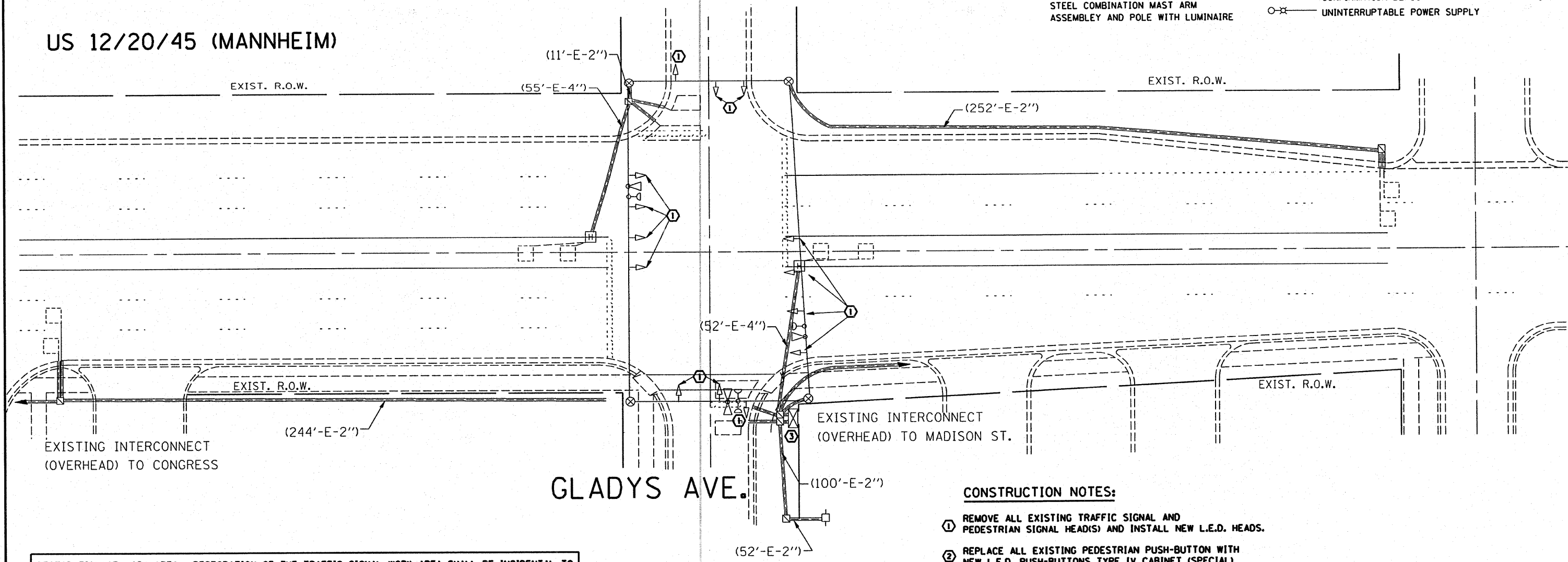
- 16 EACH SIGNAL HEAD, 1-FACE, 3-SECTION ON SPAN WIRE
- 1 EACH CONTROLLER AND TYPE IV CABINET

	EXISTING	EXISTING
CONTROLLER CABINET		
RAILROAD CONTROL CABINET		
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT		
TELEPHONE CONNECTION		
SIGNAL HEAD		
SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD OPTICALLY PROGRAMMED		
SIGNAL HEAD PEDESTRIAN with COUNTDOWN TIMER		
ILLUMINATED SIGN 'NO LEFT TURN'		
ILLUMINATED SIGN 'NO RIGHT TURN'		
SIGNAL POST		
WOOD POLE		
STEEL MAST ARM ASSEMBLY AND POLE		
ALUMINUM MAST ARM ASSEMBLY AND POLE		
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE		
JUNCTION BOX		
HANDHOLE		
HEAVY DUTY HANDHOLE		
DOUBLE HANDHOLE		
G.S. CONDUIT IN TRENCH OR PUSHED		
COMMON TRENCH		
UNIT DUCT		
PEDESTRIAN PUSHBUTTON DETECTOR		
DETECTOR LOOP, TYPE I		
PERFORMED DETECTOR LOOP		
MICROWAVE VEHICLE SENSOR		
VIDEO DETECTOR		
CLOSED CIRCUIT TV		
EMERGENCY VEHICLE SYSTEM DETECTOR		
CONFIRMATION BEACON		
UNINTERRUPTIBLE POWER SUPPLY		



LANDFILL ACCESS

US 12/20/45 (MANNHEIM)



RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIAN, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

CONSTRUCTION NOTES:

- ① REMOVE ALL EXISTING TRAFFIC SIGNAL AND PEDESTRIAN SIGNAL HEAD(S) AND INSTALL NEW L.E.D. HEADS.
- ② REPLACE ALL EXISTING PEDESTRIAN PUSH-BUTTON WITH NEW L.E.D. PUSH-BUTTONS TYPE IV CABINET (SPECIAL)
- ③ REMOVE EXISTING CONTROLLER AND CABINET, REPLACE WITH NEW CONTROLLER WITH UPS, REUSE EXISTING FOUNDATIONS. RELOCATION OF EXISTING EVP PHASING UNIT SHALL BE INCLUDED IN THE UNIT COST OF NEW CONTROLLER AND CABINET PAY ITEM.

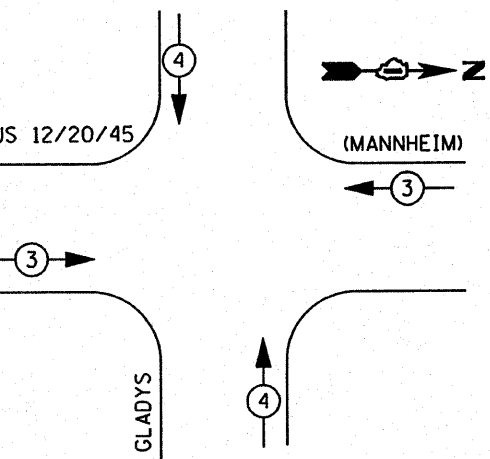
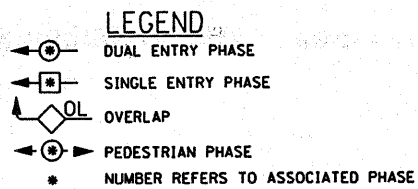
NOTE: THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE ADJACENT SYSTEM.

FILE NAME =	USER NAME = konthaphixaybc	DESIGNED - BCK	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EXISTING ON SPANWIRE REMOVAL PLAN US 12/20/45 (MANNHEIM) @ GLADYS AVE.	F.A.P. RTE. 330	SECTION 2008-006 TS	COUNTY COOK	TOTAL SHEETS 100	SHEET NO. 70	
PROJECT PATH = c:\projects\traffic\1070027\us12_20_45.dwg	DRAWN - BCK	CHECKED - DAD	REVISED -			SCALE: 1"=20'	SHEET NO. OF SHEETS	STA. TO STA.	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT	CONTRACT NO. 60E31
PLOT SCALE = 40.0000 / IN.	DATE -	REVISED -	REVISED -								
PLOT DATE = 10/10/2008											

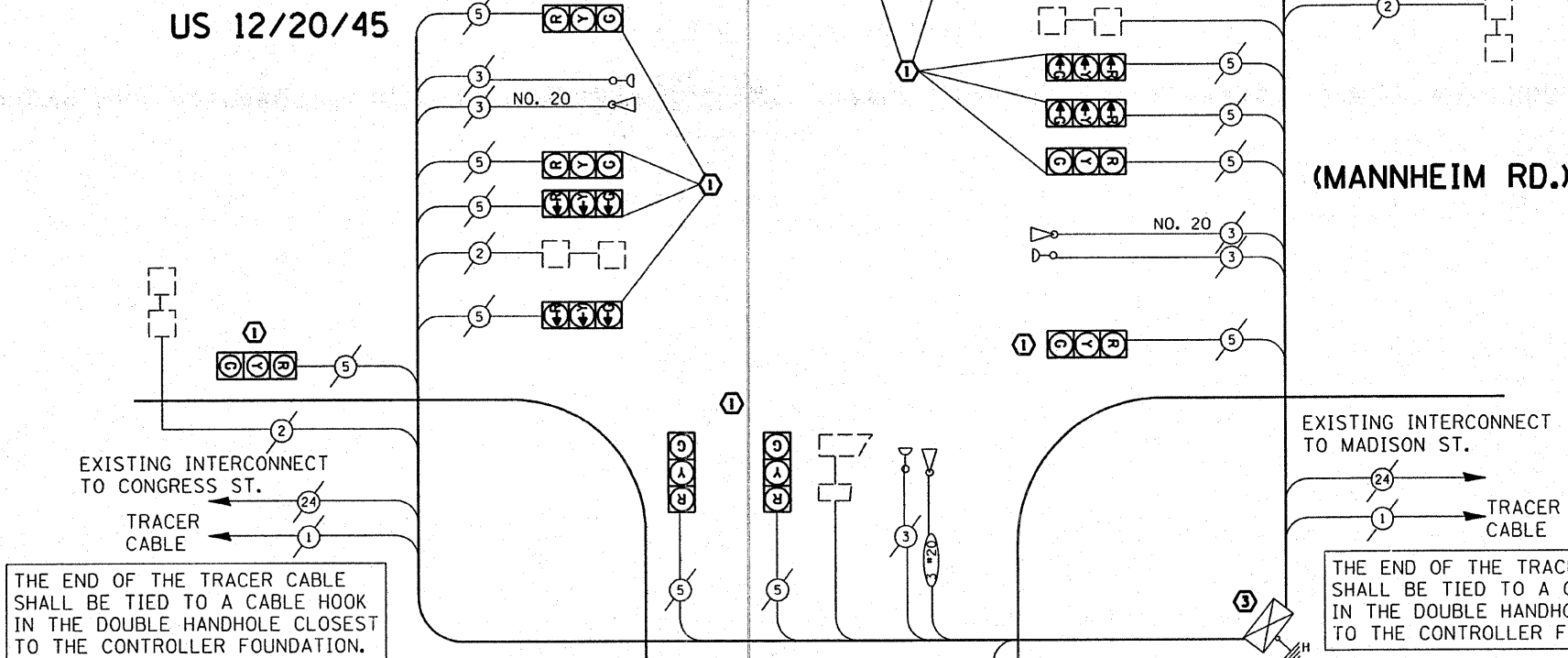
EXISTING CABLE DIAGRAM LEGEND

	PROPOSED	EXISTING
TEMPORARY CONTROLLER CABINET		
TEMPORARY SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT		
TEMPORARY TRAFFIC SIGNAL SECTION OR PEDESTRIAN SIGNAL SECTION, 12" (300 mm)		
12" (300 MM) PEDESTRIAN SIGNAL SECTION		
ELECTRIC CABLE IN CONDUIT, NO. 14, UNLESS OTHERWISE NOTED. NUMBER OF CONDUCTORS AS NOTED		
PEDESTRIAN PUSHBUTTON DETECTOR		
VEHICLE DETECTOR, INDUCTION LOOP		
MICROWAVE VEHICLE SENSOR		
VIDEO DETECTOR		
CLOSED CIRCUIT TV		
EMERGENCY VEHICLE SYSTEM DETECTOR		
CONFIRMATION BEACON		

PHASE DESIGNATION DIAGRAM



US 12/20/45



THE END OF THE TRACER CABLE SHALL BE TIED TO A CABLE HOOK IN THE DOUBLE HANDHOLE CLOSEST TO THE CONTROLLER FOUNDATION.

PROPOSED EMERGENCY VEHICLE PREEMPTOR

EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT		

NOTE:
THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE 'ECONOLITE' TO MATCH THE ADJACENT SYSTEM.

RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIAN, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. LAMPS	WATTAGE (INCANDE)	LED	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	16	135	17	0.50	
(YELLOW)	16	135	25	0.25	
(GREEN)	16	135	15	0.25	
ARROW	12	135	12	0.10	
PED. SIGNAL		90	25	1.00	
CONTROLLER	1	100	100	1.00	
ILLUM. SIGN		84		0.05	
FLASHER				0.50	
TOTAL					

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'H-2+ (6m+L-0.6m)
E - M. ARM POLE		SIGNAL POST	2 (1.0)	BRACKET MOUNTED	13 (4.0)
24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)	PED. PUSHBUTTON	4 (1.2)
30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	ELECTRIC SERVICE	13.5 (4.1)
36" (900mm)	15 (4.6)	ELECTRIC SERVICE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
		GROUND CABLE	1 (0.5)	POST MOUNTED	6 (1.8)

ENERGY COSTS TO: TOTAL =

ENERGY SUPPLY CONTACT: PHONE: 708-410-5069 COMPANY: COM. EDISON

FILE NAME = USER NAME = konthaphixaybc
 DESIGNED - BCK REVISIONS -
 DRAWN - BCK REVISIONS -
 CHECKED - DAD REVISIONS -
 PLOT SCALE = 40.0000 "/ IN. DATE -
 PLOT DATE = 10/10/2008

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

EXISTING TEMP. CABLE PLAN US 12/20/45 (MANNHEIM) @ GLADYS AVE.

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2008-006 TS	COOK	100	71
				CONTRACT NO. 60E31
FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT				

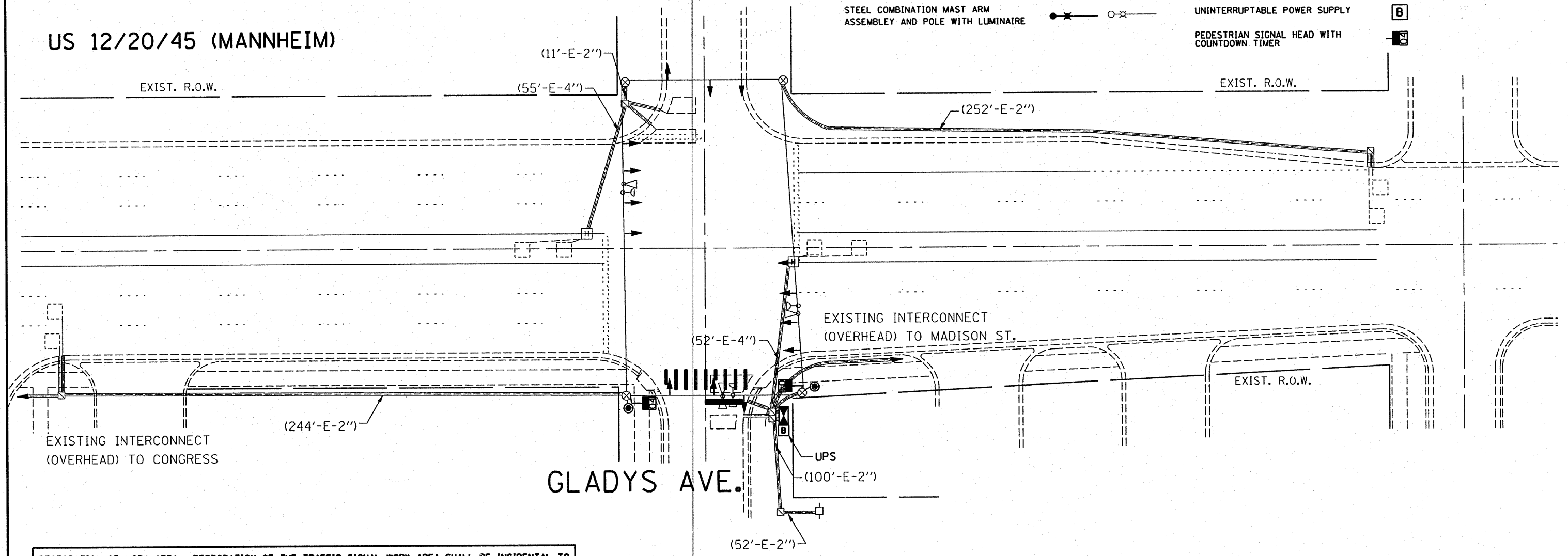
TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING		PROPOSED	EXISTING
CONTROLLER CABINET			JUNCTION BOX		
RAILROAD CONTROL CABINET			HANDHOLE		
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT			HEAVY DUTY HANDHOLE		
TELEPHONE CONNECTION			DOUBLE HANDHOLE		
SIGNAL HEAD			G.S. CONDUIT IN TRENCH OR PUSHED		
SIGNAL HEAD WITH BACKPLATE			COMMON TRENCH	CT	
SIGNAL HEAD OPTICALLY PROGRAMMED			UNIT DUCT	U	
SIGNAL HEAD PEDESTRIAN WITH COUNTDOWN TIMER			PEDESTRIAN PUSHBUTTON DETECTOR		
ILLUMINATED SIGN "NO LEFT TURN"			DETECTOR LOOP, TYPE I		
ILLUMINATED SIGN "NO RIGHT TURN"			PREFORMED DETECTOR LOOP		
SIGNAL POST			MICROWAVE VEHICLE SENSOR		
WOOD POLE			VIDEO DETECTOR		
STEEL MAST ARM ASSEMBLY AND POLE			CLOSED CIRCUIT TV		
ALUMINUM MAST ARM ASSEMBLY AND POLE			EMERGENCY VEHICLE SYSTEM DETECTOR		
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE			CONFIRMATION BEACON		
			UNINTERRUPTIBLE POWER SUPPLY		
			PEDESTRIAN SIGNAL HEAD WITH COUNTDOWN TIMER		



LANDFILL ACCESS

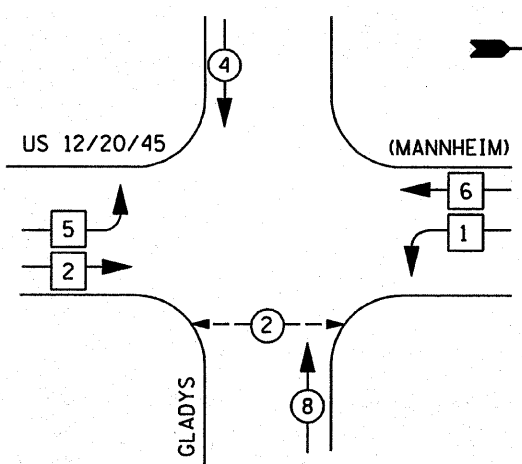
US 12/20/45 (MANNHEIM)



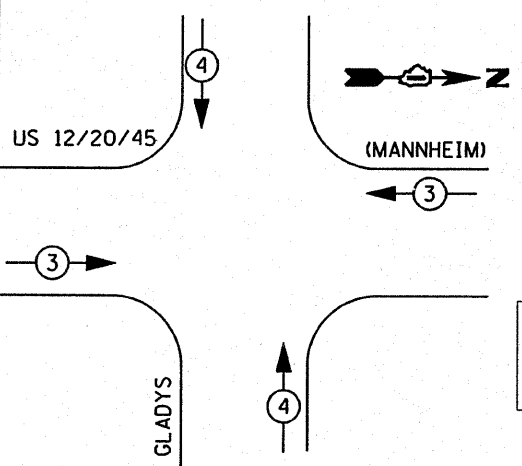
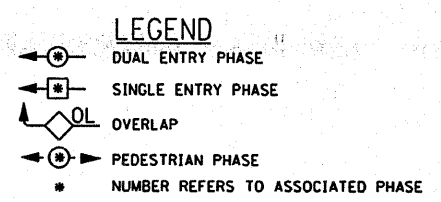
RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIAN, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

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

FILE NAME =	USER NAME = kanthephikeybc	DESIGNED - BCK	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PROPOSED TRAFFIC SIGNAL ON SPANWIRE PLAN US 12/20/45 (MANNHEIM) @ GLADYS AVE.	F.A.P. RTE. 330	SECTION 2008-006 TS	COUNTY COOK	TOTAL SHEETS 100	SHEET NO. 72	
ei:\projects\traffic\070027\us12_20_45.dgn	PLOT SCALE = 1/8" = 1' IN.	CHECKED - DAD	REVISED -			SCALE: 1"=20'	SHEET NO. OF SHEETS	STA. TO STA.	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT	CONTRACT NO. 60E31
	PLOT DATE = 10/10/2008	DATE -	REVISED -								



PHASE DESIGNATION DIAGRAM



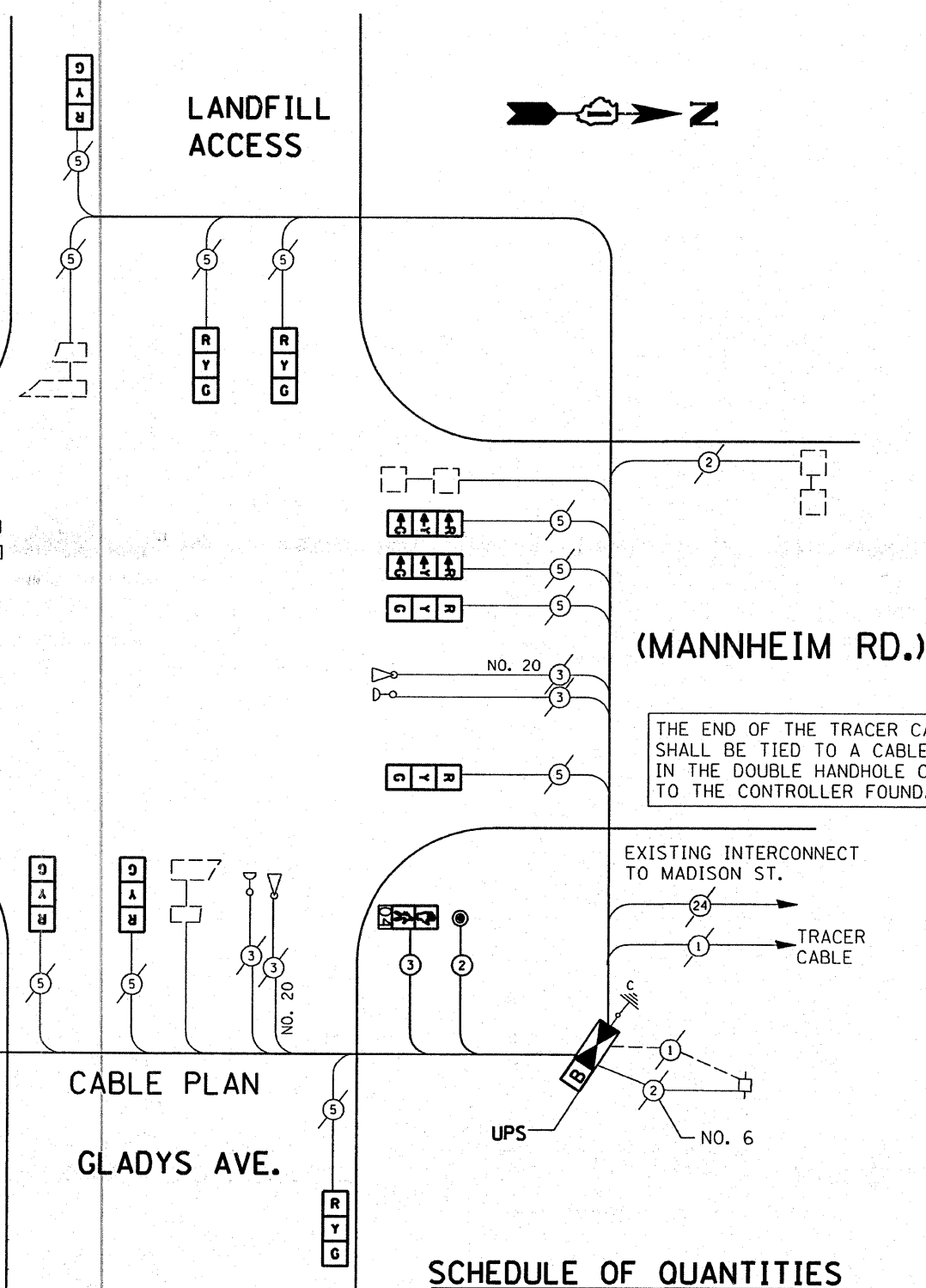
SIGNAL INSTALLATION EMERGENCY VEHICLE PREEMPTION SEQUENCE

PROPOSED EMERGENCY VEHICLE PREEMPTOR		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	→	↑ ↓

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE (INCAND.)	LED	% OPERATION	
SIGNAL (RED)	16	135	17	0.50	136.00
(YELLOW)	16	135	25	0.25	100.00
(GREEN)	16	135	15	0.25	60.00
ARROW	12	135	12	0.10	14.40
PED. SIGNAL	2	90	25	1.00	50.00
CONTROLLER	1	100	100	1.00	100.00
ILLUM. SIGN		84		0.05	
FLASHER					0.50
ENERGY COSTS TO:					TOTAL = 460.40

ENERGY SUPPLY CONTACT: 708-410-5069
 PHONE: COM. EDISON
 COMPANY:

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'-H-2'
E - M. ARM POLE		SIGNAL POST	2 (1.0)	(6m+L-0.6m)=	
24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
36" (900mm)	15 (4.6)	ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
		GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
				POST MOUNTED	6 (1.8)



CABLE PLAN GLADYS AVE.

SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
INDUCTIVE LOOP DETECTOR	EACH	6
THERMOPLASTIC PAVEMENT MARKING LINE 12"	FOOT	72
THERMOPLASTIC PAVEMENT MARKING LINE 24"	FOOT	17
THERMOPLASTIC PAVEMENT MARKING REMOVAL	FOOT	125
MAINTENANCE OF EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET (SPECIAL)	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	152
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	160
PEDESTRIAN PUSH-BUTTON	EACH	2
SIGNAL HEAD, L.E.D. 1-FACE, 3 SECTION, SPAN WIRE MNTD.	EACH	14
PEDESTRIAN SIGNAL HEAD WITH COUNTDOWN TIMER	EACH	2
L.E.D., 1-FACE, BRKT. MTD.	EACH	2
UNINTERRUPTIBLE POWER SUPPLY	EACH	1

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

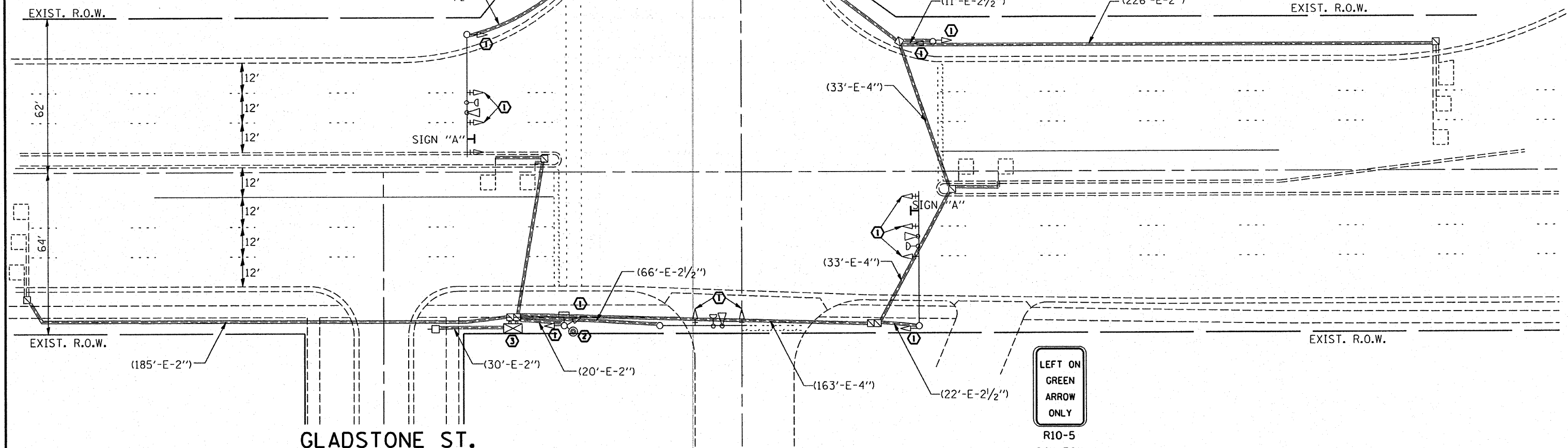
CABLE PLAN LEGEND		PROPOSED	EXISTING
CONTROLLER CABINET		[Symbol]	[Symbol]
RAILROAD CONTROL CABINET		[Symbol]	[Symbol]
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT		[Symbol]	[Symbol]
TELEPHONE CONNECTION		[Symbol]	[Symbol]
GROUND ROD AT (C) CONTROLLER, (H) HANDHOLE, (P) POST, (M) MAST ARM, OR (S) SERVICE		[Symbol]	[Symbol]
FIBER OPTIC CABLE IN CONDUIT, NUMBER OF FIBERS AS NOTED		[Symbol]	[Symbol]
ELECTRIC CABLE IN CONDUIT, NO. 14, UNLESS OTHERWISE NOTED, NUMBER OF CONDUCTORS AS NOTED		[Symbol]	[Symbol]
GROUND CABLE IN CONDUIT NO. 6 COPPER (GREEN)		[Symbol]	[Symbol]
SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD		[Symbol]	[Symbol]
12" (300mm) RED WITH 8" (200mm) YELLOW AND GREEN TRAFFIC SIGNAL FACE		[Symbol]	[Symbol]
12" (300mm) TRAFFIC SIGNAL SECTION		[Symbol]	[Symbol]
12" (300mm) PEDESTRIAN SIGNAL SECTION WITH COUNTDOWN TIMER		[Symbol]	[Symbol]
ILLUMINATED SIGN "NO LEFT TURN"		[Symbol]	[Symbol]
ILLUMINATED SIGN "NO RIGHT TURN"		[Symbol]	[Symbol]
PUSHBUTTON DETECTOR		[Symbol]	[Symbol]
DETECTOR LOOP		[Symbol]	[Symbol]
PREFORMED DETECTOR LOOP		[Symbol]	[Symbol]
MICROWAVE VEHICLE SENSOR		[Symbol]	[Symbol]
VIDEO DETECTOR		[Symbol]	[Symbol]
CLOSED CIRCUIT TV		[Symbol]	[Symbol]
EMERGENCY VEHICLE SYSTEM DETECTOR		[Symbol]	[Symbol]
CONFIRMATION BEACON		[Symbol]	[Symbol]
UNINTERRUPTIBLE POWER SUPPLY		[Symbol]	[Symbol]

EXISTING TRAFFIC SIGNAL AND REMOVAL LEGEND

	EXISTING	EXISTING
CONTROLLER CABINET		
RAILROAD CONTROL CABINET		
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT		
TELEPHONE CONNECTION		
SIGNAL HEAD		
SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD OPTICALLY PROGRAMMED		
SIGNAL HEAD PEDESTRIAN with COUNTDOWN TIMER		
ILLUMINATED SIGN "NO LEFT TURN"		
ILLUMINATED SIGN "NO RIGHT TURN"		
SIGNAL POST		
WOOD POLE		
STEEL MAST ARM ASSEMBLY AND POLE		
ALUMINUM MAST ARM ASSEMBLY AND POLE		
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE		
JUNCTION BOX		
HANDHOLE		
HEAVY DUTY HANDHOLE		
DOUBLE HANDHOLE		
G.S. CONDUIT IN TRENCH OR PUSHED		
COMMON TRENCH		
UNIT DUCT		
PEDESTRIAN PUSHBUTTON DETECTOR		
DETECTOR LOOP, TYPE I		
PERFORMED DETECTOR LOOP		
MICROWAVE VEHICLE SENSOR		
VIDEO DETECTOR		
CLOSED CIRCUIT TV		
EMERGENCY VEHICLE SYSTEM DETECTOR		
CONFIRMATION BEACON		
UNINTERRUPTABLE POWER SUPPLY		

FOR INFORMATIONAL USE ONLY.

US 12/20/45 (MANNHEIM)



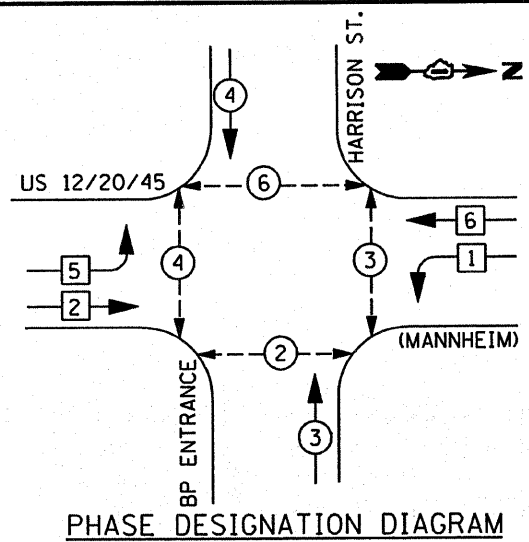
LEFT ON GREEN
ARROW
ONLY

R10-5
24"x30"
(600mmx750mm)
4 each Required
TYP. SIGN PANEL TYPE 1

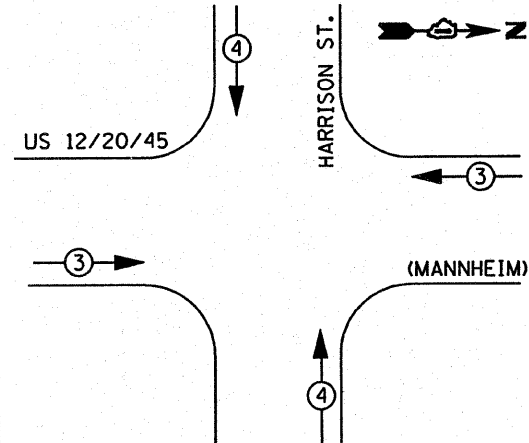
SIGN "A" DETAIL

RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIAN, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

FILE NAME = c:\projects\traffic\1070027\us12_20_45.dgn	USER NAME = kanthaphixaybc	DESIGNED - BCK	REVISED - -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EXISTING AND REMOVAL PLAN US 12/20/45 (MANNHEIM) @ HARRISON ST.			F.A.P RTE. 330	SECTION 2008-006 TS	COUNTY COOK	TOTAL SHEETS 100	SHEET NO. 74
PLOT SCALE = 40.0000 "/> IN.	CHECKED - DAD	REVISED - -	REVISED - -		SCALE: 1"=20'	SHEET NO. OF SHEETS	STA. TO STA.	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT	CONTRACT NO. 60E31		
PLOT DATE = 10/10/2008	DATE - -	REVISED - -	REVISED - -									



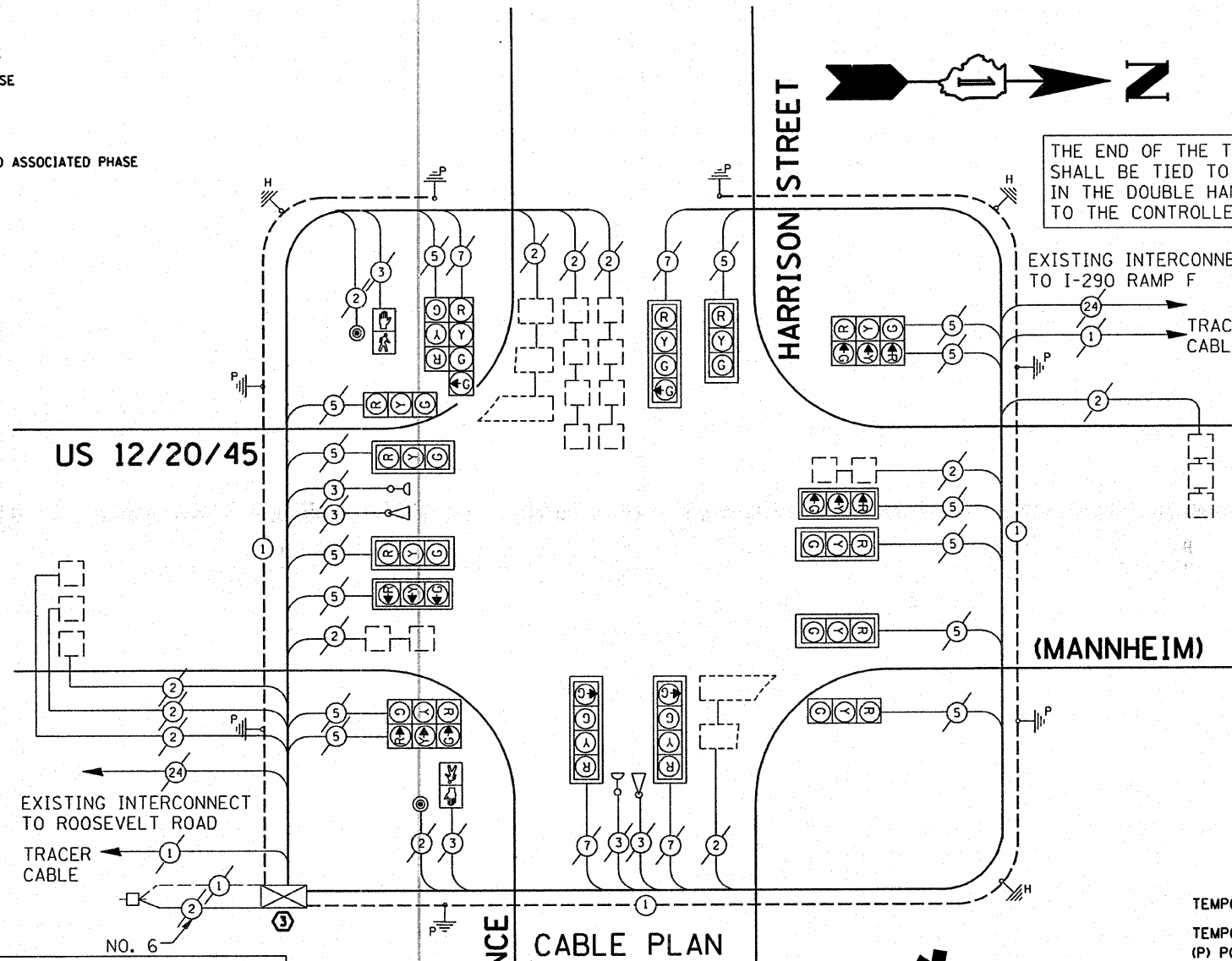
EXISTING SIGNAL INSTALLATION
EMERGENCY VEHICLE PREEMPTION SEQUENCE



EXISTING EMERGENCY VEHICLE PREEMPTOR		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	→	↑

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE (INCAND.)	LED	% OPERATION	
SIGNAL (RED)	18	135	17	0.50	
(YELLOW)	18	135	25	0.25	
(GREEN)	18	135	15	0.25	
ARROW	13	135	12	0.10	
PED. SIGNAL	2	90	25	1.00	
CONTROLLER	1	100	100	1.00	
ILLUM. SIGN		84		0.05	
FLASHER				0.50	
ENERGY COSTS TO:					TOTAL =

- LEGEND**
- ⊕ DUAL ENTRY PHASE
 - ⊖ SINGLE ENTRY PHASE
 - OL OVERLAP
 - ⊙ PEDESTRIAN PHASE
 - * NUMBER REFERS TO ASSOCIATED PHASE



EXISTING CABLE DIAGRAM LEGEND

- | | PROPOSED | EXISTING |
|--|----------|----------|
| TEMPORARY CONTROLLER CABINET | ⊕ | ⊕ |
| TEMPORARY SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT | ⊖ | ⊖ |
| TEMPORARY TRAFFIC SIGNAL SECTION OR PEDESTRIAN SIGNAL SECTION, 12" (300 mm) | R | R |
| 12" (300 MM) PEDESTRIAN SIGNAL SECTION | ⊙ | ⊙ |
| ELECTRIC CABLE IN CONDUIT, NO. 14, UNLESS OTHERWISE NOTED. NUMBER OF CONDUCTORS AS NOTED | ② | ② |
| PEDESTRIAN PUSHBUTTON DETECTOR | ⊙ | ⊙ |
| VEHICLE DETECTOR, INDUCTION LOOP | □ | □ |
| MICROWAVE VEHICLE SENSOR | M | M |
| VIDEO DETECTOR | V | V |
| CLOSED CIRCUIT TV | C | C |
| EMERGENCY VEHICLE SYSTEM DETECTOR | ⊖ | ⊖ |
| CONFIRMATION BEACON | ⊖ | ⊖ |

THE END OF THE TRACER CABLE SHALL BE TIED TO A CABLE HOOK IN THE DOUBLE HANDHOLE CLOSEST TO THE CONTROLLER FOUNDATION.

FOR INFORMATIONAL USE ONLY.

RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIAN, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDING IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'+H-2'
E - M. ARM POLE		SIGNAL POST	2 (1.0)	(6m+L-0.6m)=	
24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
36" (900mm)	15 (4.6)	ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
		GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
				POST MOUNTED	6 (1.8)

ENERGY SUPPLY CONTACT: DAVE LISKA
PHONE: (773) 509-3417
COMPANY: COM. EDISON

FILE NAME =	DESIGNED - BCK	REVISED -
PROJECT NAME = kenphixaybc	DRAWN - BCK	REVISED -
SCALE = 48.0000" / IN.	CHECKED - DAD	REVISED -
PLOT DATE = 10/10/2008	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

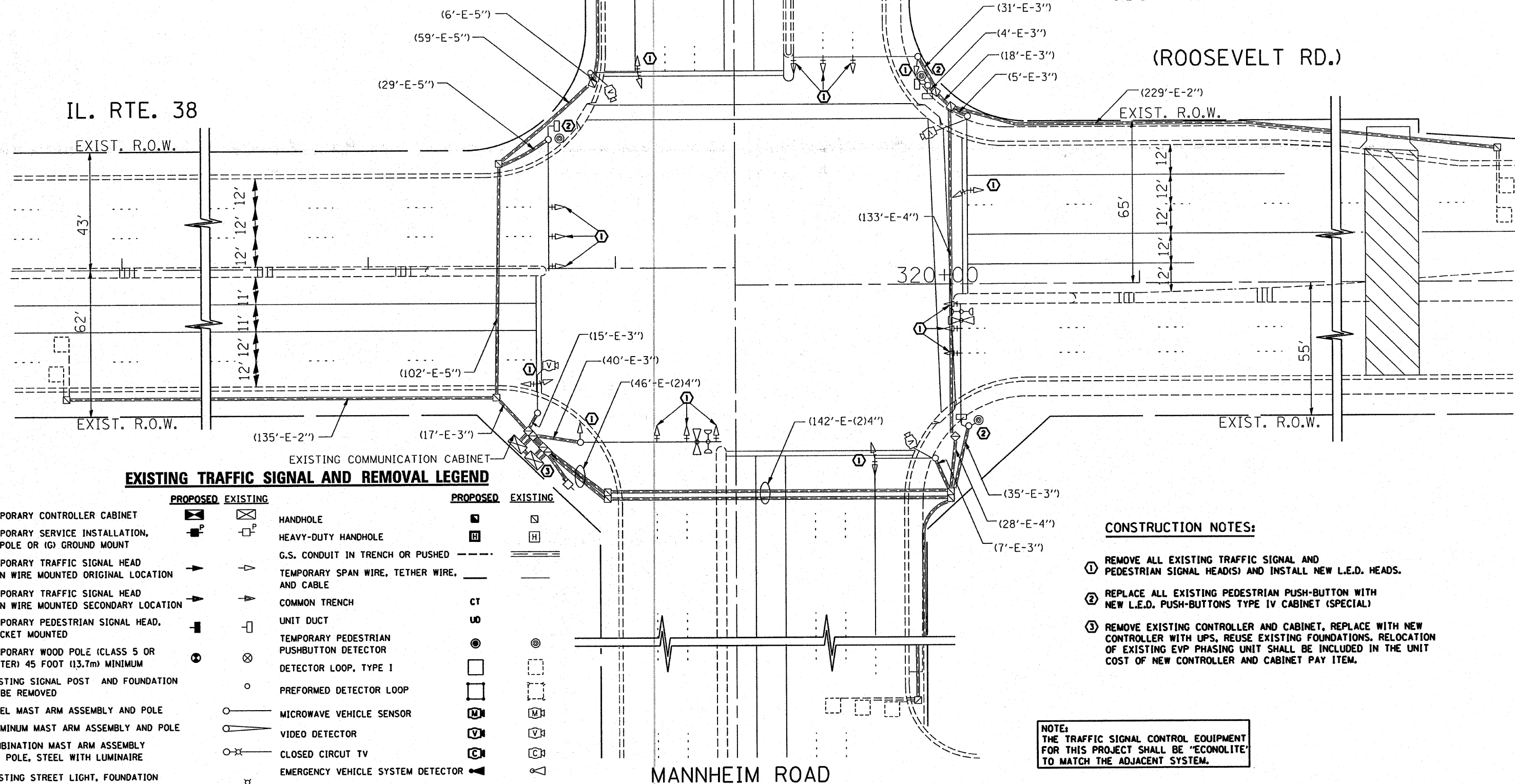
EXISTING CABLE PLAN
US 12/20/45 (MANNHEIM) @ HARRISON ST.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2008-006 TS	COOK	100	75
CONTRACT NO. 60E31				
SCALE: SHEET NO. OF SHEETS STA. TO STA.				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIAN, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

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

- 2 EACH SIGNAL HEAD, 3-SECTION BKT. MNTD.
- 20 EACH SIGNAL HEAD, 3-SECTION M.A. MNTD.
- 4 EACH PEDESTRIAN SIGNAL HEAD, 1-FACE
- 4 EACH PEDESTRIAN PUSHBUTTON
- 20 EACH TRAFFIC SIGNAL BACKPLATE
- 1 EACH CONTROLLER AND TYPE IV CABINET



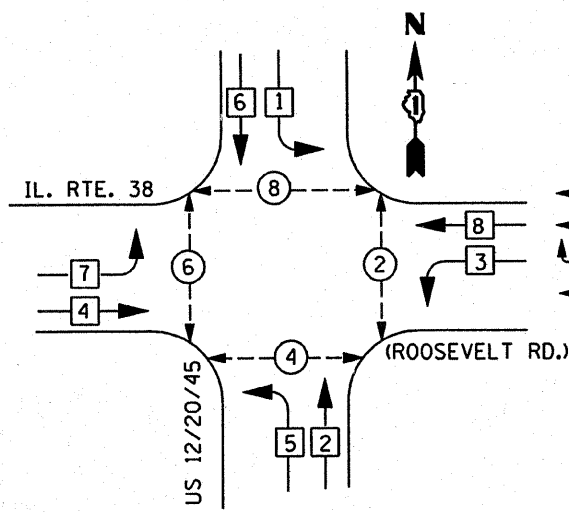
EXISTING TRAFFIC SIGNAL AND REMOVAL LEGEND

	PROPOSED	EXISTING		PROPOSED	EXISTING
TEMPORARY CONTROLLER CABINET	[Symbol]	[Symbol]	HANDHOLE	[Symbol]	[Symbol]
TEMPORARY SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT	[Symbol]	[Symbol]	HEAVY-DUTY HANDHOLE	[Symbol]	[Symbol]
TEMPORARY TRAFFIC SIGNAL HEAD SPAN WIRE MOUNTED ORIGINAL LOCATION	[Symbol]	[Symbol]	G.S. CONDUIT IN TRENCH OR PUSHED	[Symbol]	[Symbol]
TEMPORARY TRAFFIC SIGNAL HEAD SPAN WIRE MOUNTED SECONDARY LOCATION	[Symbol]	[Symbol]	TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE	[Symbol]	[Symbol]
TEMPORARY PEDESTRIAN SIGNAL HEAD, BRACKET MOUNTED	[Symbol]	[Symbol]	COMMON TRENCH	CT	[Symbol]
TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT (13.7m) MINIMUM	[Symbol]	[Symbol]	UNIT DUCT	UD	[Symbol]
EXISTING SIGNAL POST AND FOUNDATION TO BE REMOVED	[Symbol]	[Symbol]	TEMPORARY PEDESTRIAN PUSHBUTTON DETECTOR	[Symbol]	[Symbol]
STEEL MAST ARM ASSEMBLY AND POLE	[Symbol]	[Symbol]	DETECTOR LOOP, TYPE I	[Symbol]	[Symbol]
ALUMINUM MAST ARM ASSEMBLY AND POLE	[Symbol]	[Symbol]	PERFORMED DETECTOR LOOP	[Symbol]	[Symbol]
COMBINATION MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINAIRE	[Symbol]	[Symbol]	MICROWAVE VEHICLE SENSOR	[Symbol]	[Symbol]
EXISTING STREET LIGHT, FOUNDATION AND LUMINAIRE TO REMAIN	[Symbol]	[Symbol]	VIDEO DETECTOR	[Symbol]	[Symbol]
			CLOSED CIRCUIT TV	[Symbol]	[Symbol]
			EMERGENCY VEHICLE SYSTEM DETECTOR	[Symbol]	[Symbol]
			CONFIRMATION BEACON	[Symbol]	[Symbol]

CONSTRUCTION NOTES:

- ① REMOVE ALL EXISTING TRAFFIC SIGNAL AND PEDESTRIAN SIGNAL HEAD(S) AND INSTALL NEW L.E.D. HEADS.
- ② REPLACE ALL EXISTING PEDESTRIAN PUSH-BUTTON WITH NEW L.E.D. PUSH-BUTTONS TYPE IV CABINET (SPECIAL)
- ③ REMOVE EXISTING CONTROLLER AND CABINET, REPLACE WITH NEW CONTROLLER WITH UPS, REUSE EXISTING FOUNDATIONS. RELOCATION OF EXISTING EVP PHASING UNIT SHALL BE INCLUDED IN THE UNIT COST OF NEW CONTROLLER AND CABINET PAY ITEM.

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



PHASE DESIGNATION DIAGRAM

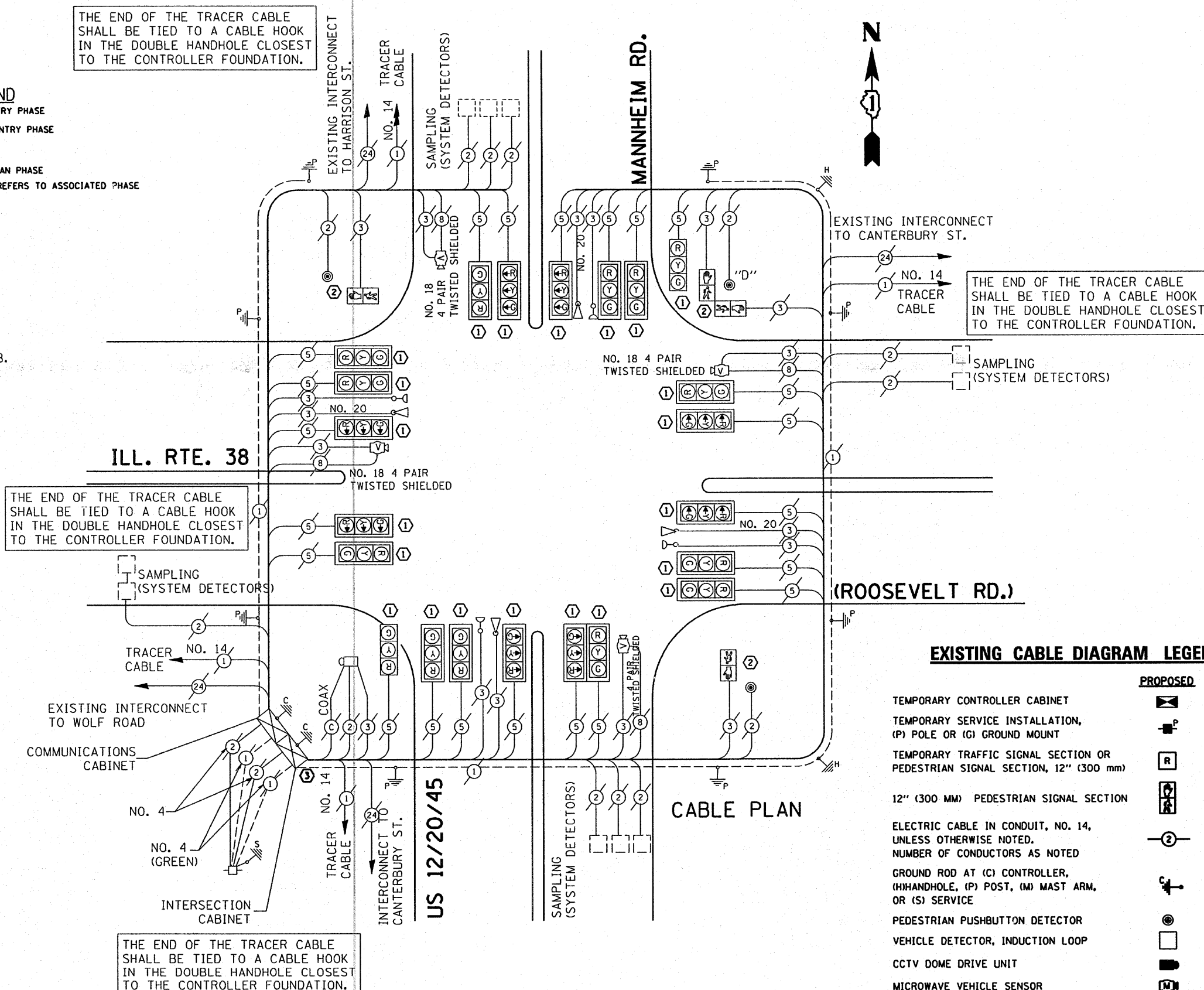
PUSH BUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8.

- LEGEND**
- ⊕ DUAL ENTRY PHASE
 - ⊖ SINGLE ENTRY PHASE
 - OL OVERLAP
 - ⊙ PEDESTRIAN PHASE
 - * NUMBER REFERS TO ASSOCIATED PHASE

THE END OF THE TRACER CABLE SHALL BE TIED TO A CABLE HOOK IN THE DOUBLE HANDHOLE CLOSEST TO THE CONTROLLER FOUNDATION.

THE END OF THE TRACER CABLE SHALL BE TIED TO A CABLE HOOK IN THE DOUBLE HANDHOLE CLOSEST TO THE CONTROLLER FOUNDATION.

THE END OF THE TRACER CABLE SHALL BE TIED TO A CABLE HOOK IN THE DOUBLE HANDHOLE CLOSEST TO THE CONTROLLER FOUNDATION.



EXISTING CABLE DIAGRAM LEGEND

- | | PROPOSED | EXISTING |
|--|----------|----------|
| TEMPORARY CONTROLLER CABINET | ⊠ | ⊠ |
| TEMPORARY SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT | ⊖ | ⊖ |
| TEMPORARY TRAFFIC SIGNAL SECTION OR PEDESTRIAN SIGNAL SECTION, 12" (300 mm) | R | R |
| 12" (300 mm) PEDESTRIAN SIGNAL SECTION | ⊙ | ⊙ |
| ELECTRIC CABLE IN CONDUIT, NO. 14, UNLESS OTHERWISE NOTED. NUMBER OF CONDUCTORS AS NOTED | ② | ② |
| GROUND ROD AT (C) CONTROLLER, (H) HANDHOLE, (P) POST, (M) MAST ARM, OR (S) SERVICE | ⊕ | ⊕ |
| PEDESTRIAN PUSHBUTTON DETECTOR | ⊙ | ⊙ |
| VEHICLE DETECTOR, INDUCTION LOOP | □ | □ |
| CCTV DOME DRIVE UNIT | ⊖ | ⊖ |
| MICROWAVE VEHICLE SENSOR | M | M |
| VIDEO DETECTOR | V | V |
| CLOSED CIRCUIT TV | C | C |
| EMERGENCY VEHICLE SYSTEM DETECTOR | ⊖ | ⊖ |
| CONFIRMATION BEACON | ⊖ | ⊖ |

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE (INCAND.)	WATTAGE (LED)	% OPERATION	
SIGNAL (RED)	22	135	17	0.50	
(YELLOW)	22	135	25	0.25	
(GREEN)	22	135	15	0.25	
ARROW	24	135	12	0.10	
PED. SIGNAL	3	90	25	1.00	
CONTROLLER	1	100	100	1.00	
ILLUM. SIGN		84		0.05	
FLASHER				0.50	
ENERGY COSTS TO:					TOTAL =

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'-H-2"
E - M. ARM POLE		SIGNAL POST	2 (1.0)		(6m+L-0.6m)
24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	IPED. PUSHBUTTON	4 (1.2)
36" (900mm)	15 (4.6)	ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
		GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
				POST MOUNTED	5 (1.5)

NOTE: THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE 'ECONOLITE' TO MATCH THE ADJACENT SYSTEM.

ENERGY SUPPLY CONTACT: DAVE LISKA
 PHONE: (773) 509-3417
 COMPANY: COM. EDISON

DESIGNED - BCK
 DRAWN - BCK
 CHECKED - DAD
 DATE -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

EXISTING CABLE PLAN
 US 12/20/45 (MANNHEIM) @ IL. RTE. 38 (ROOSEVELT RD.)

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2008-006 TS	COOK	100	77
CONTRACT NO. 60E31				

RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIAN, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

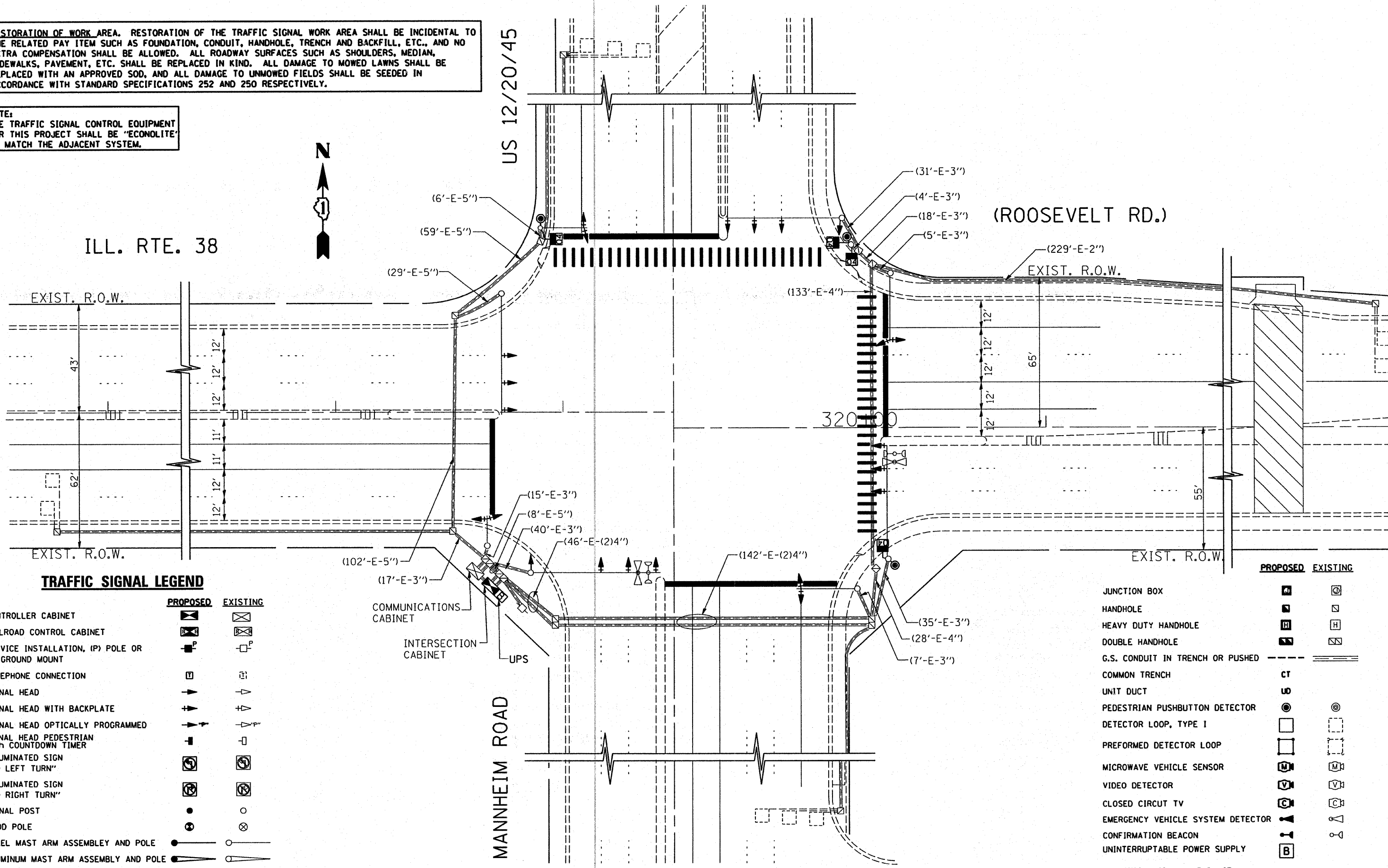
NOTE:
THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE 'ECONOLITE' TO MATCH THE ADJACENT SYSTEM.



ILL. RTE. 38

US 12/20/45

(ROOSEVELT RD.)



TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING
CONTROLLER CABINET	[Symbol]	[Symbol]
RAILROAD CONTROL CABINET	[Symbol]	[Symbol]
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT	[Symbol]	[Symbol]
TELEPHONE CONNECTION	[Symbol]	[Symbol]
SIGNAL HEAD	[Symbol]	[Symbol]
SIGNAL HEAD WITH BACKPLATE	[Symbol]	[Symbol]
SIGNAL HEAD OPTICALLY PROGRAMMED	[Symbol]	[Symbol]
SIGNAL HEAD PEDESTRIAN WITH COUNTDOWN TIMER	[Symbol]	[Symbol]
ILLUMINATED SIGN "NO LEFT TURN"	[Symbol]	[Symbol]
ILLUMINATED SIGN "NO RIGHT TURN"	[Symbol]	[Symbol]
SIGNAL POST	[Symbol]	[Symbol]
WOOD POLE	[Symbol]	[Symbol]
STEEL MAST ARM ASSEMBLY AND POLE	[Symbol]	[Symbol]
ALUMINUM MAST ARM ASSEMBLY AND POLE	[Symbol]	[Symbol]
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE	[Symbol]	[Symbol]

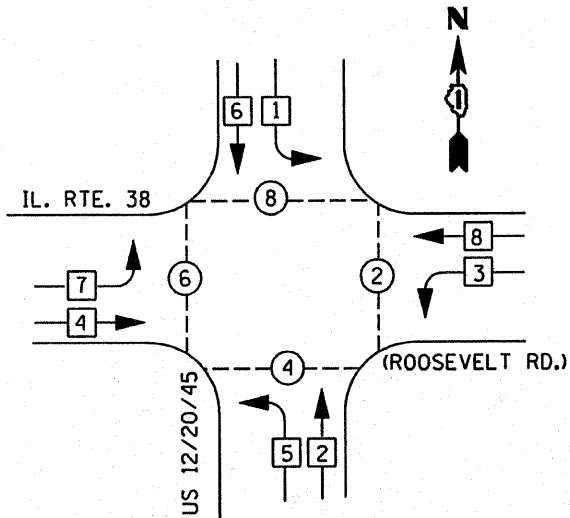
COMMUNICATIONS CABINET
INTERSECTION CABINET
UPS

PROPOSED EXISTING

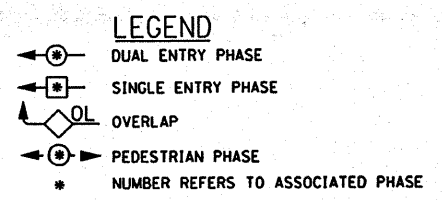
JUNCTION BOX	[Symbol]	[Symbol]
HANDHOLE	[Symbol]	[Symbol]
HEAVY DUTY HANDHOLE	[Symbol]	[Symbol]
DOUBLE HANDHOLE	[Symbol]	[Symbol]
G.S. CONDUIT IN TRENCH OR PUSHED	[Symbol]	[Symbol]
COMMON TRENCH	CT	
UNIT DUCT	UD	
PEDESTRIAN PUSHBUTTON DETECTOR	[Symbol]	[Symbol]
DETECTOR LOOP, TYPE I	[Symbol]	[Symbol]
PREFORMED DETECTOR LOOP	[Symbol]	[Symbol]
MICROWAVE VEHICLE SENSOR	[Symbol]	[Symbol]
VIDEO DETECTOR	[Symbol]	[Symbol]
CLOSED CIRCUIT TV	[Symbol]	[Symbol]
EMERGENCY VEHICLE SYSTEM DETECTOR	[Symbol]	[Symbol]
CONFIRMATION BEACON	[Symbol]	[Symbol]
UNINTERRUPTIBLE POWER SUPPLY	[Symbol]	[Symbol]
PEDESTRIAN SIGNAL HEAD WITH COUNTDOWN TIMER	[Symbol]	[Symbol]

FILE NAME =	USER NAME = kanthaphixaybc	DESIGNED - BCK	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PROPOSED TRAFFIC SIGNAL PLAN US 12/20/45 (MANNHEIM) @ IL. RTE. 38 (ROOSEVELT RD.)	F.A.P. RTE. 330	SECTION 2008-006 TS	COUNTY COOK	TOTAL SHEETS 100	SHEET NO. 78	
PROJECTS\tr\office\1070027\us12_20_45.dgn		DRAWN - BCK	REVISED -			SCALE: 1"=20'		SHEET NO. OF SHEETS STA. TO STA.		CONTRACT NO. 60E31	
PLOT SCALE = 40.0000' / IN.		CHECKED - DAD	REVISED -			FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			
PLOT DATE = 10/10/2008		DATE -	REVISED -								

...:\traffic\1070027\us12_20_45.dgn 10/10/2008 2:22:59 PM User=kanthaphixaybc



PHASE DESIGNATION DIAGRAM

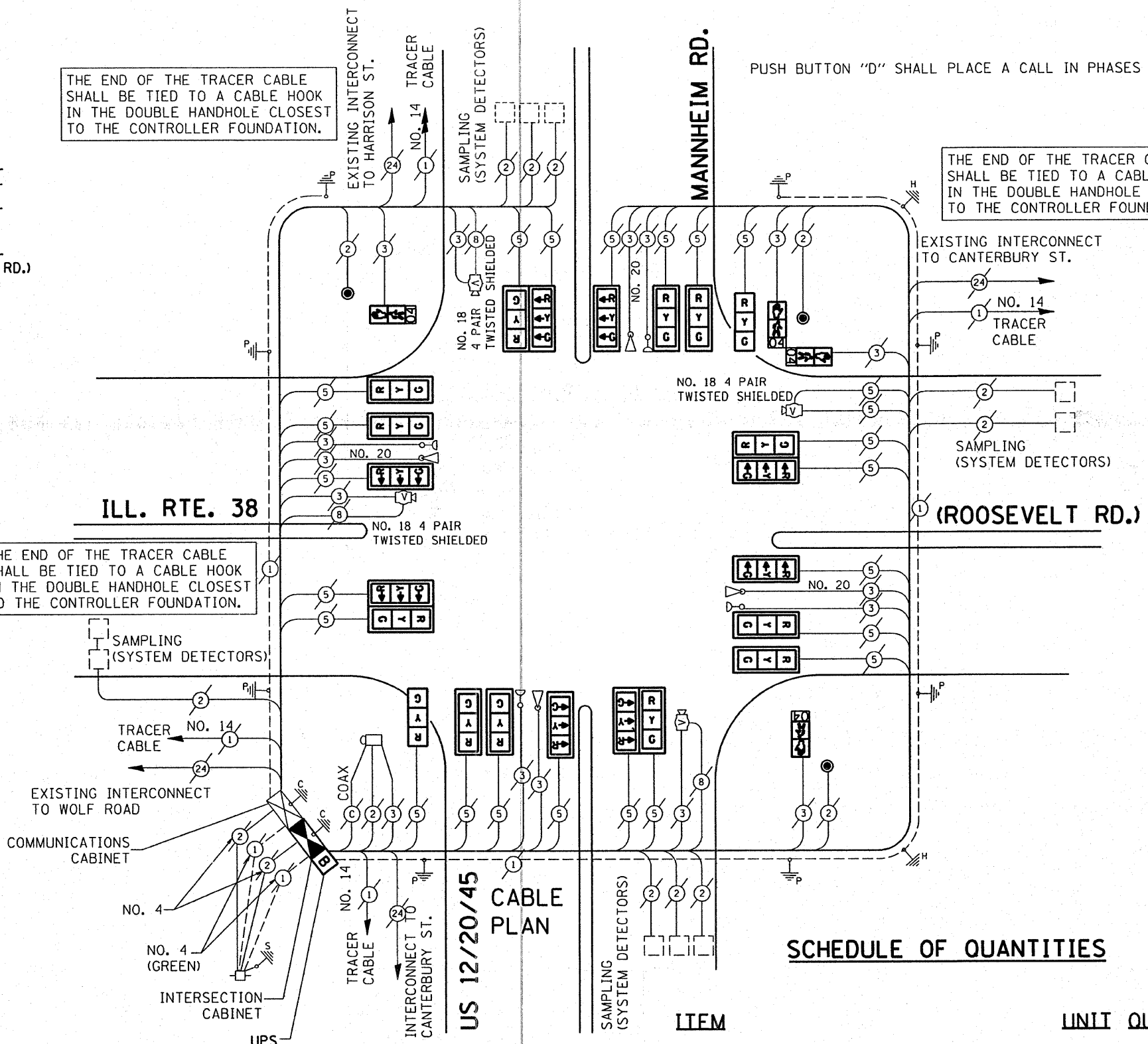


THE END OF THE TRACER CABLE SHALL BE TIED TO A CABLE HOOK IN THE DOUBLE HANDHOLE CLOSEST TO THE CONTROLLER FOUNDATION.

THE END OF THE TRACER CABLE SHALL BE TIED TO A CABLE HOOK IN THE DOUBLE HANDHOLE CLOSEST TO THE CONTROLLER FOUNDATION.

THE END OF THE TRACER CABLE SHALL BE TIED TO A CABLE HOOK IN THE DOUBLE HANDHOLE CLOSEST TO THE CONTROLLER FOUNDATION.

THE END OF THE TRACER CABLE SHALL BE TIED TO A CABLE HOOK IN THE DOUBLE HANDHOLE CLOSEST TO THE CONTROLLER FOUNDATION.



PUSH BUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8.



CABLE PLAN LEGEND

	PROPOSED	EXISTING
CONTROLLER CABINET	[Symbol]	[Symbol]
RAILROAD CONTROL CABINET	[Symbol]	[Symbol]
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT	[Symbol]	[Symbol]
TELEPHONE CONNECTION	[Symbol]	[Symbol]
GROUND ROD AT (C) CONTROLLER, (H) HANDHOLE, (P) POST, (M) MAST ARM, OR (S) SERVICE	[Symbol]	[Symbol]
FIBER OPTIC CABLE IN CONDUIT, NUMBER OF FIBERS AS NOTED	[Symbol]	[Symbol]
ELECTRIC CABLE IN CONDUIT, NO. 14, UNLESS OTHERWISE NOTED. NUMBER OF CONDUCTORS AS NOTED	[Symbol]	[Symbol]
GROUND CABLE IN CONDUIT NO. 6 COPPER (GREEN)	[Symbol]	[Symbol]
SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD	[Symbol]	[Symbol]
12" (300mm) RED WITH 8" (200mm) YELLOW AND GREEN TRAFFIC SIGNAL FACE	[Symbol]	[Symbol]
12" (300mm) TRAFFIC SIGNAL SECTION	[Symbol]	[Symbol]
12" (300mm) PEDESTRIAN SIGNAL SECTION WITH COUNTDOWN TIMER	[Symbol]	[Symbol]
ILLUMINATED SIGN "NO LEFT TURN"	[Symbol]	[Symbol]
ILLUMINATED SIGN "NO RIGHT TURN"	[Symbol]	[Symbol]
PUSHBUTTON DETECTOR	[Symbol]	[Symbol]
DETECTOR LOOP	[Symbol]	[Symbol]
PERFORMED DETECTOR LOOP	[Symbol]	[Symbol]
MICROWAVE VEHICLE SENSOR	[Symbol]	[Symbol]
VIDEO DETECTOR	[Symbol]	[Symbol]
CLOSED CIRCUIT TV	[Symbol]	[Symbol]
EMERGENCY VEHICLE SYSTEM DETECTOR	[Symbol]	[Symbol]
CONFIRMATION BEACON	[Symbol]	[Symbol]
UNINTERRUPTIBLE POWER SUPPLY	[Symbol]	[Symbol]

SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
INDUCTIVE LOOP DETECTOR	EACH	9
THERMOPLASTIC PAVEMENT MARKING LINE 12"	FOOT	440
THERMOPLASTIC PAVEMENT MARKING LINE 24"	FOOT	258
THERMOPLASTIC PAVEMENT MARKING REMOVAL	FOOT	654
MAINTENANCE OF EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET (SPECIAL)	EACH	1
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	20
PEDESTRIAN PUSH-BUTTON	EACH	3
SIGNAL HEAD, L.E.D. 1-FACE, 3 SECTION, MAST ARM MNTD.	EACH	20
SIGNAL HEAD, L.E.D. 1-FACE, BRKT. MNTD.	EACH	2
PEDESTRIAN SIGNAL HEAD, L.E.D., 1-FACE, BRKT. MTD. WITH COUNTDOWN TIMER	EACH	4
UNINTERRUPTIBLE POWER SUPPLY	EACH	1

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				TOTAL WATTAGE	
TYPE	NO. LAMPS	WATTAGE (INCAND) LED	% OPERATION		
SIGNAL (RED)	22	135	17	0.50	810.00
(YELLOW)	22	135	25	0.25	405.00
(GREEN)	22	135	15	0.25	405.00
ARROW	24	135	12	0.10	108.00
PED. SIGNAL	3	90	25	1.00	720.00
CONTROLLER	1	100	100	1.00	100.00
ILLUM. SIGN		84		0.05	
TOTAL =				610.80	

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'-11" - 2'-6" (6.4m - 0.6m)
E - M. ARM POLE		SIGNAL POST	2 (1.0)	BRACKET MOUNTED	13 (4.0)
24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)	PED. PUSHBUTTON	4 (1.2)
30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	ELECTRIC SERVICE	13.5 (4.1)
36" (900mm)	15 (4.6)	ELECTRIC SERVICE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
		GROUND CABLE	1 (0.5)	POST MOUNTED	6 (1.8)

ENERGY COSTS TO: TOTAL = 610.80

ENERGY SUPPLY CONTACT: DAVE LISKA
 PHONE: (773) 509-3417
 COMPANY: COM. EDISON

FILE NAME = USER NAME = kanthaphixaybc
 es:\projects\traffic\1070027\us12_20_45.dgn
 PLOT SCALE = 40.0000' / IN.
 PLOT DATE = 10/10/2008

DESIGNED - BCK
 DRAWN - BCK
 CHECKED - DAD
 DATE -

REVISED -
 REVISED -
 REVISED -
 REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

PROPOSED CABLE PLAN
 US 12/20/45 (MANNHEIM) @ IL. RTE. 38 (ROOSEVELT RD.)

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

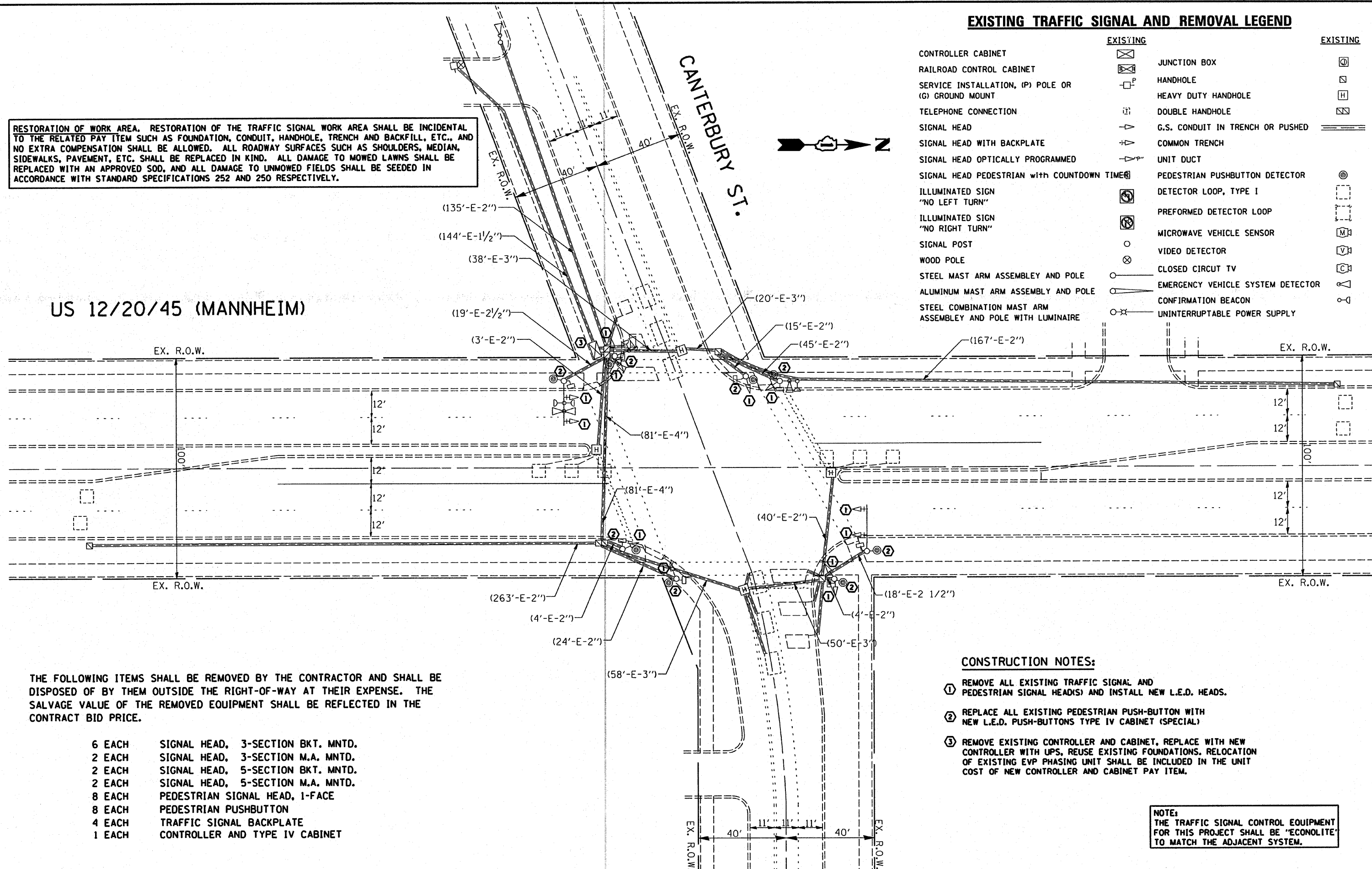
F.A.P. RTE. 330 SECTION 2008-006 TS COUNTY COOK TOTAL SHEETS 100 SHEET NO. 79 CONTRACT NO. 60E31
 FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

EXISTING TRAFFIC SIGNAL AND REMOVAL LEGEND

	EXISTING	EXISTING
CONTROLLER CABINET		
RAILROAD CONTROL CABINET		
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT		
TELEPHONE CONNECTION		
SIGNAL HEAD		
SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD OPTICALLY PROGRAMMED		
SIGNAL HEAD PEDESTRIAN with COUNTDOWN TIMER		
ILLUMINATED SIGN "NO LEFT TURN"		
ILLUMINATED SIGN "NO RIGHT TURN"		
SIGNAL POST		
WOOD POLE		
STEEL MAST ARM ASSEMBLY AND POLE		
ALUMINUM MAST ARM ASSEMBLY AND POLE		
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE		
		JUNCTION BOX
		HANDHOLE
		HEAVY DUTY HANDHOLE
		DOUBLE HANDHOLE
		G.S. CONDUIT IN TRENCH OR PUSHED
		COMMON TRENCH
		UNIT DUCT
		PEDESTRIAN PUSHBUTTON DETECTOR
		DETECTOR LOOP, TYPE I
		PREFORMED DETECTOR LOOP
		MICROWAVE VEHICLE SENSOR
		VIDEO DETECTOR
		CLOSED CIRCUIT TV
		EMERGENCY VEHICLE SYSTEM DETECTOR
		CONFIRMATION BEACON
		UNINTERRUPTABLE POWER SUPPLY

RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIAN, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

US 12/20/45 (MANNHEIM)



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

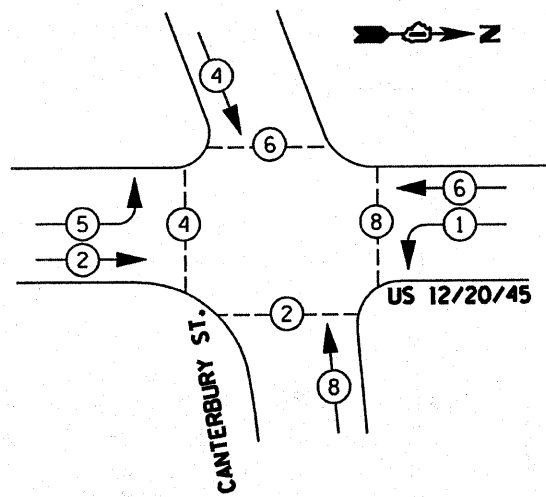
- 6 EACH SIGNAL HEAD, 3-SECTION BKT. MNTD.
- 2 EACH SIGNAL HEAD, 3-SECTION M.A. MNTD.
- 2 EACH SIGNAL HEAD, 5-SECTION BKT. MNTD.
- 2 EACH SIGNAL HEAD, 5-SECTION M.A. MNTD.
- 8 EACH PEDESTRIAN SIGNAL HEAD, 1-FACE
- 8 EACH PEDESTRIAN PUSHBUTTON
- 4 EACH TRAFFIC SIGNAL BACKPLATE
- 1 EACH CONTROLLER AND TYPE IV CABINET

CONSTRUCTION NOTES:

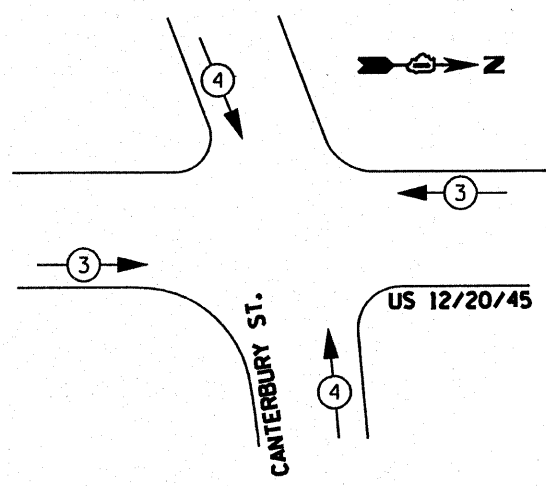
- 1 REMOVE ALL EXISTING TRAFFIC SIGNAL AND PEDESTRIAN SIGNAL HEAD(S) AND INSTALL NEW L.E.D. HEADS.
- 2 REPLACE ALL EXISTING PEDESTRIAN PUSH-BUTTON WITH NEW L.E.D. PUSH-BUTTONS TYPE IV CABINET (SPECIAL)
- 3 REMOVE EXISTING CONTROLLER AND CABINET, REPLACE WITH NEW CONTROLLER WITH UPS, REUSE EXISTING FOUNDATIONS. RELOCATION OF EXISTING EVP PHASING UNIT SHALL BE INCLUDED IN THE UNIT COST OF NEW CONTROLLER AND CABINET PAY ITEM.

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

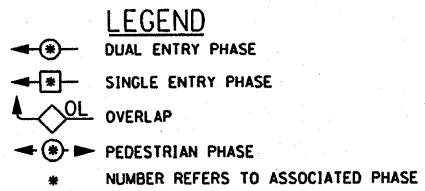
FILE NAME =	USER NAME = kenthphixaybc	DESIGNED - BCK	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EXISTING AND REMOVAL PLAN US 12/20/45 (MANNHEIM) @ CANTERBURY ST.	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
ci:\projects\traffic\1070027\us12_20_45.dgn		DRAWN - BCK	REVISED -			330	2008-006 TS	COOK	100	80	
PLOT SCALE = 40.0000' / IN.		CHECKED - DAD	REVISED -			CONTRACT NO. 60E31					
PLOT DATE = 10/10/2008		DATE -	REVISED -			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					
				SCALE: 1"=20'		SHEET NO. OF SHEETS		STA. TO STA.			



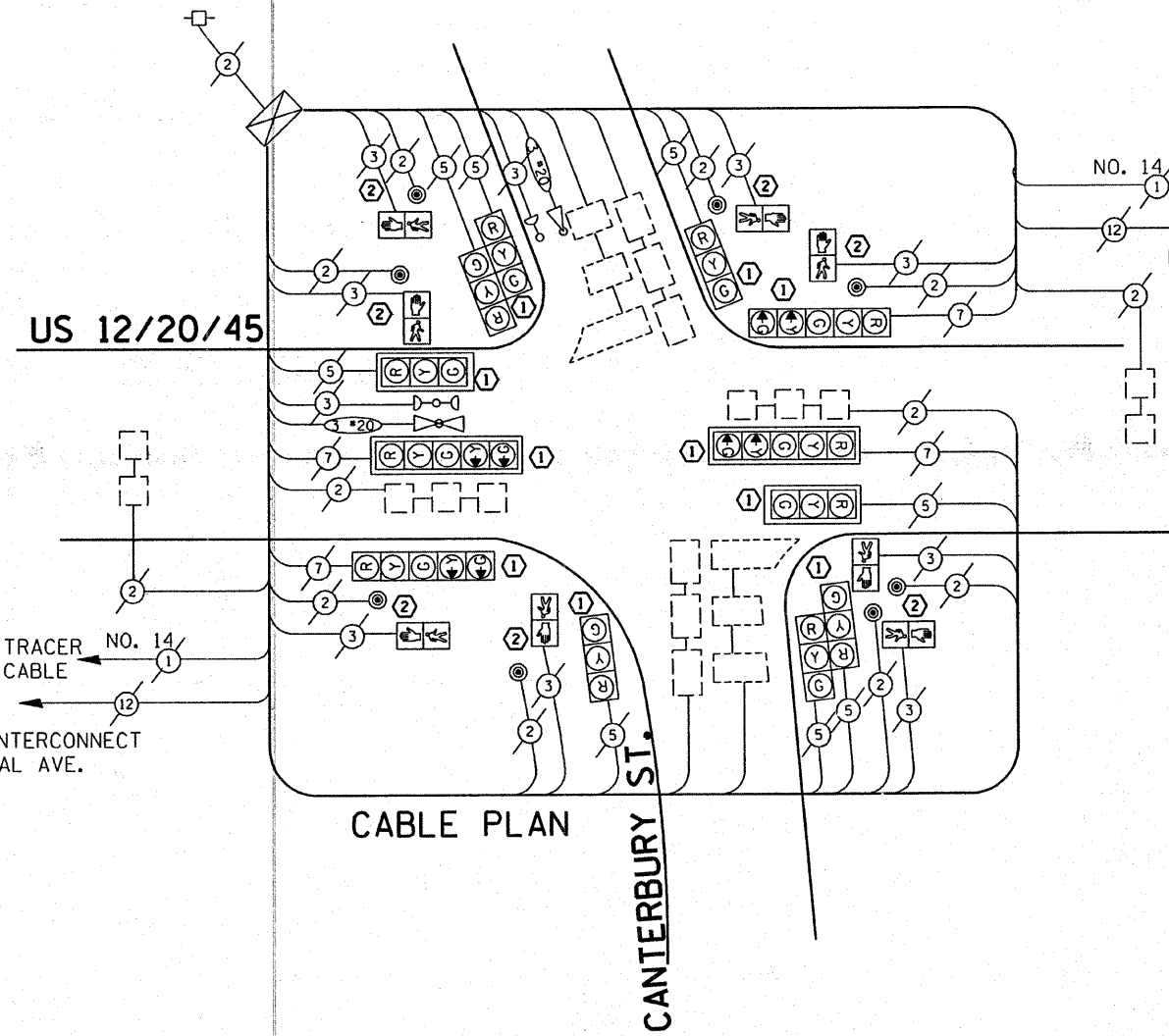
PHASE DESIGNATION DIAGRAM



EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE



PROPOSED EMERGENCY VEHICLE PREEMPTOR		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	→	↙ ↘



CABLE PLAN

EXISTING CABLE DIAGRAM LEGEND

	PROPOSED	EXISTING
TEMPORARY CONTROLLER CABINET	[Symbol]	[Symbol]
TEMPORARY SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT	[Symbol]	[Symbol]
TEMPORARY TRAFFIC SIGNAL SECTION OR PEDESTRIAN SIGNAL SECTION, 12" (300 mm)	[Symbol]	[Symbol]
12" (300 MM) PEDESTRIAN SIGNAL SECTION	[Symbol]	[Symbol]
ELECTRIC CABLE IN CONDUIT, NO. 14, UNLESS OTHERWISE NOTED. NUMBER OF CONDUCTORS AS NOTED	[Symbol]	[Symbol]
PEDESTRIAN PUSHBUTTON DETECTOR	[Symbol]	[Symbol]
VEHICLE DETECTOR, INDUCTION LOOP	[Symbol]	[Symbol]
MICROWAVE VEHICLE SENSOR	[Symbol]	[Symbol]
VIDEO DETECTOR	[Symbol]	[Symbol]
CLOSED CIRCUIT TV	[Symbol]	[Symbol]
EMERGENCY VEHICLE SYSTEM DETECTOR	[Symbol]	[Symbol]
CONFIRMATION BEACON	[Symbol]	[Symbol]

NOTE:
THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE 'ECONOLITE' TO MATCH THE ADJACENT SYSTEM.

I.D.D.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE (INCAND.)	LED	% OPERATION	
SIGNAL (RED)	12	135	17	0.50	
(YELLOW)	12	135	25	0.25	
(GREEN)	12	135	15	0.25	
ARROW	8	135	12	0.10	
PED. SIGNAL	8	90	25	1.00	
CONTROLLER	1	100	100	1.00	
ILLUM. SIGN		84		0.05	
FLASHER				0.50	
ENERGY COSTS TO:					TOTAL =

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'±L-2'±
E - M. ARM POLE		SIGNAL POST	2 (1.0)	(6m±L-0.6m)±	
24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	PEDE. PUSHBUTTON	4 (1.2)
36" (900mm)	15 (4.6)	ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
		GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
				POST MOUNTED	6 (1.8)

ENERGY SUPPLY CONTACT: DAVE LISKA
PHONE: (773) 509-3417
COMPANY: COM. EDISON

FILE NAME = ...
USER NAME = kenthaphixaybc
PLOT SCALE = 48.0000" / IN.
PLOT DATE = 10/10/2008

DESIGNED - BCK
DRAWN - BCK
CHECKED - DAD
DATE -

REVISED -
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING CABLE PLAN
US 12/20/45 (MANNHEIM) @ CANTERBURY ST.

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2008-006 TS	COOK	100	81
CONTRACT NO. 60E31				
FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT				

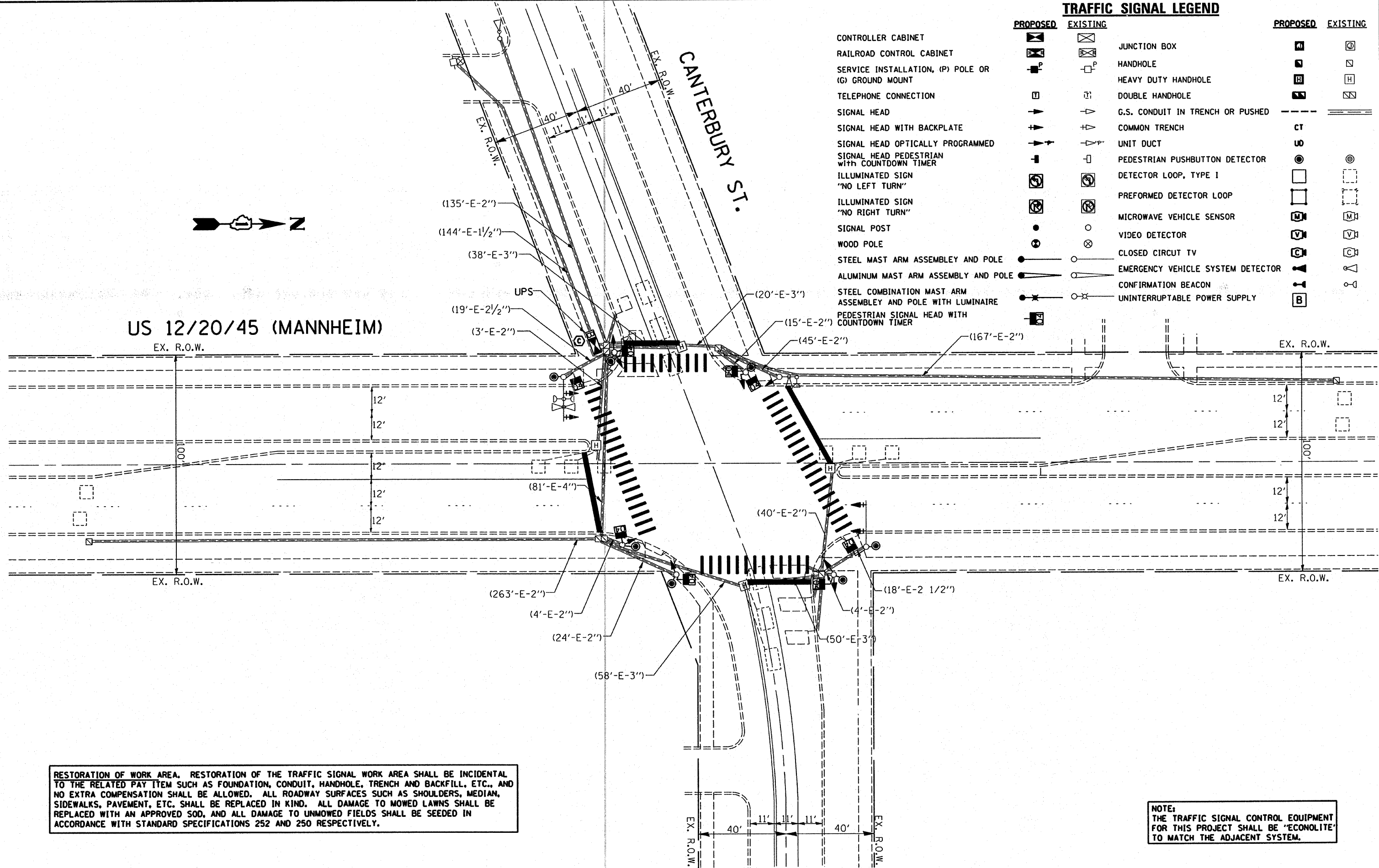
TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING		PROPOSED	EXISTING
CONTROLLER CABINET			JUNCTION BOX		
RAILROAD CONTROL CABINET			HANDHOLE		
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT			HEAVY DUTY HANDHOLE		
TELEPHONE CONNECTION			DOUBLE HANDHOLE		
SIGNAL HEAD			G.S. CONDUIT IN TRENCH OR PUSHED		
SIGNAL HEAD WITH BACKPLATE			COMMON TRENCH	CT	
SIGNAL HEAD OPTICALLY PROGRAMMED			UNIT DUCT	U	
SIGNAL HEAD PEDESTRIAN with COUNTDOWN TIMER			PEDESTRIAN PUSHBUTTON DETECTOR		
ILLUMINATED SIGN "NO LEFT TURN"			DETECTOR LOOP, TYPE I		
ILLUMINATED SIGN "NO RIGHT TURN"			PERFORMED DETECTOR LOOP		
SIGNAL POST			MICROWAVE VEHICLE SENSOR		
WOOD POLE			VIDEO DETECTOR		
STEEL MAST ARM ASSEMBLY AND POLE			CLOSED CIRCUIT TV		
ALUMINUM MAST ARM ASSEMBLY AND POLE			EMERGENCY VEHICLE SYSTEM DETECTOR		
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE			CONFIRMATION BEACON		
PEDESTRIAN SIGNAL HEAD WITH COUNTDOWN TIMER			UNINTERRUPTIBLE POWER SUPPLY		



US 12/20/45 (MANNHEIM)

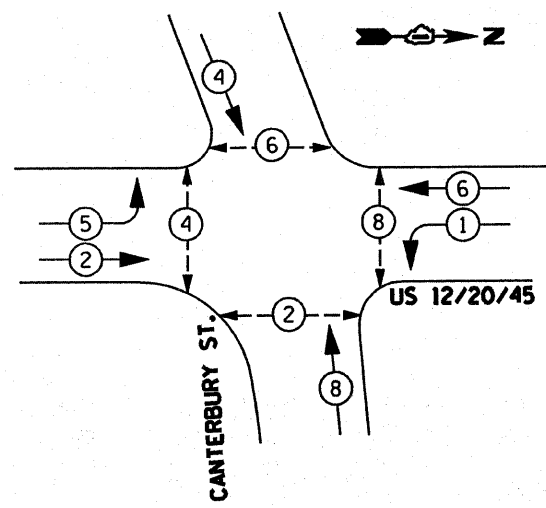
CANTERBURY ST.



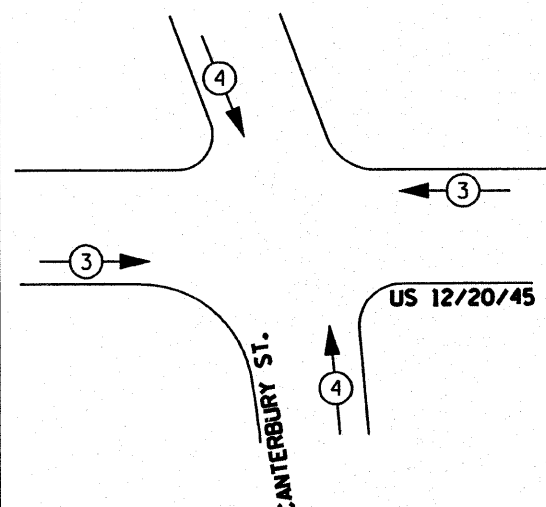
RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIAN, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

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

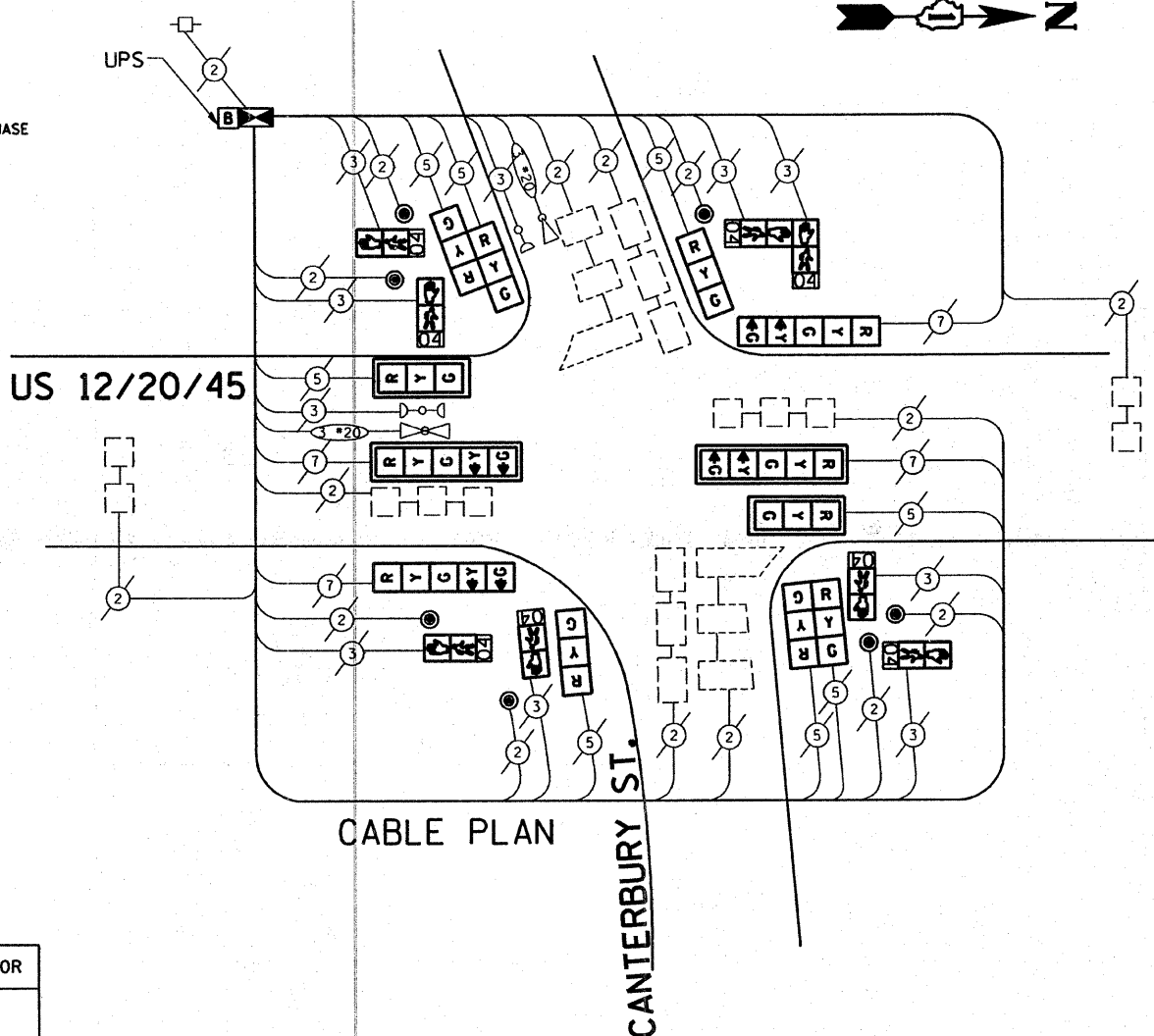
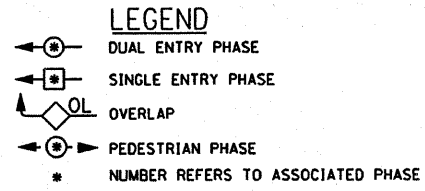
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	PLOT SCALE = 40.0000' / IN.	DRAWN - BCK	REVISED -		SCALE: 1"=20'	SHEET NO.	OF	SHEETS	STA.	TO	STA.	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT
	PLOT DATE = 10/10/2008	CHECKED - DAD	REVISED -		CONTRACT NO. 60E31								
		DATE -	REVISED -										



PHASE DESIGNATION DIAGRAM



EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE



CABLE PLAN

CABLE PLAN LEGEND

	PROPOSED	EXISTING
CONTROLLER CABINET	[Symbol]	[Symbol]
RAILROAD CONTROL CABINET	[Symbol]	[Symbol]
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT	[Symbol]	[Symbol]
TELEPHONE CONNECTION	[Symbol]	[Symbol]
GROUND ROD AT (C) CONTROLLER, (H) HANDHOLE, (P) POST, (M) MAST ARM, OR (S) SERVICE	[Symbol]	[Symbol]
FIBER OPTIC CABLE IN CONDUIT, NUMBER OF FIBERS AS NOTED	[Symbol]	[Symbol]
ELECTRIC CABLE IN CONDUIT, NO. 14, UNLESS OTHERWISE NOTED, NUMBER OF CONDUCTORS AS NOTED	[Symbol]	[Symbol]
GROUND CABLE IN CONDUIT NO. 6 COPPER (GREEN)	[Symbol]	[Symbol]
SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD	[Symbol]	[Symbol]
12" (300mm) RED WITH 8" (200mm) YELLOW AND GREEN TRAFFIC SIGNAL FACE	[Symbol]	[Symbol]
12" (300mm) TRAFFIC SIGNAL SECTION	[Symbol]	[Symbol]
12" (300mm) PEDESTRIAN SIGNAL SECTION WITH COUNTDOWN TIMER	[Symbol]	[Symbol]
ILLUMINATED SIGN "NO LEFT TURN"	[Symbol]	[Symbol]
ILLUMINATED SIGN "NO RIGHT TURN"	[Symbol]	[Symbol]
PUSHBUTTON DETECTOR	[Symbol]	[Symbol]
DETECTOR LOOP	[Symbol]	[Symbol]
PERFORMED DETECTOR LOOP	[Symbol]	[Symbol]
MICROWAVE VEHICLE SENSOR	[Symbol]	[Symbol]
VIDEO DETECTOR	[Symbol]	[Symbol]
CLOSED CIRCUIT TV	[Symbol]	[Symbol]
EMERGENCY VEHICLE SYSTEM DETECTOR	[Symbol]	[Symbol]
CONFIRMATION BEACON	[Symbol]	[Symbol]
UNINTERRUPTIBLE POWER SUPPLY	[Symbol]	[Symbol]

PROPOSED EMERGENCY VEHICLE PREEMPTOR		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	[Symbol]	[Symbol]

SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
INDUCTIVE LOOP DETECTOR	EACH	8
THERMOPLASTIC PAVEMENT MARKING LINE 12"	FOOT	464
THERMOPLASTIC PAVEMENT MARKING LINE 24"	FOOT	130
THERMOPLASTIC PAVEMENT MARKING REMOVAL	FOOT	696
MAINTENANCE OF EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET (SPECIAL)	EACH	1
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	4
PEDESTRIAN PUSH-BUTTON	EACH	7
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
SIGNAL HEAD, L.E.D. 1-FACE, 3 SECTION, MAST ARM MNTD.	EACH	2
SIGNAL HEAD, L.E.D. 1-FACE, 5 SECTION, MAST ARM MNTD.	EACH	2
SIGNAL HEAD, L.E.D. 1-FACE, 5 SECTION, BRKT. MNTD.	EACH	2
SIGNAL HEAD, L.E.D. 1-FACE, 3 SECTION, BRKT. MNTD.	EACH	2
SIGNAL HEAD, L.E.D. 2-FACE, 3 SECTION, BRKT. MNTD.	EACH	2
PEDESTRIAN SIGNAL HEAD, L.E.D., 1-FACE, BRKT. MTD. WITH COUNTDOWN TIMER	EACH	6
PEDESTRIAN SIGNAL HEAD, L.E.D., 2-FACE, BRKT. MTD. WITH COUNTDOWN TIMER	EACH	1
UNINTERRUPTIBLE POWER SUPPLY	EACH	1

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE (INCAND.)	WATTAGE LED	% OPERATION	
SIGNAL (RED)	12	135	17	0.50	102.00
(YELLOW)	12	135	25	0.25	75.00
(GREEN)	12	135	15	0.25	45.00
ARROW	8	135	12	0.10	9.60
PED. SIGNAL	8	90	25	1.00	200.00
CONTROLLER	1	100	100	1.00	100.00
ILLUM. SIGN		84		0.05	
FLASHER				0.50	
ENERGY COSTS TO:					531.60

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'-H-2'-
E - M. ARM POLE		SIGNAL POST	2 (1.0)	(6m+L-0.6m)-	
		24" (600mm)	10 (3.0)	BRACKET MOUNTED	13 (4.0)
		30" (750mm)	15 (4.6)	PED. PUSHBUTTON	4 (1.2)
		36" (900mm)	15 (4.6)	ELECTRIC SERVICE	13.5 (4.1)
				SERVICE TO GROUND	13.5 (4.1)
				POST MOUNTED	6 (1.8)

RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIAN, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

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

FILE NAME =
 USER NAME = kenthaphixaybc
 DESIGNED - BCK
 DRAWN - BCK
 PLOT SCALE = 48.0000" / IN.
 PLOT DATE = 10/10/2008

REVISIONS
 REVISIONS -
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 REVISIONS -
 REVISIONS -
 REVISIONS -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

PROPOSED CABLE PLAN
 US 12/20/45 (MANNHEIM) @ CANTEBURY ST.
 SCALE: SHEET NO. OF SHEETS STA. TO STA.

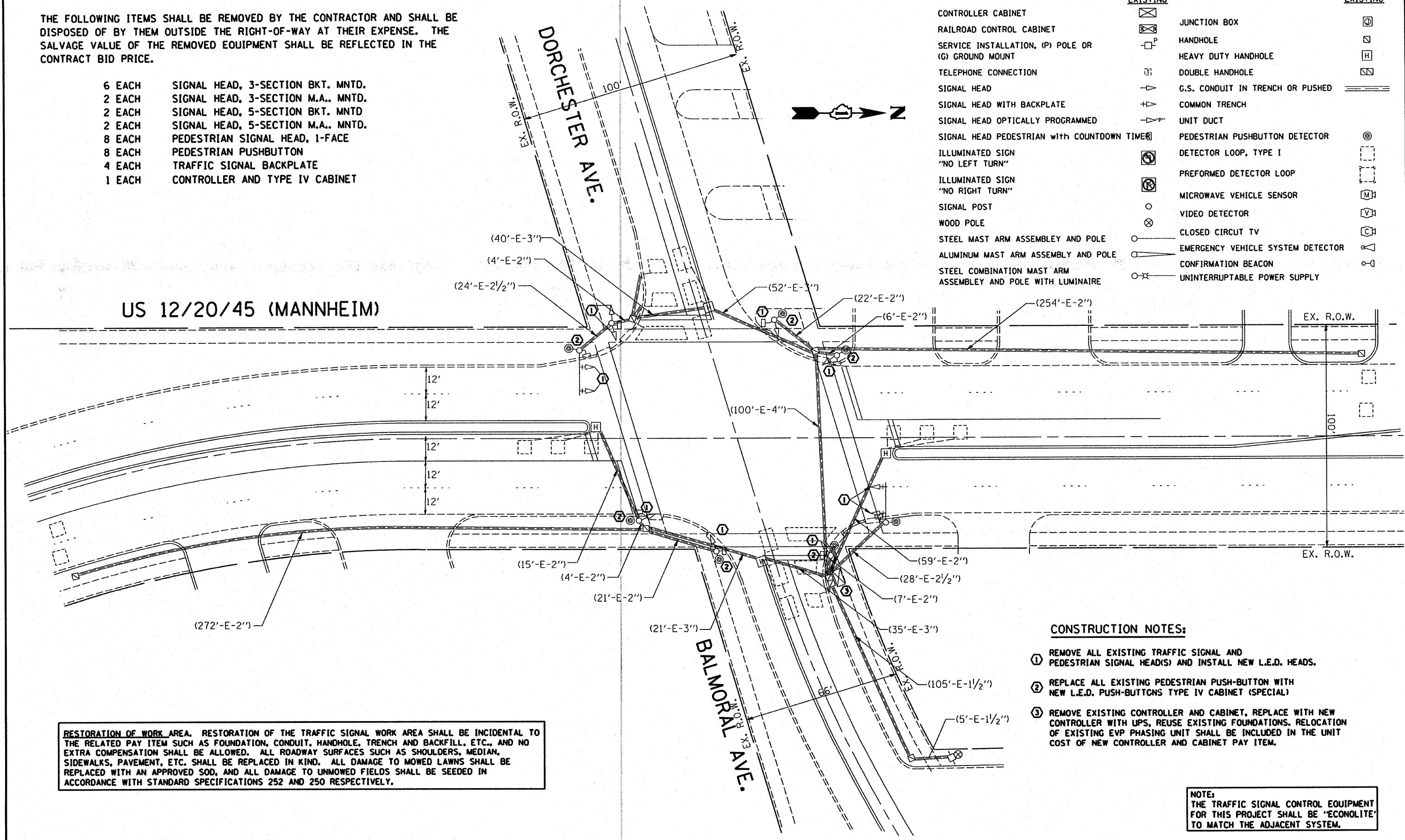
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2008-006 TS	COOK	100	83
				CONTRACT NO. 60E31
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

EXISTING TRAFFIC SIGNAL AND REMOVAL LEGEND

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

- 6 EACH SIGNAL HEAD, 3-SECTION BKT. MNTD.
- 2 EACH SIGNAL HEAD, 3-SECTION M.A.. MNTD.
- 2 EACH SIGNAL HEAD, 5-SECTION BKT. MNTD
- 2 EACH SIGNAL HEAD, 5-SECTION M.A.. MNTD.
- 8 EACH PEDESTRIAN SIGNAL HEAD, 1-FACE
- 8 EACH PEDESTRIAN PUSHBUTTON
- 4 EACH TRAFFIC SIGNAL BACKPLATE
- 1 EACH CONTROLLER AND TYPE IV CABINET

EXISTING		EXISTING	
CONTROLLER CABINET		JUNCTION BOX	
RAILROAD CONTROL CABINET		HANDHOLE	
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT		HEAVY DUTY HANDHOLE	
TELEPHONE CONNECTION		DOUBLE HANDHOLE	
SIGNAL HEAD		G.S. CONDUIT IN TRENCH OR PUSHED	
SIGNAL HEAD WITH BACKPLATE		COMMON TRENCH	
SIGNAL HEAD OPTICALLY PROGRAMMED		UNIT DUCT	
SIGNAL HEAD PEDESTRIAN with COUNTDOWN TIMER		PEDESTRIAN PUSHBUTTON DETECTOR	
ILLUMINATED SIGN "NO LEFT TURN"		DETECTOR LOOP, TYPE I	
ILLUMINATED SIGN "NO RIGHT TURN"		PREFORMED DETECTOR LOOP	
SIGNAL POST		MICROWAVE VEHICLE SENSOR	
WOOD POLE		VIDEO DETECTOR	
STEEL MAST ARM ASSEMBLY AND POLE		CLOSED CIRCUIT TV	
ALUMINUM MAST ARM ASSEMBLY AND POLE		EMERGENCY VEHICLE SYSTEM DETECTOR	
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE		CONFIRMATION BEACON	
		UNINTERRUPTIBLE POWER SUPPLY	



US 12/20/45 (MANNHEIM)

DORCHESTER AVE.

BALMORAL AVE.

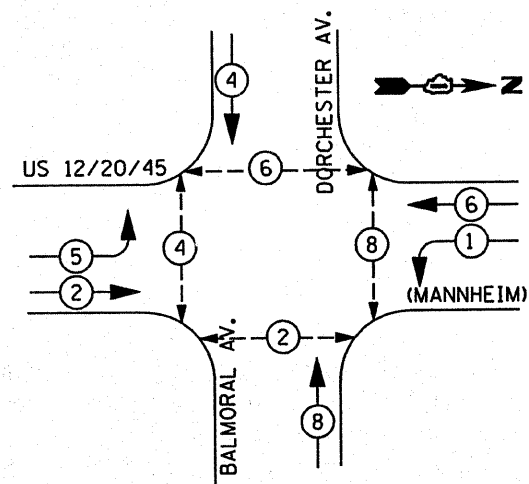
CONSTRUCTION NOTES:

- ① REMOVE ALL EXISTING TRAFFIC SIGNAL AND PEDESTRIAN SIGNAL HEAD(S) AND INSTALL NEW L.E.D. HEADS.
- ② REPLACE ALL EXISTING PEDESTRIAN PUSH-BUTTON WITH NEW L.E.D. PUSH-BUTTONS TYPE IV CABINET (SPECIAL)
- ③ REMOVE EXISTING CONTROLLER AND CABINET, REPLACE WITH NEW CONTROLLER WITH UPS, REUSE EXISTING FOUNDATIONS. RELOCATION OF EXISTING EVP PHASING UNIT SHALL BE INCLUDED IN THE UNIT COST OF NEW CONTROLLER AND CABINET PAY ITEM.

RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIAN, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

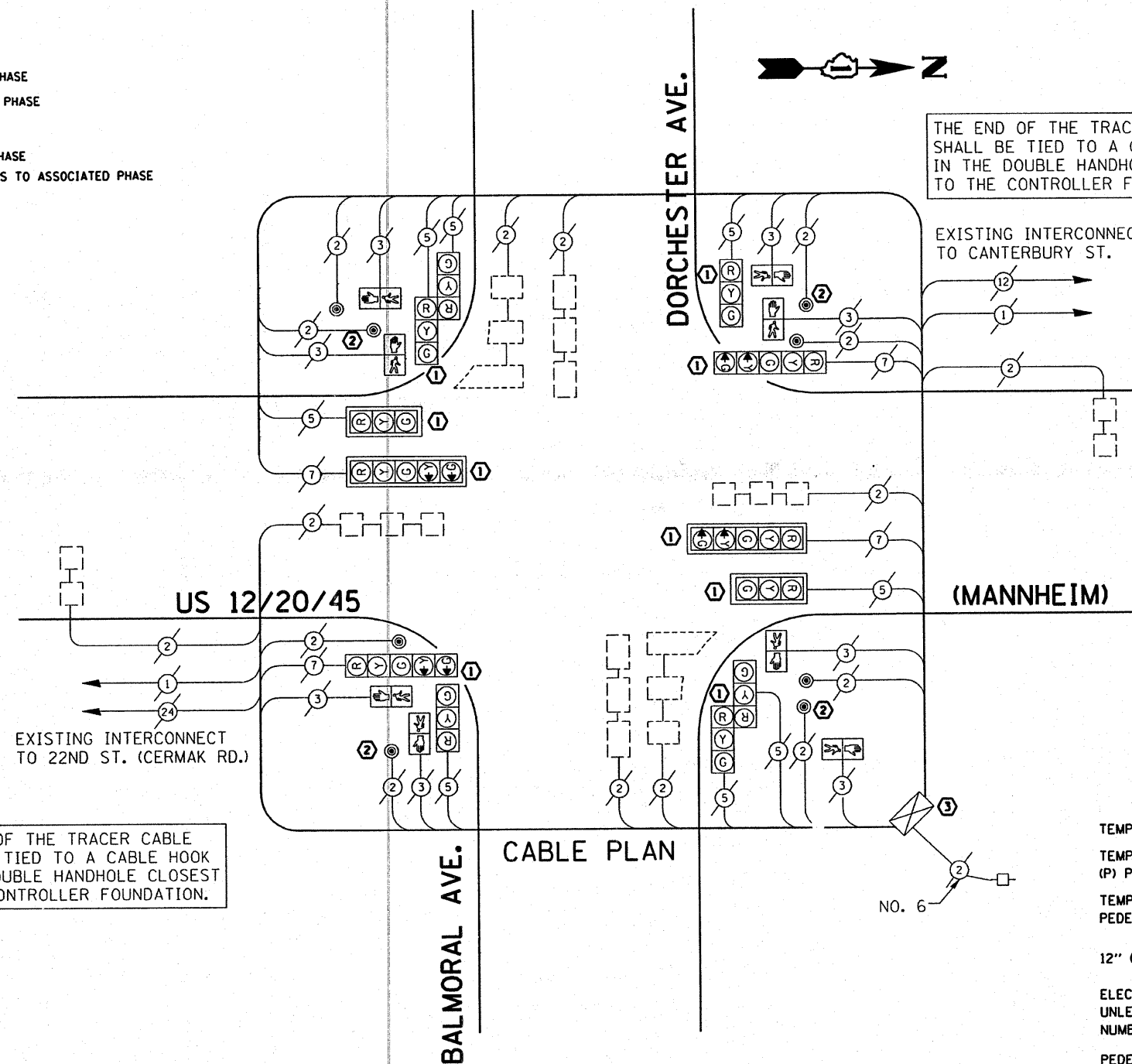
NOTE: THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE ADJACENT SYSTEM.

FILE NAME =	USER NAME = kanthaphaybc	DESIGNED - BCK	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EXISTING TRAFFIC SIGNAL REMOVAL PLAN US 12/20/45 (MANNHEIM) @ BALMORAL/DORCHESTER	F.A.P. RTE. 330	SECTION 2008-006 TS	COUNTY COOK	TOTAL SHEETS 100	SHEET NO. 84	
ca:\projects\traffic\070827\us12-20-45.dwg	PLOT SCALE = 48.0000' / IN.	DRAWN - BCK	REVISED -			SCALE: 1"=20'	SHEET NO. OF SHEETS	STA. TO STA.	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT	CONTRACT NO. 60E31
	PLOT DATE = 10/10/2008	CHECKED - DAD	REVISED -								
		DATE -	REVISED -								



PHASE DESIGNATION DIAGRAM

- LEGEND**
- ⊕ DUAL ENTRY PHASE
 - ⊙ SINGLE ENTRY PHASE
 - OL OVERLAP
 - ⊙ PEDESTRIAN PHASE
 - * NUMBER REFERS TO ASSOCIATED PHASE



CABLE PLAN

EXISTING CABLE DIAGRAM LEGEND

- | | PROPOSED | EXISTING |
|--|----------|----------|
| TEMPORARY CONTROLLER CABINET | ⊕ | ⊕ |
| TEMPORARY SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT | ⊙ | ⊙ |
| TEMPORARY TRAFFIC SIGNAL SECTION OR PEDESTRIAN SIGNAL SECTION, 12" (300 mm) | R | R |
| 12" (300 MM) PEDESTRIAN SIGNAL SECTION | ⊙ | ⊙ |
| ELECTRIC CABLE IN CONDUIT, NO. 14, UNLESS OTHERWISE NOTED, NUMBER OF CONDUCTORS AS NOTED | ② | ② |
| PEDESTRIAN PUSHBUTTON DETECTOR | ⊙ | ⊙ |
| VEHICLE DETECTOR, INDUCTION LOOP | □ | □ |
| MICROWAVE VEHICLE SENSOR | M | M |
| VIDEO DETECTOR | V | V |
| CLOSED CIRCUIT TV | C | C |
| EMERGENCY VEHICLE SYSTEM DETECTOR | ⊙ | ⊙ |
| CONFIRMATION BEACON | ⊙ | ⊙ |

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE (INCAND.)	WATTAGE (LED)	% OPERATION	
SIGNAL (RED)	12	135	17	0.50	
(YELLOW)	12	135	25	0.25	
(GREEN)	12	135	15	0.25	
ARROW	8	135	12	0.10	
PED. SIGNAL	8	90	25	1.00	
CONTROLLER	1	100	100	1.00	
ILLUM. SIGN		84		0.05	
FLASHER					0.50
ENERGY COSTS TO:					TOTAL =

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'-H-2'
E - M. ARM POLE		SIGNAL POST	2 (1.0)		(6m+L-0.6m)
24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
36" (900mm)	15 (4.6)	ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
		GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
				POST MOUNTED	6 (1.8)

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

ENERGY SUPPLY CONTACT: DAVE LISKA
 PHONE: (773) 509-3417
 COMPANY: COM. EDISON

FILE NAME = ci\projects\traffic\1870027\us12.20.45.dgn
 USER NAME = konthaphixybc
 PLOT SCALE = 40.0000" / IN.
 PLOT DATE = 10/18/2008

DESIGNED - BCK
 DRAWN - BCK
 CHECKED - DAD
 DATE -

REVISED -
 REVISED -
 REVISED -
 REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

EXISTING CABLE PLAN
 US 12/20/45 (MANNHEIM) @ BALMORAL/DORCHESTER

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

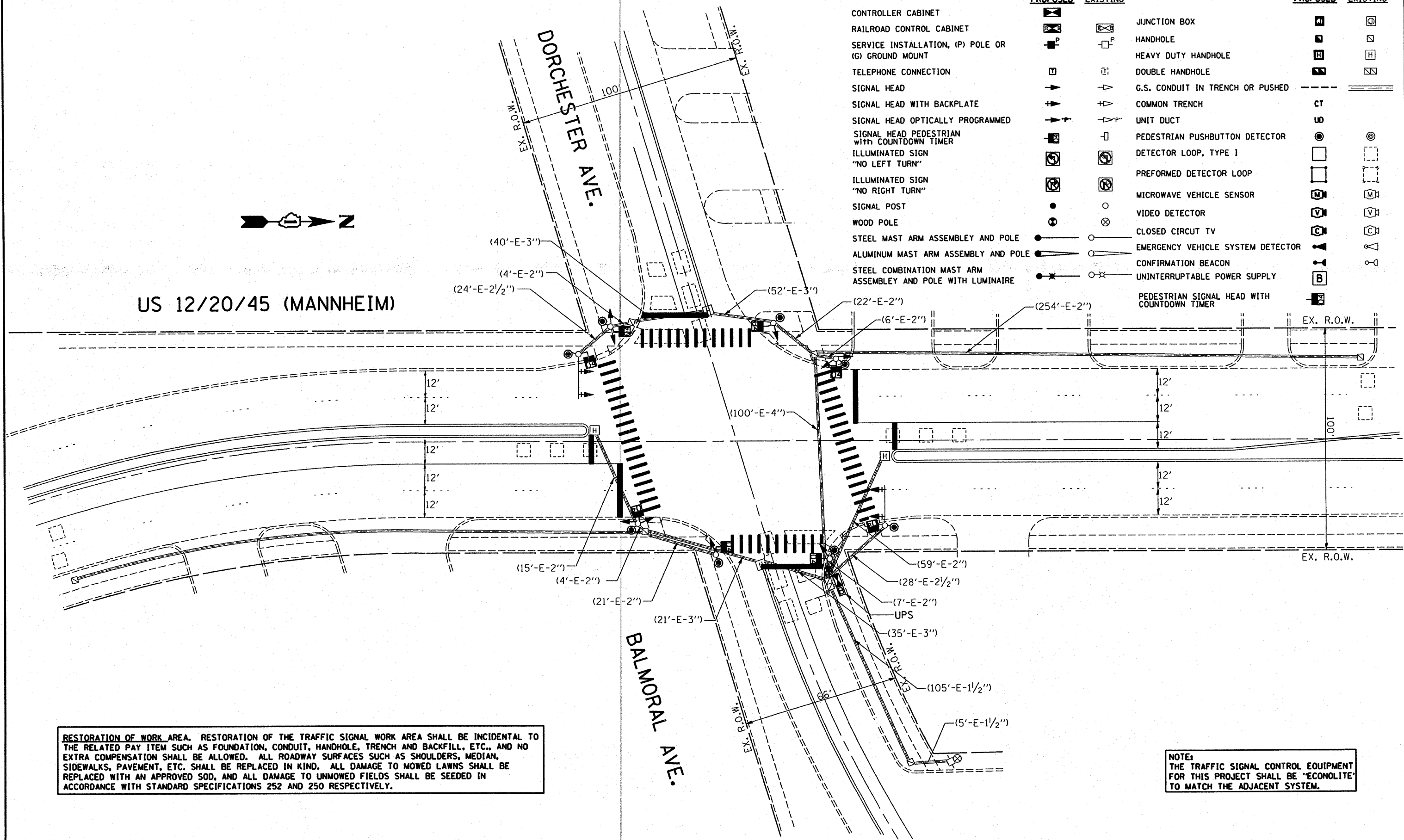
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2008-006 TS	COOK	100	85
CONTRACT NO. 60E31				
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING		PROPOSED	EXISTING
CONTROLLER CABINET			JUNCTION BOX		
RAILROAD CONTROL CABINET			HANDHOLE		
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT			HEAVY DUTY HANDHOLE		
TELEPHONE CONNECTION			DOUBLE HANDHOLE		
SIGNAL HEAD			G.S. CONDUIT IN TRENCH OR PUSHED		
SIGNAL HEAD WITH BACKPLATE			COMMON TRENCH		
SIGNAL HEAD OPTICALLY PROGRAMMED			UNIT DUCT		
SIGNAL HEAD PEDESTRIAN with COUNTDOWN TIMER			PEDESTRIAN PUSHBUTTON DETECTOR		
ILLUMINATED SIGN "NO LEFT TURN"			DETECTOR LOOP, TYPE I		
ILLUMINATED SIGN "NO RIGHT TURN"			PREFORMED DETECTOR LOOP		
SIGNAL POST			MICROWAVE VEHICLE SENSOR		
WOOD POLE			VIDEO DETECTOR		
STEEL MAST ARM ASSEMBLY AND POLE			CLOSED CIRCUIT TV		
ALUMINUM MAST ARM ASSEMBLY AND POLE			EMERGENCY VEHICLE SYSTEM DETECTOR		
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE			CONFIRMATION BEACON		
			UNINTERRUPTIBLE POWER SUPPLY		
			PEDESTRIAN SIGNAL HEAD WITH COUNTDOWN TIMER		



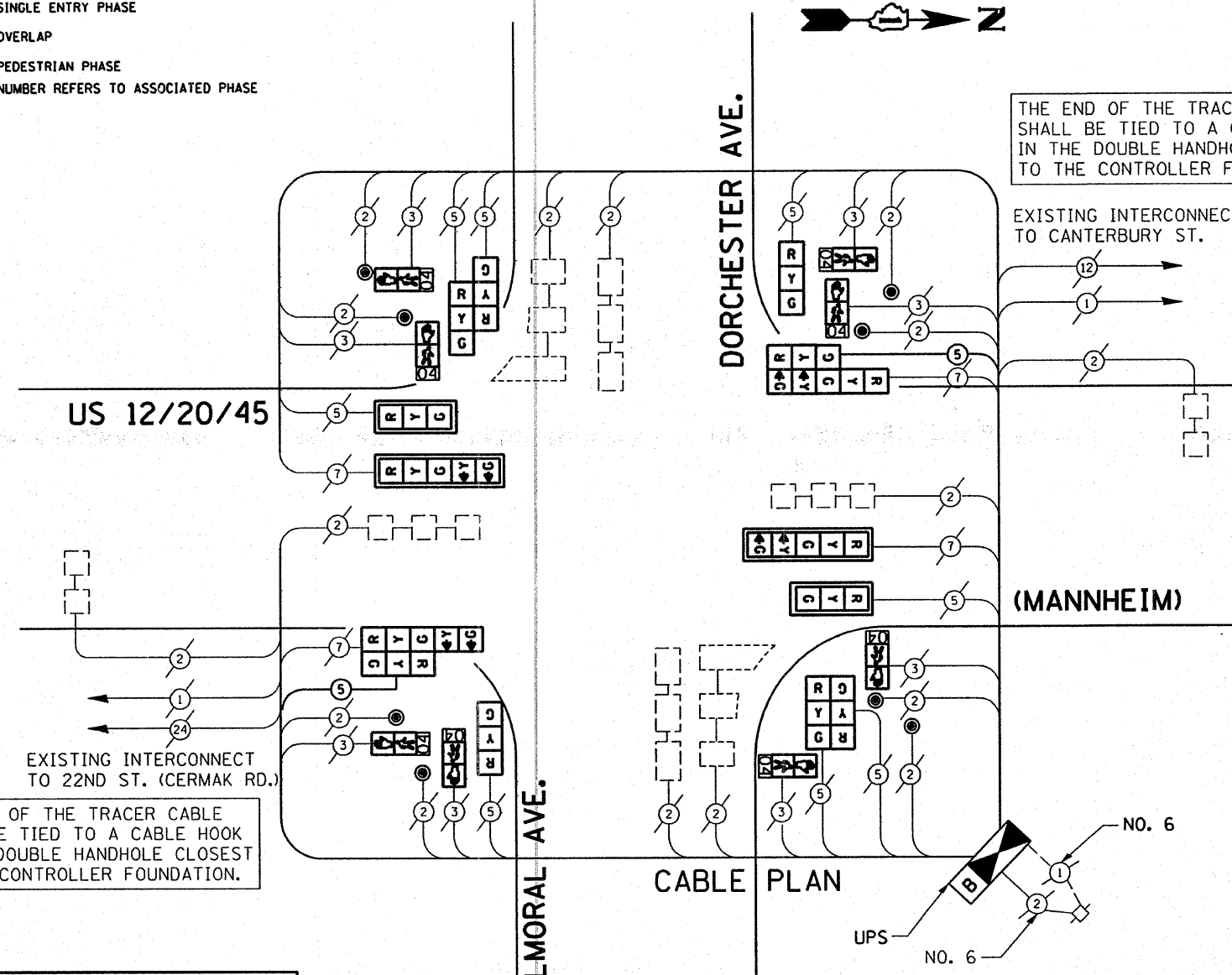
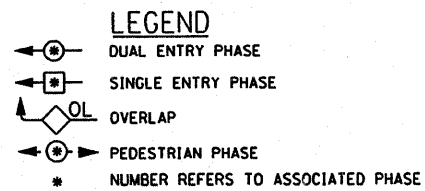
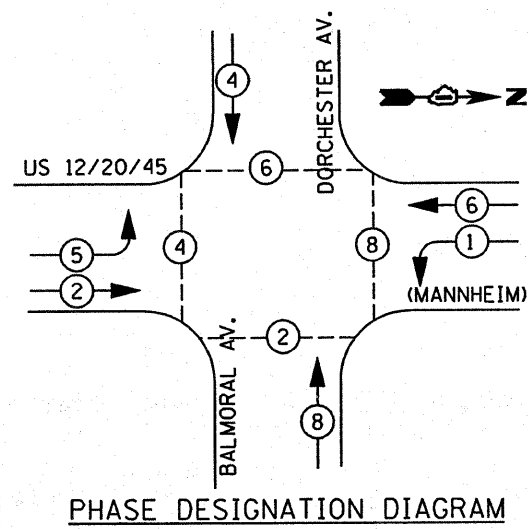
US 12/20/45 (MANNHEIM)



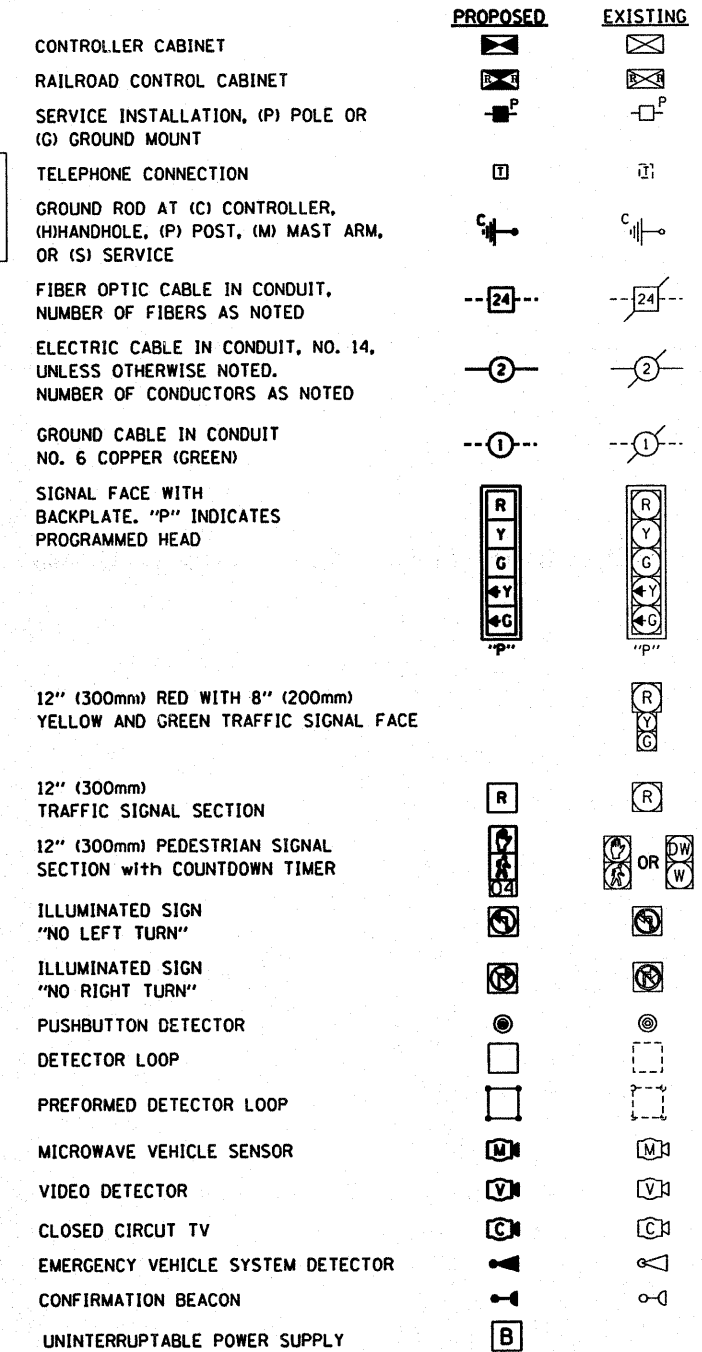
RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIAN, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

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

FILE NAME =	USER NAME = konthaphixaybc	DESIGNED - BCK	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PROPOSED TRAFFIC SIGNAL PLAN US 12/20/45 (MANNHEIM) @ BALMORAL/DORCHESTER	F.A.P. RTE. 330	SECTION 2008-006 TS	COUNTY COOK	TOTAL SHEETS 100	SHEET NO. 86	
ci:\projects\traffic\1070027\us12_20_45.dgn		DRAWN - BCK	REVISED -			SCALE: 1"=20'	SHEET NO. OF SHEETS STA. TO STA.	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT	CONTRACT NO. 60E31	
		CHECKED - DAD	REVISED -								
		DATE -	REVISED -								



CABLE PLAN LEGEND



RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIAN, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
INDUCTIVE LOOP DETECTOR	EACH	8
THERMOPLASTIC PAVEMENT MARKING LINE 12"	FOOT	480
THERMOPLASTIC PAVEMENT MARKING LINE 24"	FOOT	135
THERMOPLASTIC PAVEMENT MARKING REMOVAL	FOOT	665
MAINTENANCE OF EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET (SPECIAL)	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	255
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	4
PEDESTRIAN PUSH-BUTTON	EACH	8
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
SIGNAL HEAD, L.E.D. 1-FACE, 3 SECTION, MAST ARM MNTD.	EACH	2
SIGNAL HEAD, L.E.D. 1-FACE, 5 SECTION, MAST ARM MNTD.	EACH	2
SIGNAL HEAD, L.E.D. 1-FACE, 3 SECTION, BRKT. MNTD.	EACH	2
SIGNAL HEAD, L.E.D. 2-FACE, 1-3 SECT., 1-5 SECT., BRKT. MNTD.	EACH	2
SIGNAL HEAD, L.E.D. 2-FACE, 3 SECTION, BRKT. MNTD.	EACH	2
PEDESTRIAN SIGNAL HEAD, L.E.D., 1-FACE, BRKT. MTD. with COUNTDOWN TIMER	EACH	8
UNINTERRUPTIBLE POWER SUPPLY	EACH	1

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

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				TOTAL WATTAGE	
TYPE	NO. LAMPS	WATTAGE (INCANDESCENT)	% OPERATION		
SIGNAL (RED)	14	135	17	0.50	102.00
(YELLOW)	14	135	25	0.25	75.00
(GREEN)	14	135	15	0.25	45.00
ARROW	8	135	12	0.10	9.60
PED. SIGNAL	8	90	25	1.00	200.00
CONTROLLER	1	100	100	1.00	100.00
ILLUM. SIGN		84		0.05	

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'±L-2'
E - M. ARM POLE		SIGNAL POST	2 (1.0)		16m±L-0.6m±
24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
36" (900mm)	15 (4.6)	ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
		GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
				POST MOUNTED	6 (1.8)

ENERGY COSTS TO: TOTAL = 568.60

ENERGY SUPPLY CONTACT: DAVE LISKA
 PHONE: (773) 509-3417
 COMPANY: COM. EDISON

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED CABLE PLAN
US 12/20/45 (MANNHEIM) @ BALMORAL/DORCHESTER

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2008-006 TS	COOK	100	87

CONTRACT NO. 60E31

FILE NAME	USER NAME	DESIGNED	REVISION
ct:\projects\traffic\1070027\us12_20_45.dgn	kanthaphixaybc	- BCK	-
		- BCK	-
		- DAD	-
		-	-

PLOT SCALE = 40.0000 / IN.
 PLOT DATE = 10/10/2008

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

- 8 EACH SIGNAL HEAD, 3-SECTION MAST ARM MTD
- 4 EACH SIGNAL HEAD, 3-SECTION BKT. MNTD.
- 4 EACH SIGNAL HEAD, 5-SECTION MAST ARM MTD
- 6 EACH SIGNAL HEAD, 5-SECTION BKT. MNTD.
- 8 EACH PEDESTRIAN SIGNAL HEAD
- 4 EACH PEDESTRIAN PUSHBUTTON
- 12 EACH TRAFFIC SIGNAL BACKPLATE
- 1 EACH CONTROLLER AND TYPE IV CABINET

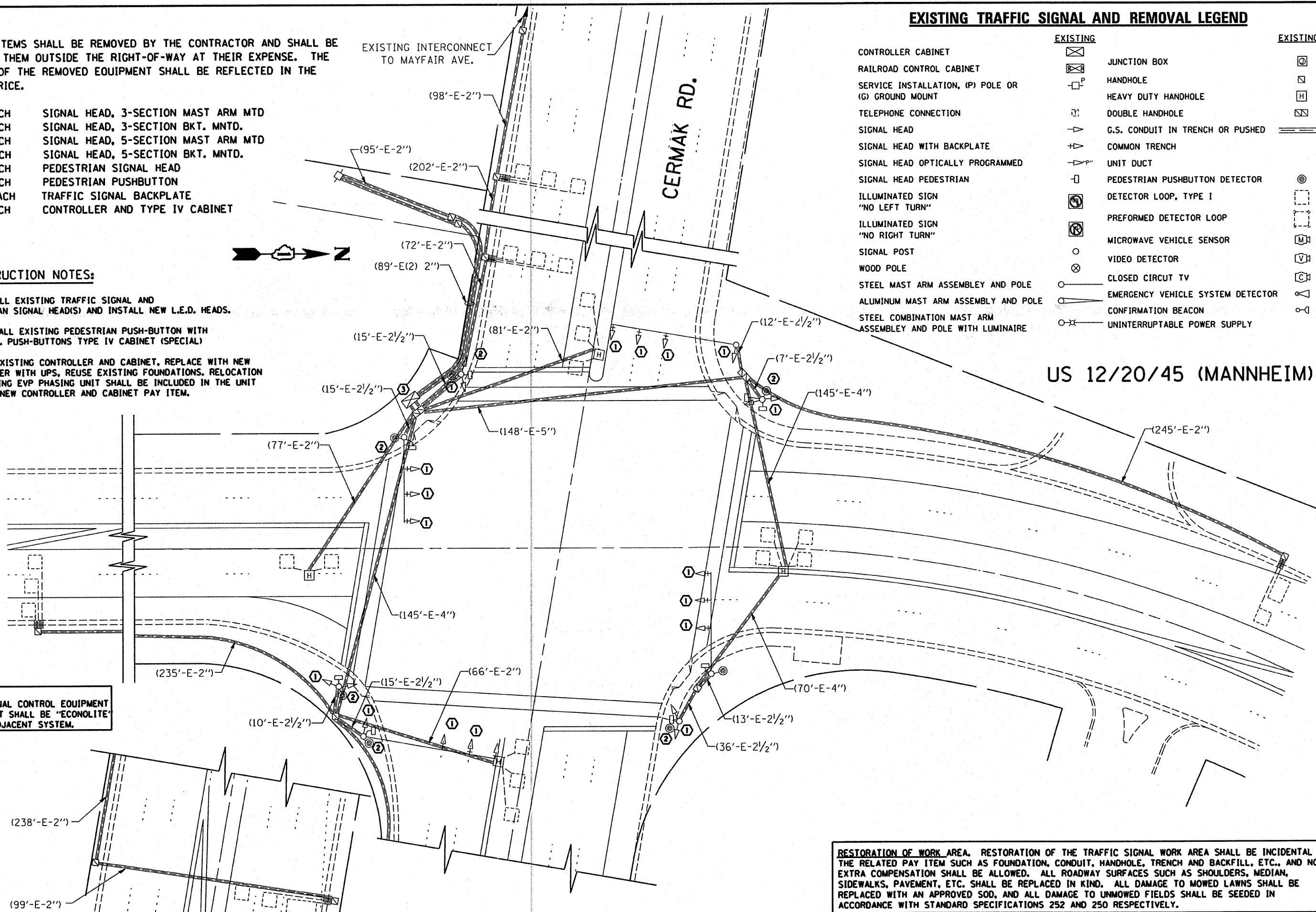
CONSTRUCTION NOTES:

- ① REMOVE ALL EXISTING TRAFFIC SIGNAL AND PEDESTRIAN SIGNAL HEAD(S) AND INSTALL NEW L.E.D. HEADS.
- ② REPLACE ALL EXISTING PEDESTRIAN PUSH-BUTTON WITH NEW L.E.D. PUSH-BUTTONS TYPE IV CABINET (SPECIAL)
- ③ REMOVE EXISTING CONTROLLER AND CABINET, REPLACE WITH NEW CONTROLLER WITH UPS, REUSE EXISTING FOUNDATIONS. RELOCATION OF EXISTING EVP PHASING UNIT SHALL BE INCLUDED IN THE UNIT COST OF NEW CONTROLLER AND CABINET PAY ITEM.

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

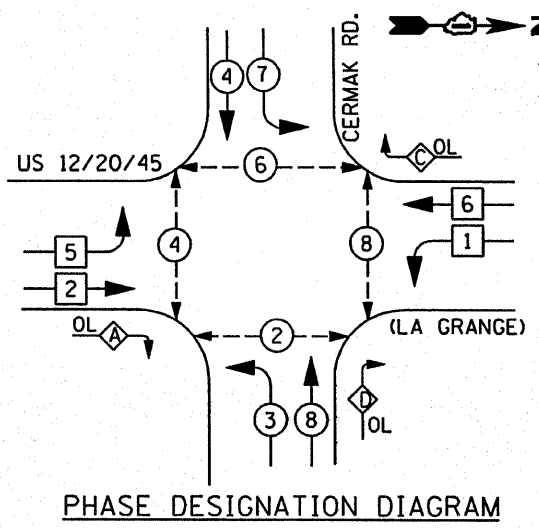
EXISTING TRAFFIC SIGNAL AND REMOVAL LEGEND

CONTROLLER CABINET	EXISTING	EXISTING
RAILROAD CONTROL CABINET		
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT		
TELEPHONE CONNECTION		
SIGNAL HEAD		
SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD OPTICALLY PROGRAMMED		
SIGNAL HEAD PEDESTRIAN		
ILLUMINATED SIGN "NO LEFT TURN"		
ILLUMINATED SIGN "NO RIGHT TURN"		
SIGNAL POST		
WOOD POLE		
STEEL MAST ARM ASSEMBLY AND POLE		
ALUMINUM MAST ARM ASSEMBLY AND POLE		
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE		



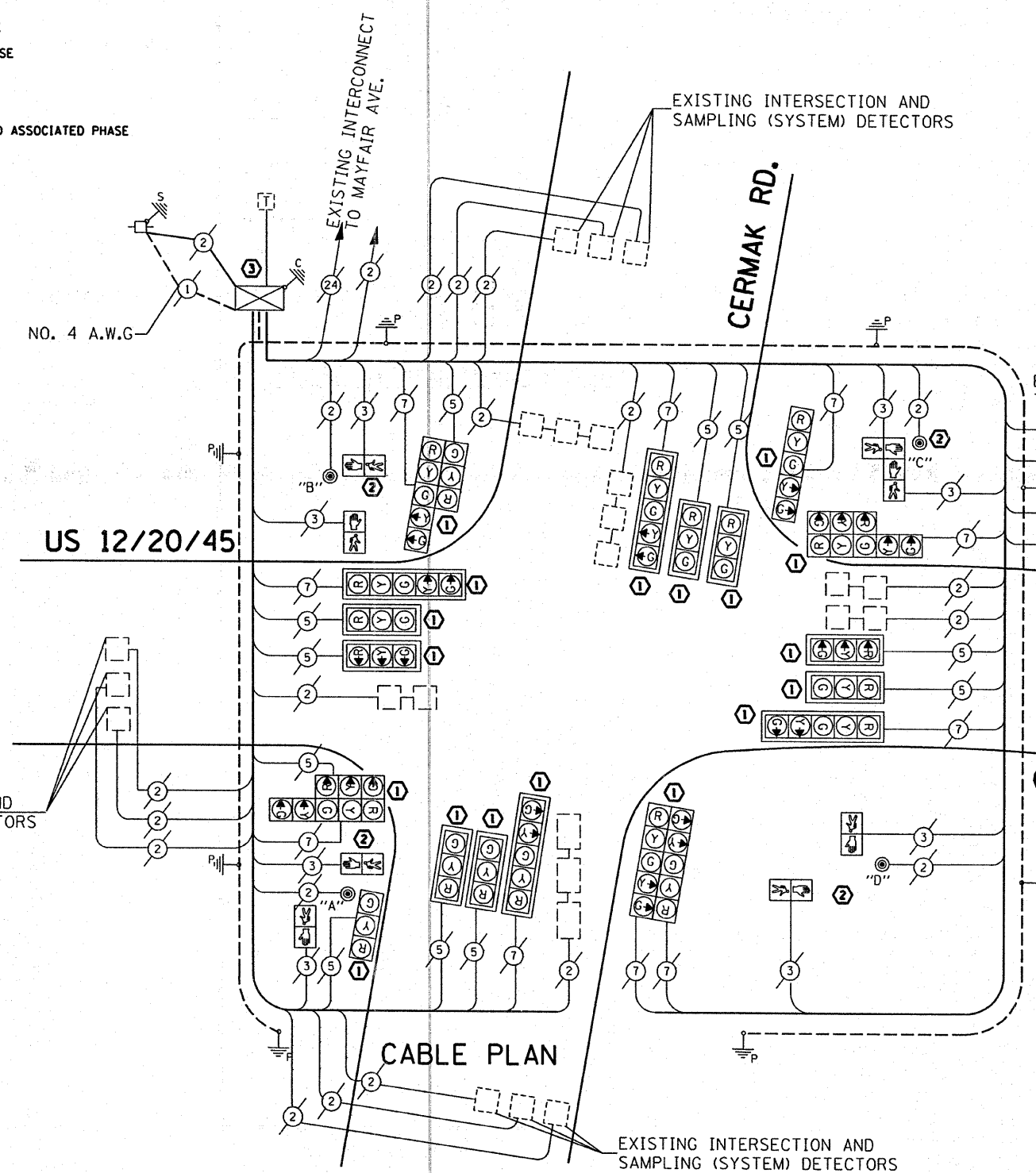
RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIAN, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

FILE NAME =	USER NAME = konthaphixaybc	DESIGNED - BCK	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EXISTING AND REMOVAL PLAN US 12/20/45 (MANNHEIM) @ CERMAK RD.	F.A.P. RTE. 330	SECTION 2008-006 TS	COUNTY COOK	TOTAL SHEETS 100	SHEET NO. 88	
ci:\projects\traffic\1070027\us12_20_45.dgn		DRAWN - BCK	REVISED -			SCALE: 1"=20'		SHEET NO. OF SHEETS STA. TO STA.		CONTRACT NO. 60E31	
PLOT SCALE = 48.0000' / IN.		CHECKED - DAD	REVISED -			FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT					
PLOT DATE = 10/10/2008		DATE -	REVISED -								



PHASE DESIGNATION DIAGRAM

- LEGEND**
- DUAL ENTRY PHASE
 - SINGLE ENTRY PHASE
 - OVERLAP
 - PEDESTRIAN PHASE
 - * NUMBER REFERS TO ASSOCIATED PHASE



CABLE PLAN

THE END OF THE TRACER CABLE SHALL BE TIED TO A CABLE HOOK IN THE DOUBLE HANDHOLE CLOSEST TO THE CONTROLLER FOUNDATION.

EXISTING CABLE DIAGRAM LEGEND

- | | PROPOSED | EXISTING |
|--|----------|----------|
| TEMPORARY CONTROLLER CABINET | | |
| TEMPORARY SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT | | |
| TEMPORARY TRAFFIC SIGNAL SECTION OR PEDESTRIAN SIGNAL SECTION, 12" (300 mm) | | |
| 12" (300 MM) PEDESTRIAN SIGNAL SECTION | | |
| ELECTRIC CABLE IN CONDUIT, NO. 14, UNLESS OTHERWISE NOTED. NUMBER OF CONDUCTORS AS NOTED | | |
| PEDESTRIAN PUSHBUTTON DETECTOR | | |
| VEHICLE DETECTOR, INDUCTION LOOP | | |
| MICROWAVE VEHICLE SENSOR | | |
| VIDEO DETECTOR | | |
| CLOSED CIRCUIT TV | | |
| EMERGENCY VEHICLE SYSTEM DETECTOR | | |
| CONFIRMATION BEACON | | |
| TELEPHONE CONNECTION | | |

PUSH-BUTTON NOTE:

PUSH-BUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4
 PUSH-BUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6
 PUSH-BUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8
 PUSH-BUTTON "C" SHALL PLACE A CALL IN PHASES 8 AND 2

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

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS*	WATTAGE (INCAND.)	LED	% OPERATION	
SIGNAL (RED)	22	135	17	0.50	
(YELLOW)	22	135	25	0.25	
(GREEN)	22	135	15	0.25	
ARROW	32	135	12	0.10	
PED. SIGNAL	8	90	25	1.00	
CONTROLLER	1	100	100	1.00	
ILLUM. SIGN		84		0.05	
FLASHER				0.50	
ENERGY COSTS TO:					TOTAL =

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'±L-2'
E - M. ARM POLE		SIGNAL POST	2 (1.0)	BRACKET MOUNTED	16m±L-0.6m±
24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)	PED. PUSHBUTTON	4 (1.2)
30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	ELECTRIC SERVICE	13.5 (4.1)
36" (900mm)	15 (4.6)	ELECTRIC SERVICE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
		GROUND CABLE	1 (0.5)	POST MOUNTED	6 (1.8)

ENERGY SUPPLY CONTACT: DENNIS HREBY
 PHONE: (815) 334-3313
 COMPANY: COM. EDISON

DESIGNED - BCK
 DRAWN - BCK
 CHECKED - DAD
 DATE -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

EXISTING CABLE PLAN
 US 12/20/45 (MANNHEIM) @ CERMAK RD.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2008-006 TS	COOK	100	89

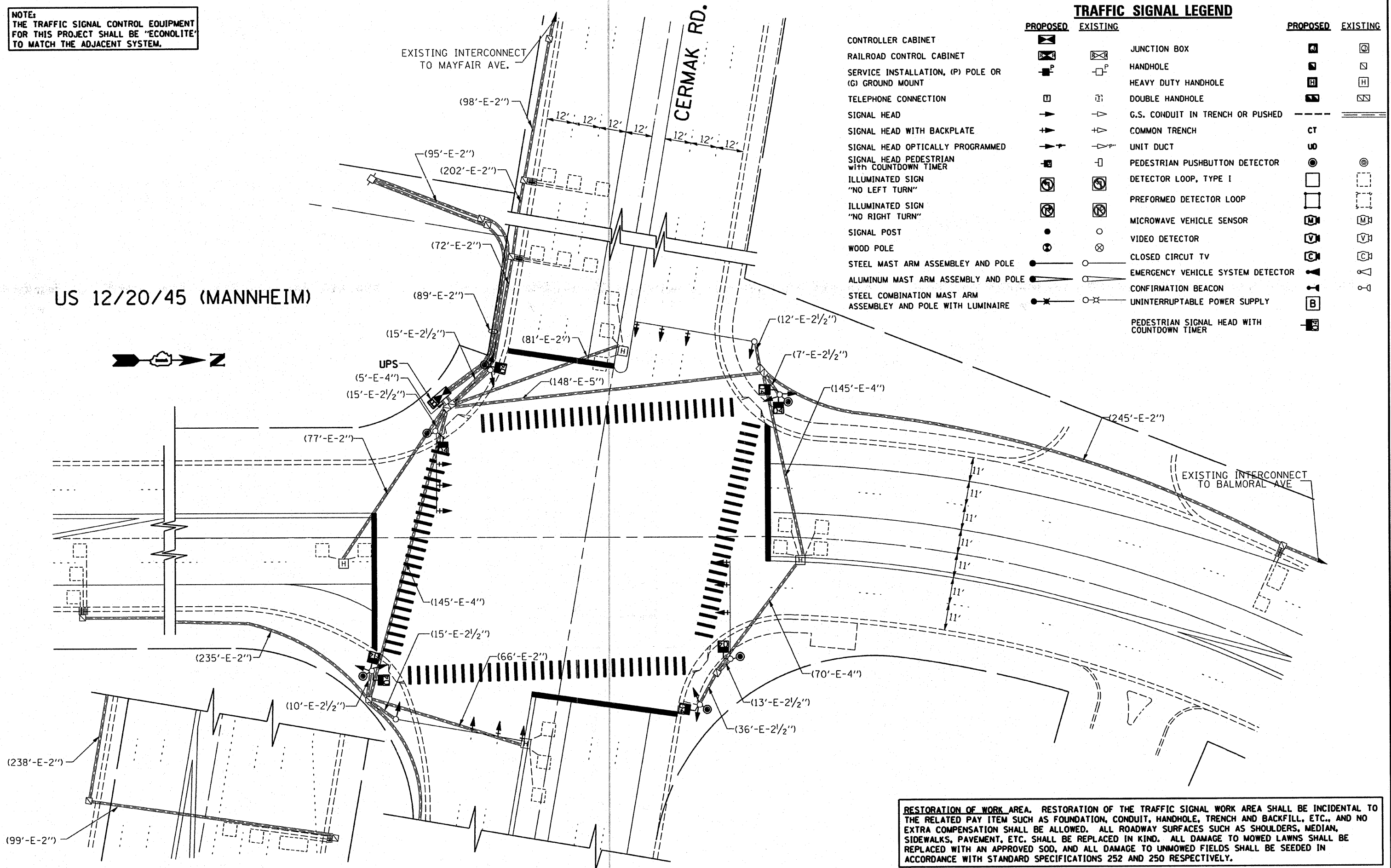
SCALE: SHEET NO. OF SHEETS STA. TO STA.

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

TRAFFIC SIGNAL LEGEND

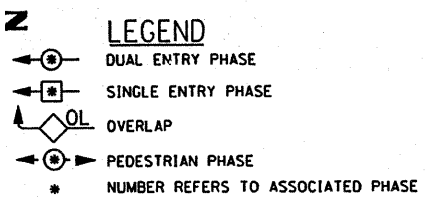
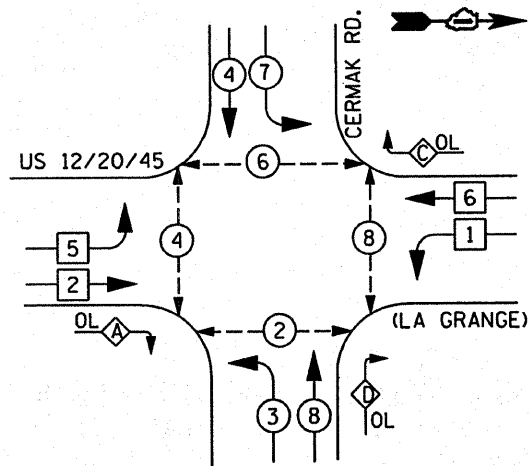
	PROPOSED	EXISTING		PROPOSED	EXISTING
CONTROLLER CABINET			JUNCTION BOX		
RAILROAD CONTROL CABINET			HANDHOLE		
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT			HEAVY DUTY HANDHOLE		
TELEPHONE CONNECTION			DOUBLE HANDHOLE		
SIGNAL HEAD			G.S. CONDUIT IN TRENCH OR PUSHED		
SIGNAL HEAD WITH BACKPLATE			COMMON TRENCH	CT	
SIGNAL HEAD OPTICALLY PROGRAMMED			UNIT DUCT	U	
SIGNAL HEAD PEDESTRIAN WITH COUNTDOWN TIMER			PEDESTRIAN PUSHBUTTON DETECTOR		
ILLUMINATED SIGN "NO LEFT TURN"			DETECTOR LOOP, TYPE I		
ILLUMINATED SIGN "NO RIGHT TURN"			PREFORMED DETECTOR LOOP		
SIGNAL POST			MICROWAVE VEHICLE SENSOR		
WOOD POLE			VIDEO DETECTOR		
STEEL MAST ARM ASSEMBLY AND POLE			CLOSED CIRCUIT TV		
ALUMINUM MAST ARM ASSEMBLY AND POLE			EMERGENCY VEHICLE SYSTEM DETECTOR		
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE			CONFIRMATION BEACON		
			UNINTERRUPTIBLE POWER SUPPLY		
			PEDESTRIAN SIGNAL HEAD WITH COUNTDOWN TIMER		

US 12/20/45 (MANNHEIM)



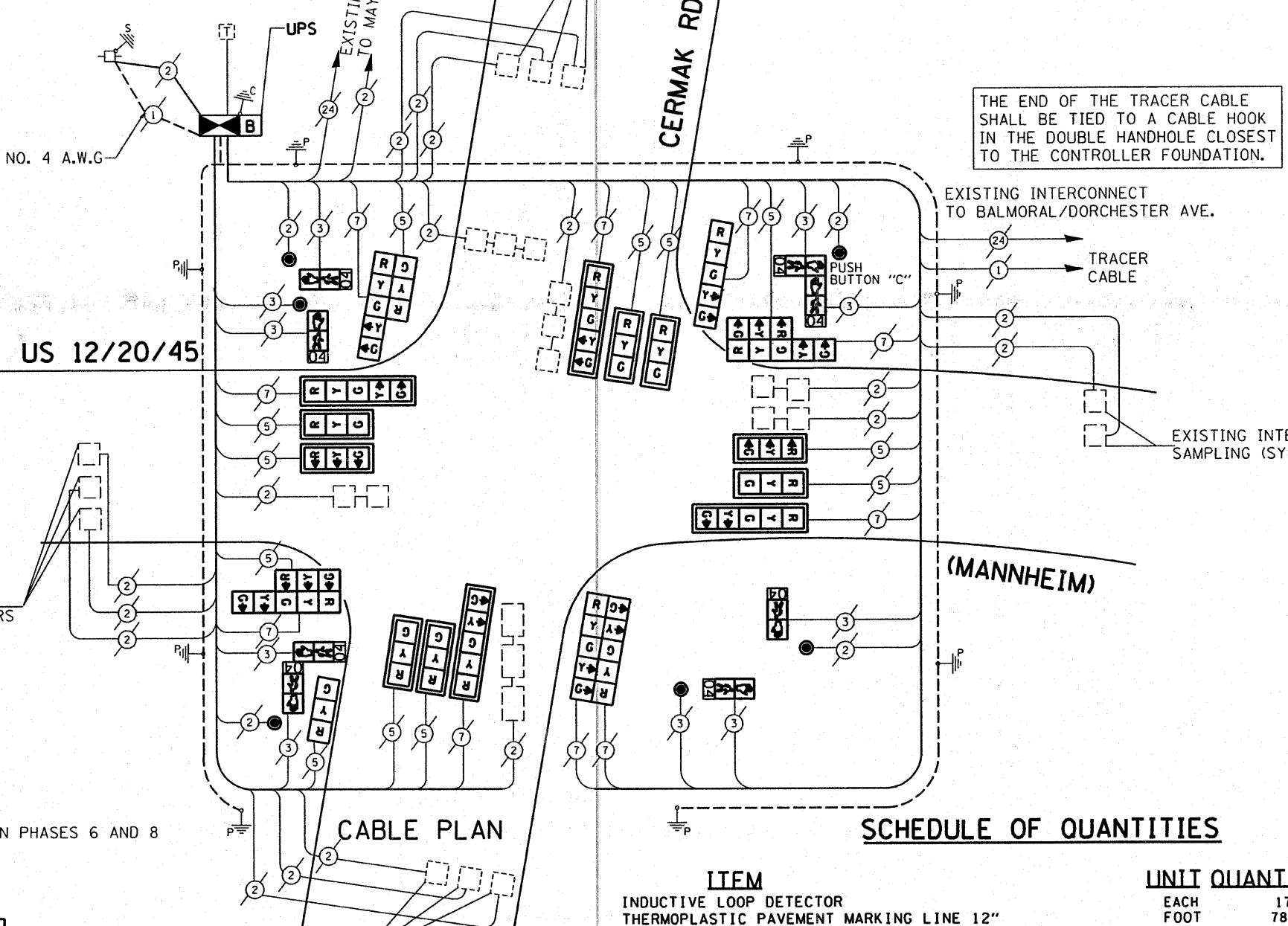
RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIAN, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDING IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

FILE NAME = c:\projects\traffic\070027\us12_20_45.dgn	USER NAME = kanthaphaybc	DESIGNED - BCK	REVISED - -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PROPOSED TRAFFIC SIGNAL PLAN US 12/20/45 (MANNHEIM) @ CERMAK RD.	F.A.P. RTE. 330	SECTION 2008-006 TS	COUNTY COOK	TOTAL SHEETS 100	SHEET NO. 90	
PLOT SCALE = 40,0000' / IN.	CHECKED - DAD	REVISED - -	SCALE: 1"=20'			SHEET NO. OF SHEETS	STA. TO STA.	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT	CONTRACT NO. 60E31	
PLOT DATE = 10/10/2008	DATE - -	REVISED - -									



PHASE DESIGNATION DIAGRAM

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
A =	2	+ 3
C =	6	+ 7
D =	8	+ 1



CABLE PLAN LEGEND

	PROPOSED	EXISTING
CONTROLLER CABINET	[Symbol]	[Symbol]
RAILROAD CONTROL CABINET	[Symbol]	[Symbol]
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT	[Symbol]	[Symbol]
TELEPHONE CONNECTION	[Symbol]	[Symbol]
GROUND ROD AT (C) CONTROLLER, (H) HANDHOLE, (P) POST, (M) MAST ARM, OR (S) SERVICE	[Symbol]	[Symbol]
FIBER OPTIC CABLE IN CONDUIT, NUMBER OF FIBERS AS NOTED	[Symbol]	[Symbol]
ELECTRIC CABLE IN CONDUIT, NO. 14, UNLESS OTHERWISE NOTED, NUMBER OF CONDUCTORS AS NOTED	[Symbol]	[Symbol]
GROUND CABLE IN CONDUIT NO. 6 COPPER (GREEN)	[Symbol]	[Symbol]
SIGNAL FACE WITH BACKPLATE, "P" INDICATES PROGRAMMED HEAD	[Symbol]	[Symbol]
12" (300mm) RED WITH 8" (200mm) YELLOW AND GREEN TRAFFIC SIGNAL FACE	[Symbol]	[Symbol]
12" (300mm) TRAFFIC SIGNAL SECTION	[Symbol]	[Symbol]
12" (300mm) PEDESTRIAN SIGNAL SECTION with COUNTDOWN TIMER	[Symbol]	[Symbol]
ILLUMINATED SIGN "NO LEFT TURN"	[Symbol]	[Symbol]
ILLUMINATED SIGN "NO RIGHT TURN"	[Symbol]	[Symbol]
PUSHBUTTON DETECTOR	[Symbol]	[Symbol]
DETECTOR LOOP	[Symbol]	[Symbol]
PERFORMED DETECTOR LOOP	[Symbol]	[Symbol]
MICROWAVE VEHICLE SENSOR	[Symbol]	[Symbol]
VIDEO DETECTOR	[Symbol]	[Symbol]
CLOSED CIRCUIT TV	[Symbol]	[Symbol]
EMERGENCY VEHICLE SYSTEM DETECTOR	[Symbol]	[Symbol]
CONFIRMATION BEACON	[Symbol]	[Symbol]
UNINTERRUPTIBLE POWER SUPPLY	[Symbol]	[Symbol]

SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
INDUCTIVE LOOP DETECTOR	EACH	17
THERMOPLASTIC PAVEMENT MARKING LINE 12"	FOOT	785
THERMOPLASTIC PAVEMENT MARKING LINE 24"	FOOT	235
THERMOPLASTIC PAVEMENT MARKING REMOVAL	FOOT	1125
MAINTENANCE OF EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE V CABINET (SPECIAL)	EACH	1
MASTER CONTROLLER (SPECIAL)	EACH	1
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	12
PEDESTRIAN PUSH-BUTTON	EACH	6
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
SIGNAL HEAD, L.E.D. 1-FACE, 3 SECTION, MAST ARM MNTD.	EACH	8
SIGNAL HEAD, L.E.D. 1-FACE, 5 SECTION, MAST ARM MNTD.	EACH	4
SIGNAL HEAD, L.E.D. 1-FACE, 5 SECTION, BRKT. MNTD.	EACH	1
SIGNAL HEAD, L.E.D. 1-FACE, 3 SECTION, BRKT. MNTD.	EACH	1
SIGNAL HEAD, L.E.D. 2-FACE, 5 SECTION, BRKT. MNTD.	EACH	1
SIGNAL HEAD, L.E.D. 2-FACE, 1-3, 1-5 SECTION, BRKT. MNTD.	EACH	3
PEDESTRIAN SIGNAL HEAD, L.E.D., 1-FACE, BRKT. MTD. with COUNTDOWN TIMER	EACH	4
PEDESTRIAN SIGNAL HEAD, L.E.D., 2-FACE, BRKT. MTD. with COUNTDOWN TIMER	EACH	2
UNINTERRUPTIBLE POWER SUPPLY	EACH	1

NOTE:
THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE 'ECONOLITE' TO MATCH THE ADJACENT SYSTEM.

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. LAMPS	WATTAGE (INCAND.)	WATTAGE (LED)	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	20	135	17	0.50	170.00
(YELLOW)	20	135	25	0.25	125.00
(GREEN)	20	135	15	0.25	75.50
ARROW	8	135	12	0.10	38.40
PED. SIGNAL	8	90	25	1.00	200.00
CONTROLLER	1	100	100	1.00	100.00
ILLUM. SIGN		84		0.05	

ENERGY COSTS TO: TOTAL = **708.40**

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'±L-2'
E - M. ARM POLE		SIGNAL POST	2 (1.0)		16m±L-0.6m±
		CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
		24" (600mm)	10 (3.0)	30" (750mm)	15 (4.6)
		30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)
		36" (900mm)	15 (4.6)	ELECTRIC SERVICE	1 (0.5)
				ELECTRIC SERVICE	13.5 (4.1)
				SERVICE TO GROUND	13.5 (4.1)
				GROUND CABLE	1 (0.5)
				POST MOUNTED	6 (1.8)

ENERGY SUPPLY CONTACT: DENNIS HREBY
PHONE: (815) 334-3313
COMPANY: COM. EDISON

FILE NAME: c:\projects\traffic\1070027\us12_20_45.dgn
USER NAME: kanthaphixabc
DESIGNED: BCK
DRAWN: BCK
CHECKED: DAD
DATE: 10/10/2008

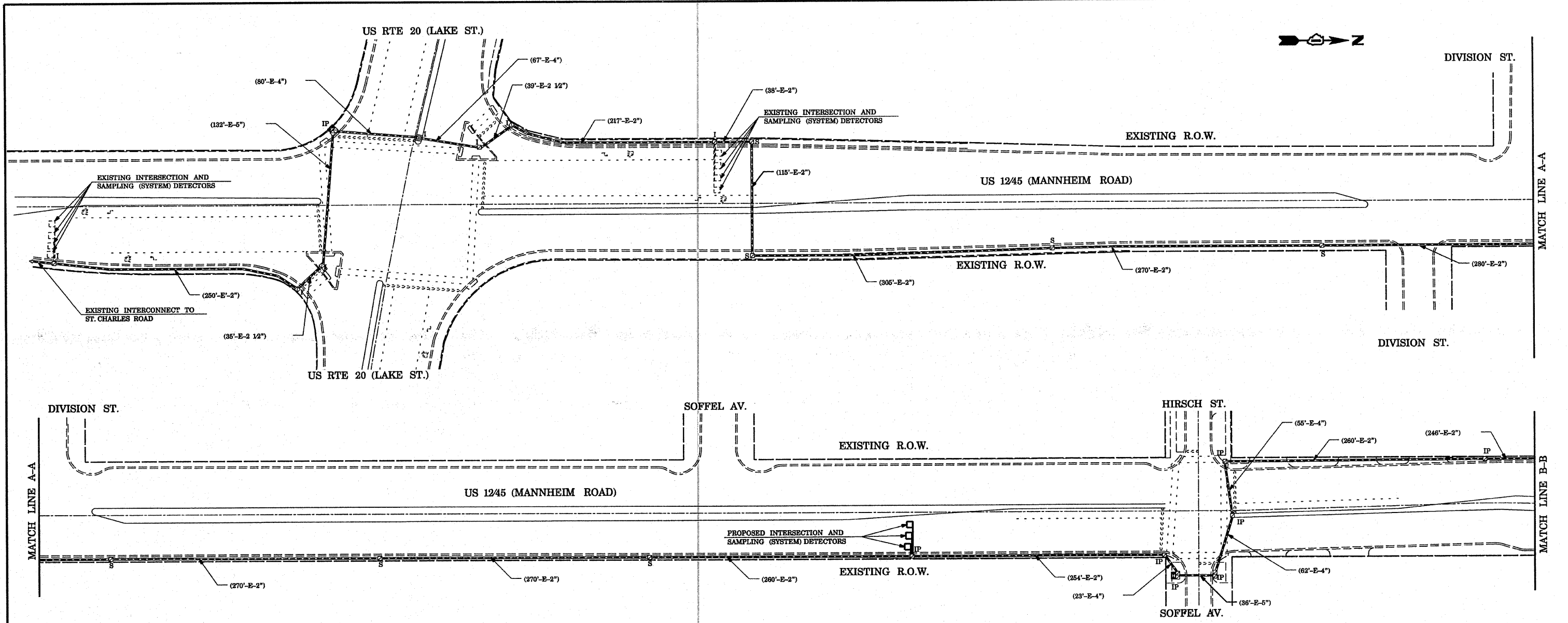
REVISIONS:
REVISED -
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REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED CABLE PLAN
US 12/20/45 (MANNHEIM) @ CERMAK RD.
SCALE: SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2008-006 TS	COOK	100	91

CONTRACT NO. 60E31
FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT



INTERCONNECT PLAN LEGEND

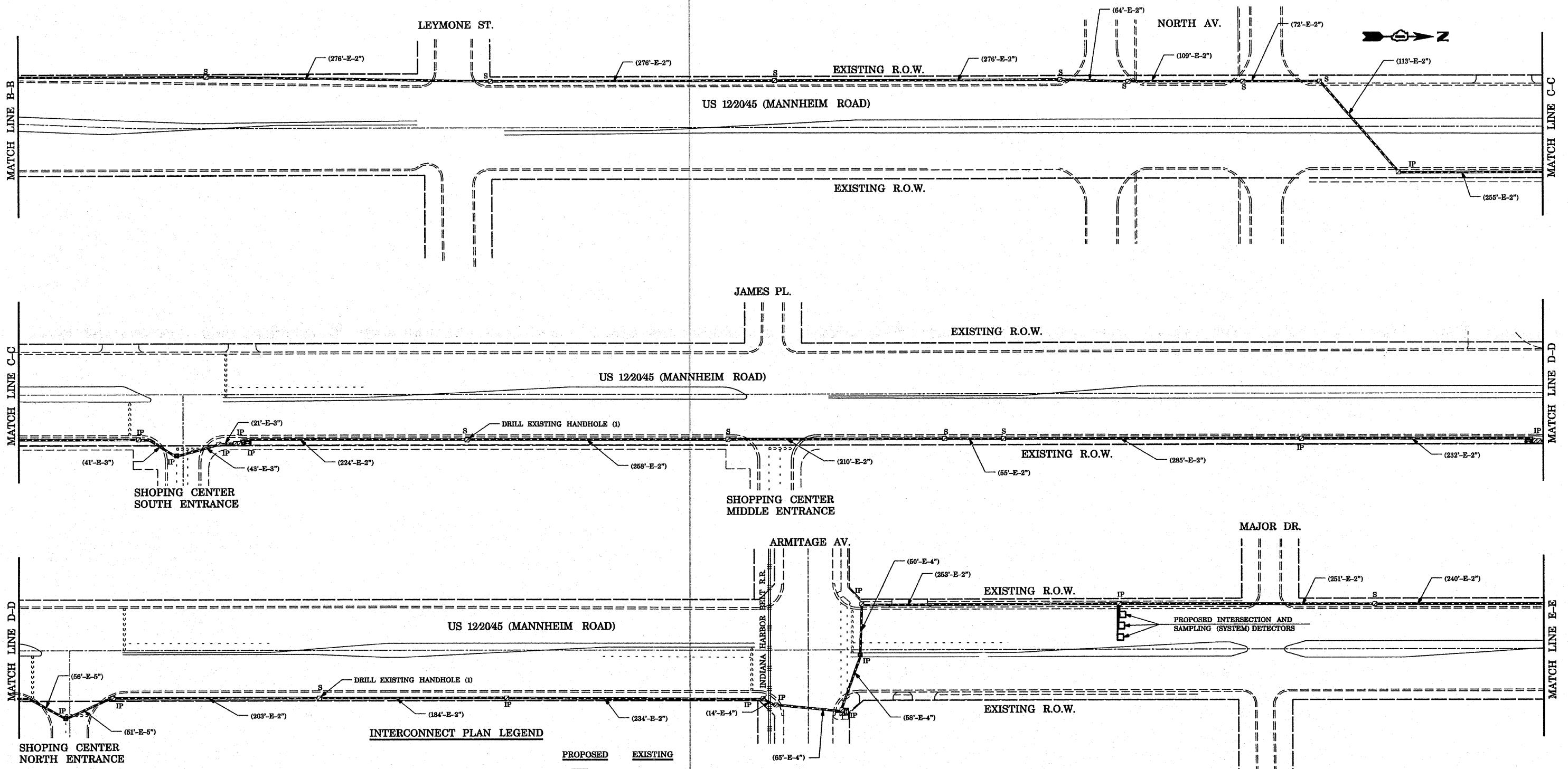
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CONTROLLER CABINET		
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT		
TELEPHONE CONNECTION		
HANDHOLE		
HEAVY DUTY HANDHOLE		
DOUBLE HANDHOLE		
G.S. CONDUIT IN TRENCH OR PUSHED		
SYSTEM	S	
INTERSECTION	IP	I
UNIT DUCT	UD	
COMMON TRENCH	CT	
DETECTOR LOOP, TYPE 1		
PREFORMED DETECTOR LOOP		

FILE NAME =	USER NAME = kanthaphixaybc	DESIGNED - N.B.	REVISED -
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PLOT DATE = 10/10/2008	DATE - 09/04/2008	REVISED -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

INTERCONNECT PLAN (SHEET 1 OF 5)			
US 1245 (MANNHEIM RD)			
FROM LAKE STREET TO HIRSCH (SOFFEL) AVENUE			
SCALE: 1" = 50'	SHEET NO.	OF SHEETS	STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2008-006 TS	COOK	104	99
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	
			CONTRACT NO. 60E31	



INTERCONNECT PLAN LEGEND

	PROPOSED	EXISTING
CONTROLLER CABINET		
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT		
TELEPHONE CONNECTION		
HANDHOLE		
HEAVY DUTY HANDHOLE		
DOUBLE HANDHOLE		
G.S. CONDUIT IN TRENCH OR PUSHED		
SYSTEM	S	
INTERSECTION	IP	I
UNIT DUCT	UD	
COMMON TRENCH	CT	
DETECTOR LOOP, TYPE 1		
PREFORMED DETECTOR LOOP		

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PLOT DATE = 10/10/2008	DATE - 09/04/2008	REVISED -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

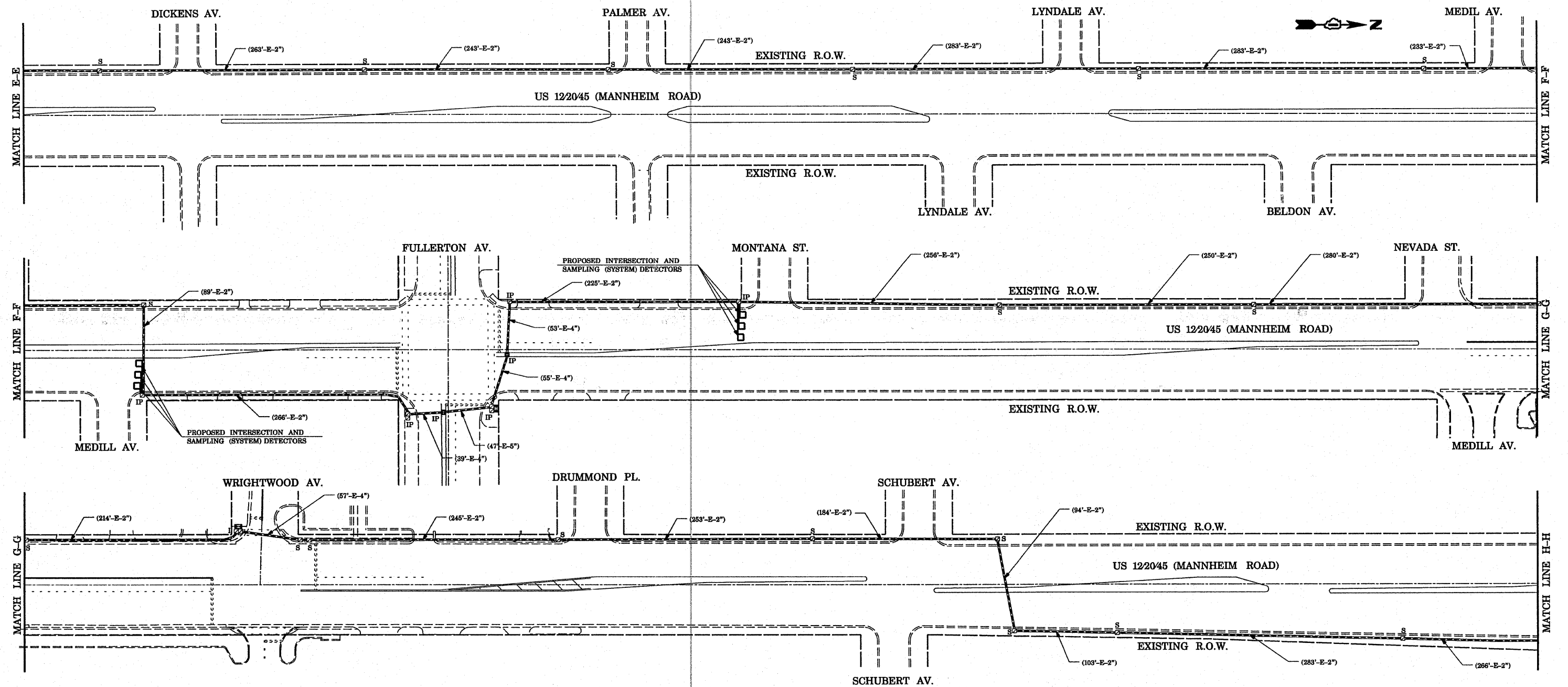
**INTERCONNECT PLAN (SHEET 2 OF 5)
US 12/2045 (MANNHEIM RD)
FROM LAYMONE STREET TO MAJOR DRIVE**

SCALE: 1" = 50'

SHEET NO.	OF SHEETS	STA.	TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2008-006 TS	COOK	104	93
CONTRACT NO. 60E31				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

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INTERCONNECT PLAN LEGEND

	PROPOSED	EXISTING
CONTROLLER CABINET		
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT		
TELEPHONE CONNECTION		
HANDHOLE		
HEAVY DUTY HANDHOLE		
DOUBLE HANDHOLE		
G.S. CONDUIT IN TRENCH OR PUSHED		
SYSTEM	S	
INTERSECTION	IP	I
UNIT DUCT	UD	
COMMON TRENCH	CT	
DETECTOR LOOP, TYPE 1		
PREFORMED DETECTOR LOOP		

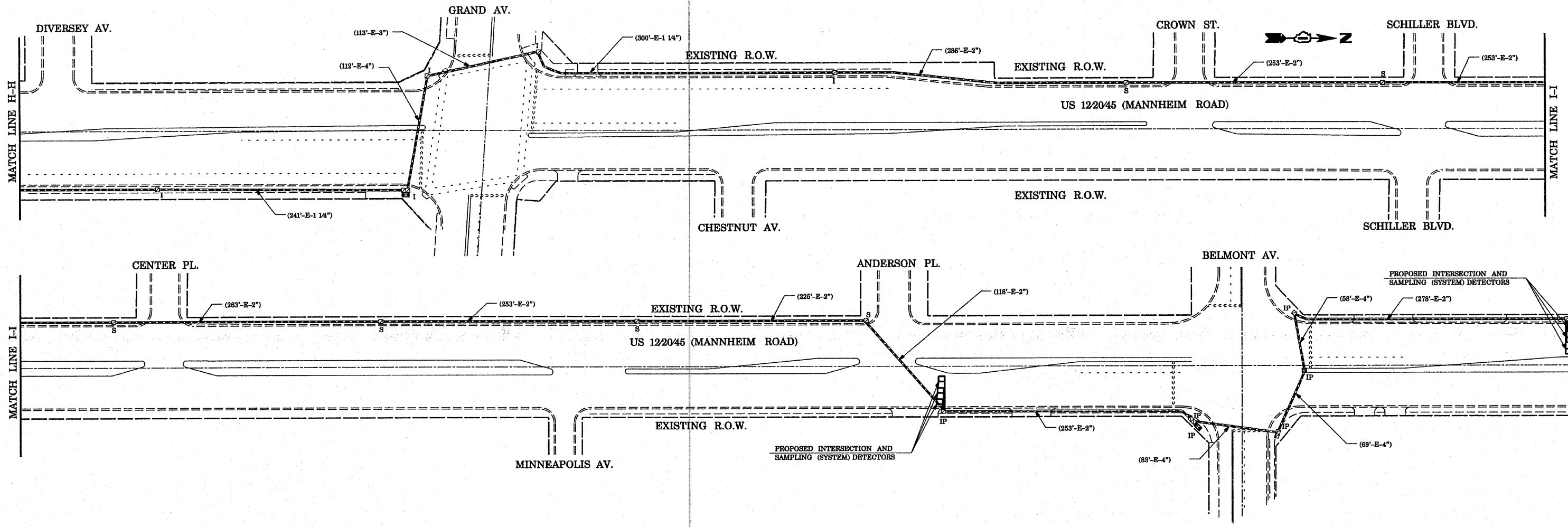
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PLOT DATE = 10/10/2008	DATE - 09/04/2008		REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

INTERCONNECT PLAN (SHEET 3 OF 5)			
US 12/2045 (MANNHEIM RD)			
FROM DICKENS AVENUE TO SCHUBERT AVENUE			
SCALE: 1"=50'	SHEET NO.	OF SHEETS	STA. TO STA.

F.A.P. RTE. 330	SECTION 2008-006 TS	COUNTY COOK	TOTAL SHEETS 104	SHEET NO. 94
CONTRACT NO. 60E31				
FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT				

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INTERCONNECT PLAN LEGEND

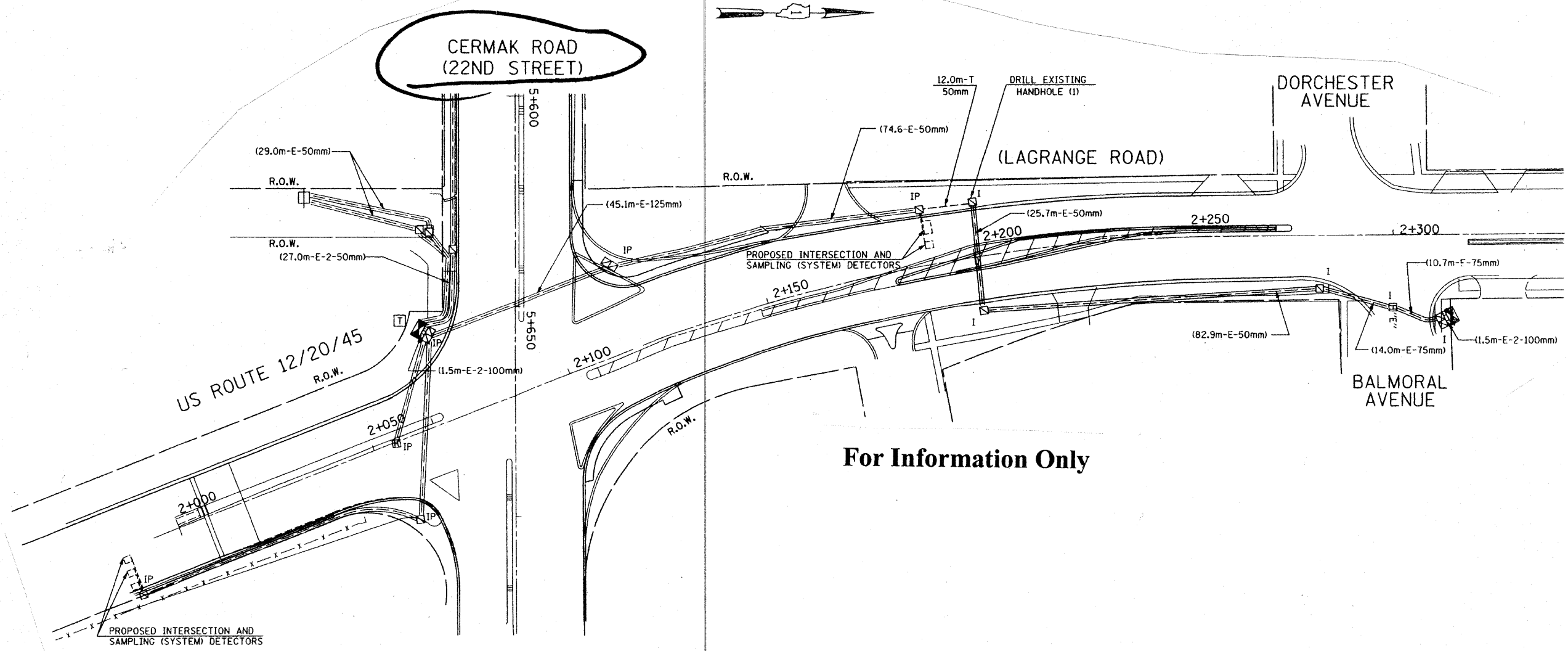
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CONTROLLER CABINET		
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT		
TELEPHONE CONNECTION		
HANDHOLE		
HEAVY DUTY HANDHOLE		
DOUBLE HANDHOLE		
G.S. CONDUIT IN TRENCH OR PUSHED		
SYSTEM	S	
INTERSECTION	IP	I
UNIT DUCT	UD	
COMMON TRENCH	CT	
DETECTOR LOOP, TYPE 1		
PERFORMED DETECTOR LOOP		

FILE NAME =	USER NAME = kanthaphixaybc	DESIGNED - N.B.	REVISED -
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		CHECKED - D.B.	REVISED -
		DATE - 09/04/2008	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

INTERCONNECT PLAN (SHEET 4 OF 5)			
US 122045 (MANNHEIM RD)			
FROM DIVERSEY AVENUE TO BELMONT AVENUE			
SCALE: 1" = 50'	SHEET NO.	OF SHEETS	STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2008-006 TS	COOK	104	95
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	
			CONTRACT NO. 60E31	



For Information Only

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

INTERCONNECT PLAN LEGEND

- CONTROLLER
- HANDHOLE
- HEAVY DUTY HANDHOLE
- DOUBLE HANDHOLE
- GALVANIZED STEEL CONDUIT IN TRENCH OR PUSHED
- DETECTOR LOOP
- COMMON TRENCH
- UNIT DUCT
- SYSTEM
- INTERSECTION
- TELEPHONE CONNECTION
- SERVICE INSTALLATION

- | | |
|----------|----------|
| PROPOSED | EXISTING |
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FILE NAME :	USER NAME = kanthapixaybc	DESIGNED - BCK	REVISED -
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PLOT DATE = 4/16/2008		DATE -	REVISED -

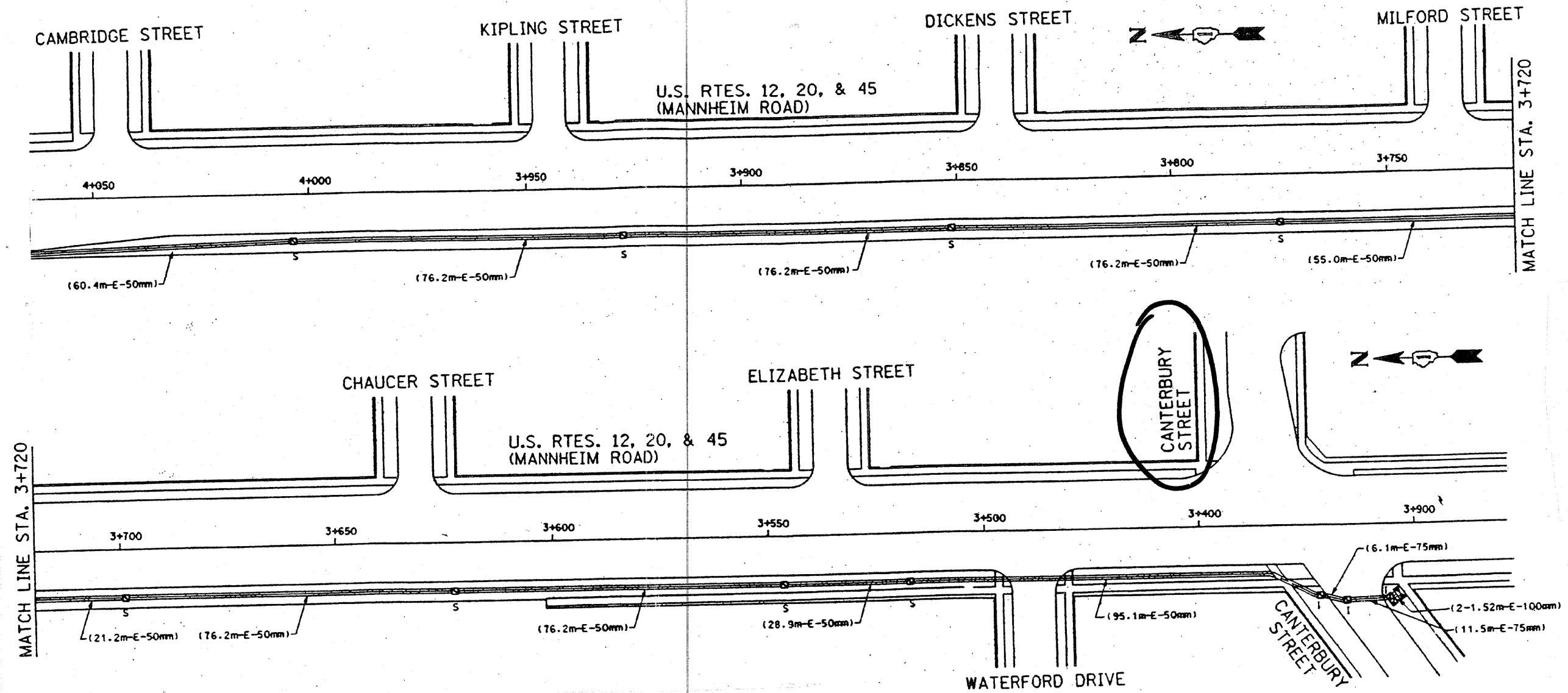
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

**INTERCONNECT PLAN
US 12/20/45 (MANNHEIM)
CERMAK RD.**

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2008-006 TS	COOK	104	96
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 60E31	

For Information Only



For Information Only

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

INTERCONNECT PLAN LEGEND

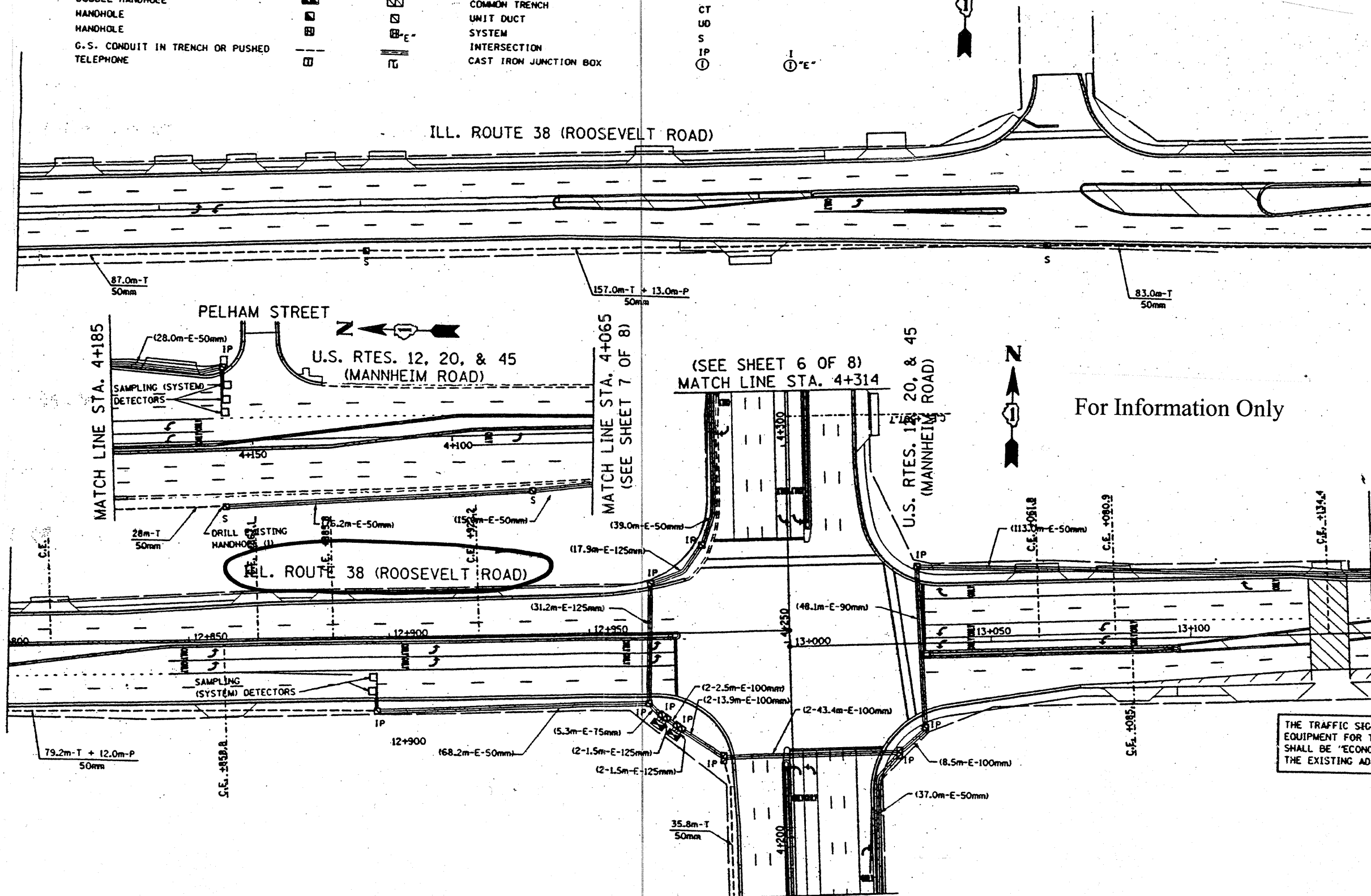
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CONTROLLER			INTERSECTION AND SAMPLING (SYSTEM) DETECTOR LOOPS		
MASTER CONTROLLER			COMMON TRENCH	CT	
DOUBLE HANDHOLE			UNIT DUCT	UD	
HANDHOLE			SYSTEM	S	
HANDHOLE			INTERSECTION	IP	
G.S. CONDUIT: IN TRENCH OR PUSHED			CAST IRON JUNCTION BOX		
TELEPHONE					

FILE NAME =	USER NAME = kenthaphixjbc	DESIGNED - BCK	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INTERCONNECT PLAN US 12/2045 (MANNHEIM) CANTERBURY ST.	F.A.P. RTE. 330	SECTION 2008-006 TS	COUNTY COOK	TOTAL SHEETS 104	SHEET NO. 97	
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	PLOT DATE = 4/16/2008	CHECKED - DAD	REVISED -								
		DATE	REVISED -								

INTERCONNECT PLAN LEGEND

	PROPOSED	EXISTING	
CONTROLLER	[Symbol]	[Symbol]	INTERSECTION AND SAMPLING (SYSTEM) DETECTOR LOOPS
MASTER CONTROLLER	[Symbol]	[Symbol]	COMMON TRENCH
DOUBLE HANDHOLE	[Symbol]	[Symbol]	UNIT DUCT
HANDHOLE	[Symbol]	[Symbol]	SYSTEM
HANDHOLE	[Symbol]	[Symbol]	INTERSECTION
G.S. CONDUIT IN TRENCH OR PUSHED	[Symbol]	[Symbol]	CAST IRON JUNCTION BOX
TELEPHONE	[Symbol]	[Symbol]	

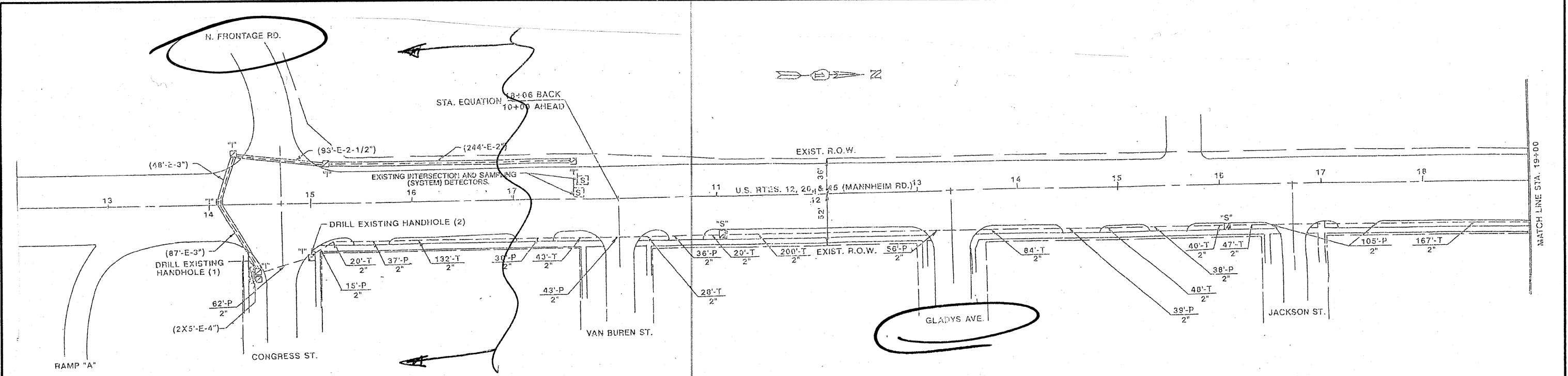
For Information Only



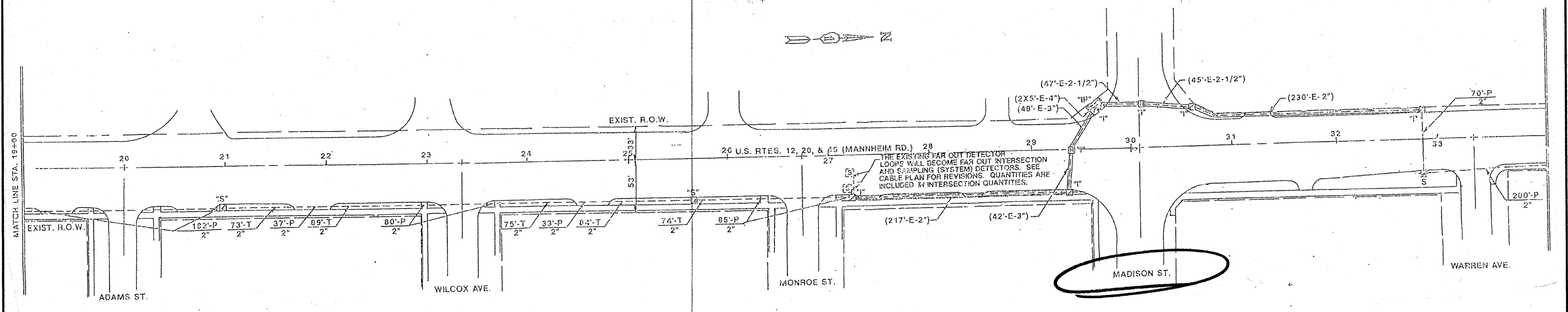
For Information Only

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

FILE NAME =	USER NAME = kanthaphaybc	DESIGNED - BCK	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INTERCONNECT PLAN US 12/20/45 (MANNHEIM) ROOSEVELT RD.	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
c:\projects\traffic\1078027\us12_20_45.dgn		DRAWN - BCK	REVISED -			330	2008-006 TS	COOK	109	91	
PLOT SCALE = 40.0000 / IN.		CHECKED - DAD	REVISED -			CONTRACT NO. 60E31					
PLOT DATE = 4/16/2008		DATE -	REVISED -			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					



For Information Only



INTERCONNECT PLAN LEGEND

	PROPOSED	EXISTING
CONTROLLER	[Symbol]	[Symbol]
HANDHOLE	[Symbol]	[Symbol]
DOUBLE HANDHOLE	[Symbol]	[Symbol]
G.S. CONDUIT IN TRENCH OR PUSHED	[Symbol]	[Symbol]
DETECTOR LOOP	[Symbol]	[Symbol]
COMMON TRENCH	CT	
UNIT DUCT	UD	
SYSTEM	S	
INTERSECTION	IP	I
HEAVY DUTY HANDHOLE	[Symbol]	[Symbol]
PUSH-PIT	[Symbol]	[Symbol]

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

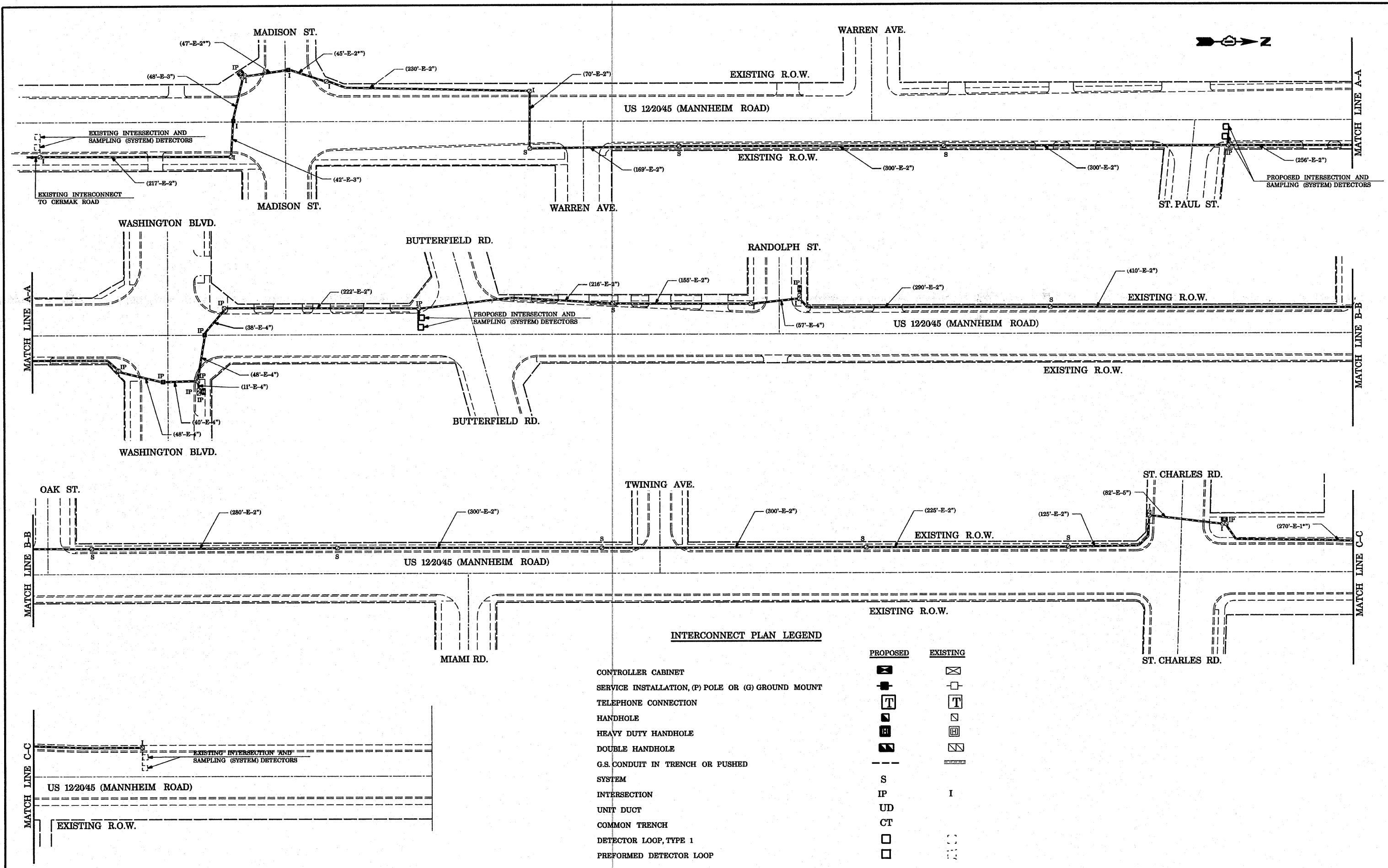
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		CHECKED - DAD	REVISED -
		DATE - 4/16/2008	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INTERCONNECT PLAN
US 12/2045 (MANNHEIM)
CONGRESS STREET

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2008-006 TS	COOK	104	99
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 60E31	



INTERCONNECT PLAN LEGEND

	PROPOSED	EXISTING
CONTROLLER CABINET		
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT		
TELEPHONE CONNECTION		
HANDHOLE		
HEAVY DUTY HANDHOLE		
DOUBLE HANDHOLE		
G.S. CONDUIT IN TRENCH OR PUSHED SYSTEM		
INTERSECTION	IP	I
UNIT DUCT	UD	
COMMON TRENCH	CT	
DETECTOR LOOP, TYPE 1		
PERFORMED DETECTOR LOOP		

FILE NAME =	USER NAME = kanthaphixaybc	DESIGNED - N.B.	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INTERCONNECT PLAN (SHEET 5 OF 5) US 122045 (MANNHEIM RD) FROM MADISON AVENUE TO ST. CHARLES ROAD				F.A.P. RTE. 330	SECTION 2008-006 TS	COUNTY COOK	TOTAL SHEETS 104	SHEET NO. 100
ci\projects\traffic\070027\us12.20.45.dgn		DRAWN - N.B.	REVISED -		SCALE: 1" = 50'	SHEET NO.	OF SHEETS	STA. TO STA.	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT	CONTRACT NO. 60E31		
		CHECKED - D.B.	REVISED -										
		DATE - 09/04/2008	REVISED -										

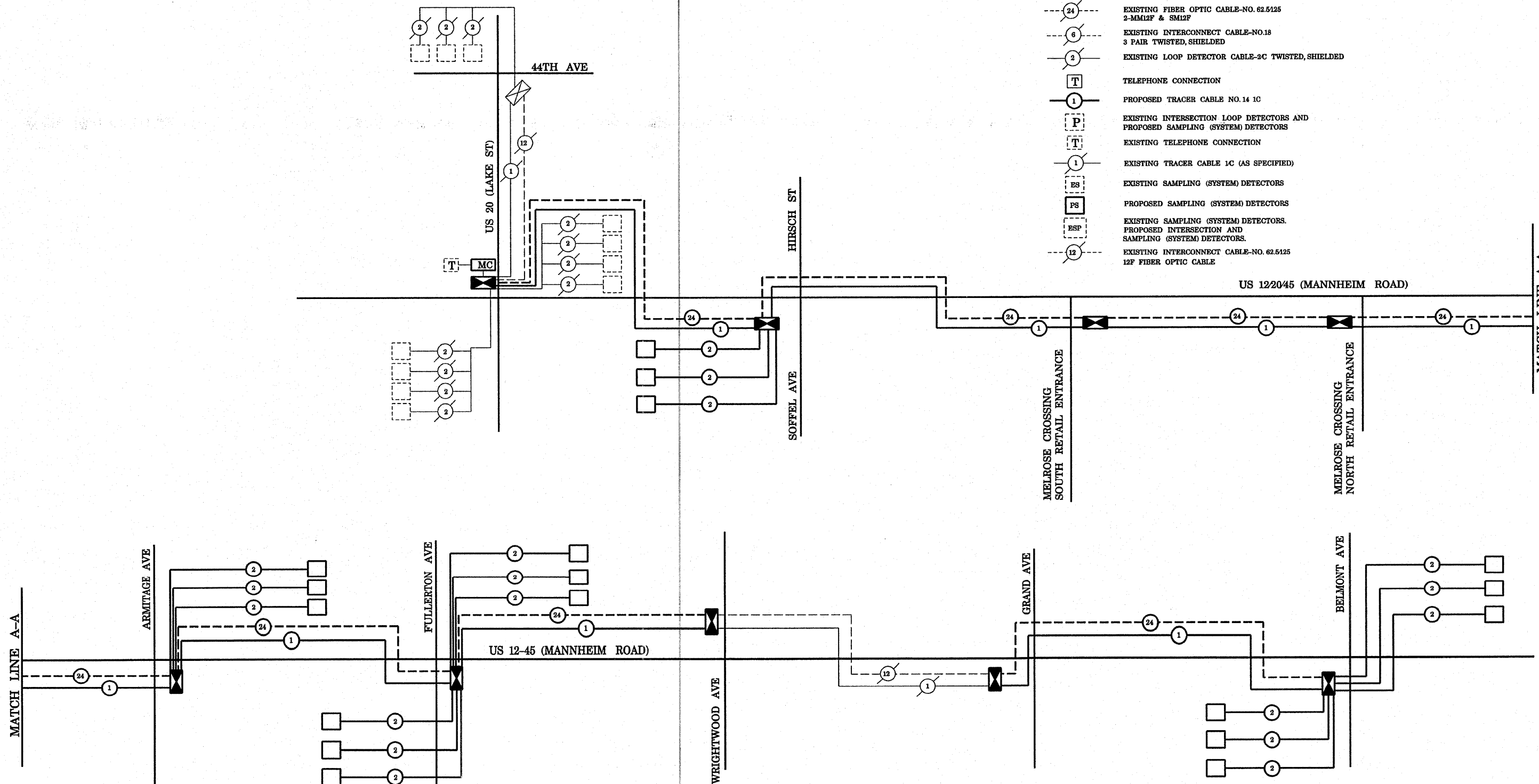
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INTERCONNECT SCHEDULE OF QUANTITIES

QUANTITY	UNIT	ITEM
13445	FOOT	ELECTRIC CABLE IN CONDUIT, TRACER NO. 14 1C
13445	FOOT	FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F & SM12F
2	EACH	DRILL EXISTING HANDHOLE
13445	FOOT	REMOVE ELECTRIC CABLE FROM CONDUIT
2	EACH	RE-OPTIMIZE TRAFFIC SIGNAL SYS. - LEVEL 1

INTERCONNECT SCHEMATIC LEGEND

- INTERSECTION CONTROLLER
- EXISTING INTERSECTION CONTROLLER
- MASTER CONTROLLER
- EXISTING MASTER CONTROLLER
- MASTER MASTER CONTROLLER
- PROPOSED INTERSECTION & SAMPLING (SYSTEM) DETECTORS
- EXISTING INTERSECTION & SAMPLING (SYSTEM) DETECTORS
- PROPOSED FIBER OPTIC CABLE- NO.62.5/125
2-MM12F & SM12F
- INTERCONNECT CABLE-NO.18
3 PAIR TWISTED, SHIELDED
- LOOP DETECTOR CABLE-2C TWISTED, SHIELDED
- EXISTING FIBER OPTIC CABLE-NO. 62.5/125
2-MM12F & SM12F
- EXISTING INTERCONNECT CABLE-NO.18
3 PAIR TWISTED, SHIELDED
- EXISTING LOOP DETECTOR CABLE-2C TWISTED, SHIELDED
- TELEPHONE CONNECTION
- PROPOSED TRACER CABLE NO.14 1C
- EXISTING INTERSECTION LOOP DETECTORS AND
PROPOSED SAMPLING (SYSTEM) DETECTORS
- EXISTING TELEPHONE CONNECTION
- EXISTING TRACER CABLE 1C (AS SPECIFIED)
- EXISTING SAMPLING (SYSTEM) DETECTORS
- PROPOSED SAMPLING (SYSTEM) DETECTORS
- EXISTING SAMPLING (SYSTEM) DETECTORS,
PROPOSED INTERSECTION AND
SAMPLING (SYSTEM) DETECTORS.
- EXISTING INTERCONNECT CABLE-NO. 62.5/125
12F FIBER OPTIC CABLE



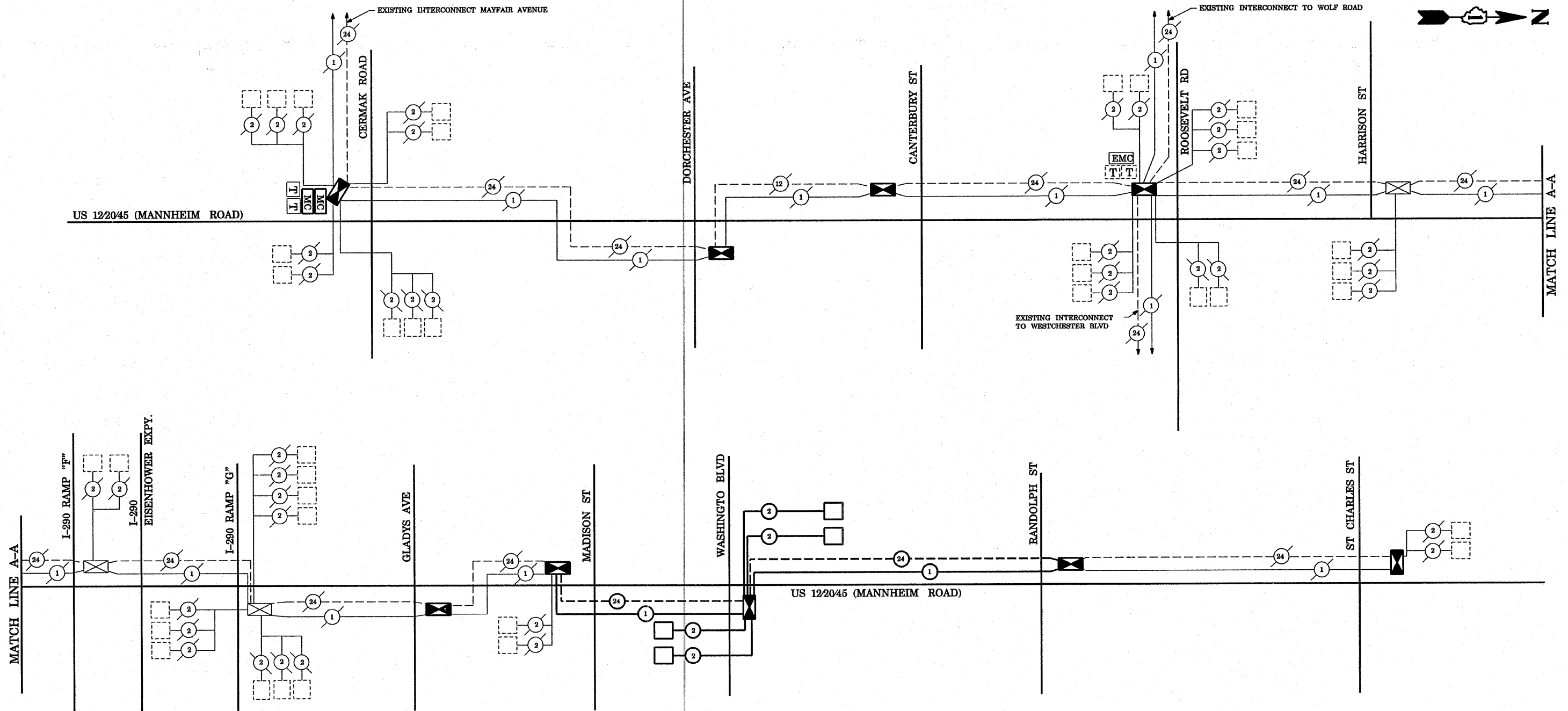
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ct:\projects\traffic\1070027\us12.20.45.dgn		DRAWN - N.B.	REVISED -		SCALE: 1"=20'	SHEET NO.	OF SHEETS	STA.	330	2008-006 TS	COOK	104	101
PLOT SCALE = 40.0000 / / IN.		CHECKED - D.B.	REVISED -					TO STA.					
PLOT DATE = 10/10/2008		DATE - 09/04/2008	REVISED -						FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			CONTRACT NO. 60E31

INTERCONNECT SCHEDULE OF QUANTITIES

QUANTITY	UNIT	ITEM
2367	FOOT	ELECTRIC CABLE IN CONDUIT, TRACER NO.14 1C
2367	FOOT	FIBER OPTIC CABLE IN CONDUIT, NO. 62.5125, MM12F & SM12F
2367	FOOT	REMOVE ELECTRIC CABLE FROM CONDUIT

INTERCONNECT SCHEMATIC LEGEND

	INTERSECTION CONTROLLER		EXISTING LOOP DETECTOR CABLE-2C TWISTED, SHIELDED
	EXISTING INTERSECTION CONTROLLER		TELEPHONE CONNECTION
	MASTER CONTROLLER		PROPOSED TRACER CABLE NO.14 1C
	EXISTING MASTER CONTROLLER		EXISTING INTERSECTION LOOP DETECTORS AND PROPOSED SAMPLING (SYSTEM) DETECTORS
	MASTER MASTER CONTROLLER		EXISTING TELEPHONE CONNECTION
	PROPOSED INTERSECTION & SAMPLING (SYSTEM) DETECTORS		EXISTING TRACER CABLE 1C (AS SPECIFIED)
	EXISTING INTERSECTION & SAMPLING (SYSTEM) DETECTORS		EXISTING SAMPLING (SYSTEM) DETECTORS
	PROPOSED FIBER OPTIC CABLE- NO.62.5125 2-MM12F & SM12F		PROPOSED SAMPLING (SYSTEM) DETECTORS
	INTERCONNECT CABLE-NO.18 3 PAIR TWISTED, SHIELDED		EXISTING SAMPLING (SYSTEM) DETECTORS, PROPOSED INTERSECTION AND SAMPLING (SYSTEM) DETECTORS.
	LOOP DETECTOR CABLE-2C TWISTED, SHIELDED		EXISTING INTERCONNECT CABLE-NO. 62.5125 12F FIBER OPTIC CABLE
	EXISTING FIBER OPTIC CABLE-NO. 62.5125 2-MM12F & SM12F		
	EXISTING INTERCONNECT CABLE-NO.18 3 PAIR TWISTED, SHIELDED		



FILE NAME =	USER NAME = kenthaphixaybc	DESIGNED - N.B.	REVISED -
ci:\projects\traffic\1070027\us12_20_45.dgn		DRAWN - N.B.	REVISED -
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PLOT DATE = 10/10/2008		DATE - 09/04/2008	REVISED -














**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

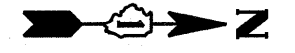
**INTERCONNECT SCHEMATIC (SHEET 2 OF 2)
US 12/2045 (MANNHEIM RD)
FROM CERMAIK ROAD TO ST. CHARLES ROAD**

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

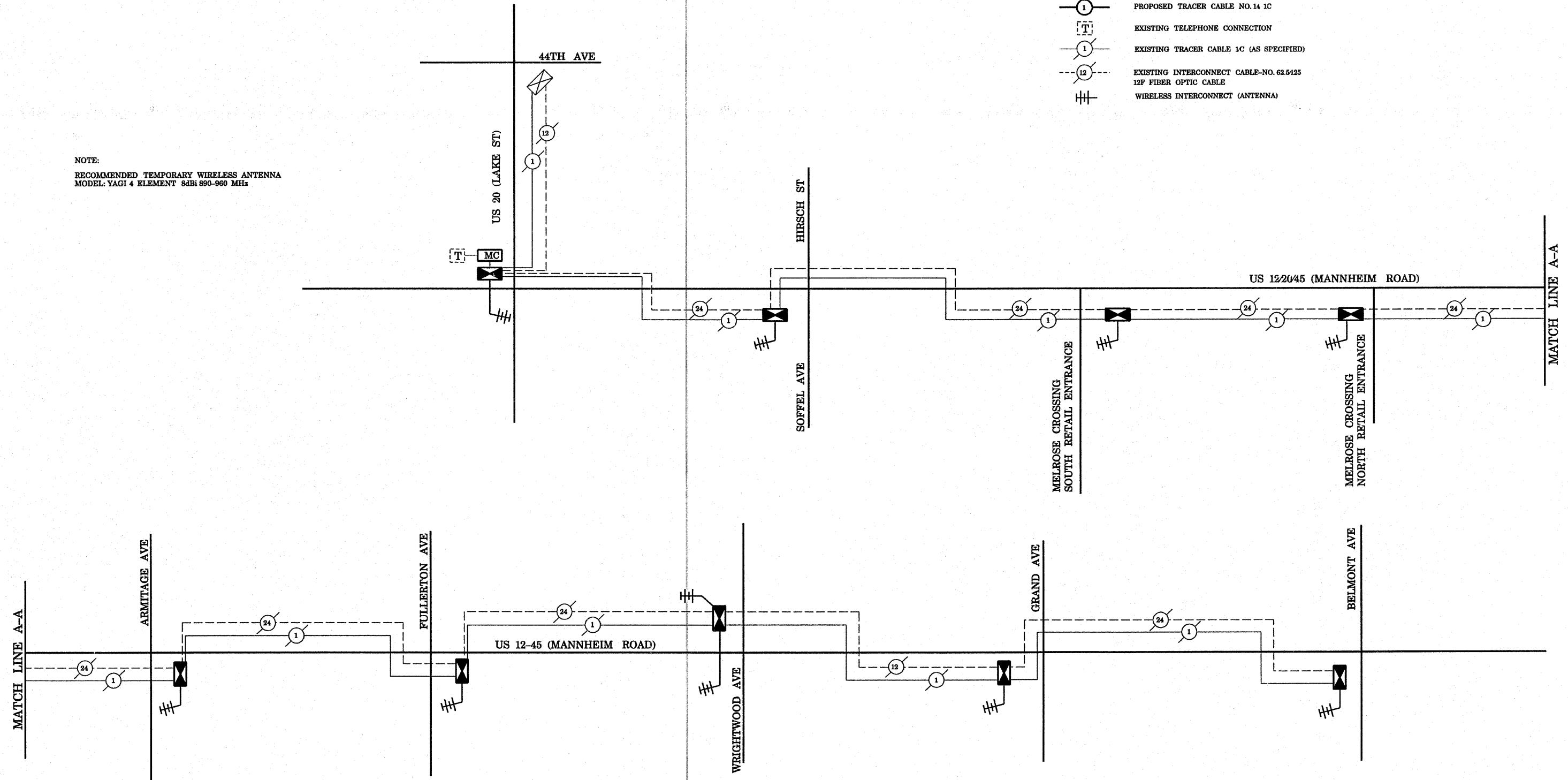
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2008-006 TS	COOK	104	102
CONTRACT NO. 60E31				
FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT				

TEMPORARY WIRELESS INTERCONNECT SCHEMATIC LEGEND

-  INTERSECTION CONTROLLER
-  EXISTING INTERSECTION CONTROLLER
-  MASTER CONTROLLER
-  EXISTING MASTER CONTROLLER
-  MASTER MASTER CONTROLLER
-  PROPOSED FIBER OPTIC CABLE- NO.62.5125
2-MM12F & SM12F
-  EXISTING FIBER OPTIC CABLE-NO.62.5125
2-MM12F & SM12F
-  TELEPHONE CONNECTION
-  PROPOSED TRACER CABLE NO.14 1C
-  EXISTING TELEPHONE CONNECTION
-  EXISTING TRACER CABLE 1C (AS SPECIFIED)
-  EXISTING INTERCONNECT CABLE-NO.62.5125
12F FIBER OPTIC CABLE
-  WIRELESS INTERCONNECT (ANTENNA)











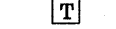

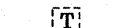
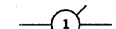

NOTE:
RECOMMENDED TEMPORARY WIRELESS ANTENNA
MODEL: YAGI 4 ELEMENT 8dBi 890-960 MHz



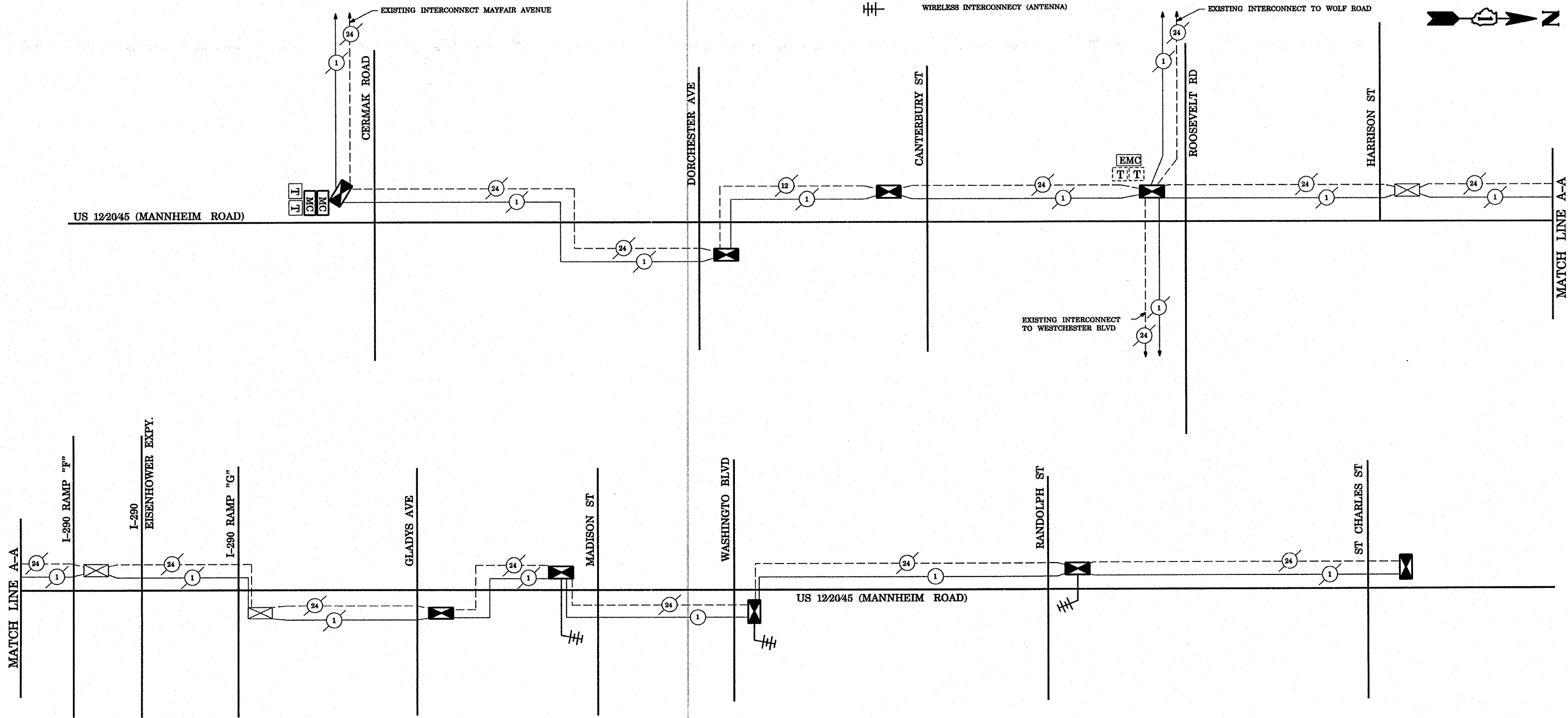
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	PLOT SCALE = 40.0000' / IN.	DRAWN - N.B.	REVISED -		SCALE: 1" = 20'	SHEET NO. OF SHEETS	330	2008-006 TS	COOK	104	103
	PLOT DATE = 10/10/2008	CHECKED - D.B.	REVISED -		STA. TO STA.						
		DATE - 09/04/2008	REVISED -								
						FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			CONTRACT NO. 60E31

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TEMPORARY WIRELESS INTERCONNECT SCHEMATIC LEGEND

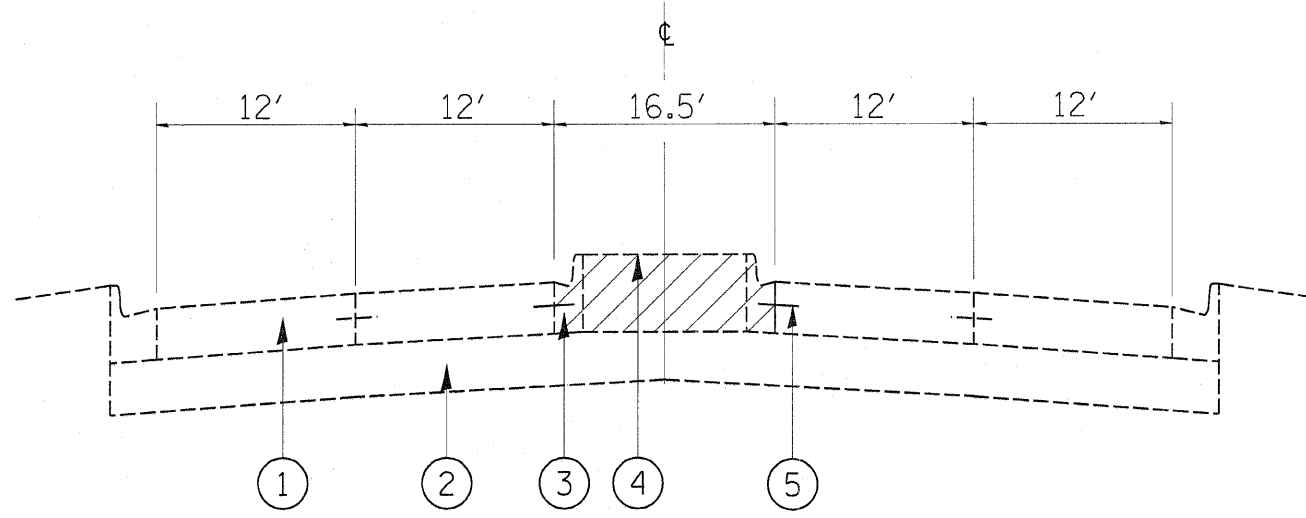
-  INTERSECTION CONTROLLER
-  EXISTING INTERSECTION CONTROLLER
-  MASTER CONTROLLER
-  EXISTING MASTER CONTROLLER
-  MASTER MASTER CONTROLLER
-  PROPOSED FIBER OPTIC CABLE- NO.62.5125
2-MM12F & SM12F
-  EXISTING FIBER OPTIC CABLE-NO.62.5125
2-MM12F & SM12F
-  TELEPHONE CONNECTION
-  PROPOSED TRACER CABLE NO.14 1C
-  EXISTING TELEPHONE CONNECTION
-  EXISTING TRACER CABLE 1C (AS SPECIFIED)
-  EXISTING INTERCONNECT CABLE-NO.62.5125
12F FIBER OPTIC CABLE
-  WIRELESS INTERCONNECT (ANTENNA)

NOTE:
RECOMMENDED TEMPORARY WIRELESS ANTENNA
MODEL: YAGI 4 ELEMENT 8dBi 890-960 MHz



FILE NAME = c:\projects\traffic\1070027\us12_20_45.dgn	USER NAME = kanthapixjbc	DESIGNED - N.B.	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	WIRELESS INTERCONNECT SCHEMATIC (SHEET 2 OF 2) US 12/2045 (MANNHEIM RD) FROM CERMAK ROAD TO ST. CHARLES ROAD			F.A.P. RTE. 330	SECTION 2008-006 TS	COUNTY COOK	TOTAL SHEETS 104	SHEET NO. 104
PLOT SCALE = 48,0000' / IN.		CHECKED - D.B.	REVISED -		SCALE: 1" = 20'	SHEET NO.	OF SHEETS	STA.	TO STA.	CONTRACT NO. 60E31		
PLOT DATE = 10/10/2008		DATE - 09/04/2008	REVISED -							FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT		

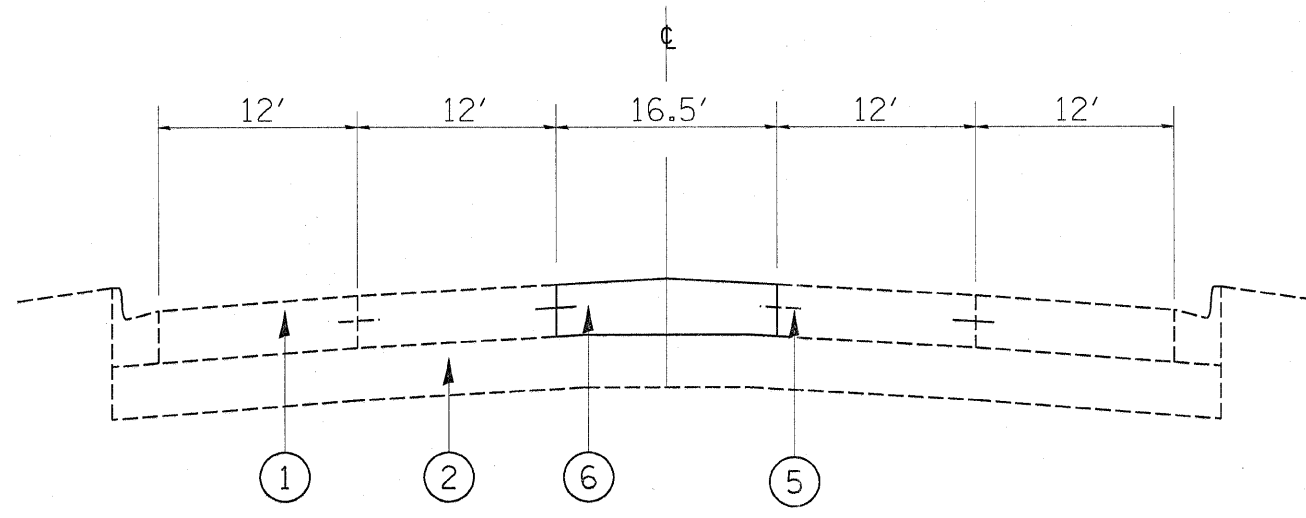
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GRASS MEDIAN PORTION
EXISTING TYPICAL CROSS SECTION

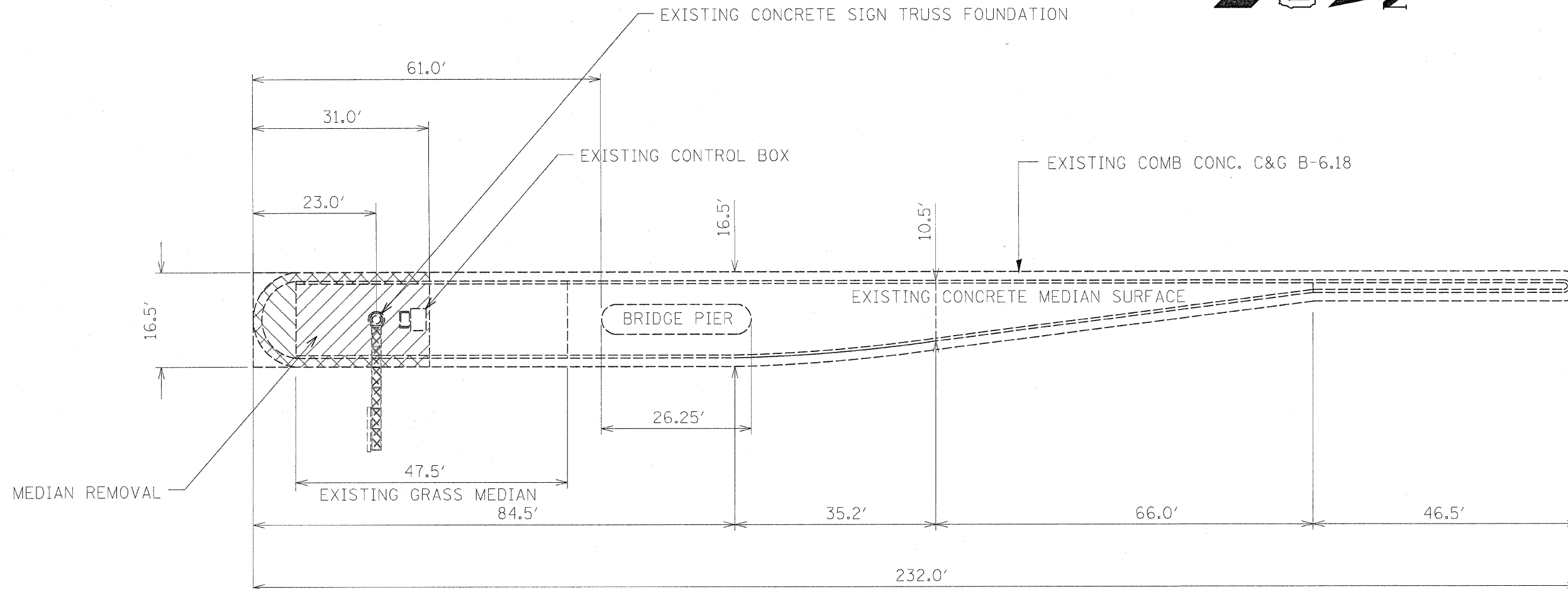
LEGENDS

- ① EXISTING PCC PAVEMENT (JOINTED), 10"
- ② EXISTING AGGREGATE SUBGRADE, 12"
- ③ EXISTING COMB. CONC. CURB & GUTTER, B.6-18
- ④ EXISTING SODDING & TOP SOIL
- ⑤ EXISTING NO. 20 EPOXY-COATED DEFORMED TIE BARS 24" C-C AND 24" LONG, DRILLED & GROUTED (COST INCL. IN PROPOSED PCC PAVT. 10" (JOINTED))
- ⑥ PROPOSED PC CONCRETE PAVEMENT, 10"



GRASS MEDIAN PORTION
PROPOSED TYPICAL CROSS SECTION

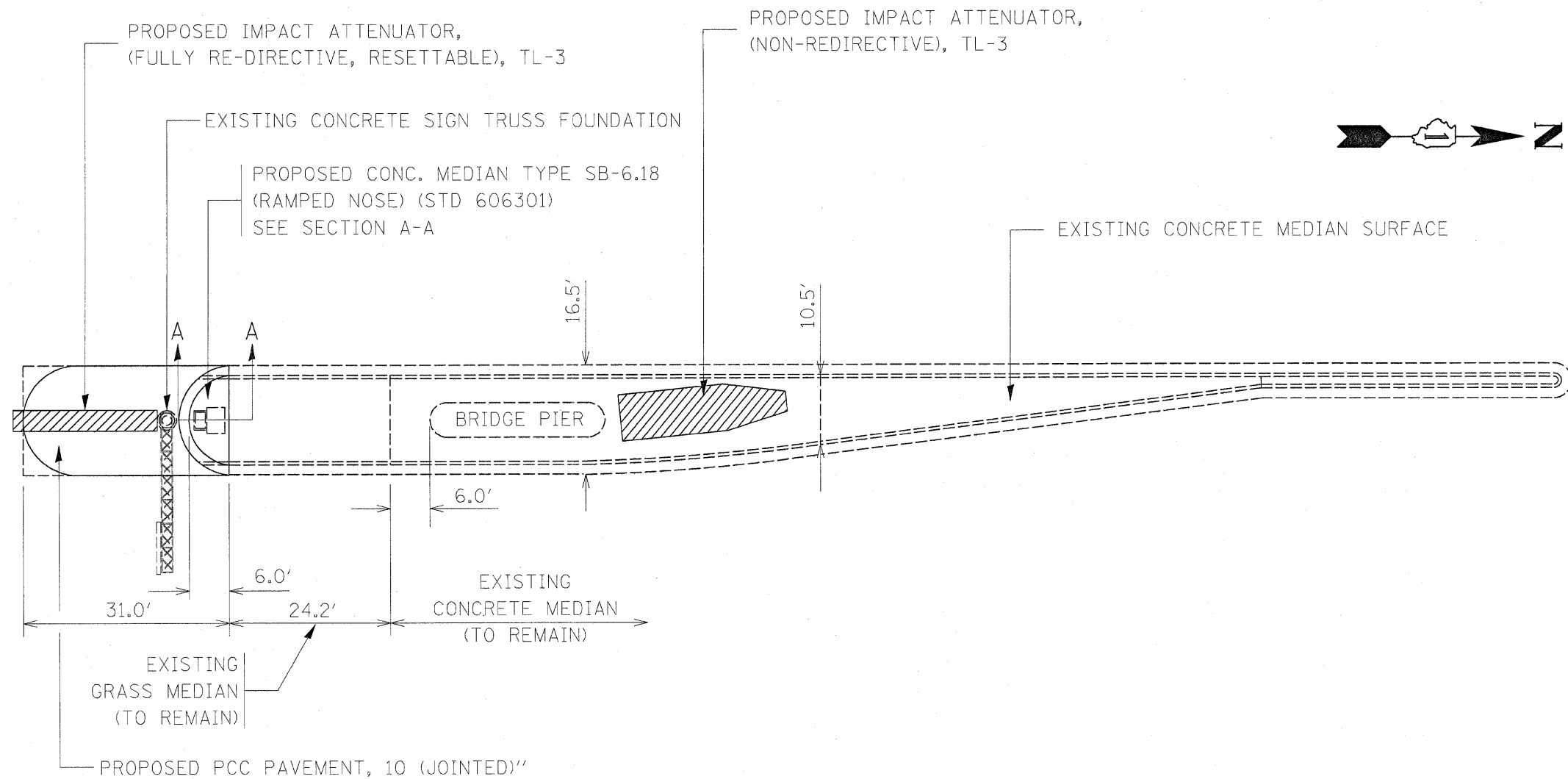
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c:\pwork\pwork\BYUNSH\0101576\design	ee.dgn	DRAWN -	REVISED -		MANNHEIM AVENUE NORTH OF ROOSEVELT ROAD MEDIAN UNDER CHICAGO CENTRAL & PACIFIC RAILROAD BRIDGE			330	2008-006 TS	COOK	104	104A
		CHECKED -	REVISED -		SCALE: 1"=10'	SHEET NO.	OF SHEETS	STA.	TO STA.	CONTRACT NO. 60E31		
		DATE -	REVISED -					FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			



NOTE: THE REMOVAL OF EXISTING COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.18, CONCRETE MEDIAN NOSE, SOD AND TOPSOIL AS SHOWN ON THE PLANS SHALL BE PAID FOR AT THE UNIT PRICE PER SQUARE FOOT FOR "MEDIAN REMOVAL."

SHEET 2 OF 4

FILE NAME =	USER NAME = byunsh	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	MANNHEIM AVENUE NORTH OF ROOSEVELT ROAD MEDIAN UNDER CHICAGO CENTRAL & PACIFIC RAILROAD BRIDGE	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
ct:\pwork\work\PIWIDOT\BYUNSH\0101576\design.eedgn		DRAWN -	REVISED -			330	2008-006 TS	COOK	104	104B
PLOT SCALE = 20.0000 "/ IN.		CHECKED -	REVISED -			CONTRACT NO. 60E31				
PLOT DATE = 11/20/2008		DATE -	REVISED -	SCALE: 1"=10'	SHEET NO. OF SHEETS STA. TO STA.	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

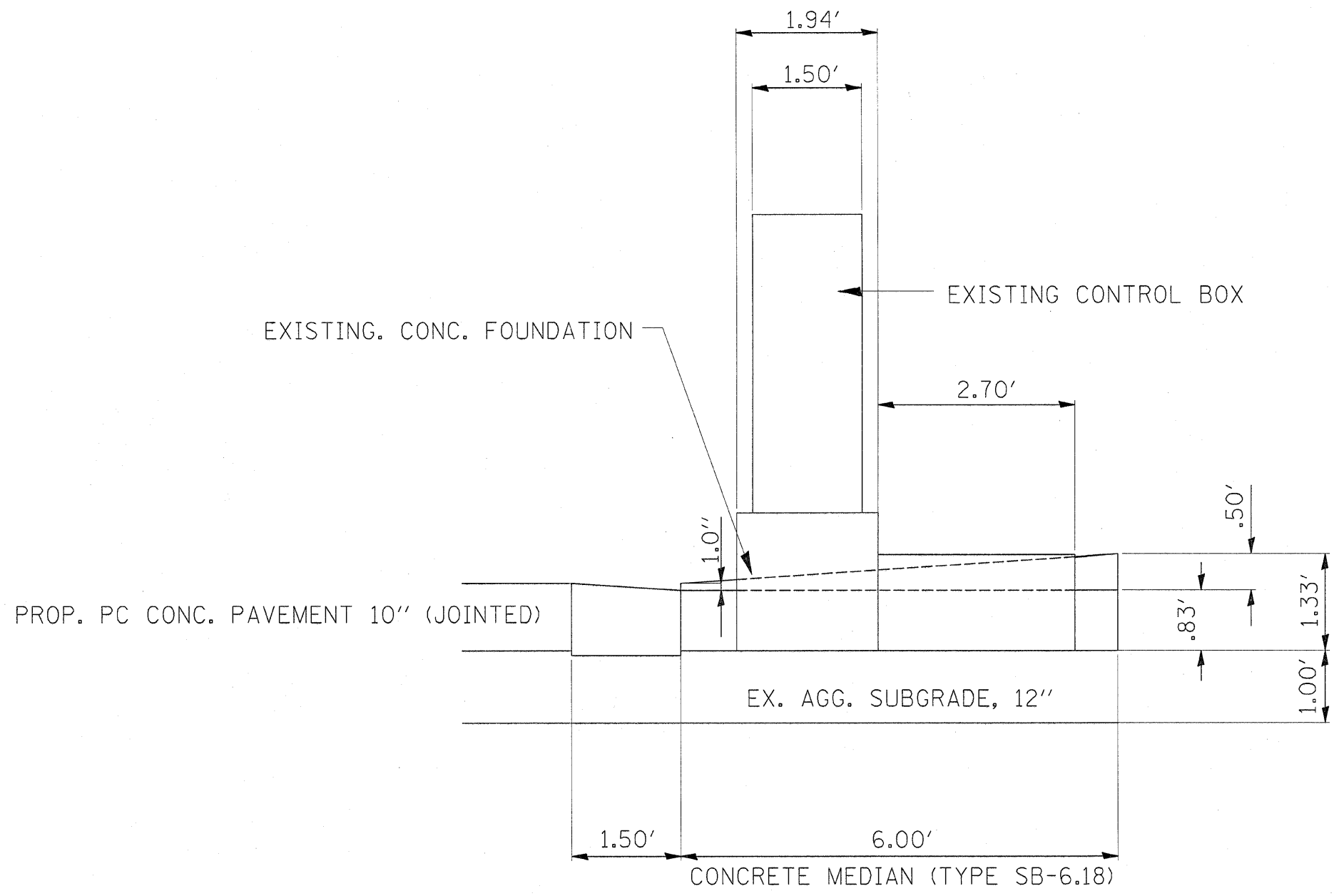


SCHEDULE OF QUANTITIES

DESCRIPTION	PAY ITEM CODE	UNIT	QUANTITY
IMPACT ATTENUATOR, (FULLY RE-DIRECTIVE, RESETTABLE), TL-3	X0325847	EACH	1
IMPACT ATTENUATOR, (NON-REDIRECTIVE), TL-3	Z0030105	EACH	1
MEDIAN REMOVAL	44003100	SQ. FT.	625
CONCRETE MEDIAN, TYPE SB-6.18	60619910	SQ. FT.	110
PCC PAVEMENT 10" (JOINTED)	42000501	SQ. YD.	57

SHEET 3 OF 4

FILE NAME =	USER NAME = byunsh	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	MANNHEIM AVENUE NORTH OF ROOSEVELT ROAD MEDIAN UNDER CHICAGO CENTRAL & PACIFIC RAILROAD BRIDGE	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
ct:\pwork\pwork\BYUNSH\08101576\design	.aedgn	DRAWN -	REVISED -			330	2008-006 TS	COOK	104	104C	
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	PLOT DATE = 11/20/2008	DATE -	REVISED -			SCALE: 1"=10'	SHEET NO. OF SHEETS	STA. TO STA.	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT	



EXISTING. CONC. FOUNDATION

EXISTING CONTROL BOX

PROP. PC CONC. PAVEMENT 10" (JOINTED)

EX. AGG. SUBGRADE, 12"

CONCRETE MEDIAN (TYPE SB-6.18)

SECTION A-A

FILE NAME =	USER NAME = byunsh	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	MANNHEIM AVENUE NORTH OF ROOSEVELT ROAD MEDIAN UNDER CHICAGO CENTRAL & PACIFIC RAILROAD BRIDGE	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
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PLOT DATE = 11/20/2008		DATE -	REVISED -			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					
					SCALE: 1"=10'	SHEET NO.	OF	SHEETS	STA.	TO STA.	