

60608

| F.A.P. RTE. | SECTION     | COUNTY | TOTAL SHEETS | SHEET NO. |
|-------------|-------------|--------|--------------|-----------|
| 395         | 2009-010 TS | COOK   | 11           | 1         |

D-91-323-09

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

**PLANS FOR PROPOSED  
FEDERAL AID HIGHWAY**

**DISTRICT 1  
HIGHWAY SAFETY IMPROVEMENT PROJECT  
TRAFFIC SIGNAL MODERNIZATION**

**87th STREET AT KEDZIE AVENUE  
PROJECT: HSIP-0395(020)  
F.A.P. ROUTE 395  
SECTION 2009-010 TS  
COOK COUNTY  
C-91-323-09**

**WORTH TOWNSHIP**

**INDEX OF SHEETS**

- TITLE SHEET
- SUMMARY OF QUANTITIES
- DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS - SHEET 1 OF 4
- DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS - SHEET 2 OF 4
- DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS - SHEET 3 OF 4
- DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS - SHEET 4 OF 4
- 87th STREET AT KEDZIE AVENUE - TEMPORARY TRAFFIC SIGNAL AND REMOVAL PLAN
- 87th STREET AT KEDZIE AVENUE - TEMPORARY CABLE PLAN
- 87th STREET AT KEDZIE AVENUE - PROPOSED TRAFFIC SIGNAL PLAN
- 87th STREET AT KEDZIE AVENUE - PROPOSED CABLE PLAN
- MAST ARM MOUNTED STREET NAME SIGNS

**STANDARD DRAWINGS**

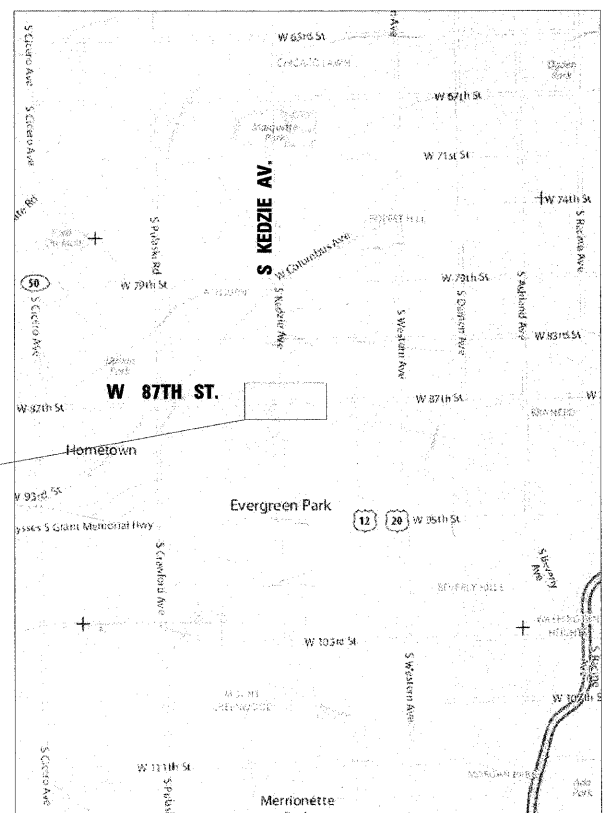
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|-----------|-----------|-----------|-----------|-----------|
| 424001-05 | 606001-03 | 805001-01 | 814001-02 | 814006-02 |
| 857001-01 | 857006    | 862001-01 | 873001-02 | 876001    |
| 877001-04 | 878001-07 | 880001-01 | 880006-01 | 886001-01 |
| 701501-05 | 701601-06 | 701606-05 | 701701-06 | 701801-04 |
| 720001-01 | 720016-02 | 780001-01 |           |           |

NOTE: STANDARD DRAWINGS REQUIRED (CIRCLED)

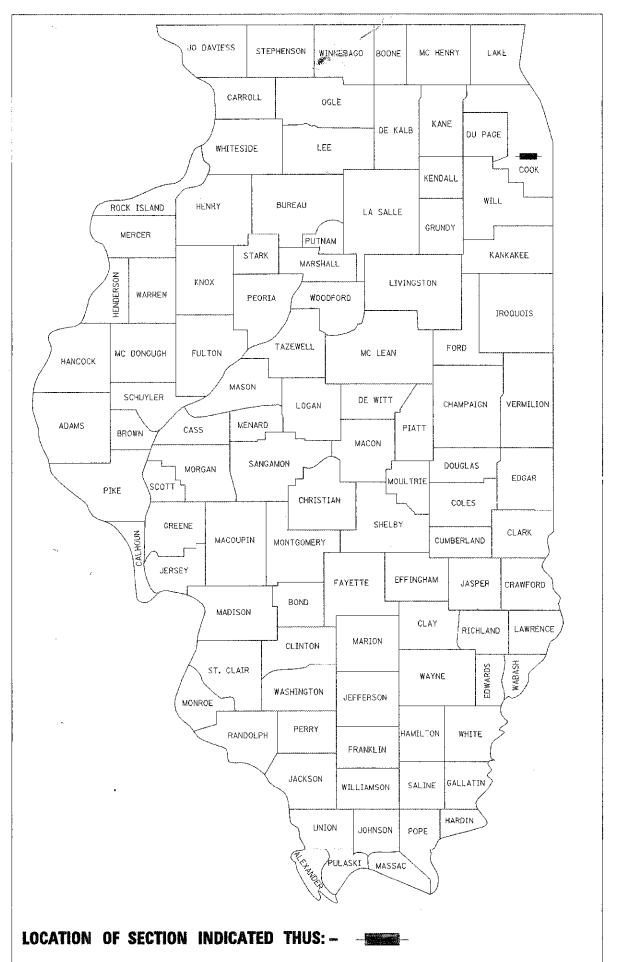
PREPARED BY Steve Taura 1/30/09  
TRAFFIC ENGINEER DATE

**CONTRACT NO. 60608**

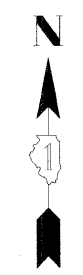
SCALES PLAN 1" = 20'  
INTERCONNECT 1" = 50'



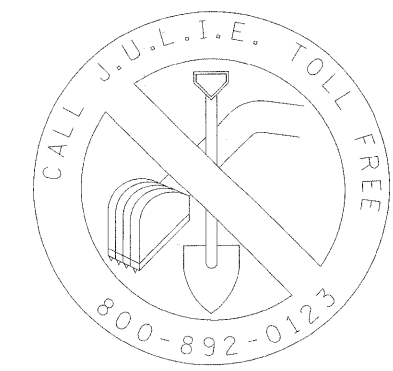
**LOCATION MAP**



LOCATION OF SECTION INDICATED THIS: -



Toby C. Mickey  
1/28/09



48 - HOURS BEFORE DIGGING

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

SUBMITTED Jan 30 2009  
Denise M. O'Keefe  
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

March 27, 2009  
Charles J. Ingersoll  
ENGINEER OF DESIGN AND ENVIRONMENT

March 27, 2009  
Christine M. Reed  
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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

DISTRICT 1 BUREAU OF TRAFFIC: STEPHEN TRAVIA/DARYLE DREW (847) 705-4420

PERCENTAGES

LOCATION OF WORK

*UABAN  
90/FED./10/STATE*

SUMMARY OF QUANTITIES

CONSTRUCTION  
CODE  
YO31-1F

| CODE NO.   | ITEM  | UNIT   | TOTAL |
|------------|---|--------|-------|
| 42400200   | PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH                                    | SQ FT  | 40    |
| 42400800   | DETECTABLE WARNINGS   | SQ FT  | 128   |
| 70102620   | TRAFFIC CONTROL AND PROTECTION, STANDARD, 701501                            | L SUM  | 1     |
| 70102630   | TRAFFIC CONTROL AND PROTECTION, STANDARD 701601                             | L SUM  | 1     |
| 70102635   | TRAFFIC CONTROL AND PROTECTION, STANDARD 701701                             | L SUM  | 1     |
| 70102640   | TRAFFIC CONTROL AND PROTECTION, STANDARD 701801                             | L SUM  | 1     |
| * 72000100 | SIGN PANEL - TYPE 1   | SQ FT  | 27    |
| * 78000600 | THERMOPLASTIC PAVEMENT MARKING - LINE 12"                                   | FOOT   | 696   |
| * 78000650 | THERMOPLASTIC PAVEMENT MARKING - LINE 24"                                   | FOOT   | 235   |
| 81000600   | CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL                                | FOOT   | 1020  |
| 81000800   | CONDUIT IN TRENCH, 3" DIA., GALVANIZED STEEL                                | FOOT   | 15    |
| 81001100   | CONDUIT IN TRENCH, 5" DIA., GALVANIZED STEEL                                | FOOT   | 10    |
| 81018500   | CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL                                   | FOOT   | 224   |
| 81018700   | CONDUIT PUSHED, 3" DIA., GALVANIZED STEEL                                   | FOOT   | 134   |
| 81018800   | CONDUIT PUSHED, 3 1/2" DIA., GALVANIZED STEEL                               | FOOT   | 82    |
| 81018900   | CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL                                   | FOOT   | 85    |
| 81019000   | CONDUIT PUSHED, 5" DIA., GALVANIZED STEEL                                   | FOOT   | 309   |
| 81400100   | HANDHOLE  | EACH   | 9     |
| 81400200   | HEAVY-DUTY HANDHOLE   | EACH   | 4     |
| 81400300   | DOUBLE HANDHOLE   | EACH   | 3     |
| 81900200   | TRENCH AND BACKFILL FOR ELECTRICAL WORK                                     | FOOT   | 1040  |
| 85700200   | FULL-ACTUATED CONTROLLER AND TYPE IV CABINET                                | EACH   | 1     |
| X8620020   | UNINTERRUPTIBLE POWER SUPPLY  | EACH   | 1     |
| 87301215   | ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C                                 | FOOT   | 1810  |
| 87301225   | ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C                                 | FOOT   | 4048  |
| 87301245   | ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C                                 | FOOT   | 3964  |
| 87301255   | ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C                                 | FOOT   | 2153  |
| 87301305   | ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR                           | FOOT   | 2587  |
| 87301805   | ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C                                | FOOT   | 121   |
| X8730027   | ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C                              | FOOT   | 651   |
| X8730250   | ELECTRIC CABLE IN CONDUIT, NO. 20 3C, TWISTED, SHIELDED                     | FOOT   | 367   |
| 87502440   | TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.                                | EACH   | 2     |
| 87502500   | TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.                                | EACH   | 4     |
| 87700310   | STEEL MAST ARM ASSEMBLY AND POLE, 54 FT.                                    | EACH   | 4     |
| 87800100   | CONCRETE FOUNDATION, TYPE A   | FOOT   | 24    |
| 87800150   | CONCRETE FOUNDATION, TYPE C   | FOOT   | 4     |
| 87800415   | CONCRETE FOUNDATION, TYPE E 36- <sup>INCH</sup> DIAMETER                    | FOOT   | 60    |
| 87900200   | DRILL EXISTING HANDHOLE   | EACH   | 4     |
| 88030020   | SIGNAL HEAD, L E D, 1-FACE, 3-SECTION, MAST-ARM MOUNTED                     | EACH   | 10    |
| 88030110   | SIGNAL HEAD, L E D, 1-FACE, 5-SECTION, MAST-ARM MOUNTED                     | EACH   | 4     |
| 88030240   | SIGNAL HEAD, L E D, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED       | EACH   | 4     |
| 88102717   | PEDESTRIAN SIGNAL HEAD, L E D, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER | EACH   | 4     |
| X0326269   | PEDESTRIAN SIGNAL HEAD, L E D, 3-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER | EACH   | 4     |
| 88200210   | TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM                                | EACH   | 14    |
| 88500100   | INDUCTIVE LOOP DETECTOR   | EACH   | 8     |
| 88600100   | DETECTOR LOOP, TYPE I   | FOOT   | 841   |
| 88800100   | PEDESTRIAN PUSH-BUTTON  | EACH   | 8     |
| 89000100   | TEMPORARY TRAFFIC SIGNAL INSTALLATION                                       | EACH   | 1     |
| 89502375   | REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT                                    | EACH   | 1     |
| 89502380   | REMOVE EXISTING HANDHOLE  | EACH   | 19    |
| 89502385   | REMOVE EXISTING CONCRETE FOUNDATION   | EACH   | 12    |
| X0322256   | TEMPORARY INFORMATION SIGNING   | SQ FT  | 102.8 |
| X0325737   | TEMPORARY TRAFFIC SIGNAL TIMING   | EACH   | 1     |
| X8050015   | SERVICE INSTALLATION - POLE MOUNTED   | EACH   | 1     |
| 67000400   | ENGINEER'S FIELD OFFICE, TYPE A   | CAL MO | 4     |
| 67100100   | MOBILIZATION  | L SUM  | 1     |

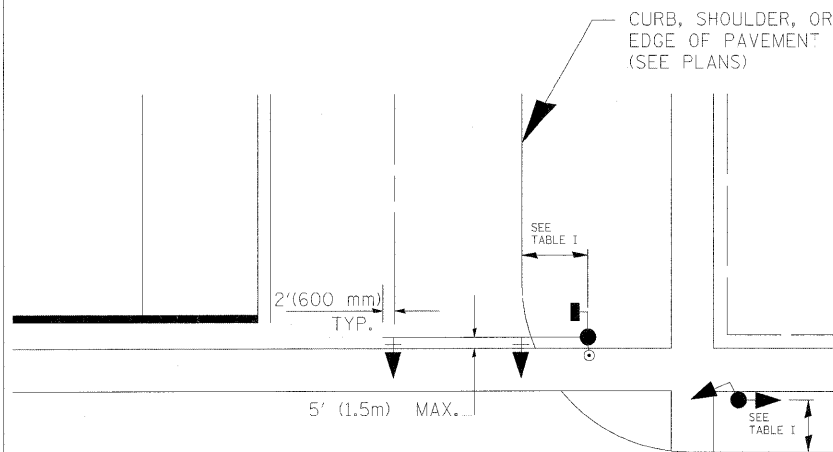
\*Specialty Items

|  |                    |                   |                    |   |   |                     |              |                     |                           |           |
|--|--------------------|-------------------|--------------------|---|---|---------------------|--------------|---------------------|---------------------------|-----------|
| FILE NAME =                                      | USER NAME = #USER# | DESIGNED - NB/TCM | REVISED -          | <b>STATE OF ILLINOIS<br/>DEPARTMENT OF TRANSPORTATION</b> | SUMMARY OF QUANTITIES<br>87TH STREET AT KEDZIE AVENUE | F.A.P. RTE.         | SECTION      | COUNTY              | TOTAL SHEETS              | SHEET NO. |
| P:\P-08-1600-4\Design\1.87th at Kedzie\SH\02.dgn | DRAWN - NB/TCM     | REVISED -         | 395                |   |   | 2009-010 TS         | COOK         | 11                  | 2                         |           |
| PLOT SCALE = 1:8000' / IN.                       | CHECKED - NB/TCM   | REVISED -         | CONTRACT NO. 60G08 |   |   |                     |              |                     |                           |           |
| PLOT DATE = 1/27/2009                            | DATE - 01/23/2009  | REVISED -         | SCALE: NTS         |   |   | SHEET NO. OF SHEETS | STA. TO STA. | FED. ROAD DIST. NO. | ILLINOIS FED. AID PROJECT |           |

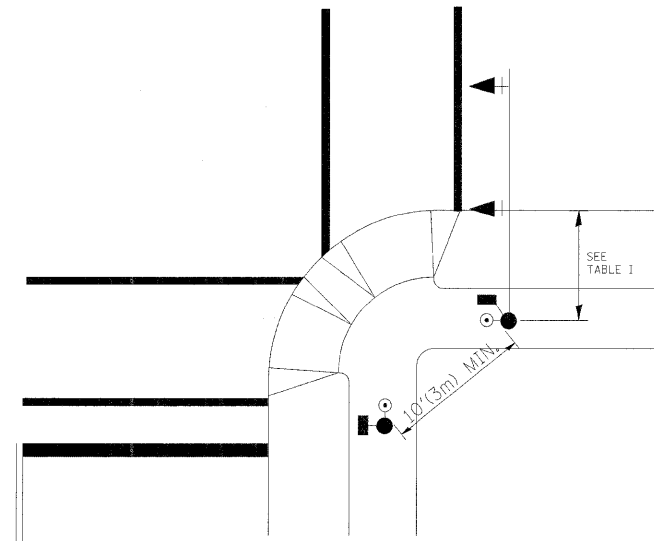


**TRAFFIC SIGNAL MAST ARM AND POST**

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



**PEDESTRIAN SIGNAL PUSHBUTTON**



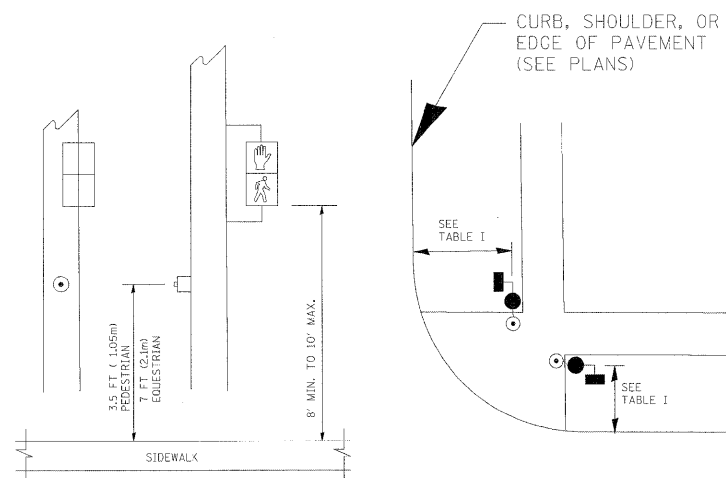
RECOMMENDED PUSHBUTTON LOCATIONS FOR ACCESSIBLE PEDESTRIAN SIGNALS SHALL BE IN ACCORDANCE WITH THE CURRENT MUTCD (SEE NOTE 1). TO MEET MUTCD REQUIREMENTS, PEDESTRIAN SIGNAL PUSHBUTTONS MAY HAVE TO BE MOUNTED ON A SEPARATE POST.

**NOTES:**

- 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.
- 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.
- 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.
- 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



**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  |

| REVISIONS |      |
|-----------|------|
| NAME      | DATE |
|           |      |
|           |      |
|           |      |
|           |      |
|           |      |
|           |      |
|           |      |
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|           |      |
|           |      |

ILLINOIS DEPARTMENT OF TRANSPORTATION  
  
DISTRICT ONE  
STANDARD TRAFFIC SIGNAL  
DESIGN DETAILS

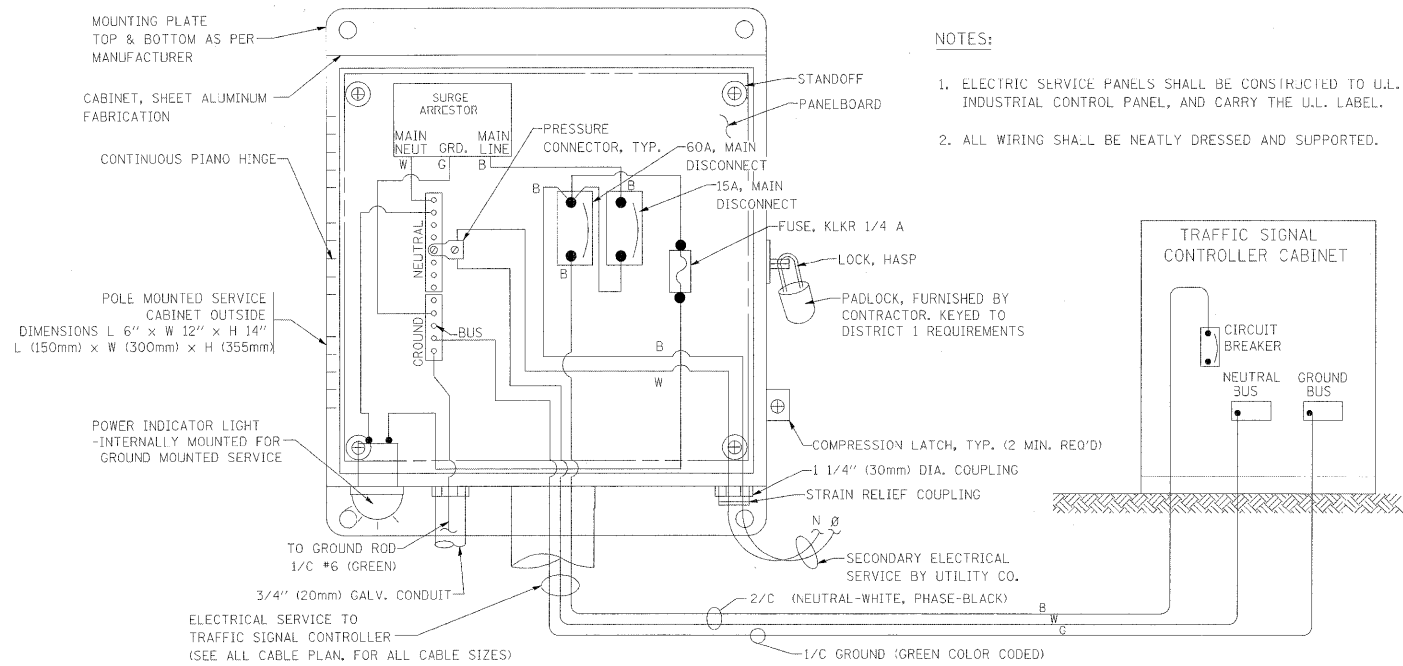
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HORIZ. NONE  
DATE 09-11-2007  
DRAWN BY: BL  
CHECKED BY: ER/TC  
  
F.A.P. R.T.E. SECTION COUNTY TOTAL SHEETS SHEET NO.  
395 2009-010 TS COOK 11 4  
CONTRACT NO. 60608  
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

|   |                                |                   |           |
|---|--------------------------------|-------------------|-----------|
| FILE NAME = F:\P-08-1600-4\Design\1.87th at Kedzie\SH | USER NAME = #USER# \SHT004.DGN | DESIGNED - NB/TCM | REVISED - |
|   |                                | DRAWN - NB/TCM    | REVISED - |
|   |                                | CHECKED - NB/TCM  | REVISED - |
|   |                                | DATE - 01/23/2009 | REVISED - |

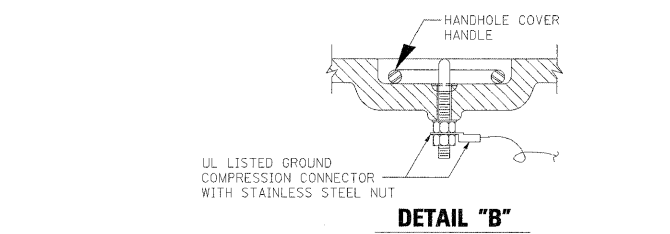
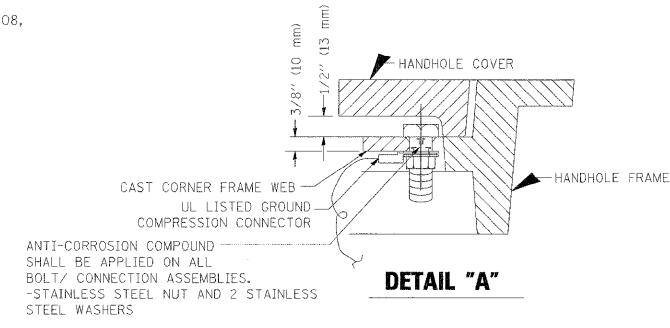
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

DISTRICT ONE  
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

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



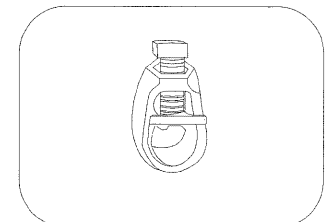
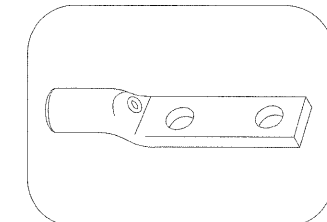
**ELECTRICAL SERVICE – PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE)**  
**SERVICE INSTALLATION POLE MOUNT (SHOWN)**  
 (NOT TO SCALE)



**NOTES:**

**GROUNDING SYSTEM**

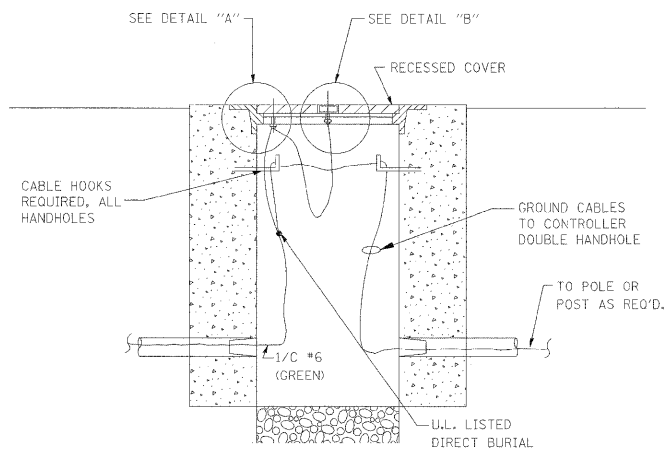
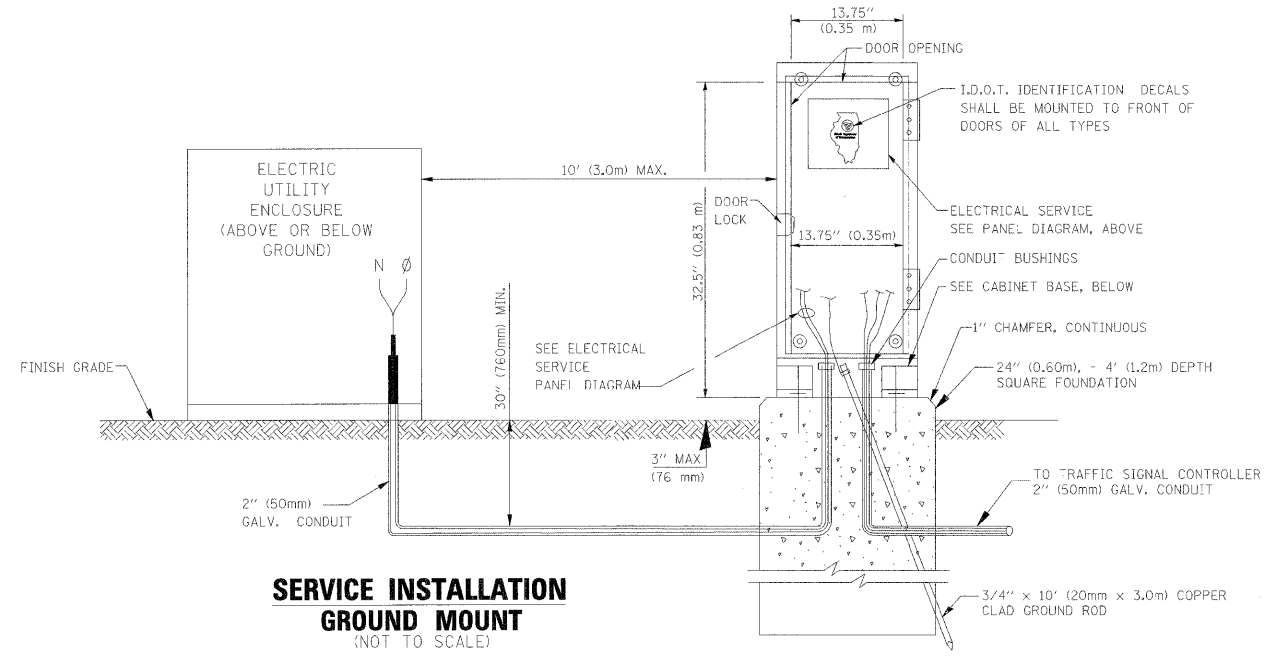
- THE GROUNDING SYSTEM SHALL CONSIST OF AN INSULATED CONDUCTOR TYPE XLP, NO. 6 A.W.G., STRANDED COPPER TO BE INSTALLED IN RACEWAYS. THE GROUNDING CABLE SHALL BE INSTALLED IN A CONTINUOUS MANNER AS SHOWN ON THE CABLE PLAN PROVIDED. ALL GROUNDING CONDUCTORS SHALL BE BONDED TO METAL ENCLOSURE (HANDHOLE, 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.
- 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.
- ALL EQUIPMENT GROUNDING CONDUCTORS SHALL TERMINATE AT THE GROUND BUS IN THE CONTROLLER CABINET.
- THE CONTRACTOR SHALL PROVIDE A GROUND CABLE WITH CONNECTORS BETWEEN THE HANDHOLE COVER AND HANDHOLE FRAME.



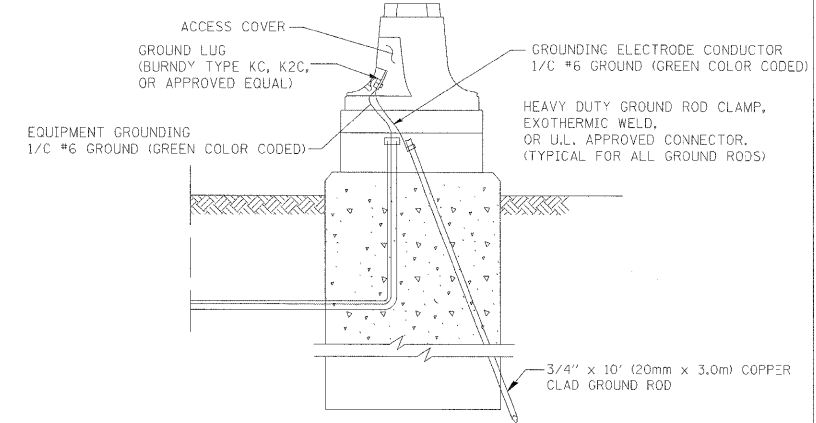
HEAVY-DUTY COMPRESSION TERMINAL (BURNDY TYPE YGHA OR APPROVED EQUAL)  
 3/4" (20mm) HEAVY-DUTY GROUND ROD CLAMP (BURNDY TYPE GRC OR APPROVED EQUAL)

**NOTES:**

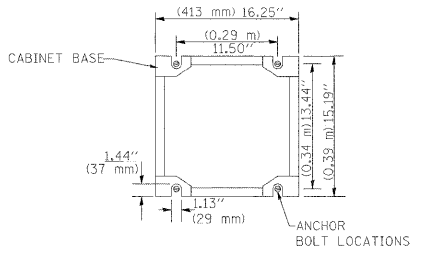
- ALL CLAMPS SHALL BE BRONZE OR COPPER, UL APPROVED.
- GROUND CABLE SHALL BE LOOPED OVER HOOKS IN THE HANDHOLES. 6.5' (2.0m) SLACK SHALL BE PROVIDED IN SINGLE HANDHOLES. 13' (4.0m) OF SLACK SHALL BE PROVIDED IN DOUBLE HANDHOLES. 5' (1.4m) OF SLACK SHALL BE PROVIDED BETWEEN FRAME AND COVER.



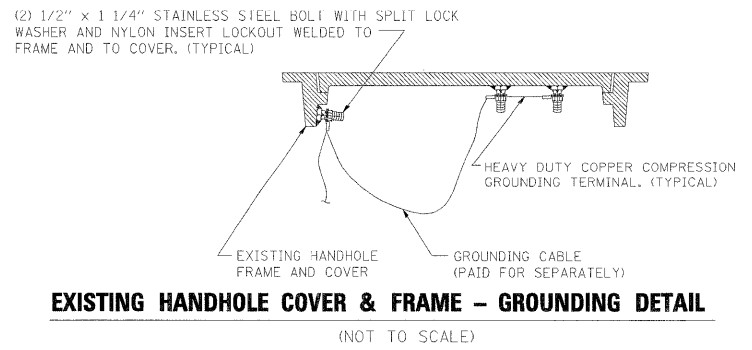
**HANDHOLE COVER & FRAME – GROUNDING DETAIL**  
 (NOT TO SCALE)



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

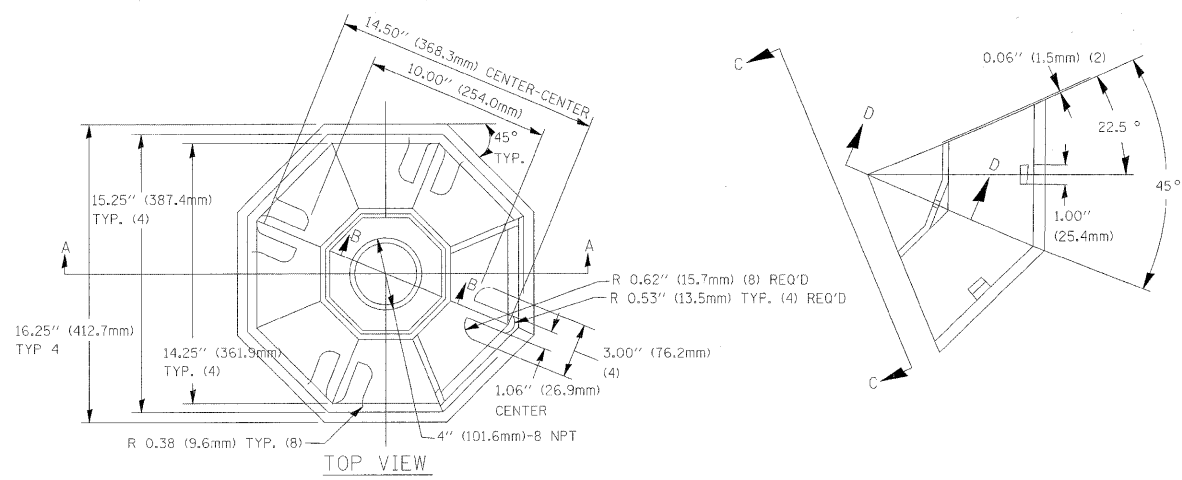


**CABINET – BASE BOLT PATTERN**  
 (NOT TO SCALE)

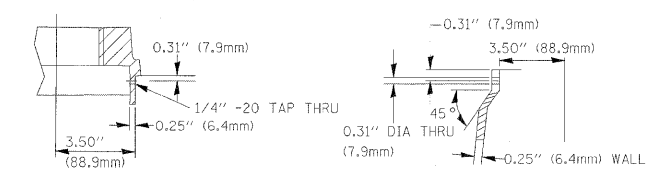


**EXISTING HANDHOLE COVER & FRAME – GROUNDING DETAIL**  
 (NOT TO SCALE)

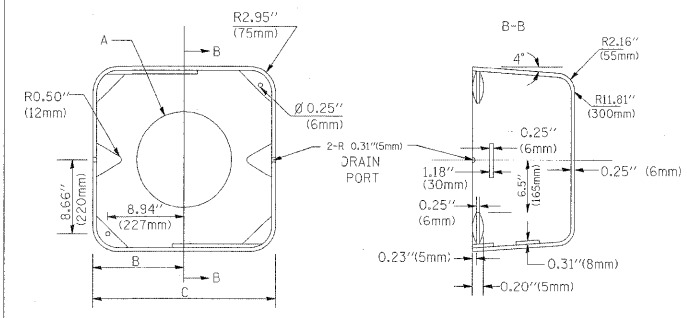
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| FILE NAME = P:\P-08-1600-4\Design\1.87 th at Kedzie\SHSHT025.DGN | USER NAME = #USER# | DESIGNED - NB/TCM | REVISED - | DISTRICT ONE<br>STANDARD TRAFFIC SIGNAL DESIGN DETAILS |  |  |  | F.A.D. RTE. 395                        | SECTION 2009-01C TS | COUNTY COOK                                     | TOTAL SHEETS 11                   | SHEET NO. 5 |
| PLOT SCALE = 60.0001" / IN.                                      |                    | DRAWN - NB/TCM    | REVISED - | STATE OF ILLINOIS<br>DEPARTMENT OF TRANSPORTATION      |  |  |  | SCALE: VERT. NONE<br>HORIZ. 09-11-2007 | DATE 09-11-2007     | CONTRACT NO. 60G08                              | DRAWN BY: BI<br>CHECKED BY: ER/TC |             |
| PLOT DATE = 1/27/2009  |                    | CHECKED - NB/TCM  | REVISED - | SCALE: NTS   |  |  |  | SHEET NO. 3 OF 4 SHEETS                | STA. TO STA.        | FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT |                                   |             |
| DATE - 01/23/2009  |                    | REVISOR -         | REVISED - | SCALE: NTS   |  |  |  | SHEET NO. 3 OF 4 SHEETS                | STA. TO STA.        | FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT |                                   |             |



SECTION B-B



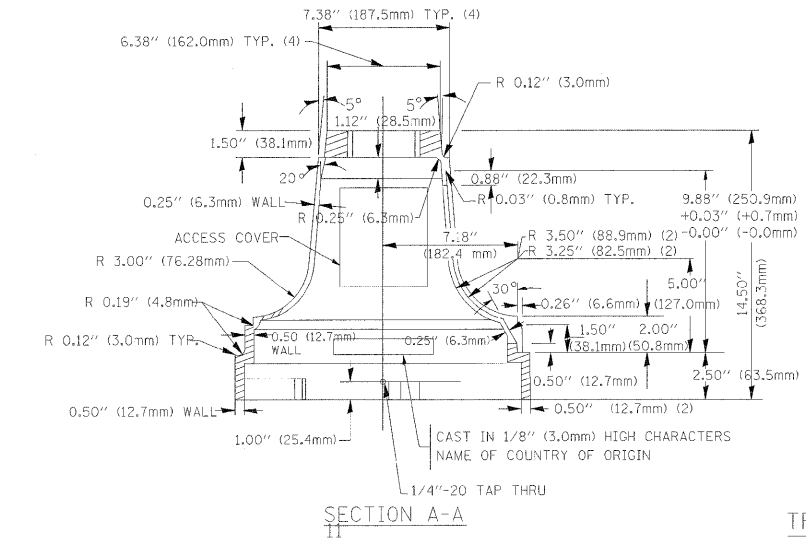
SECTION D-D



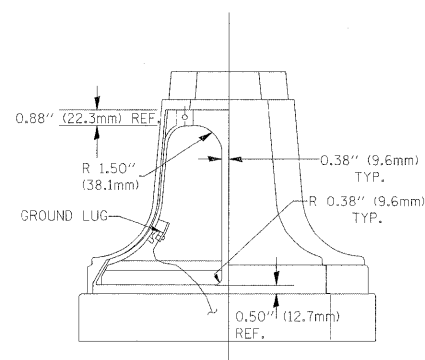
| TYPE | A                 | B              | C             | HEIGHT      | WEIGHT |
|------|-------------------|----------------|---------------|-------------|--------|
| I    | Ø 10.125\"(257mm) | 9.5\"(241mm)   | 19\"(483mm)   | 12\"(300mm) | 24kg   |
| II   | Ø 11.125\"(283mm) | 10.75\"(273mm) |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

SHROUD DETAIL

MATERIAL:  
 - ASTM A48 CLASS 30 GREY IRON  
 - ASTM A123 HOT DIPPED GALVANIZED

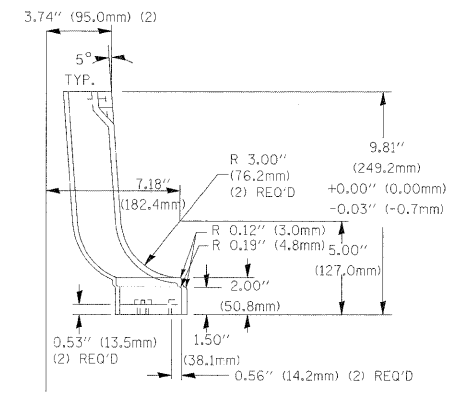


SECTION A-A

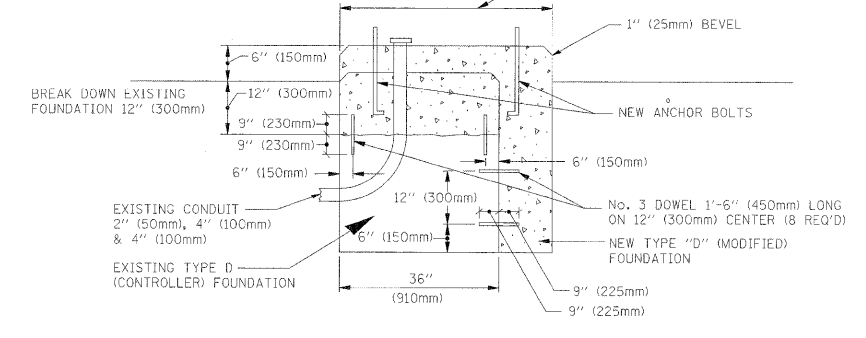


VIEW C-C

TRAFFIC SIGNAL POST - MOUNTING BASE - TYPE A

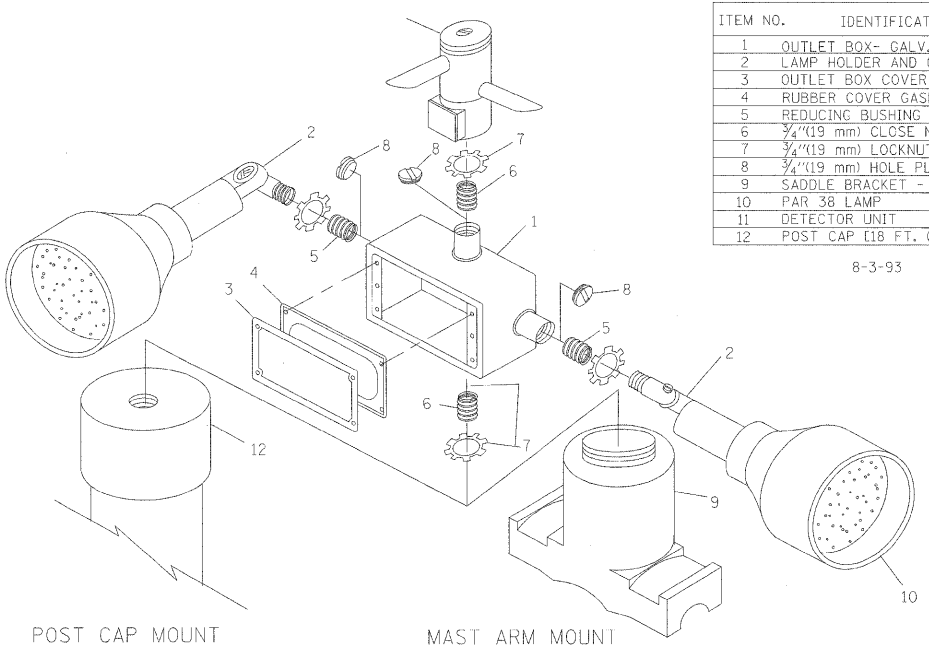


NOTE:  
 SUPPORT EXISTING CABINET AND CONTROL EQUIPMENT ABOVE FOUNDATION TO KEEP TRAFFIC SIGNAL FUNCTIONING WHILE FOUNDATION MODIFICATION WORK IS PROCEEDING.



MODIFY EXISTING TYPE "D" FOUNDATION

(NOT TO SCALE)

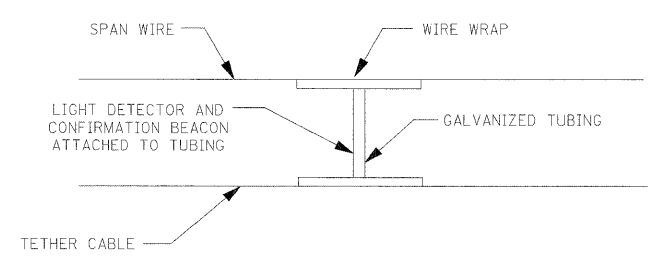


| ITEM NO. | IDENTIFICATION                              |
|----------|---|
| 1        | OUTLET BOX- GALV. 21 CU.IN. (0.000344 CU-M) |
| 2        | LAMP HOLDER AND COVER                       |
| 3        | OUTLET BOX COVER                            |
| 4        | RUBBER COVER GASKET                         |
| 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.)         |

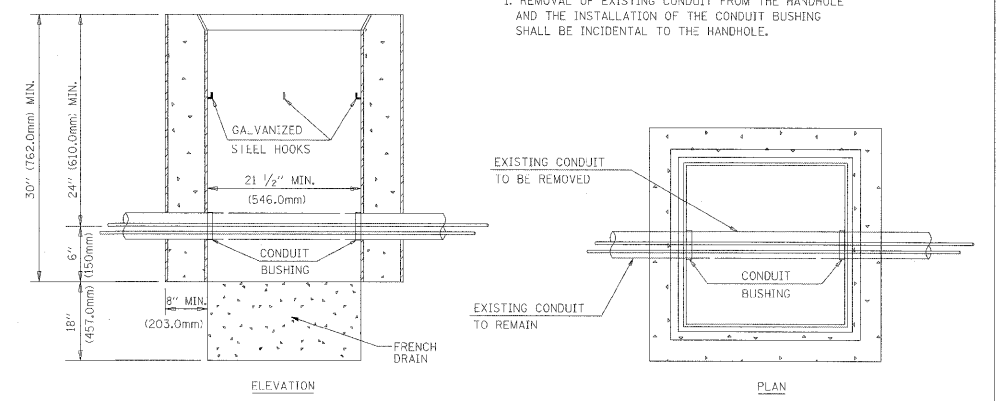
8-3-93

NOTES:

- ALL ELECTRICAL ITEMS, EXCEPT ITEMS #2 AND #11 SHALL BE ALUMINUM OR GALVANIZED
- ITEM #1- OZ/GEDNEY FSX-1-50 OR EQUIVALENT  
 ITEM #2- MULBERRY CON-0-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 (NOT TO SCALE)



DETAIL HANDHOLE TO INTERCEPT EXISTING CONDUIT N.T.S.

| REVISIONS |      |
|-----------|------|
| NAME      | DATE |
|           |      |
|           |      |
|           |      |
|           |      |
|           |      |

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 DISTRICT ONE  
 STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: VERT. NONE HORIZ. 1/8\"/>
 DATE: 09-11-2007  
 DRAWN BY: BL  
 CHECKED BY: ER/TC

|   |                    |                   |           |
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| FILE NAME = P:\P-08-1600-4\Design\1.87th at Kedzie\Sheet\SHD006.DGN | USER NAME = #USER# | DESIGNED - NB/TCM | REVISED - |
| PLOT SCALE = 60.0001\"/>  |                    |                   |           |
| PLOT DATE = 1/27/2009   | CHECKED - NB/TCM   | REVISOR -         | REVISOR - |
|   | DATE - 01/23/2009  | REVISOR -         | REVISOR - |

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

DISTRICT ONE  
 STANDARD TRAFFIC SIGNAL DESIGN DETAILS

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

|                              |                     |                  |                 |             |
|------------------------------|---------------------|------------------|-----------------|-------------|
| F.A.P. R.T.E. 395            | SECTION 2009-010 TS | COUNTY COOK      | TOTAL SHEETS 11 | SHEET NO. 6 |
| FED. ROAD DIST. NO. ILLINOIS |                     | FED. AID PROJECT |                 |             |

**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 TSI 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.

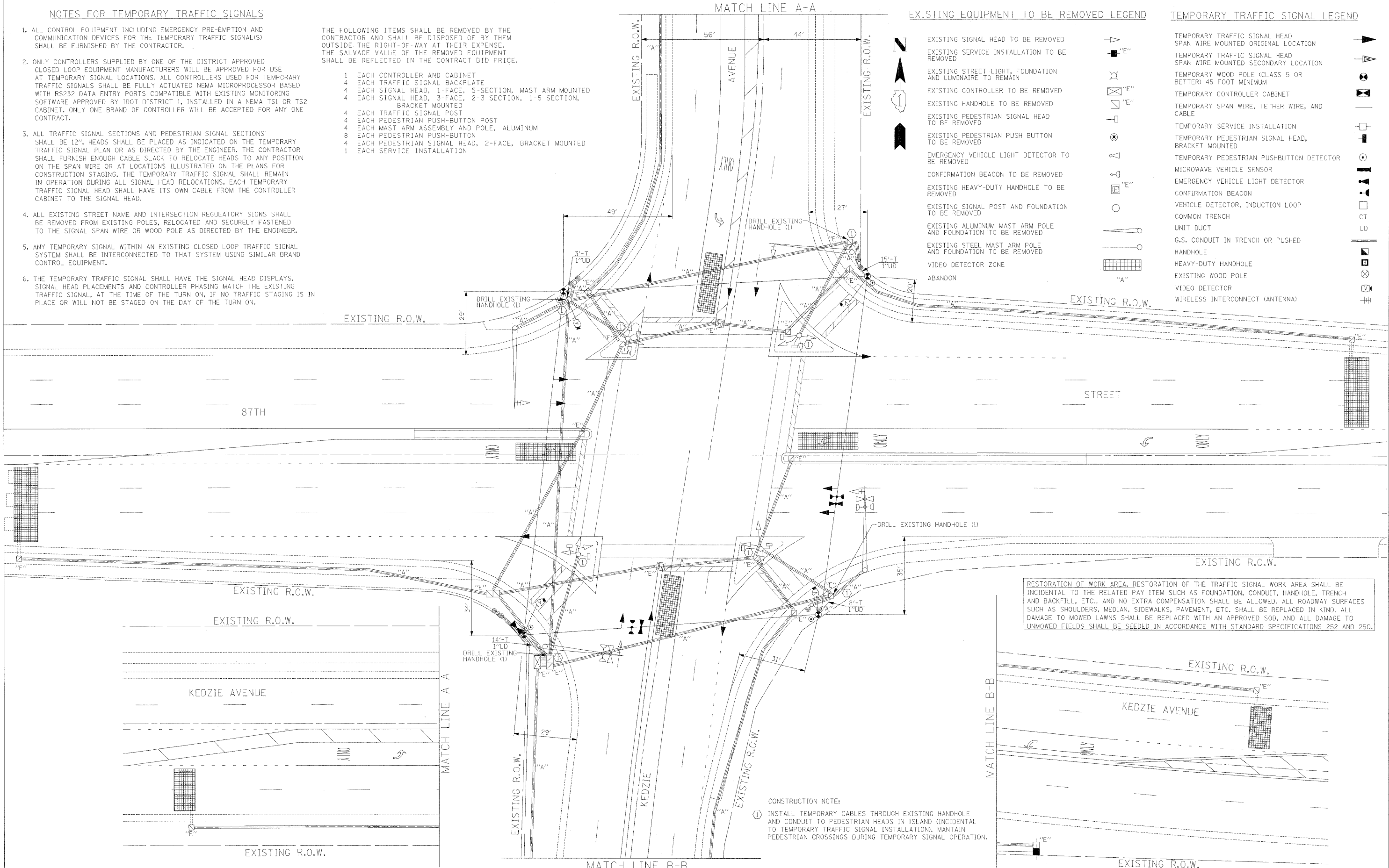
- 1 EACH CONTROLLER AND CABINET
- 4 EACH TRAFFIC SIGNAL BACKPLATE
- 4 EACH SIGNAL HEAD, 1-FACE, 5-SECTION, MAST ARM MOUNTED
- 4 EACH SIGNAL HEAD, 3-FACE, 2-3 SECTION, 1-5 SECTION, BRACKET MOUNTED
- 4 EACH TRAFFIC SIGNAL POST
- 4 EACH PEDESTRIAN PUSH-BUTTON POST
- 4 EACH MAST ARM ASSEMBLY AND POLE, ALUMINUM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

**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
- VIDEO DETECTOR ZONE
- ABANDON

**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)



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.

CONSTRUCTION NOTE:  
 ① INSTALL TEMPORARY CABLES THROUGH EXISTING HANDHOLE AND CONDUIT TO PEDESTRIAN HEADS IN ISLAND (INCIDENTAL TO TEMPORARY TRAFFIC SIGNAL INSTALLATION). MAINTAIN PEDESTRIAN CROSSINGS DURING TEMPORARY SIGNAL OPERATION.

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| PLOT SCALE = 20.0000' / IN.                       |                    | CHECKED - NB/TCM  | REVISED - |
| PLOT DATE = 1/27/2009                             |                    | DATE - 01/23/2009 | REVISED - |

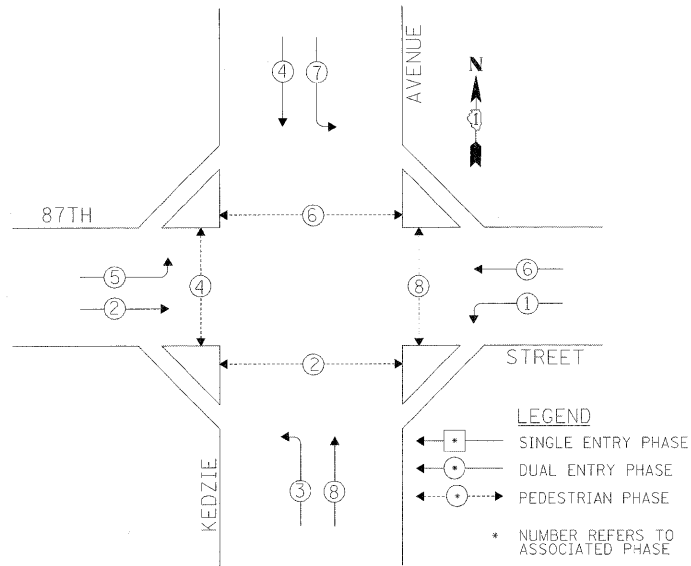
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**TEMPORARY TRAFFIC SIGNAL AND REMOVAL PLAN  
 87TH STREET AT KEDZIE AVENUE**

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

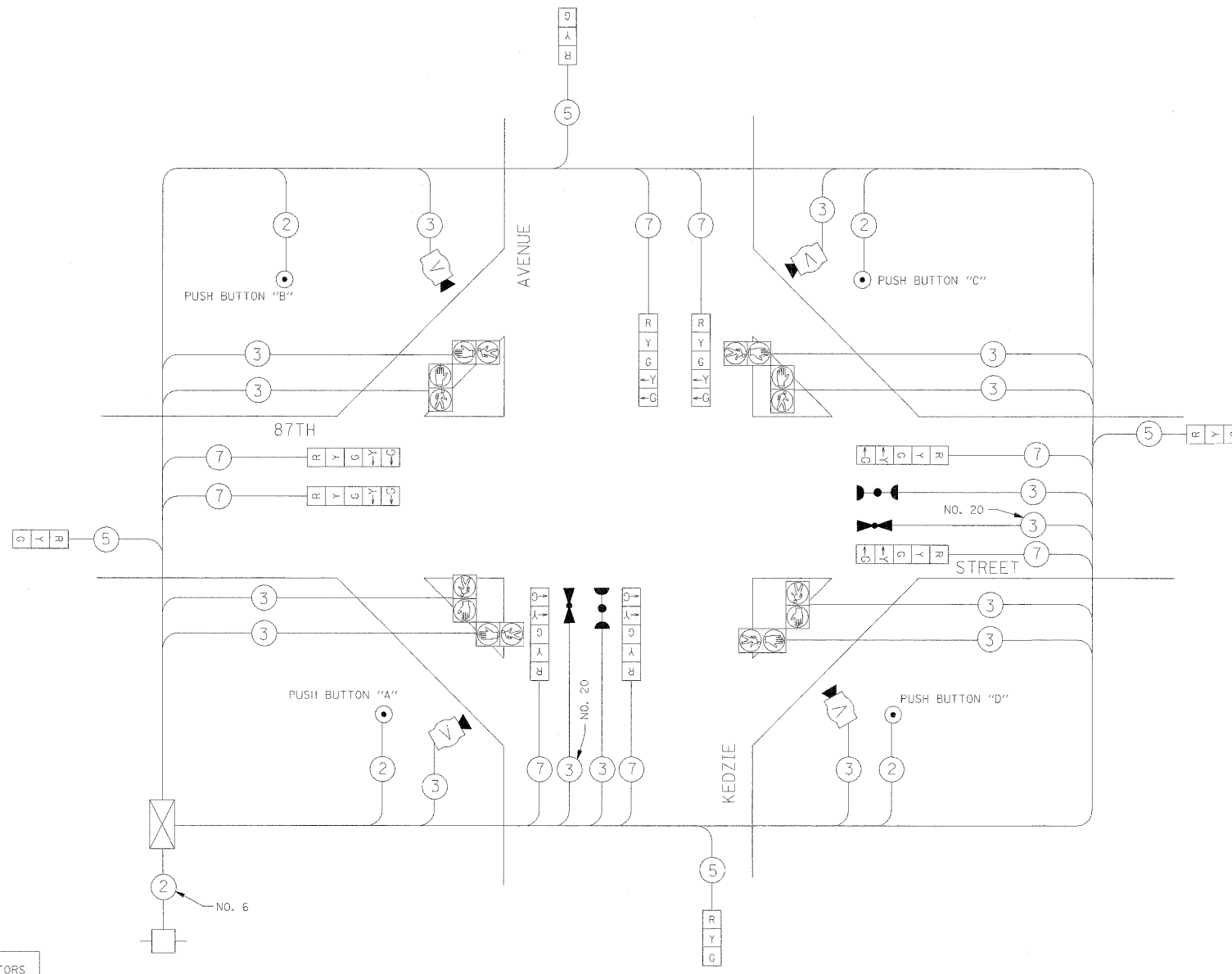
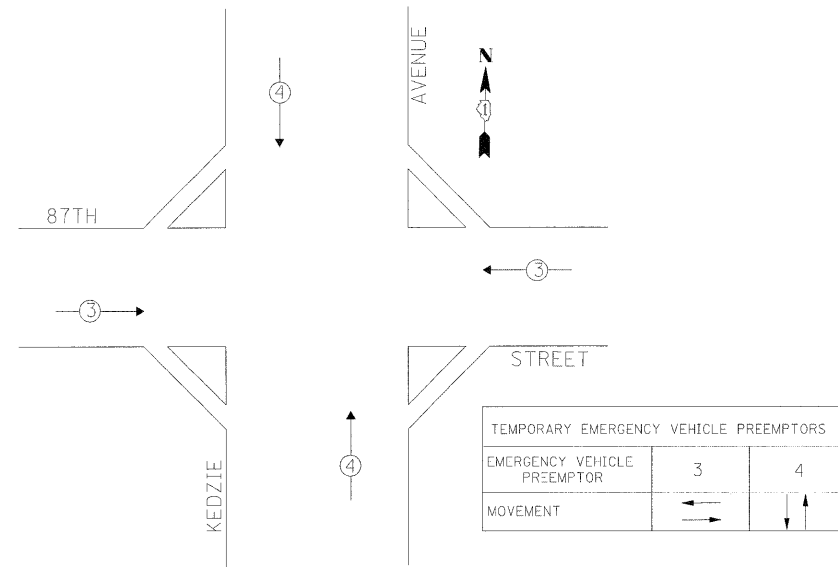
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|---------------------|-------------|---------------------------|--------------|-----------|
| F.A.P. RTE.         | SECTION     | COUNTY                    | TOTAL SHEETS | SHEET NO. |
| 395                 | 2009-010 TS | COOK                      | 11           | 7         |
| FED. ROAD DIST. NO. |             | ILLINOIS FED. AID PROJECT |              |           |
|                     |             | CONTRACT NO. 60G08        |              |           |

TEMPORARY CONTROLLER SEQUENCE

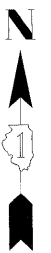


TEMPORARY PHASE DESIGNATION DIAGRAM

TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE



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)
- EXISTING 12" (300 mm) PEDESTRIAN SIGNAL SECTION

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

| I.D.O.T.<br>TRAFFIC SIGNAL INSTALLATION<br>ELECTRICAL SERVICE REQUIREMENTS     |                         |                   |           |             |                 |
|--|-------------------------|-------------------|-----------|-------------|-----------------|
| 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  | 16                      |                   | 12        | 0.10        | 19.20           |
| PED. SIGNAL  | 8                       | 90                |           | 1.00        | 720.00          |
| CONTROLLER   | 1                       |                   | 100       | 1.00        | 100.00          |
| ILLUM. SIGN  |                         |                   |           | 0.05        | -               |
| FLASHER  |                         |                   |           | 0.05        | -               |
| ENERGY COSTS TO:   |                         |                   |           |             | TOTAL = 1061.20 |
| VILLAGE OF EVERGREEN PARK<br>9418 S. KEDZIE AVENUE<br>EVERGREEN PARK, IL 60805 |                         |                   |           |             |                 |
| ENERGY SUPPLY CONTACT: VALERIE MURPHY  |                         |                   |           |             |                 |
| PHONE: (708)235-2346   |                         |                   |           |             |                 |
| COMPANY: COMMONWEALTH EDISON   |                         |                   |           |             |                 |
| FILE NAME =  | USER NAME = #USER#      | DESIGNED - NB/TCM | REVISED - |             |                 |
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|  | PLOT SCALE = 1.0000 "/> |                   |           |             |                 |

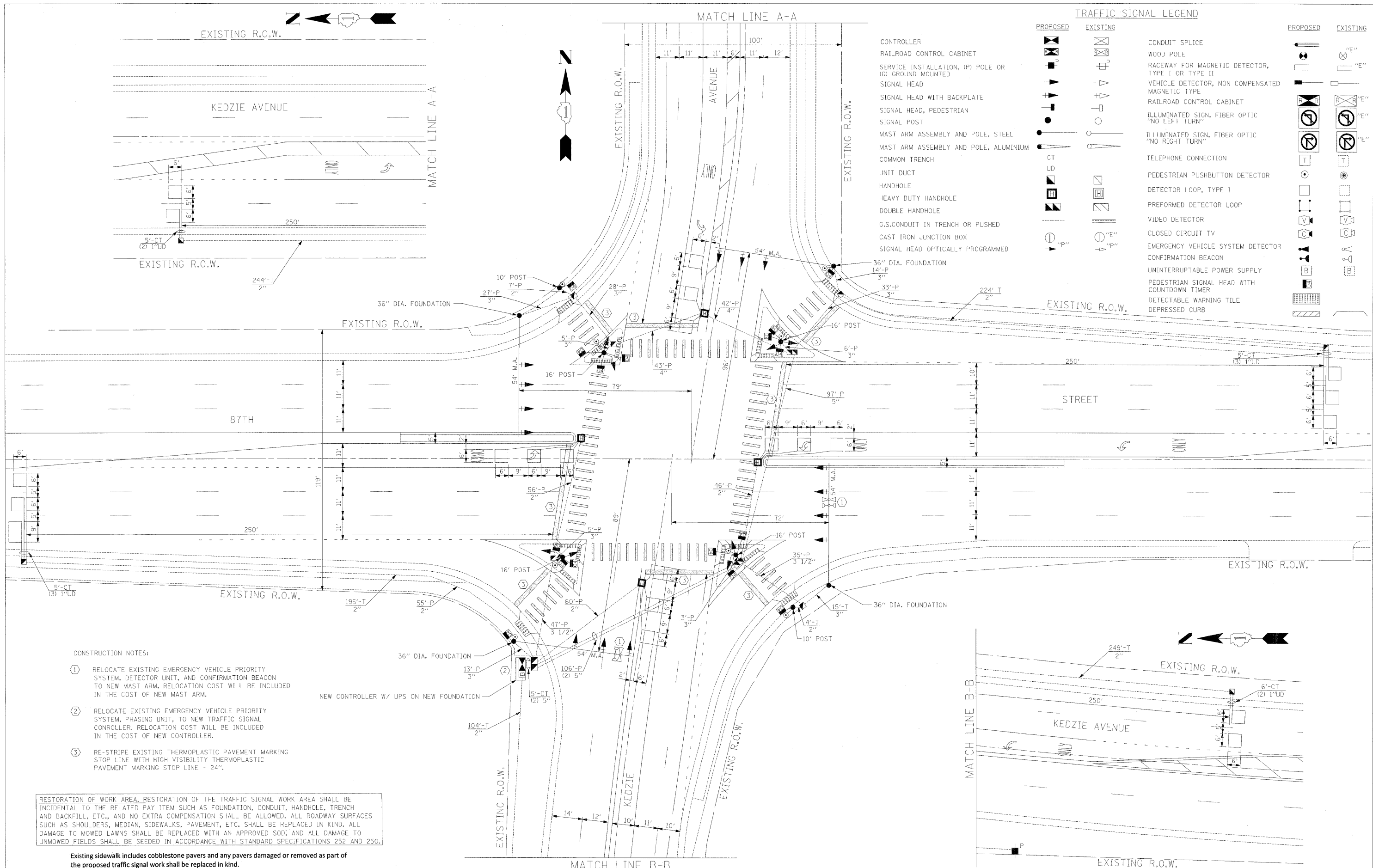
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TEMPORARY CABLE PLAN  
87TH STREET AT KEDZIE AVENUE

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

| F.A.P. RTE.                                   | SECTION     | COUNTY | TOTAL SHEETS       | SHEET NO. |
|---|-------------|--------|--------------------|-----------|
| 395   | 2009-010 TS | COOK   | 11                 | 8         |
| FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT |             |        | CONTRACT NO. 60G08 |           |





**TRAFFIC SIGNAL LEGEND**

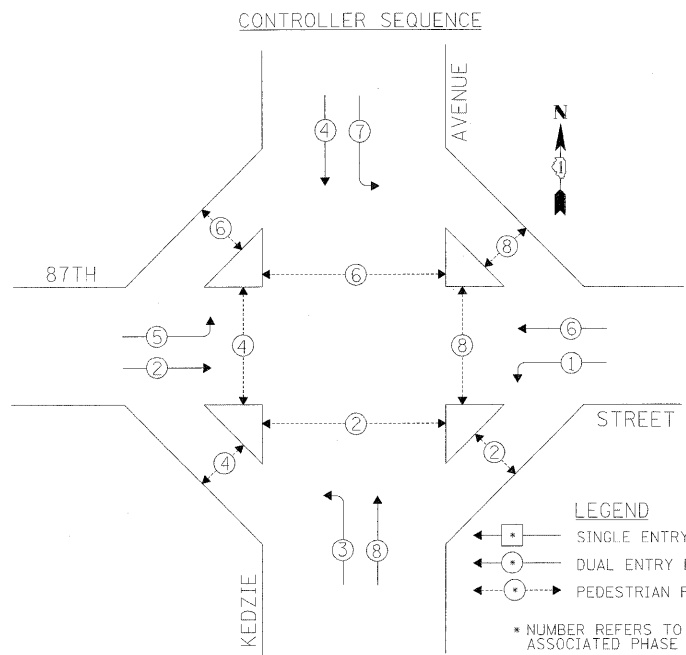
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- CONSTRUCTION NOTES:**
- RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, DETECTOR UNIT, AND CONFIRMATION BEACON TO NEW MAST ARM. RELOCATION COST WILL BE INCLUDED IN THE COST OF NEW MAST ARM.
  - RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT, TO NEW TRAFFIC SIGNAL CONTROLLER. RELOCATION COST WILL BE INCLUDED IN THE COST OF NEW CONTROLLER.
  - RE-STRIPE EXISTING THERMOPLASTIC PAVEMENT MARKING STOP LINE WITH HIGH VISIBILITY THERMOPLASTIC PAVEMENT MARKING STOP LINE - 24".

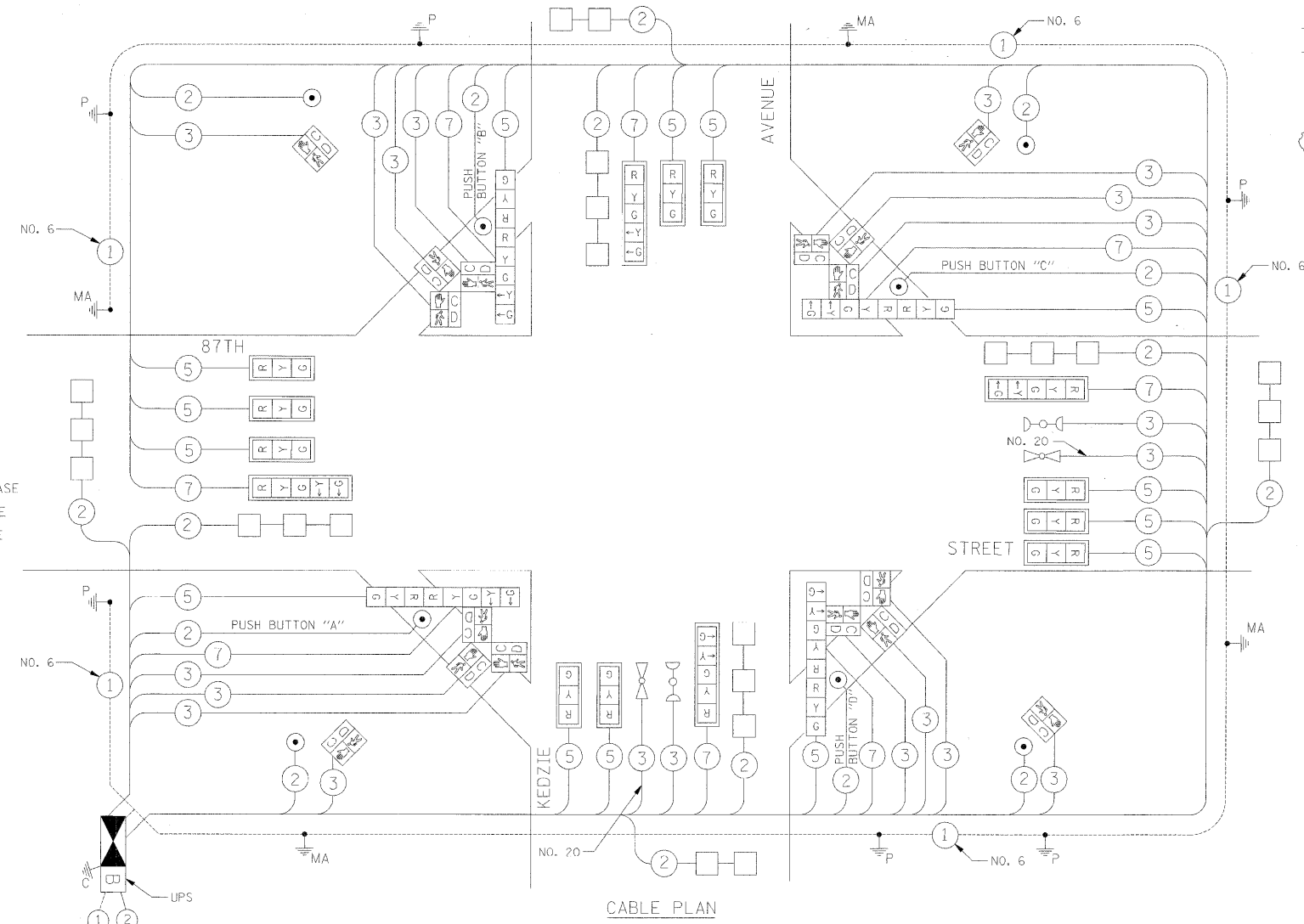
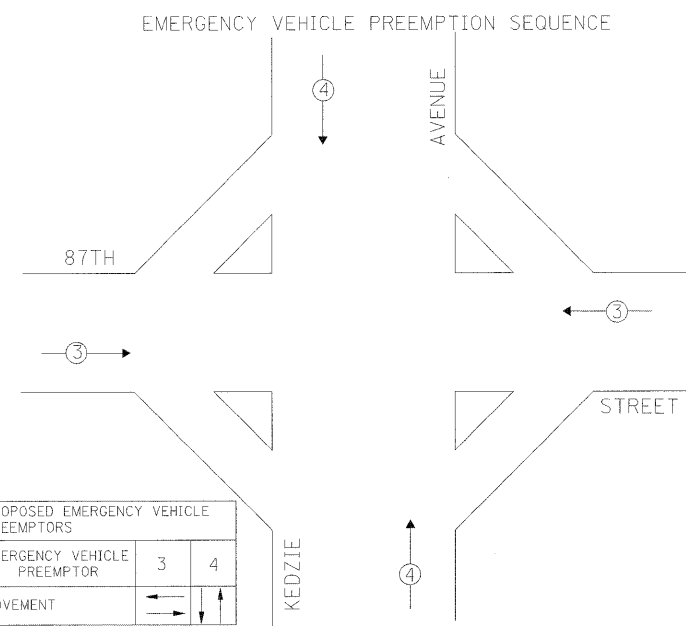
RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIAN, SIDEWALKS, PAVEMENT, ETC. SHALL 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.

Existing sidewalk includes cobblestone pavers and any pavers damaged or removed as part of the proposed traffic signal work shall be replaced in kind.

|   |                    |                   |           |   |  |   |             |        |              |                |  |
|---|--------------------|-------------------|-----------|---|--|---|-------------|--------|--------------|----------------|--|
| FILE NAME =                               | USER NAME - #USER# | DESIGNED - NB/TCM | REVISED - | <b>STATE OF ILLINOIS<br/>DEPARTMENT OF TRANSPORTATION</b> | <b>PROPOSED TRAFFIC SIGNAL PLAN<br/>87TH STREET AT KEDZIE AVENUE</b> | F.A.P. RTE.                                   | SECTION     | COUNTY | TOTAL SHEETS | Rev. SHEET NO. |  |
| P:\P-08-1600-4\Design\1.87th at Kedzie\SH | \SHT009.DGN        | DRAWN - NB/TCM    | REVISED - |   |  | 395   | 2009-010 TS | COOK   | 11           | 9              |  |
| PLOT SCALE = 20.0000' / IN.               |                    | CHECKED - NB/TCM  | REVISED - |   |  | CONTRACT NO. 60G08                            |             |        |              |                |  |
| PLOT DATE = 1/27/2009                     |                    | DATE - 01/23/2009 | REVISED - |   |  | FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT |             |        |              |                |  |



PHASE DESIGNATION DIAGRAM



CABLE PLAN

SUMMARY OF QUANTITIES

| QUANTITY | UNIT  | ITEM  | QUANTITY | UNIT  | ITEM   |
|----------|-------|---|----------|-------|--|
| 40       | SQ FT | PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH        | 2587     | FOOT  | ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1-PAIR                            |
| 128      | SQ FT | DETECTABLE WARNINGS                             | 121      | FOOT  | ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C                                 |
| 1        | L SUM | TRAFFIC CONTROL AND PROTECTION, STANDARD 701501 | 651      | FOOT  | ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C                               |
| 1        | L SUM | TRAFFIC CONTROL AND PROTECTION, STANDARD 701601 | 367      | FOOT  | ELECTRIC CABLE IN CONDUIT, NO. 20 3C, TWISTED, SHIELDED                      |
| 1        | L SUM | TRAFFIC CONTROL AND PROTECTION, STANDARD 701701 | 2        | EACH  | TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.                                 |
| 1        | L SUM | TRAFFIC CONTROL AND PROTECTION, STANDARD 701801 | 4        | EACH  | TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.                                 |
| 27       | SQ FT | SIGN PANEL - TYPE 1                             | 4        | EACH  | STEEL MAST ARM ASSEMBLY AND POLE, 54 FT.                                     |
| 696      | FOOT  | THERMOPLASTIC PAVEMENT MARKING - LINE 12"       | 24       | FOOT  | CONCRETE FOUNDATION, TYPE A  |
| 235      | FOOT  | THERMOPLASTIC PAVEMENT MARKING - LINE 24"       | 4        | FOOT  | CONCRETE FOUNDATION, TYPE C  |
| 1020     | FOOT  | CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL    | 60       | FOOT  | CONCRETE FOUNDATION, TYPE E 36" DIAMETER                                     |
| 15       | FOOT  | CONDUIT IN TRENCH, 3" DIA., GALVANIZED STEEL    | 4        | EACH  | DRILL EXISTING HANDHOLE  |
| 10       | FOOT  | CONDUIT IN TRENCH, 5" DIA., GALVANIZED STEEL    | 10       | EACH  | SIGNAL HEAD, L.E.D., 1-FACE, 3-SECTION, MAST ARM MOUNTED                     |
| 224      | FOOT  | CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL       | 4        | EACH  | SIGNAL HEAD, L.E.D., 1-FACE, 5-SECTION, MAST ARM MOUNTED                     |
| 134      | FOOT  | CONDUIT PUSHED, 3" DIA., GALVANIZED STEEL       | 4        | EACH  | SIGNAL HEAD, L.E.D., 2-FACE, 1-3 SECTION, 1-5 SECTION BRACKET MOUNTED        |
| 82       | FOOT  | CONDUIT PUSHED, 3 1/2" DIA., GALVANIZED STEEL   | 4        | EACH  | PEDESTRIAN SIGNAL HEAD, L.E.D., 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER |
| 85       | FOOT  | CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL       | 4        | EACH  | PEDESTRIAN SIGNAL HEAD, L.E.D., 3-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER |
| 309      | FOOT  | CONDUIT PUSHED, 5" DIA., GALVANIZED STEEL       | 4        | EACH  | TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM                                 |
| 9        | EACH  | HANDHOLE  | 841      | FOOT  | INDUCTIVE LOOP DETECTOR  |
| 4        | EACH  | HEAVY-DUTY HANDHOLE                             | 8        | EACH  | DETECTOR LOOP, TYPE I  |
| 3        | EACH  | DOUBLE HANDHOLE                                 | 1        | EACH  | PEDESTRIAN PUSH-BUTTON   |
| 1040     | FOOT  | TRENCH AND BACKFILL FOR ELECTRICAL WORK         | 1        | EACH  | TEMPORARY TRAFFIC SIGNAL INSTALLATION  |
| 1        | EACH  | FULL-ACTUATED CONTROLLER AND TYPE IV CABINET    | 1        | EACH  | REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT                                     |
| 1        | EACH  | UNINTERRUPTIBLE POWER SUPPLY                    | 19       | EACH  | REMOVE EXISTING HANDHOLE   |
| 1810     | FOOT  | ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C     | 12       | EACH  | REMOVE EXISTING CONCRETE FOUNDATION  |
| 4048     | FOOT  | ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C     | 102.8    | SQ FT | TEMPORARY INFORMATION SIGNING  |
| 3964     | FOOT  | ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C     | 1        | EACH  | TEMPORARY TRAFFIC SIGNAL TIMINGS   |
| 2153     | FOOT  | ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C     | 1        | EACH  | SERVICE INSTALLATION, POLE MOUNT   |

| TYPE                      | NO. LAMPS           | WATTAGE INCAND. | WATTAGE LED | % OPERATION | TOTAL WATTAGE  |
|---------------------------|---------------------|-----------------|-------------|-------------|----------------|
| SIGNAL (RED)              | 22                  | 17              | 0.50        | 187.00      |                |
| (YELLOW)                  | 22                  | 0.25            | 137.50      |             |                |
| (GREEN)                   | 22                  | 15              | 0.25        | 82.50       |                |
| ARROW                     | 16                  | 12              | 0.10        | 19.20       |                |
| PED. SIGNAL               | 16                  | 25              | 1.00        | 400.00      |                |
| CONTROLLER                | 1                   | 100             | 1.00        | 100.00      |                |
| ILLUM. SIGN               |                     |                 | 0.05        | -           |                |
| FLASHER                   |                     |                 | 0.05        | -           |                |
| ENERGY COSTS TO:          |                     |                 |             |             | TOTAL = 926.20 |
| VILLAGE OF EVERGREEN PARK |                     |                 |             |             |                |
| 9418 S. KEDZIE AVENUE     |                     |                 |             |             |                |
| EVERGREEN PARK, IL 60805  |                     |                 |             |             |                |
| ENERGY SUPPLY CONTACT:    | VALERIE MURPHY      |                 |             |             |                |
| PHONE:                    | (708)235-2346       |                 |             |             |                |
| COMPANY:                  | COMMONWEALTH 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'-4"-2"  |
| E - M. ARM POLE    | 10 (3.0) | SIGN POST        | 2 (1.0)   | 6m-L-0.6m=        |            |
| 24" (600mm)        | 15 (4.6) | CONTROLLER CAB.  | 1 (0.5)   | BRACKET MOUNTED   | 13 (4.0)   |
| 30" (750mm)        |          | FIBER OPTIC      | 13 (4.0)  | PED. PUSHBUTTON   | 4 (1.2)    |
|                    |          | 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 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] | 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] | "E" RAILROAD CONTROL CABINET  |
| [Symbol] | [Symbol] | "E" ILLUMINATED SIGN, FIBER OPTIC "NO LEFT TURN"  |
| [Symbol] | [Symbol] | "E" ILLUMINATED SIGN, FIBER OPTIC "NO RIGHT TURN"   |
| [Symbol] | [Symbol] | H/C 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] | 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

