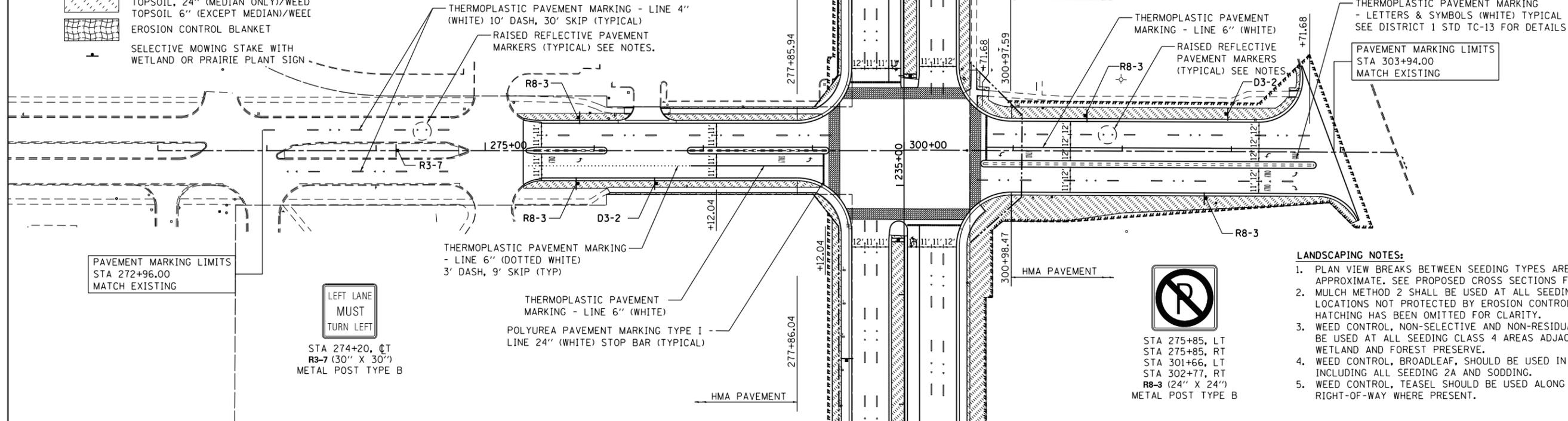
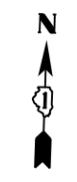


**LANDSCAPING LEGEND**

	SEEDING CLASS 2A TOPSOIL, 6"/WEED CONTROL
	SEEDING CLASS 4 TOPSOIL, 6"/WEED CONTROL
	SEEDING CLASS 4B (MOD) TOPSOIL, 6"/WEED CONTROL
	SODDING, SALT TOLERANT TOPSOIL, 24" (MEDIAN ONLY)/WEED TOPSOIL 6" (EXCEPT MEDIAN)/WEED
	EROSION CONTROL BLANKET

**US Route 45  
LaGrange Rd**

STA 276+57, RT  
STA 302+95, LT  
D3-2 (72" X 30")  
2-WOOD POST (4" X 4")



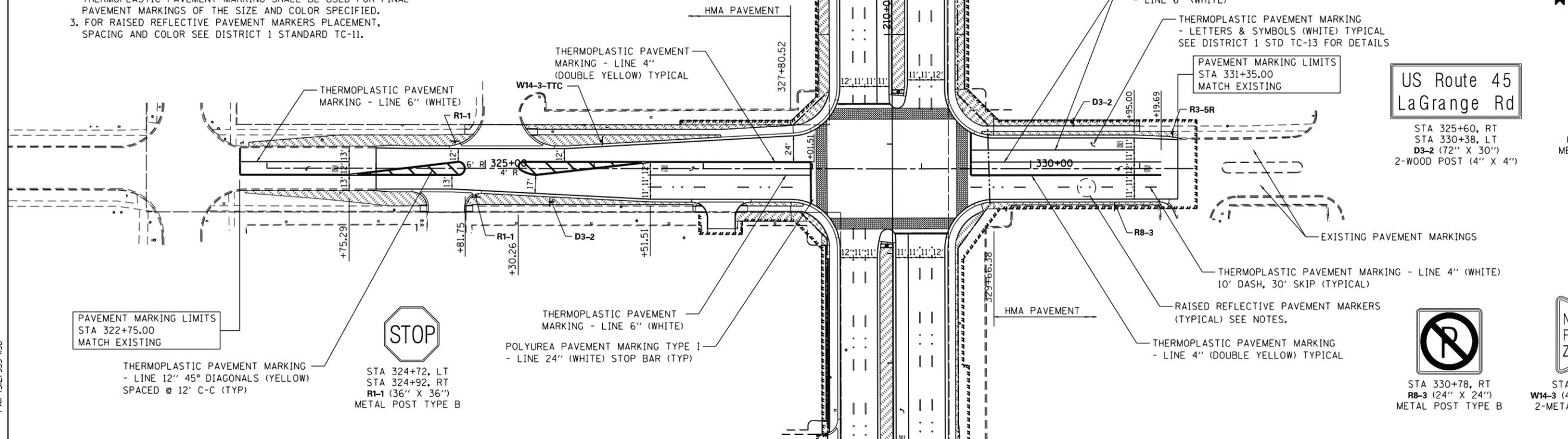
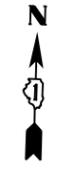
- LANDSCAPING NOTES:**
1. PLAN VIEW BREAKS BETWEEN SEEDING TYPES ARE APPROXIMATE. SEE PROPOSED CROSS SECTIONS FOR DETAILS.
  2. MULCH METHOD 2 SHALL BE USED AT ALL SEEDING LOCATIONS NOT PROTECTED BY EROSION CONTROL BLANKET. HATCHING HAS BEEN OMITTED FOR CLARITY.
  3. WEED CONTROL, NON-SELECTIVE AND NON-RESIDUAL SHOULD BE USED AT ALL SEEDING CLASS 4 AREAS ADJACENT TO WETLAND AND FOREST PRESERVE.
  4. WEED CONTROL, BROADLEAF, SHOULD BE USED IN TURF AREAS INCLUDING ALL SEEDING 2A AND SODDING.
  5. WEED CONTROL, TEASEL SHOULD BE USED ALONG RIGHT-OF-WAY WHERE PRESENT.

**PAVEMENT MARKING NOTES:**

1. FOR PCC PAVEMENT:  
POLYUREA PAVEMENT MARKING TYPE I SHALL BE USED FOR FINAL PAVEMENT MARKINGS OF THE SIZE AND COLOR SPECIFIED.
2. FOR HOT-MIX ASPHALT PAVEMENT:  
THERMOPLASTIC PAVEMENT MARKING SHALL BE USED FOR FINAL PAVEMENT MARKINGS OF THE SIZE AND COLOR SPECIFIED.
3. FOR RAISED REFLECTIVE PAVEMENT MARKERS PLACEMENT,  
SPACING AND COLOR SEE DISTRICT 1 STANDARD TC-11.

**LEGEND**

	ONE-WAY CRYSTAL MARKER
	ONE-WAY AMBER MARKER
	TWO-WAY AMBER MARKER



**US Route 45  
LaGrange Rd**

STA 325+60, RT  
STA 330+38, LT  
D3-2 (72" X 30")  
2-WOOD POST (4" X 4")

STA 331+29, LT  
R3-5R (30" X 36")  
METAL POST TYPE B



STA 326+06, LT  
W14-3 (48" X 48" X 36")  
2-METAL POST TYPE B

100 S. WACKER DR.  
 SUITE 600  
 CHICAGO, IL 60606  
 TEL (312) 939-1000  
 FAX (312) 939-4998  
**URS**

FILE NAME = D160M61-SHT-LNDSCP-PMK05.dgn	USER NAME = Anthony.Plutz	DESIGNED - BFH	REVISED -
PLOT SCALE = 100.000000' / 1" =	CHECKED - MJT	DRAWN - BFH	REVISED -
SHT.DOUBLE.PLAN	PLOT DATE = 3/14/2013	DATE - 03/13/2013	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**LANDSCAPING, PAVEMENT MARKING AND SIGNING PLAN**  
**153RD STREET AND 149TH STREET**  
 SCALE: 1"=50' SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.P. R.T.E. 330	SECTION 103R-4	COUNTY COOK	TOTAL SHEETS 877	SHEET NO. 301
<b>LA-05</b>		CONTRACT NO. 60M61		
ILLINOIS FED. AID PROJECT				

SPEED LIMIT  
30

STA 501+01, RT  
STA 502+65, LT  
R2-1 (30" X 36")  
METAL POST TYPE B

US Route 45  
LaGrange Rd

STA 502+50, RT  
D3-2 (72" X 30")  
2-WOOD POST (4" X 4")

STOP

STA 499+81, RT  
STA 502+37, RT  
STA 502+79, LT  
STA 504+51, RT  
R1-1 (36" X 36")  
METAL POST TYPE B

PAVEMENT MARKING LIMITS  
STA 500+09

THERMOPLASTIC PAVEMENT MARKING  
- LETTERS & SYMBOLS (WHITE) TYPICAL  
SEE DISTRICT 1 STD TC-13 FOR DETAILS

THERMOPLASTIC PAVEMENT MARKING  
- LINE 6" (DOTTED WHITE) 2' DASH  
6' SKIP (TYPICAL)

THERMOPLASTIC PAVEMENT MARKING  
- LINE 6" (WHITE)

ONLY

STA 504+05, LT  
R3-5R (30" X 36")  
METAL POST TYPE B

NO PARKING

STA 501+01, RT  
R8-3 (24" X 24")  
SAME POST AS R2-1

HMA PAVEMENT

THERMOPLASTIC PAVEMENT MARKING - LINE 4" (DOUBLE YELLOW) TYPICAL

**LANDSCAPING NOTES:**

1. PLAN VIEW BREAKS BETWEEN SEEDING TYPES ARE APPROXIMATE. SEE PROPOSED CROSS SECTIONS FOR DETAILS.
2. MULCH METHOD 2 SHALL BE USED AT ALL SEEDING LOCATIONS NOT PROTECTED BY EROSION CONTROL BLANKET. HATCHING HAS BEEN OMITTED FOR CLARITY.
3. WEED CONTROL, NON-SELECTIVE AND NON-RESIDUAL SHOULD BE USED AT ALL SEEDING CLASS 4 AREAS ADJACENT TO WETLAND AND FOREST PRESERVE.
4. WEED CONTROL, BROADLEAF, SHOULD BE USED IN TURF AREAS INCLUDING ALL SEEDING 2A AND SODDING.
5. WEED CONTROL, TEASEL SHOULD BE USED ALONG RIGHT-OF-WAY WHERE PRESENT.

RAISED REFLECTIVE PAVEMENT MARKERS (TYPICAL) SEE NOTES.

THERMOPLASTIC PAVEMENT MARKING TYPE I - LINE 4" (WHITE)  
10' DASH, 30' SKIP (TYPICAL)

**LANDSCAPING LEGEND**

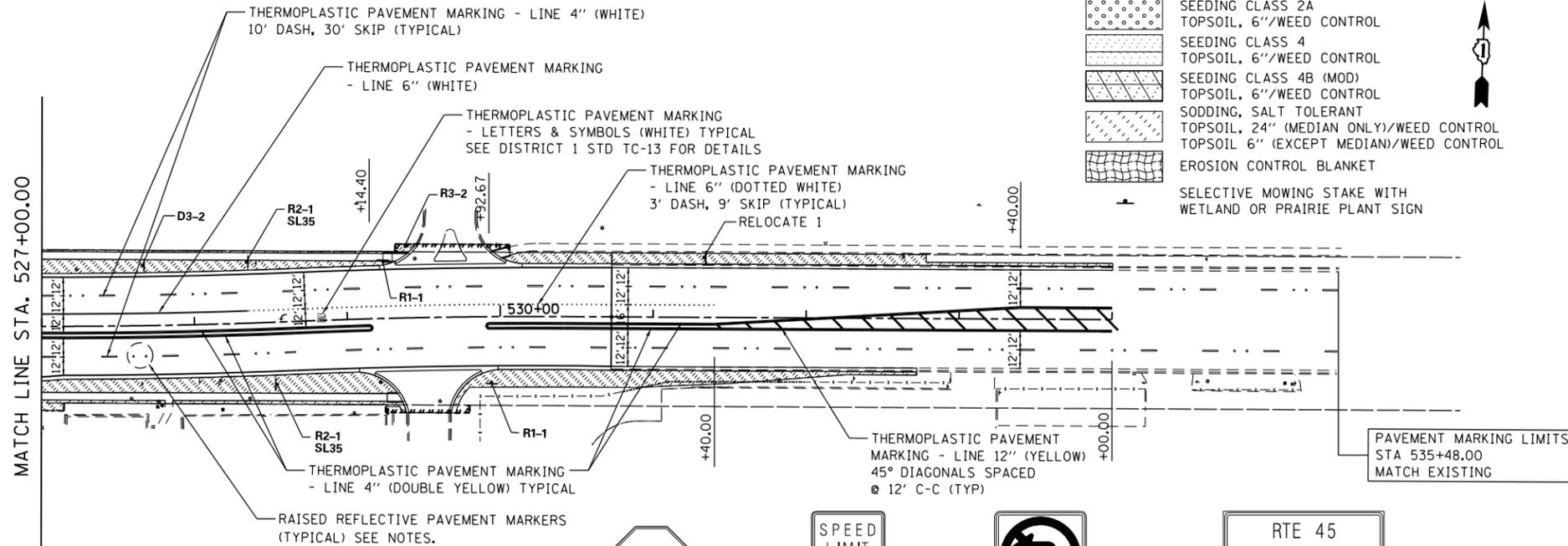
- SEEDING CLASS 2A TOPSOIL, 6"/WEED CONTROL
- SEEDING CLASS 4 TOPSOIL, 6"/WEED CONTROL
- SEEDING CLASS 4B (MOD) TOPSOIL, 6"/WEED CONTROL
- SODDING, SALT TOLERANT TOPSOIL, 24" (MEDIAN ONLY)/WEED CONTROL
- TOPSOIL 6" (EXCEPT MEDIAN)/WEED CONTROL
- EROSION CONTROL BLANKET
- SELECTIVE MOWING STAKE WITH WETLAND OR PRAIRIE PLANT SIGN

**PAVEMENT MARKING NOTES:**

1. FOR PCC PAVEMENT: POLYUREA PAVEMENT MARKING TYPE I SHALL BE USED FOR FINAL PAVEMENT MARKINGS OF THE SIZE AND COLOR SPECIFIED.
2. FOR HOT-MIX ASPHALT PAVEMENT: THERMOPLASTIC PAVEMENT MARKING SHALL BE USED FOR FINAL PAVEMENT MARKINGS OF THE SIZE AND COLOR SPECIFIED.
3. FOR RAISED REFLECTIVE PAVEMENT MARKERS PLACEMENT, SPACING AND COLOR SEE DISTRICT 1 STANDARD TC-11.

**LEGEND**

- ONE-WAY CRYSTAL MARKER
- ONE-WAY AMBER MARKER
- TWO-WAY AMBER MARKER



D3-2: 72"x30"; 1.9" Radius, 0.8" Border, 0.5" Indent, Green on Green; [US Route 45] White C 2K; [LaGrange Rd] White D 2K; Table of widths and spaces.

6.0 4.5 1.3 4.5 8.0 4.5 1.0 4.0 1.2 4.0 0.8 2.9 0.6 4.1

8.0 4.9 1.2 4.5 6.0

3.9 4.9 0.7 4.5 1.6 5.4 1.6 3.0 0.6 4.6 1.5 4.7 1.2 4.8 1.3 4.7

8.0 5.4 0.9 4.8 3.9

**D3-2**

URS  
100 S. WACKER DR.  
SUITE 500  
CHICAGO, IL 60606  
TEL (312) 939-1000  
FAX (312) 939-4998

FILE NAME = D160M61-SHT-LNDSCP-PMK06.dgn	USER NAME = Anthony.Plutz	DESIGNED - BFH	REVISED -
PLOT SCALE = 100.000000' / 1" =	CHECKED - MJT	DRAWN - BFH	REVISED -
PLOT DATE = 3/14/2013	DATE - 03/13/2013		REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

LANDSCAPING, PAVEMENT MARKING AND SIGNING PLAN  
151ST STREET

SCALE: 1"=50' SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.P. R.T.E. 330	SECTION 103R-4	COUNTY COOK	TOTAL SHEETS 877	SHEET NO. 302
LA-06		CONTRACT NO. 60M61		
ILLINOIS FED. AID PROJECT				

**PAVEMENT MARKING NOTES:**

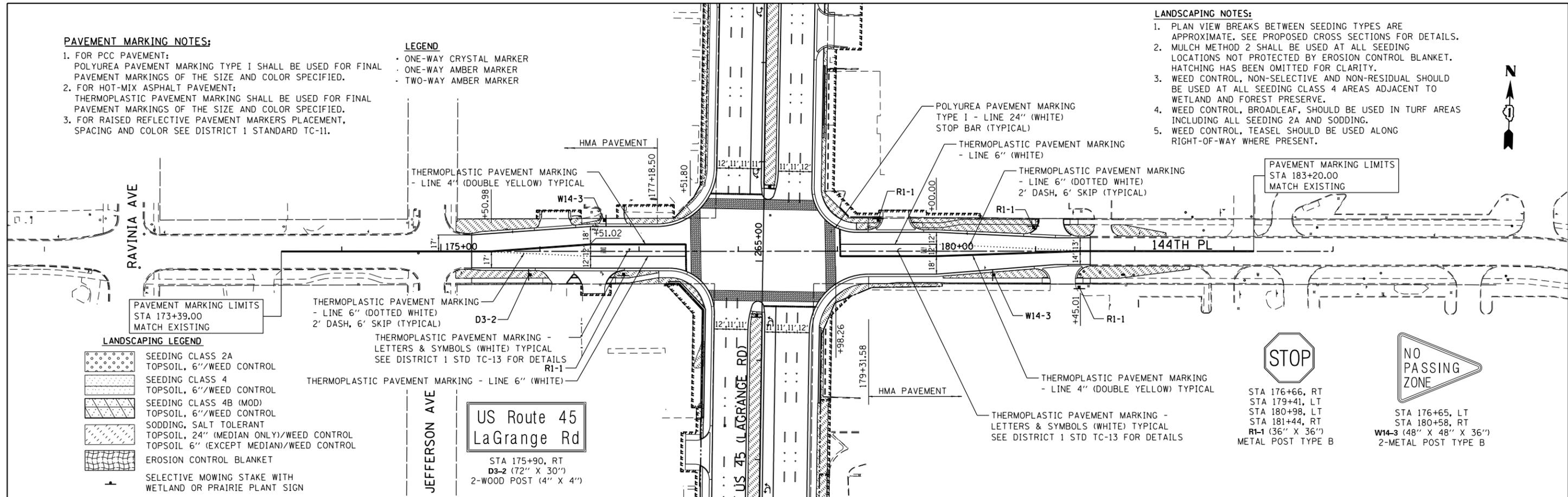
- FOR PCC PAVEMENT:  
POLYUREA PAVEMENT MARKING TYPE I SHALL BE USED FOR FINAL PAVEMENT MARKINGS OF THE SIZE AND COLOR SPECIFIED.
- FOR HOT-MIX ASPHALT PAVEMENT:  
THERMOPLASTIC PAVEMENT MARKING SHALL BE USED FOR FINAL PAVEMENT MARKINGS OF THE SIZE AND COLOR SPECIFIED.
- FOR RAISED REFLECTIVE PAVEMENT MARKERS PLACEMENT,  
SPACING AND COLOR SEE DISTRICT 1 STANDARD TC-11.

**LEGEND**

- ONE-WAY CRYSTAL MARKER
- ONE-WAY AMBER MARKER
- TWO-WAY AMBER MARKER

**LANDSCAPING NOTES:**

- PLAN VIEW BREAKS BETWEEN SEEDING TYPES ARE APPROXIMATE. SEE PROPOSED CROSS SECTIONS FOR DETAILS.
- MULCH METHOD 2 SHALL BE USED AT ALL SEEDING LOCATIONS NOT PROTECTED BY EROSION CONTROL BLANKET. HATCHING HAS BEEN OMITTED FOR CLARITY.
- WEED CONTROL, NON-SELECTIVE AND NON-RESIDUAL SHOULD BE USED AT ALL SEEDING CLASS 4 AREAS ADJACENT TO WETLAND AND FOREST PRESERVE.
- WEED CONTROL, BROADLEAF, SHOULD BE USED IN TURF AREAS INCLUDING ALL SEEDING 2A AND SODDING.
- WEED CONTROL, TEASEL SHOULD BE USED ALONG RIGHT-OF-WAY WHERE PRESENT.



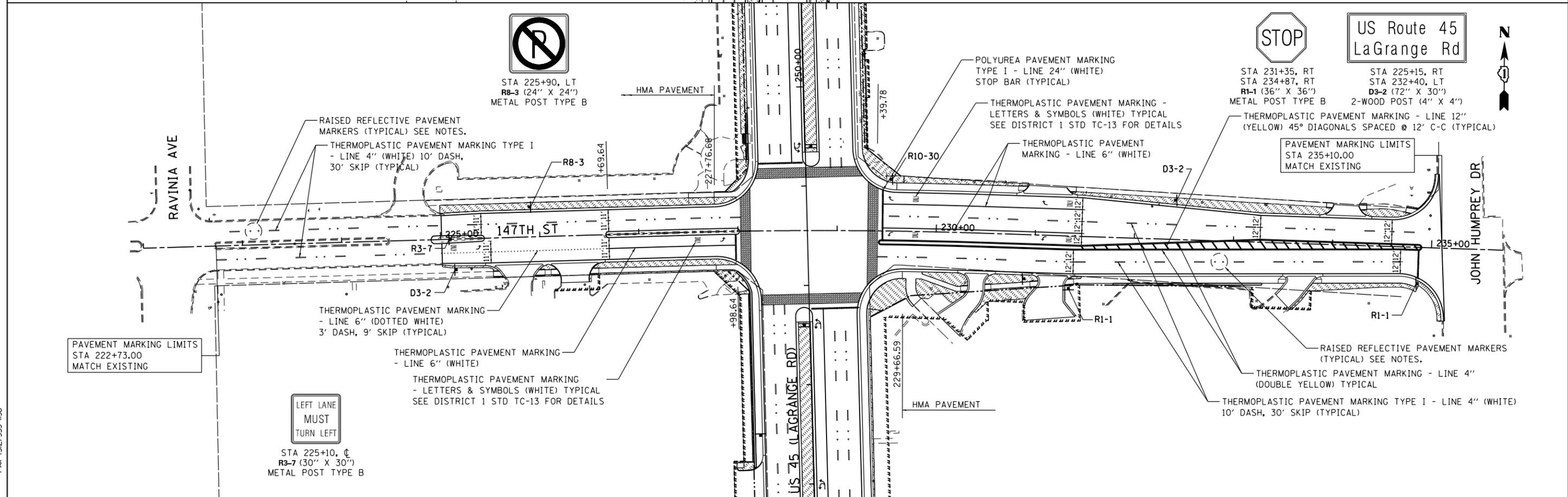
**LANDSCAPING LEGEND**

- SEEDING CLASS 2A  
TOPSOIL, 6"/WEED CONTROL
- SEEDING CLASS 4  
TOPSOIL, 6"/WEED CONTROL
- SEEDING CLASS 4B (MOD)  
TOPSOIL, 6"/WEED CONTROL
- SODDING, SALT TOLERANT  
TOPSOIL, 24" (MEDIAN ONLY)/WEED CONTROL
- TOPSOIL 6" (EXCEPT MEDIAN)/WEED CONTROL
- EROSION CONTROL BLANKET
- SELECTIVE MOWING STAKE WITH  
WETLAND OR PRAIRIE PLANT SIGN

**PAVEMENT MARKING LIMITS**  
STA 183+20.00  
MATCH EXISTING

**STOP**  
STA 176+66, RT  
STA 179+41, LT  
STA 180+98, LT  
STA 181+44, RT  
R1-1 (36" X 36")  
METAL POST TYPE B

**NO PASSING ZONE**  
STA 176+65, LT  
STA 180+58, RT  
W14-3 (48" X 48" X 36")  
2-METAL POST TYPE B



**PAVEMENT MARKING LIMITS**  
STA 222+73.00  
MATCH EXISTING

**LEFT LANE MUST TURN LEFT**  
STA 225+10, C  
R3-7 (30" X 30")  
METAL POST TYPE B

**STOP**  
STA 225+90, LT  
R8-3 (24" X 24")  
METAL POST TYPE B

**PAVEMENT MARKING LIMITS**  
STA 235+10.00  
MATCH EXISTING

100 S. WACKER DR.  
100 S/WILEY CAVY  
CHICAGO, IL 60606  
TEL (312) 939-1000  
FAX (312) 939-4998

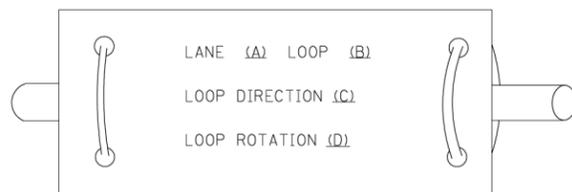
**URS**

FILE NAME = D:\6061-SHT-LNDSCP-PMK07.dgn	USER NAME = Anthony.Plutz	DESIGNED - BFH	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>LANDSCAPING, PAVEMENT MARKING AND SIGNING PLAN 147TH STREET AND 144TH PLACE</b>	F.A.P. RTE. 330	SECTION 103R-4	COUNTY COOK	TOTAL SHEETS 877	SHEET NO. 303	
PLOT SCALE = 100.000000' / 1" =	CHECKED - MJT	REVISED -	SCALE: 1"=50'			SHEET 1 OF 1 SHEETS	STA. TO STA.	<b>LA-07</b>		CONTRACT NO. 60M61	ILLINOIS FED. AID PROJECT
SHT_DOUBLE PLAN	PLOT DATE = 3/14/2013	DATE - 03/13/2013	REVISED -								

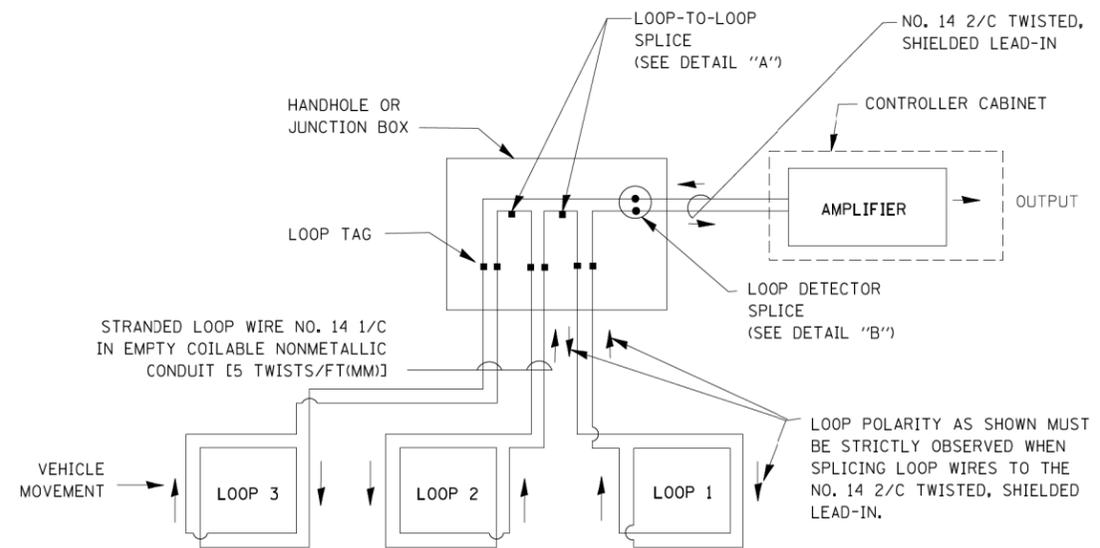
## LOOP DETECTOR NOTES

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

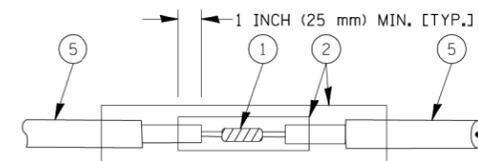


- A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

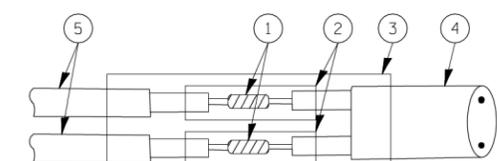


### DETECTOR LOOP WIRING SCHEMATIC

- 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.

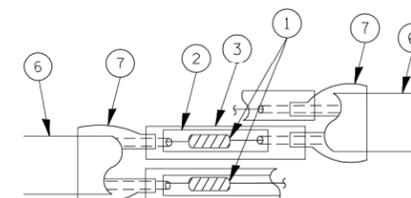


DETAIL "A"  
LOOP-TO-LOOP SPLICE

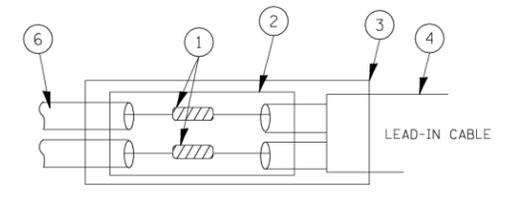


DETAIL "B"  
LOOP-TO-CONTROLLER SPLICE

### TYPE I LOOP



DETAIL "A"  
LOOP-TO-LOOP SPLICE



DETAIL "B"  
LOOP-TO-CONTROLLER SPLICE

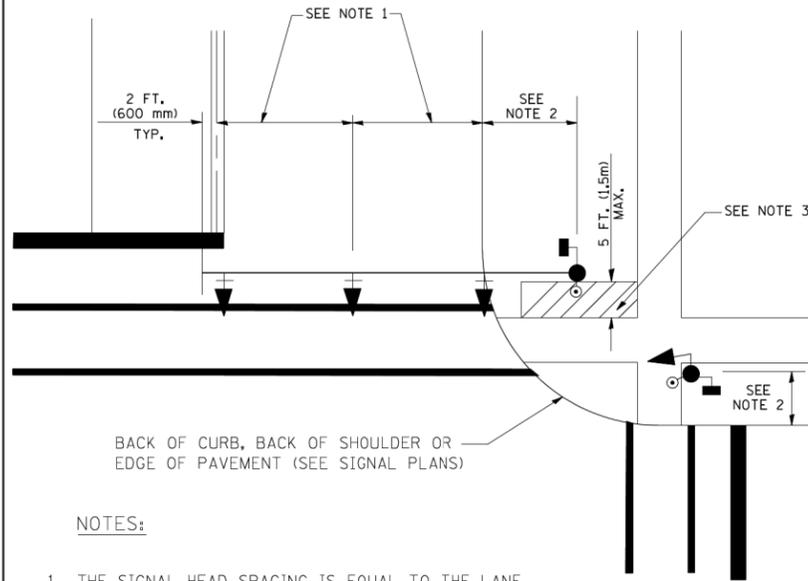
### LOOP DETECTOR SPLICE

- 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 LENGTH 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 =	USER NAME = bauerdl	DESIGNED - DAD	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS</b>	F.A.P. RTE. =	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
ca:\p\work\p\WIDOT\BAUERDL\0108315\ts05.dgn	DRAWN - BCK	REVISED -	330			103R-4	COOK	877	304	
PLOT SCALE = 50.0000' / IN.	CHECKED - DAD	REVISED -	<b>TS-05</b>			CONTRACT NO. 60M61				
PLOT DATE = 11/4/2009	DATE - 10-28-09	REVISED -	SCALE: NONE			SHEET NO. 1 OF 6 SHEETS		STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT	

**TRAFFIC SIGNAL MAST ARM AND SIGNAL POST**

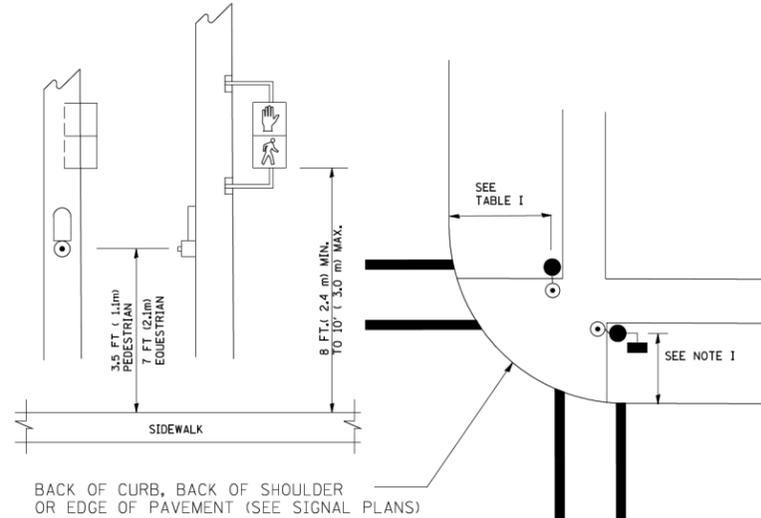
MAST ARM MOUNTED SIGNALS IN EXISTING, PROPOSED OR FUTURE SIDEWALK/BICYCLE PATH AREA. INTERSECTION SHOWN WITH PEDESTRIAN SIGNALS AND PEDESTRIAN PUSHBUTTON DETECTORS.



**NOTES:**

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

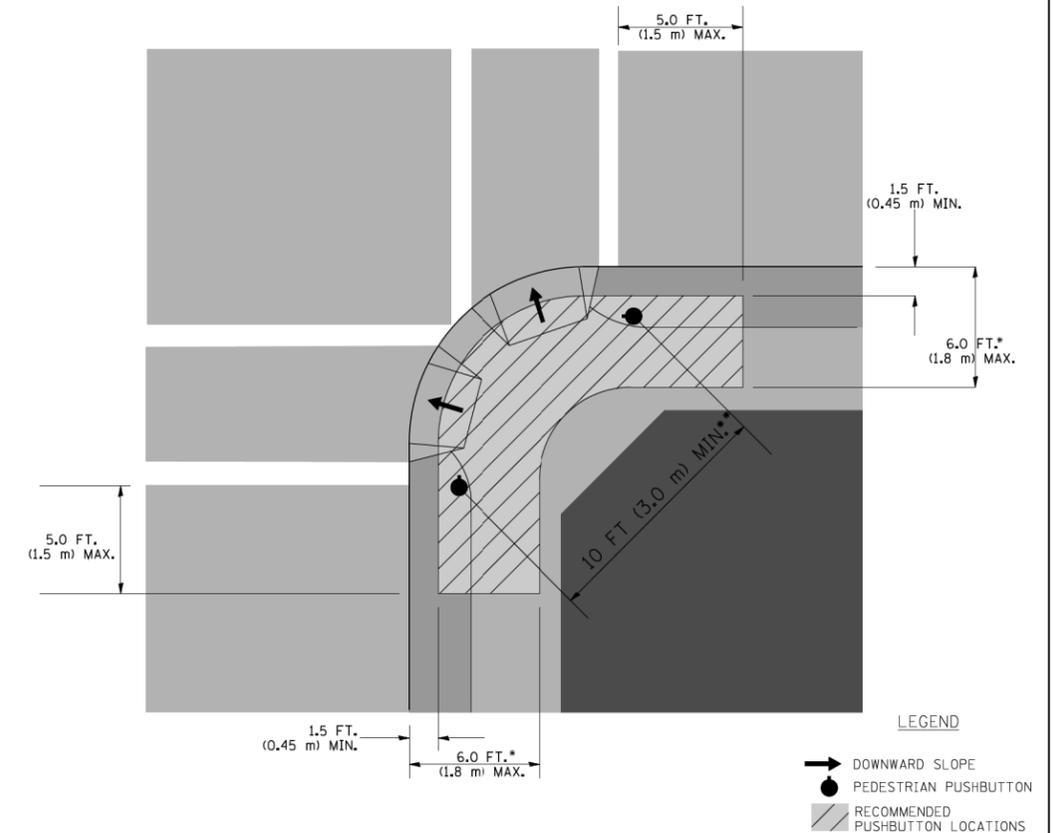
**PEDESTRIAN SIGNAL POST AND PEDESTRIAN PUSH BUTTON POST**



**NOTES:**

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

**RECOMMENDED PUSHBUTTON LOCATIONS**



- \* WHERE THERE ARE CONSTRAINTS THAT MAKE IT IMPRACTICAL TO PLACE THE PEDESTRIAN PUSHBUTTON BETWEEN 1.5 FT (0.45 m) AND 6 FT ( 1.8 m) FROM THE EDGE OF THE CURB, SHOULDER, OR PAVEMENT, IT SHOULD NOT BE FURTHER THAN 10 FT (3 m) FROM THE EDGE OF CURB, SHOULDER, OR PAVEMENT.
- \*\* WHERE THERE ARE CONSTRAINTS ON A PARTICULAR CORNER THAT MAKE IT IMPRACTICAL TO PROVIDE THE 10 FT (3 m) SEPERATION BETWEEN THE TWO PEDESTRIAN PUSHBUTTONS, THE PUSHBUTTONS MAY BE PLACED CLOSER TOGETHER OR ON THE SAME POLE.

**NOTES:**

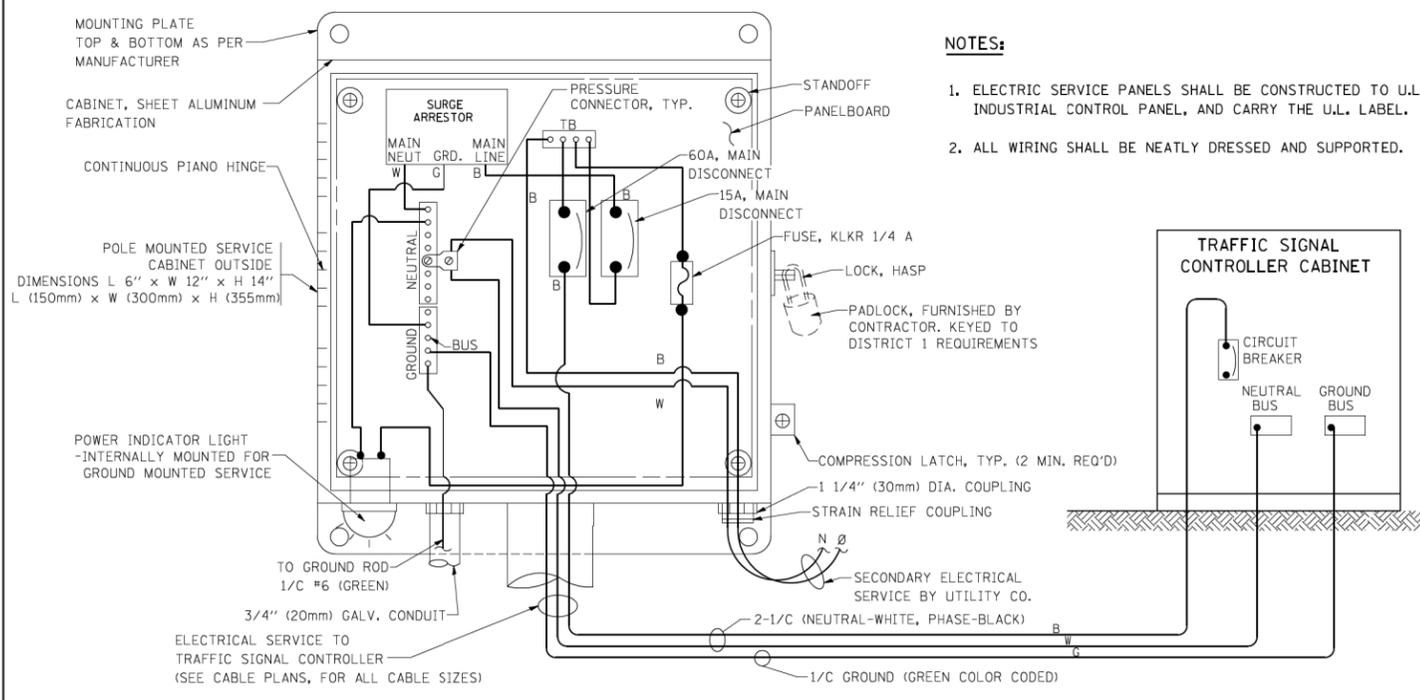
1. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 8 FT (2.4 m) OR MORE THAN 10 FT (3 m) ABOVE SIDEWALK LEVEL, AND SHALL BE POSITIONED AND ADJUSTED TO PROVIDE MAXIMUM VISIBILITY AT THE BEGINNING OF THE CONTROLLED CROSSWALK.
2. THE BOTTOM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

**TRAFFIC SIGNAL EQUIPMENT OFFSET**

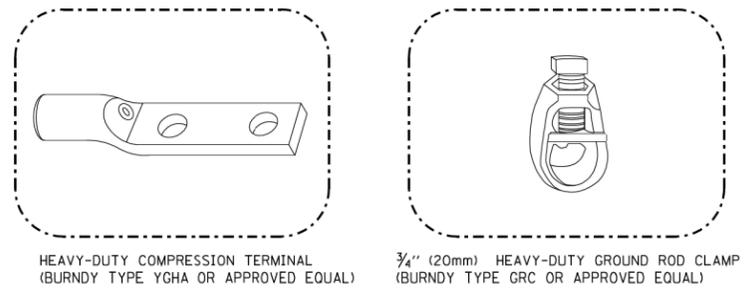
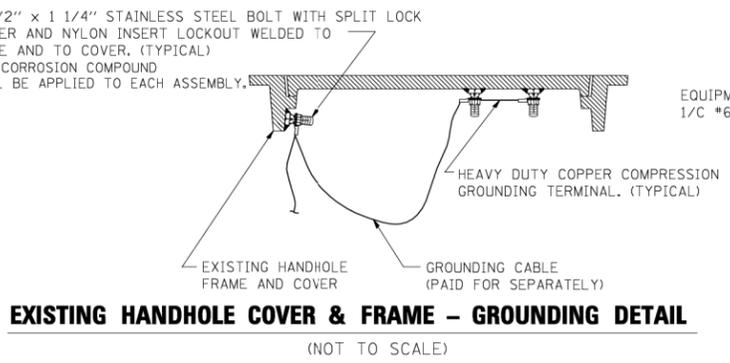
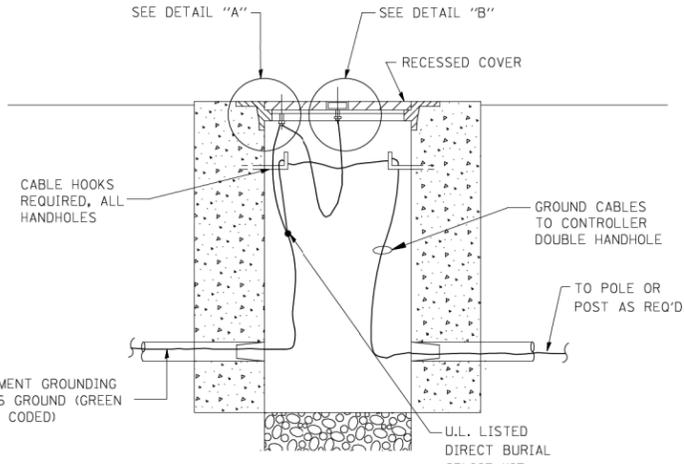
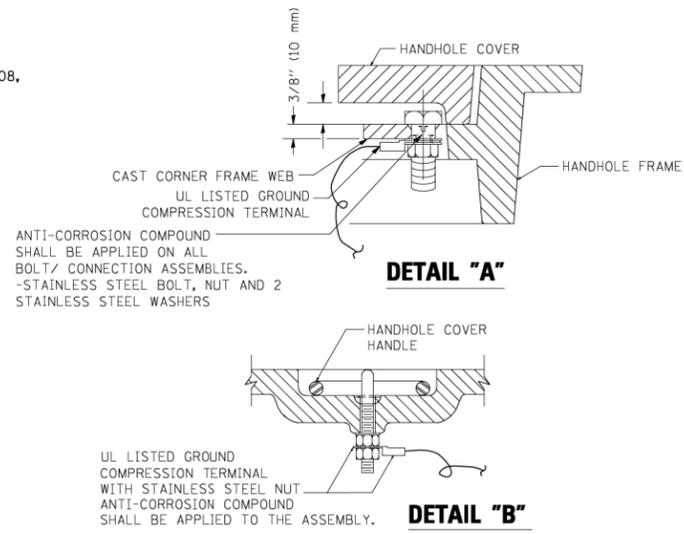
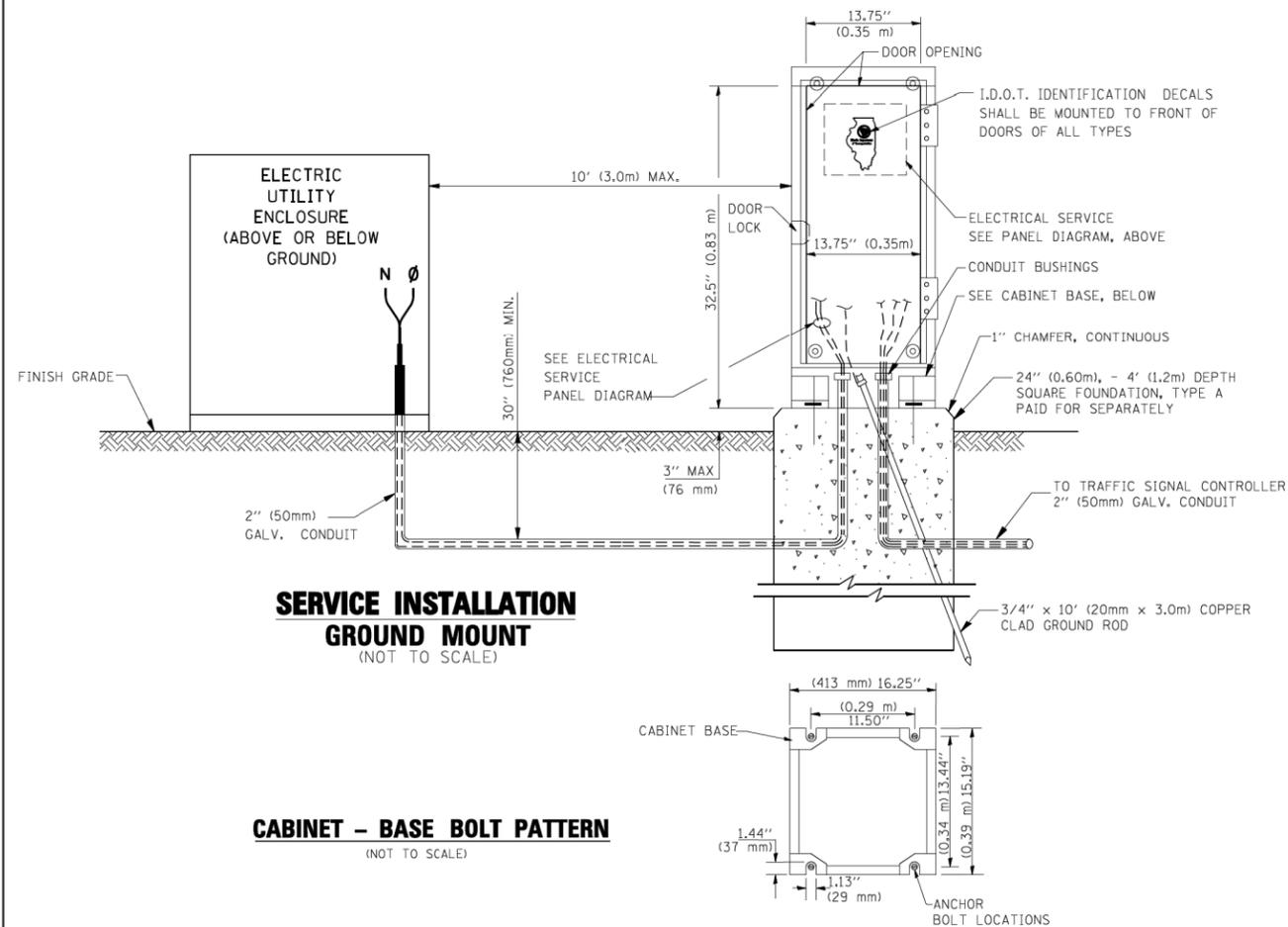
TRAFFIC SIGNAL EQUIPMENT	COMBINATION CONCRETE CURB AND GUTTER (MINIMUM DISTANCE FROM BACK OF CURB TO CENTERLINE OF FOUNDATION)	SHOULDER/NON-CURBED AREA (MINIMUM DISTANCE FROM EDGE OF PAVEMENT TO CENTERLINE OF FOUNDATION)
TRAFFIC SIGNAL MAST ARM POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
TRAFFIC SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
PEDESTRIAN SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
PEDESTRIAN PUSHBUTTON POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
TEMPORARY WOOD POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
CONTROLLER CABINET	6 FT (1.8m) MINIMUM DISTANCE SEE NOTE 2	SHOULDER WIDTH + 6 FT (1.8m), M'NIMUM 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:**

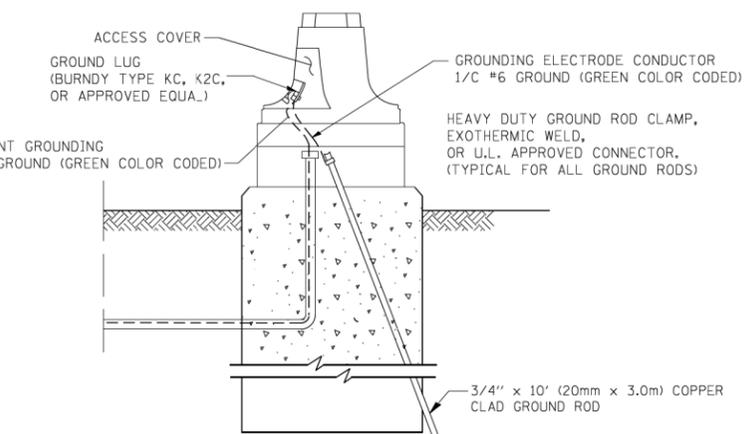
1. CONTACT THE "AREA TRAFFIC SIGNAL MAINTENANCE AND OPERATIONS ENGINEER" FOR ASSISTANCE IN LOCATING THE TRAFFIC SIGNAL EQUIPMENT WHEN THERE ARE CONFLICTS WITH DITCHES OR THE MINIMUM OFFSET DISTANCES CANNOT BE MET.
2. MINIMUM DISTANCE FROM THE BACK OF CURB TO THE ROADWAY SIDE OF THE FOUNDATION.
3. MINIMUM 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.



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



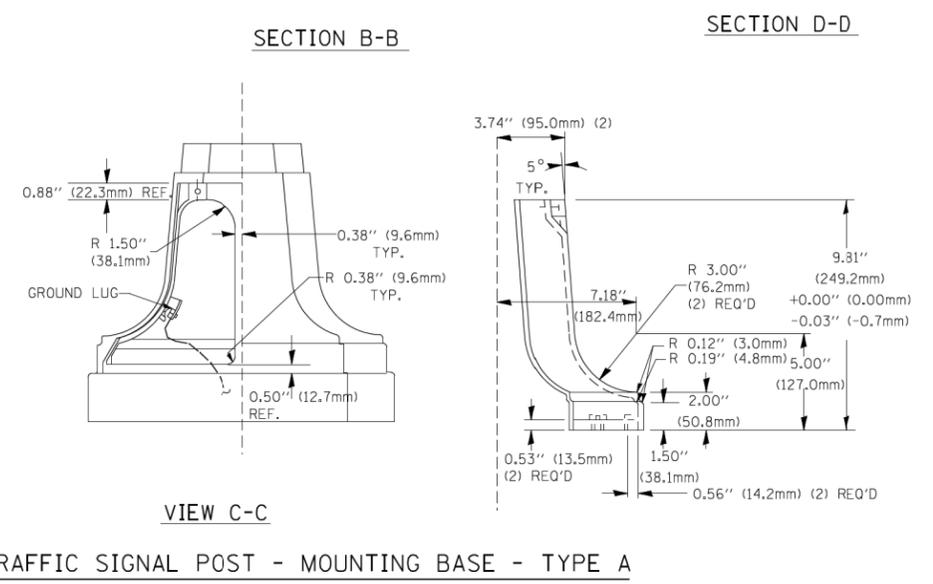
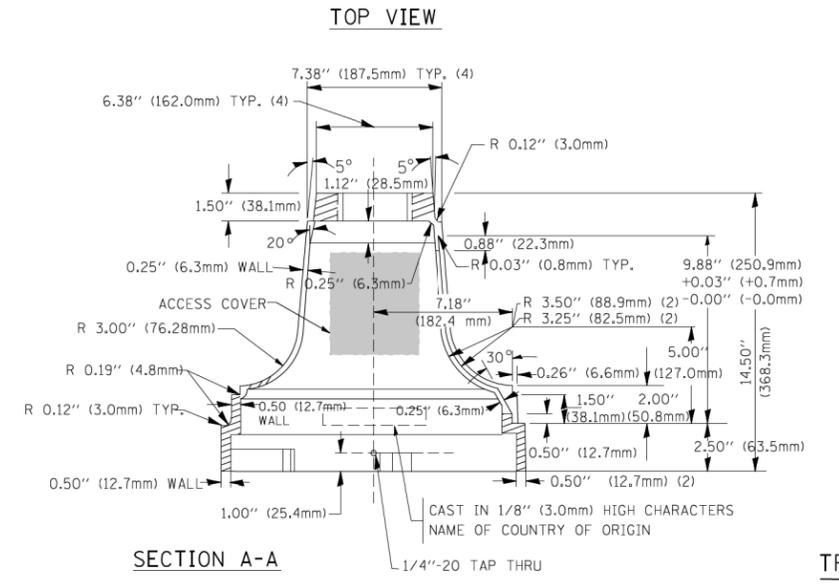
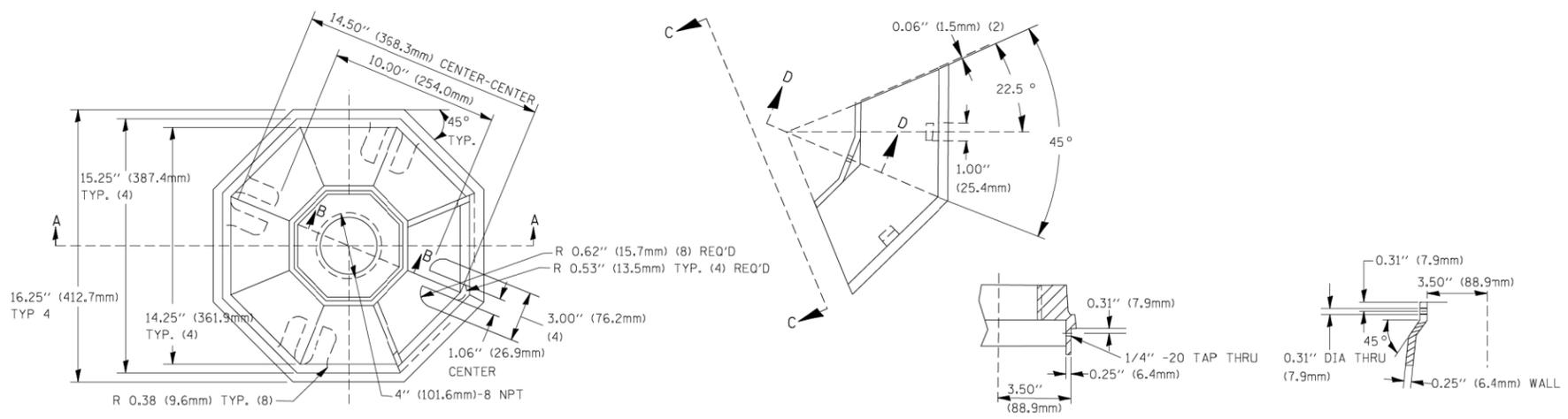
- NOTES:**
- ALL CLAMPS SHALL BE BRONZE OR COPPER, UL APPROVED.
  - GROUND CABLE SHALL BE LOOPED OVER HOOKS IN THE HANDHOLES
  - 6.5' (2.0m) SLACK SHALL BE PROVIDED IN SINGLE HANDHOLES
  - 13' (4.0m) OF SLACK SHALL BE PROVIDED IN DOUBLE HANDHOLES.
  - 5' (1.4m) OF SLACK SHALL BE PROVIDED BETWEEN FRAME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



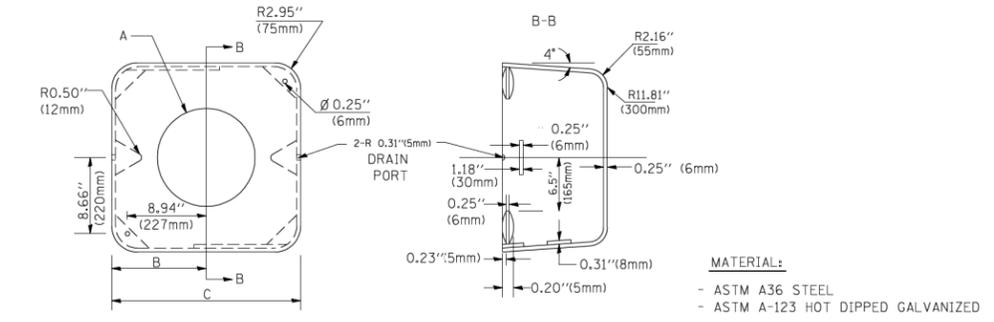
**NOTES:**

**GROUNDING SYSTEM**

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



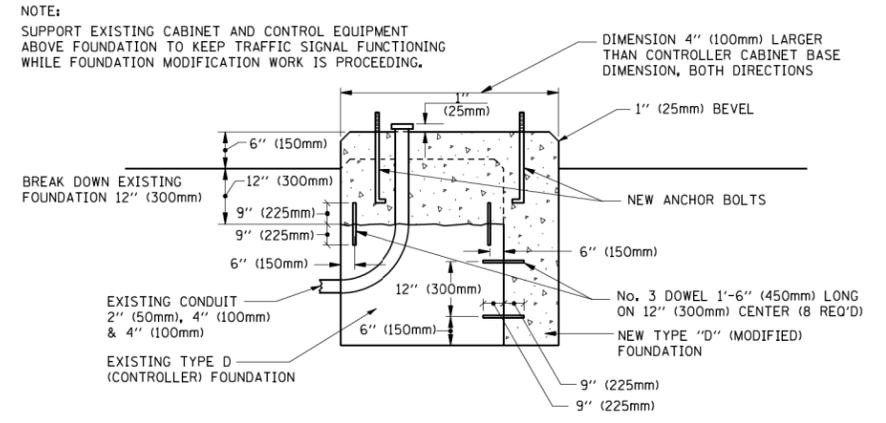
TRAFFIC SIGNAL POST - MOUNTING BASE - TYPE A



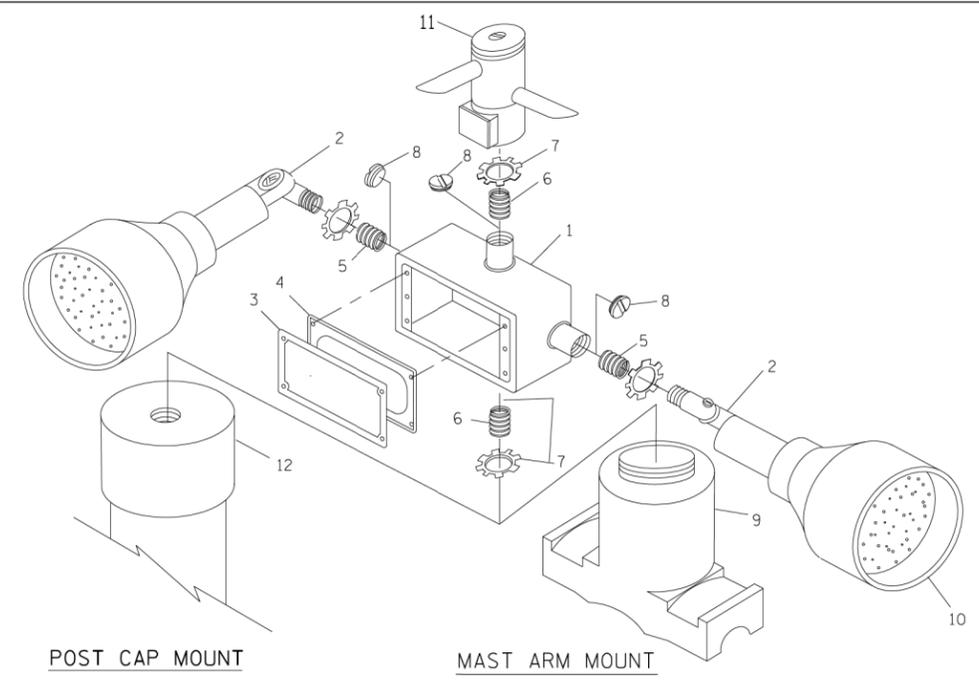
A	B	C	HEIGHT	WEIGHT
VARIABLES	9.5\" (241mm)	19\" (483mm)	7\" (178mm) - 12\" (300mm)	53 lbs (24kg)
VARIABLES	10.75\" (273mm)	21.5\" (546mm)	7\" (178mm) - 12\" (300mm)	68 lbs (31 kg)
VARIABLES	13.0\" (330mm)	26\" (660mm)	7\" (178mm) - 12\" (300mm)	81 lbs (37 kg)
VARIABLES	18.5\" (470mm)	37\" (940mm)	7\"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

SHROUD

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

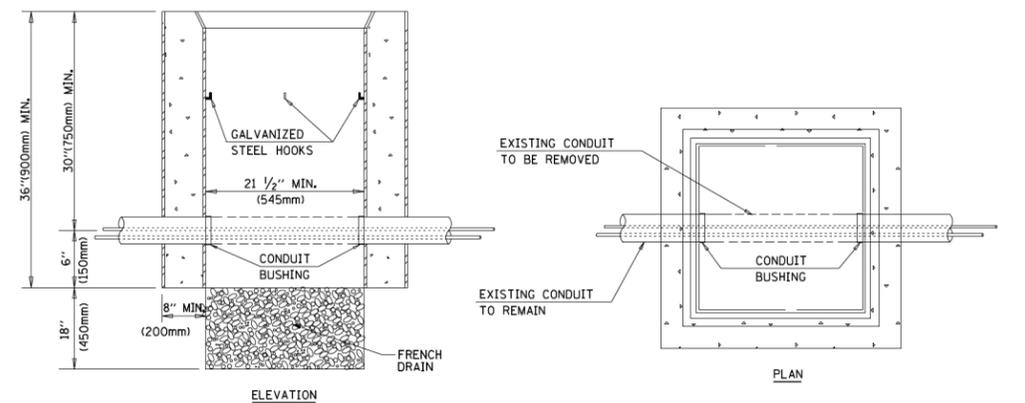


MODIFY EXISTING TYPE "D" FOUNDATION



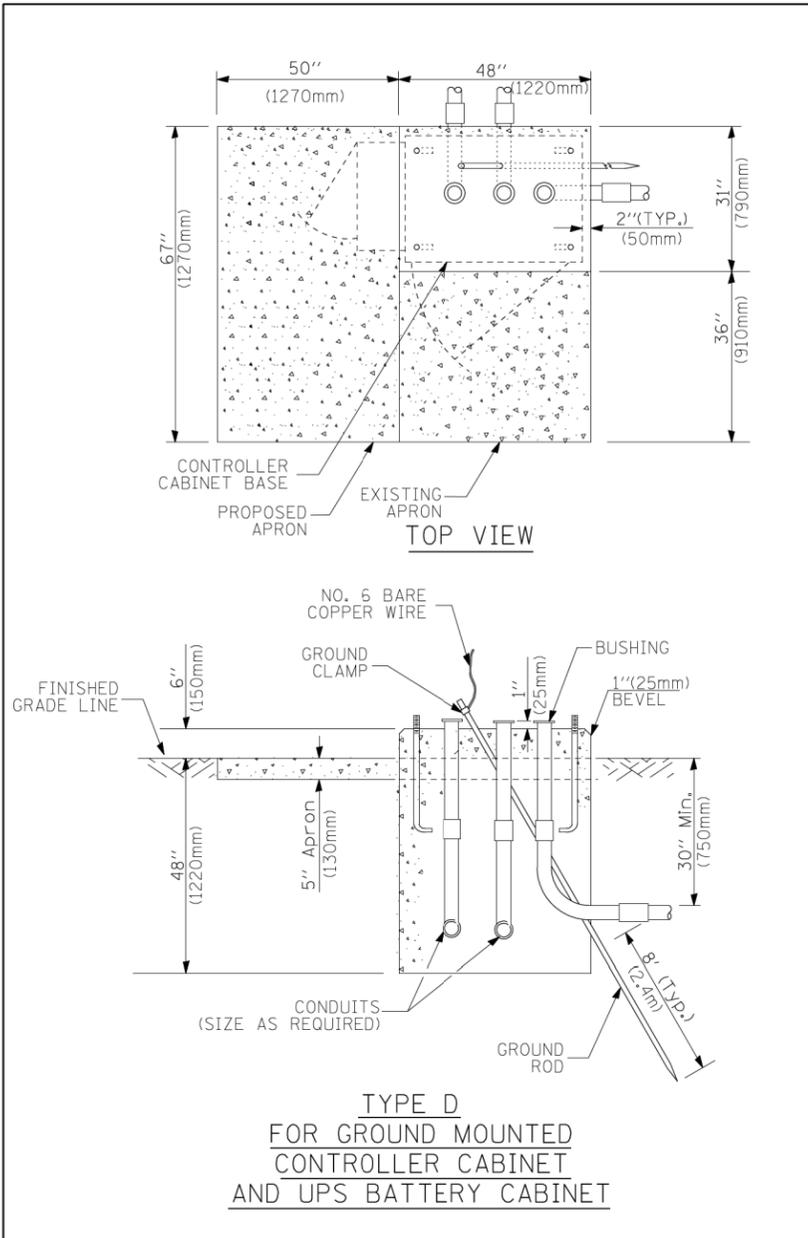
ITEM NO.	IDENTIFICATION
1	OUTLET BOX - GALV., 21 CU. IN. (0.000344 CU-M)
2	LAMP HOLDER AND COVER
3	OUTLET BOX COVER
4	RUBBER COVER GASKET
5	REDUCING BUSHING
6	3/4\" (19 mm) CLOSE NIPPLE
7	3/4\" (19 mm) LOCKNUT
8	3/4\" (19 mm) HOLE PLUG
9	SADDLE BRACKET - GALV.
10	6 WATT PAR 38 LED FLOOD LAMP
11	DETECTOR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

- NOTES:
- ALL ELECTRICAL ITEMS, EXCEPT ITEMS #2 AND #11 SHALL BE ALUMINUM OR GALVANIZED
  - ITEM #1- OZ/GEDNEY FSX-1-50 OR EQUIVALENT  
ITEM #2- MULBERRY CON-O-SHADE LAMP SHIELD OR EQUIVALENT  
ITEM #9- "BAND-IT" SADDLE BRACKET OR EQUIVALENT
  - WHEN POST MOUNTING IS SPECIFIED, ITEM #9 SHALL NOT BE REQUIRED. THE DETECTION UNIT SHALL BE MOUNTED DIRECTLY ON TOP OF THE CAP BY DRILLING AND TAPPING A 3/4\" (19 mm) HOLE WITH PIPE THREADS. THE POST CAP SHALL EITHER BE SCREWED TO THE TOP OF THE POST OR A MINIMUM OF 3 TIGHTENING SCREWS SHALL BE REQUIRED ON EACH CAP.

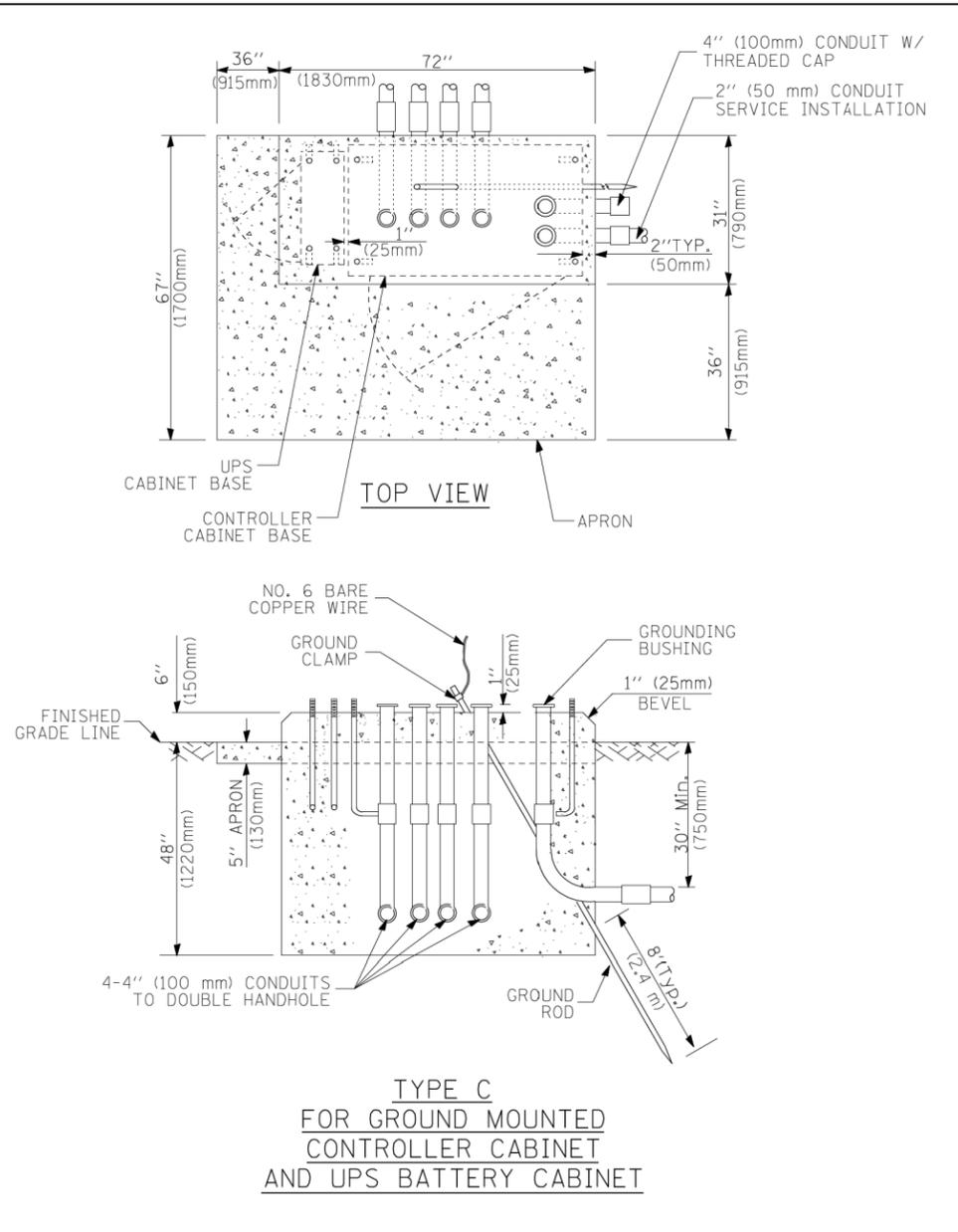


- NOTES:
- HANDHOLE CONSTRUCTED PER STATE STANDARD 814001.
  - REMOVAL OF THE EXISTING CONDUIT FROM THE HANDHOLE AND THE INSTALLATION OF THE CONDUIT BUSHINGS SHALL BE INCIDENTAL TO THE HANDHOLE.

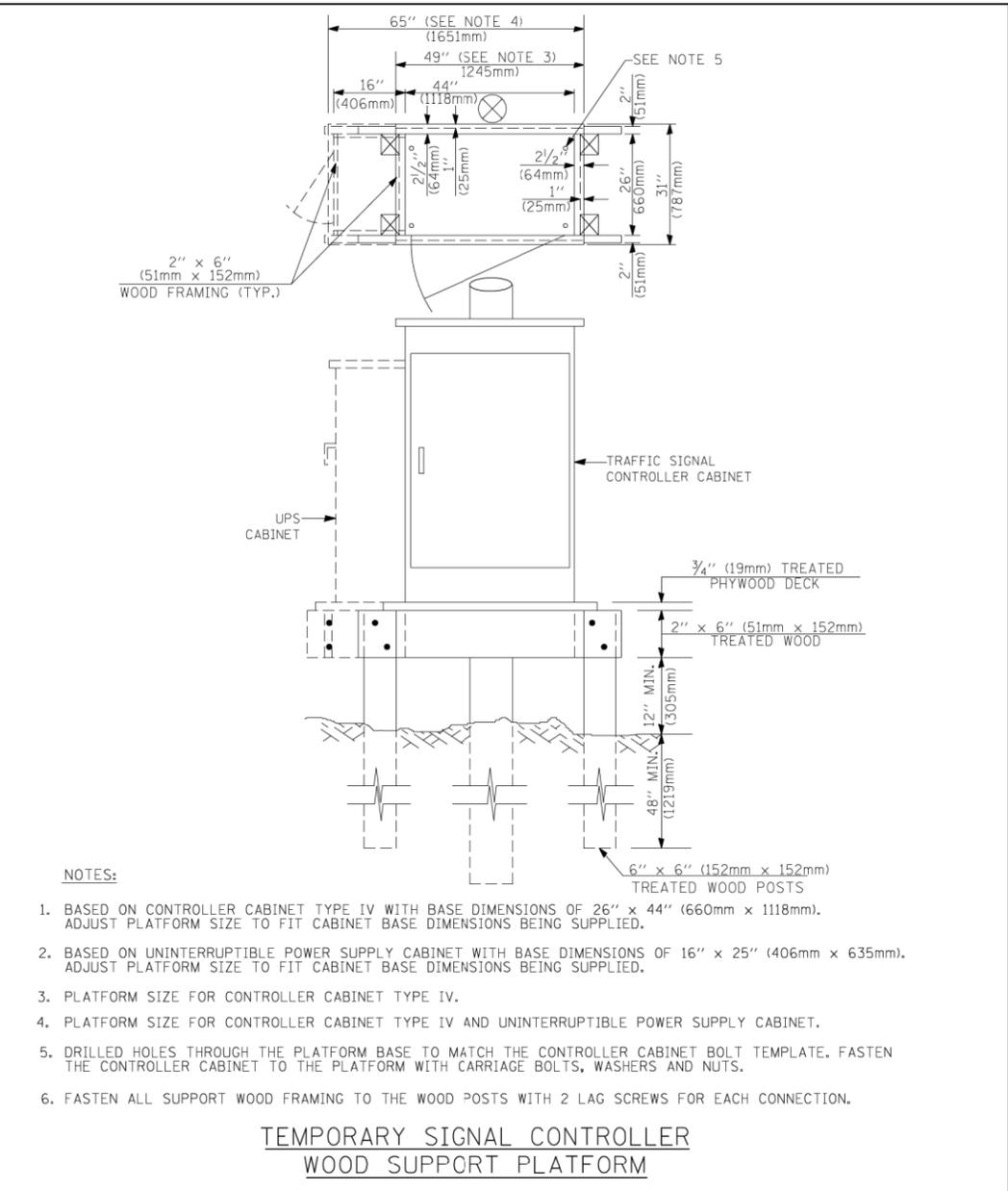
HANDHOLE TO INTERCEPT EXISTING CONDUIT



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



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



- NOTES:**
- 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.
  - 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.
  - PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV.
  - PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV AND UNINTERRUPTIBLE POWER SUPPLY CABINET.
  - 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.
  - FASTEN ALL SUPPORT WOOD FRAMING TO THE WOOD POSTS WITH 2 LAG SCREWS FOR EACH CONNECTION.

**TEMPORARY SIGNAL CONTROLLER  
WOOD SUPPORT PLATFORM**

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

**CABLE SLACK**

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

**VERTICAL CABLE LENGTH**

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

**DEPTH OF FOUNDATION**

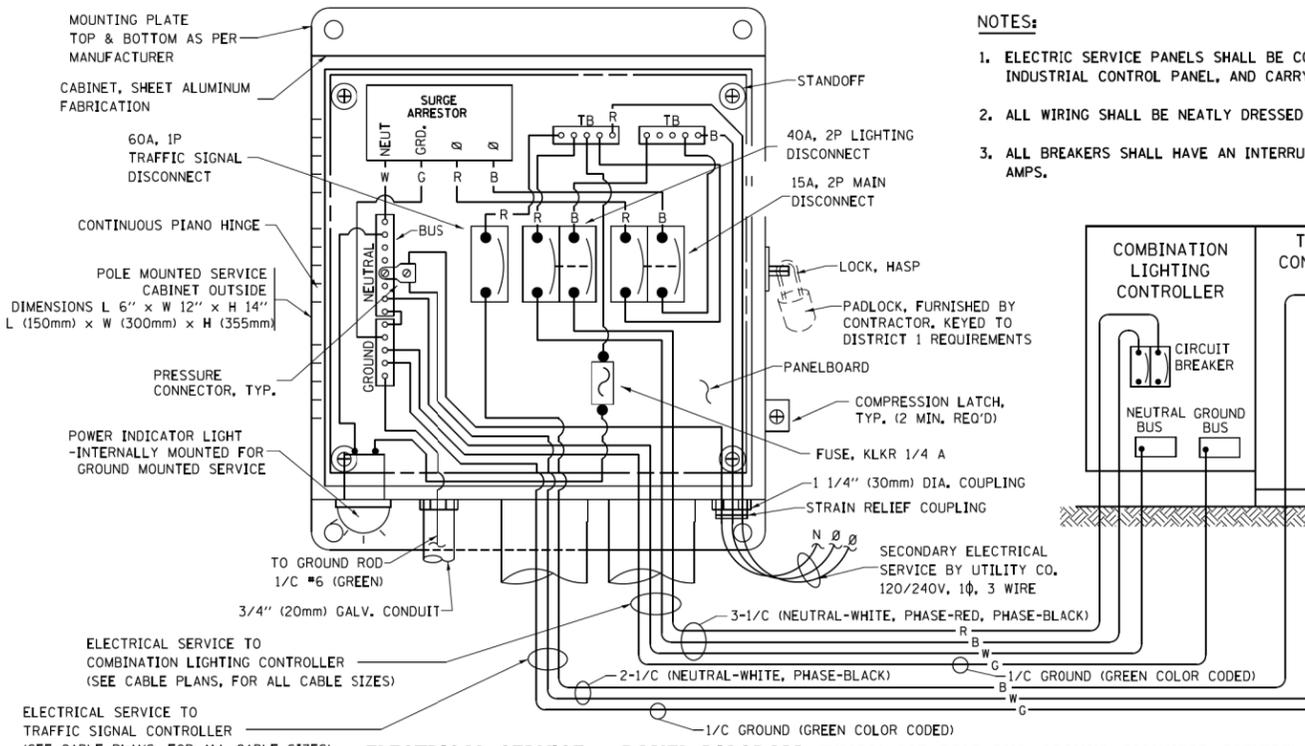
Mast Arm Length	① Foundation Depth	Foundation Diameter	Spiral Diameter	Quantity of Rebars	Size of Rebars
Less than 30' (9.1 m)	10'-0" (3.0 m)	30" (750mm)	24" (600mm)	8	6(19)
Greater than or equal to 30' (9.1 m) and less than 40' (12.2 m)	13'-6" (4.1 m)	30" (750mm)	24" (600mm)	8	6(19)
Greater than or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

- NOTES:**
- These foundation depths are for sites which have cohesive soils (clayey silt, sandy clay, etc.) along the length of the shaft, with an average Uncorrelated 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.
  - Combination mast arm assemblies under 55 feet (16.8 m) shall use 36" (900 mm) diameter foundations.
  - Combination mast arm assemblies under 56 feet (16.8 m) through 75 feet (22.9 m) shall use 42" (1060 mm) diameter foundations.
  - For mast arm assemblies with dual arms refer to state standard 878001.

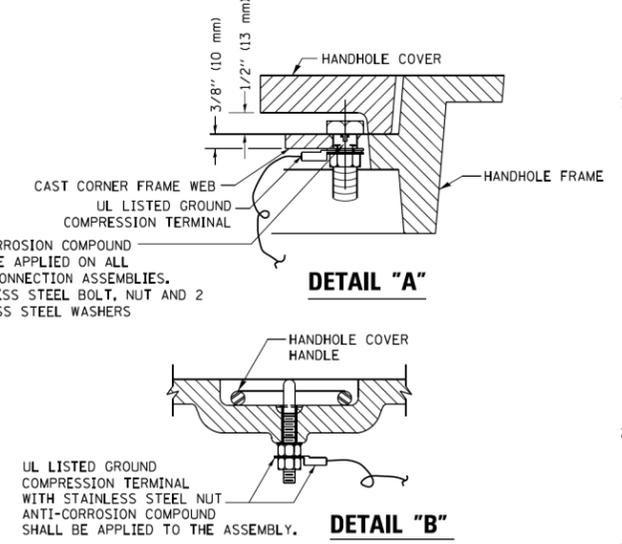
**DEPTH OF MAST ARM FOUNDATIONS, TYPE E**

# TRAFFIC SIGNAL LEGEND

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

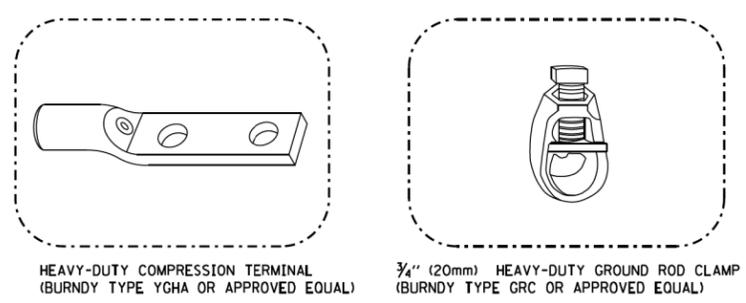
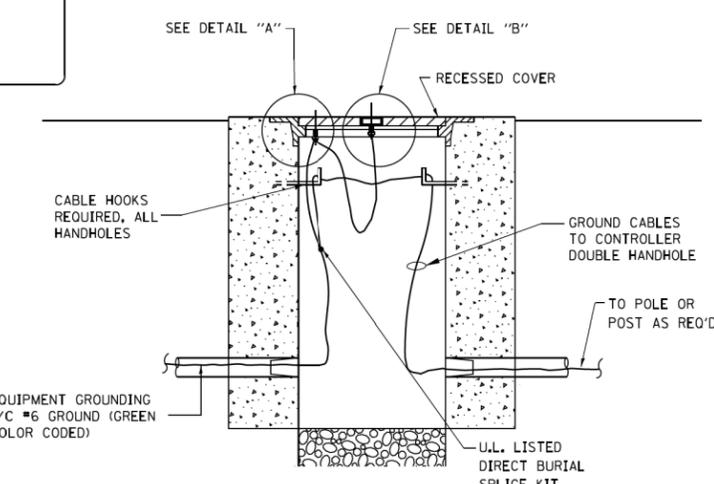


- NOTES:**
1. ELECTRIC SERVICE PANELS SHALL BE CONSTRUCTED TO U.L. STD 508, INDUSTRIAL CONTROL PANEL, AND CARRY THE U.L. LABEL.
  2. ALL WIRING SHALL BE NEATLY DRESSED AND SUPPORTED.
  3. ALL BREAKERS SHALL HAVE AN INTERRUPT RATING OF 22K RMS SYMMETRICAL AMPS.

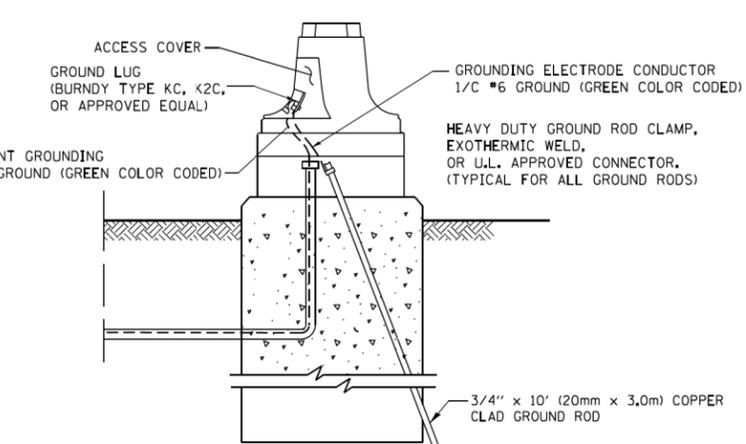
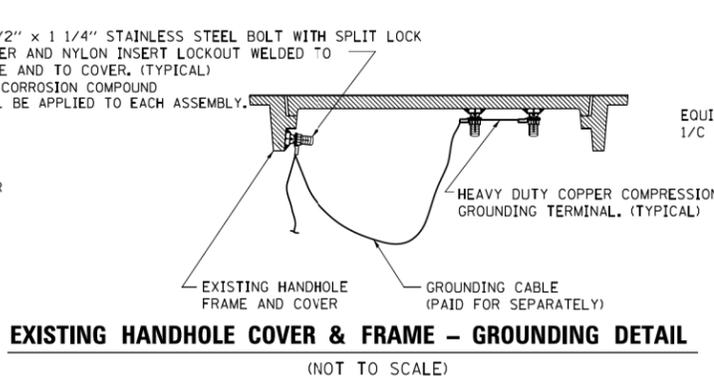
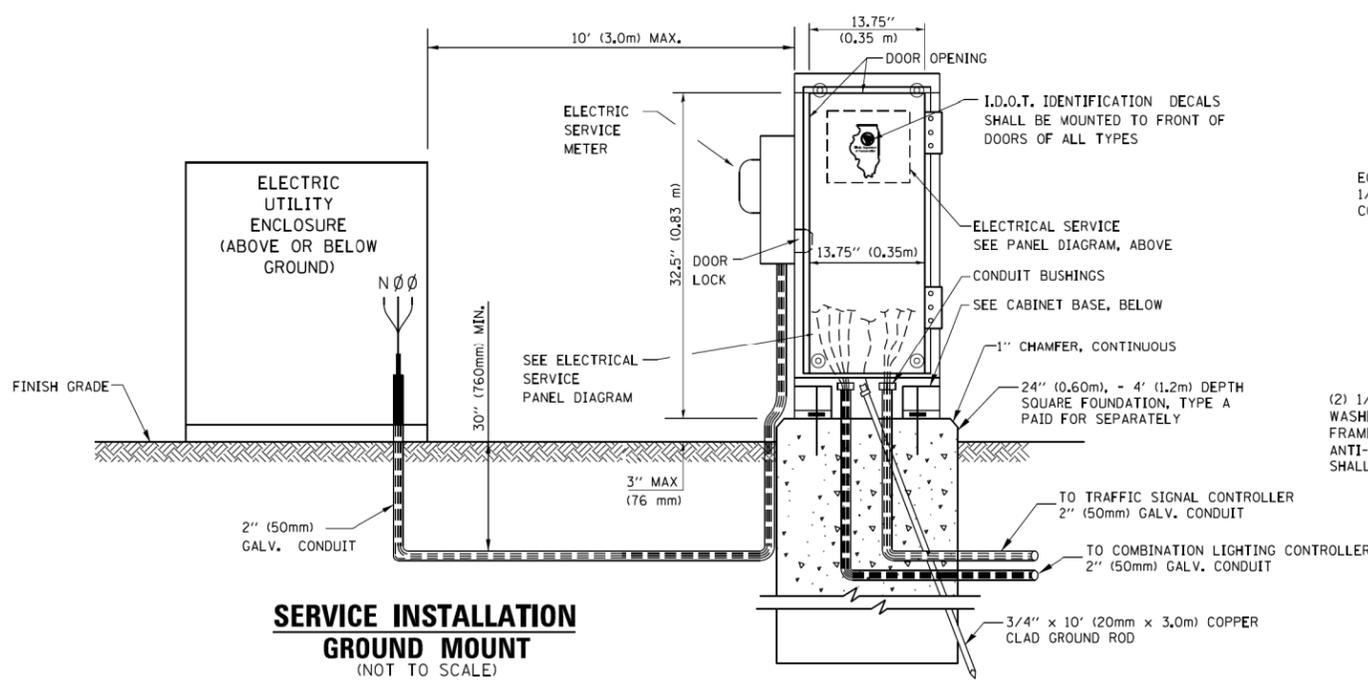


- NOTES:**
- GROUNDING SYSTEM**
1. THE GROUNDING SYSTEM SHALL CONSIST OF AN INSULATED CONDUCTOR TYPE XLP, NO. 6 A.W.G., STRANDED COPPER TO BE INSTALLED IN RACEWAYS. THE GROUNDING CABLE SHALL BE INSTALLED IN A CONTINUOUS MANNER AS SHOWN ON THE CABLE PLAN PROVIDED. ALL GROUNDING CONDUCTORS SHALL BE BONDED 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.

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



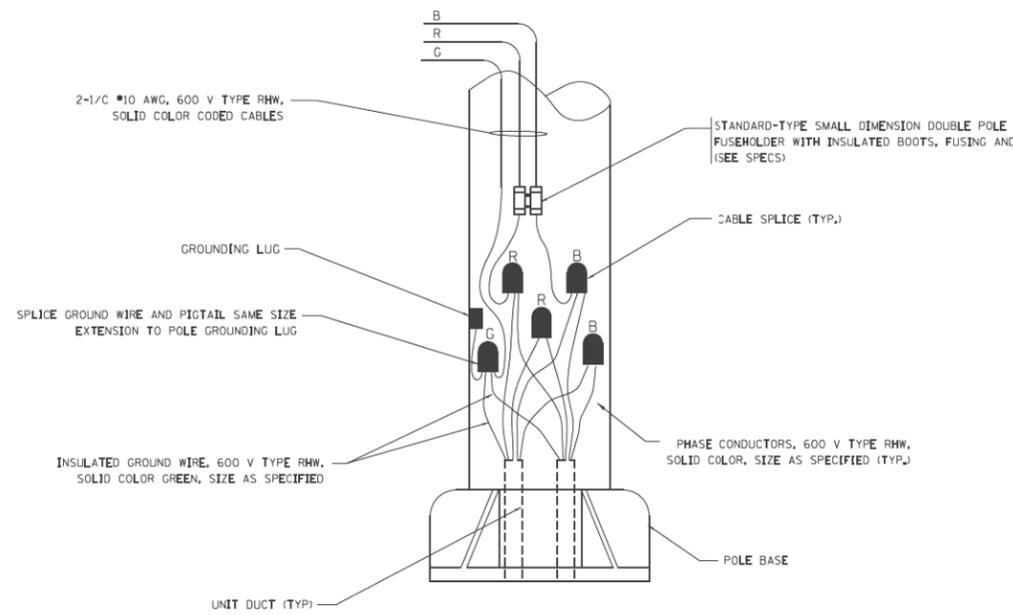
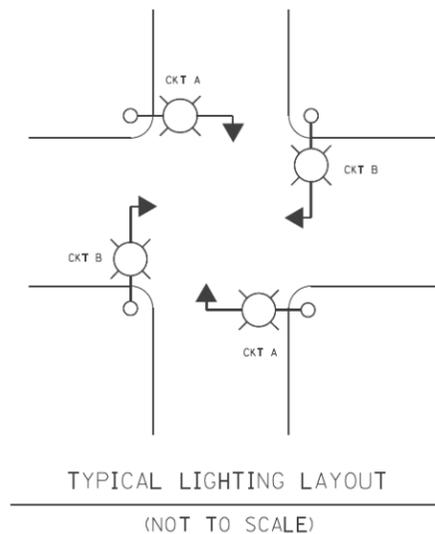
- NOTES:**
- ALL CLAMPS SHALL BE BRONZE OR COPPER, UL APPROVED.
  - GROUND CABLE SHALL BE LOOPED OVER HOOKS IN THE HANDHOLES 6.5' (2.0m) SLACK SHALL BE PROVIDED IN SINGLE HANDHOLES 13' (4.0m) OF SLACK SHALL BE PROVIDED IN DOUBLE HANDHOLES. 5' (1.4m) OF SLACK SHALL BE PROVIDED BETWEEN FRAME AND COVER.



FILE NAME =	USER NAME = pou1terma	DESIGNED - DAD	REVISED - MAP	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>DISTRICT 1 STANDARD COMBINATION LIGHTING DISCONNECT</b>	F.A.P. RTE. = 330	SECTION = 103R-4	COUNTY = COOK	TOTAL SHEETS = 877	SHEET NO. = 310		
DRAWN - BCK	CHECKED - DAD	REVISED -	SCALE:			SHEET NO. 7 OF 7 SHEETS	STA. TO STA.	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT	CONTRACT NO. 60M61		
PLOT SCALE = 999.9980' / 1in.	DATE = 8/24/11	REVISED -										
PLOT DATE = 9/20/2011		REVISED -										

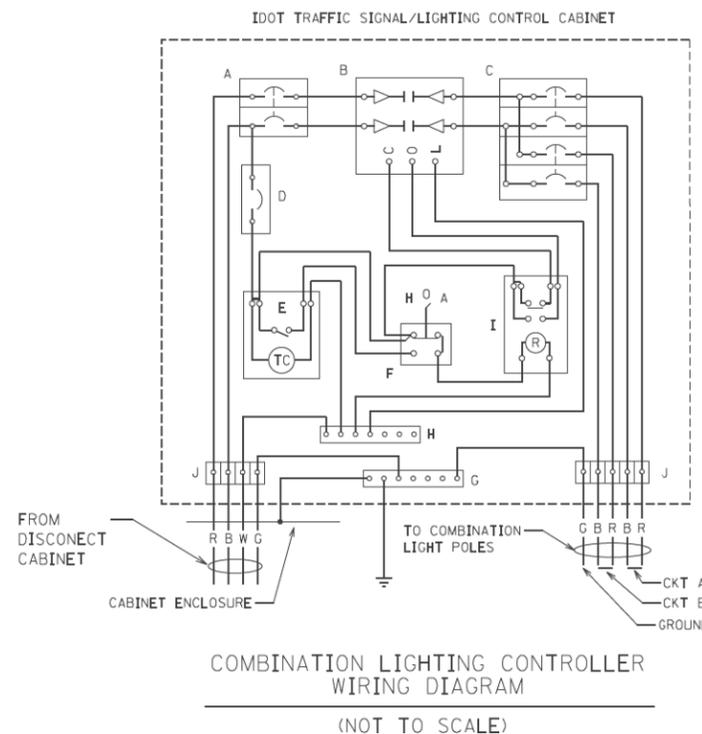
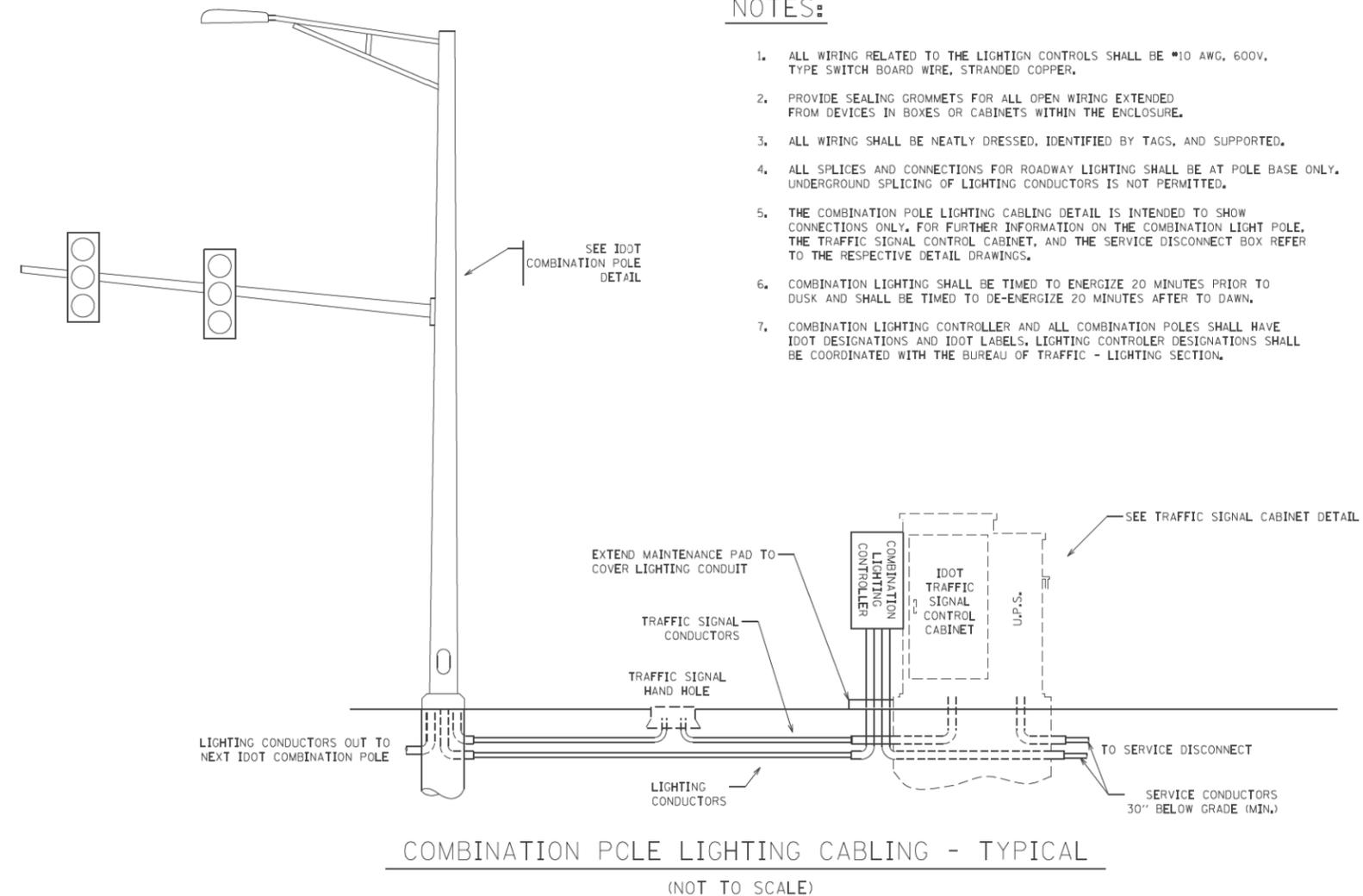
PANEL EQUIPMENT

BILL OF MATERIALS		
ITEM	QUANTITY	DESCRIPTION
A	1	CIRCUIT BREAKER, THERMAL MAGNETIC MOLDED CASE, 2 POLE, 240 VOLT 100 AMP FRAME, 30 AMP TRIP, INTERRUPTING RATING 22K RMS SYMMETRICALL AMP
B	1	REMOTE CONTROL SWITCH, ELECTRICALLY OPERATED, MECHANICALLY HELD, 2 POLE, SINGLE THROW, 30 AMP., 600 VOLTS CONTROL CIRCUIT 120 VOLT.
C	2	CIRCUIT BREAKERS, 2 POLE, 100 AMP. FRAME 20 AMP. NON-INTERCHANGABLE TRIP INTERRUPTING RATING NEMA 10,000 AMP AT 240 V.
D	1	CONTROL CIRCUIT-CIRCUIT BREAKER, 1 POLE, 100 AMP FRAME, 15 AMP NON-INTERCHANGABLE TRIP, INTERRUPTING RATING 22K RMS SYMMETRICAL AMP AT 240V.
E	1	ASTRONOMIC MICROPROCESSOR-BASED 2-CHANNEL CONTROLLER [TIME SWITCH]
F	1	H-O-A SWITCH
G	1	COPPER GROUND BUS 1/4" (6,35) X 1" (25,4) X 12" (304,8 mm) LONG MOUNTED ON PANEL WITH LUGS AND 4 SPARE LUGS
H	1	COPPER NEUTRAL BUS 1/4" (6,35) X 1" (25,4) X 12" (304,8 mm) LONG MOUNTED ON PANEL WITH LUGS AND 4 SPARE LUGS
I	1	RELAY, 2 POLE, SINGLE THROW, 120 VOLT COIL, CURRENT RATING TO BE COORDINATED WITH CONTACTOR
J	2	TERMINAL BLOCK



NOTES:

- ALL WIRING RELATED TO THE LIGHTING CONTROLS SHALL BE #10 AWG, 600V, TYPE SWITCH BOARD WIRE, STRANDED COPPER.
- PROVIDE SEALING GROMMETS FOR ALL OPEN WIRING EXTENDED FROM DEVICES IN BOXES OR CABINETS WITHIN THE ENCLOSURE.
- ALL WIRING SHALL BE NEATLY DRESSED, IDENTIFIED BY TAGS, AND SUPPORTED.
- ALL SPLICES AND CONNECTIONS FOR ROADWAY LIGHTING SHALL BE AT POLE BASE ONLY. UNDERGROUND SPLICING OF LIGHTING CONDUCTORS IS NOT PERMITTED.
- THE COMBINATION POLE LIGHTING CABLING DETAIL IS INTENDED TO SHOW CONNECTIONS ONLY. FOR FURTHER INFORMATION ON THE COMBINATION LIGHT POLE, THE TRAFFIC SIGNAL CONTROL CABINET, AND THE SERVICE DISCONNECT BOX REFER TO THE RESPECTIVE DETAIL DRAWINGS.
- COMBINATION LIGHTING SHALL BE TIMED TO ENERGIZE 20 MINUTES PRIOR TO DUSK AND SHALL BE TIMED TO DE-ENERGIZE 20 MINUTES AFTER TO DAWN.
- COMBINATION LIGHTING CONTROLLER AND ALL COMBINATION POLES SHALL HAVE IDOT DESIGNATIONS AND IDOT LABELS, LIGHTING CONTROLLER DESIGNATIONS SHALL BE COORDINATED WITH THE BUREAU OF TRAFFIC - LIGHTING SECTION.



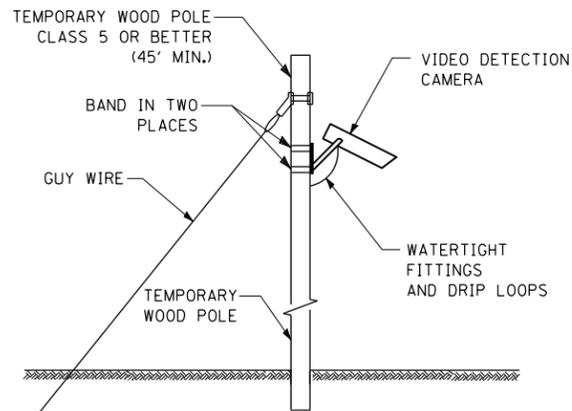
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cs:\pwork\pwidot\pou\terma\d0206851\pou\BackController.dgn		DRAWN - MP	REVISED -
	PLOT SCALE = 50.0000' / 1in.	CHECKED -	REVISED -
	PLOT DATE = 9/20/2011	DATE - 8/24/11	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

COMBINATION LIGHTING CONTROLLER

SCALE: NTS SHEET NO. 1 OF 1 SHEETS STA. TO STA.

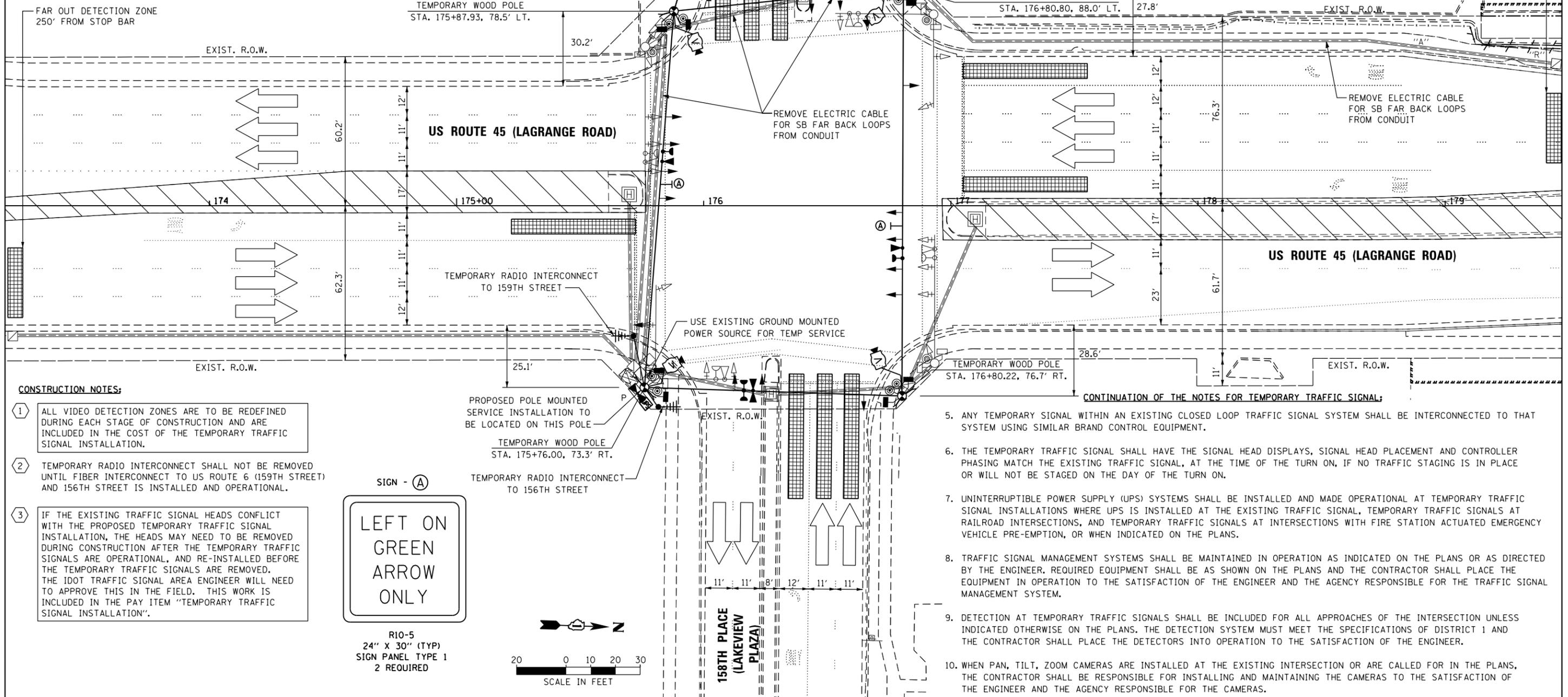
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	311
CONTRACT NO. 60M61			ILLINOIS FED. AID PROJECT	



**TEMPORARY VIDEO DETECTION MOUNTING DETAIL**  
(NOT TO SCALE)

**NOTES FOR TEMPORARY TRAFFIC SIGNAL:**

1. ALL CONTROL EQUIPMENT SUCH AS COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNAL(S) SHALL BE FURNISHED BY THE CONTRACTOR.
2. ONLY CONTROLLERS SUPPLIED BY ONE OF THE DISTRICT APPROVED CLOSED LOOP EQUIPMENT MANUFACTURERS WILL BE APPROVED FOR USE AT TEMPORARY SIGNAL LOCATIONS. ALL CONTROLLERS USED FOR TEMPORARY TRAFFIC SIGNALS SHALL BE FULLY ACTUATED NEMA MICROPROCESSOR BASED WITH RS232 DATA ENTRY PORTS COMPATIBLE WITH EXISTING MONITORING SOFTWARE APPROVED BY IDOT DISTRICT 1, INSTALLED IN A NEMA TS2 CABINET. ONLY ONE BRAND OF CONTROLLER WILL BE ACCEPTED FOR ANY ONE CONTRACT.
3. ALL TRAFFIC SIGNAL SECTIONS AND PEDESTRIAN SIGNAL SECTIONS SHALL BE LED AND 12" (300mm) DIAMETER. HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. PEDESTRIAN SIGNALS SHALL INCLUDE SOLID INTERNATIONAL SYMBOLS. PEDESTRIAN SIGNALS WITH COUNTDOWN TIMERS SHALL BE USED WHEN THE EXISTING INSTALLATION UTILIZES COUNTDOWN TYPE OR AS DIRECTED BY THE ENGINEER. COUNTDOWN TYPE PEDESTRIAN SIGNALS ARE NOT TO BE INSTALLED AT A RAILROAD INTERSECTION. THE CONTRACTOR SHALL FURNISH ENOUGH CABLE SLACK TO RELOCATE HEADS TO ANY POSITION ON THE SPAN WIRE OR AT LOCATIONS ILLUSTRATED ON THE PLANS FOR CONSTRUCTION STAGING. THE TEMPORARY TRAFFIC SIGNAL SHALL REMAIN IN OPERATION DURING ALL SIGNAL HEAD RELOCATIONS. EACH TEMPORARY TRAFFIC SIGNAL HEAD SHALL HAVE ITS OWN CABLE FROM THE CONTROLLER CABINET TO THE SIGNAL HEAD.
4. ALL EXISTING STREET NAME AND INTERSECTION REGULATORY SIGNS SHALL BE REMOVED FROM EXISTING POLES, RELOCATED AND SECURELY FASTENED TO THE SPAN WIRE OR WOOD POLE AS DIRECTED BY THE ENGINEER.



**CONTINUATION OF THE NOTES FOR TEMPORARY TRAFFIC SIGNAL:**

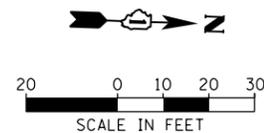
5. ANY TEMPORARY SIGNAL WITHIN AN EXISTING CLOSED LOOP TRAFFIC SIGNAL SYSTEM SHALL BE INTERCONNECTED TO THAT SYSTEM USING SIMILAR BRAND CONTROL EQUIPMENT.
6. THE TEMPORARY TRAFFIC SIGNAL SHALL HAVE THE SIGNAL HEAD DISPLAYS, SIGNAL HEAD PLACEMENT AND CONTROLLER PHASING MATCH THE EXISTING TRAFFIC SIGNAL, AT THE TIME OF THE TURN ON, IF NO TRAFFIC STAGING IS IN PLACE OR WILL NOT BE STAGED ON THE DAY OF THE TURN ON.
7. UNINTERRUPTIBLE POWER SUPPLY (UPS) SYSTEMS SHALL BE INSTALLED AND MADE OPERATIONAL AT TEMPORARY TRAFFIC SIGNAL INSTALLATIONS WHERE UPS IS INSTALLED AT THE EXISTING TRAFFIC SIGNAL, TEMPORARY TRAFFIC SIGNALS AT RAILROAD INTERSECTIONS, AND TEMPORARY TRAFFIC SIGNALS AT INTERSECTIONS WITH FIRE STATION ACTUATED EMERGENCY VEHICLE PRE-EMPTION, OR WHEN INDICATED ON THE PLANS.
8. TRAFFIC SIGNAL MANAGEMENT SYSTEMS SHALL BE MAINTAINED IN OPERATION AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER. REQUIRED EQUIPMENT SHALL BE AS SHOWN ON THE PLANS AND THE CONTRACTOR SHALL PLACE THE EQUIPMENT IN OPERATION TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE TRAFFIC SIGNAL MANAGEMENT SYSTEM.
9. DETECTION AT TEMPORARY TRAFFIC SIGNALS SHALL BE INCLUDED FOR ALL APPROACHES OF THE INTERSECTION UNLESS INDICATED OTHERWISE ON THE PLANS. THE DETECTION SYSTEM MUST MEET THE SPECIFICATIONS OF DISTRICT 1 AND THE CONTRACTOR SHALL PLACE THE DETECTORS INTO OPERATION TO THE SATISFACTION OF THE ENGINEER.
10. WHEN PAN, TILT, ZOOM CAMERAS ARE INSTALLED AT THE EXISTING INTERSECTION OR ARE CALLED FOR IN THE PLANS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING AND MAINTAINING THE CAMERAS TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE CAMERAS.

**CONSTRUCTION NOTES:**

1. ALL VIDEO DETECTION ZONES ARE TO BE REDEFINED DURING EACH STAGE OF CONSTRUCTION AND ARE INCLUDED IN THE COST OF THE TEMPORARY TRAFFIC SIGNAL INSTALLATION.
2. TEMPORARY RADIO INTERCONNECT SHALL NOT BE REMOVED UNTIL FIBER INTERCONNECT TO US ROUTE 6 (159TH STREET) AND 156TH STREET IS INSTALLED AND OPERATIONAL.
3. IF THE EXISTING TRAFFIC SIGNAL HEADS CONFLICT WITH THE PROPOSED TEMPORARY TRAFFIC SIGNAL INSTALLATION, THE HEADS MAY NEED TO BE REMOVED DURING CONSTRUCTION AFTER THE TEMPORARY TRAFFIC SIGNALS ARE OPERATIONAL, AND RE-INSTALLED BEFORE THE TEMPORARY TRAFFIC SIGNALS ARE REMOVED. THE IDOT TRAFFIC SIGNAL AREA ENGINEER WILL NEED TO APPROVE THIS IN THE FIELD. THIS WORK IS INCLUDED IN THE PAY ITEM "TEMPORARY TRAFFIC SIGNAL INSTALLATION".



R10-5  
24" X 30" (TYP)  
SIGN PANEL TYPE 1  
2 REQUIRED



URS  
100 S. WACKER DR.  
SUITE 600  
CHICAGO, IL 60606  
TEL (312) 935-1000  
FAX (312) 935-4998

FILE NAME = D160M61-SHT-TS01.dgn	USER NAME = Anthony.Plutz	DESIGNED - MRF	REVISED -
		DRAWN - MRF	REVISED -
		CHECKED - MJL	REVISED -
SHT.PLAN	PLOT DATE = 3/14/2013	DATE - 03/13/2013	REVISED -

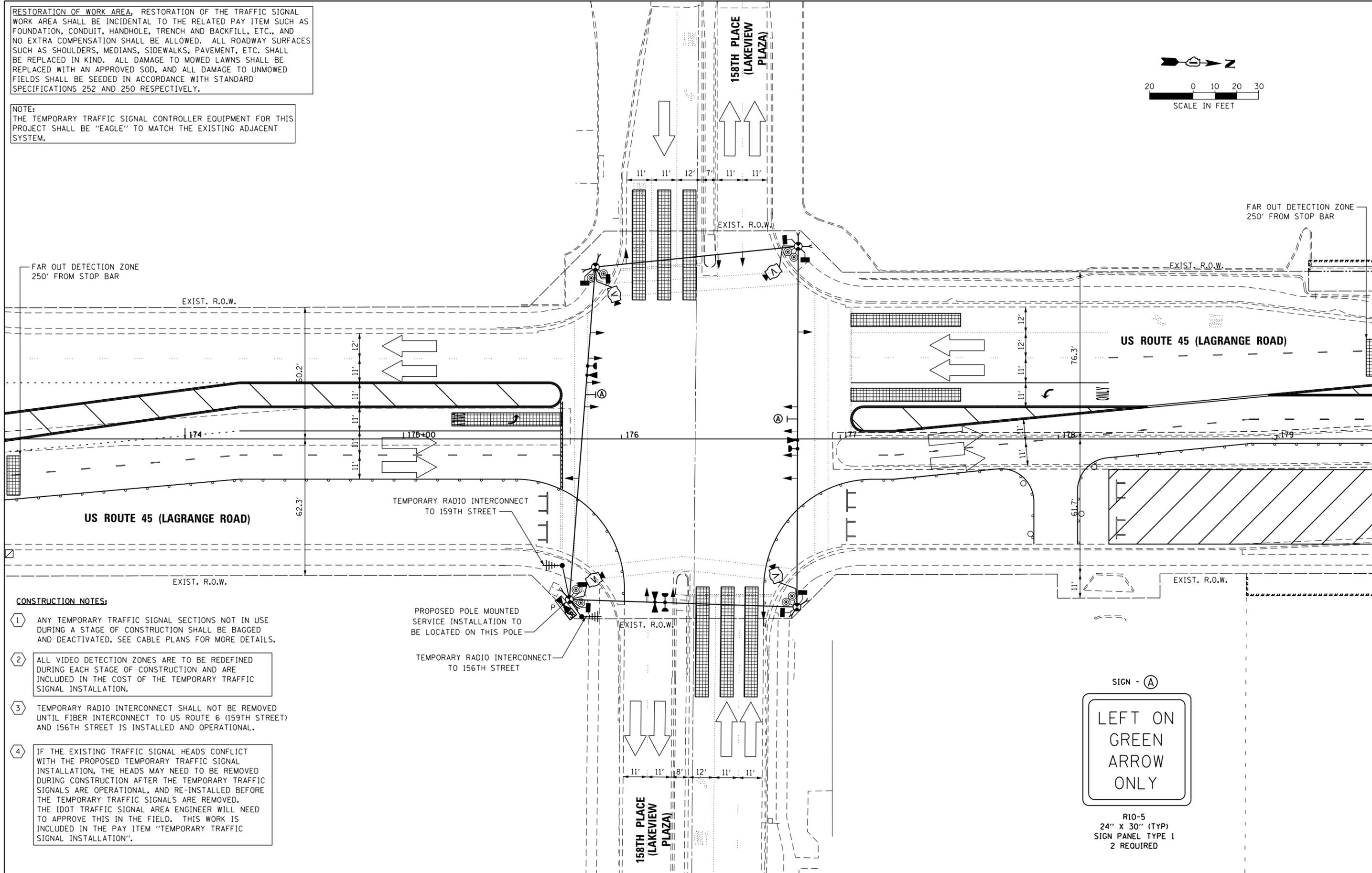
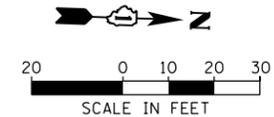
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

**TEMPORARY TRAFFIC SIGNAL INSTALLATION AND REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT PLAN - PRE-STAGE**  
**US 45 (LAGRANGE ROAD) AND 158TH PLACE (LAKEVIEW PLAZA)**  
SCALE: 1"=20' SHEET 1 OF 5 SHEETS STA. TO STA.

F.A.P. RTE. 330	SECTION 103R-4	COUNTY COOK	TOTAL SHEETS 877	SHEET NO. 312
TD-01		CONTRACT NO. 60M61		
ILLINOIS FED. AID PROJECT				

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

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



**CONSTRUCTION NOTES:**

- 1 ANY TEMPORARY TRAFFIC SIGNAL SECTIONS NOT IN USE DURING A STAGE OF CONSTRUCTION SHALL BE BAGGED AND DEACTIVATED. SEE CABLE PLANS FOR MORE DETAILS.
- 2 ALL VIDEO DETECTION ZONES ARE TO BE REDEFINED DURING EACH STAGE OF CONSTRUCTION AND ARE INCLUDED IN THE COST OF THE TEMPORARY TRAFFIC SIGNAL INSTALLATION.
- 3 TEMPORARY RADIO INTERCONNECT SHALL NOT BE REMOVED UNTIL FIBER INTERCONNECT TO US ROUTE 6 (159TH STREET) AND 156TH STREET IS INSTALLED AND OPERATIONAL.
- 4 IF THE EXISTING TRAFFIC SIGNAL HEADS CONFLICT WITH THE PROPOSED TEMPORARY TRAFFIC SIGNAL INSTALLATION, THE HEADS MAY NEED TO BE REMOVED DURING CONSTRUCTION AFTER THE TEMPORARY TRAFFIC SIGNALS ARE OPERATIONAL, AND RE-INSTALLED BEFORE THE TEMPORARY TRAFFIC SIGNALS ARE REMOVED. THE IDOT TRAFFIC SIGNAL AREA ENGINEER WILL NEED TO APPROVE THIS IN THE FIELD. THIS WORK IS INCLUDED IN THE PAY ITEM "TEMPORARY TRAFFIC SIGNAL INSTALLATION".

PROPOSED POLE MOUNTED SERVICE INSTALLATION TO BE LOCATED ON THIS POLE

TEMPORARY RADIO INTERCONNECT TO 156TH STREET



R10-5  
24" X 30" (TYP)  
SIGN PANEL TYPE 1  
2 REQUIRED

100 S. WACKER DR.  
 SUITE 600  
 CHICAGO, IL 60606  
 TEL (312) 939-1000  
 FAX (312) 939-4998  
**URS**

FILE NAME = D160M61-SHT-TS02.dgn	USER NAME = Anthony.Plutz	DESIGNED - MRF	REVISED -
		DRAWN - MRF	REVISED -
		CHECKED - MJL	REVISED -
SHT.PLAN	PLOT DATE = 3/14/2013	DATE - 03/13/2013	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

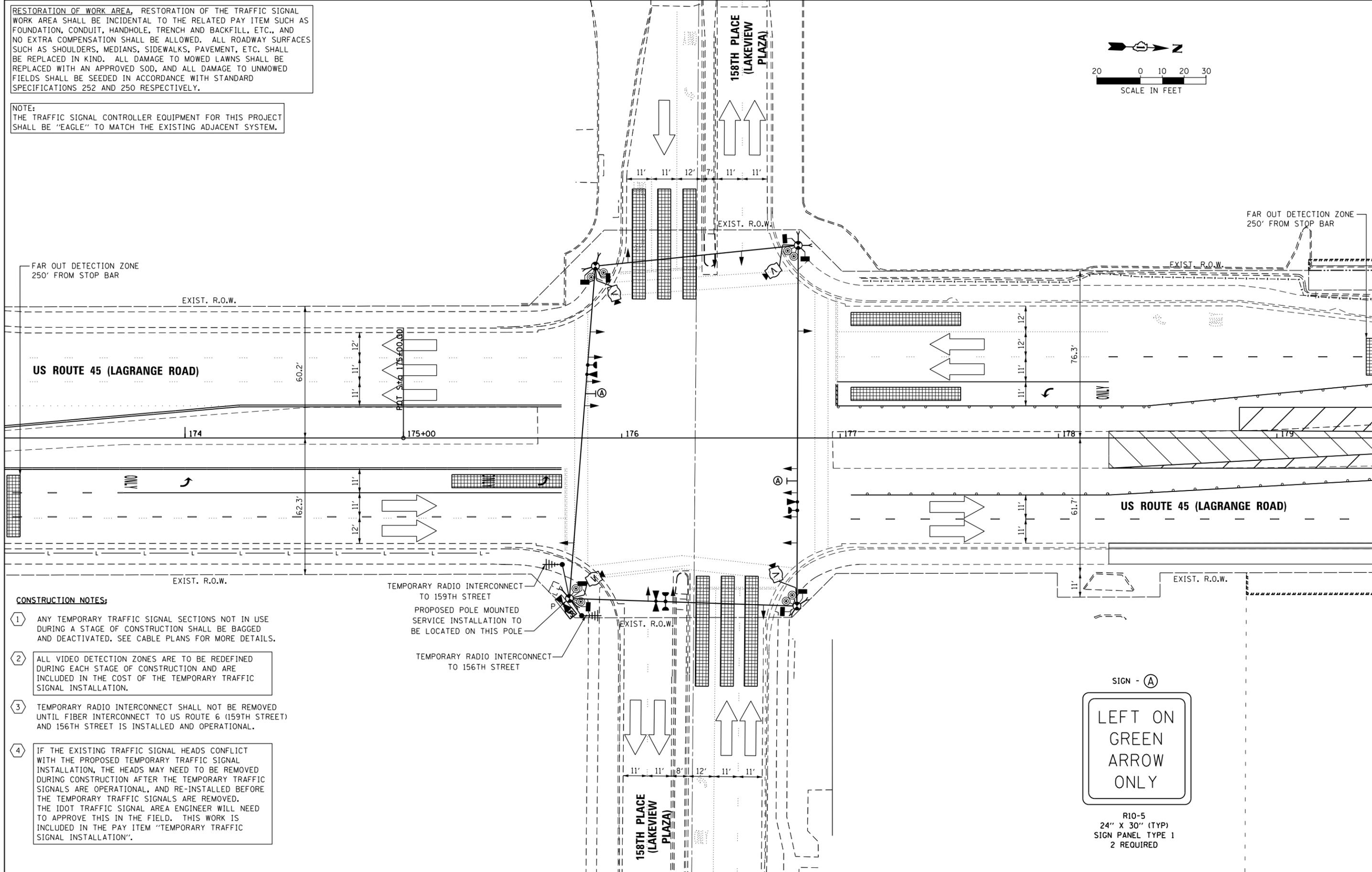
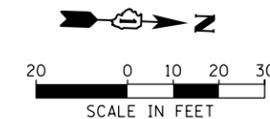
TEMPORARY TRAFFIC SIGNAL INSTALLATION - STAGE 1  
US 45 (LAGRANGE ROAD) AND 158TH PLACE (LAKEVIEW PLAZA)

SCALE: 1"=20' SHEET 2 OF 5 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	313
<b>TD-02</b>		CONTRACT NO. 60M61		
ILLINOIS FED. AID PROJECT				

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

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



**CONSTRUCTION NOTES:**

- 1 ANY TEMPORARY TRAFFIC SIGNAL SECTIONS NOT IN USE DURING A STAGE OF CONSTRUCTION SHALL BE BAGGED AND DEACTIVATED. SEE CABLE PLANS FOR MORE DETAILS.
- 2 ALL VIDEO DETECTION ZONES ARE TO BE REDEFINED DURING EACH STAGE OF CONSTRUCTION AND ARE INCLUDED IN THE COST OF THE TEMPORARY TRAFFIC SIGNAL INSTALLATION.
- 3 TEMPORARY RADIO INTERCONNECT SHALL NOT BE REMOVED UNTIL FIBER INTERCONNECT TO US ROUTE 6 (159TH STREET) AND 156TH STREET IS INSTALLED AND OPERATIONAL.
- 4 IF THE EXISTING TRAFFIC SIGNAL HEADS CONFLICT WITH THE PROPOSED TEMPORARY TRAFFIC SIGNAL INSTALLATION, THE HEADS MAY NEED TO BE REMOVED DURING CONSTRUCTION AFTER THE TEMPORARY TRAFFIC SIGNALS ARE OPERATIONAL, AND RE-INSTALLED BEFORE THE TEMPORARY TRAFFIC SIGNALS ARE REMOVED. THE IDOT TRAFFIC SIGNAL AREA ENGINEER WILL NEED TO APPROVE THIS IN THE FIELD. THIS WORK IS INCLUDED IN THE PAY ITEM "TEMPORARY TRAFFIC SIGNAL INSTALLATION".

TEMPORARY RADIO INTERCONNECT TO 159TH STREET  
PROPOSED POLE MOUNTED SERVICE INSTALLATION TO BE LOCATED ON THIS POLE

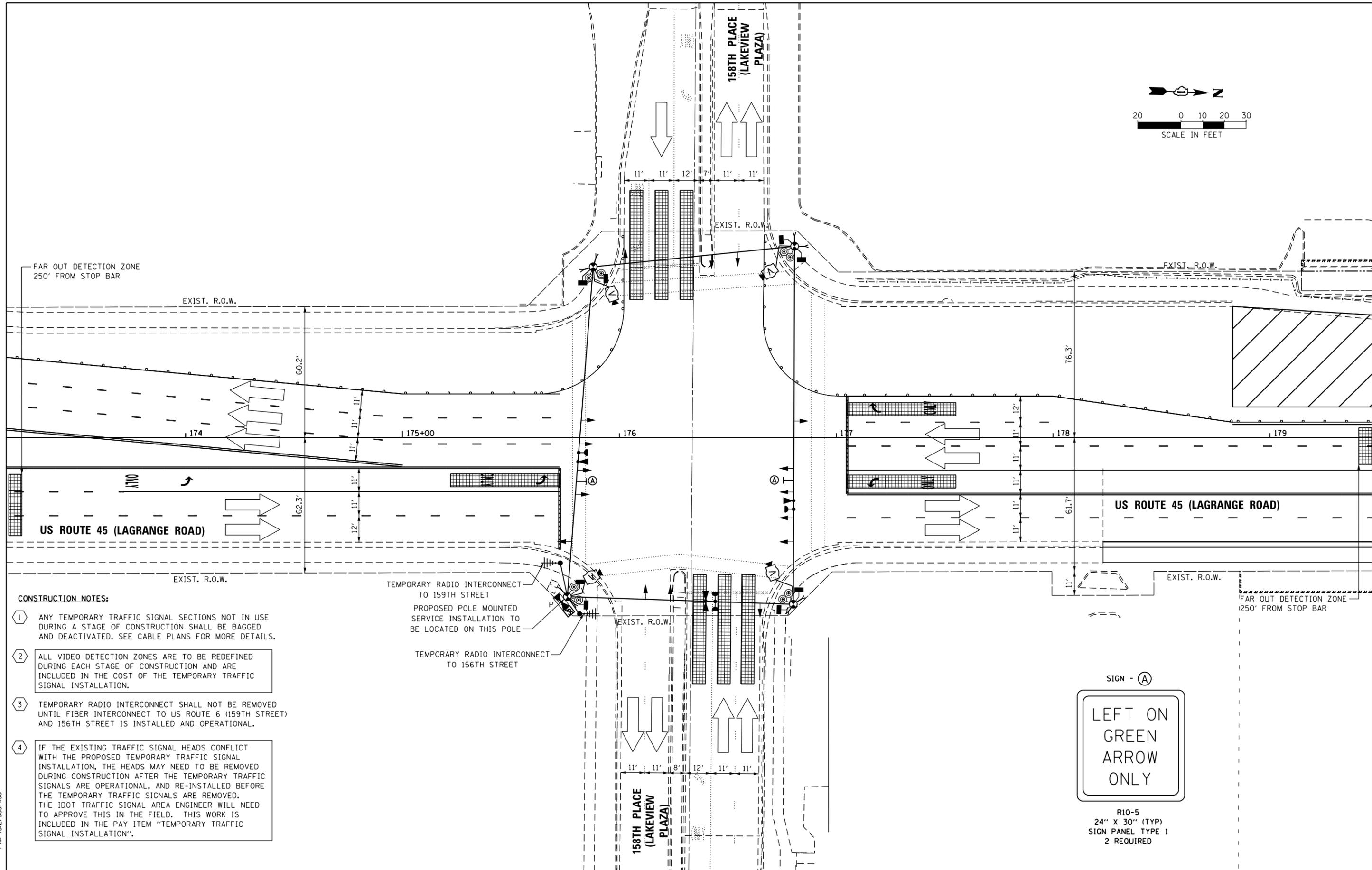
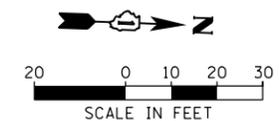
TEMPORARY RADIO INTERCONNECT TO 156TH STREET



R10-5  
24" X 30" (TYP)  
SIGN PANEL TYPE 1  
2 REQUIRED

100 S. WACKER DR.  
 SUITE 600  
 CHICAGO, IL 60606  
 TEL (312) 935-1000  
 FAX (312) 935-4998  
**URS**

FILE NAME = D160M61-SHT-TS03.dgn	USER NAME = Anthony.Plutz	DESIGNED - MRF	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>TEMPORARY TRAFFIC SIGNAL INSTALLATION - STAGE 2 US 45 (LAGRANGE ROAD) AND 158TH PLACE (LAKEVIEW PLAZA)</b>	F.A.P. RTE. = 330	SECTION = 103R-4	COUNTY = COOK	TOTAL SHEETS = 877	SHEET NO. = 314		
SHT.PLAN	PLOT SCALE = 48.0000' / in.	CHECKED - MJL	REVISED -			<b>TD-03</b>		<b>CONTRACT NO. 60M61</b>		ILLINOIS FED. AID PROJECT		
	PLOT DATE = 3/14/2013	DATE = 03/13/2013	REVISED -			SCALE: 1"=20'	SHEET 3 OF 5 SHEETS	STA. TO STA.				



- CONSTRUCTION NOTES:**
- 1 ANY TEMPORARY TRAFFIC SIGNAL SECTIONS NOT IN USE DURING A STAGE OF CONSTRUCTION SHALL BE BAGGED AND DEACTIVATED. SEE CABLE PLANS FOR MORE DETAILS.
  - 2 ALL VIDEO DETECTION ZONES ARE TO BE REDEFINED DURING EACH STAGE OF CONSTRUCTION AND ARE INCLUDED IN THE COST OF THE TEMPORARY TRAFFIC SIGNAL INSTALLATION.
  - 3 TEMPORARY RADIO INTERCONNECT SHALL NOT BE REMOVED UNTIL FIBER INTERCONNECT TO US ROUTE 6 (159TH STREET) AND 156TH STREET IS INSTALLED AND OPERATIONAL.
  - 4 IF THE EXISTING TRAFFIC SIGNAL HEADS CONFLICT WITH THE PROPOSED TEMPORARY TRAFFIC SIGNAL INSTALLATION, THE HEADS MAY NEED TO BE REMOVED DURING CONSTRUCTION AFTER THE TEMPORARY TRAFFIC SIGNALS ARE OPERATIONAL, AND RE-INSTALLED BEFORE THE TEMPORARY TRAFFIC SIGNALS ARE REMOVED. THE IDOT TRAFFIC SIGNAL AREA ENGINEER WILL NEED TO APPROVE THIS IN THE FIELD. THIS WORK IS INCLUDED IN THE PAY ITEM "TEMPORARY TRAFFIC SIGNAL INSTALLATION".

TEMPORARY RADIO INTERCONNECT TO 159TH STREET  
 PROPOSED POLE MOUNTED SERVICE INSTALLATION TO BE LOCATED ON THIS POLE

TEMPORARY RADIO INTERCONNECT TO 156TH STREET



100 S. WACKER DR.  
 SUITE 600  
 CHICAGO, IL 60606  
 TEL (312) 935-1000  
 FAX (312) 935-4998  
**URS**

FILE NAME = D160M61-SHT-TS04.dgn	USER NAME = Anthony.Plutz	DESIGNED - MRF	REVISED -
SHT.PLAN	PLOT SCALE = 40.0000' / in.	DRAWN - MRF	REVISED -
	PLOT DATE = 3/14/2013	CHECKED - MJL	REVISED -
		DATE - 03/13/2013	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

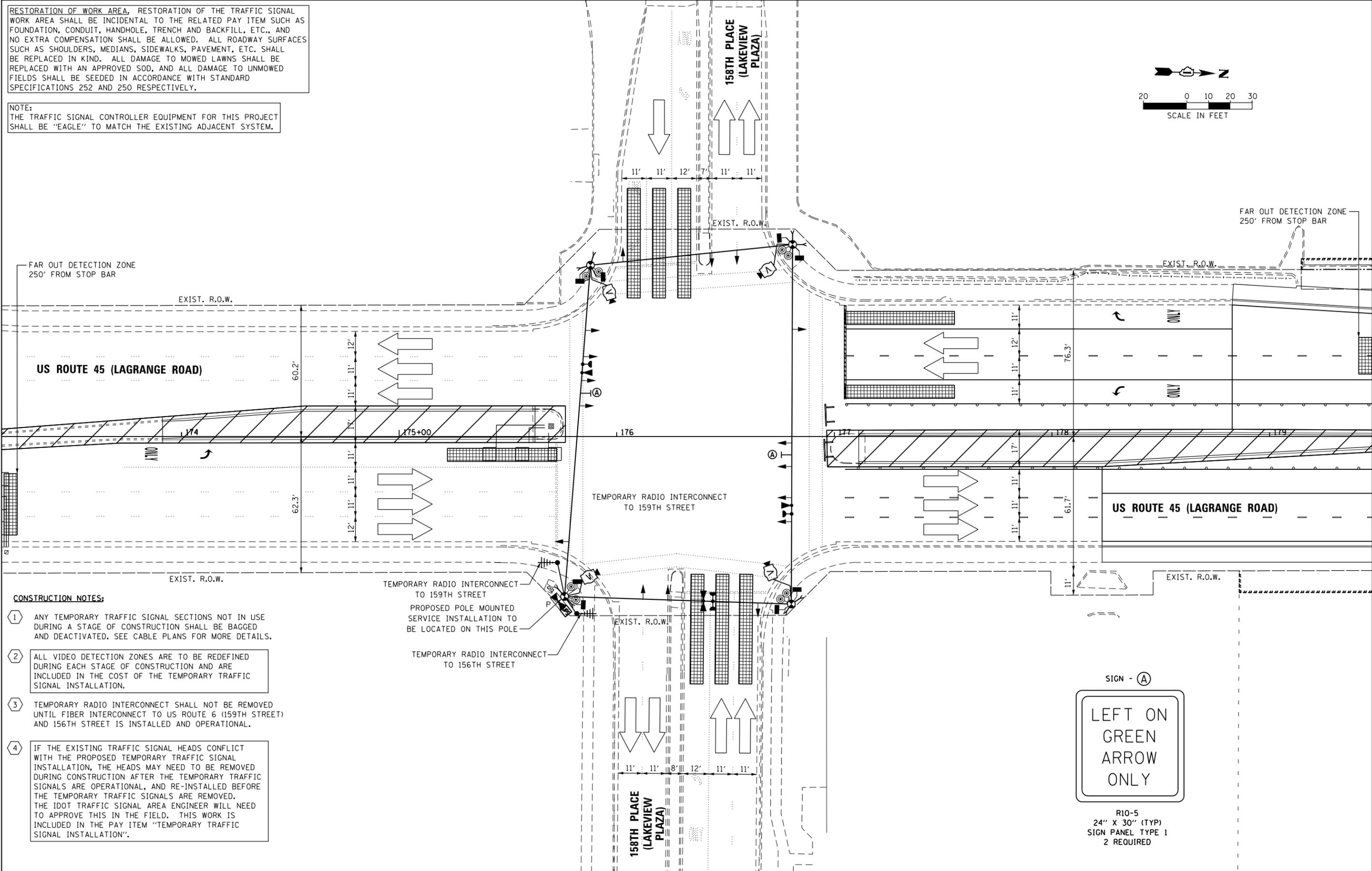
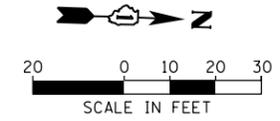
**TEMPORARY TRAFFIC SIGNAL INSTALLATION - STAGE 3  
 US 45 (LAGRANGE ROAD) AND 158TH PLACE (LAKEVIEW PLAZA)**

SCALE: 1"=20'    SHEET 4 OF 5 SHEETS    STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	315
<b>TD-04</b>		CONTRACT NO. 60M61		
ILLINOIS FED. AID PROJECT				

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

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



**CONSTRUCTION NOTES:**

- 1 ANY TEMPORARY TRAFFIC SIGNAL SECTIONS NOT IN USE DURING A STAGE OF CONSTRUCTION SHALL BE BAGGED AND DEACTIVATED. SEE CABLE PLANS FOR MORE DETAILS.
- 2 ALL VIDEO DETECTION ZONES ARE TO BE REDEFINED DURING EACH STAGE OF CONSTRUCTION AND ARE INCLUDED IN THE COST OF THE TEMPORARY TRAFFIC SIGNAL INSTALLATION.
- 3 TEMPORARY RADIO INTERCONNECT SHALL NOT BE REMOVED UNTIL FIBER INTERCONNECT TO US ROUTE 6 (159TH STREET) AND 156TH STREET IS INSTALLED AND OPERATIONAL.
- 4 IF THE EXISTING TRAFFIC SIGNAL HEADS CONFLICT WITH THE PROPOSED TEMPORARY TRAFFIC SIGNAL INSTALLATION, THE HEADS MAY NEED TO BE REMOVED DURING CONSTRUCTION AFTER THE TEMPORARY TRAFFIC SIGNALS ARE OPERATIONAL, AND RE-INSTALLED BEFORE THE TEMPORARY TRAFFIC SIGNALS ARE REMOVED. THE IDOT TRAFFIC SIGNAL AREA ENGINEER WILL NEED TO APPROVE THIS IN THE FIELD. THIS WORK IS INCLUDED IN THE PAY ITEM "TEMPORARY TRAFFIC SIGNAL INSTALLATION".

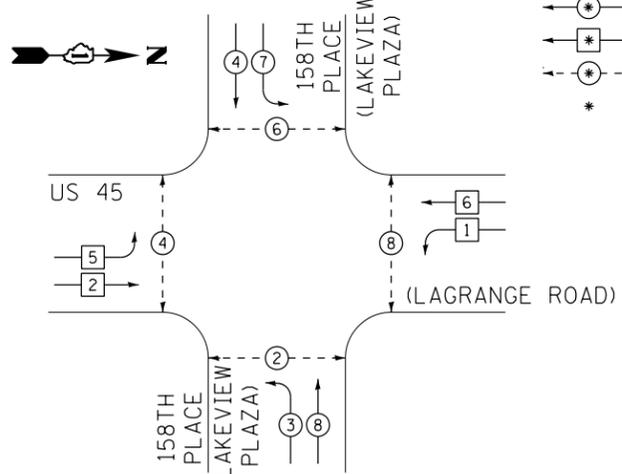


R10-5  
24" X 30" (TYP)  
SIGN PANEL TYPE 1  
2 REQUIRED

100 S. WACKER DR.  
 10TH FLOOR  
 CHICAGO, IL 60606  
 TEL (312) 935-1000  
 FAX (312) 935-4998  
**URS**

FILE NAME = D160M61-SHT-TS05.dgn	USER NAME = Anthony.Plutz	DESIGNED - MRF	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>TEMPORARY TRAFFIC SIGNAL INSTALLATION STAGE 4 &amp; FINAL GEOMETRICS US 45 (LAGRANGE ROAD) AND 158TH PLACE (LAKEVIEW PLAZA)</b>	F.A.P. RTE. = 330	SECTION = 103R-4	COUNTY = COOK	TOTAL SHEETS = 877	SHEET NO. = 316		
PLOT SCALE = 40.0000' / in.	CHECKED - MJL	REVISIED -	SCALE: 1"=20'			SHEET 5 OF 5 SHEETS	STA. TO STA.	<b>TD-05</b>		CONTRACT NO. 60M61		
PLOT DATE = 3/14/2013	DATE = 03/13/2013	REVISIED -	ILLINOIS FED. AID PROJECT									
SHT.PLAN												

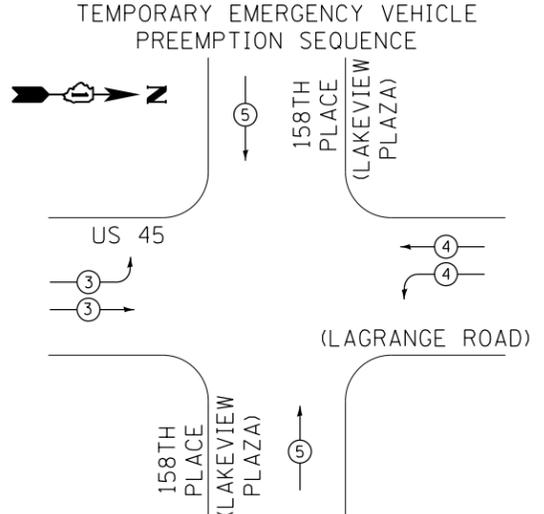
TEMPORARY CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM LEGEND

- ⊙ DUAL ENTRY PHASE
- ⊠ SINGLE ENTRY PHASE
- ⊙ PEDESTRIAN PHASE
- \* NUMBER REFERS TO ASSOCIATED PHASE

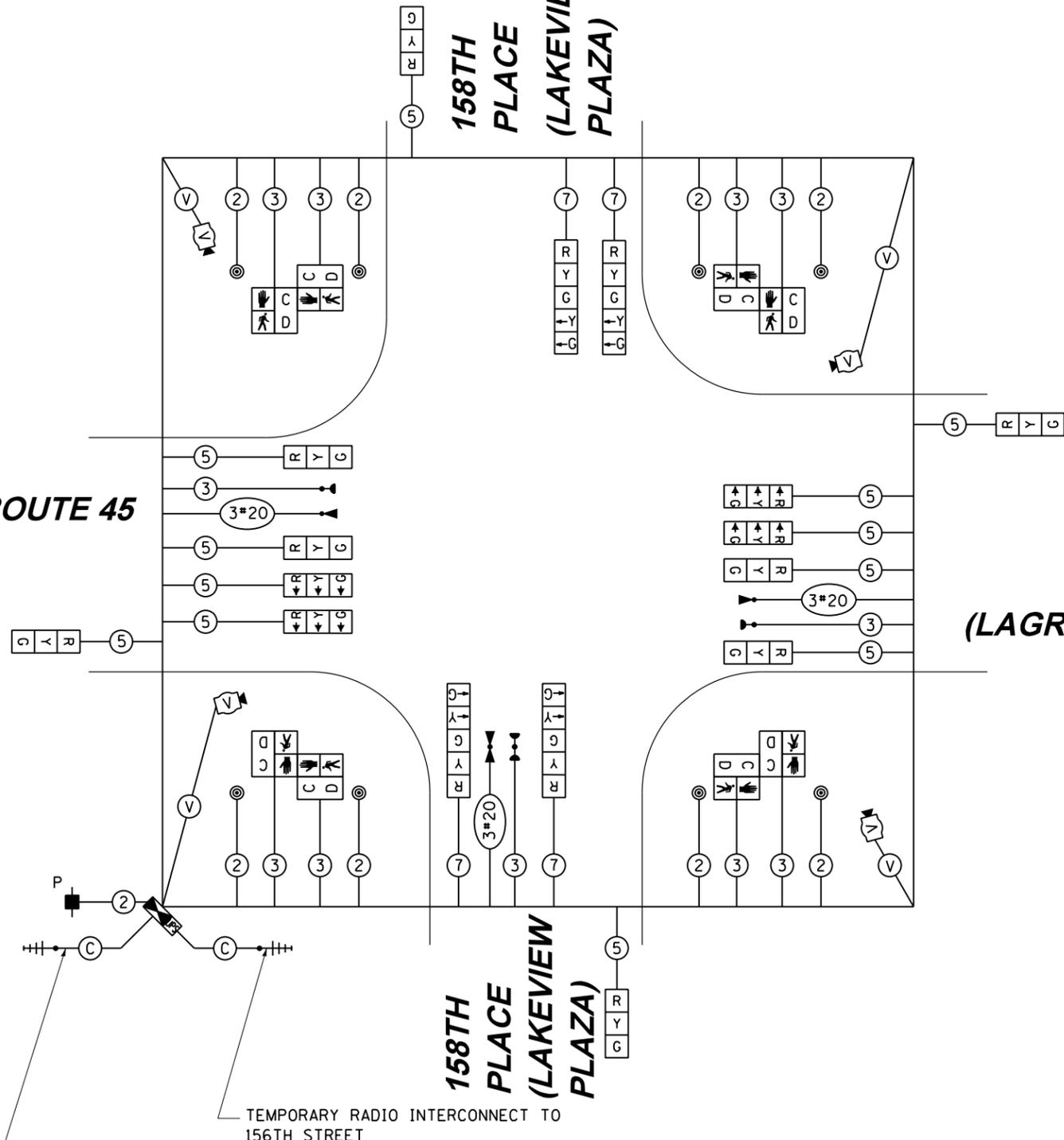
TEMPORARY PHASE DESIGNATION DIAGRAM



TEMPORARY EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTORS	3	4	5
MOVEMENT			

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS						TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE (INCANDE.)	LED	% OPERATION		
SIGNAL (RED)	16		17	0.50		136.0
(YELLOW)	16		25	0.25		100.0
(GREEN)	16		15	0.25		60.0
ARROW	8		12	0.10		9.6
PED. SIGNAL	8		25	1.00		200.0
CONTROLLER	1		100	1.00		100.0
ILLUM. SIGN	--		25	0.05		0.0
VIDEO SYSTEM	1		150	1.00		150.0
FLASHER			25	0.50		
ENERGY COST TO:					TOTAL=	755.6

VILLAGE OF ORLAND PARK  
14700 SOUTH RAVINIA AVE.  
ENERGY SUPPLY: CONTACT: KATHRYN SUGRUE  
PHONE: (708) 235-2337  
COMPANY: COMMONWEALTH EDISON



TEMPORARY CABLE PLAN  
PRESTAGE, STAGE 1, 2,  
3, 4 & FINAL GEOMETRICS

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

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

CONSTRUCTION NOTES:  
① TEMPORARY RADIO INTERCONNECT SHALL NOT BE REMOVED UNTIL FIBER INTERCONNECT TO US ROUTE 6 (159TH STREET) AND 156TH STREET INTERSECTIONS ARE INSTALLED AND OPERATIONAL.

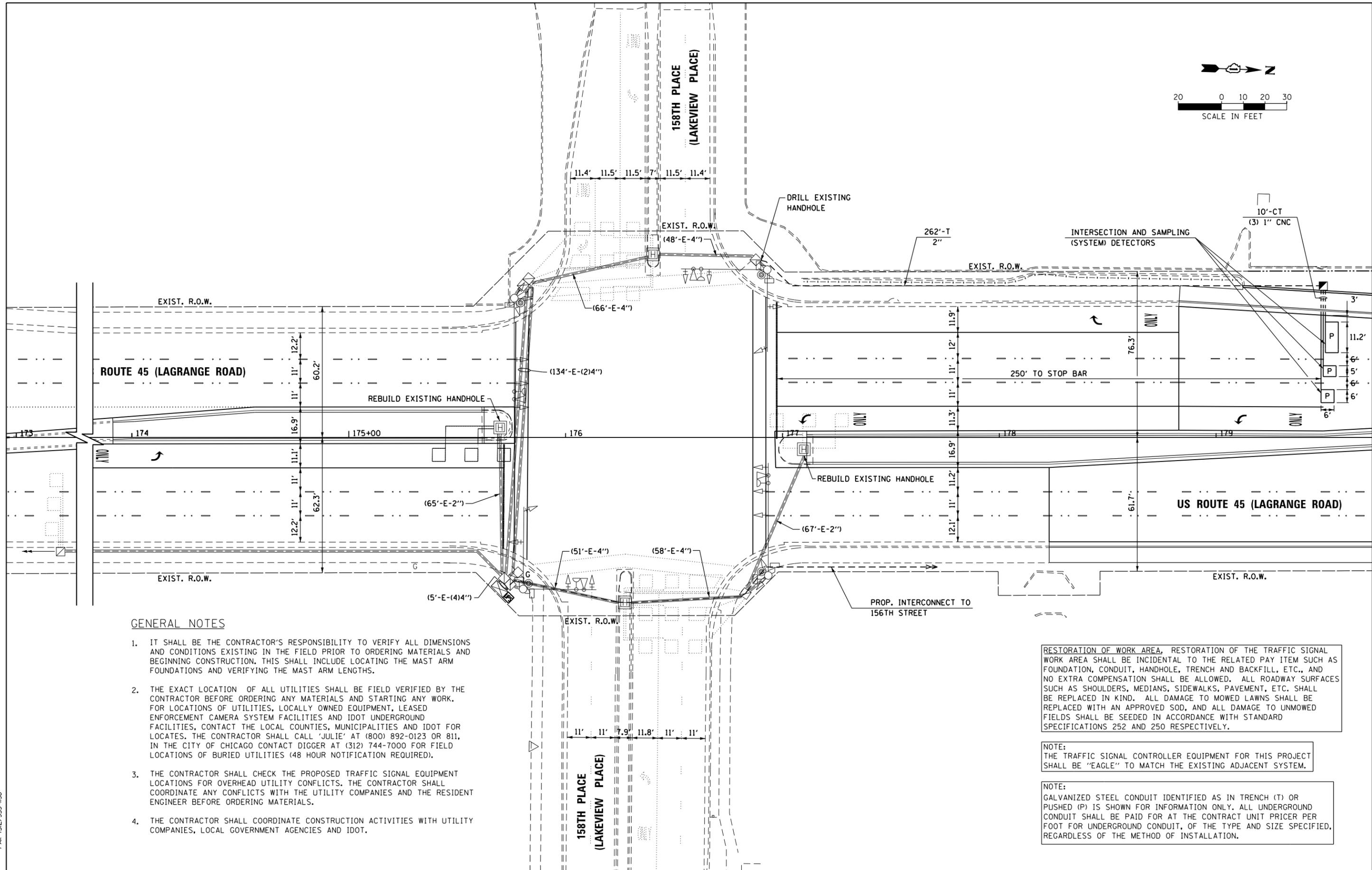
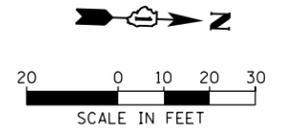
100 S. WACKER DR.  
SUITE 600  
CHICAGO, IL 60606  
TEL (312) 939-1000  
FAX (312) 939-4998  
**URS**

FILE NAME = D160M61-SHT-TS06.dgn	USER NAME = Anthony.Plutz	DESIGNED - MRF	REVISED -
SHT.PLAN	PLOT SCALE = 40.0000' / in.	DRAWN - MRF	REVISED -
	PLOT DATE = 3/14/2013	CHECKED - MJL	REVISED -
		DATE - 03/13/2013	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TEMPORARY CABLE PLAN, TEMPORARY PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE			
US 45 (LAGRANGE ROAD) AND 158TH PLACE (LAKEVIEW PLAZA)			
SCALE: N.T.S.	SHEET 1 OF 1 SHEETS	STA. TO STA.	

F.A.P. RTE. 330	SECTION 103R-4	COUNTY COOK	TOTAL SHEETS 877	SHEET NO. 317
TD-06		CONTRACT NO. 60M61		
ILLINOIS FED. AID PROJECT				



**GENERAL NOTES**

1. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION. THIS SHALL INCLUDE LOCATING THE MAST ARM FOUNDATIONS AND VERIFYING THE MAST ARM LENGTHS.
2. THE EXACT LOCATION OF ALL UTILITIES SHALL BE FIELD VERIFIED BY THE CONTRACTOR BEFORE ORDERING ANY MATERIALS AND STARTING ANY WORK. FOR LOCATIONS OF UTILITIES, LOCALLY OWNED EQUIPMENT, LEASED ENFORCEMENT CAMERA SYSTEM FACILITIES AND IDOT UNDERGROUND FACILITIES, CONTACT THE LOCAL COUNTIES, MUNICIPALITIES AND IDOT FOR LOCATES. THE CONTRACTOR SHALL CALL 'JULIE' AT (800) 892-0123 OR 811, IN THE CITY OF CHICAGO CONTACT DIGGER AT (312) 744-7000 FOR FIELD LOCATIONS OF BURIED UTILITIES (48 HOUR NOTIFICATION REQUIRED).
3. THE CONTRACTOR SHALL CHECK THE PROPOSED TRAFFIC SIGNAL EQUIPMENT LOCATIONS FOR OVERHEAD UTILITY CONFLICTS. THE CONTRACTOR SHALL COORDINATE ANY CONFLICTS WITH THE UTILITY COMPANIES AND THE RESIDENT ENGINEER BEFORE ORDERING MATERIALS.
4. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES, LOCAL GOVERNMENT AGENCIES AND IDOT.

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

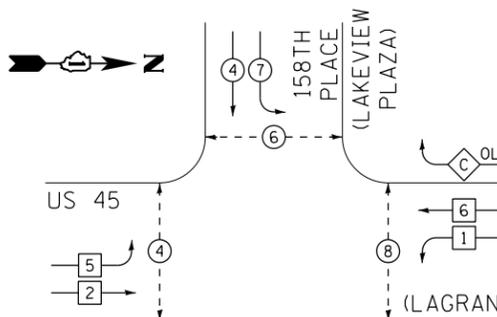
NOTE:  
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.

NOTE:  
GALVANIZED STEEL CONDUIT IDENTIFIED AS IN TRENCH (T) OR PUSHED (P) IS SHOWN FOR INFORMATION ONLY. ALL UNDERGROUND CONDUIT SHALL BE PAID FOR AT THE CONTRACT UNIT PRICER PER FOOT FOR UNDERGROUND CONDUIT, OF THE TYPE AND SIZE SPECIFIED, REGARDLESS OF THE METHOD OF INSTALLATION.

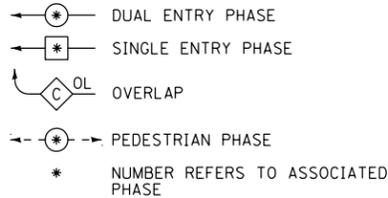
100 S. WACKER DR.  
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 CHICAGO, IL 60606  
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 FAX (312) 939-4998  
**URS**

FILE NAME = D160M61-SHT-TS07.dgn	USER NAME = Anthony.Plutz	DESIGNED - MRF	REVISED -	<b>STATE OF ILLINOIS          DEPARTMENT OF TRANSPORTATION</b>	<b>TRAFFIC SIGNAL MODIFICATION PLAN          US 45 (LAGRANGE ROAD) AND 158TH PLACE (LAKEVIEW PLAZA)</b>	F.A.P. RTE. = 330	SECTION = 103R-4	COUNTY = COOK	TOTAL SHEETS = 877	SHEET NO. = 318	
PLOT SCALE = 40.0000' / in.	CHECKED - MJL	REVISED -	SCALE: 1"=20'			SHEET 1 OF 1 SHEETS	STA. TO STA.	<b>TD-07</b>		CONTRACT NO. 60M61	
SHT.PLAN	PLOT DATE = 3/14/2013	DATE = 03/13/2013	REVISED -			ILLINOIS FED. AID PROJECT					

**CONTROLLER SEQUENCE**



**PHASE DESIGNATION DIAGRAM LEGEND**

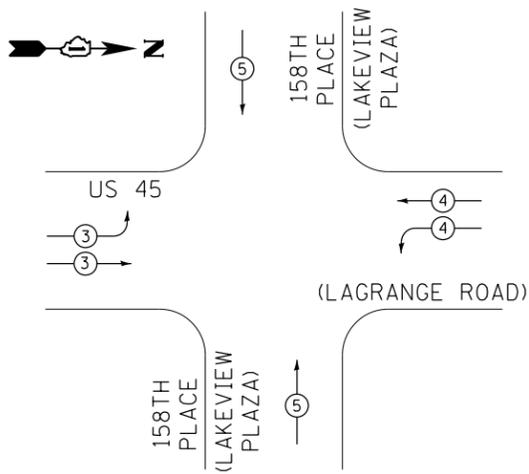


**RIGHT TURN OVERLAP PHASE DESIGNATION**

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
C	= 6	+ 7

**PHASE DESIGNATION DIAGRAM**

**EMERGENCY VEHICLE PREEMPTION SEQUENCE**



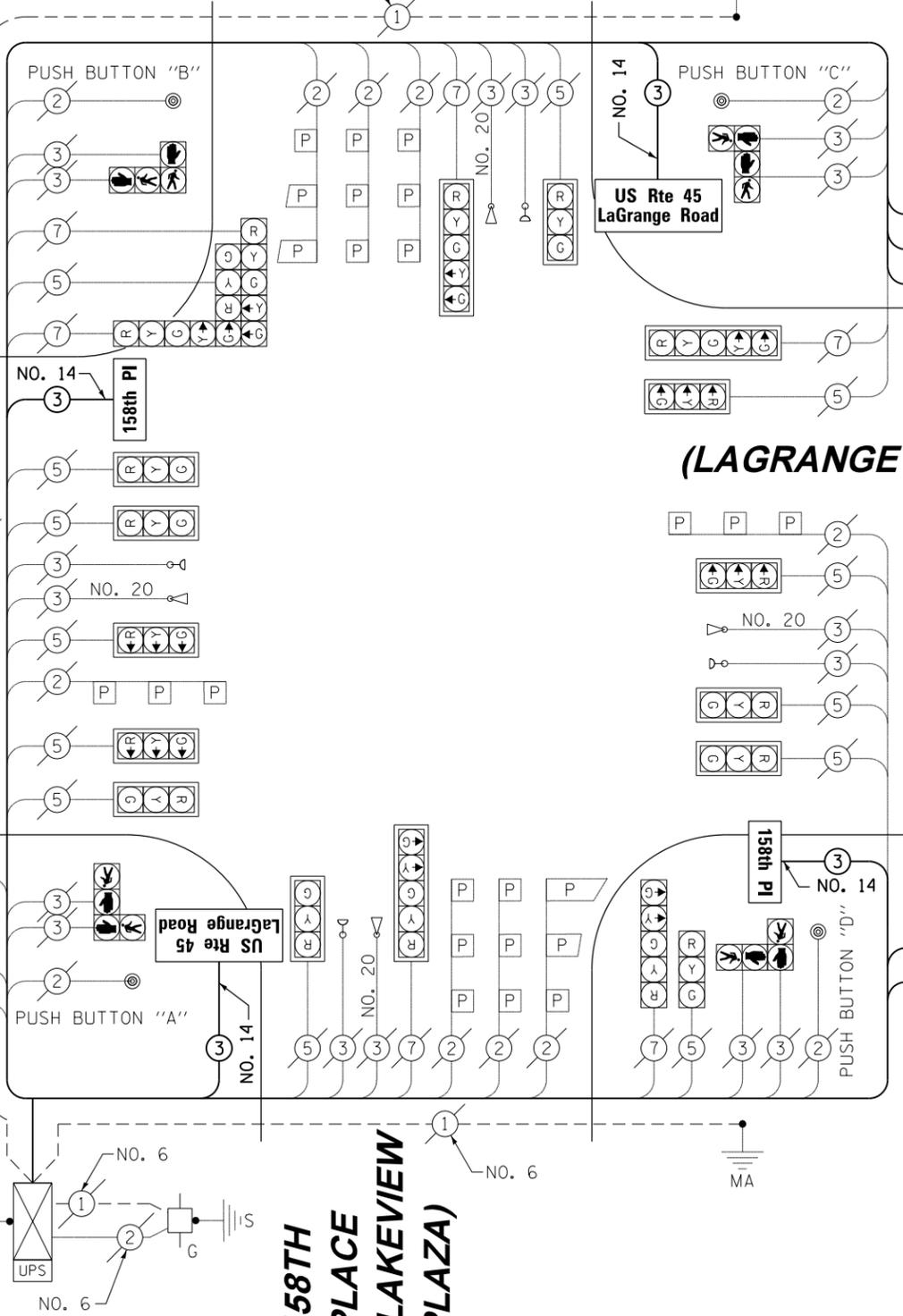
PROPOSED EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTORS	3	4	5
MOVEMENT			

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE (INCAND.)	LED	% OPERATION	
SIGNAL (RED)	19	17		0.50	161.5
(YELLOW)	19	25		0.25	118.8
(GREEN)	19	15		0.25	71.3
ARROW	12	12		0.10	14.4
PED. SIGNAL	8	25		1.00	200.0
CONTROLLER	1	100		1.00	100.0
ILLUM. SIGN	--	25		0.05	0.0
VIDEO SYSTEM	--	150		1.00	0.0
FLASHER		25		0.50	
ENERGY COST TO:					TOTAL= 666.0

VILLAGE OF ORLAND PARK  
14700 SOUTH RAVINIA AVE.  
ENERGY SUPPLY: CONTACT: KATHRYN SUGRUE  
PHONE: (708) 235-2337  
COMPANY: COMMONWEALTH EDISON

EXISTING INTERSECTION AND SAMPLING (SYSTEM) DETECTORS

EXIST. INTERCONNECT TO 159TH STREET



**158TH PLACE (LAKEVIEW PLAZA) CABLE PLAN**

RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, 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 SEEDDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

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

THE END OF THE TRACER CABLE SHALL BE CONTINUOUS AND EXTEND INTO THE CONTROLLER CABINET.

INTERSECTION AND SAMPLING (SYSTEM) DETECTORS

**SCHEDULE OF QUANTITIES**

ITEM	UNIT	TOTAL
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	262
HANDHOLE	EACH	1
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	1686
DRILL EXISTING HANDHOLE	EACH	1
PERFORMED DETECTOR LOOP	FOOT	135
TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
REBUILD EXISTING HANDHOLE	EACH	2
REMOVE EXISTING HANDHOLE	EACH	1
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	559
TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1
** LED INTERNALLY ILLUMINATED STREET NAME SIGN	EACH	4

\*\* 100% COST TO ORLAND FIRE PROTECTION DISTRICT

PROP. INTERCONNECT TO 156TH STREET

TRACER CABLE



FILE NAME = D160M61-SHT-TS08.dgn  
SHT.PLAN

USER NAME = Anthony.Plutz  
PLOT SCALE = 48.0000' / in.  
PLOT DATE = 3/14/2013

DESIGNED - MRF  
DRAWN - MRF  
CHECKED - MJL  
DATE - 03/13/2013

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE  
US 45 (LAGRANGE ROAD) AND 158TH PLACE (LAKEVIEW PLAZA)  
SCALE: N.T.S. SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	319

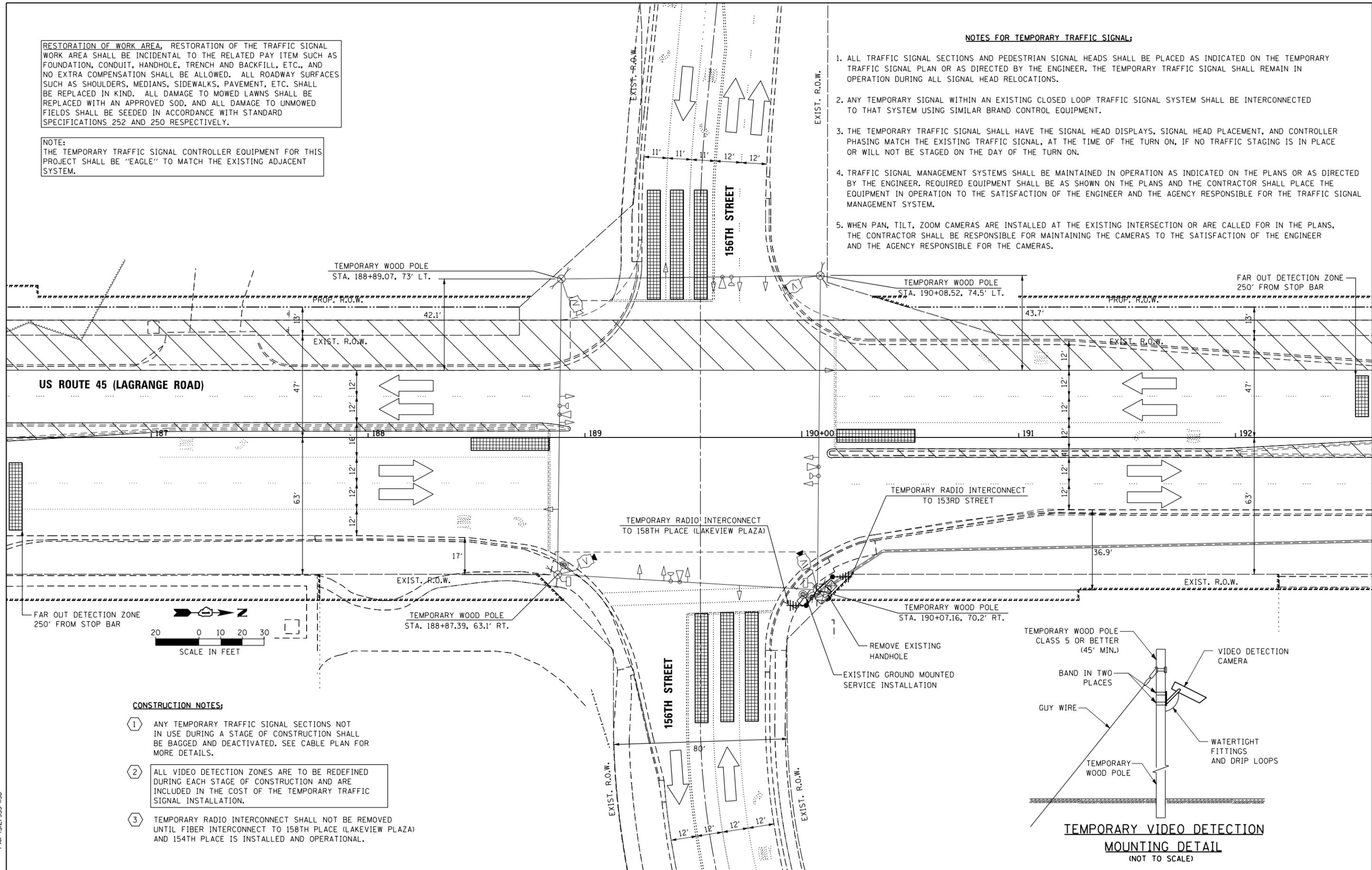
TD-08 CONTRACT NO. 60M61  
ILLINOIS FED. AID PROJECT

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

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

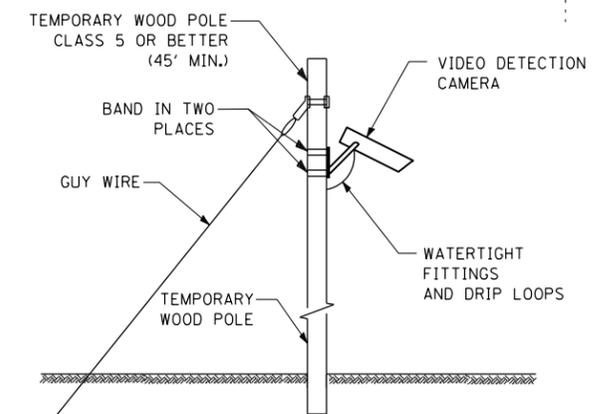
**NOTES FOR TEMPORARY TRAFFIC SIGNAL:**

1. ALL TRAFFIC SIGNAL SECTIONS AND PEDESTRIAN SIGNAL HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. THE TEMPORARY TRAFFIC SIGNAL SHALL REMAIN IN OPERATION DURING ALL SIGNAL HEAD RELOCATIONS.
2. ANY TEMPORARY SIGNAL WITHIN AN EXISTING CLOSED LOOP TRAFFIC SIGNAL SYSTEM SHALL BE INTERCONNECTED TO THAT SYSTEM USING SIMILAR BRAND CONTROL EQUIPMENT.
3. THE TEMPORARY TRAFFIC SIGNAL SHALL HAVE THE SIGNAL HEAD DISPLAYS, SIGNAL HEAD PLACEMENT, AND CONTROLLER PHASING MATCH THE EXISTING TRAFFIC SIGNAL, AT THE TIME OF THE TURN ON, IF NO TRAFFIC STAGING IS IN PLACE OR WILL NOT BE STAGED ON THE DAY OF THE TURN ON.
4. TRAFFIC SIGNAL MANAGEMENT SYSTEMS SHALL BE MAINTAINED IN OPERATION AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER. REQUIRED EQUIPMENT SHALL BE AS SHOWN ON THE PLANS AND THE CONTRACTOR SHALL PLACE THE EQUIPMENT IN OPERATION TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE TRAFFIC SIGNAL MANAGEMENT SYSTEM.
5. WHEN PAN, TILT, ZOOM CAMERAS ARE INSTALLED AT THE EXISTING INTERSECTION OR ARE CALLED FOR IN THE PLANS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE CAMERAS TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE CAMERAS.



**CONSTRUCTION NOTES:**

- 1 ANY TEMPORARY TRAFFIC SIGNAL SECTIONS NOT IN USE DURING A STAGE OF CONSTRUCTION SHALL BE BAGGED AND DEACTIVATED. SEE CABLE PLAN FOR MORE DETAILS.
- 2 ALL VIDEO DETECTION ZONES ARE TO BE REDEFINED DURING EACH STAGE OF CONSTRUCTION AND ARE INCLUDED IN THE COST OF THE TEMPORARY TRAFFIC SIGNAL INSTALLATION.
- 3 TEMPORARY RADIO INTERCONNECT SHALL NOT BE REMOVED UNTIL FIBER INTERCONNECT TO 158TH PLACE (LAKEVIEW PLAZA) AND 154TH PLACE IS INSTALLED AND OPERATIONAL.



100 S. WACKER DR.  
 11TH FLOOR  
 CHICAGO, IL 60606  
 TEL (312) 935-1000  
 FAX (312) 935-4998  
**URS**

FILE NAME = D160M61-SHT-TS09.dgn	USER NAME = Anthony.Plutz	DESIGNED - MRF	REVISED -
		DRAWN - MRF	REVISED -
		CHECKED - MJL	REVISED -
SHT.PLAN	PLOT DATE = 3/14/2013	DATE - 03/13/2013	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

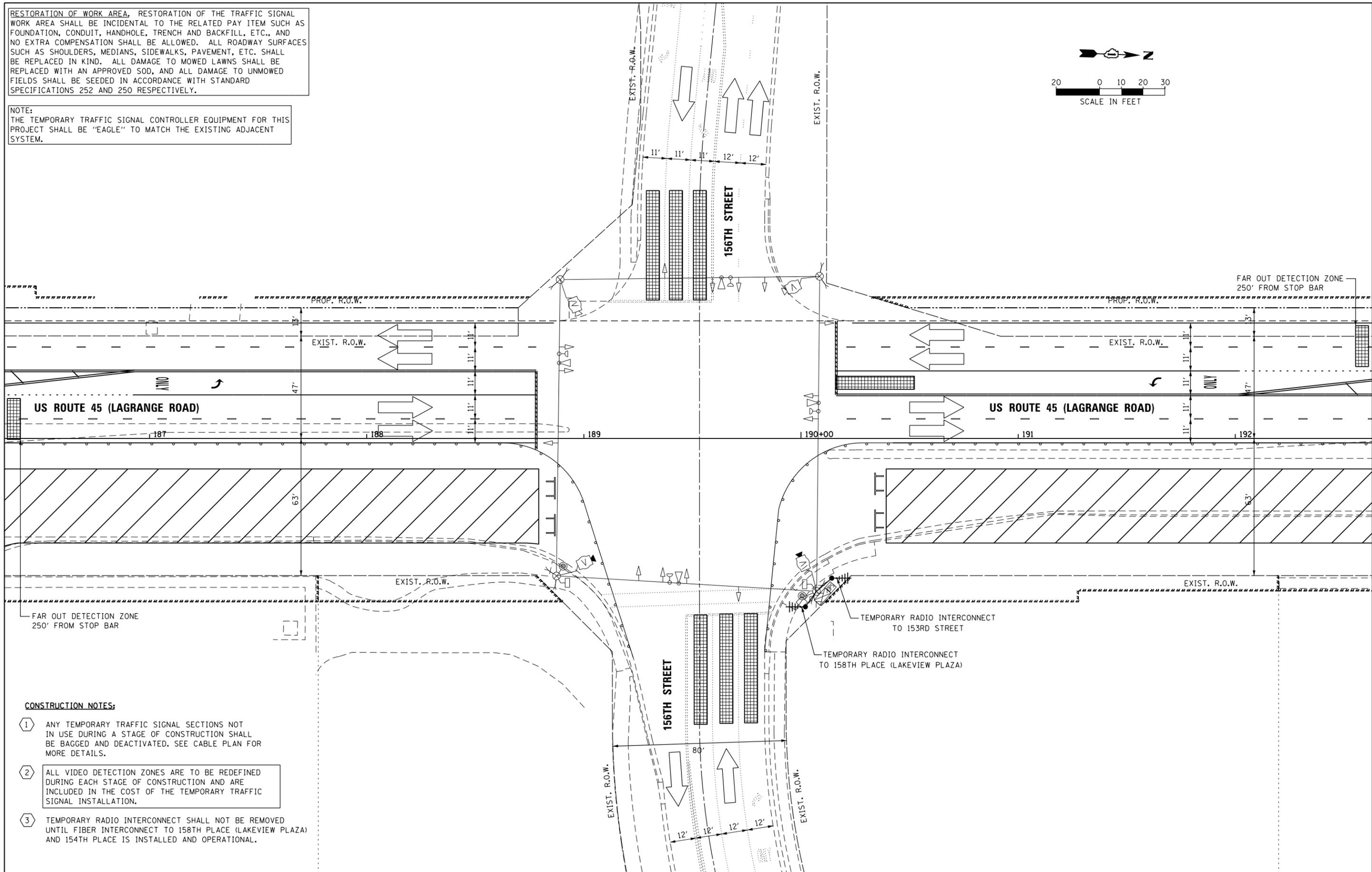
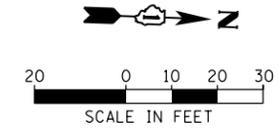
**TEMPORARY TRAFFIC SIGNAL INSTALLATION AND REMOVE EXISTING  
TRAFFIC SIGNAL EQUIPMENT PLAN - PRE-STAGE  
US 45 (LAGRANGE ROAD) AND 156TH STREET**

F.A.P. RTE. 330	SECTION 103R-4	COUNTY COOK	TOTAL SHEETS 877	SHEET NO. 320
TD-09		CONTRACT NO. 60M61		
ILLINOIS FED. AID PROJECT				

SCALE: 1"=20' SHEET 1 OF 6 SHEETS STA. TO STA.

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

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



**CONSTRUCTION NOTES:**

- 1 ANY TEMPORARY TRAFFIC SIGNAL SECTIONS NOT IN USE DURING A STAGE OF CONSTRUCTION SHALL BE BAGGED AND DEACTIVATED. SEE CABLE PLAN FOR MORE DETAILS.
- 2 ALL VIDEO DETECTION ZONES ARE TO BE REDEFINED DURING EACH STAGE OF CONSTRUCTION AND ARE INCLUDED IN THE COST OF THE TEMPORARY TRAFFIC SIGNAL INSTALLATION.
- 3 TEMPORARY RADIO INTERCONNECT SHALL NOT BE REMOVED UNTIL FIBER INTERCONNECT TO 158TH PLACE (LAKEVIEW PLAZA) AND 154TH PLACE IS INSTALLED AND OPERATIONAL.

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 CHICAGO, IL 60606  
 TEL (312) 935-1000  
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**URS**

FILE NAME = D160M61-SHT-TS10.dgn	USER NAME = Anthony.Plutz	DESIGNED - MRF	REVISED -
		DRAWN - MRF	REVISED -
		CHECKED - MJL	REVISED -
SHT.PLAN	PLOT DATE = 3/14/2013	DATE - 03/13/2013	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

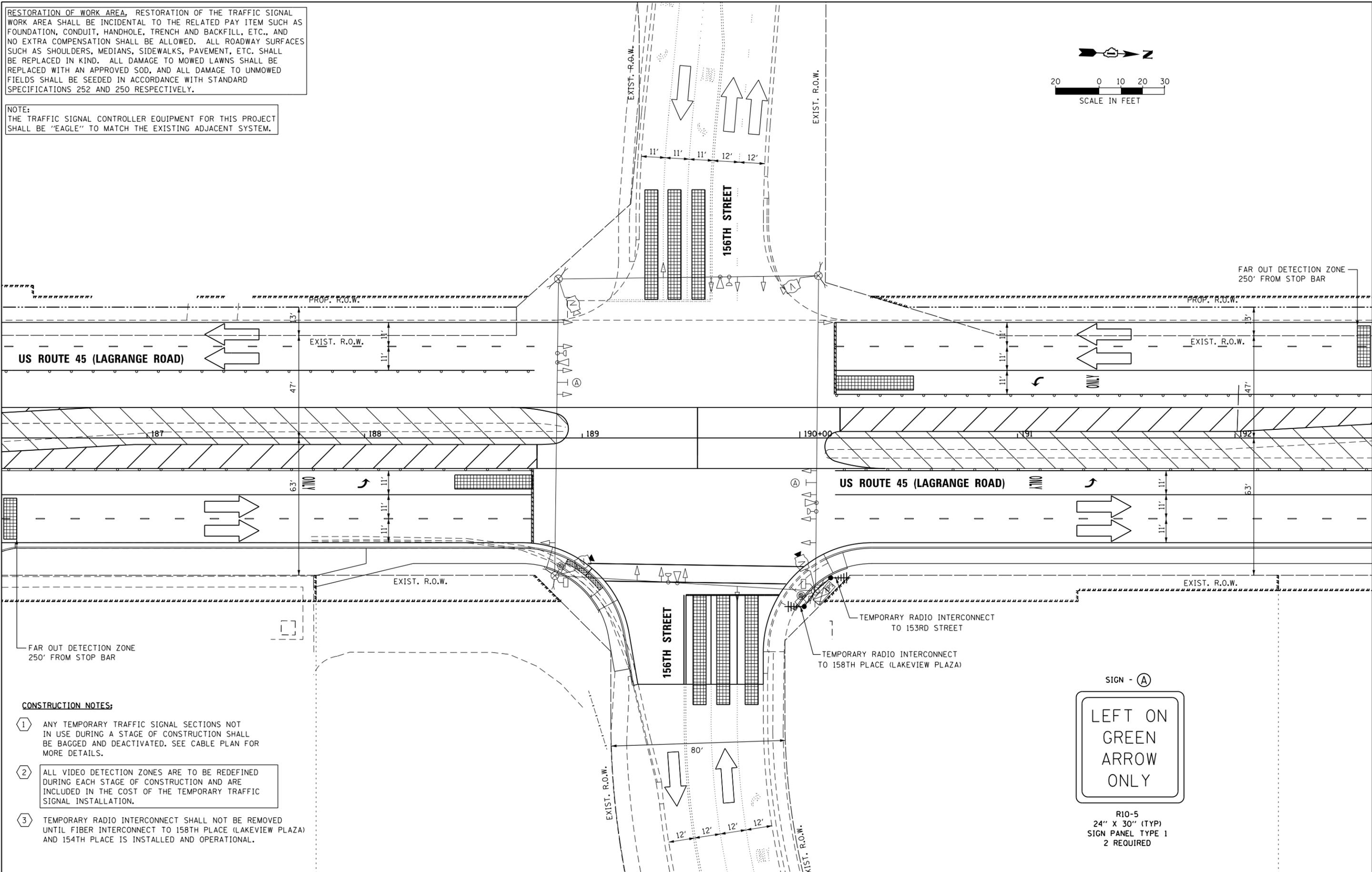
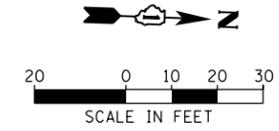
**TEMPORARY TRAFFIC SIGNAL INSTALLATION - STAGE 1  
US 45 (LAGRANGE ROAD) AND 156TH STREET**

SCALE: 1"=20' SHEET 2 OF 6 SHEETS STA. TO STA.

F.A.P. RTE. 330	SECTION 103R-4	COUNTY COOK	TOTAL SHEETS 877	SHEET NO. 321
<b>TD-10</b>		CONTRACT NO. 60M61		
ILLINOIS FED. AID PROJECT				

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

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



**CONSTRUCTION NOTES:**

- 1 ANY TEMPORARY TRAFFIC SIGNAL SECTIONS NOT IN USE DURING A STAGE OF CONSTRUCTION SHALL BE BAGGED AND DEACTIVATED. SEE CABLE PLAN FOR MORE DETAILS.
- 2 ALL VIDEO DETECTION ZONES ARE TO BE REDEFINED DURING EACH STAGE OF CONSTRUCTION AND ARE INCLUDED IN THE COST OF THE TEMPORARY TRAFFIC SIGNAL INSTALLATION.
- 3 TEMPORARY RADIO INTERCONNECT SHALL NOT BE REMOVED UNTIL FIBER INTERCONNECT TO 158TH PLACE (LAKEVIEW PLAZA) AND 154TH PLACE IS INSTALLED AND OPERATIONAL.



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 CHICAGO, IL 60606  
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 FAX (312) 939-4998  
**URS**

FILE NAME = D160M61-SHT-TS11.dgn	USER NAME = Anthony.Plutz	DESIGNED - MRF	REVISED -
SHT.PLAN	PLOT SCALE = 40.0000' / in.	DRAWN - MRF	REVISED -
	PLOT DATE = 3/14/2013	CHECKED - MJL	REVISED -
		DATE - 03/13/2013	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

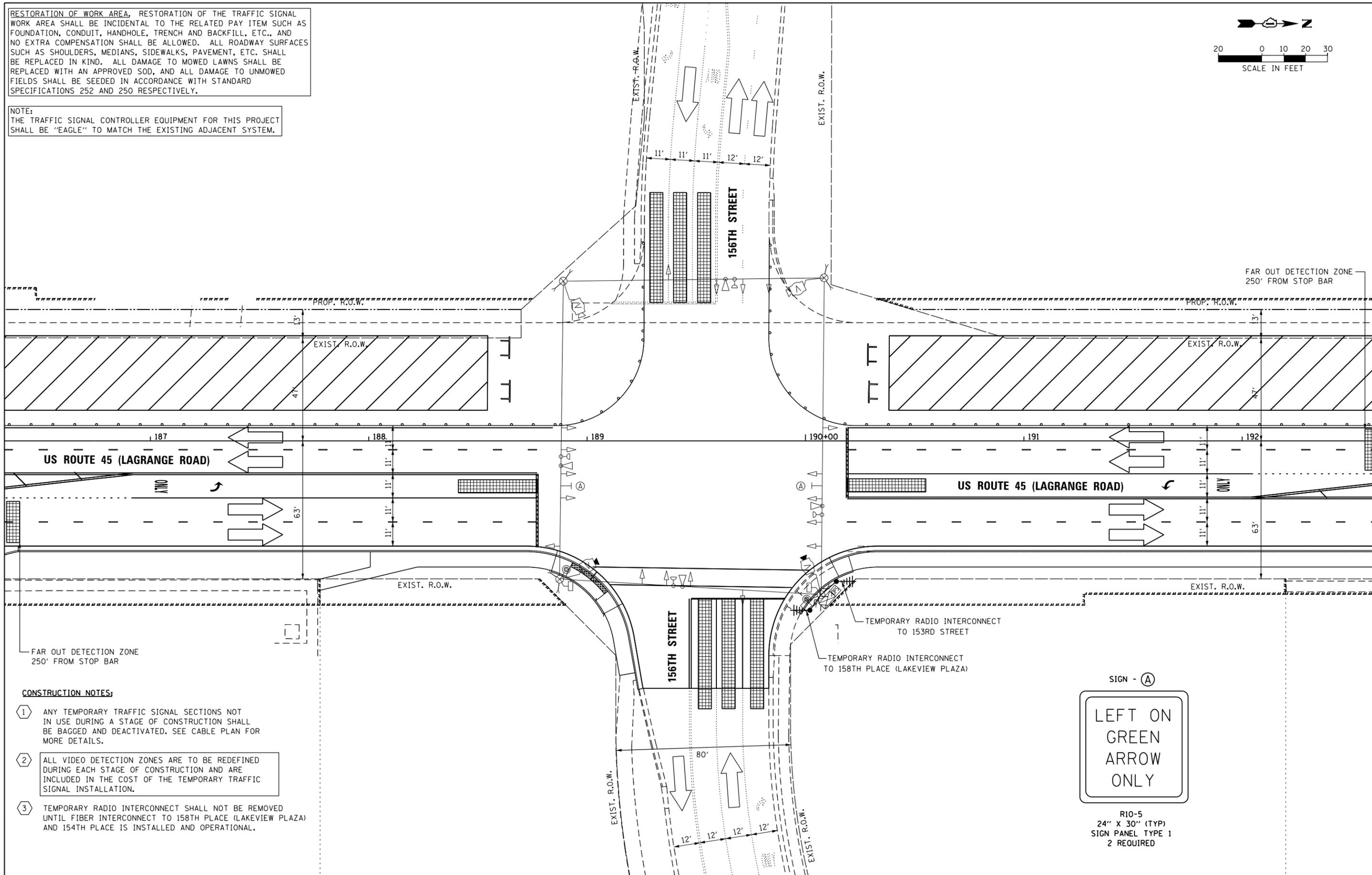
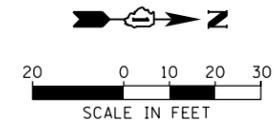
**TEMPORARY TRAFFIC SIGNAL INSTALLATION - STAGE 2  
US 45 (LAGRANGE ROAD) AND 156TH STREET**

SCALE: 1"=20' SHEET 3 OF 6 SHEETS STA. TO STA.

F.A.P. RTE. 330	SECTION 103R-4	COUNTY COOK	TOTAL SHEETS 877	SHEET NO. 322
<b>TD-11</b>		CONTRACT NO. 60M61		
ILLINOIS FED. AID PROJECT				

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

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



**CONSTRUCTION NOTES:**

- 1 ANY TEMPORARY TRAFFIC SIGNAL SECTIONS NOT IN USE DURING A STAGE OF CONSTRUCTION SHALL BE BAGGED AND DEACTIVATED. SEE CABLE PLAN FOR MORE DETAILS.
- 2 ALL VIDEO DETECTION ZONES ARE TO BE REDEFINED DURING EACH STAGE OF CONSTRUCTION AND ARE INCLUDED IN THE COST OF THE TEMPORARY TRAFFIC SIGNAL INSTALLATION.
- 3 TEMPORARY RADIO INTERCONNECT SHALL NOT BE REMOVED UNTIL FIBER INTERCONNECT TO 158TH PLACE (LAKEVIEW PLAZA) AND 154TH PLACE IS INSTALLED AND OPERATIONAL.

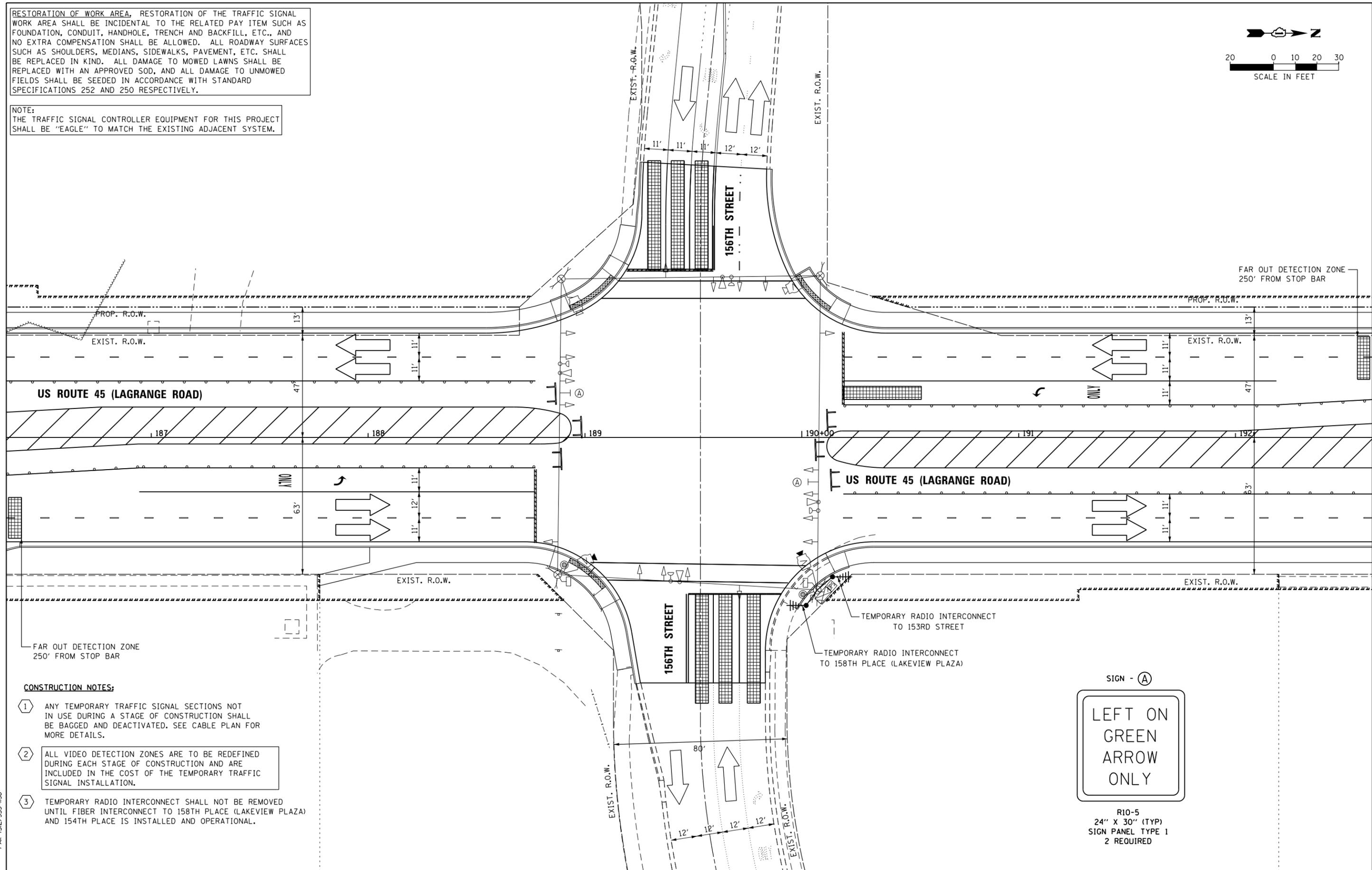
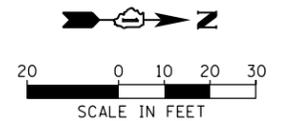


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 FAX (312) 939-4998  
**URS**

FILE NAME = D160M61-SHT-TS12.dgn	USER NAME = Anthony.Plutz	DESIGNED - MRF	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>TEMPORARY TRAFFIC SIGNAL INSTALLATION - STAGE 3 US 45 (LAGRANGE ROAD) AND 156TH STREET</b>	F.A.P. RTE. = 330	SECTION = 103R-4	COUNTY = COOK	TOTAL SHEETS = 877	SHEET NO. = 323		
SHT.PLAN	PLOT SCALE = 40.0000' / in.	CHECKED - MJL	REVISED -			SCALE: 1"=20'	SHEET 4 OF 6 SHEETS	STA. TO STA.	<b>TD-12</b>		CONTRACT NO. 60M61	
	PLOT DATE = 3/14/2013	DATE = 03/13/2013	REVISED -			ILLINOIS FED. AID PROJECT						

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

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



**CONSTRUCTION NOTES:**

- 1 ANY TEMPORARY TRAFFIC SIGNAL SECTIONS NOT IN USE DURING A STAGE OF CONSTRUCTION SHALL BE BAGGED AND DEACTIVATED. SEE CABLE PLAN FOR MORE DETAILS.
- 2 ALL VIDEO DETECTION ZONES ARE TO BE REDEFINED DURING EACH STAGE OF CONSTRUCTION AND ARE INCLUDED IN THE COST OF THE TEMPORARY TRAFFIC SIGNAL INSTALLATION.
- 3 TEMPORARY RADIO INTERCONNECT SHALL NOT BE REMOVED UNTIL FIBER INTERCONNECT TO 158TH PLACE (LAKEVIEW PLAZA) AND 154TH PLACE IS INSTALLED AND OPERATIONAL.



R10-5  
24" X 30" (TYP)  
SIGN PANEL TYPE 1  
2 REQUIRED

100 S. WACKER DR.  
 SUITE 600  
 CHICAGO, IL 60606  
 TEL (312) 939-1000  
 FAX (312) 939-4998  
**URS**

FILE NAME = D160M61-SHT-TS13.dgn	USER NAME = Anthony.Plutz	DESIGNED - MRF	REVISED -
SHT.PLAN	PLOT SCALE = 40.0000' / in.	DRAWN - MRF	REVISED -
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		DATE - 03/13/2013	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

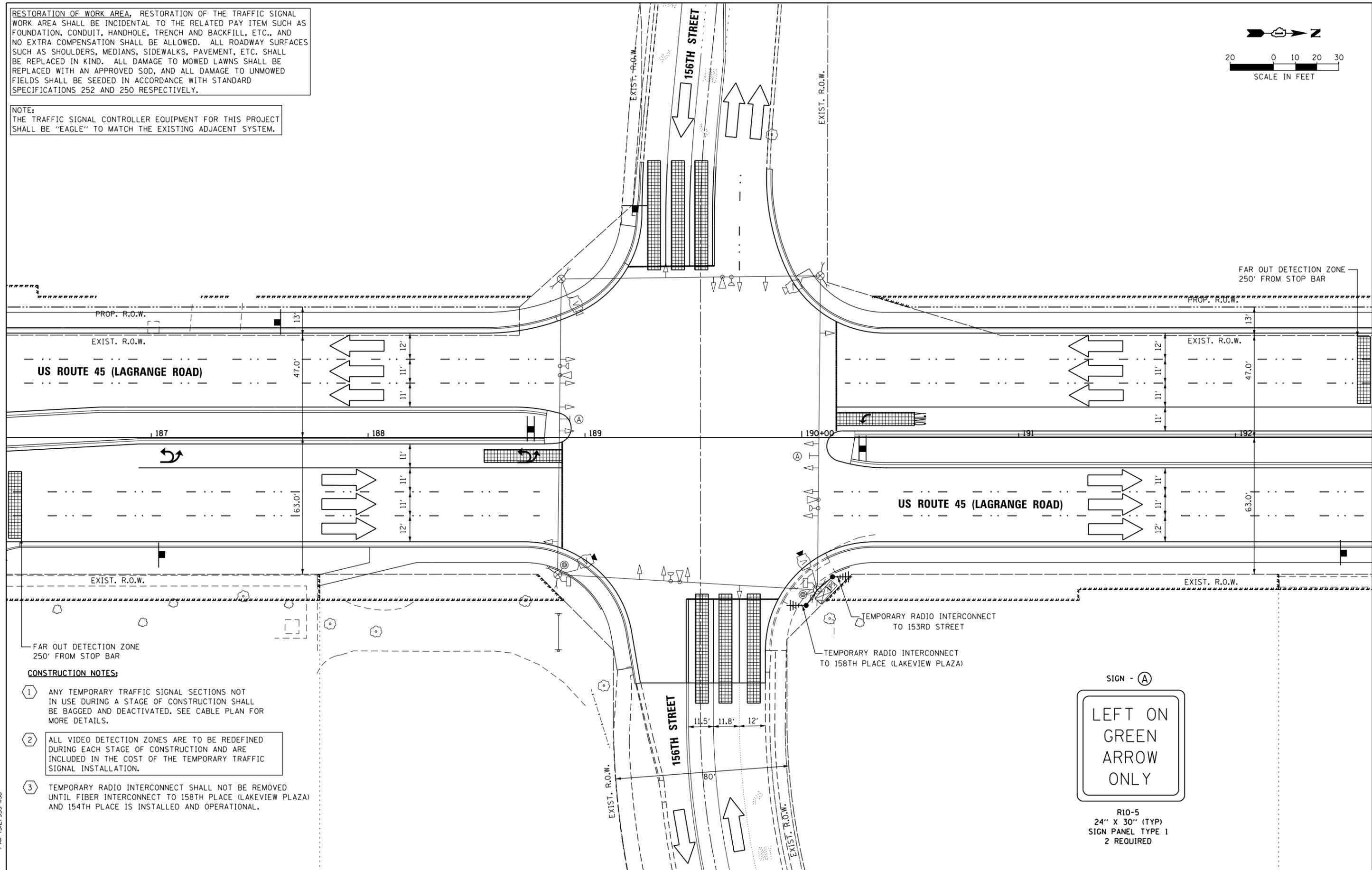
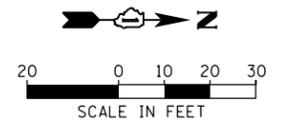
**TEMPORARY TRAFFIC SIGNAL INSTALLATION - STAGE 4  
US 45 (LAGRANGE ROAD) AND 156TH STREET**

SCALE: 1"=20' SHEET 5 OF 6 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	324
<b>TD-13</b>		CONTRACT NO. 60M61		
ILLINOIS FED. AID PROJECT				

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

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



**CONSTRUCTION NOTES:**

- 1 ANY TEMPORARY TRAFFIC SIGNAL SECTIONS NOT IN USE DURING A STAGE OF CONSTRUCTION SHALL BE BAGGED AND DEACTIVATED. SEE CABLE PLAN FOR MORE DETAILS.
- 2 ALL VIDEO DETECTION ZONES ARE TO BE REDEFINED DURING EACH STAGE OF CONSTRUCTION AND ARE INCLUDED IN THE COST OF THE TEMPORARY TRAFFIC SIGNAL INSTALLATION.
- 3 TEMPORARY RADIO INTERCONNECT SHALL NOT BE REMOVED UNTIL FIBER INTERCONNECT TO 158TH PLACE (LAKEVIEW PLAZA) AND 154TH PLACE IS INSTALLED AND OPERATIONAL.



R10-5  
24" X 30" (TYP)  
SIGN PANEL TYPE 1  
2 REQUIRED

100 S. WACKER DR.  
 SUITE 600  
 CHICAGO, IL 60606  
 TEL (312) 939-1000  
 FAX (312) 939-4998  
**URS**

FILE NAME = D160M61-SHT-TS14.dgn	USER NAME = Anthony.Plutz	DESIGNED - MRF	REVISED -
SHT.PLAN	PLOT SCALE = 40.0000' / in.	DRAWN - MRF	REVISED -
	PLOT DATE = 3/14/2013	CHECKED - MJL	REVISED -
		DATE - 03/13/2013	REVISED -

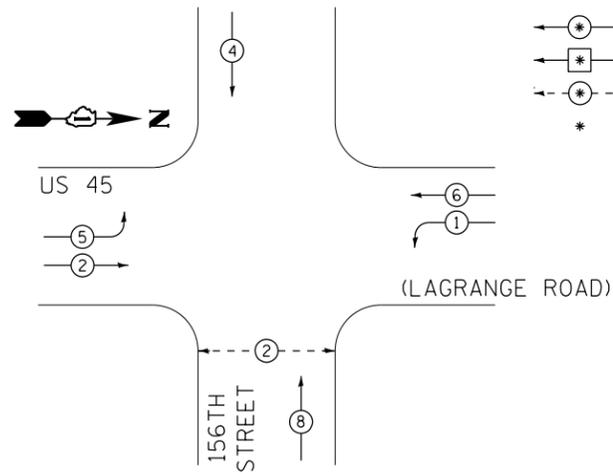
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TEMPORARY TRAFFIC SIGNAL INSTALLATION - FINAL GEOMETRICS  
US 45 (LAGRANGE ROAD) AND 156TH STREET**

SCALE: 1"=20' SHEET 6 OF 6 SHEETS STA. TO STA.

F.A.P. RTE. 330	SECTION 103R-4	COUNTY COOK	TOTAL SHEETS 877	SHEET NO. 325
<b>TD-14</b>		CONTRACT NO. 60M61		
ILLINOIS FED. AID PROJECT				

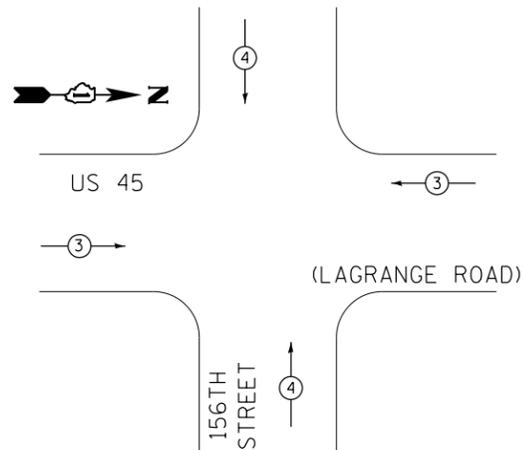
TEMPORARY CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM LEGEND

- ⊙ DUAL ENTRY PHASE
- ⊠ SINGLE ENTRY PHASE
- ⊙ PEDESTRIAN PHASE
- \* NUMBER REFERS TO ASSOCIATED PHASE

TEMPORARY PHASE DESIGNATION DIAGRAM



TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE

TEMPORARY EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTORS	3	4
MOVEMENT	↔	↕

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

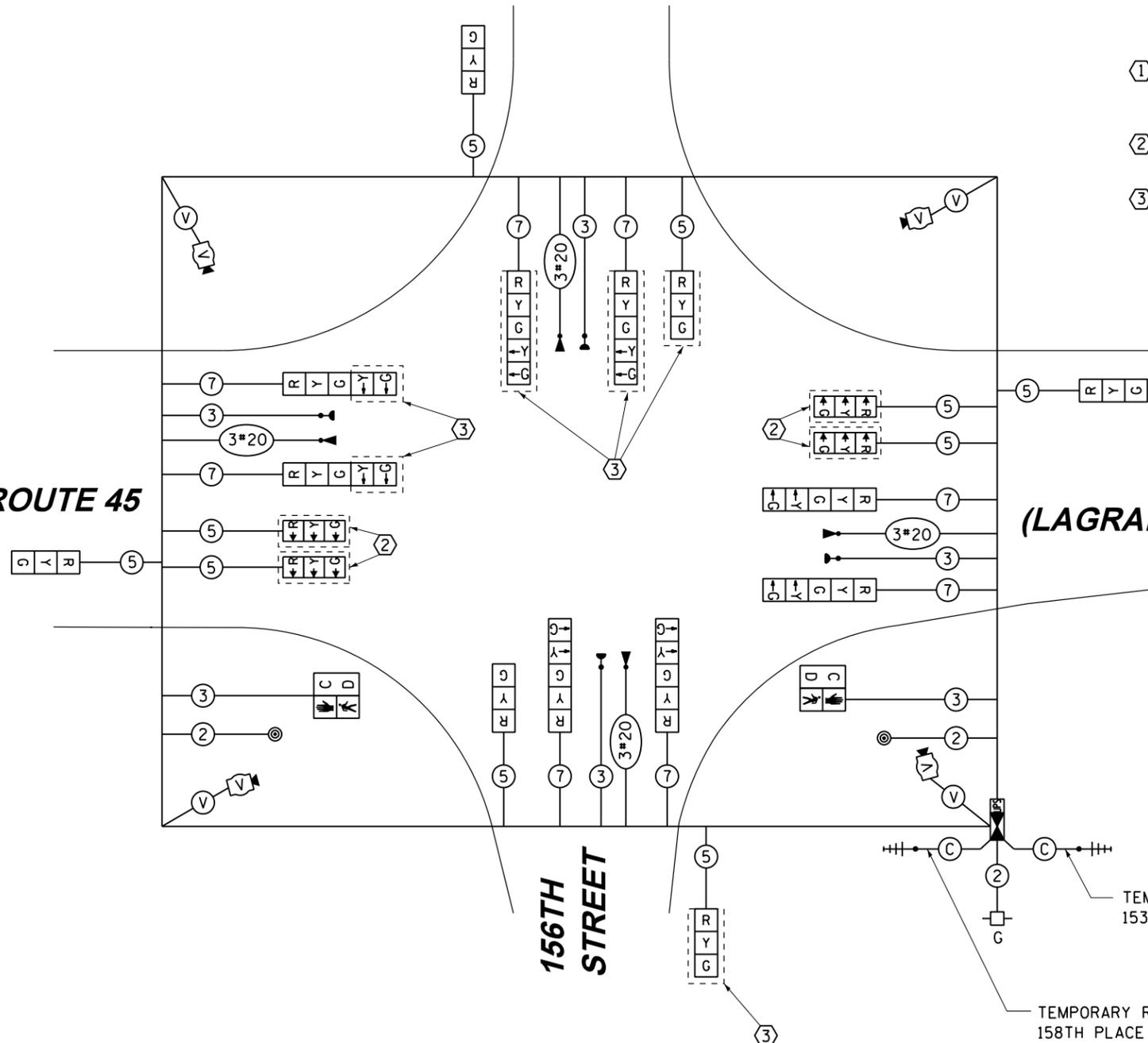
NOTE:  
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.

CONSTRUCTION NOTES:

- ① TEMPORARY RADIO INTERCONNECT SHALL NOT BE REMOVED UNTIL FIBER INTERCONNECT TO 158TH PLACE (LAKEVIEW PLAZA) AND 154TH PLACE INTERSECTIONS ARE INSTALLED AND OPERATIONAL.
- ② BAG AND DEACTIVATE SIGNAL SECTION DURING PRE-STAGE AND STAGE 1.
- ③ BAG AND DEACTIVATE SIGNAL SECTIONS DURING STAGE 1C.

US ROUTE 45

(LAGRANGE ROAD)



TEMPORARY CABLE PLAN  
PRE-STAGE & STAGE 1

TEMPORARY RADIO INTERCONNECT TO 153RD STREET

TEMPORARY RADIO INTERCONNECT TO 158TH PLACE (LAKEVIEW PLAZA)

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS						TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE INCANDESC.	LED	% OPERATION		
SIGNAL (RED)	14		17	0.50		119.0
(YELLOW)	14		25	0.25		87.5
(GREEN)	14		15	0.25		52.5
ARROW	16		12	0.10		19.2
PED. SIGNAL	2		25	1.00		50.0
CONTROLLER	1		100	1.00		100.0
ILLUM. SIGN	--		25	0.05		0.0
VIDEO SYSTEM	1		150	1.00		150.0
FLASHER			25	0.50		
ENERGY COST TO:					TOTAL =	578.2

VILLAGE OF ORLAND PARK  
14700 SOUTH RAVINIA AVE.

ENERGY SUPPLY: CONTACT: KATHRYN SUGRUE  
PHONE: (708) 235-2337  
COMPANY: COMMONWEALTH EDISON

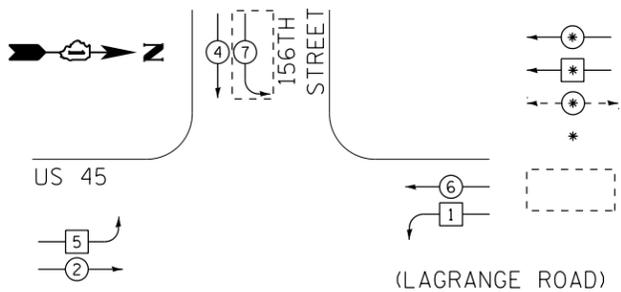
FILE NAME = D:\160M61-SHT-TS15.dgn	USER NAME = Anthony.Plutz	DESIGNED - MRF	REVISED -
SHT.PLAN	PLOT SCALE = 48.0000' / in.	DRAWN - MRF	REVISED -
	PLOT DATE = 3/14/2013	CHECKED - MJL	REVISED -
		DATE - 03/13/2013	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TEMPORARY CABLE PLAN, TEMPORARY PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE  
US 45 (LAGRANGE ROAD) AND 156TH STREET - PRE-STAGE & STAGE 1  
SCALE: N.T.S. SHEET 1 OF 2 SHEETS STA. TO STA.

F.A.P. RTE. 330	SECTION 103R-4	COUNTY COOK	TOTAL SHEETS 877	SHEET NO. 326
TD-15		CONTRACT NO. 60M61		
ILLINOIS FED. AID PROJECT				

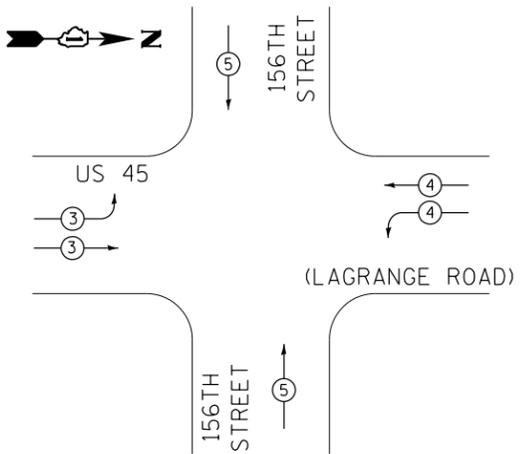
TEMPORARY CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM LEGEND

- ⊙ DUAL ENTRY PHASE
- ⊠ SINGLE ENTRY PHASE
- ⊙ PEDESTRIAN PHASE
- \* NUMBER REFERS TO ASSOCIATED PHASE
- PHASE DISABLED IN STAGE 2

TEMPORARY PHASE DESIGNATION DIAGRAM

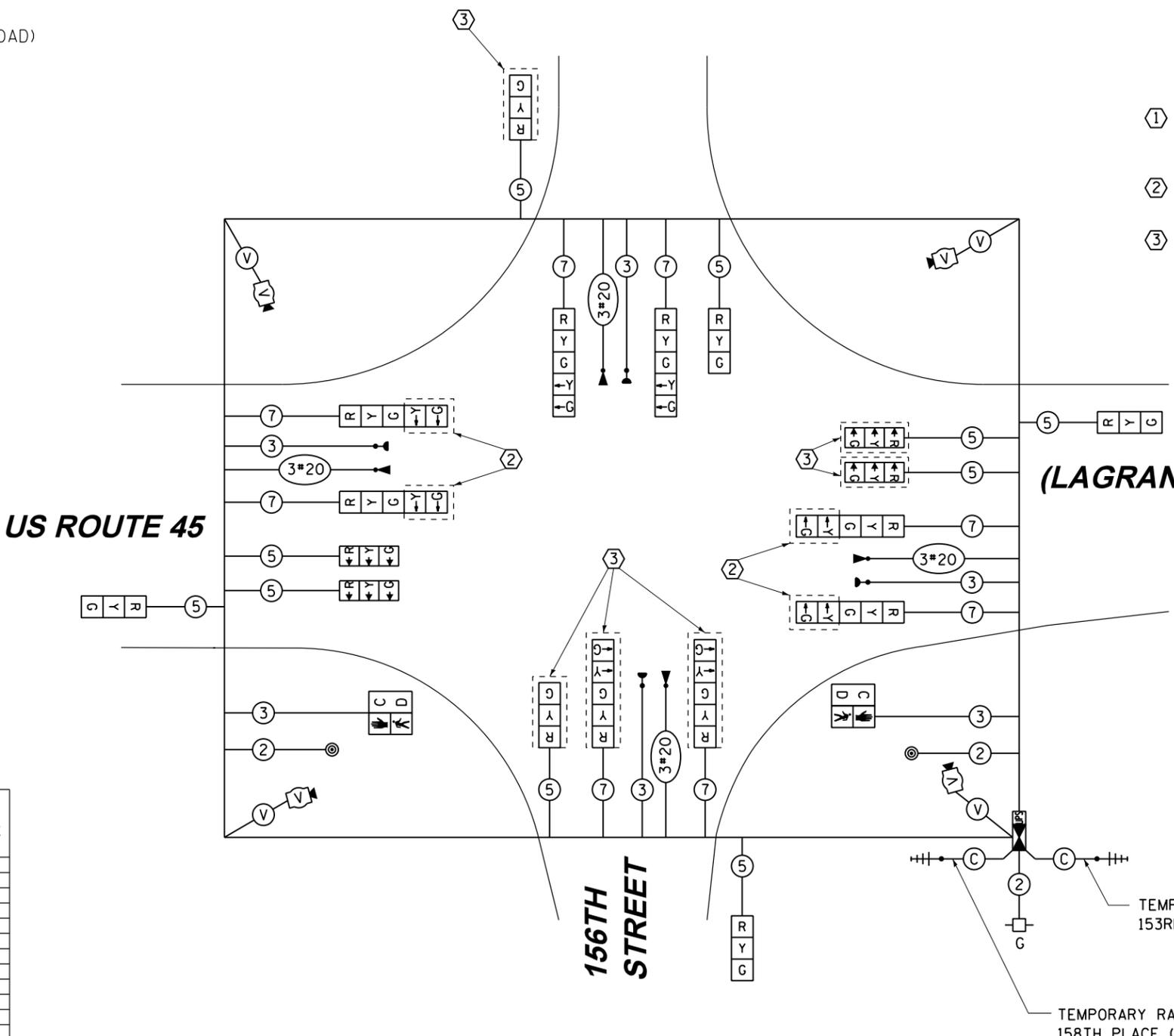


TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE

TEMPORARY EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTORS	3	4	5
MOVEMENT	↔	↔	↔

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE (INCANDE.)	LED	% OPERATION	
SIGNAL (RED)	18		17	0.50	153.0
(YELLOW)	18		25	0.25	112.5
(GREEN)	18		15	0.25	67.5
ARROW	16		12	0.10	19.2
PED. SIGNAL	2		25	1.00	50.0
CONTROLLER	1		100	1.00	100.0
ILLUM. SIGN	--		25	0.05	0.0
VIDEO SYSTEM	1		150	1.00	150.0
FLASHER			25	0.50	
ENERGY COST TO:				TOTAL=	652.2

VILLAGE OF ORLAND PARK  
14700 SOUTH RAVINIA AVE.  
ENERGY SUPPLY: CONTACT: KATHRYN SUGRUE  
PHONE: (708) 235-2337  
COMPANY: COMMONWEALTH EDISON



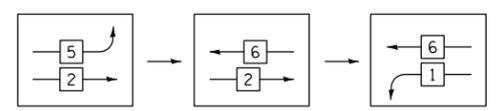
TEMPORARY CABLE PLAN  
STAGE 2, 3, 4, & FINAL GEOMETRICS

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

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

- CONSTRUCTION NOTES:
- ① TEMPORARY RADIO INTERCONNECT SHALL NOT BE REMOVED UNTIL FIBER INTERCONNECT TO 158TH PLACE (LAKEVIEW PLAZA) AND 154TH PLACE INTERSECTIONS ARE INSTALLED AND OPERATIONAL.
  - ② BAG AND DEACTIVATE SIGNAL SECTION DURING STAGES 2, 3, 4, AND FINAL GEOMETRICS.
  - ③ BAG AND DEACTIVATE SIGNAL SECTIONS DURING STAGE 3C.

FOR PHASES 1, 2, 5, & 6 IN THE PHASE DESIGNATION DIAGRAM SHOWN AT TOP LEFT, THE FOLLOWING PHASE SEQUENCE SHALL BE FOLLOWED DURING STAGES 2 AND 4:



PHASES 3, 4, 7, & 8 SHALL FOLLOW THE STANDARD SEQUENCE IN ACCORDANCE WITH STATE STANDARD 857001

100 S. WACKER DR. CHICAGO, IL 60606 TEL (312) 939-1000 FAX (312) 939-4998



FILE NAME = D160M61-SHT-TS16.dgn  
SHT.PLAN

USER NAME = Anthony.Plutz  
DESIGNED - MRF  
DRAWN - MRF  
PLOT SCALE = 48.0000' / in.  
CHECKED - MJL  
PLOT DATE = 3/14/2013

REVISED -  
REVISED -  
REVISED -  
REVISED -  
DATE - 03/13/2013

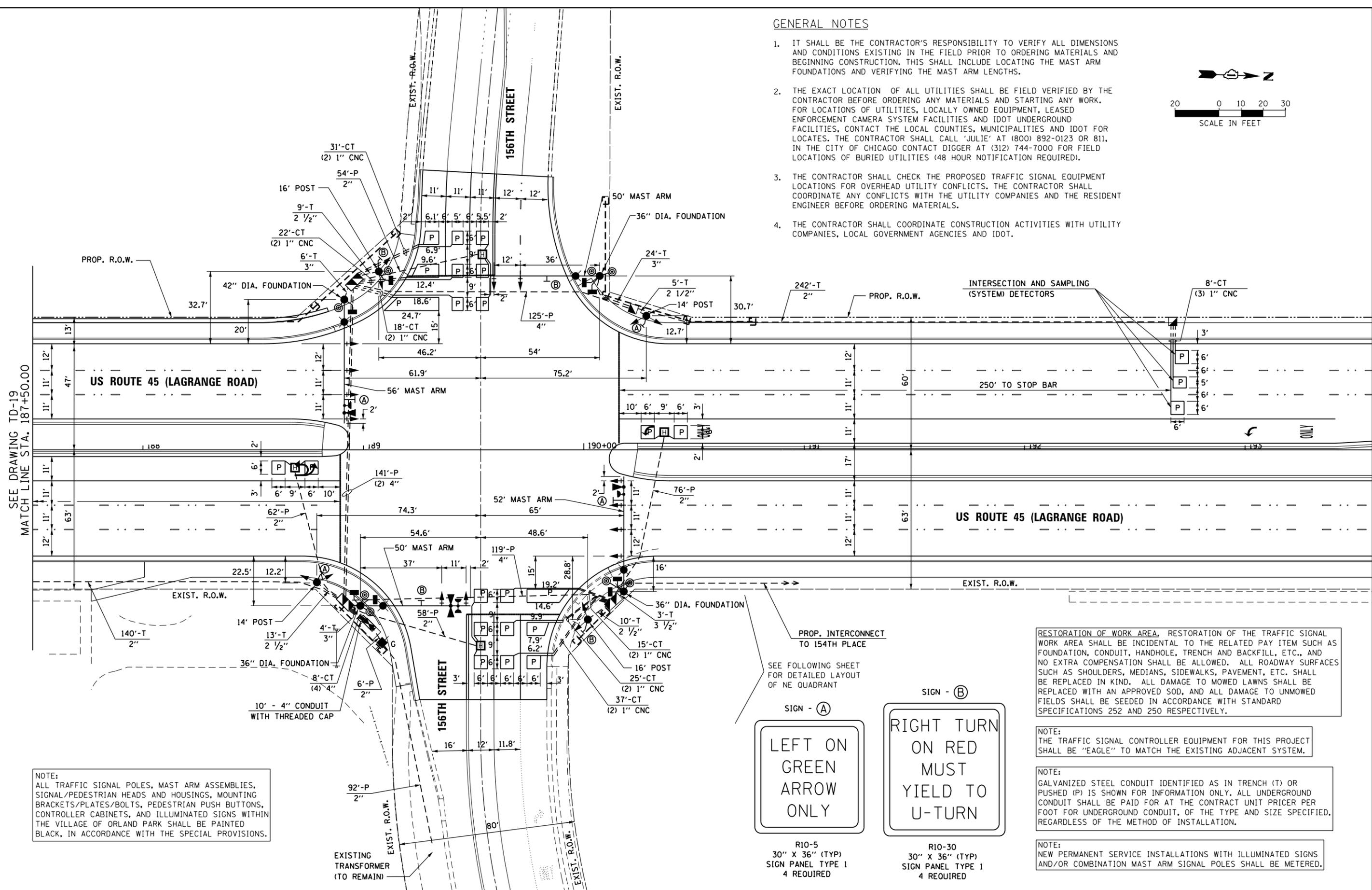
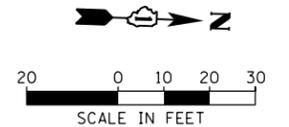
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TEMPORARY CABLE PLAN, TEMPORARY PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE  
US 45 (LAGRANGE ROAD) AND 156TH STREET - STAGE 2, 3, 4 & FINAL GEOMETRICS  
SCALE: N.T.S. SHEET 2 OF 2 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	327
TD-16		CONTRACT NO.	60M61	
ILLINOIS FED. AID PROJECT				

**GENERAL NOTES**

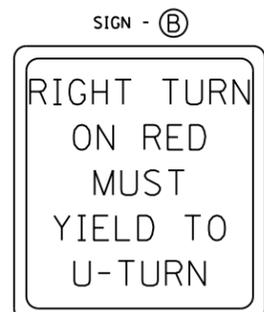
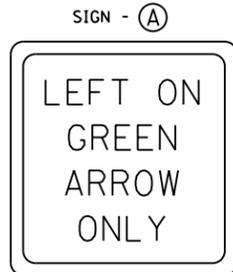
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION. THIS SHALL INCLUDE LOCATING THE MAST ARM FOUNDATIONS AND VERIFYING THE MAST ARM LENGTHS.
- THE EXACT LOCATION OF ALL UTILITIES SHALL BE FIELD VERIFIED BY THE CONTRACTOR BEFORE ORDERING ANY MATERIALS AND STARTING ANY WORK. FOR LOCATIONS OF UTILITIES, LOCALLY OWNED EQUIPMENT, LEASED ENFORCEMENT CAMERA SYSTEM FACILITIES AND IDOT UNDERGROUND FACILITIES, CONTACT THE LOCAL COUNTIES, MUNICIPALITIES AND IDOT FOR LOCATES. THE CONTRACTOR SHALL CALL 'JULIE' AT (800) 892-0123 OR 811, IN THE CITY OF CHICAGO CONTACT DIGGER AT (312) 744-7000 FOR FIELD LOCATIONS OF BURIED UTILITIES (48 HOUR NOTIFICATION REQUIRED).
- THE CONTRACTOR SHALL CHECK THE PROPOSED TRAFFIC SIGNAL EQUIPMENT LOCATIONS FOR OVERHEAD UTILITY CONFLICTS. THE CONTRACTOR SHALL COORDINATE ANY CONFLICTS WITH THE UTILITY COMPANIES AND THE RESIDENT ENGINEER BEFORE ORDERING MATERIALS.
- THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES, LOCAL GOVERNMENT AGENCIES AND IDOT.



SEE DRAWING TD-19  
MATCH LINE STA. 187+50.00

**NOTE:**  
ALL TRAFFIC SIGNAL POLES, MAST ARM ASSEMBLIES, SIGNAL/PEDESTRIAN HEADS AND HOUSINGS, MOUNTING BRACKETS/PLATES/BOLTS, PEDESTRIAN PUSH BUTTONS, CONTROLLER CABINETS, AND ILLUMINATED SIGNS WITHIN THE VILLAGE OF ORLAND PARK SHALL BE PAINTED BLACK, IN ACCORDANCE WITH THE SPECIAL PROVISIONS.

SEE FOLLOWING SHEET FOR DETAILED LAYOUT OF NE QUADRANT



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

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

**NOTE:**  
GALVANIZED STEEL CONDUIT IDENTIFIED AS IN TRENCH (T) OR PUSHED (P) IS SHOWN FOR INFORMATION ONLY. ALL UNDERGROUND CONDUIT SHALL BE PAID FOR AT THE CONTRACT UNIT PRICER PER FOOT FOR UNDERGROUND CONDUIT, OF THE TYPE AND SIZE SPECIFIED, REGARDLESS OF THE METHOD OF INSTALLATION.

**NOTE:**  
NEW PERMANENT SERVICE INSTALLATIONS WITH ILLUMINATED SIGNS AND/OR COMBINATION MAST ARM SIGNAL POLES SHALL BE METERED.



FILE NAME = D160M61-SHT-TS18.dgn  
SHT.PLAN

USER NAME = Anthony.Plutz  
DESIGNED - MRF  
DRAWN - MRF  
PLOT SCALE = 48.0000' / in.  
CHECKED - MJL  
PLOT DATE = 3/14/2013

REVISIED -  
REVISIED -  
REVISIED -  
REVISIED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL INSTALLATION PLAN  
US 45 (LAGRANGE ROAD) AND 156TH STREET

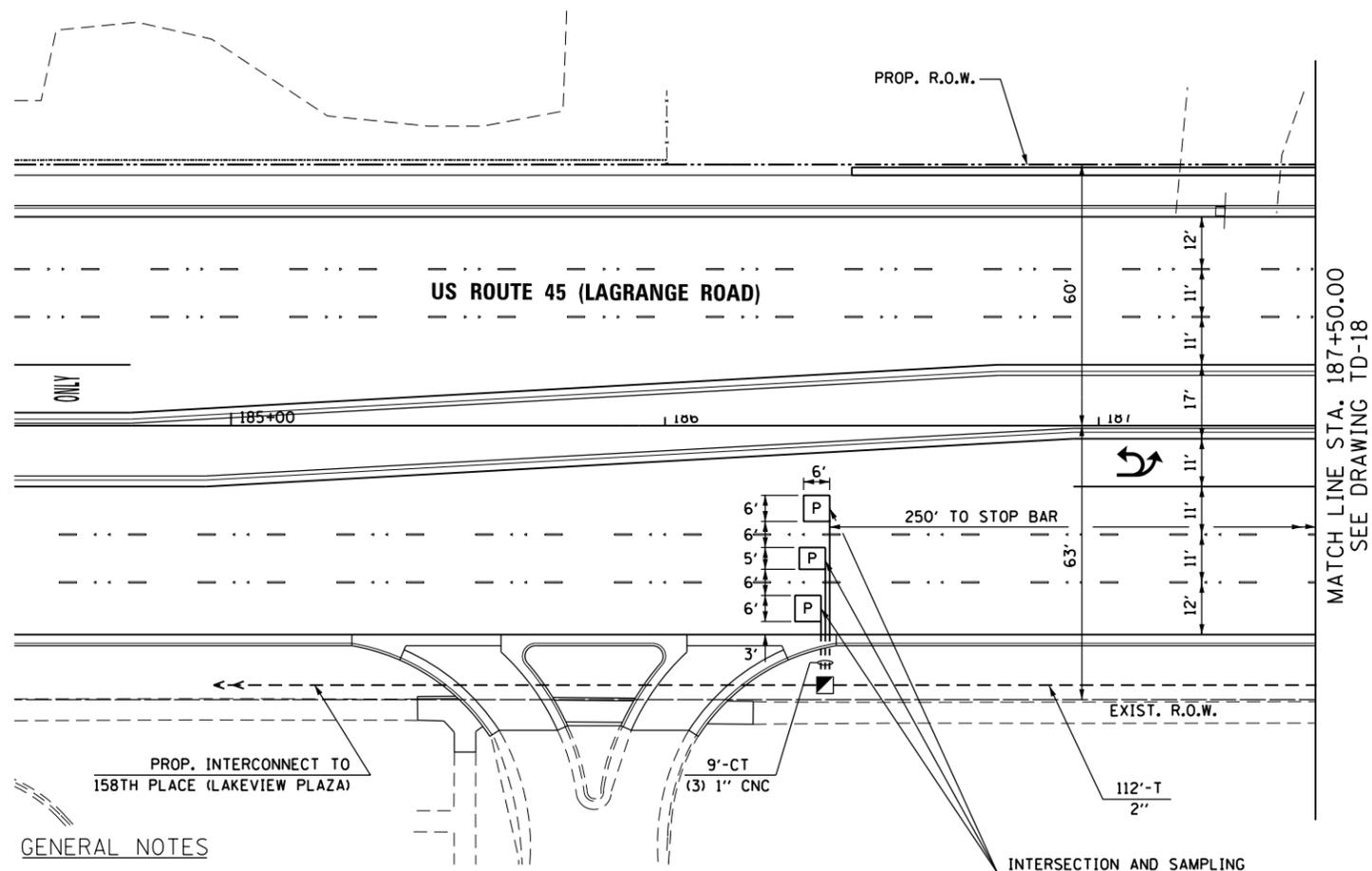
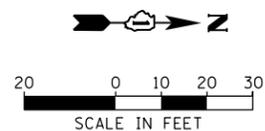
SCALE: 1"=20' SHEET 1 OF 2 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	328
TD-18			CONTRACT NO. 60M61	
ILLINOIS FED. AID PROJECT				

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

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

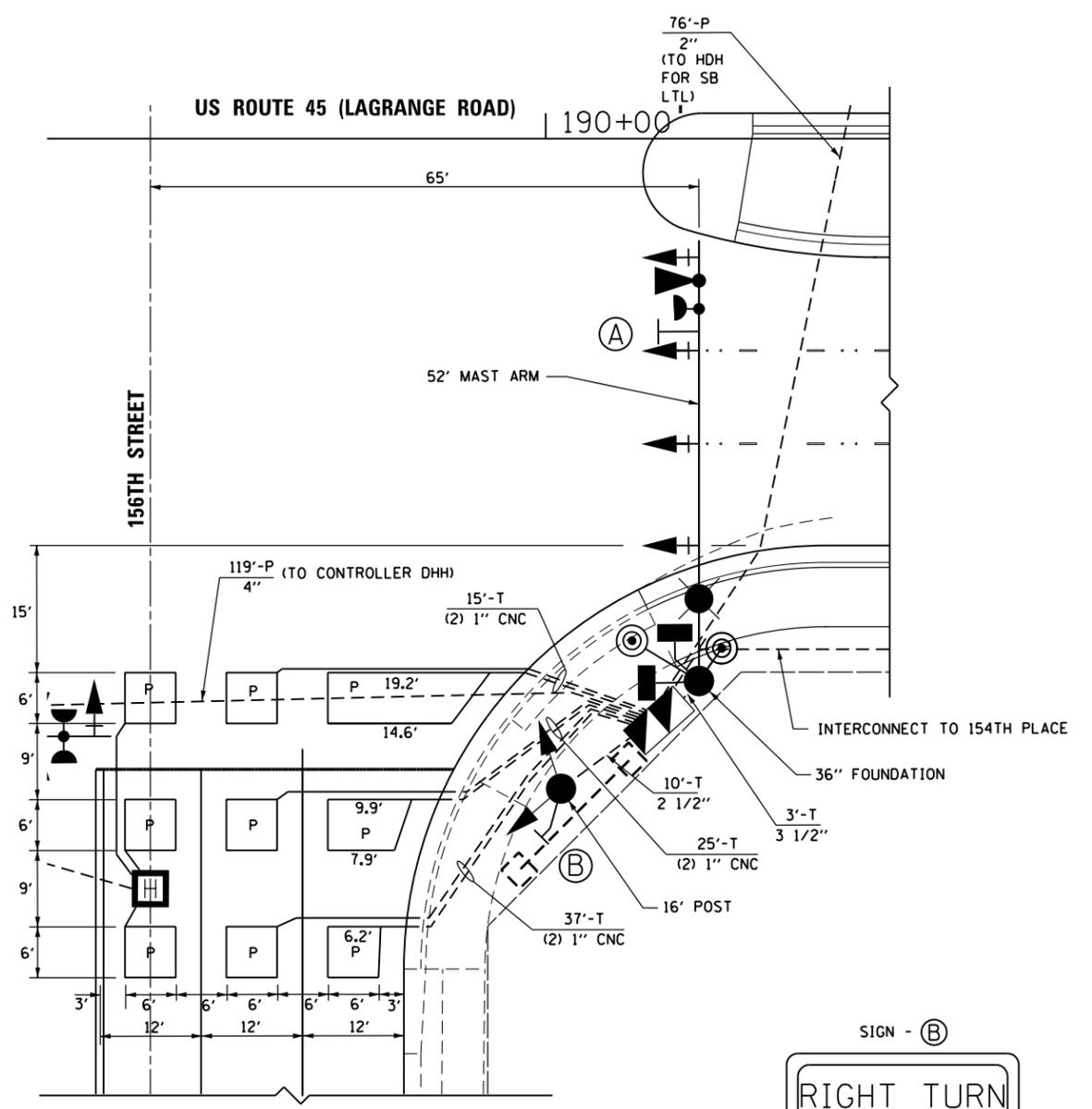
NOTE:  
GALVANIZED STEEL CONDUIT IDENTIFIED AS IN TRENCH (T) OR PUSHED (P) IS SHOWN FOR INFORMATION ONLY. ALL UNDERGROUND CONDUIT SHALL BE PAID FOR AT THE CONTRACT UNIT PRICER PER FOOT FOR UNDERGROUND CONDUIT, OF THE TYPE AND SIZE SPECIFIED, REGARDLESS OF THE METHOD OF INSTALLATION.



**GENERAL NOTES**

- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION. THIS SHALL INCLUDE LOCATING THE MAST ARM FOUNDATIONS AND VERIFYING THE MAST ARM LENGTHS.
- THE EXACT LOCATION OF ALL UTILITIES SHALL BE FIELD VERIFIED BY THE CONTRACTOR BEFORE ORDERING ANY MATERIALS AND STARTING ANY WORK. FOR LOCATIONS OF UTILITIES, LOCALLY OWNED EQUIPMENT, LEASED ENFORCEMENT CAMERA SYSTEM FACILITIES AND IDOT UNDERGROUND FACILITIES, CONTACT THE LOCAL COUNTIES, MUNICIPALITIES AND IDOT FOR LOCATES. THE CONTRACTOR SHALL CALL 'JULIE' AT (800) 892-0123 OR 811. IN THE CITY OF CHICAGO CONTACT DIGGER AT (312) 744-7000 FOR FIELD LOCATIONS OF BURIED UTILITIES (48 HOUR NOTIFICATION REQUIRED).
- THE CONTRACTOR SHALL CHECK THE PROPOSED TRAFFIC SIGNAL EQUIPMENT LOCATIONS FOR OVERHEAD UTILITY CONFLICTS. THE CONTRACTOR SHALL COORDINATE ANY CONFLICTS WITH THE UTILITY COMPANIES AND THE RESIDENT ENGINEER BEFORE ORDERING MATERIALS.
- THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES, LOCAL GOVERNMENT AGENCIES AND IDOT.

MATCH LINE STA. 187+50.00  
SEE DRAWING TD-18



**DETAIL PLAN - NE QUADRANT**

SCALE: 1" = 10'



R10-30  
30" X 36" (TYP)  
SIGN PANEL TYPE 1

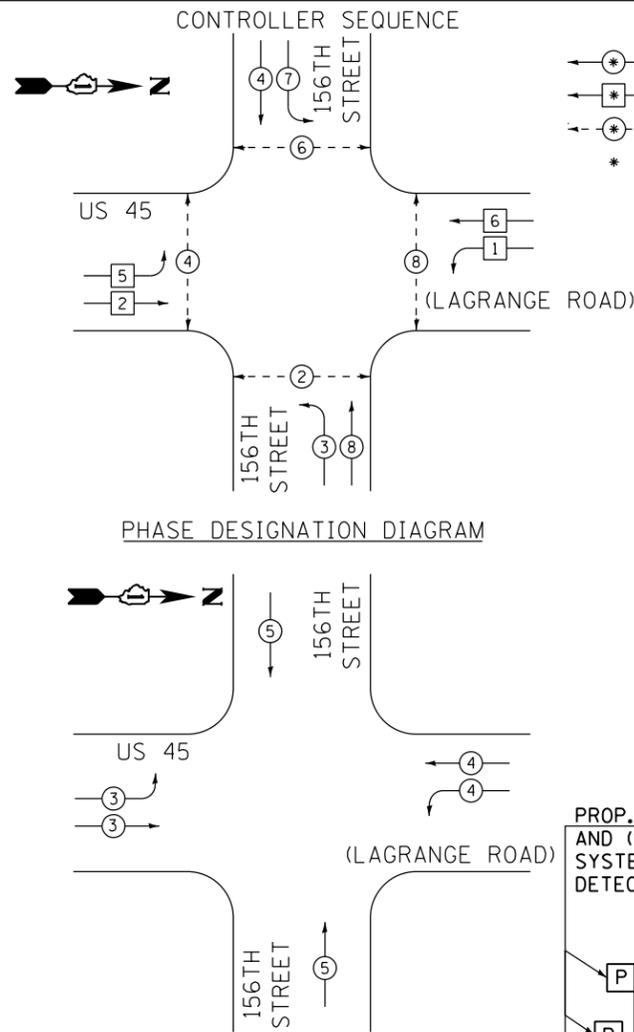
**URS**  
100 S. WACKER DR.  
SUITE 600  
CHICAGO, IL 60606  
TEL (312) 939-1000  
FAX (312) 939-4998

FILE NAME = D160M61-SHT-TS19.dgn	USER NAME = Anthony.Plutz	DESIGNED - MRF	REVISED -
SHT.PLAN	PLOT SCALE = 40.0000' / in.	DRAWN - MRF	REVISED -
	PLOT DATE = 3/14/2013	CHECKED - MJL	REVISED -
		DATE - 03/13/2013	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>TRAFFIC SIGNAL INSTALLATION PLAN</b>			
<b>US 45 (LAGRANGE ROAD) AND 156TH STREET</b>			
SCALE: 1"=20'	SHEET 2 OF 2 SHEETS	STA.	TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	329
<b>TD-19</b>			<b>CONTRACT NO. 60M61</b>	
ILLINOIS FED. AID PROJECT				



**PHASE DESIGNATION DIAGRAM LEGEND**

- ⊙ DUAL ENTRY PHASE
- ⊙ SINGLE ENTRY PHASE
- ⊙ PEDESTRIAN PHASE
- \* NUMBER REFERS TO ASSOCIATED PHASE

**CONSTRUCTION NOTES:**

- ① PROTECTED RIGHT TURN ARROWS SHALL NOT BE PROVIDED, HOWEVER, A 7 CONDUCTOR CABLE SHALL BE INSTALLED AS SHOWN (FOR FUTURE USE).

RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, 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 SEED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

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

THE END OF THE TRACER CABLE SHALL BE CONTINUOUS AND EXTEND INTO THE CONTROLLER CABINET.

**SCHEDULE OF QUANTITIES**

ITEM	UNIT	TOTAL
SIGN PANEL - TYPE 1	SO FT	60
SERVICE INSTALLATION - GROUND MOUNTED	EACH	1
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	843
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2 1/2" DIA.	FOOT	37
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	34
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3 1/2" DIA.	FOOT	3
UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	568
HANDHOLE	EACH	3
HEAVY-DUTY HANDHOLE	EACH	4
DOUBLE HANDHOLE	EACH	3
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1
UNINTERRUPTIBLE POWER SUPPLY, SPECIAL	EACH	1
TRANSCEIVER - FIBER OPTIC	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	1512
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	2165
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	2647
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	1782
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	3413
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	116
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	780
TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	2
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	2
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 50 FT.	EACH	2
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 52 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 56 FT.	EACH	1
CONCRETE FOUNDATION, TYPE A	FOOT	16
CONCRETE FOUNDATION, TYPE C	FOOT	4
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	45
CONCRETE FOUNDATION, TYPE E 42-INCH DIAMETER	FOOT	21
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	10
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	2
SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED	EACH	2
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	3
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	12
INDUCTIVE LOOP DETECTOR	EACH	14
PREFORMED DETECTOR LOOP	FOOT	1030
* LIGHT DETECTOR	EACH	3
* LIGHT DETECTOR AMPLIFIER	EACH	1
PEDESTRIAN PUSH-BUTTON	EACH	8
REMOVE EXISTING HANDHOLE	EACH	1
TEMPORARY WIRELESS INTERCONNECT SYSTEM	EACH	1
* ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED	FOOT	597
MAINTENANCE OF EXISTING TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
** LED INTERNALLY ILLUMINATED STREET NAME SIGN	EACH	4
ELECTRIC SERVICE DISCONNECT, LIGHTING AND TRAFFIC SIGNAL	EACH	1
TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1

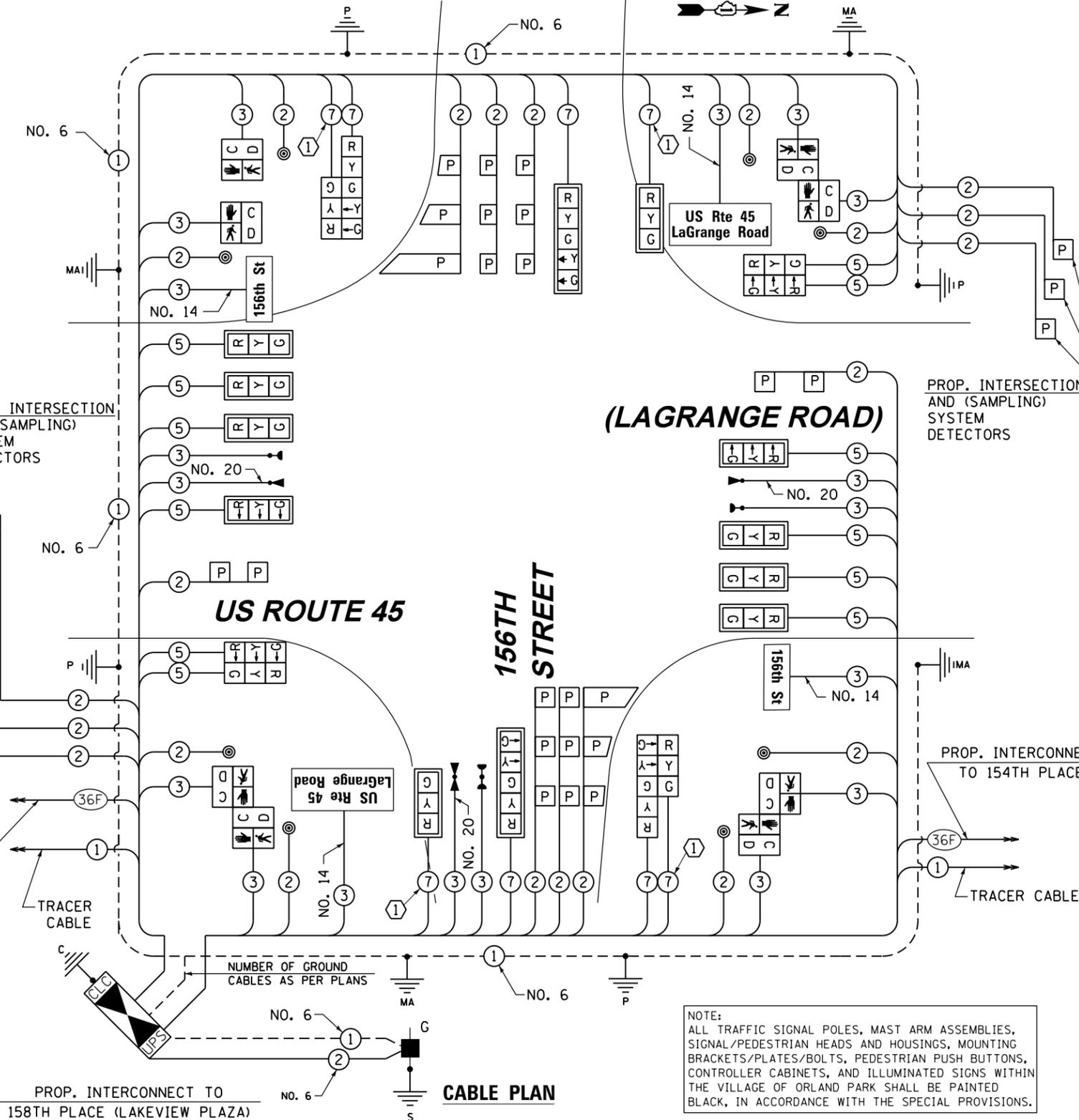
**EMERGENCY VEHICLE PREEMPTION SEQUENCE**

PROPOSED EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTORS	3	4	5
MOVEMENT	↶ ↷	↶ ↷ ↶ ↷	↶ ↷ ↶ ↷ ↶ ↷

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS						TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE INCAND.	LED	% OPERATION		
SIGNAL (RED)	20		17	0.50		170.0
(YELLOW)	20		25	0.25		125.0
(GREEN)	20		15	0.25		75.0
ARROW	8		12	0.10		9.6
PED. SIGNAL	8		25	1.00		200.0
CONTROLLER	1		100	1.00		100.0
ILLUM. SIGN	4		25	0.05		5.0
FLASHER			25	0.50		-
ENERGY COST TO:						TOTAL = 684.6

VILLAGE OF ORLAND PARK  
14700 SOUTH RAVINIA AVE.

ENERGY SUPPLY: CONTACT: KATHRYN SUGRUE  
PHONE: (708) 235-2337  
COMPANY: COMMONWEALTH EDISON



NOTE:  
ALL TRAFFIC SIGNAL POLES, MAST ARM ASSEMBLIES, SIGNAL/PEDESTRIAN HEADS AND HOUSINGS, MOUNTING BRACKETS/PLATES/BOLTS, PEDESTRIAN PUSH BUTTONS, CONTROLLER CABINETS, AND ILLUMINATED SIGNS WITHIN THE VILLAGE OF ORLAND PARK SHALL BE PAINTED BLACK, IN ACCORDANCE WITH THE SPECIAL PROVISIONS.

- \* 100% COST TO ORLAND FIRE PROTECTION DISTRICT
- \*\* 100% COST TO VILLAGE OF ORLAND PARK

NOTE:  
NEW PERMANENT SERVICE INSTALLATIONS WITH ILLUMINATED SIGNS AND/OR COMBINATION MAST ARM SIGNAL POLES SHALL BE METERED.

100 S. WACKER DR.  
 5TH FLOOR  
 CHICAGO, IL 60606  
 TEL (312) 939-1000  
 FAX (312) 939-4998  
**URS**

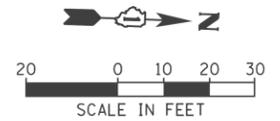
FILE NAME = D160M61-SHT-TS20.dgn	USER NAME = Anthony.Plutz	DESIGNED - MRF	REVISIONS
SHT.PLAN	PLOT SCALE = 40.0000' / in.	DRAWN - MRF	REVISIONS
	PLOT DATE = 3/14/2013	CHECKED - MJL	REVISIONS
		DATE - 03/13/2013	REVISIONS

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE			
US 45 (LAGRANGE ROAD) AND 156TH STREET			
SCALE: N.T.S.	SHEET 1 OF 1 SHEETS	STA. TO STA.	

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	330
TD-20			CONTRACT NO.	60M61
ILLINOIS FED. AID PROJECT				

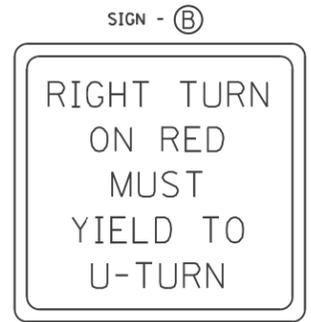
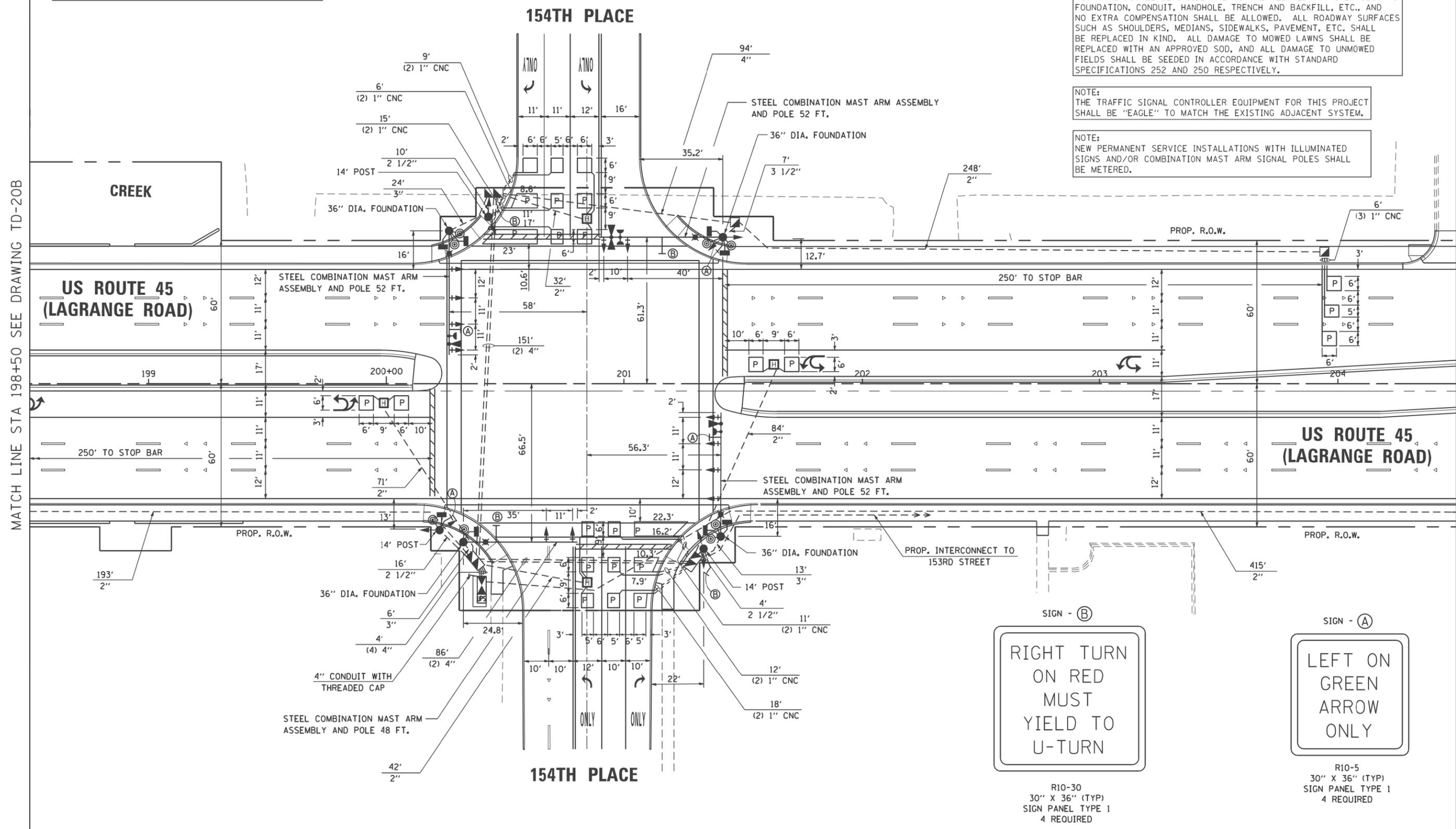
NOTE:  
 ALL TRAFFIC SIGNAL POLES, MAST ARM ASSEMBLIES, SIGNAL/PEDESTRIAN HEADS AND HOUSINGS, MOUNTING BRACKETS/PLATES/BOLTS, PEDESTRIAN PUSH BUTTONS, CONTROLLER CABINETS, AND ILLUMINATED SIGNS WITHIN THE VILLAGE OF ORLAND PARK SHALL BE PAINTED BLACK, IN ACCORDANCE WITH THE SPECIAL PROVISIONS.



RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, 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 SEED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

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

NOTE:  
 NEW PERMANENT SERVICE INSTALLATIONS WITH ILLUMINATED SIGNS AND/OR COMBINATION MAST ARM SIGNAL POLES SHALL BE METERED.



R10-30  
 30" X 36" (TYP)  
 SIGN PANEL TYPE 1  
 4 REQUIRED



R10-5  
 30" X 36" (TYP)  
 SIGN PANEL TYPE 1  
 4 REQUIRED

MATCH LINE STA 198+50 SEE DRAWING TD-20B

MATCH LINE STA 204+50 SEE DRAWING TD-20C

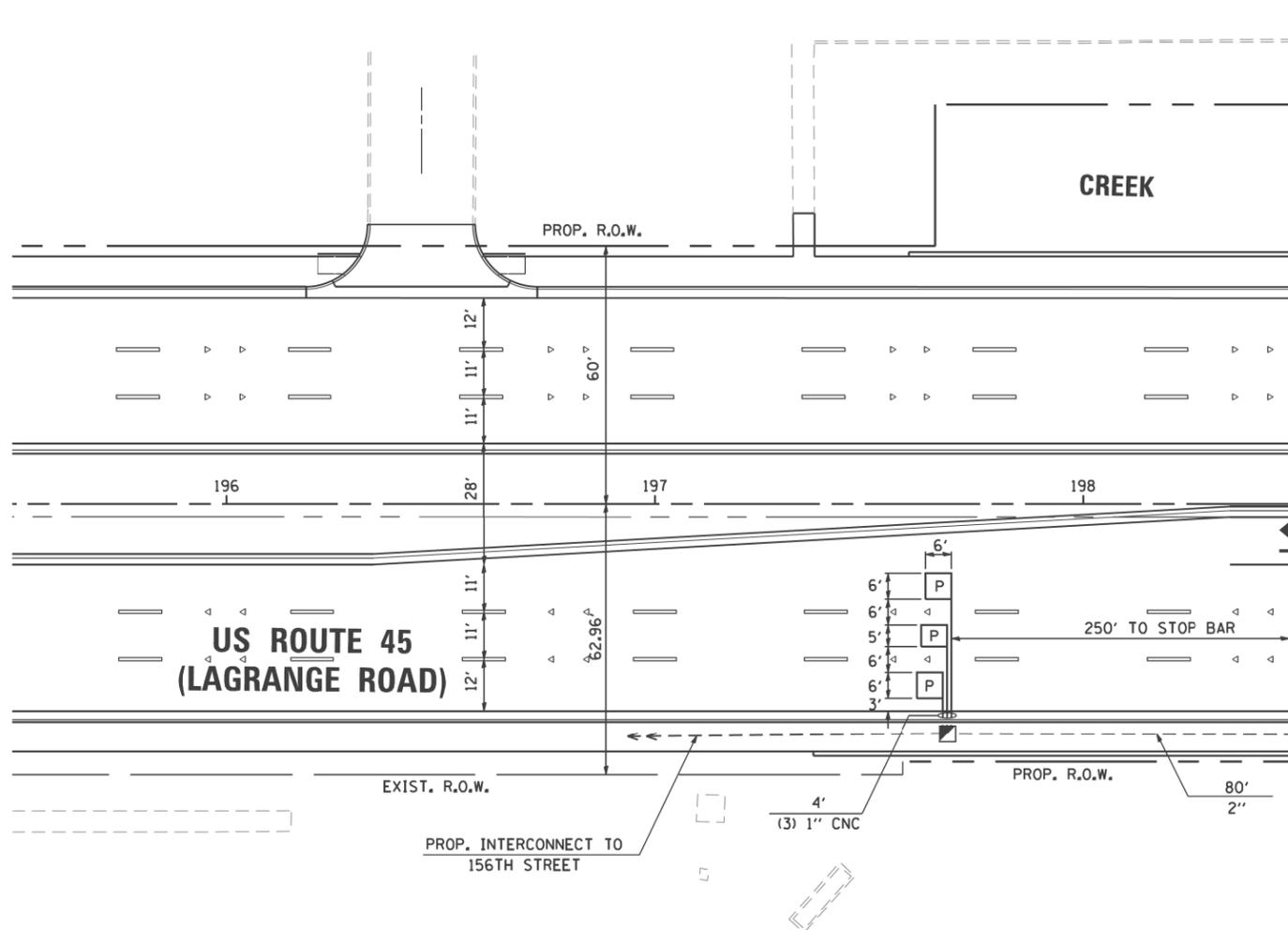
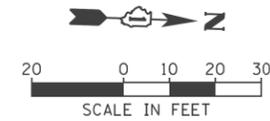
FILE NAME =	USER NAME =	DESIGNED - BA	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC SIGNAL INSTALLATION PLAN US 45 (LAGRANGE ROAD) AND 154TH PLACE	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 40.000000' / in.	CHECKED - WK	REVISED -			330	TD-20A	COOK	877	331
PLOT DATE =	DATE - 03/13/2013	REVISED -	REVISED -	SCALE: 1"=20'	SHEET OF SHEETS	STA. TO STA.	ILLINOIS FED. AID PROJECT			

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

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

NOTE:  
NEW PERMANENT SERVICE INSTALLATIONS WITH ILLUMINATED SIGNS AND/OR COMBINATION MAST ARM SIGNAL POLES SHALL BE METERED.

NOTE:  
ALL TRAFFIC SIGNAL POLES, MAST ARM ASSEMBLIES, SIGNAL/PEDESTRIAN HEADS AND HOUSINGS, MOUNTING BRACKETS/PLATES/BOLTS, PEDESTRIAN PUSH BUTTONS, CONTROLLER CABINETS, AND ILLUMINATED SIGNS WITHIN THE VILLAGE OF ORLAND PARK SHALL BE PAINTED BLACK, IN ACCORDANCE WITH THE SPECIAL PROVISIONS.



MATCH LINE STA 198+50  
SEE DRAWING TD-20A

**GENERAL NOTES:**

- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION. THIS SHALL INCLUDE LOCATING THE MAST ARM FOUNDATIONS AND VERIFYING THE MAST ARM LENGTHS.
- THE EXACT LOCATION OF ALL UTILITIES SHALL BE FIELD VERIFIED BY THE CONTRACTOR BEFORE ORDERING ANY MATERIALS AND STARTING ANY WORK. FOR LOCATIONS OF UTILITIES, LOCALLY OWNED EQUIPMENT, LEASED ENFORCEMENT CAMERA SYSTEM FACILITIES AND IDOT UNDERGROUND FACILITIES, CONTACT THE LOCAL COUNTIES, MUNICIPALITIES AND IDOT FOR LOCATES. THE CONTRACTOR SHALL CALL 'JULIE' AT (800) 892-0123 OR 811, IN CITY OF CHICAGO CONTACT DIGGER AT (312) 744-7000 FOR FIELD LOCATIONS OF BURIED UTILITIES (48 HOUR NOTIFICATION REQUIRED).
- THE CONTRACTOR SHALL CHECK THE PROPOSED TRAFFIC SIGNAL EQUIPMENT LOCATIONS FOR OVERHEAD UTILITY CONFLICTS. THE CONTRACTOR SHALL COORDINATE ANY CONFLICTS WITH THE UTILITY COMPANIES AND THE RESIDENT ENGINEER BEFORE ORDERING MATERIALS.
- THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES, LOCAL GOVERNMENT AGENCIES AND IDOT.

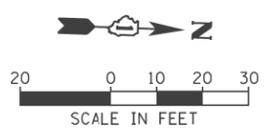
FILE NAME =	USER NAME =	DESIGNED - BA	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>TRAFFIC SIGNAL INSTALLATION PLAN US 45 (LAGRANGE ROAD) AND 154TH PLACE</b>			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
		DRAWN - BA	REVISED -		SCALE: 1"=20'	SHEET 2	STA.	TO STA.	330	103R-4	COOK	877	332
		CHECKED -	REVISED -						<b>TD-20B</b>		CONTRACT NO. 60M61		
		DATE - 03/13/2013	REVISED -						ILLINOIS FED. AID PROJECT				

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

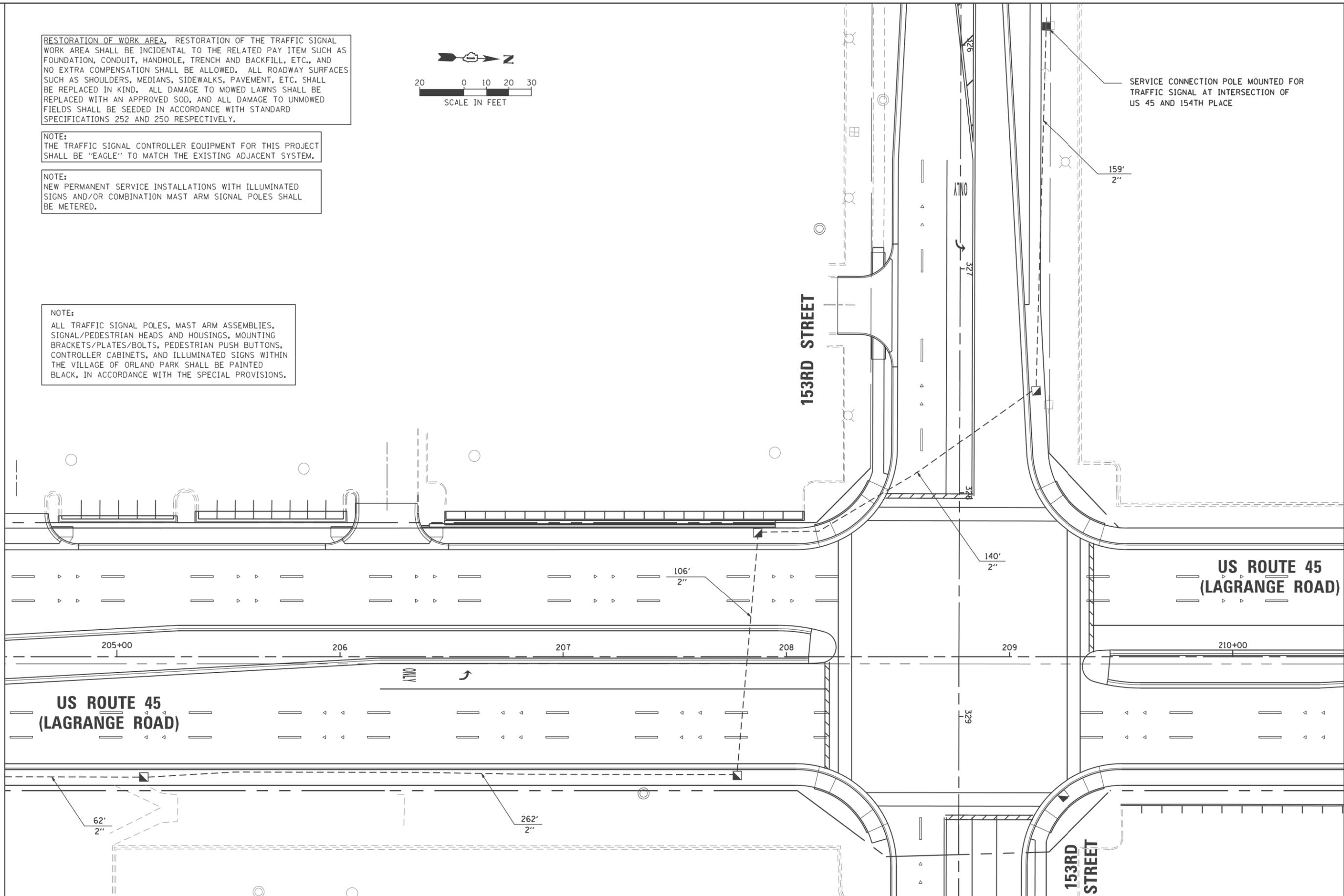
NOTE:  
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.

NOTE:  
NEW PERMANENT SERVICE INSTALLATIONS WITH ILLUMINATED SIGNS AND/OR COMBINATION MAST ARM SIGNAL POLES SHALL BE METERED.

NOTE:  
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MATCH LINE STA 204+50  
SEE DRAWING TD-20A



FILE NAME =	USER NAME =	DESIGNED - BA	REVISED -
		DRAWN - BA	REVISED -
		CHECKED - DB	REVISED -
		DATE - 03/13/2013	REVISED -

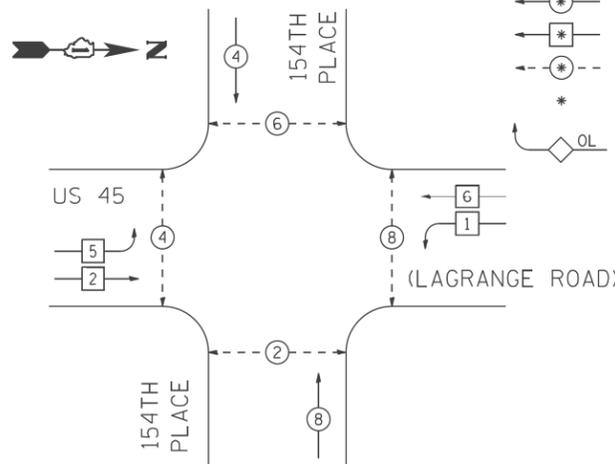
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC SIGNAL INSTALLATION PLAN  
US 45 (LAGRANGE ROAD) AND 154TH PLACE**

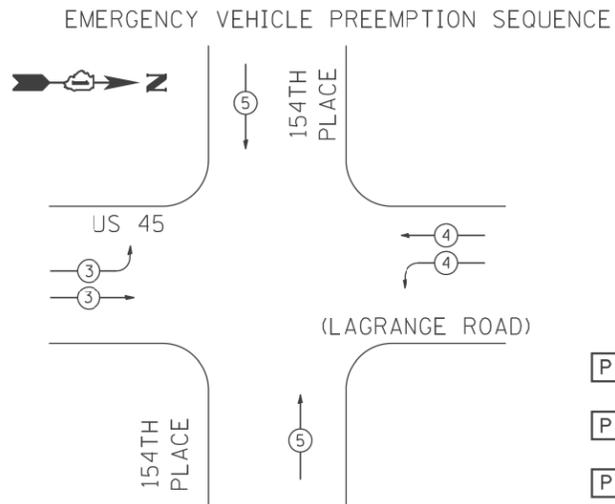
SCALE: 1"=20'      SHEET 3      STA.      TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	333
<b>TD-20C</b>		CONTRACT NO. 60M61		
ILLINOIS FED. AID PROJECT				

CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM



PROPOSED EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTORS	3	4	5
MOVEMENT			

PHASE DESIGNATION DIAGRAM LEGEND

- DUAL ENTRY PHASE
- SINGLE ENTRY PHASE
- PEDESTRIAN PHASE
- NUMBER REFERS TO ASSOCIATED PHASE
- RIGHT TURN OVERLAP

NOTE:  
ALL TRAFFIC SIGNAL POLES, MAST ARM ASSEMBLIES, SIGNAL/PEDESTRIAN HEADS AND HOUSINGS, MOUNTING BRACKETS/PLATES/BOLTS, PEDESTRIAN PUSH BUTTONS, CONTROLLER CABINETS, AND ILLUMINATED SIGNS WITHIN THE VILLAGE OF ORLAND PARK SHALL BE PAINTED BLACK, IN ACCORDANCE WITH THE SPECIAL PROVISIONS.

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

THE END OF THE TRACER CABLE SHALL BE CONTINUOUS AND EXTEND INTO THE CONTROLLER CABINET.

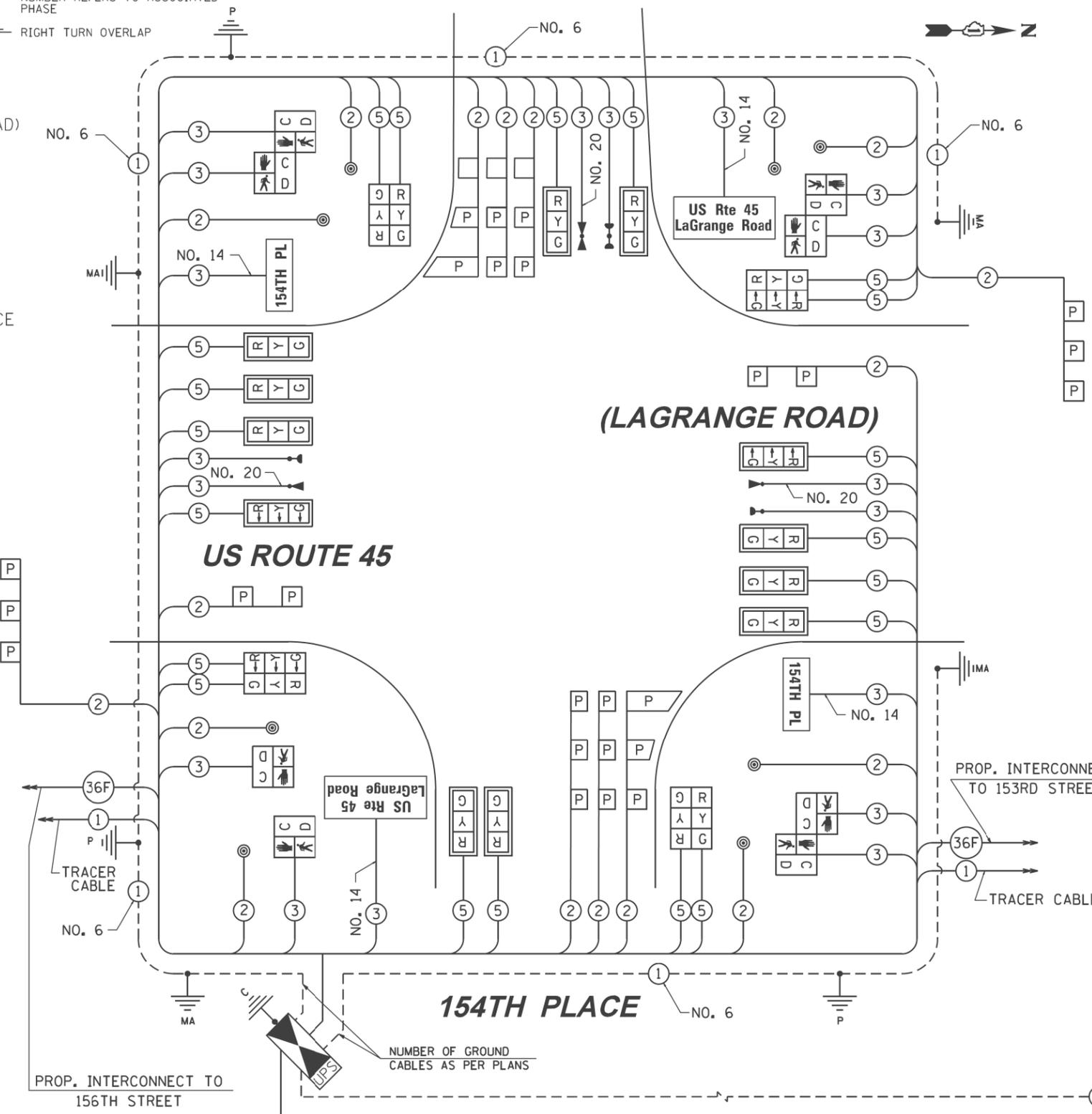
NOTE:  
NEW PERMANENT SERVICE INSTALLATIONS WITH ILLUMINATED SIGNS AND/OR COMBINATION MAST ARM SIGNAL POLES SHALL BE METERED.

SCHEDULE OF QUANTITIES

ITEM	UNIT	TOTAL
SIGN PANEL - TYPE 1	SO FT	60
SERVICE INSTALLATION - POLE MOUNTED	EACH	1
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	1894
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2 1/2" DIA.	FOOT	30
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	43
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3 1/2" DIA.	FOOT	7
UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	568
HANDHOLE	EACH	7
HEAVY-DUTY HANDHOLE	EACH	4
DOUBLE HANDHOLE	EACH	3
TRANSCEIVER - FIBER OPTIC	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	1384
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	2771
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	3350
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	1854
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 2 2 C	FOOT	1216
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	1654
TRAFFIC SIGNAL POST, GALVANIZED STEEL, 14 FT.	EACH	3
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 48 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 52 FT.	EACH	3
CONCRETE FOUNDATION, TYPE A	FOOT	12
CONCRETE FOUNDATION, TYPE C	FOOT	4
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	60
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	12
SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED	EACH	4
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	3
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	12
INDUCTIVE LOOP DETECTOR	FOOT	10
DETECTOR LOOP, TYPE I	FOOT	109
PREFORMED DETECTOR LOOP	EACH	909
* LIGHT DETECTOR	EACH	3
* LIGHT DETECTOR AMPLIFIER	EACH	1
PEDESTRIAN PUSH-BUTTON	EACH	8
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1
* ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED	FOOT	668
** LED INTERNALLY ILLUMINATED STREET NAME SIGN	EACH	4
ELECTRIC SERVICE DISCONNECT, LIGHTING AND TRAFFIC SIGNAL	EACH	1

\* 100% COST TO ORLAND FIRE PROTECTION DISTRICT  
\*\* 100% COST TO VILLAGE OF ORLAND PARK

154TH PLACE



CABLE PLAN

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

TYPE	NO. OF LAMPS	WATTAGE (INCANDE)	LED	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	20	17		0.50	170.0
(YELLOW)	20	25		0.25	125.0
(GREEN)	20	15		0.25	75.0
ARROW	0	12		0.10	-
PED. SIGNAL	8	25		1.00	200.0
CONTROLLER	1	100		1.00	100.0
FLASHER		25		0.50	
ENERGY COST TO: 100% Village of Orland Park					670.0

VILLAGE OF ORLAND PARK  
14700 SOUTH RAVINIA AVE.  
ENERGY SUPPLY: CONTACT: KATHRYN SUGRUE  
PHONE: (708) 235-2337  
COMPANY: COMMONWEALTH EDISON

FILE NAME =	USER NAME = #USER#	DESIGNED - BA	REVISED -
		DRAWN - BA	REVISED -
		CHECKED - DB	REVISED -
		DATE - 03/13/2013	REVISED -

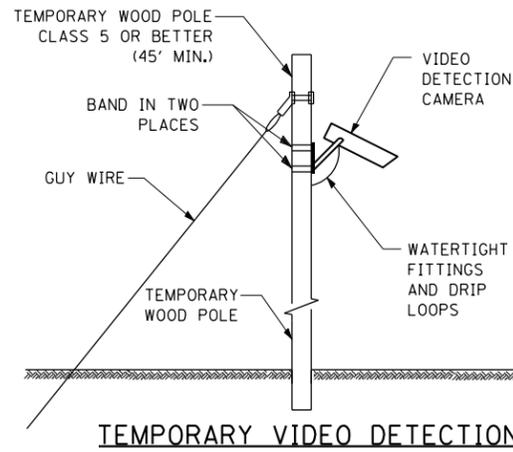
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE  
US 45 (LAGRANGE ROAD) AND 154TH PLACE  
SCALE: 1"=20' SHEET 4 STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	334
TD-20D			CONTRACT NO. 60M61	
ILLINOIS FED. AID PROJECT				

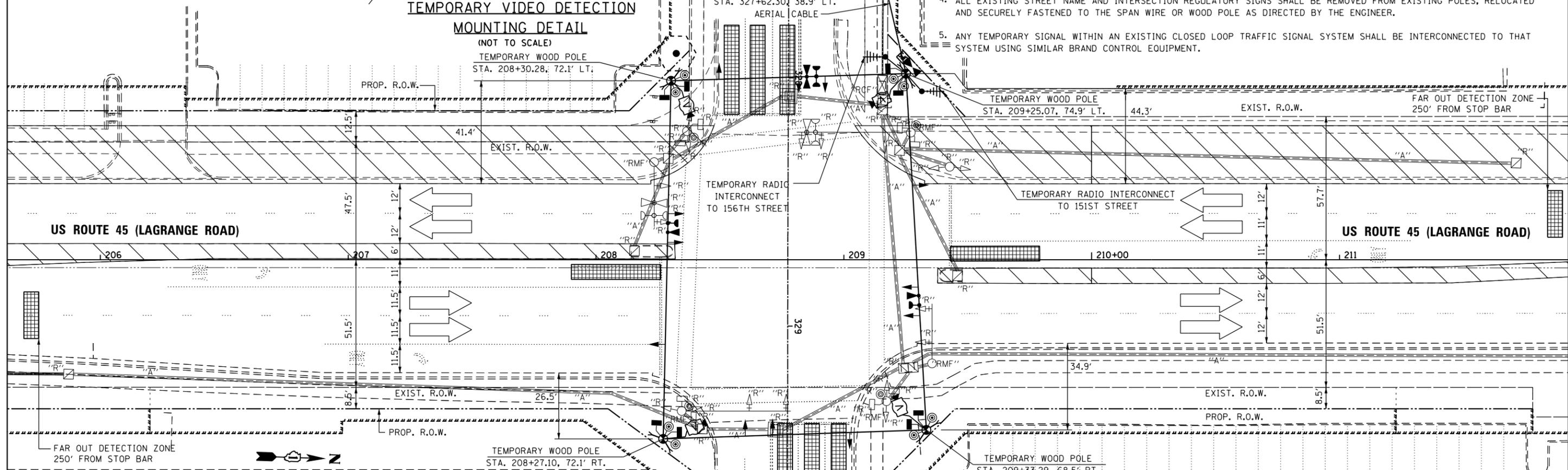
**CONSTRUCTION NOTES:**

- 1 ANY TEMPORARY TRAFFIC SIGNAL SECTIONS NOT IN USE DURING A STAGE OF CONSTRUCTION SHALL BE BAGGED AND DEACTIVATED. SEE CABLE PLANS FOR MORE DETAILS.
- 2 ALL VIDEO DETECTION ZONES ARE TO BE REDEFINED DURING EACH STAGE OF CONSTRUCTION AND ARE INCLUDED IN THE COST OF THE TEMPORARY TRAFFIC SIGNAL INSTALLATION.
- 3 TEMPORARY RADIO INTERCONNECT SHALL NOT BE REMOVED UNTIL FIBER INTERCONNECTS TO 154TH PLACE AND 151ST STREET ARE INSTALLED AND OPERATIONAL.



**TEMPORARY VIDEO DETECTION MOUNTING DETAIL**  
(NOT TO SCALE)

TEMPORARY WOOD POLE  
STA. 208+30.28, 72.1' LT.



**NOTES FOR TEMPORARY TRAFFIC SIGNAL:**

1. ALL CONTROL EQUIPMENT SUCH AS COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNAL(S) SHALL BE FURNISHED BY THE CONTRACTOR.
2. ONLY CONTROLLERS SUPPLIED BY ONE OF THE DISTRICT APPROVED CLOSED LOOP EQUIPMENT MANUFACTURERS WILL BE APPROVED FOR USE AT TEMPORARY SIGNAL LOCATIONS. ALL CONTROLLERS USED FOR TEMPORARY TRAFFIC SIGNALS SHALL BE FULLY ACTUATED NEMA MICROPROCESSOR BASED WITH RS232 DATA ENTRY PORTS COMPATIBLE WITH EXISTING MONITORING SOFTWARE APPROVED BY IDOT DISTRICT 1, INSTALLED IN A NEMA TS2 CABINET. ONLY ONE BRAND OF CONTROLLER WILL BE ACCEPTED FOR ANY ONE CONTRACT.
3. ALL TRAFFIC SIGNAL SECTIONS AND PEDESTRIAN SIGNAL SECTIONS SHALL BE LED AND 12" (300mm) DIAMETER. HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. PEDESTRIAN SIGNALS SHALL INCLUDE SOLID INTERNATIONAL SYMBOLS. PEDESTRIAN SIGNALS WITH COUNTDOWN TIMERS SHALL BE USED WHEN THE EXISTING INSTALLATION UTILIZES COUNTDOWN TYPE OR AS DIRECTED BY THE ENGINEER. COUNTDOWN TYPE PEDESTRIAN SIGNALS ARE NOT TO BE INSTALLED AT A RAILROAD INTERSECTION. THE CONTRACTOR SHALL FURNISH ENOUGH CABLE SLACK TO RELOCATE HEADS TO ANY POSITION ON THE SPAN WIRE OR AT LOCATIONS ILLUSTRATED ON THE PLANS FOR CONSTRUCTION STAGING. THE TEMPORARY TRAFFIC SIGNAL SHALL REMAIN IN OPERATION DURING ALL SIGNAL HEAD RELOCATIONS. EACH TEMPORARY TRAFFIC SIGNAL HEAD SHALL HAVE ITS OWN CABLE FROM THE CONTROLLER CABINET TO THE SIGNAL HEAD.
4. ALL EXISTING STREET NAME AND INTERSECTION REGULATORY SIGNS SHALL BE REMOVED FROM EXISTING POLES, RELOCATED AND SECURELY FASTENED TO THE SPAN WIRE OR WOOD POLE AS DIRECTED BY THE ENGINEER.
5. ANY TEMPORARY SIGNAL WITHIN AN EXISTING CLOSED LOOP TRAFFIC SIGNAL SYSTEM SHALL BE INTERCONNECTED TO THAT SYSTEM USING SIMILAR BRAND CONTROL EQUIPMENT.

**CONTINUATION OF THE NOTES FOR TEMPORARY TRAFFIC SIGNAL:**

6. THE TEMPORARY TRAFFIC SIGNAL SHALL HAVE THE SIGNAL HEAD DISPLAYS, SIGNAL HEAD PLACEMENT AND CONTROLLER PHASING MATCH THE EXISTING TRAFFIC SIGNAL, AT THE TIME OF THE TURN ON, IF NO TRAFFIC STAGING IS IN PLACE OR WILL NOT BE STAGED ON THE DAY OF THE TURN ON.
7. UNINTERRUPTIBLE POWER SUPPLY (UPS) SYSTEMS SHALL BE INSTALLED AND MADE OPERATIONAL AT TEMPORARY TRAFFIC SIGNAL INSTALLATIONS WHERE UPS IS INSTALLED AT THE EXISTING TRAFFIC SIGNAL, TEMPORARY TRAFFIC SIGNALS AT RAILROAD INTERSECTIONS, AND TEMPORARY TRAFFIC SIGNALS AT INTERSECTIONS WITH FIRE STATION ACTUATED EMERGENCY VEHICLE PRE-EMPTION, OR WHEN INDICATED ON THE PLANS.
8. TRAFFIC SIGNAL MANAGEMENT SYSTEMS SHALL BE MAINTAINED IN OPERATION AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER. REQUIRED EQUIPMENT SHALL BE AS SHOWN ON THE PLANS AND THE CONTRACTOR SHALL PLACE THE EQUIPMENT IN OPERATION TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE TRAFFIC SIGNAL MANAGEMENT SYSTEM.
9. DETECTION AT TEMPORARY TRAFFIC SIGNALS SHALL BE INCLUDED FOR ALL APPROACHES OF THE INTERSECTION UNLESS INDICATED OTHERWISE ON THE PLANS. THE DETECTION SYSTEM MUST MEET THE SPECIFICATIONS OF DISTRICT 1 AND THE CONTRACTOR SHALL PLACE THE DETECTORS INTO OPERATION TO THE SATISFACTION OF THE ENGINEER.
10. WHEN PAN, TILT, ZOOM CAMERAS ARE INSTALLED AT THE EXISTING INTERSECTION OR ARE CALLED FOR IN THE PLANS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING AND MAINTAINING THE CAMERAS TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE CAMERAS.

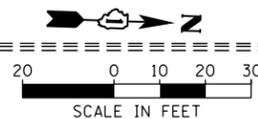
THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL REMAIN THE PROPERTY OF THE AGENCY LISTED BELOW. THE CONTRACTOR SHALL SAFELY STORE AND ARRANGE FOR THE PICK UP OF ALL EQUIPMENT TO BE RETURNED TO THE LISTED AGENCY AS PER THE TRAFFIC SIGNAL SPECIFICATIONS.

AGENCY: ORLAND FIRE PROTECTION DISTRICT

- 2 EACH LIGHT DETECTOR
- 1 EACH LIGHT DETECTOR AMPLIFIER

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

- 1 EACH CONTROLLER AND CABINET ( COMPLETE )
- 4 EACH MAST ARM ASSEMBLY AND POLE
- 3 EACH SIGNAL POST
- 8 EACH TRAFFIC SIGNAL BACKPLATE
- 1 EACH SIGNAL HEAD, 1-FACE, 3-SECTION
- 7 EACH SIGNAL HEAD, 1-FACE, 5-SECTION
- 3 EACH SIGNAL HEAD, 2-FACE, 2-5 SECTION
- 1 EACH SIGNAL HEAD, 2-FACE, 1-3 SECTION, 1-5 SECTION
- 4 EACH PEDESTRIAN SIGNAL HEAD, 2-FACE, 2-SECTION
- 4 EACH PEDESTRIAN PUSHBUTTON
- 1 EACH SERVICE INSTALLATION



100 S. WACKER DR.  
 5TH FLOOR  
 CHICAGO, IL 60606  
 TEL (312) 939-1000  
 FAX (312) 939-4998  
**URS**

FILE NAME = D160M61-SHT-TS21.dgn	USER NAME = Anthony.Plutz	DESIGNED - MRF	REVISED -
SHT.PLAN	PLOT SCALE = 40.0000' / in.	DRAWN - MRF	REVISED -
	PLOT DATE = 3/14/2013	CHECKED - MJL	REVISED -
		DATE - 03/13/2013	REVISED -

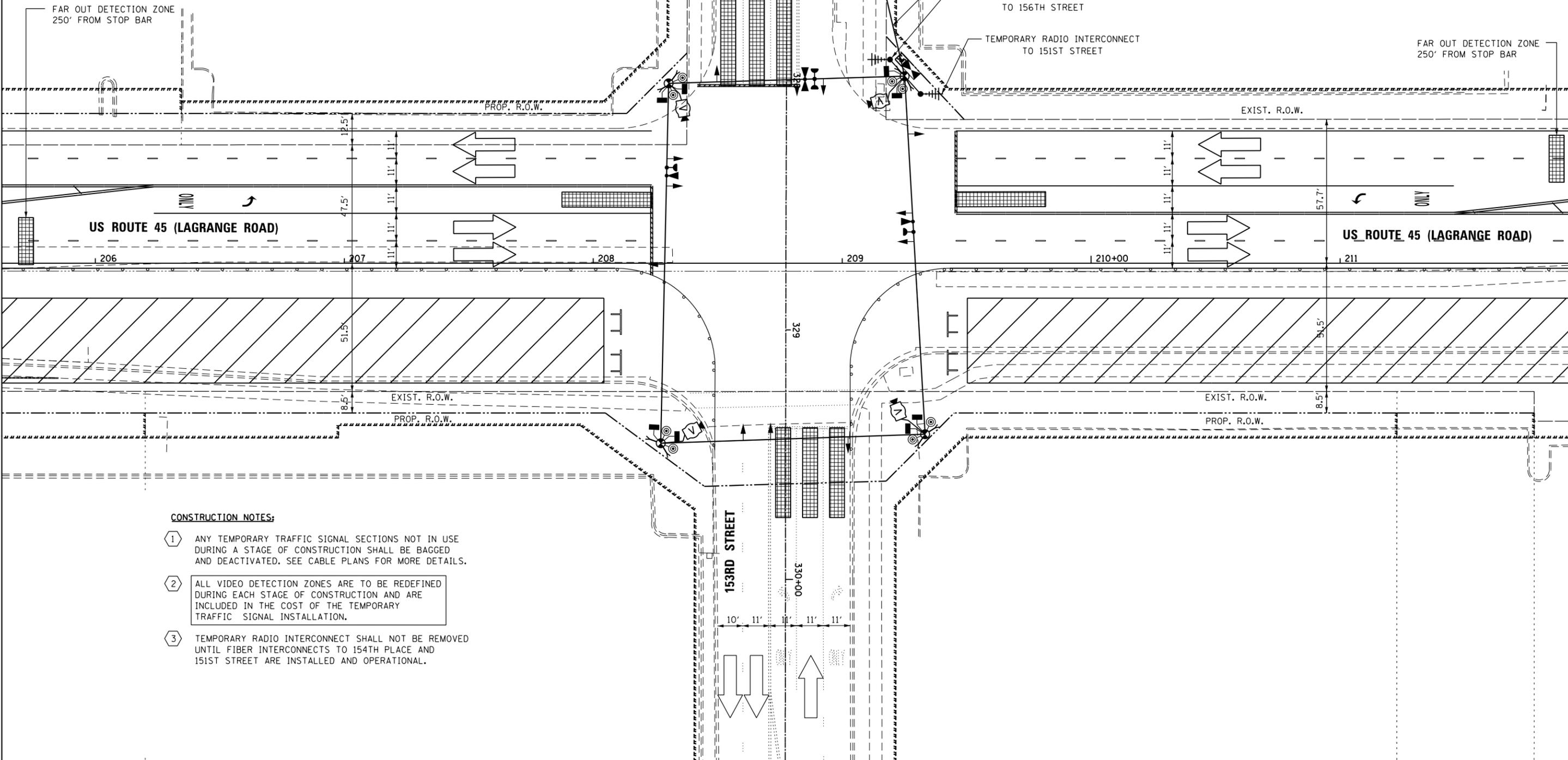
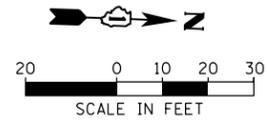
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>TEMPORARY TRAFFIC SIGNAL INSTALLATION AND REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT PLAN - PRE-STAGE</b>	
<b>US 45 (LAGRANGE ROAD) AND 153RD STREET</b>	
SCALE: 1"=20'	SHEET 1 OF 6 SHEETS
STA.	TO STA.

F.A.P. RTE. 330	SECTION 103R-4	COUNTY COOK	TOTAL SHEETS 877	SHEET NO. 335
<b>TD-21</b>		CONTRACT NO. 60M61		
ILLINOIS FED. AID PROJECT				

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

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



**CONSTRUCTION NOTES:**

- 1 ANY TEMPORARY TRAFFIC SIGNAL SECTIONS NOT IN USE DURING A STAGE OF CONSTRUCTION SHALL BE BAGGED AND DEACTIVATED. SEE CABLE PLANS FOR MORE DETAILS.
- 2 ALL VIDEO DETECTION ZONES ARE TO BE REDEFINED DURING EACH STAGE OF CONSTRUCTION AND ARE INCLUDED IN THE COST OF THE TEMPORARY TRAFFIC SIGNAL INSTALLATION.
- 3 TEMPORARY RADIO INTERCONNECT SHALL NOT BE REMOVED UNTIL FIBER INTERCONNECTS TO 154TH PLACE AND 151ST STREET ARE INSTALLED AND OPERATIONAL.

100 S. WACKER DR.  
 15TH FLOOR  
 CHICAGO, IL 60606  
 TEL (312) 939-1000  
 FAX (312) 939-4998  
**URS**

FILE NAME =	USER NAME = Anthony.Plutz
D160M61-SHT-TS22.dgn	
SHT.PLAN	

DESIGNED - MRF	REVISED -
DRAWN - MRF	REVISED -
CHECKED - MJL	REVISED -
DATE - 03/13/2013	REVISED -

DESIGNED - MRF	REVISED -
DRAWN - MRF	REVISED -
CHECKED - MJL	REVISED -
DATE - 03/13/2013	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

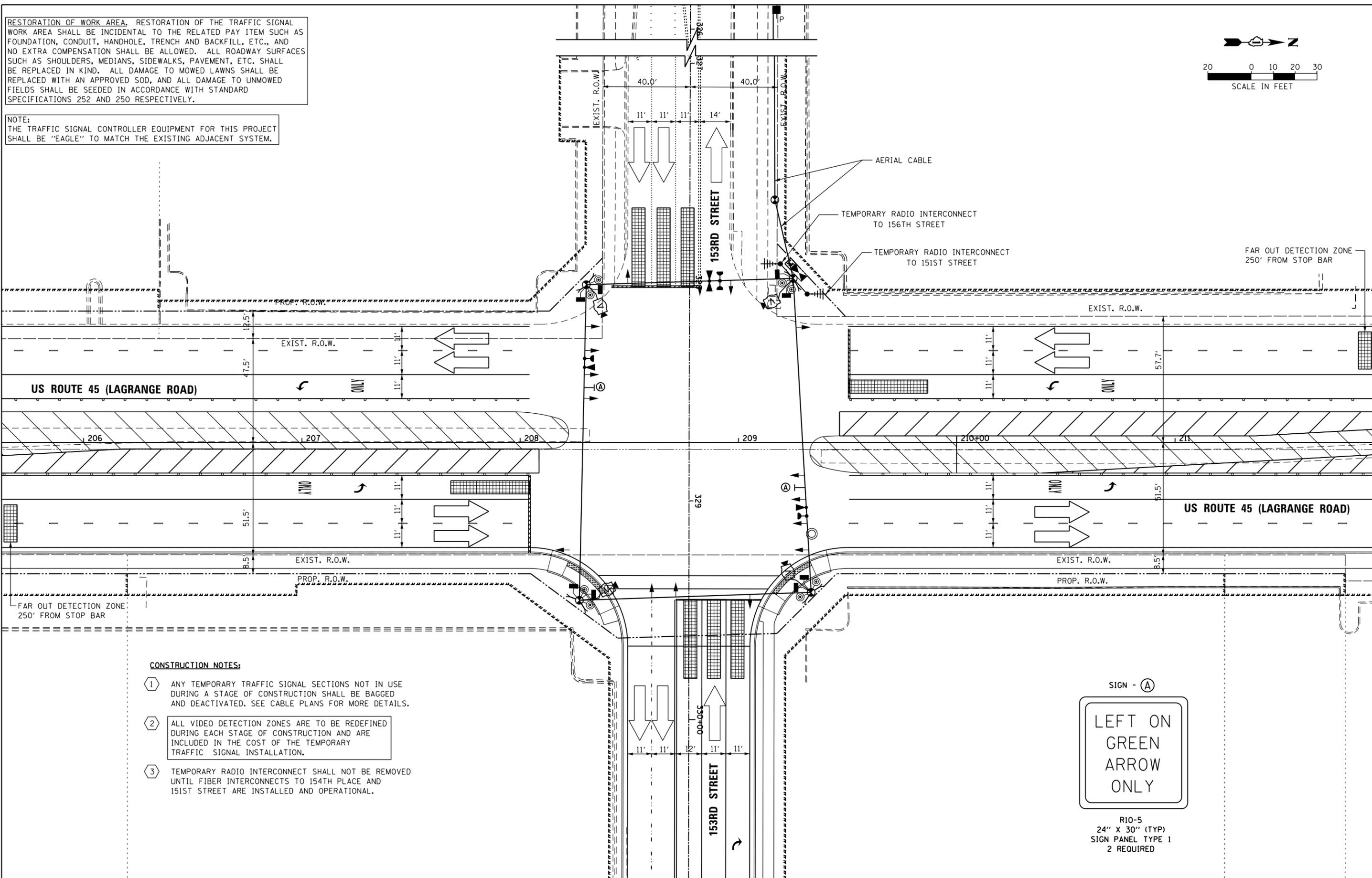
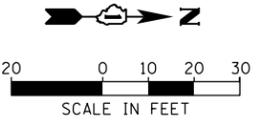
**TEMPORARY TRAFFIC SIGNAL INSTALLATION - STAGE 1  
US 45 (LAGRANGE ROAD) AND 153RD STREET**

SCALE: 1"=20' SHEET 2 OF 6 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	336
<b>TD-22</b>			<b>CONTRACT NO. 60M61</b>	
ILLINOIS FED. AID PROJECT				

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

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



**CONSTRUCTION NOTES:**

- 1 ANY TEMPORARY TRAFFIC SIGNAL SECTIONS NOT IN USE DURING A STAGE OF CONSTRUCTION SHALL BE BAGGED AND DEACTIVATED. SEE CABLE PLANS FOR MORE DETAILS.
- 2 ALL VIDEO DETECTION ZONES ARE TO BE REDEFINED DURING EACH STAGE OF CONSTRUCTION AND ARE INCLUDED IN THE COST OF THE TEMPORARY TRAFFIC SIGNAL INSTALLATION.
- 3 TEMPORARY RADIO INTERCONNECT SHALL NOT BE REMOVED UNTIL FIBER INTERCONNECTS TO 154TH PLACE AND 151ST STREET ARE INSTALLED AND OPERATIONAL.



R10-5  
24" X 30" (TYP)  
SIGN PANEL TYPE 1  
2 REQUIRED

100 S. WACKER DR.  
 5TH FLOOR  
 CHICAGO, IL 60606  
 TEL (312) 939-1000  
 FAX (312) 939-4998  
**URS**

FILE NAME =  
D160M61-SHT-TS23.dgn  
SHT.PLAN

USER NAME = Anthony.Plutz  
PLOT SCALE = 40.0000' / in.  
PLOT DATE = 3/14/2013

DESIGNED - MRF  
DRAWN - MRF  
CHECKED - MJL  
DATE - 03/13/2013

REVISED -  
REVISED -  
REVISED -  
REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

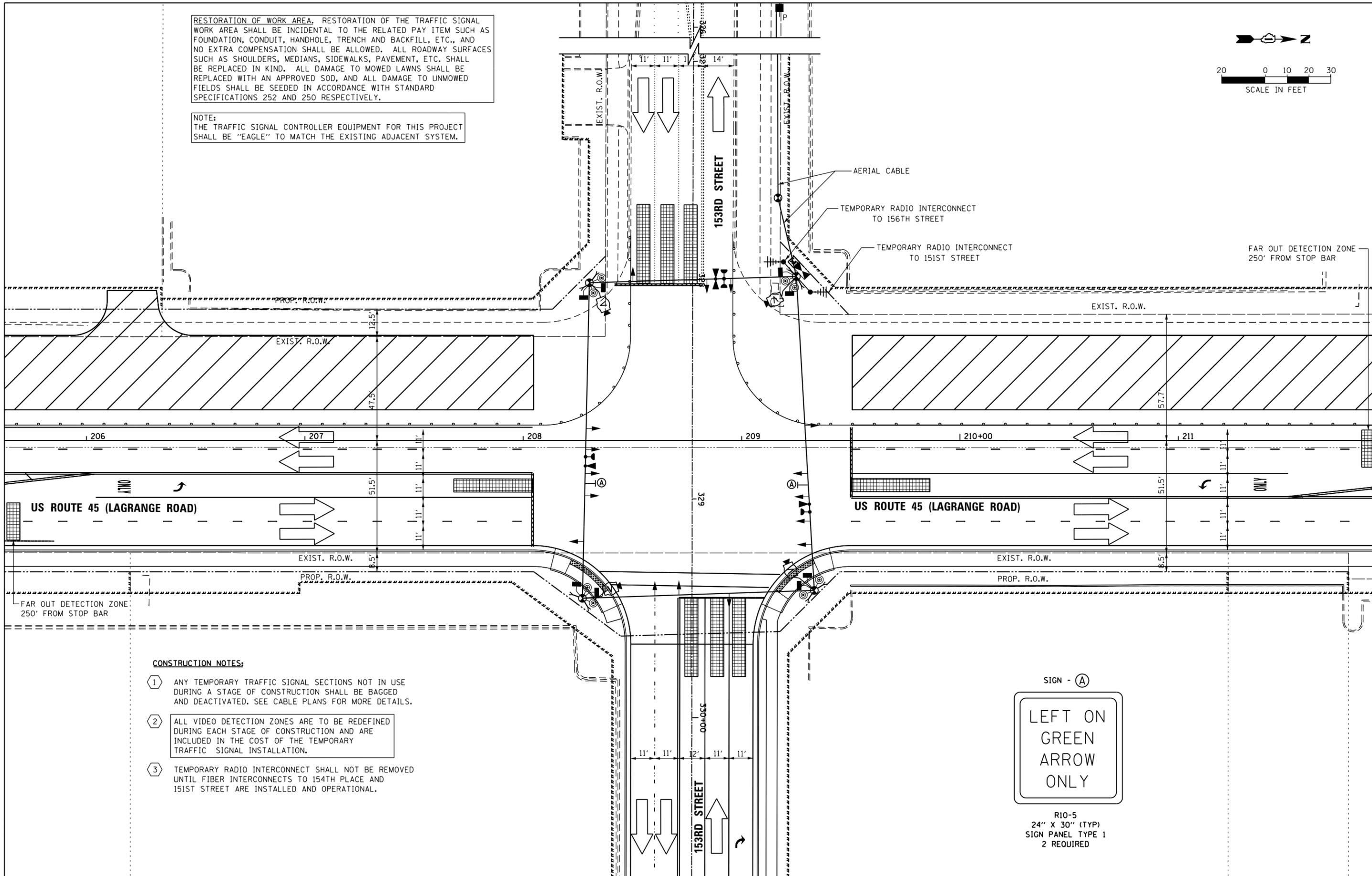
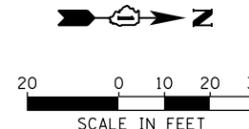
TEMPORARY TRAFFIC SIGNAL INSTALLATION - STAGE 2  
US 45 (LAGRANGE ROAD) AND 153RD STREET

SCALE: 1"=20' SHEET 3 OF 6 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	337
TD-23			CONTRACT NO. 60M61	
ILLINOIS FED. AID PROJECT				

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

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



**CONSTRUCTION NOTES:**

- 1 ANY TEMPORARY TRAFFIC SIGNAL SECTIONS NOT IN USE DURING A STAGE OF CONSTRUCTION SHALL BE BAGGED AND DEACTIVATED. SEE CABLE PLANS FOR MORE DETAILS.
- 2 ALL VIDEO DETECTION ZONES ARE TO BE REDEFINED DURING EACH STAGE OF CONSTRUCTION AND ARE INCLUDED IN THE COST OF THE TEMPORARY TRAFFIC SIGNAL INSTALLATION.
- 3 TEMPORARY RADIO INTERCONNECT SHALL NOT BE REMOVED UNTIL FIBER INTERCONNECTS TO 154TH PLACE AND 151ST STREET ARE INSTALLED AND OPERATIONAL.



R10-5  
24" X 30" (TYP)  
SIGN PANEL TYPE 1  
2 REQUIRED

100 S. WACKER DR.  
 11TH FLOOR  
 CHICAGO, IL 60606  
 TEL (312) 939-1000  
 FAX (312) 939-4998  
**URS**

FILE NAME =  
D160M61-SHT-TS24.dgn  
SHT.PLAN

USER NAME = Anthony.Plutz  
PLOT SCALE = 48.0000' / in.  
PLOT DATE = 3/14/2013

DESIGNED - MRF  
DRAWN - MRF  
CHECKED - MJL  
DATE - 03/13/2013

REVISED -  
REVISED -  
REVISED -  
REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

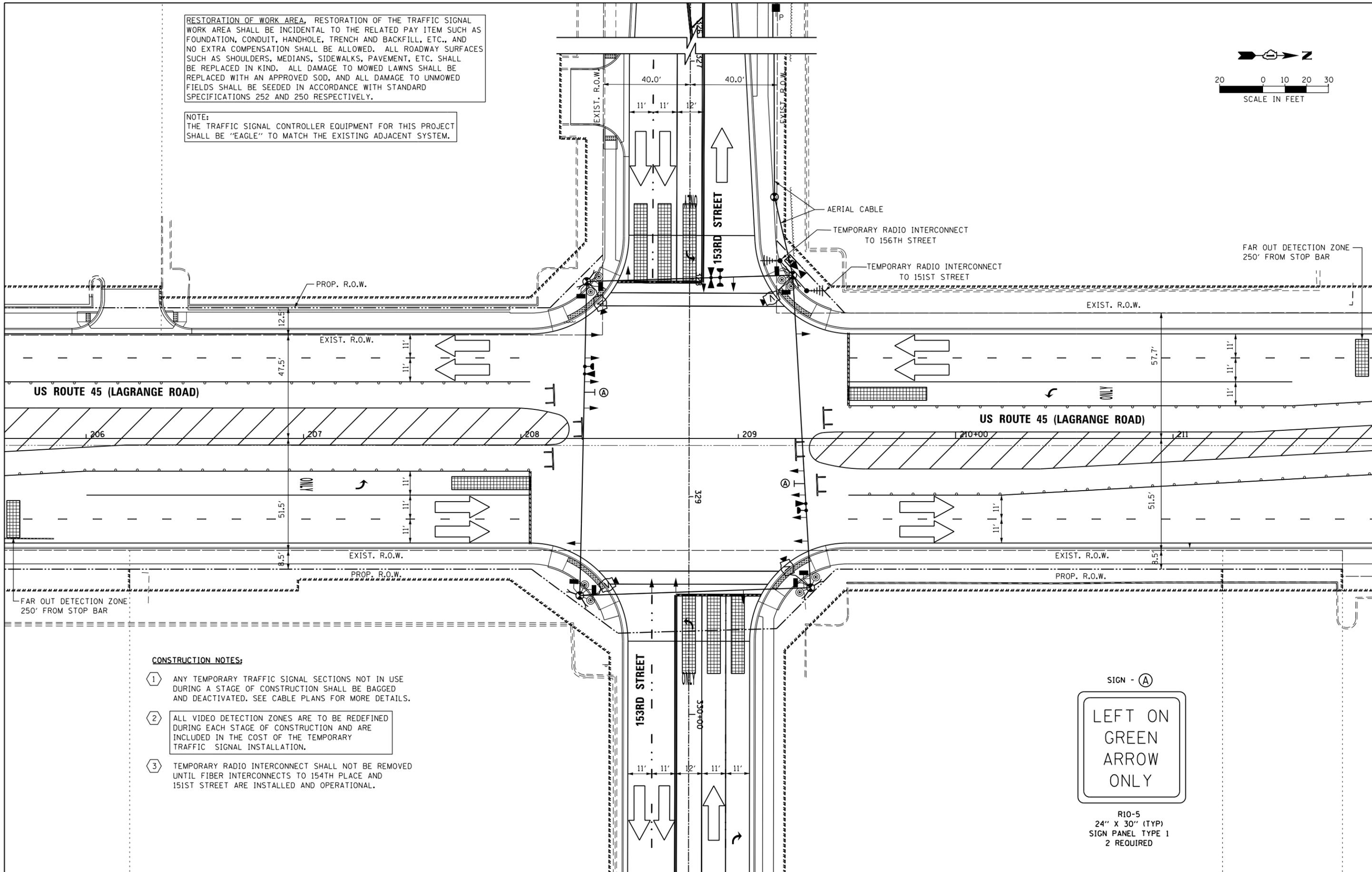
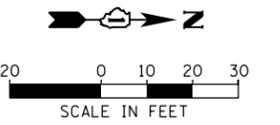
**TEMPORARY TRAFFIC SIGNAL INSTALLATION - STAGE 3  
US 45 (LAGRANGE ROAD) AND 153RD STREET**

SCALE: 1"=20' SHEET 4 OF 6 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	338
<b>TD-24</b>			<b>CONTRACT NO. 60M61</b>	
<small>ILLINOIS FED. AID PROJECT</small>				

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

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



**CONSTRUCTION NOTES:**

- 1 ANY TEMPORARY TRAFFIC SIGNAL SECTIONS NOT IN USE DURING A STAGE OF CONSTRUCTION SHALL BE BAGGED AND DEACTIVATED. SEE CABLE PLANS FOR MORE DETAILS.
- 2 ALL VIDEO DETECTION ZONES ARE TO BE REDEFINED DURING EACH STAGE OF CONSTRUCTION AND ARE INCLUDED IN THE COST OF THE TEMPORARY TRAFFIC SIGNAL INSTALLATION.
- 3 TEMPORARY RADIO INTERCONNECT SHALL NOT BE REMOVED UNTIL FIBER INTERCONNECTS TO 154TH PLACE AND 151ST STREET ARE INSTALLED AND OPERATIONAL.



R10-5  
24" X 30" (TYP)  
SIGN PANEL TYPE 1  
2 REQUIRED

100 S. WACKER DR.  
 SUITE 600  
 CHICAGO, IL 60606  
 TEL (312) 939-1000  
 FAX (312) 939-4998  
**URS**

FILE NAME =  
D160M61-SHT-TS25.dgn  
SHT.PLAN

USER NAME = Anthony.Plutz  
PLOT SCALE = 48.0000' / in.  
PLOT DATE = 3/14/2013

DESIGNED - MRF  
DRAWN - MRF  
CHECKED - MJL  
DATE - 03/13/2013

REVISED -  
REVISED -  
REVISED -  
REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

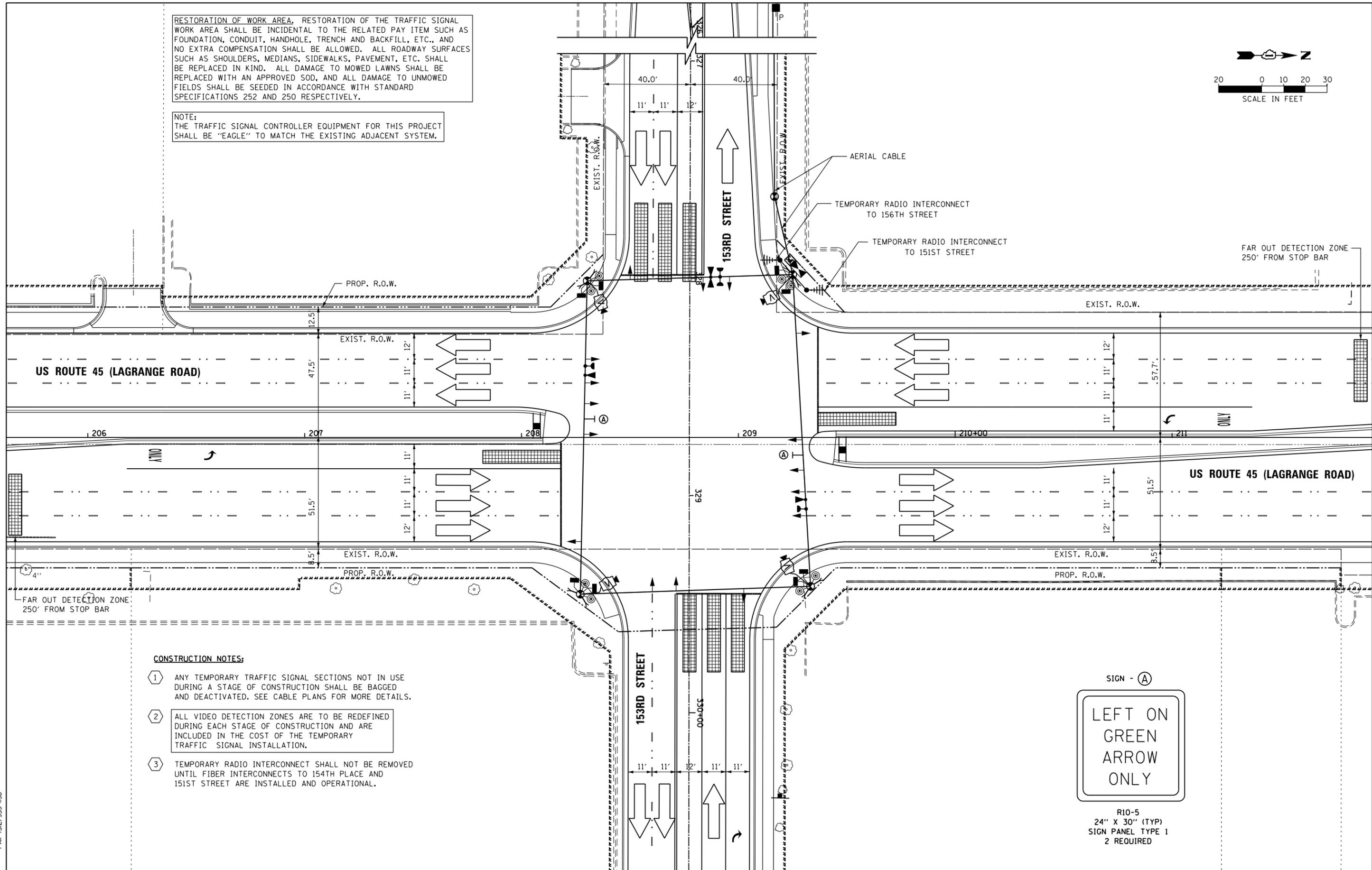
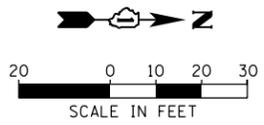
TEMPORARY TRAFFIC SIGNAL INSTALLATION - STAGE 4  
US 45 (LAGRANGE ROAD) AND 153RD STREET

SCALE: 1"=20' SHEET 5 OF 6 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	339
<b>TD-25</b>			<b>CONTRACT NO. 60M61</b>	
ILLINOIS FED. AID PROJECT				

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

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



**CONSTRUCTION NOTES:**

- 1 ANY TEMPORARY TRAFFIC SIGNAL SECTIONS NOT IN USE DURING A STAGE OF CONSTRUCTION SHALL BE BAGGED AND DEACTIVATED. SEE CABLE PLANS FOR MORE DETAILS.
- 2 ALL VIDEO DETECTION ZONES ARE TO BE REDEFINED DURING EACH STAGE OF CONSTRUCTION AND ARE INCLUDED IN THE COST OF THE TEMPORARY TRAFFIC SIGNAL INSTALLATION.
- 3 TEMPORARY RADIO INTERCONNECT SHALL NOT BE REMOVED UNTIL FIBER INTERCONNECTS TO 154TH PLACE AND 151ST STREET ARE INSTALLED AND OPERATIONAL.



R10-5  
24" X 30" (TYP)  
SIGN PANEL TYPE 1  
2 REQUIRED

100 S. WACKER DR.  
 SUITE 600  
 CHICAGO, IL 60606  
 TEL (312) 939-1000  
 FAX (312) 939-4998  
**URS**

FILE NAME = D160M61-SHT-TS26.dgn  
SHT.PLAN

USER NAME = Anthony.Plutz  
PLOT SCALE = 40.0000' / in.  
PLOT DATE = 3/14/2013

DESIGNED - MRF  
DRAWN - MRF  
CHECKED - MJL  
DATE - 03/13/2013

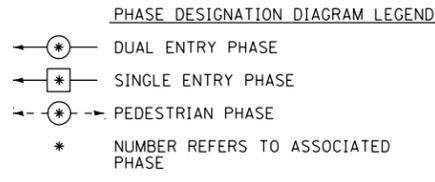
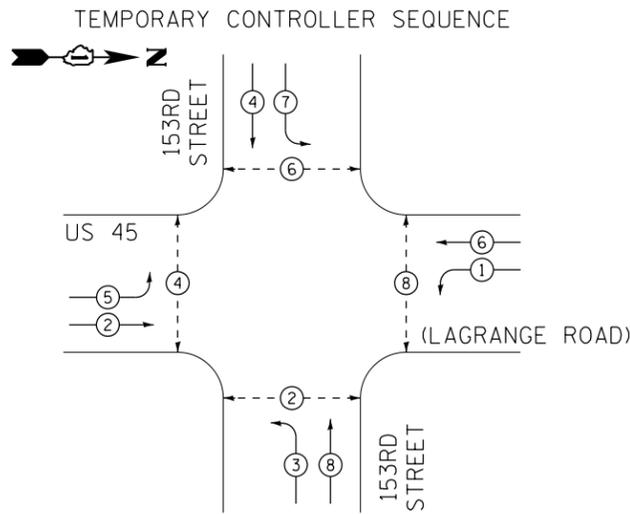
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

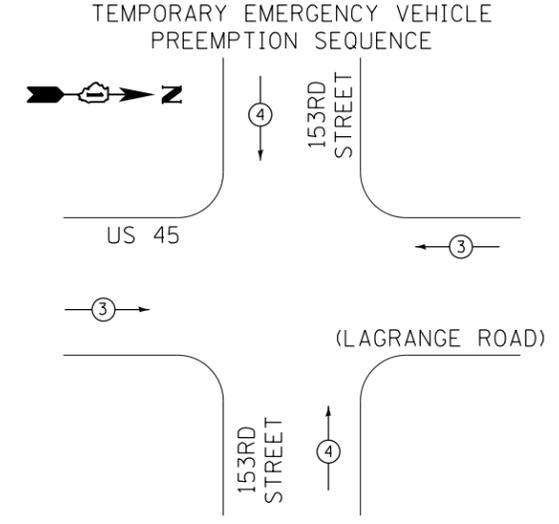
TEMPORARY TRAFFIC SIGNAL INSTALLATION - FINAL GEOMETRICS  
US 45 (LAGRANGE ROAD) AND 153RD STREET

SCALE: 1"=20' SHEET 6 OF 6 SHEETS STA. TO STA.

F.A.P. RTE. 330	SECTION 103R-4	COUNTY COOK	TOTAL SHEETS 877	SHEET NO. 340
TD-26			CONTRACT NO. 60M61	
ILLINOIS FED. AID PROJECT				



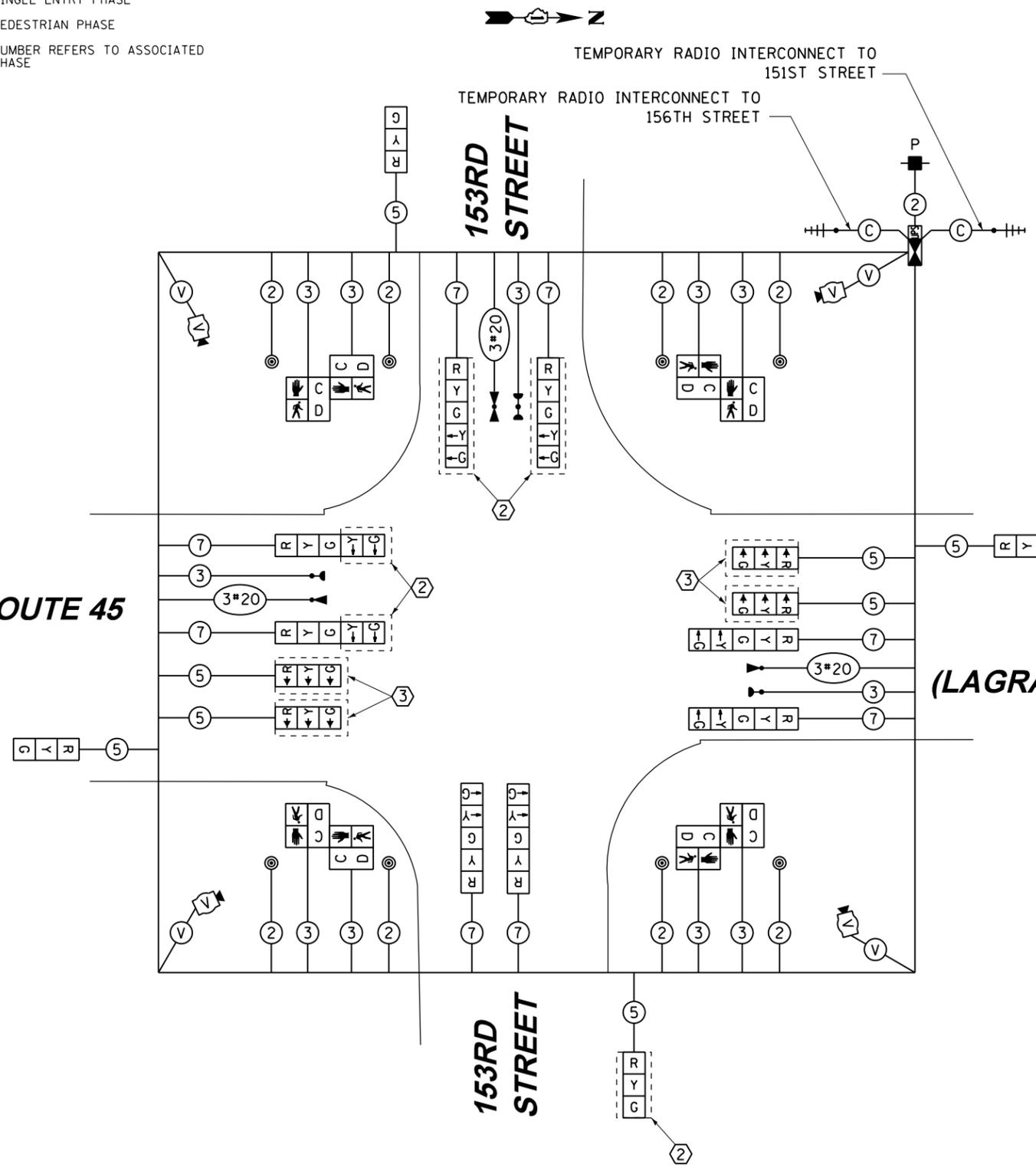
TEMPORARY PHASE DESIGNATION DIAGRAM



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

**US ROUTE 45**

**(LAGRANGE ROAD)**



**TEMPORARY CABLE PLAN  
PRE-STAGE & STAGE 1**

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

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

CONSTRUCTION NOTES:

- ① TEMPORARY RADIO INTERCONNECT SHALL NOT BE REMOVED UNTIL FIBER INTERCONNECT TO 154TH PLACE AND 151ST STREET INTERSECTIONS ARE INSTALLED AND OPERATIONAL.
- ② BAG AND DEACTIVATE SIGNAL SECTION DURING STAGE 1B.
- ③ BAG AND DEACTIVATE SIGNAL SECTION DURING PRE-STAGE AND STAGE 1.

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE (INCAND.)	LED	% OPERATION	
SIGNAL (RED)	12		17	0.50	102.0
(YELLOW)	12		25	0.25	75.0
(GREEN)	12		15	0.25	45.0
ARROW	16		12	0.10	19.2
PED. SIGNAL	8		25	1.00	200.0
CONTROLLER	1		100	1.00	100.0
ILLUM. SIGN	--		25	0.05	0.0
VIDEO SYSTEM	1		150	1.00	150.0
FLASHER			25	0.50	
ENERGY COST TO:				TOTAL=	691.2

VILLAGE OF ORLAND PARK  
14700 SOUTH RAVINIA AVE.  
ENERGY SUPPLY: CONTACT: KATHRYN SUGRUE  
PHONE: (708) 235-2337  
COMPANY: COMMONWEALTH EDISON

FILE NAME = D160M61-SHT-TS27.dgn	USER NAME = Anthony.Plutz	DESIGNED - MRF	REVISED -
SHT.PLAN	PLOT SCALE = 48.0000' / in.	DRAWN - MRF	REVISED -
	PLOT DATE = 3/14/2013	CHECKED - MJL	REVISED -
		DATE - 03/13/2013	REVISED -

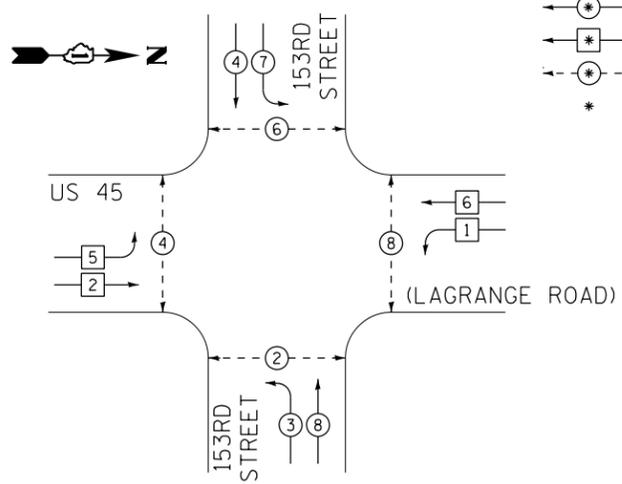
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TEMPORARY CABLE PLAN, TEMPORARY PHASE DESIGNATION DIAGRAM  
AND EMERGENCY VEHICLE PREEMPTION SEQUENCE  
US 45 (LAGRANGE ROAD) AND 153RD STREET - PRE-STAGE & STAGE 1  
SCALE: 1"=20' SHEET 1 OF 2 SHEETS STA. TO STA.

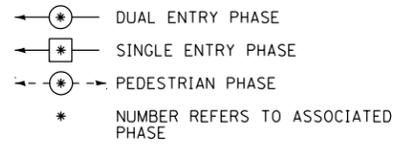
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	341
TD-27		CONTRACT NO. 60M61		
ILLINOIS FED. AID PROJECT				

100 S. WACKER DR.  
 SUITE 600  
 CHICAGO, IL 60606  
 TEL (312) 939-1000  
 FAX (312) 939-4998  
**URS**

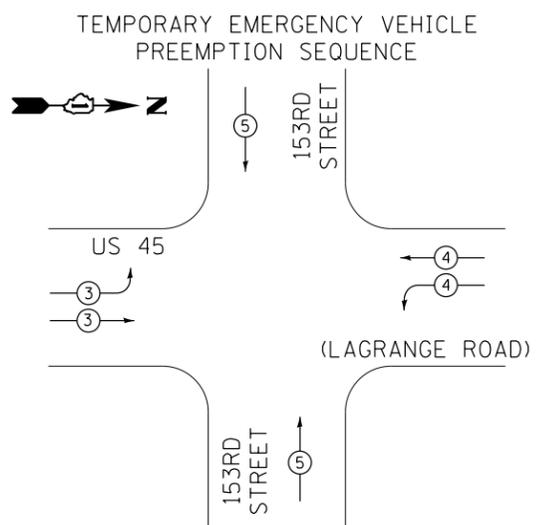
TEMPORARY CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM LEGEND



TEMPORARY PHASE DESIGNATION DIAGRAM



TEMPORARY EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTORS	3	4	5
MOVEMENT			

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE (INCAND.)	LED	% OPERATION	
SIGNAL (RED)	16		17	0.50	136.0
(YELLOW)	16		25	0.25	100.0
(GREEN)	16		15	0.25	60.0
ARROW	8		12	0.10	9.6
PED. SIGNAL	8		25	1.00	200.0
CONTROLLER	1		100	1.00	100.0
ILLUM. SIGN	--		25	0.05	0.0
VIDEO SYSTEM	1		150	1.00	150.0
FLASHER			25	0.50	
ENERGY COST TO:				TOTAL=	755.6

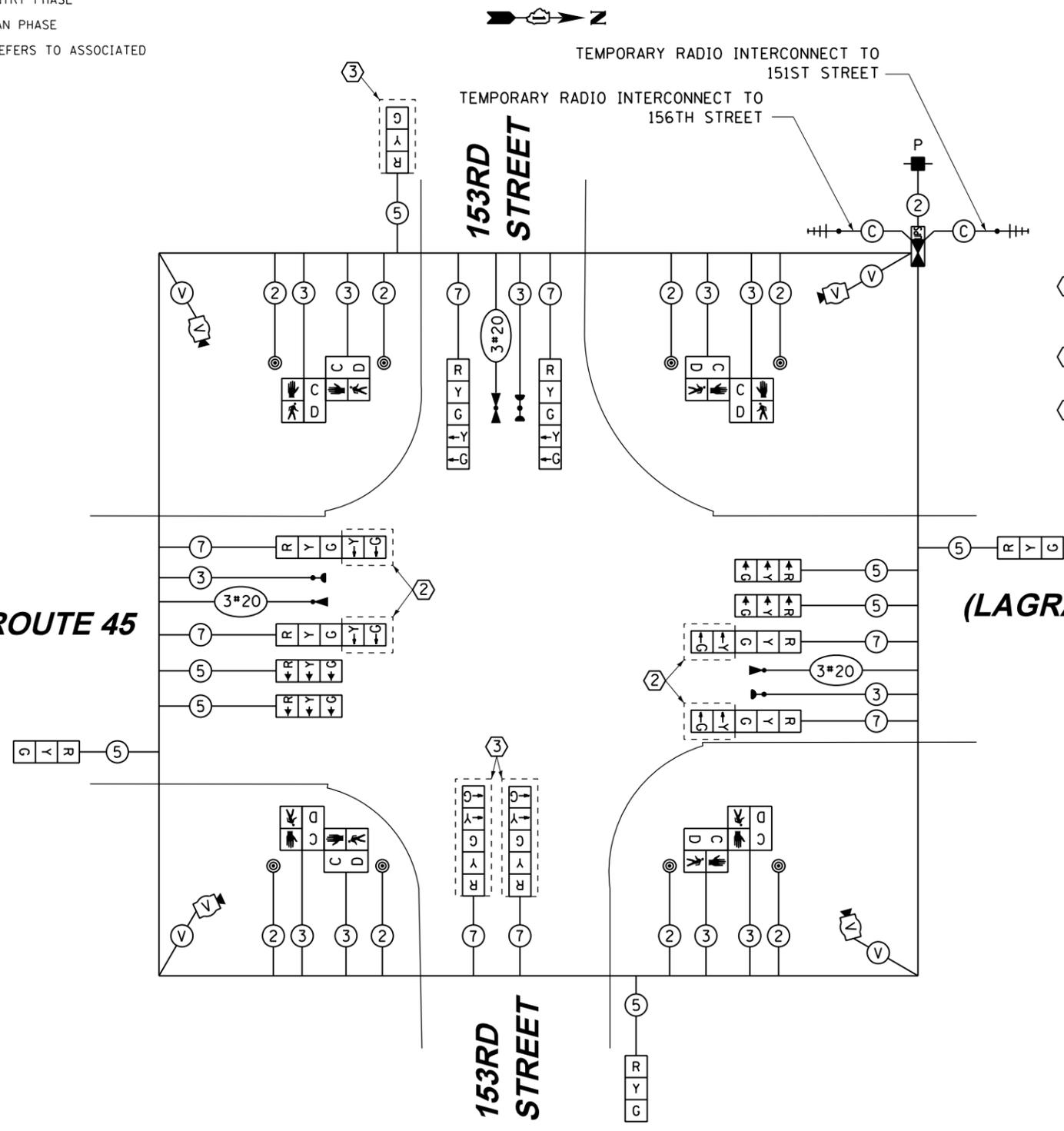
VILLAGE OF ORLAND PARK  
14700 SOUTH RAVINIA AVE.  
ENERGY SUPPLY: CONTACT: KATHRYN SUGRUE  
PHONE: (708) 235-2337  
COMPANY: COMMONWEALTH EDISON

100 S. WACKER DR.  
10TH FLOOR  
CHICAGO, IL 60606  
TEL (312) 939-1000  
FAX (312) 939-4998



FILE NAME = D:\160M61-SHT-TS29.dgn	USER NAME = Anthony.Plutz	DESIGNED - MRF	REVISED -
SHT.PLAN	PLOT SCALE = 48.0000' / in.	DRAWN - MRF	REVISED -
	PLOT DATE = 3/14/2013	CHECKED - MJL	REVISED -
		DATE - 03/13/2013	REVISED -

TEMPORARY CABLE PLAN  
STAGE 2, 3, 4 & FINAL GEOMETRICS



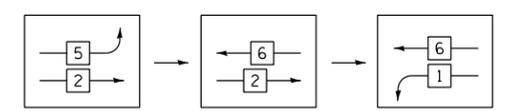
RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL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

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

CONSTRUCTION NOTES:

- ① TEMPORARY RADIO INTERCONNECT SHALL NOT BE REMOVED UNTIL FIBER INTERCONNECT TO 154TH PLACE AND 151ST STREET INTERSECTIONS ARE INSTALLED AND OPERATIONAL.
- ② BAG AND DEACTIVATE SIGNAL SECTION DURING STAGES 2, 3, 4 AND FINAL GEOMETRICS
- ③ BAG AND DEACTIVATE SIGNAL SECTION DURING STAGE 3B.

FOR PHASES 1, 2, 5, & 6 IN THE PHASE DESIGNATION DIAGRAM SHOWN AT TOP LEFT, THE FOLLOWING PHASE SEQUENCE SHALL BE FOLLOWED DURING STAGES 2 AND 4:



PHASES 3, 4, 7, & 8 SHALL FOLLOW THE STANDARD SEQUENCE IN ACCORDANCE WITH STATE STANDARD 857001

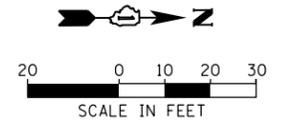
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TEMPORARY CABLE PLAN, TEMPORARY PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE  
US 45 (LAGRANGE ROAD) AND 153RD STREET - STAGE 2, 3, 4 & FINAL GEOMETRICS  
SCALE: N.T.S. SHEET 2 OF 2 SHEETS STA. TO STA.

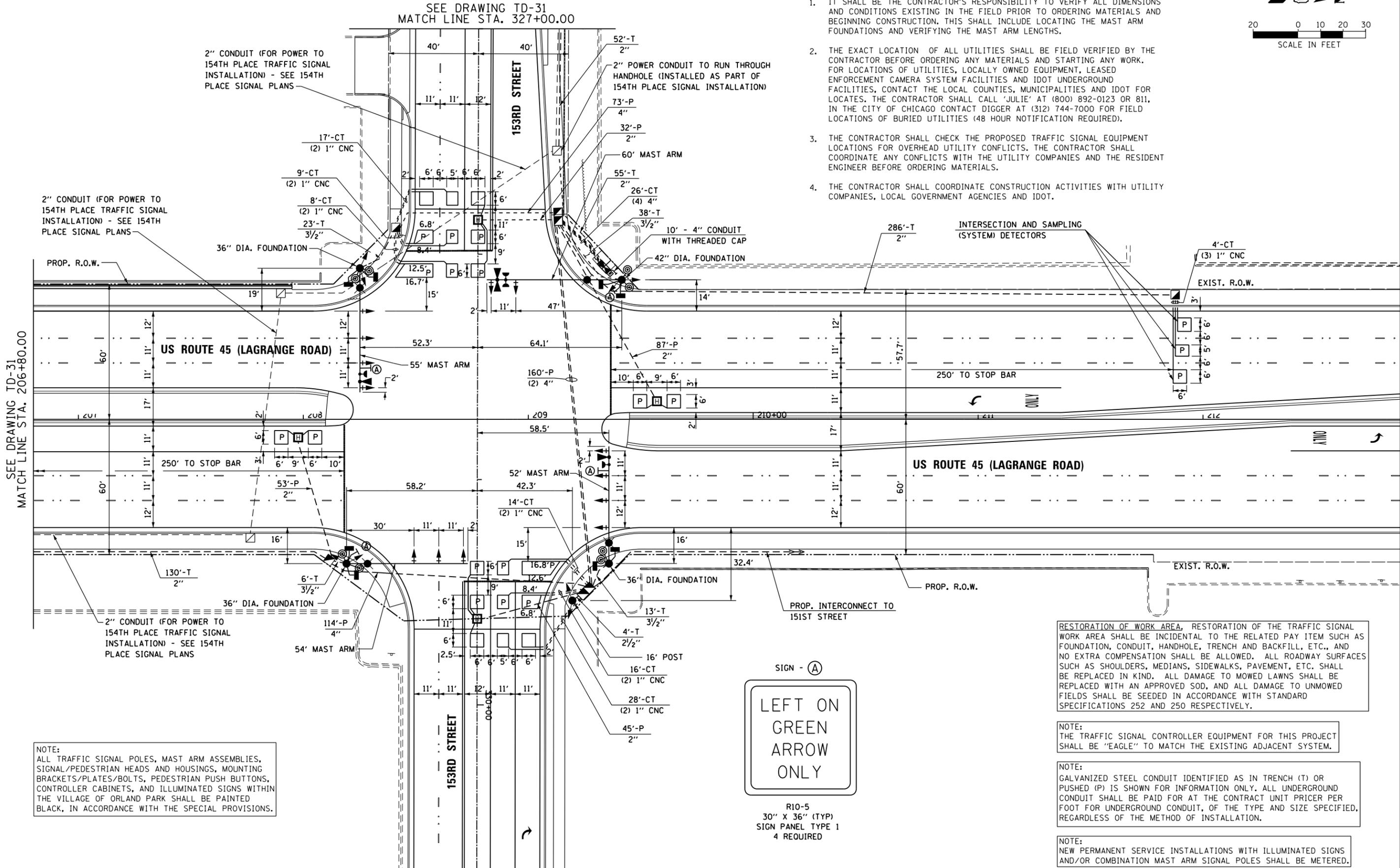
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	342
TD-29			CONTRACT NO. 60M61	
ILLINOIS FED. AID PROJECT				

GENERAL NOTES

1. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION. THIS SHALL INCLUDE LOCATING THE MAST ARM FOUNDATIONS AND VERIFYING THE MAST ARM LENGTHS.
2. THE EXACT LOCATION OF ALL UTILITIES SHALL BE FIELD VERIFIED BY THE CONTRACTOR BEFORE ORDERING ANY MATERIALS AND STARTING ANY WORK. FOR LOCATIONS OF UTILITIES, LOCALLY OWNED EQUIPMENT, LEASED ENFORCEMENT CAMERA SYSTEM FACILITIES AND IDOT UNDERGROUND FACILITIES, CONTACT THE LOCAL COUNTIES, MUNICIPALITIES AND IDOT FOR LOCATES. THE CONTRACTOR SHALL CALL 'JULIE' AT (800) 892-0123 OR 811. IN THE CITY OF CHICAGO CONTACT DIGGER AT (312) 744-7000 FOR FIELD LOCATIONS OF BURIED UTILITIES (48 HOUR NOTIFICATION REQUIRED).
3. THE CONTRACTOR SHALL CHECK THE PROPOSED TRAFFIC SIGNAL EQUIPMENT LOCATIONS FOR OVERHEAD UTILITY CONFLICTS. THE CONTRACTOR SHALL COORDINATE ANY CONFLICTS WITH THE UTILITY COMPANIES AND THE RESIDENT ENGINEER BEFORE ORDERING MATERIALS.
4. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES, LOCAL GOVERNMENT AGENCIES AND IDOT.



SEE DRAWING TD-31  
MATCH LINE STA. 327+00.00



NOTE:  
ALL TRAFFIC SIGNAL POLES, MAST ARM ASSEMBLIES, SIGNAL/PEDESTRIAN HEADS AND HOUSINGS, MOUNTING BRACKETS/PLATES/BOLTS, PEDESTRIAN PUSH BUTTONS, CONTROLLER CABINETS, AND ILLUMINATED SIGNS WITHIN THE VILLAGE OF ORLAND PARK SHALL BE PAINTED BLACK, IN ACCORDANCE WITH THE SPECIAL PROVISIONS.



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

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

NOTE:  
GALVANIZED STEEL CONDUIT IDENTIFIED AS IN TRENCH (T) OR PUSHED (P) IS SHOWN FOR INFORMATION ONLY. ALL UNDERGROUND CONDUIT SHALL BE PAID FOR AT THE CONTRACT UNIT PRICER PER FOOT FOR UNDERGROUND CONDUIT, OF THE TYPE AND SIZE SPECIFIED, REGARDLESS OF THE METHOD OF INSTALLATION.

NOTE:  
NEW PERMANENT SERVICE INSTALLATIONS WITH ILLUMINATED SIGNS AND/OR COMBINATION MAST ARM SIGNAL POLES SHALL BE METERED.

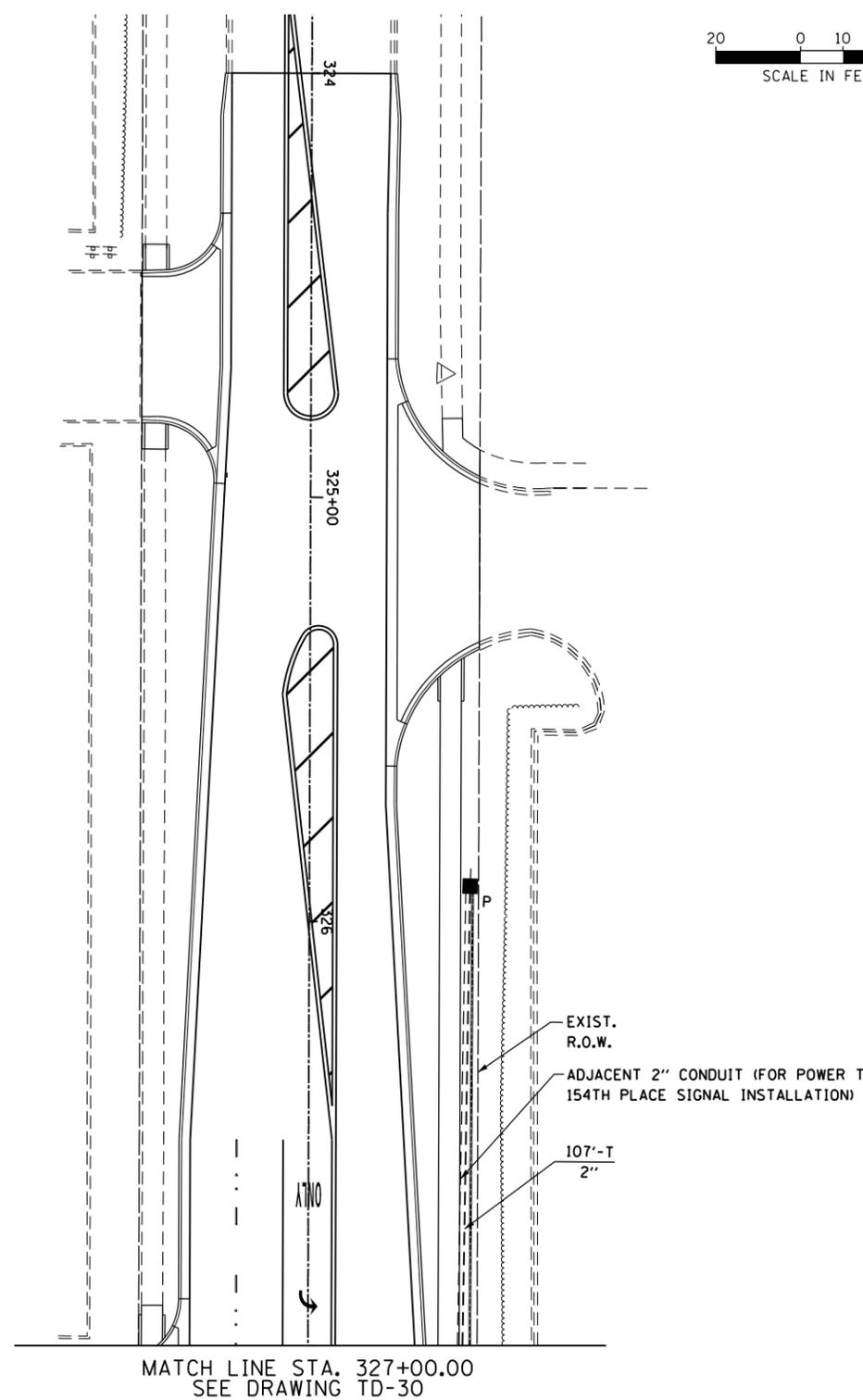
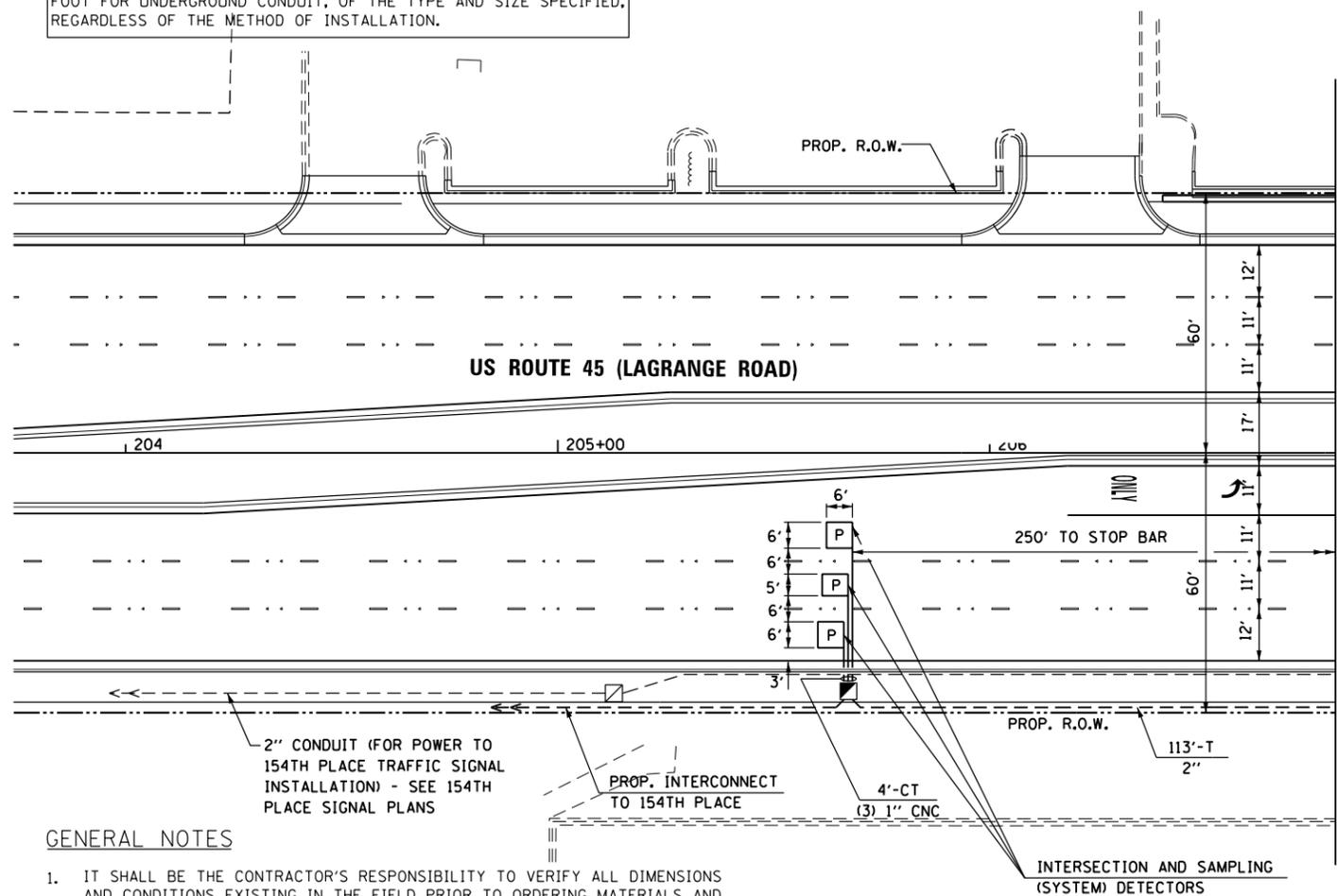
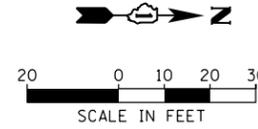
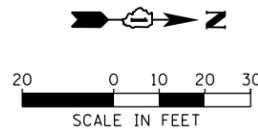
URS  
100 S. WACKER DR.  
SUITE 600  
CHICAGO, IL 60606  
TEL (312) 935-1000  
FAX (312) 935-4998

FILE NAME = D160M61-SHT-TS30.dgn	USER NAME = Anthony.Plutz	DESIGNED - MRF	REVISD -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>TRAFFIC SIGNAL INSTALLATION PLAN US 45 (LAGRANGE ROAD) AND 153RD STREET</b>	F.A.P. RTE. 330	SECTION 103R-4	COUNTY COOK	TOTAL SHEETS 877	SHEET NO. 343		
SHT.PLAN	PLOT SCALE = 40.0000' / in.	CHECKED - MJL	REVISD -			SCALE: 1"=20'	SHEET 1 OF 2 SHEETS	STA. TO STA.	<b>TD-30</b>		CONTRACT NO. 60M61	
	PLOT DATE = 3/14/2013	DATE - 03/13/2013	REVISD -			ILLINOIS FED. AID PROJECT						

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

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

NOTE:  
GALVANIZED STEEL CONDUIT IDENTIFIED AS IN TRENCH (T) OR PUSHED (P) IS SHOWN FOR INFORMATION ONLY. ALL UNDERGROUND CONDUIT SHALL BE PAID FOR AT THE CONTRACT UNIT PRICER PER FOOT FOR UNDERGROUND CONDUIT, OF THE TYPE AND SIZE SPECIFIED, REGARDLESS OF THE METHOD OF INSTALLATION.



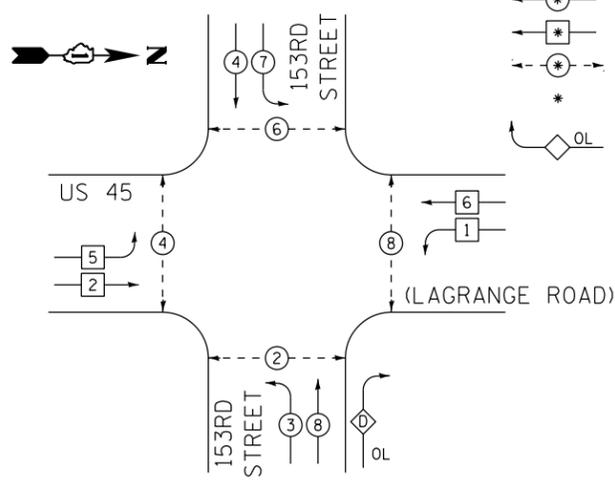
**GENERAL NOTES**

- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION. THIS SHALL INCLUDE LOCATING THE MAST ARM FOUNDATIONS AND VERIFYING THE MAST ARM LENGTHS.
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- THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES, LOCAL GOVERNMENT AGENCIES AND IDOT.

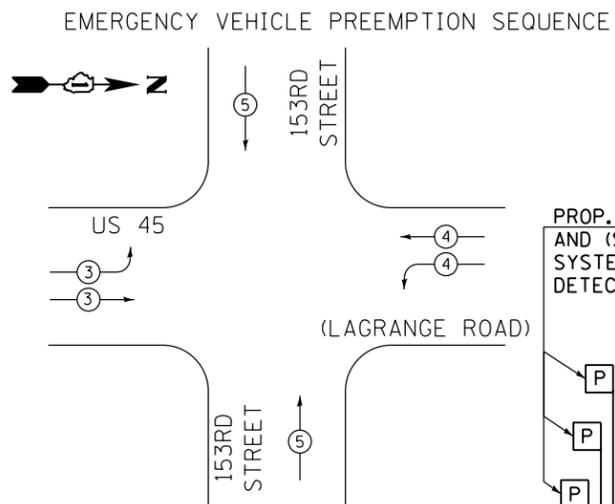
100 S. WACKER DR.  
 SUITE 600  
 CHICAGO, IL 60606  
 TEL (312) 935-1000  
 FAX (312) 935-4998  
**URS**

FILE NAME = D160M61-SHT-TS31.dgn	USER NAME = Anthony.Plutz	DESIGNED - MRF	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>TRAFFIC SIGNAL INSTALLATION PLAN US 45 (LAGRANGE ROAD) AND 153RD STREET</b>	F.A.P. RTE. = 330	SECTION = 103R-4	COUNTY = COOK	TOTAL SHEETS = 877	SHEET NO. = 344		
SHT. PLAN	PLOT SCALE = 48.0000' / in.	CHECKED - MJL	REVISED -			SCALE: 1"=20'	SHEET 2 OF 2 SHEETS	STA. TO STA.	<b>TD-31</b>		CONTRACT NO. 60M61	
	PLOT DATE = 3/14/2013	DATE - 03/13/2013	REVISED -			ILLINOIS FED. AID PROJECT						

**CONTROLLER SEQUENCE**

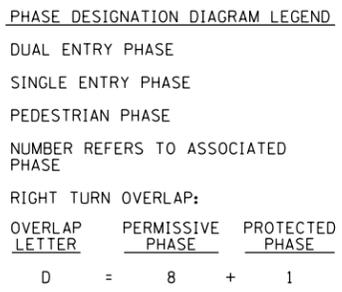


**PHASE DESIGNATION DIAGRAM**

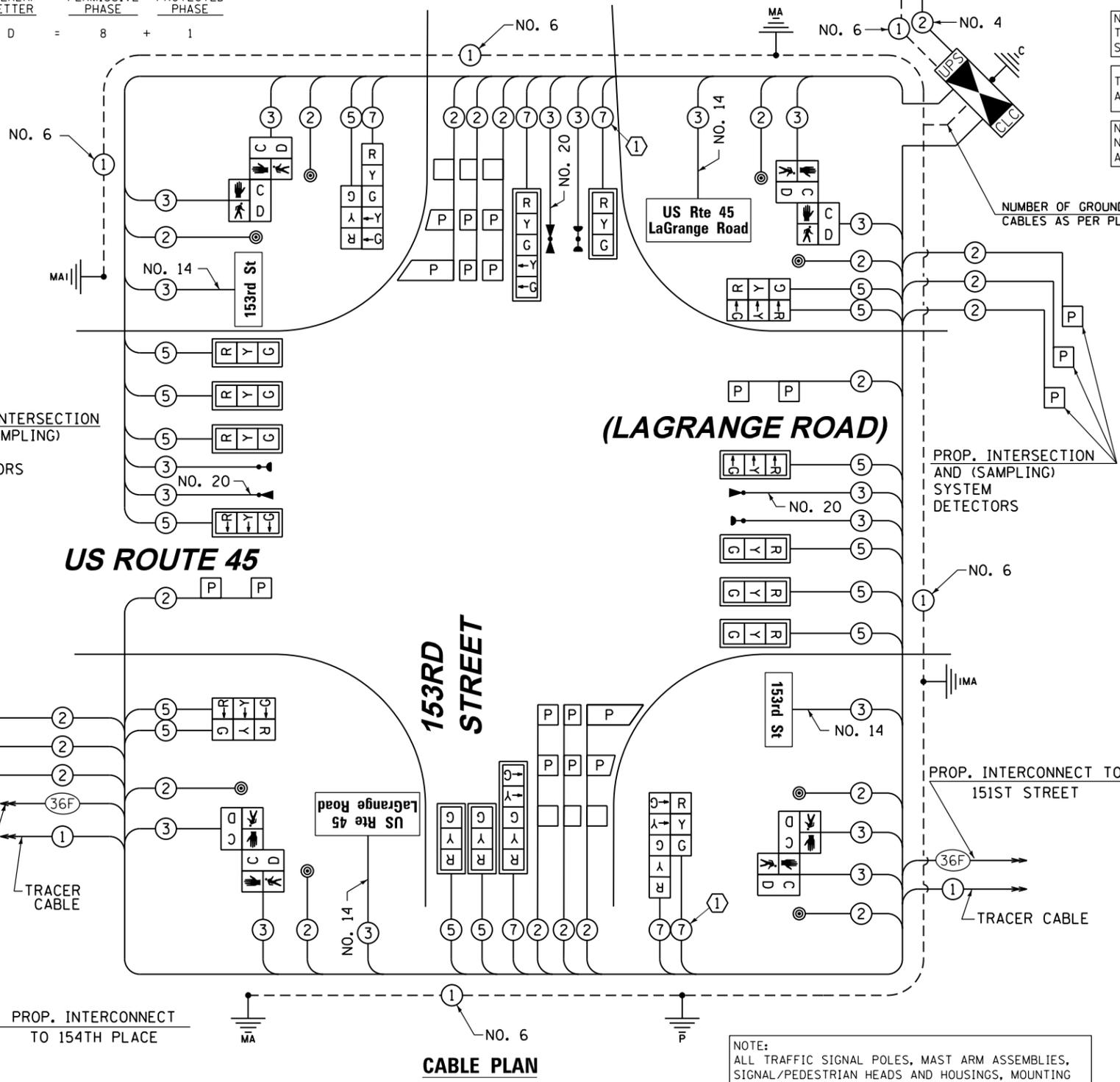


**PROPOSED EMERGENCY VEHICLE PREEMPTORS**

EMERGENCY VEHICLE PREEMPTORS	3	4	5
MOVEMENT	→	→	→



① PROTECTED RIGHT TURN ARROWS SHALL NOT BE PROVIDED, HOWEVER, A 7 CONDUCTOR CABLE SHALL BE INSTALLED AS SHOWN (FOR FUTURE USE).



RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, 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 SEEDING IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

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

THE END OF THE TRACER CABLE SHALL BE CONTINUOUS AND EXTEND INTO THE CONTROLLER CABINET.

NOTE: NEW PERMANENT SERVICE INSTALLATIONS WITH ILLUMINATED SIGNS AND/OR COMBINATION MAST ARM SIGNAL POLES SHALL BE METERED.

**SCHEDULE OF QUANTITIES**

ITEM	UNIT	TOTAL
SIGN PANEL - TYPE 1	SQ FT	30
SERVICE INSTALLATION - POLE MOUNTED	EACH	1
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	960
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2 1/2" DIA.	FOOT	4
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3 1/2" DIA.	FOOT	80
UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	621
HANDHOLE	EACH	4
HEAVY-DUTY HANDHOLE	EACH	4
DOUBLE HANDHOLE	EACH	2
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1
UNINTERRUPTIBLE POWER SUPPLY, SPECIAL	EACH	1
TRANSCEIVER - FIBER OPTIC	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	1688
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	2431
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	3872
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	1379
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	4288
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 4 2 C	FOOT	239
CONDUCTOR, NO. 6 1 C	FOOT	838
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 52 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 54 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 55 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 60 FT.	EACH	1
CONCRETE FOUNDATION, TYPE A	FOOT	4
CONCRETE FOUNDATION, TYPE C	FOOT	4
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	45
CONCRETE FOUNDATION, TYPE E 42-INCH DIAMETER	FOOT	21
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	11
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	2
SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED	EACH	2
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	13
INDUCTIVE LOOP DETECTOR	EACH	14
DETECTOR LOOP, TYPE I	FOOT	183
PREFORMED DETECTOR LOOP	FOOT	793
* LIGHT DETECTOR	EACH	3
* LIGHT DETECTOR AMPLIFIER	EACH	1
PEDESTRIAN PUSH-BUTTON	EACH	8
TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING HANDHOLE	EACH	11
REMOVE EXISTING CONCRETE FOUNDATION	EACH	8
* ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED	FOOT	687
** LED INTERNALLY ILLUMINATED STREET NAME SIGN	EACH	4
ELECTRIC SERVICE DISCONNECT, LIGHTING AND TRAFFIC SIGNAL	EACH	1
TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1

NOTE: ALL TRAFFIC SIGNAL POLES, MAST ARM ASSEMBLIES, SIGNAL/PEDESTRIAN HEADS AND HOUSINGS, MOUNTING BRACKETS/PLATES/BOLTS, PEDESTRIAN PUSH BUTTONS, CONTROLLER CABINETS, AND ILLUMINATED SIGNS WITHIN THE VILLAGE OF ORLAND PARK SHALL BE PAINTED BLACK, IN ACCORDANCE WITH THE SPECIAL PROVISIONS.

\* 100% COST TO ORLAND FIRE PROTECTION DISTRICT  
 \*\* 100% COST TO VILLAGE OF ORLAND PARK

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

TYPE	NO. OF LAMPS	WATTAGE (INCAND.)	LED	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	21	17	0.50	178.5	
(YELLOW)	21	25	0.25	131.3	
(GREEN)	21	15	0.25	78.8	
ARROW	8	12	0.10	9.6	
PED. SIGNAL	8	25	1.00	200.0	
CONTROLLER	1	100	1.00	100.0	
ILLUM. SIGN	4	25	0.05	5.0	
FLASHER		25	0.50		
ENERGY COST TO:				TOTAL =	703.2

VILLAGE OF ORLAND PARK  
 14700 SOUTH RAVINIA AVE.  
 ENERGY SUPPLY: CONTACT: KATHRYN SUGRUE  
 PHONE: (708) 235-2337  
 COMPANY: COMMONWEALTH EDISON

FILE NAME = D160M61-SHT-TS32.dgn	USER NAME = Anthony.Plutz	DESIGNED - MRF	REVISED -
SHT.PLAN	PLOT SCALE = 40.0000' / in.	CHECKED - MJL	REVISED -
	PLOT DATE = 3/14/2013	DATE - 03/13/2013	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

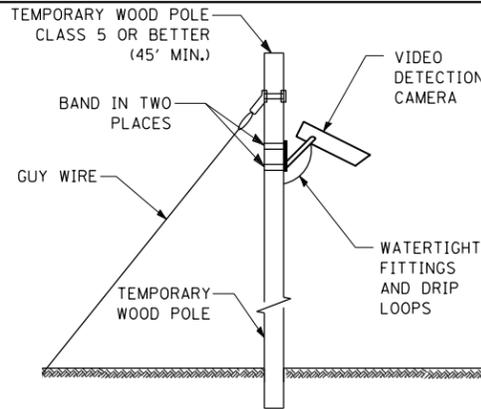
**SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE**  
 US 45 (LAGRANGE ROAD) AND 153RD STREET  
 SCALE: N.T.S. SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	345
TD-32			CONTRACT NO.	60M61
ILLINOIS FED. AID PROJECT				



**CONSTRUCTION NOTES:**

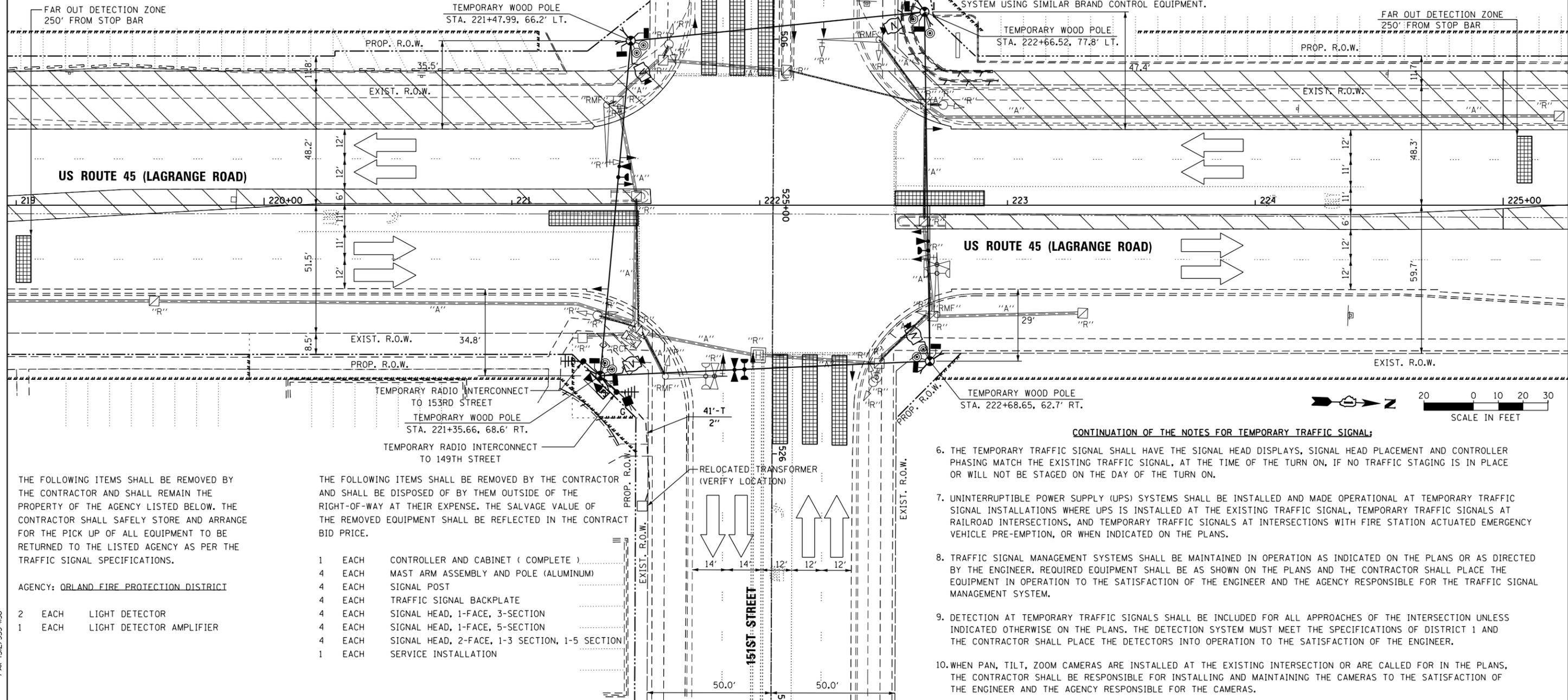
- 1 ANY TEMPORARY TRAFFIC SIGNAL SECTIONS NOT IN USE DURING A STAGE OF CONSTRUCTION SHALL BE BAGGED AND DEACTIVATED. SEE CABLE PLANS FOR MORE DETAILS.
- 2 ALL VIDEO DETECTION ZONES ARE TO BE REDEFINED DURING EACH STAGE OF CONSTRUCTION AND ARE INCLUDED IN THE COST OF THE TEMPORARY TRAFFIC SIGNAL INSTALLATION.
- 3 TEMPORARY RADIO INTERCONNECT SHALL NOT BE REMOVED UNTIL FIBER INTERCONNECTS TO 153RD STREET AND 149TH STREET ARE INSTALLED AND OPERATIONAL.



**TEMPORARY VIDEO DETECTION MOUNTING DETAIL**  
(NOT TO SCALE)

**NOTES FOR TEMPORARY TRAFFIC SIGNAL:**

1. ALL CONTROL EQUIPMENT SUCH AS COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNAL(S) SHALL BE FURNISHED BY THE CONTRACTOR.
2. ONLY CONTROLLERS SUPPLIED BY ONE OF THE DISTRICT APPROVED CLOSED LOOP EQUIPMENT MANUFACTURERS WILL BE APPROVED FOR USE AT TEMPORARY SIGNAL LOCATIONS. ALL CONTROLLERS USED FOR TEMPORARY TRAFFIC SIGNALS SHALL BE FULLY ACTUATED NEMA MICROPROCESSOR BASED WITH RS232 DATA ENTRY PORTS COMPATIBLE WITH EXISTING MONITORING SOFTWARE APPROVED BY IDOT DISTRICT 1, INSTALLED IN A NEMA TS2 CABINET. ONLY ONE BRAND OF CONTROLLER WILL BE ACCEPTED FOR ANY ONE CONTRACT.
3. ALL TRAFFIC SIGNAL SECTIONS AND PEDESTRIAN SIGNAL SECTIONS SHALL BE LED AND 12" (300mm) DIAMETER. HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. PEDESTRIAN SIGNALS SHALL INCLUDE SOLID INTERNATIONAL SYMBOLS. PEDESTRIAN SIGNALS WITH COUNTDOWN TIMERS SHALL BE USED WHEN THE EXISTING INSTALLATION UTILIZES COUNTDOWN TYPE OR AS DIRECTED BY THE ENGINEER. COUNTDOWN TYPE PEDESTRIAN SIGNALS ARE NOT TO BE INSTALLED AT A RAILROAD INTERSECTION. THE CONTRACTOR SHALL FURNISH ENOUGH CABLE SLACK TO RELOCATE HEADS TO ANY POSITION ON THE SPAN WIRE OR AT LOCATIONS ILLUSTRATED ON THE PLANS FOR CONSTRUCTION STAGING. THE TEMPORARY TRAFFIC SIGNAL SHALL REMAIN IN OPERATION DURING ALL SIGNAL HEAD RELOCATIONS. EACH TEMPORARY TRAFFIC SIGNAL HEAD SHALL HAVE ITS OWN CABLE FROM THE CONTROLLER CABINET TO THE SIGNAL HEAD.
4. ALL EXISTING STREET NAME AND INTERSECTION REGULATORY SIGNS SHALL BE REMOVED FROM EXISTING POLES, RELOCATED AND SECURELY FASTENED TO THE SPAN WIRE OR WOOD POLE AS DIRECTED BY THE ENGINEER.
5. ANY TEMPORARY SIGNAL WITHIN AN EXISTING CLOSED LOOP TRAFFIC SIGNAL SYSTEM SHALL BE INTERCONNECTED TO THAT SYSTEM USING SIMILAR BRAND CONTROL EQUIPMENT.



**CONTINUATION OF THE NOTES FOR TEMPORARY TRAFFIC SIGNAL:**

6. THE TEMPORARY TRAFFIC SIGNAL SHALL HAVE THE SIGNAL HEAD DISPLAYS, SIGNAL HEAD PLACEMENT AND CONTROLLER PHASING MATCH THE EXISTING TRAFFIC SIGNAL, AT THE TIME OF THE TURN ON, IF NO TRAFFIC STAGING IS IN PLACE OR WILL NOT BE STAGED ON THE DAY OF THE TURN ON.
7. UNINTERRUPTIBLE POWER SUPPLY (UPS) SYSTEMS SHALL BE INSTALLED AND MADE OPERATIONAL AT TEMPORARY TRAFFIC SIGNAL INSTALLATIONS WHERE UPS IS INSTALLED AT THE EXISTING TRAFFIC SIGNAL, TEMPORARY TRAFFIC SIGNALS AT RAILROAD INTERSECTIONS, AND TEMPORARY TRAFFIC SIGNALS AT INTERSECTIONS WITH FIRE STATION ACTUATED EMERGENCY VEHICLE PRE-EMPTION, OR WHEN INDICATED ON THE PLANS.
8. TRAFFIC SIGNAL MANAGEMENT SYSTEMS SHALL BE MAINTAINED IN OPERATION AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER. REQUIRED EQUIPMENT SHALL BE AS SHOWN ON THE PLANS AND THE CONTRACTOR SHALL PLACE THE EQUIPMENT IN OPERATION TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE TRAFFIC SIGNAL MANAGEMENT SYSTEM.
9. DETECTION AT TEMPORARY TRAFFIC SIGNALS SHALL BE INCLUDED FOR ALL APPROACHES OF THE INTERSECTION UNLESS INDICATED OTHERWISE ON THE PLANS. THE DETECTION SYSTEM MUST MEET THE SPECIFICATIONS OF DISTRICT 1 AND THE CONTRACTOR SHALL PLACE THE DETECTORS INTO OPERATION TO THE SATISFACTION OF THE ENGINEER.
10. WHEN PAN, TILT, ZOOM CAMERAS ARE INSTALLED AT THE EXISTING INTERSECTION OR ARE CALLED FOR IN THE PLANS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING AND MAINTAINING THE CAMERAS TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE CAMERAS.

THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL REMAIN THE PROPERTY OF THE AGENCY LISTED BELOW. THE CONTRACTOR SHALL SAFELY STORE AND ARRANGE FOR THE PICK UP OF ALL EQUIPMENT TO BE RETURNED TO THE LISTED AGENCY AS PER THE TRAFFIC SIGNAL SPECIFICATIONS.

AGENCY: ORLAND FIRE PROTECTION DISTRICT

- 2 EACH LIGHT DETECTOR
- 1 EACH LIGHT DETECTOR AMPLIFIER

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

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



FILE NAME = D160M61-SHT-TS33.dgn  
SHT.PLAN

USER NAME = Anthony.Plutz  
PLOT SCALE = 40.0000' / in.  
PLOT DATE = 3/14/2013

DESIGNED - MRF  
DRAWN - MRF  
CHECKED - MJL  
DATE - 03/13/2013

REVISED -  
REVISED -  
REVISED -  
REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TEMPORARY TRAFFIC SIGNAL INSTALLATION AND REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT PLAN - PRE-STAGE US 45 (LAGRANGE ROAD) AND 151ST STREET**

SCALE: 1"=20' SHEET 1 OF 6 SHEETS STA. TO STA.

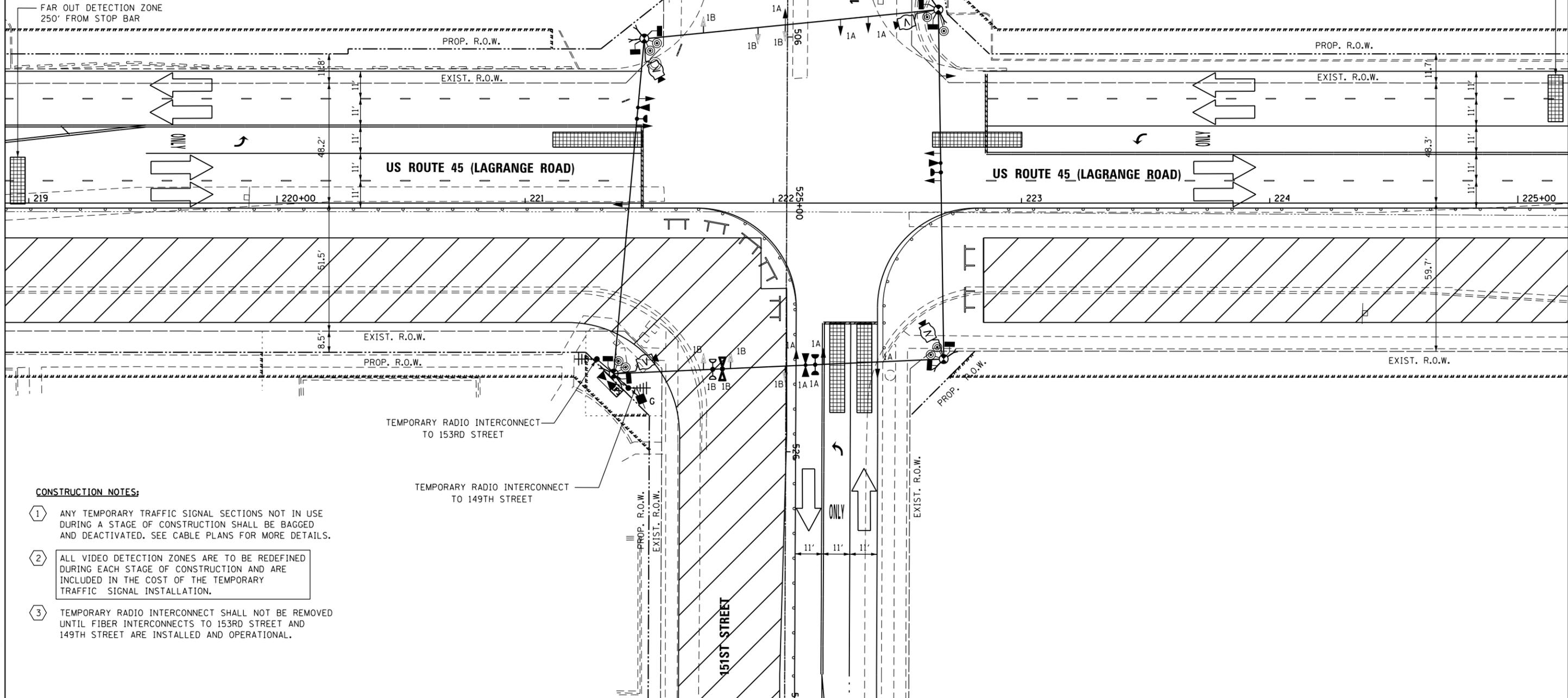
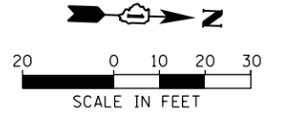
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	346
<b>TD-33</b>		CONTRACT NO. 60M61		
ILLINOIS FED. AID PROJECT				

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

NOTE:  
THE RED LIGHT RUNNING CAMERA EQUIPEMENT SHALL BE REMOVED BY THE VILLAGE OF ORLAND PARK PRIOR TO THE ONSET OF CONSTRUCTION.

CONTACT:  
SERGEANT TIMOTHY MCCORMICK      CAITLIN KOWALSKI  
VILLAGE OF ORLAND PARK POLICE DEPT      CONSTRUCTION MANAGER  
708-364-8111      REDFLEX TRAFFIC SYSTEMS, INC.  
312-502-4273



**CONSTRUCTION NOTES:**

- ① ANY TEMPORARY TRAFFIC SIGNAL SECTIONS NOT IN USE DURING A STAGE OF CONSTRUCTION SHALL BE BAGGED AND DEACTIVATED. SEE CABLE PLANS FOR MORE DETAILS.
- ② ALL VIDEO DETECTION ZONES ARE TO BE REDEFINED DURING EACH STAGE OF CONSTRUCTION AND ARE INCLUDED IN THE COST OF THE TEMPORARY TRAFFIC SIGNAL INSTALLATION.
- ③ TEMPORARY RADIO INTERCONNECT SHALL NOT BE REMOVED UNTIL FIBER INTERCONNECTS TO 153RD STREET AND 149TH STREET ARE INSTALLED AND OPERATIONAL.

100 S. WACKER DR.  
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 CHICAGO, IL 60606  
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SHT.PLAN

USER NAME = Anthony.Plutz  
PLOT SCALE = 40.0000' / in.  
PLOT DATE = 3/14/2013

DESIGNED - MRF  
DRAWN - MRF  
CHECKED - MJL  
DATE - 03/13/2013

REVISED -  
REVISED -  
REVISED -  
REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

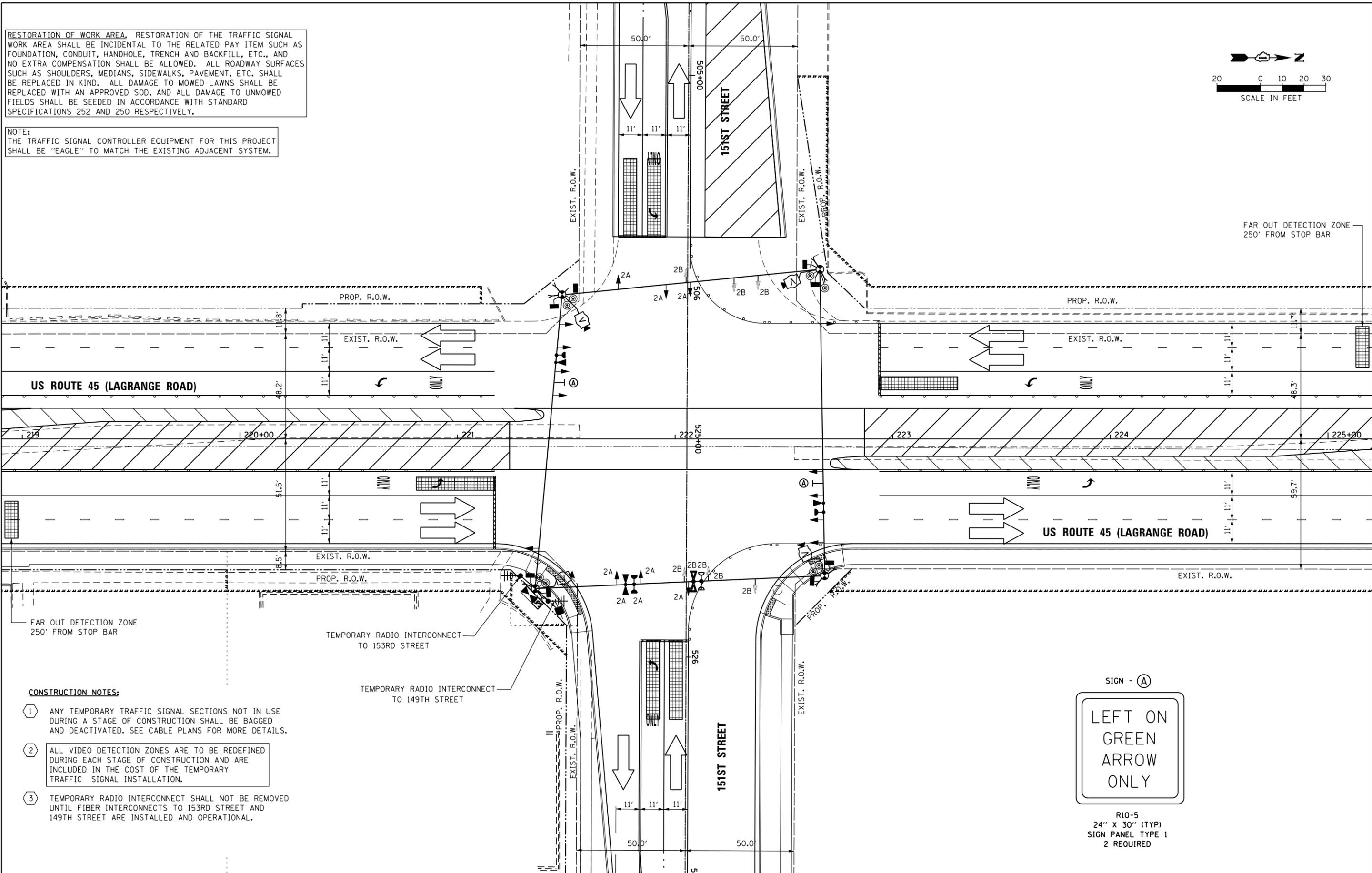
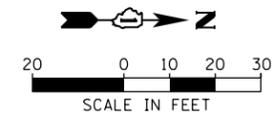
TEMPORARY TRAFFIC SIGNAL INSTALLATION - STAGE 1  
US 45 (LAGRANGE ROAD) AND 151ST STREET

SCALE: 1"=20' SHEET 2 OF 6 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	347
<b>TD-34</b>			CONTRACT NO. 60M61	
ILLINOIS FED. AID PROJECT				

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

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



US ROUTE 45 (LAGRANGE ROAD)

US ROUTE 45 (LAGRANGE ROAD)

151ST STREET

- CONSTRUCTION NOTES:**
- 1 ANY TEMPORARY TRAFFIC SIGNAL SECTIONS NOT IN USE DURING A STAGE OF CONSTRUCTION SHALL BE BAGGED AND DEACTIVATED. SEE CABLE PLANS FOR MORE DETAILS.
  - 2 ALL VIDEO DETECTION ZONES ARE TO BE REDEFINED DURING EACH STAGE OF CONSTRUCTION AND ARE INCLUDED IN THE COST OF THE TEMPORARY TRAFFIC SIGNAL INSTALLATION.
  - 3 TEMPORARY RADIO INTERCONNECT SHALL NOT BE REMOVED UNTIL FIBER INTERCONNECTS TO 153RD STREET AND 149TH STREET ARE INSTALLED AND OPERATIONAL.



R10-5  
24" X 30" (TYP)  
SIGN PANEL TYPE 1  
2 REQUIRED

100 S. WACKER DR.  
 11TH FLOOR  
 CHICAGO, IL 60606  
 TEL (312) 935-1000  
 FAX (312) 935-4998  
**URS**

FILE NAME = D160M61-SHT-TS35.dgn	USER NAME = Anthony.Plutz	DESIGNED - MRF	REVISED -
		DRAWN - MRF	REVISED -
		CHECKED - MJL	REVISED -
SHT.PLAN	PLOT DATE = 3/14/2013	DATE - 03/13/2013	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

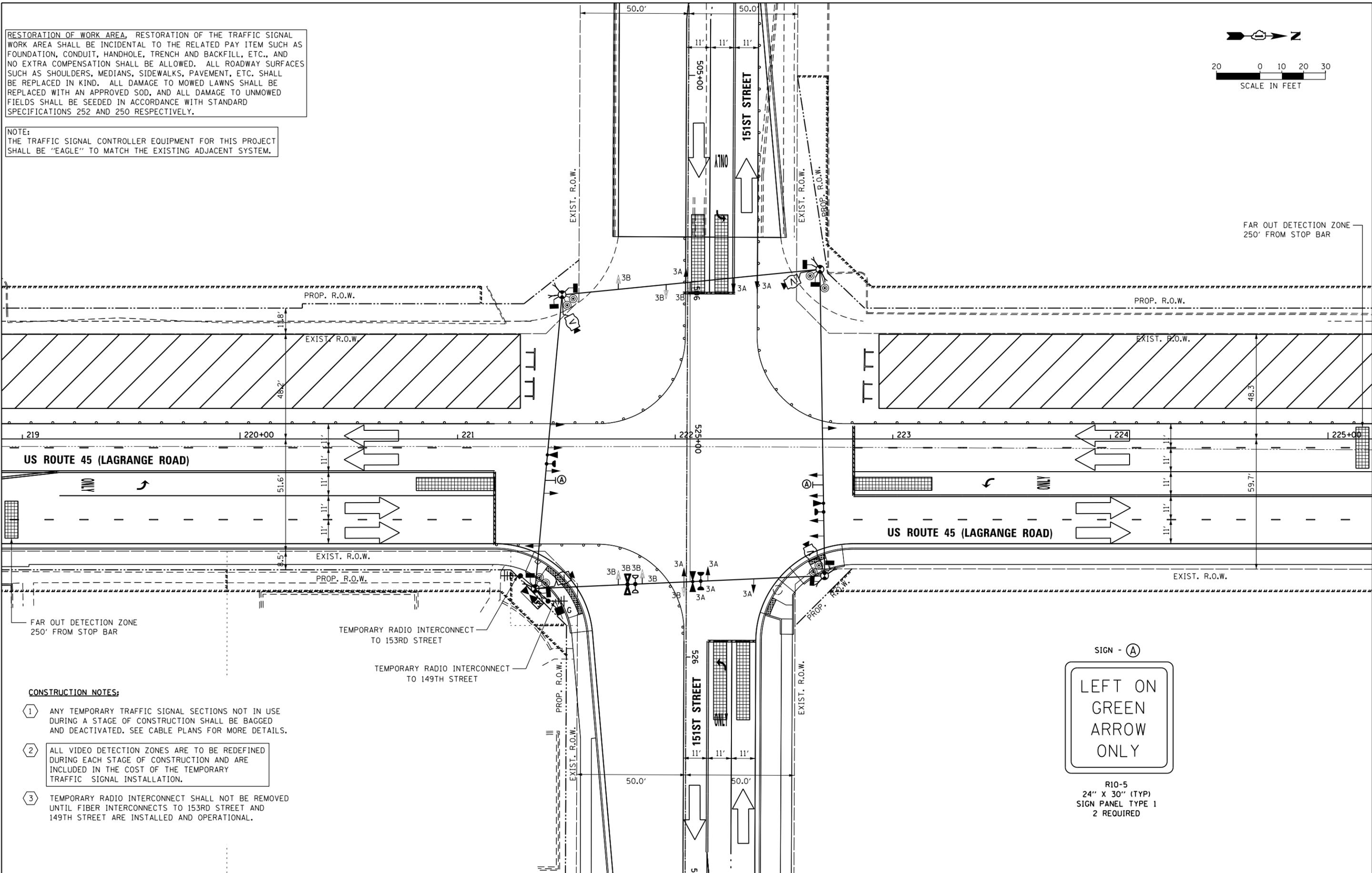
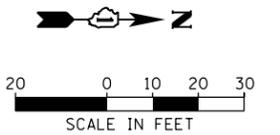
TEMPORARY TRAFFIC SIGNAL INSTALLATION - STAGE 2  
US 45 (LAGRANGE ROAD) AND 151ST STREET

SCALE: 1"=20' SHEET 3 OF 6 SHEETS STA. TO STA.

F.A.P. RTE. 330	SECTION 103R-4	COUNTY COOK	TOTAL SHEETS 877	SHEET NO. 348
TD-35		CONTRACT NO. 60M61		
ILLINOIS FED. AID PROJECT				

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

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



**CONSTRUCTION NOTES:**

- 1 ANY TEMPORARY TRAFFIC SIGNAL SECTIONS NOT IN USE DURING A STAGE OF CONSTRUCTION SHALL BE BAGGED AND DEACTIVATED. SEE CABLE PLANS FOR MORE DETAILS.
- 2 ALL VIDEO DETECTION ZONES ARE TO BE REDEFINED DURING EACH STAGE OF CONSTRUCTION AND ARE INCLUDED IN THE COST OF THE TEMPORARY TRAFFIC SIGNAL INSTALLATION.
- 3 TEMPORARY RADIO INTERCONNECT SHALL NOT BE REMOVED UNTIL FIBER INTERCONNECTS TO 153RD STREET AND 149TH STREET ARE INSTALLED AND OPERATIONAL.



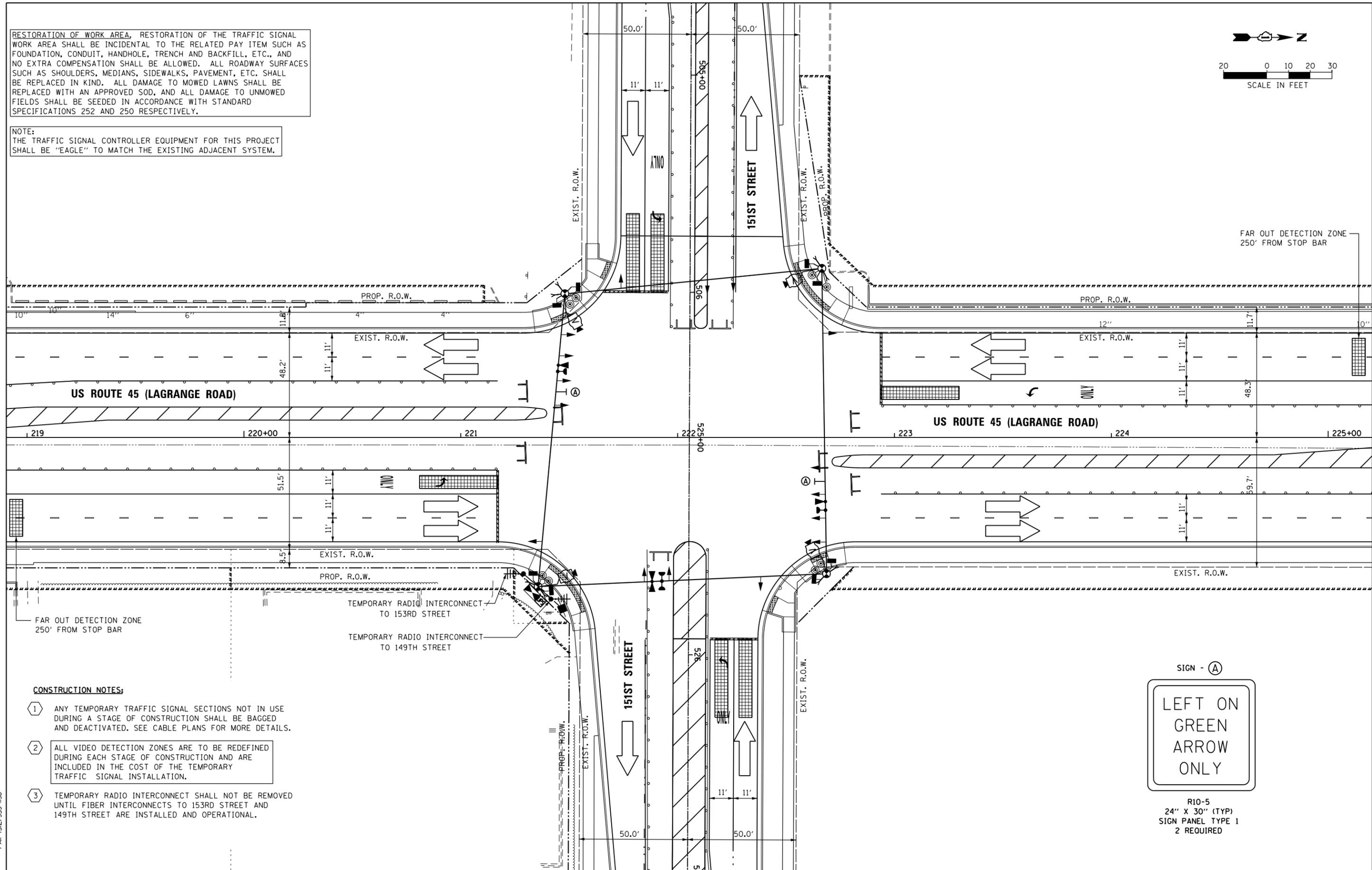
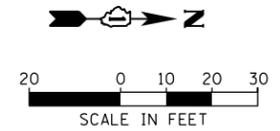
R10-5  
24" X 30" (TYP)  
SIGN PANEL TYPE 1  
2 REQUIRED

100 S. WACKER DR.  
 SUITE 600  
 CHICAGO, IL 60606  
 TEL (312) 939-1000  
 FAX (312) 939-4998  
**URS**

FILE NAME = D160M61-SHT-TS36.dgn	USER NAME = Anthony.Plutz	DESIGNED - MRF	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>TEMPORARY TRAFFIC SIGNAL INSTALLATION - STAGE 3 US 45 (LAGRANGE ROAD) AND 151ST STREET</b>	F.A.P. RTE. = 330	SECTION = 103R-4	COUNTY = COOK	TOTAL SHEETS = 877	SHEET NO. = 349		
PLOT SCALE = 40.0000' / in.	CHECKED - MJL	REVISED -	SCALE: 1"=20'			SHEET 4 OF 6 SHEETS	STA. TO STA.	<b>TD-36</b>		CONTRACT NO. 60M61		
SHT.PLAN	PLOT DATE = 3/14/2013	DATE - 03/13/2013	REVISED -			ILLINOIS FED. AID PROJECT						

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

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



**CONSTRUCTION NOTES:**

- ① ANY TEMPORARY TRAFFIC SIGNAL SECTIONS NOT IN USE DURING A STAGE OF CONSTRUCTION SHALL BE BAGGED AND DEACTIVATED. SEE CABLE PLANS FOR MORE DETAILS.
- ② ALL VIDEO DETECTION ZONES ARE TO BE REDEFINED DURING EACH STAGE OF CONSTRUCTION AND ARE INCLUDED IN THE COST OF THE TEMPORARY TRAFFIC SIGNAL INSTALLATION.
- ③ TEMPORARY RADIO INTERCONNECT SHALL NOT BE REMOVED UNTIL FIBER INTERCONNECTS TO 153RD STREET AND 149TH STREET ARE INSTALLED AND OPERATIONAL.

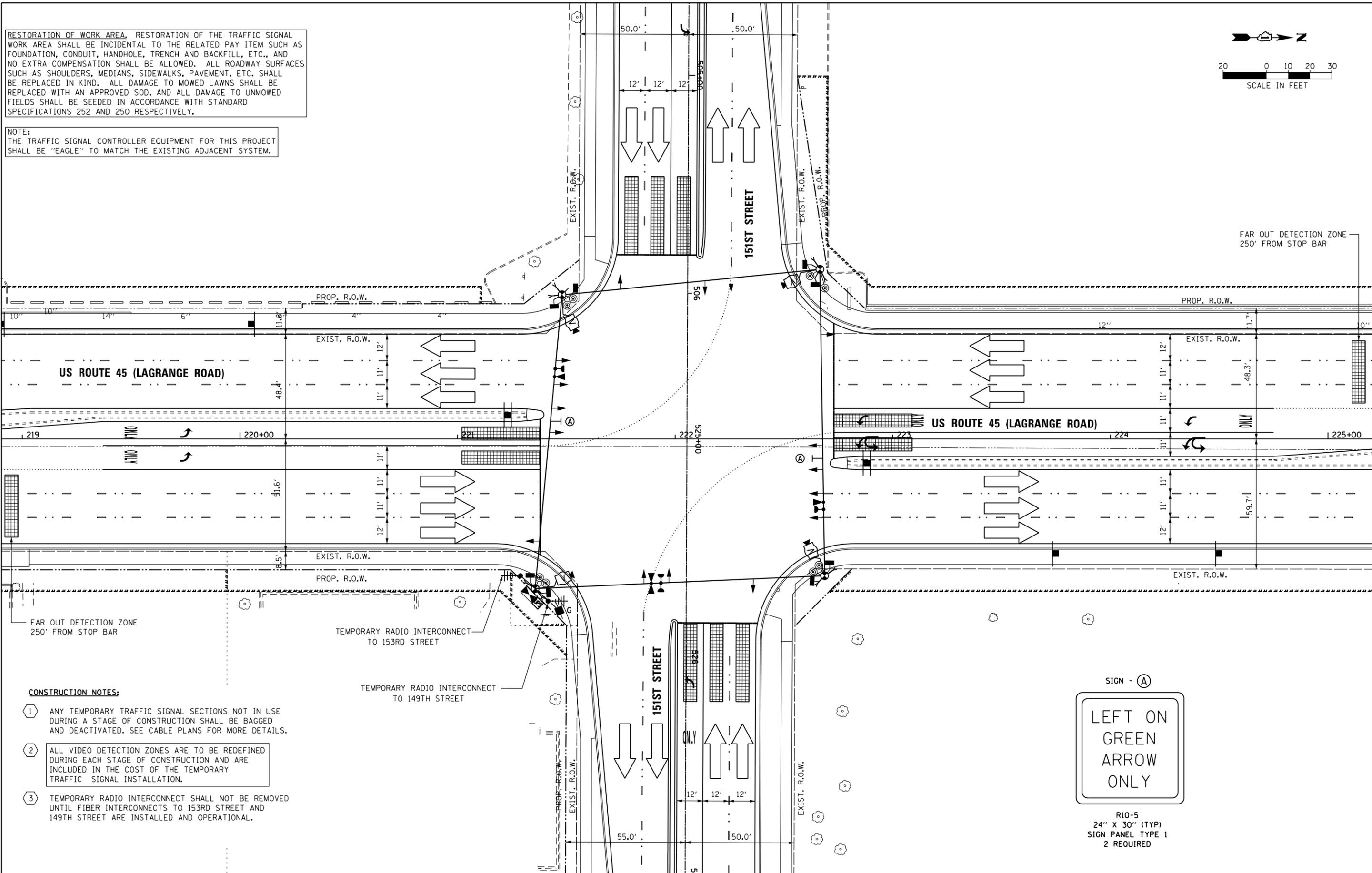
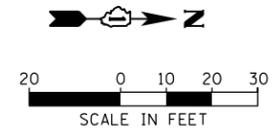


100 S. WACKER DR.  
 SUITE 600  
 CHICAGO, IL 60606  
 TEL (312) 935-1000  
 FAX (312) 935-4998  
**URS**

FILE NAME = D160M61-SHT-TS37.dgn	USER NAME = Anthony.Plutz	DESIGNED - MRF	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>TEMPORARY TRAFFIC SIGNAL INSTALLATION - STAGE 4 US 45 (LAGRANGE ROAD) AND 151ST STREET</b>	F.A.P. RTE. = 330	SECTION = 103R-4	COUNTY = COOK	TOTAL SHEETS = 877	SHEET NO. = 350		
SHT.PLAN	PLOT SCALE = 48.0000' / in.	CHECKED - MJL	REVISED -			SCALE: 1"=20'	SHEET 5 OF 6 SHEETS	STA. TO STA.	<b>TD-37</b>		CONTRACT NO. 60M61	
	PLOT DATE = 3/14/2013	DATE - 03/13/2013	REVISED -			ILLINOIS FED. AID PROJECT						

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

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



**CONSTRUCTION NOTES:**

- ① ANY TEMPORARY TRAFFIC SIGNAL SECTIONS NOT IN USE DURING A STAGE OF CONSTRUCTION SHALL BE BAGGED AND DEACTIVATED. SEE CABLE PLANS FOR MORE DETAILS.
- ② ALL VIDEO DETECTION ZONES ARE TO BE REDEFINED DURING EACH STAGE OF CONSTRUCTION AND ARE INCLUDED IN THE COST OF THE TEMPORARY TRAFFIC SIGNAL INSTALLATION.
- ③ TEMPORARY RADIO INTERCONNECT SHALL NOT BE REMOVED UNTIL FIBER INTERCONNECTS TO 153RD STREET AND 149TH STREET ARE INSTALLED AND OPERATIONAL.



R10-5  
24" X 30" (TYP)  
SIGN PANEL TYPE 1  
2 REQUIRED

100 S. WACKER DR.  
 SUITE 600  
 CHICAGO, IL 60606  
 TEL (312) 939-1000  
 FAX (312) 939-4998  
**URS**

FILE NAME = D160M61-SHT-TS38.dgn	USER NAME = Anthony.Plutz	DESIGNED - MRF	REVISED -
		DRAWN - MRF	REVISED -
		CHECKED - MJL	REVISED -
SHT.PLAN	PLOT DATE = 3/14/2013	DATE - 03/13/2013	REVISED -

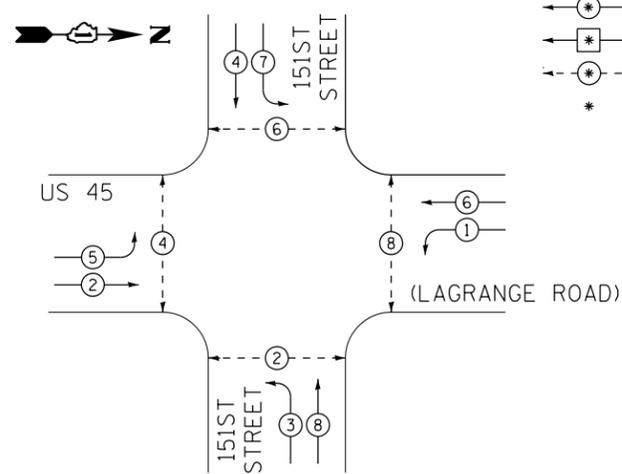
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TEMPORARY TRAFFIC SIGNAL INSTALLATION - FINAL GEOMETRICS  
US 45 (LAGRANGE ROAD) AND 151ST STREET**

SCALE: 1"=20' SHEET 6 OF 6 SHEETS STA. TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	351
<b>TD-38</b>			<b>CONTRACT NO. 60M61</b>	
ILLINOIS FED. AID PROJECT				

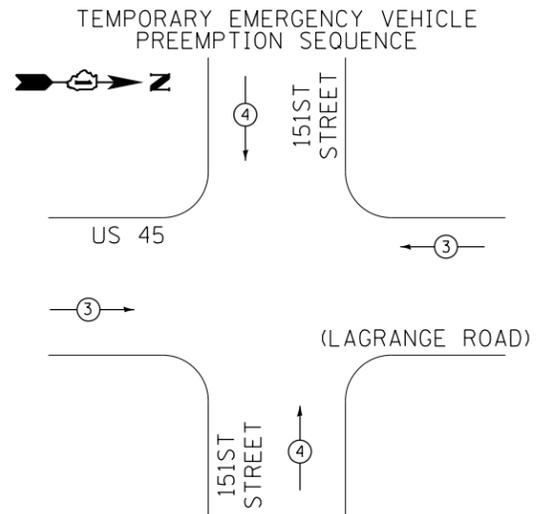
TEMPORARY CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM LEGEND

- ⊙ DUAL ENTRY PHASE
- ⊠ SINGLE ENTRY PHASE
- ⊙ PEDESTRIAN PHASE
- \* NUMBER REFERS TO ASSOCIATED PHASE

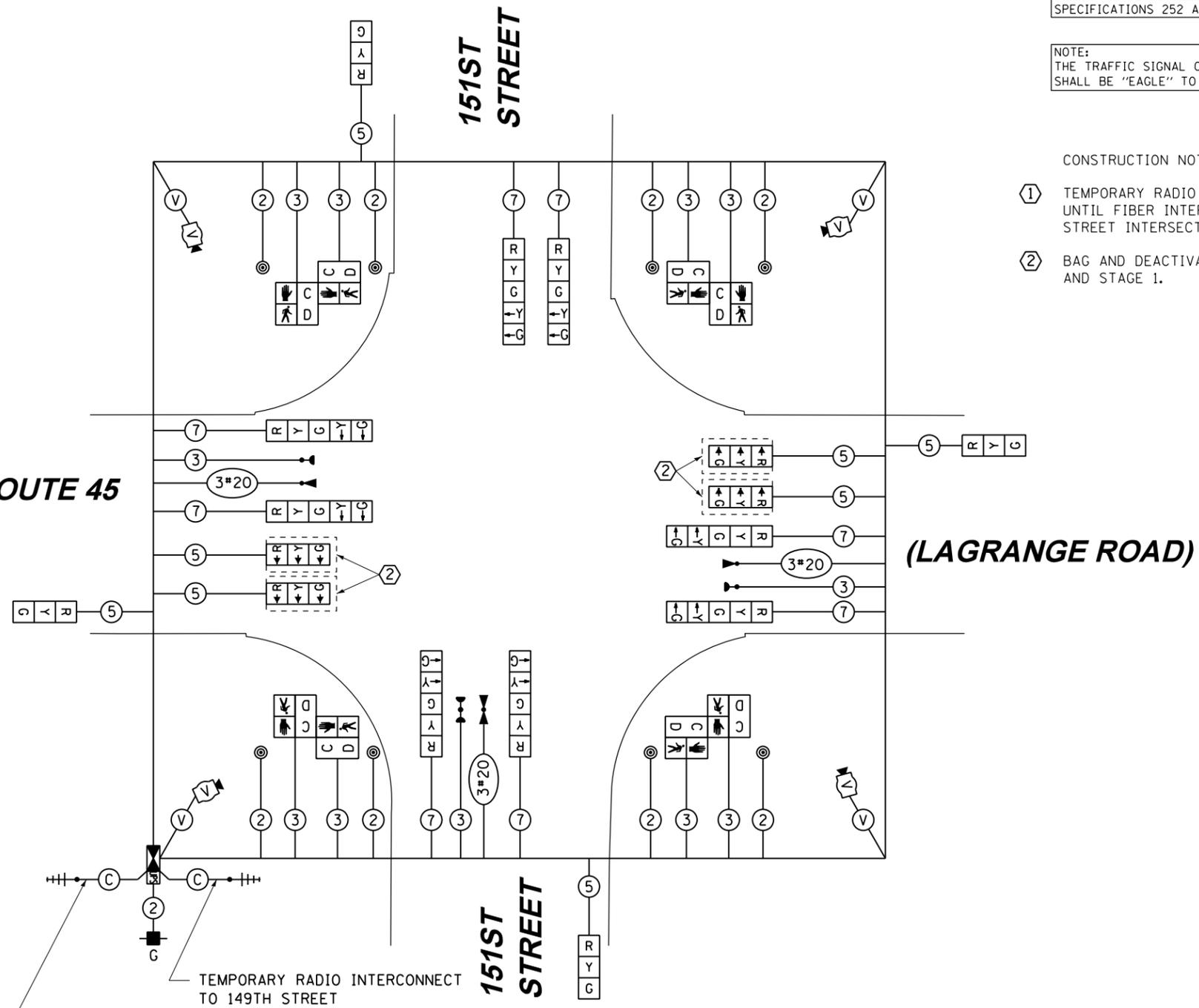
TEMPORARY PHASE DESIGNATION DIAGRAM



PROPOSED EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTORS	3	4
MOVEMENT	↔	↕

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE (INCAND.)	LED	% OPERATION	
SIGNAL (RED)	12		17	0.50	102.0
(YELLOW)	12		25	0.25	75.0
(GREEN)	12		15	0.25	45.0
ARROW	16		12	0.10	19.2
PED. SIGNAL	8		25	1.00	200.0
CONTROLLER	1		100	1.00	100.0
ILLUM. SIGN	--		25	0.05	0.0
VIDEO SYSTEM	1		150	1.00	150.0
FLASHER			25	0.50	
ENERGY COST TO:				TOTAL=	691.2

VILLAGE OF ORLAND PARK  
14700 SOUTH RAVINIA AVE.  
ENERGY SUPPLY: CONTACT: KATHRYN SUGRUE  
PHONE: (708) 235-2337  
COMPANY: COMMONWEALTH EDISON



TEMPORARY CABLE PLAN  
PRE-STAGE & STAGE 1

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

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

CONSTRUCTION NOTES:

- ① TEMPORARY RADIO INTERCONNECT SHALL NOT BE REMOVED UNTIL FIBER INTERCONNECT TO 153RD STREET AND 149TH STREET INTERSECTIONS ARE INSTALLED AND OPERATIONAL.
- ② BAG AND DEACTIVATE SIGNAL SECTION DURING PRE-STAGE AND STAGE 1.

100 S. WACKER DR.  
 SUITE 600  
 CHICAGO, IL 60606  
 TEL (312) 939-1000  
 FAX (312) 939-4998  
**URS**

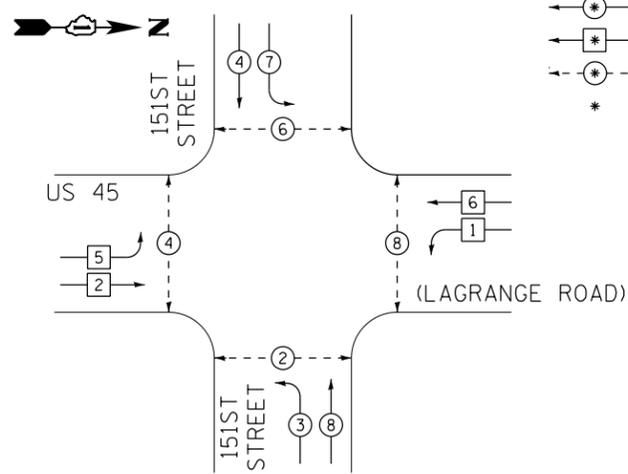
FILE NAME = D160M61-SHT-TS39.dgn	USER NAME = Anthony.Plutz	DESIGNED - MRF	REVISED -
SHT.PLAN	PLOT SCALE = 40.0000' / in.	DRAWN - MRF	REVISED -
	PLOT DATE = 3/14/2013	CHECKED - MJL	REVISED -
		DATE - 03/13/2013	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TEMPORARY CABLE PLAN, TEMPORARY PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE  
US 45 (LAGRANGE ROAD) AND 151ST STREET - PRE-STAGE & STAGE 1  
SCALE: N.T.S. SHEET 1 OF 2 SHEETS STA. TO STA.

F.A.P. RTE. 330	SECTION 103R-4	COUNTY COOK	TOTAL SHEETS 877	SHEET NO. 352
TD-39		CONTRACT NO. 60M61		
ILLINOIS FED. AID PROJECT				

TEMPORARY CONTROLLER SEQUENCE

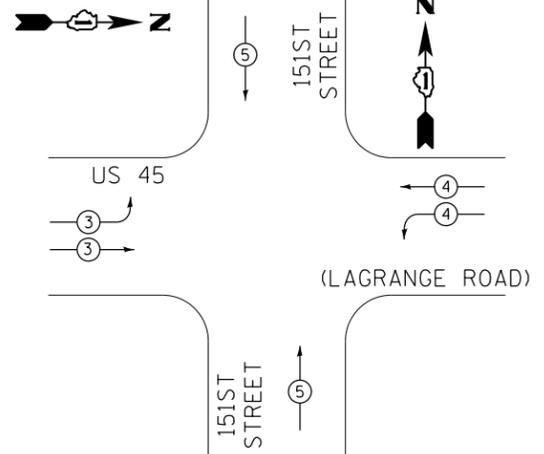


PHASE DESIGNATION DIAGRAM LEGEND

- ⊙ DUAL ENTRY PHASE
- ⊠ SINGLE ENTRY PHASE
- ⊙ PEDESTRIAN PHASE
- \* NUMBER REFERS TO ASSOCIATED PHASE

TEMPORARY PHASE DESIGNATION DIAGRAM

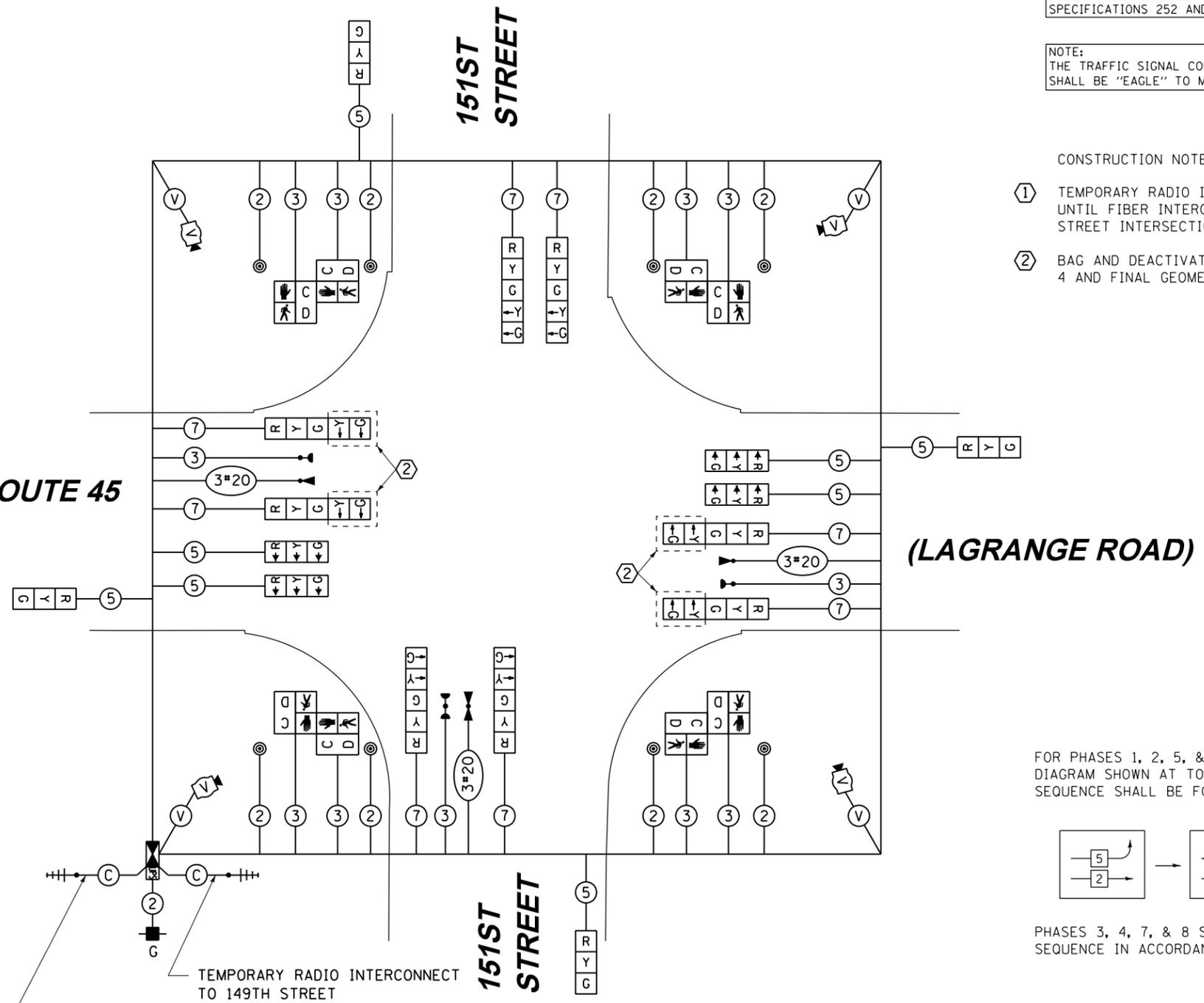
TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE



TEMPORARY EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTORS	3	4	5
MOVEMENT			

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE (INCAND.)	LED	% OPERATION	
SIGNAL (RED)	16	17		0.50	136.0
(YELLOW)	16	25		0.25	100.0
(GREEN)	16	15		0.25	60.0
ARROW	16	12		0.10	19.2
PED. SIGNAL	8	25		1.00	200.0
CONTROLLER	1	100		1.00	100.0
ILLUM. SIGN	--	25		0.05	0.0
VIDEO SYSTEM	1	150		1.00	150.0
FLASHER		25		0.50	
ENERGY COST TO:				TOTAL=	765.2

VILLAGE OF ORLAND PARK  
14700 SOUTH RAVINIA AVE.  
ENERGY SUPPLY: CONTACT: KATHRYN SUGRUE  
PHONE: (708) 235-2337  
COMPANY: COMMONWEALTH EDISON



TEMPORARY CABLE PLAN  
STAGE 2, 3, 4 & FINAL GEOMETRICS

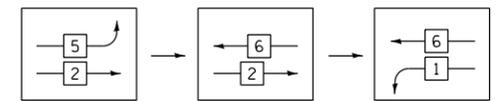
RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL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

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

CONSTRUCTION NOTES:

- ① TEMPORARY RADIO INTERCONNECT SHALL NOT BE REMOVED UNTIL FIBER INTERCONNECT TO 153RD STREET AND 149TH STREET INTERSECTIONS ARE INSTALLED AND OPERATIONAL.
- ② BAG AND DEACTIVATE SIGNAL SECTION DURING STAGES 2, 3, 4 AND FINAL GEOMETRICS

FOR PHASES 1, 2, 5, & 6 IN THE PHASE DESIGNATION DIAGRAM SHOWN AT TOP LEFT, THE FOLLOWING PHASE SEQUENCE SHALL BE FOLLOWED DURING STAGE 4:



PHASES 3, 4, 7, & 8 SHALL FOLLOW THE STANDARD SEQUENCE IN ACCORDANCE WITH STATE STANDARD 857001

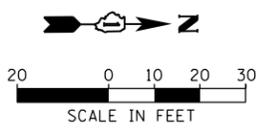
100 S. WACKER DR.  
 SUITE 600  
 CHICAGO, IL 60606  
 TEL (312) 939-1000  
 FAX (312) 939-4998  
**URS**

FILE NAME = D160M61-SHT-TS40.dgn	USER NAME = Anthony.Plutz	DESIGNED - MRF	REVISED -
SHT.PLAN	PLOT SCALE = 40.0000' / in.	DRAWN - MRF	REVISED -
	PLOT DATE = 3/14/2013	CHECKED - MJL	REVISED -
		DATE - 03/13/2013	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

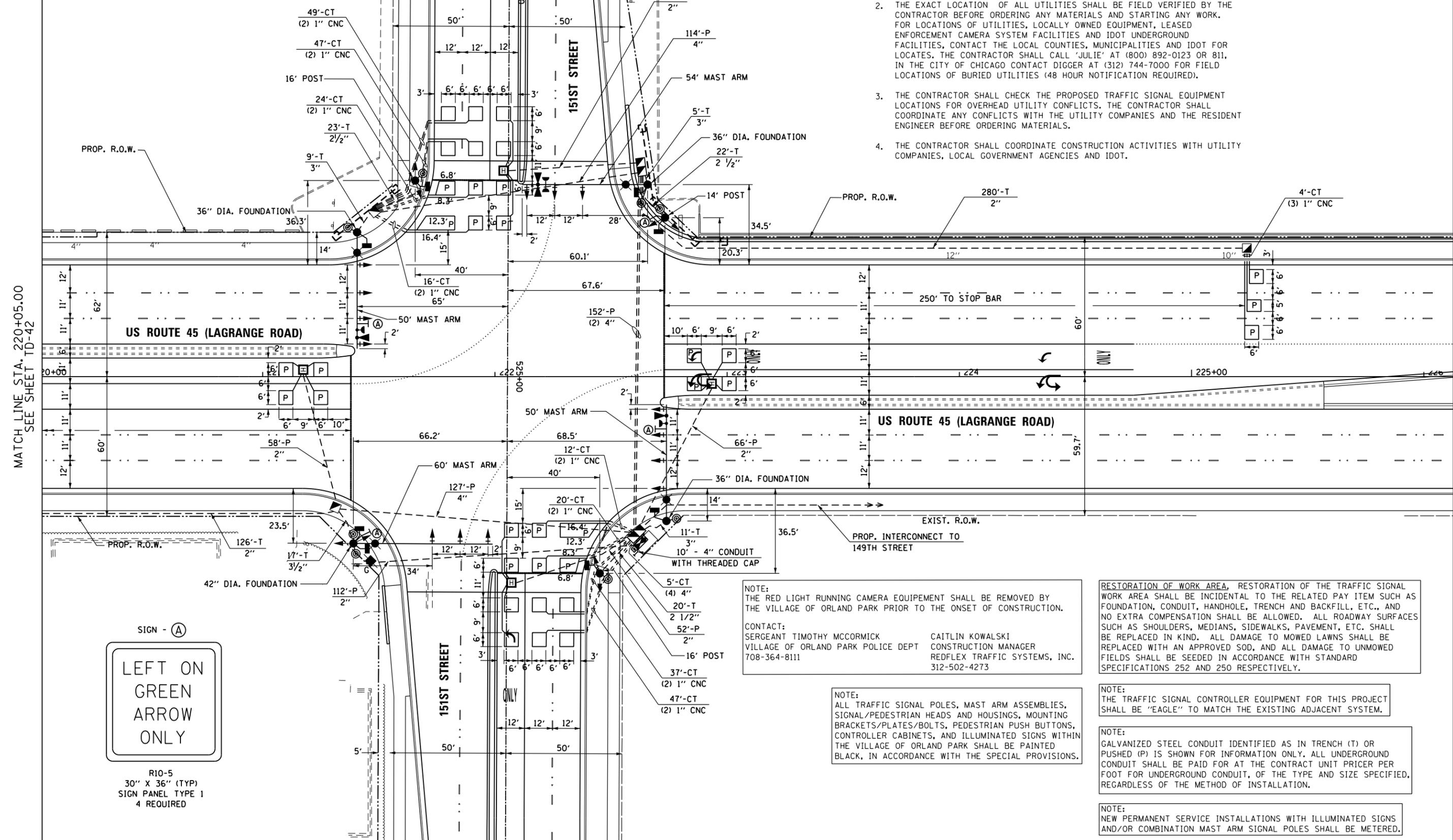
TEMPORARY CABLE PLAN, TEMPORARY PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE  
US 45 (LAGRANGE ROAD) AND 151ST STREET - STAGE 2, 3, 4 & FINAL GEOMETRICS  
SCALE: N.T.S. SHEET 2 OF 2 SHEETS STA. TO STA.

F.A.P. RTE. 330	SECTION 103R-4	COUNTY COOK	TOTAL SHEETS 877	SHEET NO. 353
TD-40			CONTRACT NO. 60M61	
ILLINOIS FED. AID PROJECT				



**GENERAL NOTES**

1. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION. THIS SHALL INCLUDE LOCATING THE MAST ARM FOUNDATIONS AND VERIFYING THE MAST ARM LENGTHS.
2. THE EXACT LOCATION OF ALL UTILITIES SHALL BE FIELD VERIFIED BY THE CONTRACTOR BEFORE ORDERING ANY MATERIALS AND STARTING ANY WORK. FOR LOCATIONS OF UTILITIES, LOCALLY OWNED EQUIPMENT, LEASED ENFORCEMENT CAMERA SYSTEM FACILITIES AND IDOT UNDERGROUND FACILITIES, CONTACT THE LOCAL COUNTIES, MUNICIPALITIES AND IDOT FOR LOCATES. THE CONTRACTOR SHALL CALL 'JULIE' AT (800) 892-0123 OR 811. IN THE CITY OF CHICAGO CONTACT DIGGER AT (312) 744-7000 FOR FIELD LOCATIONS OF BURIED UTILITIES (48 HOUR NOTIFICATION REQUIRED).
3. THE CONTRACTOR SHALL CHECK THE PROPOSED TRAFFIC SIGNAL EQUIPMENT LOCATIONS FOR OVERHEAD UTILITY CONFLICTS. THE CONTRACTOR SHALL COORDINATE ANY CONFLICTS WITH THE UTILITY COMPANIES AND THE RESIDENT ENGINEER BEFORE ORDERING MATERIALS.
4. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES, LOCAL GOVERNMENT AGENCIES AND IDOT.



R10-5  
30" X 36" (TYP)  
SIGN PANEL TYPE 1  
4 REQUIRED

NOTE:  
THE RED LIGHT RUNNING CAMERA EQUIPMENT SHALL BE REMOVED BY THE VILLAGE OF ORLAND PARK PRIOR TO THE ONSET OF CONSTRUCTION.

CONTACT:  
SERGEANT TIMOTHY MCCORMICK      CAITLIN KOWALSKI  
VILLAGE OF ORLAND PARK POLICE DEPT      CONSTRUCTION MANAGER  
708-364-8111      REDFLEX TRAFFIC SYSTEMS, INC.  
312-502-4273

NOTE:  
ALL TRAFFIC SIGNAL POLES, MAST ARM ASSEMBLIES, SIGNAL/PEDESTRIAN HEADS AND HOUSINGS, MOUNTING BRACKETS/PLATES/BOLTS, PEDESTRIAN PUSH BUTTONS, CONTROLLER CABINETS, AND ILLUMINATED SIGNS WITHIN THE VILLAGE OF ORLAND PARK SHALL BE PAINTED BLACK, IN ACCORDANCE WITH THE SPECIAL PROVISIONS.

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

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

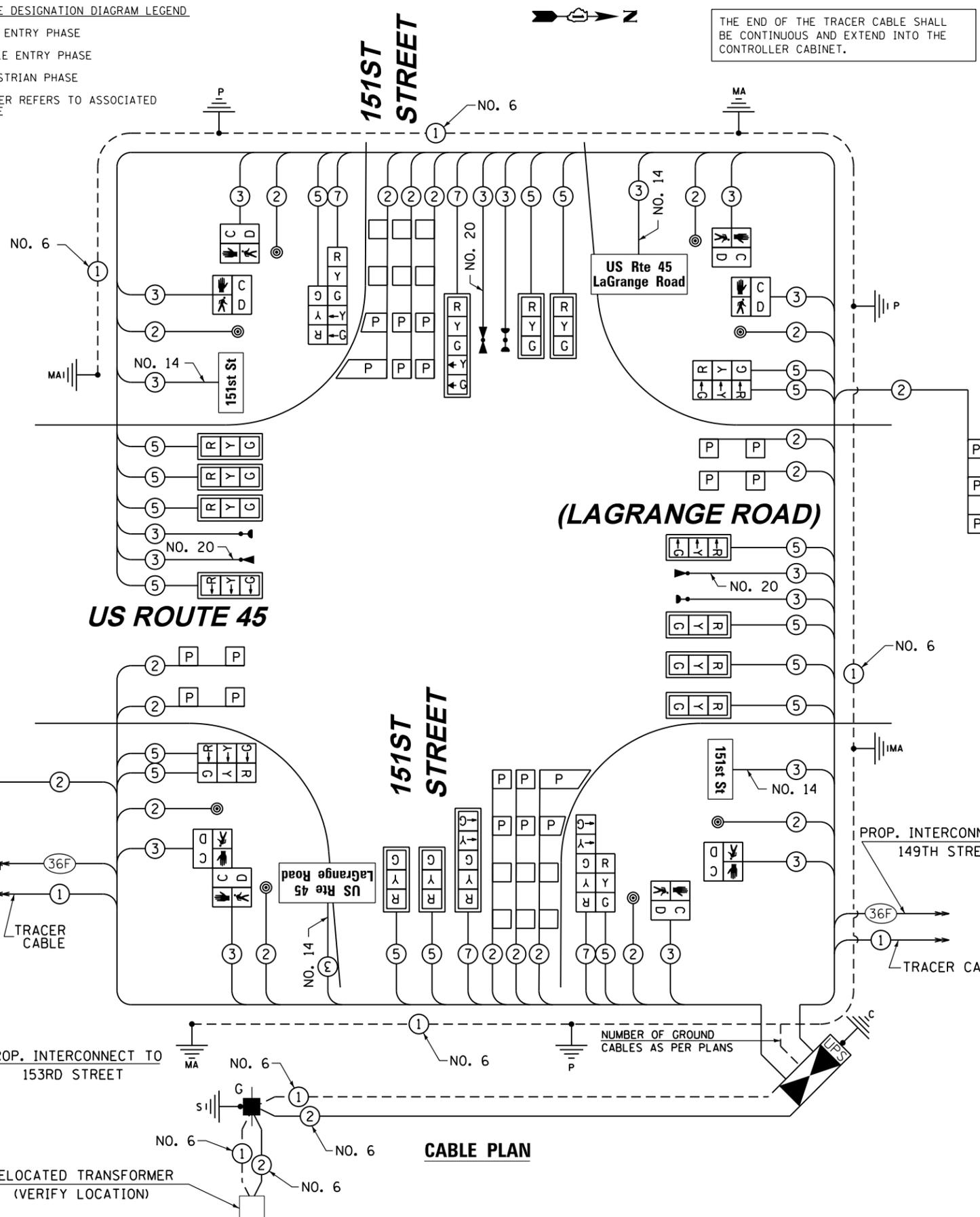
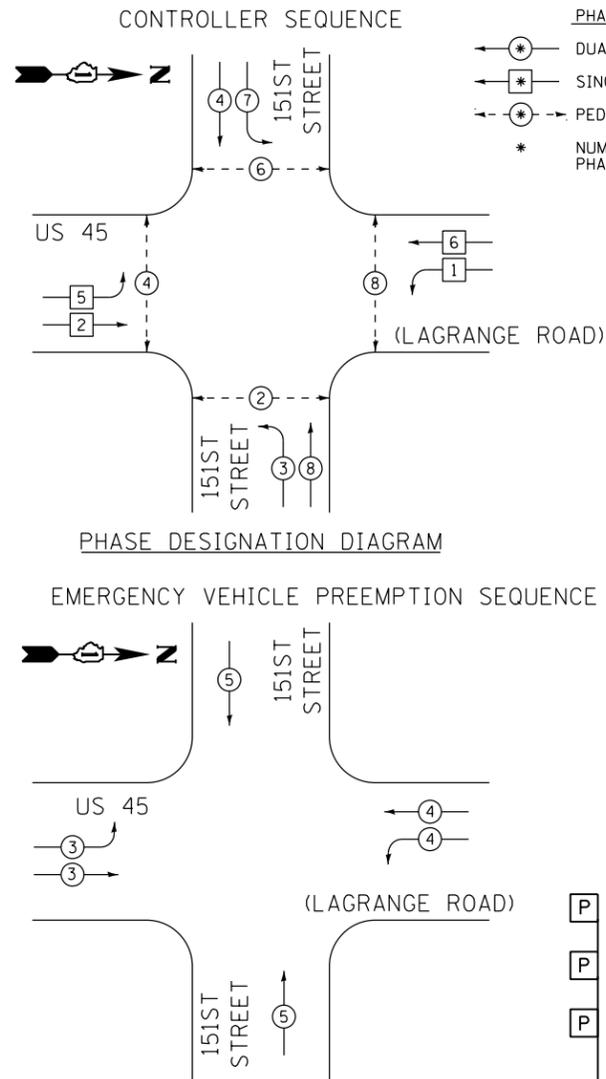
NOTE:  
GALVANIZED STEEL CONDUIT IDENTIFIED AS IN TRENCH (T) OR PUSHED (P) IS SHOWN FOR INFORMATION ONLY. ALL UNDERGROUND CONDUIT SHALL BE PAID FOR AT THE CONTRACT UNIT PRICER PER FOOT FOR UNDERGROUND CONDUIT, OF THE TYPE AND SIZE SPECIFIED, REGARDLESS OF THE METHOD OF INSTALLATION.

NOTE:  
NEW PERMANENT SERVICE INSTALLATIONS WITH ILLUMINATED SIGNS AND/OR COMBINATION MAST ARM SIGNAL POLES SHALL BE METERED.

100 S. WACKER DR.  
 10TH FLOOR  
 CHICAGO, IL 60606  
 TEL (312) 935-1000  
 FAX (312) 935-4998  
**URS**

FILE NAME = D160M61-SHT-TS41.dgn	USER NAME = Anthony.Plutz	DESIGNED - MRF	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>TRAFFIC SIGNAL INSTALLATION PLAN US 45 (LAGRANGE ROAD) AND 151ST STREET</b>	F.A.P. RTE. = 330	SECTION = 103R-4	COUNTY = COOK	TOTAL SHEETS = 877	SHEET NO. = 354	
PLOT SCALE = 48.0000' / in.	CHECKED - MJL	REVISIED -	SCALE: 1"=20'			SHEET 1 OF 2 SHEETS	STA. TO STA.	<b>TD-41</b>		CONTRACT NO. 60M61	ILLINOIS FED. AID PROJECT
SHT.PLAN	PLOT DATE = 3/14/2013	DATE = 03/13/2013	REVISIED -								





THE END OF THE TRACER CABLE SHALL BE CONTINUOUS AND EXTEND INTO THE CONTROLLER CABINET.

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

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

NOTE: NEW PERMANENT SERVICE INSTALLATIONS WITH ILLUMINATED SIGNS AND/OR COMBINATION MAST ARM SIGNAL POLES SHALL BE METERED.

NOTE: ALL TRAFFIC SIGNAL POLES, MAST ARM ASSEMBLIES, SIGNAL/PEDESTRIAN HEADS AND HOUSINGS, MOUNTING BRACKETS/PLATES/BOLTS, PEDESTRIAN PUSH BUTTONS, CONTROLLER CABINETS, AND ILLUMINATED SIGNS WITHIN THE VILLAGE OF ORLAND PARK SHALL BE PAINTED BLACK, IN ACCORDANCE WITH THE SPECIAL PROVISIONS.

**SCHEDULE OF QUANTITIES**

ITEM	UNIT	TOTAL
SIGN PANEL - TYPE 1	50 FT	30
SERVICE INSTALLATION - GROUND MOUNTED	EACH	1
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	863
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2 1/2" DIA.	FOOT	65
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	25
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3 1/2" DIA.	FOOT	17
UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	575
HANDHOLE	EACH	4
HEAVY-DUTY HANDHOLE	EACH	4
DOUBLE HANDHOLE	EACH	2
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1
UNINTERRUPTIBLE POWER SUPPLY, SPECIAL	EACH	1
TRANSCEIVER - FIBER OPTIC	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	1560
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	2376
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	4060
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	935
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	2463
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	130
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1 C	FOOT	806
TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	2
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 50 FT.	EACH	2
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 54 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 60 FT.	EACH	1
CONCRETE FOUNDATION, TYPE A	FOOT	12
CONCRETE FOUNDATION, TYPE C	FOOT	4
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	45
CONCRETE FOUNDATION, TYPE E 42-INCH DIAMETER	FOOT	21
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	12
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	2
SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED	EACH	2
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	6
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	1
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	14
INDUCTIVE LOOP DETECTOR	EACH	12
DETECTOR LOOP, TYPE I	FOOT	413
PREFORMED DETECTOR LOOP	FOOT	943
* LIGHT DETECTOR	EACH	3
* LIGHT DETECTOR AMPLIFIER	EACH	1
PEDESTRIAN PUSH-BUTTON	EACH	8
TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING HANDHOLE	EACH	13
REMOVE EXISTING CONCRETE FOUNDATION	EACH	10
* ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED	FOOT	760
** LED INTERNALLY ILLUMINATED STREET NAME SIGN	EACH	4
ELECTRIC SERVICE DISCONNECT, LIGHTING AND TRAFFIC SIGNAL	EACH	1
TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1
* 100% COST TO ORLAND FIRE PROTECTION DISTRICT		
** 100% COST TO VILLAGE OF ORLAND PARK		

**PROPOSED EMERGENCY VEHICLE PREEMPTORS**

EMERGENCY VEHICLE PREEMPTORS	3	4	5
MOVEMENT	[Diagram]	[Diagram]	[Diagram]

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

TYPE	NO. OF LAMPS	WATTAGE (INCAND.)	LED	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	22		17	0.50	187.0
(YELLOW)	22		25	0.25	137.5
(GREEN)	22		15	0.25	82.5
ARROW	8		12	0.10	9.6
PED. SIGNAL	8		25	1.00	200.0
CONTROLLER	1		100	1.00	100.0
ILLUM. SIGN	4		25	0.05	5.0
FLASHER			25	0.50	
ENERGY COST TO:					TOTAL= 721.6

VILLAGE OF ORLAND PARK  
14700 SOUTH RAVINIA AVE.

ENERGY SUPPLY: CONTACT: KATHRYN SUGRUE  
PHONE: (708) 235-2337  
COMPANY: COMMONWEALTH EDISON

FILE NAME = D160M61-SHT-TS43.dgn	USER NAME = Anthony.Plutz	DESIGNED - MRF	REVISED -
		DRAWN - MRF	REVISED -
		CHECKED - MJL	REVISED -
		DATE - 03/13/2013	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

**SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE**  
US 45 (LAGRANGE ROAD) AND 151ST STREET

SCALE: N.T.S. SHEET 1 OF 1 SHEETS STA. TO STA.

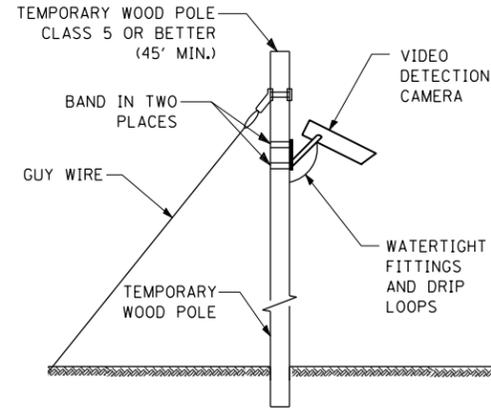
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	356
TD-43			CONTRACT NO.	60M61
ILLINOIS FED. AID PROJECT				



RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, 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 SEED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

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

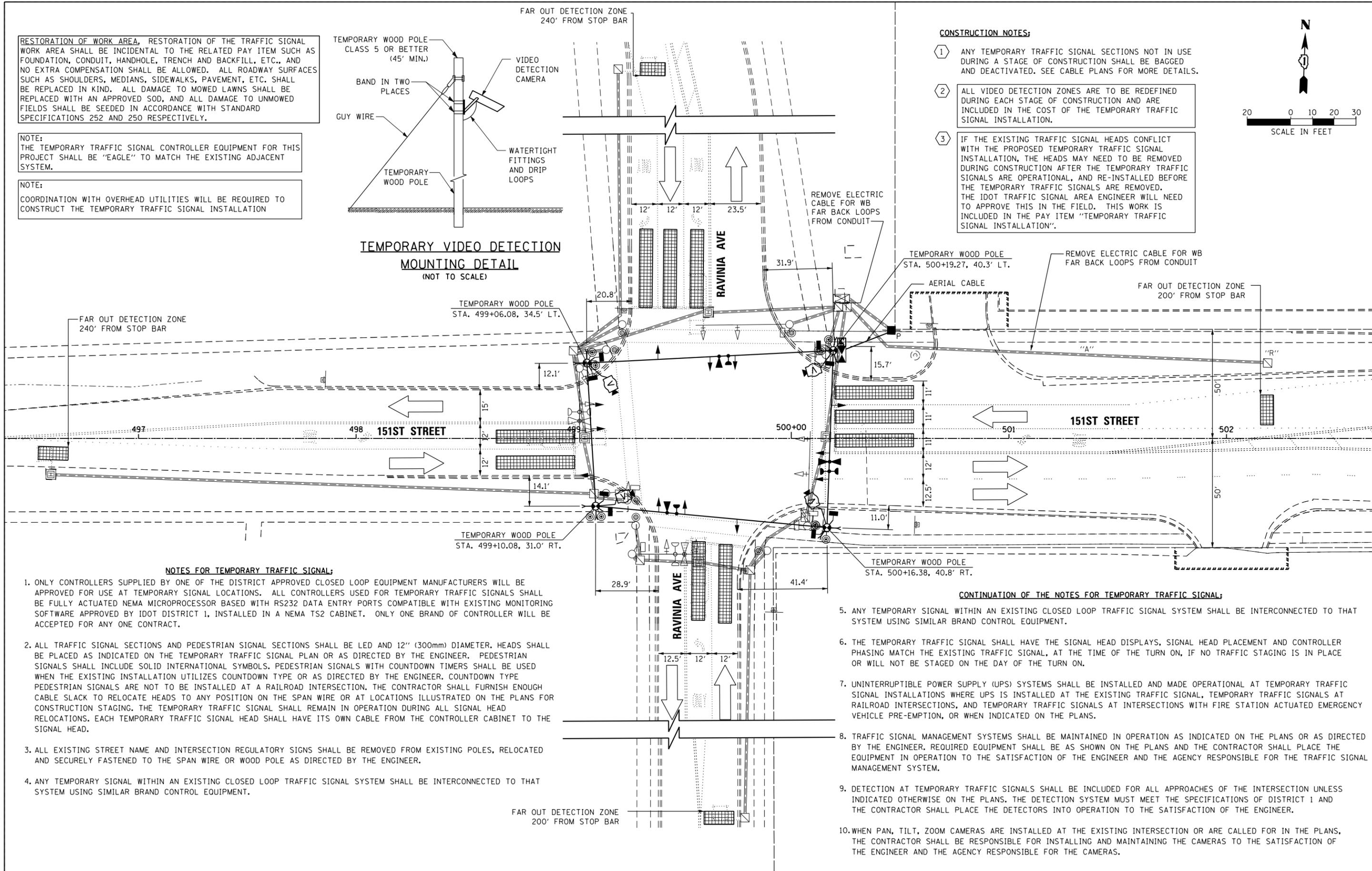
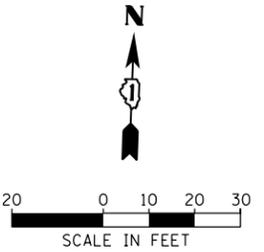
NOTE:  
COORDINATION WITH OVERHEAD UTILITIES WILL BE REQUIRED TO CONSTRUCT THE TEMPORARY TRAFFIC SIGNAL INSTALLATION



**TEMPORARY VIDEO DETECTION MOUNTING DETAIL**  
(NOT TO SCALE)

**CONSTRUCTION NOTES:**

- 1 ANY TEMPORARY TRAFFIC SIGNAL SECTIONS NOT IN USE DURING A STAGE OF CONSTRUCTION SHALL BE BAGGED AND DEACTIVATED. SEE CABLE PLANS FOR MORE DETAILS.
- 2 ALL VIDEO DETECTION ZONES ARE TO BE REDEFINED DURING EACH STAGE OF CONSTRUCTION AND ARE INCLUDED IN THE COST OF THE TEMPORARY TRAFFIC SIGNAL INSTALLATION.
- 3 IF THE EXISTING TRAFFIC SIGNAL HEADS CONFLICT WITH THE PROPOSED TEMPORARY TRAFFIC SIGNAL INSTALLATION, THE HEADS MAY NEED TO BE REMOVED DURING CONSTRUCTION AFTER THE TEMPORARY TRAFFIC SIGNALS ARE OPERATIONAL, AND RE-INSTALLED BEFORE THE TEMPORARY TRAFFIC SIGNALS ARE REMOVED. THE IDOT TRAFFIC SIGNAL AREA ENGINEER WILL NEED TO APPROVE THIS IN THE FIELD. THIS WORK IS INCLUDED IN THE PAY ITEM "TEMPORARY TRAFFIC SIGNAL INSTALLATION".



**NOTES FOR TEMPORARY TRAFFIC SIGNAL:**

1. ONLY CONTROLLERS SUPPLIED BY ONE OF THE DISTRICT APPROVED CLOSED LOOP EQUIPMENT MANUFACTURERS WILL BE APPROVED FOR USE AT TEMPORARY SIGNAL LOCATIONS. ALL CONTROLLERS USED FOR TEMPORARY TRAFFIC SIGNALS SHALL BE FULLY ACTUATED NEMA MICROPROCESSOR BASED WITH RS232 DATA ENTRY PORTS COMPATIBLE WITH EXISTING MONITORING SOFTWARE APPROVED BY IDOT DISTRICT 1, INSTALLED IN A NEMA TS2 CABINET. ONLY ONE BRAND OF CONTROLLER WILL BE ACCEPTED FOR ANY ONE CONTRACT.
2. ALL TRAFFIC SIGNAL SECTIONS AND PEDESTRIAN SIGNAL SECTIONS SHALL BE LED AND 12" (300mm) DIAMETER. HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. PEDESTRIAN SIGNALS SHALL INCLUDE SOLID INTERNATIONAL SYMBOLS. PEDESTRIAN SIGNALS WITH COUNTDOWN TIMERS SHALL BE USED WHEN THE EXISTING INSTALLATION UTILIZES COUNTDOWN TYPE OR AS DIRECTED BY THE ENGINEER. COUNTDOWN TYPE PEDESTRIAN SIGNALS ARE NOT TO BE INSTALLED AT A RAILROAD INTERSECTION. THE CONTRACTOR SHALL FURNISH ENOUGH CABLE SLACK TO RELOCATE HEADS TO ANY POSITION ON THE SPAN WIRE OR AT LOCATIONS ILLUSTRATED ON THE PLANS FOR CONSTRUCTION STAGING. THE TEMPORARY TRAFFIC SIGNAL SHALL REMAIN IN OPERATION DURING ALL SIGNAL HEAD RELOCATIONS. EACH TEMPORARY TRAFFIC SIGNAL HEAD SHALL HAVE ITS OWN CABLE FROM THE CONTROLLER CABINET TO THE SIGNAL HEAD.
3. ALL EXISTING STREET NAME AND INTERSECTION REGULATORY SIGNS SHALL BE REMOVED FROM EXISTING POLES, RELOCATED AND SECURELY FASTENED TO THE SPAN WIRE OR WOOD POLE AS DIRECTED BY THE ENGINEER.
4. ANY TEMPORARY SIGNAL WITHIN AN EXISTING CLOSED LOOP TRAFFIC SIGNAL SYSTEM SHALL BE INTERCONNECTED TO THAT SYSTEM USING SIMILAR BRAND CONTROL EQUIPMENT.

**CONTINUATION OF THE NOTES FOR TEMPORARY TRAFFIC SIGNAL:**

5. ANY TEMPORARY SIGNAL WITHIN AN EXISTING CLOSED LOOP TRAFFIC SIGNAL SYSTEM SHALL BE INTERCONNECTED TO THAT SYSTEM USING SIMILAR BRAND CONTROL EQUIPMENT.
6. THE TEMPORARY TRAFFIC SIGNAL SHALL HAVE THE SIGNAL HEAD DISPLAYS, SIGNAL HEAD PLACEMENT AND CONTROLLER PHASING MATCH THE EXISTING TRAFFIC SIGNAL, AT THE TIME OF THE TURN ON, IF NO TRAFFIC STAGING IS IN PLACE OR WILL NOT BE STAGED ON THE DAY OF THE TURN ON.
7. UNINTERRUPTIBLE POWER SUPPLY (UPS) SYSTEMS SHALL BE INSTALLED AND MADE OPERATIONAL AT TEMPORARY TRAFFIC SIGNAL INSTALLATIONS WHERE UPS IS INSTALLED AT THE EXISTING TRAFFIC SIGNAL. TEMPORARY TRAFFIC SIGNALS AT RAILROAD INTERSECTIONS, AND TEMPORARY TRAFFIC SIGNALS AT INTERSECTIONS WITH FIRE STATION ACTUATED EMERGENCY VEHICLE PRE-EMPTION, OR WHEN INDICATED ON THE PLANS.
8. TRAFFIC SIGNAL MANAGEMENT SYSTEMS SHALL BE MAINTAINED IN OPERATION AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER. REQUIRED EQUIPMENT SHALL BE AS SHOWN ON THE PLANS AND THE CONTRACTOR SHALL PLACE THE EQUIPMENT IN OPERATION TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE TRAFFIC SIGNAL MANAGEMENT SYSTEM.
9. DETECTION AT TEMPORARY TRAFFIC SIGNALS SHALL BE INCLUDED FOR ALL APPROACHES OF THE INTERSECTION UNLESS INDICATED OTHERWISE ON THE PLANS. THE DETECTION SYSTEM MUST MEET THE SPECIFICATIONS OF DISTRICT 1 AND THE CONTRACTOR SHALL PLACE THE DETECTORS INTO OPERATION TO THE SATISFACTION OF THE ENGINEER.
10. WHEN PAN, TILT, ZOOM CAMERAS ARE INSTALLED AT THE EXISTING INTERSECTION OR ARE CALLED FOR IN THE PLANS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING AND MAINTAINING THE CAMERAS TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE CAMERAS.

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FILE NAME = D160M61-SHT-TS44.dgn	USER NAME = Anthony.Plutz	DESIGNED - MRF	REVISED -
		DRAWN - MRF	REVISED -
		CHECKED - MJL	REVISED -
SHT.PLAN	PLOT DATE = 3/14/2013	DATE - 03/13/2013	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

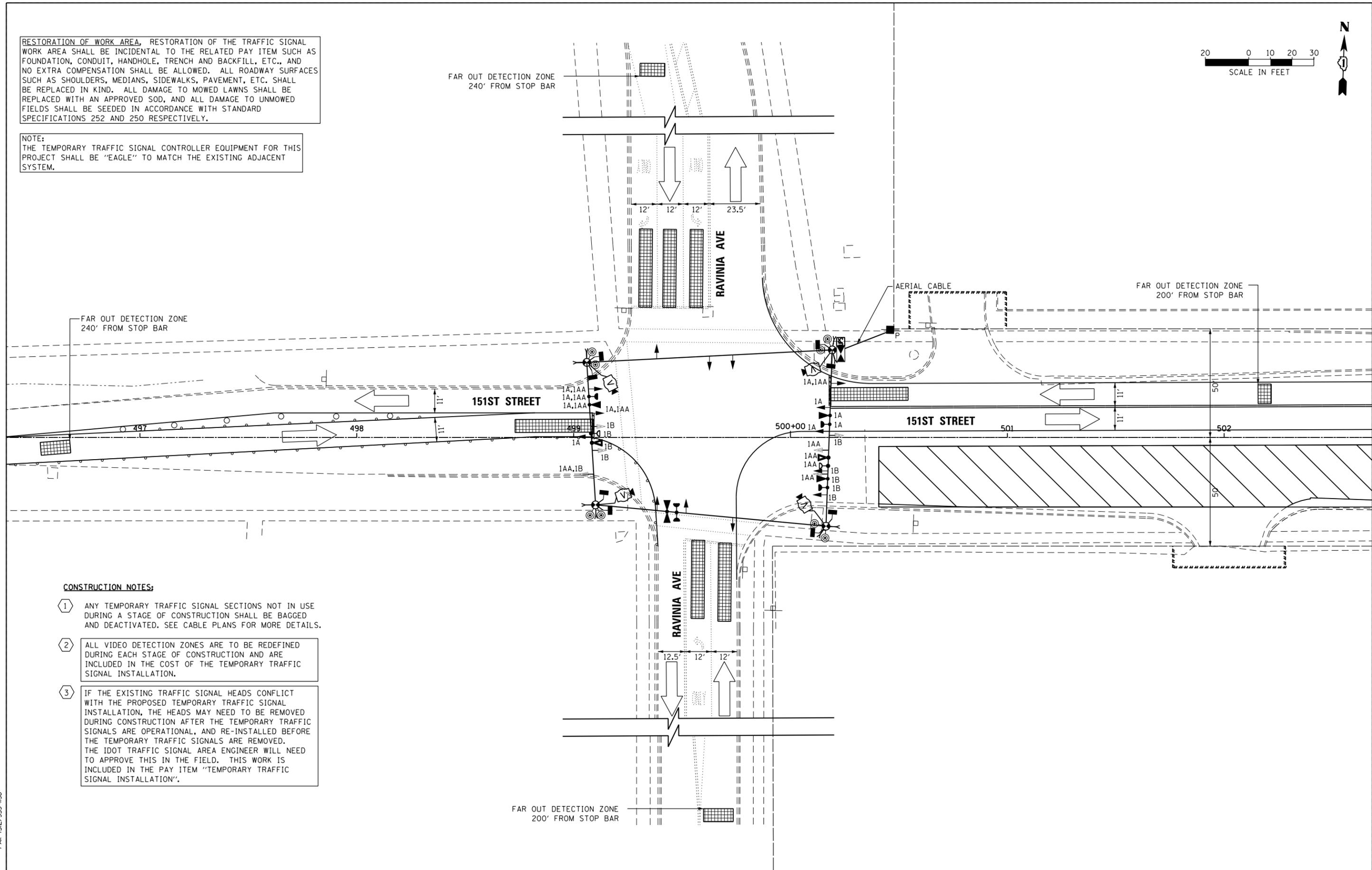
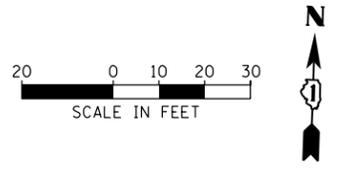
**TEMPORARY TRAFFIC SIGNAL INSTALLATION AND REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT PLAN - PRE-STAGE  
151ST STREET AND RAVINIA AVE**

SCALE: 1"=20' SHEET 1 OF 6 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	357
<b>TD-44</b>		<b>CONTRACT NO. 60M61</b>		
ILLINOIS FED. AID PROJECT				

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

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



**CONSTRUCTION NOTES:**

- 1 ANY TEMPORARY TRAFFIC SIGNAL SECTIONS NOT IN USE DURING A STAGE OF CONSTRUCTION SHALL BE BAGGED AND DEACTIVATED. SEE CABLE PLANS FOR MORE DETAILS.
- 2 ALL VIDEO DETECTION ZONES ARE TO BE REDEFINED DURING EACH STAGE OF CONSTRUCTION AND ARE INCLUDED IN THE COST OF THE TEMPORARY TRAFFIC SIGNAL INSTALLATION.
- 3 IF THE EXISTING TRAFFIC SIGNAL HEADS CONFLICT WITH THE PROPOSED TEMPORARY TRAFFIC SIGNAL INSTALLATION, THE HEADS MAY NEED TO BE REMOVED DURING CONSTRUCTION AFTER THE TEMPORARY TRAFFIC SIGNALS ARE OPERATIONAL, AND RE-INSTALLED BEFORE THE TEMPORARY TRAFFIC SIGNALS ARE REMOVED. THE IDOT TRAFFIC SIGNAL AREA ENGINEER WILL NEED TO APPROVE THIS IN THE FIELD. THIS WORK IS INCLUDED IN THE PAY ITEM "TEMPORARY TRAFFIC SIGNAL INSTALLATION".

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FILE NAME = D160M61-SHT-TS44A.dgn	USER NAME = Anthony.Plutz	DESIGNED - MRF	REVISED -
		DRAWN - MRF	REVISED -
		CHECKED - MJL	REVISED -
SHT.PLAN	PLOT DATE = 3/14/2013	DATE - 03/13/2013	REVISED -

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

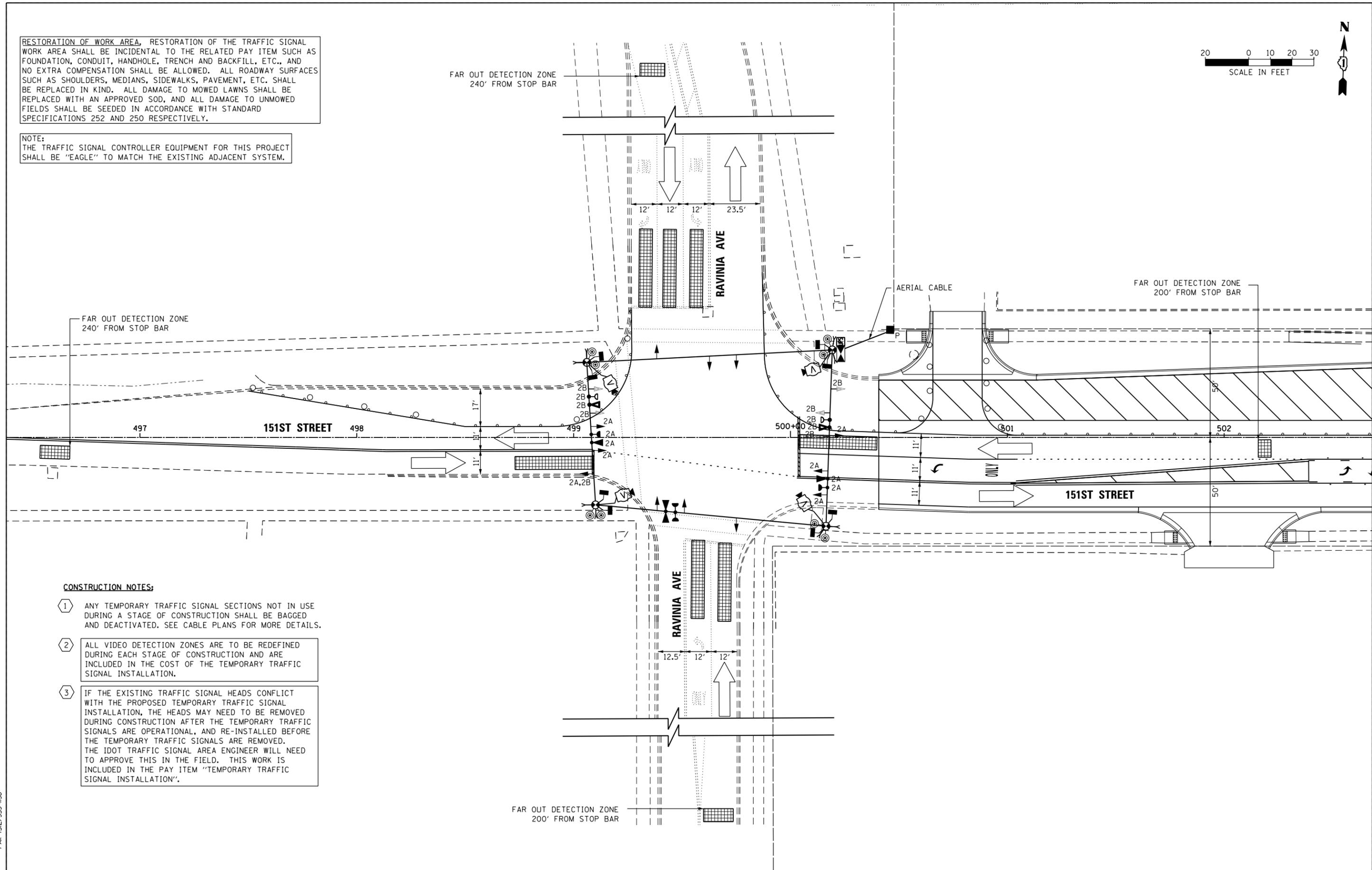
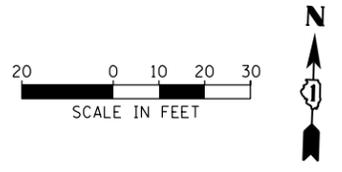
**TEMPORARY TRAFFIC SIGNAL INSTALLATION - STAGE 1**  
**151ST STREET AND RAVINIA AVE**

SCALE: 1"=20'    SHEET 2 OF 6 SHEETS    STA.    TO STA.

F.A.P. RTE. 330	SECTION 103R-4	COUNTY COOK	TOTAL SHEETS 877	SHEET NO. 358
<b>TD-44A</b>			CONTRACT NO. 60M61	
ILLINOIS FED. AID PROJECT				

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

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



**CONSTRUCTION NOTES:**

- 1 ANY TEMPORARY TRAFFIC SIGNAL SECTIONS NOT IN USE DURING A STAGE OF CONSTRUCTION SHALL BE BAGGED AND DEACTIVATED. SEE CABLE PLANS FOR MORE DETAILS.
- 2 ALL VIDEO DETECTION ZONES ARE TO BE REDEFINED DURING EACH STAGE OF CONSTRUCTION AND ARE INCLUDED IN THE COST OF THE TEMPORARY TRAFFIC SIGNAL INSTALLATION.
- 3 IF THE EXISTING TRAFFIC SIGNAL HEADS CONFLICT WITH THE PROPOSED TEMPORARY TRAFFIC SIGNAL INSTALLATION, THE HEADS MAY NEED TO BE REMOVED DURING CONSTRUCTION AFTER THE TEMPORARY TRAFFIC SIGNALS ARE OPERATIONAL, AND RE-INSTALLED BEFORE THE TEMPORARY TRAFFIC SIGNALS ARE REMOVED. THE IDOT TRAFFIC SIGNAL AREA ENGINEER WILL NEED TO APPROVE THIS IN THE FIELD. THIS WORK IS INCLUDED IN THE PAY ITEM "TEMPORARY TRAFFIC SIGNAL INSTALLATION".

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		DRAWN - MRF	REVISED -
		CHECKED - MJL	REVISED -
SHT.PLAN	PLOT DATE = 3/14/2013	DATE - 03/13/2013	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

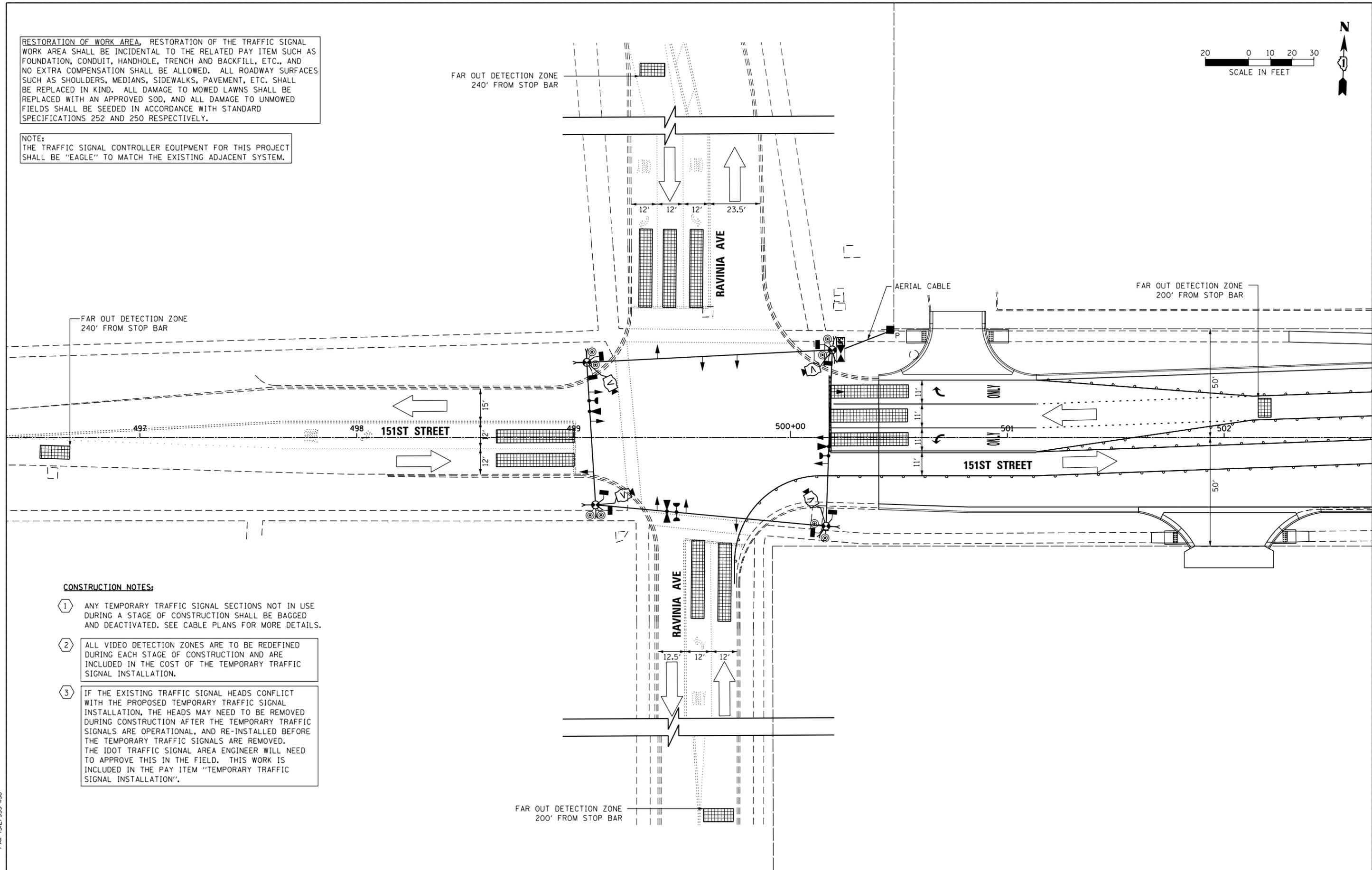
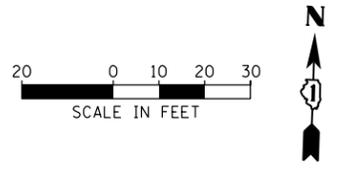
**TEMPORARY TRAFFIC SIGNAL INSTALLATION - STAGE 2  
151ST STREET AND RAVINIA AVE**

SCALE: 1"=20' SHEET 3 OF 6 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	359
<b>TD-44B</b>			<b>CONTRACT NO. 60M61</b>	
ILLINOIS FED. AID PROJECT				

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NOTE:  
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**CONSTRUCTION NOTES:**

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FILE NAME = D160M61-SHT-TS44C.dgn	USER NAME = Anthony.Plutz	DESIGNED - MRF	REVISED -
		DRAWN - MRF	REVISED -
		CHECKED - MJL	REVISED -
SHT.PLAN	PLOT DATE = 3/14/2013	DATE - 03/13/2013	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

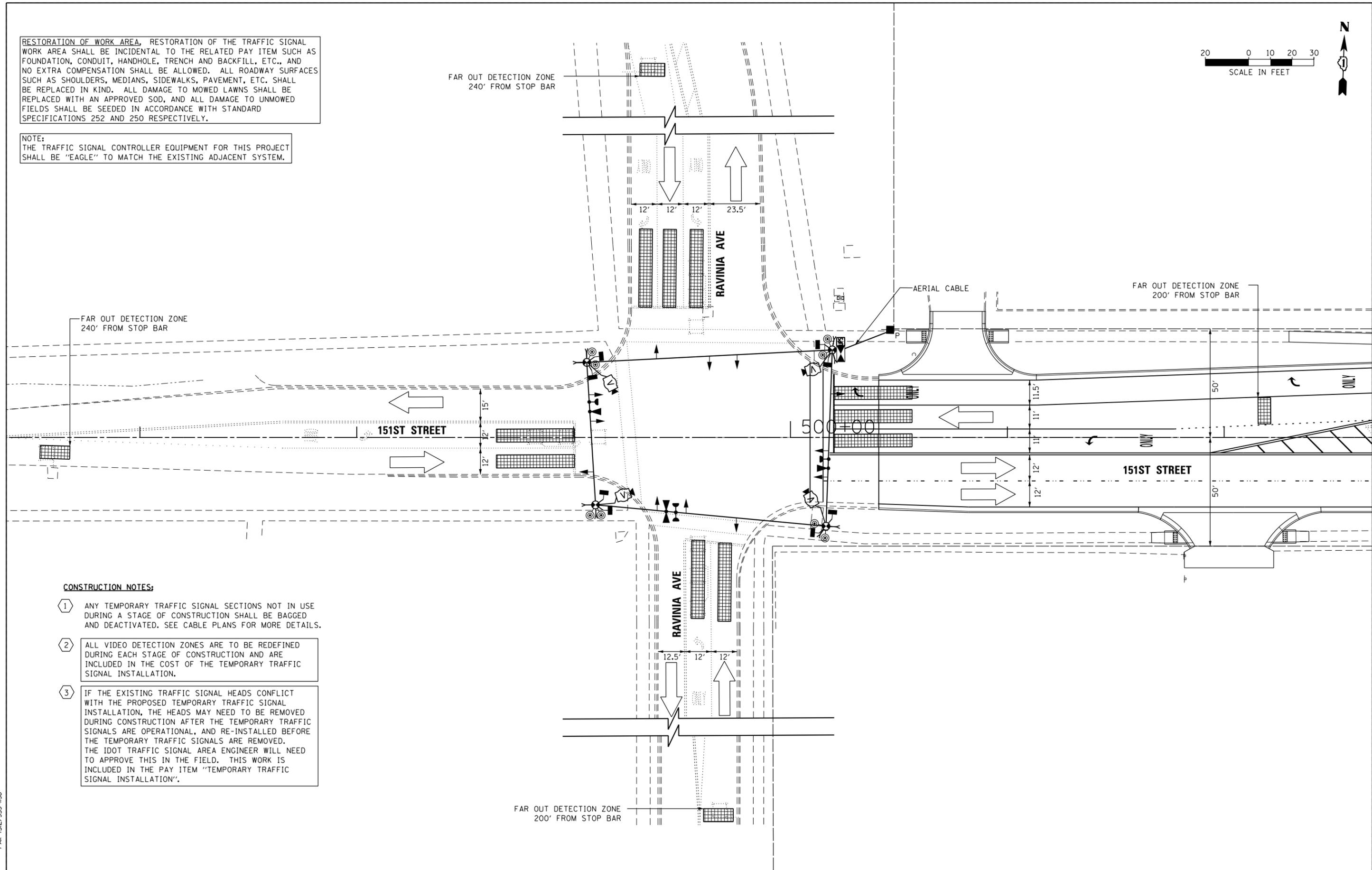
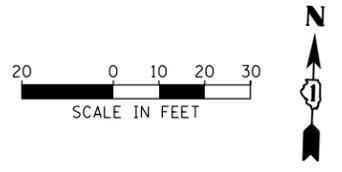
**TEMPORARY TRAFFIC SIGNAL INSTALLATION - STAGE 3  
151ST STREET AND RAVINIA AVE**

SCALE: 1"=20' SHEET 4 OF 6 SHEETS STA. TO STA.

F.A.P. RTE. 330	SECTION 103R-4	COUNTY COOK	TOTAL SHEETS 877	SHEET NO. 360
<b>TD-44C</b>			<b>CONTRACT NO. 60M61</b>	
ILLINOIS FED. AID PROJECT				

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

NOTE:  
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- 1 ANY TEMPORARY TRAFFIC SIGNAL SECTIONS NOT IN USE DURING A STAGE OF CONSTRUCTION SHALL BE BAGGED AND DEACTIVATED. SEE CABLE PLANS FOR MORE DETAILS.
- 2 ALL VIDEO DETECTION ZONES ARE TO BE REDEFINED DURING EACH STAGE OF CONSTRUCTION AND ARE INCLUDED IN THE COST OF THE TEMPORARY TRAFFIC SIGNAL INSTALLATION.
- 3 IF THE EXISTING TRAFFIC SIGNAL HEADS CONFLICT WITH THE PROPOSED TEMPORARY TRAFFIC SIGNAL INSTALLATION, THE HEADS MAY NEED TO BE REMOVED DURING CONSTRUCTION AFTER THE TEMPORARY TRAFFIC SIGNALS ARE OPERATIONAL, AND RE-INSTALLED BEFORE THE TEMPORARY TRAFFIC SIGNALS ARE REMOVED. THE IDOT TRAFFIC SIGNAL AREA ENGINEER WILL NEED TO APPROVE THIS IN THE FIELD. THIS WORK IS INCLUDED IN THE PAY ITEM "TEMPORARY TRAFFIC SIGNAL INSTALLATION".

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**URS**

FILE NAME = D160M61-SHT-TS440.dgn	USER NAME = Anthony.Plutz	DESIGNED - MRF	REVISED -
		DRAWN - MRF	REVISED -
		CHECKED - MJL	REVISED -
SHT.PLAN	PLOT DATE = 3/14/2013	DATE - 03/13/2013	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

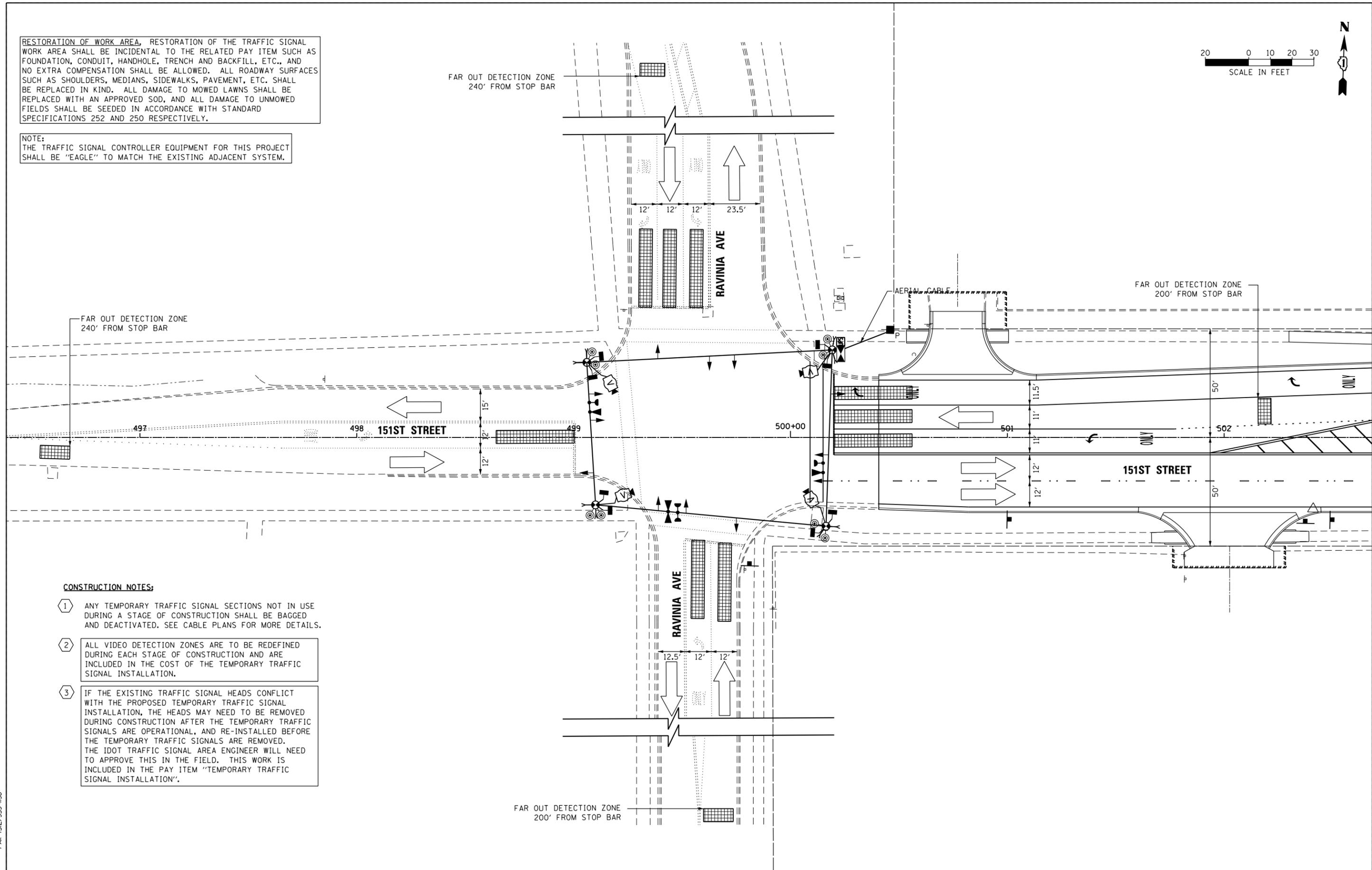
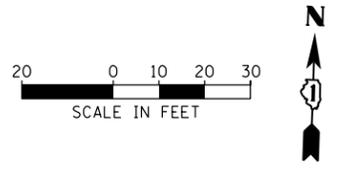
**TEMPORARY TRAFFIC SIGNAL INSTALLATION - STAGE 4  
151ST STREET AND RAVINIA AVE**

SCALE: 1"=20'    SHEET 5 OF 6 SHEETS    STA.    TO STA.

F.A.P. RTE. 330	SECTION 103R-4	COUNTY COOK	TOTAL SHEETS 877	SHEET NO. 361
<b>TD-44D</b>			<b>CONTRACT NO. 60M61</b>	
ILLINOIS FED. AID PROJECT				

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

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



**CONSTRUCTION NOTES:**

- 1 ANY TEMPORARY TRAFFIC SIGNAL SECTIONS NOT IN USE DURING A STAGE OF CONSTRUCTION SHALL BE BAGGED AND DEACTIVATED. SEE CABLE PLANS FOR MORE DETAILS.
- 2 ALL VIDEO DETECTION ZONES ARE TO BE REDEFINED DURING EACH STAGE OF CONSTRUCTION AND ARE INCLUDED IN THE COST OF THE TEMPORARY TRAFFIC SIGNAL INSTALLATION.
- 3 IF THE EXISTING TRAFFIC SIGNAL HEADS CONFLICT WITH THE PROPOSED TEMPORARY TRAFFIC SIGNAL INSTALLATION, THE HEADS MAY NEED TO BE REMOVED DURING CONSTRUCTION AFTER THE TEMPORARY TRAFFIC SIGNALS ARE OPERATIONAL, AND RE-INSTALLED BEFORE THE TEMPORARY TRAFFIC SIGNALS ARE REMOVED. THE IDOT TRAFFIC SIGNAL AREA ENGINEER WILL NEED TO APPROVE THIS IN THE FIELD. THIS WORK IS INCLUDED IN THE PAY ITEM "TEMPORARY TRAFFIC SIGNAL INSTALLATION".

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**URS**

FILE NAME = D160M61-SHT-TS44E.dgn	USER NAME = Anthony.Plutz	DESIGNED - MRF	REVISED -
		DRAWN - MRF	REVISED -
		CHECKED - MJL	REVISED -
SHT.PLAN	PLOT DATE = 3/14/2013	DATE - 03/13/2013	REVISED -

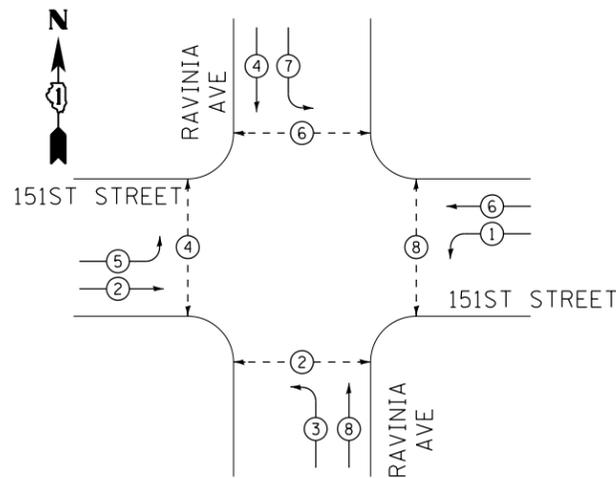
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TEMPORARY TRAFFIC SIGNAL INSTALLATION - FINAL GEOMETRICS  
151ST STREET AND RAVINIA AVE**

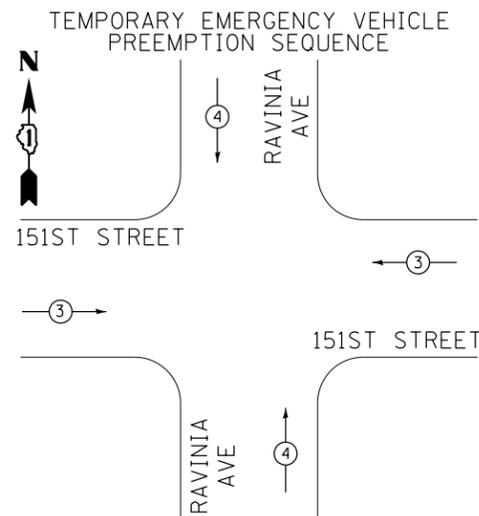
SCALE: 1"=20' SHEET 6 OF 6 SHEETS STA. TO STA.

F.A.P. RTE. 330	SECTION 103R-4	COUNTY COOK	TOTAL SHEETS 877	SHEET NO. 362
<b>TD-44E</b>			<b>CONTRACT NO. 60M61</b>	
ILLINOIS FED. AID PROJECT				

TEMPORARY CONTROLLER SEQUENCE



TEMPORARY PHASE DESIGNATION DIAGRAM



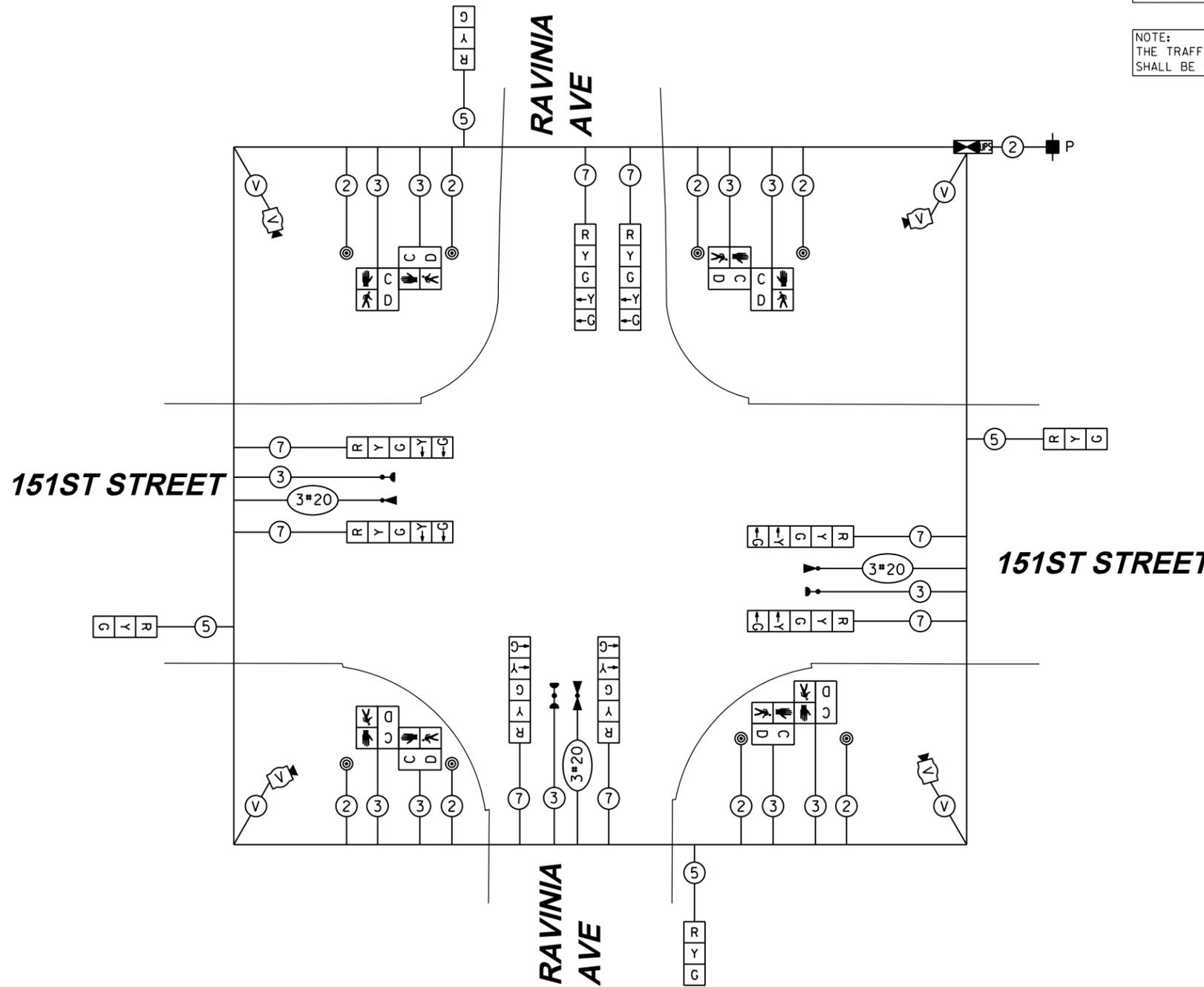
TEMPORARY EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTORS	3	4
MOVEMENT	↔	↕

PHASE DESIGNATION DIAGRAM LEGEND

- ⊙ → DUAL ENTRY PHASE
- ⊙ → SINGLE ENTRY PHASE
- ⊙ → PEDESTRIAN PHASE
- \* NUMBER REFERS TO ASSOCIATED PHASE

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

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



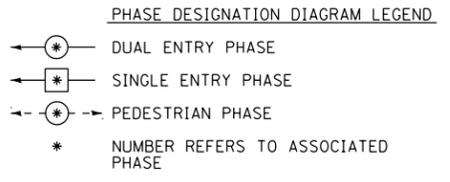
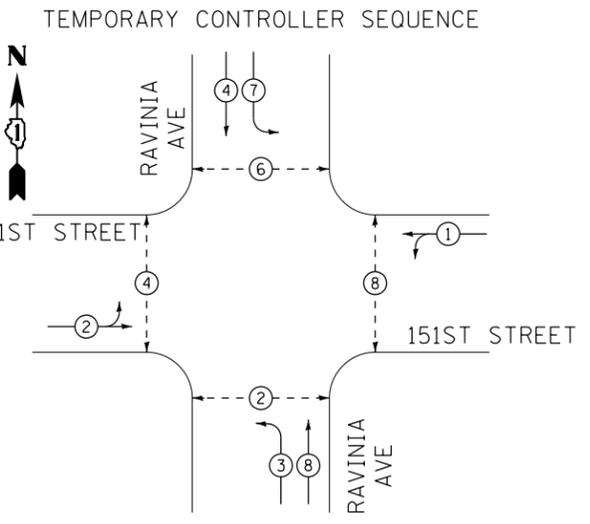
TEMPORARY CABLE PLAN  
PRE-STAGE, STAGE 3, 4 & FINAL GEOMETRICS

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE (INCAND.)	LED	% OPERATION	
SIGNAL (RED)	12		17	0.50	102.0
(YELLOW)	12		25	0.25	75.0
(GREEN)	12		15	0.25	45.0
ARROW	16		12	0.10	19.2
PED. SIGNAL	8		25	1.00	200.0
CONTROLLER	1		100	1.00	100.0
ILLUM. SIGN	--		25	0.05	0.0
VIDEO SYSTEM	1		150	1.00	150.0
FLASHER			25	0.50	
ENERGY COST TO:				TOTAL =	691.2

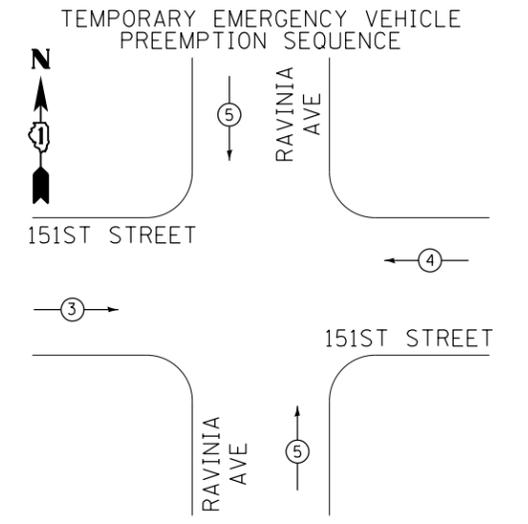
VILLAGE OF ORLAND PARK  
14700 SOUTH RAVINIA AVE.  
ENERGY SUPPLY: CONTACT: KATHRYN SUGRUE  
PHONE: (708) 235-2337  
COMPANY: COMMONWEALTH EDISON

100 S. WACKER DR.  
SUITE 500  
CHICAGO, IL 60606  
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**URS**

FILE NAME = DI60M61-SHT-T544F.dgn	USER NAME = Anthony.Plutz	DESIGNED - MRF	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TEMPORARY CABLE PLAN, TEMPORARY PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE 151ST STREET AND RAVINIA AVE - PRE-STAGE, STAGE 3, 4 & FINAL GEOMETRICS	F.A.P. RTE. 330	SECTION 103R-4	COUNTY COOK	TOTAL SHEETS 877	SHEET NO. 363	
SHT_PLAN	PLOT SCALE = 48,0000' / in.	CHECKED - MJL	REVISED -			SCALE: N.T.S.	SHEET 1 OF 2 SHEETS	STA. TO STA.	TD-44F		CONTRACT NO. 60M61
	PLOT DATE = 3/14/2013	DATE - 03/13/2013	REVISED -					ILLINOIS FED. AID PROJECT			



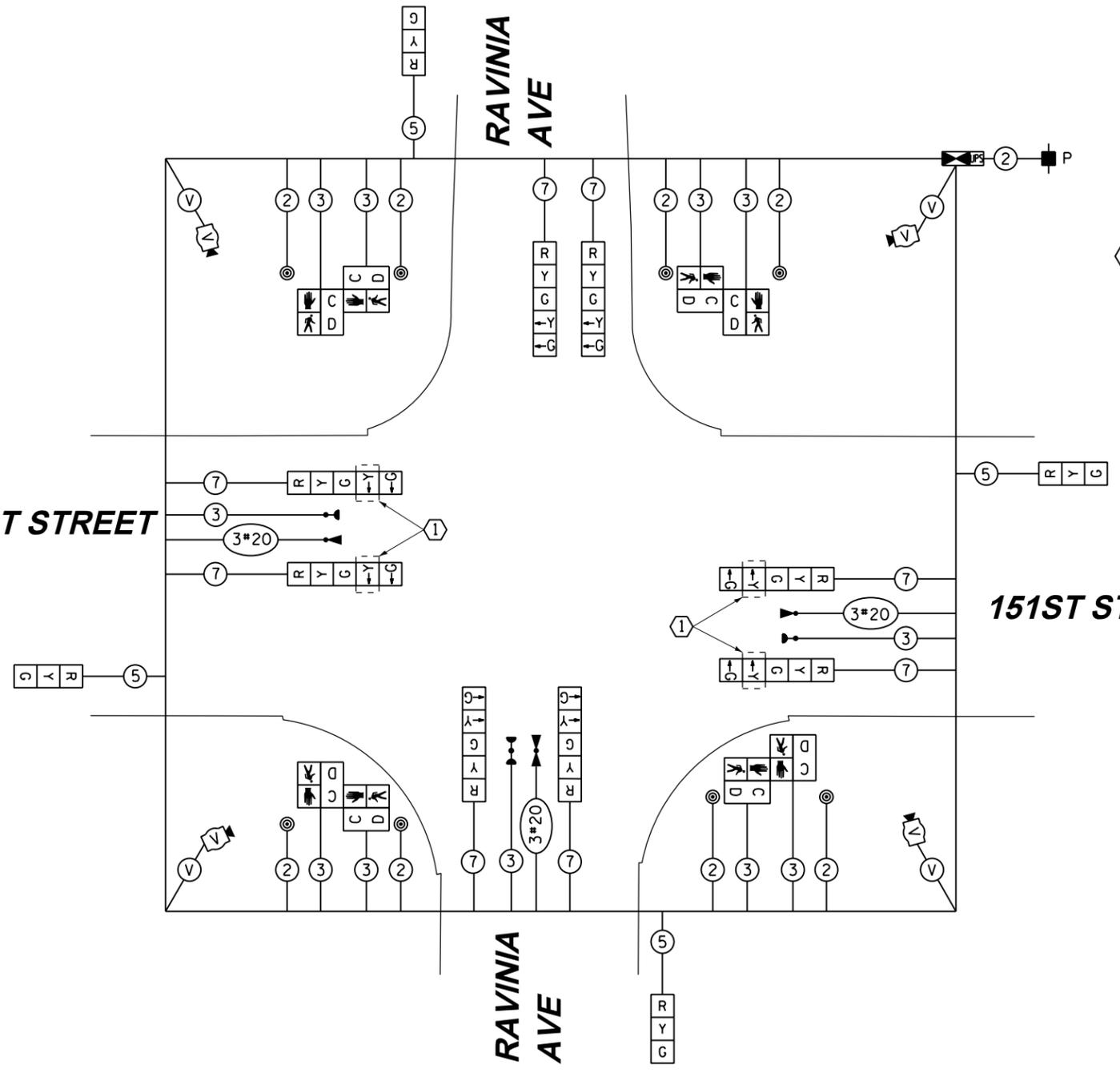
TEMPORARY PHASE DESIGNATION DIAGRAM



TEMPORARY EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTORS	3	4	5
MOVEMENT	←	→	↕

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE (INCANDE.)	LED	% OPERATION	
SIGNAL (RED)	12		17	0.50	102.0
(YELLOW)	12		25	0.25	75.0
(GREEN)	12		15	0.25	45.0
ARROW	12		12	0.10	14.4
PED. SIGNAL	8		25	1.00	200.0
CONTROLLER	1		100	1.00	100.0
ILLUM. SIGN	--		25	0.05	0.0
VIDEO SYSTEM	1		150	1.00	150.0
FLASHER			25	0.50	
ENERGY COST TO:			TOTAL=		686.4

VILLAGE OF ORLAND PARK  
 14700 SOUTH RAVINIA AVE.  
 ENERGY SUPPLY CONTACT: KATHRYN SUGRUE  
 PHONE: (708) 235-2337  
 COMPANY: COMMONWEALTH EDISON



TEMPORARY CABLE PLAN  
 STAGE 1 & 2

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

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

CONSTRUCTION NOTES:  
 ① BAG AND DEACTIVATE SIGNAL SECTION DURING STAGES 1 AND 2.

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FILE NAME = D160M61-SHT-TS44G.dgn	USER NAME = Anthony.Plutz	DESIGNED - MRF	REVISED -
SHT.PLAN	PLOT SCALE = 48.0000' / in.	DRAWN - MRF	REVISED -
	PLOT DATE = 3/14/2013	CHECKED - MJL	REVISED -
		DATE - 03/13/2013	REVISED -

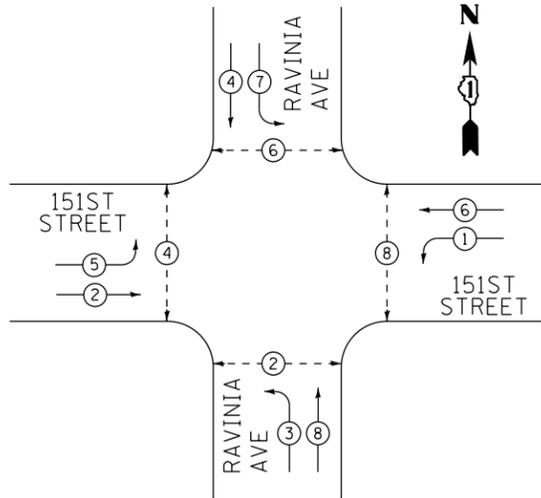
STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

TEMPORARY CABLE PLAN, TEMPORARY PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE  
 151ST STREET AND RAVINIA AVE - STAGE 1 & 2  
 SCALE: N.T.S. SHEET 2 OF 2 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	364
TD-44G			CONTRACT NO. 60M61	
ILLINOIS FED. AID PROJECT				

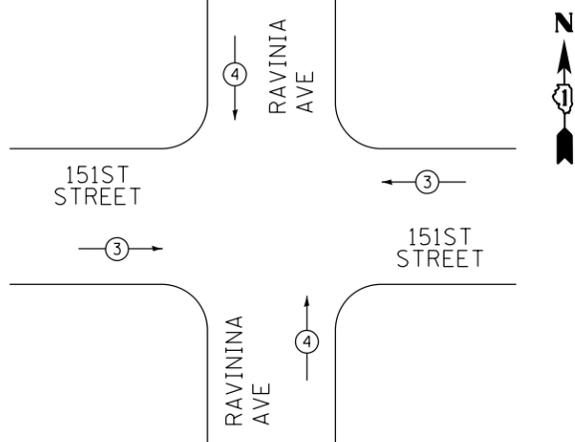


**CONTROLLER SEQUENCE**



**PHASE DESIGNATION DIAGRAM**

**EMERGENCY VEHICLE PREEMPTION SEQUENCE**



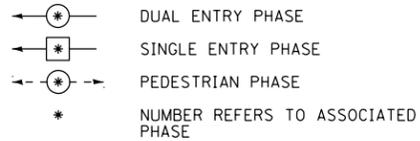
PROPOSED EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTORS	3	4
MOVEMENT	← →	↑ ↓

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS						TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE INCAND.	LED	% OPERATION		
SIGNAL (RED)	13	17		0.50		110.5
(YELLOW)	13	25		0.25		81.3
(GREEN)	13	15		0.25		48.8
ARROW	16	12		0.10		19.2
PED. SIGNAL	8	25		1.00		200.0
CONTROLLER	1	100		1.00		100.0
VIDEO SYSTEM	1	150		1.00		150.0
FLASHER		25		0.50		
ENERGY COST TO:					TOTAL=	709.8

VILLAGE OF ORLAND PARK  
14700 SOUTH RAVINIA AVE.

ENERGY SUPPLY: CONTACT: KATHRYN SUGRUE  
PHONE: (708) 235-2337  
COMPANY: COMMONWEALTH EDISON

**PHASE DESIGNATION DIAGRAM LEGEND**



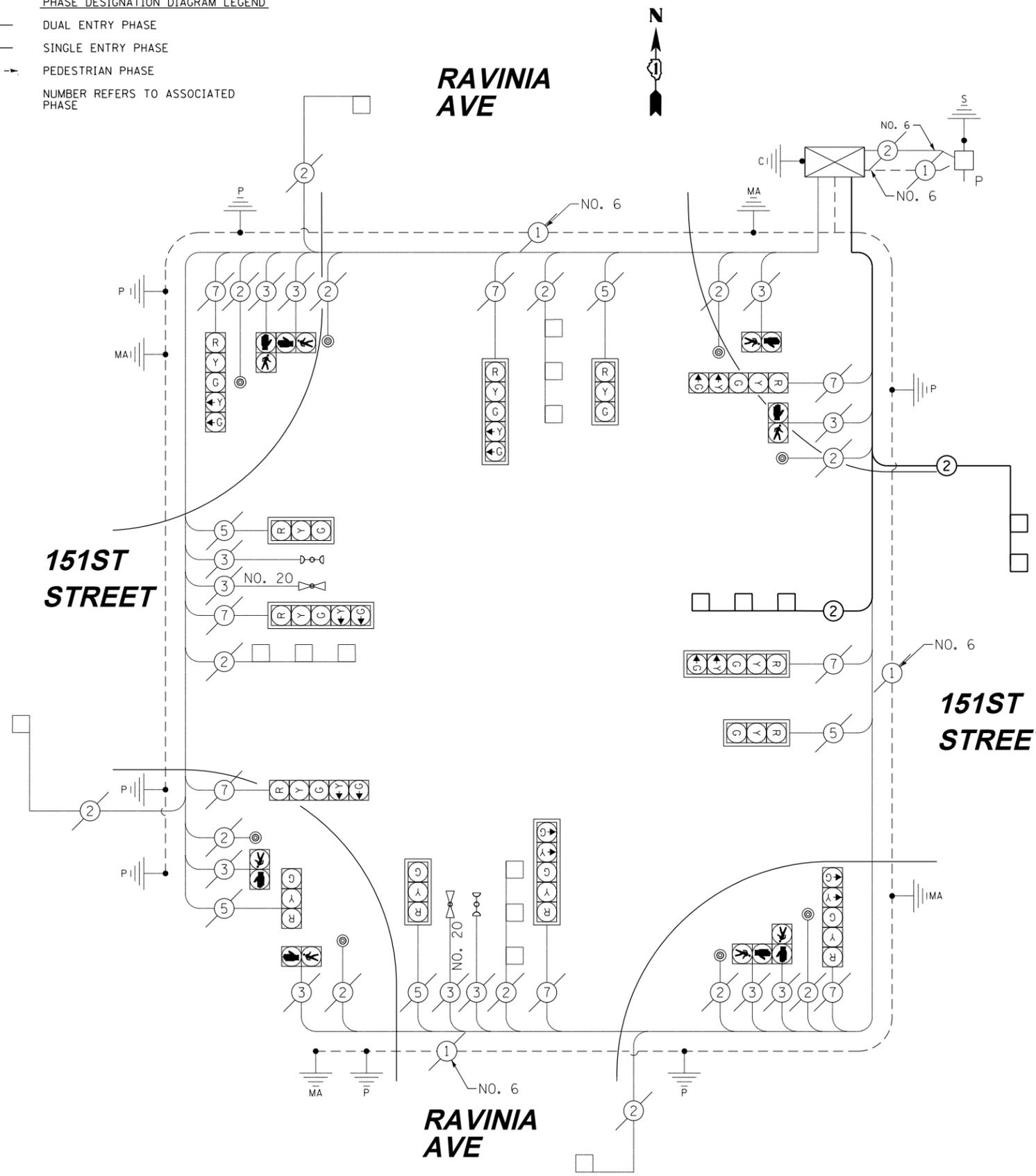
**RAVINIA AVE**

**151ST STREET**

**151ST STREET**

**RAVINIA AVE**

**CABLE PLAN**



**SCHEDULE OF QUANTITIES**

ITEM	UNIT	TOTAL
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	255
HANDHOLE	EACH	1
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	361
DRILL EXISTING HANDHOLE	EACH	4
DETECTOR LOOP, TYPE I	FOOT	194
TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	233
REMOVE EXISTING HANDHOLE	EACH	1
TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1

PROPOSED DETECTOR LOOP, TYPE 1 IN THE LEFT TURN LANE SHALL BE SPLICED TO EXISTING LEAD IN CABLE IN HANDHOLE. THIS WORK SHALL BE INCIDENTAL TO DETECTOR LOOP, TYPE 1.

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

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**URS**

FILE NAME = D160M61-SHT-TS441.dgn	USER NAME = Anthony.Plutz	DESIGNED - MRF	REVISED -
		DRAWN - MRF	REVISED -
		CHECKED - MJL	REVISED -
		DATE - 03/13/2013	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE</b>			
<b>151ST STREET AND RAVINIA AVE</b>			
SCALE: N.T.S.	SHEET 1 OF 1 SHEETS	STA. TO STA.	

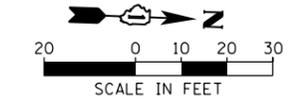
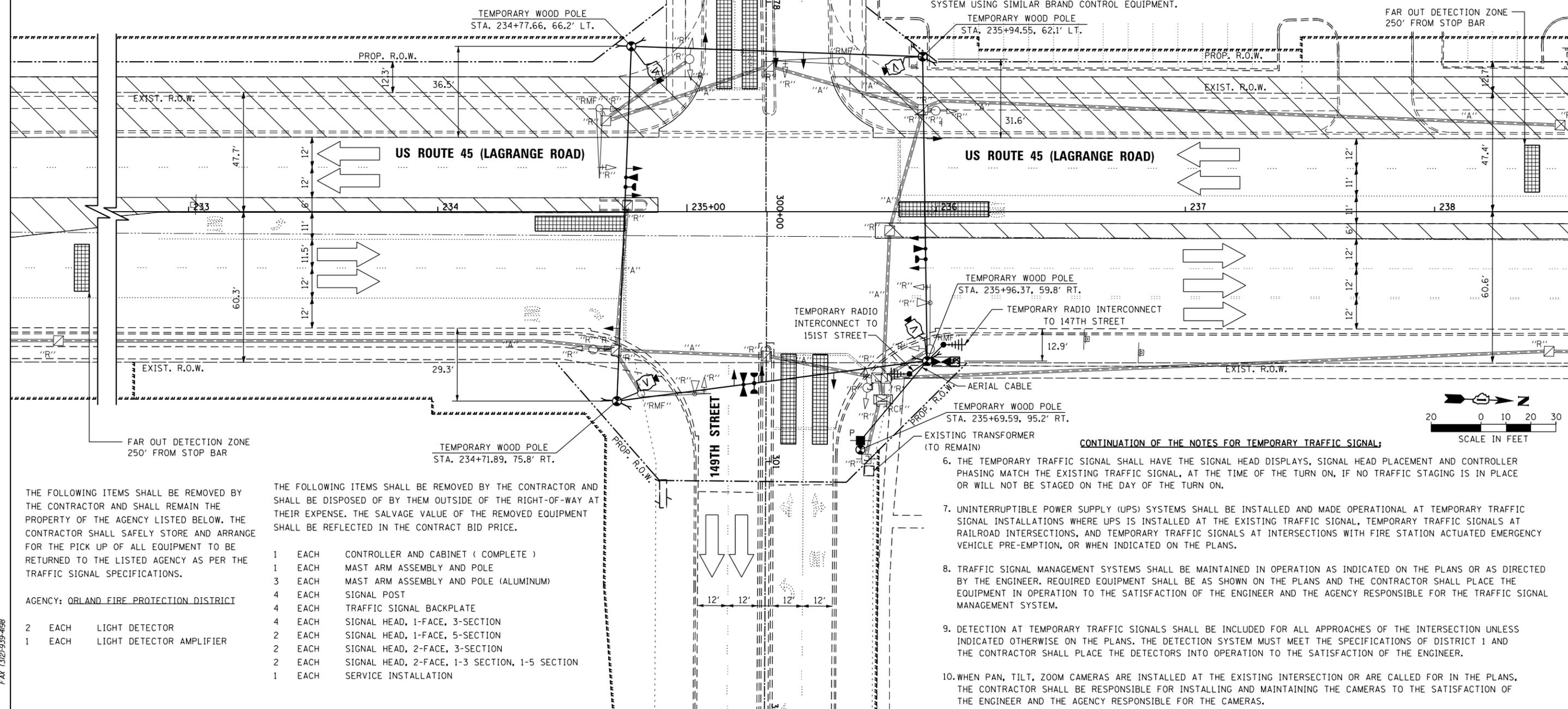
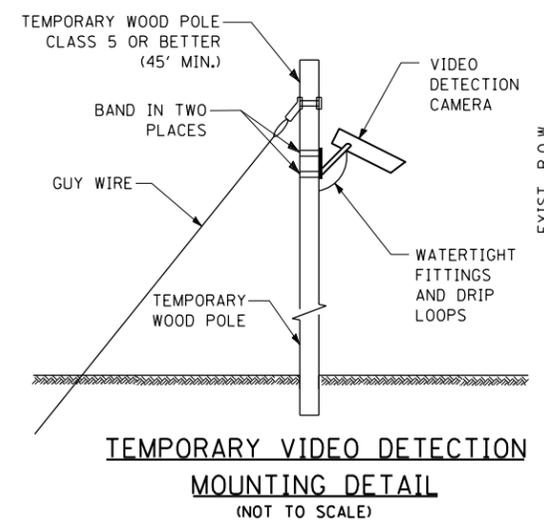
F.A.P. RTE. 330	SECTION 103R-4	COUNTY COOK	TOTAL SHEETS 877	SHEET NO. 366
<b>TD-441</b>		<b>CONTRACT NO. 60M61</b>		
ILLINOIS FED. AID PROJECT				

**NOTES FOR TEMPORARY TRAFFIC SIGNAL:**

1. ALL CONTROL EQUIPMENT SUCH AS COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNAL(S) SHALL BE FURNISHED BY THE CONTRACTOR.
2. ONLY CONTROLLERS SUPPLIED BY ONE OF THE DISTRICT APPROVED CLOSED LOOP EQUIPMENT MANUFACTURERS WILL BE APPROVED FOR USE AT TEMPORARY SIGNAL LOCATIONS. ALL CONTROLLERS USED FOR TEMPORARY TRAFFIC SIGNALS SHALL BE FULLY ACTUATED NEMA MICROPROCESSOR BASED WITH RS232 DATA ENTRY PORTS COMPATIBLE WITH EXISTING MONITORING SOFTWARE APPROVED BY IDOT DISTRICT 1, INSTALLED IN A NEMA TS2 CABINET. ONLY ONE BRAND OF CONTROLLER WILL BE ACCEPTED FOR ANY ONE CONTRACT.
3. ALL TRAFFIC SIGNAL SECTIONS AND PEDESTRIAN SIGNAL SECTIONS SHALL BE LED AND 12" (300mm) DIAMETER. HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. PEDESTRIAN SIGNALS SHALL INCLUDE SOLID INTERNATIONAL SYMBOLS. PEDESTRIAN SIGNALS WITH COUNTDOWN TIMERS SHALL BE USED WHEN THE EXISTING INSTALLATION UTILIZES COUNTDOWN TYPE OR AS DIRECTED BY THE ENGINEER. COUNTDOWN TYPE PEDESTRIAN SIGNALS ARE NOT TO BE INSTALLED AT A RAILROAD INTERSECTION. THE CONTRACTOR SHALL FURNISH ENOUGH CABLE SLACK TO RELOCATE HEADS TO ANY POSITION ON THE SPAN WIRE OR AT LOCATIONS ILLUSTRATED ON THE PLANS FOR CONSTRUCTION STAGING. THE TEMPORARY TRAFFIC SIGNAL SHALL REMAIN IN OPERATION DURING ALL SIGNAL HEAD RELOCATIONS. EACH TEMPORARY TRAFFIC SIGNAL HEAD SHALL HAVE ITS OWN CABLE FROM THE CONTROLLER CABINET TO THE SIGNAL HEAD.
4. ALL EXISTING STREET NAME AND INTERSECTION REGULATORY SIGNS SHALL BE REMOVED FROM EXISTING POLES, RELOCATED AND SECURELY FASTENED TO THE SPAN WIRE OR WOOD POLE AS DIRECTED BY THE ENGINEER.
5. ANY TEMPORARY SIGNAL WITHIN AN EXISTING CLOSED LOOP TRAFFIC SIGNAL SYSTEM SHALL BE INTERCONNECTED TO THAT SYSTEM USING SIMILAR BRAND CONTROL EQUIPMENT.

**CONSTRUCTION NOTES:**

- 1 ANY TEMPORARY TRAFFIC SIGNAL SECTIONS NOT IN USE DURING A STAGE OF CONSTRUCTION SHALL BE BAGGED AND DEACTIVATED. SEE CABLE PLANS FOR MORE DETAILS.
- 2 ALL VIDEO DETECTION ZONES ARE TO BE REDEFINED DURING EACH STAGE OF CONSTRUCTION AND ARE INCLUDED IN THE COST OF THE TEMPORARY TRAFFIC SIGNAL INSTALLATION.
- 3 TEMPORARY RADIO INTERCONNECT SHALL NOT BE REMOVED UNTIL FIBER INTERCONNECTS TO 151ST STREET AND 147TH STREET ARE INSTALLED AND OPERATIONAL.



**CONTINUATION OF THE NOTES FOR TEMPORARY TRAFFIC SIGNAL:**

6. THE TEMPORARY TRAFFIC SIGNAL SHALL HAVE THE SIGNAL HEAD DISPLAYS, SIGNAL HEAD PLACEMENT AND CONTROLLER PHASING MATCH THE EXISTING TRAFFIC SIGNAL, AT THE TIME OF THE TURN ON, IF NO TRAFFIC STAGING IS IN PLACE OR WILL NOT BE STAGED ON THE DAY OF THE TURN ON.
7. UNINTERRUPTIBLE POWER SUPPLY (UPS) SYSTEMS SHALL BE INSTALLED AND MADE OPERATIONAL AT TEMPORARY TRAFFIC SIGNAL INSTALLATIONS WHERE UPS IS INSTALLED AT THE EXISTING TRAFFIC SIGNAL. TEMPORARY TRAFFIC SIGNALS AT RAILROAD INTERSECTIONS, AND TEMPORARY TRAFFIC SIGNALS AT INTERSECTIONS WITH FIRE STATION ACTUATED EMERGENCY VEHICLE PRE-EMPTION, OR WHEN INDICATED ON THE PLANS.
8. TRAFFIC SIGNAL MANAGEMENT SYSTEMS SHALL BE MAINTAINED IN OPERATION AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER. REQUIRED EQUIPMENT SHALL BE AS SHOWN ON THE PLANS AND THE CONTRACTOR SHALL PLACE THE EQUIPMENT IN OPERATION TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE TRAFFIC SIGNAL MANAGEMENT SYSTEM.
9. DETECTION AT TEMPORARY TRAFFIC SIGNALS SHALL BE INCLUDED FOR ALL APPROACHES OF THE INTERSECTION UNLESS INDICATED OTHERWISE ON THE PLANS. THE DETECTION SYSTEM MUST MEET THE SPECIFICATIONS OF DISTRICT 1 AND THE CONTRACTOR SHALL PLACE THE DETECTORS INTO OPERATION TO THE SATISFACTION OF THE ENGINEER.
10. WHEN PAN, TILT, ZOOM CAMERAS ARE INSTALLED AT THE EXISTING INTERSECTION OR ARE CALLED FOR IN THE PLANS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING AND MAINTAINING THE CAMERAS TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE CAMERAS.

THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL REMAIN THE PROPERTY OF THE AGENCY LISTED BELOW. THE CONTRACTOR SHALL SAFELY STORE AND ARRANGE FOR THE PICK UP OF ALL EQUIPMENT TO BE RETURNED TO THE LISTED AGENCY AS PER THE TRAFFIC SIGNAL SPECIFICATIONS.

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

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

AGENCY: ORLAND FIRE PROTECTION DISTRICT

2	EACH	LIGHT DETECTOR
1	EACH	LIGHT DETECTOR AMPLIFIER

**URS**  
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FILE NAME =	USER NAME = Anthony.Plutz	DESIGNED - MRF	REVISED -
D160M61-SHT-TS45.dgn		DRAWN - MRF	REVISED -
	PLOT SCALE = 40.0000' / in.	CHECKED - MJL	REVISED -
SHT_PLAN	PLOT DATE = 3/14/2013	DATE - 03/13/2013	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

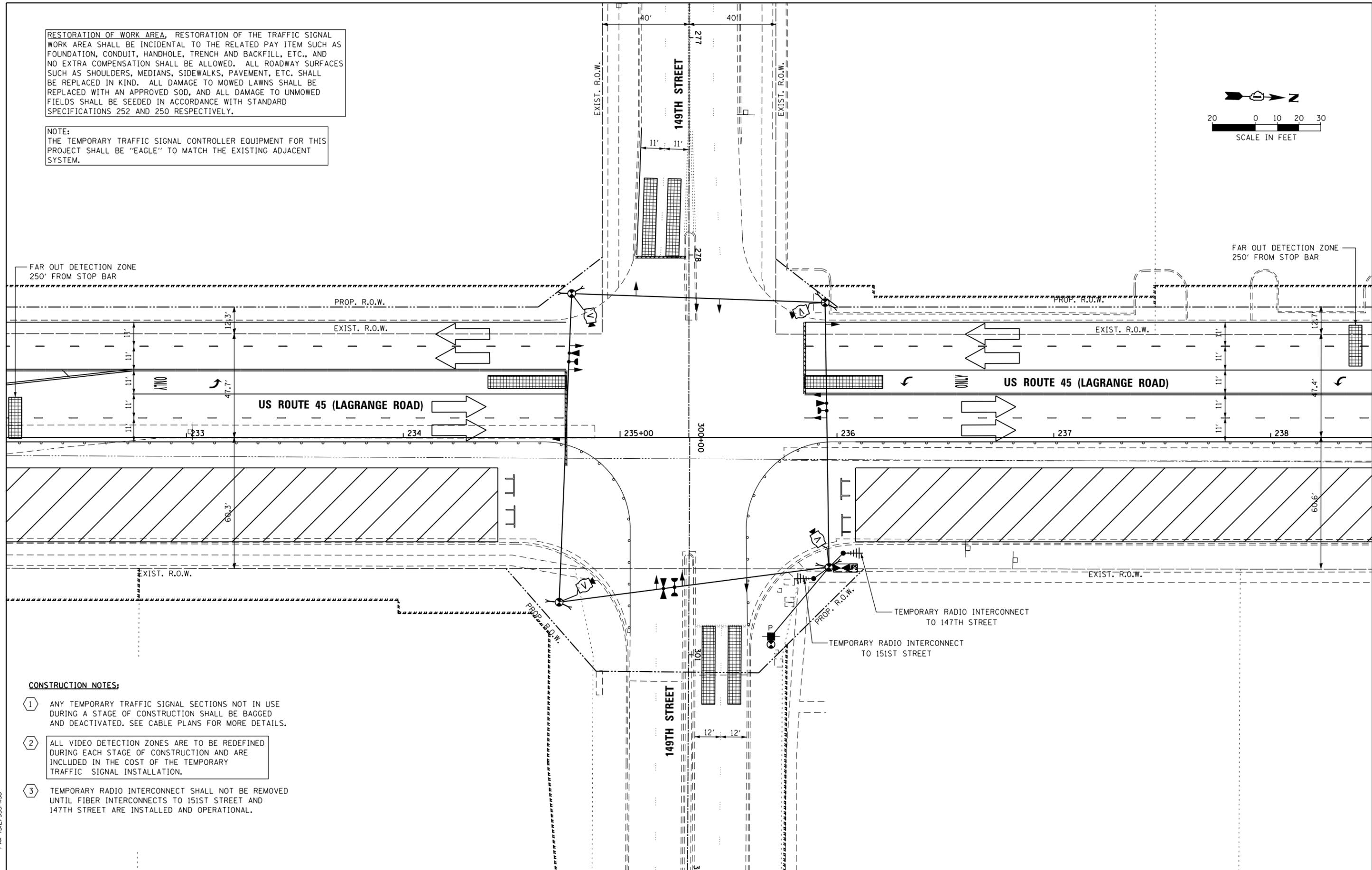
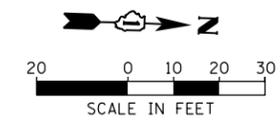
**TEMPORARY TRAFFIC SIGNAL INSTALLATION AND REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT PLAN - PRE-STAGE US 45 (LAGRANGE ROAD) AND 149TH STREET**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	367
<b>TD-45</b>			<b>CONTRACT NO. 60M61</b>	
ILLINOIS FED. AID PROJECT				

SCALE: 1"=20' SHEET 1 OF 6 SHEETS STA. TO STA.

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

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



**CONSTRUCTION NOTES:**

- 1 ANY TEMPORARY TRAFFIC SIGNAL SECTIONS NOT IN USE DURING A STAGE OF CONSTRUCTION SHALL BE BAGGED AND DEACTIVATED. SEE CABLE PLANS FOR MORE DETAILS.
- 2 ALL VIDEO DETECTION ZONES ARE TO BE REDEFINED DURING EACH STAGE OF CONSTRUCTION AND ARE INCLUDED IN THE COST OF THE TEMPORARY TRAFFIC SIGNAL INSTALLATION.
- 3 TEMPORARY RADIO INTERCONNECT SHALL NOT BE REMOVED UNTIL FIBER INTERCONNECTS TO 151ST STREET AND 147TH STREET ARE INSTALLED AND OPERATIONAL.

100 S. WACKER DR.  
 SUITE 600  
 CHICAGO, IL 60606  
 TEL (312) 939-1000  
 FAX (312) 939-4998  
**URS**

FILE NAME = D160M61-SHT-TS46.dgn	USER NAME = Anthony.Plutz	DESIGNED - MRF	REVISED -
		DRAWN - MRF	REVISED -
		CHECKED - MJL	REVISED -
SHT.PLAN	PLOT DATE = 3/14/2013	DATE - 03/13/2013	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

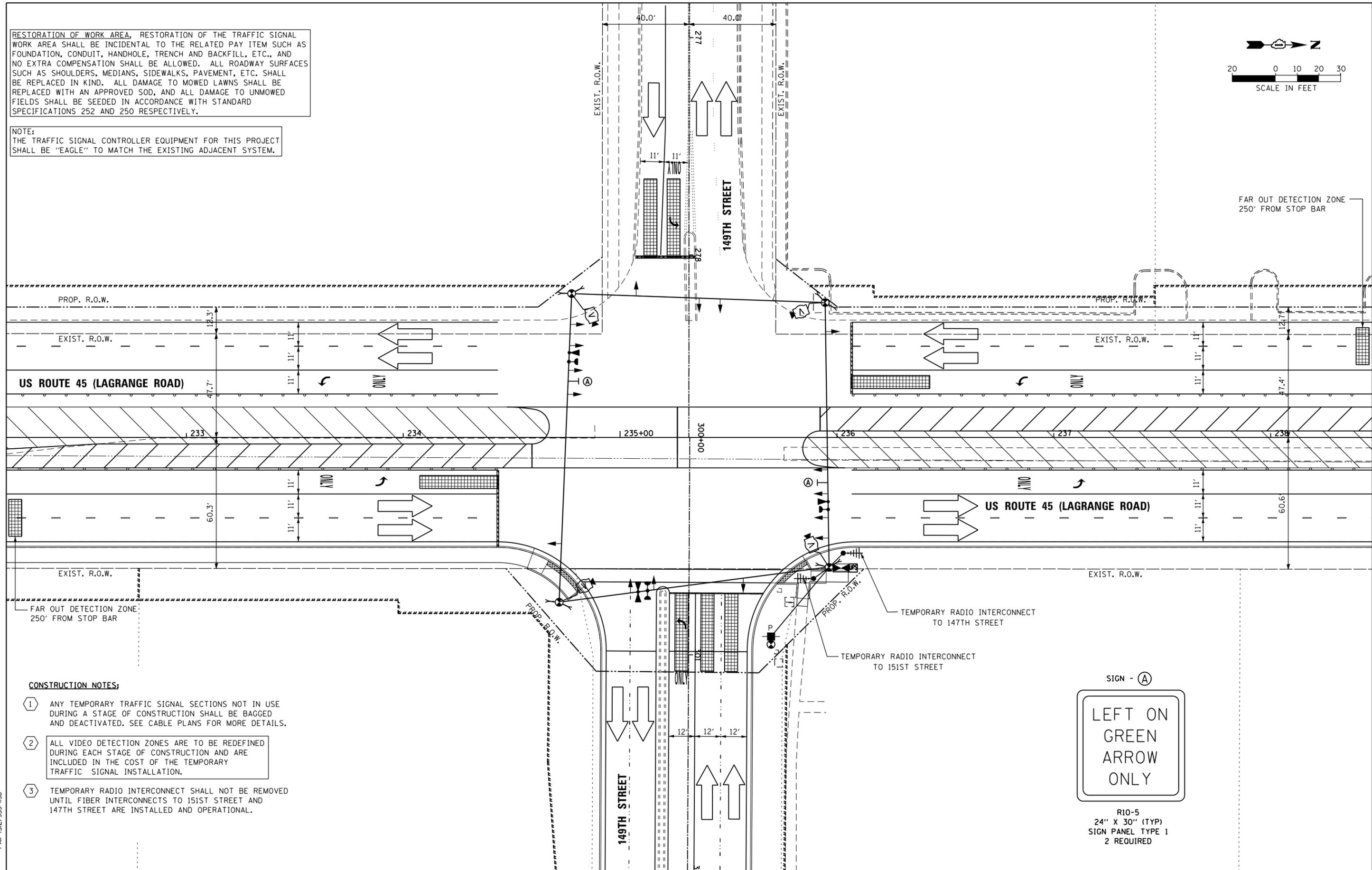
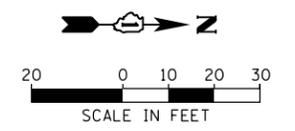
**TEMPORARY TRAFFIC SIGNAL INSTALLATION - STAGE 1  
US 45 (LAGRANGE ROAD) AND 149TH STREET**

SCALE: 1"=20'    SHEET 2 OF 6 SHEETS    STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	368
<b>TD-46</b>		CONTRACT NO. 60M61		
ILLINOIS FED. AID PROJECT				

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

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



**CONSTRUCTION NOTES:**

- 1 ANY TEMPORARY TRAFFIC SIGNAL SECTIONS NOT IN USE DURING A STAGE OF CONSTRUCTION SHALL BE BAGGED AND DEACTIVATED. SEE CABLE PLANS FOR MORE DETAILS.
- 2 ALL VIDEO DETECTION ZONES ARE TO BE REDEFINED DURING EACH STAGE OF CONSTRUCTION AND ARE INCLUDED IN THE COST OF THE TEMPORARY TRAFFIC SIGNAL INSTALLATION.
- 3 TEMPORARY RADIO INTERCONNECT SHALL NOT BE REMOVED UNTIL FIBER INTERCONNECTS TO 151ST STREET AND 147TH STREET ARE INSTALLED AND OPERATIONAL.



R10-5  
24" X 30" (TYP)  
SIGN PANEL TYPE 1  
2 REQUIRED

100 S. WACKER DR.  
 SUITE 600  
 CHICAGO, IL 60606  
 TEL (312) 939-1000  
 FAX (312) 939-4998  
**URS**

FILE NAME = D160M61-SHT-TS47.dgn	USER NAME = Anthony.Plutz	DESIGNED - MRF	REVISED -
SHT.PLAN	PLOT DATE = 3/14/2013	DRAWN - MRF	REVISED -
		CHECKED - MJL	REVISED -
		DATE - 03/13/2013	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

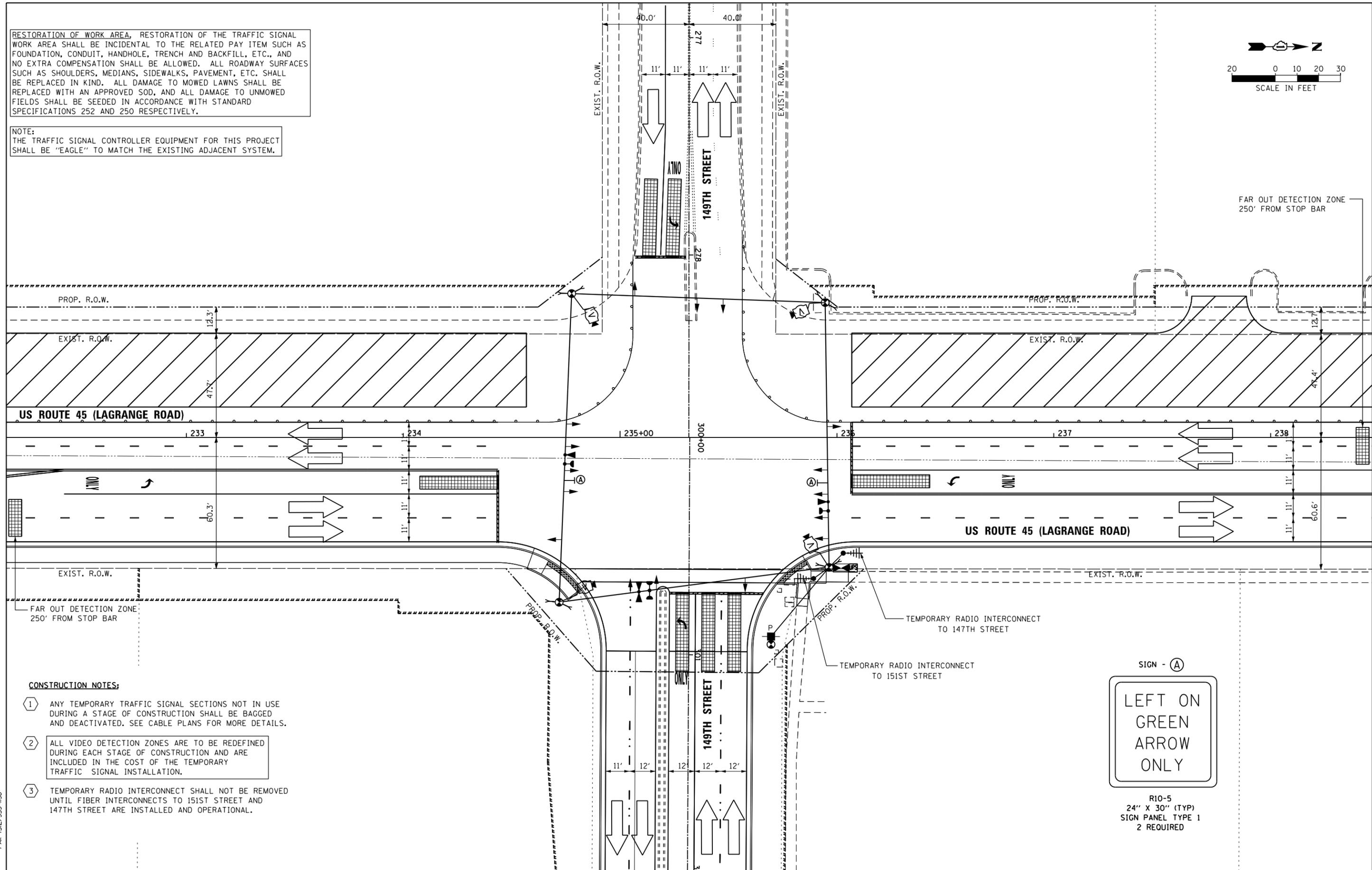
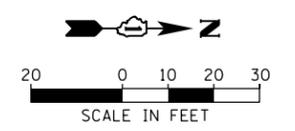
**TEMPORARY TRAFFIC SIGNAL INSTALLATION - STAGE 2  
US 45 (LAGRANGE ROAD) AND 149TH STREET**

SCALE: 1"=20' SHEET 3 OF 6 SHEETS STA. TO STA.

F.A.P. RTE. 330	SECTION 103R-4	COUNTY COOK	TOTAL SHEETS 877	SHEET NO. 369
<b>TD-47</b>		CONTRACT NO. 60M61		
ILLINOIS FED. AID PROJECT				

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

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



**CONSTRUCTION NOTES:**

- 1 ANY TEMPORARY TRAFFIC SIGNAL SECTIONS NOT IN USE DURING A STAGE OF CONSTRUCTION SHALL BE BAGGED AND DEACTIVATED. SEE CABLE PLANS FOR MORE DETAILS.
- 2 ALL VIDEO DETECTION ZONES ARE TO BE REDEFINED DURING EACH STAGE OF CONSTRUCTION AND ARE INCLUDED IN THE COST OF THE TEMPORARY TRAFFIC SIGNAL INSTALLATION.
- 3 TEMPORARY RADIO INTERCONNECT SHALL NOT BE REMOVED UNTIL FIBER INTERCONNECTS TO 151ST STREET AND 147TH STREET ARE INSTALLED AND OPERATIONAL.



100 S. WACKER DR.  
 SUITE 600  
 CHICAGO, IL 60606  
 TEL (312) 935-1000  
 FAX (312) 935-4998  
**URS**

FILE NAME = D160M61-SHT-TS48.dgn	USER NAME = Anthony.Plutz	DESIGNED - MRF	REVISED -
		DRAWN - MRF	REVISED -
		CHECKED - MJL	REVISED -
SHT.PLAN	PLOT DATE = 3/14/2013	DATE - 03/13/2013	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

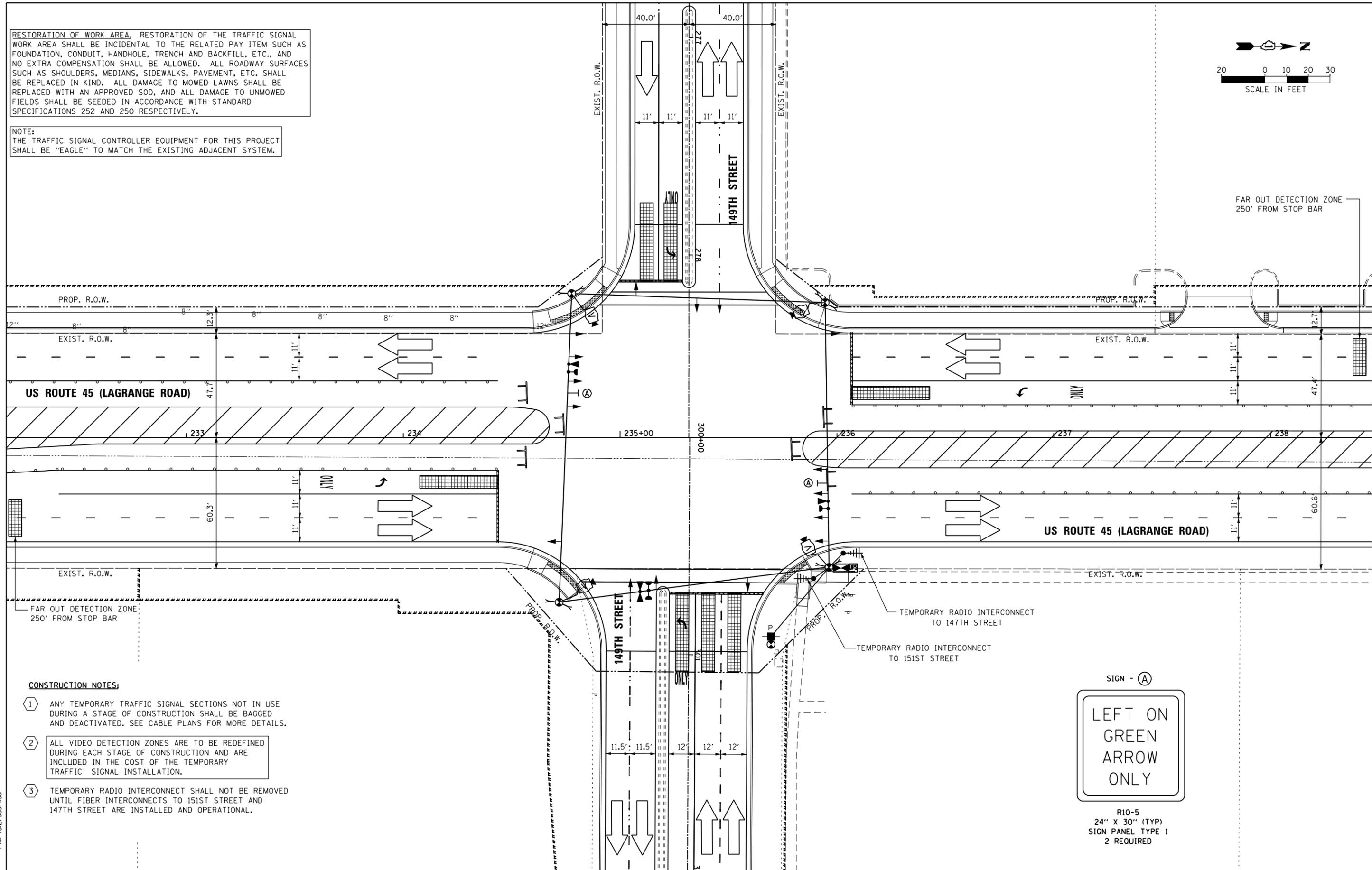
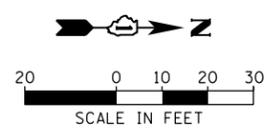
**TEMPORARY TRAFFIC SIGNAL INSTALLATION - STAGE 3  
US 45 (LAGRANGE ROAD) AND 149TH STREET**

SCALE: 1"=20' SHEET 4 OF 6 SHEETS STA. TO STA.

F.A.P. RTE. 330	SECTION 103R-4	COUNTY COOK	TOTAL SHEETS 877	SHEET NO. 370
<b>TD-48</b>		CONTRACT NO. 60M61		
ILLINOIS FED. AID PROJECT				

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

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



**CONSTRUCTION NOTES:**

- 1 ANY TEMPORARY TRAFFIC SIGNAL SECTIONS NOT IN USE DURING A STAGE OF CONSTRUCTION SHALL BE BAGGED AND DEACTIVATED. SEE CABLE PLANS FOR MORE DETAILS.
- 2 ALL VIDEO DETECTION ZONES ARE TO BE REDEFINED DURING EACH STAGE OF CONSTRUCTION AND ARE INCLUDED IN THE COST OF THE TEMPORARY TRAFFIC SIGNAL INSTALLATION.
- 3 TEMPORARY RADIO INTERCONNECT SHALL NOT BE REMOVED UNTIL FIBER INTERCONNECTS TO 151ST STREET AND 147TH STREET ARE INSTALLED AND OPERATIONAL.



R10-5  
24" X 30" (TYP)  
SIGN PANEL TYPE 1  
2 REQUIRED

100 S. WACKER DR.  
 5TH FLOOR  
 CHICAGO, IL 60606  
 TEL (312) 935-1000  
 FAX (312) 935-4998  
**URS**

FILE NAME = D160M61-SHT-TS49.dgn	USER NAME = Anthony.Plutz	DESIGNED - MRF	REVISED -
		DRAWN - MRF	REVISED -
		CHECKED - MJL	REVISED -
SHT.PLAN	PLOT DATE = 3/14/2013	DATE - 03/13/2013	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

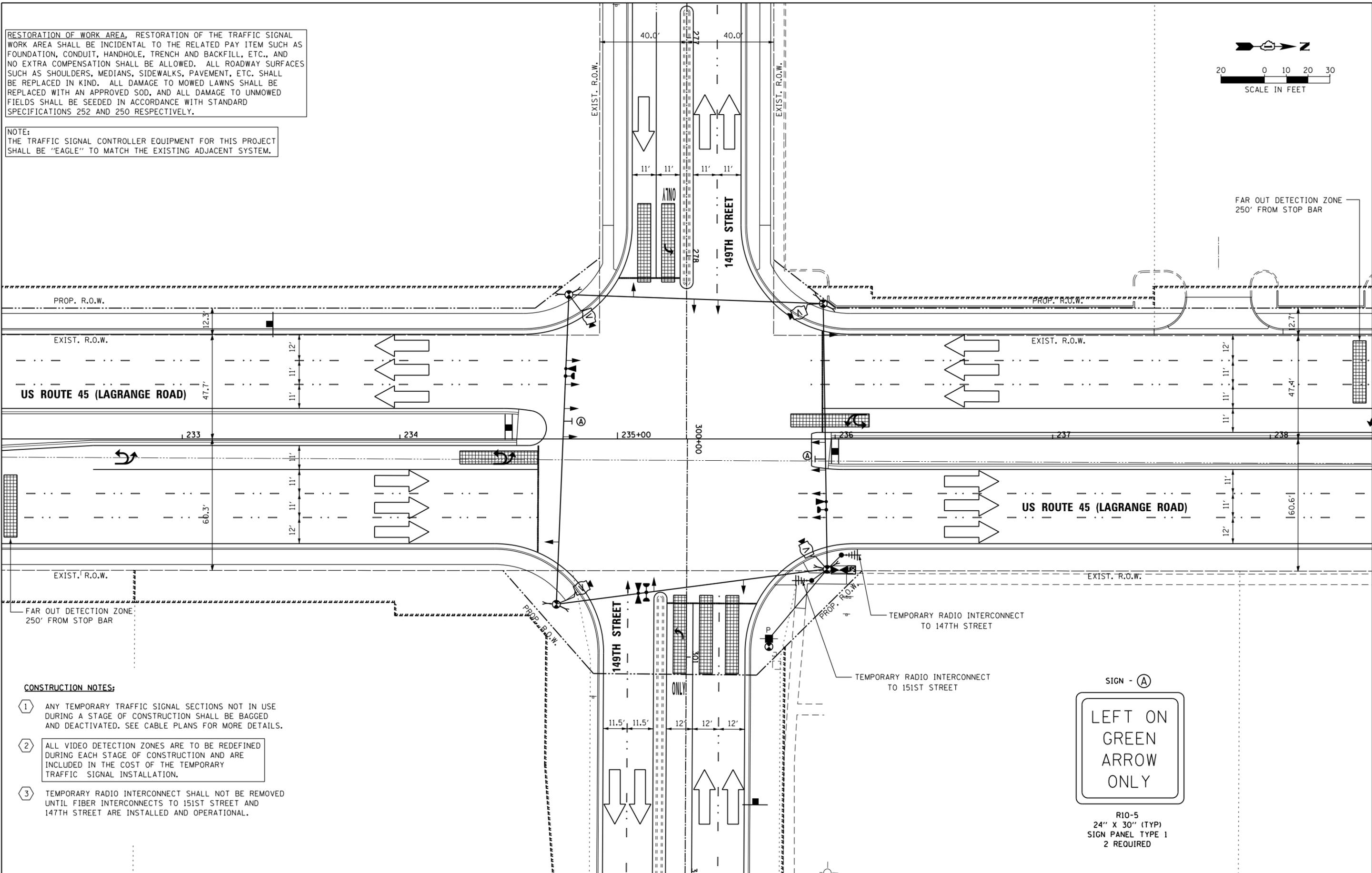
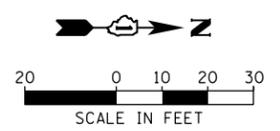
**TEMPORARY TRAFFIC SIGNAL INSTALLATION - STAGE 4  
US 45 (LAGRANGE ROAD) AND 149TH STREET**

SCALE: 1"=20' SHEET 5 OF 6 SHEETS STA. TO STA.

F.A.P. RTE. 330	SECTION 103R-4	COUNTY COOK	TOTAL SHEETS 877	SHEET NO. 371
<b>TD-49</b>		CONTRACT NO. 60M61		
ILLINOIS FED. AID PROJECT				

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

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



**CONSTRUCTION NOTES:**

- 1 ANY TEMPORARY TRAFFIC SIGNAL SECTIONS NOT IN USE DURING A STAGE OF CONSTRUCTION SHALL BE BAGGED AND DEACTIVATED. SEE CABLE PLANS FOR MORE DETAILS.
- 2 ALL VIDEO DETECTION ZONES ARE TO BE REDEFINED DURING EACH STAGE OF CONSTRUCTION AND ARE INCLUDED IN THE COST OF THE TEMPORARY TRAFFIC SIGNAL INSTALLATION.
- 3 TEMPORARY RADIO INTERCONNECT SHALL NOT BE REMOVED UNTIL FIBER INTERCONNECTS TO 151ST STREET AND 147TH STREET ARE INSTALLED AND OPERATIONAL.



100 S. WACKER DR.  
 SUITE 600  
 CHICAGO, IL 60606  
 TEL (312) 935-1000  
 FAX (312) 935-4998  
**URS**

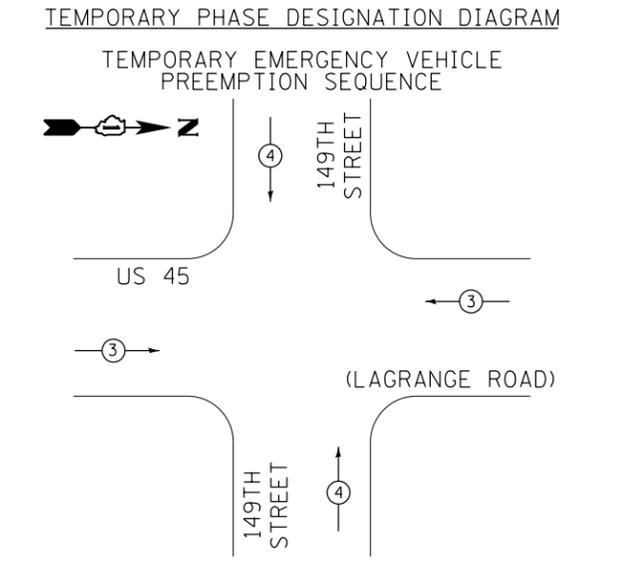
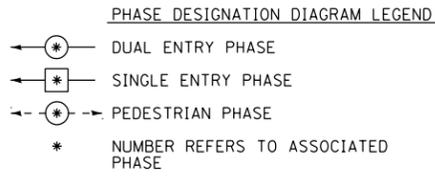
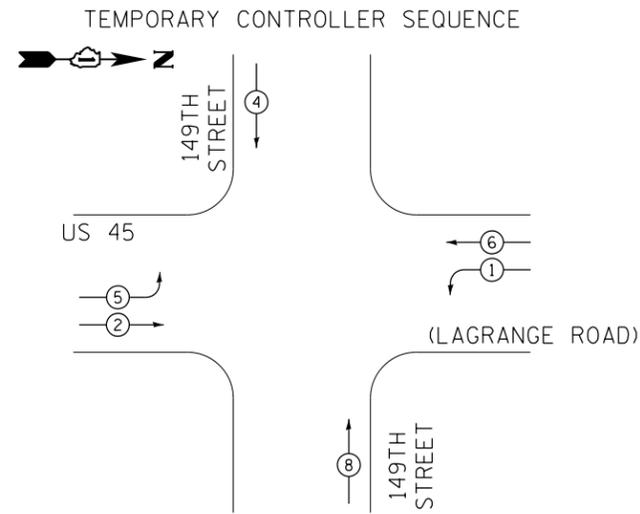
FILE NAME = D160M61-SHT-TS50.dgn	USER NAME = Anthony.Plutz	DESIGNED - MRF	REVISED -
		DRAWN - MRF	REVISED -
		CHECKED - MJL	REVISED -
SHT.PLAN	PLOT DATE = 3/14/2013	DATE - 03/13/2013	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TEMPORARY TRAFFIC SIGNAL INSTALLATION - FINAL GEOMETRICS  
US 45 (LAGRANGE ROAD) AND 149TH STREET**

SCALE: 1"=20' SHEET 6 OF 6 SHEETS STA. TO STA.

F.A.P. RTE. 330	SECTION 103R-4	COUNTY COOK	TOTAL SHEETS 877	SHEET NO. 372
<b>TD-50</b>			<b>CONTRACT NO. 60M61</b>	
ILLINOIS FED. AID PROJECT				



**TEMPORARY EMERGENCY VEHICLE PREEMPTORS**

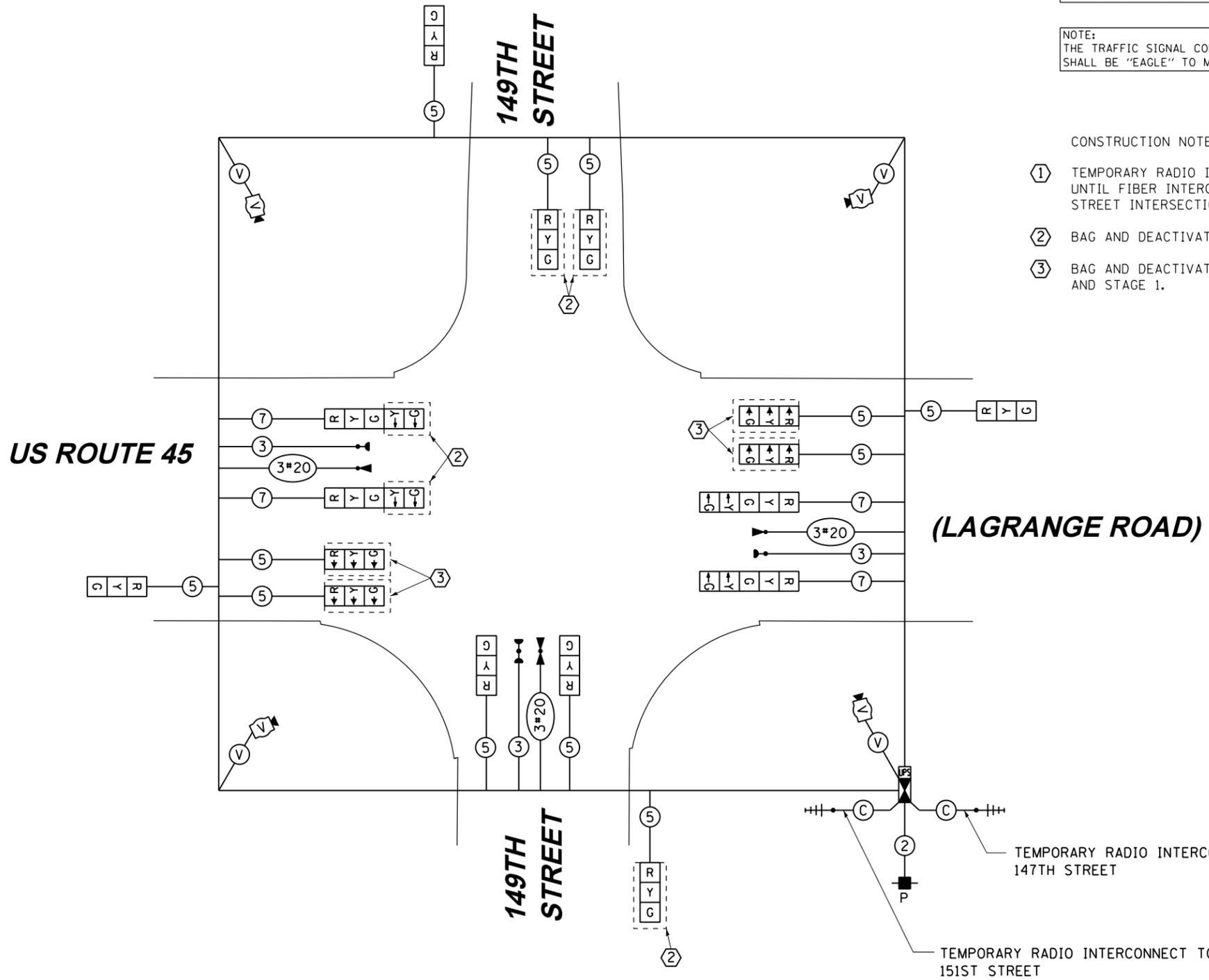
EMERGENCY VEHICLE PREEMPTORS	3	4
MOVEMENT	← →	↑ ↓

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

TYPE	NO. OF LAMPS	WATTAGE (INCANDE.)	LED	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	12		17	0.50	102.0
(YELLOW)	12		25	0.25	75.0
(GREEN)	12		15	0.25	45.0
ARROW	8		12	0.10	9.6
PED. SIGNAL	--		25	1.00	0.0
CONTROLLER	1		100	1.00	100.0
ILLUM. SIGN	--		25	0.05	0.0
VIDEO SYSTEM	1		150	1.00	150.0
FLASHER			25	0.50	
ENERGY COST TO:				TOTAL=	481.6

VILLAGE OF ORLAND PARK  
14700 SOUTH RAVINIA AVE.

ENERGY SUPPLY: CONTACT: KATHRYN SUGRUE  
PHONE: (708) 235-2337  
COMPANY: COMMONWEALTH EDISON



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

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

- CONSTRUCTION NOTES:**
- TEMPORARY RADIO INTERCONNECT SHALL NOT BE REMOVED UNTIL FIBER INTERCONNECT TO 151ST STREET AND 147TH STREET INTERSECTIONS ARE INSTALLED AND OPERATIONAL.
  - BAG AND DEACTIVATE SIGNAL SECTION DURING STAGE 1B.
  - BAG AND DEACTIVATE SIGNAL SECTION DURING PRE-STAGE AND STAGE 1.

100 S. WACKER DR.  
SUITE 600  
CHICAGO, IL 60606  
TEL (312) 939-1000  
FAX (312) 939-4998  
**URS**

FILE NAME = D160M61-SHT-TS51.dgn	USER NAME = Anthony.Plutz	DESIGNED - MRF	REVISED -
SHT.PLAN	PLOT SCALE = 48.0000' / in.	DRAWN - MRF	REVISED -
	PLOT DATE = 3/14/2013	CHECKED - MJL	REVISED -
		DATE - 03/13/2013	REVISED -

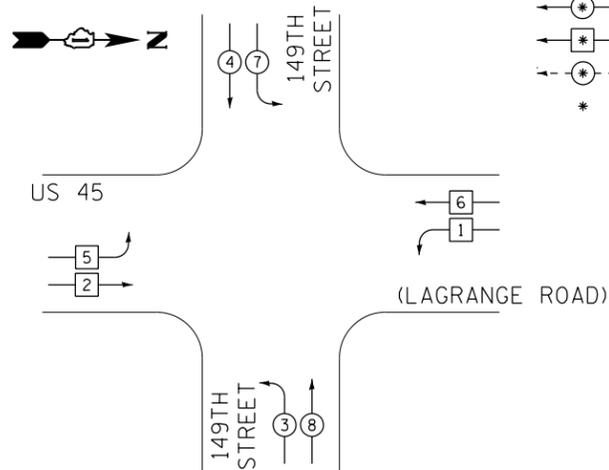
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TEMPORARY CABLE PLAN, TEMPORARY PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE  
US 45 (LAGRANGE ROAD) AND 149TH STREET - PRE-STAGE & STAGE 1**

SCALE: N.T.S. SHEET 1 OF 2 SHEETS STA. TO STA.

F.A.P. RTE. 330	SECTION 103R-4	COUNTY COOK	TOTAL SHEETS 877	SHEET NO. 373
<b>TD-51</b>		CONTRACT NO. 60M61		
ILLINOIS FED. AID PROJECT				

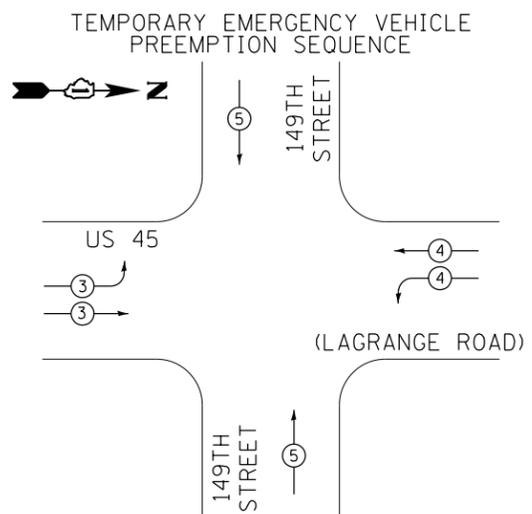
TEMPORARY CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM LEGEND

- ⊙ DUAL ENTRY PHASE
- ⊠ SINGLE ENTRY PHASE
- ⊙ PEDESTRIAN PHASE
- \* NUMBER REFERS TO ASSOCIATED PHASE

TEMPORARY PHASE DESIGNATION DIAGRAM



TEMPORARY EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTORS	3	4	5
MOVEMENT			

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

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

CONSTRUCTION NOTES:

- ① TEMPORARY RADIO INTERCONNECT SHALL NOT BE REMOVED UNTIL FIBER INTERCONNECT TO 151ST STREET AND 147TH STREET INTERSECTIONS ARE INSTALLED AND OPERATIONAL.
- ② BAG AND DEACTIVATE SIGNAL SECTION DURING STAGES 2, 3, 4 AND FINAL GEOMETRICS
- ③ BAG AND DEACTIVATE SIGNAL SECTION DURING STAGE 3B.

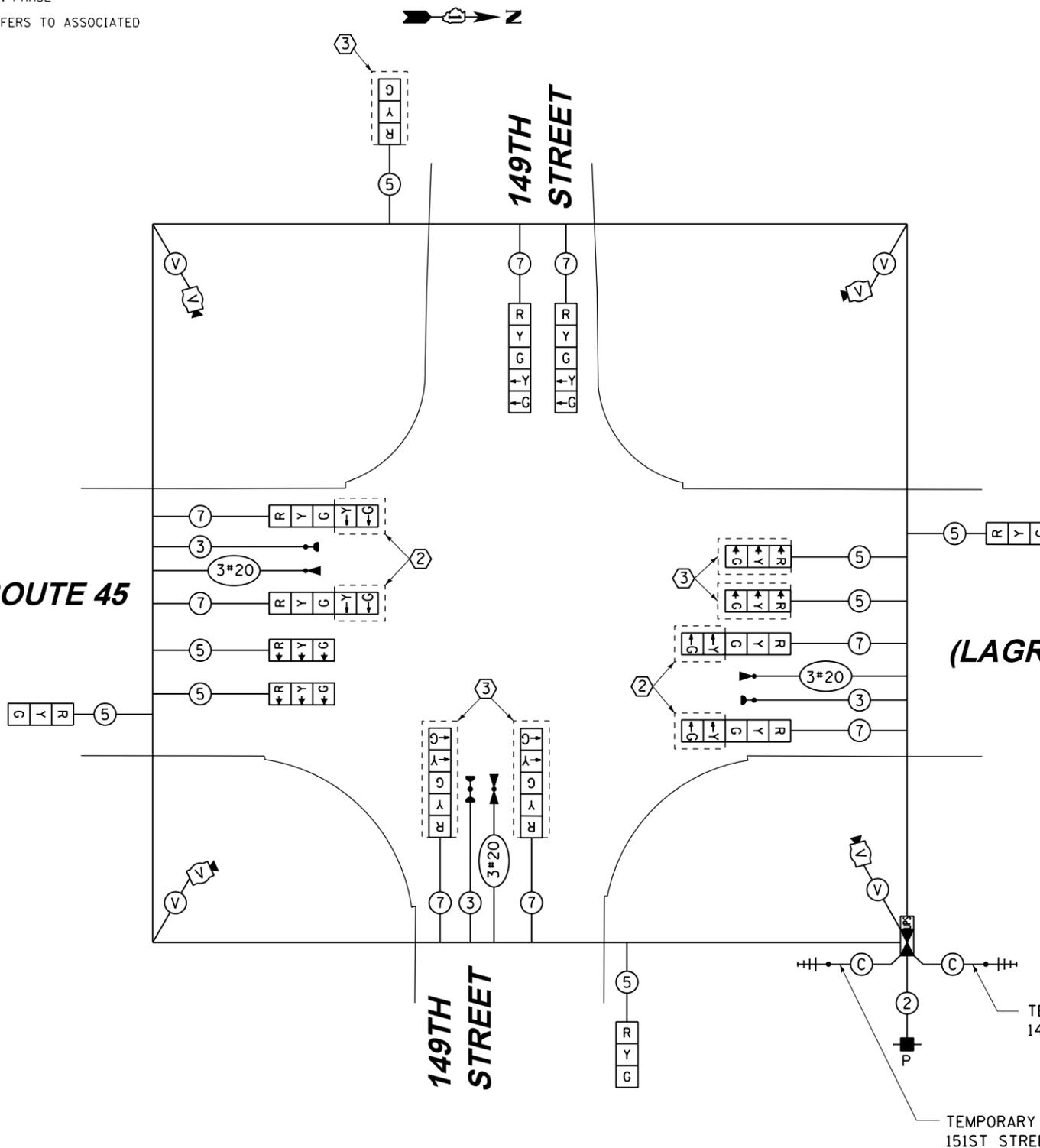
**US ROUTE 45**

**149TH STREET**

**(LAGRANGE ROAD)**

**149TH STREET**

**TEMPORARY CABLE PLAN  
STAGE 2, 3, 4 & FINAL GEOMETRICS**



I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE (INCAN.)	LED	% OPERATION	
SIGNAL (RED)	16		17	0.50	136.0
(YELLOW)	16		25	0.25	100.0
(GREEN)	16		15	0.25	60.0
ARROW	8		12	0.10	9.6
PED. SIGNAL	--		25	1.00	0.0
CONTROLLER	1		100	1.00	100.0
ILLUM. SIGN	--		25	0.05	0.0
VIDEO SYSTEM	1		150	1.00	150.0
FLASHER			25	0.50	
ENERGY COST TO:				TOTAL =	555.6

VILLAGE OF ORLAND PARK  
14700 SOUTH RAVINIA AVE.

ENERGY SUPPLY: CONTACT: KATHRYN SUGRUE  
PHONE: (708) 235-2337  
COMPANY: COMMONWEALTH EDISON

FILE NAME =	USER NAME = Anthony.Plutz	DESIGNED - MRF	REVISED -
D160M61-SHT-TS51A.dgn		DRAWN - MRF	REVISED -
		CHECKED - MJL	REVISED -
SHT.PLAN	PLOT DATE = 3/14/2013	DATE - 03/13/2013	REVISED -

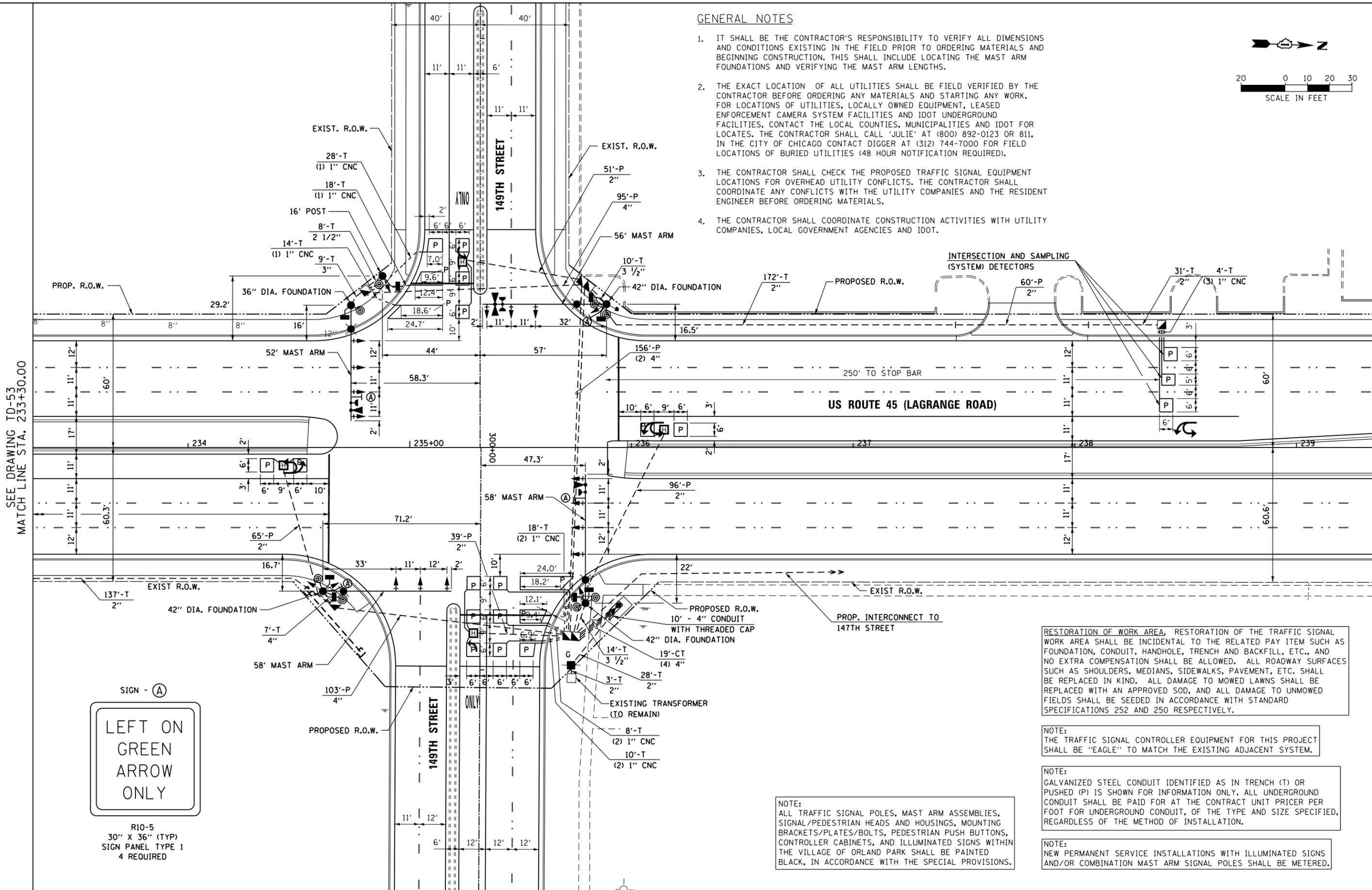
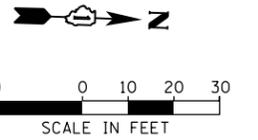
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TEMPORARY CABLE PLAN, TEMPORARY PHASE DESIGNATION DIAGRAM  
AND EMERGENCY VEHICLE PREEMPTION SEQUENCE  
US 45 (LAGRANGE ROAD) AND 149TH STREET - STAGE 2, 3, 4 & FINAL GEOMETRICS  
SCALE: N.T.S. SHEET 2 OF 2 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	374
TD-51A		CONTRACT NO. 60M61		
ILLINOIS FED. AID PROJECT				

**GENERAL NOTES**

- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION. THIS SHALL INCLUDE LOCATING THE MAST ARM FOUNDATIONS AND VERIFYING THE MAST ARM LENGTHS.
- THE EXACT LOCATION OF ALL UTILITIES SHALL BE FIELD VERIFIED BY THE CONTRACTOR BEFORE ORDERING ANY MATERIALS AND STARTING ANY WORK. FOR LOCATIONS OF UTILITIES, LOCALLY OWNED EQUIPMENT, LEASED ENFORCEMENT CAMERA SYSTEM FACILITIES AND IDOT UNDERGROUND FACILITIES, CONTACT THE LOCAL COUNTIES, MUNICIPALITIES AND IDOT FOR LOCATES. THE CONTRACTOR SHALL CALL 'JULIE' AT (800) 892-0123 OR 811. IN THE CITY OF CHICAGO CONTACT DIGGER AT (312) 744-7000 FOR FIELD LOCATIONS OF BURIED UTILITIES (48 HOUR NOTIFICATION REQUIRED).
- THE CONTRACTOR SHALL CHECK THE PROPOSED TRAFFIC SIGNAL EQUIPMENT LOCATIONS FOR OVERHEAD UTILITY CONFLICTS. THE CONTRACTOR SHALL COORDINATE ANY CONFLICTS WITH THE UTILITY COMPANIES AND THE RESIDENT ENGINEER BEFORE ORDERING MATERIALS.
- THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES, LOCAL GOVERNMENT AGENCIES AND IDOT.



SEE DRAWING TD-53  
MATCH LINE STA. 233+30.00



R10-5  
30" X 36" (TYP)  
SIGN PANEL TYPE 1  
4 REQUIRED

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

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

NOTE:  
GALVANIZED STEEL CONDUIT IDENTIFIED AS IN TRENCH (T) OR PUSHED (P) IS SHOWN FOR INFORMATION ONLY. ALL UNDERGROUND CONDUIT SHALL BE PAID FOR AT THE CONTRACT UNIT PRICER PER FOOT FOR UNDERGROUND CONDUIT, OF THE TYPE AND SIZE SPECIFIED, REGARDLESS OF THE METHOD OF INSTALLATION.

NOTE:  
ALL TRAFFIC SIGNAL POLES, MAST ARM ASSEMBLIES, SIGNAL/PEDESTRIAN HEADS AND HOUSINGS, MOUNTING BRACKETS/PLATES/BOLTS, PEDESTRIAN PUSH BUTTONS, CONTROLLER CABINETS, AND ILLUMINATED SIGNS WITHIN THE VILLAGE OF ORLAND PARK SHALL BE PAINTED BLACK, IN ACCORDANCE WITH THE SPECIAL PROVISIONS.

NOTE:  
NEW PERMANENT SERVICE INSTALLATIONS WITH ILLUMINATED SIGNS AND/OR COMBINATION MAST ARM SIGNAL POLES SHALL BE METERED.

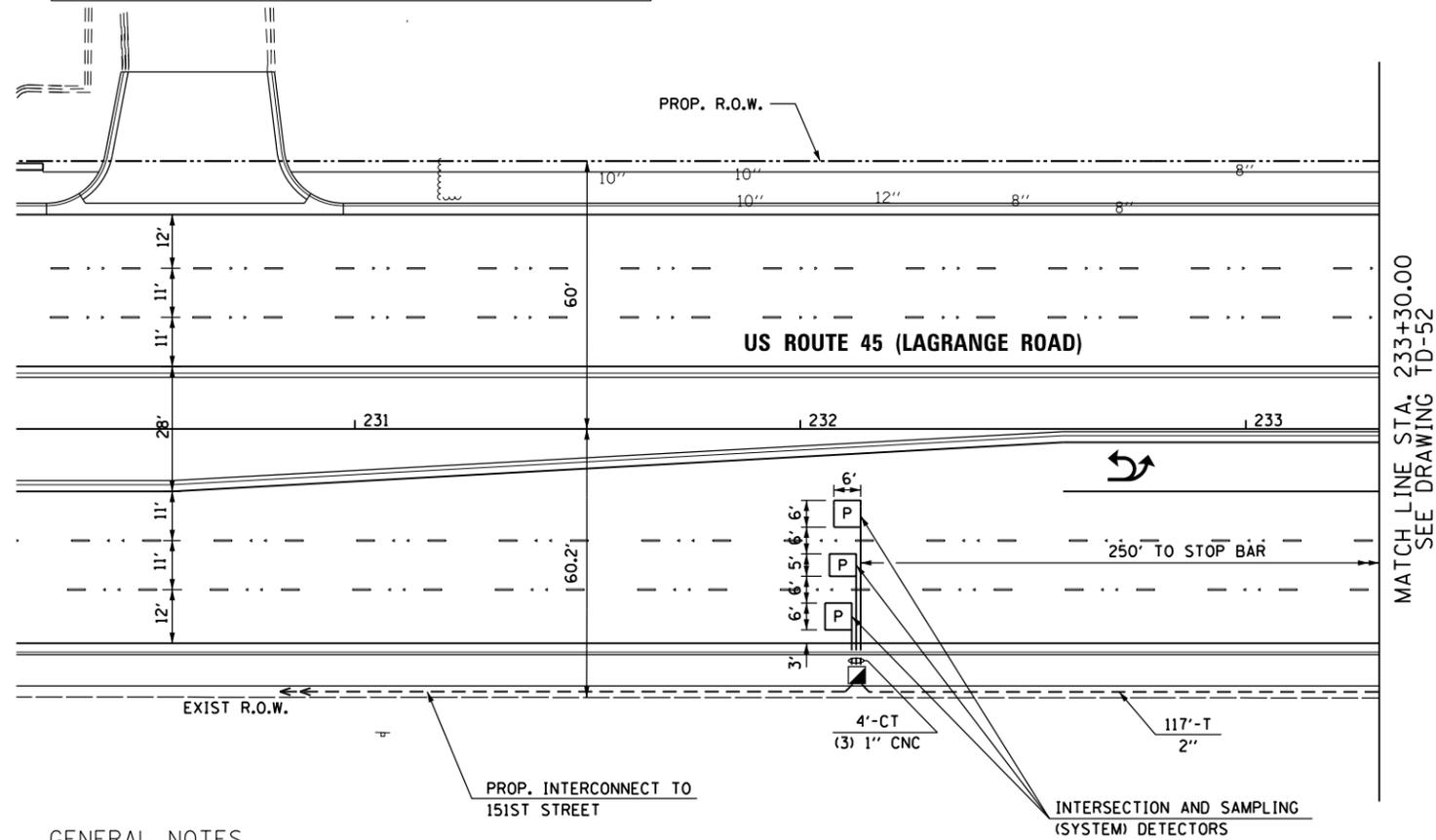
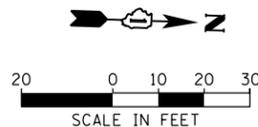
URS  
100 S. WACKER DR.  
SUITE 600  
CHICAGO, IL 60606  
TEL (312) 935-1000  
FAX (312) 935-4998

FILE NAME = D160M61-SHT-TS52.dgn	USER NAME = Anthony.Plutz	DESIGNED - MRF	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>TRAFFIC SIGNAL INSTALLATION PLAN US 45 (LAGRANGE ROAD) AND 149TH STREET</b>	F.A.P. RTE. = 330	SECTION = 103R-4	COUNTY = COOK	TOTAL SHEETS = 877	SHEET NO. = 375	
SHT.PLAN	PLOT SCALE = 48.0000' / in.	CHECKED - MJL	REVISED -			SCALE: 1"=20'	SHEET 1 OF 2 SHEETS	STA. TO STA.	<b>TD-52</b>		CONTRACT NO. 60M61
	PLOT DATE = 3/14/2013	DATE - 03/13/2013	REVISED -					ILLINOIS FED. AID PROJECT			

RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, 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 SEEDING IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

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

NOTE:  
GALVANIZED STEEL CONDUIT IDENTIFIED AS IN TRENCH (T) OR PUSHED (P) IS SHOWN FOR INFORMATION ONLY. ALL UNDERGROUND CONDUIT SHALL BE PAID FOR AT THE CONTRACT UNIT PRICER PER FOOT FOR UNDERGROUND CONDUIT, OF THE TYPE AND SIZE SPECIFIED, REGARDLESS OF THE METHOD OF INSTALLATION.



**GENERAL NOTES**

1. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION. THIS SHALL INCLUDE LOCATING THE MAST ARM FOUNDATIONS AND VERIFYING THE MAST ARM LENGTHS.
2. THE EXACT LOCATION OF ALL UTILITIES SHALL BE FIELD VERIFIED BY THE CONTRACTOR BEFORE ORDERING ANY MATERIALS AND STARTING ANY WORK. FOR LOCATIONS OF UTILITIES, LOCALLY OWNED EQUIPMENT, LEASED ENFORCEMENT CAMERA SYSTEM FACILITIES AND IDOT UNDERGROUND FACILITIES, CONTACT THE LOCAL COUNTIES, MUNICIPALITIES AND IDOT FOR LOCATES. THE CONTRACTOR SHALL CALL 'JULIE' AT (800) 892-0123 OR 811, IN THE CITY OF CHICAGO CONTACT DIGGER AT (312) 744-7000 FOR FIELD LOCATIONS OF BURIED UTILITIES (48 HOUR NOTIFICATION REQUIRED).
3. THE CONTRACTOR SHALL CHECK THE PROPOSED TRAFFIC SIGNAL EQUIPMENT LOCATIONS FOR OVERHEAD UTILITY CONFLICTS. THE CONTRACTOR SHALL COORDINATE ANY CONFLICTS WITH THE UTILITY COMPANIES AND THE RESIDENT ENGINEER BEFORE ORDERING MATERIALS.
4. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES, LOCAL GOVERNMENT AGENCIES AND IDOT.

100 S. WACKER DR.  
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 CHICAGO, IL 60606  
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**URS**

FILE NAME = D160M61-SHT-TS53.dgn	USER NAME = Anthony.Plutz	DESIGNED - MRF	REVISED -
		DRAWN - MRF	REVISED -
		CHECKED - MJL	REVISED -
SHT.PLAN	PLOT DATE = 3/14/2013	DATE - 03/13/2013	REVISED -

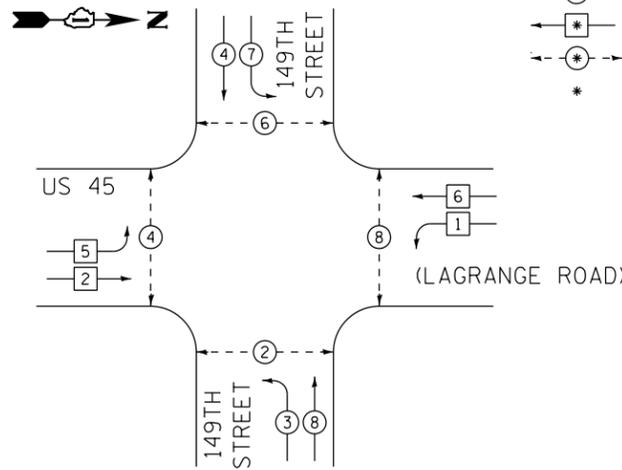
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC SIGNAL INSTALLATION PLAN  
US 45 (LAGRANGE ROAD) AND 149TH STREET**

SCALE: 1"=20' SHEET 2 OF 2 SHEETS STA. TO STA.

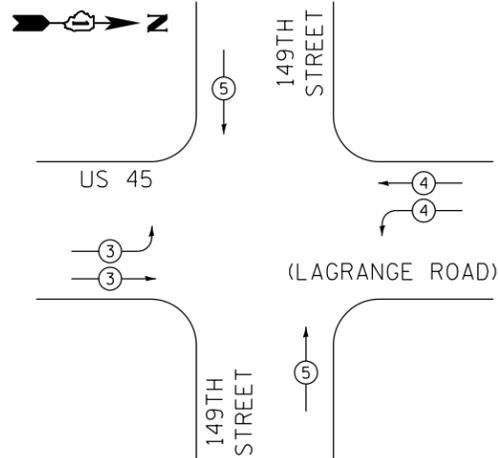
F.A.P. RTE. 330	SECTION 103R-4	COUNTY COOK	TOTAL SHEETS 877	SHEET NO. 376
<b>TD-53</b>			<b>CONTRACT NO. 60M61</b>	
ILLINOIS FED. AID PROJECT				

**CONTROLLER SEQUENCE**



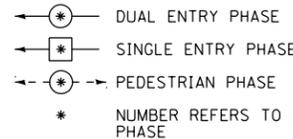
**PHASE DESIGNATION DIAGRAM**

**EMERGENCY VEHICLE PREEMPTION SEQUENCE**



PROPOSED EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTORS	3	4	5
MOVEMENT			

**PHASE DESIGNATION DIAGRAM LEGEND**



I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	INCAND.	LED	% OPERATION	
SIGNAL (RED)	20	17		0.50	170.0
(YELLOW)	20		25	0.25	125.0
(GREEN)	20	15		0.25	75.0
ARROW	8		12	0.10	9.6
PED. SIGNAL	8		25	1.00	200.0
CONTROLLER	1	100		1.00	100.0
ILLUM. SIGN	4		25	0.05	5.0
FLASHER			25	0.50	
ENERGY COST TO:					TOTAL= 684.6

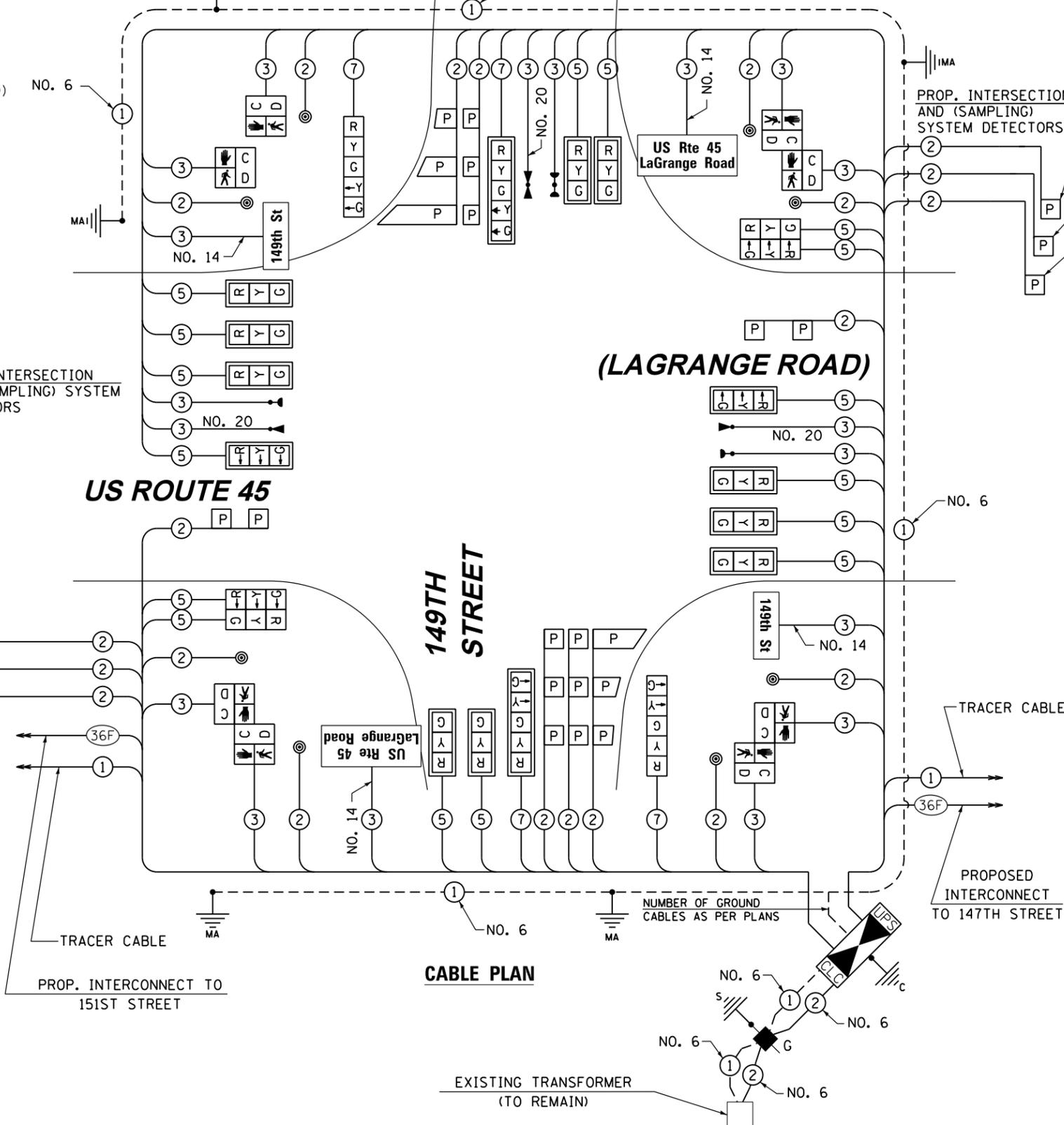
VILLAGE OF ORLAND PARK  
14700 SOUTH RAVINIA AVE.

ENERGY SUPPLY: CONTACT: KATHRYN SUGRUE  
PHONE: (708) 235-2337  
COMPANY: COMMONWEALTH EDISON

FILE NAME = D160M61-SHT-TS54.dgn  
SHT.PLAN

USER NAME = Anthony.Plutz  
DESIGNED - MRF  
DRAWN - MRF  
PLOT SCALE = 48.0000' / in.  
CHECKED - MJL  
PLOT DATE = 3/14/2013

REVISOR -  
REVISOR -  
REVISOR -  
REVISOR -  
DATE - 03/13/2013



NOTE:  
ALL TRAFFIC SIGNAL POLES, MAST ARM ASSEMBLIES, SIGNAL/PEDESTRIAN HEADS AND HOUSINGS, MOUNTING BRACKETS/PLATES/BOLTS, PEDESTRIAN PUSH BUTTONS, CONTROLLER CABINETS, AND ILLUMINATED SIGNS WITHIN THE VILLAGE OF ORLAND PARK SHALL BE PAINTED BLACK, IN ACCORDANCE WITH THE SPECIAL PROVISIONS.

RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, 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 SEEDING IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

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

THE END OF THE TRACER CABLE SHALL BE CONTINUOUS AND EXTEND INTO THE CONTROLLER CABINET.

**SCHEDULE OF QUANTITIES**

ITEM	UNIT	TOTAL
SIGN PANEL - TYPE 1	SQ FT	30
SERVICE INSTALLATION - GROUND MOUNTED	EACH	1
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	799
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2 1/2" DIA.	FOOT	8
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	9
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3 1/2" DIA.	FOOT	31
UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	596
HANDHOLE	EACH	4
HEAVY-DUTY HANDHOLE	EACH	4
DOUBLE HANDHOLE	EACH	2
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1
UNINTERRUPTIBLE POWER SUPPLY, SPECIAL	EACH	1
TRANSCIVER - FIBER OPTIC	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	892
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	2424
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	3734
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	930
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	3687
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C CONDUCTOR, NO. 6 1 C	FOOT	56
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 52 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 56 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 58 FT.	EACH	2
CONCRETE FOUNDATION, TYPE A	FOOT	4
CONCRETE FOUNDATION, TYPE C	FOOT	4
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	15
CONCRETE FOUNDATION, TYPE E 42-INCH DIAMETER	FOOT	63
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	12
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	2
SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	3
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	14
INDUCTIVE LOOP DETECTOR	EACH	13
PERFORMED DETECTOR LOOP	FOOT	916
* LIGHT DETECTOR	EACH	3
* LIGHT DETECTOR AMPLIFIER	EACH	1
PEDESTRIAN PUSH-BUTTON	EACH	8
TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING HANDHOLE	EACH	10
REMOVE EXISTING CONCRETE FOUNDATION	EACH	10
* ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED	FOOT	811
** LED INTERNALLY ILLUMINATED STREET NAME SIGN	EACH	4
ELECTRIC SERVICE DISCONNECT, LIGHTING AND TRAFFIC SIGNAL	EACH	1
TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1

\* 100% COST TO ORLAND FIRE PROTECTION DISTRICT  
\*\* 100% COST TO VILLAGE OF ORLAND PARK

NOTE:  
NEW PERMANENT SERVICE INSTALLATIONS WITH ILLUMINATED SIGNS AND/OR COMBINATION MAST ARM SIGNAL POLES SHALL BE METERED.

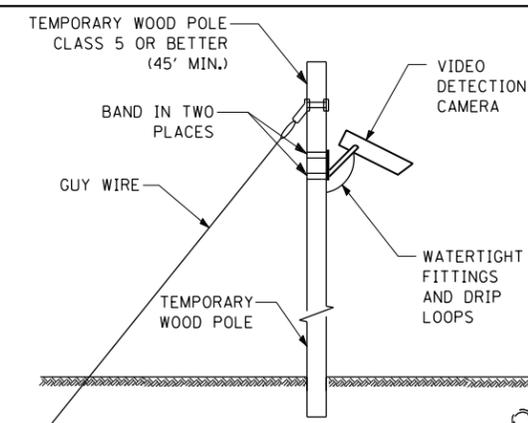
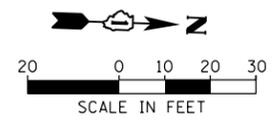
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE  
US 45 (LAGRANGE ROAD) AND 149TH STREET

SCALE: N.T.S. SHEET 1 OF 1 SHEETS STA. TO STA.

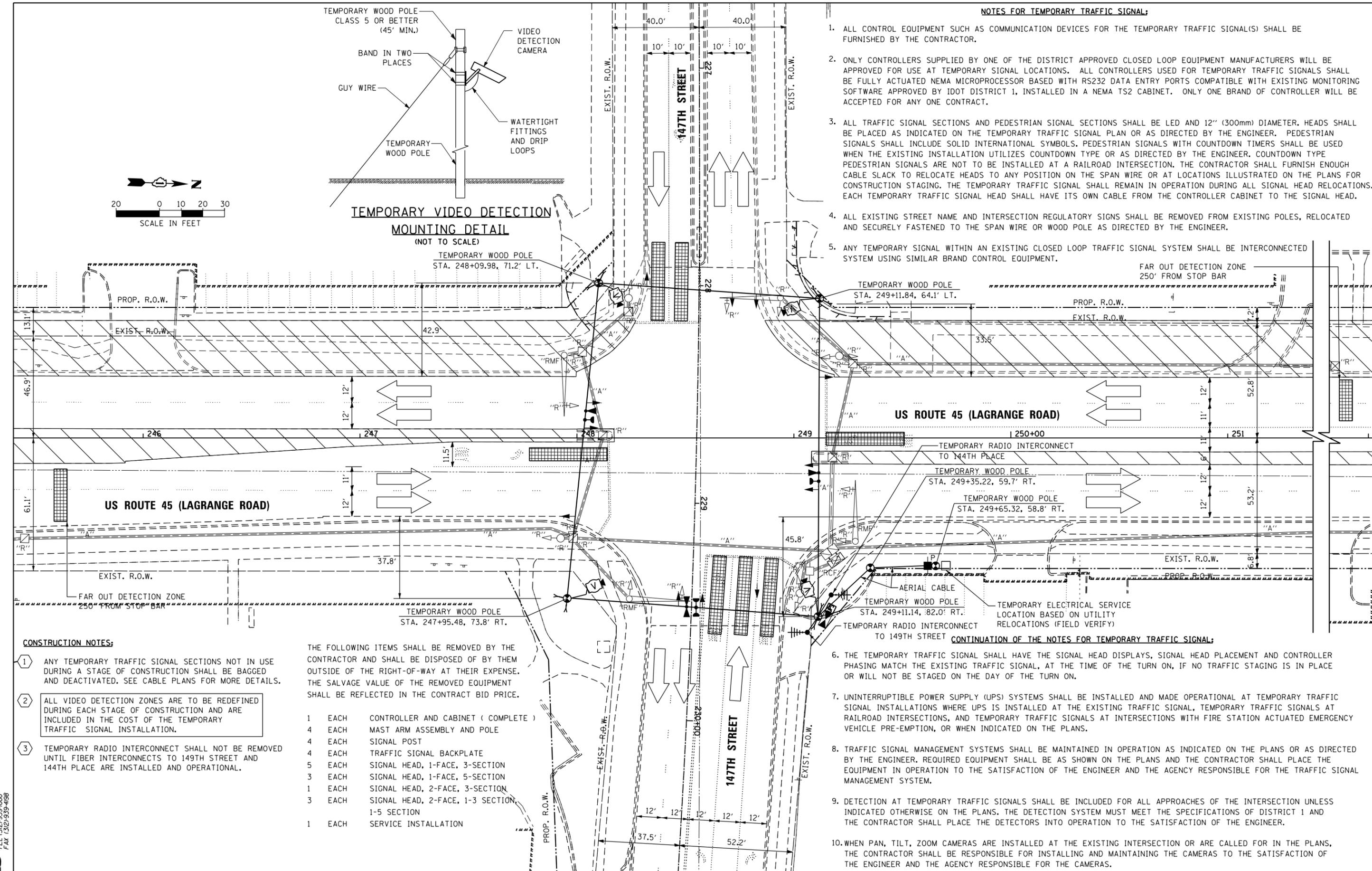
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	377
TD-54			CONTRACT NO.	60M61
ILLINOIS FED. AID PROJECT				





**TEMPORARY VIDEO DETECTION MOUNTING DETAIL**  
(NOT TO SCALE)

- NOTES FOR TEMPORARY TRAFFIC SIGNAL:**
1. ALL CONTROL EQUIPMENT SUCH AS COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNAL(S) SHALL BE FURNISHED BY THE CONTRACTOR.
  2. ONLY CONTROLLERS SUPPLIED BY ONE OF THE DISTRICT APPROVED CLOSED LOOP EQUIPMENT MANUFACTURERS WILL BE APPROVED FOR USE AT TEMPORARY SIGNAL LOCATIONS. ALL CONTROLLERS USED FOR TEMPORARY TRAFFIC SIGNALS SHALL BE FULLY ACTUATED NEMA MICROPROCESSOR BASED WITH RS232 DATA ENTRY PORTS COMPATIBLE WITH EXISTING MONITORING SOFTWARE APPROVED BY IDOT DISTRICT 1, INSTALLED IN A NEMA TS2 CABINET. ONLY ONE BRAND OF CONTROLLER WILL BE ACCEPTED FOR ANY ONE CONTRACT.
  3. ALL TRAFFIC SIGNAL SECTIONS AND PEDESTRIAN SIGNAL SECTIONS SHALL BE LED AND 12" (300mm) DIAMETER. HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. PEDESTRIAN SIGNALS SHALL INCLUDE SOLID INTERNATIONAL SYMBOLS. PEDESTRIAN SIGNALS WITH COUNTDOWN TIMERS SHALL BE USED WHEN THE EXISTING INSTALLATION UTILIZES COUNTDOWN TYPE OR AS DIRECTED BY THE ENGINEER. COUNTDOWN TYPE PEDESTRIAN SIGNALS ARE NOT TO BE INSTALLED AT A RAILROAD INTERSECTION. THE CONTRACTOR SHALL FURNISH ENOUGH CABLE SLACK TO RELOCATE HEADS TO ANY POSITION ON THE SPAN WIRE OR AT LOCATIONS ILLUSTRATED ON THE PLANS FOR CONSTRUCTION STAGING. THE TEMPORARY TRAFFIC SIGNAL SHALL REMAIN IN OPERATION DURING ALL SIGNAL HEAD RELOCATIONS. EACH TEMPORARY TRAFFIC SIGNAL HEAD SHALL HAVE ITS OWN CABLE FROM THE CONTROLLER CABINET TO THE SIGNAL HEAD.
  4. ALL EXISTING STREET NAME AND INTERSECTION REGULATORY SIGNS SHALL BE REMOVED FROM EXISTING POLES, RELOCATED AND SECURELY FASTENED TO THE SPAN WIRE OR WOOD POLE AS DIRECTED BY THE ENGINEER.
  5. ANY TEMPORARY SIGNAL WITHIN AN EXISTING CLOSED LOOP TRAFFIC SIGNAL SYSTEM SHALL BE INTERCONNECTED SYSTEM USING SIMILAR BRAND CONTROL EQUIPMENT.



- CONSTRUCTION NOTES:**
- 1 ANY TEMPORARY TRAFFIC SIGNAL SECTIONS NOT IN USE DURING A STAGE OF CONSTRUCTION SHALL BE BAGGED AND DEACTIVATED. SEE CABLE PLANS FOR MORE DETAILS.
  - 2 ALL VIDEO DETECTION ZONES ARE TO BE REDEFINED DURING EACH STAGE OF CONSTRUCTION AND ARE INCLUDED IN THE COST OF THE TEMPORARY TRAFFIC SIGNAL INSTALLATION.
  - 3 TEMPORARY RADIO INTERCONNECT SHALL NOT BE REMOVED UNTIL FIBER INTERCONNECTS TO 149TH STREET AND 144TH PLACE ARE INSTALLED AND OPERATIONAL.

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

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

- CONTINUATION OF THE NOTES FOR TEMPORARY TRAFFIC SIGNAL:**
6. THE TEMPORARY TRAFFIC SIGNAL SHALL HAVE THE SIGNAL HEAD DISPLAYS, SIGNAL HEAD PLACEMENT AND CONTROLLER PHASING MATCH THE EXISTING TRAFFIC SIGNAL, AT THE TIME OF THE TURN ON, IF NO TRAFFIC STAGING IS IN PLACE OR WILL NOT BE STAGED ON THE DAY OF THE TURN ON.
  7. UNINTERRUPTIBLE POWER SUPPLY (UPS) SYSTEMS SHALL BE INSTALLED AND MADE OPERATIONAL AT TEMPORARY TRAFFIC SIGNAL INSTALLATIONS WHERE UPS IS INSTALLED AT THE EXISTING TRAFFIC SIGNAL, TEMPORARY TRAFFIC SIGNALS AT RAILROAD INTERSECTIONS, AND TEMPORARY TRAFFIC SIGNALS AT INTERSECTIONS WITH FIRE STATION ACTUATED EMERGENCY VEHICLE PRE-EMPTION, OR WHEN INDICATED ON THE PLANS.
  8. TRAFFIC SIGNAL MANAGEMENT SYSTEMS SHALL BE MAINTAINED IN OPERATION AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER. REQUIRED EQUIPMENT SHALL BE AS SHOWN ON THE PLANS AND THE CONTRACTOR SHALL PLACE THE EQUIPMENT IN OPERATION TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE TRAFFIC SIGNAL MANAGEMENT SYSTEM.
  9. DETECTION AT TEMPORARY TRAFFIC SIGNALS SHALL BE INCLUDED FOR ALL APPROACHES OF THE INTERSECTION UNLESS INDICATED OTHERWISE ON THE PLANS. THE DETECTION SYSTEM MUST MEET THE SPECIFICATIONS OF DISTRICT 1 AND THE CONTRACTOR SHALL PLACE THE DETECTORS INTO OPERATION TO THE SATISFACTION OF THE ENGINEER.
  10. WHEN PAN, TILT, ZOOM CAMERAS ARE INSTALLED AT THE EXISTING INTERSECTION OR ARE CALLED FOR IN THE PLANS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING AND MAINTAINING THE CAMERAS TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE CAMERAS.

100 S. WACKER DR.  
 100 S. WACKER DR.  
 CHICAGO, IL 60606  
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FILE NAME =	USER NAME = Anthony.Plutz	DESIGNED - MRF	REVISED -
D160M61-SHT-TS95.dgn		DRAWN - MRF	REVISED -
		CHECKED - MJL	REVISED -
SHT.PLAN	PLOT DATE = 3/14/2013	DATE - 03/13/2013	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

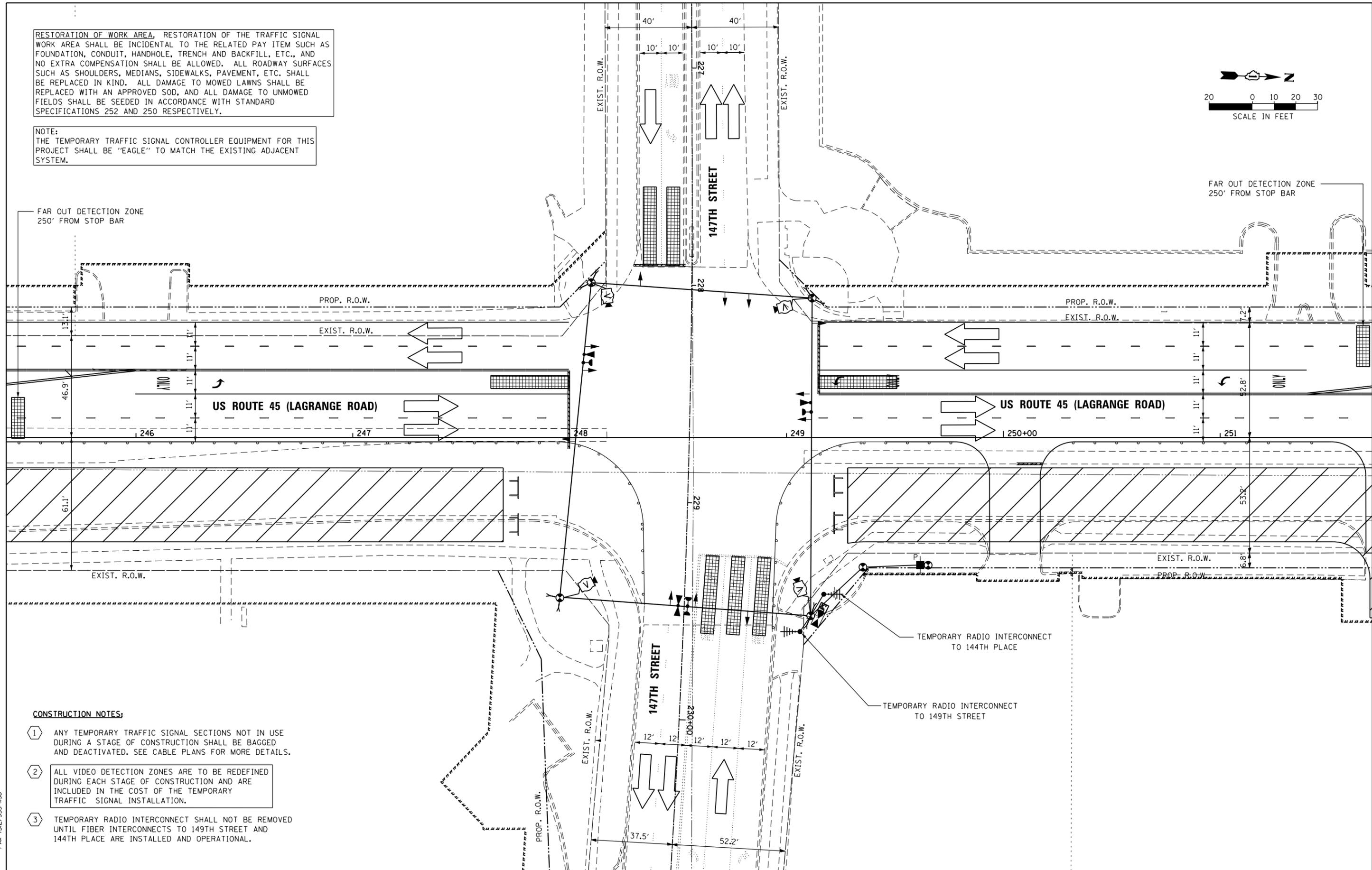
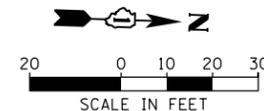
**TEMPORARY TRAFFIC SIGNAL INSTALLATION AND REMOVE EXISTING  
TRAFFIC SIGNAL EQUIPMENT PLAN - PRE-STAGE  
US 45 (LAGRANGE ROAD) AND 147TH STREET**

SCALE: 1"=20' SHEET 1 OF 6 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	378
<b>TD-55</b>		CONTRACT NO. 60M61		
ILLINOIS FED. AID PROJECT				

RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, 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 SEEDING IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

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



**CONSTRUCTION NOTES:**

- 1 ANY TEMPORARY TRAFFIC SIGNAL SECTIONS NOT IN USE DURING A STAGE OF CONSTRUCTION SHALL BE BAGGED AND DEACTIVATED. SEE CABLE PLANS FOR MORE DETAILS.
- 2 ALL VIDEO DETECTION ZONES ARE TO BE REDEFINED DURING EACH STAGE OF CONSTRUCTION AND ARE INCLUDED IN THE COST OF THE TEMPORARY TRAFFIC SIGNAL INSTALLATION.
- 3 TEMPORARY RADIO INTERCONNECT SHALL NOT BE REMOVED UNTIL FIBER INTERCONNECTS TO 149TH STREET AND 144TH PLACE ARE INSTALLED AND OPERATIONAL.

100 S. WACKER DR.  
 CHICAGO, IL 60606  
 TEL (312) 939-1000  
 FAX (312) 939-4998  
**URS**

FILE NAME = D160M61-SHT-TS56.dgn  
 SHT.PLAN

USER NAME = Anthony.Plutz  
 PLOT SCALE = 40.0000' / in.  
 PLOT DATE = 3/14/2013

DESIGNED - MRF  
 DRAWN - MRF  
 CHECKED - MJL  
 DATE - 03/13/2013

REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

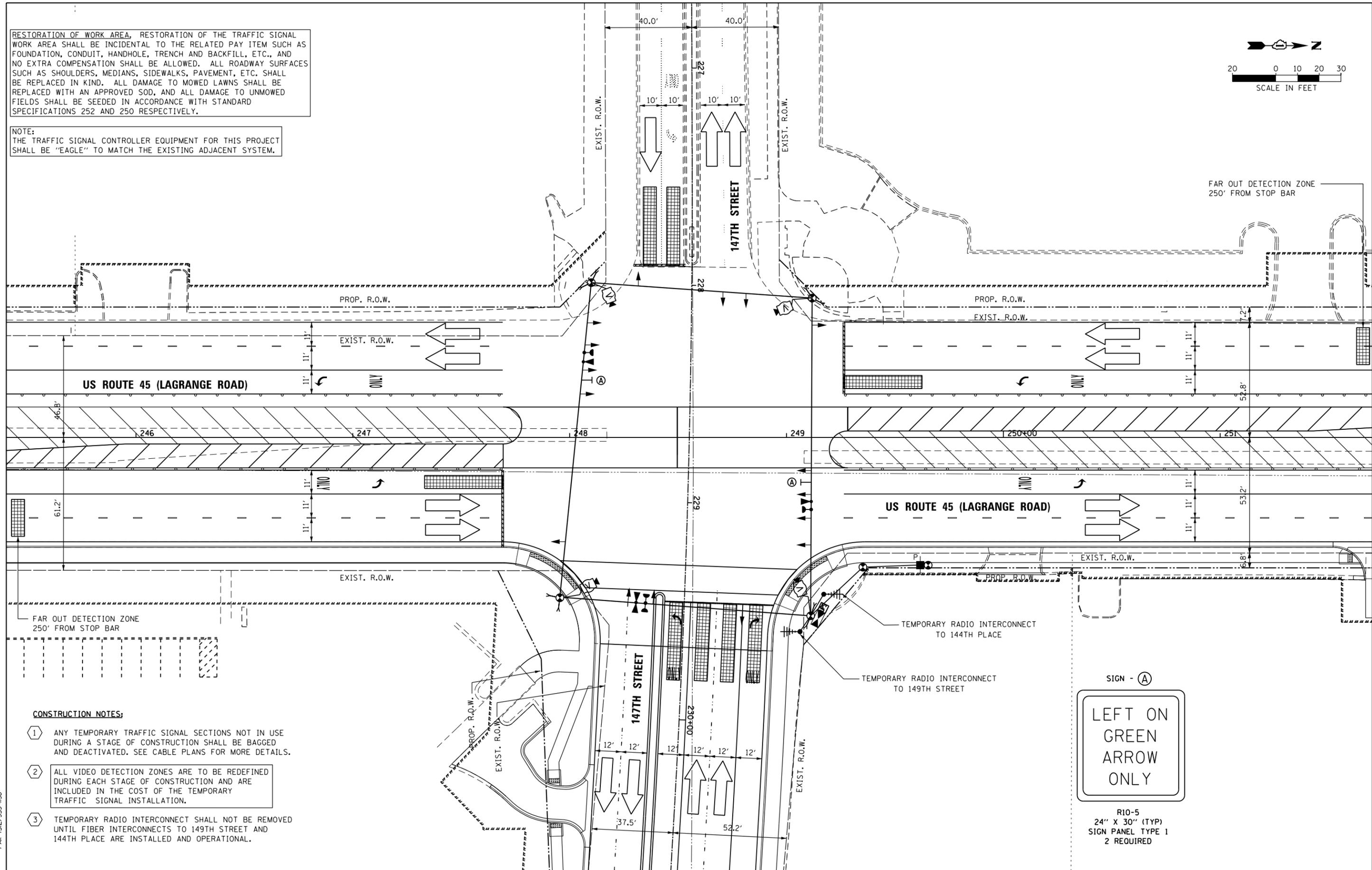
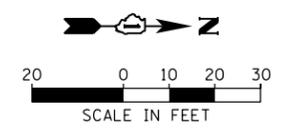
**TEMPORARY TRAFFIC SIGNAL INSTALLATION AND REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT PLAN - STAGE 1  
 US 45 (LAGRANGE ROAD) AND 147TH STREET**

SCALE: 1"=20' SHEET 2 OF 6 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	379
<b>TD-56</b>			CONTRACT NO. 60M61	
ILLINOIS FED. AID PROJECT				

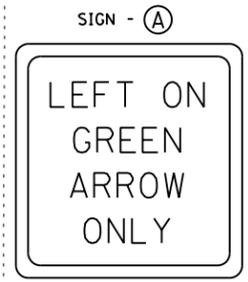
RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL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

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



**CONSTRUCTION NOTES:**

- 1 ANY TEMPORARY TRAFFIC SIGNAL SECTIONS NOT IN USE DURING A STAGE OF CONSTRUCTION SHALL BE BAGGED AND DEACTIVATED. SEE CABLE PLANS FOR MORE DETAILS.
- 2 ALL VIDEO DETECTION ZONES ARE TO BE REDEFINED DURING EACH STAGE OF CONSTRUCTION AND ARE INCLUDED IN THE COST OF THE TEMPORARY TRAFFIC SIGNAL INSTALLATION.
- 3 TEMPORARY RADIO INTERCONNECT SHALL NOT BE REMOVED UNTIL FIBER INTERCONNECTS TO 149TH STREET AND 144TH PLACE ARE INSTALLED AND OPERATIONAL.



R10-5  
24" X 30" (TYP)  
SIGN PANEL TYPE 1  
2 REQUIRED

100 S. WACKER DR.  
 10TH FLOOR  
 CHICAGO, IL 60606  
 TEL (312) 935-1000  
 FAX (312) 935-4998  
**URS**

FILE NAME = D160M61-SHT-TS57.dgn	USER NAME = Anthony.Plutz	DESIGNED - MRF	REVISED -
		DRAWN - MRF	REVISED -
		CHECKED - MJL	REVISED -
SHT.PLAN	PLOT DATE = 3/14/2013	DATE - 03/13/2013	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

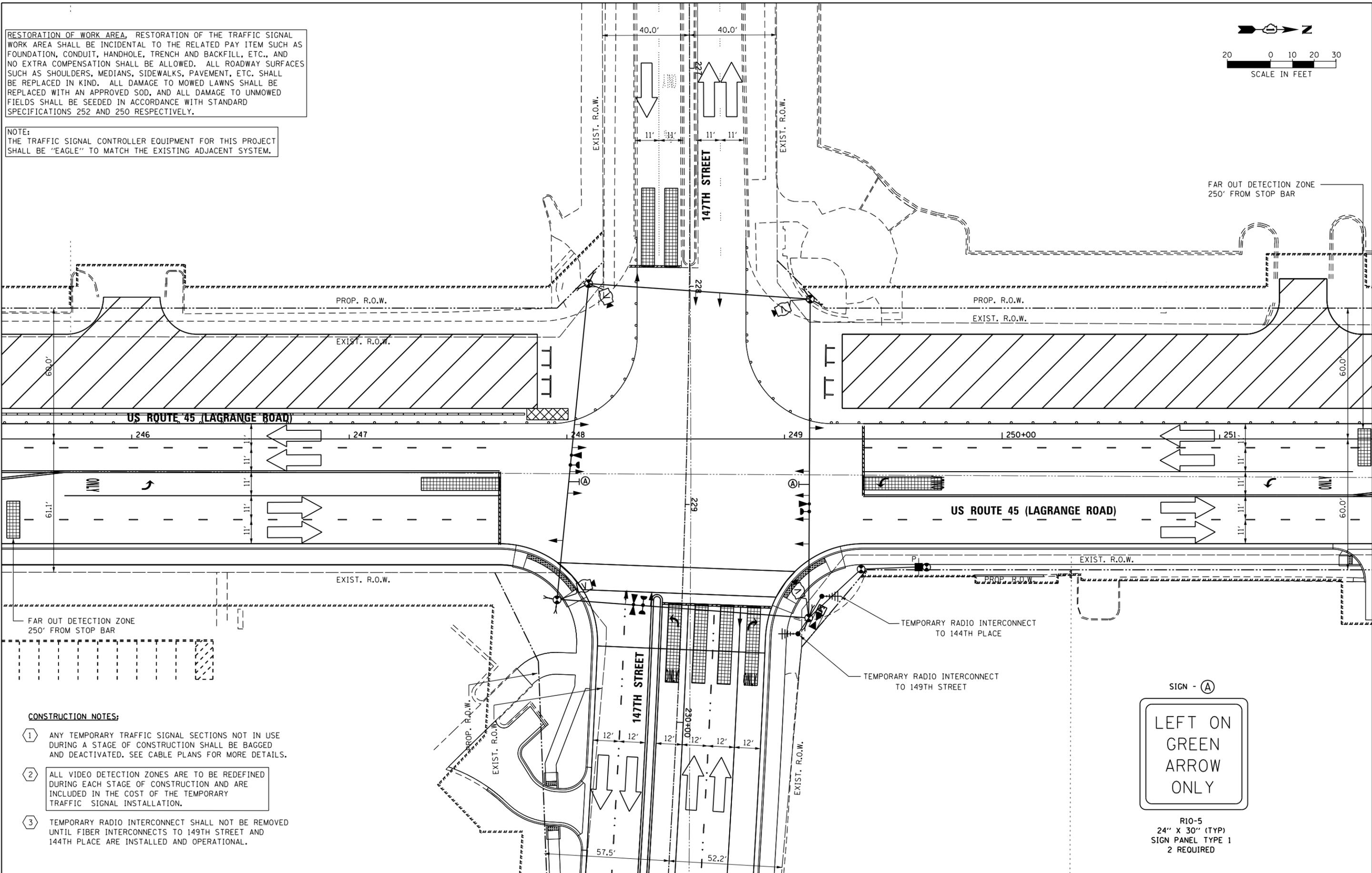
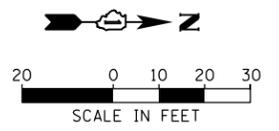
**TEMPORARY TRAFFIC SIGNAL INSTALLATION - STAGE 2  
US 45 (LAGRANGE ROAD) AND 147TH STREET**

SCALE: 1"=20' SHEET 3 OF 6 SHEETS STA. TO STA.

F.A.P. RTE. 330	SECTION 103R-4	COUNTY COOK	TOTAL SHEETS 877	SHEET NO. 380
<b>TD-57</b>		CONTRACT NO. 60M61		
ILLINOIS FED. AID PROJECT				

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

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



**CONSTRUCTION NOTES:**

- 1 ANY TEMPORARY TRAFFIC SIGNAL SECTIONS NOT IN USE DURING A STAGE OF CONSTRUCTION SHALL BE BAGGED AND DEACTIVATED. SEE CABLE PLANS FOR MORE DETAILS.
- 2 ALL VIDEO DETECTION ZONES ARE TO BE REDEFINED DURING EACH STAGE OF CONSTRUCTION AND ARE INCLUDED IN THE COST OF THE TEMPORARY TRAFFIC SIGNAL INSTALLATION.
- 3 TEMPORARY RADIO INTERCONNECT SHALL NOT BE REMOVED UNTIL FIBER INTERCONNECTS TO 149TH STREET AND 144TH PLACE ARE INSTALLED AND OPERATIONAL.



R10-5  
24" X 30" (TYP)  
SIGN PANEL TYPE 1  
2 REQUIRED

100 S. WACKER DR.  
 SUITE 600  
 CHICAGO, IL 60606  
 TEL (312) 939-1000  
 FAX (312) 939-4998  
**URS**

FILE NAME = D160M61-SHT-TS58.dgn	USER NAME = Anthony.Plutz	DESIGNED - MRF	REVISED -
		DRAWN - MRF	REVISED -
		CHECKED - MJL	REVISED -
SHT.PLAN	PLOT DATE = 3/14/2013	DATE - 03/13/2013	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

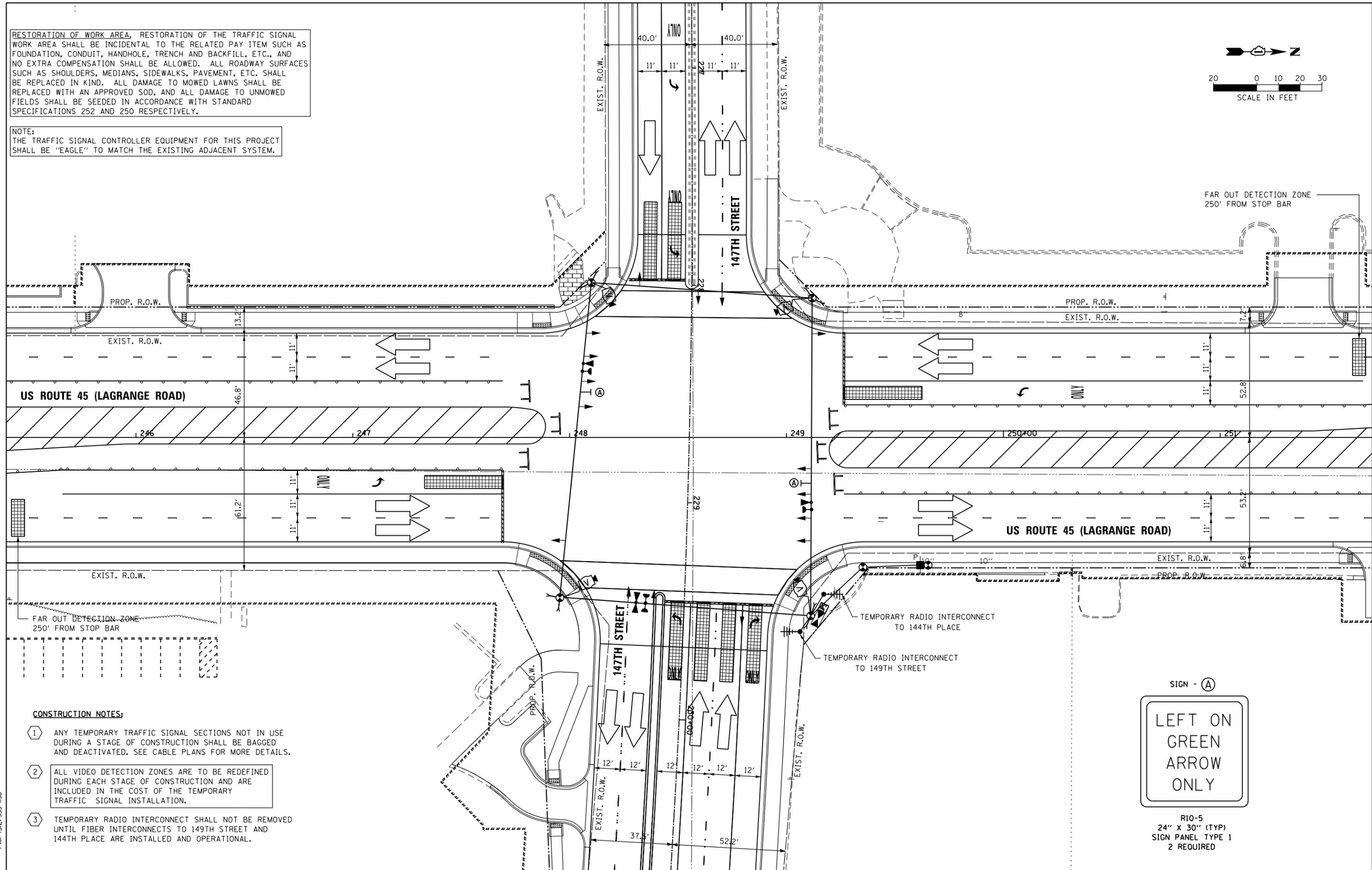
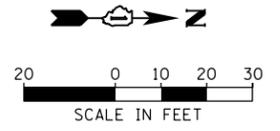
**TEMPORARY TRAFFIC SIGNAL INSTALLATION - STAGE 3  
US 45 (LAGRANGE ROAD) AND 147TH STREET**

SCALE: 1"=20' SHEET 4 OF 6 SHEETS STA. TO STA.

F.A.P. RTE. 330	SECTION 103R-4	COUNTY COOK	TOTAL SHEETS 877	SHEET NO. 381
<b>TD-58</b>			CONTRACT NO. 60M61	
ILLINOIS FED. AID PROJECT				

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

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



**CONSTRUCTION NOTES:**

- 1 ANY TEMPORARY TRAFFIC SIGNAL SECTIONS NOT IN USE DURING A STAGE OF CONSTRUCTION SHALL BE BAGGED AND DEACTIVATED. SEE CABLE PLANS FOR MORE DETAILS.
- 2 ALL VIDEO DETECTION ZONES ARE TO BE REDEFINED DURING EACH STAGE OF CONSTRUCTION AND ARE INCLUDED IN THE COST OF THE TEMPORARY TRAFFIC SIGNAL INSTALLATION.
- 3 TEMPORARY RADIO INTERCONNECT SHALL NOT BE REMOVED UNTIL FIBER INTERCONNECTS TO 149TH STREET AND 144TH PLACE ARE INSTALLED AND OPERATIONAL.



R10-5  
24" X 30" (TYP)  
SIGN PANEL TYPE 1  
2 REQUIRED

100 S. WACKER DR.  
 SUITE 600  
 CHICAGO, IL 60606  
 TEL (312) 939-1000  
 FAX (312) 939-4998  
**URS**

FILE NAME =	USER NAME = Anthony.Plutz	DESIGNED - MRF	REVISED -
D160M61-SHT-TS59.dgn		DRAWN - MRF	REVISED -
	PLOT SCALE = 40.0000' / in.	CHECKED - MJL	REVISED -
SHT.PLAN	PLOT DATE = 3/14/2013	DATE - 03/13/2013	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

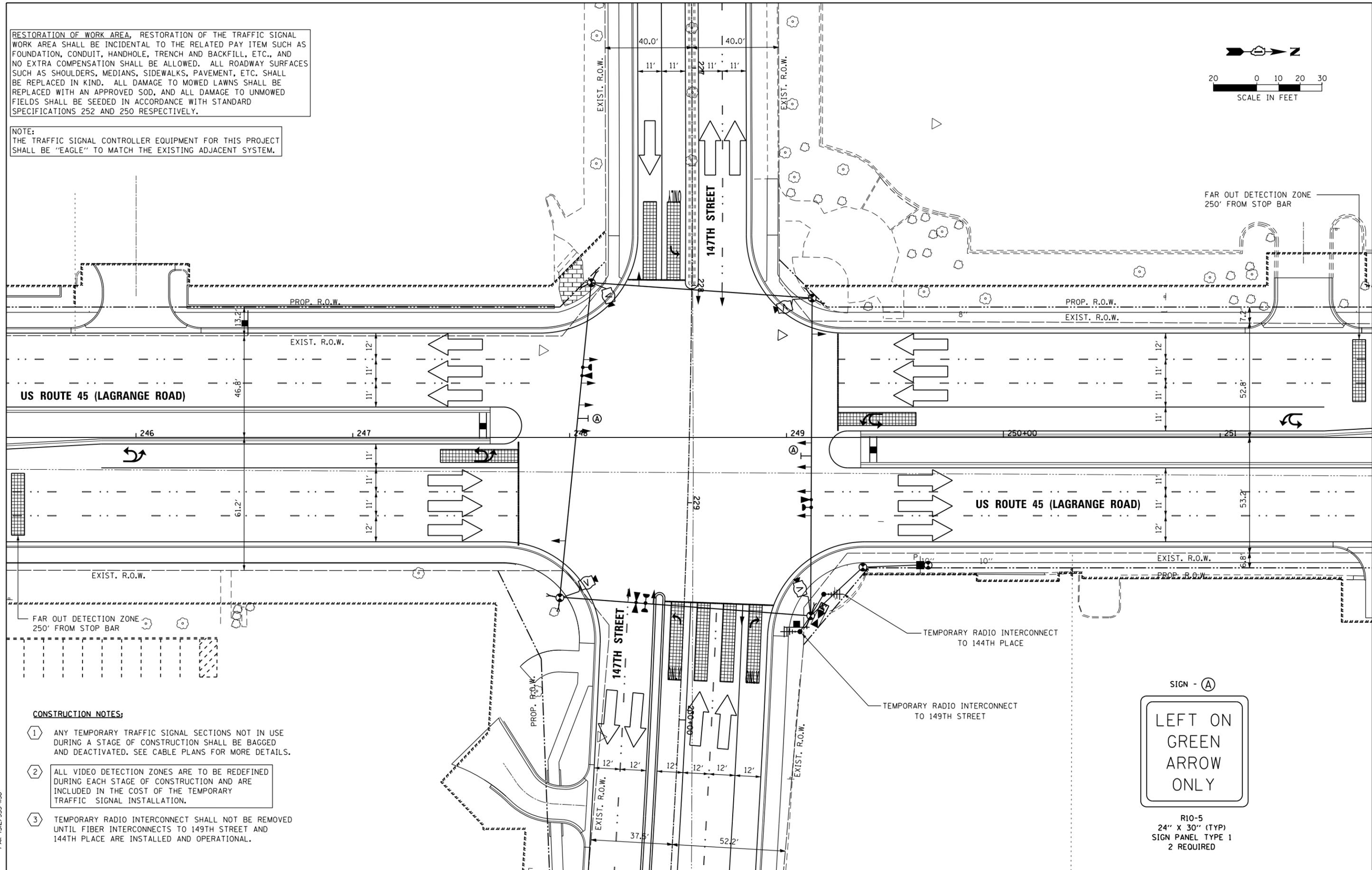
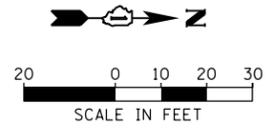
**TEMPORARY TRAFFIC SIGNAL INSTALLATION - STAGE 4  
US 45 (LAGRANGE ROAD) AND 147TH STREET**

SCALE: 1"=20' SHEET 5 OF 6 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	382
<b>TD-59</b>		CONTRACT NO. 60M61		
ILLINOIS FED. AID PROJECT				

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

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



**CONSTRUCTION NOTES:**

- 1 ANY TEMPORARY TRAFFIC SIGNAL SECTIONS NOT IN USE DURING A STAGE OF CONSTRUCTION SHALL BE BAGGED AND DEACTIVATED. SEE CABLE PLANS FOR MORE DETAILS.
- 2 ALL VIDEO DETECTION ZONES ARE TO BE REDEFINED DURING EACH STAGE OF CONSTRUCTION AND ARE INCLUDED IN THE COST OF THE TEMPORARY TRAFFIC SIGNAL INSTALLATION.
- 3 TEMPORARY RADIO INTERCONNECT SHALL NOT BE REMOVED UNTIL FIBER INTERCONNECTS TO 149TH STREET AND 144TH PLACE ARE INSTALLED AND OPERATIONAL.



R10-5  
24" X 30" (TYP)  
SIGN PANEL TYPE 1  
2 REQUIRED

100 S. WACKER DR.  
 SUITE 600  
 CHICAGO, IL 60606  
 TEL (312) 939-1000  
 FAX (312) 939-4998  
**URS**

FILE NAME = D160M61-SHT-TS60.dgn	USER NAME = Anthony.Plutz	DESIGNED - MRF	REVISED -
		DRAWN - MRF	REVISED -
		CHECKED - MJL	REVISED -
SHT.PLAN	PLOT DATE = 3/14/2013	DATE - 03/13/2013	REVISED -

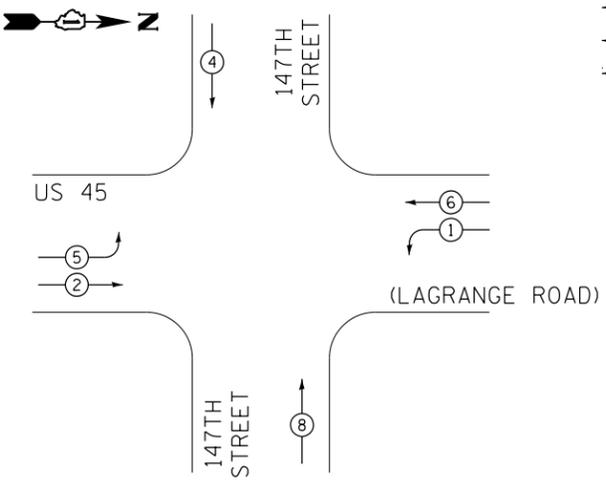
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TEMPORARY TRAFFIC SIGNAL INSTALLATION - FINAL GEOMETRICS  
US 45 (LAGRANGE ROAD) AND 147TH STREET**

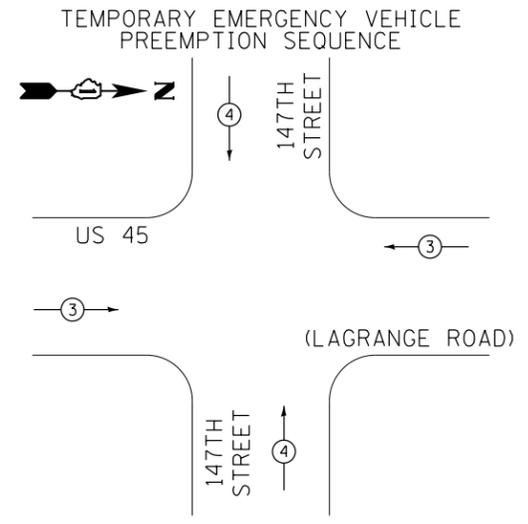
SCALE: 1"=20' SHEET 6 OF 6 SHEETS STA. TO STA.

F.A.P. RTE. 330	SECTION 103R-4	COUNTY COOK	TOTAL SHEETS 877	SHEET NO. 383
<b>TD-60</b>		CONTRACT NO. 60M61		
ILLINOIS FED. AID PROJECT				

TEMPORARY CONTROLLER SEQUENCE



TEMPORARY PHASE DESIGNATION DIAGRAM



TEMPORARY EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTORS	3	4
MOVEMENT	← →	↑ ↓

PHASE DESIGNATION DIAGRAM LEGEND

- ⊙ DUAL ENTRY PHASE
- ⊛ SINGLE ENTRY PHASE
- ⊙ PEDESTRIAN PHASE
- \* NUMBER REFERS TO ASSOCIATED PHASE

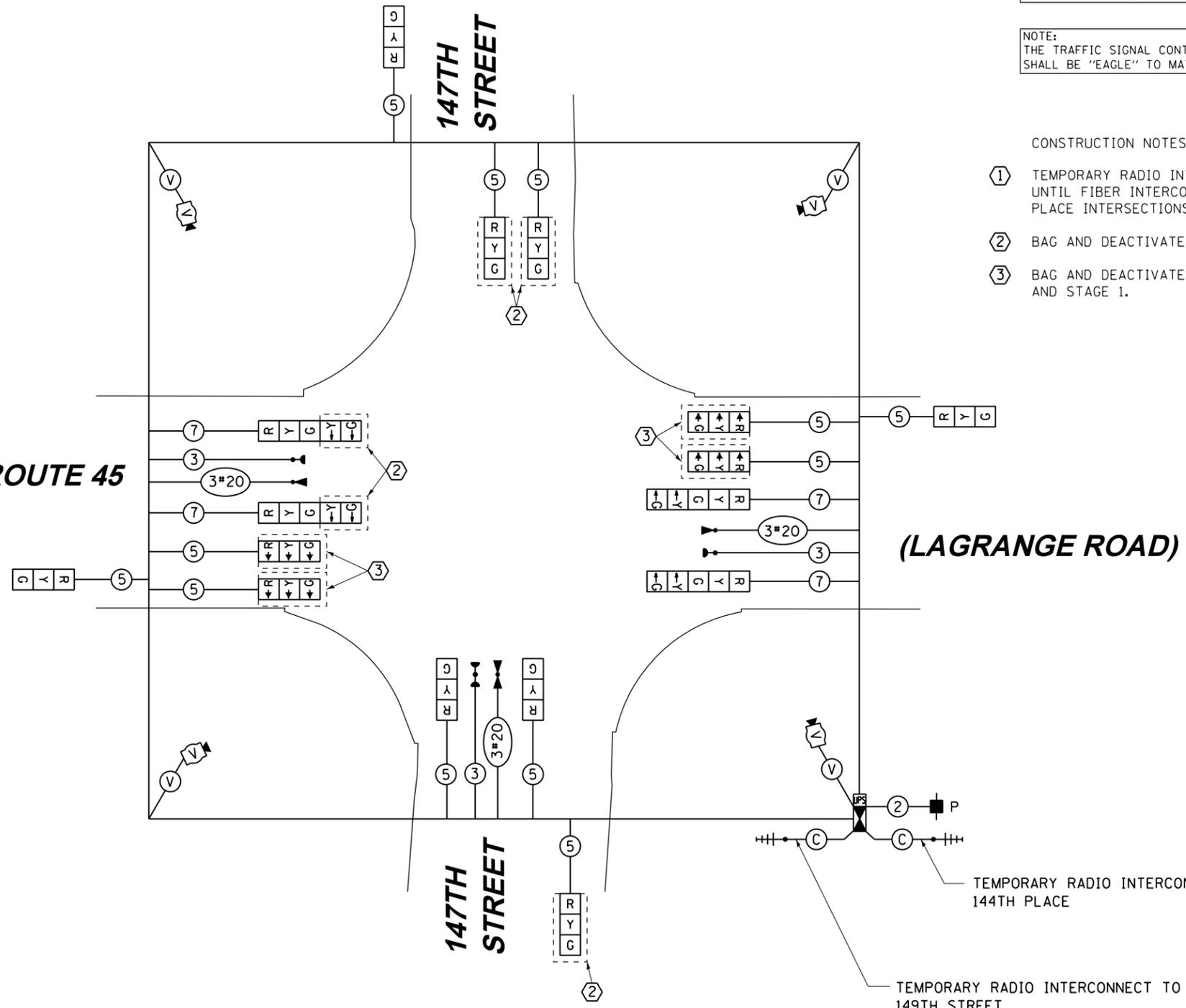
RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL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

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

CONSTRUCTION NOTES:

- ① TEMPORARY RADIO INTERCONNECT SHALL NOT BE REMOVED UNTIL FIBER INTERCONNECT TO 149TH STREET AND 144TH PLACE INTERSECTIONS ARE INSTALLED AND OPERATIONAL.
- ② BAG AND DEACTIVATE SIGNAL SECTION DURING STAGE 1C.
- ③ BAG AND DEACTIVATE SIGNAL SECTION DURING PRE-STAGE AND STAGE 1.

US ROUTE 45



TEMPORARY CABLE PLAN  
PRE-STAGE & STAGE 1

TEMPORARY RADIO INTERCONNECT TO 144TH PLACE

TEMPORARY RADIO INTERCONNECT TO 149TH STREET

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE (INCANDE.)	LED	% OPERATION	
SIGNAL (RED)	12		17	0.50	102.0
(YELLOW)	12		25	0.25	75.0
(GREEN)	12		15	0.25	45.0
ARROW	8		12	0.10	9.6
PED. SIGNAL	0		25	1.00	0.0
CONTROLLER	1		100	1.00	100.0
ILLUM. SIGN	--		25	0.05	0.0
VIDEO SYSTEM	1		150	1.00	150.0
FLASHER			25	0.50	
ENERGY COST TO:			TOTAL=		481.6

VILLAGE OF ORLAND PARK  
14700 SOUTH RAVINIA AVE.  
ENERGY SUPPLY: CONTACT: KATHRYN SUGRUE  
PHONE: (708) 235-2337  
COMPANY: COMMONWEALTH EDISON

100 S. WACKER DR.  
 SUITE 600  
 CHICAGO, IL 60606  
 TEL (312) 939-1000  
 FAX (312) 939-4998  
**URS**

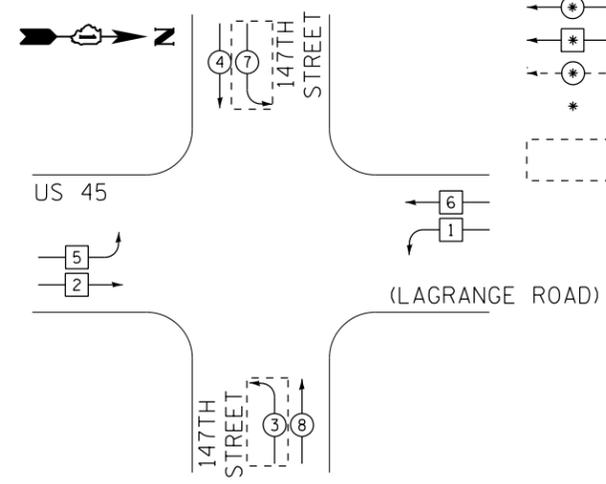
FILE NAME = D160M61-SHT-TS61.dgn	USER NAME = Anthony.Plutz	DESIGNED - MRF	REVISED -
SHT.PLAN	PLOT SCALE = 40.0000' / in.	DRAWN - MRF	REVISED -
	PLOT DATE = 3/14/2013	CHECKED - MJL	REVISED -
		DATE - 03/13/2013	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

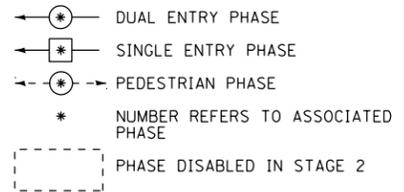
TEMPORARY CABLE PLAN, TEMPORARY PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE  
US 45 (LAGRANGE ROAD) AND 147TH STREET - PRE-STAGE & STAGE 1  
SCALE: N.T.S. SHEET 1 OF 2 SHEETS STA. TO STA.

F.A.P. RTE. 330	SECTION 103R-4	COUNTY COOK	TOTAL SHEETS 877	SHEET NO. 384
TD-61		CONTRACT NO. 60M61		
ILLINOIS FED. AID PROJECT				

TEMPORARY CONTROLLER SEQUENCE

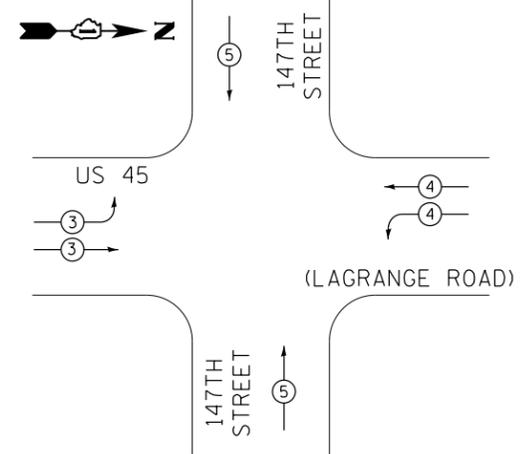


PHASE DESIGNATION DIAGRAM LEGEND



TEMPORARY PHASE DESIGNATION DIAGRAM

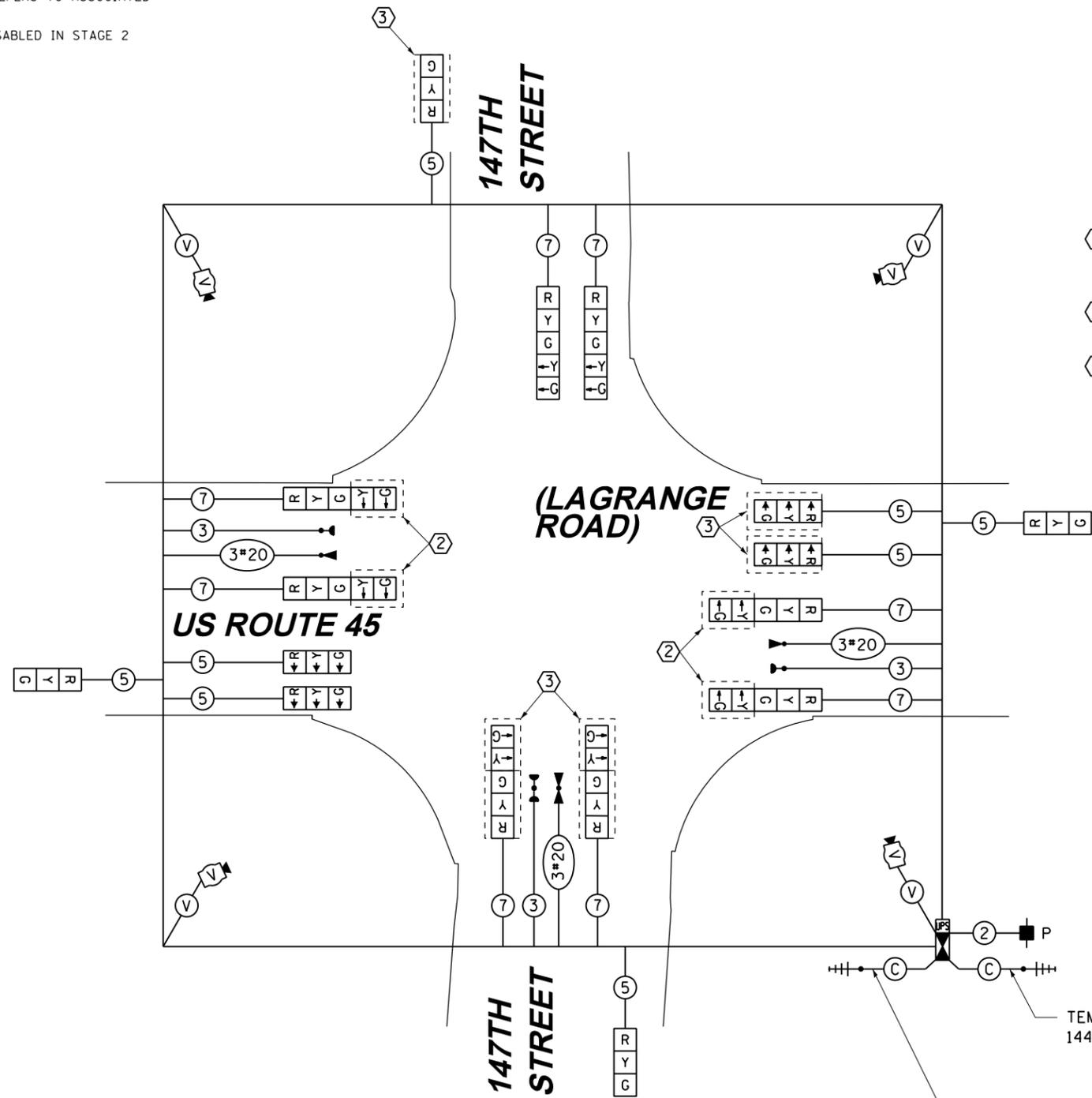
TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE



TEMPORARY EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTORS	3	4	5
MOVEMENT			

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE (INCAND.)	LED	% OPERATION	
SIGNAL (RED)	16		17	0.50	136.0
(YELLOW)	16		25	0.25	100.0
(GREEN)	16		15	0.25	60.0
ARROW	8		12	0.10	9.6
PED. SIGNAL	--		25	1.00	0.0
CONTROLLER	1		100	1.00	100.0
ILLUM. SIGN	--		25	0.05	0.0
VIDEO SYSTEM	1		150	1.00	150.0
FLASHER			25	0.50	
ENERGY COST TO:			TOTAL =		555.6

VILLAGE OF ORLAND PARK  
14700 SOUTH RAVINIA AVE  
ENERGY SUPPLY: CONTACT: KATHRYN SUGRUE  
PHONE: (708) 235-2337  
COMPANY: COMMONWEALTH EDISON



TEMPORARY CABLE PLAN  
STAGE 2, 3, 4 & FINAL GEOMETRICS

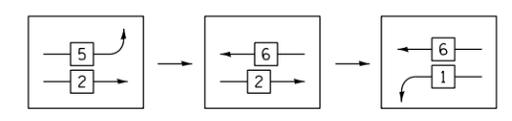
RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL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

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

CONSTRUCTION NOTES:

- ① TEMPORARY RADIO INTERCONNECT SHALL NOT BE REMOVED UNTIL FIBER INTERCONNECT TO 149TH STREET AND 144TH PLACE INTERSECTIONS ARE INSTALLED AND OPERATIONAL.
- ② BAG AND DEACTIVATE SIGNAL SECTION DURING STAGES 2, 3, 4 AND FINAL GEOMETRICS
- ③ BAG AND DEACTIVATE SIGNAL SECTION DURING STAGE 3C.

FOR PHASES 1, 2, 5, & 6 IN THE PHASE DESIGNATION DIAGRAM SHOWN AT TOP LEFT, THE FOLLOWING PHASE SEQUENCE SHALL BE FOLLOWED DURING STAGES 2 AND 4:



PHASES 3, 4, 7, & 8 SHALL FOLLOW THE STANDARD SEQUENCE IN ACCORDANCE WITH STATE STANDARD 857001

TEMPORARY RADIO INTERCONNECT TO 144TH PLACE

TEMPORARY RADIO INTERCONNECT TO 149TH STREET

100 S. WACKER DR. CHICAGO, IL 60606 TEL (312) 935-1000 FAX (312) 935-4998



FILE NAME = D160M61-SHT-TS62.dgn	USER NAME = Anthony.Plutz	DESIGNED - MRF	REVISED -
SHT.PLAN	PLOT SCALE = 48.0000' / in.	DRAWN - MRF	REVISED -
	PLOT DATE = 3/14/2013	CHECKED - MJL	REVISED -
		DATE - 03/13/2013	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

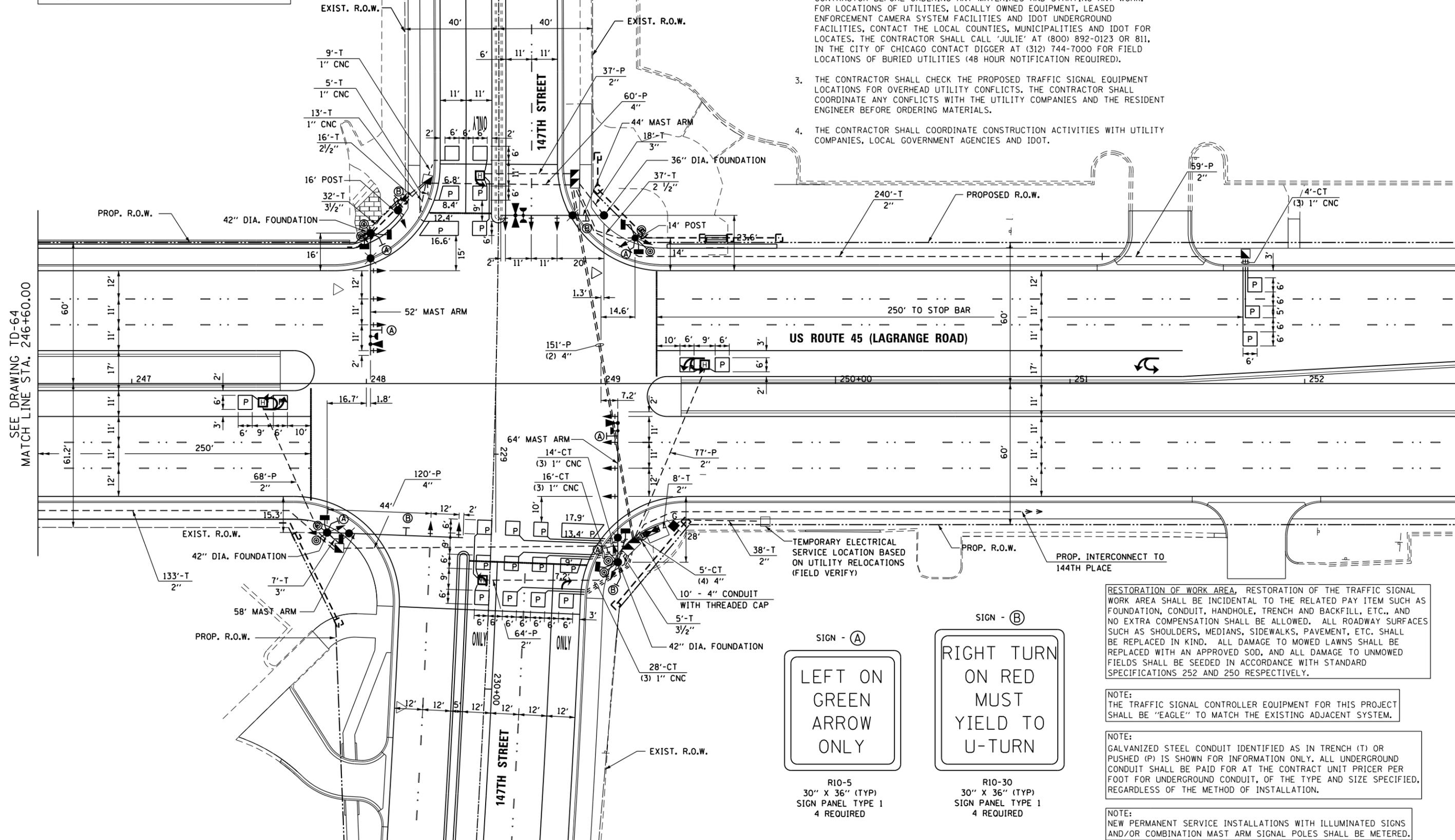
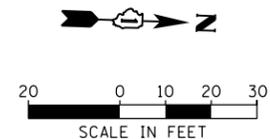
TEMPORARY CABLE PLAN, TEMPORARY PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE  
US 45 (LAGRANGE ROAD) AND 147TH STREET - STAGE 2, 3, 4 & FINAL GEOMETRICS  
SCALE: N.T.S. SHEET 2 OF 2 SHEETS STA. TO STA.

F.A.P. RTE. 330	SECTION 103R-4	COUNTY COOK	TOTAL SHEETS 877	SHEET NO. 385
TD-62		CONTRACT NO. 60M61		
ILLINOIS FED. AID PROJECT				

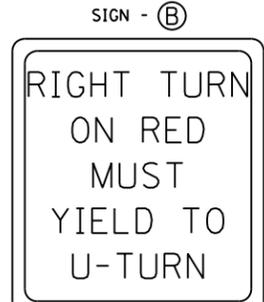
NOTE:  
ALL TRAFFIC SIGNAL POLES, MAST ARM ASSEMBLIES, SIGNAL/PEDESTRIAN HEADS AND HOUSINGS, MOUNTING BRACKETS/PLATES/BOLTS, PEDESTRIAN PUSH BUTTONS, CONTROLLER CABINETS, AND ILLUMINATED SIGNS WITHIN THE VILLAGE OF ORLAND PARK SHALL BE PAINTED BLACK, IN ACCORDANCE WITH THE SPECIAL PROVISIONS.

GENERAL NOTES

1. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION. THIS SHALL INCLUDE LOCATING THE MAST ARM FOUNDATIONS AND VERIFYING THE MAST ARM LENGTHS.
2. THE EXACT LOCATION OF ALL UTILITIES SHALL BE FIELD VERIFIED BY THE CONTRACTOR BEFORE ORDERING ANY MATERIALS AND STARTING ANY WORK. FOR LOCATIONS OF UTILITIES, LOCALLY OWNED EQUIPMENT, LEASED ENFORCEMENT CAMERA SYSTEM FACILITIES AND IDOT UNDERGROUND FACILITIES, CONTACT THE LOCAL COUNTIES, MUNICIPALITIES AND IDOT FOR LOCATES. THE CONTRACTOR SHALL CALL 'JULIE' AT (800) 892-0123 OR 811, IN THE CITY OF CHICAGO CONTACT DIGGER AT (312) 744-7000 FOR FIELD LOCATIONS OF BURIED UTILITIES (48 HOUR NOTIFICATION REQUIRED).
3. THE CONTRACTOR SHALL CHECK THE PROPOSED TRAFFIC SIGNAL EQUIPMENT LOCATIONS FOR OVERHEAD UTILITY CONFLICTS. THE CONTRACTOR SHALL COORDINATE ANY CONFLICTS WITH THE UTILITY COMPANIES AND THE RESIDENT ENGINEER BEFORE ORDERING MATERIALS.
4. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES, LOCAL GOVERNMENT AGENCIES AND IDOT.



SEE DRAWING TD-64  
MATCH LINE STA. 246+60.00



RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, 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 SEEDING IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

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

NOTE:  
GALVANIZED STEEL CONDUIT IDENTIFIED AS IN TRENCH (T) OR PUSHED (P) IS SHOWN FOR INFORMATION ONLY. ALL UNDERGROUND CONDUIT SHALL BE PAID FOR AT THE CONTRACT UNIT PRICER PER FOOT FOR UNDERGROUND CONDUIT, OF THE TYPE AND SIZE SPECIFIED, REGARDLESS OF THE METHOD OF INSTALLATION.

NOTE:  
NEW PERMANENT SERVICE INSTALLATIONS WITH ILLUMINATED SIGNS AND/OR COMBINATION MAST ARM SIGNAL POLES SHALL BE METERED.



100 S. WACKER DR.  
SUITE 600  
CHICAGO, IL 60606  
TEL (312) 939-1000  
FAX (312) 939-4998

FILE NAME = D160M61-SHT-TS63.dgn	USER NAME = Anthony.Plutz	DESIGNED - MRF	REVISED -
		DRAWN - MRF	REVISED -
		CHECKED - MJL	REVISED -
SHT.PLAN	PLOT DATE = 3/14/2013	DATE - 03/13/2013	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

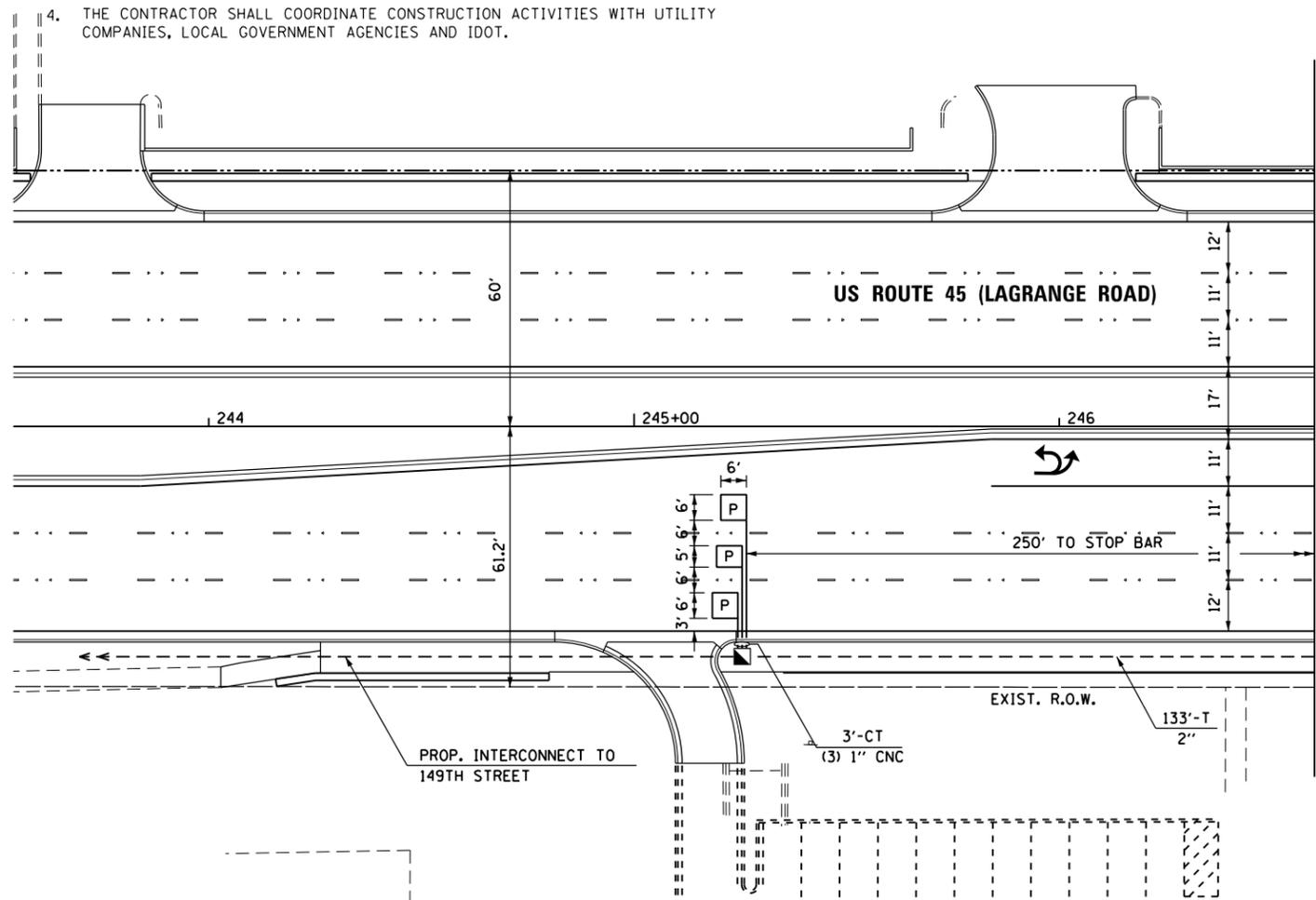
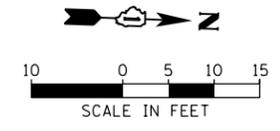
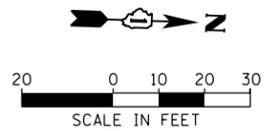
TRAFFIC SIGNAL INSTALLATION PLAN  
US 45 (LAGRANGE ROAD) AND 147TH STREET

SCALE: 1"=20' SHEET 1 OF 2 SHEETS STA. TO STA.

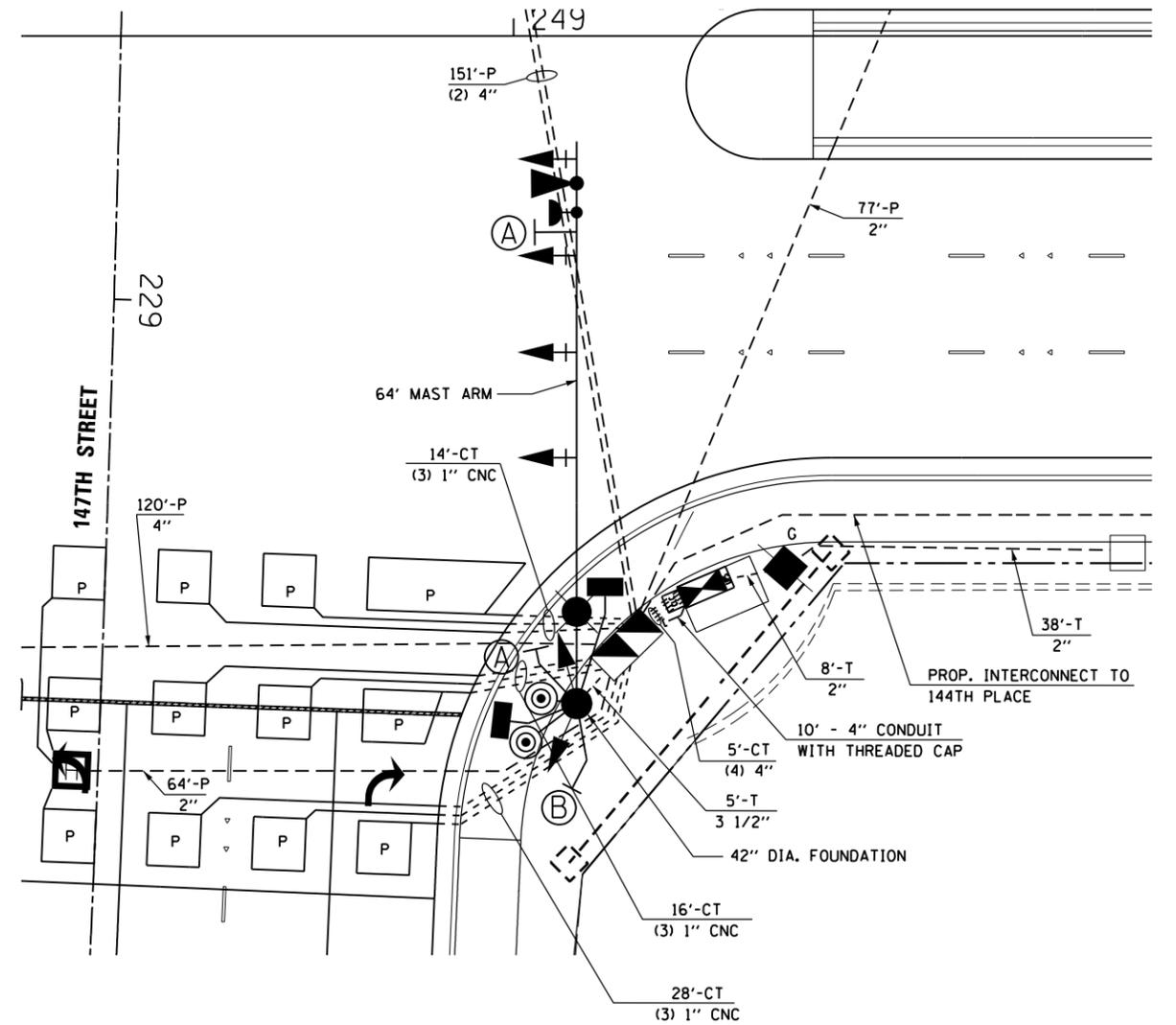
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	386
TD-63			CONTRACT NO. 60M61	
ILLINOIS FED. AID PROJECT				

**GENERAL NOTES**

1. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION. THIS SHALL INCLUDE LOCATING THE MAST ARM FOUNDATIONS AND VERIFYING THE MAST ARM LENGTHS.
2. THE EXACT LOCATION OF ALL UTILITIES SHALL BE FIELD VERIFIED BY THE CONTRACTOR BEFORE ORDERING ANY MATERIALS AND STARTING ANY WORK. FOR LOCATIONS OF UTILITIES, LOCALLY OWNED EQUIPMENT, LEASED ENFORCEMENT CAMERA SYSTEM FACILITIES AND IDOT UNDERGROUND FACILITIES, CONTACT THE LOCAL COUNTIES, MUNICIPALITIES AND IDOT FOR LOCATES. THE CONTRACTOR SHALL CALL 'JULIE' AT (800) 892-0123 OR 811, IN THE CITY OF CHICAGO CONTACT DIGGER AT (312) 744-7000 FOR FIELD LOCATIONS OF BURIED UTILITIES (48 HOUR NOTIFICATION REQUIRED).
3. THE CONTRACTOR SHALL CHECK THE PROPOSED TRAFFIC SIGNAL EQUIPMENT LOCATIONS FOR OVERHEAD UTILITY CONFLICTS. THE CONTRACTOR SHALL COORDINATE ANY CONFLICTS WITH THE UTILITY COMPANIES AND THE RESIDENT ENGINEER BEFORE ORDERING MATERIALS.
4. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES, LOCAL GOVERNMENT AGENCIES AND IDOT.



MATCH LINE STA. 246+60.00  
SEE DRAWING TD-63



TRAFFIC SIGNAL EQUIPMENT LAYOUT  
NORTHEAST QUADRANT

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

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

NOTE:  
GALVANIZED STEEL CONDUIT IDENTIFIED AS IN TRENCH (T) OR PUSHED (P) IS SHOWN FOR INFORMATION ONLY. ALL UNDERGROUND CONDUIT SHALL BE PAID FOR AT THE CONTRACT UNIT PRICER PER FOOT FOR UNDERGROUND CONDUIT, OF THE TYPE AND SIZE SPECIFIED, REGARDLESS OF THE METHOD OF INSTALLATION.

100 S. WACKER DR.  
 SUITE 500  
 CHICAGO, IL 60606  
 TEL (312) 935-1000  
 FAX (312) 935-4998  
**URS**

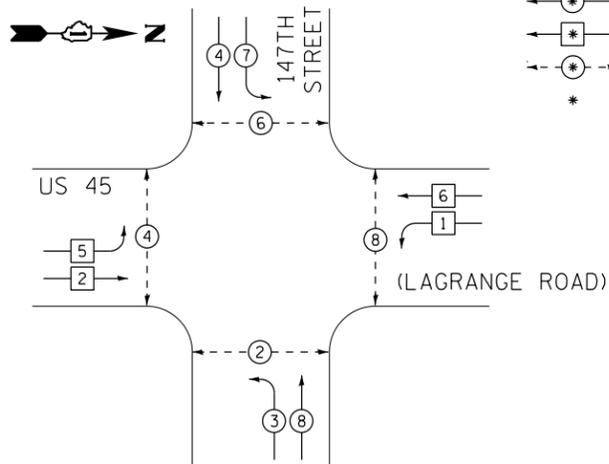
FILE NAME = D160M61-SHT-TS64.dgn	USER NAME = Anthony.Plutz	DESIGNED - MRF	REVISED -
		DRAWN - MRF	REVISED -
		CHECKED - MJL	REVISED -
SHT.PLAN	PLOT DATE = 3/14/2013	DATE - 03/13/2013	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL INSTALLATION PLAN  
US 45 (LAGRANGE ROAD) AND 147TH STREET  
SCALE: 1"=20' SHEET 2 OF 2 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	387
TD-64		CONTRACT NO. 60M61		
ILLINOIS FED. AID PROJECT				

**CONTROLLER SEQUENCE**

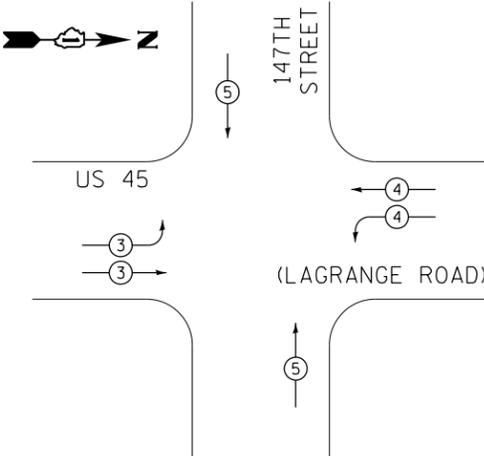


**PHASE DESIGNATION DIAGRAM LEGEND**

- ⊙ DUAL ENTRY PHASE
- ⊠ SINGLE ENTRY PHASE
- ⊡ PEDESTRIAN PHASE
- \* NUMBER REFERS TO ASSOCIATED PHASE

**PHASE DESIGNATION DIAGRAM**

**EMERGENCY VEHICLE PREEMPTION SEQUENCE**



PROPOSED EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTORS	3	4	5
MOVEMENT			

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS						TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE INCAND.	LED	% OPERATION		
SIGNAL (RED)	21		17	0.50		178.5
(YELLOW)	21		25	0.25		131.3
(GREEN)	21		15	0.25		78.8
ARROW	8		12	0.10		9.6
PED. SIGNAL	8		25	1.00		200.0
CONTROLLER	1		100	1.00		100.0
ILLUM. SIGN	4		25	0.05		5.0
FLASHER			25	0.50		
ENERGY COST TO:						TOTAL= 703.2

VILLAGE OF ORLAND PARK  
14700 SOUTH RAVINIA AVE.

ENERGY SUPPLY: CONTACT: KATHRYN SUGRUE  
PHONE: (708) 235-2337  
COMPANY: COMMONWEALTH EDISON

FILE NAME = D160M61-SHT-TS65.dgn	USER NAME = Anthony.Plutz	DESIGNED - MRF	REVISIONS
SHT.PLAN	PLOT SCALE = 48.0000' / in.	CHECKED - MJL	REVISIONS
	PLOT DATE = 3/14/2013	DATE - 03/13/2013	REVISIONS

**CONSTRUCTION NOTES:**

- ① PROTECTED RIGHT TURN ARROWS SHALL NOT BE PROVIDED, HOWEVER, A 7 CONDUCTOR CABLE SHALL BE INSTALLED AS SHOWN (FOR FUTURE USE).

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

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

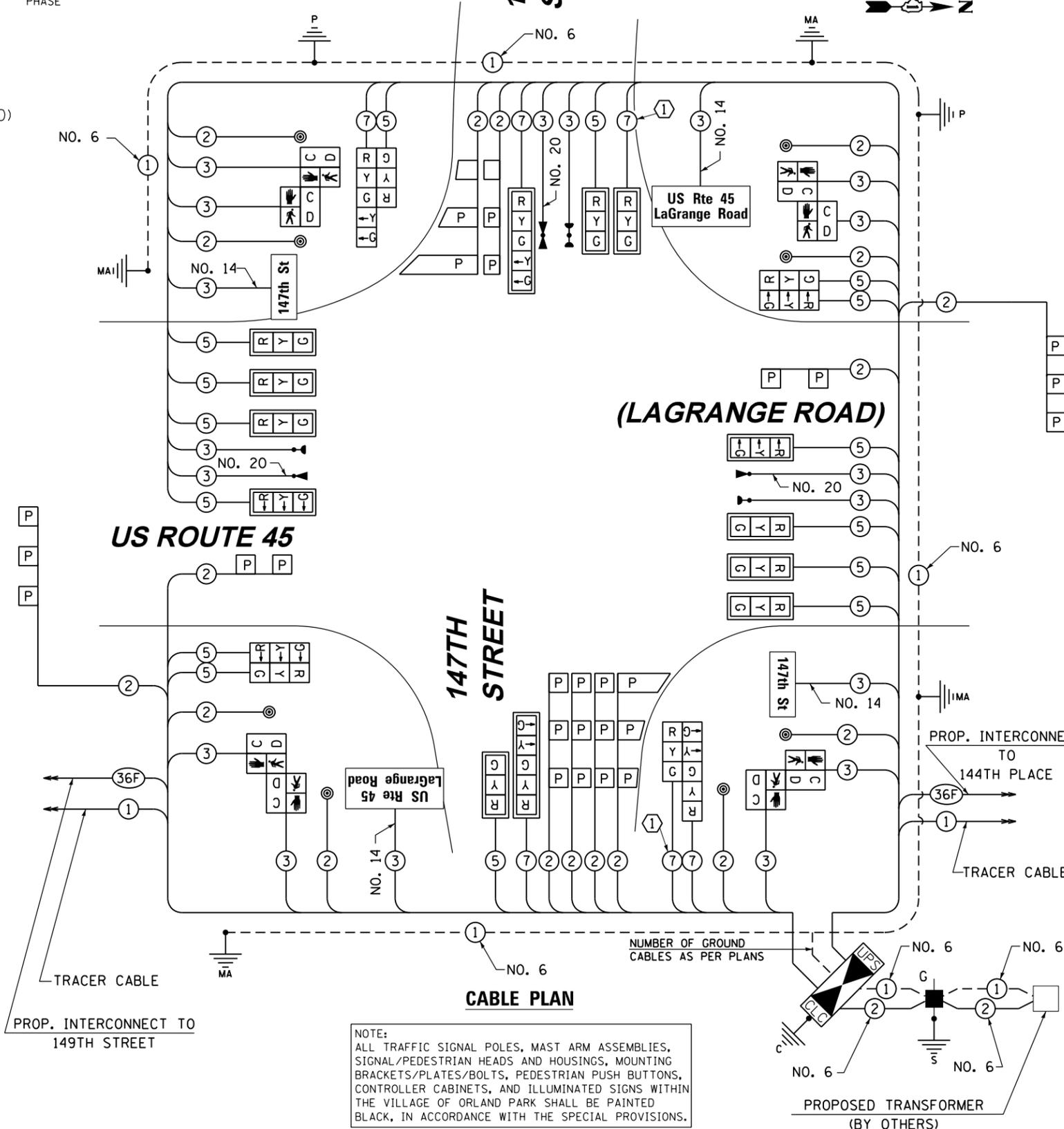
THE END OF THE TRACER CABLE SHALL BE CONTINUOUS AND EXTEND INTO THE CONTROLLER CABINET.

**SCHEDULE OF QUANTITIES**

ITEM	UNIT	TOTAL
SIGN PANEL - TYPE 1	SO FT	60
SERVICE INSTALLATION - GROUND MOUNTED	EACH	1
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	857
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2 1/2" DIA.	FOOT	53
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	25
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3 1/2" DIA.	FOOT	37
UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	512
HANDHOLE	EACH	4
HEAVY-DUTY HANDHOLE	EACH	4
DOUBLE HANDHOLE	EACH	2
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1
UNINTERRUPTIBLE POWER SUPPLY, SPECIAL	EACH	1
TRANSCEIVER - FIBER OPTIC	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	1472
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	2268
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	3384
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	1152
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	1857
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	64
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1 C	FOOT	672
TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 44 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 52 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 58 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 64 FT.	EACH	1
CONCRETE FOUNDATION, TYPE A	FOOT	8
CONCRETE FOUNDATION, TYPE C	FOOT	4
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	28
CONCRETE FOUNDATION, TYPE E 42-INCH DIAMETER	FOOT	42
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	11
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	2
SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED	EACH	2
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	13
INDUCTIVE LOOP DETECTOR	EACH	10
DETECTOR LOOP, TYPE I	FOOT	55
PERFORMED DETECTOR LOOP	FOOT	969
* LIGHT DETECTOR	EACH	3
* LIGHT DETECTOR AMPLIFIER	EACH	1
PEDESTRIAN PUSH-BUTTON	EACH	8
TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING HANDHOLE	EACH	9
REMOVE EXISTING CONCRETE FOUNDATION	EACH	9
* ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED	FOOT	740
** LED INTERNALLY ILLUMINATED STREET NAME SIGN	EACH	4
ELECTRIC SERVICE DISCONNECT, LIGHTING AND TRAFFIC SIGNAL	EACH	1
TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1

- \* 100% COST TO ORLAND FIRE PROTECTION DISTRICT
- \*\* 100% COST TO VILLAGE OF ORLAND PARK

NOTE: NEW PERMANENT SERVICE INSTALLATIONS WITH ILLUMINATED SIGNS AND/OR COMBINATION MAST ARM SIGNAL POLES SHALL BE METERED.



NOTE: ALL TRAFFIC SIGNAL POLES, MAST ARM ASSEMBLIES, SIGNAL/PEDESTRIAN HEADS AND HOUSINGS, MOUNTING BRACKETS/PLATES/BOLTS, PEDESTRIAN PUSH BUTTONS, CONTROLLER CABINETS, AND ILLUMINATED SIGNS WITHIN THE VILLAGE OF ORLAND PARK SHALL BE PAINTED BLACK, IN ACCORDANCE WITH THE SPECIAL PROVISIONS.

**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**

**SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE US 45 (LAGRANGE ROAD) AND 147TH STREET**

SCALE: N.T.S. SHEET 1 OF 1 SHEETS STA. TO STA.

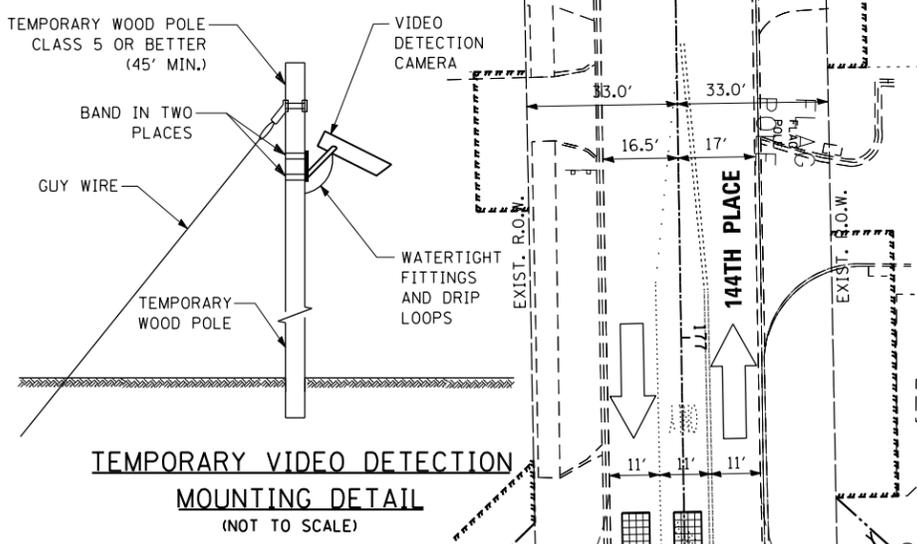
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	388
TD-65			CONTRACT NO.	60M61
ILLINOIS FED. AID PROJECT				

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

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

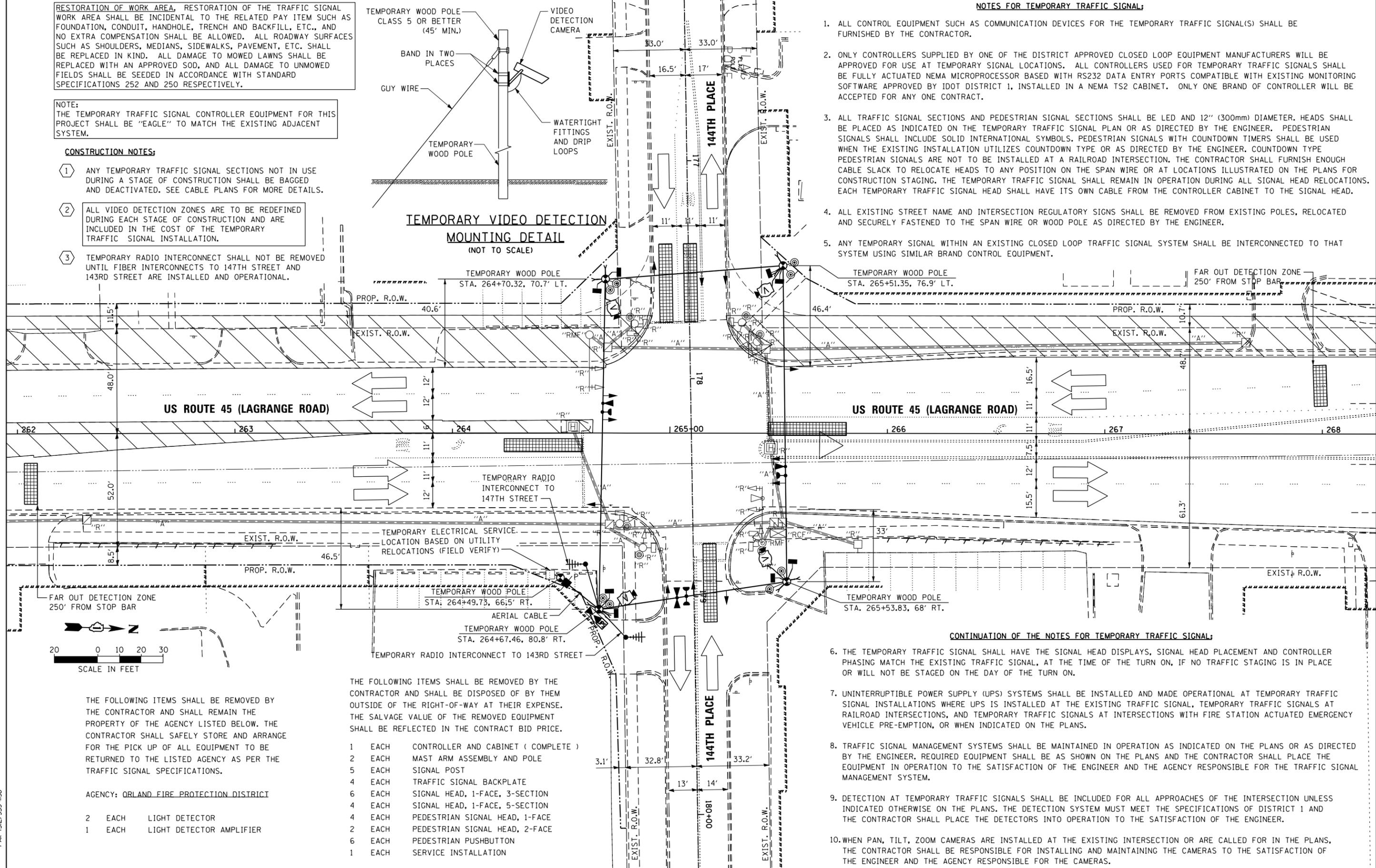
**CONSTRUCTION NOTES:**

- 1 ANY TEMPORARY TRAFFIC SIGNAL SECTIONS NOT IN USE DURING A STAGE OF CONSTRUCTION SHALL BE BAGGED AND DEACTIVATED. SEE CABLE PLANS FOR MORE DETAILS.
- 2 ALL VIDEO DETECTION ZONES ARE TO BE REDEFINED DURING EACH STAGE OF CONSTRUCTION AND ARE INCLUDED IN THE COST OF THE TEMPORARY TRAFFIC SIGNAL INSTALLATION.
- 3 TEMPORARY RADIO INTERCONNECT SHALL NOT BE REMOVED UNTIL FIBER INTERCONNECTS TO 147TH STREET AND 143RD STREET ARE INSTALLED AND OPERATIONAL.



**NOTES FOR TEMPORARY TRAFFIC SIGNAL:**

1. ALL CONTROL EQUIPMENT SUCH AS COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNAL(S) SHALL BE FURNISHED BY THE CONTRACTOR.
2. ONLY CONTROLLERS SUPPLIED BY ONE OF THE DISTRICT APPROVED CLOSED LOOP EQUIPMENT MANUFACTURERS WILL BE APPROVED FOR USE AT TEMPORARY SIGNAL LOCATIONS. ALL CONTROLLERS USED FOR TEMPORARY TRAFFIC SIGNALS SHALL BE FULLY ACTUATED NEMA MICROPROCESSOR BASED WITH RS232 DATA ENTRY PORTS COMPATIBLE WITH EXISTING MONITORING SOFTWARE APPROVED BY IDOT DISTRICT 1, INSTALLED IN A NEMA TS2 CABINET. ONLY ONE BRAND OF CONTROLLER WILL BE ACCEPTED FOR ANY ONE CONTRACT.
3. ALL TRAFFIC SIGNAL SECTIONS AND PEDESTRIAN SIGNAL SECTIONS SHALL BE LED AND 12" (300mm) DIAMETER. HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. PEDESTRIAN SIGNALS SHALL INCLUDE SOLID INTERNATIONAL SYMBOLS. PEDESTRIAN SIGNALS WITH COUNTDOWN TIMERS SHALL BE USED WHEN THE EXISTING INSTALLATION UTILIZES COUNTDOWN TYPE OR AS DIRECTED BY THE ENGINEER. COUNTDOWN TYPE PEDESTRIAN SIGNALS ARE NOT TO BE INSTALLED AT A RAILROAD INTERSECTION. THE CONTRACTOR SHALL FURNISH ENOUGH CABLE SLACK TO RELOCATE HEADS TO ANY POSITION ON THE SPAN WIRE OR AT LOCATIONS ILLUSTRATED ON THE PLANS FOR CONSTRUCTION STAGING. THE TEMPORARY TRAFFIC SIGNAL SHALL REMAIN IN OPERATION DURING ALL SIGNAL HEAD RELOCATIONS. EACH TEMPORARY TRAFFIC SIGNAL HEAD SHALL HAVE ITS OWN CABLE FROM THE CONTROLLER CABINET TO THE SIGNAL HEAD.
4. ALL EXISTING STREET NAME AND INTERSECTION REGULATORY SIGNS SHALL BE REMOVED FROM EXISTING POLES, RELOCATED AND SECURELY FASTENED TO THE SPAN WIRE OR WOOD POLE AS DIRECTED BY THE ENGINEER.
5. ANY TEMPORARY SIGNAL WITHIN AN EXISTING CLOSED LOOP TRAFFIC SIGNAL SYSTEM SHALL BE INTERCONNECTED TO THAT SYSTEM USING SIMILAR BRAND CONTROL EQUIPMENT.



**CONTINUATION OF THE NOTES FOR TEMPORARY TRAFFIC SIGNAL:**

6. THE TEMPORARY TRAFFIC SIGNAL SHALL HAVE THE SIGNAL HEAD DISPLAYS, SIGNAL HEAD PLACEMENT AND CONTROLLER PHASING MATCH THE EXISTING TRAFFIC SIGNAL, AT THE TIME OF THE TURN ON, IF NO TRAFFIC STAGING IS IN PLACE OR WILL NOT BE STAGED ON THE DAY OF THE TURN ON.
7. UNINTERRUPTIBLE POWER SUPPLY (UPS) SYSTEMS SHALL BE INSTALLED AND MADE OPERATIONAL AT TEMPORARY TRAFFIC SIGNAL INSTALLATIONS WHERE UPS IS INSTALLED AT THE EXISTING TRAFFIC SIGNAL. TEMPORARY TRAFFIC SIGNALS AT RAILROAD INTERSECTIONS, AND TEMPORARY TRAFFIC SIGNALS AT INTERSECTIONS WITH FIRE STATION ACTUATED EMERGENCY VEHICLE PRE-EMPTION, OR WHEN INDICATED ON THE PLANS.
8. TRAFFIC SIGNAL MANAGEMENT SYSTEMS SHALL BE MAINTAINED IN OPERATION AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER. REQUIRED EQUIPMENT SHALL BE AS SHOWN ON THE PLANS AND THE CONTRACTOR SHALL PLACE THE EQUIPMENT IN OPERATION TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE TRAFFIC SIGNAL MANAGEMENT SYSTEM.
9. DETECTION AT TEMPORARY TRAFFIC SIGNALS SHALL BE INCLUDED FOR ALL APPROACHES OF THE INTERSECTION UNLESS INDICATED OTHERWISE ON THE PLANS. THE DETECTION SYSTEM MUST MEET THE SPECIFICATIONS OF DISTRICT 1 AND THE CONTRACTOR SHALL PLACE THE DETECTORS INTO OPERATION TO THE SATISFACTION OF THE ENGINEER.
10. WHEN PAN, TILT, ZOOM CAMERAS ARE INSTALLED AT THE EXISTING INTERSECTION OR ARE CALLED FOR IN THE PLANS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING AND MAINTAINING THE CAMERAS TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE CAMERAS.

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

1	EACH	CONTROLLER AND CABINET ( COMPLETE )
2	EACH	MAST ARM ASSEMBLY AND POLE
5	EACH	SIGNAL POST
4	EACH	TRAFFIC SIGNAL BACKPLATE
6	EACH	SIGNAL HEAD, 1-FACE, 3-SECTION
4	EACH	SIGNAL HEAD, 1-FACE, 5-SECTION
4	EACH	PEDESTRIAN SIGNAL HEAD, 1-FACE
2	EACH	PEDESTRIAN SIGNAL HEAD, 2-FACE
6	EACH	PEDESTRIAN PUSHBUTTON
1	EACH	SERVICE INSTALLATION

THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL REMAIN THE PROPERTY OF THE AGENCY LISTED BELOW. THE CONTRACTOR SHALL SAFELY STORE AND ARRANGE FOR THE PICK UP OF ALL EQUIPMENT TO BE RETURNED TO THE LISTED AGENCY AS PER THE TRAFFIC SIGNAL SPECIFICATIONS.

AGENCY: ORLAND FIRE PROTECTION DISTRICT

2	EACH	LIGHT DETECTOR
1	EACH	LIGHT DETECTOR AMPLIFIER

100 S. WACKER DR.  
 100 S. WACKER DR.  
 CHICAGO, IL 60606  
 TEL (312) 939-1000  
 FAX (312) 939-4998



FILE NAME = D160M61-SHT-TS66.dgn  
SHT.PLAN

USER NAME = Anthony.Plutz  
PLOT SCALE = 40.0000' / in.  
PLOT DATE = 3/14/2013

DESIGNED - MRF  
DRAWN - MRF  
CHECKED - MJL  
DATE - 03/13/2013

REVISED -  
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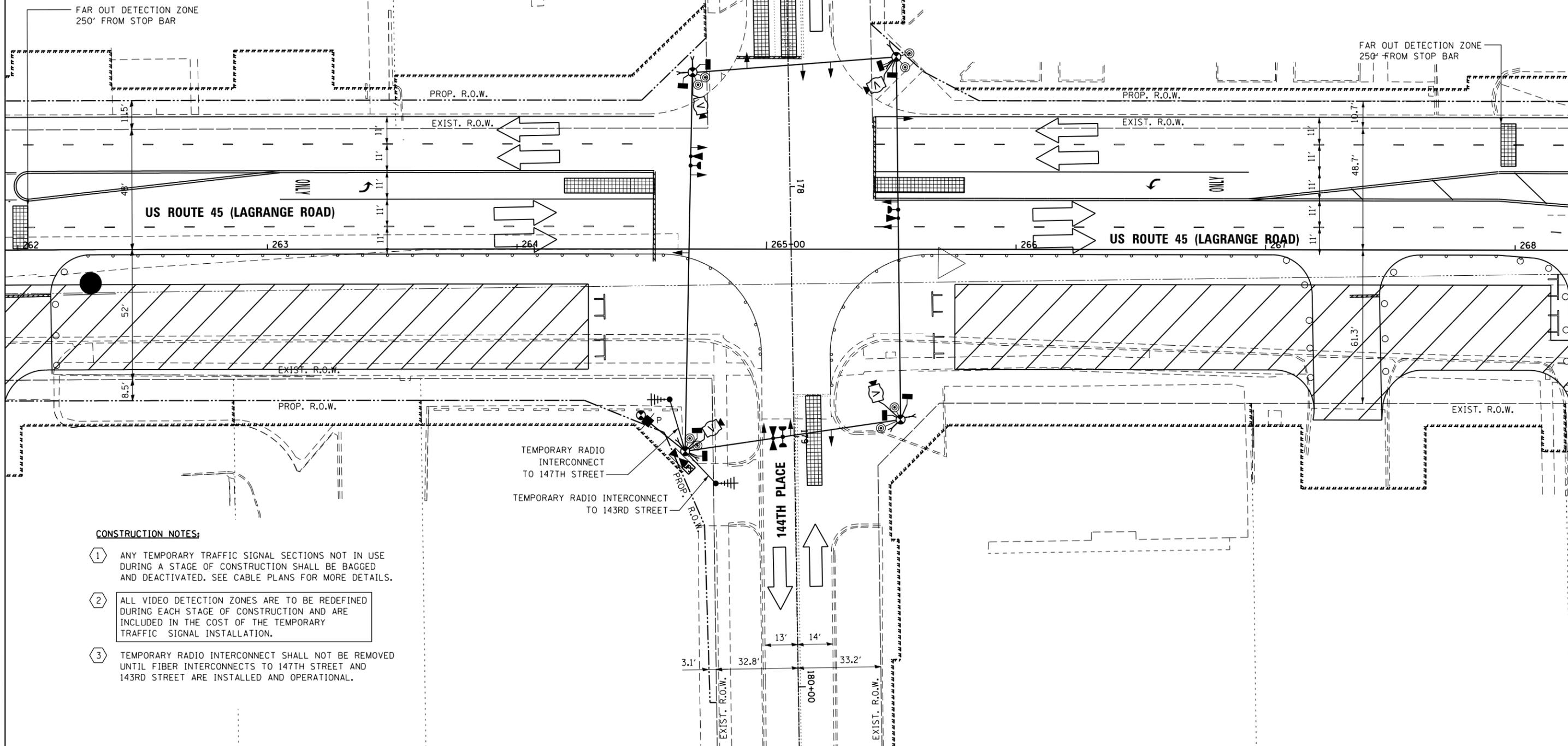
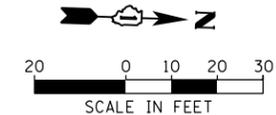
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL INSTALLATION AND REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT PLAN - PRE-STAGE  
US 45 (LAGRANGE ROAD) AND 144TH PLACE  
SCALE: 1"=20' SHEET 1 OF 6 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	389
TD-66		CONTRACT NO. 60M61		
ILLINOIS FED. AID PROJECT				

RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, 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 SEEDING IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

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



**CONSTRUCTION NOTES:**

- 1 ANY TEMPORARY TRAFFIC SIGNAL SECTIONS NOT IN USE DURING A STAGE OF CONSTRUCTION SHALL BE BAGGED AND DEACTIVATED. SEE CABLE PLANS FOR MORE DETAILS.
- 2 ALL VIDEO DETECTION ZONES ARE TO BE REDEFINED DURING EACH STAGE OF CONSTRUCTION AND ARE INCLUDED IN THE COST OF THE TEMPORARY TRAFFIC SIGNAL INSTALLATION.
- 3 TEMPORARY RADIO INTERCONNECT SHALL NOT BE REMOVED UNTIL FIBER INTERCONNECTS TO 147TH STREET AND 143RD STREET ARE INSTALLED AND OPERATIONAL.

100 S. WACKER DR.  
 11TH FLOOR  
 CHICAGO, IL 60606  
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**URS**

FILE NAME =	USER NAME = Anthony.Plutz	DESIGNED - MRF	REVISED -
D160M61-SHT-TS67.dgn		DRAWN - MRF	REVISED -
		CHECKED - MJL	REVISED -
SHT.PLAN	PLOT DATE = 3/14/2013	DATE - 03/13/2013	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

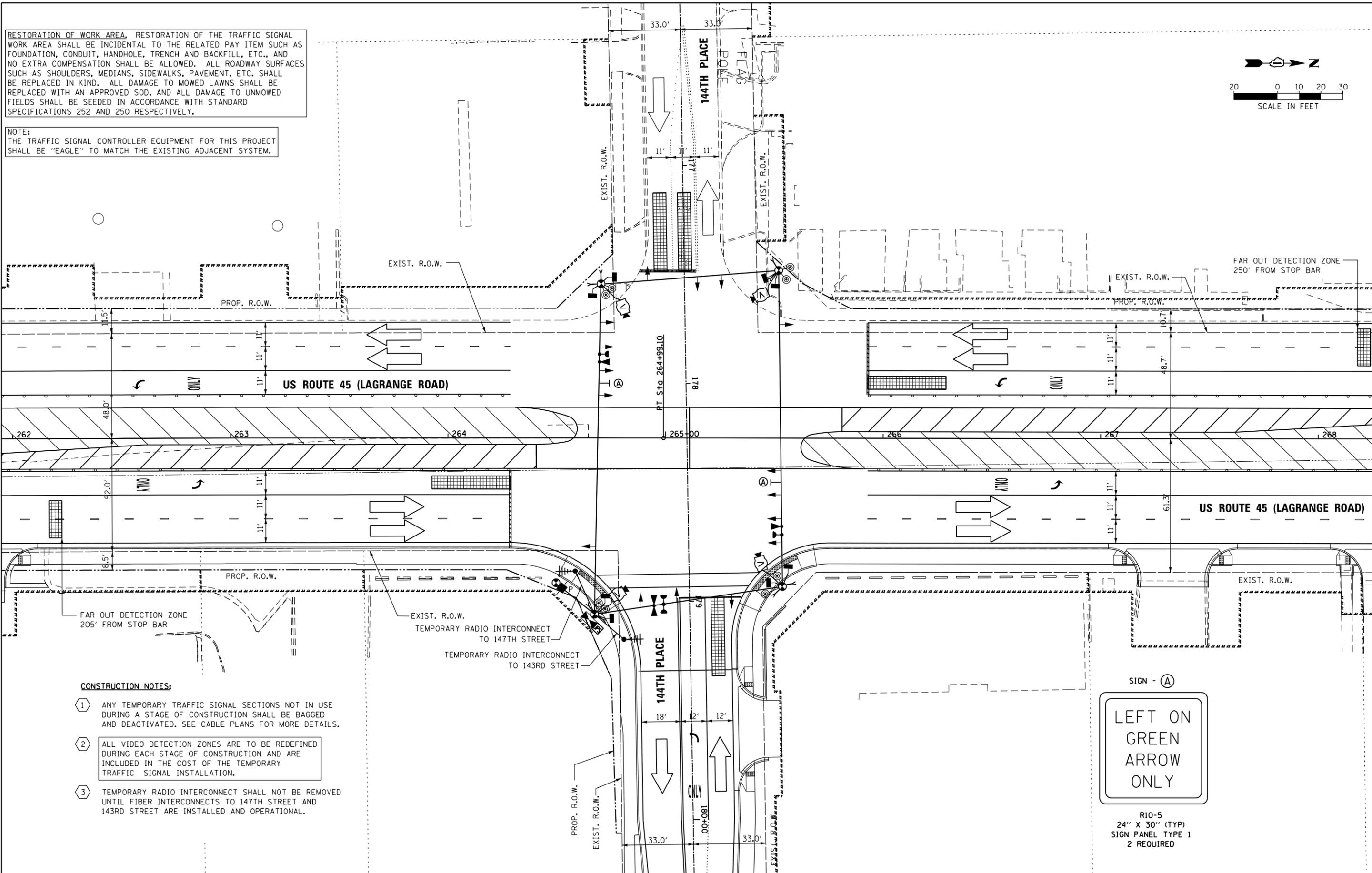
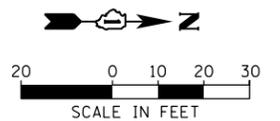
**TEMPORARY TRAFFIC SIGNAL INSTALLATION - STAGE 1  
US 45 (LAGRANGE ROAD) AND 144TH PLACE**

SCALE: 1"=20' SHEET 2 OF 6 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	390
<b>TD-67</b>			CONTRACT NO. 60M61	
ILLINOIS FED. AID PROJECT				

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

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



**CONSTRUCTION NOTES:**

- 1 ANY TEMPORARY TRAFFIC SIGNAL SECTIONS NOT IN USE DURING A STAGE OF CONSTRUCTION SHALL BE BAGGED AND DEACTIVATED. SEE CABLE PLANS FOR MORE DETAILS.
- 2 ALL VIDEO DETECTION ZONES ARE TO BE REDEFINED DURING EACH STAGE OF CONSTRUCTION AND ARE INCLUDED IN THE COST OF THE TEMPORARY TRAFFIC SIGNAL INSTALLATION.
- 3 TEMPORARY RADIO INTERCONNECT SHALL NOT BE REMOVED UNTIL FIBER INTERCONNECTS TO 147TH STREET AND 143RD STREET ARE INSTALLED AND OPERATIONAL.

100 S. WACKER DR.  
 SUITE 600  
 CHICAGO, IL 60606  
 TEL (312) 939-1000  
 FAX (312) 939-4998  
**URS**

FILE NAME = D160M61-SHT-TS68.dgn	USER NAME = Anthony.Plutz	DESIGNED - MRF	REVISED -
		DRAWN - MRF	REVISED -
		CHECKED - MJL	REVISED -
SHT.PLAN	PLOT DATE = 3/14/2013	DATE - 03/13/2013	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

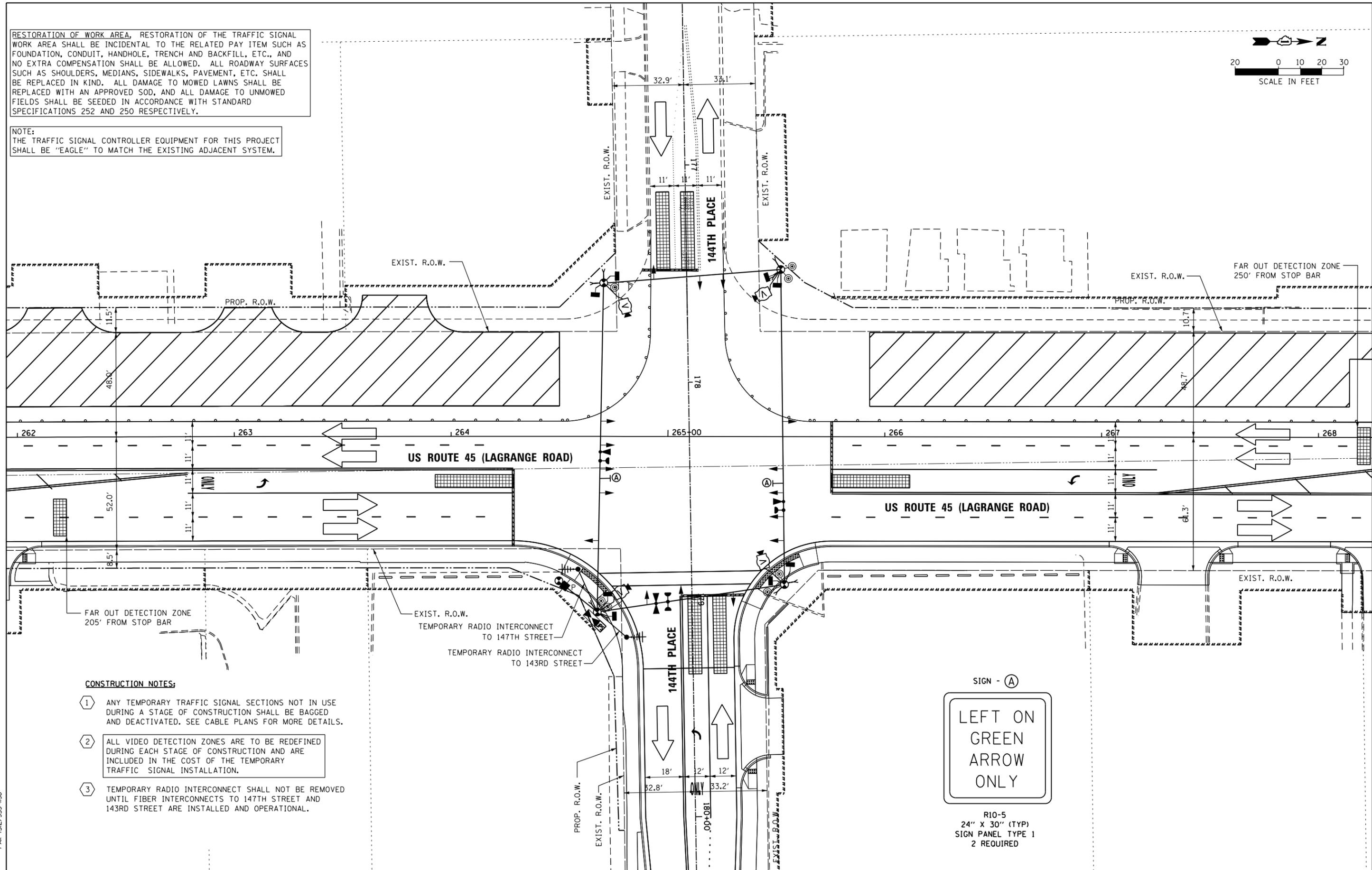
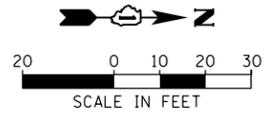
**TEMPORARY TRAFFIC SIGNAL INSTALLATION - STAGE 2  
US 45 (LAGRANGE ROAD) AND 144TH PLACE**

SCALE: 1"=20' SHEET 3 OF 6 SHEETS STA. TO STA.

F.A.P. RTE. 330	SECTION 103R-4	COUNTY COOK	TOTAL SHEETS 877	SHEET NO. 391
<b>TD-68</b>		CONTRACT NO. 60M61		
ILLINOIS FED. AID PROJECT				

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

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



**CONSTRUCTION NOTES:**

- 1 ANY TEMPORARY TRAFFIC SIGNAL SECTIONS NOT IN USE DURING A STAGE OF CONSTRUCTION SHALL BE BAGGED AND DEACTIVATED. SEE CABLE PLANS FOR MORE DETAILS.
- 2 ALL VIDEO DETECTION ZONES ARE TO BE REDEFINED DURING EACH STAGE OF CONSTRUCTION AND ARE INCLUDED IN THE COST OF THE TEMPORARY TRAFFIC SIGNAL INSTALLATION.
- 3 TEMPORARY RADIO INTERCONNECT SHALL NOT BE REMOVED UNTIL FIBER INTERCONNECTS TO 147TH STREET AND 143RD STREET ARE INSTALLED AND OPERATIONAL.



100 S. WACKER DR.  
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 CHICAGO, IL 60606  
 TEL (312) 939-1000  
 FAX (312) 939-4998  
**URS**

FILE NAME = D160M61-SHT-TS69.dgn	USER NAME = Anthony.Plutz	DESIGNED - MRF	REVISED -
		DRAWN - MRF	REVISED -
		CHECKED - MJL	REVISED -
SHT.PLAN	PLOT DATE = 3/14/2013	DATE - 03/13/2013	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

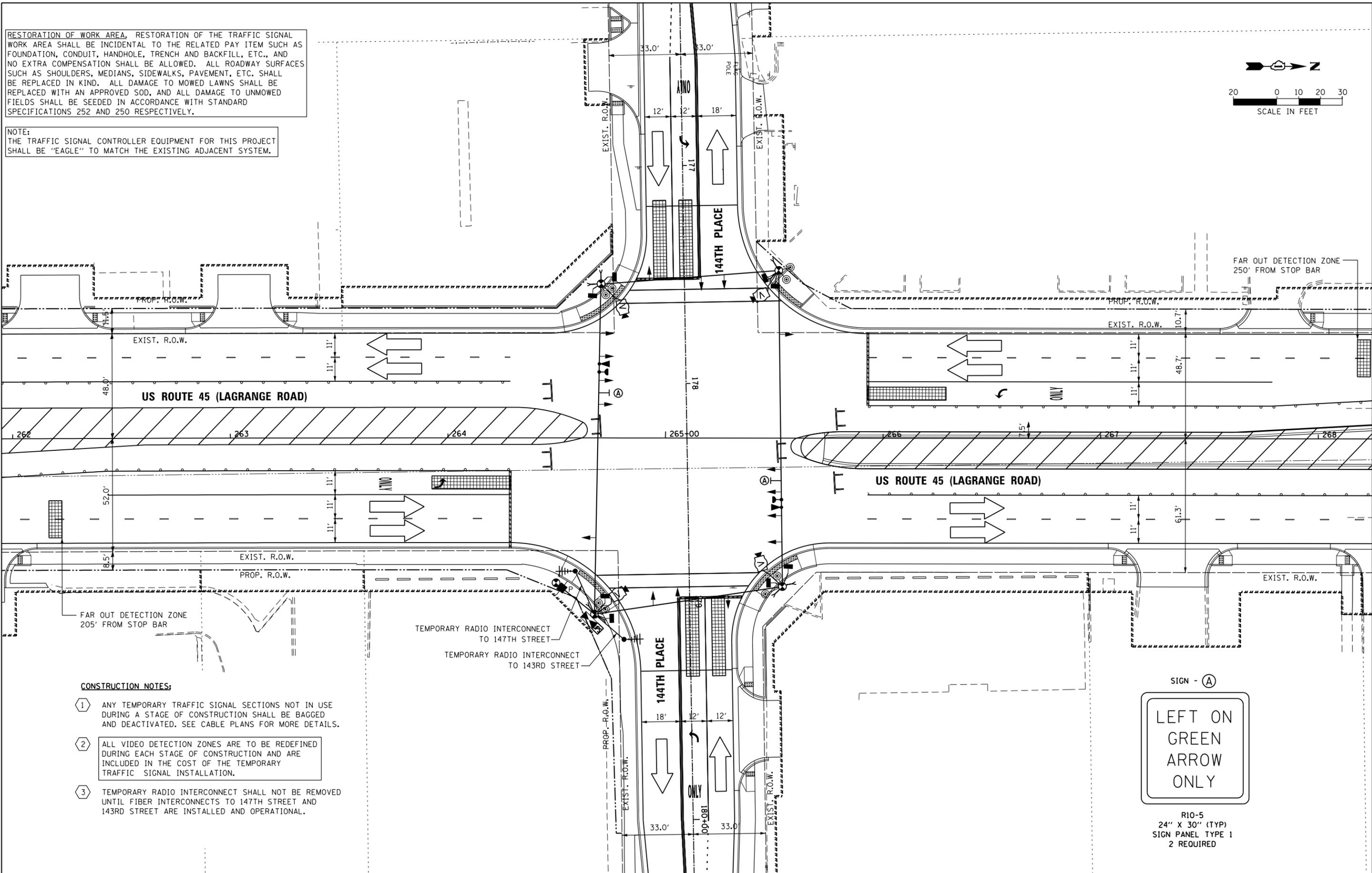
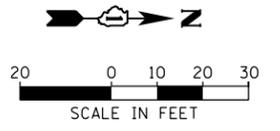
**TEMPORARY TRAFFIC SIGNAL INSTALLATION - STAGE 3  
US 45 (LAGRANGE ROAD) AND 144TH PLACE**

SCALE: 1"=20' SHEET 4 OF 6 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	392
<b>TD-69</b>			CONTRACT NO. 60M61	
ILLINOIS FED. AID PROJECT				

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

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



**CONSTRUCTION NOTES:**

- 1 ANY TEMPORARY TRAFFIC SIGNAL SECTIONS NOT IN USE DURING A STAGE OF CONSTRUCTION SHALL BE BAGGED AND DEACTIVATED. SEE CABLE PLANS FOR MORE DETAILS.
- 2 ALL VIDEO DETECTION ZONES ARE TO BE REDEFINED DURING EACH STAGE OF CONSTRUCTION AND ARE INCLUDED IN THE COST OF THE TEMPORARY TRAFFIC SIGNAL INSTALLATION.
- 3 TEMPORARY RADIO INTERCONNECT SHALL NOT BE REMOVED UNTIL FIBER INTERCONNECTS TO 147TH STREET AND 143RD STREET ARE INSTALLED AND OPERATIONAL.



R10-5  
24" X 30" (TYP)  
SIGN PANEL TYPE 1  
2 REQUIRED

100 S. WACKER DR.  
 10TH FLOOR  
 CHICAGO, IL 60606  
 TEL (312) 939-1000  
 FAX (312) 939-4998  
**URS**

FILE NAME = D160M61-SHT-TS70.dgn	USER NAME = Anthony.Plutz	DESIGNED - MRF	REVISED -
		DRAWN - MRF	REVISED -
		CHECKED - MJL	REVISED -
SHT.PLAN	PLOT DATE = 3/14/2013	DATE - 03/13/2013	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TEMPORARY TRAFFIC SIGNAL INSTALLATION - STAGE 4  
US 45 (LAGRANGE ROAD) AND 144TH PLACE**

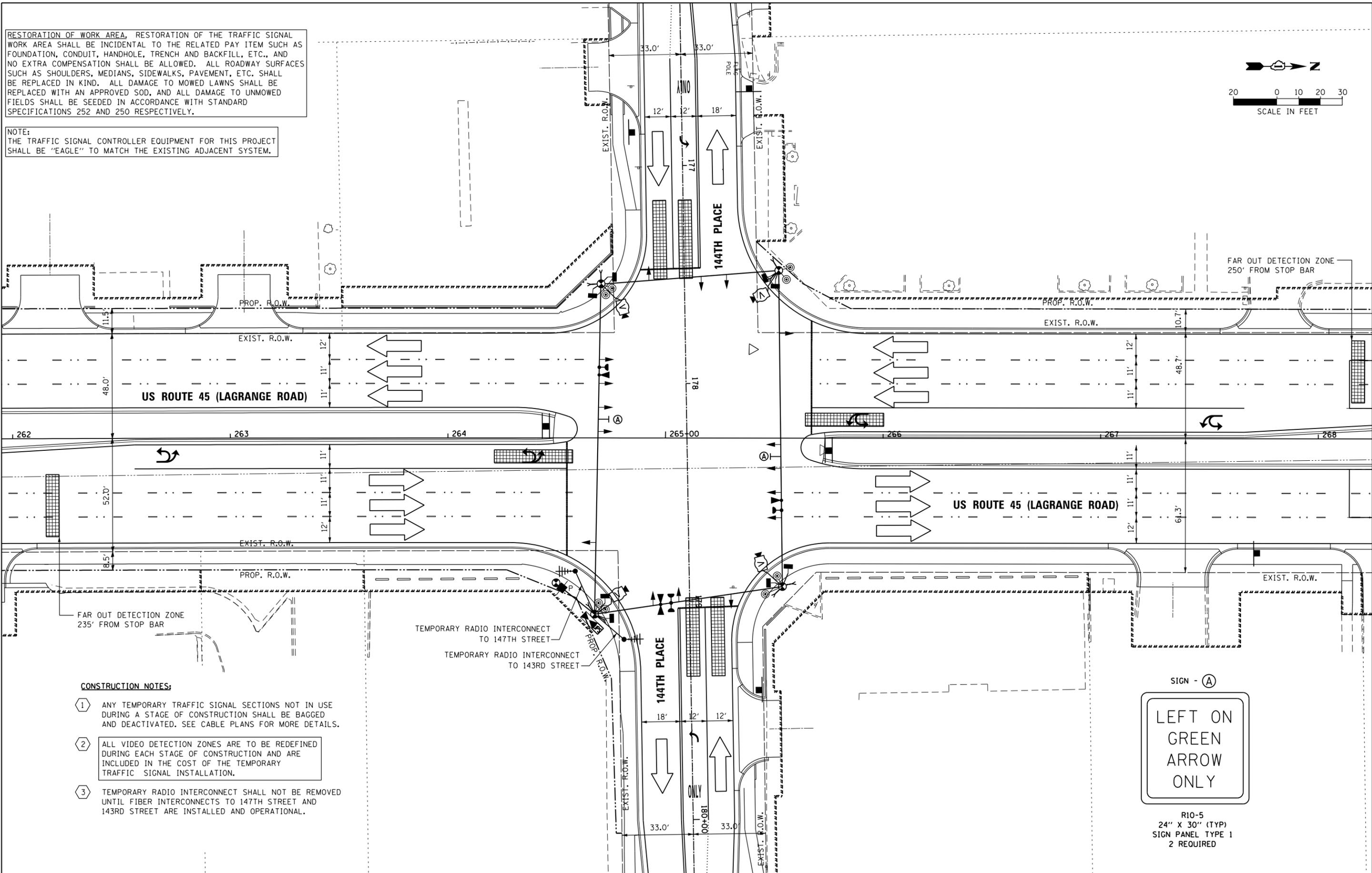
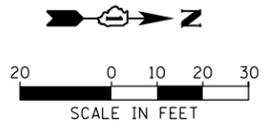
SCALE: 1"=20' SHEET 5 OF 6 SHEETS STA. TO STA.

F.A.P. RTE. 330	SECTION 103R-4	COUNTY COOK	TOTAL SHEETS 877	SHEET NO. 393
<b>TD-70</b>			CONTRACT NO. 60M61	

ILLINOIS FED. AID PROJECT

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

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



**CONSTRUCTION NOTES:**

- 1 ANY TEMPORARY TRAFFIC SIGNAL SECTIONS NOT IN USE DURING A STAGE OF CONSTRUCTION SHALL BE BAGGED AND DEACTIVATED. SEE CABLE PLANS FOR MORE DETAILS.
- 2 ALL VIDEO DETECTION ZONES ARE TO BE REDEFINED DURING EACH STAGE OF CONSTRUCTION AND ARE INCLUDED IN THE COST OF THE TEMPORARY TRAFFIC SIGNAL INSTALLATION.
- 3 TEMPORARY RADIO INTERCONNECT SHALL NOT BE REMOVED UNTIL FIBER INTERCONNECTS TO 147TH STREET AND 143RD STREET ARE INSTALLED AND OPERATIONAL.

100 S. WACKER DR.  
 10TH FLOOR  
 CHICAGO, IL 60606  
 TEL (312) 939-1000  
 FAX (312) 939-4998  
**URS**

FILE NAME = D160M61-SHT-TS71.dgn	USER NAME = Anthony.Plutz	DESIGNED - MRF	REVISED -
SHT.PLAN	PLOT SCALE = 48.0000' / in.	DRAWN - MRF	REVISED -
	PLOT DATE = 3/14/2013	CHECKED - MJL	REVISED -
		DATE - 03/13/2013	REVISED -

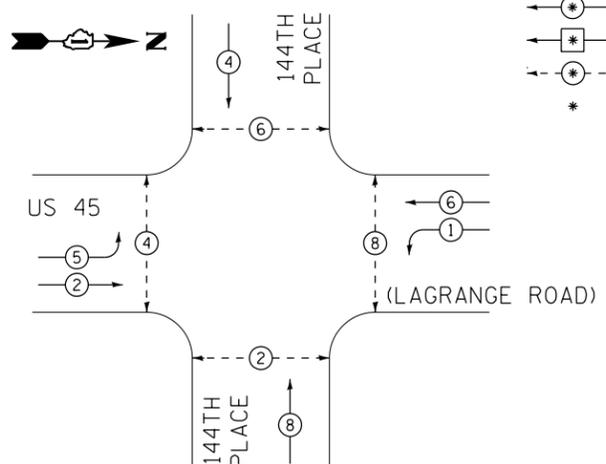
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TEMPORARY TRAFFIC SIGNAL INSTALLATION - FINAL GEOMETRICS  
US 45 (LAGRANGE ROAD) AND 144TH PLACE**

SCALE: 1"=20' SHEET 6 OF 6 SHEETS STA. TO STA.

F.A.P. RTE. 330	SECTION 103R-4	COUNTY COOK	TOTAL SHEETS 877	SHEET NO. 394
<b>TD-71</b>		CONTRACT NO. 60M61		
ILLINOIS FED. AID PROJECT				

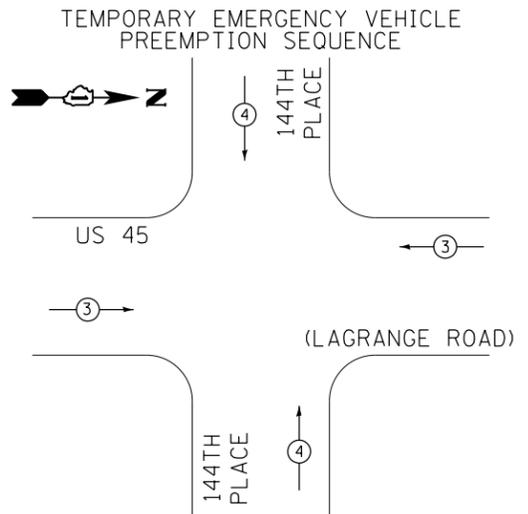
TEMPORARY CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM LEGEND

- ⊙ (with star) DUAL ENTRY PHASE
- ⊙ (with square) SINGLE ENTRY PHASE
- ⊙ (with arrow) PEDESTRIAN PHASE
- \* NUMBER REFERS TO ASSOCIATED PHASE

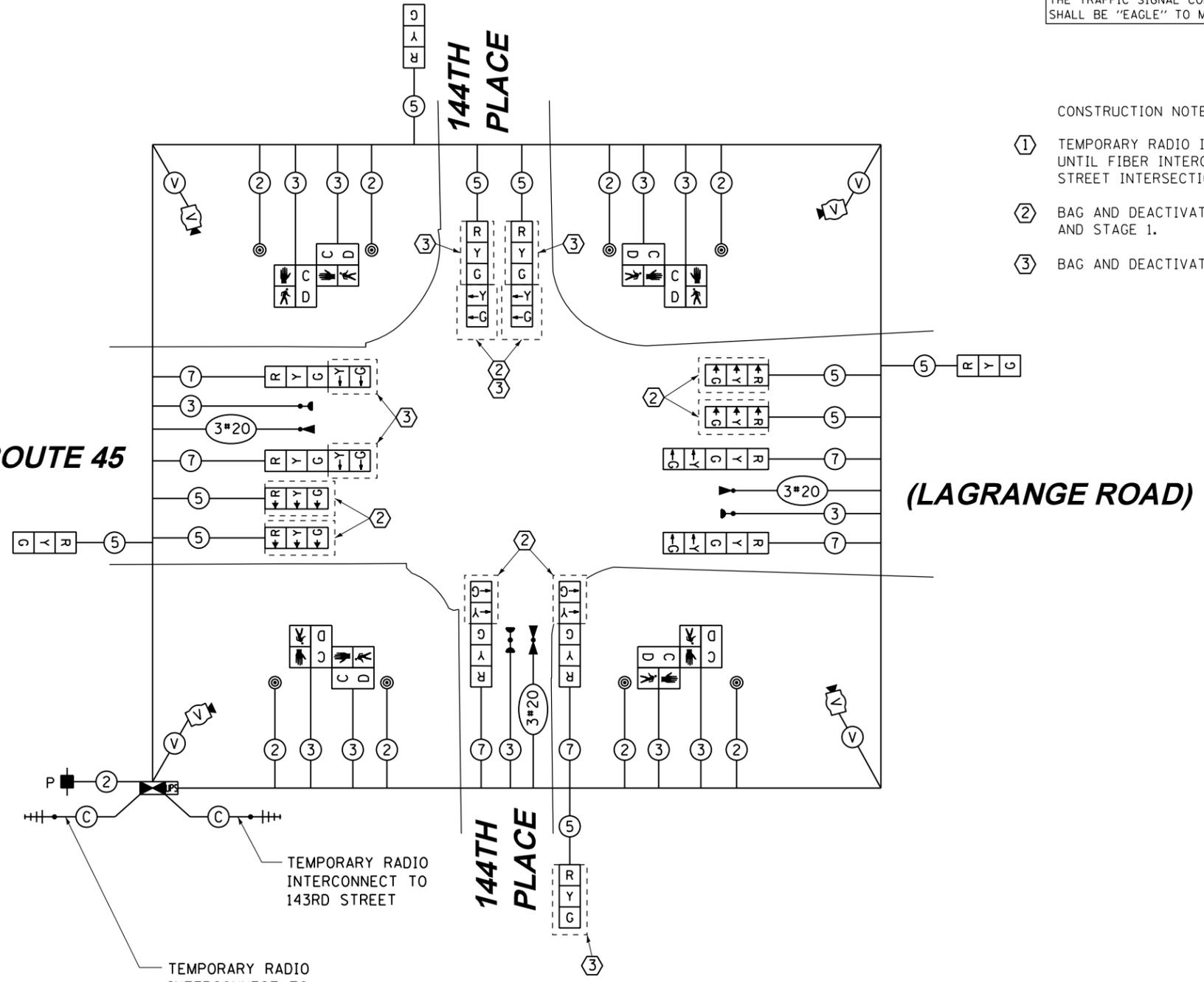
TEMPORARY PHASE DESIGNATION DIAGRAM



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

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE (INCAND.)	LED	% OPERATION	
SIGNAL (RED)	12	17		0.50	102.0
(YELLOW)	12	25		0.25	75.0
(GREEN)	12	15		0.25	45.0
ARROW	8	12		0.10	9.6
PED. SIGNAL	8	25		1.00	200.0
CONTROLLER	1	100		1.00	100.0
ILLUM. SIGN	--	25		0.05	0.0
VIDEO SYSTEM	1	150		1.00	150.0
FLASHER		25		0.50	
ENERGY COST TO:				TOTAL=	681.6

VILLAGE OF ORLAND PARK  
14700 SOUTH RAVINIA AVE.  
ENERGY SUPPLY: CONTACT: KATHRYN SUGRUE  
PHONE: (708) 235-2337  
COMPANY: COMMONWEALTH EDISON



TEMPORARY CABLE PLAN  
PRE-STAGE & STAGE 1

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

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

- CONSTRUCTION NOTES:
- ① TEMPORARY RADIO INTERCONNECT SHALL NOT BE REMOVED UNTIL FIBER INTERCONNECT TO 147TH STREET AND 143RD STREET INTERSECTIONS ARE INSTALLED AND OPERATIONAL.
  - ② BAG AND DEACTIVATE SIGNAL SECTION DURING PRE-STAGE AND STAGE 1.
  - ③ BAG AND DEACTIVATE SIGNAL SECTION DURING STAGE 1B.

100 S. WACKER DR.  
 SUITE 600  
 CHICAGO, IL 60606  
 TEL (312) 939-1000  
 FAX (312) 939-4998  
**URS**

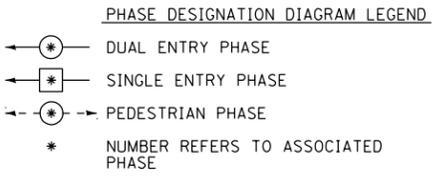
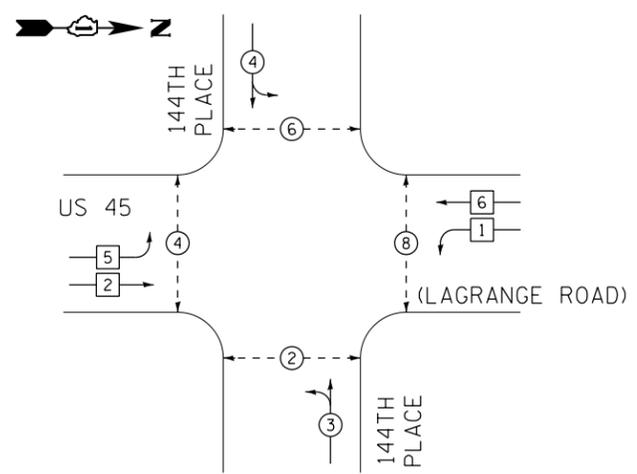
FILE NAME = D160M61-SHT-TS72.dgn	USER NAME = Anthony.Plutz	DESIGNED - MRF	REVISED -
SHT.PLAN	PLOT SCALE = 48.0000' / in.	DRAWN - MRF	REVISED -
	PLOT DATE = 3/14/2013	CHECKED - MJL	REVISED -
		DATE - 03/13/2013	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

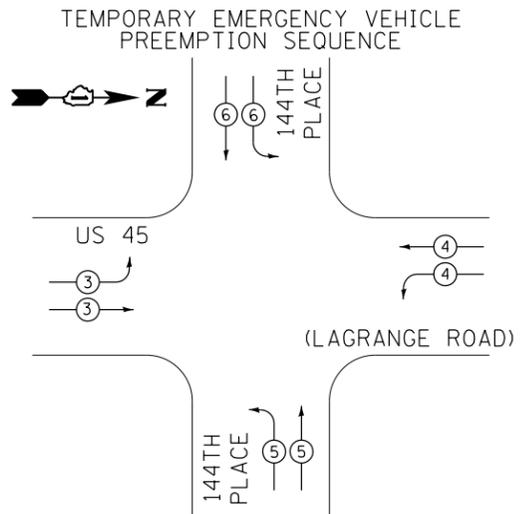
TEMPORARY CABLE PLAN, TEMPORARY PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE  
US 45 (LAGRANGE ROAD) AND 144TH PLACE - PRE-STAGE & STAGE 1  
SCALE: N.T.S. SHEET 1 OF 3 SHEETS STA. TO STA.

F.A.P. RTE. 330	SECTION 103R-4	COUNTY COOK	TOTAL SHEETS 877	SHEET NO. 395
TD-72		CONTRACT NO. 60M61		
ILLINOIS FED. AID PROJECT				

TEMPORARY CONTROLLER SEQUENCE



TEMPORARY PHASE DESIGNATION DIAGRAM



TEMPORARY EMERGENCY VEHICLE PREEMPTORS

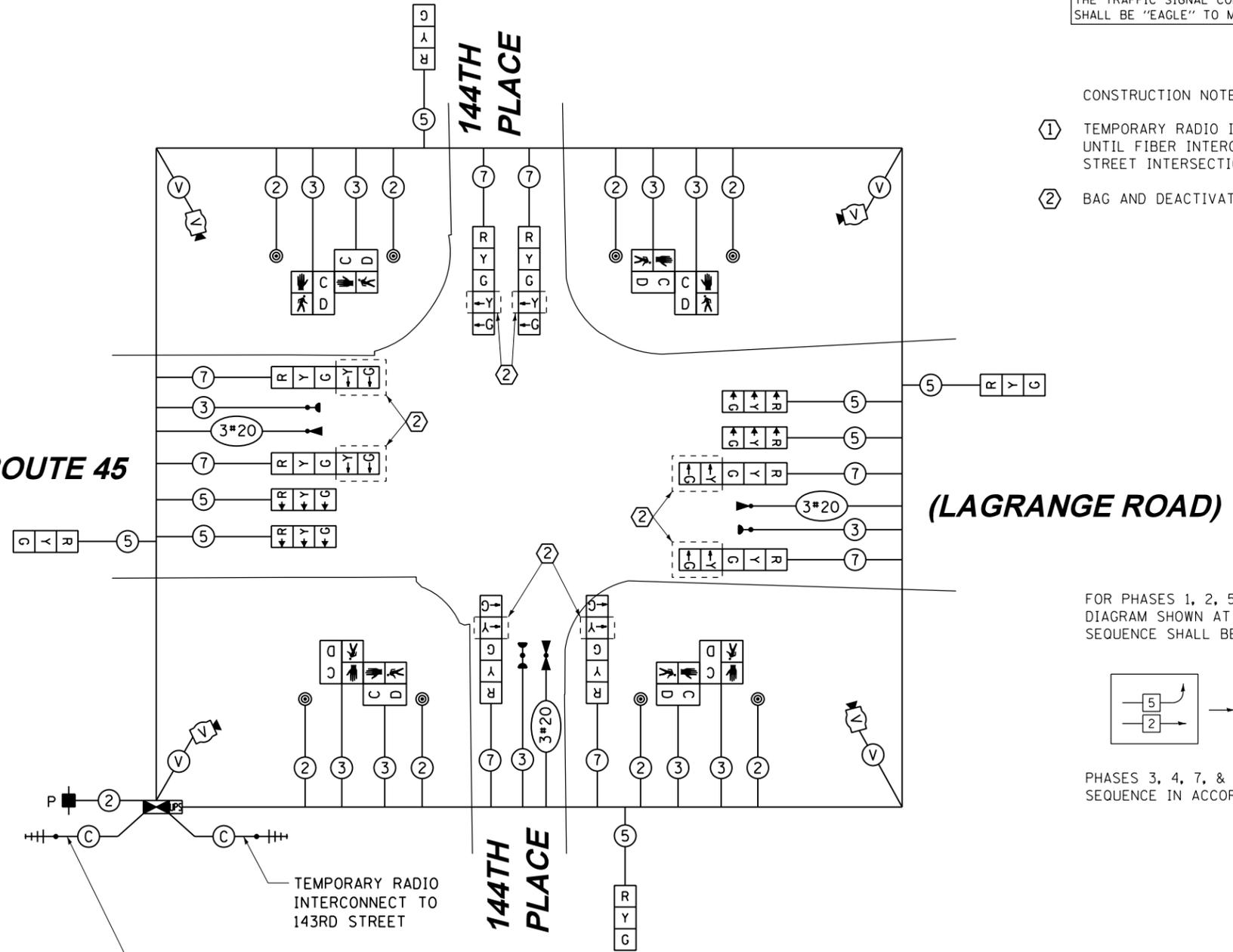
EMERGENCY VEHICLE PREEMPTORS	3	4	5	6
MOVEMENT	→	→	↑	↓

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

TYPE	NO. OF LAMPS	WATTAGE (INCAND.)	LED	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	16	17	0.50	0.50	136.0
(YELLOW)	16	25	0.25	100.0	100.0
(GREEN)	20	15	0.25	75.0	75.0
ARROW	--	12	0.10	0.0	0.0
PED. SIGNAL	8	25	1.00	200.0	200.0
CONTROLLER	1	100	1.00	100.0	100.0
ILLUM. SIGN	--	25	0.05	0.0	0.0
VIDEO SYSTEM	1	150	1.00	150.0	150.0
FLASHER		25	0.50		
ENERGY COST TO:				TOTAL=	761.0

VILLAGE OF ORLAND PARK  
14700 SOUTH RAVINIA AVE.

ENERGY SUPPLY: CONTACT: KATHRYN SUGRUE  
PHONE: (708) 235-2337  
COMPANY: COMMONWEALTH EDISON



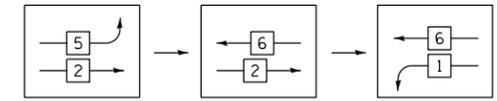
RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL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

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

CONSTRUCTION NOTES:

- ① TEMPORARY RADIO INTERCONNECT SHALL NOT BE REMOVED UNTIL FIBER INTERCONNECT TO 147TH STREET AND 143RD STREET INTERSECTIONS ARE INSTALLED AND OPERATIONAL.
- ② BAG AND DEACTIVATE SIGNAL SECTION DURING STAGE 2

FOR PHASES 1, 2, 5, & 6 IN THE PHASE DESIGNATION DIAGRAM SHOWN AT TOP LEFT, THE FOLLOWING PHASE SEQUENCE SHALL BE FOLLOWED DURING STAGE 2:



PHASES 3, 4, 7, & 8 SHALL FOLLOW THE STANDARD SEQUENCE IN ACCORDANCE WITH STATE STANDARD 857001

100 S. WACKER DR.  
 SUITE 600  
 CHICAGO, IL 60606  
 TEL (312) 939-1000  
 FAX (312) 939-4998  
**URS**

FILE NAME = D:\60M61-SHT-TS73.dgn	USER NAME = Anthony.Plutz	DESIGNED - MRF	REVISED -
SHT.PLAN	PLOT SCALE = 48.0000' / in.	DRAWN - MRF	REVISED -
	PLOT DATE = 3/14/2013	CHECKED - MJL	REVISED -
		DATE - 03/13/2013	REVISED -

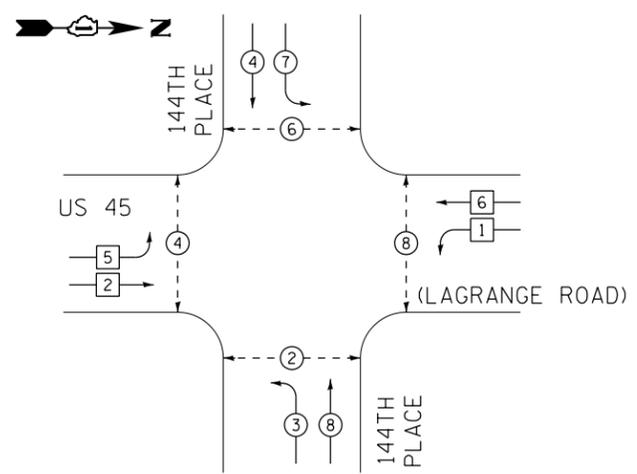
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TEMPORARY CABLE PLAN, TEMPORARY PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE  
US 45 (LAGRANGE ROAD) AND 144TH PLACE - STAGE 2

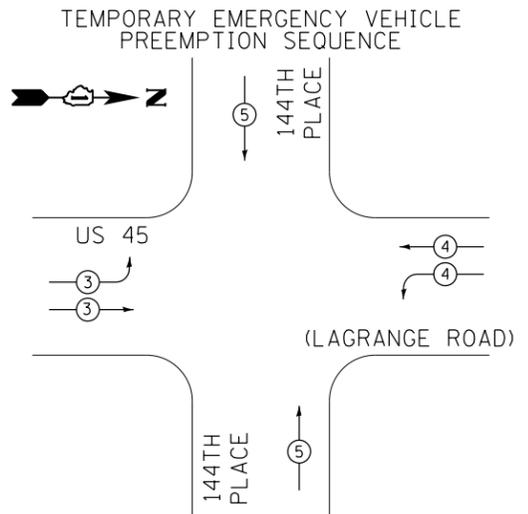
SCALE: N.T.S. SHEET 2 OF 3 SHEETS STA. TO STA.

F.A.P. RTE. 330	SECTION 103R-4	COUNTY COOK	TOTAL SHEETS 877	SHEET NO. 396
TD-73		CONTRACT NO. 60M61		
ILLINOIS FED. AID PROJECT				

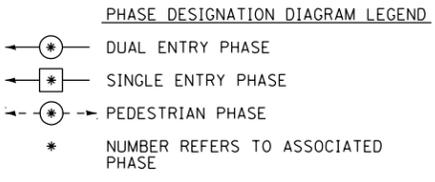
TEMPORARY CONTROLLER SEQUENCE



TEMPORARY PHASE DESIGNATION DIAGRAM



TEMPORARY EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTORS	3	4	5
MOVEMENT	↔	↔	↕



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

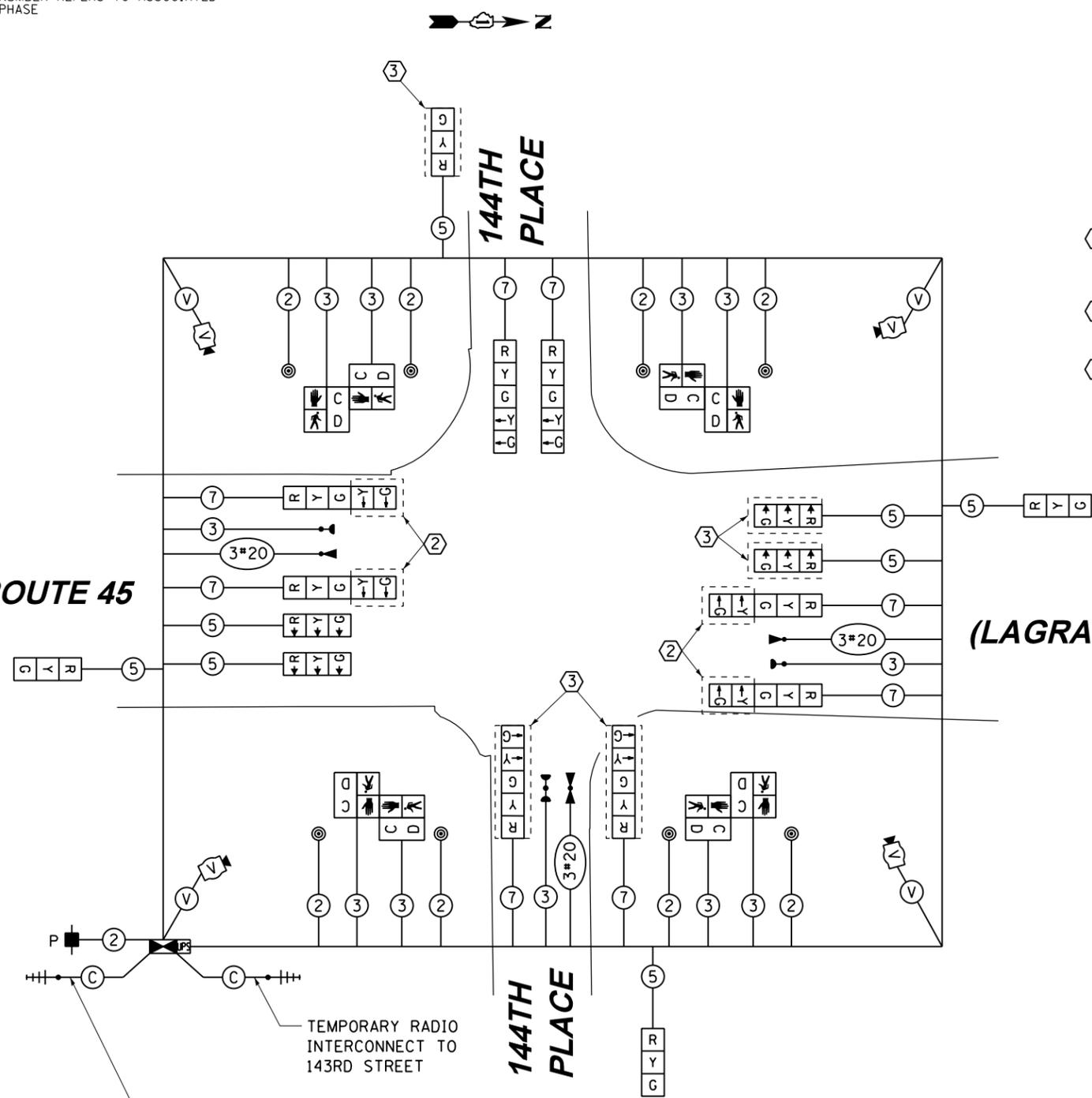
NOTE:  
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.

- CONSTRUCTION NOTES:
- ① TEMPORARY RADIO INTERCONNECT SHALL NOT BE REMOVED UNTIL FIBER INTERCONNECT TO 147TH STREET AND 143RD STREET INTERSECTIONS ARE INSTALLED AND OPERATIONAL.
  - ② BAG AND DEACTIVATE SIGNAL SECTION DURING STAGES 3, 4 AND FINAL GEOMETRICS
  - ③ BAG AND DEACTIVATE SIGNALS/SIGNAL SECTION DURING STAGE 3B.

US ROUTE 45

144TH PLACE

(LAGRANGE ROAD)



TEMPORARY CABLE PLAN  
STAGE 3, 4 & FINAL GEOMETRICS

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE (INCAND.)	LED	% OPERATION	
SIGNAL (RED)	16	17		0.50	136.0
(YELLOW)	16	25		0.25	100.0
(GREEN)	16	15		0.25	60.0
ARROW	8	12		0.10	9.6
PED. SIGNAL	8	25		1.00	200.0
CONTROLLER	1	100		1.00	100.0
ILLUM. SIGN	--	25		0.05	0.0
VIDEO SYSTEM	1	150		1.00	150.0
FLASHER		25		0.50	
ENERGY COST TO:				TOTAL=	755.6

VILLAGE OF ORLAND PARK  
14700 SOUTH RAVINIA AVE.  
ENERGY SUPPLY: CONTACT: KATHRYN SUGRUE  
PHONE: (708) 235-2337  
COMPANY: COMMONWEALTH EDISON

100 S. WACKER DR.  
SUITE 600  
CHICAGO, IL 60606  
TEL (312) 935-1000  
FAX (312) 935-4998  
**URS**

FILE NAME = D:\6061-SHT-TS73A.dgn	USER NAME = Anthony.Plutz	DESIGNED - MRF	REVISED -
SHT.PLAN	PLOT SCALE = 48.0000' / in.	DRAWN - MRF	REVISED -
	PLOT DATE = 3/14/2013	CHECKED - MJL	REVISED -
		DATE - 03/13/2013	REVISED -

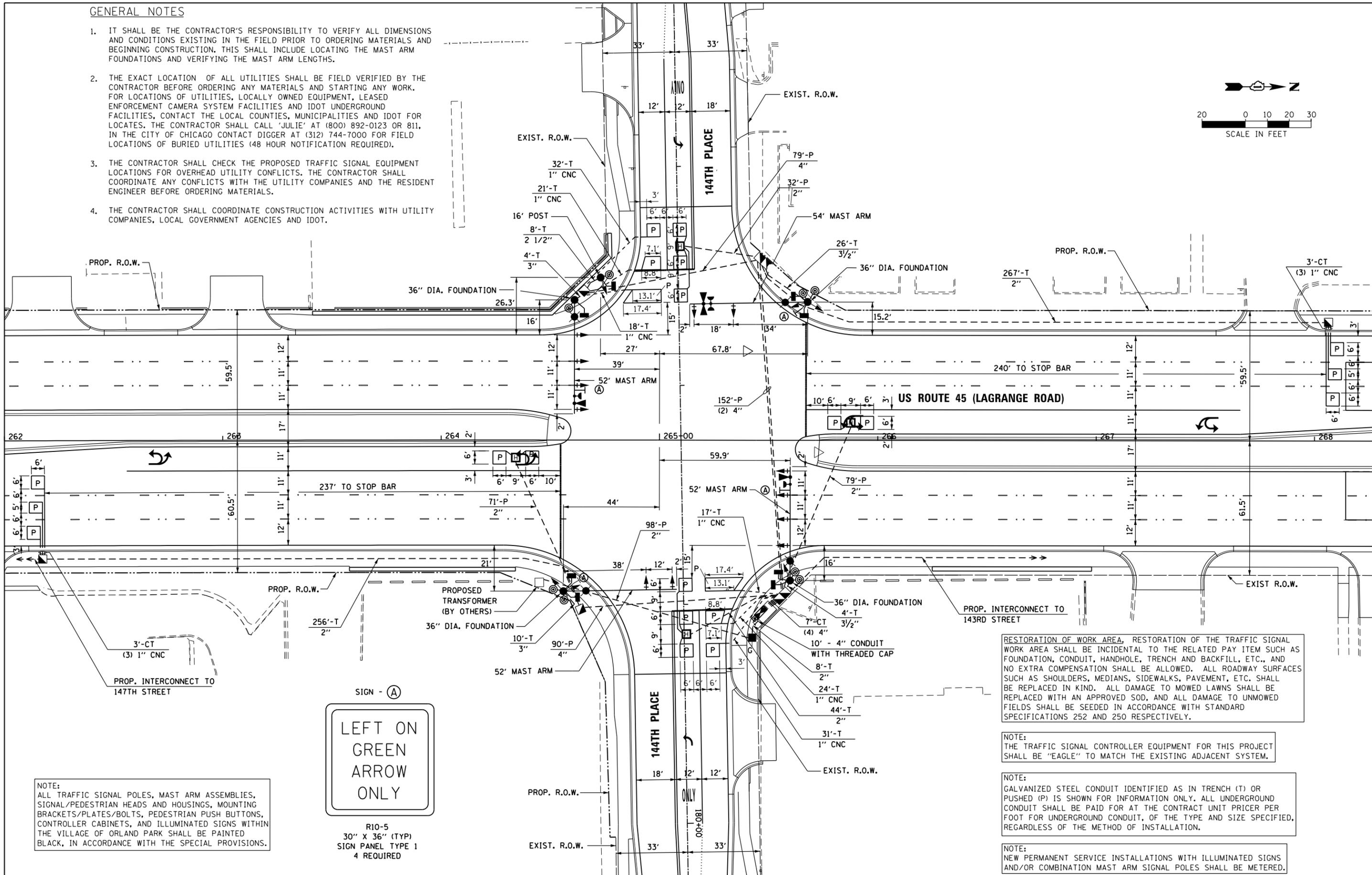
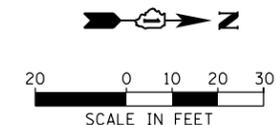
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TEMPORARY CABLE PLAN, TEMPORARY PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE  
US 45 (LAGRANGE ROAD) AND 144TH PLACE - STAGE 3, 4 & FINAL GEOMETRICS  
SCALE: N.T.S. SHEET 3 OF 3 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	397
TD-73A		CONTRACT NO. 60M61		
ILLINOIS FED. AID PROJECT				

**GENERAL NOTES**

1. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION. THIS SHALL INCLUDE LOCATING THE MAST ARM FOUNDATIONS AND VERIFYING THE MAST ARM LENGTHS.
2. THE EXACT LOCATION OF ALL UTILITIES SHALL BE FIELD VERIFIED BY THE CONTRACTOR BEFORE ORDERING ANY MATERIALS AND STARTING ANY WORK. FOR LOCATIONS OF UTILITIES, LOCALLY OWNED EQUIPMENT, LEASED ENFORCEMENT CAMERA SYSTEM FACILITIES AND IDOT UNDERGROUND FACILITIES, CONTACT THE LOCAL COUNTIES, MUNICIPALITIES AND IDOT FOR LOCATES. THE CONTRACTOR SHALL CALL 'JULIE' AT (800) 892-0123 OR 811, IN THE CITY OF CHICAGO CONTACT DIGGER AT (312) 744-7000 FOR FIELD LOCATIONS OF BURIED UTILITIES (48 HOUR NOTIFICATION REQUIRED).
3. THE CONTRACTOR SHALL CHECK THE PROPOSED TRAFFIC SIGNAL EQUIPMENT LOCATIONS FOR OVERHEAD UTILITY CONFLICTS. THE CONTRACTOR SHALL COORDINATE ANY CONFLICTS WITH THE UTILITY COMPANIES AND THE RESIDENT ENGINEER BEFORE ORDERING MATERIALS.
4. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES, LOCAL GOVERNMENT AGENCIES AND IDOT.



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

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

NOTE:  
GALVANIZED STEEL CONDUIT IDENTIFIED AS IN TRENCH (T) OR PUSHED (P) IS SHOWN FOR INFORMATION ONLY. ALL UNDERGROUND CONDUIT SHALL BE PAID FOR AT THE CONTRACT UNIT PRICER PER FOOT FOR UNDERGROUND CONDUIT, OF THE TYPE AND SIZE SPECIFIED, REGARDLESS OF THE METHOD OF INSTALLATION.

NOTE:  
NEW PERMANENT SERVICE INSTALLATIONS WITH ILLUMINATED SIGNS AND/OR COMBINATION MAST ARM SIGNAL POLES SHALL BE METERED.

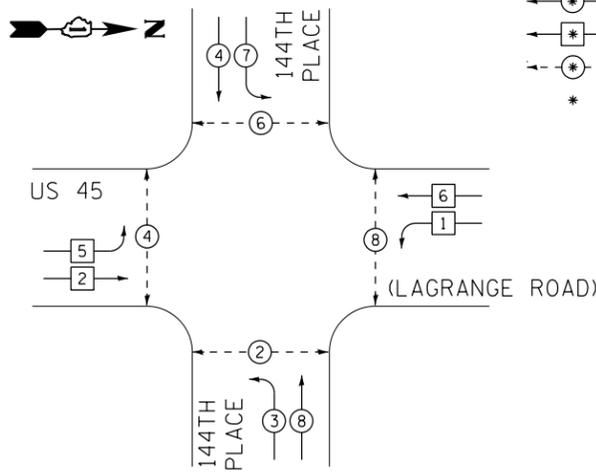


NOTE:  
ALL TRAFFIC SIGNAL POLES, MAST ARM ASSEMBLIES, SIGNAL/PEDESTRIAN HEADS AND HOUSINGS, MOUNTING BRACKETS/PLATES/BOLTS, PEDESTRIAN PUSH BUTTONS, CONTROLLER CABINETS, AND ILLUMINATED SIGNS WITHIN THE VILLAGE OF ORLAND PARK SHALL BE PAINTED BLACK, IN ACCORDANCE WITH THE SPECIAL PROVISIONS.

URS  
 100 S. WACKER DR.  
 CHICAGO, IL 60606  
 TEL (312) 939-1000  
 FAX (312) 939-4998

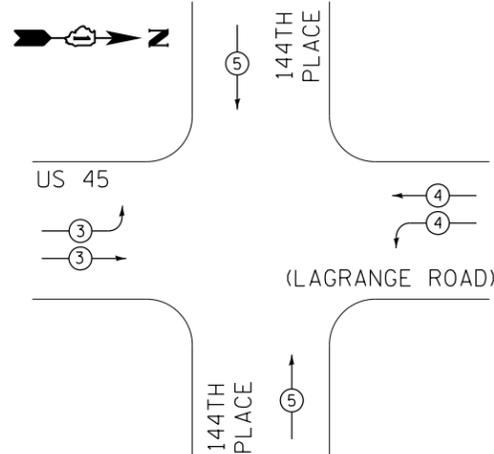
FILE NAME = D160M61-SHT-TS74.dgn	USER NAME = Anthony.Plutz	DESIGNED - MRF	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>TRAFFIC SIGNAL INSTALLATION PLAN US 45 (LAGRANGE ROAD) AND 144TH PLACE</b>	F.A.P. RTE. 330	SECTION 103R-4	COUNTY COOK	TOTAL SHEETS 877	SHEET NO. 398	
PLOT SCALE = 40.0000' / in.	CHECKED - MJL	REVISED -	SCALE: 1"=20'			SHEET 1 OF 1 SHEETS	STA. TO STA.	<b>TD-74</b>		CONTRACT NO. 60M61	
PLOT DATE = 3/14/2013	DATE - 03/13/2013	REVISED -	ILLINOIS FED. AID PROJECT								
NOTE: GALVANIZED STEEL CONDUIT IDENTIFIED AS IN TRENCH (T) OR PUSHED (P) IS SHOWN FOR INFORMATION ONLY. ALL UNDERGROUND CONDUIT SHALL BE PAID FOR AT THE CONTRACT UNIT PRICER PER FOOT FOR UNDERGROUND CONDUIT, OF THE TYPE AND SIZE SPECIFIED, REGARDLESS OF THE METHOD OF INSTALLATION.											

**CONTROLLER SEQUENCE**



**PHASE DESIGNATION DIAGRAM**

**EMERGENCY VEHICLE PREEMPTION SEQUENCE**



PROPOSED EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTORS	3	4	5
MOVEMENT			

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS						TOTAL WATTAGE	
TYPE	NO. OF LAMPS	WATTAGE INCAND.	LED	% OPERATION			
SIGNAL (RED)	18		17	0.50		153.0	
(YELLOW)	18		25	0.25		112.5	
(GREEN)	18		15	0.25		67.5	
ARROW	8		12	0.10		9.6	
PED. SIGNAL	8		25	1.00		200.0	
CONTROLLER	1		100	1.00		100.0	
ILLUM. SIGN	4		25	0.05		5.0	
FLASHER			25	0.50			
ENERGY COST TO:						TOTAL=	647.6

VILLAGE OF ORLAND PARK  
14700 SOUTH RAVINIA AVE.

ENERGY SUPPLY: CONTACT: KATHRYN SUGRUE  
PHONE: (708) 235-2337  
COMPANY: COMMONWEALTH EDISON

**PHASE DESIGNATION DIAGRAM LEGEND**

- DUAL ENTRY PHASE
- SINGLE ENTRY PHASE
- PEDESTRIAN PHASE
- \* NUMBER REFERS TO ASSOCIATED PHASE

NOTE:  
ALL TRAFFIC SIGNAL POLES, MAST ARM ASSEMBLIES, SIGNAL/PEDESTRIAN HEADS AND HOUSINGS, MOUNTING BRACKETS/PLATES/BOLTS, PEDESTRIAN PUSH BUTTONS, CONTROLLER CABINETS, AND ILLUMINATED SIGNS WITHIN THE VILLAGE OF ORLAND PARK SHALL BE PAINTED BLACK, IN ACCORDANCE WITH THE SPECIAL PROVISIONS.

RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, 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 SEEDING IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

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

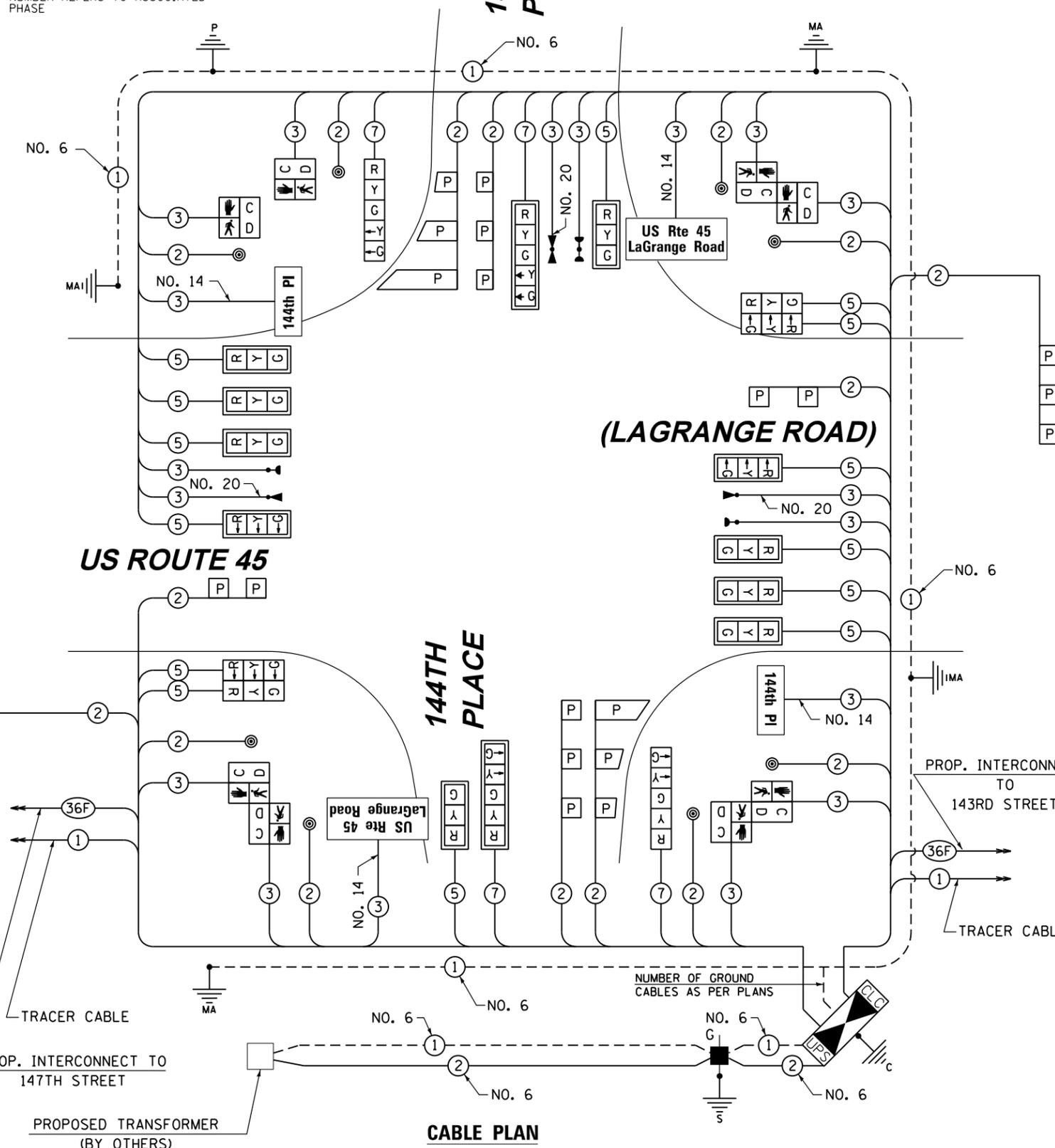
THE END OF THE TRACER CABLE SHALL BE CONTINUOUS AND EXTEND INTO THE CONTROLLER CABINET.

**SCHEDULE OF QUANTITIES**

ITEM	UNIT	TOTAL
SIGN PANEL - TYPE 1	SQ FT	30
SERVICE INSTALLATION - GROUND MOUNTED	EACH	1
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	855
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2 1/2" DIA.	FOOT	8
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	14
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3 1/2" DIA.	FOOT	30
UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	511
HANDHOLE	EACH	4
HEAVY-DUTY HANDHOLE	EACH	4
DOUBLE HANDHOLE	EACH	2
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL UNINTERRUPTIBLE POWER SUPPLY, SPECIAL	EACH	1
TRANSCIVER - FIBER OPTIC	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	1400
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	2200
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	2930
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	846
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	1734
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C CONDUCTOR, NO. 6 1 C	FOOT	124
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	646
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 52 FT.	EACH	3
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 54 FT.	EACH	1
CONCRETE FOUNDATION, TYPE A	FOOT	4
CONCRETE FOUNDATION, TYPE C	FOOT	4
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	60
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	10
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	2
SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	3
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	12
INDUCTIVE LOOP DETECTOR	EACH	8
PREFORMED DETECTOR LOOP	FOOT	741
LIGHT DETECTOR	EACH	3
LIGHT DETECTOR AMPLIFIER	EACH	1
PEDESTRIAN PUSH-BUTTON	EACH	8
TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING HANDHOLE	EACH	8
REMOVE EXISTING CONCRETE FOUNDATION	EACH	9
ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED	FOOT	744
LED INTERNALLY ILLUMINATED STREET NAME SIGN	EACH	4
ELECTRIC SERVICE DISCONNECT, LIGHTING AND TRAFFIC SIGNAL	EACH	1
TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1

- \* 100% COST TO ORLAND FIRE PROTECTION DISTRICT
- \*\* 100% COST TO VILLAGE OF ORLAND PARK

NOTE:  
NEW PERMANENT SERVICE INSTALLATIONS WITH ILLUMINATED SIGNS AND/OR COMBINATION MAST ARM SIGNAL POLES SHALL BE METERED.



**CABLE PLAN**

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

**SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE  
US 45 (LAGRANGE ROAD) AND 144TH PLACE**

SCALE: N.T.S. SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.P. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	103R-4	COOK	877	399
TD-75			CONTRACT NO. 60M61	
ILLINOIS FED. AID PROJECT				

URS  
 100 S. WACKER DR.  
 CHICAGO, IL 60606  
 TEL (312) 939-1000  
 FAX (312) 939-4998

FILE NAME = D160M61-SHT-TS75.dgn	USER NAME = Anthony.Plutz	DESIGNED - MRF	REVISED -
SHT.PLAN	PLOT SCALE = 48.0000' / in.	DRAWN - MRF	REVISED -
	PLOT DATE = 3/14/2013	CHECKED - MJL	REVISED -
		DATE - 03/13/2013	REVISED -

