
CENTRAL
FLORIDA
EXPRESSWAY
AUTHORITY

*SIGNAL DESIGN
DETAILS*

FOR DESIGN AND CONSTRUCTION ON THE CFX SYSTEM

MARCH 2024

CENTRAL FLORIDA EXPRESSWAY AUTHORITY
4974 ORL TOWER RD.
ORLANDO, FL 32807
PHONE NUMBER: (407) 690-5000
FAX NUMBER: (407) 690-5011

SIGNALIZATION GENERAL NOTES

1. THE SIGNALIZATION PLANS HAVE BEEN PREPARED IN ACCORDANCE WITH THE FLORIDA DEPARTMENT OF TRANSPORTATION'S STANDARD PLANS, LATEST EDITION. GOVERNING SPECIFICATIONS ARE THE STATE OF FLORIDA, LATEST EDITION OF STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, APPLICABLE AGENCY SPECIFICATIONS, AND SUPPLEMENTS THERETO IF NOTED IN THE SPECIAL PROVISIONS FOR THIS PROJECT.
 2. THESE PLANS REFLECT CONDITIONS KNOWN DURING PLAN DEVELOPMENT. IN THE EVENT ACTUAL PHYSICAL CONDITIONS PREVENT THE APPLICATION OR THE PROGRESSION OF ANY WORK SPECIFIED, NOTIFY THE CEI ENGINEER IMMEDIATELY.
 3. JUST PRIOR TO THE FINAL WALKTHROUGH OF THE PROJECT, FURNISH THE MAINTAINING AGENCY AND CEI ENGINEER EACH ONE (1) COPY OF EQUIPMENT WARRANTY DOCUMENTS, ONE (1) HARD COPY AND ONE (1) ELECTRONIC (PDF) COPY OF MAINTENANCE MANUALS, AND THREE (3) COMPLETE SETS OF AS-BUILT PLANS. ONE SET MUST BE LEFT IN THE CABINET. IN ADDITION, FURNISH A COMPLETED TRACEABILITY MATRIX FOR ANY ATMS/ITS EQUIPMENT.
 4. HAVE AN IMSA LEVEL 2 CERTIFIED TECHNICIAN ON CALL WITH A MAXIMUM OF TWO (2) HOURS RESPONSE TIME. PROVIDE A 24-HOUR TELEPHONE NUMBER TO THE SIGNAL MAINTAINING AGENCY AND CEI ENGINEER PRIOR TO ANY SIGNAL CONSTRUCTION. ONCE NOTIFIED OF AN EMERGENCY SIGNAL TROUBLE CALL, AND THE TECHNICIAN HAS NOT RESPONDED WITHIN THE SPECIFIED TWO (2) HOURS, THE MAINTAINING AGENCY RESERVES THE RIGHT TO RESPOND TO THE CALL. IF THE MAINTAINING AGENCY RESPONDS TO AN EMERGENCY SIGNAL TROUBLE CALL DUE TO LACK OF RESPONSE BY THE CONTRACTOR WITHIN THE SPECIFIED TIME PERIOD, THE PRIME CONTRACTOR OF THE PROJECT COULD BE BACK CHARGED ACCORDING TO THE MAINTAINING AGENCY'S POLICY.
 5. NOTIFY THE CEI ENGINEER, THE MAINTAINING AGENCY, AND IF APPLICABLE FDOT, AT LEAST 72 HOURS BEFORE BEGINNING ANY RELATED TRAFFIC SIGNAL WORK. OBTAIN ALL CONSTRUCTION PERMITS REQUIRED FOR ALL APPLICABLE CITIES, COUNTIES, AGENCIES, AND FDOT. APPROVAL OF PLANS BY ANY MAINTAINING AGENCY DOES NOT CONSTITUTE A PERMIT.
 6. EQUIPMENT WARRANTY MUST BE ONE YEAR, MANUFACTURER'S PROVIDED OR PER FDOT STANDARD SPECIFICATIONS (LATEST EDITION), WHICHEVER IS GREATER.
 7. PROVIDE THE CEI ENGINEER AN UPDATED CONSTRUCTION SCHEDULE IN THE FORM OF A TWO WEEK LOOK AHEAD ON A WEEKLY BASIS.
 8. ALL EXISTING SIGNALIZATION EQUIPMENT THAT IS TO REMAIN THROUGHOUT CONSTRUCTION IS ASSUMED TO BE IN GOOD WORKING ORDER AT PROJECT KICKOFF UNLESS CFX AND THE MAINTAINING AGENCY ARE NOTIFIED IN WRITING PRIOR TO THE START OF CONSTRUCTION. ANY DAMAGE TO THE SIGNAL EQUIPMENT AFTER BEGINNING CONSTRUCTION MUST BE REPAIRED AT THE CONTRACTOR'S EXPENSE. USE EXISTING SIGNALIZATION FOR THE MAINTENANCE OF TRAFFIC AS REQUIRED. THE CONTRACTOR IS RESPONSIBLE FOR THE MAINTENANCE OF SIGNALS, INCLUDING LOCATING AND PROTECTING TRAFFIC COMMUNICATIONS INFRASTRUCTURE, FROM THE NOTICE TO PROCEED DATE UNTIL THE MAINTAINING AGENCY ISSUES CONDITIONAL ACCEPTANCE AT FINAL INSPECTION.
 9. UNLESS OTHERWISE NOTED, ALL REMOVED EQUIPMENT EXCEPT CONCRETE POLES MUST BE DELIVERED TO THE MAINTAINING AGENCY. COORDINATE WITH THE CEI ENGINEER FOR THE APPROPRIATE MAINTAINING AGENCY:
MR. ALLEN LASHIER (CONTROL SPECIALISTS) - CFX MAINTENANCE CONTRACTOR
707 NICOLET AVE, SUITE 100
WINTER PARK, FL 32789
321-431-7098
ALASHIER@CONTROLSPECIALISTS.COM
- CITY OF ORLANDO TRANSPORTATION DEPARTMENT
TRANSPORTATION ENGINEERING DIVISION, TRAFFIC SIGNAL SECTION
1214 S. WESTMORELAND DR
ORLANDO, FL 32805
(407) 246-2617 (MAIN)
(407) 246-3699 (FAX)
ORLANDO_TRAFFIC_SIGNAL_CONSTRUCTION@CITYOFFORLANDO.NET
- LAKE COUNTY TRAFFIC OPERATIONS
28127 C.R. 561
TAVARES, FL
(352) 742-1766
- ORANGE COUNTY TRAFFIC OPERATIONS
4200 SOUTH JOHN YOUNG PARKWAY
ORLANDO, FLORIDA 32839-9205
(407) 836-7890
OSCEOLA COUNTY TRANSPORTATION AND TRANSIT
KEVIN KRUG
(407) 738-9405
KEVIN.KRUG@OSCEOLA.ORG
10. OTHER PROJECTS MAY BE UNDER CONSTRUCTION WITHIN OR ADJACENT TO THIS PROJECT'S LIMITS AND COORDINATION OF CONSTRUCTION ACTIVITIES AND TRAFFIC CONTROL PHASES WITH ANY CONTRACTOR WITHIN OR ADJACENT TO THE PROJECT LIMITS IS REQUIRED.
 11. NOTHING IN THE GENERAL NOTES OR SPECIAL PROVISIONS WILL RELIEVE THE CONTRACTOR FROM THEIR RESPONSIBILITIES TOWARD THE SAFETY OF THE GENERAL PUBLIC.
 12. THE LOCATION OF ALL PROPOSED EQUIPMENT TO BE INSTALLED MUST BE CONSIDERED APPROXIMATE. OFFSETS TO CABINETS, PULL BOXES, POLES, FOUNDATIONS AND OTHER TRAFFIC ELEMENTS ARE TO THE CLOSEST EDGE OF THOSE ITEMS, UNLESS OTHERWISE NOTED. PROPOSED LOCATIONS AND CLEARANCES MUST BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO BEGINNING CONSTRUCTION. FIELD ADJUSTMENT OF ALL PROPOSED EQUIPMENT MUST BE APPROVED BY THE CEI ENGINEER AND THE MAINTAINING AGENCY IN WRITING.

INSPECTIONS

1. ALL INSPECTIONS AND REQUIRED TESTING ARE TO BE SCHEDULED IN ACCORDANCE WITH CONTRACT DOCUMENTS. THE CEI ENGINEER, CFX AND THE MAINTAINING AGENCY MUST BE CONTACTED FOURTEEN DAYS BEFORE INSPECTIONS ARE TO BE PERFORMED SO THEY MAY BE PRESENT. IF RE-INSPECTIONS ARE REQUIRED DUE TO CONTRACTOR'S LACK OF PREPAREDNESS, THE CONTRACTOR WILL BE BACK CHARGED FOR THE RE-INSPECTION FEES. A TURN-ON INSPECTION IS REQUIRED, AND THE CONTRACTOR MUST NOTIFY THE MAINTAINING AGENCY AT LEAST 72 HOURS IN ADVANCE. PROVIDE ALL NECESSARY EQUIPMENT INCLUDING A TWO-MAN BUCKET TRUCK OR PLATFORM LIFT TRUCK FOR USE BY THE CEI ENGINEER AND MAINTENANCE.

SUBMITTALS

1. APPROVED SHOP DRAWINGS MUST BE AVAILABLE AT THE PROJECT SITE AT ALL TIMES AND STORED WITHIN THE TRAFFIC SIGNAL CABINET ONCE INSTALLED.

SURVEY

1. THERE MAY BE ADDITIONAL EASEMENTS, RIGHT-OF-WAY, OR OTHER RESTRICTIONS THAT ARE NOT SHOWN ON THIS SURVEY THAT MAY BE FOUND IN THE PUBLIC RECORDS OF THE MAINTAINING AGENCY.
2. SCHEDULE A MEETING WITH CFX, THE CEI ENGINEER, MAINTAINING AGENCY AND ANY OTHER STAKEHOLDERS AT LEAST TWO WEEKS PRIOR TO THE CONSTRUCTION OF FOUNDATIONS, PEDESTAL POLES, A.D.A. RAMPS, SIGNAL CABINETS AND ALL OTHER RELEVANT TRAFFIC SIGNAL INFRASTRUCTURE TO CONFIRM THEIR ASSOCIATED STAKEOUT LOCATIONS.

UTILITIES

1. NOTIFY UTILITY OWNERS THROUGH SUNSHINE ONE CALL OF FLORIDA, INC., (800) 432-4770, AND UTILITY OWNERS LISTED BELOW TWO BUSINESS DAYS IN ADVANCE OF BEGINNING CONSTRUCTION ON THE JOB SITE. A CONTRACTOR'S REPRESENTATIVE MUST BE PRESENT WHEN THE UTILITY COMPANY LOCATES THEIR FACILITIES. THE LOCATION OF EXISTING UTILITIES MUST BE DETERMINED BY THE CONTRACTOR AND THE UTILITY REPRESENTATIVE WHEN NECESSARY DURING CONSTRUCTION.
UTILITY CONTACTS:
UTILITY AGENCY/OWNER CONTACT PERSON (PHONE #)
UTILITY AGENCY/OWNER CONTACT PERSON (PHONE #)
UTILITY AGENCY/OWNER CONTACT PERSON (PHONE #)
ETC
2. NOTIFY ALL UTILITIES AT LEAST 48 HOURS IN ADVANCE OF ANY OPERATION THAT MAY CONFLICT WITH OVERHEAD OR UNDERGROUND UTILITIES, INCLUDING POLE SETTING OPERATIONS WHERE A CONFLICT WITH OVERHEAD ELECTRICAL CONDUCTORS IS EXPECTED, AND IN ANY CIRCUMSTANCES WHERE JOINT USE POLES ARE IMPACTED.
3. THE PRESENCE OF OVERHEAD AND UNDERGROUND ELECTRIC UTILITY LINES NEAR THE LOCATIONS OF THE PROPOSED SIGNAL EQUIPMENT MAY LIMIT THE TYPE OF EQUIPMENT THAT CAN BE USED IN CONSTRUCTION. COORDINATE WITH POWER COMPANY TO DEACTIVATE OR PROTECT LINES IF NECESSARY.
4. USE EXTREME CAUTION WHEN EXCAVATING, INSTALLING, BACKFILLING AND COMPACTING AROUND EXISTING UTILITIES.
5. USE SOFT DIGGING METHODS WHEN WORKING NEAR EXISTING UTILITIES, THE FIRST FOUR FEET OF FOUNDATIONS, OR WHERE SPECIFIED ON THE PLANS. THIS WORK IS INCIDENTAL TO THE ASSOCIATED PAY ITEM.

MAINTENANCE OF TRAFFIC SIGNAL EQUIPMENT

1. WORK REQUIRING A LANE CLOSURE MUST HAVE AN OFF-DUTY LAW ENFORCEMENT OFFICER PRESENT. THE COST OF THE OFF-DUTY LAW ENFORCEMENT OFFICER MUST BE INCIDENTAL TO THE WORK AND WILL NOT BE PAID SEPARATELY.
2. DURING THE TIME THE CONTRACTOR IS RESTORING ALL MALFUNCTIONING TRAFFIC SIGNAL EQUIPMENT, THE CONTRACTOR MUST PROVIDE, AT THEIR EXPENSE, TEMPORARY TRAFFIC CONTROL DEVICES, FLAGGER PERSONNEL, AND LAW ENFORCEMENT PERSONNEL, AS REQUIRED BY THE TEMPORARY TRAFFIC CONTROL PLANS AND FDOT STANDARD PLANS, TO MAINTAIN A SAFE AND EFFICIENT FLOW OF TRAFFIC.
3. EXISTING COMMUNICATIONS, DETECTION AND OPERATIONS MUST BE MAINTAINED AT ALL LOCATIONS DURING CONSTRUCTION. THIS INCLUDES RAILROAD FLASHING BEACONS, RAILROAD PREEMPTION, FIRE PREEMPTION, SCHOOL ZONE FLASHERS, ILLUMINATED STREET NAME SIGNS. PROVIDE TEMPORARY LINES AND CONNECTIONS AS NECESSARY. THIS COST OF MAINTAINING THE SIGNAL AND ITS COMMUNICATION, INCLUDING TEMPORARY LINES AND CONNECTIONS, MUST BE INCIDENTAL TO THE MAINTENANCE OF TRAFFIC PAY ITEM NUMBER. ALL REPORTED MALFUNCTIONS OF THE COMMUNICATIONS SYSTEM MUST BE RESPONDED TO BY THE CONTRACTOR WITHIN TWO HOURS, MUST BE REPAIRED WITHIN 24 HOURS, AND MUST BE DOCUMENTED VIA EMAIL AND THE CEI MUST BE INCLUDED.
4. NOTIFY CFX, THE CEI ENGINEER, MAINTAINING AGENCY, ANY OTHER IMPACTED AGENCIES AND THE D5 REGIONAL TRAFFIC MANAGEMENT CENTER (RTMC) AT LEAST 48 HOURS PRIOR TO ANY PLANNED COMMUNICATIONS DISRUPTION TO THE TRAFFIC SIGNAL(S). ALL COMMUNICATIONS CUTOVERS MUST BE PRE-APPROVED BY CFX, THE MAINTAINING AGENCY AND ANY OTHER IMPACTED AGENCIES, PERFORMED DURING OFF-PEAK HOURS, AND COMPLETED IN AN EXPEDIENT MANNER.

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION

ENGINEER OF RECORD FULL NAME, P.E.
P.E. LICENSE NUMBER 99999
ENGINEER OF RECORD COMPANY NAME
ENGINEER OF RECORD COMPANY STREET
ENGINEER OF RECORD CITY, STATE AND ZIP
CERTIFICATE OF AUTHORIZATION 00009999

SIGNAL DESIGN
DETAILS

ROAD NO. PROJECT NO.

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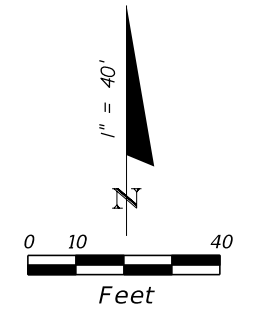
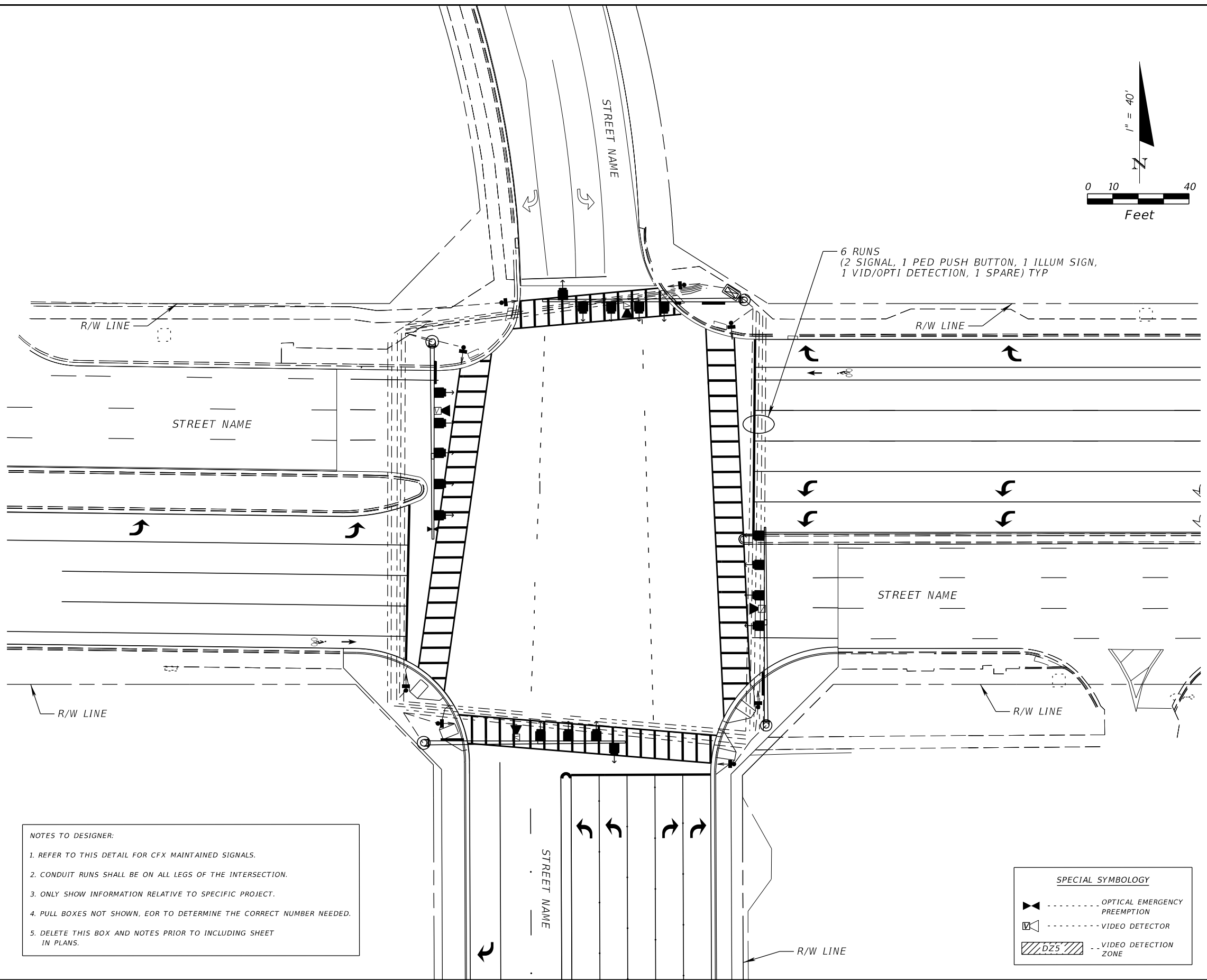
*GENERAL NOTES
SIGNALIZATION*

SHEET
NO.

1

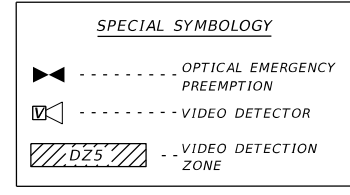
SUSERS \$DATES \$STINES \$FILES

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NOTES TO DESIGNER:

- REFER TO THIS DETAIL FOR CFX MAINTAINED SIGNALS.
- CONDUIT RUNS SHALL BE ON ALL LEGS OF THE INTERSECTION.
- ONLY SHOW INFORMATION RELATIVE TO SPECIFIC PROJECT.
- PULL BOXES NOT SHOWN, EOR TO DETERMINE THE CORRECT NUMBER NEEDED.
- DELETE THIS BOX AND NOTES PRIOR TO INCLUDING SHEET IN PLANS.



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SIGNAL DESIGN DETAILS

ROAD NO.	PROJECT NO.



*SIGNALIZATION PLAN SHEET
PLUS INTERSECTION DETAIL*

SHEET NO.
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