

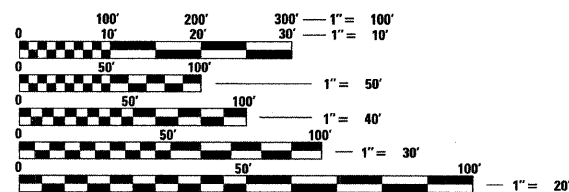
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PROJECT ENGINEER

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MILAN DOBROSAVLJEVIC, P.L.S. -
PROJECT MANAGER
FRANK FUNK, S.I.T. -
PROJECT SURVEYOR



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

J.U.L.I.E.
JOINT UTILITY LOCATING INFORMATION FOR EXCAVATION
1-800-892-0123
OR 811

CONTRACT NO. 63050

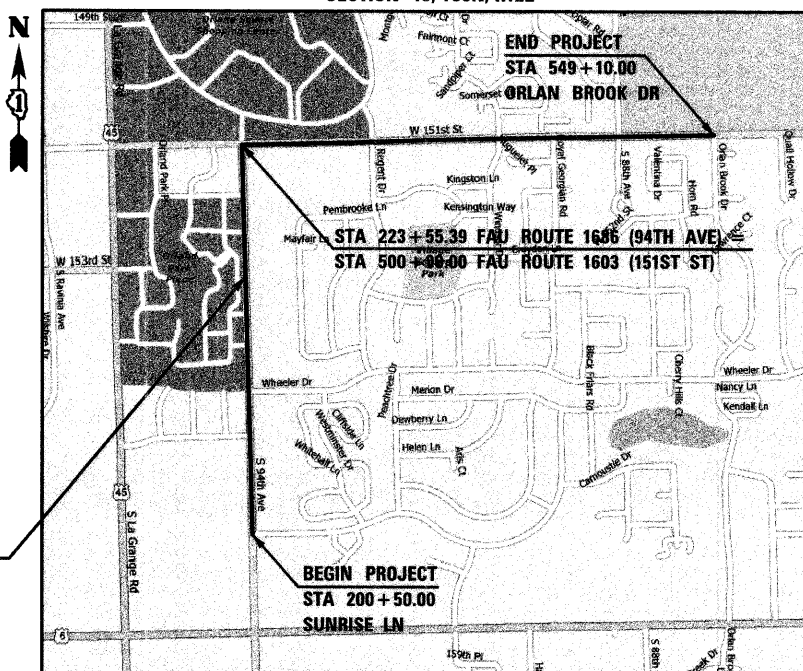
HIGHWAY STANDARDS

- 000001-05 STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
- 424001-05 CURB RAMPS FOR SIDEWALKS
- 701006-03 OFF-RD OPERATIONS, 2L, 2W, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE
- 701501-05 URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED
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- 701701-06 URBAN LANE CLOSURES, MULTILANE INTERSECTIONS
- 701801-04 LANE CLOSURE, MULTILANE 1W OR 2W CROSSWALK OR SIDEWALK CLOSURE
- 701901-01 TRAFFIC CONTROL DEVICES
- 805001-01 ELECTRICAL SERVICE INSTALLATION DETAILS
- 814001-02 CONCRETE HANDHOLES
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- 862001-01 UNINTERRUPTIBLE POWER SUPPLY (UPS)
- 877001-04 STEEL MAST ARM ASSEMBLY AND POLE 16' THROUGH 55'
- 878001-07 CONCRETE FOUNDATION DETAILS
- 880006-01 TRAFFIC SIGNAL MOUNTING DETAILS
- 886001-01 DETECTOR LOOP INSTALLATIONS
- 886006-01 TYPICAL LAYOUT FOR DETECTION LOOPS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
**PLANS FOR PROPOSED
FEDERAL AID HIGHWAY
FAU ROUTE 1686 (94TH AVE) AND
FAU ROUTE 1603 (151ST ST)
VILLAGE OF ORLAND PARK**

**SECTION NO. 08-00065-00-TL
PROJECT NO. M-9003 (328)
COOK COUNTY
JOB NO. C-91-222-08**

PROJECT LOCATION MAP
SECTION 15, T36N, R12E



NET LENGTH OF IMPROVEMENT FAU ROUTE 1686 (94TH AVE) = 2,305.39 FT. (0.44 MI.)
NET LENGTH OF IMPROVEMENT FAU ROUTE 1603 (151ST ST) = 4,910 FT. (0.93 MI.)
GROSS LENGTH OF IMPROVEMENT = 7,215.39 FT. (1.37 MI.)
2006 ADT (151ST ST) = 19,500

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Illinois Professional Design Firm # 184-000108

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1686/1603	08-00065-00-TL	COOK	16	1
FED. ROAD DIST. NO. 1	ILLINOIS	CONTRACT NO. 63050		



LOCATION OF SECTION INDICATED THUS: - [black rectangle] -

MUNICIPALITY

APPROVED: *[Signature]* 20
[Signature] March 25, 2009
VILLAGE OF ORLAND PARK, DIRECTOR OF PUBLIC WORKS

ILLINOIS DEPARTMENT OF TRANSPORTATION

PASSED: *[Signature]* MARCH 31, 2009
[Signature] CHRISTOPHER HOYT
DISTRICT ONE ENGINEER OF LOCAL ROADS & STREETS

RELEASING FOR BID
BASED ON LIMITED
REVIEW: MARCH 31, 2009
[Signature] Dina M. O'Keefe
DEPUTY DIRECTOR OF HIGHWAYS, REGION ONE ENGINEER

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

PROFESSIONAL ENGINEER'S SIGN & SEAL

[Signature] 32509
T. SCOTT CREECH, P.E.
EXPIRES: 11-30-09

FIELD ENGINEER: MELCHOR MANGOBA (847) 705-4408

GENERAL NOTES


THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" PREPARED BY THE DEPARTMENT OF TRANSPORTATION OF THE STATE OF ILLINOIS AND ADOPTED BY SAID DEPARTMENT ON JANUARY 1, 2007 THE "STANDARD SPECIFICATION FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS" (LATEST REVISION), "STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL" (LATEST REVISION), AND THE SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS (LATEST REVISIONS), SHALL GOVERN CONSTRUCTION OF THIS PROJECT.

IN ADDITION THE FOLLOWING SPECIAL PROVISIONS SUPPLEMENT THE SAID SPECIFICATIONS, AND IN CASE OF CONFLICT WITH ANY PART OR PARTS OF SAID SPECIFICATIONS, THESE SPECIAL PROVISIONS SHALL TAKE PRECEDENCE AND SHALL GOVERN.

1. EASEMENTS FOR THE EXISTING UTILITIES, BOTH PUBLIC AND PRIVATE, AND UTILITIES WITHIN PUBLIC RIGHTS-OF-WAY ARE SHOWN ON THE PLANS ACCORDING TO AVAILABLE RECORDS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION IN THE FIELD OF THESE UTILITY LINES AND THEIR PROTECTION FROM DAMAGE DUE TO CONSTRUCTION OPERATIONS. IF EXISTING UTILITY LINES OF ANY NATURE ARE ENCOUNTERED WHICH CONFLICT IN LOCATION WITH NEW CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT MAY BE RESOLVED.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING ALL PERMITS INCLUDING MUNICIPAL PERMITS.
3. CONSTRUCTION OBSERVATION: IMPROVEMENTS SHALL BE SUBJECT TO INSPECTION BY A DULY AUTHORIZED AND QUALIFIED VILLAGE/IDOT INSPECTOR BOTH DURING THE COURSE OF CONSTRUCTION AND AFTER CONSTRUCTION IS COMPLETE. THE CONTRACTOR SHALL PROVIDE FOR REASONABLE TESTS AND PROOF OF QUALITY OF MATERIALS AS REQUESTED BY THE INSPECTOR. INSPECTOR SHALL HAVE FORTY-EIGHT (48) HOURS NOTICE PRIOR TO CONSTRUCTION.
4. THE INSPECTOR SHALL NOT, DURING SUCH VISITS OR AS A RESULT OF SUCH OBSERVATIONS OF THE CONTRACTOR'S WORK IN PROGRESS, SUPERVISE, DIRECT, NOR SHALL THE INSPECTOR HAVE THE AUTHORITY OVER THE RESPONSIBILITY FOR THE MEANS, METHODS, TECHNIQUES, SEQUENCES, OR PROCEDURES OF CONSTRUCTION SELECTED BY THE CONTRACTOR, FOR SAFETY PRECAUTIONS AND PROGRAMS INCIDENTAL TO THE WORK OF THE CONTRACTOR, OR FOR ANY FAILURE OF THE CONTRACTOR TO COMPLY WITH LAWS, RULES, REGULATIONS, ORDINANCES, CODES OR ORDERS APPLICABLE TO THE CONTRACTOR FURNISHING AND PERFORMING HIS WORK. ACCORDINGLY, THE INSPECTOR CAN NEITHER GUARANTEE THE PERFORMANCE OF THE CONSTRUCTION CONTRACTS BY THE CONTRACTOR NOR ASSUME RESPONSIBILITY FOR THE CONTRACTOR'S FAILURE TO FURNISH AND PERFORM HIS WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
5. RUBBISH REMOVAL. CONTRACTOR SHALL MAKE SITE INSPECTION PRIOR TO BIDDING AND SHALL INCLUDE IN PROPOSAL REMOVAL OF STUMPS, BRUSH, BRANCHES, ETC. ALL MATERIAL SHALL BE DISPOSED OF OFF-SITE AT THE CONTRACTOR'S EXPENSE.
6. THE CONTRACTOR SHALL INDEMNIFY AND HOLD HARMLESS THE VILLAGE AND VILLAGE'S ENGINEERS AND THEIR AGENTS AND EMPLOYEES FROM AND AGAINST ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES, INCLUDING ATTORNEY'S FEES ARISING OUT OF OR RESULTING FROM THE PERFORMANCE OF THE CONTRACTOR'S WORK. IN ANY AND ALL CLAIMS AGAINST THE VILLAGE OR ITS EMPLOYEES, BY ANY EMPLOYEE OF THE CONTRACTOR, OR ANYONE DIRECTLY OR INDIRECTLY EMPLOYED BY THE CONTRACTOR, OR ANYONE FOR WHOSE ACTS THE CONTRACTOR MAY BE LIABLE, THE INDEMNIFICATION OBLIGATION SHALL NOT BE LIMITED IN ANY WAY BY ANY LIMITATION ON THE AMOUNT OF DAMAGES, COMPENSATION OR BENEFITS PAYABLE BY OR FOR THE CONTRACTOR UNDER WORKMEN'S COMPENSATION ACTS, DISABILITY BENEFIT ACTS OR OTHER EMPLOYEE BENEFIT ACTS.
7. NO CONSTRUCTION PLANS SHALL BE USED FOR CONSTRUCTION UNLESS SPECIFICALLY MARKED "FOR CONSTRUCTION." PRIOR TO COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AFFECTING THEIR WORK WITH THE ACTUAL CONDITIONS AT THE JOB SITE. IN ADDITION, THE CONTRACTOR MUST VERIFY THE LINE AND GRADE STAKES AGAINST THE CONSTRUCTION PLANS. IF THERE ARE ANY DISCREPANCIES FROM WHAT IS SHOWN ON THE CONSTRUCTION PLANS, HE MUST IMMEDIATELY REPORT THE SAME TO THE ENGINEER BEFORE DOING ANY WORK, OTHERWISE THE CONTRACTOR ASSUMES FULL RESPONSIBILITY. IN THE EVENT OF DISAGREEMENT BETWEEN THE CONSTRUCTION PLANS, STANDARD SPECIFICATIONS AND/OR SPECIAL DETAILS, THE CONTRACTOR SHALL SECURE WRITTEN INSTRUCTIONS FROM THE ENGINEER PRIOR TO PROCEEDING WITH ANY PART OF THE WORK AFFECTED BY OMISSIONS OR DISCREPANCIES. FAILING TO SECURE SUCH INSTRUCTIONS, THE CONTRACTOR WILL BE CONSIDERED TO HAVE PROCEEDED AT HIS OWN RISK AND EXPENSE. IN THE EVENT OF ANY DOUBT OR QUESTION ARISING WITH RESPECT TO THE TRUE MEANING OF THE CONSTRUCTION PLANS OR SPECIFICATIONS, THE DECISION OF THE ENGINEER SHALL BE FINAL AND CONCLUSIVE.
8. ALL TRAFFIC CONTROL AND OTHER ADVISORY SIGNS NEEDED FOR CONSTRUCTION ARE TO BE FURNISHED BY THE CONTRACTOR IN ACCORDANCE WITH ARTICLE 107.14 OF THE STANDARD SPECIFICATIONS.
9. THE CONTRACTOR SHALL FURNISH, ERECT, MAINTAIN AND REMOVE ALL SIGNS, BARRICADES, FLAGGERS, PAVEMENT STRIPING AND OTHER TRAFFIC CONTROL DEVICES AS MAY BE NECESSARY FOR THE PURPOSE OF REGULATING, WARNING OR GUIDING TRAFFIC. PROPER PLACEMENT AND MAINTENANCE OF ALL TRAFFIC CONTROL DEVICES SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND MUST BE IN ACCORDANCE WITH THE APPLICABLE PARTS OF SECTION 701 OF THE STANDARD SPECIFICATIONS, THE ILLINOIS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS AND THE HIGHWAY STANDARDS.
10. DURING CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE ACCESS TO ALL ABUTTING PROPERTIES, EXCEPT FOR PERIODS OF SHORT DURATION AS APPROVED OF BY THE ENGINEER. ANY ACCESS CLOSURES SHALL ONLY TAKE PLACE BETWEEN THE HOURS OF 9:00 A.M. AND 3:00 P.M.

UTILITY CONTACTS

COMCAST	TED WYMAN	(630) 600-6349
AT&T	MATT MITCHELL	(815) 727-0558
COMED	TOM STUTZMAN	(630) 437-2236
NICOR	PAULA BOCKMAN	(815) 754-3339
VILLAGE OF ORLAND PARK	PETER CASEY	(708) 403-6350
ADESTA LLC	LOU URDIL	(630) 739-0546
TEPPCO	MIKE BUMSFELD	(708) 534-6266

 SEC Group, Inc. <small>Engineering • Surveying • Planning • Landscape Architecture</small> 323 Adams Drive, New Lenox, IL 60451 T: 815-462-9320 F: 815-462-9028 PROJECT CONTACT: T. GIBBY TORREDO, P.E. FILE NUMBER: 080607-0001 SEC. REG. NO.: 02-00091	USER NAME = s.johnson	DESIGNED - TSC	REVISED -	PLANS FOR PROPOSED FEDERAL AID HIGHWAY FAU ROUTE 1686 (94TH AVE) AND FAU ROUTE 1603 (151ST ST) VILLAGE OF ORLAND PARK	GENERAL NOTES AND UTILITY CONTACTS	FAU RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = NONE	DRAWN - RCB	REVISED -			1686/1603	08-00065-00-TL	COOK	16	2
PLOT DATE = 3/13/2009	CHECKED - APS	REVISED -		SCALE: NONE SHEET NO. 2 OF 16 SHEETS STA. TO STA.		CONTRACT NO. 63050				
	DATE = 3/13/09	REVISED -		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT						

CODE NO.	PAY ITEMS	UNIT	TOTAL	CONSTRUCTION TYPE CODE	
				• Y031-1F 94th AVE / WHEELER DRIVE	• Y031-1F INTERCONNECT PLAN
67100100	MOBILIZATION	L SUM	1		
70101800	TRAFFIC CONTROL AND PROTECTION (SPECIAL)	L SUM	1		
72000100	SIGN PANEL, TYPE 1	SQ FT	50	50	
78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	146	146	
78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	732	732	
78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	1,188	1,188	
78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	135	135	
81000600	CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	FOOT	556	556	
81000800	CONDUIT IN TRENCH, 3" DIA., GALVANIZED STEEL	FOOT	57	57	
81018500	CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL	FOOT	105	105	
81018700	CONDUIT PUSHED, 3" DIA., GALVANIZED STEEL	FOOT	43	43	
81018900	CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL	FOOT	335	335	
81400100	HANDHOLE	EACH	3	3	
81400200	HEAVY-DUTY HANDHOLE	EACH	4	4	
81400300	DOUBLE HANDHOLE	EACH	2	2	
81900200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	613	613	
85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	6		6
85700200	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET	EACH	1	1	
85700500	FULL-ACTUATED CONTROLLER IN EXISTING CABINET	EACH	2		2
85900100	TRANSCIVER	EACH	7		7
86000100	MASTER CONTROLLER	EACH	1		1
87301215	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	458.0	458	
87301225	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	1,108.0	1,108	
87301245	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	700.0	700	
87301255	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	1,330.0	1,330	
87301305	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	7,907.0	1,614.5	6,292.5
87301805	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C	FOOT	93.5	93.5	
87502500	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	1	1	
87700170	STEEL MAST ARM ASSEMBLY AND POLE, 26 FT.	EACH	1	1	
87700200	STEEL MAST ARM ASSEMBLY AND POLE, 32 FT.	EACH	1	1	
87700220	STEEL MAST ARM ASSEMBLY AND POLE, 36 FT.	EACH	1	1	
87700260	STEEL MAST ARM ASSEMBLY AND POLE, 44 FT.	EACH	1	1	
87800100	CONCRETE FOUNDATION, TYPE A	FOOT	4	4	
87800150	CONCRETE FOUNDATION, TYPE C	FOOT	4	4	
87800400	CONCRETE FOUNDATION, TYPE E, 30-INCH DIAMETER	FOOT	45	45	
87800415	CONCRETE FOUNDATION, TYPE E, 36-INCH DIAMETER	FOOT	15	15	
88030020	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	4	4	
88030100	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	4	4	
88030110	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED	EACH	4	4	
88102740	PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED	EACH	4	4	
88200210	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	8	8	
88500100	INDUCTIVE LOOP DETECTOR	EACH	22	10	12
88600100	DETECTOR LOOP, TYPE I	FOOT	981	981	
88700200	LIGHT DETECTOR	EACH	2	2	
88700300	LIGHT DETECTOR AMPLIFIER	EACH	1	1	
88800100	PEDESTRIAN PUSH-BUTTON	EACH	4	4	
X0324007	OPTIMIZE TRAFFIC SIGNAL SYSTEM	EACH	7		7
X0325134	WIRELESS INTERCONNECT (COMPLETE)	EACH	1		1
X8050010	SERVICE INSTALLATION - GROUND MOUNTED	EACH	1	1	
X8730027	ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	FOOT	777	777	
X8730250	ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED	FOOT	245	245	
X8420020	UNINTERRUPTABLE POWER SUPPLY	EACH	1	1	
Z0013798	CONSTRUCTION LAYOUT	L SUM	1		
Z0076600	TRAIN EES	HOUR	500		

• 30% VILLAGE / 70% FEDERAL

△ Y080



USER NAME = sjohnson	DESIGNED - TSC	REVISED -
PLOT SCALE = NONE	DRAWN - RCB	REVISED -
PLOT DATE = 3/13/2009	CHECKED - APS	REVISED -
	DATE = 3/13/09	REVISED -

**PLANS FOR PROPOSED FEDERAL AID HIGHWAY
FAU ROUTE 1686 (94TH AVE) AND
FAU ROUTE 1603 (151ST ST)
VILLAGE OF ORLAND PARK**

SUMMARY OF QUANTITIES

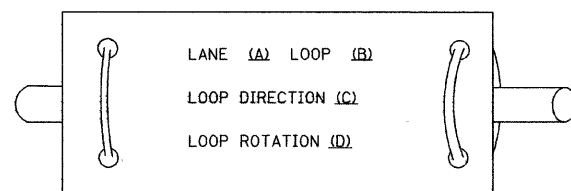
SCALE: NONE SHEET NO. 3 OF 16 SHEETS STA. TO STA.

FAU RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1686/1603	08-00065-00-TL	COOK	16	3
CONTRACT NO. 63050				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

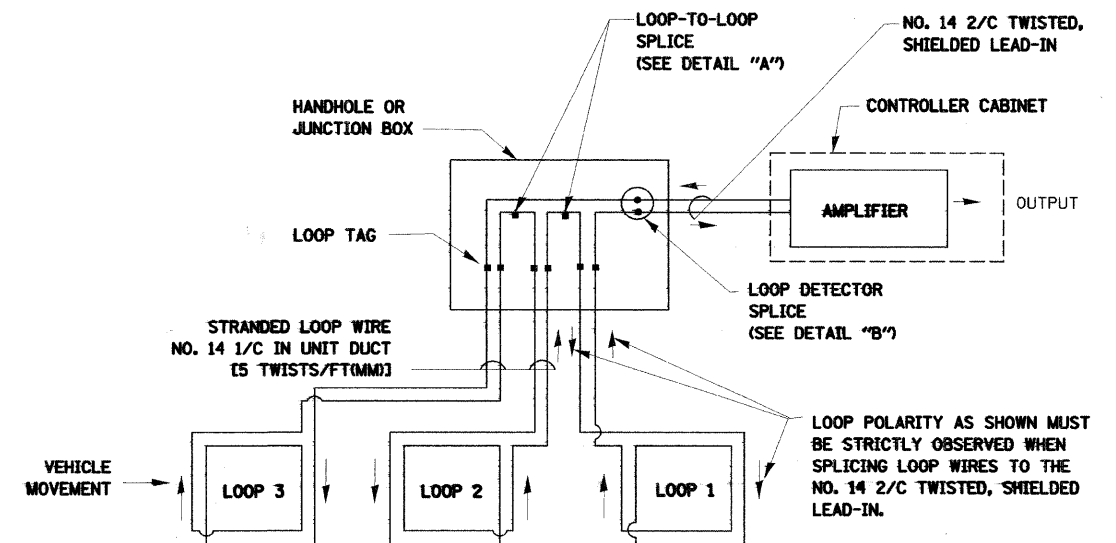
LOOP DETECTOR NOTES

1. EACH PAIR OF LOOP WIRES SHALL BE PLACED IN A SEPARATE UNIT DUCT FROM THE EDGE OF PAVEMENT TO THE HANDHOLE. SPACING BETWEEN THE HOLES DRILLED IN THE PAVEMENT SHALL NOT BE LESS THAN 6" (150 mm). UNIT DUCT SHALL BE INCLUDED IN THE COST OF THE LOOP WIRE.
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 DIVESHOLES MARKED AT THE CURB WITH A SAW-CUT. THE SAW-CUT SHALL BE CUT IN ACCORDANCE WITH LOCAL AND E.P.A. DUST CONTROL REQUIREMENTS. DETECTOR LOOP(S) SHALL NOT BE INSTALLED IN WET CONDITIONS AND THE SAW-CUTS MUST BE FREE OF DEBRIS AND RESIDUE SUCH AS DUST AND WATER WHICH IS TO BE ACHIEVED BY THE USE OF COMPRESSED AIR, WIRE BRUSHING AND HEAT DRYING ACCORDING TO SEALANT MANUFACTURER REQUIREMENTS. THE DETECTOR WIRE SHALL BE HELD IN PLACE BY THE USE OF FORM WEDGES. WEDGES SHALL BE SPACED NO MORE THAN 18" (450 mm) APART.
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

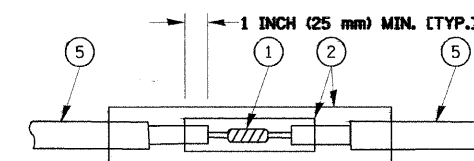


- A. LANE #1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

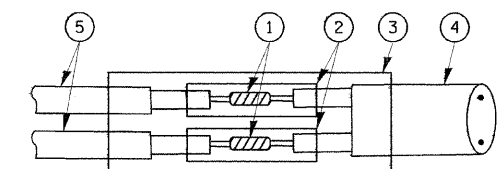


DETECTOR LOOP WIRING SCHEMATIC

- 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

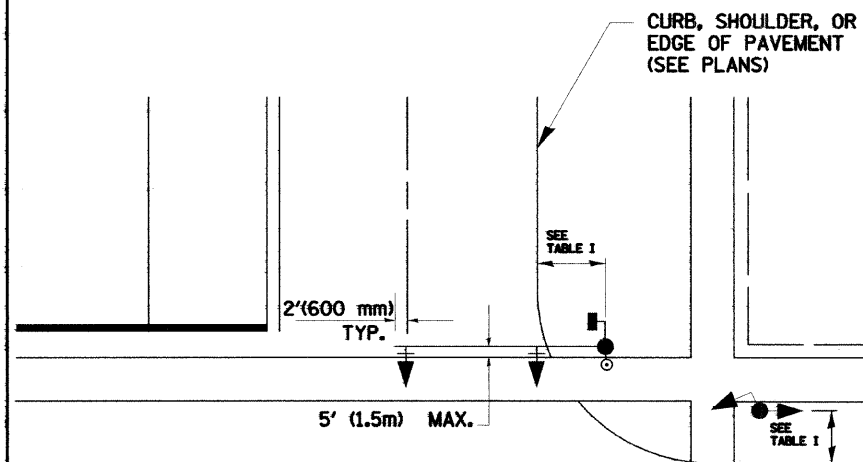
LOOP DETECTOR SPLICE

- 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.

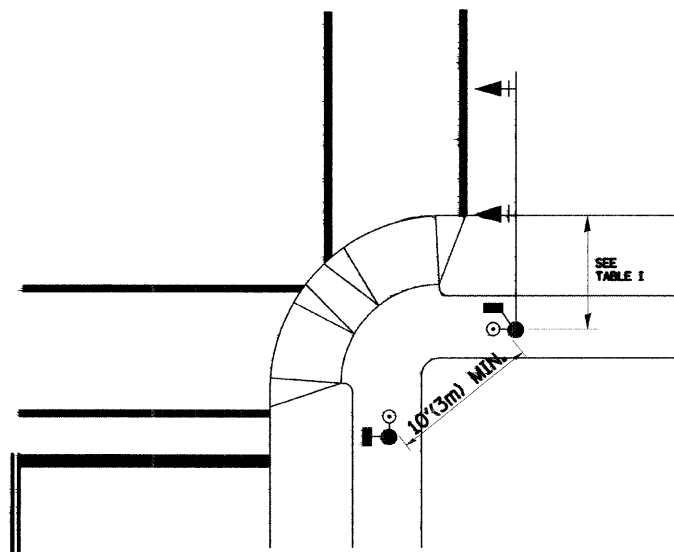
SEC Group, Inc. Engineering • Planning • Design • Landscape Architecture 225 Adams Drive, New London, IL 60451 T: 815/462-3024 F: 815/462-9220 PROJECT CONTACT: P. 800/311-8000 TEL: 815/462-3024 FAX: 815/462-9220 SEC GROUP, INC. 08/01/09 28859	USER NAME = a.johnson PLOT SCALE = NONE PLOT DATE = 3/13/2009	DESIGNED - TSC DRAWN - RCB CHECKED - APS DATE - 3/13/09	REVISED - REVISED - REVISED - REVISED -	PLANS FOR PROPOSED FEDERAL AID HIGHWAY FAU ROUTE 1686 (94TH AVE) AND FAU ROUTE 1603 (151ST ST) VILLAGE OF ORLAND PARK	DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS	SCALE: NONE SHEET NO. 4 OF 16 SHEETS STA. TO STA.	FAU RTE 1686/1603 SECTION 08-00065-00-TL COUNTY COOK TOTAL SHEETS 16 SHEET NO. 4 CONTRACT NO. 63050 FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT
	FEDERAL ROAD DISTRICT NO. 1 ILLINOIS FED. AID PROJECT						

TRAFFIC SIGNAL MAST ARM AND POST

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



PEDESTRIAN SIGNAL PUSHBUTTON



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

NOTES:

- AT ACCESSIBLE PEDESTRIAN SIGNAL LOCATIONS WITH PEDESTRIAN ACTUATION, EACH PUSHBUTTON SHALL ACTIVATE BOTH THE WALK INTERVAL AND THE ACCESSIBLE PEDESTRIAN SIGNALS.
 AT ACCESSIBLE PEDESTRIAN SIGNAL LOCATIONS, PUSHBUTTONS SHOULD CLEARLY INDICATE WHICH CROSSWALK SIGNAL IS ACTUATED BY EACH PUSHBUTTON. PUSHBUTTONS AND TACTILE ARROWS SHOULD HAVE HIGH VISUAL CONTRAST (SEE THE DEPARTMENT OF JUSTICE'S AMERICANS WITH DISABILITIES ACT STANDARDS FOR ACCESSIBLE DESIGN, 1991). TACTILE ARROWS SHOULD POINT IN THE SAME DIRECTION AS THE ASSOCIATED CROSSWALK. AT CORNERS OF SIGNALIZED LOCATIONS WITH ACCESSIBLE PEDESTRIAN SIGNALS WHERE PEDESTRIAN PUSHBUTTONS ARE PROVIDED, THE PUSHBUTTONS SHOULD BE SEPARATED BY THE DISTANCE OF AT LEAST 10 FT (3m). THIS ENABLES PEDESTRIANS WHO HAVE VISUAL DISABILITIES TO DISTINGUISH AND LOCATE THE APPROPRIATE PUSHBUTTON.
 PUSHBUTTONS FOR ACCESSIBLE PEDESTRIAN SIGNALS SHOULD BE LOCATED AS FOLLOWS:
 A: ADJACENT TO A LEVEL ALL-WEATHER SURFACE TO PROVIDE ACCESS FROM A WHEELCHAIR, AND WHERE THERE IS AN ALL WEATHER SURFACE, WHEELCHAIR ACCESSIBLE ROUTE TO THE RAMP.
 B: WITHIN 5 FT (1.5m) OF THE CROSSWALK EXTENDED.
 C: WITHIN 10 FT (3m) OF THE EDGE OF CURB, SHOULDER, OR PAVEMENT.
 D: PARALLEL TO THE CROSSWALK TO BE USED (SEE MUTCD FIGURE 4E-2).
 E: NORMAL PEDESTRIAN PUSHBUTTON MOUNTING HEIGHT SHOULD BE 3.5 FT (1.05m) ABOVE ADJACENT SIDEWALK
- PEDESTRIAN SIGNAL FACES SHALL BE MOUNTED WITH THE BOTTOM OF THE HOUSING NOT LESS THAN 8 FT (2.4m) NOR MORE THAN 10 FT (3.0m) ABOVE THE SIDEWALK LEVEL AND SO THERE IS A PEDESTRIAN INDICATION IN THE LINE OF PEDESTRIANS' VISION WHICH PERTAINS TO THE CROSSWALK BEING USED.
- THE BOTTOM OF THE HOUSING OF A VEHICLE SIGNAL FACE, NOT MOUNTED OVER A ROADWAY, SHALL BE AT LEAST 10 FT (3.0m) BUT NOT MORE THAN 15 FT (4.5m) ABOVE THE SIDEWALK OR, ABOVE THE PAVEMENT GRADE AT THE CENTER OF THE HIGHWAY IF NO SIDEWALKS EXIST.
- THE BOTTOM OF THE HOUSING OF A VEHICLE SIGNAL FACE, MOUNTED OVER A ROADWAY, SHALL BE ACCORDING TO CURRENT STATE STANDARDS 877001 AND 877006. (16 FT (5m) MIN., 18 FT (5.5m) MAX., FROM HIGHEST POINT OF PAVEMENT)

PEDESTRIAN SIGNAL POST

PEDESTRIAN SIGNAL HEAD AND PEDESTRIAN PUSHBUTTON DETECTOR LOCATION

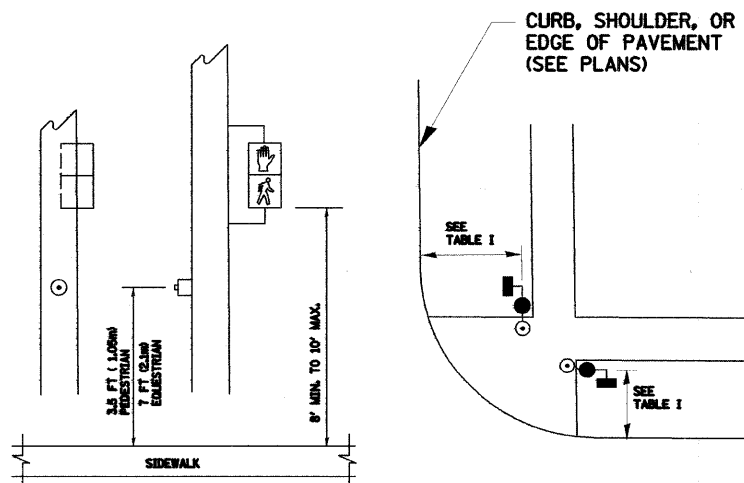
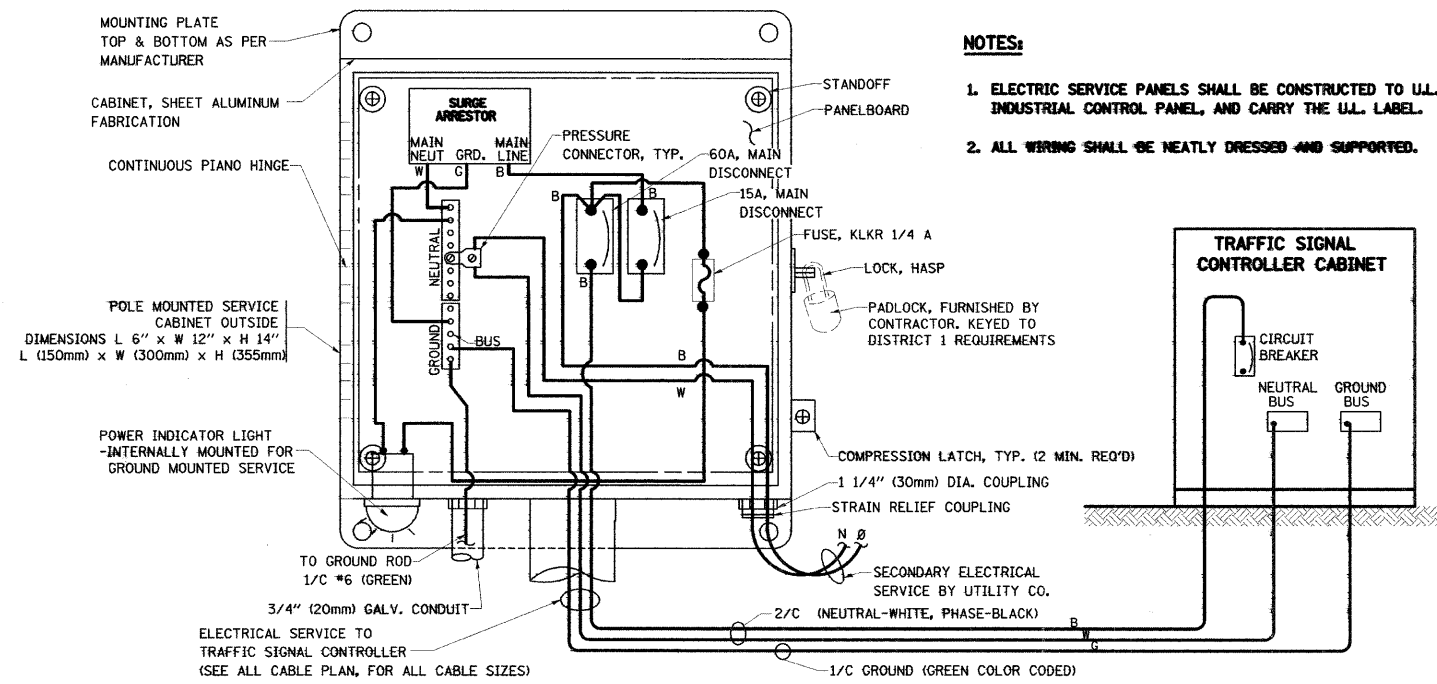
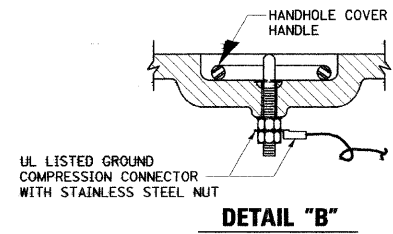
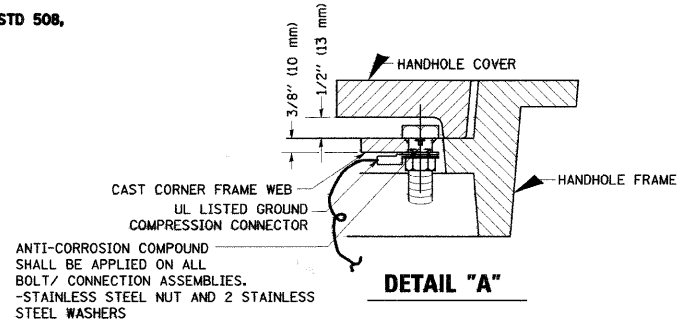


TABLE I

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



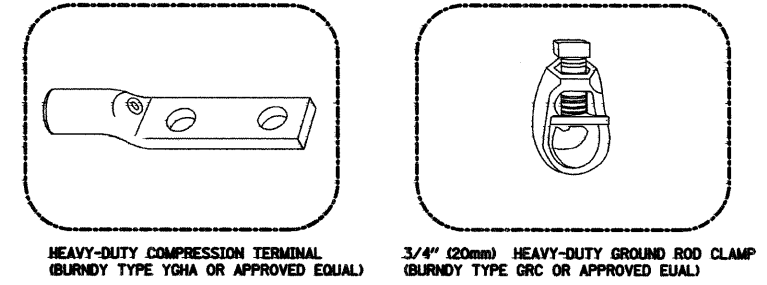
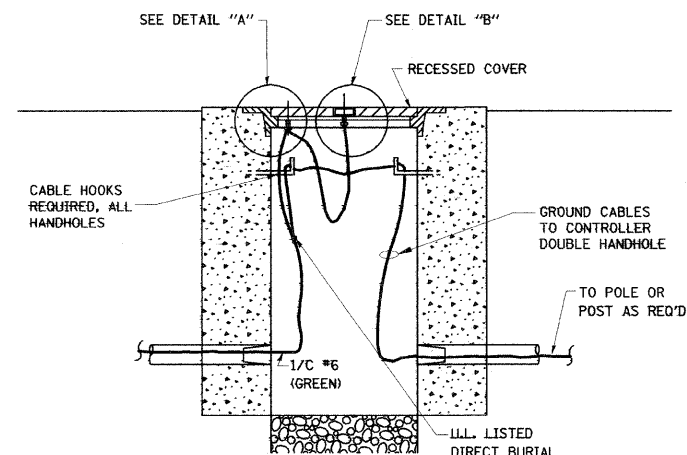
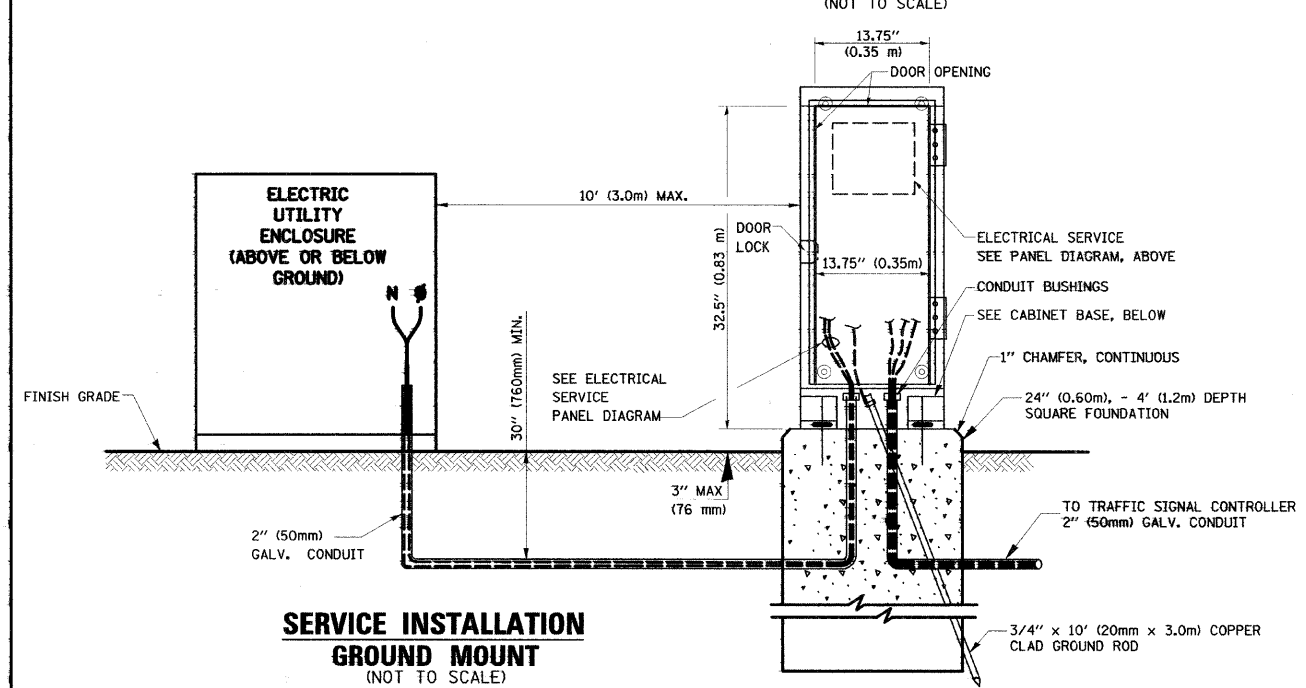
- NOTES:**
1. ELECTRIC SERVICE PANELS SHALL BE CONSTRUCTED TO U.L. STD 508, INDUSTRIAL CONTROL PANEL, AND CARRY THE U.L. LABEL.
 2. ALL WIRING SHALL BE NEATLY DRESSED AND SUPPORTED.



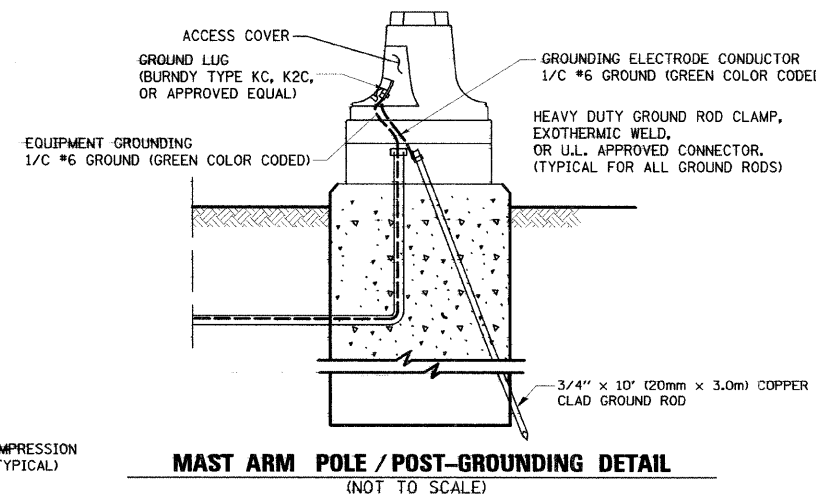
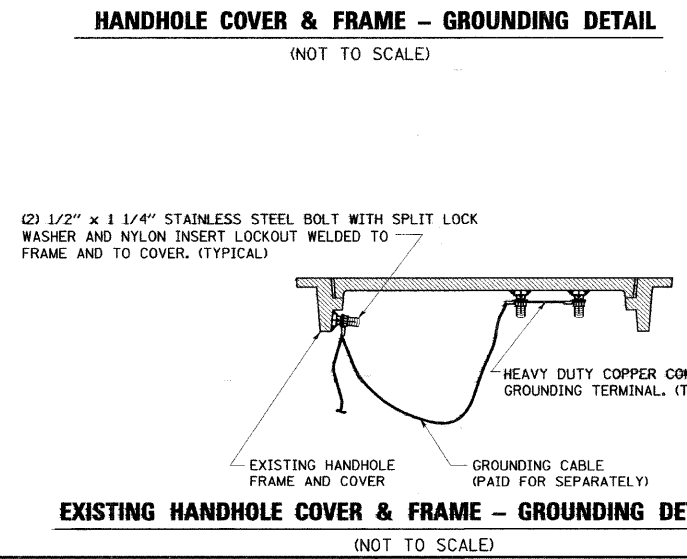
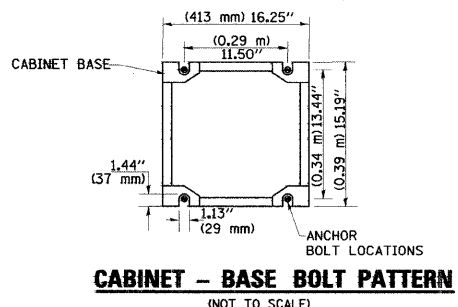
- NOTES:**
- GROUNDING SYSTEM**
1. THE GROUNDING SYSTEM SHALL CONSIST OF AN INSULATED CONDUCTOR TYPE XLP, NO. 6 A.W.G., STRANDED COPPER TO BE INSTALLED IN RACEWAYS. THE GROUNDING CABLE SHALL BE INSTALLED IN A CONTINUOUS MANNER AS SHOWN ON THE CABLE PLAN PROVIDED. ALL GROUNDING CONDUCTORS SHALL BE BONDED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



- NOTES:**
- ALL CLAMPS SHALL BE BRONZE OR COPPER, U.L. 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.



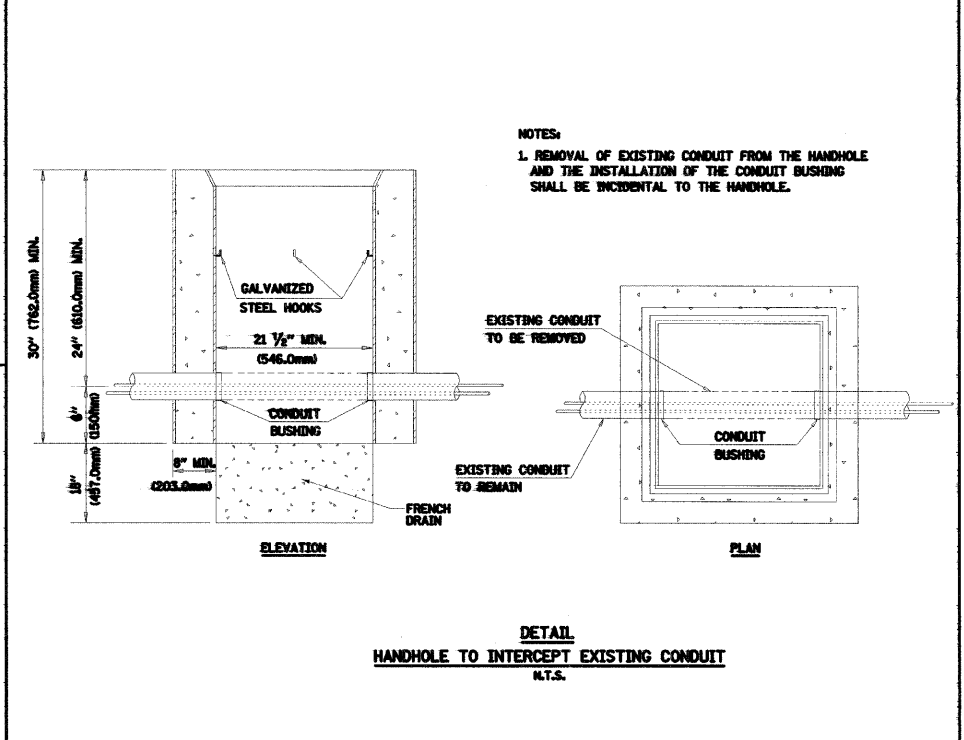
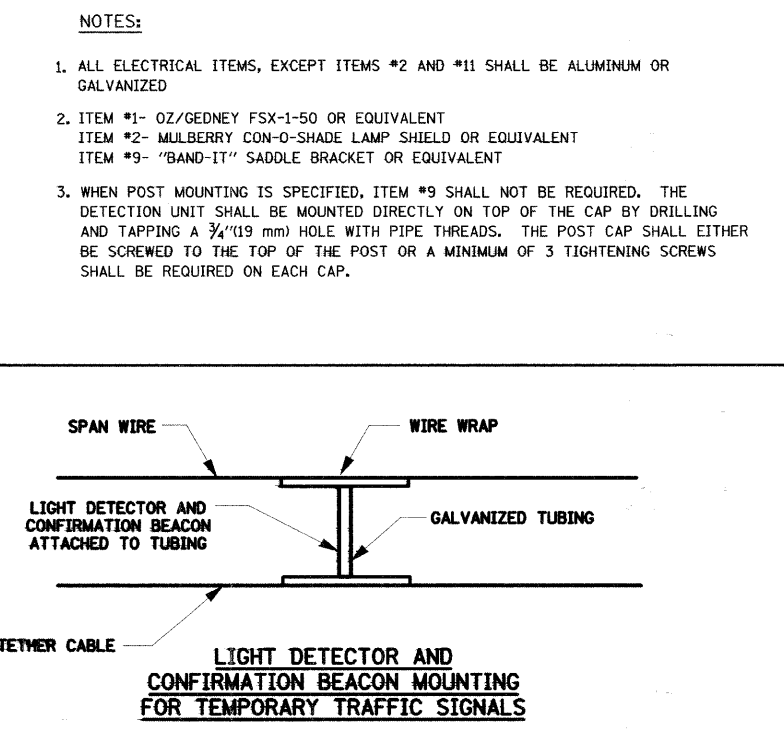
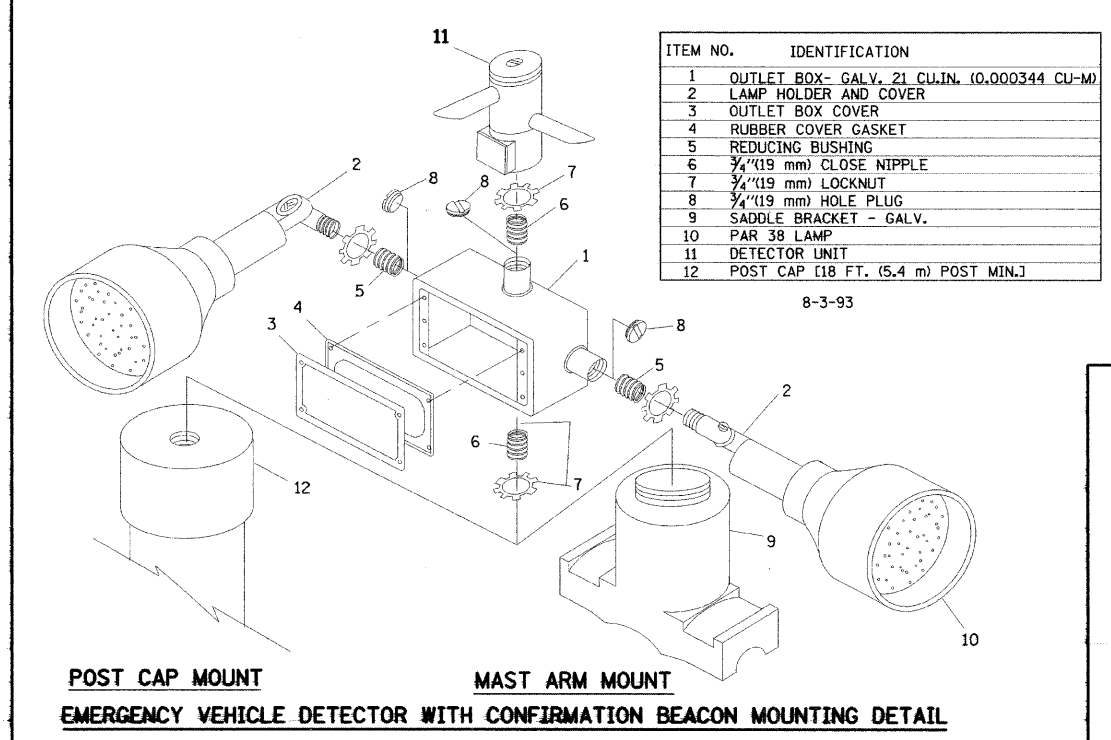
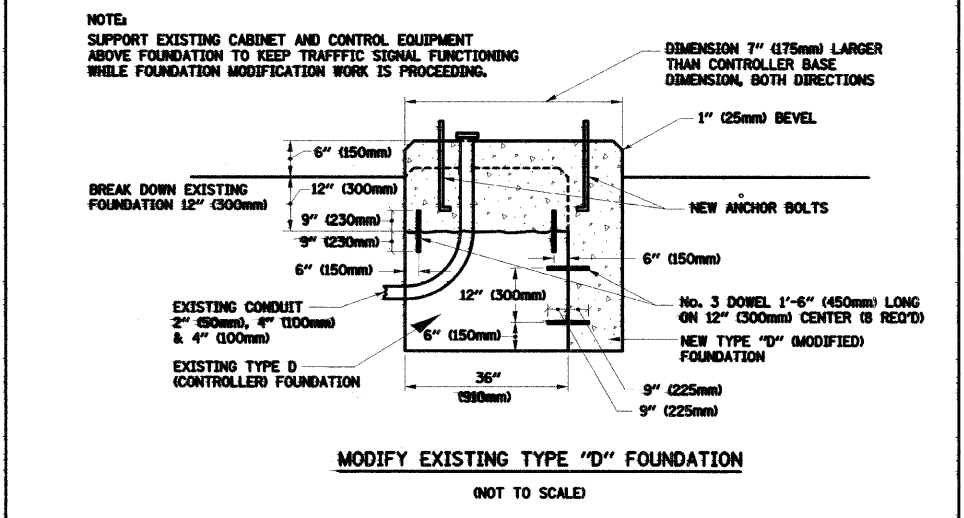
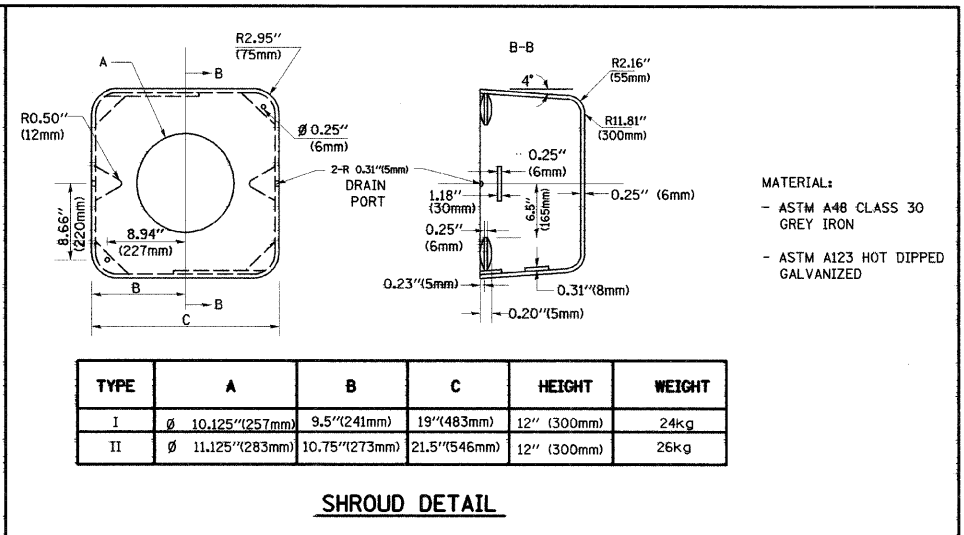
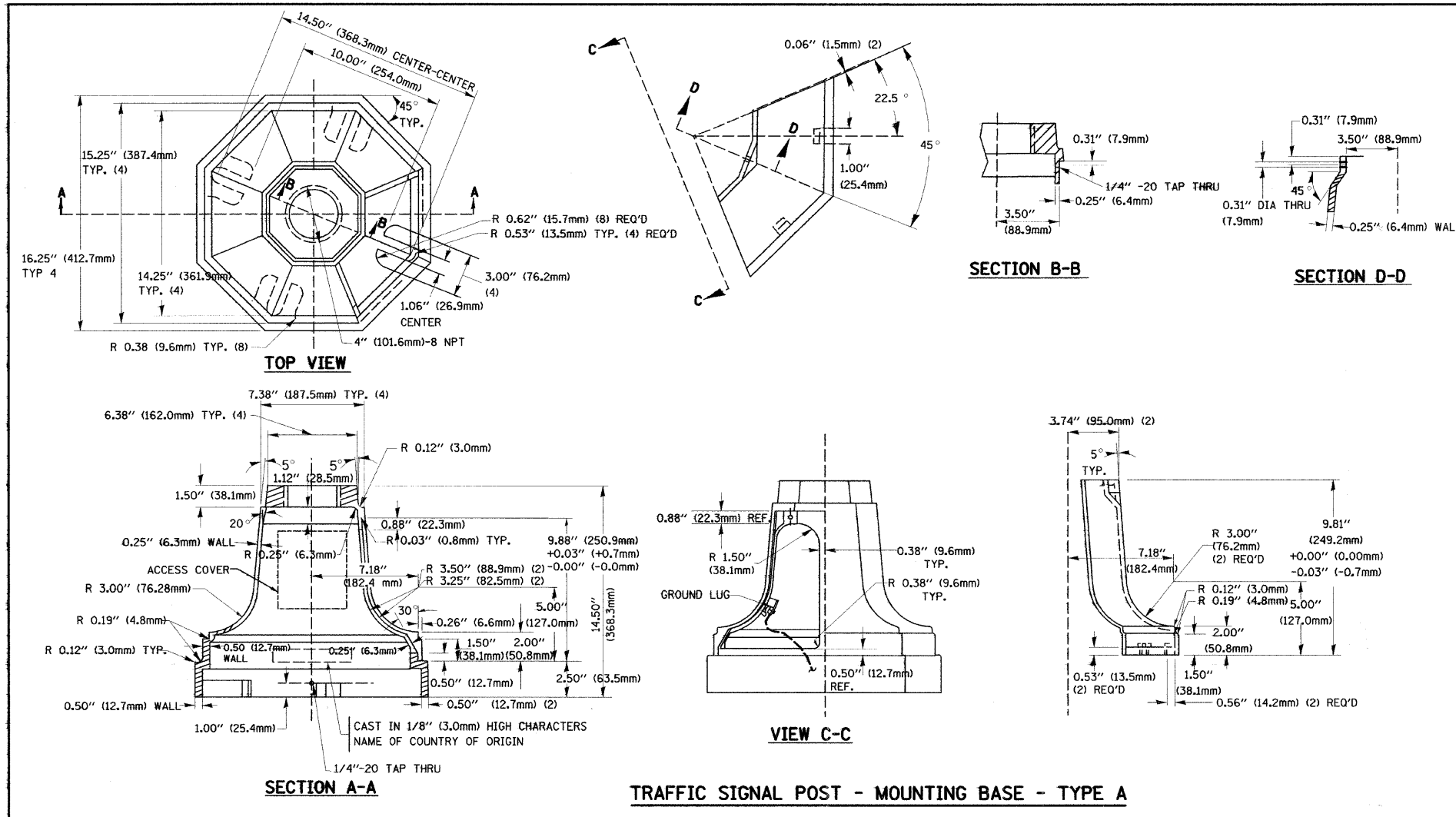
SEC Group, Inc.
 Engineering • Consulting • Training • Landscape Architecture
 223 Adams Drive, New Lenox, IL 60451
 1-815-462-9330 • 1-815-462-9329
 PROJECT CONTACT: T. GIBBY, NEW LENOX, ILL.
 TELEPHONE: 815-462-9330 • FAX: 815-462-9329
 SEC GROUP, NEW LENOX, ILL. 60451

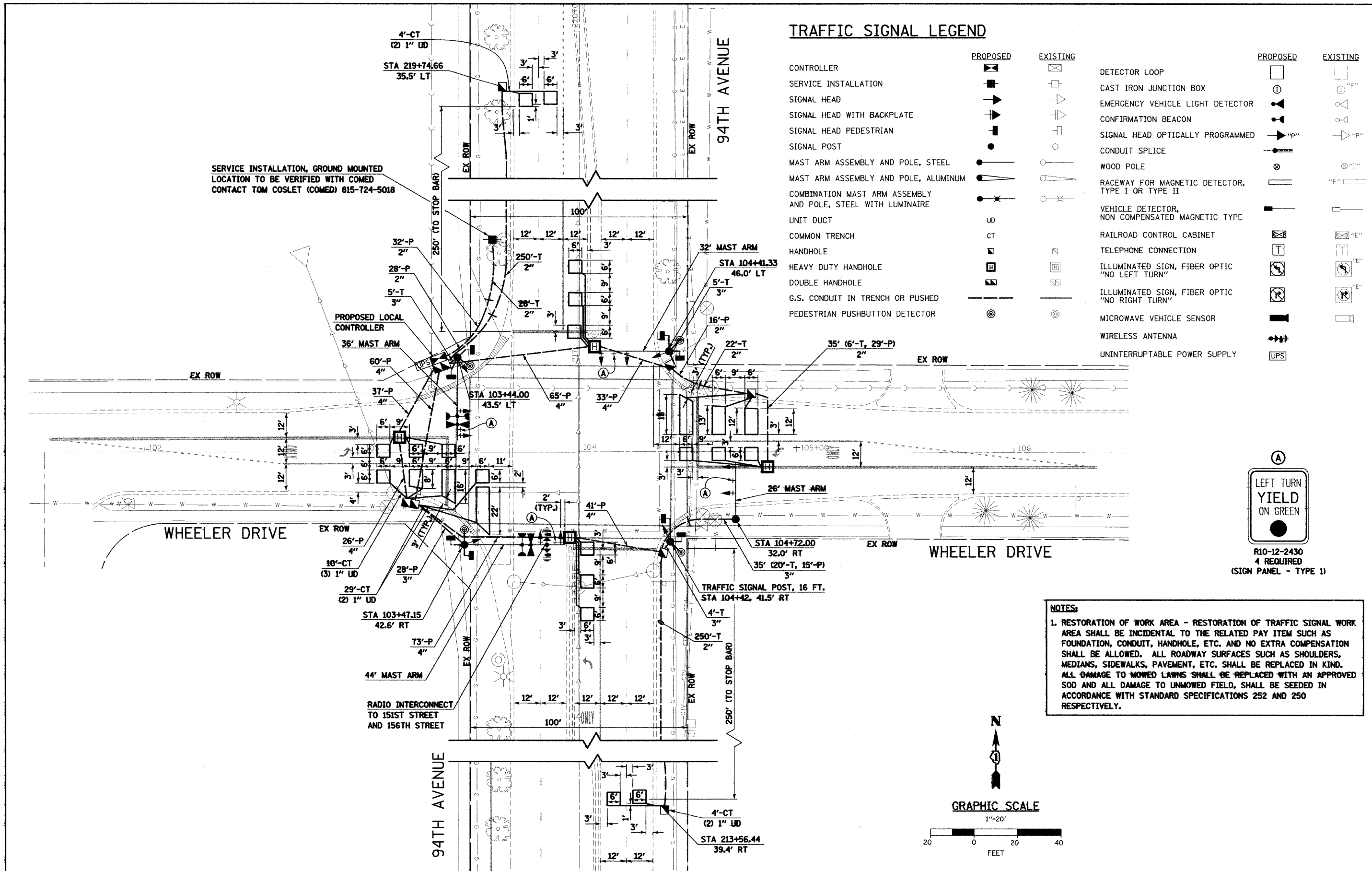
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PLOT SCALE = NONE	DRAWN - RCB	REVISED -
PLOT DATE = 3/13/2009	CHECKED - APS	REVISED -
	DATE - 3/13/09	REVISED -

PLANS FOR PROPOSED FEDERAL AID HIGHWAY
FAU ROUTE 1686 (94TH AVE) AND
FAU ROUTE 1603 (151ST ST)
VILLAGE OF ORLAND PARK

SCALE: NONE	SHEET NO. 6 OF 16 SHEETS	STA.	TO STA.
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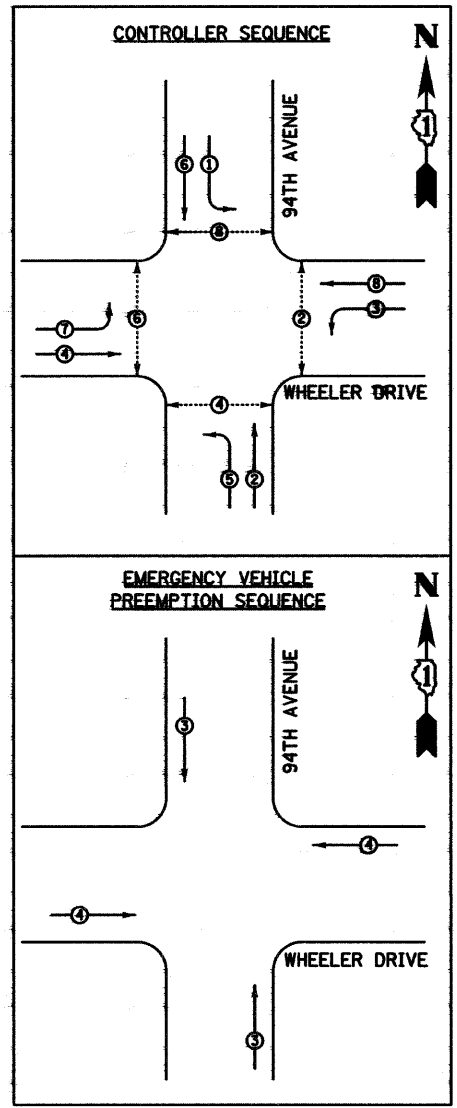
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CONTRACT NO. 63050				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



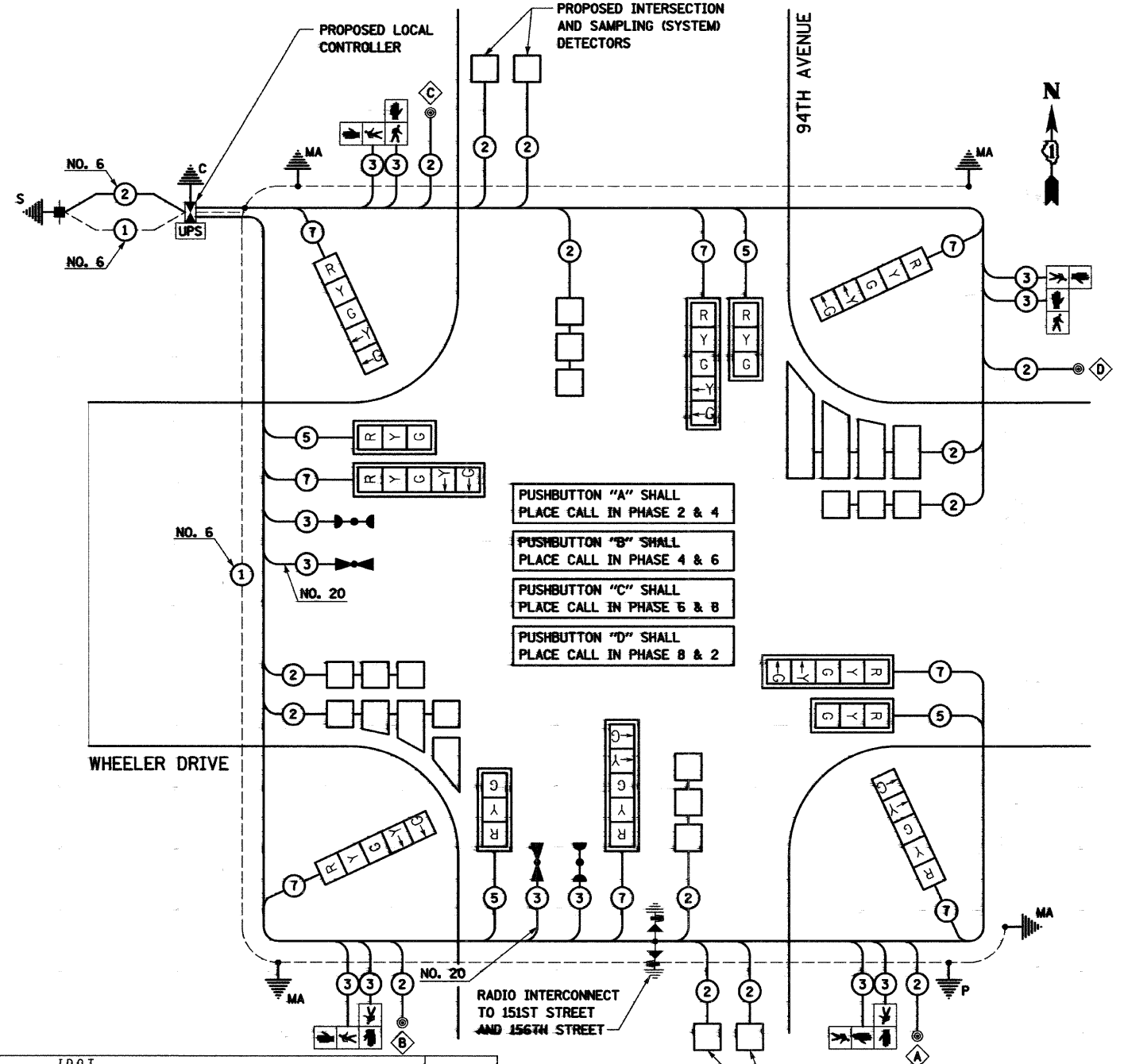
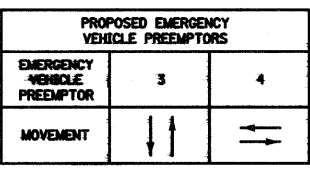
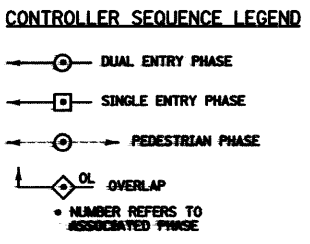


NOTES:
 1. RESTORATION OF WORK AREA - RESTORATION OF TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, ETC. AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED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

SEC Group, Inc. <small>Engineering • Surveying • Planning • Landscape Architecture</small> <small>525 Adams Drive, Hunt, Illinois, IL 60461</small> <small>T 815.482.8324 F 815.482.8326</small> <small>PROJECT CONTACT: T. SCOTT SCHNEIDER, P.E.</small> <small>TELEPHONE: 800.877.7701</small> <small>SEC PROJ. NO. 06087 3/13/2009 210x45</small>	USER NAME = a.johnson PLOT SCALE = 1"=20' PLOT DATE = 3/13/2009	DESIGNED - TSC DRAWN - RCB CHECKED - APS DATE - 3/13/09	REVISED - REVISED - REVISED - REVISED -	PLANS FOR PROPOSED FEDERAL AID HIGHWAY FAU ROUTE 1686 (94TH AVE) AND FAU ROUTE 1603 (151ST ST) VILLAGE OF ORLAND PARK	TRAFFIC SIGNAL INSTALLATION PLAN	SCALE: 1"=20' SHEET NO. 8 OF 16 SHEETS STA. TO STA.	<table border="1"> <tr> <th>FAU RTE</th> <th>SECTION</th> <th>COUNTY</th> <th>TOTAL SHEETS</th> <th>SHEET NO.</th> </tr> <tr> <td>1686/1603</td> <td>08-00065-00-TL</td> <td>COOK</td> <td>16</td> <td>8</td> </tr> <tr> <td colspan="5" style="text-align: center;">CONTRACT NO. 63050</td> </tr> <tr> <td colspan="5" style="text-align: center;">FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT</td> </tr> </table>	FAU RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	1686/1603	08-00065-00-TL	COOK	16	8	CONTRACT NO. 63050					FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
	FAU RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.																						
1686/1603	08-00065-00-TL	COOK	16	8																							
CONTRACT NO. 63050																											
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT																											
SEC Group, Inc. is an Equal Opportunity Employer. Minorities and women are encouraged to apply.																											



PHASE DESIGNATION DIAGRAM



CABLE PLAN

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

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

TYPE	NO. LAMPS	WATTAGE	LED	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	12	17	0.50		102
(YELLOW)	12	25	0.25		75
(GREEN)	12	15	0.25		45
ARROW	16	12	0.10		19.2
PED. SIGNAL	8	25	1.00		200
CONTROLLER	1	100	1.00		100
ILLUM. SIGN					
FLASHER					
UPS	1	25	1.00		25
TOTAL =					566.2

ENERGY COSTS TO:
VILLAGE OF ORLAND PARK
14700 RAVINIA AVENUE
ORLAND PARK, IL 60462

ENERGY SUPPLY CONTACT: NILES K. AKBAR
(708) 235-2550
COMED

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
TYPE C - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'±L-2'
TYPE D - CONTROLLER	4 (1.2)	SIGNAL POST	2 (1.0)		(6m±L-0.6m)
TYPE E - M.A. LENGTH		CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
<30'	30" (900mm)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
<40'	30" (750mm)	ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
<40'	36" (900mm)	GROUND CABLE	1 (0.5)	SERVICE TO BE GROUND	13.5 (4.1)
<50'	36" (900mm)		13 (4.0)	POST MOUNTED	6 (1.8)
>50'	36" (900mm)		15 (4.6)		

CABLE PLAN LEGEND

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

SCHEDULE OF QUANTITIES

PAY ITEM #	PAY ITEMS	UNIT	TOTAL
72000100	SIGN PANEL, TYPE 1	50 FT	50
81000600	CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	FOOT	556
81000800	CONDUIT IN TRENCH, 3" DIA., GALVANIZED STEEL	FOOT	57
81018500	CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL	FOOT	105
81018700	CONDUIT PUSHED, 3" DIA., GALVANIZED STEEL	FOOT	43
81018900	CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL	FOOT	335
81400100	HANDHOLE	EACH	3
81400200	HEAVY-DUTY HANDHOLE	EACH	4
81400300	DOUBLE HANDHOLE	EACH	2
81900200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	613
85700200	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET	EACH	1
87301215	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	458.0
87301225	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	1108.0
87301245	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	700.0
87301255	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	1330.0
87301305	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	1614.5
87301805	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C	FOOT	93.5
87502500	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	1
87700170	STEEL MAST ARM ASSEMBLY AND POLE, 26 FT.	EACH	1
87700200	STEEL MAST ARM ASSEMBLY AND POLE, 32 FT.	EACH	1
87700220	STEEL MAST ARM ASSEMBLY AND POLE, 36 FT.	EACH	1
87700260	STEEL MAST ARM ASSEMBLY AND POLE, 44 FT.	EACH	1
87800100	CONCRETE FOUNDATION, TYPE A	FOOT	4
87800150	CONCRETE FOUNDATION, TYPE A	FOOT	4
87800400	CONCRETE FOUNDATION, TYPE E, 30-INCH DIAMETER	FOOT	45
87800415	CONCRETE FOUNDATION, TYPE E, 36-INCH DIAMETER	FOOT	15
88030020	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	4
88030100	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	4
88030110	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED	EACH	4
88102740	PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED	EACH	4
88200210	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	8
88500100	INDUCTIVE LOOP DETECTOR	EACH	10
88600100	DETECTOR LOOP, TYPE I	FOOT	981
88700200	LIGHT DETECTOR	EACH	2
88700300	LIGHT DETECTOR AMPLIFIER	EACH	1
88800100	PEDESTRIAN PUSH-BUTTON	EACH	4
X8050010	SERVICE INSTALLATION - GROUND MOUNTED	EACH	1
X8730027	ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	FOOT	777.0
X8730250	ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED	FOOT	245.0
XX006661	UNINTERRUPTIBLE POWER SUPPLY	EACH	1

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FACSIMILE: 815-462-8327
WWW.SECGROUP.COM

USER NAME = sjohnson
DESIGNED - TSC
DRAWN - RCB
CHECKED - APS
DATE - 3/13/09

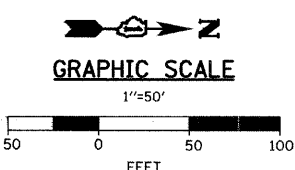
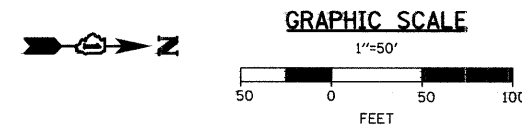
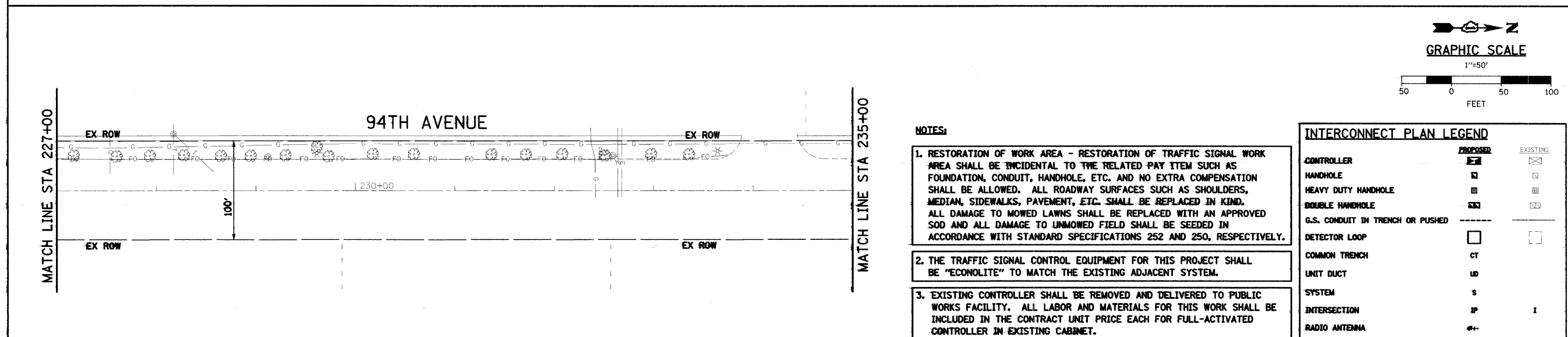
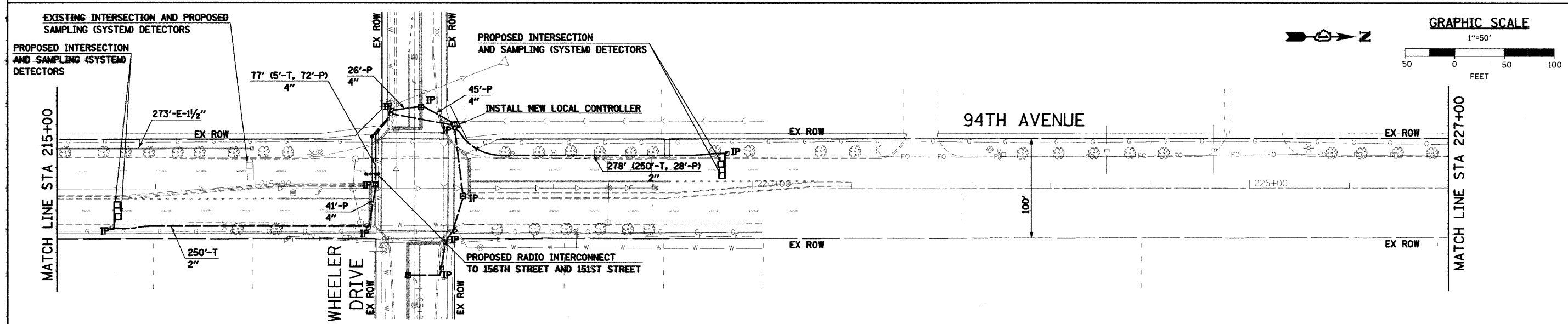
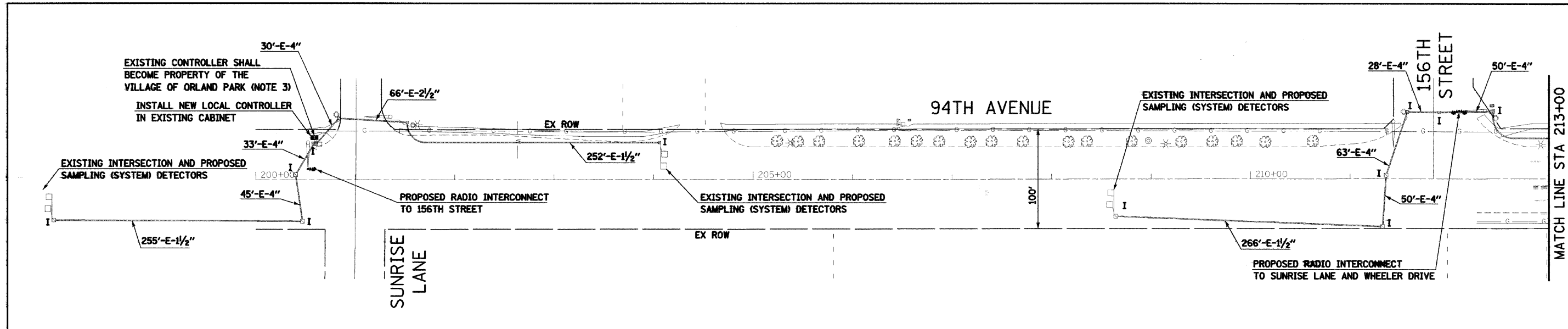
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PLOT DATE = 3/13/2009

PLANS FOR PROPOSED FEDERAL AID HIGHWAY
FAU ROUTE 1686 (94TH AVE) AND
FAU ROUTE 1603 (151ST ST)
VILLAGE OF ORLAND PARK

CABLE PLAN AND PHASE DESIGNATION DIAGRAM
SCALE: NONE SHEET NO. 9 OF 16 SHEETS STA. TO STA.

FAU RTE 1686/1603 SECTION 08-00065-00-TL COUNTY COOK TOTAL SHEETS 16 SHEET NO. 9 CONTRACT NO. 63050
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT



- NOTES:**
1. RESTORATION OF WORK AREA - RESTORATION OF TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, ETC. AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIAN, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD AND ALL DAMAGE TO UNMOWED FIELD SHALL BE SEEDDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250, RESPECTIVELY.
 2. THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.
 3. EXISTING CONTROLLER SHALL BE REMOVED AND DELIVERED TO PUBLIC WORKS FACILITY. ALL LABOR AND MATERIALS FOR THIS WORK SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE EACH FOR FULL-ACTIVATED CONTROLLER IN EXISTING CABINET.

INTERCONNECT PLAN LEGEND		
	PROPOSED	EXISTING
CONTROLLER		
HANDHOLE		
HEAVY DUTY HANDHOLE		
DOUBLE HANDHOLE		
G.S. CONDUIT IN TRENCH OR PUSHED		
DETECTOR LOOP		
COMMON TRENCH	CT	
UNIT DUCT	UD	
SYSTEM	S	
INTERSECTION	IP	I
RADIO ANTENNA		

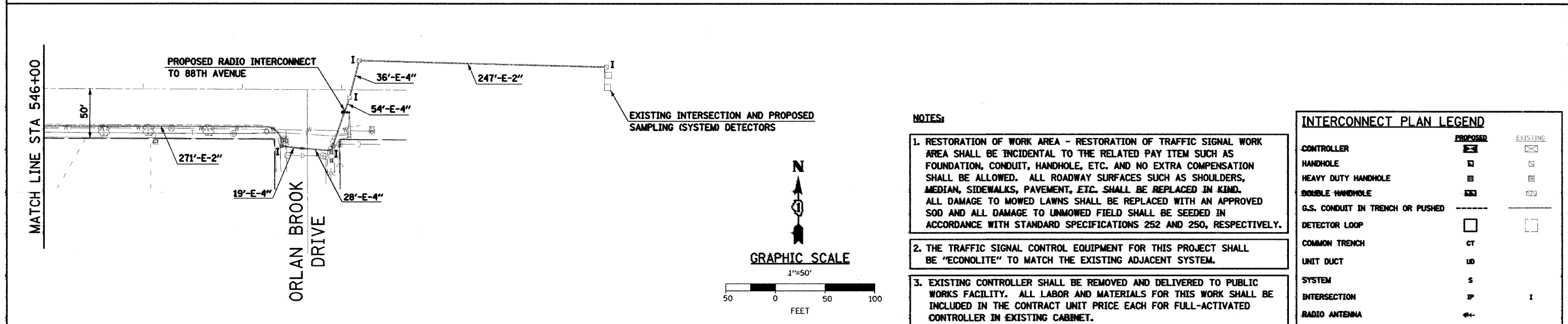
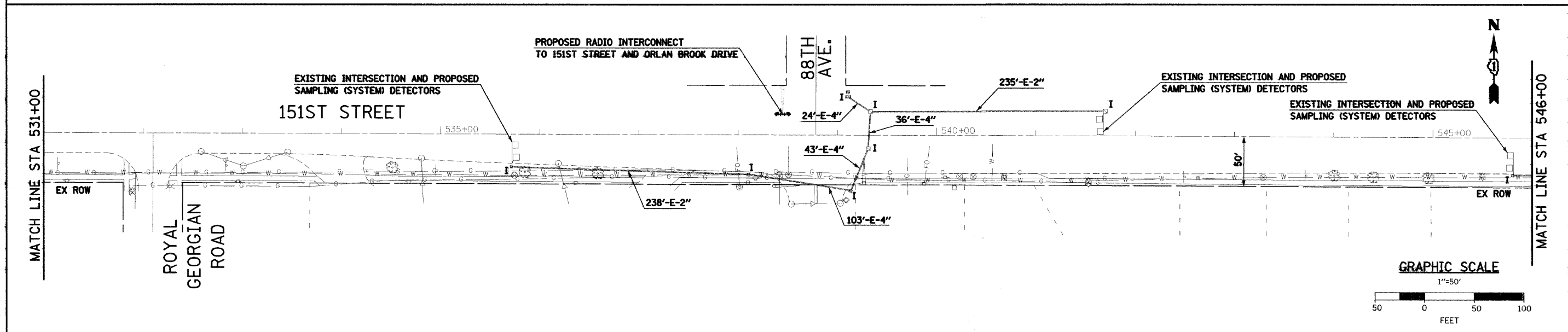
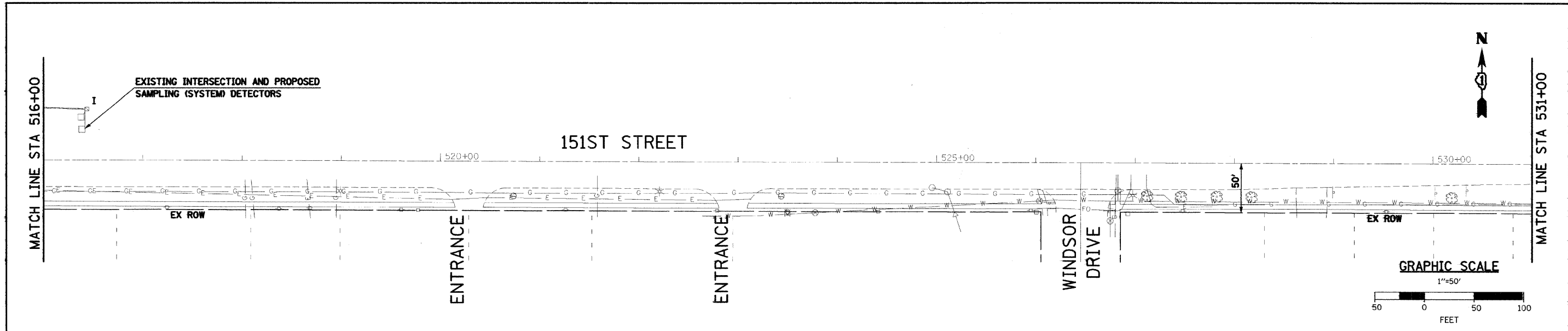
SEC Group, Inc.
 Engineering - Surveying - Planning - Landscape Architecture
 223 Adams Drive, New Lenox, IL 60451
 P: 815.462.8324 F: 815.462.9326
 PROJECT CONTACT: T. SCOTT SCHEFFEL, P.E.
 TEL: 815.462.8324 FAX: 815.462.9326
 SEC: 08-00065-00-01 3/13/2009 21708 P

USER NAME = t.johnson
 DESIGNED - TSC
 DRAWN - RCB
 CHECKED - APS
 DATE - 3/13/09
 REVISED -
 REVISED -
 REVISED -
 REVISED -

PLANS FOR PROPOSED FEDERAL AID HIGHWAY
FAU ROUTE 1686 (94TH AVE) AND
FAU ROUTE 1603 (151ST ST)
VILLAGE OF ORLAND PARK

TRAFFIC SIGNAL INTERCONNECT PLAN
 SCALE: 1"=50' SHEET NO. 10 OF 16 SHEETS STA. TO STA.

FAU RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1686/1603	08-00065-00-TL	COOK	16	10
CONTRACT NO. 63050				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



- NOTES:**
- RESTORATION OF WORK AREA - RESTORATION OF TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, ETC. AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIAN, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD AND ALL DAMAGE TO UNMOWED FIELD SHALL BE SEEDING IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250, RESPECTIVELY.
 - THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.
 - EXISTING CONTROLLER SHALL BE REMOVED AND DELIVERED TO PUBLIC WORKS FACILITY. ALL LABOR AND MATERIALS FOR THIS WORK SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE EACH FOR FULL-ACTIVATED CONTROLLER IN EXISTING CABINET.

INTERCONNECT PLAN LEGEND		
	PROPOSED	EXISTING
CONTROLLER		
HANDHOLE		
HEAVY DUTY HANDHOLE		
DOUBLE HANDHOLE		
G.S. CONDUIT IN TRENCH OR PUSHED		
DETECTOR LOOP		
COMMON TRENCH	CT	
UNIT DUCT	UD	
SYSTEM	S	
INTERSECTION	IP	I
RADIO ANTENNA		

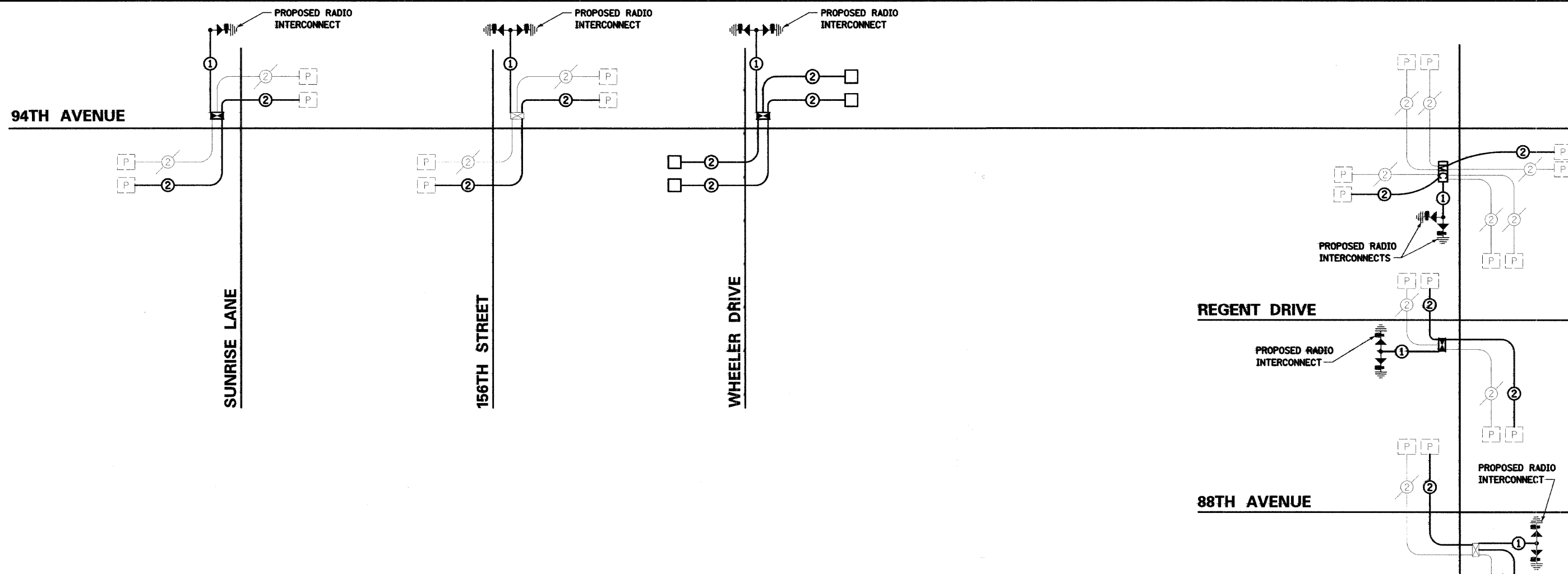
SEC Group, Inc.
 Engineering • Surveying • Planning • Landscape Architecture
 323 Altona Drive, New Lenox, IL 60451
 T: 815.462.8224 F: 815.462.9226
 PROJECT CONTACT: T. DOWDY, P.E.
 FILE NUMBER: 080077-100-000
 SEC: 08/11/2008 3/13/2009 3/13/2009

USER NAME = a.johnson	DESIGNED - TSC	REVISED -
PLOT SCALE = 1"=50'	DRAWN - RCB	REVISED -
PLOT DATE = 3/13/2009	CHECKED - APS	REVISED -
	DATE - 3/13/09	REVISED -

**PLANS FOR PROPOSED FEDERAL AID HIGHWAY
 FAU ROUTE 1686 (94TH AVE) AND
 FAU ROUTE 1603 (151ST ST)
 VILLAGE OF ORLAND PARK**

TRAFFIC SIGNAL INTERCONNECT PLAN
 SCALE: 1"=50' SHEET NO. 12 OF 16 SHEETS STA. TO STA.

FAU RTE 1686/1603	SECTION 08-00065-00-TL	COUNTY COOK	TOTAL SHEETS 16	SHEET NO. 12
CONTRACT NO. 63050				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



INTERCONNECT SCHEMATIC LEGEND

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

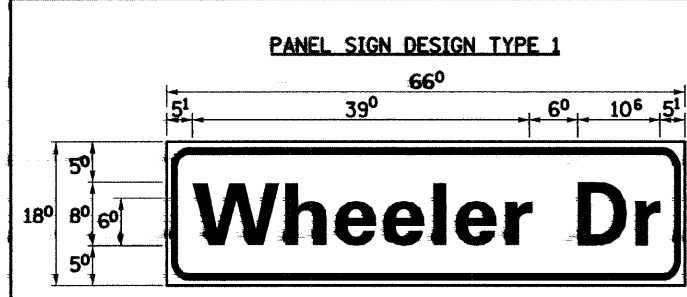
THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE VILLAGE AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE VILLAGE'S PUBLIC WORKS FACILITY.

2 EACH CONTROLLER (COMPLETE)

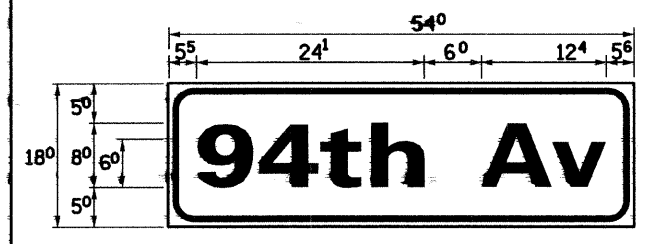
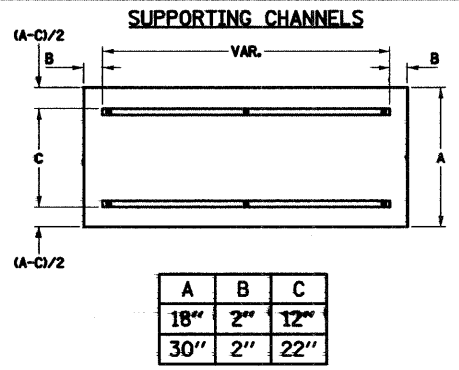
THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

INTERCONNECT PLAN SCHEDULE OF QUANTITIES

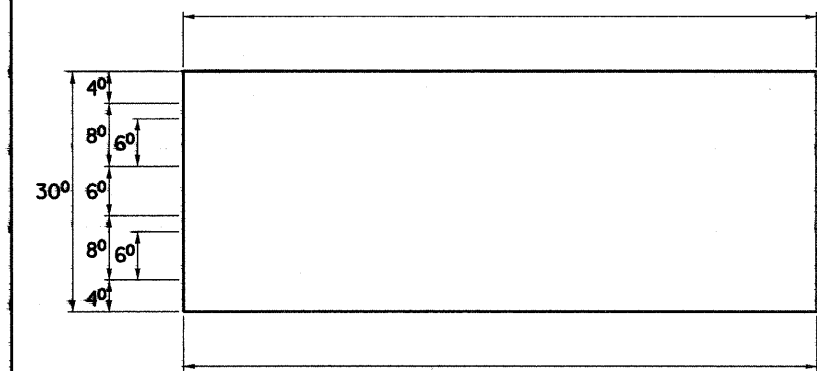
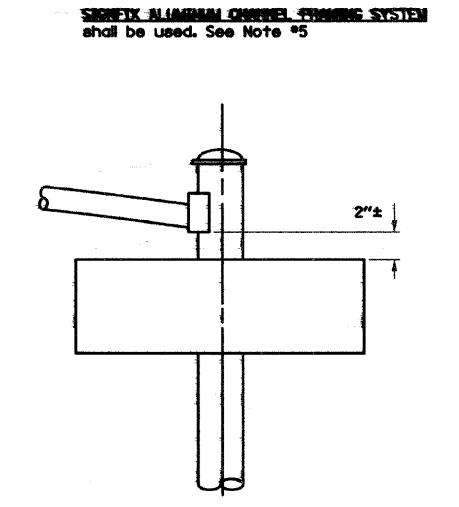
PAY ITEMS	UNIT	TOTAL
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATIO	EACH	6
FULL-ACTUATED CONTROLLER IN EXISTING CABINET	EACH	2
TRANSCIVER	EACH	7
MASTER CONTROLLER	EACH	1
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	6292.5
INDUCTIVE LOOP DETECTOR	EACH	12
OPTIMIZE TRAFFIC SIGNAL SYSTEM	EACH	7
WIRELESS INTERCONNECT (COMPLETE)	EACH	1



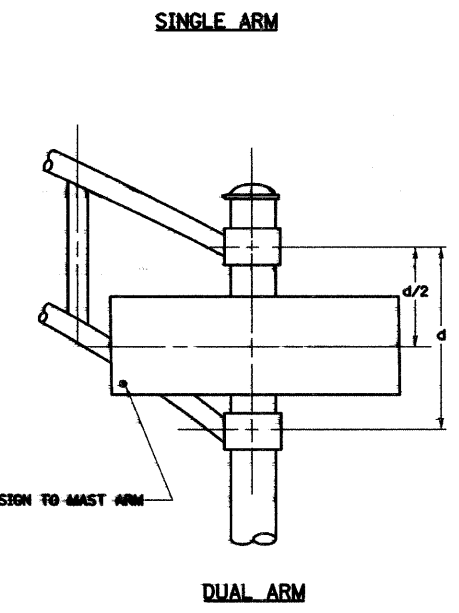
MA-1/MA-3
 8.25 Sq. Ft each
 2 Required
 Design Series D



MA-2/MA-4
 6.75 Sq. Ft each
 2 Required
 Design Series D



— Sq. Ft each
 — Required
 Design Series —



GENERAL NOTES

- WHERE MAST ARM MOUNTED STREET NAME SIGNS ARE SPECIFIED, THE MAST ARM AND POLES SHALL BE DESIGNED TO SUPPORT THE LOADINGS CALLED FOR ON STANDARDS 2374 THROUGH 2377, AS APPLICABLE, PLUS A 2'-6" BY 6'-0" SIGN PANEL MOUNTED AS SHOWN. THE DESIGN SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CURRENT "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LAMINAES, AND TRAFFIC SIGNALS" AS PUBLISHED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS FOR 80 M.P.H. WIND VELOCITY.
- ALL SIGNS SHALL HAVE A WHITE REFLECTORIZED LEGEND AND BORDER ON A GREEN REFLECTORIZED BACKGROUND, TYPE A SHEETING.
- THE SIGN LENGTH SHOULD BE INCREASED IN 6-INCH INCREMENTS, BUT THE OVERALL LENGTH SHOULD NOT EXCEED 6'-0"
- ALL BORDERS SHALL BE 3/4" WIDE AND CORNER RADIUS SHALL BE 2 1/4".
- SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM SHALL BE USED FOR ALL SIGNS ATTACHED TO SIGNAL POLES AND POSTS.

LOCAL SUPPLIERS OF THE SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM ARE:

- A.K.T. CORPORATION, SCHAUMBURG, IL.
- TUCKER COMPANY, INC., WAUWATOSA, WI.
- AMERICAN FABRICATION CO., CHICAGO HEIGHTS, IL.
- WESTERN TRAFFIC CONTROL, INC., CICERO, IL.

PARTS LISTING:

SIGN CHANNEL	PART 3HPN053 (MED. CHANNEL)
SIGN SCREWS	1/4" X 14 X 1" H.W.H. #3
	SELF TAPPING WITH NEOPREAM WASHER
BRACKETS	PART #HPN034 (UNIVERSAL)
	CHANNEL CLAMPS WITH STAINLESS STEEL STRAPPING

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

Upper Case To Lower Case
 Spacing Chart 8-6 Inch Series "C & D"
 EXAMPLE, 2 [Ⓢ] DENOTES 3/8"

SERIES	SECOND LETTER															
	a d h g i j		b h i k l m n p r u		f w		j		s t		v y		x z			
	C	D	C	D	C	D	C	D	C	D	C	D	C	D		
A W X	12	14	14	15	12	14	06	10	11	14	06	10	11	12	12	14
B	14	15	20	21	14	15	11	12	14	15	12	14	12	14	15	17
C E G	14	15	20	21	12	14	06	10	12	14	12	14	14	15	14	15
D O Q R	14	15	20	21	14	15	06	10	12	14	12	14	14	15	14	15
F	06	06	14	15	06	10	06	06	06	10	06	10	06	10	11	12
H I M N	20	21	22	24	20	21	14	15	17	16	17	20	21	20	21	
J U	20	21	20	21	16	17	14	15	16	17	16	17	16	17	20	21
K L	11	12	16	17	11	12	06	06	11	12	11	12	11	12	12	14
P	12	14	14	15	12	14	06	06	11	12	11	12	11	12	14	14
S	12	14	16	17	12	14	06	10	12	14	12	14	12	14	12	14
T	11	12	16	17	06	10	06	10	11	12	11	12	11	12	12	14
V	06	10	14	15	11	12	06	10	12	14	12	14	12	14	12	14
Y	06	06	14	15	06	10	06	06	06	10	06	06	06	10	11	12
Z	16	17	22	24	16	17	12	14	16	17	16	17	16	17	20	21

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

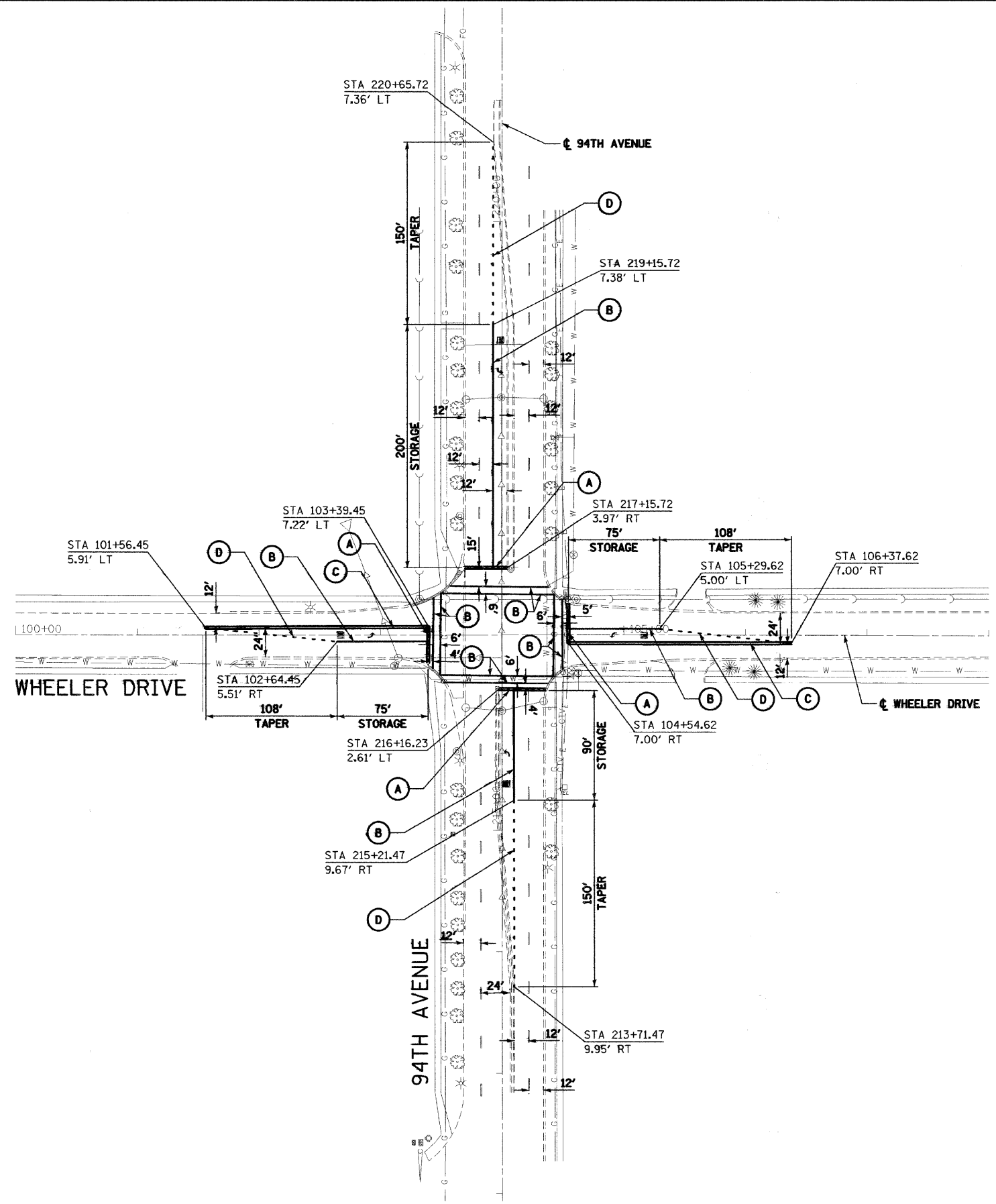
SERIES	SECOND LETTER															
	a d h g i j		b h i k l m n p r u		f w		j		s t		v y		x z			
	C	D	C	D	C	D	C	D	C	D	C	D	C	D		
ad h g i j	16	17	22	24	16	17	12	14	14	15	14	15	16	17	16	17
l m n p r u	12	14	16	17	11	12	06	06	11	12	11	12	11	12	14	14
oe	12	14	16	17	12	14	06	10	12	14	12	14	12	14	12	14
r	06	10	12	14	06	10	06	06	06	06	06	06	10	06	10	
t z	12	14	16	17	12	14	06	10	11	12	11	12	11	12	14	14
vy	11	12	14	15	11	12	06	06	06	10	06	10	11	12	11	12
w	11	12	14	15	11	12	06	06	11	12	11	12	11	12	12	14
x	12	14	16	17	11	12	06	06	11	12	11	12	11	12	12	14

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

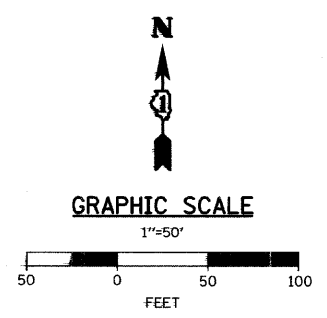
SERIES	SECOND LETTER																			
	0		1		2		3		4		5		6		7		8		9	
	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D
0 9	16	17	16	17	14	15	12	14	14	15	14	15	16	17	12	14	16	17	16	17
1	20	21	20	21	20	21	16	17	14	15	20	21	20	21	14	15	20	21	20	21
2 3 4	14	15	14	15	14	15	12	14	12	14	14	15	14	15	11	12	16	17	14	15
5	14	15	14	15	14	15	11	12	11	12	14	15	14	15	11	12	14	15	14	15
6	16	17	14	15	14	15	12	14	12	14	14	15	14	15	11	12	14	15	14	15
7	12	14	12	14	14	15	12	14	06	06	12	14	14	15	11	12	14	15	12	14
8	16	17	16	17	14	15	12	14	12	14	14	15	14	15	11	12	14	15	14	15

LETTERS	6 INCH UPPER CASE LETTERS		8 INCH UPPER CASE LETTERS		LETTERS	6 INCH LOWER CASE LETTERS	
	SERIES		SERIES			SERIES	
	C	D	C	D		C	D
A	36	50	50	66	a	35	42
B	32	40	43	53	b	35	42
C	32	40	43	53	c	35	41
D	32	40	43	53	d	35	42
E	30	35	40	47	e	35	42
F	30	35	40	47	f	23	26
G	32	40	43	53	g	35	42
H	32	40	43	53	h	35	42
I	07	07	11	12	i	11	11
J	30	35	40	50	j	20	22
K	32	41	43	54	k	35	42
L	30	35	40	47	l	11	11
M	37	45	51	61	m	60	70
N	32	40	43	53	n	35	42
O	34	42	45	55	o	35	43
P	32	40	43	53	p	35	42
Q	34	42	45	55	q	35	42
R	32	40	43	53	r	26	32
S	32	40	43	53	s	35	42
T	30	35	40	47	t	27	32
U	32	40	43	53	u	35	42
V	35	41	47	60	v	42	47
W	44	52	60	70	w	55	64
X	34	40	45	53	x	44	51
Y	35	50	50	65	y	45	53
Z	32	40	43	53	z	35	43

NUMBER	6 INCH SERIES		8 INCH SERIES	
	SERIES		SERIES	
	C	D	C	D
1	12	14	15	20
2	32	40	43	53
3	32	40	43	53
4	35	43	47	57
5	32	40	43	53
6	32	40	43	53
7	32	40	43	53
8	32	40	43	53
9	32	40	43	53
0	34	42	45	55



- STRIPING LEGEND**
- (A) 24" SOLID WHITE LINE THERMOPLASTIC PAVEMENT MARKING LINE (135 LF)
 - (B) 6" SOLID WHITE LINE THERMOPLASTIC PAVEMENT MARKING LINE (1059 LF)
 - (C) 2-4" SOLID YELLOW LINES @ 11" CENTER TO CENTER, THERMOPLASTIC PAVEMENT MARKING LINE (732 LF)
 - (D) 6" WHITE, 2' DASH, 6' SKIP THERMOPLASTIC PAVEMENT MARKING LINE (129 LF)
- SYMBOL LEGEND**
- ▲ WHITE TURN ARROW & LETTERS 62.4 SQ. FT. THERMOPLASTIC
 - (83.2 SQ. FT)



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 323 Abasco Drive, New Lenox, IL 60451
 P.O. BOX 1000, COOK COUNTY, ILLINOIS, U.S.A.
 TEL: 815.462.8224 FAX: 815.462.9226
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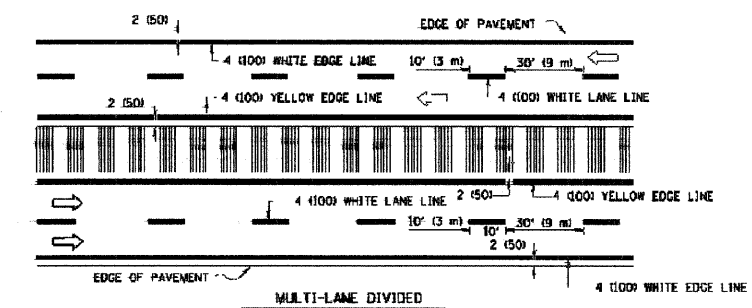
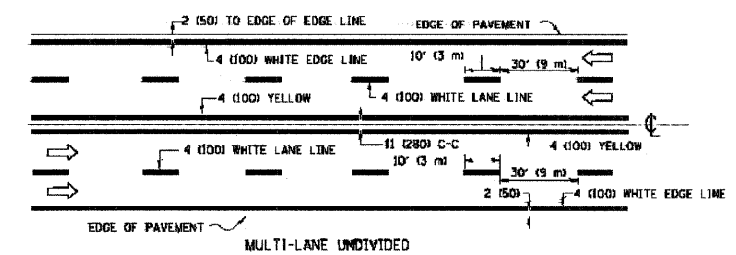
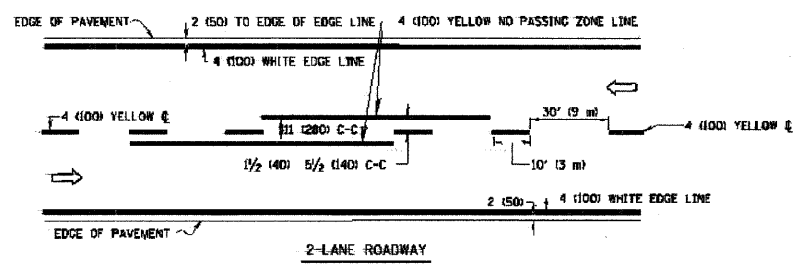
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PLOT SCALE = 1"=50'	DRAWN - RCB	REVISED -
PLOT DATE = 3/13/2009	CHECKED - APS	REVISED -
	DATE - 3/13/09	REVISED -

**PLANS FOR PROPOSED FEDERAL AID HIGHWAY
 FAU ROUTE 1686 (94TH AVE) AND
 FAU ROUTE 1603 (151ST ST)
 VILLAGE OF ORLAND PARK**

PAVEMENT MARKING PLAN

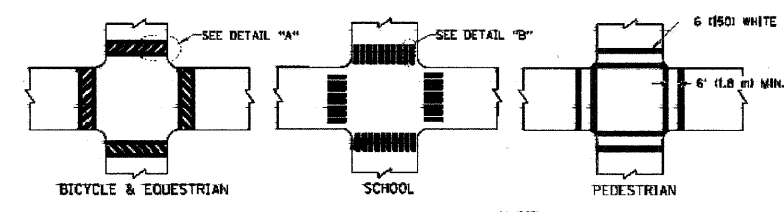
SCALE: 1"=50' SHEET NO. 15 OF 16 SHEETS STA. TO STA.

FAU RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1686/1603	08-00065-00-TL	COOK	16	15
CONTRACT NO. 63050				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

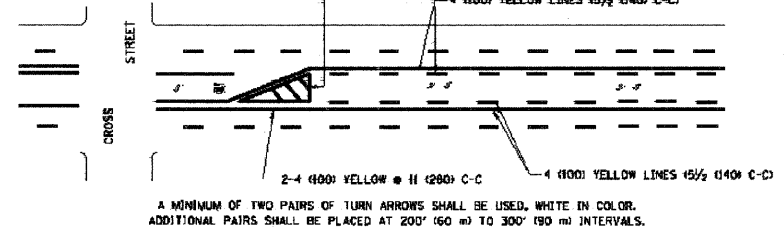
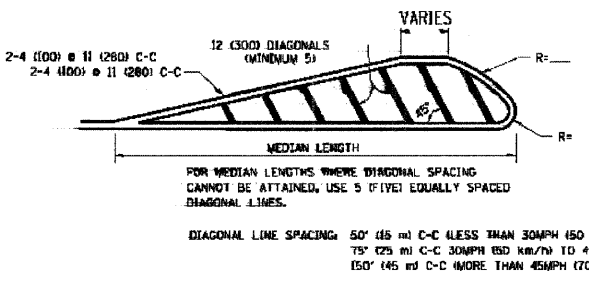
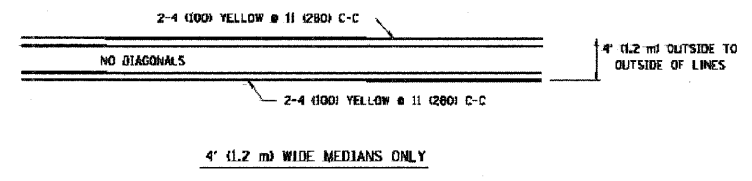


NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

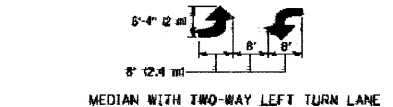
TYPICAL LANE AND EDGE LINE MARKING



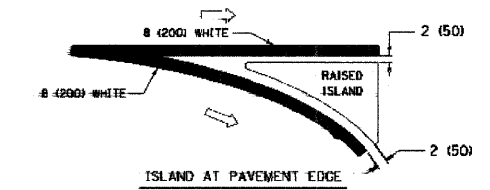
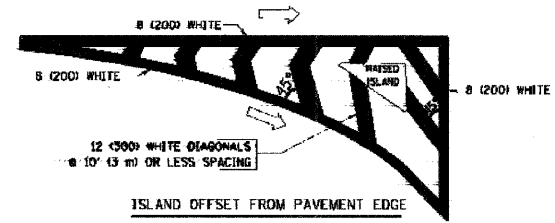
TYPICAL CROSSWALK MARKING



TYPICAL PAINTED MEDIAN MARKING



TYPICAL LEFT (OR RIGHT) TURN LANE



TYPICAL ISLAND MARKING

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 @ 4 (100)	SOLID SOLID	YELLOW YELLOW	5 1/2 (140) C-C FROM SKIP-DASH CENTERLINE OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 3 @ 4 (100) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LINE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MOUNTABLE MEDIANS IN YELLOW. EDGE LINES ARE NOT USED NEXT TO BARRIER CURB
TURN LANE MARKINGS	6 (150) LINE FULL SIZE LETTERS & SYMBOLS @ (2.4m)	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION 8' (2.4m) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH & 1/2 (40) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN & BICYCLE) & EQUINE	2 @ 6 (150) 2 (600) APART 2 (600) APART	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT, PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW, TWO WAY TRAFFIC WHITE, ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
CORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS: 50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C (30MPH (50 km/h) TO 45MPH (70 km/h)) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES, "RR" IS 6' (1.8 m) LETTERS @ 4400' LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 78001 AREA OF: "R"=3.6 SQ. FT. (0.33 m²) EACH "X"=54.0 SQ. FT. (5.0 m²)
SHOULDER DIAGONALS	12 (300) @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (23 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h))

FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 78001.

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

REVISIONS	
NAME	DATE
EVERS	03-19-90
J. RAMMACHER	10-27-94
ALEX HOUSEH	10-09-96
ALEX HOUSEH	10-17-96
J. RAMMACHER	01-06-00

ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT ONE
TYPICAL PAVEMENT MARKINGS
SCALE: NONE
DRAWN BY CAD
CHECKED BY TC-13