| F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| | 11-00392-01-TD | KANE | 55 | 1 |
| | ILLINOIS | CONTRACT NO. | | |

⚠

# KANE COUNTY DIVISION OF TRANSPORTATION
# STATE OF ILLINOIS

# RANDALL ROAD ROUTE 529
# IMPROVING ACCESS TO BUS SERVICE

## TRAFFIC & PEDESTRIAN SIGNAL IMPROVEMENTS

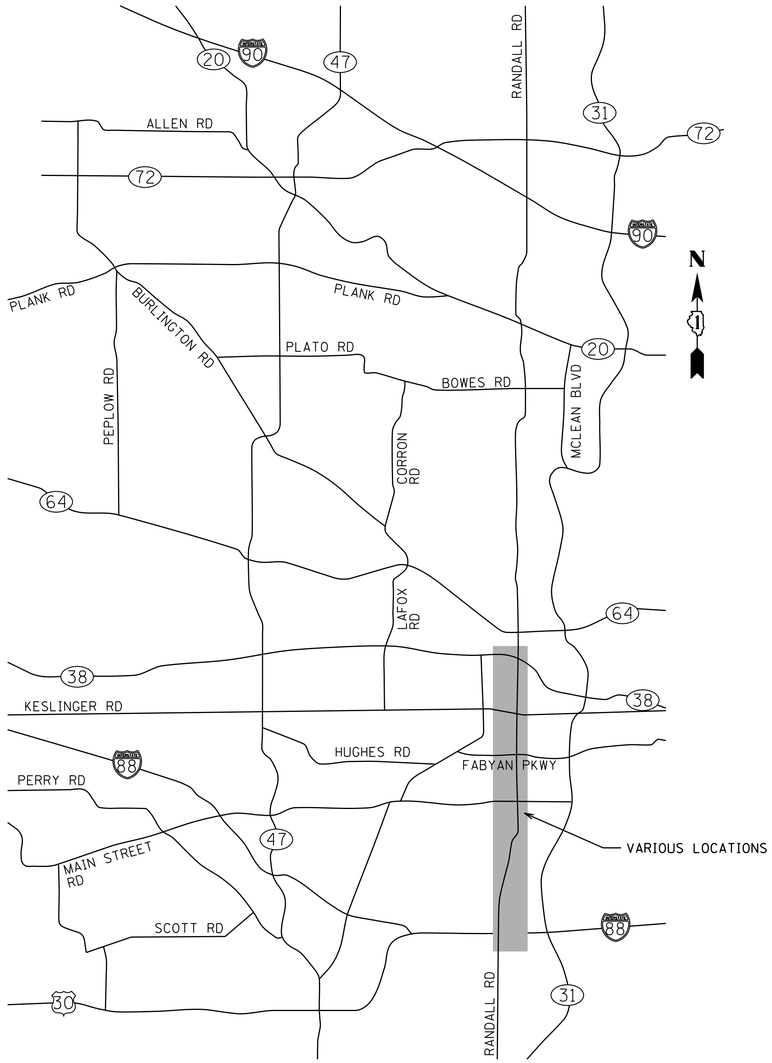
## FINAL PLANS


**LOCATION OF SECTION INDICATED THUS: –** ■

## IDOT HIGHWAY STANDARDS

| | |
|---|---|
| 280001-05 | TEMPORARY EROSION CONTROL SYSTEMS |
| 701006-03 | OFF-RD OPERATIONS 2L, 2W, 15' TO 24' FROM EDGE OF PAVEMENT |
| 701101-02 | OFF-RD OPERATIONS, 15' TO 24' FROM EDGE OF PAVEMENT |
| 701306-03 | LANE CLOSURE, 2L, 2W, SLOW MOVING OPERATION DAY ONLY FOR SPEEDS > 45 MPH |
| 701601-07 | URBAN LANE CLOSURE, MULTILANE, 1W OR 2W WITH NON TRANSVERSIBLE MEDIAN |
| 701701-08 | URBAN LANE CLOSURE MULTILANE INTERSECTION |
| 701801-05 | LANE CLOSURE, MULTILANE, 1W OR 2W CROSSWALK OR SIDEWALK CLOSURE |
| 701901-01 | TRAFFIC CONTROL DEVICES |
| 873001-02 | TRAFFIC SIGNAL GROUNDING AND BONDING |
| 876001-02 | PEDESTRIAN PUSH BUTTON POST |
| 878001-09 | CONCRETE FOUNDATION DETAILS |
| 880006 | TRAFFIC SIGNAL MOUNTING DETAILS |
| 886006-01 | TYPICAL LAYOUTS FOR DETECTOR LOOPS |

⚠



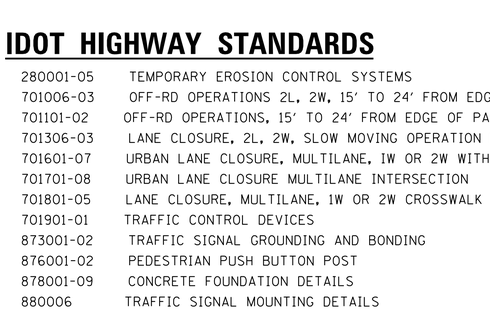

## LOCATION MAP

N.T.S.

KANE COUNTY
DIVISION OF TRANSPORTATION

APPROVED _____ 20____

_____
CARL SCHOEDEL, P.E., COUNTY ENGINEER, KANE COUNTY




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

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

LICENSED PROFESSIONAL ENGINEER
MICHAEL J. RECHTORIK
062-059627
STATE OF ILLINOIS

*Expires 11-30-13*

07-05-12 ADDENDUM #1 ⚠1


V3 Companies
7325 Janes Avenue
Woodridge, IL 60517
630.724.9200 phone
630.724.9202 fax
www.v3co.com

## INDEX OF SHEETS



⚠1

## GENERAL NOTES

1. THE CONTRACTOR IS TO LAY OUT NEW TRAFFIC SIGNAL FOUNDATIONS AND SIDEWALK SIMULTANEOUSLY PRIOR TO CONSTRUCTION OF EITHER ITEM TO BE APPROVED BY THE ENGINEER OR KANE COUNTY DOT-TRAFFIC SECTION.

2. CROSSWALKS TO BE 6 FT WIDE MINIMUM, 8 FT WIDE PREFERRED.

3. FOR SIDEWALK AND BUS PAD INSTALLATION PLANS AND DETAILS, REFER TO PLANS PREPARED BY V3 COMPANIES TITLED RANDALL ROAD ROUTE 529 IMPROVING ACCESS TO BUS SERVICE, BUS PAD AND SIDEWALK IMPROVEMENTS.

4. EXISTING PEDESTRIAN SIGNALS AND PUSH BUTTONS AT RANDALL ROAD INTERSECTIONS WITH FARGO BOULEVARD, CHRISTINA LANE, AND WILSON STREET WILL BE UPGRADED "BY OTHERS" TO LED COUNTDOWN PEDESTRIAN SIGNAL HEADS AND PUSH BUTTONS.

## PERMIT NOTES AND CONTACTS

THE CONTRACTOR WILL BE RESPONSIBLE FOR OBTAINING ANY AND ALL PERMITS FOR WORK DONE ON COUNTY, STATE, CITY, AND VILLAGE JURISDICTION. SIDEWALK CONSTRUCTION NOT TAKING PLACE WITHIN COUNTY JURISDICTION ARE SHOWN IN THE TABLE BELOW. THE APPROPRIATE PARTY SHOULD BE CONTACTED TO COORDINATE PERMITTING.

| Road Name | Jurisdiction | Sheet Number |
|---|---|---|
| JUDICIAL CENTER | KANE COUNTY | 4 |
| ROUTE 38 | IDOT | 5 |
| BRICHER ROAD - NORTH SIDE | ST. CHARLES | 7 |
| BRICHER ROAD - SOUTH SIDE | GENEVA | 7 |
| CHRISTINA DRIVE | GENEVA | 9 |
| FARGO | GENEVA | 10 |
| GLENEAGLE | GENEVA | 12 |
| MILL STREET | BATAVIA | 11 |
| MCKEE STREET | BATAVIA | 13 |
| WILSON STREET | BATAVIA | 14 |
| RANDALL AT DOGWOOD ST. | NORTH AURORA | 15 |
| RANDALL AT OAK ST. | NORTH AURORA | 16 |
| RANDALL AT ICE CREAM DR. | NORTH AURORA | 17 |
| RANDALL AT SULLIVAN | AURORA | 18 |

| Permit Contacts | Phone | Contact Person |
|---|---|---|
| KANE COUNTY | 630-584-1170 | KURT NIKA |
| IDOT | 847-705-4131 | TOM GALLENBACH |
| ST. CHARLES | 630-443-3709 | JAMES BERNAHL |
| GENEVA | 630-232-7494 | |
| BATAVIA | 630-454-2000 | NOEL BASQUIN |
| NORTH AURORA | 630-897-2662 | MIKE GLOCK |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Woodridge, IL 60517
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630.724.9202 fax
www.v3co.com


| | | |
|---|---|---|
| DESIGNED - MJR | REVISED - 07-05-12 | |
| DRAWN - DRP | ADDENDUM #1 ⚠1 | |
| CHECKED - MJR | REVISED - | |
| DATE - | REVISED - | |

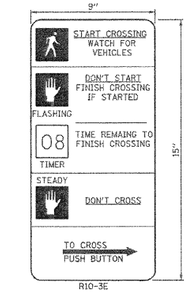
**KANE COUNTY**
**DIVISION OF TRANSPORTATION**

**GENERAL NOTES AND INDEX OF SHEETS**

SCALE: NTS

| F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| | | KANE | 55 | 02 |
| | | ILLINOIS | | |

| NUMBER | PAY ITEM | UNIT | TOTAL | IL 38 @ Meijer Dr | Randall Road @ Bricher Rd | Randall Road @ Fargo Blvd | Randall Road @ Christina Ln | Randall Road @ Gleneagle Dr | Randall Road @ Mill St | Randall Road @ McKee St | Randall Road @ Wilson St | Randall Road @ Main St | Randall Road @ Dogwood St | Randall Road @ Oak St | Randall Road @ Ice Cream Dr | Randall Road @ Sullivan Dr |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 40701961 | HOT-MIX ASPHALT PAVEMENT (FULL-DEPTH), 14" | SQ YD | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 |
| 44003100 | MEDIAN REMOVAL | SQ FT | 78 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 78 | 0 |
| 60618800 | CONCRETE MEDIAN, TYPE SB | SQ FT | 33 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 33 | 0 |
| 67100100 | MOBILIZATION | L SUM | 13 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 70102630 | TRAFFIC CONTROL AND PROTECTION, STANDARD 701601 | L SUM | 13 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 70102635 | TRAFFIC CONTROL AND PROTECTION, STANDARD 701701 | L SUM | 13 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 70102640 | TRAFFIC CONTROL AND PROTECTION, STANDARD 701801 | L SUM | 13 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 78000100 | THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS | SQ FT | 84 | 0 | 0 | 0 | 0 | 48 | 36 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 78000200 | THERMOPLASTIC PAVEMENT MARKING - LINE 4" | FOOT | 159 | 0 | 43 | 0 | 0 | 32 | 28 | 28 | 14 | 14 | 0 | 0 | 0 | 0 |
| 78000400 | THERMOPLASTIC PAVEMENT MARKING - LINE 6" | FOOT | 4,487 | 170 | 628 | 201 | 532 | 613 | 643 | 716 | 677 | 307 | 0 | 0 | 0 | 0 |
| 78000600 | THERMOPLASTIC PAVEMENT MARKING - LINE 12" | FOOT | 4,727 | 229 | 818 | 201 | 537 | 609 | 641 | 708 | 680 | 303 | 0 | 0 | 0 | 0 |
| 78000650 | THERMOPLASTIC PAVEMENT MARKING - LINE 24" | FOOT | 952 | 0 | 125 | 58 | 38 | 170 | 165 | 190 | 125 | 81 | 0 | 0 | 0 | 0 |
| 78009000 | MODIFIED URETHANE PAVEMENT MARKING - LETTERS AND SYMBOLS | SQ FT | 41 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13 | 0 | 28 | 0 |
| 78009012 | MODIFIED URETHANE PAVEMENT MARKING - LINE 6" | FOOT | 1,874 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 309 | 669 | 677 | 219 |
| 78009006 | MODIFIED URETHANE PAVEMENT MARKING - LINE 12" | FOOT | 1,859 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 305 | 670 | 665 | 219 |
| 78009024 | MODIFIED URETHANE PAVEMENT MARKING - LINE 24" | FOOT | 232 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 28 | 32 | 172 | 0 |
| 78300100 | PAVEMENT MARKING REMOVAL | SQ FT | 3,727 | 0 | 246 | 123 | 266 | 564 | 446 | 508 | 551 | 215 | 78 | 263 | 468 | 0 |
| 81028200 | UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA. | FOOT | 602 | 27 | 26 | 43 | 64 | 14 | 55 | 37 | 67 | 38 | 57 | 87 | 31 | 56 |
| 81028210 | UNDERGROUND CONDUIT, GALVANIZED STEEL, 2 1/2" DIA. | FOOT | 113 | 3 | 26 | 0 | 0 | 4 | 0 | 1 | 0 | 0 | 0 | 31 | 48 | 0 |
| 85000200 | MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION | EACH | 13 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 87301215 | ELECTRIC CABLE IN CONDUIT, SIGNAL NO 14 2C | FOOT | 12,998 | 497 | 1,216 | 520 | 1,080 | 1,430 | 1,408 | 1,326 | 1,060 | 492 | 639 | 1,225 | 1,327 | 778 |
| 87301225 | ELECTRIC CABLE IN CONDUIT, SIGNAL NO 14 3C | FOOT | 12,575 | 485 | 1,195 | 496 | 1,050 | 1,382 | 1,360 | 1,278 | 1,024 | 468 | 615 | 1,189 | 1,279 | 754 |
| 87301255 | ELECTRIC CABLE IN CONDUIT, SIGNAL NO 14 7C | FOOT | 59 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 59 | 0 | 0 | 0 | 0 |
| 87301900 | ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, SIGNAL, NO 6 1C | FOOT | 861 | 30 | 105 | 35 | 64 | 72 | 46 | 36 | 67 | 91 | 57 | 109 | 79 | 70 |
| 87500600 | TRAFFIC SIGNAL POST, 10 FT | EACH | 41 | 1 | 5 | 5 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 4 |
| 87501000 | TRAFFIC SIGNAL POST, 14 FT | EACH | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 87501200 | TRAFFIC SIGNAL POST, 16 FT | EACH | 9 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 3 | 0 |
| 87800100 | CONCRETE FOUNDATION, TYPE A | FOOT | 204 | 8 | 28 | 20 | 12 | 16 | 12 | 16 | 12 | 16 | 12 | 16 | 20 | 16 |
| 87900200 | DRILL EXISTING HANDHOLE | EACH | 118 | 2 | 7 | 5 | 3 | 28 | 23 | 8 | 12 | 9 | 4 | 9 | 4 | 4 |
| 88102717 | PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER | EACH | 72 | 2 | 8 | 2 | 4 | 8 | 8 | 8 | 6 | 4 | 4 | 6 | 8 | 4 |
| 88600100 | DETECTOR LOOP, TYPE I | FOOT | 7,473 | 0 | 0 | 0 | 0 | 2,358 | 1,818 | 2,013 | 775 | 395 | 0 | 114 | 0 | 0 |
| 89500100 | RELOCATE EXISTING SIGNAL HEAD | EACH | 16 | 1 | 4 | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 1 | 6 | 0 |
| 89500200 | RELOCATE EXISTING PEDESTRIAN SIGNAL HEAD | EACH | 6 | 0 | 0 | 5 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 89500400 | RELOCATE EXISTING PEDESTRIAN PUSH-BUTTON | EACH | 4 | 0 | 0 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 89502200 | MODIFY EXISTING CONTROLLER | EACH | 13 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 89502350 | REMOVE AND REINSTALL ELECTRIC CABLE FROM CONDUIT | FOOT | 372 | 22 | 118 | 0 | 0 | 31 | 0 | 24 | 0 | 0 | 0 | 52 | 125 | 0 |
| 89502375 | REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT | EACH | 9 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 |
| 89502376 | REBUILD EXISTING HANDHOLE | EACH | 3 | | | | | 2 | 1 | | | | | | | |
| 89502385 | REMOVE EXISTING CONCRETE FOUNDATION | EACH | 10 | 1 | 3 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 3 | 0 |
| X8760200 | ACCESSIBLE PEDESTRIAN SIGNALS | EACH | 71 | 2 | 7 | 2 | 4 | 8 | 8 | 8 | 6 | 4 | 4 | 6 | 8 | 4 |
| X8760250 | VIBROTACTILE FEATURE | EACH | 71 | 2 | 7 | 2 | 4 | 8 | 8 | 8 | 6 | 4 | 4 | 6 | 8 | 4 |
| Z0013798 | CONSTRUCTION LAYOUT | L SUM | 1 | 0.077 | 0.077 | 0.077 | 0.077 | 0.077 | 0.077 | 0.077 | 0.077 | 0.077 | 0.077 | 0.077 | 0.077 | 0.077 |
| Z0033044 | RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM - LEVEL I | EACH | 5 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 |
| Z0033046 | RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM - LEVEL II | EACH | 8 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 |



R10-3E

THE CONTRACTOR SHALL SUPPLY AND MOUNT ONE SIGN AT EACH EXISTING PEDESTRIAN PUSH-BUTTON AND THIS SHALL BE INCLUDED IN THE COST OF PEDESTRIAN SIGNAL HEAD PAY ITEM.

## R10-3E SIGN SCHEDULE

| INTERSECTION | NUMBER OF R10-3E (ARROW LEFT) SIGNS REQUIRED | NUMBER OF R10-3E (ARROW RIGHT) SIGNS REQUIRED | TOTAL |
|---|---|---|---|
| RANDALL RD & IL-38 | 1 | 1 | 2 |
| RANDALL RD & BRICHER | 4 | 4 | 8 |
| RANDALL RD & FARGO | 4 | 4 | 8 |
| RANDALL RD & CHRISTINA | 4 | 4 | 8 |
| RANDALL RD & GLENEAGLE | 4 | 4 | 8 |
| RANDALL RD & MILL | 4 | 4 | 8 |
| RANDALL RD & MCKEE | 4 | 4 | 8 |
| RANDALL RD & WILSON | 4 | 4 | 8 |
| RANDALL RD & MAIN | 2 | 2 | 4 |
| RANDALL RD & DOGWOOD | 2 | 2 | 4 |
| RANDALL RD & OAK | 4 | 4 | 8 |
| RANDALL RD & ICE CREAM | 4 | 4 | 8 |
| RANDALL RD & SULLIVAN | 2 | 2 | 4 |
| | | TOTAL | 86 |

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7325 Janes Avenue
Woodridge, IL 60517
630.724.9200 phone
630.724.9202 fax
www.v3co.com

| | | | |
|---|---|---|---|
| DESIGNED | MJR | REVISED | 07-05-12 |
| DRAWN | DRP | | ADDENDUM #1 |
| CHECKED | MJR | REVISED | |
| DATE | | REVISED | |

**KANE COUNTY**
**DIVISION OF TRANSPORTATION**

**SUMMARY OF QUANTITIES**

SCALE: NTS

| F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| | | KANE | 55 | 03 |
| | | ILLINOIS | | |

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 TRAFFIC SIGNAL POST

NOTES:

1. UNLESS OTHERWISE NOTED ALL CONCRETE WORK, TACTILE PAVERS, AND SIGNAGE SHALL BE DONE BY OTHERS.
2. ALL EXISTING CONDUIT SIZES AND LENGTHS SHALL BE FIELD VERIFIED.
3. ALL CONFLICTING PAVEMENT MARKINGS WITH THE PROPOSED CONDITION SHALL BE REMOVED.
4. CONTRACTOR TO CONNECT NEW DETECTOR LOOP CABLE TO EXISTING LEAD IN CABLE. THIS WORK WILL NOT BE PAID SEPERATELY BUT WILL BE INCLUDED IN THE UNIT PRICE FOR DETECTOR LOOP.

EX ROW
EX ROW
LINCOLN HWY. ( IL 38 )
SIDEWALK (BY OTHERS)
BUS PAD (BY OTHERS)
SIGN (BY OTHERS)
SIGN (BY OTHERS)
BUS PAD (BY OTHERS)
DRILL EXISTING HANDHOLE
10' POST
27'-UC 2"
DRILL EXISTING HANDHOLE
RELOCATE EXIST SIGNAL HEAD TO PROPOSED 16' POST
THERMOPLASTIC PAVEMENT MARKING, 6", WHITE (TYP)
THERMOPLASTIC PAVEMENT MARKING, 12", WHITE (TYP)
16' POST
3'-UC 2½"
EXISTING INTERCONNECT TO RANDALL ROAD
ENTRANCE
MEIJER
28'
12'
14'
17.5'
15'
14.5'
12'
12.4'
12'
5.3'
12'
8'
E-18' 2½"
E-98' 4"
E-5' 2½"
E-61' 2"
E-17' 2½"
E-3' 2½"
E-155' 4"
E-63' 4"
E-48' 4"
E-22' 2½"
E-55' 2"
E-35' 2"

| ITEM | LOCATION | NORTHING | EASTING |
|---|---|---|---|
| 10' POST | SW CORNER | 1,907,237.88 | 981,489.71 |
| 10' POST | NW CORNER | 1,907,333.34 | 981,526.84 |

KEY MAP
SULLIVAN
ICE CREAM
I-88
OAK
MOOSEHEART
DOGWOOD
WILSON
MAIN
MILL
FABYAN
GLENEAGLE
CHRISTINA
FARGO
BRICHER
IL38
IL64

N

1"=20'
SCALE
20 0 20 40
FEET

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630.724.9202 fax
www.v3co.com

| | | | |
|---|---|---|---|
| DESIGNED | - MJR | REVISED | - 07-05-12 |
| DRAWN | - DRP | ADDENDUM #1 | |
| CHECKED | - MJR | REVISED | - |
| DATE | - | REVISED | - |

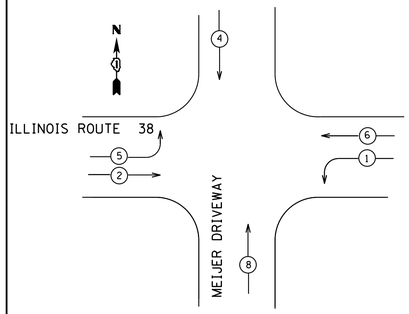
**KANE COUNTY**
**DIVISION OF TRANSPORTATION**

**SIGNAL PLAN – IL 38 AND MEIJER DRIVE**

SCALE: 1" = 20'

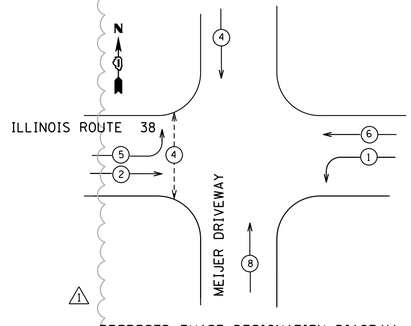
| F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| | | KANE | 55 | 04 |
| | | ILLINOIS | | |

CONTROLLER SEQUENCE




EXISTING PHASE DESIGNATION DIAGRAM

CONTROLLER SEQUENCE

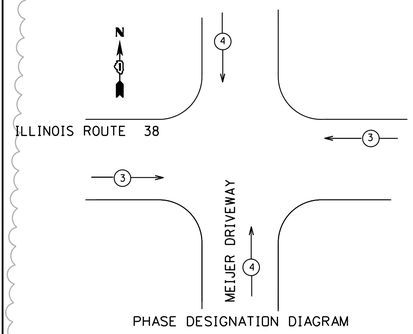



PROPOSED PHASE DESIGNATION DIAGRAM

LEGEND

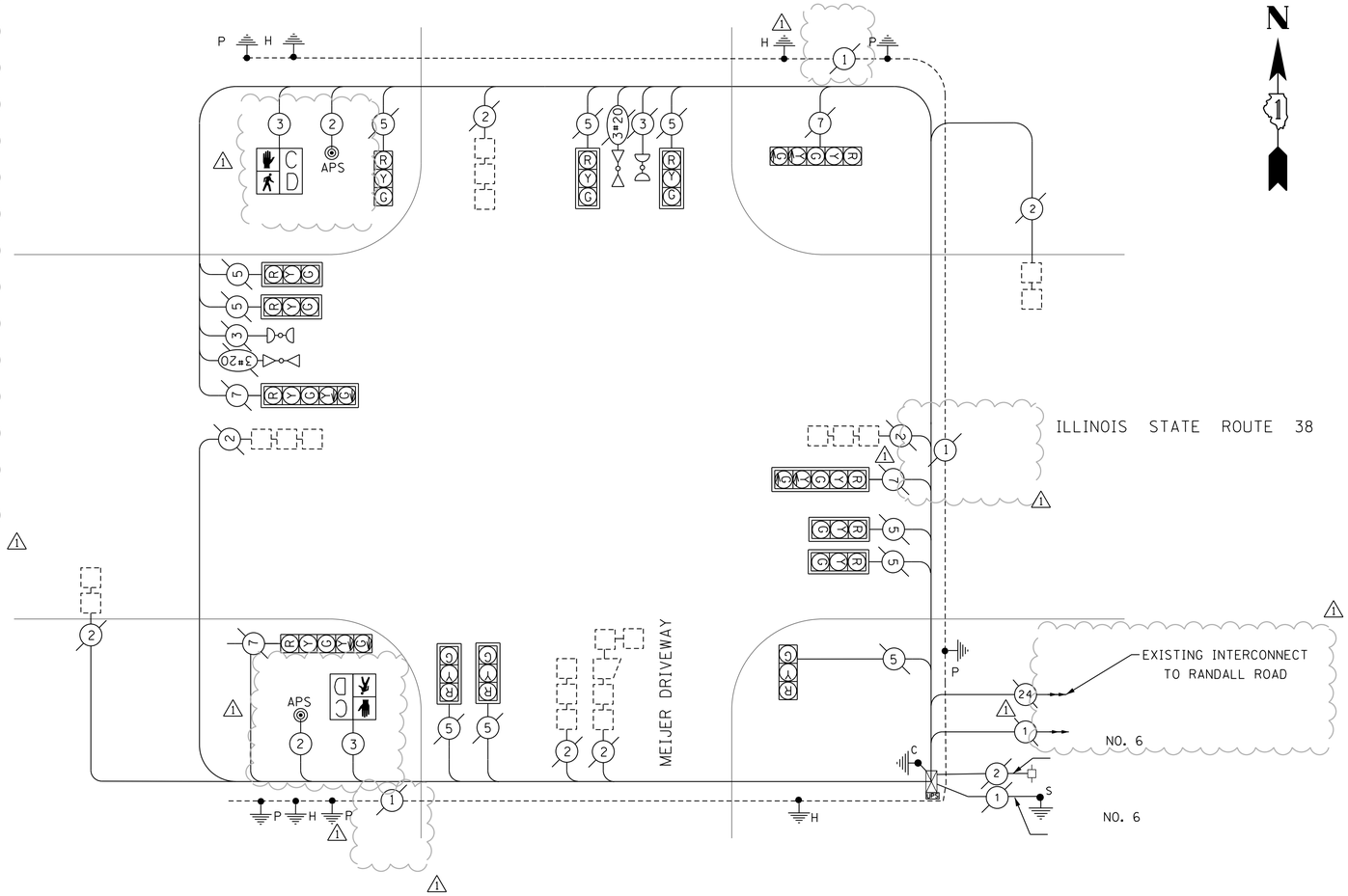
- DUAL ENTRY PHASE
- OL — OVERLAP
- PEDESTRIAN PHASE
- ✳ NUMBER REFERS TO ASSOCIATED PHASE

EXISTING/PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE




PHASE DESIGNATION DIAGRAM

| PROPOSED EMERGENCY VEHICLE PREEMPTORS | | |
|---|---|---|
| EMERGENCY VEHICLE PREEMPTOR | 3 | 4 |
| MOVEMENT | ← → | ↓ ↑ |




CABLE PLAN

| TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS | | | | | |
|---|---|---|---|---|---|
| TYPE | NO. LAMPS | WATTAGE INCAND. | WATTAGE LED | × %OPERATION | TOTAL WATTAGE |
| SIGNAL (RED) | 14 | | 17 | 0.50 | 119.00 |
| (YELLOW) | 14 | | 25 | 0.25 | 87.50 |
| (GREEN) | 14 | | 15 | 0.25 | 52.50 |
| ARROW | 8 | | 12 | 0.10 | 9.60 |
| PED. SIGNAL | 2 | | 25 | 1.00 | 50.00 |
| CONTROLLER | 1 | | 100 | 1.00 | 100.00 |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| FLASHER | | | | 0.50 | |
| ENERGY COSTS TO: | | | | TOTAL = | 418.60 |

ENERGY SUPPLY CONTACT: _____
PHONE: _____
COMPANY: _____

NOTE:
TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS INTERSECTION IS "EAGLE"

⚠1
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, MEDIANS, 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.

SCHEDULE OF QUANTITIES

| IDOT PAY ITEM | UNIT | QTY | IDOT PAY ITEM | UNIT | QTY |
|---|---|---|---|---|---|
| TRAFFIC CONTROL AND PROTECTION, STANDARD 701601 | L SUM | 1 | TRAFFIC SIGNAL POST, 16 FT | EACH | 1 |
| TRAFFIC CONTROL AND PROTECTION, STANDARD 701701 | L SUM | 1 | CONCRETE FOUNDATION, TYPE A | FOOT | 8 |
| TRAFFIC CONTROL AND PROTECTION, STANDARD 701801 | L SUM | 1 | DRILL EXISTING HANDHOLE | EACH | 2 |
| THERMOPLASTIC PAVEMENT MARKING - LINE 6" | FOOT | 170 | PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER | EACH | 2 |
| THERMOPLASTIC PAVEMENT MARKING - LINE 12" | FOOT | 229 | ACCESSIBLE PEDESTRIAN SIGNALS | EACH | 2 |
| UNDERGROUND CONDUIT, 2" DIA, GALVANIZED STEEL | FOOT | 27 | RELOCATE EXISTING SIGNAL HEAD | EACH | 1 |
| UNDERGROUND CONDUIT, 2 1/2" DIA, GALVANIZED STEEL | FOOT | 3 | MODIFY EXISTING CONTROLLER | EACH | 1 |
| MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION | EACH | 1 | REMOVE AND REINSTALL ELECTRIC CABLE FROM CONDUIT | FOOT | 22 |
| ELECTRIC CABLE IN CONDUIT, SIGNAL NO 14 2C | FOOT | 497 | REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT | EACH | 1 |
| ELECTRIC CABLE IN CONDUIT, SIGNAL NO 14 3C | FOOT | 485 | REMOVE EXISTING CONCRETE FOUNDATION | EACH | 1 |
| ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING, SIG NO 6 IC | EACH | 30 | RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM - LEVEL 1 | EACH | 1 |
| TRAFFIC SIGNAL POST, 10 FT | EACH | 1 | VIBROTACTILE FEATURE | EACH | 2 |


V3 Companies
7325 Janes Avenue
Woodridge, IL 60517
630.724.9200 phone
630.724.9202 fax
www.v3co.com


| | | |
|---|---|---|
| DESIGNED - MJR | REVISED - 07-05-12 | |
| DRAWN - DRP | ADDENDUM #1 ⚠1 | |
| CHECKED - MJR | REVISED - | |
| DATE - | REVISED - | |

**KANE COUNTY**
**DIVISION OF TRANSPORTATION**

**SCHEDULE OF QUANTITIES, CABLE PLAN AND PHASE DESIGNATION DIAGRAM – IL 38 AND MEIJER DRIVE**

SCALE: NONE

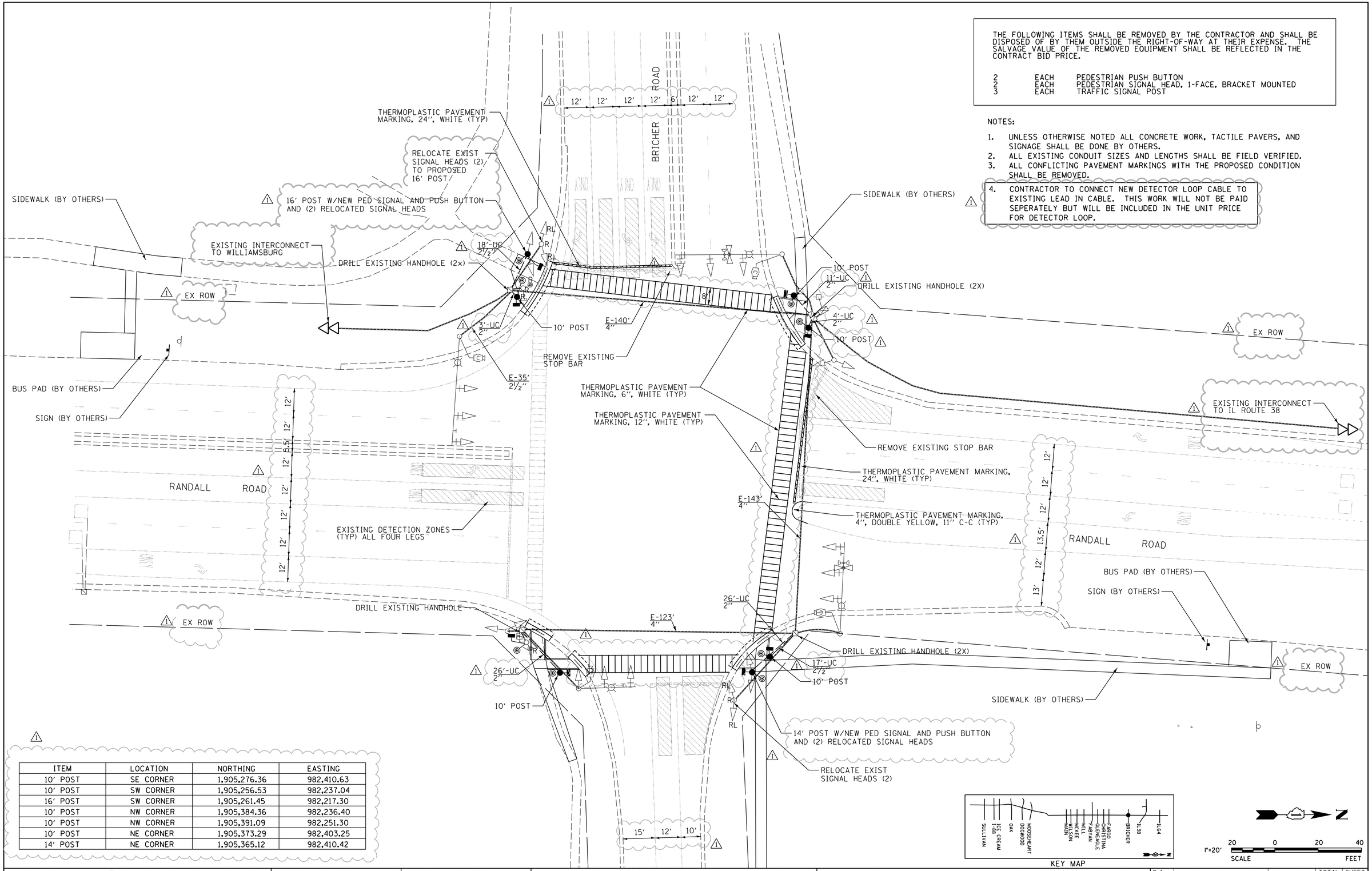
| F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| | | KANE | 55 | 05 |
| | | ILLINOIS | | |

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 | PEDESTRIAN PUSH BUTTON |
| 2 | EACH | PEDESTRIAN SIGNAL HEAD, 1-FACE, BRACKET MOUNTED |
| 3 | EACH | TRAFFIC SIGNAL POST |

NOTES:

1. UNLESS OTHERWISE NOTED ALL CONCRETE WORK, TACTILE PAVERS, AND SIGNAGE SHALL BE DONE BY OTHERS.
2. ALL EXISTING CONDUIT SIZES AND LENGTHS SHALL BE FIELD VERIFIED.
3. ALL CONFLICTING PAVEMENT MARKINGS WITH THE PROPOSED CONDITION SHALL BE REMOVED.
4. CONTRACTOR TO CONNECT NEW DETECTOR LOOP CABLE TO EXISTING LEAD IN CABLE. THIS WORK WILL NOT BE PAID SEPERATELY BUT WILL BE INCLUDED IN THE UNIT PRICE FOR DETECTOR LOOP.




| ITEM | LOCATION | NORTHING | EASTING |
|---|---|---|---|
| 10' POST | SE CORNER | 1,905,276.36 | 982,410.63 |
| 10' POST | SW CORNER | 1,905,256.53 | 982,237.04 |
| 16' POST | SW CORNER | 1,905,261.45 | 982,217.30 |
| 10' POST | NW CORNER | 1,905,384.36 | 982,236.40 |
| 10' POST | NW CORNER | 1,905,391.09 | 982,251.30 |
| 10' POST | NE CORNER | 1,905,373.29 | 982,403.25 |
| 14' POST | NE CORNER | 1,905,365.12 | 982,410.42 |




1"=20'
SCALE
20 0 20 40
FEET

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www.v3co.com

| | | | |
|---|---|---|---|
| DESIGNED | MJR | REVISED - 07-05-12 ADDENDUM #1 | ⚠1 |
| DRAWN | DRP | | |
| CHECKED | MJR | REVISED - | |
| DATE | | REVISED - | |

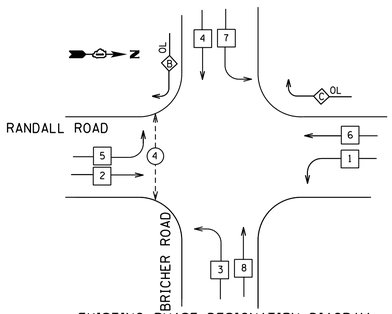
**KANE COUNTY**
**DIVISION OF TRANSPORTATION**

**SIGNAL PLAN – RANDALL ROAD AND BRICHER ROAD**

SCALE: 1" = 20'

| F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| | | KANE | 55 | 06 |
| | | ILLINOIS | | |

CONTROLLER SEQUENCE

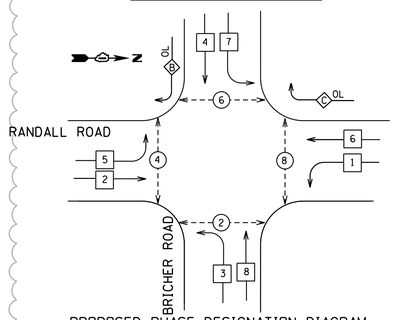



EXISTING PHASE DESIGNATION DIAGRAM

LEGEND

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

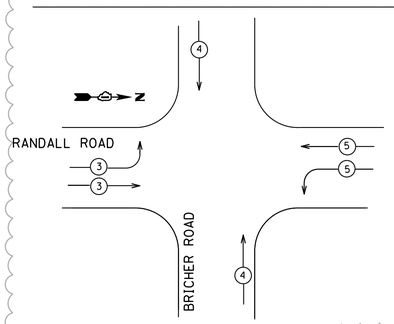
CONTROLLER SEQUENCE



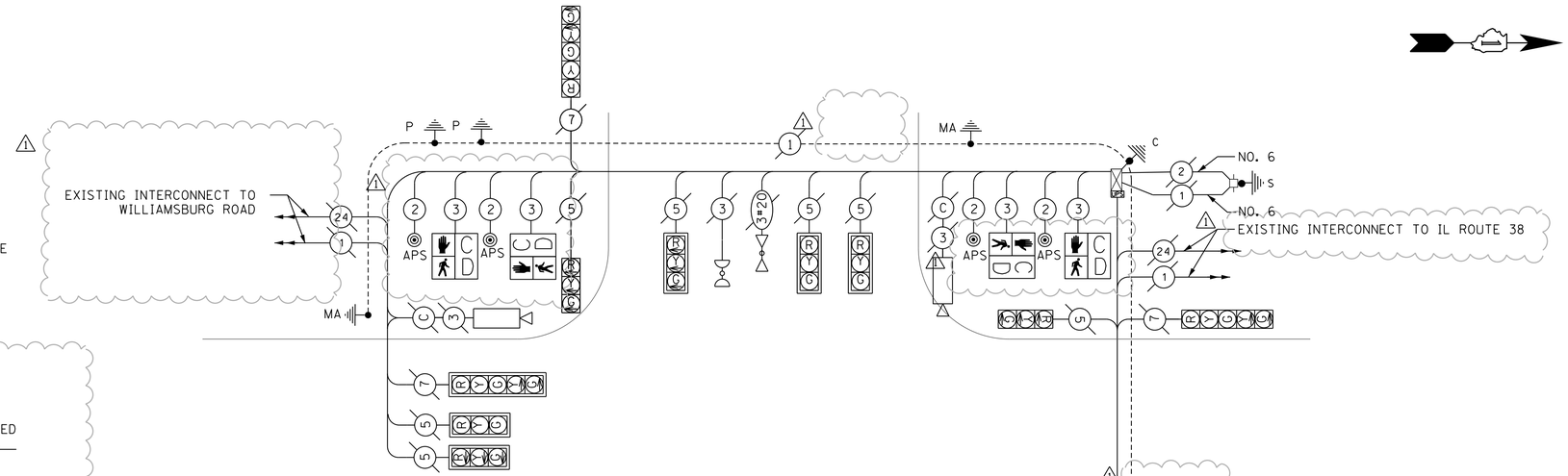

PROPOSED PHASE DESIGNATION DIAGRAM

| OVERLAP LETTER | | PERMISSIVE PHASE | | PROTECTED PHASE |
|---|---|---|---|---|
| B | = | 4 | + | 5 |
| C | = | 6 | + | 7 |

EXISTING/PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE




| PROPOSED EMERGENCY VEHICLE PREEMPTORS | | | |
|---|---|---|---|
| EMERGENCY VEHICLE PREEMPTOR | 3 | 4 | 5 |
| MOVEMENT | | | |




CABLE PLAN

| 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 | 32 | 135 | 12 | 0.10 | 38.4 |
| PED. SIGNAL | 8 | 90 | 25 | 1.00 | 200.00 |
| CONTROLLER | 1 | 100 | 100 | 1.00 | 100.00 |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| FLASHER | | | | 0.50 | |
| ENERGY COSTS TO: | | | | TOTAL = | 560.40 |

ENERGY SUPPLY CONTACT: _____
PHONE: _____
COMPANY: _____

NOTE:
TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS INTERSECTION IS "EAGLE"

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, MEDIANS, 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.

SCHEDULE OF QUANTITIES

| IDOT PAY ITEM | UNIT | QTY | IDOT PAY ITEM | UNIT | QTY |
|---|---|---|---|---|---|
| TRAFFIC CONTROL AND PROTECTION, STANDARD 701601 | L SUM | 1 | ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING, SIG NO 6 IC | EACH | 105 |
| TRAFFIC CONTROL AND PROTECTION, STANDARD 701701 | L SUM | 1 | CONCRETE FOUNDATION, TYPE A | FOOT | 28 |
| TRAFFIC CONTROL AND PROTECTION, STANDARD 701801 | L SUM | 1 | DRILL EXISTING HANDHOLE | EACH | 87 |
| THERMOPLASTIC PAVEMENT MARKING - LINE 4" | FOOT | 43 | PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER | EACH | 7 |
| THERMOPLASTIC PAVEMENT MARKING - LINE 6" | FOOT | 628 | ACCESSIBLE PEDESTRIAN SIGNAL | EACH | 7 |
| THERMOPLASTIC PAVEMENT MARKING - LINE 12" | FOOT | 818 | RELOCATE EXISTING SIGNAL HEAD | EACH | 4 |
| THERMOPLASTIC PAVEMENT MARKING - LINE 24" | FOOT | 125 | MODIFY EXISTING CONTROLLER | EACH | 1 |
| PAVEMENT MARKING REMOVAL | SQ FT | 234 | REMOVE AND REINSTALL ELECTRIC CABLE FROM CONDUIT | FOOT | 118 |
| UNDERGROUND CONDUIT, 2" DIA, GALVANIZED STEEL | FOOT | 26 | REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT | EACH | 0 |
| UNDERGROUND CONDUIT, 2 1/2" DIA, GALVANIZED STEEL | FOOT | 26 | REMOVE EXISTING CONCRETE FOUNDATION | EACH | 3 |
| MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION | EACH | 1 | RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM - LEVEL II | EACH | 1 |
| ELECTRIC CABLE IN CONDUIT, SIGNAL NO 14 2C | FOOT | 1,216 | VIBROTACTILE FEATURE | EACH | 7 |
| ELECTRIC CABLE IN CONDUIT, SIGNAL NO 14 3C | FOOT | 1,174 | | | |
| TRAFFIC SIGNAL POST, 10 FT | EACH | 4 | | | |
| TRAFFIC SIGNAL POST, 14 FT | EACH | 1 | | | |
| TRAFFIC SIGNAL POST, 16 FT | EACH | 2 | | | |


V3 Companies
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630.724.9202 fax
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| | |
|---|---|
| DESIGNED - | MJR |
| DRAWN - | DRP |
| CHECKED - | MJR |
| DATE - | |

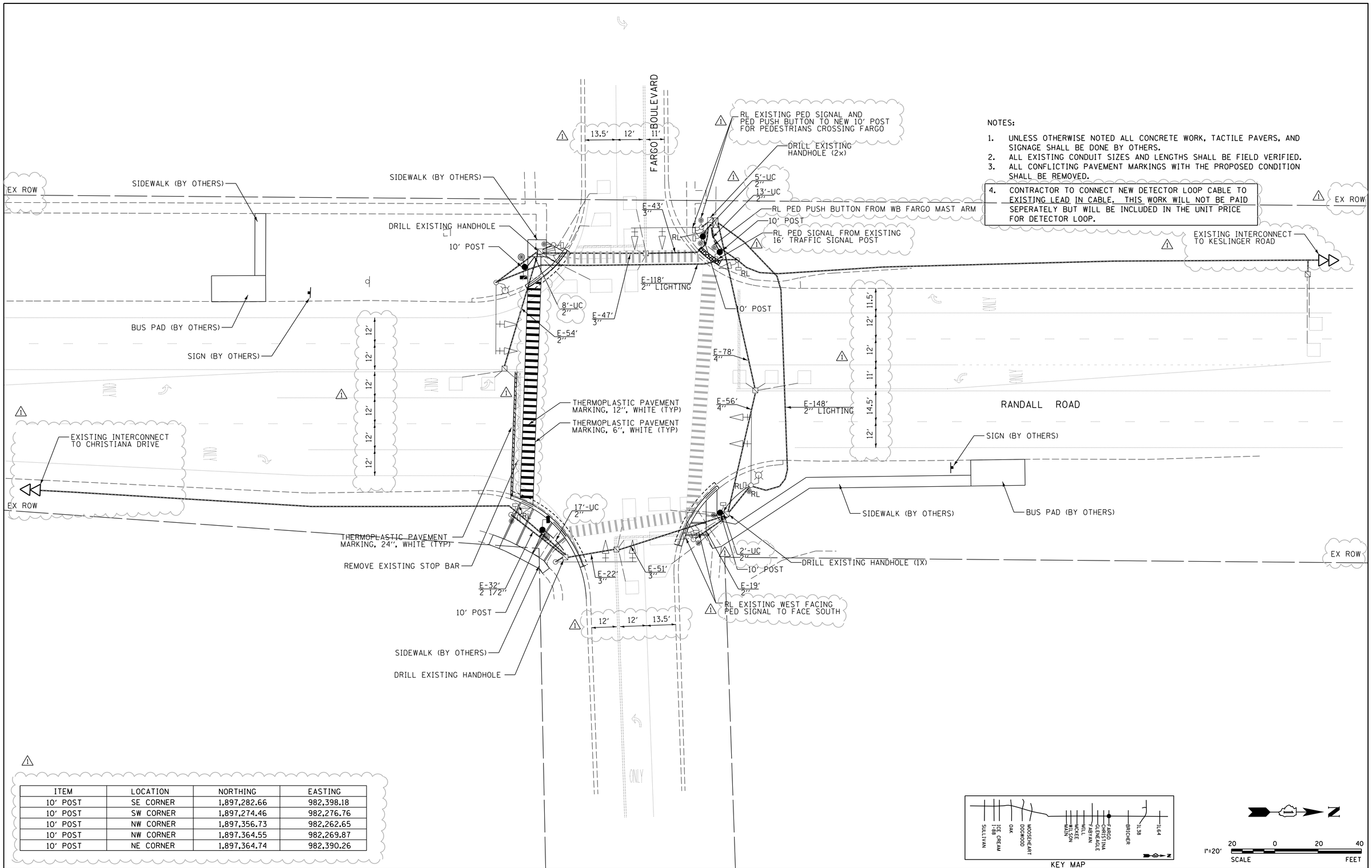
| | |
|---|---|
| REVISED - | 07-05-12 |
| | ADDENDUM #1 |
| REVISED - | |
| REVISED - | |

**KANE COUNTY**
**DIVISION OF TRANSPORTATION**

**SCHEDULE OF QUANTITIES, CABLE PLAN AND PHASE DESIGNATION DIAGRAM – RANDALL ROAD AND BRICHER ROAD**

SCALE: NONE

| F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| | | KANE | 55 | 07 |
| | | ILLINOIS | | |




| ITEM | LOCATION | NORTHING | EASTING |
|---|---|---|---|
| 10' POST | SE CORNER | 1,897,282.66 | 982,398.18 |
| 10' POST | SW CORNER | 1,897,274.46 | 982,276.76 |
| 10' POST | NW CORNER | 1,897,356.73 | 982,262.65 |
| 10' POST | NW CORNER | 1,897,364.55 | 982,269.87 |
| 10' POST | NE CORNER | 1,897,364.74 | 982,390.26 |



KEY MAP

1"=20'
SCALE
20 0 20 40
FEET

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Woodridge, IL 60517
630.724.9200 phone
630.724.9202 fax
www.v3co.com

| | | | |
|---|---|---|---|
| DESIGNED | - MJR | REVISED - | 07-05-12 |
| DRAWN | - DRP | ADDENDUM #1 | ⚠1 |
| CHECKED | - MJR | REVISED - | |
| DATE | - | REVISED - | |

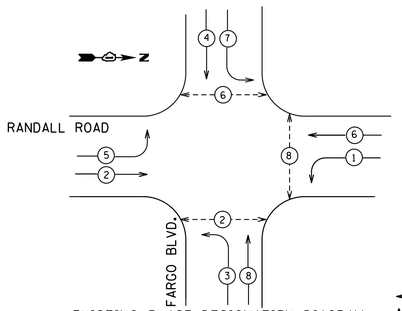
**KANE COUNTY**
**DIVISION OF TRANSPORTATION**

**SIGNAL PLAN – RANDALL ROAD AND FARGO BOULEVARD**

SCALE: 1" = 20'

| F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| | | KANE | 55 | 08 |
| | | ILLINOIS | | |

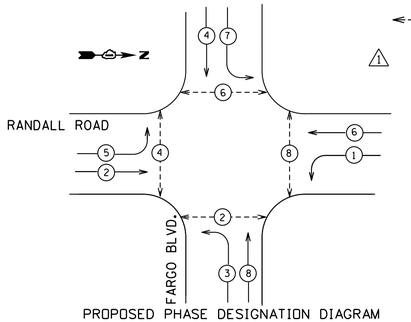
CONTROLLER SEQUENCE




EXISTING PHASE DESIGNATION DIAGRAM

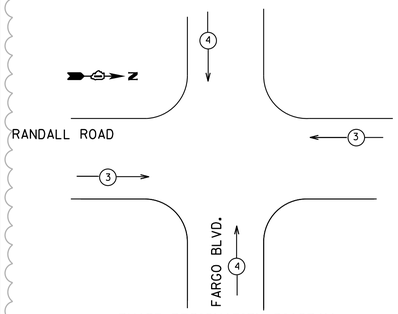
LEGEND

- DUAL ENTRY PHASE
- OL — OVERLAP
- PEDESTRIAN PHASE
- * NUMBER REFERS TO ASSOCIATED PHASE



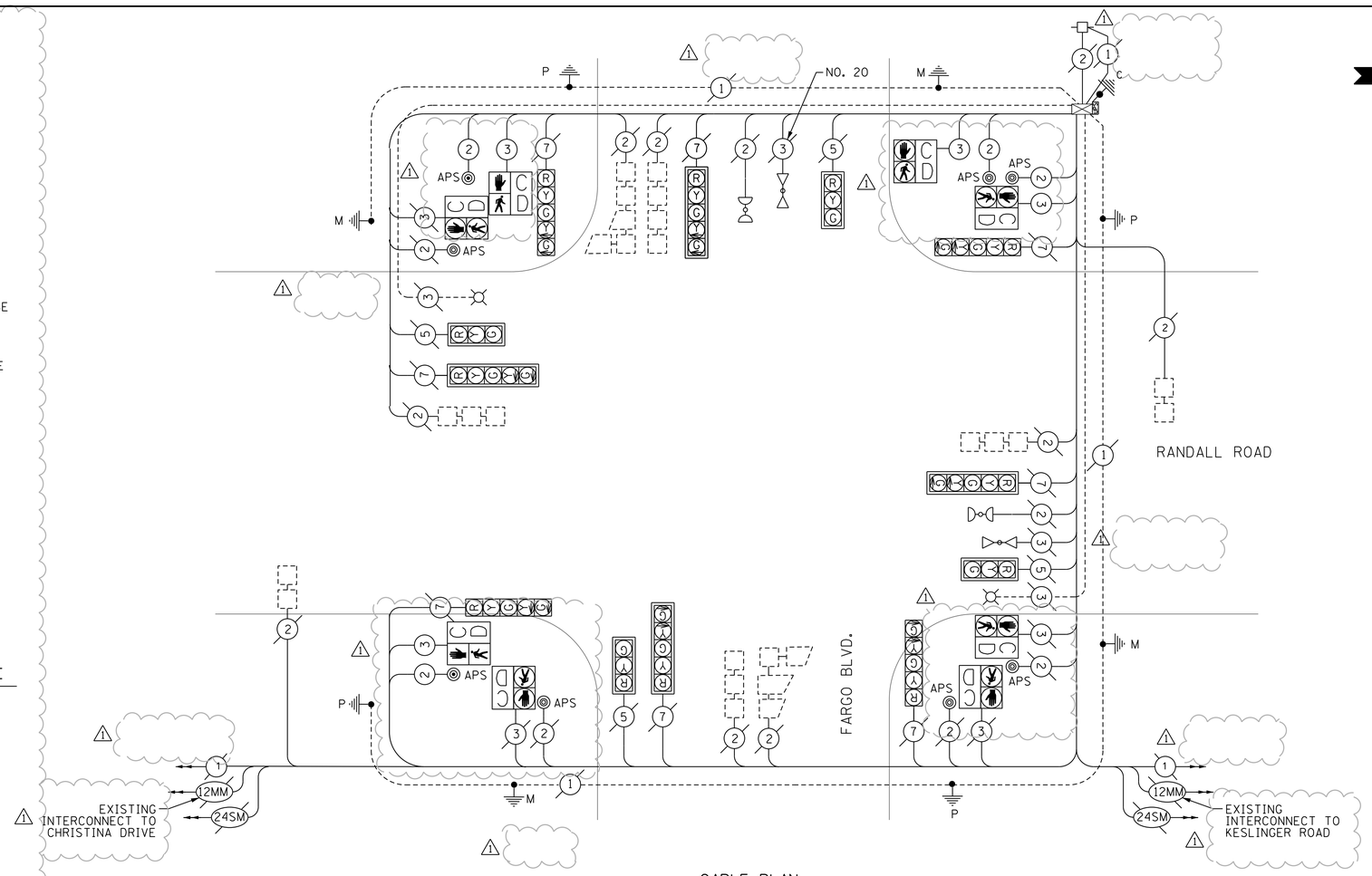

PROPOSED PHASE DESIGNATION DIAGRAM

EXISTING/PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE




PHASE DESIGNATION DIAGRAM

| PROPOSED EMERGENCY VEHICLE PREEMPTORS | | |
|---|---|---|
| EMERGENCY VEHICLE PREEMPTOR | 3 | 4 |
| MOVEMENT | ← → | ↓ ↑ |




CABLE PLAN

| TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS | | | | | |
|---|---|---|---|---|---|
| TYPE | NO. LAMPS | WATTAGE INCAND. | WATTAGE LED | % OPERATION | TOTAL WATTAGE |
| 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 | | 25 | 1.00 | 200.00 |
| CONTROLLER | 1 | | 100 | 1.00 | 100.00 |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| FLASHER | | | | 0.50 | |
| ENERGY COSTS TO: | | | | TOTAL = | 541.20 |

ENERGY SUPPLY CONTACT: TOM LESFEWICZ
PHONE: 630-377-4407
COMPANY: CITY OF ST CHARLES

NOTE:
TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS INTERSECTION IS "EAGLE"

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, MEDIANS, 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.

SCHEDULE OF QUANTITIES

| IDOT PAY ITEM | UNIT | QTY | IDOT PAY ITEM | UNIT | QTY |
|---|---|---|---|---|---|
| TRAFFIC CONTROL AND PROTECTION, STANDARD 701601 | L SUM | 1 | CONCRETE FOUNDATION, TYPE A | FOOT | 20 |
| TRAFFIC CONTROL AND PROTECTION, STANDARD 701701 | L SUM | 1 | DRILL EXISTING HANDHOLE | EACH | 5 |
| TRAFFIC CONTROL AND PROTECTION, STANDARD 701801 | L SUM | 1 | PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED, W/COUNTDOWN TIMER | EACH | 4 |
| THERMOPLASTIC PAVEMENT MARKING - LINE 6" | FOOT | 202 | ACCESSIBLE PEDESTRIAN SIGNALS | EACH | 4 |
| THERMOPLASTIC PAVEMENT MARKING - LINE 12" | FOOT | 201 | RELOCATE EXISTING PEDESTRIAN SIGNAL HEAD | EACH | 2 |
| THERMOPLASTIC PAVEMENT MARKING - LINE 24" | FOOT | 58 | RELOCATE EXISTING PEDESTRIAN PUSH-BUTTON | EACH | 1 |
| PAVEMENT MARKING REMOVAL | SQ FT | 119 | MODIFY EXISTING CONTROLLER | EACH | 1 |
| UNDERGROUND CONDUIT, 2" DIA, GALVANIZED STEEL | FOOT | 53 | RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM - LEVEL 2 | EACH | 1 |
| MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION | EACH | 1 | VIBROTACTILE FEATURE | EACH | 4 |
| ELECTRIC CABLE IN CONDUIT, SIGNAL NO 14 2C | FOOT | 520 | | | |
| ELECTRIC CABLE IN CONDUIT, SIGNAL NO 14 3C | FOOT | 496 | | | |
| ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING, SIG NO 6 IC | EACH | 35 | | | |
| TRAFFIC SIGNAL POST, 10 FT | EACH | 5 | | | |

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630.724.9202 fax
www.v3co.com

| | | | |
|---|---|---|---|
| DESIGNED | MJR | REVISED - 07-05-12 | |
| DRAWN | DRP | ADDENDUM #1 | 1 |
| CHECKED | MJR | REVISED - | |
| DATE | - | REVISED - | |

**KANE COUNTY**
**DIVISION OF TRANSPORTATION**

**SCHEDULE OF QUANTITIES, CABLE PLAN AND PHASE DESIGNATION DIAGRAM – RANDALL ROAD AND FARGO BLVD.**

SCALE: NONE

| F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| | | KANE | 55 | 09 |
| | | ILLINOIS | | |

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 | PEDESTRIAN PUSH BUTTON |
| 1 | EACH | PEDESTRIAN SIGNAL HEAD, 1-FACE, BRACKET MOUNTED |

NOTES:

1. UNLESS OTHERWISE NOTED ALL CONCRETE WORK, TACTILE PAVERS, AND SIGNAGE SHALL BE DONE BY OTHERS.
2. ALL EXISTING CONDUIT SIZES AND LENGTHS SHALL BE FIELD VERIFIED.
3. ALL CONFLICTING PAVEMENT MARKINGS WITH THE PROPOSED CONDITION SHALL BE REMOVED.
4. CONTRACTOR TO CONNECT NEW DETECTOR LOOP CABLE TO EXISTING LEAD IN CABLE. THIS WORK WILL NOT BE PAID SEPERATELY BUT WILL BE INCLUDED IN THE UNIT PRICE FOR DETECTOR LOOP.

CHRISTINA DRIVE

RANDALL ROAD

SIDEWALK (BY OTHERS)

DRILL EXISTING HANDHOLE

19'-UC 2"

10' POST

EX ROW

E-50' 4"

E-33' 4"

E-30' 2 1/2"

E-84' 4"

E-47' 4"

E-70' 4"

E-60' 4"

E-10' 2 1/2"

E-118' 2"

BUS PAD (BY OTHERS)

SIGN (BY OTHERS)

EXISTING INTERCONNECT TO GLEN EAGLE ROAD

EXISTING INTERCONNECT TO FARGO BLVD

THERMOPLASTIC PAVEMENT MARKING, 6", WHITE (TYP)

THERMOPLASTIC PAVEMENT MARKING, 12", WHITE (TYP)

THERMOPLASTIC PAVEMENT MARKING, 24", WHITE (TYP)

6'-UC 2"

39'-UC 2"

10' POST WITH RELOCATED PED SIGNAL AND PED PUSH BUTTON

REMOVE EXISTING PAVEMENT MARKINGS

REMOVE EXISTING STOP BAR

| ITEM | LOCATION | NORTHING | EASTING |
|---|---|---|---|
| 10' POST | SE CORNER | 1,896,002.15 | 982,401.09 |
| 10' POST | SW CORNER | 1,895,978.34 | 982,262.23 |
| 10' POST | NE CORNER | 1,896,086.74 | 982,381.04 |

KEY MAP

SULLIVAN · ICE CREAM · I-88 · OAK · MOOSEHEART · DOOKWOOD · WILSON · MAIN · MILL · FABYAN · GLENEAGLE · CHRISTINA · FARGO · BRICHER · IL38 · IL64

1"=20'

SCALE: 20 0 20 40 FEET

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630.724.9202 fax
www.v3co.com

| | | | |
|---|---|---|---|
| DESIGNED | MJR | REVISED | 07-05-12 |
| DRAWN | DRP | | ADDENDUM #1 |
| CHECKED | MJR | REVISED | - |
| DATE | | REVISED | - |

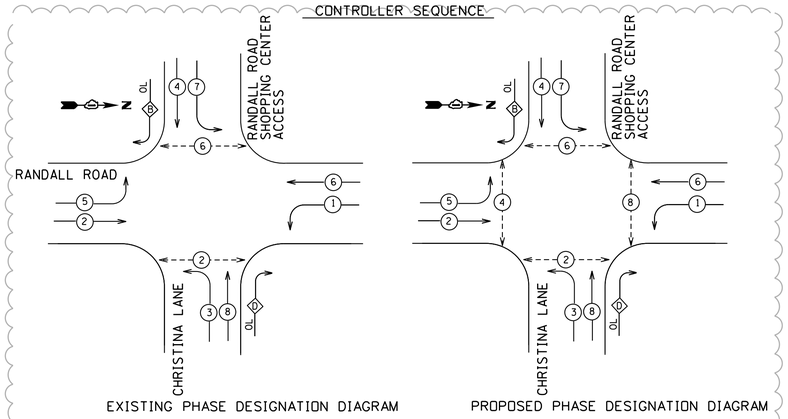
**KANE COUNTY**
**DIVISION OF TRANSPORTATION**

**SIGNAL PLAN – RANDALL ROAD AND CHRISTINA DRIVE**

SCALE: 1" = 20'

| F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| | | KANE | 55 | 10 |
| | | ILLINOIS | | |

## CONTROLLER SEQUENCE




EXISTING PHASE DESIGNATION DIAGRAM



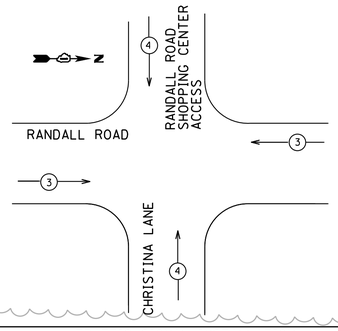

PROPOSED PHASE DESIGNATION DIAGRAM

| OVERLAP LETTER | | PERMISSIVE PHASE | | PROTECTED PHASE |
|---|---|---|---|---|
| B | = | 4 | + | 5 |
| D | = | 8 | + | 1 |

LEGEND

- DUAL ENTRY PHASE
- OL — OVERLAP
- PEDESTRIAN PHASE
- * NUMBER REFERS TO ASSOCIATED PHASE

## EXISTING/PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE




| PROPOSED EMERGENCY VEHICLE PREEMPTORS | | |
|---|---|---|
| EMERGENCY VEHICLE PREEMPTOR | 3 | 4 |
| MOVEMENT | ← → | ↓ ↑ |

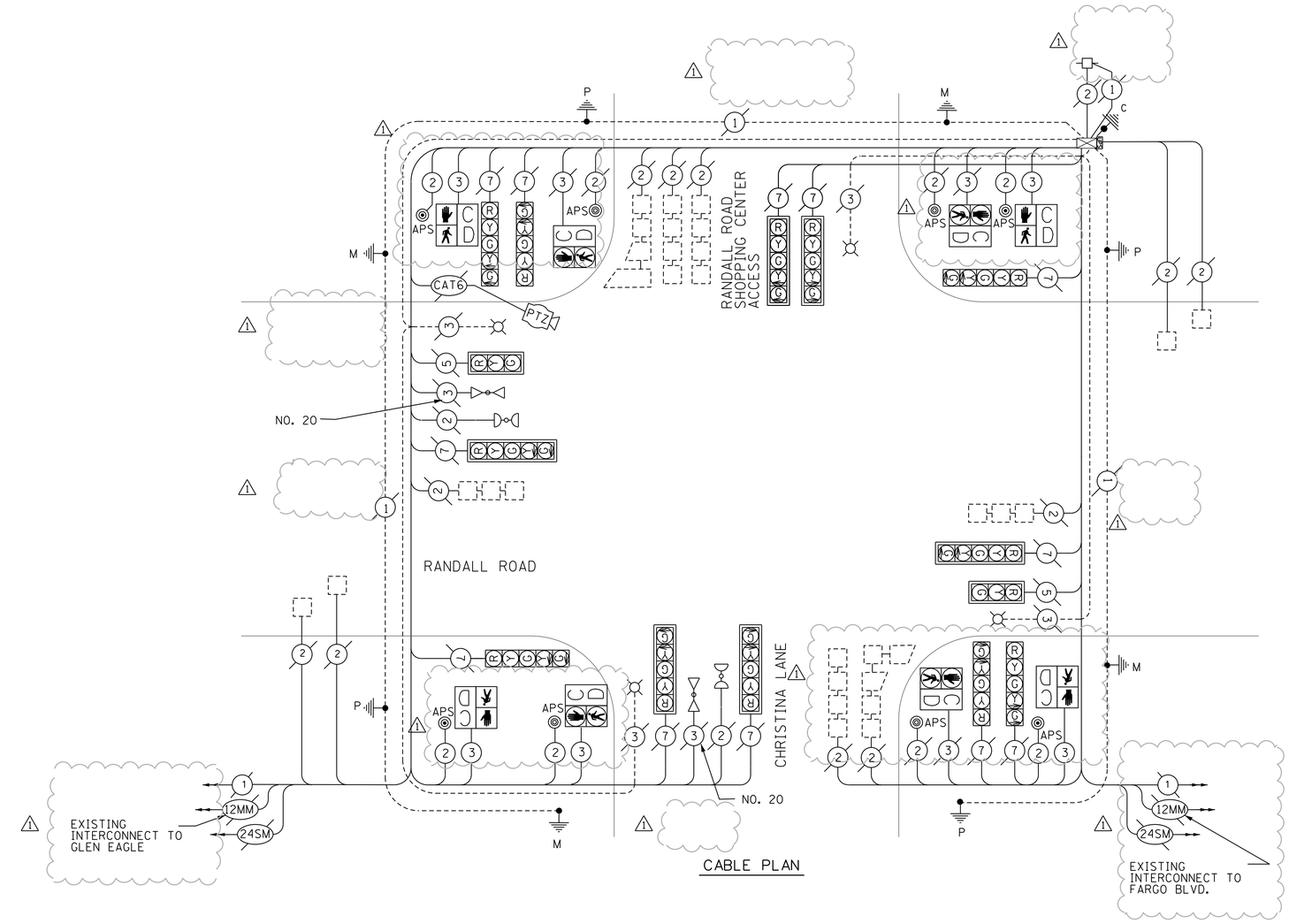
## TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS

| TYPE | NO. LAMPS | WATTAGE INCAND. | WATTAGE LED | × %OPERATION | TOTAL WATTAGE |
|---|---|---|---|---|---|
| SIGNAL (RED) | 14 | | 17 | 0.50 | 119.00 |
| (YELLOW) | 14 | | 25 | 0.25 | 87.50 |
| (GREEN) | 14 | | 15 | 0.25 | 52.50 |
| ARROW | 22 | | 12 | 0.10 | 26.40 |
| PED. SIGNAL | 8 | | 25 | 1.00 | 200.00 |
| CONTROLLER | 1 | | 100 | 1.00 | 100.00 |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| FLASHER | | | | 0.50 | |
| ENERGY COSTS TO: | | | | TOTAL = | 585.40 |

ENERGY SUPPLY CONTACT: _____
PHONE: _____
COMPANY: _____

NOTE:
TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS INTERSECTION IS "EAGLE"

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, MEDIANS, 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.




CABLE PLAN

## SCHEDULE OF QUANTITIES

| IDOT PAY ITEM | UNIT | QTY | IDOT PAY ITEM | UNIT | QTY |
|---|---|---|---|---|---|
| TRAFFIC CONTROL AND PROTECTION, STANDARD 701601 | L SUM | 1 | CONCRETE FOUNDATION, TYPE A | FOOT | 12 |
| TRAFFIC CONTROL AND PROTECTION, STANDARD 701701 | L SUM | 1 | DRILL EXISTING HANDHOLE | EACH | 3 |
| TRAFFIC CONTROL AND PROTECTION, STANDARD 701801 | L SUM | 1 | PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER | EACH | 5 |
| THERMOPLASTIC PAVEMENT MARKING - LINE 6" | FOOT | 530 | ACCESSIBLE PEDESTRIAN SIGNAL | EACH | 5 |
| THERMOPLASTIC PAVEMENT MARKING - LINE 12" | FOOT | 527 | RELOCATE EXISTING PEDESTRIAN SIGNAL HEAD | EACH | 1 |
| THERMOPLASTIC PAVEMENT MARKING - LINE 24" | FOOT | 38 | RELOCATE EXISTING PEDESTRIAN PUSH BUTTON | EACH | 1 |
| PAVEMENT MARKING REMOVAL | SQ FT | 257 | MODIFY EXISTING CONTROLLER | EACH | 1 |
| UNDERGROUND CONDUIT, 2" DIA, GALVANIZED STEEL | FOOT | 64 | REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT | EACH | 1 |
| MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION | EACH | 1 | RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM - LEVEL II | EACH | 1 |
| ELECTRIC CABLE IN CONDUIT, SIGNAL NO 14 2C | FOOT | 1,080 | VIBROTACTILE FEATURE | EACH | 5 |
| ELECTRIC CABLE IN CONDUIT, SIGNAL NO 14 3C | FOOT | 1,050 | | | |
| ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING, SIG NO 6 IC | EACH | 64 | | | |
| TRAFFIC SIGNAL POST, 10 FT | EACH | 3 | | | |


V3 Companies
7325 Janes Avenue
Woodridge, IL 60517
630.724.9200 phone
630.724.9202 fax
www.v3co.com


| | | | |
|---|---|---|---|
| DESIGNED | MJR | REVISED - 07-05-12 | |
| DRAWN | DRP | ADDENDUM #1 | 1 |
| CHECKED | MJR | REVISED - | |
| DATE | - | REVISED - | |

**KANE COUNTY**
**DIVISION OF TRANSPORTATION**

**SCHEDULE OF QUANTITIES, CABLE PLAN AND PHASE DESIGNATION DIAGRAM – RANDALL ROAD AND CHRISTINA LANE**

SCALE: NONE

| F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| | | KANE | 55 | 11 |
| | | ILLINOIS | | |

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 | TRAFFIC SIGNAL POST |

NOTES:

1. UNLESS OTHERWISE NOTED ALL CONCRETE WORK, TACTILE PAVERS, AND SIGNAGE SHALL BE DONE BY OTHERS.
2. ALL EXISTING CONDUIT SIZES AND LENGTHS SHALL BE FIELD VERIFIED.
3. ALL CONFLICTING PAVEMENT MARKINGS WITH THE PROPOSED CONDITION SHALL BE REMOVED.
4. CONTRACTOR TO CONNECT NEW DETECTOR LOOP CABLE TO EXISTING LEAD IN CABLE. THIS WORK WILL NOT BE PAID SEPERATELY BUT WILL BE INCLUDED IN THE UNIT PRICE FOR DETECTOR LOOP.

GLENEAGLE DRIVE
RANDALL ROAD
EX ROW
DETECTOR LOOPS TYPE I (TYP)
59'-UC (2) 1" CNC
REMOVE EXISTING STOP BAR (TYP)
SIDEWALK (BY OTHERS)
REMOVE EXISTING PAVEMENT MARKINGS (TYP)
E-20' 2"
E-19' 2 1/2"
10' POST
4'-UC 2"
DRILL EXISTING HANDHOLE (3X)
BUS PAD (BY OTHERS)
SIGN (BY OTHERS)
E-64' 3"
DRILL EXISTING HANDHOLE (1x)
E-40' 3"
E-6' 2"
REBUILD EXISTING HANDHOLE, SEE BUS PAD PLANS FOR PROPOSED GRADES
THERMOPLASTIC PAVEMENT MARKING, 24", WHITE (TYP)
E-148' 2" LIGHTING
E-47' 4"
REMOVE EXISTING PAVEMENT MARKINGS (TYP)
THERMOPLASTIC PAVEMENT MARKING, 4", DOUBLE YELLOW, 11" C-C (TYP)
DRILL EXISTING HANDHOLE (1X)
DETECTOR LOOP, TYPE 1 (TYP)
E-64' 2"
REMOVE EXISTING STOP BAR (TYP)
THERMOPLASTIC PAVEMENT MARKING, LETTERS & SYMBOLS (TYP)
THERMOPLASTIC PAVEMENT MARKING, 6", WHITE (TYP)
THERMOPLASTIC PAVEMENT MARKING, 12", WHITE (TYP)
THERMOPLASTIC PAVEMENT MARKING, 24", WHITE (TYP)
THERMOPLASTIC PAVEMENT MARKING, 6", WHITE (TYP)
REMOVE EXISTING STOP BAR (TYP)
16' POST
RELOCATE EXIST SIGNAL HEADS (2) TO 16' TRAFFIC SIGNAL POST
REMOVE EXISTING PAVEMENT MARKINGS (TYP)
EXISTING INTERCONNECT TO CHRISTINA DRIVE
SIGN (BY OTHERS)
BUS PAD (BY OTHERS)
E-68' 4"
10'-UC 2"
E-58' 3"
17'-CT (8) 1" UD
E-9' 2 1/2"
E-56' 3"
REBUILD EXISTING HANDHOLE, SEE BUS PAD PLANS FOR PROPOSED GRADES
DRILL EXISTING HANDHOLE (5x)
DRILL EXISTING HANDHOLE (2x)
REMOVE EXISTING STOP BAR (TYP)
EXISTING INTERCONNECT TO FABYAN PARKWAY
33'-UC 2"
25'-UC 2"
10' POST
28'-UC (4) 1" CNC
REMOVE EXISTING PAVEMENT MARKINGS (TYP)
10' POST
10'-UC (2) 1" CNC
DRILL EXISTING HANDHOLE (3x)
35'-UC (2) 1" CNC
SIDEWALK (BY OTHERS)

| ITEM | LOCATION | NORTHING | EASTING |
|---|---|---|---|
| 10' POST | SE CORNER | 1,894,695.33 | 982,396.45 |
| 16' POST | SE CORNER | 1,894,673.02 | 982,378.99 |
| 10' POST | SW CORNER | 1,894,663.20 | 982,263.35 |
| 10' POST | NE CORNER | 1,894,764.41 | 982,398.44 |

KEY MAP: SULLIVAN, ICE CREAM, I-88, OAK, DOCKWOOD, MOOSEHEART, MILL, MISSION, MAIN, FABYAN, GLENEAGLE, CHRISTINA, FARGO, BRICHER, IL 38, IL 64

1"=20' SCALE 20 0 20 40 FEET

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7325 Janes Avenue
Woodridge, IL 60517
630.724.9200 phone
630.724.9202 fax
www.v3co.com

| | | |
|---|---|---|
| DESIGNED | - | MJR |
| DRAWN | - | DRP |
| CHECKED | - | MJR |
| DATE | - | |

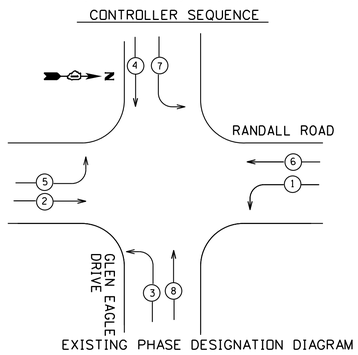
REVISED - 07-05-12 ADDENDUM #1
REVISED -
REVISED -

**KANE COUNTY**
**DIVISION OF TRANSPORTATION**

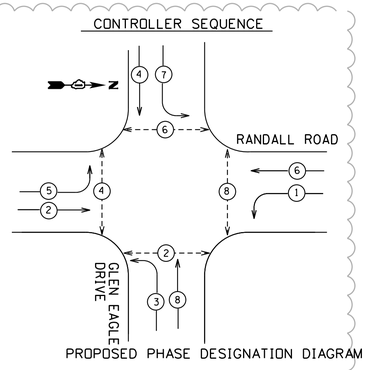
**SIGNAL PLAN – RANDALL ROAD AND GLENEAGLE DRIVE**

SCALE: 1" = 20'

| F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| | | KANE | 55 | 12 |
| | | ILLINOIS | | |




EXISTING PHASE DESIGNATION DIAGRAM

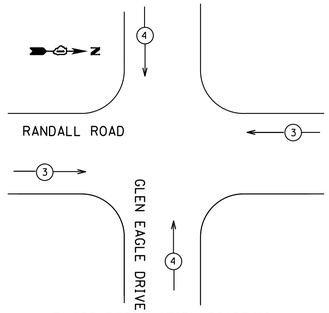



PROPOSED PHASE DESIGNATION DIAGRAM

LEGEND

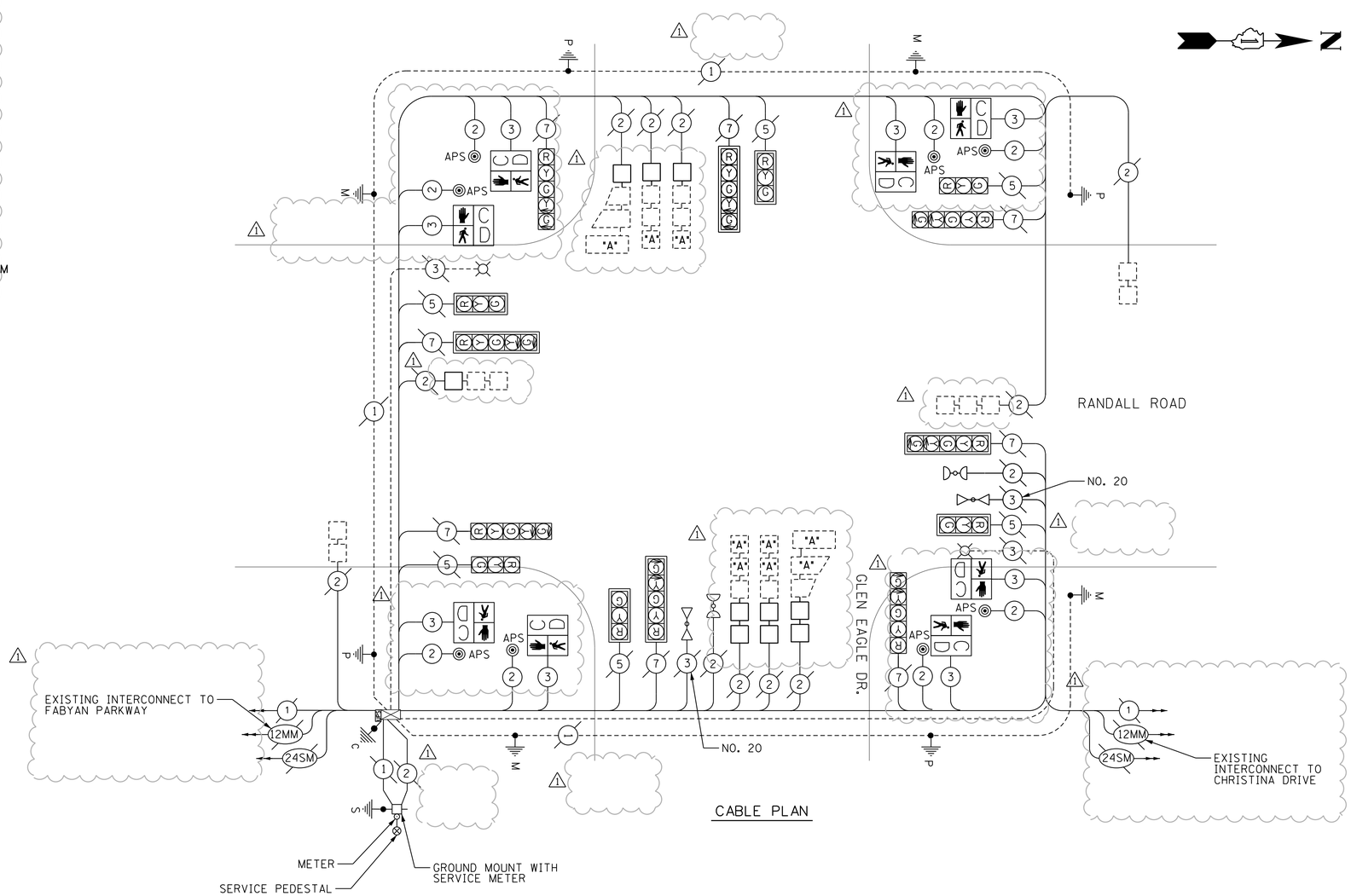
- DUAL ENTRY PHASE
- OL — OVERLAP
- PEDESTRIAN PHASE
- ✳ NUMBER REFERS TO ASSOCIATED PHASE

## EXISTING/PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE




PHASE DESIGNATION DIAGRAM

| PROPOSED EMERGENCY VEHICLE PREEMPTORS | | |
|---|---|---|
| EMERGENCY VEHICLE PREEMPTOR | 3 | 4 |
| MOVEMENT | ← → | ↓ ↑ |




CABLE PLAN

| TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS | | | | | TOTAL WATTAGE |
|---|---|---|---|---|---|
| TYPE | NO. LAMPS | WATTAGE INCAND. | WATTAGE LED | × %OPERATION | |
| SIGNAL (RED) | 14 | | 17 | 0.50 | 119.00 |
| (YELLOW) | 14 | | 25 | 0.25 | 87.50 |
| (GREEN) | 14 | | 15 | 0.25 | 52.50 |
| ARROW | 16 | | 12 | 0.10 | 19.20 |
| PED. SIGNAL | 8 | | 25 | 1.00 | 200.00 |
| CONTROLLER | 1 | | 100 | 1.00 | 100.00 |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| FLASHER | | | | 0.50 | |
| ENERGY COSTS TO: CITY OF GENEVA | | | | TOTAL = | 578.20 |

ENERGY SUPPLY CONTACT: JENIFFER HILKEMAN
PHONE: 630-232-1503
COMPANY: CITY OF GENEVA

NOTE:
TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS INTERSECTION IS "EAGLE"

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, MEDIANS, 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.

## SCHEDULE OF QUANTITIES

| IDOT PAY ITEM | UNIT | QTY | IDOT PAY ITEM | UNIT | QTY |
|---|---|---|---|---|---|
| TRAFFIC CONTROL AND PROTECTION, STANDARD 701601 | L SUM | 1 | TRAFFIC SIGNAL POST, 16 FT | EACH | 1 |
| TRAFFIC CONTROL AND PROTECTION, STANDARD 701701 | L SUM | 1 | CONCRETE FOUNDATION, TYPE A | FOOT | 16 |
| TRAFFIC CONTROL AND PROTECTION, STANDARD 701801 | L SUM | 1 | DRILL EXISTING HANDHOLE | EACH | 28 |
| THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS | SQ FT | 48 | PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER | EACH | 8 |
| THERMOPLASTIC PAVEMENT MARKING - LINE 4" | FOOT | 32 | DETECTOR LOOP, TYPE I | FOOT | 2358 |
| THERMOPLASTIC PAVEMENT MARKING - LINE 6" | FOOT | 613 | ACCESSIBLE PEDESTRIAN SIGNALS | EACH | 8 |
| THERMOPLASTIC PAVEMENT MARKING - LINE 12" | FOOT | 609 | RELOCATE EXISTING SIGNAL HEAD | EACH | 2 |
| THERMOPLASTIC PAVEMENT MARKING - LINE 24" | FOOT | 170 | MODIFY EXISTING CONTROLLER | EACH | 1 |
| PAVEMENT MARKING REMOVAL | SQ FT | 564 | REMOVE AND REINSTALL ELECTRIC CABLE FROM CONDUIT | FOOT | 31 |
| UNDERGROUND CONDUIT, 2" DIA, GALVANIZED STEEL | FOOT | 14 | REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT | EACH | 1 |
| UNDERGROUND CONDUIT, 2 1/2" DIA., GALVANIZED STEEL | FOOT | 4 | REMOVE EXISTING CONCRETE FOUNDATION | EACH | 1 |
| MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION | EACH | 1 | RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM - LEVEL II | EACH | 1 |
| ELECTRIC CABLE IN CONDUIT, SIGNAL NO 14 2C | FOOT | 1,430 | VIBROTACTILE FEATURE | EACH | 8 |
| ELECTRIC CABLE IN CONDUIT, SIGNAL NO 14 3C | FOOT | 1,382 | REBUILD EXISTING HANDHOLE | EACH | 2 |
| ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING, SIG NO 6 IC | EACH | 72 | | | |
| TRAFFIC SIGNAL POST, 10 FT | EACH | 3 | | | |

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7325 Janes Avenue
Woodridge, IL 60517
630.724.9200 phone
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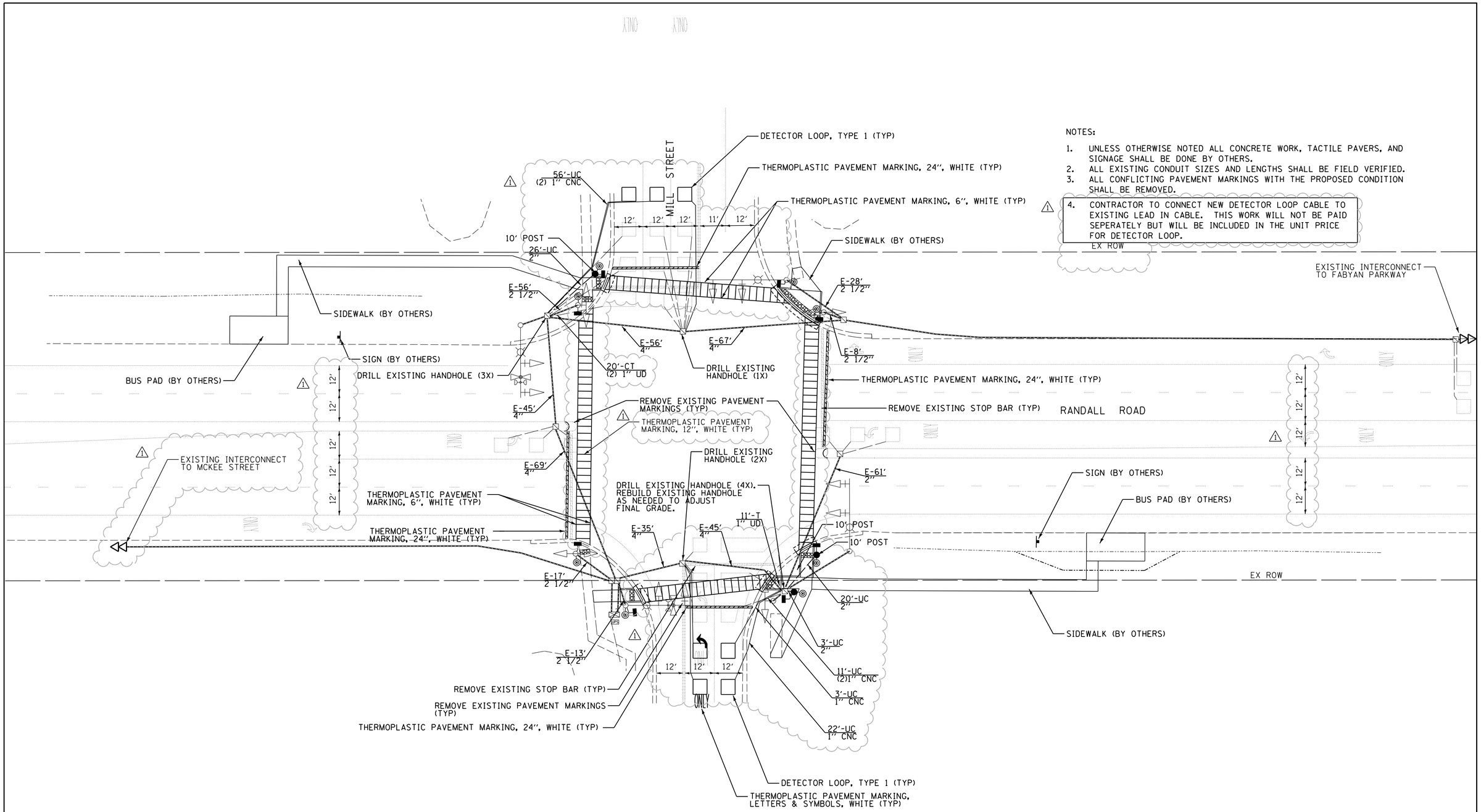
| | | | |
|---|---|---|---|
| DESIGNED | MJR | REVISED - 07-05-12 ADDENDUM #1 | 1 |
| DRAWN | DRP | REVISED - | |
| CHECKED | MJR | REVISED - | |
| DATE | - | REVISED - | |

**KANE COUNTY**
**DIVISION OF TRANSPORTATION**

**SCHEDULE OF QUANTITIES, CABLE PLAN AND PHASE DESIGNATION DIAGRAM – RANDALL ROAD AND GLEN EAGLE DRIVE**

SCALE: NONE

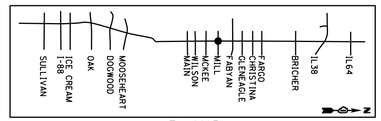
| F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| | | KANE | 55 | 13 |
| | | ILLINOIS | | |




NOTES:

1. UNLESS OTHERWISE NOTED ALL CONCRETE WORK, TACTILE PAVERS, AND SIGNAGE SHALL BE DONE BY OTHERS.
2. ALL EXISTING CONDUIT SIZES AND LENGTHS SHALL BE FIELD VERIFIED.
3. ALL CONFLICTING PAVEMENT MARKINGS WITH THE PROPOSED CONDITION SHALL BE REMOVED.
4. CONTRACTOR TO CONNECT NEW DETECTOR LOOP CABLE TO EXISTING LEAD IN CABLE. THIS WORK WILL NOT BE PAID SEPERATELY BUT WILL BE INCLUDED IN THE UNIT PRICE FOR DETECTOR LOOP.

| ITEM | LOCATION | NORTHING | EASTING |
|---|---|---|---|
| 10' POST | SW CORNER | 1,891,152.29 | 982,241.84 |
| 10' POST | NE CORNER | 1,891,247.03 | 982,362.04 |
| 10' POST | NE CORNER | 1,891,237.12 | 982,377.97 |




KEY MAP

1"=20'
SCALE
20 0 20 40
FEET

V3 Companies
7325 Janes Avenue
Woodridge, IL 60517
630.724.9200 phone
630.724.9202 fax
www.v3co.com

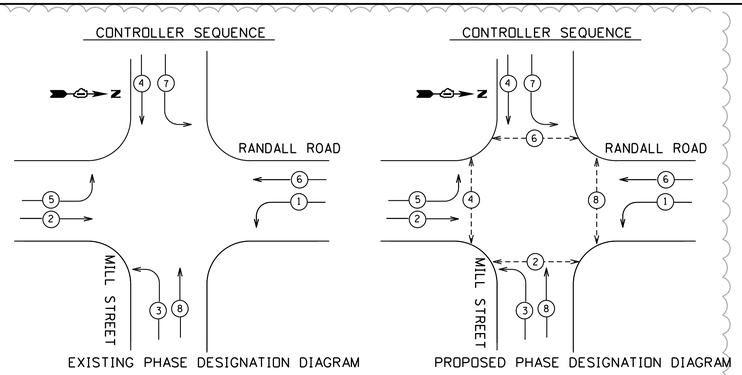
| | | | |
|---|---|---|---|
| DESIGNED | - MJR | REVISED - 07-05-12 | |
| DRAWN | - DRP | ADDENDUM #1 | 1 |
| CHECKED | - MJR | REVISED - | |
| DATE | - | REVISED - | |

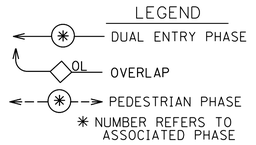
**KANE COUNTY**
**DIVISION OF TRANSPORTATION**

**SIGNAL PLAN – RANDALL ROAD AND MILL STREET**

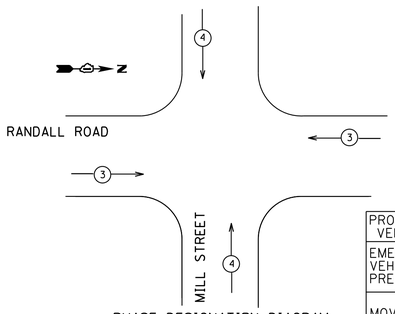
SCALE: 1" = 20'

| F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| | | KANE | 55 | 14 |
| | | ILLINOIS | | |

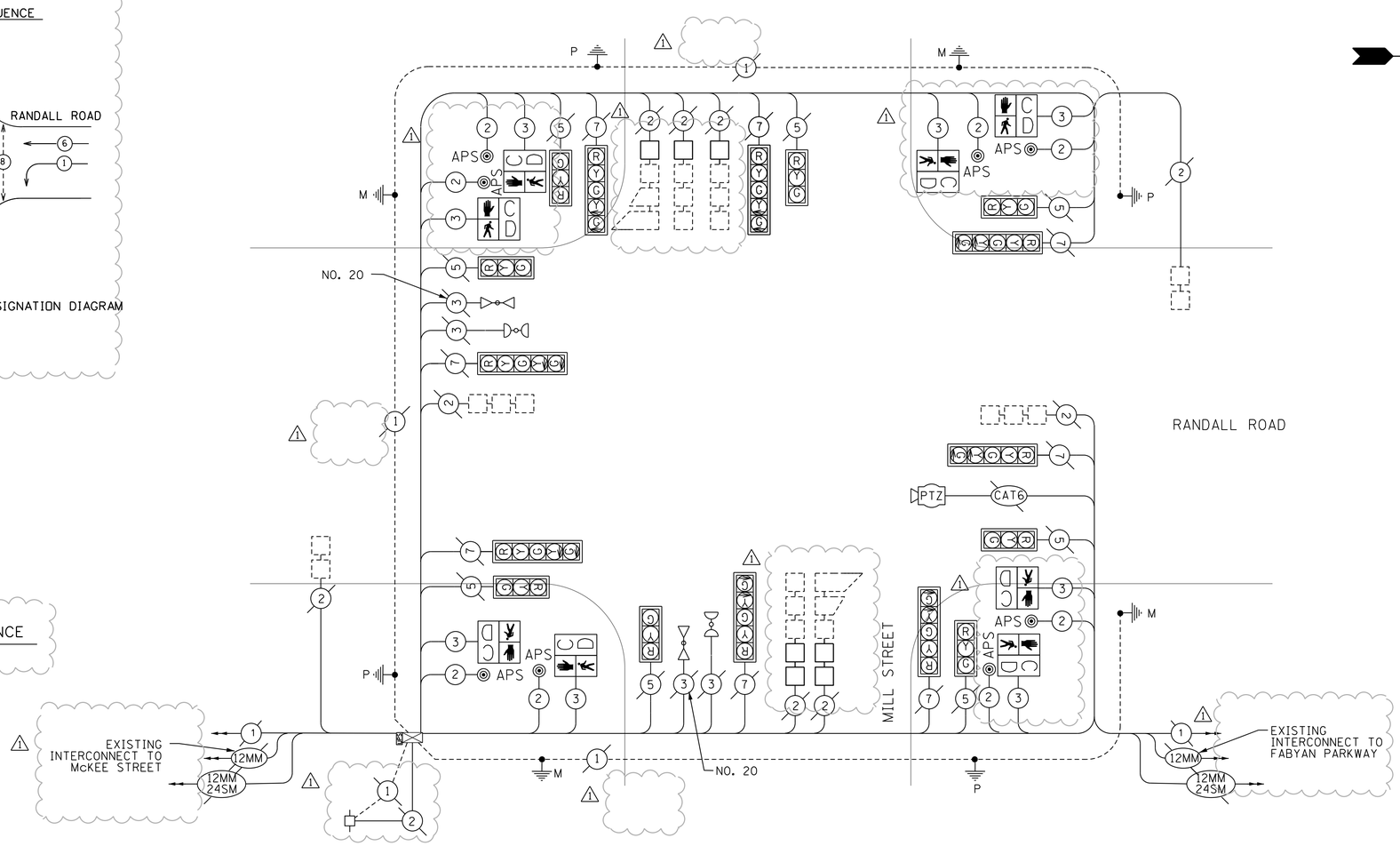



## EXISTING/PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE




| PROPOSED EMERGENCY VEHICLE PREEMPTORS | | |
|---|---|---|
| EMERGENCY VEHICLE PREEMPTOR | 3 | 4 |
| MOVEMENT | ← → | ↓ ↑ |




CABLE PLAN

### TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS

| 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 | 16 | | 12 | 0.10 | 19.20 |
| PED. SIGNAL | 8 | | 25 | 1.00 | 200.00 |
| CONTROLLER | 1 | | 100 | 1.00 | 100.00 |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| FLASHER | | | | 0.50 | |
| ENERGY COSTS TO: | | | | TOTAL = | 615.20 |

ENERGY SUPPLY CONTACT: _____
PHONE: _____
COMPANY: _____

NOTE:
TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS INTERSECTION IS "EAGLE"

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, MEDIANS, 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.

### SCHEDULE OF QUANTITIES

| IDOT PAY ITEM | UNIT | QTY | IDOT PAY ITEM | UNIT | QTY |
|---|---|---|---|---|---|
| TRAFFIC CONTROL AND PROTECTION, STANDARD 701601 | L SUM | 1 | TRAFFIC SIGNAL POST, 10 FT | EACH | 3 |
| TRAFFIC CONTROL AND PROTECTION, STANDARD 701701 | L SUM | 1 | CONCRETE FOUNDATION, TYPE A | FOOT | 12 |
| TRAFFIC CONTROL AND PROTECTION, STANDARD 701801 | L SUM | 1 | DRILL EXISTING HANDHOLE | EACH | 23 |
| THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS | SQ FT | 36 | PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER | EACH | 8 |
| THERMOPLASTIC PAVEMENT MARKING - LINE 4" | FOOT | 28 | DETECTOR LOOP, TYPE I | FOOT | 1818 |
| THERMOPLASTIC PAVEMENT MARKING - LINE 6" | FOOT | 643 | ACCESSIBLE PEDESTRIAN SIGNALS | EACH | 8 |
| THERMOPLASTIC PAVEMENT MARKING - LINE 12" | FOOT | 641 | MODIFY EXISTING CONTROLLER | EACH | 1 |
| THERMOPLASTIC PAVEMENT MARKING - LINE 24" | FOOT | 165 | RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM - LEVEL II | EACH | 1 |
| PAVEMENT MARKING REMOVAL | SQ FT | 446 | VIBROTACTILE FEATURE | EACH | 8 |
| UNDERGROUND CONDUIT, 2" DIA, GALVANIZED STEEL | FOOT | 55 | | | |
| MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION | EACH | 1 | | | |
| ELECTRIC CABLE IN CONDUIT, SIGNAL NO 14 2C | FOOT | 1,408 | | | |
| ELECTRIC CABLE IN CONDUIT, SIGNAL NO 14 3C | FOOT | 1,360 | | | |
| ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING, SIG NO 6 IC | EACH | 46 | | | |

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630.724.9200 phone
630.724.9202 fax
www.v3co.com

| | | | |
|---|---|---|---|
| DESIGNED | MJR | REVISED - 07-05-12 | |
| DRAWN | DRP | ADDENDUM #1 | 1 |
| CHECKED | MJR | REVISED - | |
| DATE | - | REVISED - | |

**KANE COUNTY**
**DIVISION OF TRANSPORTATION**

**SCHEDULE OF QUANTITIES, CABLE PLAN AND PHASE DESIGNATION DIAGRAM – RANDALL ROAD AND MILL STREET**

SCALE: NONE

| F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| | | KANE | 55 | 15 |
| | | ILLINOIS | | |

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 | TRAFFIC SIGNAL POST |

NOTES:

1. UNLESS OTHERWISE NOTED ALL CONCRETE WORK, TACTILE PAVERS, AND SIGNAGE SHALL BE DONE BY OTHERS.
2. ALL EXISTING CONDUIT SIZES AND LENGTHS SHALL BE FIELD VERIFIED.
3. ALL CONFLICTING PAVEMENT MARKINGS WITH THE PROPOSED CONDITION SHALL BE REMOVED.
4. CONTRACTOR TO CONNECT NEW DETECTOR LOOP CABLE TO EXISTING LEAD IN CABLE. THIS WORK WILL NOT BE PAID SEPERATELY BUT WILL BE INCLUDED IN THE UNIT PRICE FOR DETECTOR LOOP.

MCKEE STREET

RANDALL ROAD

DETECTOR LOOP TYPE I (TYP)
22'-UC (2) 1" CNC
11.5' 13' 13' 12' 12'
REMOVE EXISTING PAVEMENT MARKINGS (TYP)
RELOCATE EXIST SIGNAL HEADS (2)
16' POST
DRILL EXISTING HANDHOLE (3X)
E-88' 2" LIGHTING
SIDEWALK (BY OTHERS)
E-6' 2 1/2"
DRILL EXISTING HANDHOLE
2'-UC 2"
10' POST
EX ROW
EXISTING INTERCONNECT TO MILL STREET
EX ROW
SIDEWALK (BY OTHERS)
E-12' 2 1/2"
BUS PAD (BY OTHERS)
16'
E-10' 2"
1'-UC 2 1/2"
E-38' 3 1/2"
4'-UC (2) 1" CNC
E-53' 3 1/2"
E-59' 4"
DRILL EXISTING HANDHOLE (3X)
E-78' 4"
THERMOPLASTIC PAVEMENT MARKING, 24", WHITE (TYP.)
E-167' 2" LIGHTING
THERMOPLASTIC PAVEMENT MARKING, 12", WHITE (TYP)
DETECTOR LOOP TYPE I (TYP)
SIGN (BY OTHERS)
REMOVE EXISTING PAVEMENT MARKINGS (TYP)
THERMOPLASTIC PAVEMENT MARKING, 4", DOUBLE YELLOW, 11" C-C (TYP)
DRILL EXISTING HANDHOLE (1X)
BUS PAD (BY OTHERS)
REMOVE EXISTING STOP BAR (TYP)
5'-CT (2) 1" UD
THERMOPLASTIC PAVEMENT MARKING, 24", WHITE (TYP.)
E-53' 4"
E-35' 3"
SIGN (BY OTHERS)
REMOVE EXISTING PAVEMENT MARKINGS (TYP)
EXISTING INTERCONNECT TO WILSON STREET
THERMOPLASTIC PAVEMENT MARKING, 6", WHITE (TYP.)
DRILL EXISTING HANDHOLE (3X)
SIDEWALK (BY OTHERS)
DRILL EXISTING HANDHOLE
EX ROW
E-15' 2 1/2"
29'-UC 2"
16'
E-20' 2"
EX ROW
E-60' 3"
10' POST
10' POST
5'-UC 2"
12' 12.5' 12' 12'
DRILL EXISTING HANDHOLE (3X)
REMOVE EXISTING PAVEMENT MARKINGS (TYP)
6'-UC (4) 1" CNC
REMOVE EXISTING STOP BAR (TYP)
4'-UC (2) 1" CNC
18'-UC (2) 1" CNC
DETECTOR LOOP TYPE I (TYP)
ONLY
ONLY

| ITEM | LOCATION | NORTHING | EASTING |
|---|---|---|---|
| 10' POST | SE CORNER | 1,889,434.74 | 982,373.29 |
| 16' POST | SW CORNER | 1,889,420.84 | 982,245.44 |
| 10' POST | NW CORNER | 1,889,513.12 | 982,237.48 |
| 10' POST | NE CORNER | 1,889,510.11 | 982,373.11 |

KEY MAP

SULLIVAN · I-88 ICE CREAM · OAK · MOSSENEART DOGWOOD · WILSON MAIN · MILL · MCKEE · FABYAN · GLENEAGLE · CHRISTINA · FARGO · BRICHER · IL38 · IL64

1"=20'
SCALE
20 0 20 40
FEET

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Woodridge, IL 60517
630.724.9200 phone
630.724.9202 fax
www.v3co.com

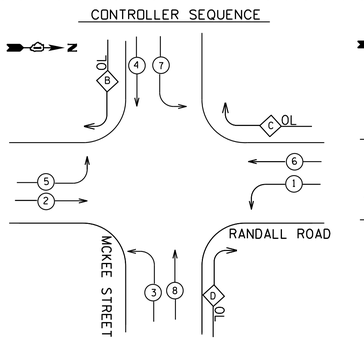
| | | | |
|---|---|---|---|
| DESIGNED | - MJR | REVISED - | 07-05-12 |
| DRAWN | - DRP | | ADDENDUM #1 |
| CHECKED | - MJR | REVISED - | |
| DATE | - | REVISED - | |

**KANE COUNTY**
**DIVISION OF TRANSPORTATION**

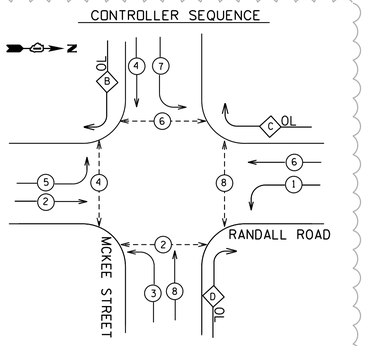
**SIGNAL PLAN – RANDALL ROAD AND MCKEE STREET**

SCALE: 1" = 20'

| F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| | | KANE | 55 | 16 |
| | | ILLINOIS | | |




EXISTING PHASE DESIGNATION DIAGRAM



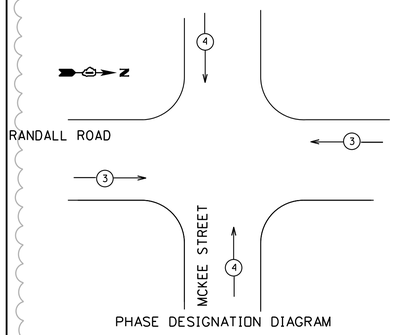

PROPOSED PHASE DESIGNATION DIAGRAM

| OVERLAP LETTER | | PERMISSIVE PHASE | | PROTECTED PHASE |
|---|---|---|---|---|
| B | = | 4 | + | 5 |
| C | = | 6 | + | 7 |
| D | = | 8 | + | 1 |

LEGEND

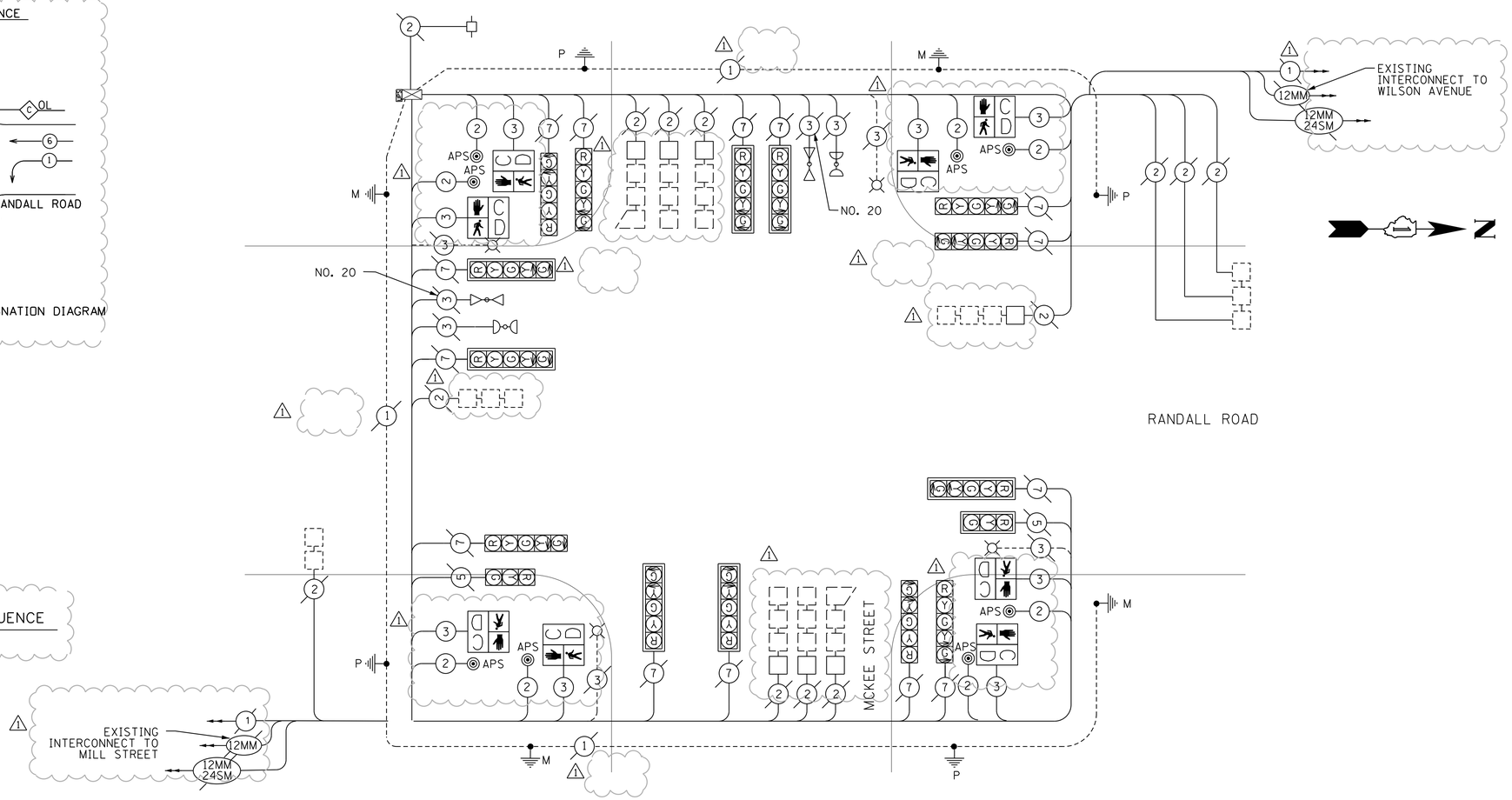
- DUAL ENTRY PHASE
- OL — OVERLAP
- PEDESTRIAN PHASE
- ✳ NUMBER REFERS TO ASSOCIATED PHASE

## EXISTING/PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE




PHASE DESIGNATION DIAGRAM

| PROPOSED EMERGENCY VEHICLE PREEMPTORS | | |
|---|---|---|
| EMERGENCY VEHICLE PREEMPTOR | 3 | 4 |
| MOVEMENT | ← → | ↓ ↑ |




CABLE PLAN

| TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS | | | | | |
|---|---|---|---|---|---|
| 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 | 28 | | 12 | 0.10 | 33.60 |
| PED. SIGNAL | 8 | | 25 | 1.00 | 200.00 |
| CONTROLLER | 1 | | 100 | 1.00 | 100.00 |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| FLASHER | | | | 0.50 | |
| ENERGY COSTS TO: | | | | TOTAL = | 629.60 |

ENERGY SUPPLY CONTACT: _____
PHONE: _____
COMPANY: _____

NOTE:
TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS INTERSECTION IS "EAGLE"

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, MEDIANS, 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.

## SCHEDULE OF QUANTITIES

| IDOT PAY ITEM | UNIT | QTY | IDOT PAY ITEM | UNIT | QTY |
|---|---|---|---|---|---|
| TRAFFIC CONTROL AND PROTECTION, STANDARD 701601 | L SUM | 1 | TRAFFIC SIGNAL POST, 10 FT | EACH | 3 |
| TRAFFIC CONTROL AND PROTECTION, STANDARD 701701 | L SUM | 1 | TRAFFIC SIGNAL POST, 16 FT | EACH | 1 |
| TRAFFIC CONTROL AND PROTECTION, STANDARD 701801 | L SUM | 1 | CONCRETE FOUNDATION, TYPE A | FOOT | 16 |
| THERMOPLASTIC PAVEMENT MARKING - LINE 4" | FOOT | 28 | DRILL EXISTING HANDHOLE | EACH | 8 |
| THERMOPLASTIC PAVEMENT MARKING - LINE 6" | FOOT | 716 | PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER | EACH | 8 |
| THERMOPLASTIC PAVEMENT MARKING - LINE 12" | FOOT | 708 | DETECTOR LOOP, TYPE I | FOOT | 2,013 |
| THERMOPLASTIC PAVEMENT MARKING - LINE 24" | FOOT | 190 | ACCESSIBLE PEDESTRIAN SIGNALS | EACH | 8 |
| PAVEMENT MARKING REMOVAL | SQ FT | 508 | RELOCATE EXISTING SIGNAL HEAD | EACH | 2 |
| UNDERGROUND, 2" DIA, GALVANIZED STEEL | FOOT | 37 | MODIFY EXISTING CONTROLLER | EACH | 1 |
| UNDERGROUND, 2 1/2" DIA, GALVANIZED STEEL | FOOT | 1 | REMOVE AND REINSTALL ELECTRIC CABLE FROM CONDUIT | FOOT | 24 |
| MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION | EACH | 1 | REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT | EACH | 1 |
| ELECTRIC CABLE IN CONDUIT, SIGNAL NO 14 2C | FOOT | 1,326 | REMOVE EXISTING CONCRETE FOUNDATION | EACH | 1 |
| ELECTRIC CABLE IN CONDUIT, SIGNAL NO 14 3C | FOOT | 1,278 | RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM - LEVEL II | EACH | 1 |
| ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING, SIG NO 6 IC | EACH | 36 | VIBROTACTILE FEATURE | EACH | 8 |

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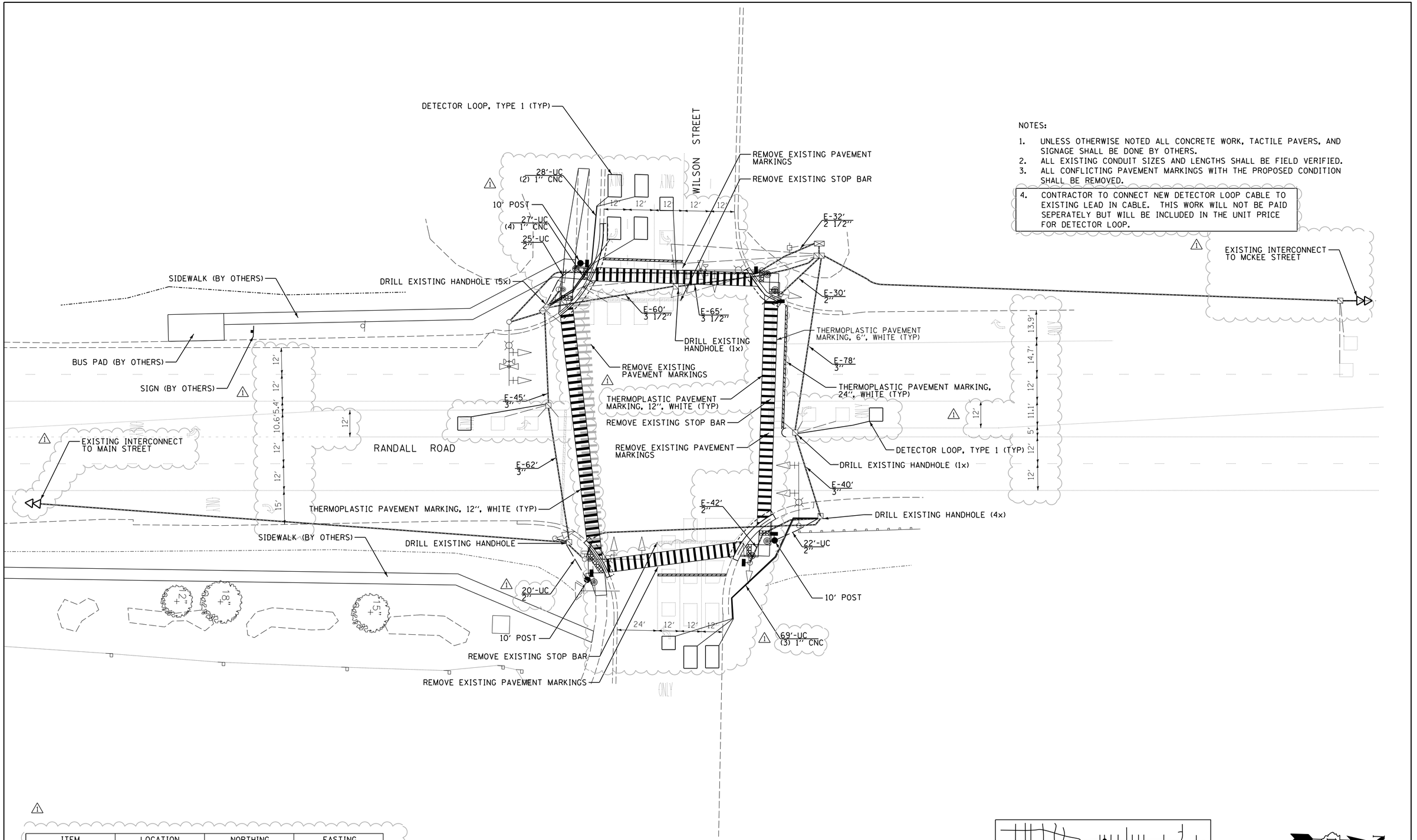
| | | | |
|---|---|---|---|
| DESIGNED | MJR | REVISED - 07-05-12 ADDENDUM #1 | ⚠1 |
| DRAWN | DRP | REVISED - | |
| CHECKED | MJR | REVISED - | |
| DATE | - | REVISED - | |

**KANE COUNTY**
**DIVISION OF TRANSPORTATION**

**SCHEDULE OF QUANTITIES, CABLE PLAN AND PHASE DESIGNATION DIAGRAM – RANDALL ROAD AND MCKEE STREET**

SCALE: NONE

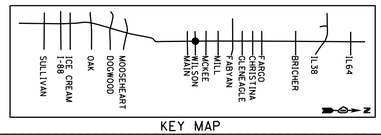
| F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| | | KANE | 55 | 17 |
| | | ILLINOIS | | |




NOTES:

1. UNLESS OTHERWISE NOTED ALL CONCRETE WORK, TACTILE PAVERS, AND SIGNAGE SHALL BE DONE BY OTHERS.
2. ALL EXISTING CONDUIT SIZES AND LENGTHS SHALL BE FIELD VERIFIED.
3. ALL CONFLICTING PAVEMENT MARKINGS WITH THE PROPOSED CONDITION SHALL BE REMOVED.
4. CONTRACTOR TO CONNECT NEW DETECTOR LOOP CABLE TO EXISTING LEAD IN CABLE. THIS WORK WILL NOT BE PAID SEPERATELY BUT WILL BE INCLUDED IN THE UNIT PRICE FOR DETECTOR LOOP.

| ITEM | LOCATION | NORTHING | EASTING |
|---|---|---|---|
| 10' POST | SE CORNER | 1,887,808.95 | 982,456.96 |
| 10' POST | SW CORNER | 1,887,801.27 | 1982,315.39 |
| 10' POST | NE CORNER | 1,887,892.28 | 982,436.58 |



KEY MAP

1"=20'
SCALE
20 0 20 40
FEET

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7325 Janes Avenue
Woodridge, IL 60517
630.724.9200 phone
630.724.9202 fax
www.v3co.com

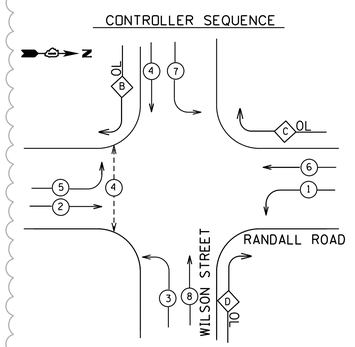
| | | | |
|---|---|---|---|
| DESIGNED | - MJR | REVISED - 07-05-12 ADDENDUM #1 | 1 |
| DRAWN | - DRP | | |
| CHECKED | - MJR | REVISED - | |
| DATE | - | REVISED - | |

**KANE COUNTY**
**DIVISION OF TRANSPORTATION**

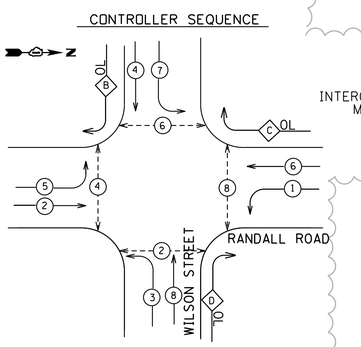
**SIGNAL PLAN – RANDALL ROAD AND WILSON STREET**

SCALE: 1" = 20'

| F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| | | KANE | 55 | 18 |
| | ILLINOIS | | | |




EXISTING PHASE DESIGNATION DIAGRAM



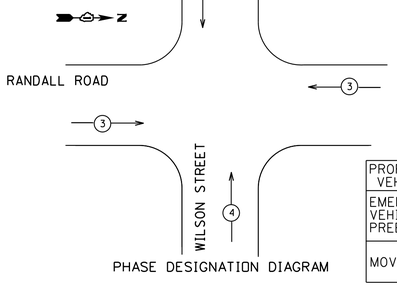

PROPOSED PHASE DESIGNATION DIAGRAM

LEGEND

- DUAL ENTRY PHASE
- OL — OVERLAP
- PEDESTRIAN PHASE
- ✳ NUMBER REFERS TO ASSOCIATED PHASE

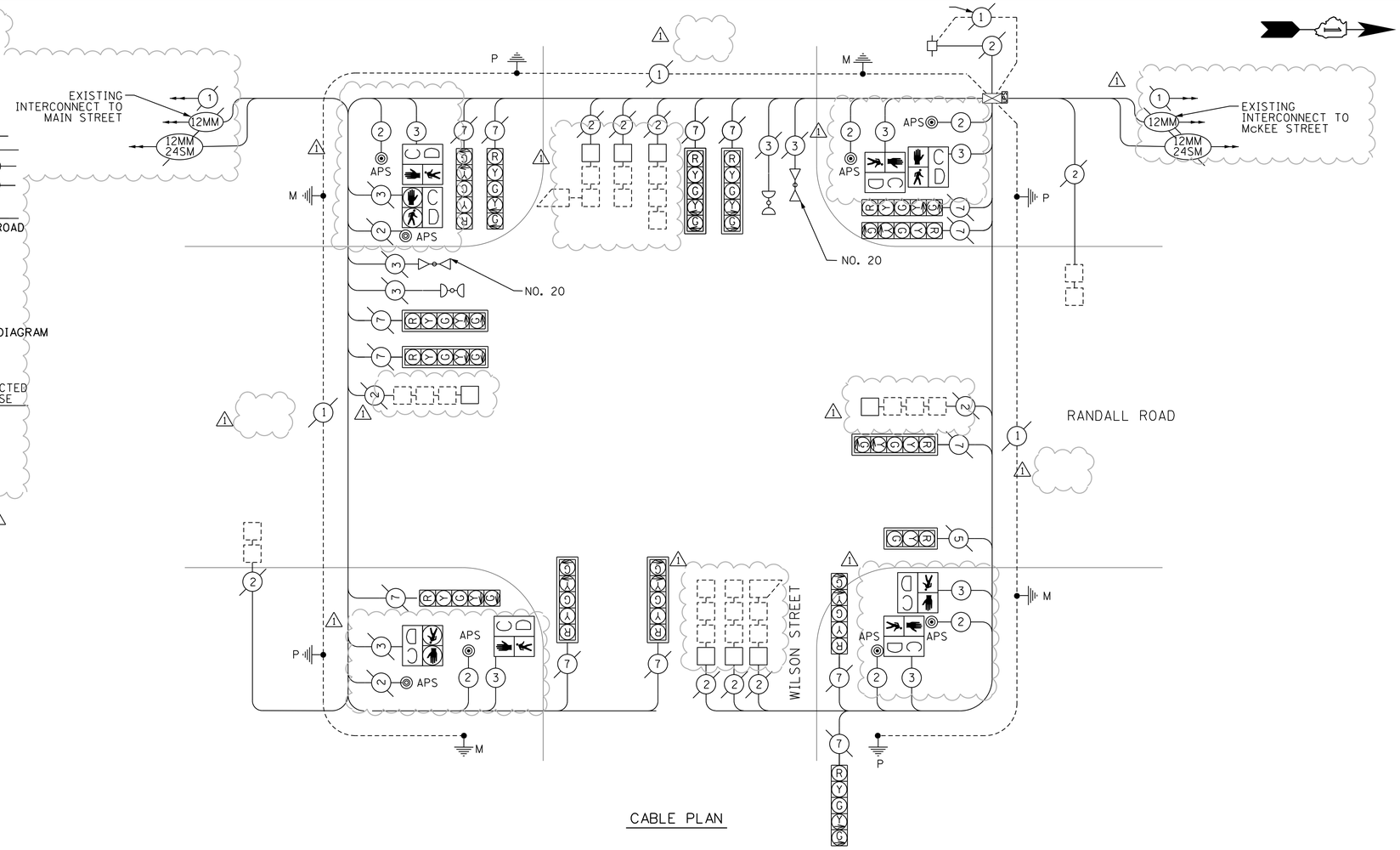
| OVERLAP LETTER | | PERMISSIVE PHASE | | PROTECTED PHASE |
|---|---|---|---|---|
| B | = | 4 | + | 5 |
| C | = | 6 | + | 7 |
| D | = | 8 | + | 1 |

EXISTING/PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE




PHASE DESIGNATION DIAGRAM

| PROPOSED EMERGENCY VEHICLE PREEMPTORS | | |
|---|---|---|
| EMERGENCY VEHICLE PREEMPTOR | 3 | 4 |
| MOVEMENT | ⇄ | ⇅ |




CABLE PLAN

TRAFFIC SIGNAL INSTALLATION
ELECTRICAL SERVICE REQUIREMENTS

| TYPE | NO. LAMPS | WATTAGE INCAND. | WATTAGE LED | % OPERATION | TOTAL WATTAGE |
|---|---|---|---|---|---|
| SIGNAL (RED) | 15 | | 17 | 0.50 | 127.50 |
| (YELLOW) | 15 | | 25 | 0.25 | 93.75 |
| (GREEN) | 15 | | 15 | 0.25 | 56.25 |
| ARROW | 28 | | 12 | 0.10 | 33.60 |
| PED. SIGNAL | 2 | | 25 | 1.00 | 50.00 |
| CONTROLLER | 1 | | 100 | 1.00 | 100.00 |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| FLASHER | | | | 0.50 | |
| ENERGY COSTS TO: | | | | TOTAL = | 461.10 |

ENERGY SUPPLY CONTACT: _____
PHONE: _____
COMPANY: _____

NOTE:
TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS INTERSECTION IS "EAGLE"

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, MEDIANS, 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.

SCHEDULE OF QUANTITIES

| IDOT PAY ITEM | UNIT | QTY | IDOT PAY ITEM | UNIT | QTY |
|---|---|---|---|---|---|
| TRAFFIC CONTROL AND PROTECTION, STANDARD 701601 | L SUM | 1 | TRAFFIC SIGNAL POST, 10 FT | EACH | 3 |
| TRAFFIC CONTROL AND PROTECTION, STANDARD 701701 | L SUM | 1 | CONCRETE FOUNDATION, TYPE A | FOOT | 12 |
| TRAFFIC CONTROL AND PROTECTION, STANDARD 701801 | L SUM | 1 | DRILL EXISTING HANDHOLE | EACH | 12 |
| THERMOPLASTIC PAVEMENT MARKING - LINE 4" | FOOT | 14 | PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER | EACH | 6 |
| THERMOPLASTIC PAVEMENT MARKING - LINE 6" | FOOT | 677 | DETECTOR LOOP, TYPE I | FOOT | 775 |
| THERMOPLASTIC PAVEMENT MARKING - LINE 12" | FOOT | 680 | ACCESSIBLE PEDESTRIAN SIGNALS | EACH | 6 |
| THERMOPLASTIC PAVEMENT MARKING - LINE 24" | FOOT | 125 | MODIFY EXISTING CONTROLLER | EACH | 1 |
| PAVEMENT MARKING REMOVAL | SQ FT | 551 | RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM - LEVEL II | EACH | 1 |
| UNDERGROUND CONDUIT, 2" DIA, GALVANIZED STEEL | FOOT | 67 | VIBROTACTILE FEATURE | EACH | 6 |
| MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION | EACH | 1 | | | |
| ELECTRIC CABLE IN CONDUIT, SIGNAL NO 14 2C | FOOT | 1,060 | | | |
| ELECTRIC CABLE IN CONDUIT, SIGNAL NO 14 3C | FOOT | 1,024 | | | |
| ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING, SIG NO 6 IC | EACH | 67 | | | |

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| | | | |
|---|---|---|---|
| DESIGNED | - MJR | REVISED - | 07-05-12 |
| DRAWN | - DRP | | ADDENDUM #1 |
| CHECKED | - MJR | REVISED - | |
| DATE | - | REVISED - | |

**KANE COUNTY**
**DIVISION OF TRANSPORTATION**

**SCHEDULE OF QUANTITIES, CABLE PLAN AND PHASE DESIGNATION DIAGRAM – RANDALL ROAD AND WILSON STREET**

SCALE: NONE

| F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| | | KANE | 55 | 19 |
| | | ILLINOIS | | |

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.

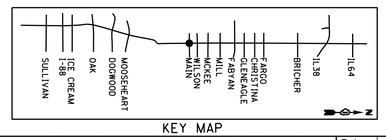
1 EACH TRAFFIC SIGNAL POST

NOTES:

1. UNLESS OTHERWISE NOTED ALL CONCRETE WORK, TACTILE PAVERS, AND SIGNAGE SHALL BE DONE BY OTHERS.
2. ALL EXISTING CONDUIT SIZES AND LENGTHS SHALL BE FIELD VERIFIED.
3. ALL CONFLICTING PAVEMENT MARKINGS WITH THE PROPOSED CONDITION SHALL BE REMOVED.
4. CONTRACTOR TO CONNECT NEW DETECTOR LOOP CABLE TO EXISTING LEAD IN CABLE. THIS WORK WILL NOT BE PAID SEPERATELY BUT WILL BE INCLUDED IN THE UNIT PRICE FOR DETECTOR LOOP.

DETECTOR LOOP, TYPE 1 (TYP)
REMOVE EXISTING PAVEMENT MARKINGS
E-114' 2" LIGHTING
10' POST
E-34' 2" LIGHTING
DRILL EXISTING HANDHOLE (2X)
18'-UC (3) 1" CNC
31'-UC (5) 1" CNC
10' POST
17'-UC 2"
DRILL EXISTING HANDHOLE (6X)
19'-UC (5) 1" CNC
9'-UC 1" CNC
E-114' 3 1/2"
REMOVE EXISTING STOP BAR
E-24' 2"
27'-UC 2"
26'-UC 2 1/2"
E-70' 3"
16' POST W/RELOCATED TRAFFIC SIGNAL HEAD
THERMOPLASTIC PAVEMENT MARKING, 24", WHITE (TYP)
E-46' 3"
E-55' 3"
REMOVE EXISTING PAVEMENT MARKINGS
E-42' 3"
E-117' 2" LIGHTING
THERMOPLASTIC PAVEMENT MARKING, 6", WHITE (TYP)
THERMOPLASTIC PAVEMENT MARKING, 12", WHITE (TYP)
DRILL EXISTING HANDHOLE
E-36' 2 1/2"
21'-UC 2"
E-99' 2" LIGHTING
SIDEWALK (BY OTHERS)
10' POST
EXISTING INTERCONNECT TO MOOSEHEART ROAD
EXISTING INTERCONNECT TO WILSON STREET
MAIN STREET
RANDALL ROAD
EX ROW
12' 12' 12' 13.5' 12' 12' 12.5' 14' 10' 12.5' 16'

| ITEM | LOCATION | NORTHING | EASTING |
|---|---|---|---|
| 10' POST | SW CORNER | 1,886,723.81 | 982,342.21 |
| 10' POST | NW CORNER | 1,866,799.48 | 982,347.27 |
| 16' POST | NW CORNER | 1,886,810.08 | 982,363.99 |
| 10' POST | NE CORNER | 1,866,811.00 | 982,462.54 |



KEY MAP

1"=20'
SCALE
20 0 20 40
FEET

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630.724.9202 fax
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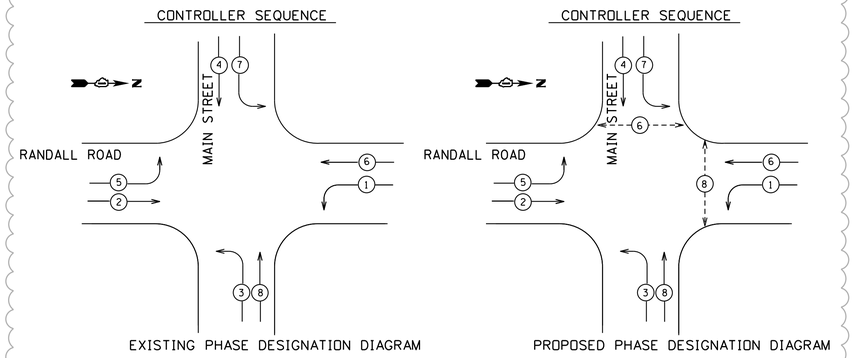
| | | | |
|---|---|---|---|
| DESIGNED | - MJR | REVISED - | 07-05-12 |
| DRAWN | - DRP | | ADDENDUM #1 |
| CHECKED | - MJR | REVISED - | |
| DATE | - | REVISED - | |

**KANE COUNTY**
**DIVISION OF TRANSPORTATION**

**SIGNAL PLAN – RANDALL ROAD AND MAIN STREET**

SCALE: 1" = 20'

| F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| | | KANE | 55 | 20 |
| | | ILLINOIS | | |

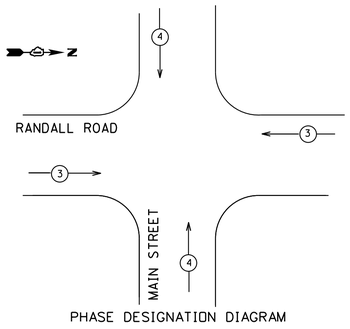



LEGEND

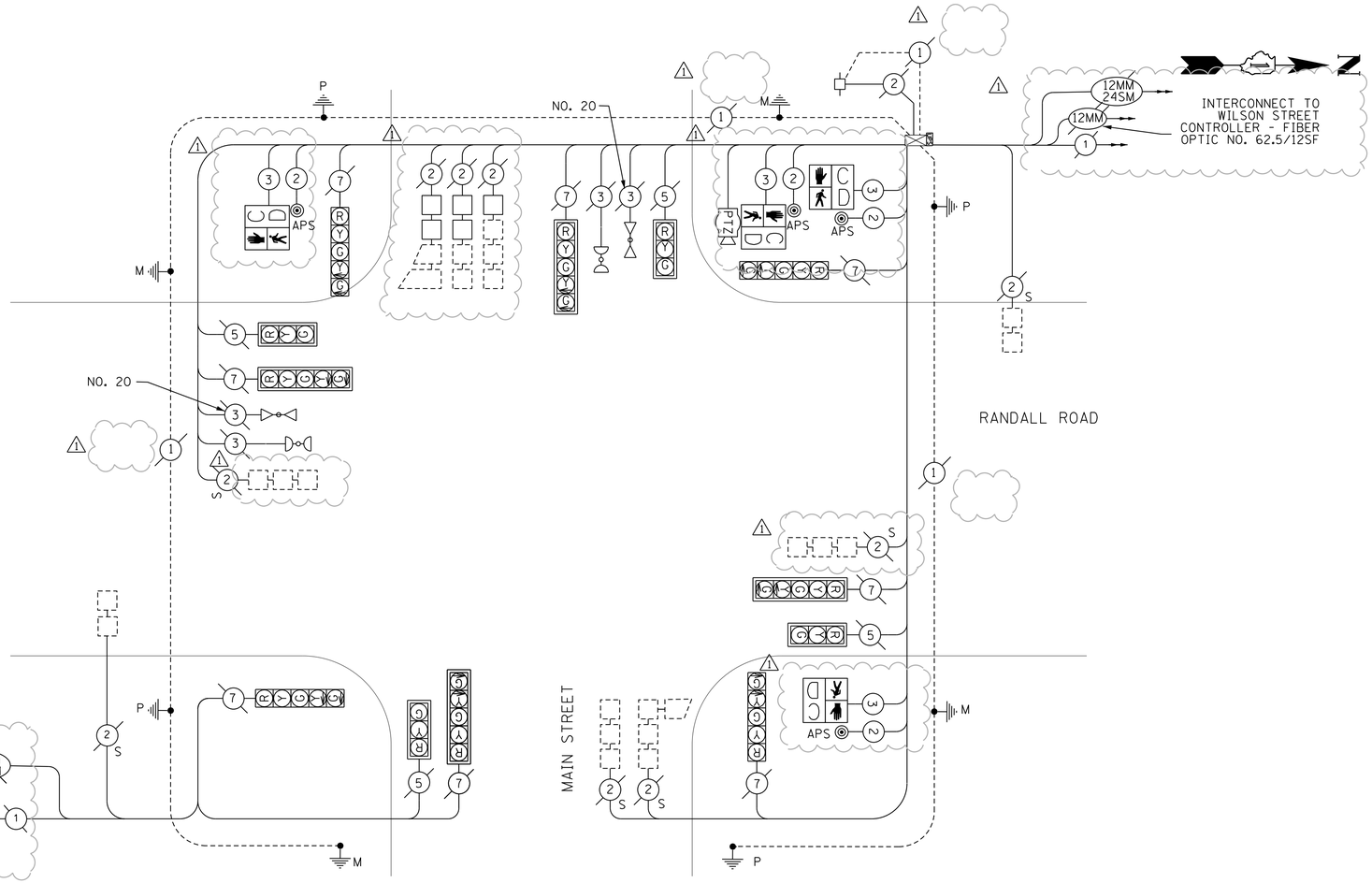
- DUAL ENTRY PHASE
- OL — OVERLAP
- PEDESTRIAN PHASE
- * NUMBER REFERS TO ASSOCIATED PHASE

1

## EXISTING/PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE




| PROPOSED EMERGENCY VEHICLE PREEMPTORS | | |
|---|---|---|
| EMERGENCY VEHICLE PREEMPTOR | 3 | 4 |
| MOVEMENT | ← → | ↓ ↑ |




CABLE PLAN

| TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS | | | | | TOTAL WATTAGE |
|---|---|---|---|---|---|
| TYPE | NO. LAMPS | WATTAGE INCAND. | WATTAGE LED | % OPERATION | |
| 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 | 4 | | 25 | 1.00 | 100.00 |
| CONTROLLER | 1 | | 100 | 1.00 | 100.00 |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| FLASHER | | | | 0.50 | |
| ENERGY COSTS TO: | | | | TOTAL = | 441.20 |

ENERGY SUPPLY CONTACT: _____
PHONE: _____
COMPANY: _____

NOTE:
TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS INTERSECTION IS "EAGLE"

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, MEDIANS, 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.

## SCHEDULE OF QUANTITIES

| IDOT PAY ITEM | UNIT | QTY | IDOT PAY ITEM | UNIT | QTY |
|---|---|---|---|---|---|
| TRAFFIC CONTROL AND PROTECTION, STANDARD 701601 | L SUM | 1 | TRAFFIC SIGNAL POST, 10 FT | EACH | 3 |
| TRAFFIC CONTROL AND PROTECTION, STANDARD 701701 | L SUM | 1 | ELECTRIC CABLE IN CONDUIT, EQUP. GROUNDING COND. NO.6 IC | FOOT | 91 |
| TRAFFIC CONTROL AND PROTECTION, STANDARD 701801 | L SUM | 1 | TRAFFIC SIGNAL POST, 16 FT | EACH | 1 |
| THERMOPLASTIC PAVEMENT MARKING - LINE 4" | FOOT | 14 | CONCRETE FOUNDATION, TYPE A | FOOT | 12 |
| THERMOPLASTIC PAVEMENT MARKING - LINE 6" | FOOT | 307 | DRILL EXISTING HANDHOLE | EACH | 9 |
| THERMOPLASTIC PAVEMENT MARKING - LINE 12" | FOOT | 303 | PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER | EACH | 4 |
| THERMOPLASTIC PAVEMENT MARKING - LINE 24" | FOOT | 81 | DETECTOR LOOP, TYPE I | FOOT | 395 |
| PAVEMENT MARKING REMOVAL | SQ FT | 215 | ACCESSIBLE PEDESTRIAN SIGNALS | EACH | 4 |
| UNDERGROUND CONDUIT, 2" DIA, GALVANIZED STEEL | FOOT | 65 | MODIFY EXISTING CONTROLLER | EACH | 1 |
| UNDERGROUND CONDUIT, 2 1/2" DIA., GALVANIZED STEEL | FOOT | 38 | REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT | EACH | 1 |
| MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION | EACH | 1 | RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM - LEVEL II | EACH | 1 |
| ELECTRIC CABLE IN CONDUIT, SIGNAL NO 14 2C | FOOT | 492 | VIBROTACTILE FEATURE | EACH | 4 |
| ELECTRIC CABLE IN CONDUIT, SIGNAL NO 14 3C | FOOT | 468 | | | |
| ELECTRIC CABLE IN CONDUIT, SIGNAL NO 14 7C | FOOT | 59 | | | |

V3 Companies
7325 Janes Avenue
Woodridge, IL 60517
630.724.9200 phone
630.724.9202 fax
www.v3co.com

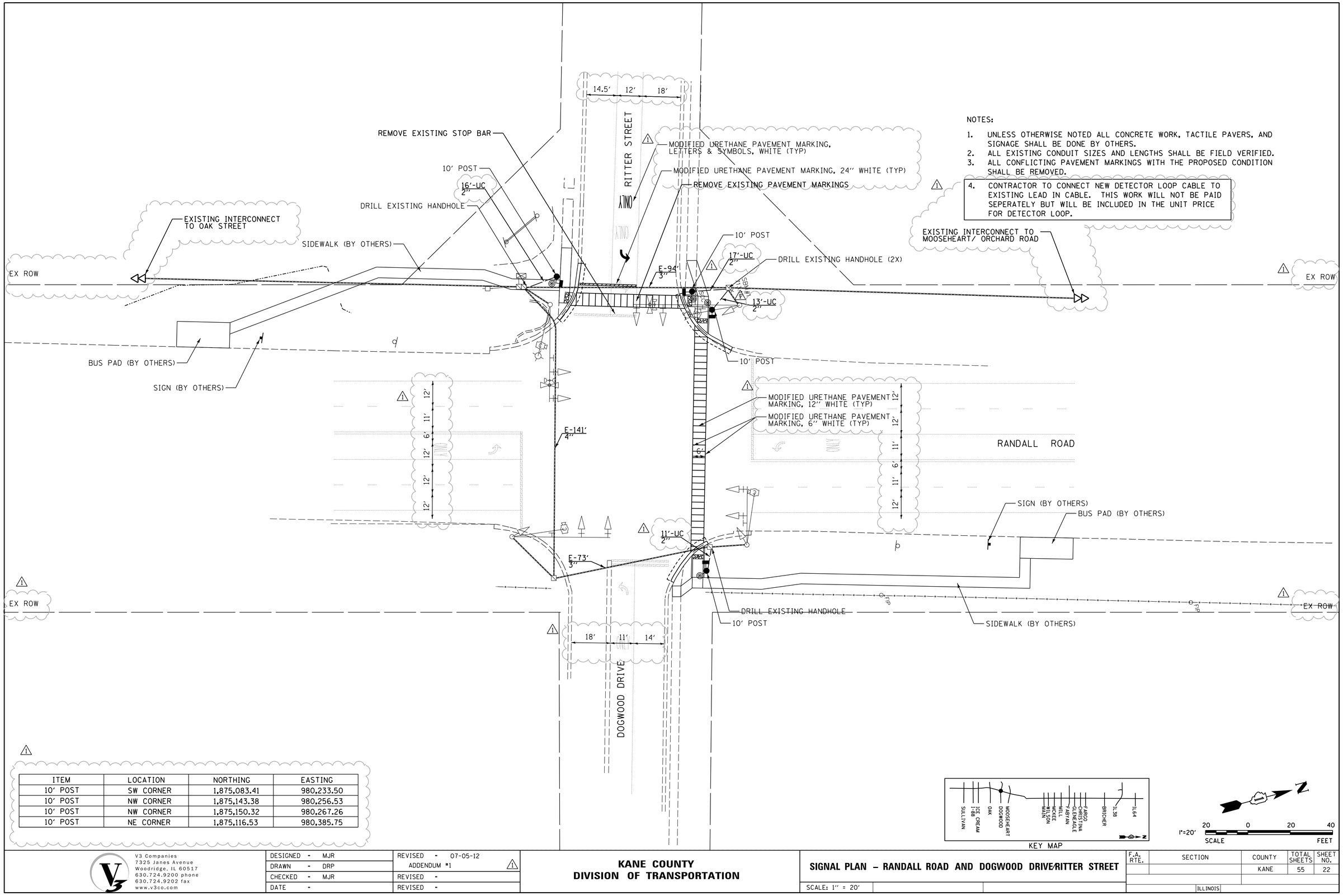
| | | |
|---|---|---|
| DESIGNED - MJR | REVISED - 07-05-12 | |
| DRAWN - DRP | ADDENDUM #1 | 1 |
| CHECKED - MJR | REVISED - | |
| DATE - | REVISED - | |

**KANE COUNTY**
**DIVISION OF TRANSPORTATION**

**SCHEDULE OF QUANTITIES, CABLE PLAN AND PHASE DESIGNATION DIAGRAM – RANDALL ROAD AND MAIN STREET**

SCALE: NONE

| F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| | | KANE | 55 | 21 |
| | | ILLINOIS | | |




NOTES:

1. UNLESS OTHERWISE NOTED ALL CONCRETE WORK, TACTILE PAVERS, AND SIGNAGE SHALL BE DONE BY OTHERS.
2. ALL EXISTING CONDUIT SIZES AND LENGTHS SHALL BE FIELD VERIFIED.
3. ALL CONFLICTING PAVEMENT MARKINGS WITH THE PROPOSED CONDITION SHALL BE REMOVED.

1 4. CONTRACTOR TO CONNECT NEW DETECTOR LOOP CABLE TO EXISTING LEAD IN CABLE. THIS WORK WILL NOT BE PAID SEPERATELY BUT WILL BE INCLUDED IN THE UNIT PRICE FOR DETECTOR LOOP.

1

| ITEM | LOCATION | NORTHING | EASTING |
|---|---|---|---|
| 10' POST | SW CORNER | 1,875,083.41 | 980,233.50 |
| 10' POST | NW CORNER | 1,875,143.38 | 980,256.53 |
| 10' POST | NW CORNER | 1,875,150.32 | 980,267.26 |
| 10' POST | NE CORNER | 1,875,116.53 | 980,385.75 |

KEY MAP

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Woodridge, IL 60517
630.724.9200 phone
630.724.9202 fax
www.v3co.com

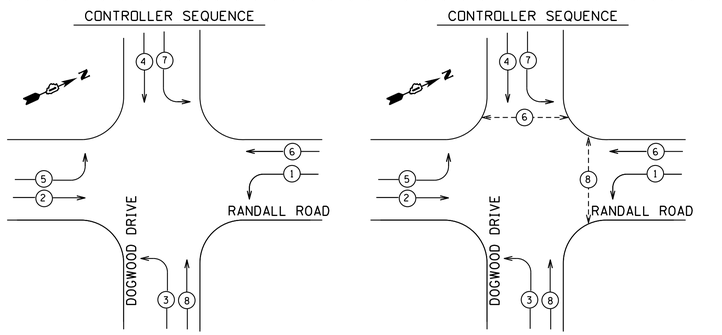
| | | | |
|---|---|---|---|
| DESIGNED | - MJR | REVISED - 07-05-12 | |
| DRAWN | - DRP | ADDENDUM #1 | 1 |
| CHECKED | - MJR | REVISED - | |
| DATE | - | REVISED - | |

**KANE COUNTY**
**DIVISION OF TRANSPORTATION**

**SIGNAL PLAN – RANDALL ROAD AND DOGWOOD DRIVE/RITTER STREET**

SCALE: 1" = 20'

| F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| | | KANE | 55 | 22 |
| | | ILLINOIS | | |




EXISTING PHASE DESIGNATION DIAGRAM

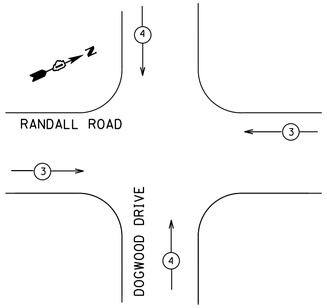



PROPOSED PHASE DESIGNATION DIAGRAM

LEGEND

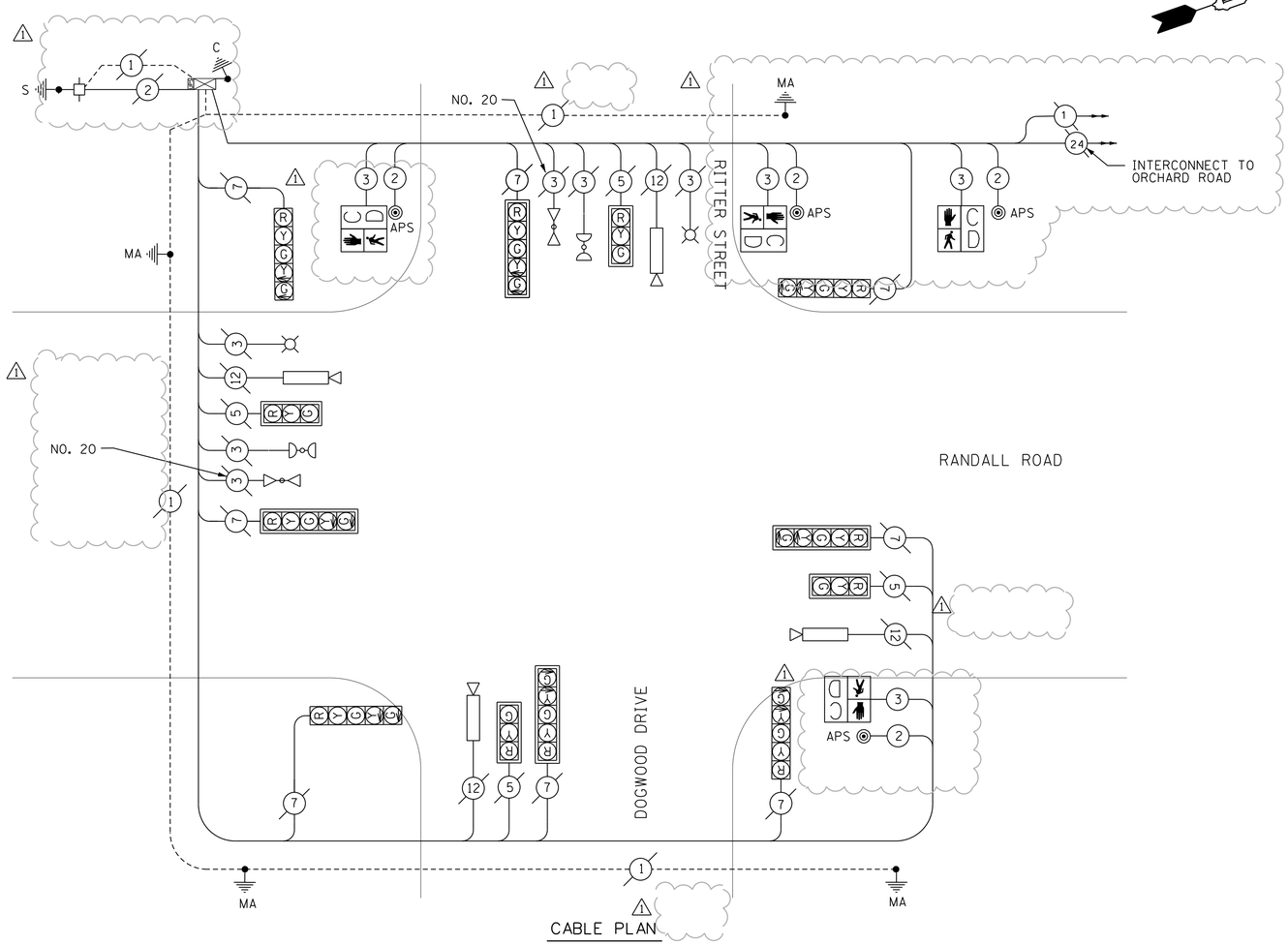
- DUAL ENTRY PHASE
- OL — OVERLAP
- PEDESTRIAN PHASE
- ✳ NUMBER REFERS TO ASSOCIATED PHASE

## EXISTING/PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE




PHASE DESIGNATION DIAGRAM

| PROPOSED EMERGENCY VEHICLE PREEMPTORS | | |
|---|---|---|
| EMERGENCY VEHICLE PREEMPTOR | 3 | 4 |
| MOVEMENT | ⇄ | ⇅ |




CABLE PLAN

| TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS | | | | | TOTAL WATTAGE |
|---|---|---|---|---|---|
| TYPE | NO. LAMPS | WATTAGE INCAND. | WATTAGE LED | % OPERATION | |
| 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 | 4 | | 25 | 1.00 | 100.00 |
| CONTROLLER | 1 | | 100 | 1.00 | 100.00 |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| FLASHER | | | | 0.50 | |
| ENERGY COSTS TO: | | | | TOTAL = | 441.20 |

ENERGY SUPPLY CONTACT: _____
PHONE: _____
COMPANY: _____

NOTE:
TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS INTERSECTION IS "EAGLE"

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, MEDIANS, 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.

## SCHEDULE OF QUANTITIES

| IDOT PAY ITEM | UNIT | QTY | IDOT PAY ITEM | UNIT | QTY |
|---|---|---|---|---|---|
| TRAFFIC CONTROL AND PROTECTION, STANDARD 701601 | L SUM | 1 | TRAFFIC SIGNAL POST, 10 FT | EACH | 3 |
| TRAFFIC CONTROL AND PROTECTION, STANDARD 701701 | L SUM | 1 | CONCRETE FOUNDATION, TYPE A | FOOT | 12 |
| TRAFFIC CONTROL AND PROTECTION, STANDARD 701801 | L SUM | 1 | DRILL EXISTING HANDHOLE | EACH | 4 |
| THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS | SQ FT | 36 | PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER | EACH | 4 |
| MODIFIED URETHANE PAVEMENT MARKING - LINE 6" | FOOT | 309 | ACCESSIBLE PEDESTRIAN SIGNAL | EACH | 4 |
| MODIFIED URETHANE PAVEMENT MARKING - LINE 12" | FOOT | 305 | MODIFY EXISTING CONTROLLER | EACH | 1 |
| MODIFIED URETHANE PAVEMENT MARKING - LINE 24" | FOOT | 28 | RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM - LEVEL 1 | EACH | 1 |
| PAVEMENT MARKING REMOVAL | SQ FT | 78 | VIBROTACTILE FEATURE | EACH | 4 |
| UNDERGROUND CONDUIT, 2" DIA, GALVANIZED STEEL | FOOT | 57 | | | |
| MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION | EACH | 1 | | | |
| ELECTRIC CABLE IN CONDUIT, SIGNAL NO 14 2C | FOOT | 639 | | | |
| ELECTRIC CABLE IN CONDUIT, SIGNAL NO 14 3C | FOOT | 615 | | | |
| ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING, SIG NO 6 IC | EACH | 57 | | | |

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Woodridge, IL 60517
630.724.9200 phone
630.724.9202 fax
www.v3co.com

| | | | |
|---|---|---|---|
| DESIGNED | - MJR | REVISED - 07-05-12 | |
| DRAWN | - DRP | ADDENDUM #1 | 1 |
| CHECKED | - MJR | REVISED - | |
| DATE | - | REVISED - | |

**KANE COUNTY**
**DIVISION OF TRANSPORTATION**

**SCHEDULE OF QUANTITIES, CABLE PLAN AND PHASE DESIGNATION DIAGRAM – RANDALL ROAD & DOGWOOD DR/RITTER ST**

SCALE: NONE

| F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| | | KANE | 55 | 23 |
| | | ILLINOIS | | |

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 | TRAFFIC SIGNAL POST |
| 5 | EACH | PEDESTRIAN PUSH BUTTON |
| 8 | EACH | PEDESTRIAN SIGNAL HEAD, 1-FACE, BRACKET MOUNTED |

NOTES:

1. UNLESS OTHERWISE NOTED ALL CONCRETE WORK, TACTILE PAVERS, AND SIGNAGE SHALL BE DONE BY OTHERS.
2. ALL EXISTING CONDUIT SIZES AND LENGTHS SHALL BE FIELD VERIFIED.
3. ALL CONFLICTING PAVEMENT MARKINGS WITH THE PROPOSED CONDITION SHALL BE REMOVED.
4. CONTRACTOR TO CONNECT NEW DETECTOR LOOP CABLE TO EXISTING LEAD IN CABLE. THIS WORK WILL NOT BE PAID SEPERATELY BUT WILL BE INCLUDED IN THE UNIT PRICE FOR DETECTOR LOOP.

OAK STREET
12' 11' 13'
EX ROW
DRILL EXISTING HANDHOLE (2x)
25'-UC 2 1/2"
30'-UC 2"
E-49' 4"
E-65' 4"
10' POST
SIDEWALK (BY OTHERS)
DRILL EXISTING HANDHOLE
19'-UC 2"
RELOCATE EXIST SIGNAL HEAD TO NEW 16' POST
16' POST
E-89' 4"
E-57' 4"
REMOVE EXISTING PAVEMENT MARKINGS
MODIFIED URETHANE PAVEMENT MARKING, 6", WHITE (TYP)
MODIFIED URETHANE PAVEMENT MARKING, 12" WHITE (TYP)
12' 12' 12' 12'
RANDALL ROAD
SIGN (BY OTHERS)
BUS PAD (BY OTHERS)
E-67' 2"
10' POST
E-77' 4"
E-33' 4"
E-20' 2 1/2"
E-57' 2 1/2"
E-50' 2 1/2"
14'-UC 2"
7'-UC 2"
14'-UC 2"
15'-UC 2"
SIDEWALK (BY OTHERS)
REMOVE EXISTING PAVEMENT MARKINGS
MODIFIED URETHANE PAVEMENT MARKING, 24", WHITE (TYP)
DRILL EXISTING HANDHOLE (1x)
DETECTOR LOOP, TYPE 1 (TYP)
12.5' 12' 13.5'
DRILL EXISTING HANDHOLE (3x)
22'-UC 1" CNC

| ITEM | LOCATION | NORTHING | EASTING |
|---|---|---|---|
| 10' POST | SW CORNER | 1,872,445.69 | 979,624.36 |
| 16' POST | SW CORNER | 1,872,457.48 | 979,616.53 |
| 16' POST | NW CORNER | 1,872,543.39 | 979,638.65 |
| 10' POST | NE CORNER | 1,872,551.36 | 979,750.81 |
| 10' POST | NE CORNER | 1,872,539.74 | 979,761.22 |

KEY MAP
SULLIVAN · I-88 ICE CREAM · OAK · DOGWOOD MOOSEHEART · MAIN WILSON · MILL MCDEVITT · FABYAN · GLENEAGLE CHRISTINA · FAIROD · BRICHER · IL38 · IL64

1"=20'
20 0 20 40
SCALE FEET

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7325 Janes Avenue
Woodridge, IL 60517
630.724.9200 phone
630.724.9202 fax
www.v3co.com

| | | |
|---|---|---|
| DESIGNED | - | MJR |
| DRAWN | - | DRP |
| CHECKED | - | MJR |
| DATE | - | |

| | |
|---|---|
| REVISED - | 07-05-12 |
| ADDENDUM #1 | |
| REVISED - | |
| REVISED - | |

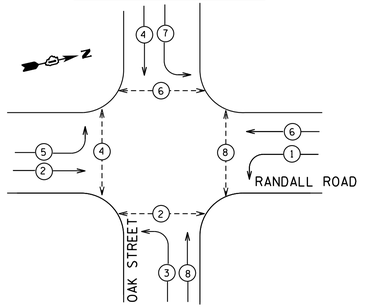
**KANE COUNTY**
**DIVISION OF TRANSPORTATION**

**SIGNAL PLAN – RANDALL ROAD AND OAK STREET**

SCALE: 1" = 20'

| F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| | | KANE | 55 | 24 |
| | | ILLINOIS | | |

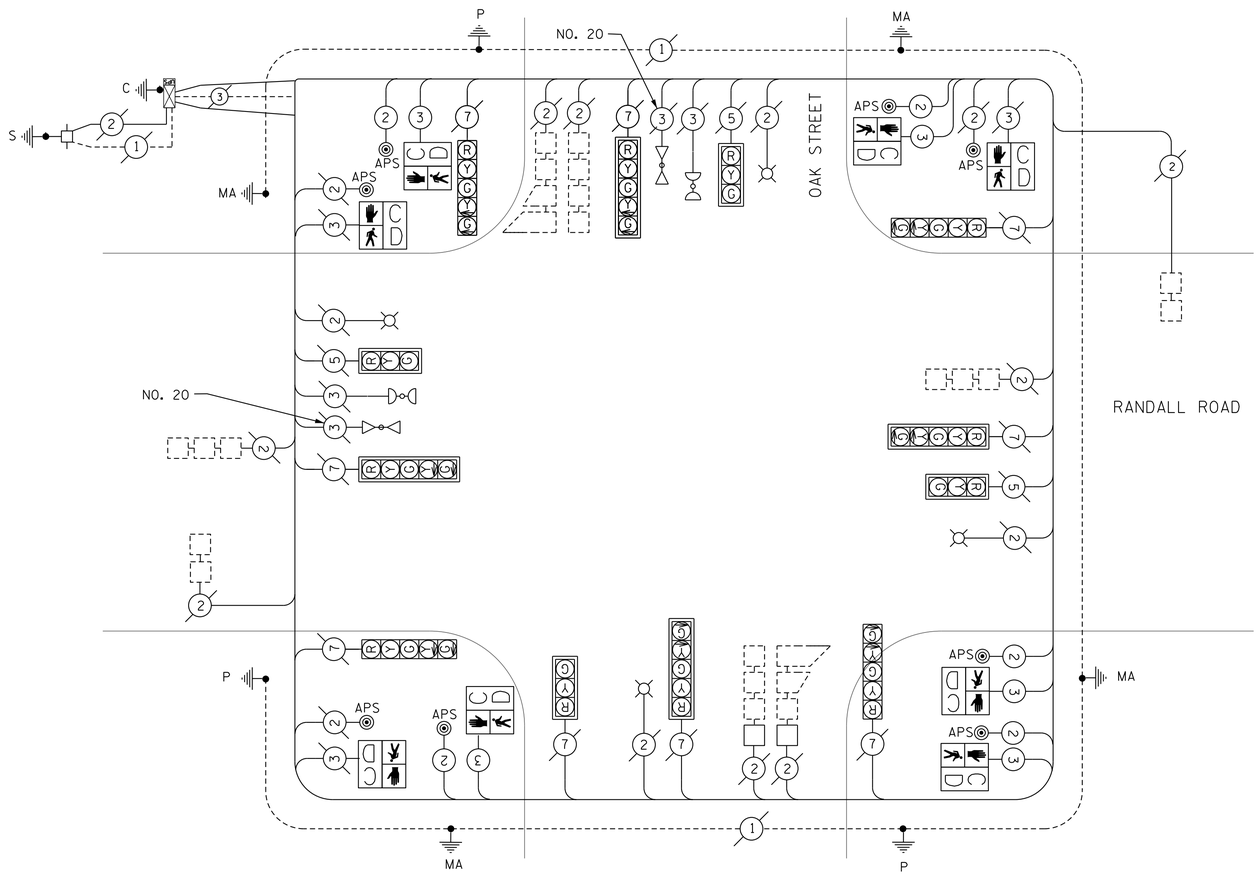
## CONTROLLER SEQUENCE



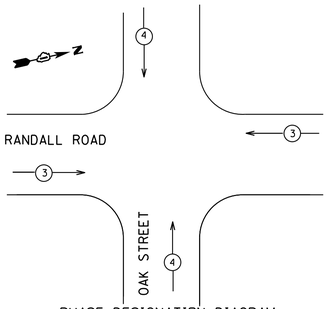

EXISTING/PROPOSED PHASE DESIGNATION DIAGRAM

LEGEND

- DUAL ENTRY PHASE
- OL — OVERLAP
- PEDESTRIAN PHASE
- ✳ NUMBER REFERS TO ASSOCIATED PHASE




## EXISTING/PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE




PHASE DESIGNATION DIAGRAM

| PROPOSED EMERGENCY VEHICLE PREEMPTORS | | |
|---|---|---|
| EMERGENCY VEHICLE PREEMPTOR | 3 | 4 |
| MOVEMENT | ← → | ↓ ↑ |

| TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS | | | | | |
|---|---|---|---|---|---|
| TYPE | NO. LAMPS | WATTAGE INCAND. | WATTAGE LED | × %OPERATION | TOTAL WATTAGE |
| SIGNAL (RED) | 12 | | 17 | 0.50 | 102.00 |
| (YELLOW) | 12 | | 25 | 0.25 | 75.00 |
| (GREEN) | 12 | | 15 | 0.25 | 45.00 |
| ARROW | 14 | | 12 | 0.10 | 16.80 |
| PED. SIGNAL | 4 | | 25 | 1.00 | 100.00 |
| CONTROLLER | 1 | | 100 | 1.00 | 100.00 |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| FLASHER | | | | 0.50 | |
| ENERGY COSTS TO: | | | | TOTAL = | 438.80 |

ENERGY SUPPLY CONTACT: _____
PHONE: _____
COMPANY: _____

NOTE:
TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS INTERSECTION IS "EAGLE"

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, MEDIANS, 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.

## SCHEDULE OF QUANTITIES

| IDOT PAY ITEM | UNIT | QTY | IDOT PAY ITEM | UNIT | QTY |
|---|---|---|---|---|---|
| TRAFFIC CONTROL AND PROTECTION, STANDARD 701601 | L SUM | 1 | CONCRETE FOUNDATION, TYPE A | FOOT | 16 |
| TRAFFIC CONTROL AND PROTECTION, STANDARD 701701 | L SUM | 1 | DRILL EXISTING HANDHOLE | EACH | 9 |
| TRAFFIC CONTROL AND PROTECTION, STANDARD 701801 | L SUM | 1 | PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER | EACH | 6 |
| MODIFIED URETHANE PAVEMENT MARKING - LINE 6" | FOOT | 669 | DETECTOR LOOP, TYPE I | FOOT | 114 |
| MODIFIED URETHANE PAVEMENT MARKING - LINE 12" | FOOT | 670 | ACCESSIBLE PEDESTRIAN SIGNALS | EACH | 6 |
| MODIFIED URETHANE PAVEMENT MARKING - LINE 24" | FOOT | 32 | RELOCATE EXISTING SIGNAL HEAD | EACH | 1 |
| PAVEMENT MARKING REMOVAL | SQ FT | 263 | MODIFY EXISTING CONTROLLER | EACH | 1 |
| CONDUIT IN TRENCH, 2" DIA, GALVANIZED STEEL | FOOT | 87 | REMOVE AND REINSTALL ELECTRIC CABLE FROM CONDUIT | FOOT | 52 |
| CONDUIT IN TRENCH, 2 1/2" DIA, GALVANIZED STEEL | FOOT | 31 | REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT | EACH | 1 |
| MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION | EACH | 1 | REMOVE EXISTING CONCRETE FOUNDATION | EACH | 1 |
| ELECTRIC CABLE IN CONDUIT, SIGNAL NO 14 2C | FOOT | 1,225 | RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM - LEVEL I | EACH | 1 |
| ELECTRIC CABLE IN CONDUIT, SIGNAL NO 14 3C | FOOT | 1,189 | VIBROTACTILE FEATURE | EACH | 6 |
| ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING, SIG NO 6 IC | EACH | 109 | | | |
| TRAFFIC SIGNAL POST, 10 FT | EACH | 3 | | | |
| TRAFFIC SIGNAL POST, 16 FT | EACH | 1 | | | |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630.724.9202 fax
www.v3co.com


| | | | |
|---|---|---|---|
| DESIGNED | - MJR | REVISED - 07-05-12 ADDENDUM #1 | 1 |
| DRAWN | - DRP | REVISED - | |
| CHECKED | - MJR | REVISED - | |
| DATE | - | REVISED - | |

**KANE COUNTY**
**DIVISION OF TRANSPORTATION**

**SCHEDULE OF QUANTITIES, CABLE PLAN AND PHASE DESIGNATION DIAGRAM – RANDALL ROAD AND OAK STREET**

SCALE: NONE

| F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| | | KANE | 55 | 25 |
| | | ILLINOIS | | |

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.

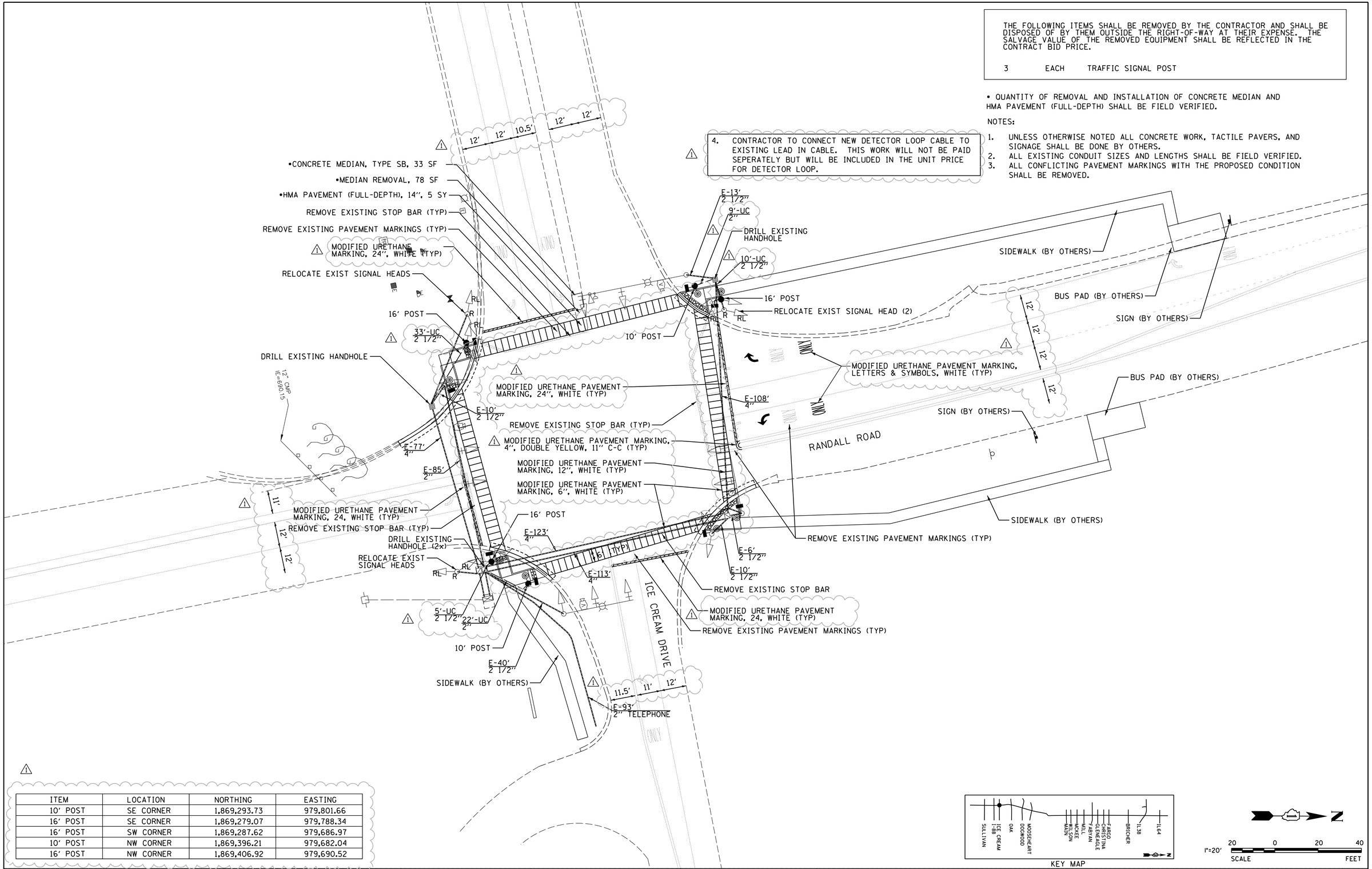
| | | |
|---|---|---|
| 3 | EACH | TRAFFIC SIGNAL POST |

• QUANTITY OF REMOVAL AND INSTALLATION OF CONCRETE MEDIAN AND HMA PAVEMENT (FULL-DEPTH) SHALL BE FIELD VERIFIED.

NOTES:

1. UNLESS OTHERWISE NOTED ALL CONCRETE WORK, TACTILE PAVERS, AND SIGNAGE SHALL BE DONE BY OTHERS.
2. ALL EXISTING CONDUIT SIZES AND LENGTHS SHALL BE FIELD VERIFIED.
3. ALL CONFLICTING PAVEMENT MARKINGS WITH THE PROPOSED CONDITION SHALL BE REMOVED.

4. CONTRACTOR TO CONNECT NEW DETECTOR LOOP CABLE TO EXISTING LEAD IN CABLE. THIS WORK WILL NOT BE PAID SEPERATELY BUT WILL BE INCLUDED IN THE UNIT PRICE FOR DETECTOR LOOP.




| ITEM | LOCATION | NORTHING | EASTING |
|---|---|---|---|
| 10' POST | SE CORNER | 1,869,293.73 | 979,801.66 |
| 16' POST | SE CORNER | 1,869,279.07 | 979,788.34 |
| 16' POST | SW CORNER | 1,869,287.62 | 979,686.97 |
| 10' POST | NW CORNER | 1,869,396.21 | 979,682.04 |
| 16' POST | NW CORNER | 1,869,406.92 | 979,690.52 |



KEY MAP

1"=20'
SCALE
20 0 20 40
FEET

V3 Companies
7325 Janes Avenue
Woodridge, IL 60517
630.724.9200 phone
630.724.9202 fax
www.v3co.com

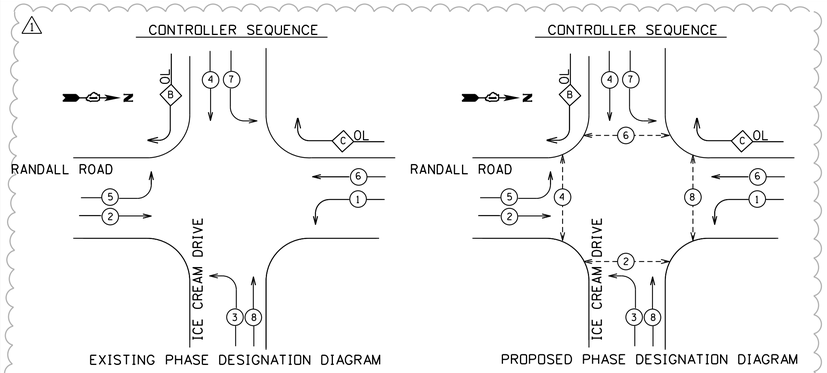
| | | | |
|---|---|---|---|
| DESIGNED | MJR | REVISED - 07-05-12 ADDENDUM #1 | 1 |
| DRAWN | DRP | REVISED | |
| CHECKED | MJR | REVISED | |
| DATE | | REVISED | |

**KANE COUNTY**
**DIVISION OF TRANSPORTATION**

**SIGNAL PLAN – RANDALL ROAD AND ICE CREAM DRIVE**

SCALE: 1" = 20'

| F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| | | KANE | 55 | 26 |
| | | ILLINOIS | | |





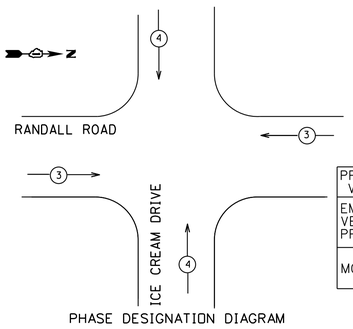


LEGEND

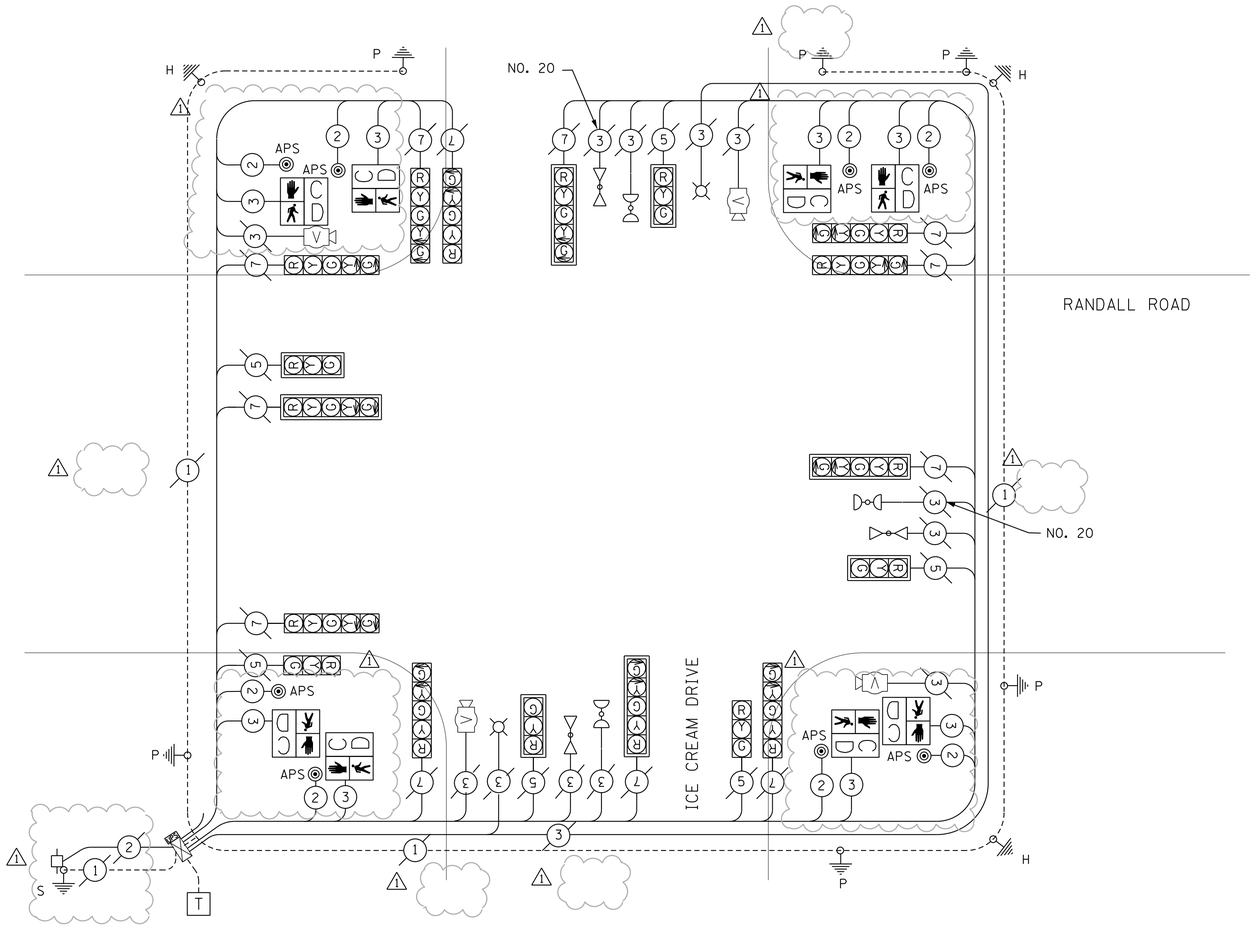
- DUAL ENTRY PHASE
- OL — OVERLAP
- PEDESTRIAN PHASE
- ✳ NUMBER REFERS TO ASSOCIATED PHASE

| OVERLAP LETTER | | PERMISSIVE PHASE | | PROTECTED PHASE |
|---|---|---|---|---|
| B | = | 4 | + | 5 |
| C | = | 6 | + | 7 |

## EXISTING/PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE




| PROPOSED EMERGENCY VEHICLE PREEMPTORS | | |
|---|---|---|
| EMERGENCY VEHICLE PREEMPTOR | 3 | 4 |
| MOVEMENT | ← → | ↓ ↑ |




| TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS | | | | | |
|---|---|---|---|---|---|
| TYPE | NO. LAMPS | WATTAGE INCAND. | WATTAGE 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 | 24 | | 12 | 0.10 | 28.80 |
| PED. SIGNAL | 8 | | 25 | 1.00 | 200.00 |
| CONTROLLER | 1 | | 100 | 1.00 | 100.00 |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| FLASHER | | | | 0.50 | |
| ENERGY COSTS TO: | | | | TOTAL = | 661.80 |

ENERGY SUPPLY CONTACT: _____
PHONE: _____
COMPANY: _____

NOTE:
TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS INTERSECTION IS "EAGLE"

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, MEDIANS, 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.

## SCHEDULE OF QUANTITIES

| IDOT PAY ITEM | UNIT | QTY | IDOT PAY ITEM | UNIT | QTY |
|---|---|---|---|---|---|
| TRAFFIC CONTROL AND PROTECTION, STANDARD 701601 | L SUM | 1 | CONCRETE FOUNDATION, TYPE A | FOOT | 20 |
| TRAFFIC CONTROL AND PROTECTION, STANDARD 701701 | L SUM | 1 | DRILL EXISTING HANDHOLE | EACH | 4 |
| TRAFFIC CONTROL AND PROTECTION, STANDARD 701801 | L SUM | 1 | PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER | EACH | 8 |
| THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS | SQ FT | 73 | ACCESSIBLE PEDESTRIAN SIGNALS | EACH | 8 |
| MODIFIED URETHANE PAVEMENT MARKING - LINE 6" | FOOT | 677 | RELOCATE EXISTING SIGNAL HEAD | EACH | 6 |
| MODIFIED URETHANE PAVEMENT MARKING - LINE 12" | FOOT | 665 | MODIFY EXISTING CONTROLLER | EACH | 1 |
| MODIFIED URETHANE PAVEMENT MARKING - LINE 24" | FOOT | 172 | REMOVE AND REINSTALL ELECTRIC CABLE FROM CONDUIT | FOOT | 125 |
| PAVEMENT MARKING REMOVAL | SQ FT | 468 | REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT | EACH | 1 |
| UNDERGROUND CONDUIT, 2" DIA, GALVANIZED STEEL | FOOT | 31 | REMOVE EXISTING CONCRETE FOUNDATION | EACH | 3 |
| UNDERGROUND CONDUIT, 2 1/2" DIA, GALVANIZED STEEL | FOOT | 48 | RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM - LEVEL I | EACH | 1 |
| MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION | EACH | 1 | VIBROTACTILE FEATURE | EACH | 8 |
| ELECTRIC CABLE IN CONDUIT, SIGNAL NO 14 2C | FOOT | 1,327 | HOT-MIX ASPHALT PAVEMENT (FULL-DEPTH), 14" | SQ YD | 5 |
| ELECTRIC CABLE IN CONDUIT, SIGNAL NO 14 3C | FOOT | 1,279 | MEDIAN REMOVAL | SQ FT | 78 |
| ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING, SIG NO 6 IC | EACH | 79 | CONCRETE MEDIAN, TYPE SB | SQ FT | 33 |
| TRAFFIC SIGNAL POST, 10 FT | EACH | 2 | | | |
| TRAFFIC SIGNAL POST, 16 FT | EACH | 3 | | | |

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| | | | |
|---|---|---|---|
| DESIGNED | MJR | REVISED - 07-05-12 | |
| DRAWN | DRP | ADDENDUM #1 | 1 |
| CHECKED | MJR | REVISED - | |
| DATE | | REVISED - | |

**KANE COUNTY**
**DIVISION OF TRANSPORTATION**

**SCHEDULE OF QUANTITIES, CABLE PLAN AND PHASE DESIGNATION DIAGRAM – RANDALL ROAD AND ICE CREAM DRIVE**

SCALE: NONE

| F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| | | KANE | 55 | 27 |
| | | ILLINOIS | | |

NOTES:

1. UNLESS OTHERWISE NOTED ALL CONCRETE WORK, TACTILE PAVERS, AND SIGNAGE SHALL BE DONE BY OTHERS.
2. ALL EXISTING CONDUIT SIZES AND LENGTHS SHALL BE FIELD VERIFIED.
3. ALL CONFLICTING PAVEMENT MARKINGS WITH THE PROPOSED CONDITION SHALL BE REMOVED.
4. CONTRACTOR TO CONNECT NEW DETECTOR LOOP CABLE TO EXISTING LEAD IN CABLE. THIS WORK WILL NOT BE PAID SEPERATELY BUT WILL BE INCLUDED IN THE UNIT PRICE FOR DETECTOR LOOP.

SULLIVAN ROAD

RANDALL ROAD

8.3' 12' 12'

11' 11' 12'

12' 12' 12'

12' 12' 12'

10' POST

33'-UC 2"

E-99' 4"

E-7' 2 1/2"

E-41' 2"

E-110' 4"

DRILL EXISTING HANDHOLE

MODIFIED URETHANE PAVEMENT MARKING, 12", WHITE (TYP)

MODIFIED URETHANE PAVEMENT MARKING, 6", WHITE (TYP)

DRILL EXISTING HANDHOLE

E-54' 4"

6'-UC 2"

14'-UC 2"

DRILL EXISTING HANDHOLE (2x)

10' POST

10' POST

17'-UC 2"

E-28' 2 1/2"

10' POST

SIDEWALK (BY OTHERS)

SIDEWALK (BY OTHERS)

SIDEWALK (BY OTHERS)

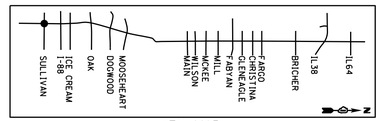
SIGN (BY OTHERS)

BUS PAD (BY OTHERS)

BUS PAD (BY OTHERS)

SIGN (BY OTHERS)

| ITEM | LOCATION | NORTHING | EASTING |
|---|---|---|---|
| 10' POST | SE CORNER | 1,865,457.70 | 979,812.52 |
| 10' POST | SE CORNER | 1,865,448.68 | 979,804.58 |
| 10' POST | SW CORNER | 1,865,451.30 | 979,732.46 |
| 10' POST | NE CORNER | 1,865,524.98 | 979,802.87 |




KEY MAP

1"=20'

20 0 20 40

SCALE FEET

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| | | | |
|---|---|---|---|
| DESIGNED | - MJR | REVISED - | 07-05-12 |
| DRAWN | - DRP | | ADDENDUM #1 |
| CHECKED | - MJR | REVISED - | |
| DATE | - | REVISED - | |

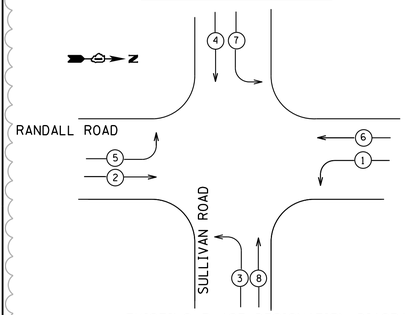
**KANE COUNTY**
**DIVISION OF TRANSPORTATION**

**SIGNAL PLAN – RANDALL ROAD AND SULLIVAN ROAD**

SCALE: 1" = 20'

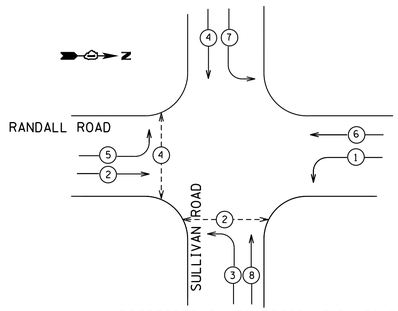
| F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| | | KANE | 55 | 28 |
| | | ILLINOIS | | |

CONTROLLER SEQUENCE




EXISTING PHASE DESIGNATION DIAGRAM

CONTROLLER SEQUENCE

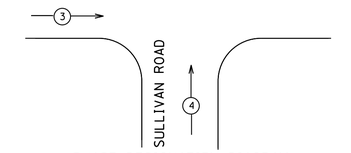



PROPFOSED PHASE DESIGNATION DIAGRAM

LEGEND

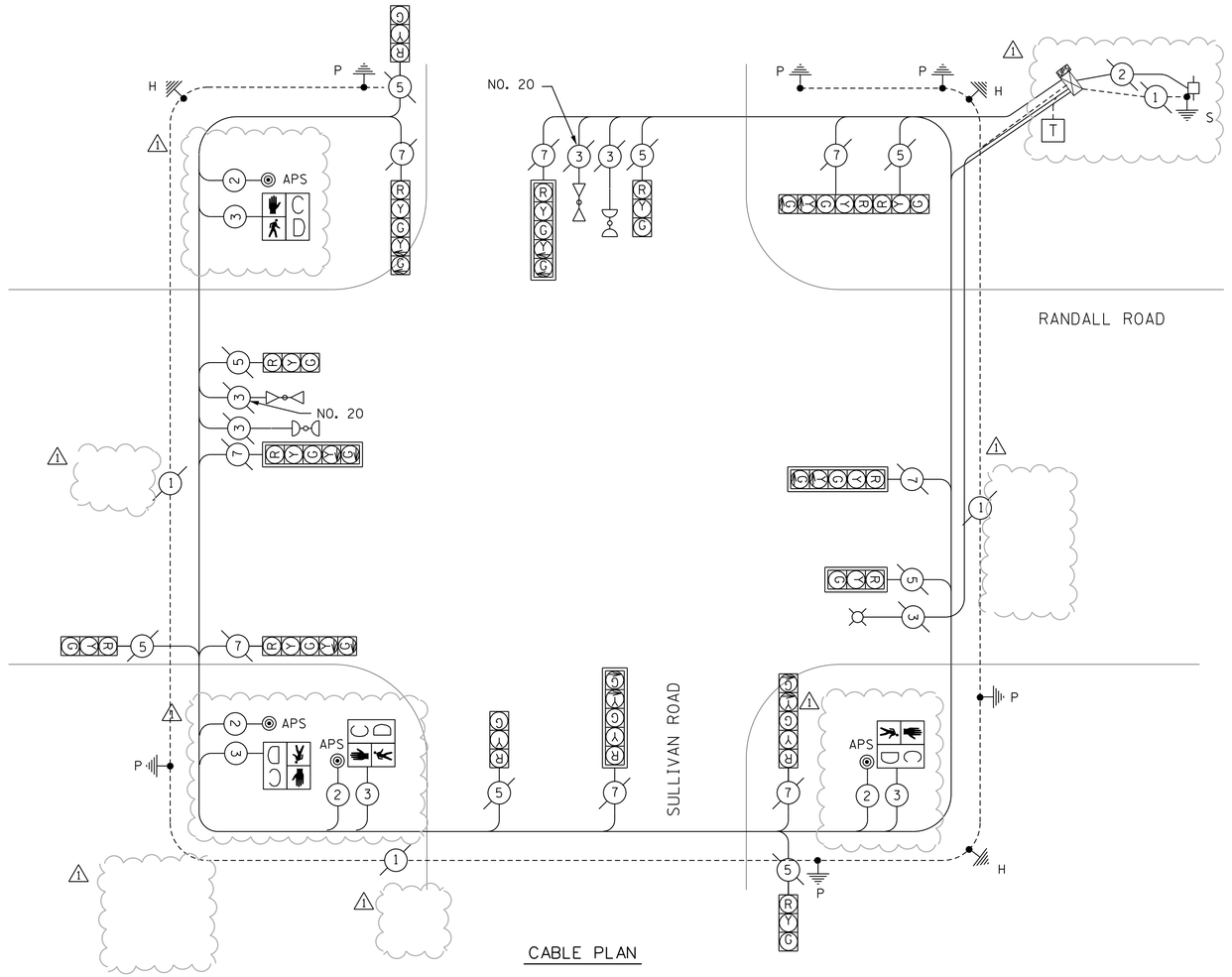
- DUAL ENTRY PHASE
- OL — OVERLAP
- PEDESTRIAN PHASE
- * NUMBER REFERS TO ASSOCIATED PHASE

EXISTING/PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE




PHASE DESIGNATION DIAGRAM

| PROPOSED EMERGENCY VEHICLE PREEMPTORS | | |
|---|---|---|
| EMERGENCY VEHICLE PREEMPTOR | 3 | 4 |
| MOVEMENT | ← → | ↓ ↑ |




CABLE PLAN

| TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS | | | | | TOTAL WATTAGE |
|---|---|---|---|---|---|
| TYPE | NO. LAMPS | WATTAGE INCAND. | WATTAGE LED | % OPERATION | |
| SIGNAL (RED) | 16 | | 17 | 0.50 | 136.00 |
| (YELLOW) | 16 | | 25 | 0.25 | 100.00 |
| (GREEN) | 16 | | 15 | 0.25 | 60.00 |
| ARROW | 16 | | 12 | 0.10 | 19.20 |
| PED. SIGNAL | 4 | | 25 | 1.00 | 100.00 |
| CONTROLLER | 1 | | 100 | 1.00 | 100.00 |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| FLASHER | | | | 0.50 | |
| ENERGY COSTS TO: | | | | TOTAL = | 515.20 |

ENERGY SUPPLY CONTACT: _____
PHONE: _____
COMPANY: _____

NOTE:
TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS INTERSECTION IS "EAGLE"

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, MEDIANS, 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.

SCHEDULE OF QUANTITIES

| IDOT PAY ITEM | UNIT | QTY | IDOT PAY ITEM | UNIT | QTY |
|---|---|---|---|---|---|
| TRAFFIC CONTROL AND PROTECTION, STANDARD 701601 | L SUM | 1 | CONCRETE FOUNDATION, TYPE A | FOOT | 16 |
| TRAFFIC CONTROL AND PROTECTION, STANDARD 701701 | L SUM | 1 | DRILL EXISTING HANDHOLE | EACH | 4 |
| TRAFFIC CONTROL AND PROTECTION, STANDARD 701801 | L SUM | 1 | PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER | EACH | 4 |
| MODIFIED URETHANE PAVEMENT MARKING - LINE 6" | FOOT | 219 | PEDESTRIAN PUSH BUTTON | EACH | 4 |
| MODIFIED URETHANE PAVEMENT MARKING - LINE 12" | FOOT | 219 | MODIFY EXISTING CONTROLLER | EACH | 1 |
| UNDERGROUND CONDUIT, 2" DIA, GALVANIZED STEEL | FOOT | 56 | VIBROTACTILE FEATURE | EACH | 4 |
| MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION | EACH | 1 | | | |
| ELECTRIC CABLE IN CONDUIT, SIGNAL NO 14 2C | FOOT | 778 | | | |
| ELECTRIC CABLE IN CONDUIT, SIGNAL NO 14 3C | FOOT | 754 | | | |
| ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING, SIG NO 6 IC | EACH | 70 | | | |
| TRAFFIC SIGNAL POST, 10 FT | EACH | 4 | | | |

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|---|---|---|---|
| DESIGNED | - MJR | REVISED - 07-05-12 | |
| DRAWN | - DRP | ADDENDUM #1 | 1 |
| CHECKED | - MJR | REVISED - | |
| DATE | - | REVISED - | |

**KANE COUNTY**
**DIVISION OF TRANSPORTATION**

**SCHEDULE OF QUANTITIES, CABLE PLAN AND PHASE DESIGNATION DIAGRAM – RANDALL ROAD AND SULLIVAN ROAD**

SCALE: NONE

| F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| | | KANE | 55 | 29 |
| | | ILLINOIS | | |

## LOOP DETECTOR NOTES

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

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

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

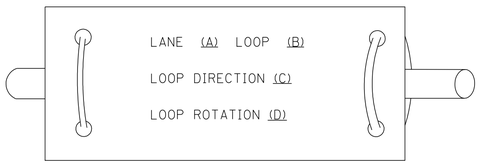
4. ALL LOOP CABLE SHALL BE FASTENED WITH PLASTIC TIE WRAP TO THE HANDHOLE HOOKS.

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

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

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

### LOOP LEAD-IN CABLE TAG

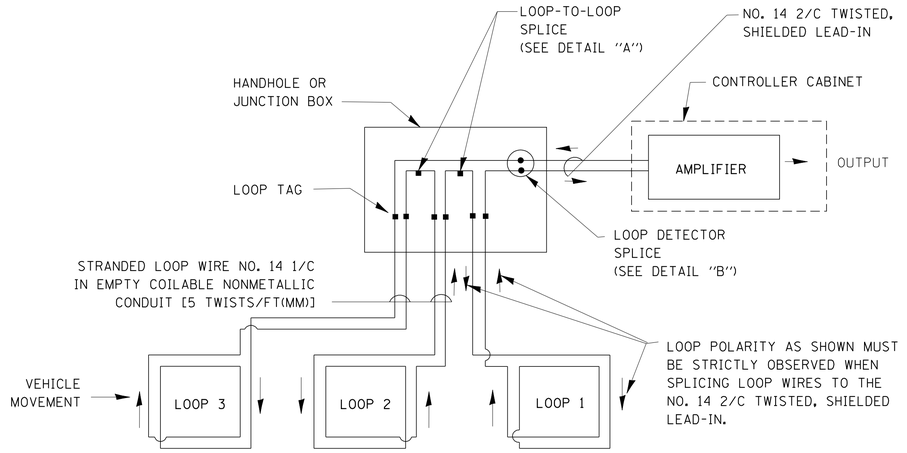



A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY

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

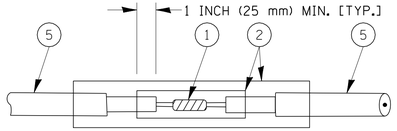
C. LABEL LOOP CABLE ''IN'' OR LOOP CABLE ''OUT''.

D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

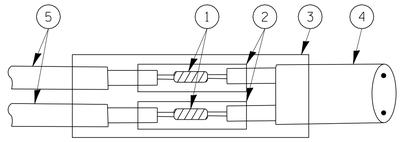



### DETECTOR LOOP WIRING SCHEMATIC

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

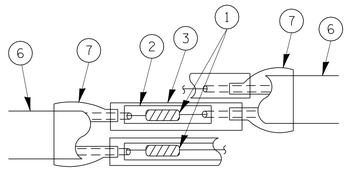



DETAIL ''A''
LOOP-TO-LOOP SPLICE



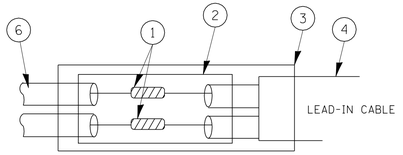

DETAIL ''B''
LOOP-TO-CONTROLLER SPLICE

### TYPE I LOOP




DETAIL ''A''
LOOP-TO-LOOP SPLICE

### PRE-FORMED LOOP




DETAIL ''B''
LOOP-TO-CONTROLLER SPLICE

### LOOP DETECTOR SPLICE

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

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

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

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

(5) LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE.

(6) PRE-FORMED LOOP

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

| | | | |
|---|---|---|---|
| FILE NAME = c:\pw_work\PWIDOT\KANTHAPHIXAYBC\d0112614\traffic_legend_v7.dgn | USER NAME = kanthaphixaybc | DESIGNED - DAD | REVISED - |
| | | DRAWN - BCK | REVISED - |
| | PLOT SCALE = 20.0000 ' / IN. | CHECKED - DAD | REVISED - |
| | PLOT DATE = 10/6/2009 | DATE - 10/28/09 | REVISED - |

**STATE OF ILLINOIS**
**DEPARTMENT OF TRANSPORTATION**

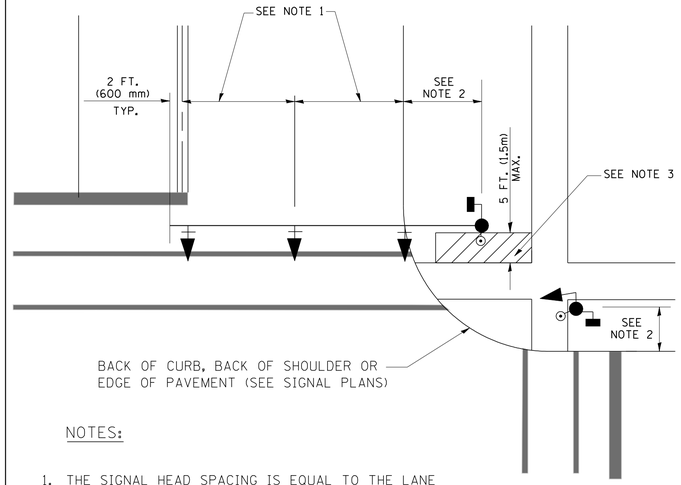
DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: | SHEET NO. 1 OF 6 SHEETS | STA. | TO STA.

| F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| | | | 55 | 30 |
| | | CONTRACT NO. | | |
| FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |

## TRAFFIC SIGNAL MAST ARM AND SIGNAL POST

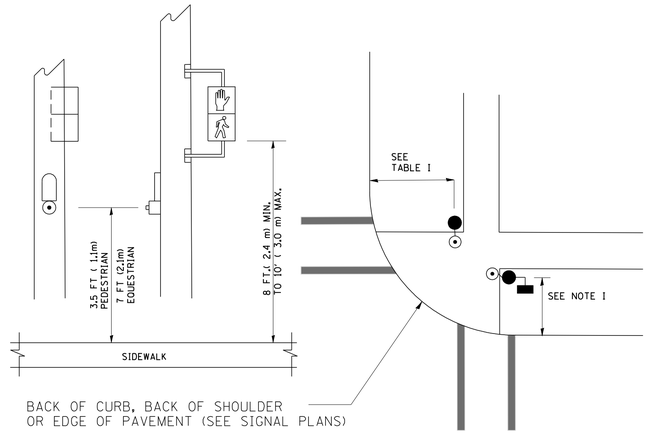
MAST ARM MOUNTED SIGNALS IN EXISTING, PROPOSED OR FUTURE SIDEWALK/BICYCLE PATH AREA. INTERSECTION SHOWN WITH PEDESTRIAN SIGNALS AND PEDESTRIAN PUSHBUTTON DETECTORS.




NOTES:

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

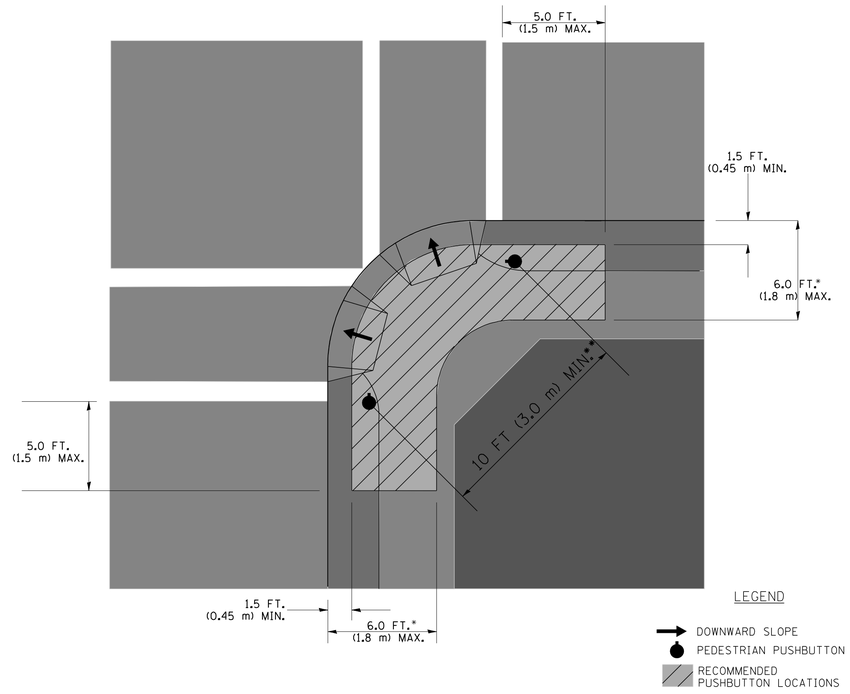
## PEDESTRIAN SIGNAL POST AND PEDESTRIAN PUSH BUTTON POST




NOTES:

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

## RECOMMENDED PUSHBUTTON LOCATIONS




* WHERE THERE ARE CONSTRAINTS THAT MAKE IT IMPRACTICAL TO PLACE THE PEDESTRIAN PUSHBUTTON BETWEEN 1.5 FT (0.45 m) AND 6 FT ( 1.8 m) FROM THE EDGE OF THE CURB, SHOULDER, OR PAVEMENT, IT SHOULD NOT BE FURTHER THAN 10 FT (3 m) FROM THE EDGE OF CURB, SHOULDER, OR PAVEMENT.

** WHERE THERE ARE CONSTRAINTS ON A PARTICULAR CORNER THAT MAKE IT IMPRACTICAL TO PROVIDE THE 10 FT (3 m) SEPERATION BETWEEN THE TWO PEDESTRIAN PUSHBUTTONS, THE PUSHBUTTONS MAY BE PLACED CLOSER TOGETHER OR ON THE SAME POLE.

## NOTES:

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

## TRAFFIC SIGNAL EQUIPMENT OFFSET

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

NOTES:

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

| | | | |
|---|---|---|---|
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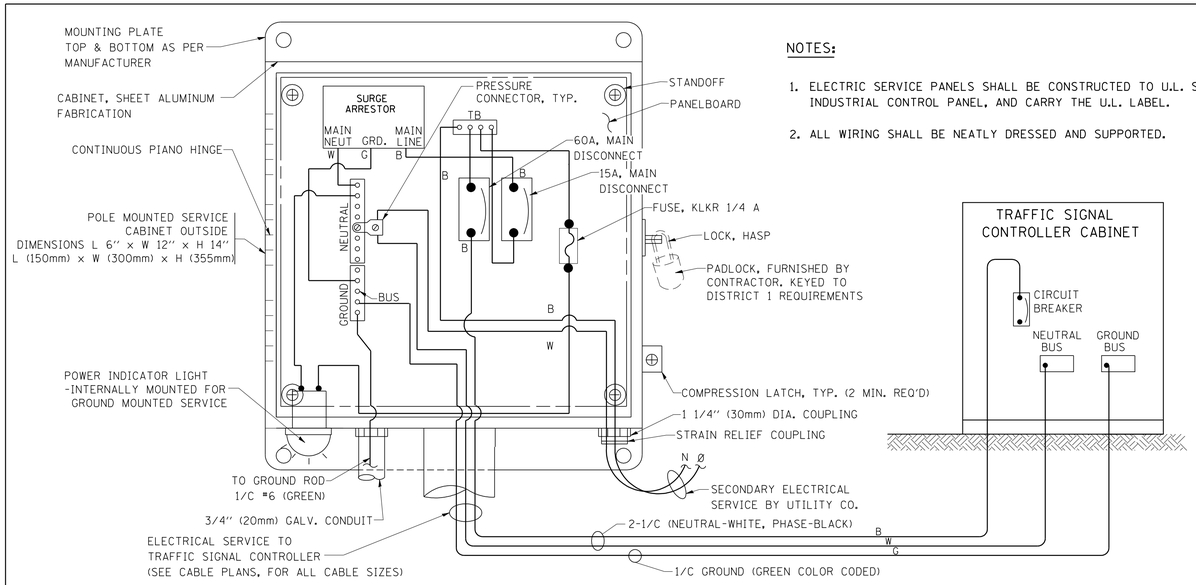
| | | DRAWN - BCK | REVISED - |
| | PLOT SCALE = 20.0000 ' / IN. | CHECKED - DAD | REVISED - |
| | PLOT DATE = 10/6/2009 | DATE - 10/28/09 | REVISED - |

**STATE OF ILLINOIS**
**DEPARTMENT OF TRANSPORTATION**

DISTRICT 1
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: | SHEET NO. 2 OF 6 SHEETS | STA. | TO STA.

| F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| | | | 55 | 31 |
| | | CONTRACT NO. | | |
| FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |



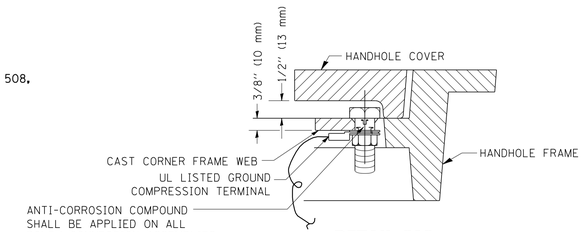

NOTES:

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

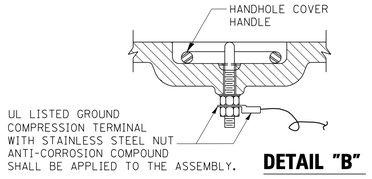
## ELECTRICAL SERVICE – PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE)

## SERVICE INSTALLATION POLE MOUNT (SHOWN)

(NOT TO SCALE)




## DETAIL "A"

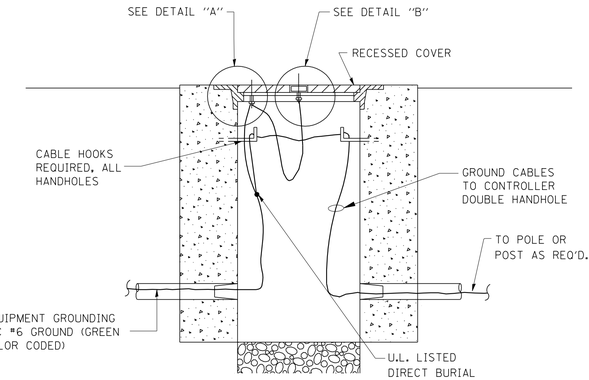



## DETAIL "B"

NOTES:

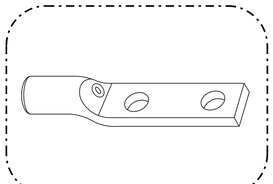
GROUNDING SYSTEM

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.

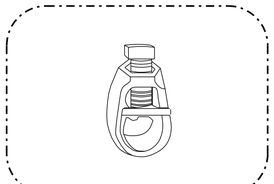



## HANDHOLE COVER & FRAME – GROUNDING DETAIL

(NOT TO SCALE)



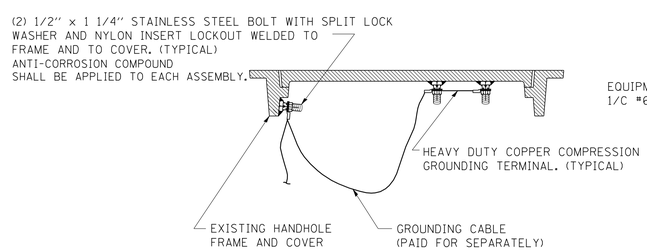
HEAVY-DUTY COMPRESSION TERMINAL (BURNDY TYPE YGHA OR APPROVED EQUAL)



¾" (20mm) HEAVY-DUTY GROUND ROD CLAMP (BURNDY TYPE GRC OR APPROVED EQUAL)

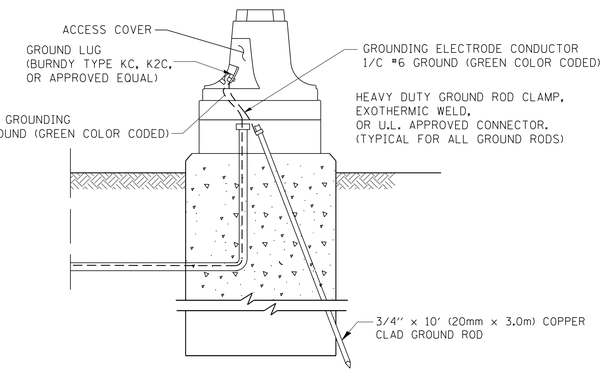
NOTES:

- 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.



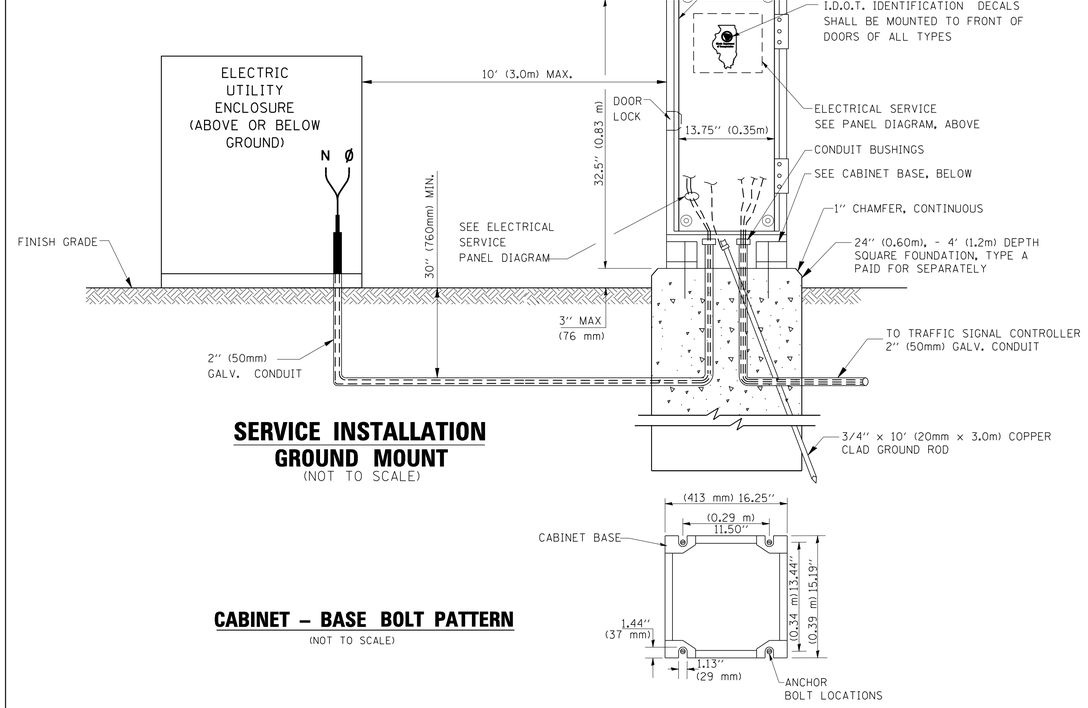

## EXISTING HANDHOLE COVER & FRAME – GROUNDING DETAIL

(NOT TO SCALE)




## MAST ARM POLE / POST–GROUNDING DETAIL

(NOT TO SCALE)




## SERVICE INSTALLATION GROUND MOUNT

(NOT TO SCALE)




## CABINET – BASE BOLT PATTERN

(NOT TO SCALE)

| | | | |
|---|---|---|---|
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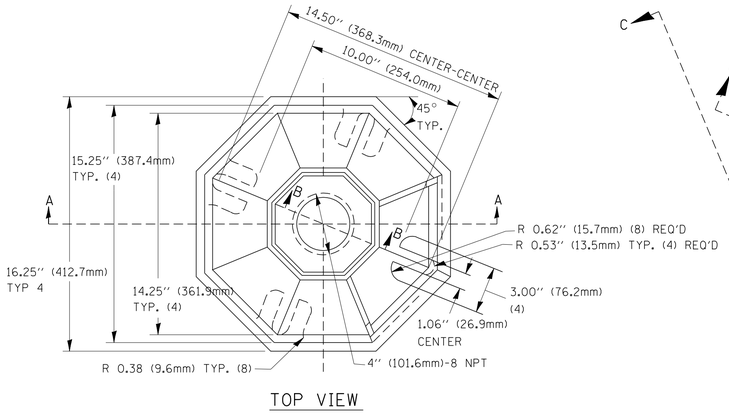
| | | DRAWN - BCK | REVISED - |
| | PLOT SCALE = 20.0000 ' / IN. | CHECKED - DAD | REVISED - |
| | PLOT DATE = 10/6/2009 | DATE - 10/28/09 | REVISED - |

**STATE OF ILLINOIS**
**DEPARTMENT OF TRANSPORTATION**

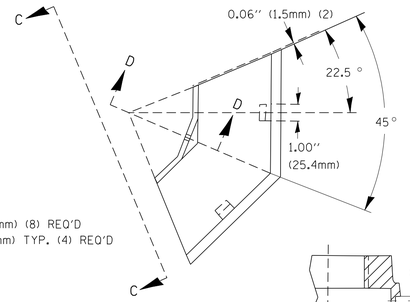
DISTRICT 1
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

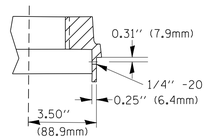
SCALE: | SHEET NO. 3 OF 6 SHEETS | STA. | TO STA.

| F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| | | | 55 | 32 |
| | | CONTRACT NO. | | |
| FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |

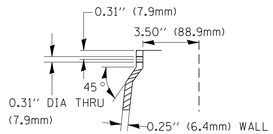



TOP VIEW

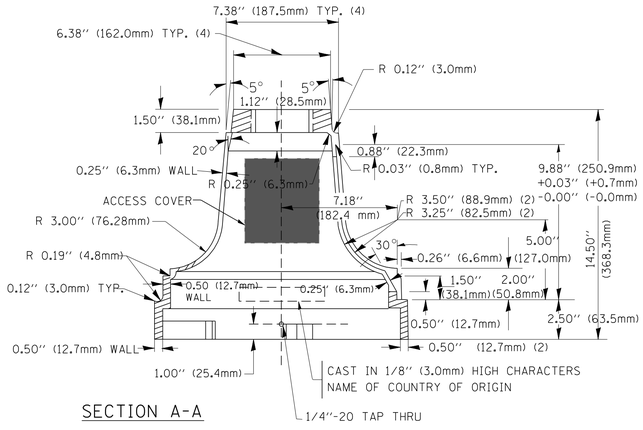


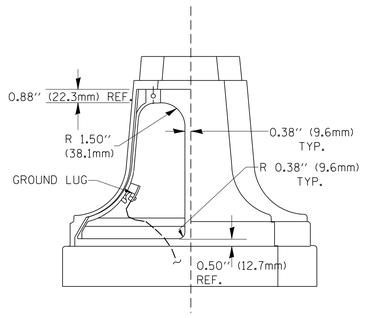

SECTION B-B



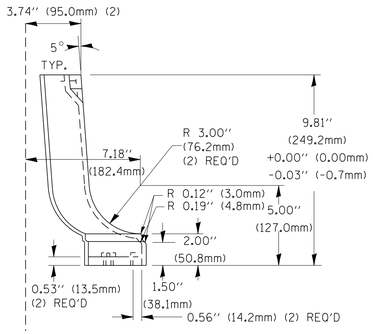

SECTION D-D



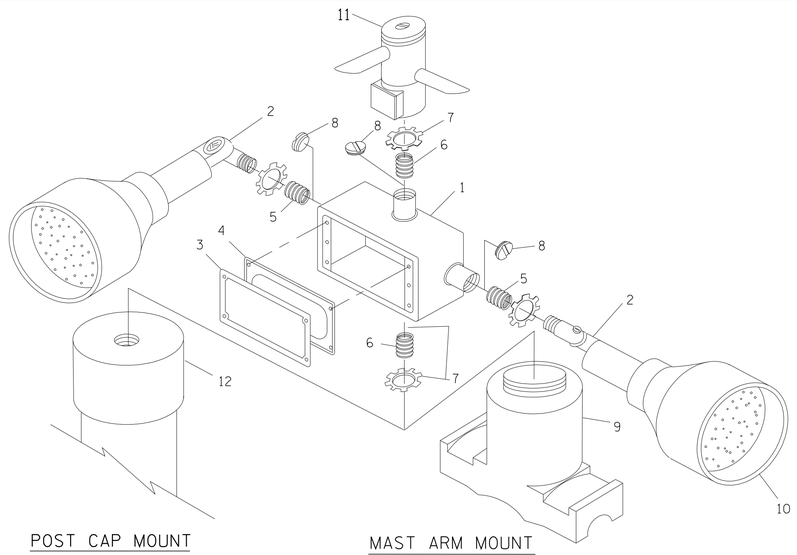

SECTION A-A




VIEW C-C




## TRAFFIC SIGNAL POST - MOUNTING BASE - TYPE A




POST CAP MOUNT

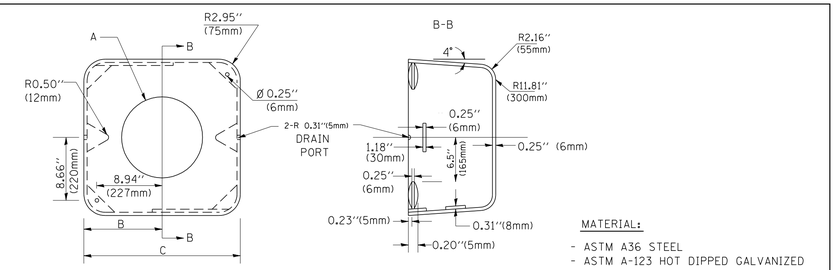
MAST ARM MOUNT

## EMERGENCY VEHICLE DETECTOR WITH CONFIRMATION BEACON MOUNTING DETAIL

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

NOTES:

1. ALL ELECTRICAL ITEMS, EXCEPT ITEMS #2 AND #11 SHALL BE ALUMINUM OR GALVANIZED
2. ITEM #1- OZ/GEDNEY FSX-1-50 OR EQUIVALENT
   ITEM #2- MULBERRY CON-O-SHADE LAMP SHIELD OR EQUIVALENT
   ITEM #9- ''BAND-IT'' SADDLE BRACKET OR EQUIVALENT
3. WHEN POST MOUNTING IS SPECIFIED, ITEM #9 SHALL NOT BE REQUIRED. THE DETECTION UNIT SHALL BE MOUNTED DIRECTLY ON TOP OF THE CAP BY DRILLING AND TAPPING A ¾''(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.




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

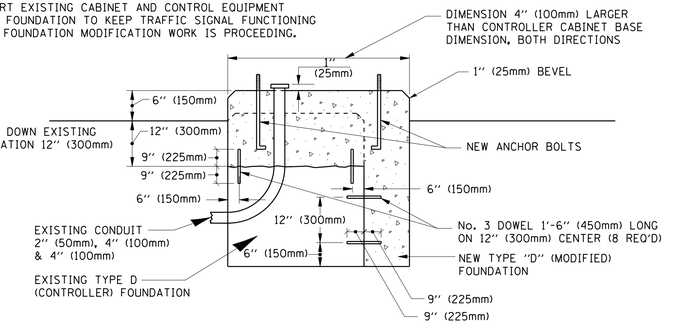
| A | B | C | HEIGHT | WEIGHT |
|---|---|---|---|---|
| VARIES | 9.5''(241mm) | 19''(483mm) | 7'' (178mm) - 12'' (300mm) | 53 lbs (24kg) |
| VARIES | 10.75''(273mm) | 21.5''(546mm) | 7'' (178mm) - 12'' (300mm) | 68 lbs (31 kg) |
| VARIES | 13.0''(330mm) | 26''(660mm) | 7'' (178mm) - 12'' (300mm) | 81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

## SHROUD

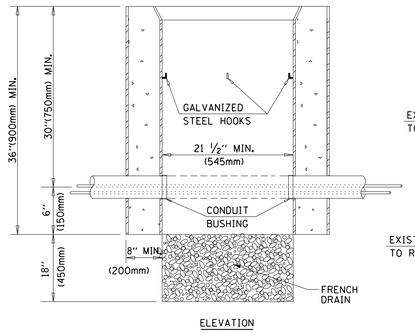
NOTES:

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

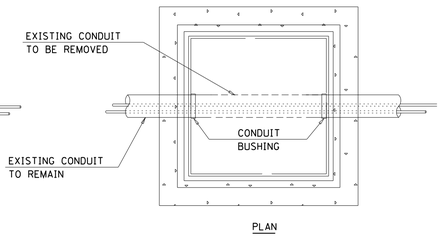
NOTE:
SUPPORT EXISTING CABINET AND CONTROL EQUIPMENT ABOVE FOUNDATION TO KEEP TRAFFIC SIGNAL FUNCTIONING WHILE FOUNDATION MODIFICATION WORK IS PROCEEDING.




## MODIFY EXISTING TYPE ''D'' FOUNDATION




ELEVATION




PLAN

NOTES:

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

## HANDHOLE TO INTERCEPT EXISTING CONDUIT

| | | | |
|---|---|---|---|
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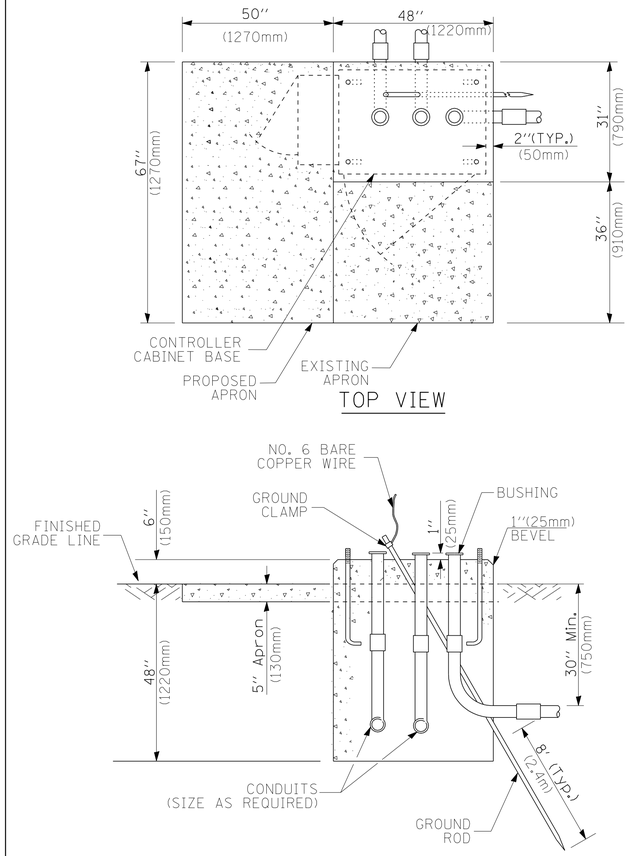
| | PLOT SCALE = 20.0000 ' / IN. | CHECKED - DAD | REVISED - |
| | PLOT DATE = 10/6/2009 | DATE - 10/28/09 | REVISED - |

**STATE OF ILLINOIS**
**DEPARTMENT OF TRANSPORTATION**

DISTRICT 1
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: | SHEET NO. 4 OF 6 SHEETS | STA. | TO STA.

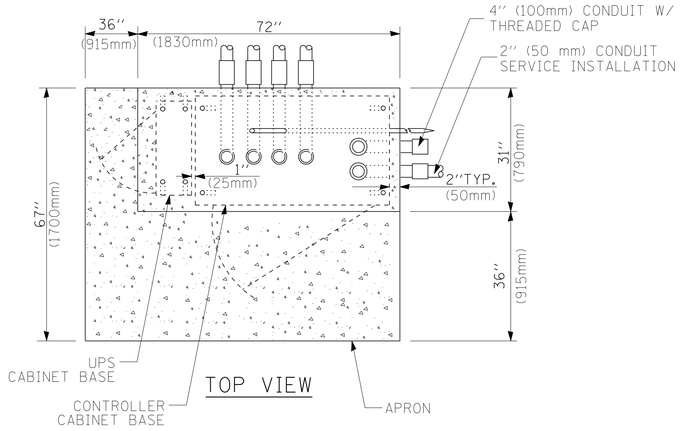
| F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| | | | 55 | 33 |
| | | CONTRACT NO. | | |
| FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |



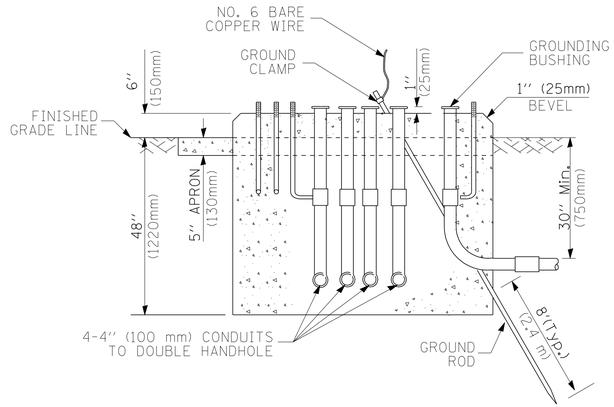

TOP VIEW



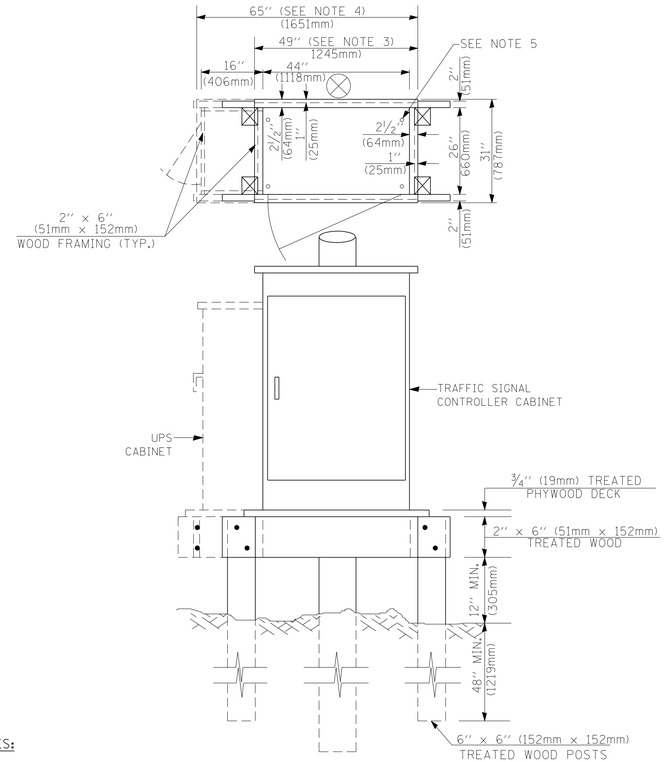

TYPE D
FOR GROUND MOUNTED
CONTROLLER CABINET
AND UPS BATTERY CABINET




TOP VIEW




TYPE C
FOR GROUND MOUNTED
CONTROLLER CABINET
AND UPS BATTERY CABINET




NOTES:

1. BASED ON CONTROLLER CABINET TYPE IV WITH BASE DIMENSIONS OF 26'' x 44'' (660mm x 1118mm). ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED.
2. BASED ON UNINTERRUPTIBLE POWER SUPPLY CABINET WITH BASE DIMENSIONS OF 16'' x 25'' (406mm x 635mm). ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED.
3. PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV.
4. PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV AND UNINTERRUPTIBLE POWER SUPPLY CABINET.
5. DRILLED HOLES THROUGH THE PLATFORM BASE TO MATCH THE CONTROLLER CABINET BOLT TEMPLATE. FASTEN THE CONTROLLER CABINET TO THE PLATFORM WITH CARRIAGE BOLTS, WASHERS AND NUTS.
6. FASTEN ALL SUPPORT WOOD FRAMING TO THE WOOD POSTS WITH 2 LAG SCREWS FOR EACH CONNECTION.

TEMPORARY SIGNAL CONTROLLER
WOOD SUPPORT PLATFORM

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

CABLE SLACK

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

VERTICAL CABLE LENGTH

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

DEPTH OF FOUNDATION

| Mast Arm Length | ① Foundation Depth | Foundation Diameter | Spiral Diameter | Quantity of Rebars | Size of Rebars |
|---|---|---|---|---|---|
| Less than 30' (9.1 m) | 10'-0'' (3.0 m) | 30'' (750mm) | 24'' (600mm) | 8 | 6(19) |
| Greater than or equal to 30' (9.1 m) and less than 40' (12.2 m) | 13'-6'' (4.1 m) | 30'' (750mm) | 24'' (600mm) | 8 | 6(19) |
| | 11'-0'' (3.4 m) | 36'' (900mm) | 30'' (750mm) | 12 | 7(22) |
| Greater than or equal to 40' (12.2 m) and less than 50' (15.2 m) | 13'-0'' (4.0 m) | 36'' (900mm) | 30'' (750mm) | 12 | 7(22) |
| Greater than or equal to 50' (15.2 m) and up to 55' (16.8 m) | 15'-0'' (4.6 m) | 36'' (900mm) | 30'' (750mm) | 12 | 7(22) |
| Greater than or equal to 56' (16.8 m) and less than 65' (19.8 m) | 21'-0'' (6.4 m) | 42'' (1060mm) | 36'' (900mm) | 16 | 8(25) |
| Greater than or equal to 65' (19.8 m) and up to 75' (22.9 m) | 25'-0'' (7.6 m) | 42'' (1060mm) | 36'' (900mm) | 16 | 8(25) |

NOTES:

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

DEPTH OF MAST ARM FOUNDATIONS, TYPE E

| | | | |
|---|---|---|---|
| FILE NAME = c:\pw_work\PWIDOT\KANTHAPHIXAYBC\d0112614\traffic_legend_v7.dgn | USER NAME = kanthaphixaybc | DESIGNED - DAG | REVISED - |
| | | DRAWN - BCK | REVISED - |
| | PLOT SCALE = 20.0000 ' / IN. | CHECKED - DAD | REVISED - |
| | PLOT DATE = 10/6/2009 | DATE - 10/28/09 | REVISED - |

**STATE OF ILLINOIS**
**DEPARTMENT OF TRANSPORTATION**

DISTRICT 1
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: | SHEET NO. 5 OF 6 SHEETS | STA. | TO STA.

| F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| | | | 55 | 34 |
| | | CONTRACT NO. | | |
| FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |

# TRAFFIC SIGNAL LEGEND

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

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

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

# RAILROAD SYMBOLS

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

| FILE NAME = | USER NAME = kanthaphixaybc | DESIGNED - DAG/BCK | REVISED - |
|---|---|---|---|
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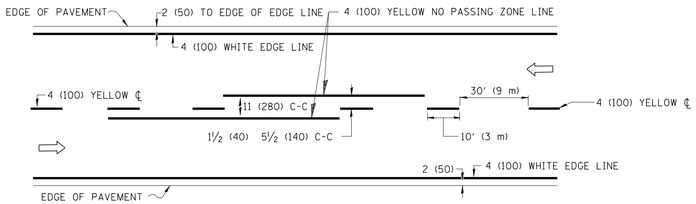
| | PLOT SCALE = 20.0000 ' / IN. | CHECKED - DAD | REVISED - |
| | PLOT DATE = 10/6/2009 | DATE - 10/28/09 | REVISED - |

**STATE OF ILLINOIS**
**DEPARTMENT OF TRANSPORTATION**

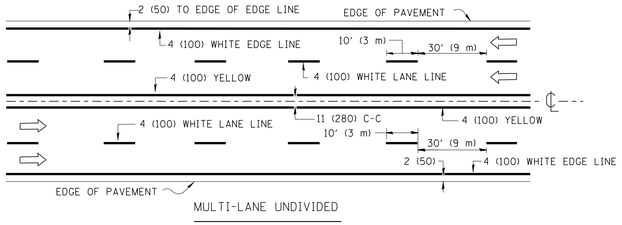
**DISTRICT 1**
**STANDARD TRAFFIC SIGNAL DESIGN DETAILS**

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

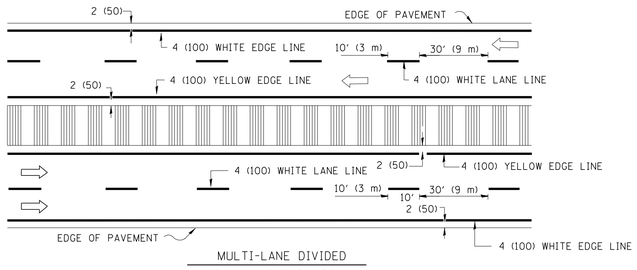
| F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| | | | 55 | 35 |
| | | CONTRACT NO. | | |
| FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |




2-LANE ROADWAY



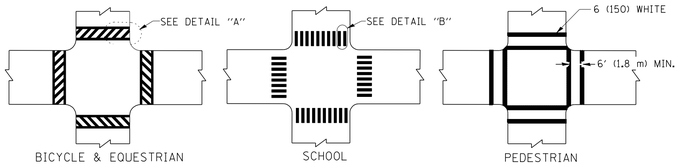

MULTI-LANE UNDIVIDED

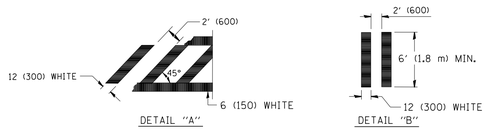



MULTI-LANE DIVIDED
WITH MOUNTABLE MEDIAN

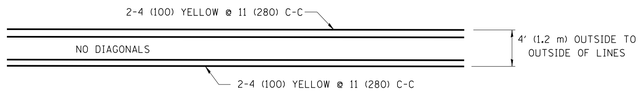
NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

## TYPICAL LANE AND EDGE LINE MARKING

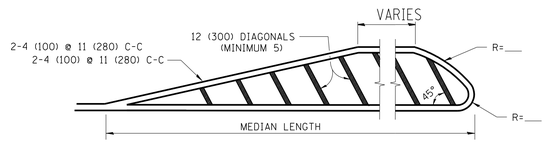



## TYPICAL CROSSWALK MARKING



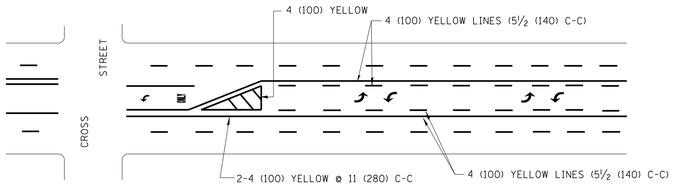

4' (1.2 m) WIDE MEDIANS ONLY



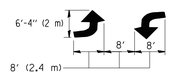

FOR MEDIAN LENGTHS WHERE DIAGONAL SPACING CANNOT BE ATTAINED, USE 5 (FIVE) EQUALLY SPACED DIAGONAL LINES.

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

MEDIANS OVER 4' (1.2 m) WIDE

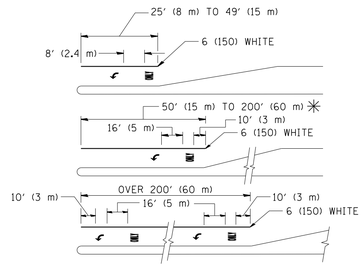



A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.




MEDIAN WITH TWO-WAY LEFT TURN LANE

## TYPICAL PAINTED MEDIAN MARKING

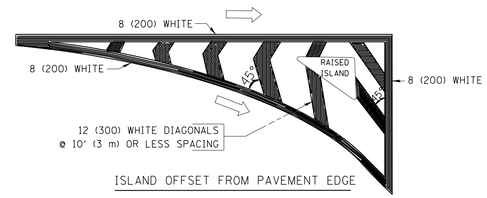



FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.
↰ AREA = 15.6 SQ. FT. (1.5 $m^2$) **ONLY** AREA = 20.8 SQ. FT. (1.9 $m^2$)

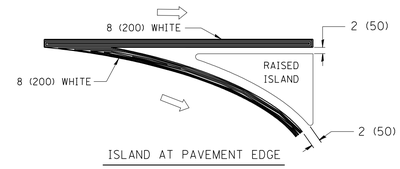
✳ TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

TYPICAL LEFT (OR RIGHT) TURN LANE

## TYPICAL TURN LANE MARKING




ISLAND OFFSET FROM PAVEMENT EDGE




ISLAND AT PAVEMENT EDGE

## TYPICAL ISLAND MARKING

| TYPE OF MARKING | WIDTH OF LINE | PATTERN | COLOR | SPACING / REMARKS |
|---|---|---|---|---|
| CENTERLINE ON 2 LANE PAVEMENT | 4 (100) | SKIP-DASH | YELLOW | 10' (3 m) LINE WITH 30' (9 m) SPACE |
| CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT | 2 ø 4 (100) | SOLID | YELLOW | 11 (280) C-C |
| NO PASSING ZONE LINES:<br>FOR ONE DIRECTION<br>FOR BOTH DIRECTIONS | 4 (100)<br>2 ø 4 (100) | SOLID<br>SOLID | YELLOW<br>YELLOW | 5½ (140) C-C FROM SKIP-DASH CENTERLINE<br>11 (280) C-C<br>OMIT SKIP-DASH CENTERLINE BETWEEN |
| LANE LINES | 4 (100)<br>5 (125) ON FREEWAYS | SKIP-DASH<br>SKIP-DASH | WHITE<br>WHITE | 10' (3 m) LINE WITH 30' (9 m) SPACE |
| DOTTED LINES<br>(EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS) | SAME AS LINE BEING EXTENDED | SKIP-DASH | SAME AS LINE BEING EXTENDED | 2' (600) LINE WITH 6' (1.8 m) SPACE |
| EDGE LINES | 4 (100) | SOLID | YELLOW-LEFT<br>WHITE-RIGHT | OUTLINE MOUNTABLE MEDIANS IN YELLOW; EDGE LINES ARE NOT USED NEXT TO BARRIER CURB |
| TURN LANE MARKINGS | 6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m)) | SOLID | WHITE | SEE TYPICAL TURN LANE MARKING DETAIL |
| TWO WAY LEFT TURN MARKING | 2 ø 4 (100) EACH DIRECTION<br><br>8' (2.4m) LEFT ARROW | SKIP-DASH AND SOLID<br><br>IN PAIRS | YELLOW<br><br>WHITE | 10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5½ (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE<br><br>SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL |
| CROSSWALK LINES (PEDESTRIAN)<br>A. DIAGONALS (BIKE & EQUESTRIAN)<br>B. LONGITUDINAL BARS (SCHOOL) | 2 ø 6 (150)<br>12 (300) ø 45°<br>12 (300) ø 90° | SOLID<br>SOLID<br>SOLID | WHITE<br>WHITE<br>WHITE | NOT LESS THAN 6' (1.8 m) APART<br>2' (600) APART<br>2' (600) APART<br>SEE TYPICAL CROSSWALK MARKING DETAILS. |
| STOP LINES | 24 (600) | SOLID | WHITE | PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT. PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE |
| PAINTED MEDIANS | 2 ø 4 (100) WITH 12 (300) DIAGONALS ø 45°<br><br>NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS | SOLID | YELLOW:<br>TWO WAY TRAFFIC<br><br>WHITE:<br>ONE WAY TRAFFIC | 11 (280) C-C FOR THE DOUBLE LINE<br><br>SEE TYPICAL PAINTED MEDIAN MARKING. |
| GORE MARKING AND CHANNELIZING LINES | 8 (200) WITH 12 (300) DIAGONALS ø 45° | SOLID | WHITE | DIAGONALS:<br>15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h))<br>20' (6 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h))<br>30' (9 m) C-C (OVER 45MPH (70 km/h)) |
| RAILROAD CROSSING | 24 (600) TRANSVERSE LINES; "RR" IS 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X" | SOLID | WHITE | SEE STATE STANDARD 780001<br>AREA OF:<br>"R"=3.6 SQ. FT. (0.33 $m^2$) EACH<br>"X"=54.0 SQ. FT. (5.0 $m^2$) |
| SHOULDER DIAGONALS | 12 (300) ø 45° | SOLID | WHITE - RIGHT<br><br>YELLOW - LEFT | 50' (15 m) C-C (LESS THAN 30MPH (50 km/h))<br>75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h))<br>150' (45 m) C-C (OVER 45MPH (70 km/h)) |

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

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

| | | | |
|---|---|---|---|
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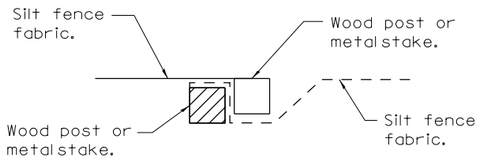
| | | DRAWN - | REVISED -C. JUCIUS 09-09-09 |
| | PLOT SCALE = 50.000 ' / IN. | CHECKED - | REVISED - |
| | PLOT DATE = 9/9/2009 | DATE - 03-19-90 | REVISED - |

**STATE OF ILLINOIS**
**DEPARTMENT OF TRANSPORTATION**

**DISTRICT ONE**
**TYPICAL PAVEMENT MARKINGS**

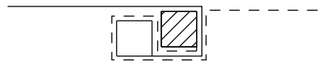
SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

| F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| | | | 55 | 36 |
| | TC-13 | | CONTRACT NO. | |
| FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT | | |




Place end-post (stake) of first silt fence adjacent to end-post (stake) of second silt fence with fabric positioned as swown.

**STEP 1**

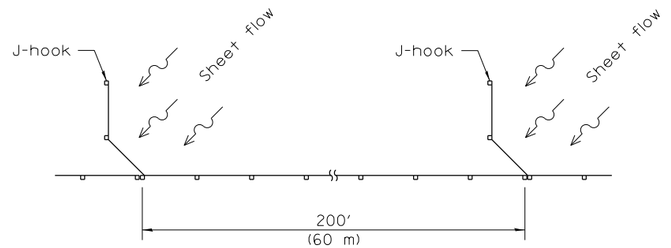


Rotate posts (stakes) together 180° clockwise and drive both posts (stakes) 18 (450) into ground.

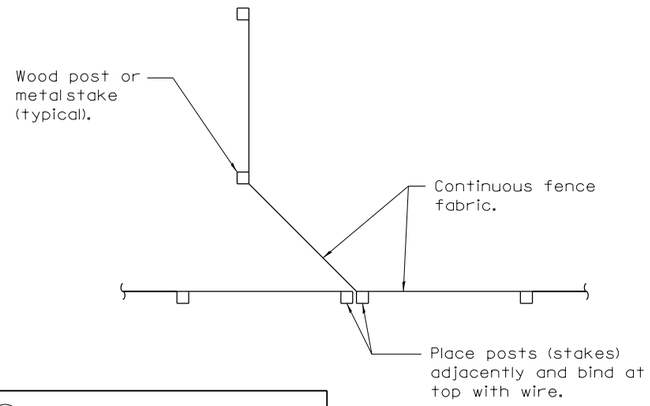
**STEP 2**

## ATTACHING TWO SILT FILTER FENCES

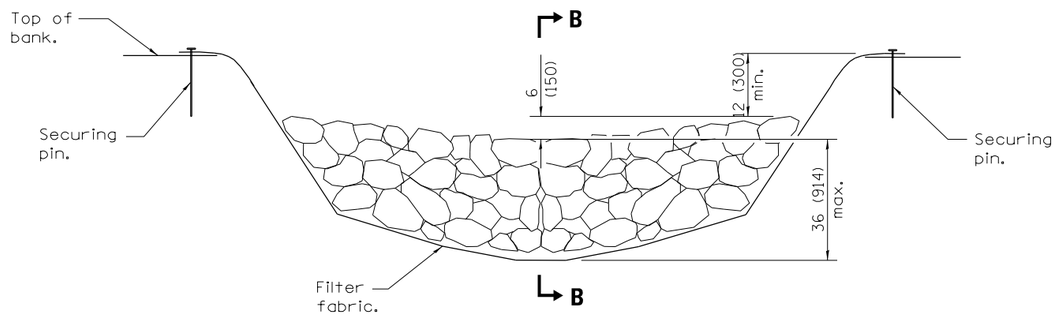
(Not applicable for J-hooks)




**SILT FILTER J-HOOK PLACEMENT**

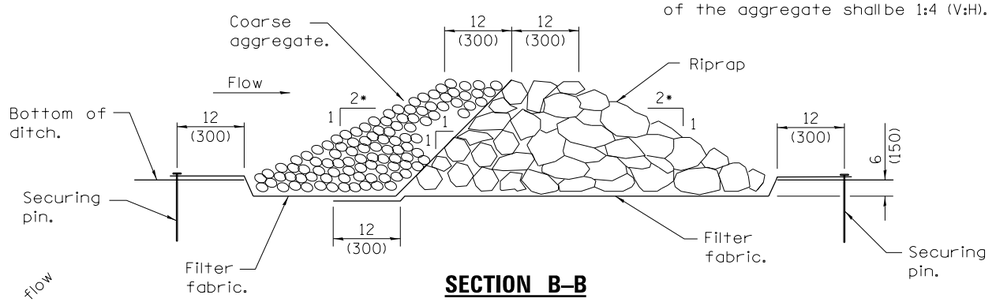



**J-HOOK**



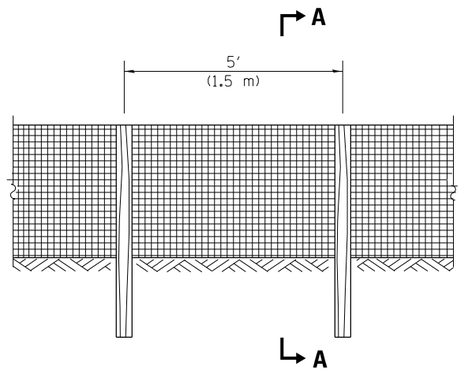

**ELEVATION**

* When the ditch check is within the clear zone and the road is open to traffic, the traffic approach slope of the aggregate shall be 1:4 (V:H).



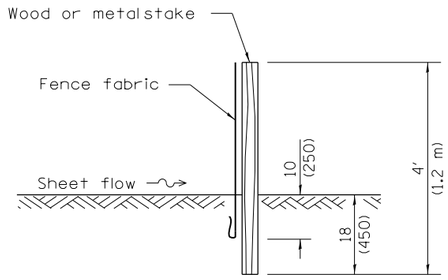

**SECTION B–B**

## AGGREGATE DITCH CHECK

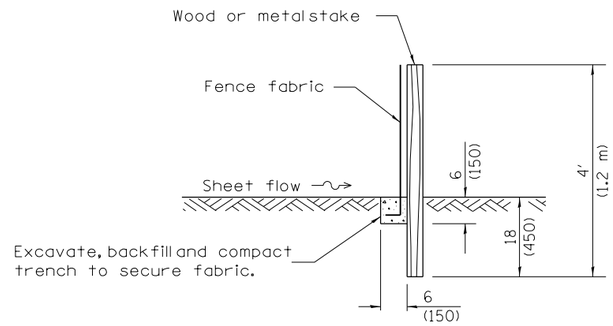



**ELEVATION**

## SILT FILTER FENCE AS A PERIMETER EROSION BARRIER




**SLICE METHOD**




**TRENCH METHOD**

**SECTION A–A**

## GENERAL NOTES

The installation details and dimensions shown for perimeter erosion barriers shall also apply for inlet and pipe protection.

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

Illinois Department of Transportation

PASSED January 1, 2012
Michael Brand
ENGINEER OF POLICY AND PROCEDURES
APPROVED January 1, 2012
ENGINEER OF DESIGN AND ENVIRONMENT

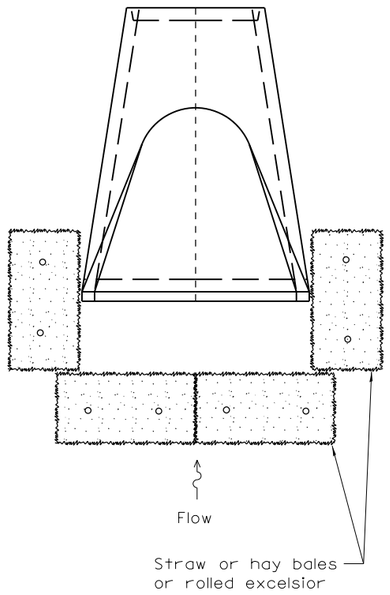
ISSUED 1-1-97

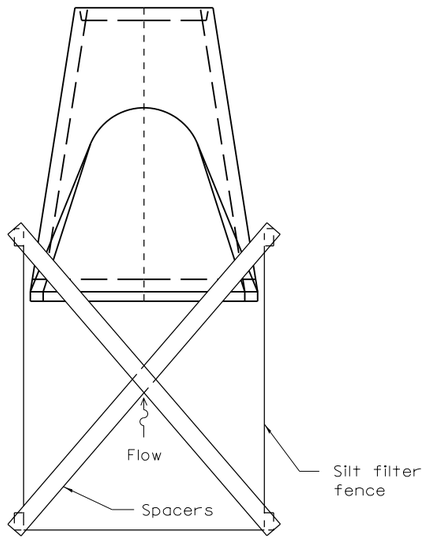
| DATE | REVISIONS |
|---|---|
| 1-1-12 | Omitted hay/straw perimeter |
| | barrier. Added SLICE METHOD |
| | to SECTION A-A. |
| 1-1-10 | Added J-hooks, added |
| | Two Fence attachment |
| | detail, mod. ditch check. |

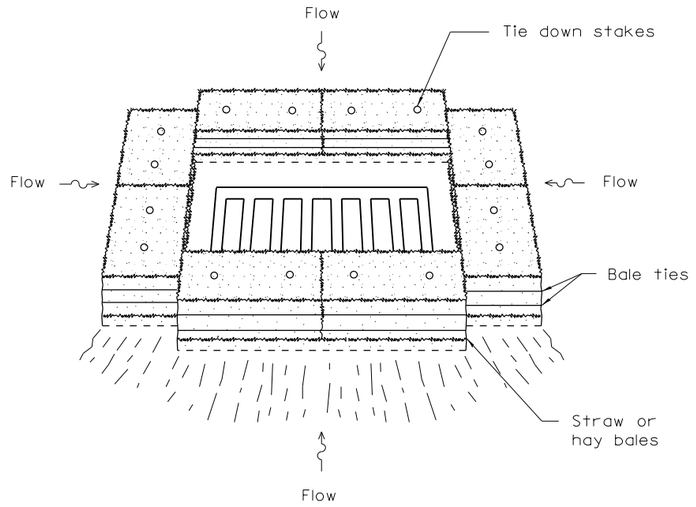
# TEMPORARY EROSION CONTROL SYSTEMS

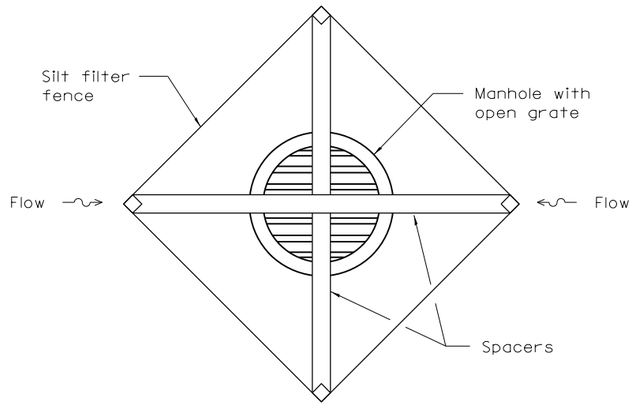
(Sheet 1 of 2)

**STANDARD 280001–06**

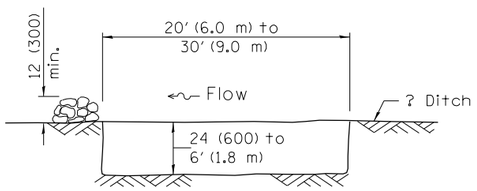


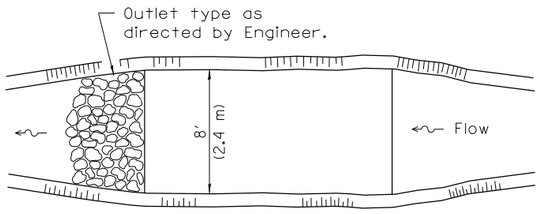




## INLET AND PIPE PROTECTION




The performance of the basin will improve if put into a series.

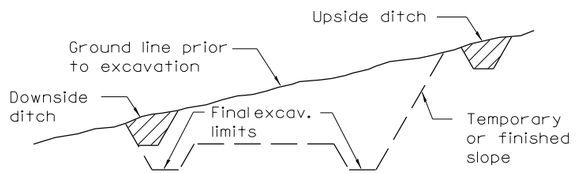
**ELEVATION**



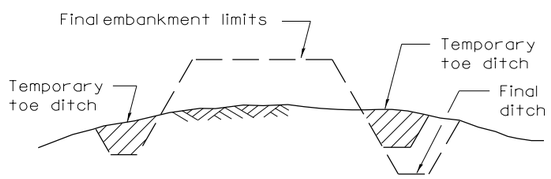

The long dimension should be parallel with the direction of the flow. Accumulated silt shall be removed anytime the basins become 75% filled.

**PLAN**

**SEDIMENT BASIN**




**TYPICAL CUT CROSS-SECTION**




**TYPICAL FILL CROSS-SECTION**

**TEMPORARY DITCHES FOR CUT & FILL SECTIONS**

Illinois Department of Transportation

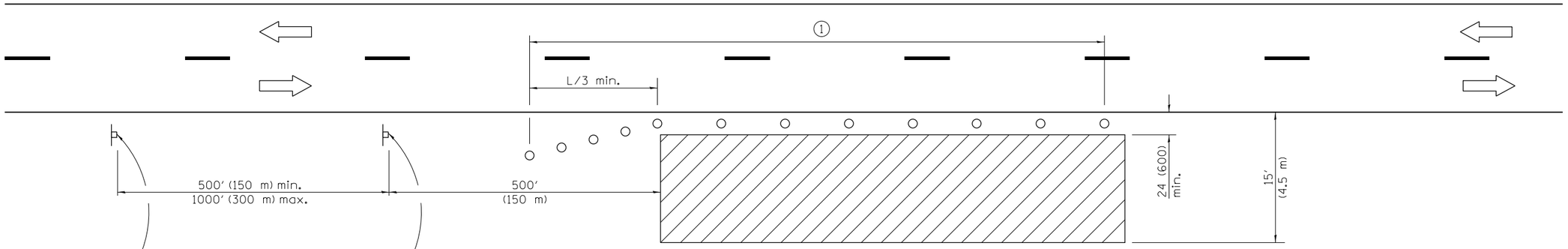
PASSED January 1, 2012
Michael Brand
ENGINEER OF POLICY AND PROCEDURES
APPROVED January 1, 2012
Scott Essex
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

# TEMPORARY EROSION CONTROL SYSTEMS

(Sheet 2 of 2)

**STANDARD 280001-06**




For contract construction projects


W20-I103(0)-48

W21-1a(0)-48
OR

For maintenance and utility projects


W20-1(0)-48


W21-I110(0)-48

## TYPICAL APPLICATIONS

Utility operations
Culvert extensions
Side slope changes
Guardrail installation and maintenance
Delineator installation
Landscaping operations
Shoulder repair
Sign installation and maintenance

## SYMBOLS

Work area

Sign

Cone, drum or barricade

① When the work operation exceeds one hour, cones, drums or barricades shall be placed at 25′ (8 m) centers for L/3 distance, and at 50′ (15 m) centers through the remainder of the work area.

## GENERAL NOTES

This Standard is used where any vehicles, equipment, workers or their activities will encroach in the area 15′ (4.5 m) to 24 (600) from the edge of pavement.

Calculate L as follows:

| SPEED LIMIT | FORMULAS | |
|---|---|---|
| | English | (Metric) |
| 40 mph (70 km/h) or less: | $L=\frac{WS^2}{60}$ | $L=\frac{WS^2}{150}$ |
| 45 mph (80 km/h) or greater: | L=(W)(S) | L=0.65(W)(S) |

W = Width of offset in feet (meters).

S = Normal posted speed mph (km/h).

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

Illinois Department of Transportation

APPROVED January 1, 2009
ENGINEER OF OPERATIONS

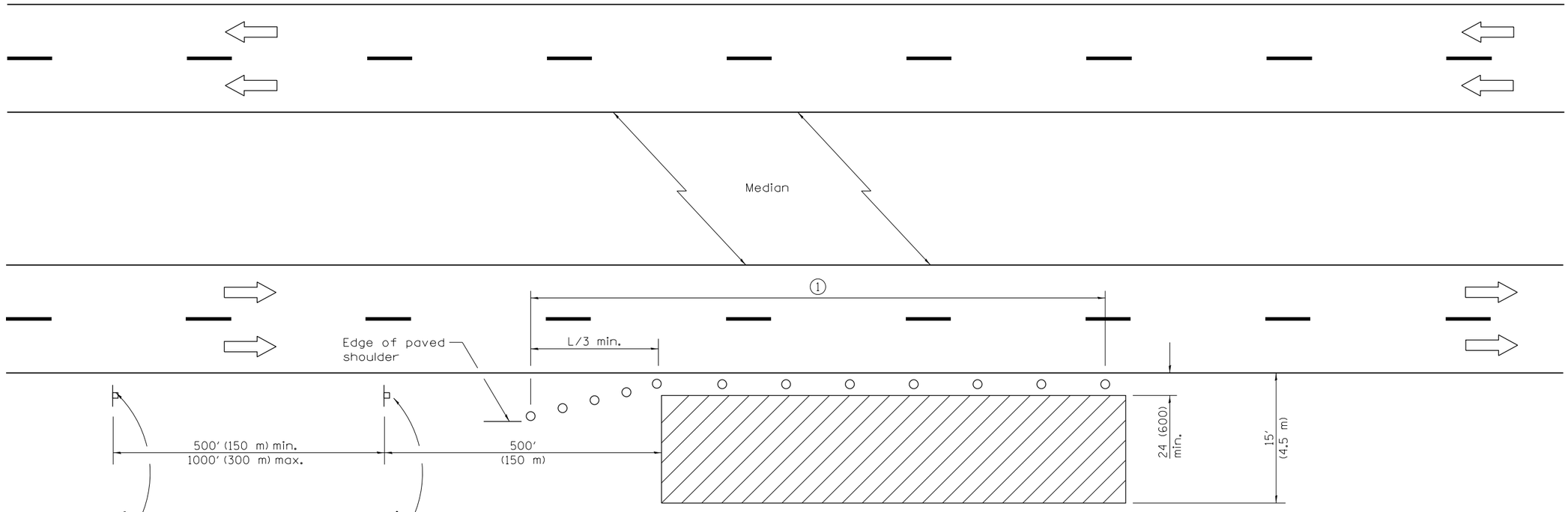
APPROVED January 1, 2009
ENGINEER OF DESIGN AND ENVIRONMENT

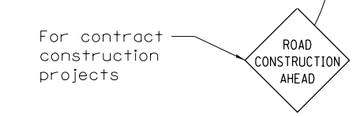
ISSUED 1-1-97

| DATE | REVISIONS |
|---|---|
| 1-1-09 | Switched units to |
| | English (metric). |
| | Corrected sign No.'s. |
| 1-1-05 | Revised title,notes, |
| | and sign spacing. |
| | |

# OFF–RD OPERATIONS, 2L, 2W, 15′ (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE

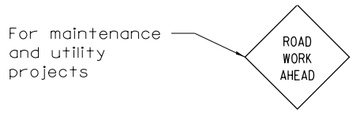
**STANDARD 701006–03**




W20-I103(0)-48

W21-1a(0)-48
Or




W20-1(0)-48


W21-I110(0)-48

## TYPICAL APPLICATIONS

Utility operations
Culvert extensions
Side slope changes
Guardrail installation and maintenance
Delineator installation
Landscaping operations
Shoulder repair
Sign installation and maintenance

① When the work operation exceeds one hour, cones, drums or barricades shall be placed at 8 m (25′) centers for L/3 distance, and at 15 m (50′) centers through the remainder of the work area.

## GENERAL NOTES

This Standard is used where any vehicles, equipment, workers or their activities will encroach in the area 15′ (4.5 m) to 24 (600) from the edge of pavement.

Calculate L as follows:

| SPEED LIMIT | FORMULAS | |
|---|---|---|
| | English | (Metric) |
| 40 mph (70 km/h) or less: | $L=\frac{WS^2}{60}$ | $L=\frac{WS^2}{150}$ |
| 45 mph (80 km/h) or greater: | L=(W)(S) | L=0.65(W)(S) |

W = Width of offset in feet (meters).

S = Normal posted speed mph (km/h).

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

## SYMBOLS

Work area

Sign

Cone, drum or barricade

Illinois Department of Transportation

APPROVED January 1, 2009
ENGINEER OF OPERATIONS

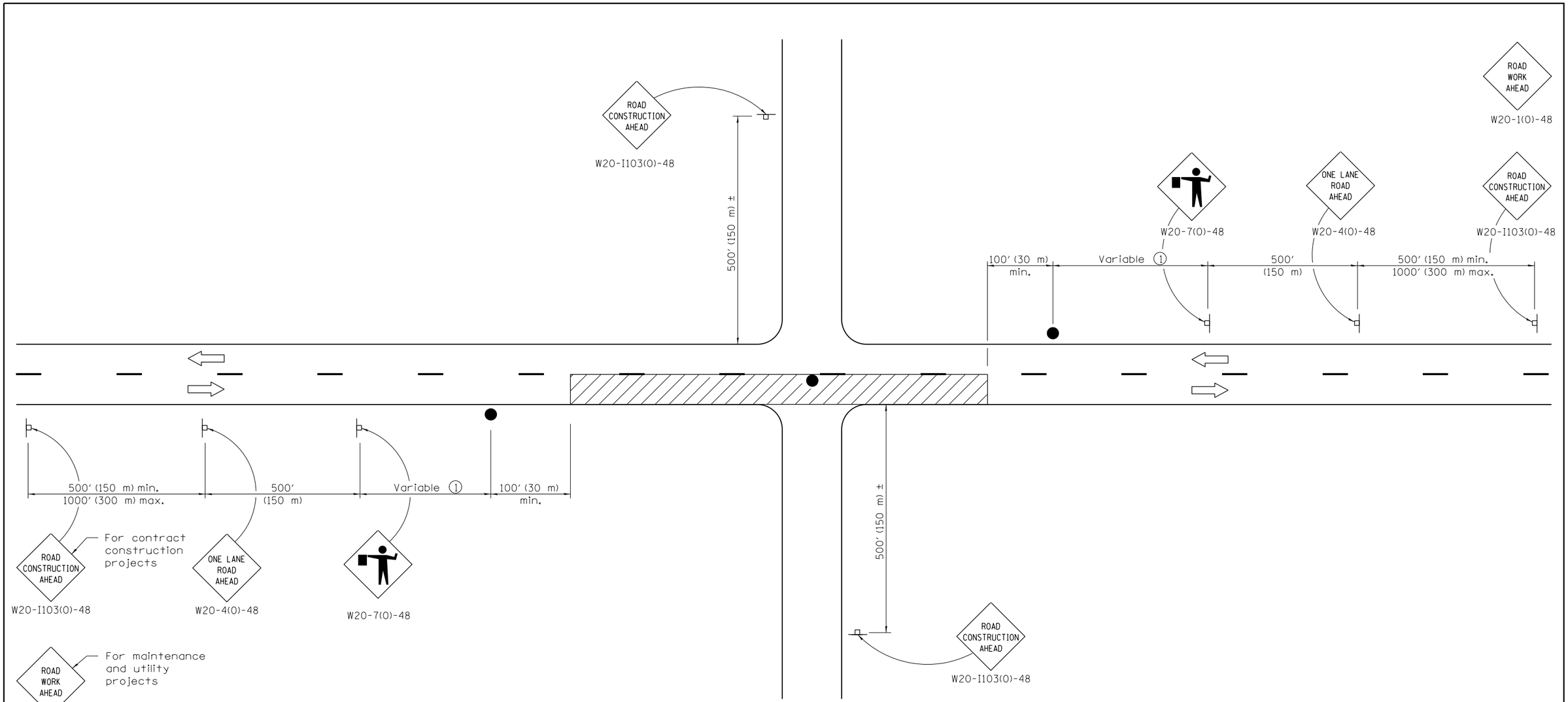
APPROVED January 1, 2009
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

| DATE | REVISIONS |
|---|---|
| 1-1-09 | Switched units to |
| | English (metric). |
| | Corrected sign No.'s. |
| 1-1-05 | Revised title, notes. |
| | and sign spacing. |
| | |

# OFF–RD OPERATIONS, MULTILANE, 15′ (4.5 m) TO 24 ″ (600 mm) FROM PAVEMENT EDGE

**STANDARD 701101–02**




## TYPICAL APPLICATIONS

Bituminous resurfacing
Milling operations
Utility operations
Shoulder operations

(1) Minimum distance is 200' (60 m). Maximum distance to be determined by the Engineer but should not exceed 1/2 the length required for one normal working day's operation or 2 miles (3200 m), whichever is less.

## SYMBOLS

Work area

Sign on portable or permanent support

Flagger with traffic control sign

## GENERAL NOTES

This Standard is used where at any time, any vehicle, equipment, workers or their activities require an intermittent or continuous moving operation on the pavement where the average speed of movement is greater than 1 mph (2 km/h) and less than 4 mph (6 km/h).

When the operation does not exceed 60 minutes, traffic control may be according to Standard 701301.

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

Illinois Department of Transportation

APPROVED January 1, 2011
ENGINEER OF SAFETY ENGINEERING

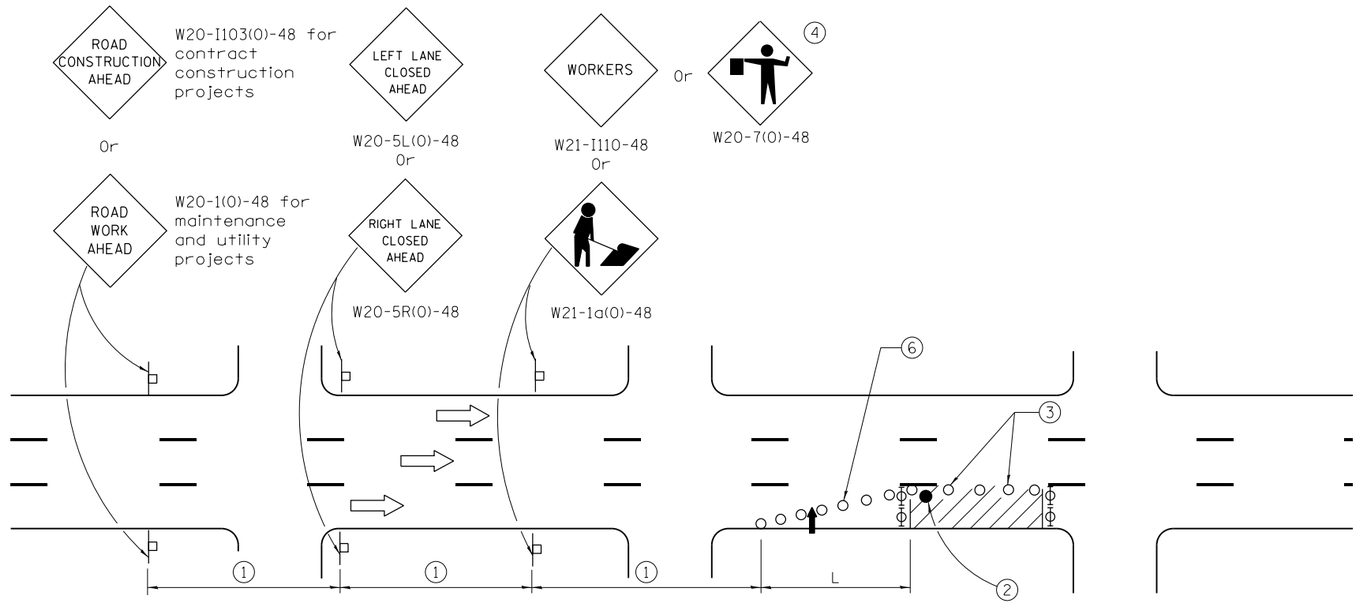
APPROVED January 1, 2011
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

| DATE | REVISIONS |
|---|---|
| 1-1-11 | Revised flagger sign. |
| | |
| | |
| 1-1-09 | Switched units to |
| | English (metric). |
| | Corrected sign No.'s. |

# LANE CLOSURE, 2L, 2W, SLOW MOVING OPERATIONS DAY ONLY, FOR SPEEDS ≥ 45 MPH

**STANDARD 701306-03**




| SIGN SPACING | |
|---|---|
| Posted Speed | Sign Spacing |
| 55 | 500′ (150 m) |
| 50-45 | 350′ (100 m) |
| <45 | 200′ (60 m) |

## SYMBOLS

- Arrow board
- Cone, drum or barricade
- Sign on portable or permanent support
- Work area
- Barricade or drum with flashing light
- Type III barricade with flashing lights
- Flagger with traffic control sign.

1. Refer to SIGN SPACING TABLE for distances.
2. Required for speeds > 40 MPH
3. Cones at 25′ (8 m) centers for 250′ (75 m). Additional cones may be placed at 50′ (15 m) centers. When drums or Type I or Type II barricades are used, the interval between devices may be doubled.
4. Use flagger sign only when flagger is present.
5. For approved sideroad closures.
6. Cones, drums or barricades at 20′ (6 m) in taper.

## GENERAL NOTES

This Standard is used where at any time, day or night, any vehicle, equipment, workers or their activities encroach on the pavement during shoulder operations or where construction requires lane closures in urban areas.

Calculate L as follows:

| SPEED LIMIT | FORMULAS | |
|---|---|---|
| | English | (Metric) |
| 40 mph (70 km/h) or less: | $L=\frac{WS^2}{60}$ | $L=\frac{WS^2}{150}$ |
| 45 mph (80 km/h) or greater: | L=(W)(S) | L=0.65(W)(S) |

W = Width of offset in feet (meters).

S = Normal posted speed mph (km/h).

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

Illinois Department of Transportation

APPROVED January 1, 2011
ENGINEER OF SAFETY ENGINEERING
APPROVED January 1, 2011
ENGINEER OF DESIGN AND ENVIRONMENT

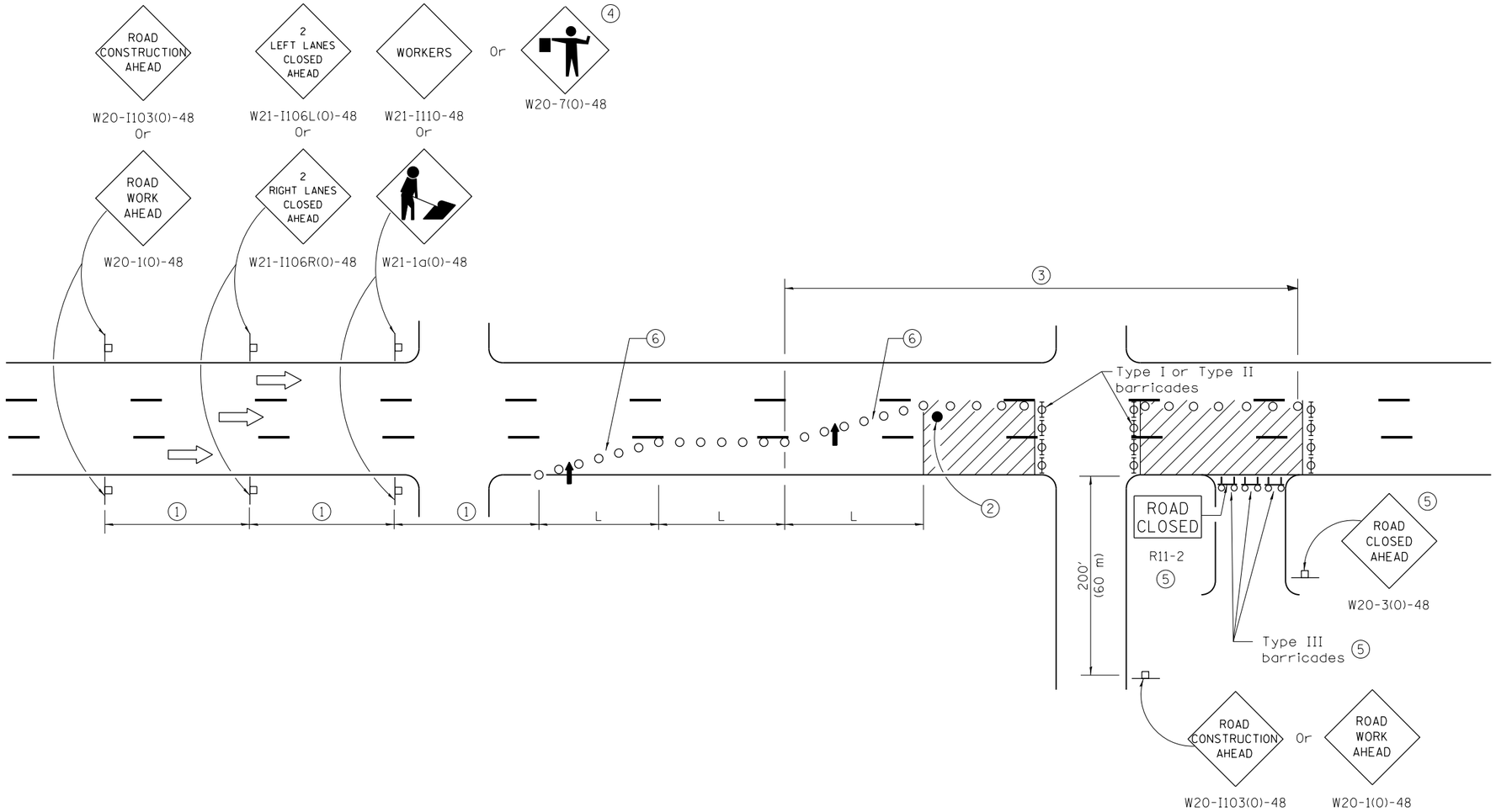
ISSUED 1-1-97

| DATE | REVISIONS |
|---|---|
| 1-1-11 | Revised flagger sign. |
| | |
| | |
| 1-1-09 | Switched units to |
| | English (metric). |
| | Corrected sign No.'s. |

# URBAN LANE CLOSURE, MULTILANE, 1W OR 2W WITH NONTRAVERSABLE MEDIAN

(Sheet 1 of 2)

**STANDARD 701601–07**




Illinois Department of Transportation

APPROVED January 1, 2011
ENGINEER OF SAFETY ENGINEERING

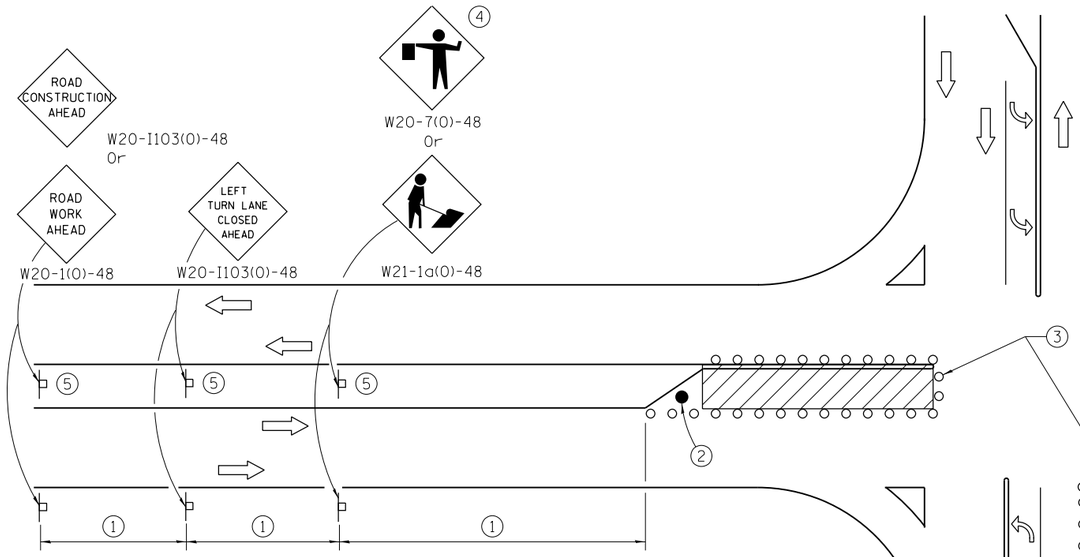
APPROVED Janyary 1, 2011
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

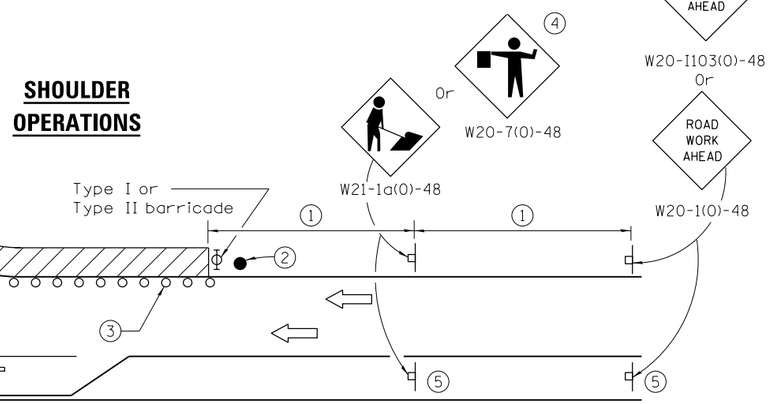
# URBAN LANE CLOSURE, MULTILANE, 1W OR 2W WITH NONTRAVERSABLE MEDIAN

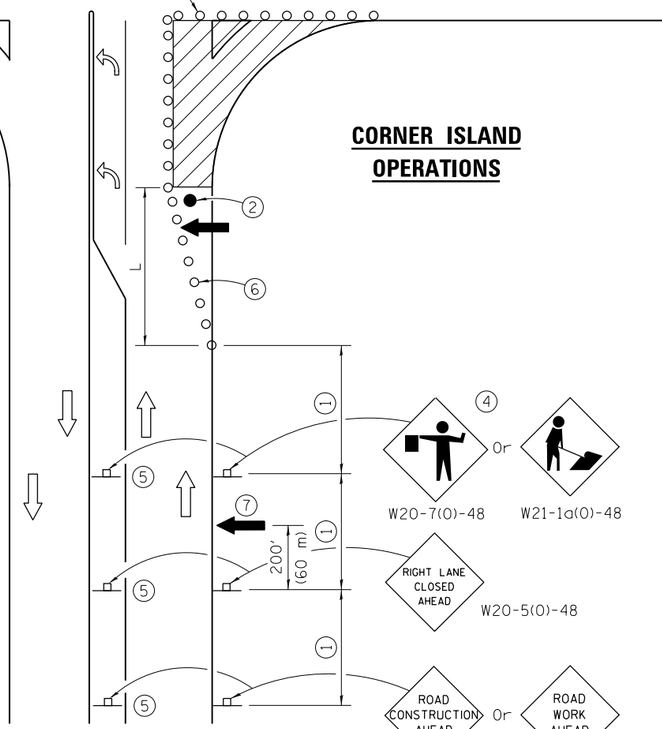
(Sheet 2 of 2)

**STANDARD 701601–07**




## LEFT TURN LANE OR CENTER MEDIAN OPERATIONS




| SIGN SPACING | |
|---|---|
| Posted Speed | Sign Spacing |
| 55 | 500' (150 m) |
| 50-45 | 350' (100 m) |
| <45 | 200' (60 m) |

1. Refer to SIGN SPACING TABLE for distance.
2. Required for speed > 40 mph.
3. Cones at 25' (8 m) centers for 250' (75 m). Additional cones may be placed at 50' (15 m) centers. When drums or Type I or Type II barricades are used, the interval between devices may be doubled.
4. Use flagger sign only when flagger is present.
5. Omit this sign when median is less than 10' (3 m) or for bi-directional turn lanes.
6. Cones, drums or barricades at 20' (6 m) centers in taper.
7. Advanced arrow board required for speeds > 45 mph.

## SYMBOLS

- Work area
- Cone, drum or barricade
- Sign on portable or permanent support
- Arrow board
- Barricade or drum with flashing light
- Flagger with traffic control sign

## GENERAL NOTES

This Standard is used where at any time, day or night, any vehicle, equipment, workers or their activities encroach on the pavement during shoulder operations or where construction requires lane closures in an urban area.

Calculate L as follows:

| SPEED LIMIT | FORMULAS English | FORMULAS (Metric) |
|---|---|---|
| 40 mph (70 km/h) or less: | $L = \frac{WS^2}{60}$ | $L = \frac{WS^2}{150}$ |
| 45 mph (80 km/h) or greater: | $L = (W)(S)$ | $L = 0.65(W)(S)$ |

W = Width of offset in feet (meters).

S = Normal posted speed mph (km/h).

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

Illinois Department of Transportation

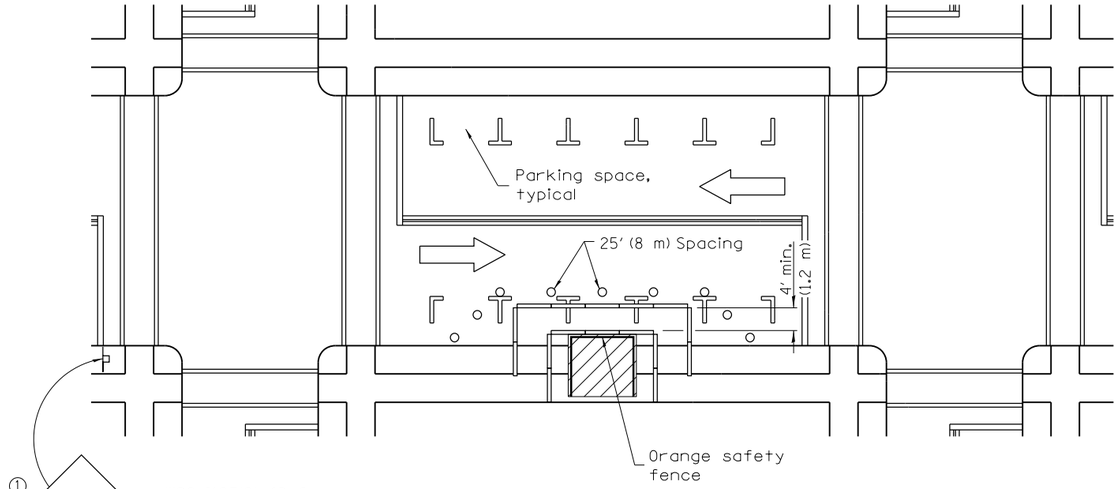
APPROVED January 1. 2012
ENGINEER OF SAFETY ENGINEERING
APPROVED January 1. 2012
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

| DATE | REVISIONS |
|---|---|
| 1-1-12 | Revised flagger sign. |
| | Omitted W21-I110 sign. |
| | |
| 1-1-11 | Added advanced arrow |
| | board and note (7). |
| | |

# URBAN LANE CLOSURE, MULTILANE INTERSECTION

**STANDARD 701701-08**




① ROAD CONSTRUCTION AHEAD — W20-I103(0)-48 for contract construction projects

Or

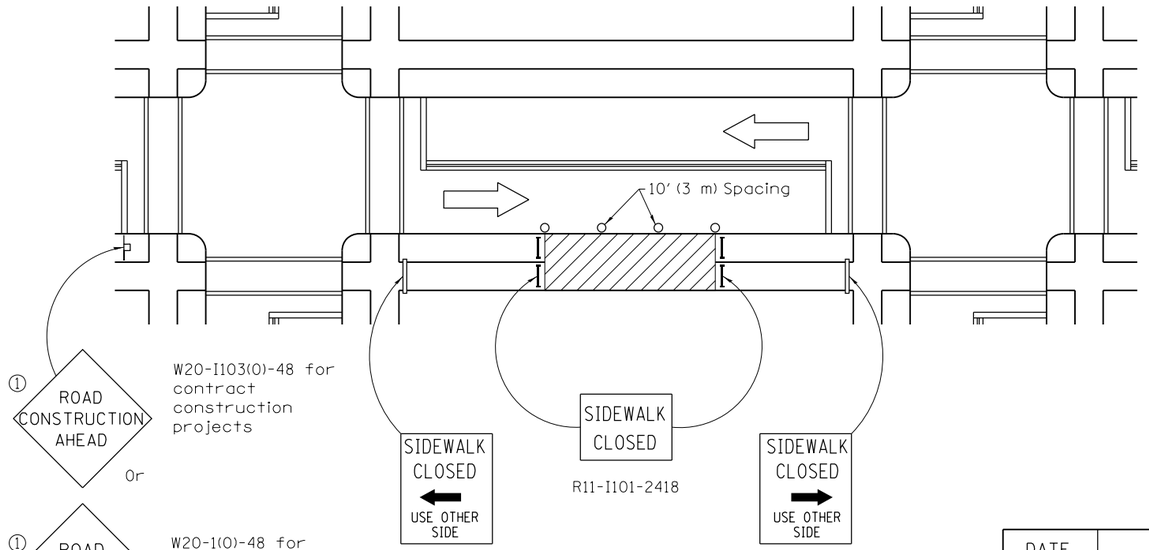
① ROAD WORK AHEAD — W20-1(0)-48 for maintenance and utility projects

## SIDEWALK DIVERSION

① Omit whenever duplicated by road work traffic control.

## SYMBOLS

- Work area
- Sign on portable or permanent support
- Barricade or drum
- Cone, drum or barricade
- Type III barricade
- Detectable pedestrian chanellizing barricade




① ROAD CONSTRUCTION AHEAD — W20-I103(0)-48 for contract construction projects

Or

① ROAD WORK AHEAD — W20-1(0)-48 for maintenance and utility projects

## SIDEWALK CLOSURE

## GENERAL NOTES

This Standard is used where, at any time, pedestrian traffic must be rerouted due to work being performed.

This Standard must be used in conjunction with other Traffic Control & Protection Standards when roadway traffic is affected.

Temporary facilities shall be detectable and accessible.

The temporary pedestrian facilities shall be provided on the same side of the closed facilities whenever possible.

The SIDEWALK CLOSED / USE OTHER SIDE sign shall be placed at the nearest crosswalk or intersection to each end of the closure. Where the closure occurs at a corner, the signs shall be erected on the corners across the street from the closure. The SIDEWALK CLOSED signs shall be used at the ends of the actual closures.

Type III barricades and R11-2-4830 signs shall be positioned as shown in "ROAD CLOSED TO ALL TRAFFIC" detail on Standard 701901.

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

Illinois Department of Transportation

APPROVED January 1, 2012
ENGINEER OF SAFETY ENGINEERING

APPROVED January 1, 2012
ENGINEER OF DESIGN AND ENVIRONMENT

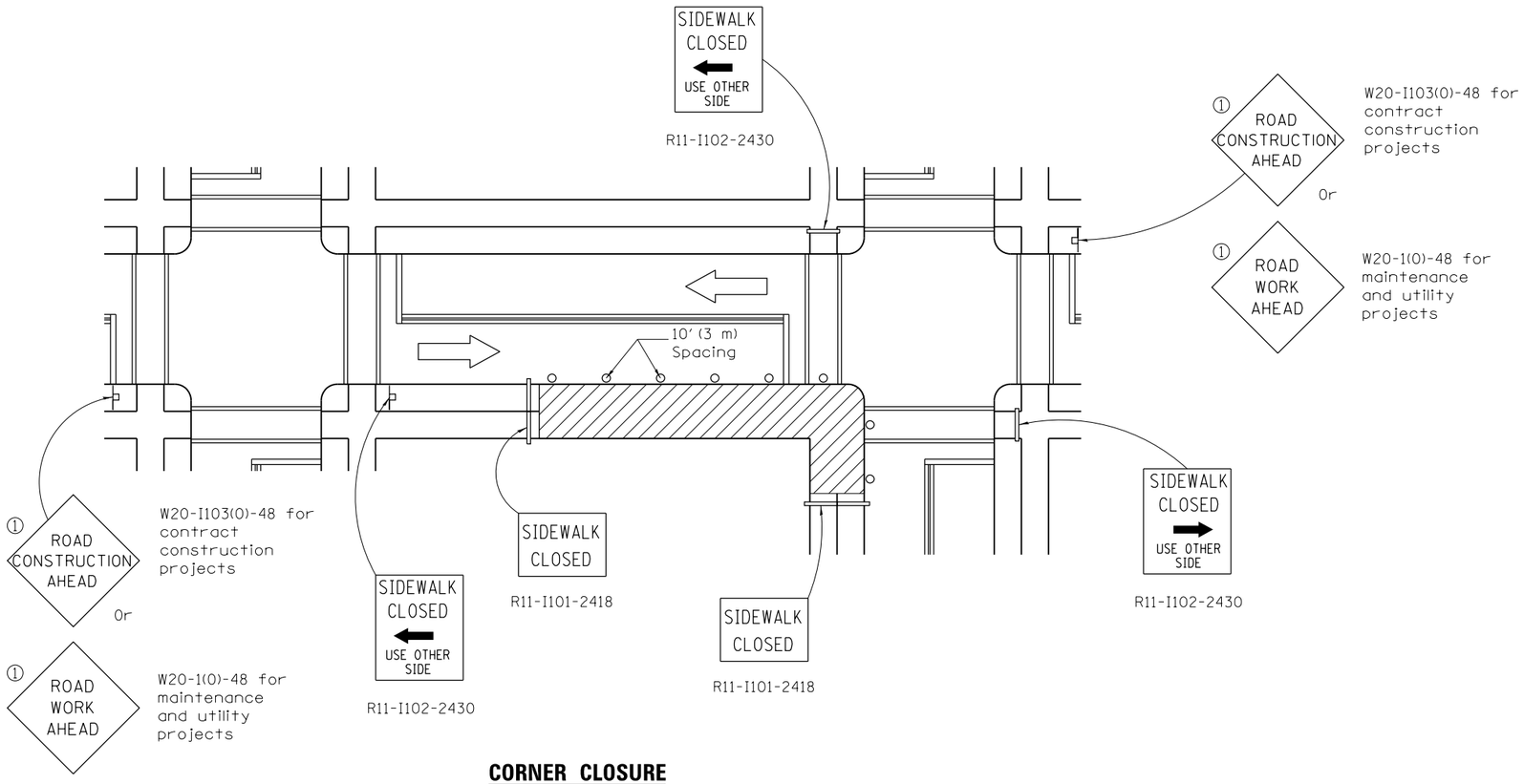
ISSUED 1-1-97

| DATE | REVISIONS |
|---|---|
| 1-1-12 | Added SIDEWALK DIVERSION. |
| | Modified appearance of |
| | plan views. Renamed Std. |
| 1-1-09 | Switched units to |
| | English (metric), |
| | 702001 to 701901. |

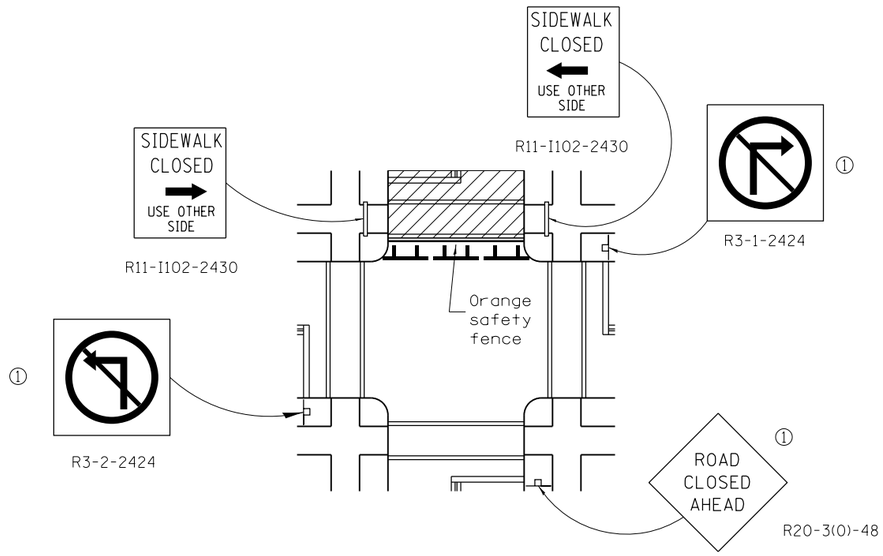
# SIDEWALK, CORNER OR CROSSWALK CLOSURE

(Sheet 1 of 2)

**STANDARD 701801–05**




**CORNER CLOSURE**




**CROSSWALK CLOSURE**

Illinois Department of Transportation

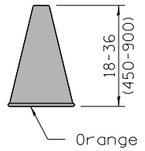
APPROVED January 1, 2012
ENGINEER OF SAFETY ENGINEERING
APPROVED January 1, 2012
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

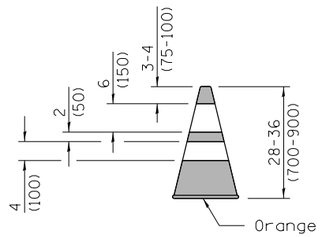
# SIDEWALK, CORNER OR CROSSWALK CLOSURE

(Sheet 2 of 2)

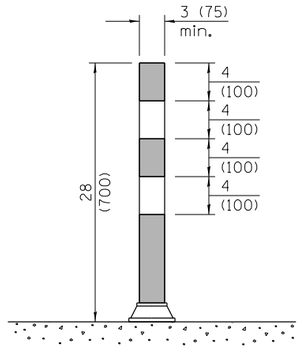
**STANDARD 701801–05**



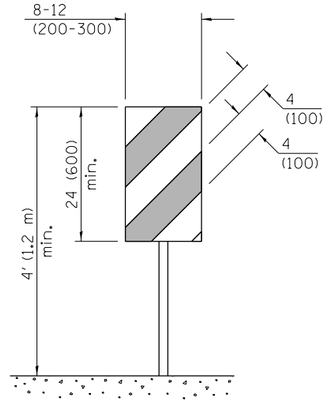

**CONE**



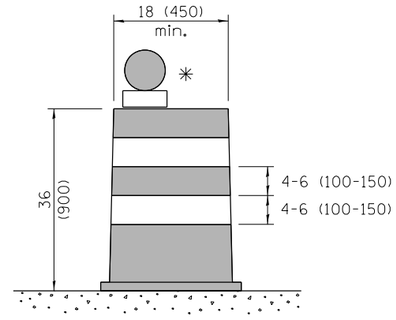

**REFLECTORIZED CONE**



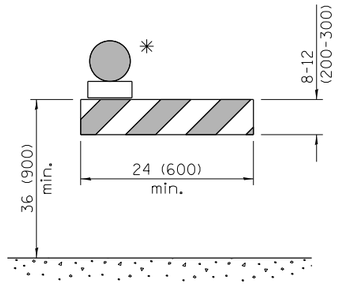

**FLEXIBLE DELINEATOR**



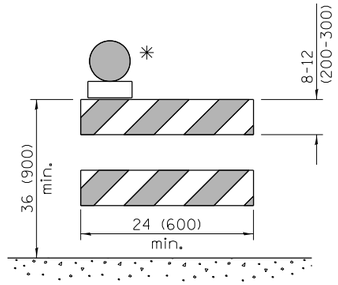

**VERTICAL PANEL**
POST MOUNTED



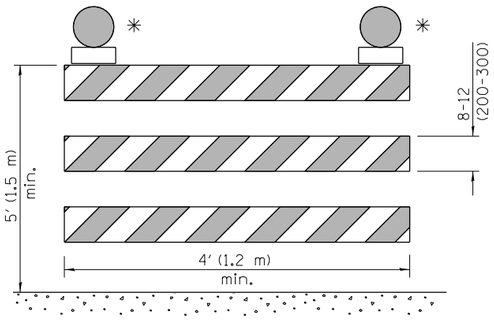

**DRUM**



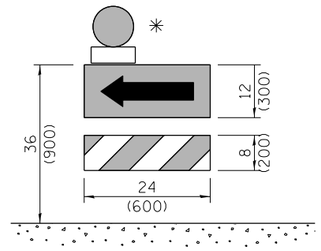

**TYPE I BARRICADE**



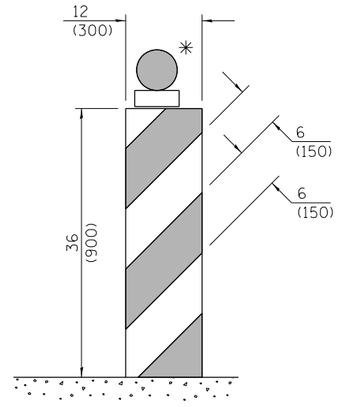

**TYPE II BARRICADE**



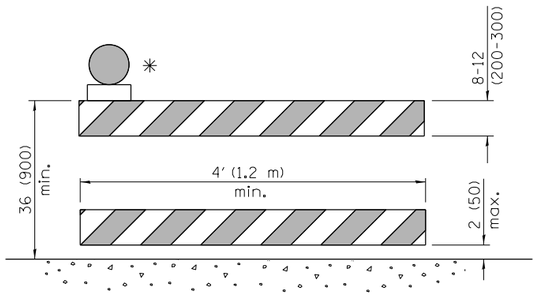

**TYPE III BARRICADE**




**DIRECTION INDICATOR BARRICADE**




**VERTICAL BARRICADE**




**DETECTABLE PEDESTRIAN CHANNELIZING BARRICADE**

✳ Warning lights (if required)

## GENERAL NOTES

All heights shown shall be measured above the pavement surface.

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

Illinois Department of Transportation

APPROVED January 1. 2012
ENGINEER OF OPERATIONS

APPROVED January 1. 2012
ENGINEER OF DESIGN AND ENVIRONMENT

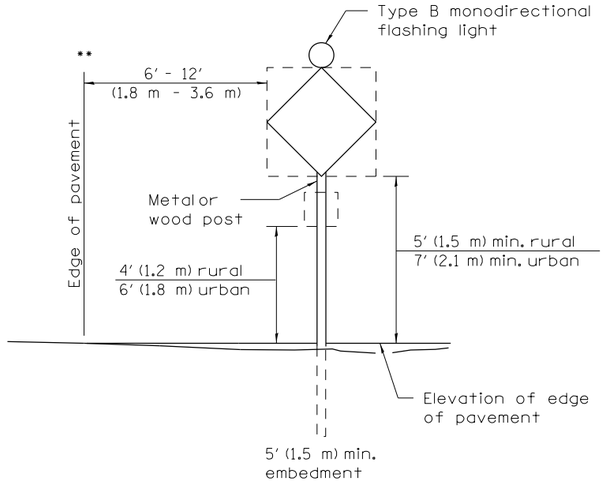
ISSUED 1-1-97

| DATE | REVISIONS |
|---|---|
| 1-1-12 | Added DETECTABLE PEDESTRIAN |
| | CHANNELIZING BARRICADE. |
| | |
| 1-1-09 | Switched units to |
| | English (metric). Omitted |
| | light on vertical panel. |

# TRAFFIC CONTROL DEVICES

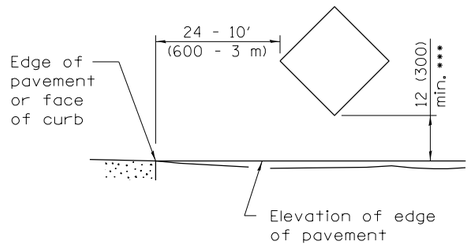
(Sheet 1 of 3)

**STANDARD 701901-02**



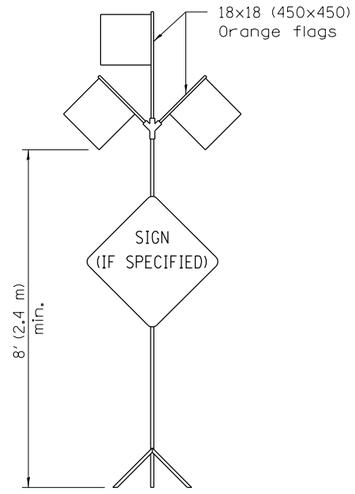

## POST MOUNTED SIGNS

** When curb or paved shoulder are present this dimension shall be 24 (600) to the face of curb or 6' (1.8 m) to the outside edge of the paved shoulder.




## SIGNS ON TEMPORARY SUPPORTS

*** When work operations exceed four days, this dimension shall be 5' (1.5 m) min. If located behind other devices, the height shall be sufficient to be seen by motorists.




## HIGH LEVEL WARNING DEVICE

| ROAD CONSTRUCTION NEXT X MILES | END CONSTRUCTION |
|---|---|
| G20-1(0)-6036 | G20-2a(0)-6024 |

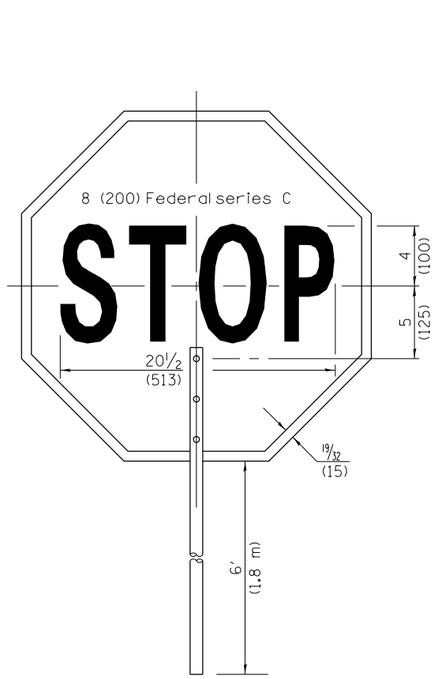
This signing is required for all projects 2 miles (3200 m) or more in length.

ROAD CONSTRUCTION NEXT X MILES sign shall be placed 500' (150 m) in advance of project limits.

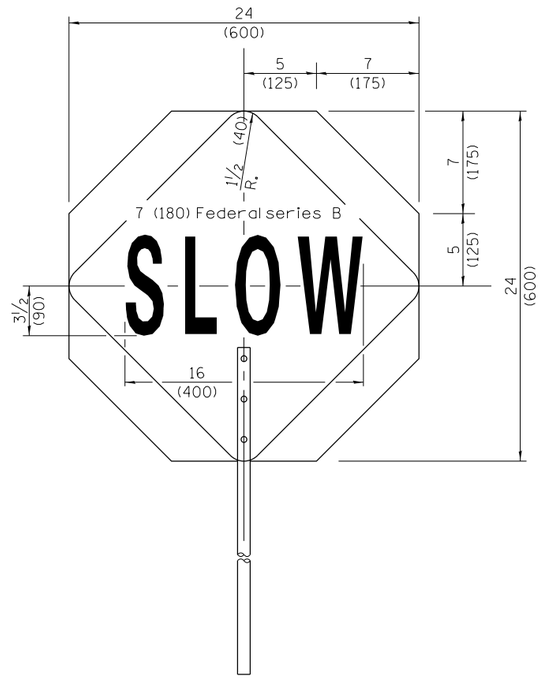
END CONSTRUCTION sign shall be erected at the end of the job unless another job is within 2 miles (3200 m).

Dual sign displays shall be utilized on multi-lane highways.

## WORK LIMIT SIGNING




FRONT SIDE




REVERSE SIDE

## FLAGGER TRAFFIC CONTROL SIGN

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

Illinois Department of Transportation

APPROVED January 1, 2012
ENGINEER OF OPERATIONS

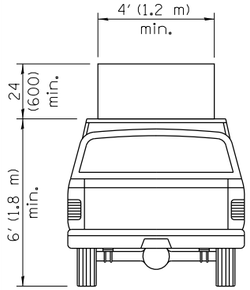
APPROVED January 1, 2012
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

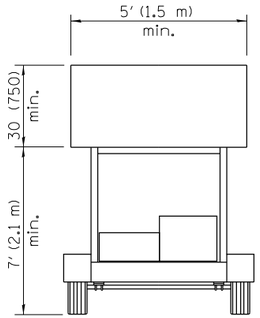
# TRAFFIC CONTROL DEVICES



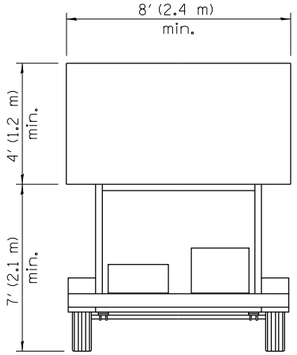
**STANDARD 701901-02**




**TYPE A ROOF MOUNTED**

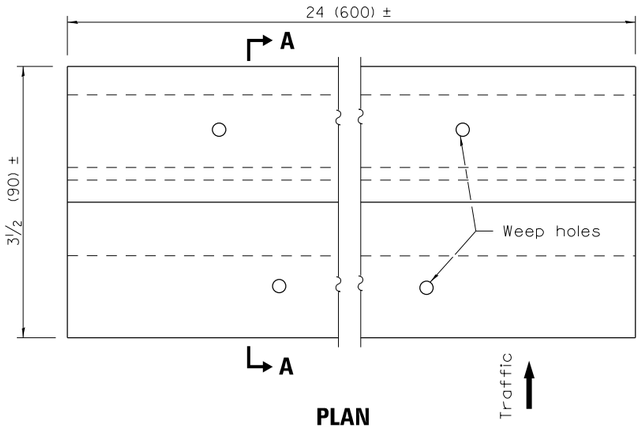



**TYPE B ROOF OR TRAILER MOUNTED**

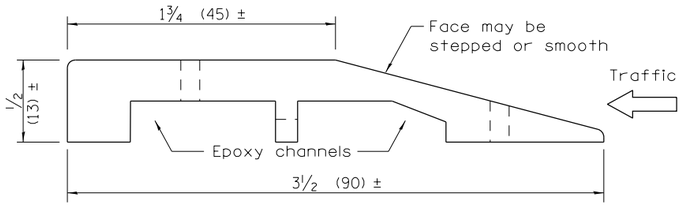



**TYPE C TRAILER MOUNTED**

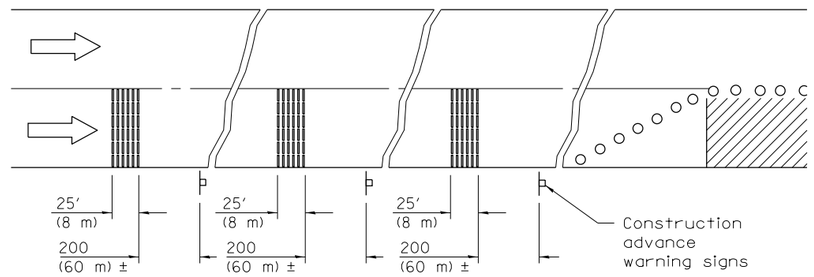
## ARROW BOARDS

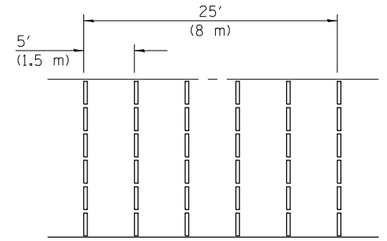



**PLAN**



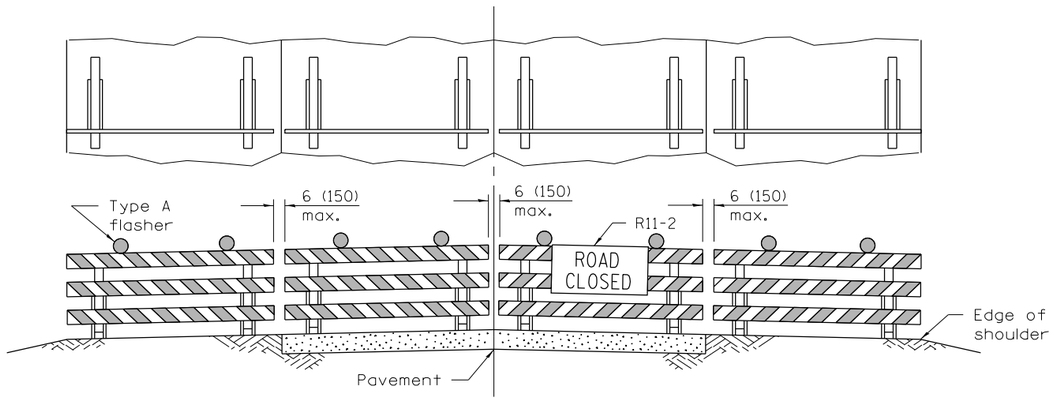

**SECTION A–A**



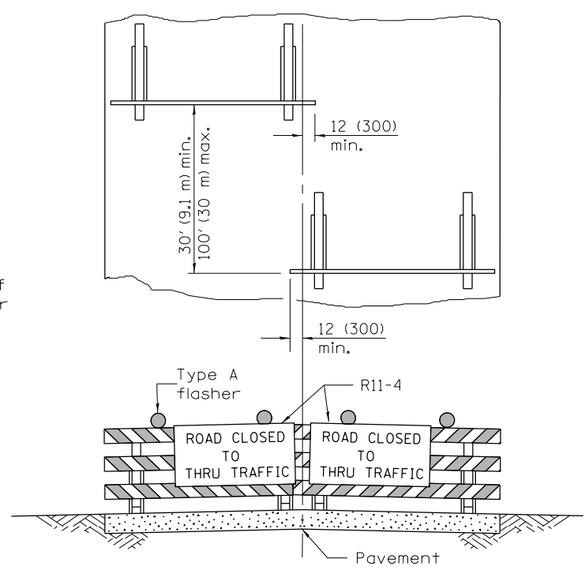

**TYPICAL INSTALLATION**

## TEMPORARY RUMBLE STRIPS




ROAD CLOSED TO ALL TRAFFIC

Reflectorized striping may be omitted on the back side of the barricades. If a Type III barricade with an attached sign panel which meets NCHRP 350 is not available, the sign may be mounted on an NCHRP 350 temporary sign support directly in front of the barricade.




ROAD CLOSED TO THRU TRAFFIC

Reflectorized striping shall appear on both sides of the barricades. If a Type III barricade with an attached sign panel which meets NCHRP 350 is not available, the signs may be mounted on NCHRP 350 temporary sign supports directly in front of the barricade.

## TYPICAL APPLICATIONS OF TYPE III BARRICADES CLOSING A ROAD

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

Illinois Department of Transportation

APPROVED January 1, 2012
ENGINEER OF OPERATIONS

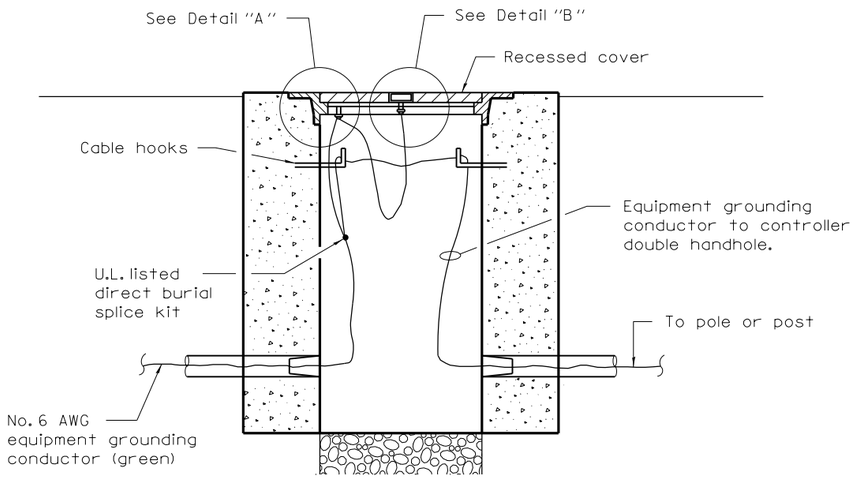
APPROVED January 1, 2012
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

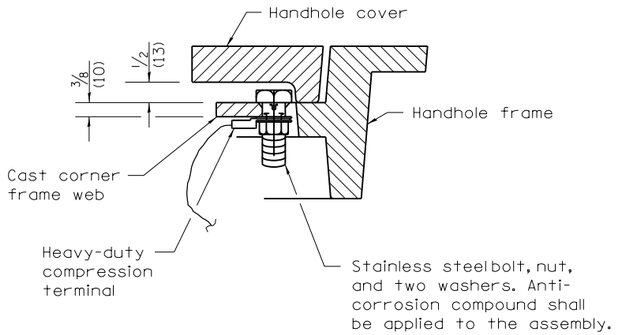
# TRAFFIC CONTROL DEVICES

(Sheet 3 of 3)

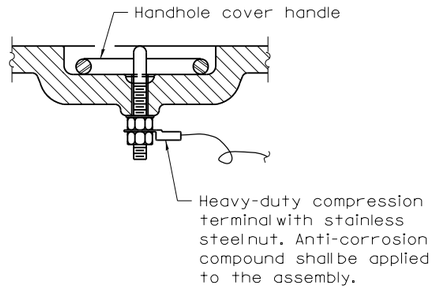
**STANDARD 701901–02**



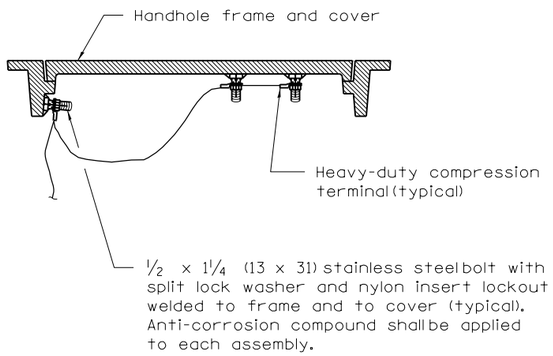

## BONDING A HANDHOLE COVER & FRAME



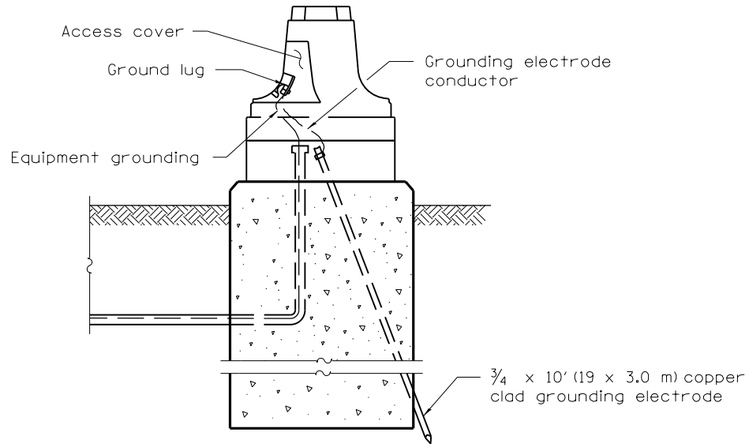

## DETAIL "A"



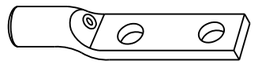

## DETAIL "B"



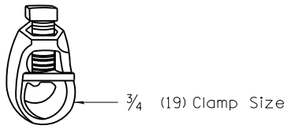

## BONDING AN EXISTING HANDHOLE COVER & FRAME




## GROUNDING A MAST ARM POLE/POST



## HEAVY-DUTY COMPRESSION TERMINAL




## HEAVY-DUTY GROUND ROD CLAMP

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

Illinois Department of Transportation

APPROVED January 1, 2009
ENGINEER OF OPERATIONS

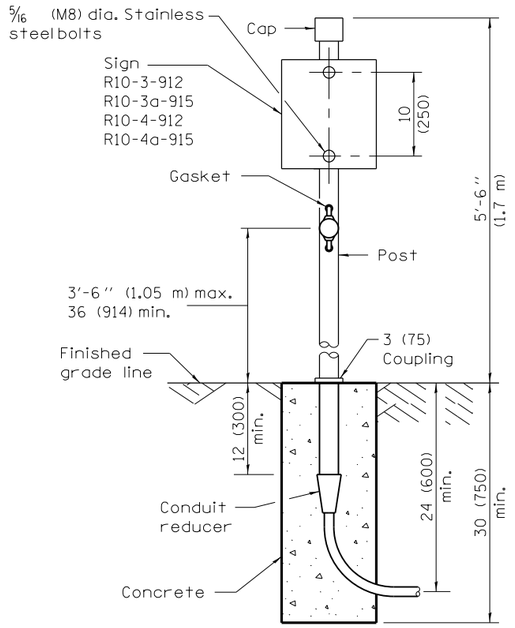
APPROVED January 1, 2009
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 4-1-09

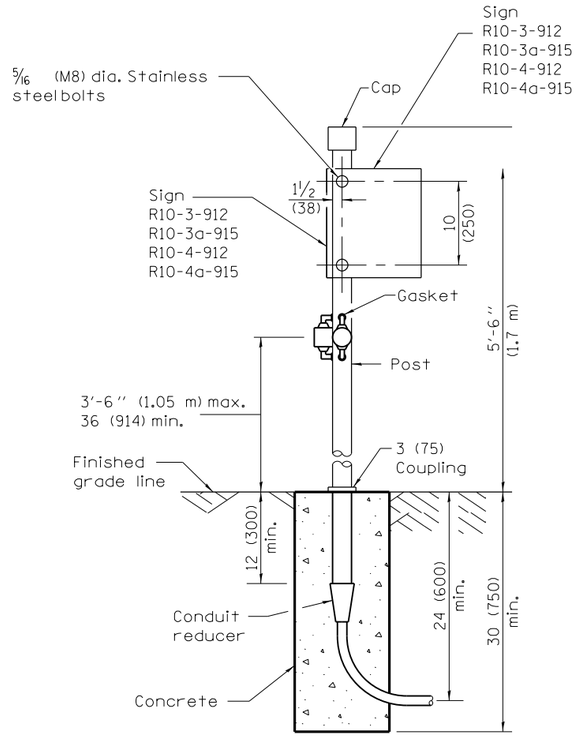
| DATE | REVISIONS |
|---|---|
| 1-1-09 | Switched units to |
| | English (metric). |
| | |
| 1-1-07 | Revised terminology. |
| | |
| | |

# TRAFFIC SIGNAL GROUNDING & BONDING

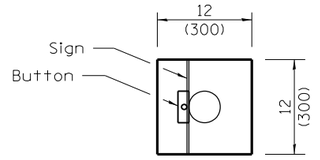
**STANDARD 873001-02**



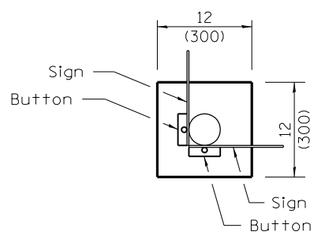

**PEDESTRIAN ONE PUSH BUTTON POST**




**PEDESTRIAN TWO PUSH BUTTON POST**




**TOP VIEW**
**TYPICAL ONE BUTTON**




**TOP VIEW**
**TYPICAL TWO BUTTONS**

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

| DATE | REVISIONS |
|---|---|
| 1-1-12 | Revised sign installation |
| | for one and two button |
| | stations. |
| 1-1-09 | Switched units to |
| | English (metric). |
| | |

# PEDESTRIAN PUSH BUTTON POST

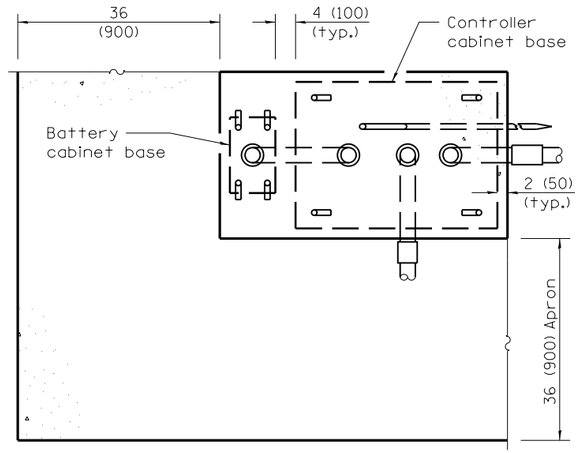
**STANDARD 876001–02**

Illinois Department of Transportation

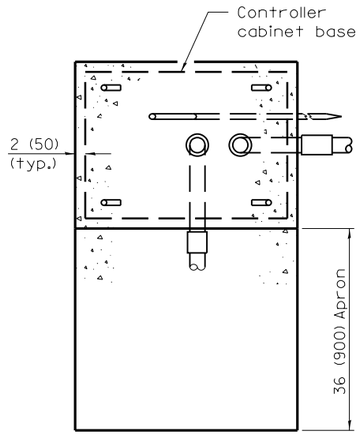
APPROVED January 1, 2012
ENGINEER OF OPERATIONS

APPROVED January 1, 2012
ENGINEER OF DESIGN AND ENVIRONMENT

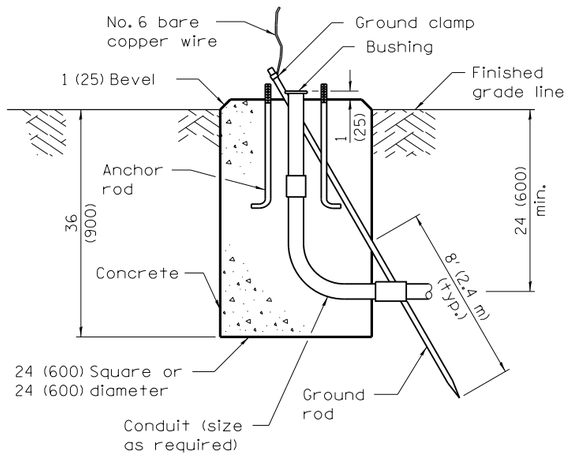
ISSUED 1-1-07



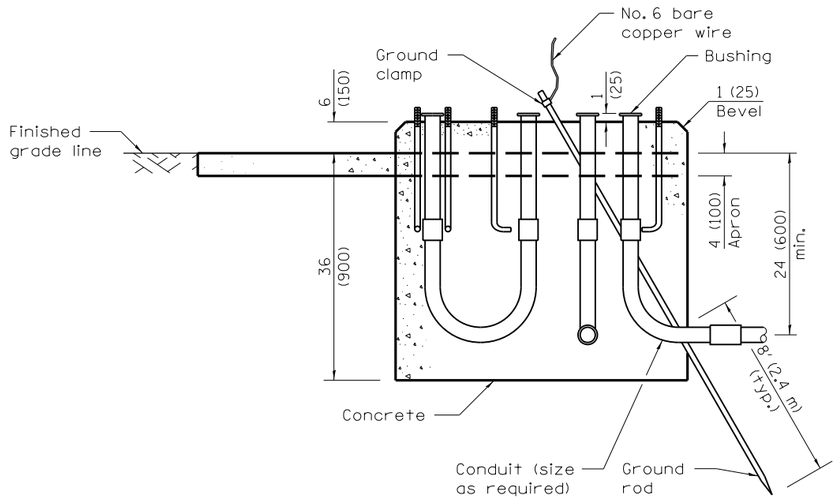

**TOP VIEW**



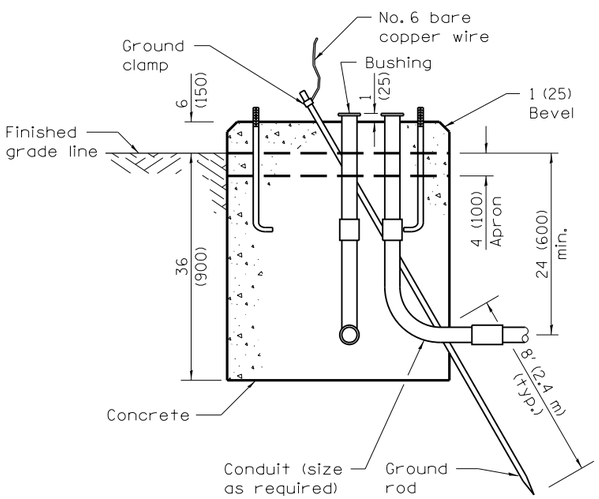

**TOP VIEW**




**TYPE A**




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




**TYPE D**
**FOR GROUND MOUNTED**
**CONTROLLER CABINET**

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

Illinois Department of Transportation

APPROVED January 1, 2012
ENGINEER OF OPERATIONS

APPROVED January 1, 2012
ENGINEER OF DESIGN AND ENVIRONMENT

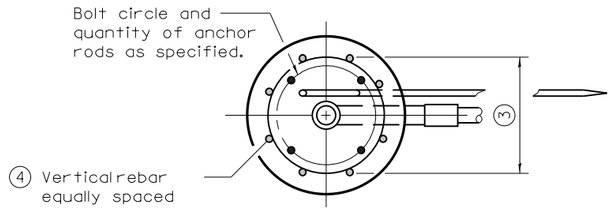
ISSUED 1-1-02

| DATE | REVISIONS |
|---|---|
| 1-1-12 | Replaced rebar No.'s |
| | with 'Vertical' for TYPE E |
| | foundation detail. |
| 1-1-10 | Revised note for |
| | foundation debth in tbl. |
| | Revised sizes of rebars. |

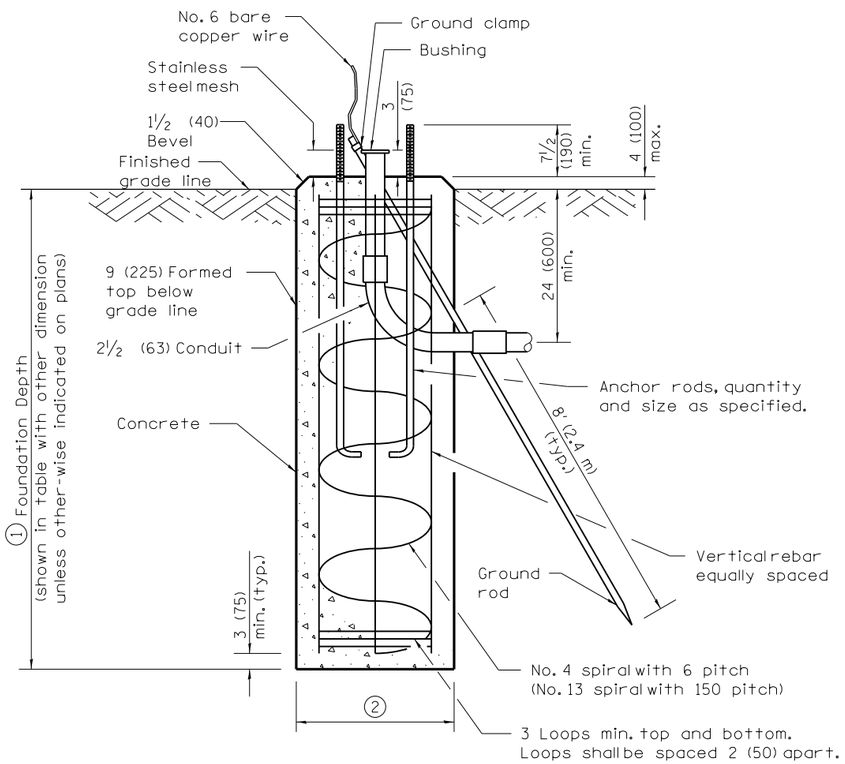
# CONCRETE FOUNDATION DETAILS

(Sheet 1 of 2)

**STANDARD 878001–09**




**TOP VIEW**




**TYPE E**

| Mast Arm Length | ① Foundation Depth * | ② Foundation Diameter | ③ Spiral Diameter | ④ Quantity of Rebars | Size of Rebars |
|---|---|---|---|---|---|
| Less than 30′ (9.1 m) | 10′-0″ (3.0 m) | 30 (750) | 24 (600) | 8 | 6 (19) |
| Greater than or equal to 30′ (9.1 m) and less than 40′ (12.2 m) | 13′-6″ (4.1 m) | 30 (750) | 24 (600) | 8 | 6 (19) |
| | 11′-0″ (3.4 m) | 36 (900) | 30 (750) | 12 | 7 (22) |
| Greater than or equal to 40′ (12.2 m) and less than 50′ (15.2 m) | 13′-0″ (4.0 m) | 36 (900) | 30 (750) | 12 | 7 (22) |
| Greater than or equal to 50′ (15.2 m) and up to 55′ (16.8 m) | 15′-0″ (4.6 m) | 36 (900) | 30 (750) | 12 | 7 (22) |
| Greater than or equal to 56′ (16.8 m) and less than 65′ (19.8 m) | 21′-0″ (6.4 m) | 42 (1060) | 36 (900) | 16 | 8 (25) |
| Greater than or equal to 65′ (19.8 m) and up to 75′ (22.9 m) | 25′-0″ (7.6 m) | 42 (1060) | 36 (900) | 16 | 8 (25) |

* For standard and combination mast arm assemblies. Foundation depths for standard dual mast arms with the longest arm length upto and including 55′ (16.8 m) shall be increased by 1′ (0.3 m) of that shown in the table, based on the longer of the two arms.

These foundation depths are for sites which have cohesive soils (clayey silt, sandy clay, etc.) along the length of the shaft, with an average Unconfined Compressive Strength (Qu) > 1.0 tsf (100 kpa). This strength shall be verified by boring data prior to construction or with testing by the Engineer during foundation drilling. The Bureau of Bridges & Structures should be contacted for a revised design if other conditions are encountered.

Illinois Department of Transportation

APPROVED January 1, 2012
ENGINEER OF OPERATIONS

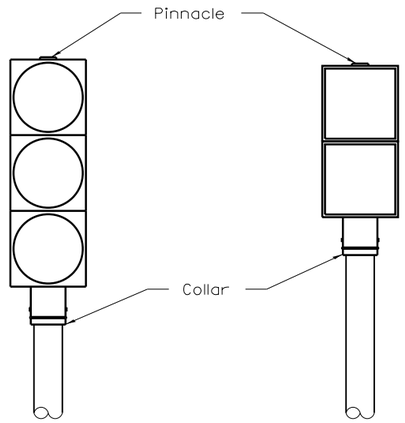
APPROVED January 1, 2012
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-12

# CONCRETE FOUNDATION DETAILS



**STANDARD 878001–09**

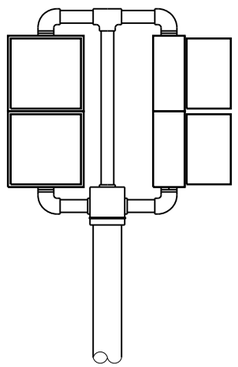



**POST MOUNTED TRAFFIC SIGNAL HEAD**



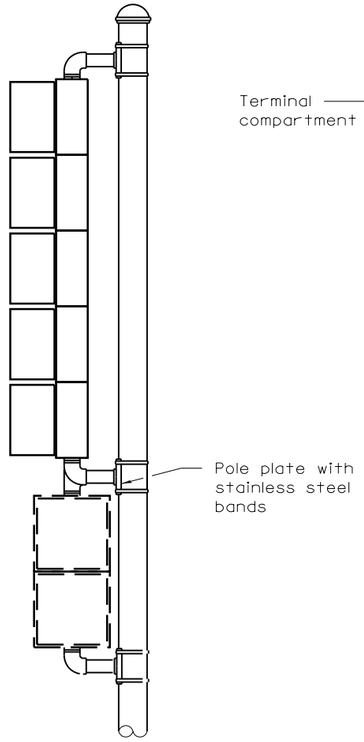
**POST MOUNTED PEDESTRIAN SIGNAL HEAD**

**ONE WAY**



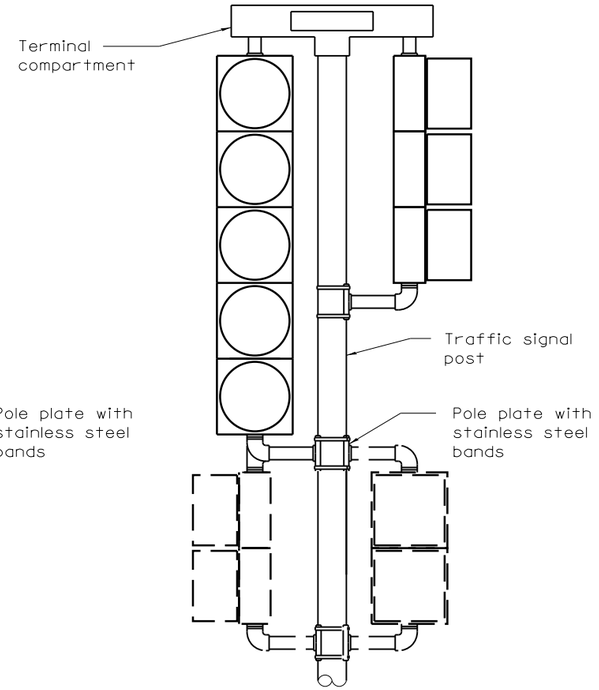
**POST MOUNTED PEDESTRIAN SIGNAL HEAD**

**TWO WAY**



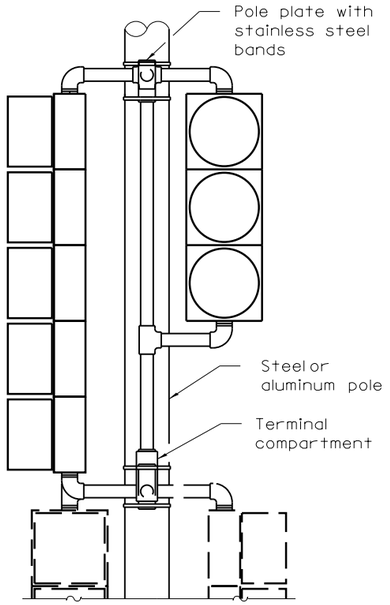

**BRACKET MOUNTED TRAFFIC SIGNAL HEAD**

**ONE WAY**

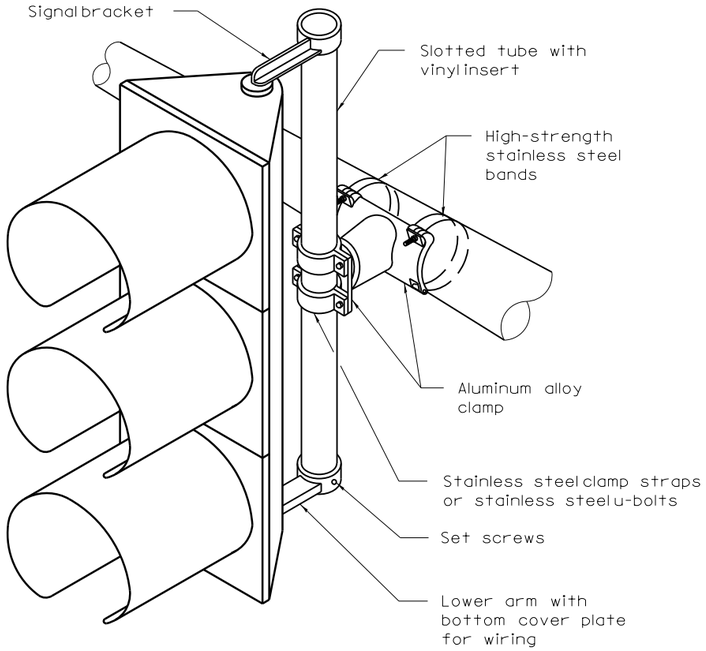



**BRACKET MOUNTED TRAFFIC SIGNAL HEAD**

**TWO WAY**




**BRACKET MOUNTED TRAFFIC SIGNAL HEAD**




**STEEL MAST ARM MOUNTING**

Illinois Department of Transportation

APPROVED January 1, 2009
ENGINEER OF OPERATIONS

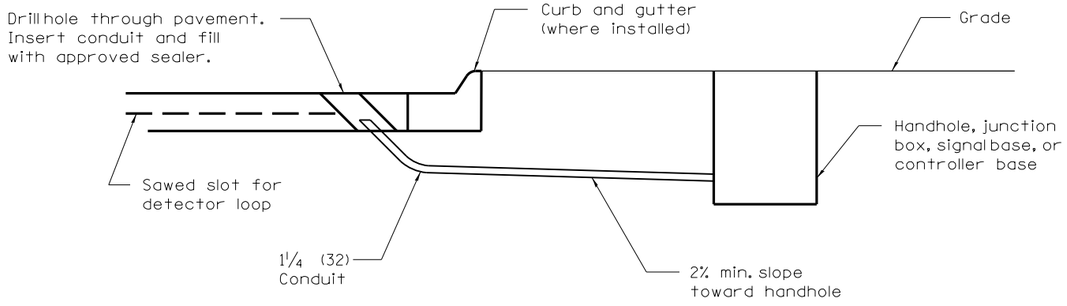
APPROVED January 1, 2009
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-02

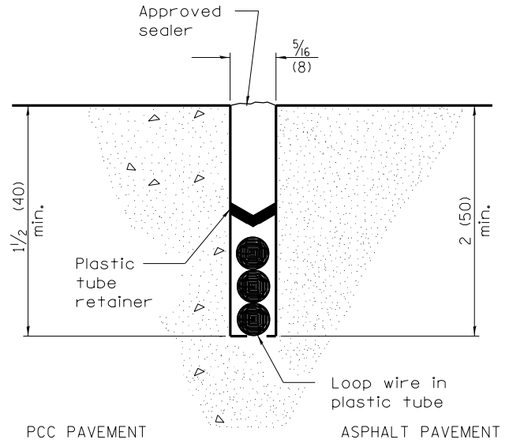
| DATE | REVISIONS |
|---|---|
| 1-1-09 | Omitted note regarding |
| | units of length. |
| | |
| 1-1-02 | Renum. Standard 840006. |
| | |
| | |

# TRAFFIC SIGNAL MOUNTING DETAILS

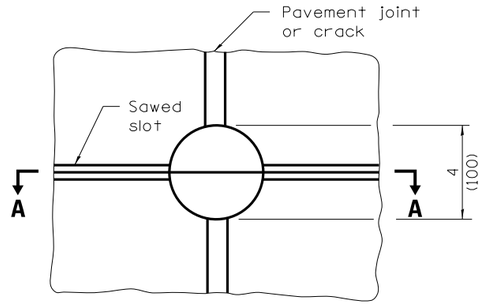
**STANDARD 880006–01**



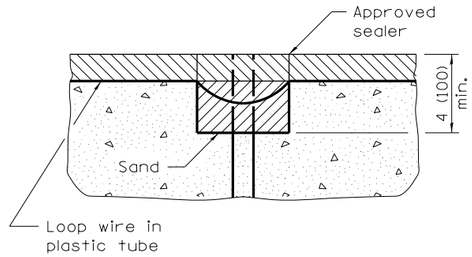

## DETECTOR LOOP LEAD–IN




## DETECTOR LOOP INSTALLATION



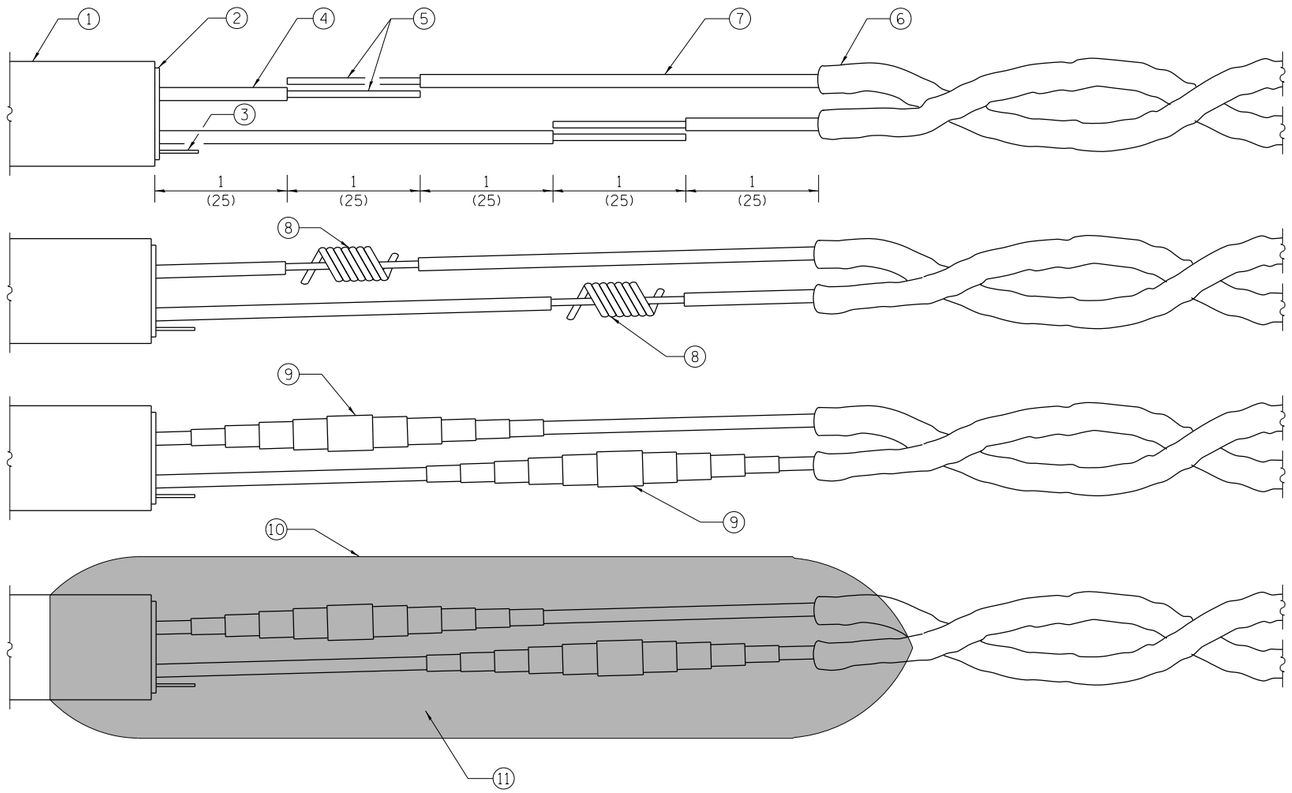

## PLAN




## SECTION A–A

NOTE
Loop wire shall follow saw cut to bottom, forming slack section at joint.

## DETECTOR LOOP AT PAVEMENT JOINT OR PAVEMENT CRACK




## LOOP WIRE AND LEAD–IN CABLE SPLICE

① = Lead-in cable (single pair or multipair)
② = Lead-in cable shield
③ = Lead-in cable shield drain-wire
④ = Lead-in cable insulated conductor
⑤ = Bare conductor
⑥ = Loop wire in tube
⑦ = Loop wire insulated conductor
⑧ = Twisted and resin soldered conductor
⑨ = Electrical tape insulated spice
⑩ = Rigid mold
⑪ = Waterproof and dielectric resin

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

Illinois Department of Transportation

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APPROVED January 1, 2009
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-02

| DATE | REVISIONS |
|---|---|
| 1-1-09 | Switched units to |
| | English (metric) |
| | |
| 1-1-02 | Renum. Standard 846001. |
| | |
| | |

# DETECTOR LOOP INSTALLATIONS

**STANDARD 886001–01**