

STATE OF TENNESSEE

SHELBY COUNTY

DIVISION OF PUBLIC WORKS

PLAN FOR PROPOSED IMPROVEMENTS

CONGESTION MANAGEMENT PROGRAM

U.S. 61/THIRD STREET, MITCHELL ROAD TO LINDEN AVENUE

SIGNAL SYSTEM PROJECT SET #10

SCOPE OF WORK

THE SCOPE OF WORK INCLUDES INSTALLING CONDUIT WITH FIBER OPTIC INTERCONNECT CABLE ALONG U.S. 61/S. THIRD STREET FROM MITCHELL ROAD TO DR. MARTIN LUTHER KING AVENUE/LINDEN STREET. THE SCOPE OF WORK ALSO INCLUDES THE INSTALLATION OF VIDEO DETECTION AND/OR EMERGENCY VEHICLE PREEMPTION EQUIPMENT AT SELECT INTERSECTIONS, INSTALLATION OF RADAR DETECTION EQUIPMENT AT SELECT LOCATIONS, AND INSTALLATION OF FIBER OPTIC EQUIPMENT AND CONNECTION AT THE CITY OF MEMPHIS SIGNAL SHOP WITHIN THE PROJECT AREA.

- PROJECT LOCATIONS
- — PROJECT INTERSECTION LOCATIONS
- — PROJECT RADAR DETECTION SYSTEM LOCATIONS

RAILROAD CROSSING

CROSSING	RAILROAD	CROSSING #	RR MILEPOST
1	ILLINOIS CENTRAL RAILROAD CO.	297767K	0003.30
2	ILLINOIS CENTRAL RAILROAD CO.	297560D	0397.00
3	ILLINOIS CENTRAL RAILROAD CO.	297547P	0394.66
4	BNSF RAILWAY CO.	663387M	0484.09
	CSX TRANSPORTATION	348614A	0229.04
	NORFOLK SOUTHERN CORP.	929932S	0551.82
	UNION PACIFIC RAILROAD CO.	438051Y	0378.54

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1	COVER SHEET
2	ESTIMATED QUANTITIES AND STANDARD DRAWINGS
3	GENERAL NOTES AND SPECIAL NOTES
4	SUMMARY OF WORK BY INTERSECTION
5	COMMUNICATIONS CABLE SCHEMATIC AND LEGEND
6	COMMUNICATIONS CHANNEL SCHEMATIC
7-19	CABLE LAYOUT SHEETS
20-31	INTERSECTION LAYOUT SHEETS
32-33	RADAR DETECTION SYSTEM LAYOUT SHEETS
34	CITY OF MEMPHIS SIGNAL SHOP LAYOUT
35-46	SPLICING DIAGRAM SHEETS
47-59	EXISTING UTILITIES SHEETS
60-62	MISCELLANEOUS DETAILS

CONSULTANT DESIGN CONSTRUCTION

TDOT LOCAL PROGRAM MANAGER WHITNEY SULLIVAN

SHELBY COUNTY PROJECT MANAGER ROBERT EVANS

DESIGNED BY NEEL-SCHAFFER, INC. CHECKED BY MICHAEL AGNEW, P.E.

DESIGNER BARRY ALEXANDER, P.E.

P.E. NO. 79LPLM-F3-295

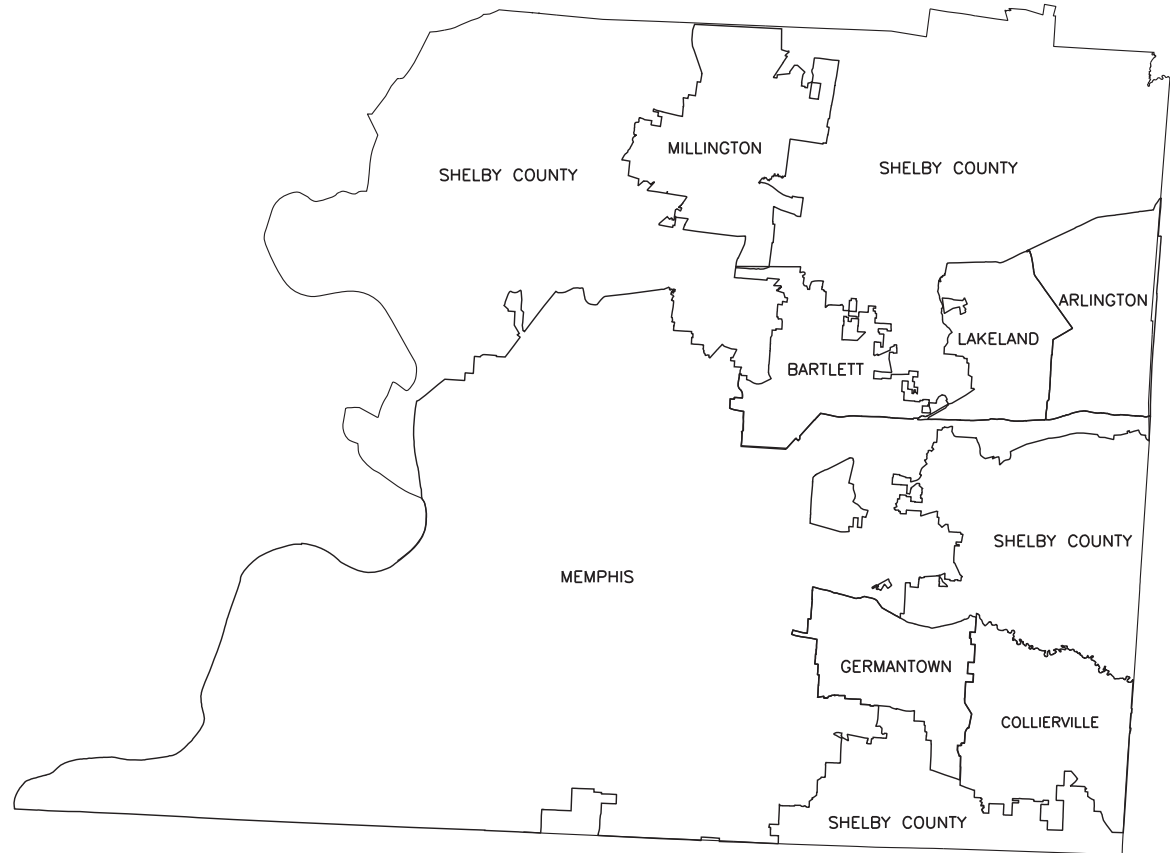
PIN NO. 115241.16

TDOT P.I.N.: 115241.16

FEDERAL PROJECT NO.: CM-NH-14(54)

STATE PROJECT NO.: 79LPLM-F3-295

LOCALLY MANAGED PROJECT



LOCATION MAP

NOT TO SCALE

NOTES:

PROPOSALS MAY BE REJECTED BY THE COUNTY ENGINEER IF ANY OF THE UNIT PRICES CONTAINED THEREIN ARE OBVIOUSLY UNBALANCED, EITHER EXCESSIVE OR BELOW THE REASONABLE COST ANALYSIS VALUE.

CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING ANY UTILITY COMPANY WHICH MAINTAINS A UTILITY LINE WITHIN THE BOUNDARIES OF THE PROJECT PRIOR TO THE INITIATION OF ANY CONSTRUCTION ON THE PROJECT OR IN THE STREETS BORDERING THE PROJECT. THE CONTRACTOR SHALL ALSO ASSUME RESPONSIBILITY FOR ALL DAMAGE TO ANY UTILITY LINES, WHETHER SHOWN ON THE CONSTRUCTION PLANS OR NOT, DURING WORK ON THE PROJECT.

THIS PROJECT TO BE CONSTRUCTED UNDER THE STANDARD SPECIFICATIONS OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION DATED MARCH 1, 2006 AND ADDITIONAL SPECIFICATIONS AND SPECIAL PROVISIONS CONTAINED IN THE PLANS AND IN THE PROPOSAL CONTRACT.

HON. MARK H. LUTTRELL, JR, MAYOR

APPROVED: _____ DATE: _____

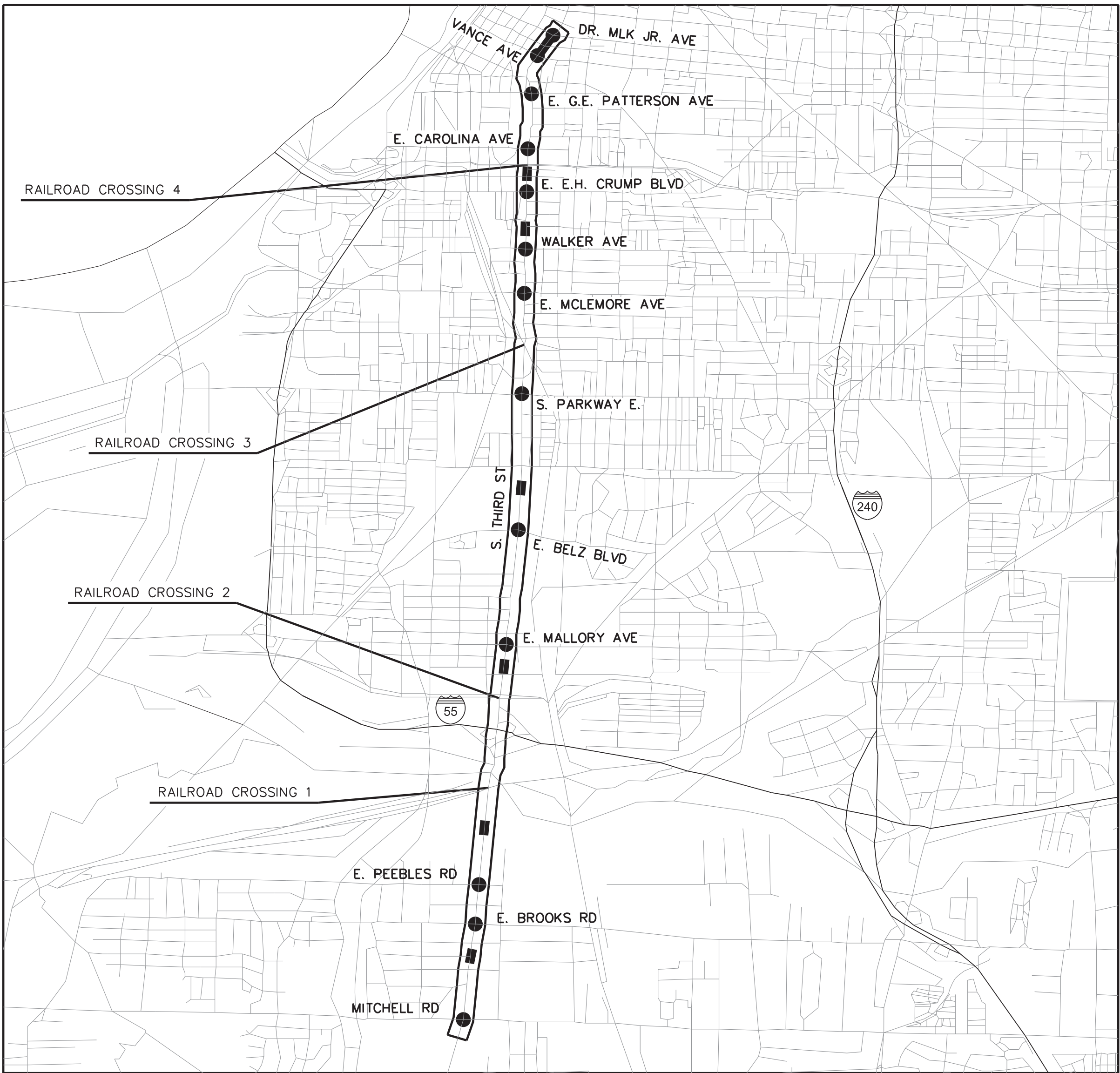
MR. DARREN SANDERS, P.E.
SHELBY COUNTY ENGINEER

APPROVED: _____ DATE: _____

CITY OF MEMPHIS ENGINEER

APPROVED: _____ DATE: _____

CITY OF MEMPHIS TRAFFIC ENGINEER

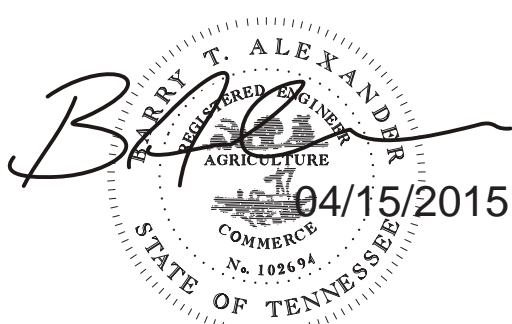


VICINITY MAP

NOT TO SCALE

EQUATIONS: NONE

EXCEPTIONS: NONE



ESTIMATED ROADWAY QUANTITIES			
ITEM NO.	DESCRIPTION	UNIT	QUANTITY
209-01.10	EROSION AND SILTATION CONTROL	L.S.	1
701-01.01	CONCRETE SIDEWALK (4 ")	S.F.	2650
701-02.01	CONCRETE CURB RAMP (RETROFIT)	S.F.	1200
712-01	TRAFFIC CONTROL	L.S.	1
712-04.01	FLEXIBLE DRUMS (CHANNELIZING)	EACH	100
712-06	SIGNS (CONSTRUCTION)	S.F.	984
712-08.03	ARROW BOARD (TYPE C)	EACH	2
714-25.09	ELECTRICAL CONNECTION (FOR MLGW COST ONLY)	EACH	2
717-01	MOBILIZATION	L.S.	1
725-02.79	FIBER SPLICE ENCLOSURE(WEATHER PROOF)	EACH	24
725-03.09	ETHERNET SWITCH (TYPE A)	EACH	18
725-03.10	ETHERNET SWITCH (TYPE B)	EACH	1
725-03.28	RAILROAD FLAGMAN	DAY	10
725-03.60	CABLE MARKER	EACH	26
725-21.22	TERMINAL SERVER (SERIAL DEVICE SERVER)	EACH	1
725-21.88	BLUETOOTH DETECTION SYSTEM	EACH	3
725-21.91	RADAR DETECTION SYSTEM	EACH	7
725-21.96	RDS COMM CABLE	L.F.	460
725-21.97	SOLAR POWER FOR RDS	EACH	5
725-24.01	CABINET (TYPE A)	EACH	7
725-24.11	ITS COMMUNICATIONS HUB (INCLUDING PATCH PANEL)	EACH	1
730-01.02	REMOVAL OF SIGNAL EQUIPMENT	EACH	11
730-03.21	INSTALL PULL BOX (TYPE B)	EACH	4
730-03.23	INSTALL PULL BOX (FIBER OPTIC-TYPE A)	EACH	62
730-03.24	INSTALL PULL BOX (FIBER OPTIC-TYPE B)	EACH	22
730-03.31	FIBER DISTRIBUTION BOX	EACH	18
730-05.01	ELECTRICAL SERVICE CONNECTION	EACH	2
730-08.01	SIGNAL CABLE - 3 CONDUCTOR	L.F.	40
730-08.02	SIGNAL CABLE - 5 CONDUCTOR	L.F.	240
730-08.03	SIGNAL CABLE - 7 CONDUCTOR	L.F.	265
730-08.40	INTERCONNECT CABLE - FIBER OPTIC (36-FIBER, SINGLE MODE)	L.F.	75900
730-08.41	INTERCONNECT CABLE - FIBER OPTIC (DROP CABLE, 6-FIBER, SINGLE MODE)	L.F.	1540
730-08.42	INTERCONNECT CABLE - FIBER OPTIC (DROP CABLE, 36-FIBER, SINGLE MODE)	L.F.	780
730-11.01	STEEL CONDUIT RISER ASSEMBLY	EACH	3
730-11.10	RISER ASSEMBLY (BUILDING ENTRANCE)	EACH	1
730-12.02	CONDUIT 2" DIAMETER (PVC)	L.F.	2800
730-12.03	CONDUIT 3" DIAMETER (PVC)	L.F.	60
730-12.09	CONDUIT 3" DIAMETER (RGS)	L.F.	930
730-12.13	CONDUIT 2" DIAMETER (JACK AND BORE)	L.F.	28200
730-12.42	CURB MARKER (CURB MOUNTED CABLE MARKER)	EACH	140
730-13.02	VEHICLE DETECTOR (VIDEO)	EACH	11
730-13.03	VEHICLE DETECTOR (4 - CHANNEL, RACK MOUNT)	EACH	11
730-13.06	VEHICLE DETECTOR (OPTICALLY ACTIVATED PRIORITY CONTROL)	EACH	7
730-14.01	SHIELDED DETECTOR CABLE	L.F.	120
730-15.12	MODIFY CABINET (BASE-MOUNT ENTRANCE)	EACH	3
730-15.15	MODIFY CABINET (INSTALL DUPLEX GFI OUTLET)	EACH	3
730-15.32	CABINET (EIGHT PHASE BASE MOUNTED)	EACH	8
730-16.02	EIGHT PHASE ACTUATED CONTROLLER	EACH	8
730-23.30	PEDESTAL POLE (ALUMINUM, 20' LENGTH)	EACH	7
801-03	WATER (SEEDING & SODDING)	M.G.	12
803-01	SODDING (NEW SOD)	S.Y.	1200

FOOTNOTES:

1. ALLOWANCE TO COVER THE COST ASSOCIATED WITH POWER CONNECTION FOR THE TRAFFIC SIGNAL OR RDS UNIT FROM THE TRANSFORMER TO THE DEMARCATION POINT. THE UNIT PRICE BID FOR THIS ITEM WILL BE ADJUSTED BY SHELBY COUNTY TO MATCH THE FEE CHARGED BY MLGW FOR PROVIDING THE ELECTRICAL SERVICE CONNECTION.
2. SEE THE LATEST "CITY OF MEMPHIS - STANDARD CONSTRUCTION SPECIFICATIONS" FOR TECHNICAL REQUIREMENTS.
3. SEE PROJECT SPECIAL PROVISIONS FOR RADAR DETECTION EQUIPMENT.
4. SEE CITY OF MEMPHIS SPECIFICATIONS FOR "BLUETOOTH DETECTION SYSTEM". THE INSTALLATION AT EACH LOCATION SHALL INCLUDE BLUETOOTH SENSOR, NEMA ENCLOSURE, CONDUIT AND RISER FROM CONTROLLER CABINET TO SIGNAL POLE, POWER OVER ETHERNET SUBSYSTEM, ANTENNA, ETHERNET CABLE, AND ALL OTHER CABLING, CONNECTIONS AND HARDWARE TO COMPLETE THE INSTALLATION OF A FULLY FUNCTIONAL BLUETOOTH DETECTION SYSTEM ON THE EXISTING SIGNAL POLE WHICH IS DENOTED ON THE PLANS. THIS LUMP SUM ITEM ALSO INCLUDES THE BLUETOOTH SOFTWARE LICENSE FEE FOR ALL INSTALLED UNITS. THE LUMP SUM PRICE INCLUDES ALL SOFTWARE AND HARDWARE INSTALLATION AND INTEGRATION WORK TO PROVIDE A FULLY FUNCTIONAL BLUETOOTH SYSTEM THAT ALLOWS MONITORING AND RETRIEVAL OF TRAVEL TIME AND SPEED DATA REMOTELY.
5. QUAZITE BRAND (MODEL NO. PG2436BB24 WITH PG2436HH6L COVER) OR APPROVED EQUIVALENT. COST INCLUDES REPAIR OF LANDSCAPING, REMOVING EXISTING PULL BOX, AND OTHER MISCELLANEOUS WORK NECESSARY TO COMPLETE PULL BOX INSTALLATION.
6. QUAZITE BRAND (MODEL NO. PG3048BB36 WITH PG3048HS6L COVER) OR APPROVED EQUIVALENT. COST INCLUDES REPAIR OF LANDSCAPING, REMOVING EXISTING PULL BOX, AND OTHER MISCELLANEOUS WORK NECESSARY TO COMPLETE PULL BOX INSTALLATION.
7. CONTRACTOR RESPONSIBLE FOR ALL COST ASSOCIATED WITH POWER CONNECTION FOR TRAFFIC SIGNAL OR RDS UNIT FROM THE DEMARCATION POINT TO THE CABINET.
8. CONTRACTOR SHALL INSTALL A TRACER WIRE WITH THE FIBER OPTIC CABLE FOR ALL CONDUIT ROUTING. TRACER WIRE SHALL BE 10 AWG STRANDED COPPER CONDUCTOR CABLE WITH BOTH THHN AND THWN RATINGS AND YELLOW IN COLOR.
9. TO BE ITERIS VANTAGE SYSTEM OR APPROVED EQUIVALENT. INCLUDES DETECTION CAMERAS, PROCESSOR UNIT, CARD RACK, POWER SUPPLY UNIT, 10" COLOR LCD MONITOR, MOUSE, VIDEO REMOTE MANAGEMENT CARD WITH ETHERNET INTERFACE AND ALL OTHER CABLING, CONNECTIONS AND HARDWARE TO COMPLETE THE INSTALLATION OF A FULLY FUNCTIONAL VIDEO DETECTION SYSTEM.
10. INSTALL ONE (1) DETECTOR CARD PER INTERSECTION APPROACH WHERE ADVANCE DETECTION LOOPS ARE TO BE REPAIRED OR REPLACED. SEE INTERSECTION LAYOUT SHEETS.
11. TO BE GTT OPTICOM SYSTEM OR APPROVED EQUIVALENT. INCLUDES OPTICAL DETECTORS, CONFIRMATION LAMPS (PAR 90), POLE-MOUNTED BEACONS, FOUR-CHANNEL PHASE SELECTOR, CARD RACK (OPTICOM 760) AND ALL CABLING, CONNECTIONS AND HARDWARE TO COMPLETE THE INSTALLATION OF A FULLY-FUNCTIONAL PREEMPTION SYSTEM, INCLUDING FIELD FINE-TUNING.
12. THE TRAFFIC SIGNAL CONTROLLER SHALL BE AN EAGLE EPAC M52 KEYBOARD UNIT OR APPROVED EQUIVALENT WITH NTCIP COMPLIANT SOFTWARE AND SEPAC, BUILT-IN ETHERNET PORT AND BUILT-IN STRETCH AND DELAY FEATURES FOR EACH PHASE. THE TRAFFIC CONTROLLER INSTALLATION ALONG WITH ALL AUXILIARY EQUIPMENT TO BE INSTALLED IN THE CABINET SHALL BE MANUFACTURED, SUPPLIED AND INSTALLED IN ACCORDANCE WITH THE LATEST CITY OF MEMPHIS TRAFFIC SIGNAL CONTROLLER AND CABINET SPECIFICATIONS. THE INSTALLATION SHALL HAVE A 12-CHANNEL MALFUNCTION MONITOR UNIT INSTALLED AS MODEL EDI SSM12LEiP.
13. FOR USE WHERE AND AS DIRECTED BY THE ENGINEER. INCLUDES REMOVAL OF EXISTING CURB RAMP, SIDEWALK, CURB, AND GUTTER AS REQUIRED, AND CONSTRUCTION OF NEW SIDEWALK AND RAMP WITH LANDING AREA AND TRANSITIONS.
14. ITEM TO INCLUDED ALL MATERIALS AND LABOR NECESSARY FOR INSTALLATION AND CONNECTION OF SOLAR POWER TO RDS UNIT.
15. FOR POST TYPE CABLE MARKERS USED IN INTERCHANGES AND OPEN AREAS.
16. ITEM TO INCLUDED REMOVAL OF ALL EXISTING SIGNAL EQUIPMENT AS SHOWN IN PLANS. INCLUDES BUT IS NOT LIMITED TO REMOVAL OF SIGNAL CABINET, WIRING, ETC. MEASURED ON A PER EACH INTERSECTION WHERE EQUIPMENT REMOVAL IS REQUIRED.
17. ITEM TO INCLUDE ALL MATERIALS NECESSARY TO ATTACH CONDUIT TO BRIDGE. INCLUDES WRAP AROUND CABLE MARKERS AT 100 FOOT SPACING.
18. SEE CITY OF MEMPHIS SPECIFICATIONS FOR "RUGGEDIZED ETHERNET CABINET SWITCH".
19. SEE CITY OF MEMPHIS SPECIFICATIONS FOR "RUGGEDIZED ETHERNET HUB SWITCH".
20. SEE CITY OF MEMPHIS SPECIFICATIONS FOR "SERIAL DEVICE SERVER".
21. SEE PROJECT SPECIAL PROVISIONS FOR UTILITY CABINETS.
22. SEE CITY OF MEMPHIS SPECIFICATIONS FOR "FIELD HUB CABINET".
23. INCLUDES RISER ASSEMBLY, BUILDING ENTRANCE ENCLOSURE, AND WALL PENETRATION.
24. INCLUDES COST FOR ALL INSURANCE COVERAGE REQUIRED BY ANY RAILROADS HAVING FACILITIES WITHIN THE PROJECT LIMITS.

STANDARD ROADWAY DRAWINGS

DWG. NO	REV.	DESCRIPTION
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TDOT ROADWAY DESIGN STANDARDS

ROADWAY AND PAVEMENT APPURTENANCES

T-SP-S-7	06-04-13	DETAILS FOR STANDARD CONCRETE SIDEWALKS
TRAFFIC CONTROL		
T-FAB-1	05-27-97	FLASHING YELLOW ARROW BOARD
T-FO-2		FIBER OPTIC UNDERGROUND ENTRANCE DETAILS
T-FO-4		FIBER OPTIC PULL BOX, CABINET & POLE DETAILS
T-L-1	12-04-13	STANDARD LIGHTING FOUNDATION DETAILS
T-SG-2	07-29-04	LOOP LEAD-INS, CONDUIT AND PULL BOXES
T-SG-3A		ALTERNATE DETECTION DETAILS
T-SG-10	06-11-14	MAST ARM POLE AND STRAIN POLES FOUNDATION DETAILS
T-WZ-10	04-02-12	ADVANCE ROAD WORK SIGNING ON HIGHWAYS AND FREEWAYS
T-WZ-11	03-13-09	ONE LANE CLOSURE DETAIL ON DIVIDED HIGHWAYS
T-WZ-18	03-13-09	SHOULDER CLOSURE DETAIL FOR FREEWAYS AND DIVIDED HIGHWAYS
T-WZ-50	04-02-12	TRAFFIC CONTROL FOR SIGNALS ONLY PROJECTS ON 2 OR 3 LANE MAJOR ROUTES
T-WZ-51	04-02-12	TRAFFIC CONTROL FOR SIGNALS ONLY PROJECTS ON 4 OR 5 LANE MAJOR ROUTES
T-WZ-52	04-02-12	TRAFFIC CONTROL FOR SIGNALS ONLY PROJECTS ON 4 OR 5 LANE MAJOR AND MINOR ROUTES
T-WZ-53	04-02-12	TRAFFIC CONTROL FOR SIGNALS ONLY PROJECTS ON 4 OR MORE LANE DIVIDED MAJOR ROUTES
T-WZ-54	04-02-12	TRAFFIC CONTROL FOR SIGNALS ONLY PROJECTS ON 4 OR MORE LANE DIVIDED MAJOR ROUTES AND 4 OR MORE LANE MINOR ROUTES
T-WZ-55	06-30-14	SIDEWALK TRAFFIC CONTROL

CITY OF MEMPHIS DESIGN STANDARDS

TRAFFIC SIGNAL DETAILS

T/S-1	CONTROLLER CABINET AND RISER INSTALLATION DETAILS
T/S-4	SIGNAL HEAD MOUNTING STANDARDS
T/S-7	GROUNDING AND BOUNDING
T/S-8	FOUNDATION DETAILS
T/S-9	PULL BOXES, SPlicing, AND CABLE DETAILS

CIVIL DETAILS

7A	CURB RAMP WITH DETECTABLE WARNING SURFACE FOR NEW CONSTRUCTION
B	CURB RAMP IN EXISTING CONDITIONS

REVISIONS			
DATE	DESCRIPTIONS	APPROVED	

POWERS HILL DESIGN
CIVIL ENGINEERING. CIVIL RESPONSIBILITY.

NEEL-SCHAFER
Solutions you can build upon

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #10
SHELBY COUNTY, TN.

ESTIMATED QUANTITIES & STANDARD DRAWINGS

SURVEY: N/A DATE: N/A BOOK: N/A
 DRAFTED: _____ DATE: 05/14 SCALE: N.T.S.
 DESIGNED: RSW DATE: 05/14 CHECKED: BTA DATE: 05/14
 JURISDICTION: _____ SHEET 2 OF 62

GENERAL NOTES

UTILITIES

- (1) THE CONTRACTOR SHALL NOTIFY EACH INDIVIDUAL UTILITY OWNER OF THEIR PLAN OF OPERATION IN THE AREA OF THE UTILITIES. PRIOR TO COMMENCING WORK, THE CONTRACTOR SHALL CONTACT THE UTILITY OWNERS AND REQUEST THEM TO PROPERLY LOCATE THEIR RESPECTIVE UTILITY ON THE GROUND. THIS NOTIFICATION SHALL BE GIVEN AT LEAST THREE (3) BUSINESS DAYS PRIOR TO COMMENCEMENT OF OPERATIONS AROUND THE UTILITY.
- (2) IT IS THE CONTRACTOR'S RESPONSIBLTY TO LOCATE AND AVOID ALL UTILITIES AND UNDERGROUND STRUCTURES. THE CONTRACTOR SHOULD NOTE THAT EXISTING GAS LINES, WATER LINES, STORM DRAINAGE AND SANITARY SEWER STRUCTURES, AND OTHER UTILITIES MAY BE PRESENT.
- (3) THE CONTRACTOR SHALL CONTACT THE CITY OF MEMPHIS SIGNAL SHOP AT 901-528-2844 FOR LOCATION OF SIGNAL CONDUIT AND WIRES.
- (4) EXISTING UTILITY LOCATIONS, AS SHOWN ON THESE PLANS, WERE COMPILED BASED ON INFORMATION AVAILABLE TO THE ENGINEER. UTILITY LOCATIONS SHOWN ARE APPROXIMATE AND ARE NOT INTENDED TO BE EXACT OR COMPLETE.
- (5) SOME UTILITIES CAN BE LOCATED BY CALLING THE TENNESSEE ONE CALL SYSTEM, INC. BY DIALING 811 (TENNESSEE 811). THE CONTRACTOR SHALL CALL THE TENNESSEE ONE CALL SYSTEM, INC. AT LEAST 72 HOURS, BUT NOT MORE THAN FIVE (5) DAYS PRIOR TO ANY PLANNED EXCAVATION BY THE CONTRACTOR.

MISCELLANEOUS

- (6) THE LOCATIONS OF ALL NEW PULL BOXES AND CABINETS ARE SCHEMATIC. ADDITIONAL PULL BOXES MAY BE REQUIRED FOR BORING UNDER DRIVEWAYS. THE ENGINEER SHALL APPROVE THE FINAL LOCATIONS OF ALL PULL BOXES IN THE FIELD. THE CONTRACTOR SHALL PROVIDE AS-BUILT DOCUMENTATION (RED-LINE OF PLAN SET) WHICH SHOWS EXACT, FINAL DIMENSIONS BETWEEN PULL BOXES AND OTHER POINTS OF CONDUIT TERMINATION.
- (7) CONTACT THE APPROPRIATE JURISDICTION IN WHICH THE WORK IS BEING DONE AT LEAST 72 HOURS BEFORE BEGINNING ANY WORK ON THIS PROJECT.
- (8) SIGNAL EQUIPMENT AND INSTALLATION SHALL COMPLY WITH THE CITY OF MEMPHIS TRAFFIC SIGNAL SPECIFICATIONS.
- (9) THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING THE SIGNAL TIMING IN THE CONTROLLER. CONTACT JAMES COLLINS, KIMLEY-HORN AND ASSOCIATES, INC. AT (901) 374-9109 A MINIMUM OF THIRTY (30) DAYS PRIOR TO ACTIVATION TO OBTAIN TIMINGS.
- (10) ALL SALVAGEABLE ITEMS TO BE DELIVERED TO THE JURISDICTION IN WHICH THE WORK IS BEING DONE.
- (11) THE CONTRACTOR SHALL BRING THE NEW CONTROLLER UNITS AND THE SIGNAL TIMING SHEETS TO THE CITY OF MEMPHIS TRAFFIC SIGNAL MAINTENANCE OFFICE FOR REVIEW PRIOR TO INSTALLATION OF THE CONTROLLERS IN THE CABINET.
- (12) THE CONTRACTOR SHALL COIL 50' OF (EACH) FIBER OPTIC CABLE IN ALL FIBER OPTIC PULL BOXES.
- (13) CONTRACTOR SHALL HAVE SIGNAL MAINTENANCE RESPONSIBILITY OF THE INTERSECTION ONCE WORK ON EACH INTERSECTION HAS BEGUN. THE RESPONSIBILITY SHALL EXTEND TO CONTRACT ITEMS ONLY AND SHALL END UPON SUBSTANTIAL COMPLETION AND ACCEPTANCE OF THE WORK AT THE INTERSECTION.
- (14) THE CONTRACTOR SHALL NOT SPLICE ANY VIDEO DETECTION OR EVP EQUIPMENT CABLES.
- (15) THE CONTRACTOR SHALL INSTALL EVP EQUIPMENT THAT INCLUDES MULTI-MODE GPS/IR AT INTERSECTIONS IN CITY OF MEMPHIS AND CITY OF GERMANTOWN.

CABLE MARKER NOTES

- (16) THE CONTRACTOR SHALL INSTALL CABLE MARKERS TO IDENTIFY THE DETECTION AND EMERGENCY VEHICLE PREEMPTION CABLES. LEGENDS AND COLORS FOR MARKERS ARE TO APPEAR ACCORDING TO THE INFORMATION SUPPLIED BY THE CITY OF MEMPHIS SIGNAL MAINTENANCE DEPARTMENT. MARKERS ARE TO BE PERMANENT, BRIGHTLY COLORED, NON-REFLECTIVE, WITH BLACK LETTERING. MARKERS ARE TO BE MANUFACTURED OF PLASTIC, VINYL OR FIBERGLASS MATERIAL THAT IS DURABLE, UV LIGHT-RESISTANT, WEATHER-PROOF AND SCRATCH-RESISTANT.
- (17) CURB MARKERS SHALL BE INSTALLED TO IDENTIFY CABLES THAT ARE IN OR NEAR THE STREET. CURB MARKERS ARE TO BE FOUR-INCH DIAMETER ROUND DISKS APPLIED TO CONCRETE OR METAL SURFACES WITH AN ADHESIVE ACCORDING TO THE RECOMMENDATION OF THE MANUFACTURER. CURB MARKERS ARE TO BE INSTALLED ON CABINET AND POLE FOUNDATIONS ON THE SIDE ABOVE THE CABLE. CURB MARKERS ARE ALSO TO BE PLACED ON THE CURB AT 100-FOOT SPACING ALONG ANY RUN OF CABLE THAT IS PARALLEL TO THE CURB. WHERE PAVED SHOULDER EXIST INSTEAD OF CURB, PLACE CURB MARKERS ON THE PAVEMENT SURFACE ONE FOOT FROM THE EDGE OF THE SURFACE, OR DIRECTLY OVER THE CONDUIT OR CABLE. CURB MARKERS ARE TO BE DURACAST STYLE CURB MARKERS AS MADE BY DAS MANUFACTURING, WILLIAM FRICK AND CO., OR APPROVED EQUAL. CURB MARKERS SHALL BE ABRASION AND UV-RESISTANT.

- (18) POST-TYPE CABLE MARKER SHALL BE UTILIZED IN INTERCHANGE AREAS AND OTHER LOCATIONS WHERE USE OF CURB MARKERS IS IMPRACTICAL WITHIN THESE AREAS. POST-TYPE MARKERS SHALL BE INSTALLED ADJACENT TO ALL PULLBOXES AND AT APPROXIMATELY 250 FT SPACING BETWEEN PULLBOXES. MARKER POSTS SHALL BE 60 INCHES IN LENGTH, 3.5 INCHES IN WIDTH (MINIMUM) AND CONSTRUCTED OF UV RESISTANT FIBERGLASS COMPOSITE MATERIAL. POST COLOR AND LEGEND SHALL BE SUSTANTIALY SIMILAR TO CURB MARKERS USED ELSEWHERE ON THE PROJECT.

SPECIAL NOTES

GENERAL

- (1) NOTHING IN THE GENERAL NOTES OR SPECIAL PROVISIONS SHALL RELIEVE THE CONTRACTOR FROM HIS RESPONSIBILITIES TOWARD THE SAFETY AND CONVENIENCE OF THE GENERAL PUBLIC AND THE RESIDENTS ALONG THE PROPOSED CONSTRUCTION AREA.

WORK ZONE TRAFFIC CONTROL

- (2) ADVANCED WARNING SIGNS SHALL NOT BE DISPLAYED MORE THAN FORTY-EIGHT (48) HOURS BEFORE PHYSICAL CONSTRUCTION BEGINS. SIGNS MAY BE ERECTED UP TO ONE WEEK BEFORE NEEDED, IF THE SIGN FACE IS FULLY COVERED.
- (3) IF THE CONTRACTOR MOVES OFF THE PROJECT, HE SHALL COVER OR REMOVE ALL UNNEEDED SIGNS AS DIRECTED BY THE ENGINEER. COSTS OF REMOVAL, COVERING, AND REINSTALLING SIGNS SHALL NOT BE MEASURED AND PAID FOR SEPARATELY, BUT ALL COSTS SHALL BE INCLUDED IN THE PRICE BID FOR OTHER ITEMS OF WORK.
- (4) A LONG TERM BUT SPORADIC USE WARNING SIGN, SUCH AS A FLAGGER SIGN, MAY REMAIN IN PLACE WHEN NOT REQUIRED PROVIDED THE SIGN FACE IS FULLY COVERED.
- (5) TRAFFIC CONTROL DEVICES SHALL NOT BE DISPLAYED OR ERECTED UNLESS RELATED CONDITIONS ARE PRESENT NECESSITATING WARNING.
- (6) USE OF BARRICADES, PORTABLE BARRIER RAILS, VERTICAL PANELS, AND DRUMS SHALL BE LIMITED TO THE IMMEDIATE AREAS OF CONSTRUCTION WHERE A HAZARD IS PRESENT. THESE DEVICES SHALL NOT BE STORED ALONG THE ROADWAY WITHIN THIRTY (30) FEET OF THE EDGE OF THE TRAVELED WAY BEFORE OR AFTER USE UNLESS PROTECTED BY GUARDRAIL, BRIDGE RAIL, AND/OR BARRIERS INSTALLED FOR OTHER PURPOSES. THESE DEVICES SHALL BE REMOVED FROM THE CONSTRUCTION WORK ZONE WHEN THEY ARE NO LONGER NEEDED. WHERE THERE IS INSUFFICIENT RIGHT-OF-WAY TO PROVIDE FOR THIS REQUIRED SETBACK, THE CONTRACTOR SHALL DETERMINE THE ALTERNATE LOCATIONS AND REQUEST THE ENGINEER'S APPROVAL TO USE THEM.
- (7) THE CONTRACTOR SHALL NOT BE PERMITTED TO PARK ANY VEHICLES OR CONSTRUCTION EQUIPMENT DURING PERIODS OF INACTIVITY, WITHIN THIRTY (30) FEET OF THE EDGE OF PAVEMENT WHEN THE LANE IS OPEN TO TRAFFIC UNLESS PROTECTED BY GUARDRAIL, BRIDGE RAIL, AND/OR BARRIERS INSTALLED FOR OTHER PURPOSES. WHERE THERE IS INSUFFICIENT RIGHT-OF-WAY TO PROVIDE FOR THIS REQUIRED SETBACK, THE CONTRACTOR SHALL DETERMINE THE ALTERNATE LOCATIONS AND REQUEST THE ENGINEER'S APPROVAL TO USE THEM.
- (8) ALL DETOUR AND CONSTRUCTION SIGNING SHALL BE IN STRICT ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
- (9) CONTRACTOR SHALL EXPEDITE REPLACEMENT OF SIGNAL CONTROLLERS AND CABINETS TO MINIMIZE DELAYS ON THE PUBLIC. CONTRACTOR SHALL EMPLOY OFF-DUTY POLICE TO PROVIDE ADDITIONAL TRAFFIC CONTROL DURING TIMES WHEN INTERSECTION IS DARK. TRANSFER SHALL BE ACCOMPLISHED BETWEEN THE HOURS OF 9:00 AM AND 3:00 PM OR BETWEEN 7:00 PM AND 5:00 AM. COST OF POLICE MANPOWER TO BE INCLUDED IN OTHER ITEMS.
- (10) LANES CLOSURES DURING MAINTENANCE OF TRAFFIC SHALL BE COORDINATED WITH AND APPROVED BY CITY TRAFFIC ENGINEER PRIOR TO BEGINNING WORK ACTIVITY. IN GENERAL, LANE CLOSURES SHALL NOT BE USED ON WEEKDAYS BETWEEN 7:00 AM-9:00 AM OR 4:00 PM-6:00 PM. LANE CLOSURES MAY BE FURTHER LIMITED BY CITY TRAFFIC ENGINEER AT SPECIFIC LOCATIONS.
- (11) OPENINGS IN SIDEWALKS SHALL BE BARRICADED WITH DETECTABLE PEDESTRIAN BARRICADES (IN ACCORDANCE WITH MUTCD SECTION 6F.74) UNTIL RESTORATION CAN BE ACCOMPLISHED. OPENINGS SHALL BE RESTORED AS QUICKLY AS POSSIBLE. IF SIDEWALK WIDTH DOES NOT PERMIT A MINIMUM 48 INCH PATH OF TRAVEL AROUND THE WORK AREA, THE ENTIRE SIDEWALK SEGMENT MUST BE CLOSED WITH A FULL-WIDTH CANE-DETECTABLE BARRICADE AND AN ALTERNATE PATH OF TRAVEL PROVIDED. TEMPORARY RESTORATION WITH FIRMLY-COMPACTED GRAVEL BACKFILL, METAL PLATES OR TEMPORARY PLYWOOD WALKWAY MAY BE UTILIZED UNTIL PERMANENT RESTORATION CAN BE ACCOMPLISHED. ANY TEMPORARY SURFACE MUST BE AT LEAST 48 INCHES WIDE, STABLE, SLIP-RESISTANT, AND FREE FROM ANY VERTICAL DISCONTINUITITES GREATER THAN ¼ INCH (BEVELED). ANY SIDEWALK OPENINGS SHALL BE PERMANENTLY RESTORED WITHIN FIVE WORKING DAYS OF THE TIME THE OPENING IS CREATED, UNLESS A SPECIFIC REQUEST BY THE CONTRACTOR IS APPROVED BY THE ENGINEER.

EROSION PREVENTION AND SEDIMENT CONTROL

- (12) ALL COSTS FOR EROSION PREVENTION AND SEDIMENT CONTROL WORK SHALL BE INCLUDED IN THE LUMP-SUM PRICE BID FOR EROSION AND SILTATION CONTROL. THIS SHALL INCLUDE ALL LABOR, MATERIALS, AND EQUIPMENT NECESSARY TO PROVIDE TEMPORARY STABILIZATION OF DISTURBED AREAS, CONTAIN SEDIMENT WITH THE WORK AREA, AND PREVENT POLLUTANTS FROM ENTERING WATERS OF THE STATE/US.
- (13) CLEARING, GRUBBING, AND OTHER DISTURBANCE TO EXISTING VEGETATION SHALL BE LIMITED TO THE MINIMUM NECESSARY FOR SLOPE CONSTRUCTION AND EQUIPMENT OPERATIONS. EXISTING VEGETATION SHOULD BE PRESERVED TO THE MAXIMUM EXTENT POSSIBLE. UNNECESSARY VEGETATION REMOVAL IS PROHIBITED.
- (14) THE CONTRACTOR SHALL ESTABLISH AND MAINTAIN A PROACTIVE METHOD TO PREVENT THE OFF-SITE MIGRATION OR DEPOSIT OF SEDIMENT ON ROADWAYS USED BY THE GENERAL PUBLIC. IF SEDIMENT ESCAPES THE CONSTRUCTION SITE, OFF-SITE ACCUMULATIONS OF SEDIMENT THAT HAVE NOT REACHED A STREAM MUST BE REMOVED AT A FREQUENCY SUFFICIENT TO MINIMIZE OFF-SITE IMPACTS (E.G., FUGITIVE SEDIMENT THAT HAS ESCAPED THE CONSTRUCTION SITE AND HAS COLLECTED IN A STREET MUST BE REMOVED SO THAT IT IS NOT SUBSEQUENTLY WASHED INTO STORM SEWERS AND STREAMS BY THE NEXT RAIN AND/OR SO THAT IT DOES NOT POSE A SAFETY HAZARD TO USERS OF PUBLIC STREETS). ARRANGEMENTS CONCERNING REMOVAL OF SEDIMENT ON ADJOINING PROPERTY MUST BE SETTLED WITH THE ADJOINING PROPERTY OWNER BEFORE REMOVAL OF SEDIMENT.
- (15) WATER PUMPED FROM WORK AREAS AND EXCAVATION MUST BE HELD IN SETTLING BASINS OR TREATED BY FILTRATION OR CHEMICAL TREATMENT PRIOR TO ITS DISCHARGE INTO SURFACE WATERS. ALL PHYSICAL AND/OR CHEMICAL TREATMENT WILL BE APPLIED IN ACCORDANCE WITH MANUFACTURER'S GUIDELINES AND FULLY DESCRIBED IN THE EPSC PLANS. WATER MUST BE HELD IN SETTLING BASINS UNTIL AT LEAST AS CLEAR AS THE RECEIVING WATERS. SETTLING BASINS SHALL NOT BE LOCATED CLOSER THAN 20 FEET FROM THE TOP BANK OF A STREAM. SETTLING BASINS AND SEDIMENT TRAPS SHALL BE PROPERLY DESIGNED ACCORDING TO THE SIZE OF THE DRAINAGE AREAS OR VOLUME OF WATER TO BE TREATED. TREATED WATER MUST BE DISCHARGED THROUGH A PIPE OR WELL- VEGETATED OR LINED CHANNEL, SO THAT THE DISCHARGE DOES NOT CAUSE EROSION OR SEDIMENT TRANSPORT. DISCHARGES FROM BASINS AND IMPOUNDMENTS SHALL UTILIZE OUTLET STRUCTURES THAT ONLY WITHDRAW WATER FROM NEAR THE SURFACE OF THE BASIN OR IMPOUNDMENT. DISCHARGES MUST NOT CAUSE AN OBJECTIONABLE COLOR CONTRAST WITH THE RECEIVING STREAM.
- (16) IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT FROM EROSION ANY EXPOSED EARTH RESULTING FROM TRENCHING AND EXCAVATION, AND TO PROVIDE FOR CONTAINMENT OF SEDIMENT THAT MAY RESULT FROM THIS WORK. PRIOR TO BEGINNING WORK, ADEQUATE MEASURES MUST BE IN PLACE TO TRAP ANY SEDIMENT THAT MAY TRAVEL OFF-SITE IN THE EVENT OF RAIN. DURING THE PROGRESSION OF THE WORK, EXPOSED EARTH AREAS SHALL BE STABILIZED AS SOON AS POSSIBLE TO PREVENT EROSION. AT NO TIME SHALL EXPOSED EARTH RESULTING FROM THESE OPERATIONS HAVE UNPROTECTED ACCESS TO FLOWING OFF-SITE AND ENTERING WATERS OF THE STATE/U.S.
- (17) SILT FENCE OR OTHER BARRIERS OF THE SPECIFIED TYPE SHALL BE INSTALLED ON THE DOWNHILL SIDE OF STOCKPILED SOIL. POLYETHYLENE SHEETING MAY BE USED TO COVER SPOILS FROM EXCAVATION.
- (18) FOR THE INSTALLATION OF CONDUITS AND CABLES, TRENCHES SHALL BE BACKFILLED DAILY AS CONSTRUCTION PROCEEDS. BACKFILLED TRENCHES SHALL BE SEEDED AND MULCHED OR SODDED DAILY IF POSSIBLE, BUT NO LATER THAN SEVEN DAYS AFTER BEING BACKFILLED. ANY TEMPORARY SPOIL OF EXCAVATED EARTH SHALL BE LOCATED WITHIN EROSION PREVENTION AND SEDIMENT CONTROL MEASURES. IF TRENCHES ARE NOT BACKFILLED OVERNIGHT, APPROPRIATE EPSC MEASURES WILL BE INSTALLED BY THE CONTRACTOR UNTIL SUCH TIME AS THE TRENCH IS BACKFILLED.
- (19) MUD OR BORING FLUID RESULTING FROM BORING OPERATIONS MUST BE CONTAINED, REMOVED, AND DISPOSED OF PROPERLY.

RADAR DETECTION SYSTEM

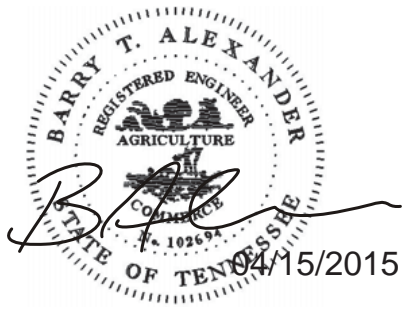
- (20) SOLAR POWER SYSTEMS FOR RDS UNITS SHALL CONSIST OF A SOLAR PANEL, BATTERY, CHARGE REGULATOR, AND ALL CABLING AND ACCESSORIES NECESSARY TO PROVIDE A FULLY FUNCTIONAL SOLAR POWER SYSTEM CAPABLE OF POWERING THE RDS UNIT AND ASSOCIATED COMMUNICATIONS EQUIPMENT. THE SOLAR PANEL SHALL BE SIZED BY THE MANUFACTURER TO PROVIDE THE REQUIRED OUTPUT FOR RDS OPERATION AND BATTERY CHARGING. THE BATTERY SHALL BE SIZED TO PROVIDE A MINIMUM OF 3 DAYS OF CONTINUOUS OPERATION OF THE RDS UNIT WITHOUT CHARGING.


RAILROAD

- (21) ALL WORK WITHIN RAILROAD RIGHT-OF-WAY SHALL BE PERFORMED IN ACCORDANCE WITH THE TERMS OF THE CROSSING AGREEMENT WITH THE RAILROAD OWNER(S).


REVISIONS

DATE	DESCRIPTIONS	APPROVED





POWERS HILL DESIGN
CIVIL ENGINEERING. CIVIL RESPONSIBILITY.



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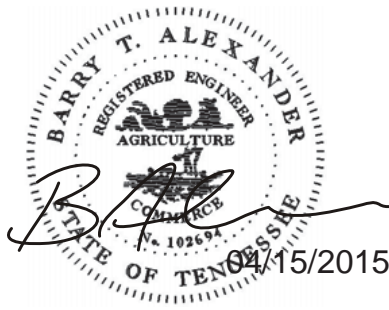
DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #10
SHELBY COUNTY, TN.
**GENERAL NOTES &
SPECIAL NOTES**



SURVEY: N/A DATE: N/A BOOK: N/A
DRAFTED: DATE: 05/14 SCALE: N.T.S.
DESIGNED: RSW DATE: 05/14 CHECKED: BJA DATE: 05/14
JURISDICTION: SHEET 3 OF 62

SHEET	LOCATION		LOCAL CONTROLLER CABINET				LOCAL CONTROLLER			VIDEO DETECTION		PREMPT	FIBER OPTIC EQUIPMENT				PULL BOX		RADAR DETECTION SYSTEM						BLUETOOTH TRAFFIC DETECTION SYSTEM
	STREET 1	STREET 2	RETAIN EXISTING CABINET	REMOVE EXITING POLE MOUNT	INSTALL NEW 8- PHASE BASE MOUNT CABINET	INSTALL CABLE IN EXISTING CONDUIT INTO CABINET	RETAIN EXISTING CONTROLLER	REMOVE EXISTING CONTROLLER	INSTALL NEW 8- PHASE CONTROLLER	INSTALL VIDEO VEHICLE DETECTION SYSTEM	INSTALL 4-CHANNEL, RACK MOUNT VEHICLE DETECTOR	INSTALL EMERGENCY VEHICLE PREEMPTION SYSTEM	INSTALL ETHERNET CABINET SWITCH (TYPE A)	INSTALL ETHERNET HUB SWITCH (TYPE B)	INSTALL FIBER DISTRIBUTION BOX IN CABINET	INSTALL SERIAL DEVICE SERVER	INSTALL PULLBOX (F.O. TYPE B)	INSTALL WEATHERPROOF SPLICE ENCLOSURE IN PULLBOX	INTALL RADAR DETECTION SYSTEM	INSTALL NEW POLE MOUNT RDS CABINET (TYPE A)	INSTALL 20' ALUMINUM PEDESTAL POLE	MLG&W POWER SERVICE CONNECTION	SOLAR POWER FOR RDS		
ITEM NUMBER			-	-	730-15.32	-	-	-	730-16.02	730-13.02	730-13.03	730-13.06	725-03.09	725-03.10	730-03.31	725-21.22	730-03.24	725-02.79	725-21.91	725-24.01	730-23.30	714-25.09	725-21.97	725-21.88	
UNIT			EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	
	S. THIRD ST	MITCHELL RD	SIGNAL CABINET EQUIPMENT TO BE INSTALLED UNDER CITY OF MEMPHIS PROJECT NUMBER 112905.															1	2						1
RD-01	RDS T-1												1		1		1	1	1	1		1			
IL-01	S. THIRD ST	E. BROOKS RD			1			1	1	1	4	1	1		1		1	1							
IL-02	S. THIRD ST	E. PEEBLES RD		1	1			1	1	1	2	1	1		1		1	1							
RD-01	RDS T-2												1		1		1	1	1	1		1			
RD-01	RDS T-3												1		1		1	1	1	1		1			
IL-03	S. THIRD ST	E. MALLORY AVE		1	1			1	1	1		1	1		1		1	1							
IL-04	S. THIRD ST	E. BELZ BLVD			1			1	1	1	4	1	1		1		1	1							
RD-01	RDS T-4												1		1		1	1	1	1		1			
IL-05	S. THIRD ST	S. PARKWAY EAST	1			1	1			1	1		1		1			1					1		
IL-06	S. THIRD ST	E. MCLEMORE AVE		1	1			1	1	1		1	1		1		1	1							
	S. THIRD ST	WALKER RD	NO CONNECTION TO WALKER AVE SIGNAL CABINET UNDER THIS CONTRACT.															1							
SS-01	S. THIRD ST	CITY OF MEMPHIS SIGNAL SHOP															1	1							
RD-02	RDS T-5												1		1		1	1	1	1		1			
IL-07	S. THIRD ST	U.S. 70/S.R. 1/ E. E.H. CRUMP BLVD	1			1	1			1			1	1	1		2	2							
RD-02	RDS T-6												1		1		1	1	1	1		1			
IL-08	S. THIRD ST	E. CAROLINA AVE		1	1			1	1	1		1	1		1		1	1							
IL-09	S. THIRD ST	E. G.E. PATTERSON AVE		1	1			1	1	1		1	1		1		1	1							
IL-10	S. THIRD ST	VANCE AVE	1			1	1			1			1		1	1	2	3							
RD-02	RDS T-7												1		1		1	1	1	1		1			
IL-11	S. THIRD ST	DR. MARTIN LUTHER KING JR AVE/ LINDEN ST			1			1	1	1			1		1		1	1					1		
TOTALS			3	5	8	3	3	8	8	11	11	7	18	1	18	1	22	24	7	7	7	2	5	3	

REVISIONS

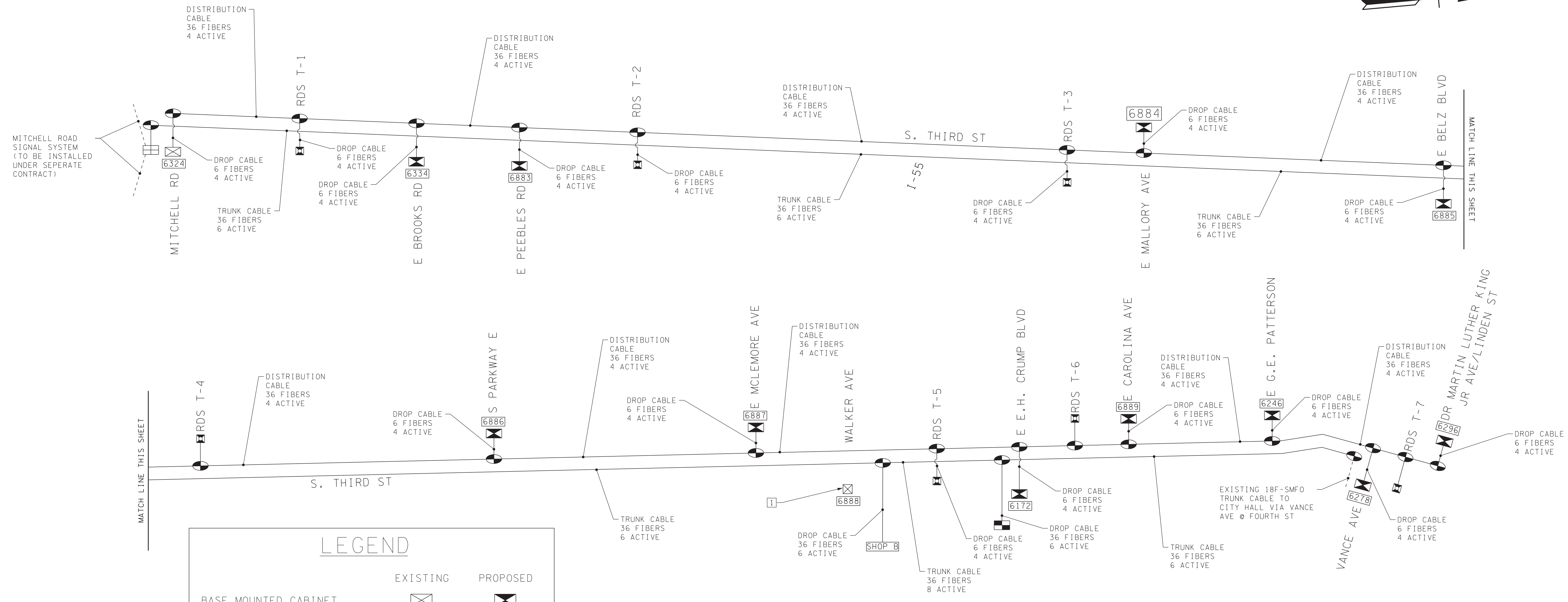
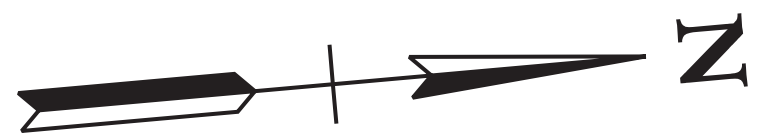
DATE	DESCRIPTIONS	APPROVED



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DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #10
SHELBY COUNTY, TN.
SUMMARY OF WORK
BY INTERSECTION

SURVEY: N/A DATE: N/A BOOK: N/A
DRAFTED: DATE: 05/14 SCALE: N.T.S.
DESIGNED: RSW DATE: 05/14 CHECKED: BIA DATE: 05/14
JURISDICTION: SHEET 4 OF 62



LEGEND		
	EXISTING	PROPOSED
BASE MOUNTED CABINET		
POLE MOUNTED CABINET		
BASE MOUNTED HUB CABINET		
POLE MOUNTED RDS CABINET		
SPLICE ENCLOSURE		
FIBER OPTIC PULL BOX		
STANDARD PULL BOX		
WOOD POLE		
METAL/ALUMINUM POLE		
SIGNAL HEAD		
PEDESTRIAN SIGNAL HEAD		
PEDESTRIAN PUSH BUTTON		
EVP CONFIRMATION BEACON		
EVP DETECTOR		
EVP CONFIRMATION LAMP		
VIDEO DETECTION CAMERA		
CONDUIT		

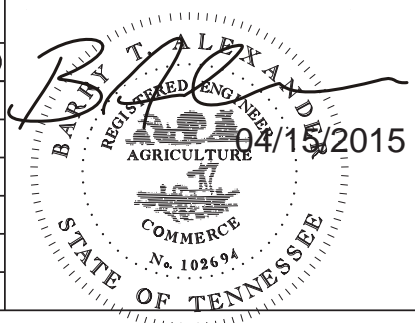
[1] - NO CONNECTION TO WALKER AVE SIGNAL CABINET UNDER THIS CONTRACT.

XXXX - INTERSECTION ID NUMBER

- NOTES:
- CABLE IDENTIFICATION IS AS SHOWN IN THE FOLLOWING EXAMPLE:

3. FIBER OPTIC PULL BOXES ARE NOT SHOWN ON THIS SCHEMATIC.

REVISIONS		
DATE	DESCRIPTIONS	APPROVED



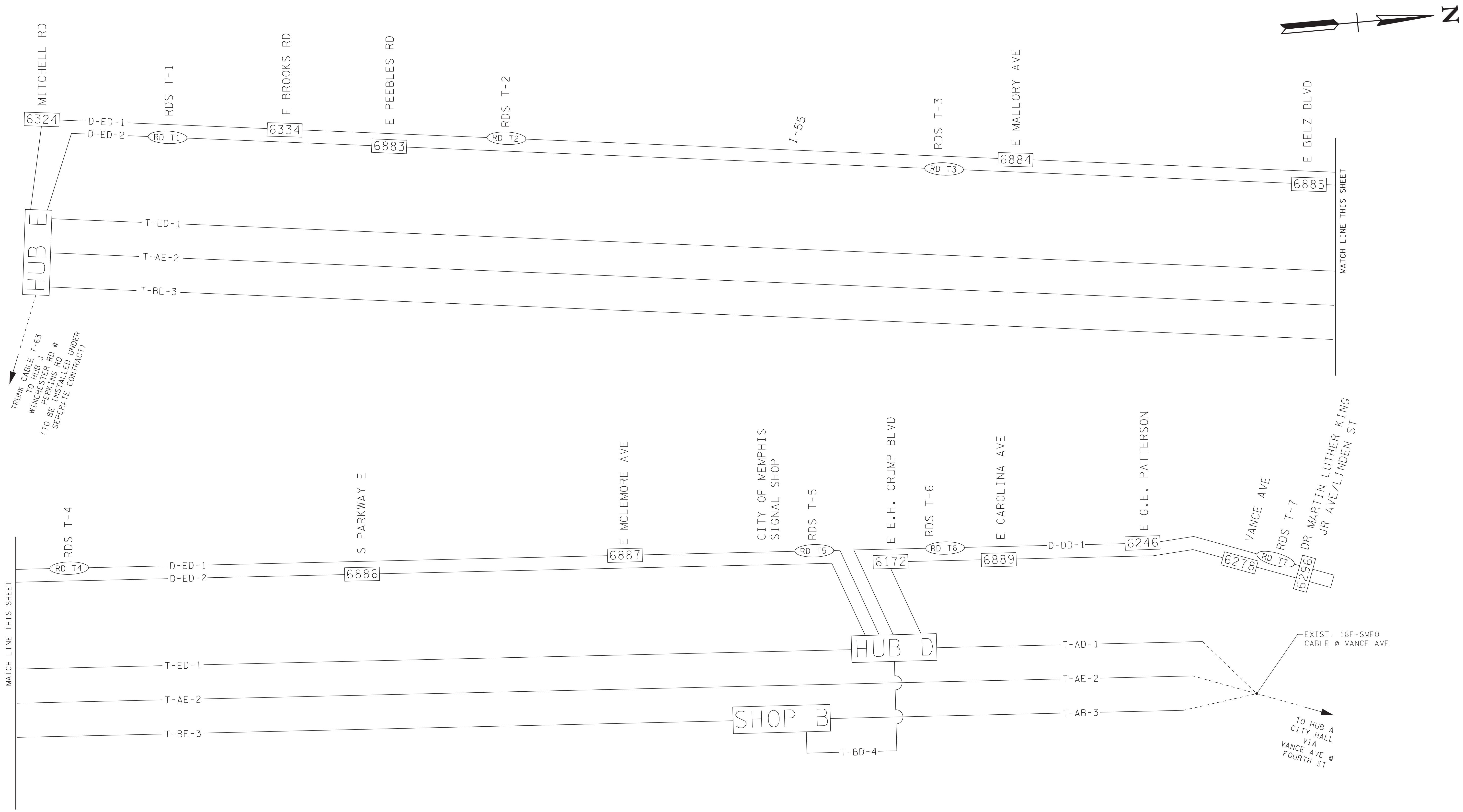
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DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #10
SHELBY COUNTY, TN.

COMMUNICATIONS CABLE SCHEMATIC & LEGEND

SURVEY: N/A DATE: N/A BOOK: N/A
DRAFTED: DATE: 05/14 SCALE: N.T.S.
DESIGNED: RSW DATE: 05/14 CHECKED: BIA DATE: 05/14
JURISDICTION: SHEET 5 OF 62



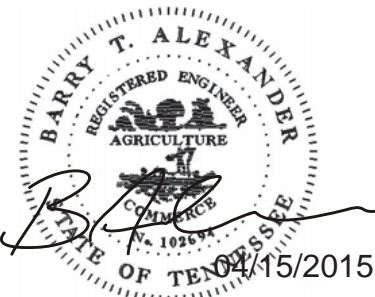
NOTES:

1. THIS SCHEMATIC IS AN OVERVIEW OF THE BACKBONE NETWORK AND FIELD SUB-NETWORK TOPOLOGY. THE PURPOSE IS TO SHOW THE COMMUNICATION CHANNEL ASSIGNMENT AND THE UPSTREAM/DOWNSTREAM RELATIONSHIP OF THE CONTROLLERS.
2. ALL SPLICE ENCLOSURES AND DROP CABLES ARE NOT SHOWN. SEE COMMUNICATION CABLE SCHEMATIC SHEET FOR CABLE AND SPLICE ENCLOSURE DETAILS. SEE SPLICE DIAGRAMS (SHEET SDO1-SD12) FOR SPLICING DETAILS AND FIBER STRANDS IN USE.
3. EACH LINE SHOWN ON THIS SCHEMATIC REPRESENTS TWO STRANDS OF FIBER (TRANSMIT AND RECEIVE).
4. COMMUNICATION CHANNELS ARE NAMED BY THE FOLLOWING CONVENTION:

CHANNEL TYPE	FROM HUB ID	TO HUB ID	CHANNEL SEQUENCE
T - BACKBONE CHANNEL FOR HUB TO HUB COMMUNICATIONS			
D - DISTRIBUTION CHANNEL FOR FIELD DEVICE COMMUNICATIONS			

EXAMPLE:
T-GJ-1 BACKBONE CHANNEL #1 FROM HUB G TO J
D-JM-2 DISTRIBUTION CHANNEL #2 FROM HUB J TO M

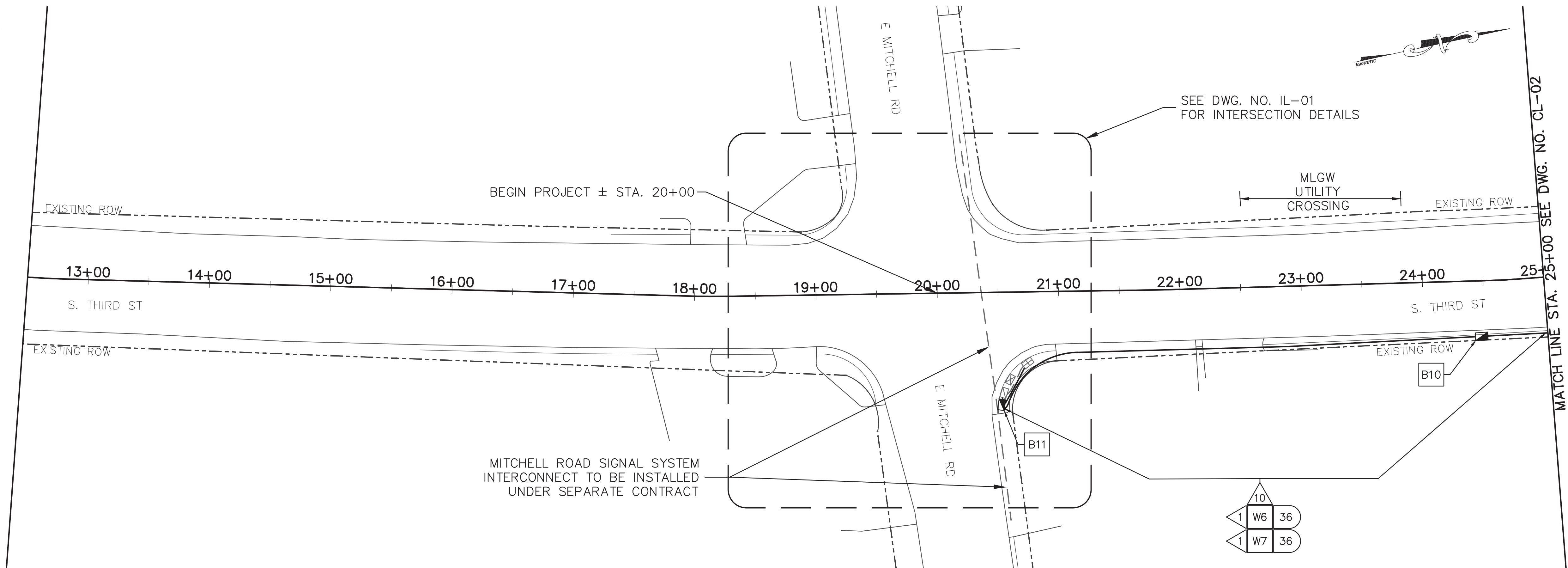
REVISIONS		
DATE	DESCRIPTIONS	APPROVED



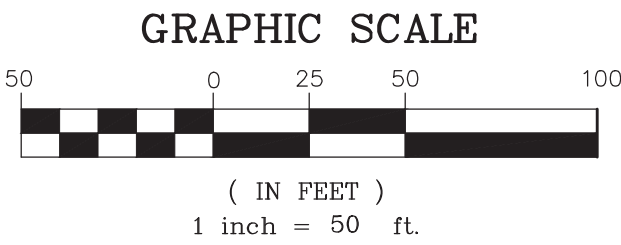
DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #10
SHELBY COUNTY, TN.

COMMUNICATIONS
CHANNEL SCHEMATIC

SURVEY: N/A DATE: N/A BOOK: N/A
DRAFTED: DATE: 05/14 SCALE: N.T.S.
DESIGNED: RSW DATE: 05/14 CHECKED: BIA DATE: 05/14
JURISDICTION: SHEET 6 OF 62



- | | |
|-----|---|
| B1 | RETAIN AND MODIFY EXISTING CABINET |
| B2 | REMOVE EXISTING CABINET |
| B3 | INSTALL NEW BASE MOUNTED CONTROLLER CABINET |
| B5 | INSTALL BASE MOUNTED HUB CABINET |
| B6 | INSTALL WEATHER PROOF SPLICE ENCLOSURE |
| B7 | INSTALL FIBER DISTRIBUTION BOX |
| B9 | INSTALL TRAFFIC SIGNAL PULLBOX |
| B10 | INSTALL FIBER OPTIC PULLBOX TYPE A |
| B11 | INSTALL FIBER OPTIC PULLBOX TYPE B |
| B13 | INSTALL 20' PEDESTAL POLE |
| B15 | MLGW POWER SERVICE CONNECTION |
| D12 | INSTALL NEW POLE MOUNTED RDS CABINET |
| D13 | INSTALL RADAR DETECTION SYSTEM |
| D15 | INSTALL NEW SECONDARY POLE MOUNTED RDS CABINET |
| W6 | SMFO CABLE |
| W7 | SMFO TRUNK CABLE |
| W9 | SMFO DROP CABLES (6-FIBER) |
| W11 | RDS CABLE |
| 3 | INSTALL 2" RISER INTO BOTTOM OF CABINET |
| 4 | INSTALL 2" RISER WITH WEATHERHEAD |
| 5 | INSTALL 2" RISER WITH SEALING BUSHING |
| 6 | INSTALL 2" CONDUIT ENTRANCE INTO EXISTING FOUNDATION |
| 7 | INSTALL 2" RGS CONDUIT ON EXISTING STRUCTURE |
| 8 | INSTALL 2" CONDUIT INTO EXTERIOR OF CABINET |
| 9 | INSTALL 2" PVC CONDUIT |
| 10 | JACK AND BORE 2" CONDUIT |
| 11 | INSTALL 2" RGS CONDUIT |
| 12 | INSTALL 3" PVC CONDUIT |
| 13 | INSTALL 3" CONDUIT ENTRANCE INTO EXISTING FOUNDATION |
| 14 | INSTALL 3" RISER WITH WEATHERHEAD |
| 15 | INSTALL 3" CONDUIT INTO CABINET |
| 16 | INSTALL 3" RGS CONDUIT ON EXISTING STRUCTURE |
| 17 | JACK AND BORE 3" CONDUIT |
| 18 | INSTALL 3" RISER INTO BOTTOM OF CABINET |
| 19 | REUSE EXISTING RISER WITH WEATHERHEAD |
| 20 | TIE CONDUIT INTO EXISTING PULLBOX |
| 21 | REUSE EXISTING CONDUIT |
| 24 | INSTALL CABLES IN EXISTING MAST ARM POLE |
| 25 | INSTALL CABLES IN EXISTING POLE IN EXISTING WEATHERHEAD |
| 26 | INSTALL CABLES IN EXISTING POLE IN PROPOSED WEATHERHEAD |
| 27 | INSTALL CABLES IN EXISTING WEATHERHEAD |
| 28 | INSTALL CABLES IN EXISTING POLE |
| 29 | INSTALL CABLES IN PROPOSED POLE |
| 30 | INSTALL CABLES IN EXISTING CONDUIT/INTERDUCT |
| 35 | ATTACH CONDUIT TO BRIDGE |
| △ | NUMBER OF CABLES, LOOPS, ETC. |
| ⓧ | NUMBER OF CONDUCTORS, PAIRS, ETC. |



REVISIONS		
DATE	DESCRIPTIONS	APPROVED

04/15/2015

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CL-01

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #10
SHELBY COUNTY, TN.

SOUTH THIRD STREET
CABLE LAYOUT
FROM 12+50 TO 25+00

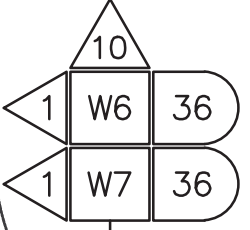
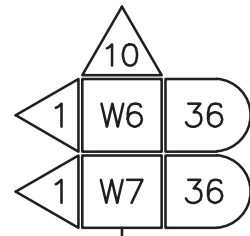
SURVEY: N/A DATE: N/A BOOK: N/A
DRAFTED: APL DATE: 06/14 SCALE: 1"=50'
DESIGNED: APL DATE: 06/14 CHECKED: N/A DATE: N/A
JURISDICTION: _____ SHEET 7 OF 62

MATCH LINE STA. 25+00 SEE DWG. NO. CL-01

MATCH LINE STA. 37+50 SEE THIS SHEET

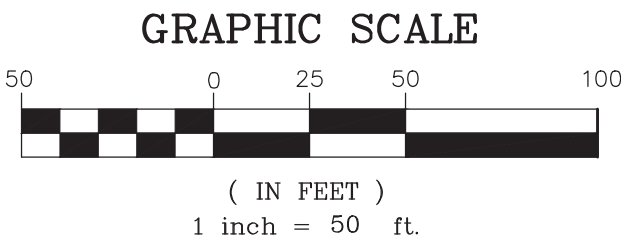
MATCH LINE STA. 37+50 SEE THIS SHEET

MATCH LINE STA. 50+00 SEE DWG. NO. CL-03



SEE DWG. NO. RD-01
FOR RDS T-1 DETAILS

SEE DWG. NO. IL-02
FOR INTERSECTION DETAILS



REVISIONS		
DATE	DESCRIPTIONS	APPROVED

POWERS HILL DESIGN
CIVIL ENGINEERING. CIVIL RESPONSIBILITY.

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- B1 RETAIN AND MODIFY EXISTING CABINET
- B2 REMOVE EXISTING CABINET
- B3 INSTALL NEW BASE MOUNTED CONTROLLER CABINET
- B5 INSTALL BASE MOUNTED HUB CABINET
- B6 INSTALL WEATHER PROOF SPLICE ENCLOSURE
- B7 INSTALL FIBER DISTRIBUTION BOX
- B9 INSTALL TRAFFIC SIGNAL PULLBOX
- B10 INSTALL FIBER OPTIC PULLBOX TYPE A
- B11 INSTALL FIBER OPTIC PULLBOX TYPE B
- B13 INSTALL 20' PEDESTAL POLE
- B15 MLGW POWER SERVICE CONNECTION
- D12 INSTALL NEW POLE MOUNTED RDS CABINET
- D13 INSTALL RADAR DETECTION SYSTEM
- D15 INSTALL NEW SECONDARY POLE MOUNTED RDS CABINET
- W6 SMFO CABLE
- W7 SMFO TRUNK CABLE
- W9 SMFO DROP CABLES (6-FIBER)
- W11 RDS CABLE
- 3 INSTALL 2" RISER INTO BOTTOM OF CABINET
- 4 INSTALL 2" RISER WITH WEATHERHEAD
- 5 INSTALL 2" RISER WITH SEALING BUSHING
- 6 INSTALL 2" CONDUIT ENTRANCE INTO EXISTING FOUNDATION
- 7 INSTALL 2" RGS CONDUIT ON EXISTING STRUCTURE
- 8 INSTALL 2" CONDUIT INTO EXTERIOR OF CABINET
- 9 INSTALL 2" PVC CONDUIT
- 10 JACK AND BORE 2" CONDUIT
- 11 INSTALL 2" RGS CONDUIT
- 12 INSTALL 3" PVC CONDUIT
- 13 INSTALL 3" CONDUIT ENTRANCE INTO EXISTING FOUNDATION
- 14 INSTALL 3" RISER WITH WEATHERHEAD
- 15 INSTALL 3" CONDUIT INTO CABINET
- 16 INSTALL 3" RGS CONDUIT ON EXISTING STRUCTURE
- 17 JACK AND BORE 3" CONDUIT
- 18 INSTALL 3" RISER INTO BOTTOM OF CABINET
- 19 REUSE EXISTING RISER WITH WEATHERHEAD
- 20 TIE CONDUIT INTO EXISTING PULLBOX
- 21 REUSE EXISTING CONDUIT
- 24 INSTALL CABLES IN EXISTING MAST ARM POLE
- 25 INSTALL CABLES IN EXISTING POLE IN EXISTING WEATHERHEAD
- 26 INSTALL CABLES IN EXISTING POLE IN PROPOSED WEATHERHEAD
- 27 INSTALL CABLES IN EXISTING WEATHERHEAD
- 28 INSTALL CABLES IN EXISTING POLE
- 29 INSTALL CABLES IN PROPOSED POLE
- 30 INSTALL CABLES IN EXISTING CONDUIT/INTERDUCT
- 35 ATTACH CONDUIT TO BRIDGE
- X NUMBER OF CABLES, LOOPS, ETC.
- X NUMBER OF CONDUCTORS, PAIRS, ETC.

CL-02

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #10
SHELBY COUNTY, TN.
SOUTH THIRD STREET
CABLE LAYOUT
FROM 25+00 TO 50+00

SURVEY: N/A DATE: N/A BOOK: N/A
DRAFTED: APL DATE: 06/14 SCALE: 1"=50'
DESIGNED: APL DATE: 06/14 CHECKED: N/A DATE: N/A
JURISDICTION: SHEET 8 OF 62

MATCH LINE STA. 50+00 SEE DWG. NO. CL-02

MATCH LINE STA. 62+50 SEE THIS SHEET

MATCH LINE STA. 62+50 SEE THIS SHEET

MATCH LINE STA. 75+00 SEE DWG. NO. CL-04

SEE DWG. NO. IL-03
FOR INTERSECTION DETAILS

WESTPAC
UTILITY
CROSSING

E PEEBLES RD



EXISTING ROW

S. THIRD ST

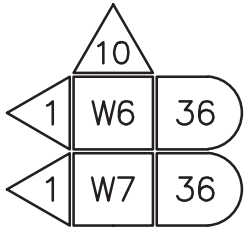
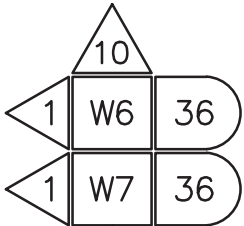
E PEEBLES RD



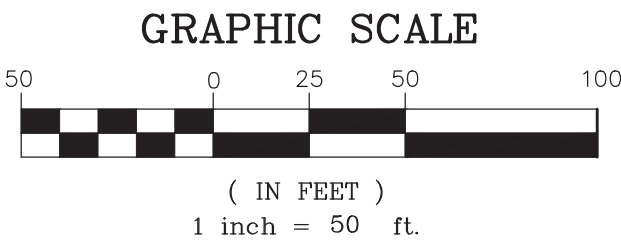
SEE DWG. NO. RD-01
FOR RDS T-2 DETAILS

S. THIRD ST

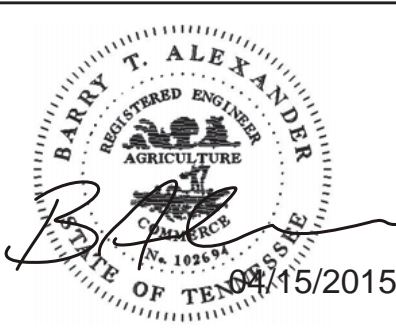
EXISTING ROW



- | | |
|-----|---|
| B1 | RETAIN AND MODIFY EXISTING CABINET |
| B2 | REMOVE EXISTING CABINET |
| B3 | INSTALL NEW BASE MOUNTED CONTROLLER CABINET |
| B5 | INSTALL BASE MOUNTED HUB CABINET |
| B6 | INSTALL WEATHER PROOF SPLICE ENCLOSURE |
| B7 | INSTALL FIBER DISTRIBUTION BOX |
| B9 | INSTALL TRAFFIC SIGNAL PULLBOX |
| B10 | INSTALL FIBER OPTIC PULLBOX TYPE A |
| B11 | INSTALL FIBER OPTIC PULLBOX TYPE B |
| B13 | INSTALL 20' PEDESTAL POLE |
| B15 | MLGW POWER SERVICE CONNECTION |
| D12 | INSTALL NEW POLE MOUNTED RDS CABINET |
| D13 | INSTALL RADAR DETECTION SYSTEM |
| D15 | INSTALL NEW SECONDARY POLE MOUNTED RDS CABINET |
| W6 | SMFO CABLE |
| W7 | SMFO TRUNK CABLE |
| W9 | SMFO DROP CABLES (6-FIBER) |
| W11 | RDS CABLE |
| 3 | INSTALL 2" RISER INTO BOTTOM OF CABINET |
| 4 | INSTALL 2" RISER WITH WEATHERHEAD |
| 5 | INSTALL 2" RISER WITH SEALING BUSHING |
| 6 | INSTALL 2" CONDUIT ENTRANCE INTO EXISTING FOUNDATION |
| 7 | INSTALL 2" RGS CONDUIT ON EXISTING STRUCTURE |
| 8 | INSTALL 2" CONDUIT INTO EXTERIOR OF CABINET |
| 9 | INSTALL 2" PVC CONDUIT |
| 10 | JACK AND BORE 2" CONDUIT |
| 11 | INSTALL 2" RGS CONDUIT |
| 12 | INSTALL 3" PVC CONDUIT |
| 13 | INSTALL 3" CONDUIT ENTRANCE INTO EXISTING FOUNDATION |
| 14 | INSTALL 3" RISER WITH WEATHERHEAD |
| 15 | INSTALL 3" CONDUIT INTO CABINET |
| 16 | INSTALL 3" RGS CONDUIT ON EXISTING STRUCTURE |
| 17 | JACK AND BORE 3" CONDUIT |
| 18 | INSTALL 3" RISER INTO BOTTOM OF CABINET |
| 19 | REUSE EXISTING RISER WITH WEATHERHEAD |
| 20 | TIE CONDUIT INTO EXISTING PULLBOX |
| 21 | REUSE EXISTING CONDUIT |
| 24 | INSTALL CABLES IN EXISTING MAST ARM POLE |
| 25 | INSTALL CABLES IN EXISTING POLE IN EXISTING WEATHERHEAD |
| 26 | INSTALL CABLES IN EXISTING POLE IN PROPOSED WEATHERHEAD |
| 27 | INSTALL CABLES IN EXISTING WEATHERHEAD |
| 28 | INSTALL CABLES IN EXISTING POLE |
| 29 | INSTALL CABLES IN PROPOSED POLE |
| 30 | INSTALL CABLES IN EXISTING CONDUIT/INTERDUCT |
| 35 | ATTACH CONDUIT TO BRIDGE |
| X | NUMBER OF CABLES, LOOPS, ETC. |
| X | NUMBER OF CONDUCTORS, PAIRS, ETC. |



REVISIONS		
DATE	DESCRIPTIONS	APPROVED



CL-03

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #10
SHELBY COUNTY, TN.
SOUTH THIRD STREET
CABLE LAYOUT
FROM 50+00 TO 75+00

SURVEY: N/A DATE: N/A BOOK: N/A
DRAFTED: APL DATE: 06/14 SCALE: 1"=50'
DESIGNED: APL DATE: 06/14 CHECKED: N/A DATE: N/A
JURISDICTION: SHEET 9 OF 62

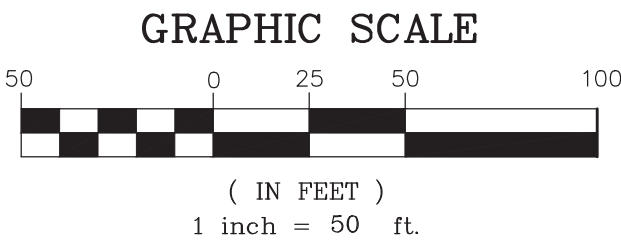
MATCH LINE STA. 75+00 SEE DWG. NO. CL-03

MATCH LINE STA. 87+50 SEE THIS SHEET

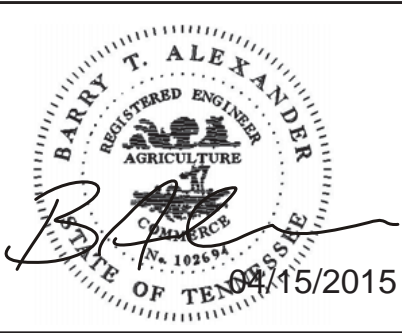
MATCH LINE STA. 87+50 SEE THIS SHEET

MATCH LINE STA. 100+00 SEE DWG. NO. CL-05

NOTE: ALL WORK WITHIN RAILROAD RIGHT-OF-WAY SHALL BE DONE IN ACCORDANCE WITH THE TERMS OF THE CROSSING AGREEMENT WITH THE RAILROAD OWNER(S).



REVISIONS		
DATE	DESCRIPTIONS	APPROVED

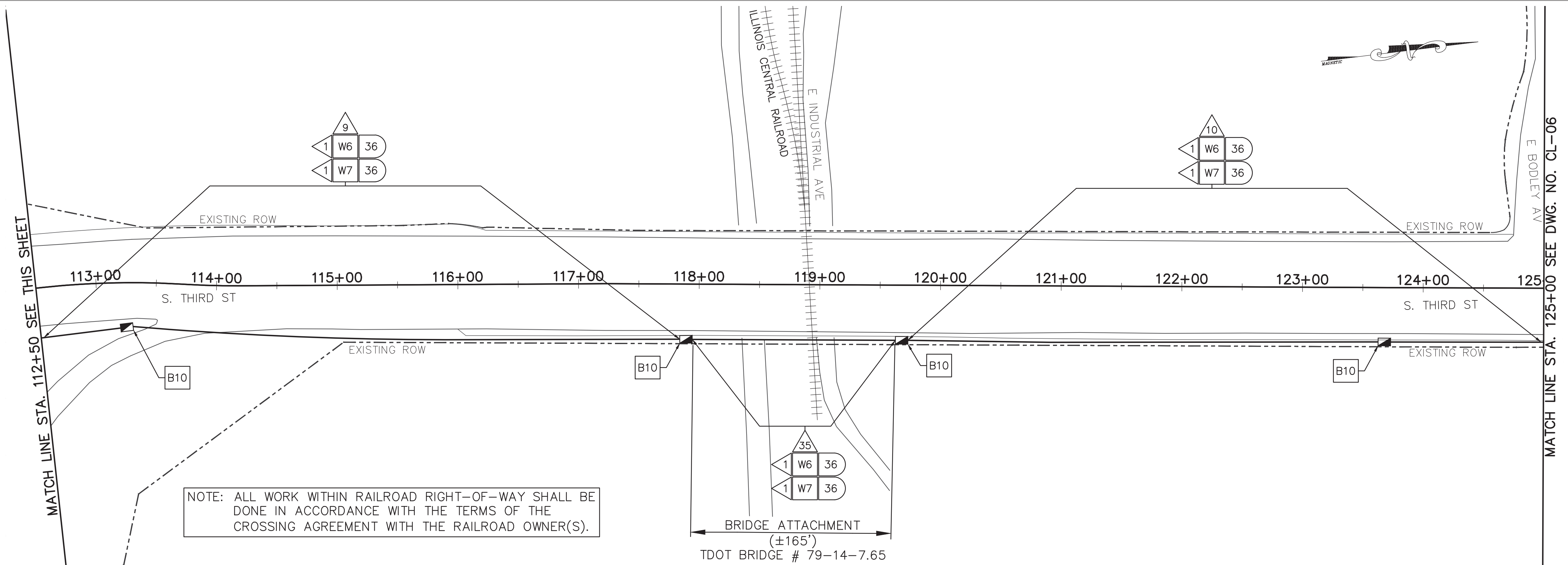
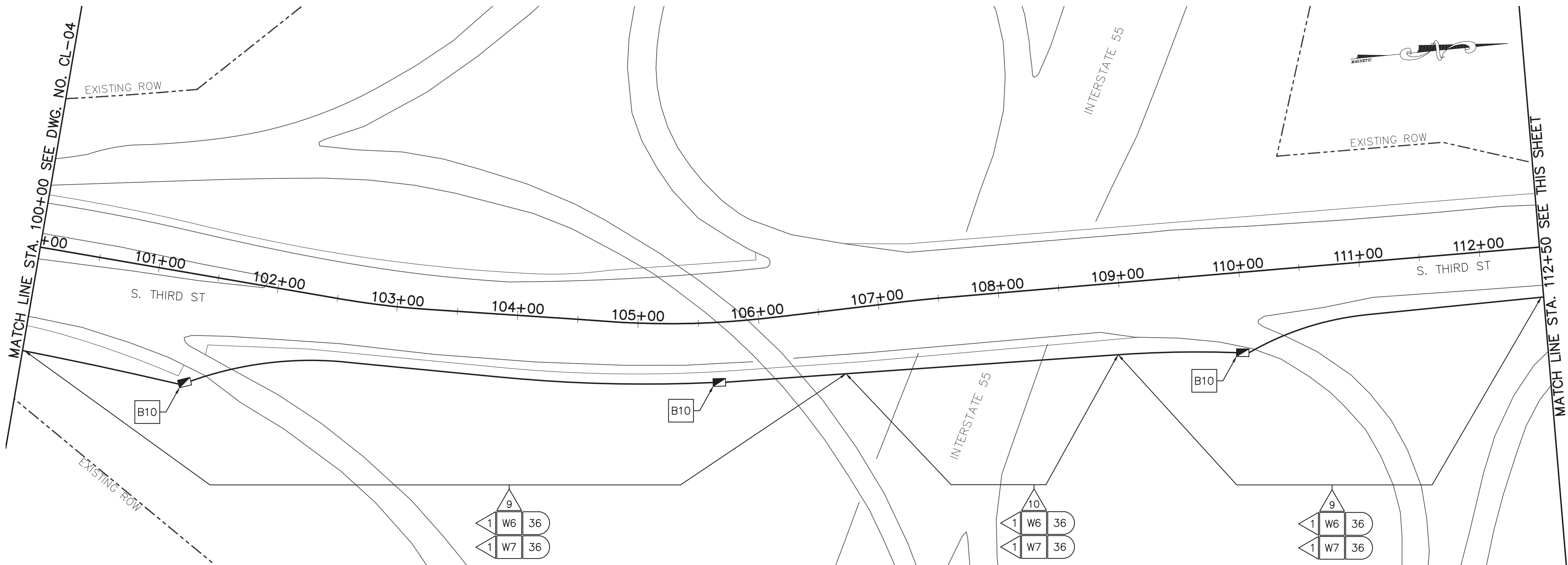


- B1 RETAIN AND MODIFY EXISTING CABINET
- B2 REMOVE EXISTING CABINET
- B3 INSTALL NEW BASE MOUNTED CONTROLLER CABINET
- B5 INSTALL BASE MOUNTED HUB CABINET
- B6 INSTALL WEATHER PROOF SPLICE ENCLOSURE
- B7 INSTALL FIBER DISTRIBUTION BOX
- B9 INSTALL TRAFFIC SIGNAL PULLBOX
- B10 INSTALL FIBER OPTIC PULLBOX TYPE A
- B11 INSTALL FIBER OPTIC PULLBOX TYPE B
- B13 INSTALL 20' PEDESTAL POLE
- B15 MLGW POWER SERVICE CONNECTION
- D12 INSTALL NEW POLE MOUNTED RDS CABINET
- D13 INSTALL RADAR DETECTION SYSTEM
- D15 INSTALL NEW SECONDARY POLE MOUNTED RDS CABINET
- W6 SMFO CABLE
- W7 SMFO TRUNK CABLE
- W9 SMFO DROP CABLES (6-FIBER)
- W11 RDS CABLE
- 3 INSTALL 2" RISER INTO BOTTOM OF CABINET
- 4 INSTALL 2" RISER WITH WEATHERHEAD
- 5 INSTALL 2" RISER WITH SEALING BUSHING
- 6 INSTALL 2" CONDUIT ENTRANCE INTO EXISTING FOUNDATION
- 7 INSTALL 2" RGS CONDUIT ON EXISTING STRUCTURE
- 8 INSTALL 2" CONDUIT INTO EXTERIOR OF CABINET
- 9 INSTALL 2" PVC CONDUIT
- 10 JACK AND BORE 2" CONDUIT
- 11 INSTALL 2" RGS CONDUIT
- 12 INSTALL 3" PVC CONDUIT
- 13 INSTALL 3" CONDUIT ENTRANCE INTO EXISTING FOUNDATION
- 14 INSTALL 3" RISER WITH WEATHERHEAD
- 15 INSTALL 3" CONDUIT INTO CABINET
- 16 INSTALL 3" RGS CONDUIT ON EXISTING STRUCTURE
- 17 JACK AND BORE 3" CONDUIT
- 18 INSTALL 3" RISER INTO BOTTOM OF CABINET
- 19 REUSE EXISTING RISER WITH WEATHERHEAD
- 20 TIE CONDUIT INTO EXISTING PULLBOX
- 21 REUSE EXISTING CONDUIT
- 24 INSTALL CABLES IN EXISTING MAST ARM POLE
- 25 INSTALL CABLES IN EXISTING POLE IN EXISTING WEATHERHEAD
- 26 INSTALL CABLES IN EXISTING POLE IN PROPOSED WEATHERHEAD
- 27 INSTALL CABLES IN EXISTING WEATHERHEAD
- 28 INSTALL CABLES IN EXISTING POLE
- 29 INSTALL CABLES IN PROPOSED POLE
- 30 INSTALL CABLES IN EXISTING CONDUIT/INTERDUCT
- 35 ATTACH CONDUIT TO BRIDGE
- △ NUMBER OF CABLES, LOOPS, ETC.
- ⓧ NUMBER OF CONDUCTORS, PAIRS, ETC.

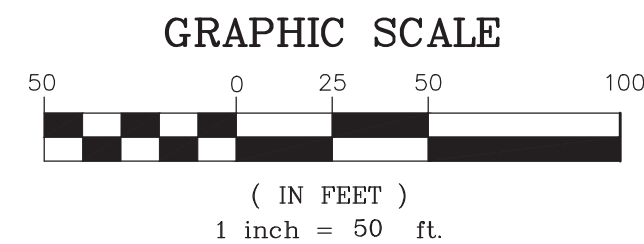
CL-04

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #10
SHELBY COUNTY, TN.
SOUTH THIRD STREET
CABLE LAYOUT
FROM 75+00 TO 100+00

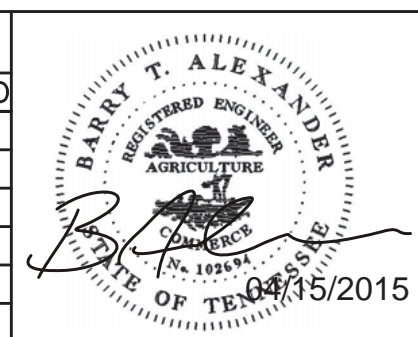
SURVEY: N/A DATE: N/A BOOK: N/A
DRAFTED: APL DATE: 06/14 SCALE: 1"=50'
DESIGNED: APL DATE: 06/14 CHECKED: N/A DATE: N/A
JURISDICTION: SHEET 10 OF 62



- | | |
|-----|---|
| B1 | RETAIN AND MODIFY EXISTING CABINET |
| B2 | REMOVE EXISTING CABINET |
| B3 | INSTALL NEW BASE MOUNTED CONTROLLER CABINET |
| B5 | INSTALL BASE MOUNTED HUB CABINET |
| B6 | INSTALL WEATHER PROOF SPICE ENCLOSURE |
| B7 | INSTALL FIBER DISTRIBUTION BOX |
| B9 | INSTALL TRAFFIC SIGNAL PULLBOX |
| B10 | INSTALL FIBER OPTIC PULLBOX TYPE A |
| B11 | INSTALL FIBER OPTIC PULLBOX TYPE B |
| B13 | INSTALL 20' PEDESTAL POLE |
| B15 | MLGW POWER SERVICE CONNECTION |
| D12 | INSTALL NEW POLE MOUNTED RDS CABINET |
| D13 | INSTALL RADAR DETECTION SYSTEM |
| D15 | INSTALL NEW SECONDARY POLE MOUNTED RDS CABINET |
| W6 | SMFO CABLE |
| W7 | SMFO TRUNK CABLE |
| W9 | SMFO DROP CABLES (6-FIBER) |
| W11 | RDS CABLE |
| 3 | INSTALL 2" RISER INTO BOTTOM OF CABINET |
| 4 | INSTALL 2" RISER WITH WEATHERHEAD |
| 5 | INSTALL 2" RISER WITH SEALING BUSHING |
| 6 | INSTALL 2" CONDUIT ENTRANCE INTO EXISTING FOUNDATION |
| 7 | INSTALL 2" RGS CONDUIT ON EXISTING STRUCTURE |
| 8 | INSTALL 2" CONDUIT INTO EXTERIOR OF CABINET |
| 9 | INSTALL 2" PVC CONDUIT |
| 10 | JACK AND BORE 2" CONDUIT |
| 11 | INSTALL 2" RGS CONDUIT |
| 12 | INSTALL 3" PVC CONDUIT |
| 13 | INSTALL 3" CONDUIT ENTRANCE INTO EXISTING FOUNDATION |
| 14 | INSTALL 3" RISER WITH WEATHERHEAD |
| 15 | INSTALL 3" CONDUIT INTO CABINET |
| 16 | INSTALL 3" RGS CONDUIT ON EXISTING STRUCTURE |
| 17 | JACK AND BORE 3" CONDUIT |
| 18 | INSTALL 3" RISER INTO BOTTOM OF CABINET |
| 19 | REUSE EXISTING RISER WITH WEATHERHEAD |
| 20 | TIE CONDUIT INTO EXISTING PULLBOX |
| 21 | REUSE EXISTING CONDUIT |
| 24 | INSTALL CABLES IN EXISTING MAST ARM POLE |
| 25 | INSTALL CABLES IN EXISTING POLE IN EXISTING WEATHERHEAD |
| 26 | INSTALL CABLES IN EXISTING POLE IN PROPOSED WEATHERHEAD |
| 27 | INSTALL CABLES IN EXISTING WEATHERHEAD |
| 28 | INSTALL CABLES IN EXISTING POLE |
| 29 | INSTALL CABLES IN PROPOSED POLE |
| 30 | INSTALL CABLES IN EXISTING CONDUIT/INTERDUCT |
| 35 | ATTACH CONDUIT TO BRIDGE |
| X | NUMBER OF CABLES, LOOPS, ETC. |
| X | NUMBER OF CONDUCTORS, PAIRS, ETC. |



REVISIONS		
DATE	DESCRIPTIONS	APPROVED



CL-05

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #10
SHELBY COUNTY, TN.
SOUTH THIRD STREET
CABLE LAYOUT
FROM 100+00 TO 125+00

SURVEY: N/A DATE: N/A BOOK: N/A
DRAFTED: APL DATE: 06/14 SCALE: 1"=50'
DESIGNED: APL DATE: 06/14 CHECKED: N/A DATE: N/A
JURISDICTION: SHEET 11 OF 62

MATCH LINE STA. 125+00 SEE DWG. NO. CL-05

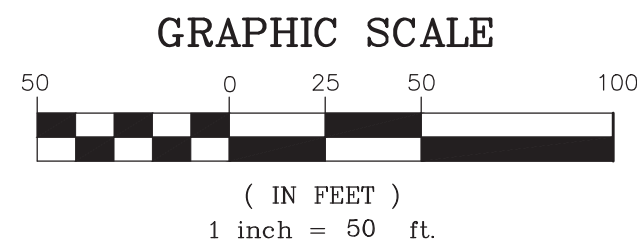
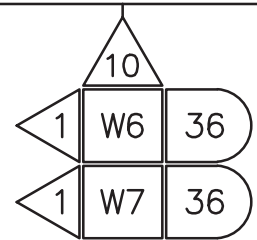
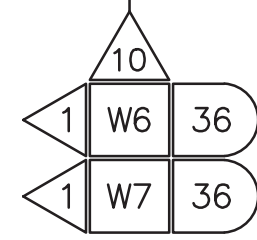
MATCH LINE STA. 137+50 SEE THIS SHEET

MATCH LINE STA. 137+50 SEE THIS SHEET

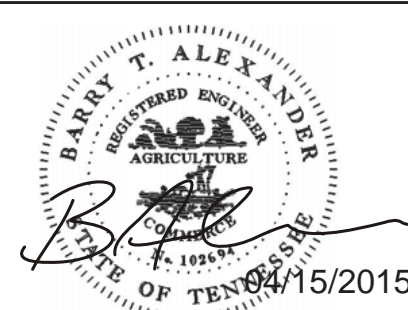
MATCH LINE STA. 150+00 SEE DWG. NO. CL-07

SEE DWG. NO. IL-04
FOR INTERSECTION DETAILS

SEE DWG. NO. RD-01
FOR RDS T-3 DETAILS



REVISIONS		
DATE	DESCRIPTIONS	APPROVED



- B1 RETAIN AND MODIFY EXISTING CABINET
- B2 REMOVE EXISTING CABINET
- B3 INSTALL NEW BASE MOUNTED CONTROLLER CABINET
- B5 INSTALL BASE MOUNTED HUB CABINET
- B6 INSTALL WEATHER PROOF SPLICE ENCLOSURE
- B7 INSTALL FIBER DISTRIBUTION BOX
- B9 INSTALL TRAFFIC SIGNAL PULLBOX
- B10 INSTALL FIBER OPTIC PULLBOX TYPE A
- B11 INSTALL FIBER OPTIC PULLBOX TYPE B
- B13 INSTALL 20' PEDESTAL POLE
- B15 MLGW POWER SERVICE CONNECTION
- D12 INSTALL NEW POLE MOUNTED RDS CABINET
- D13 INSTALL RADAR DETECTION SYSTEM
- D15 INSTALL NEW SECONDARY POLE MOUNTED RDS CABINET
- W6 SMFO CABLE
- W7 SMFO TRUNK CABLE
- W9 SMFO DROP CABLES (6-FIBER)
- W11 RDS CABLE
- 3 INSTALL 2" RISER INTO BOTTOM OF CABINET
- 4 INSTALL 2" RISER WITH WEATHERHEAD
- 5 INSTALL 2" RISER WITH SEALING BUSHING
- 6 INSTALL 2" CONDUIT ENTRANCE INTO EXISTING FOUNDATION
- 7 INSTALL 2" RGS CONDUIT ON EXISTING STRUCTURE
- 8 INSTALL 2" CONDUIT INTO EXTERIOR OF CABINET
- 9 INSTALL 2" PVC CONDUIT
- 10 JACK AND BORE 2" CONDUIT
- 11 INSTALL 2" RGS CONDUIT
- 12 INSTALL 3" PVC CONDUIT
- 13 INSTALL 3" CONDUIT ENTRANCE INTO EXISTING FOUNDATION
- 14 INSTALL 3" RISER WITH WEATHERHEAD
- 15 INSTALL 3" CONDUIT INTO CABINET
- 16 INSTALL 3" RGS CONDUIT ON EXISTING STRUCTURE
- 17 JACK AND BORE 3" CONDUIT
- 18 INSTALL 3" RISER INTO BOTTOM OF CABINET
- 19 REUSE EXISTING RISER WITH WEATHERHEAD
- 20 TIE CONDUIT INTO EXISTING PULLBOX
- 21 REUSE EXISTING CONDUIT
- 24 INSTALL CABLES IN EXISTING MAST ARM POLE
- 25 INSTALL CABLES IN EXISTING POLE IN EXISTING WEATHERHEAD
- 26 INSTALL CABLES IN EXISTING POLE IN PROPOSED WEATHERHEAD
- 27 INSTALL CABLES IN EXISTING WEATHERHEAD
- 28 INSTALL CABLES IN EXISTING POLE
- 29 INSTALL CABLES IN PROPOSED POLE
- 30 INSTALL CABLES IN EXISTING CONDUIT/INTERDUCT
- 35 ATTACH CONDUIT TO BRIDGE
- △ NUMBER OF CABLES, LOOPS, ETC.
- × NUMBER OF CONDUCTORS, PAIRS, ETC.

CL-06

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #10
SHELBY COUNTY, TN.
SOUTH THIRD STREET
CABLE LAYOUT
FROM 125+00 TO 150+00

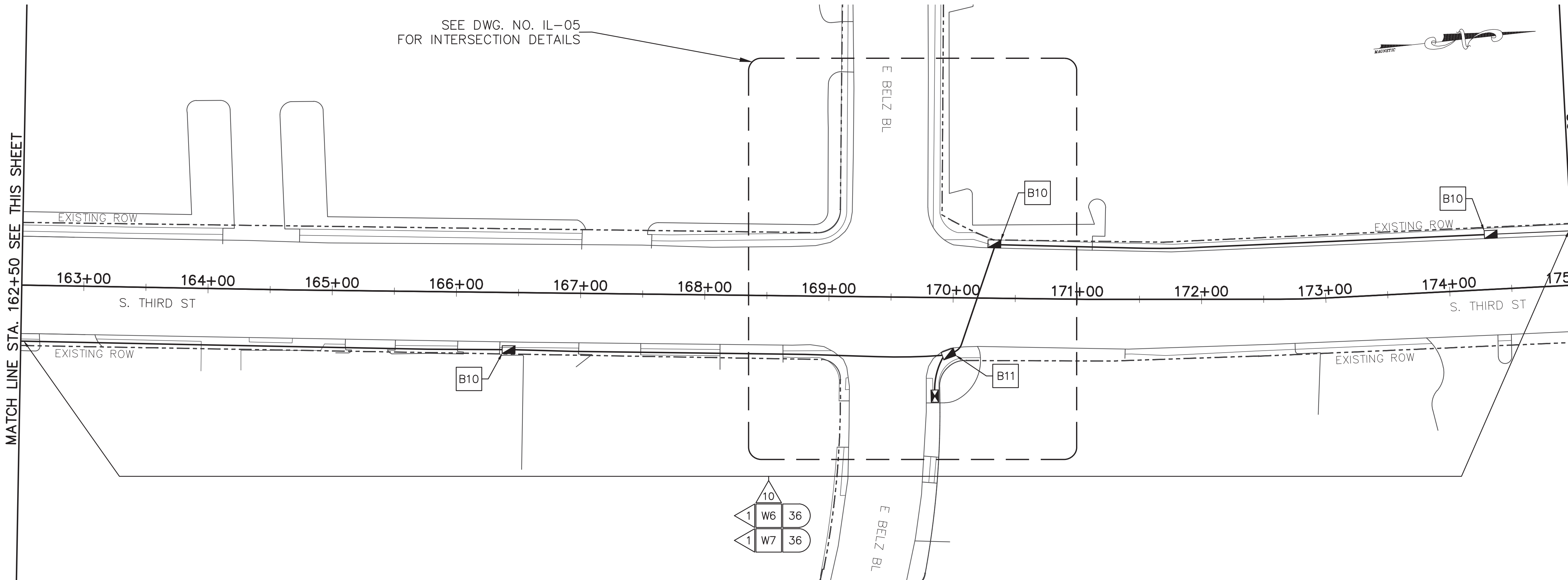
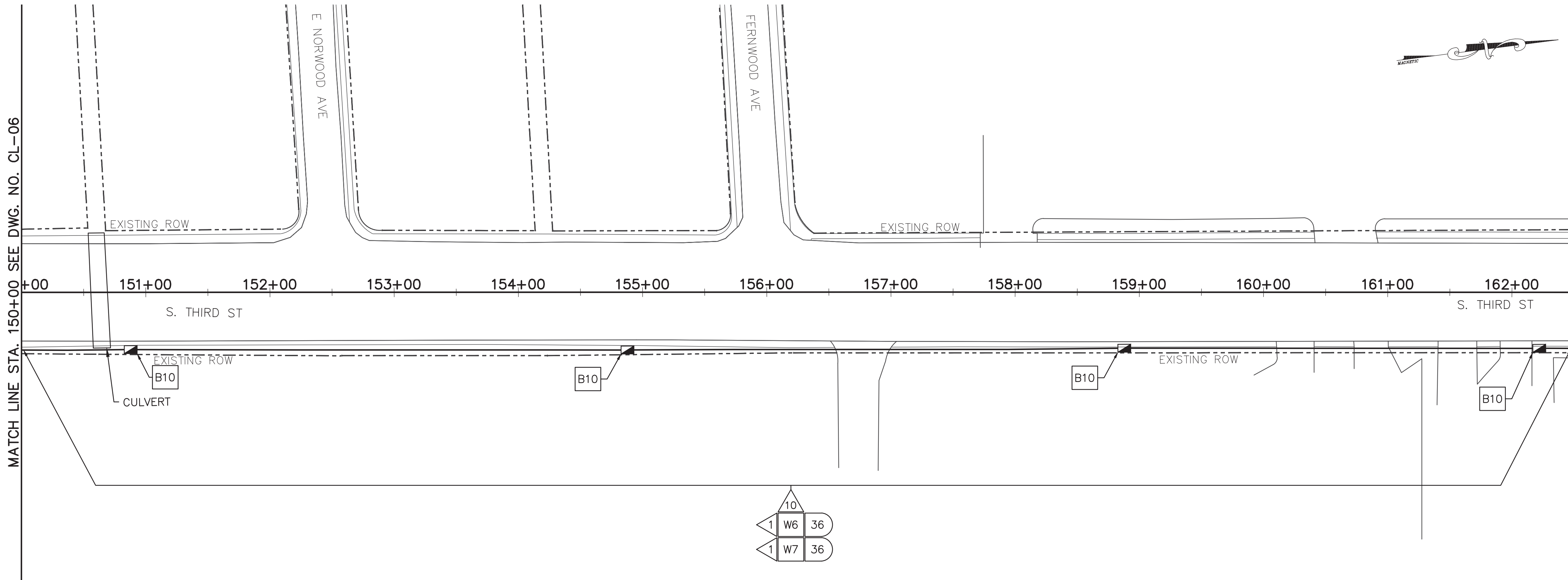
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DRAFTED: APL DATE: 06/14 SCALE: 1"=50'
DESIGNED: APL DATE: 06/14 CHECKED: N/A DATE: N/A
JURISDICTION: SHEET 12 OF 62

MATCH LINE STA. 150+00 SEE DWG. NO. CL-06

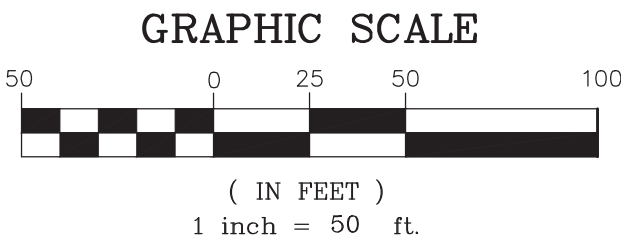
MATCH LINE STA. 162+50 SEE THIS SHEET

MATCH LINE STA. 162+50 SEE THIS SHEET

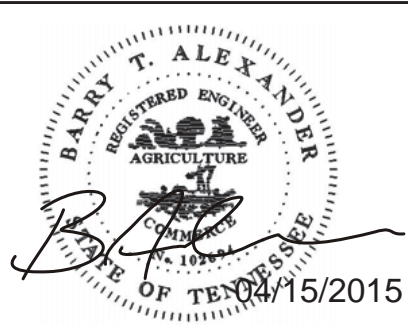
MATCH LINE STA. 175+00 SEE DWG. NO. CL-08



- | | |
|-----|---|
| B1 | RETAIN AND MODIFY EXISTING CABINET |
| B2 | REMOVE EXISTING CABINET |
| B3 | INSTALL NEW BASE MOUNTED CONTROLLER CABINET |
| B5 | INSTALL BASE MOUNTED HUB CABINET |
| B6 | INSTALL WEATHER PROOF SPLICE ENCLOSURE |
| B7 | INSTALL FIBER DISTRIBUTION BOX |
| B9 | INSTALL TRAFFIC SIGNAL PULLBOX |
| B10 | INSTALL FIBER OPTIC PULLBOX TYPE A |
| B11 | INSTALL FIBER OPTIC PULLBOX TYPE B |
| B13 | INSTALL 20' PEDESTAL POLE |
| B15 | MLGW POWER SERVICE CONNECTION |
| D12 | INSTALL NEW POLE MOUNTED RDS CABINET |
| D13 | INSTALL RADAR DETECTION SYSTEM |
| D15 | INSTALL NEW SECONDARY POLE MOUNTED RDS CABINET |
| W6 | SMFO CABLE |
| W7 | SMFO TRUNK CABLE |
| W9 | SMFO DROP CABLES (6-FIBER) |
| W11 | RDS CABLE |
| 3 | INSTALL 2" RISER INTO BOTTOM OF CABINET |
| 4 | INSTALL 2" RISER WITH WEATHERHEAD |
| 5 | INSTALL 2" RISER WITH SEALING BUSHING |
| 6 | INSTALL 2" CONDUIT ENTRANCE INTO EXISTING FOUNDATION |
| 7 | INSTALL 2" RGS CONDUIT ON EXISTING STRUCTURE |
| 8 | INSTALL 2" CONDUIT INTO EXTERIOR OF CABINET |
| 9 | INSTALL 2" PVC CONDUIT |
| 10 | JACK AND BORE 2" CONDUIT |
| 11 | INSTALL 2" RGS CONDUIT |
| 12 | INSTALL 3" PVC CONDUIT |
| 13 | INSTALL 3" CONDUIT ENTRANCE INTO EXISTING FOUNDATION |
| 14 | INSTALL 3" RISER WITH WEATHERHEAD |
| 15 | INSTALL 3" CONDUIT INTO CABINET |
| 16 | INSTALL 3" RGS CONDUIT ON EXISTING STRUCTURE |
| 17 | JACK AND BORE 3" CONDUIT |
| 18 | INSTALL 3" RISER INTO BOTTOM OF CABINET |
| 19 | REUSE EXISTING RISER WITH WEATHERHEAD |
| 20 | TIE CONDUIT INTO EXISTING PULLBOX |
| 21 | REUSE EXISTING CONDUIT |
| 24 | INSTALL CABLES IN EXISTING MAST ARM POLE |
| 25 | INSTALL CABLES IN EXISTING POLE IN EXISTING WEATHERHEAD |
| 26 | INSTALL CABLES IN EXISTING POLE IN PROPOSED WEATHERHEAD |
| 27 | INSTALL CABLES IN EXISTING WEATHERHEAD |
| 28 | INSTALL CABLES IN EXISTING POLE |
| 29 | INSTALL CABLES IN PROPOSED POLE |
| 30 | INSTALL CABLES IN EXISTING CONDUIT/INTERDUCT |
| 35 | ATTACH CONDUIT TO BRIDGE |
| △ | NUMBER OF CABLES, LOOPS, ETC. |
| ⊗ | NUMBER OF CONDUCTORS, PAIRS, ETC. |



REVISIONS		
DATE	DESCRIPTIONS	APPROVED



CL-07

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #10
SHELBY COUNTY, TN.
SOUTH THIRD STREET
CABLE LAYOUT
FROM 150+00 TO 175+00

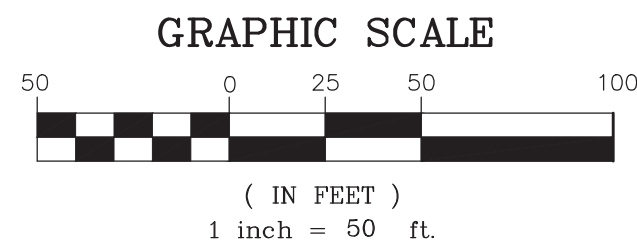
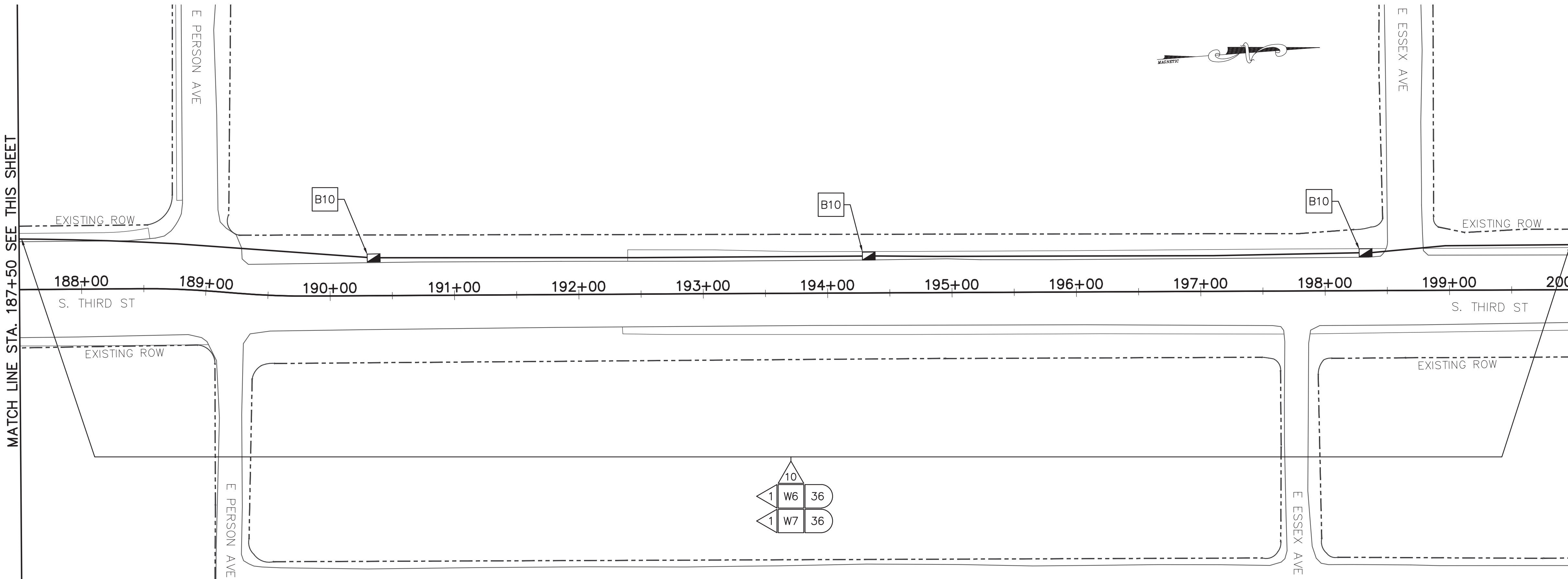
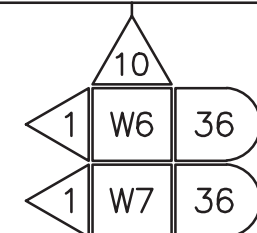
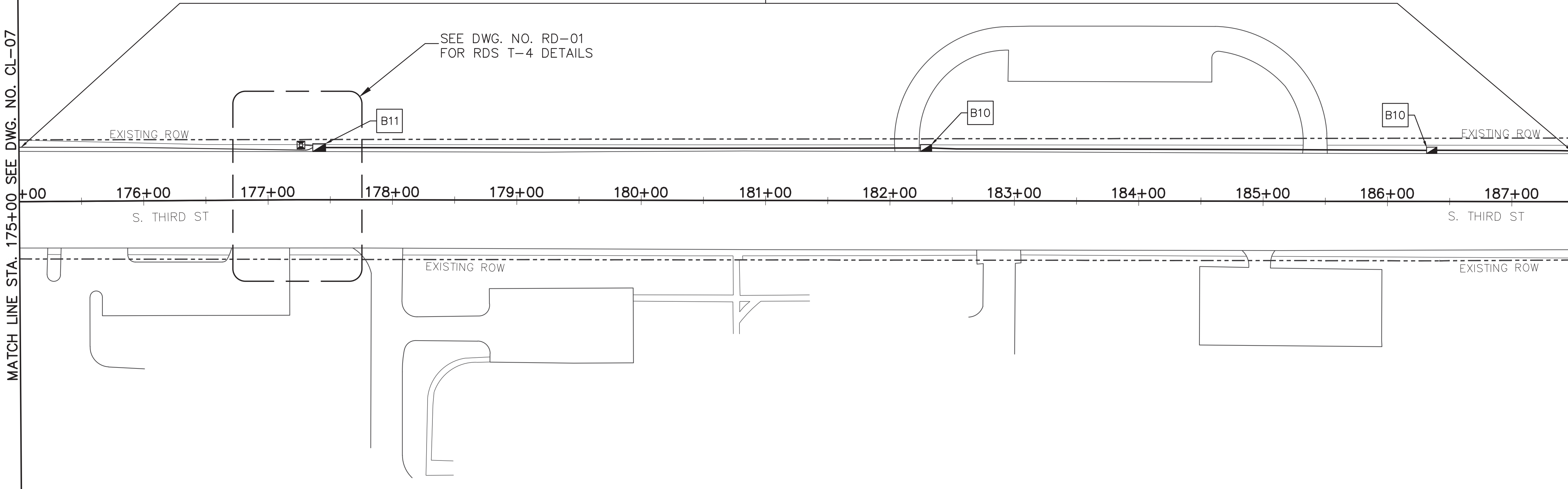
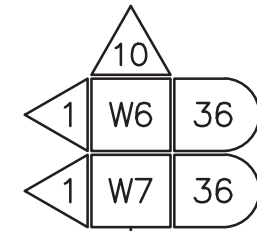
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DESIGNED: APL DATE: 06/14 CHECKED: N/A DATE: N/A
JURISDICTION: SHEET 13 OF 62

MATCH LINE STA. 175+00 SEE DWG. NO. CL-07

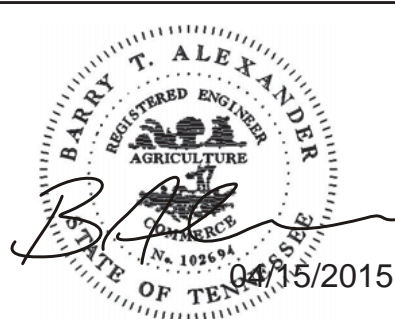
MATCH LINE STA. 187+50 SEE THIS SHEET

MATCH LINE STA. 187+50 SEE THIS SHEET

MATCH LINE STA. 200+00 SEE DWG. NO. CL-09



REVISIONS		
DATE	DESCRIPTIONS	APPROVED



- | | |
|-----|---|
| B1 | RETAIN AND MODIFY EXISTING CABINET |
| B2 | REMOVE EXISTING CABINET |
| B3 | INSTALL NEW BASE MOUNTED CONTROLLER CABINET |
| B5 | INSTALL BASE MOUNTED HUB CABINET |
| B6 | INSTALL WEATHER PROOF SPLICE ENCLOSURE |
| B7 | INSTALL FIBER DISTRIBUTION BOX |
| B9 | INSTALL TRAFFIC SIGNAL PULLBOX |
| B10 | INSTALL FIBER OPTIC PULLBOX TYPE A |
| B11 | INSTALL FIBER OPTIC PULLBOX TYPE B |
| B13 | INSTALL 20' PEDESTAL POLE |
| B15 | MLGW POWER SERVICE CONNECTION |
| D12 | INSTALL NEW POLE MOUNTED RDS CABINET |
| D13 | INSTALL RADAR DETECTION SYSTEM |
| D15 | INSTALL NEW SECONDARY POLE MOUNTED RDS CABINET |
| W6 | SMFO CABLE |
| W7 | SMFO TRUNK CABLE |
| W9 | SMFO DROP CABLES (6-FIBER) |
| W11 | RDS CABLE |
| 3 | INSTALL 2" RISER INTO BOTTOM OF CABINET |
| 4 | INSTALL 2" RISER WITH WEATHERHEAD |
| 5 | INSTALL 2" RISER WITH SEALING BUSHING |
| 6 | INSTALL 2" CONDUIT ENTRANCE INTO EXISTING FOUNDATION |
| 7 | INSTALL 2" RGS CONDUIT ON EXISTING STRUCTURE |
| 8 | INSTALL 2" CONDUIT INTO EXTERIOR OF CABINET |
| 9 | INSTALL 2" PVC CONDUIT |
| 10 | JACK AND BORE 2" CONDUIT |
| 11 | INSTALL 2" RGS CONDUIT |
| 12 | INSTALL 3" PVC CONDUIT |
| 13 | INSTALL 3" CONDUIT ENTRANCE INTO EXISTING FOUNDATION |
| 14 | INSTALL 3" RISER WITH WEATHERHEAD |
| 15 | INSTALL 3" CONDUIT INTO CABINET |
| 16 | INSTALL 3" RGS CONDUIT ON EXISTING STRUCTURE |
| 17 | JACK AND BORE 3" CONDUIT |
| 18 | INSTALL 3" RISER INTO BOTTOM OF CABINET |
| 19 | REUSE EXISTING RISER WITH WEATHERHEAD |
| 20 | TIE CONDUIT INTO EXISTING PULLBOX |
| 21 | REUSE EXISTING CONDUIT |
| 24 | INSTALL CABLES IN EXISTING MAST ARM POLE |
| 25 | INSTALL CABLES IN EXISTING POLE IN EXISTING WEATHERHEAD |
| 26 | INSTALL CABLES IN EXISTING POLE IN PROPOSED WEATHERHEAD |
| 27 | INSTALL CABLES IN EXISTING WEATHERHEAD |
| 28 | INSTALL CABLES IN EXISTING POLE |
| 29 | INSTALL CABLES IN PROPOSED POLE |
| 30 | INSTALL CABLES IN EXISTING CONDUIT/INTERDUCT |
| 35 | ATTACH CONDUIT TO BRIDGE |
| △ | NUMBER OF CABLES, LOOPS, ETC. |
| ⊗ | NUMBER OF CONDUCTORS, PAIRS, ETC. |

CL-08

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #10
SHELBY COUNTY, TN.
SOUTH THIRD STREET
CABLE LAYOUT
FROM 175+00 TO 200+00

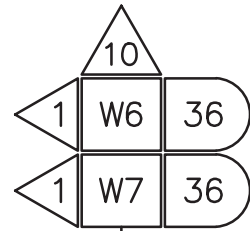
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DRAFTED: APL DATE: 06/14 SCALE: 1"=50'
DESIGNED: APL DATE: 06/14 CHECKED: N/A DATE: N/A
JURISDICTION: _____ SHEET 14 OF 62

MATCH LINE STA. 200+00 SEE DWG. NO. CL-08

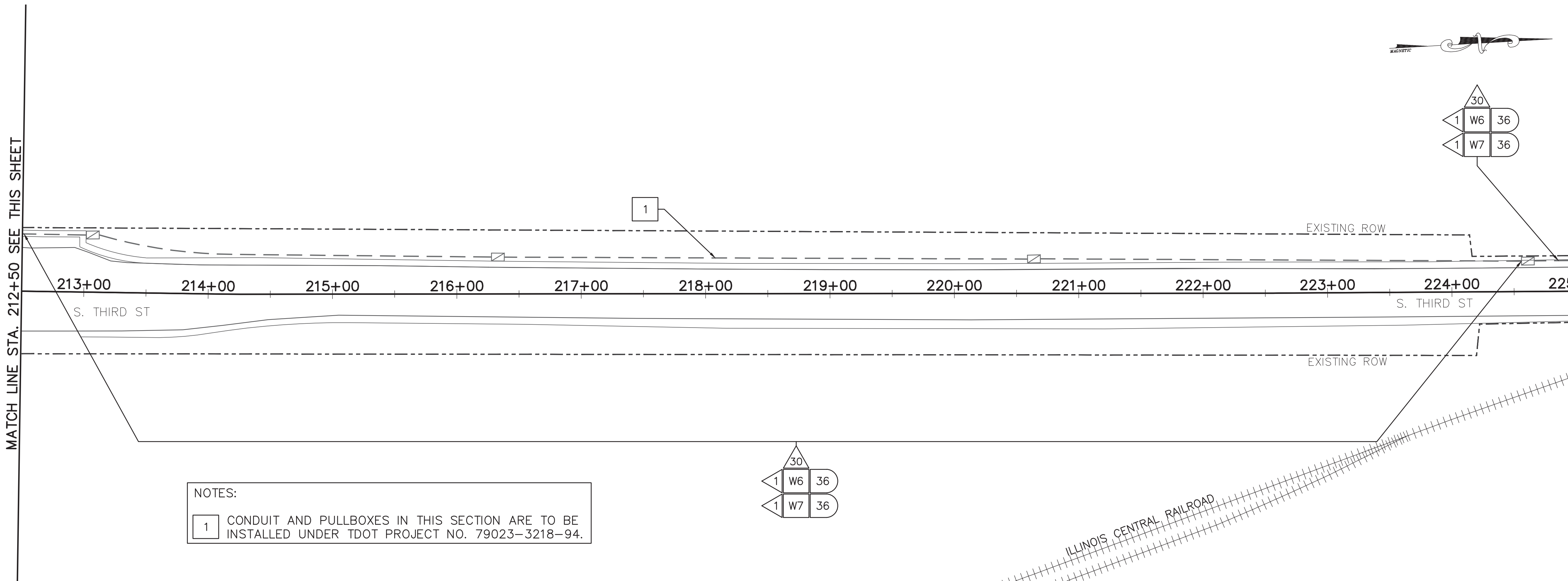
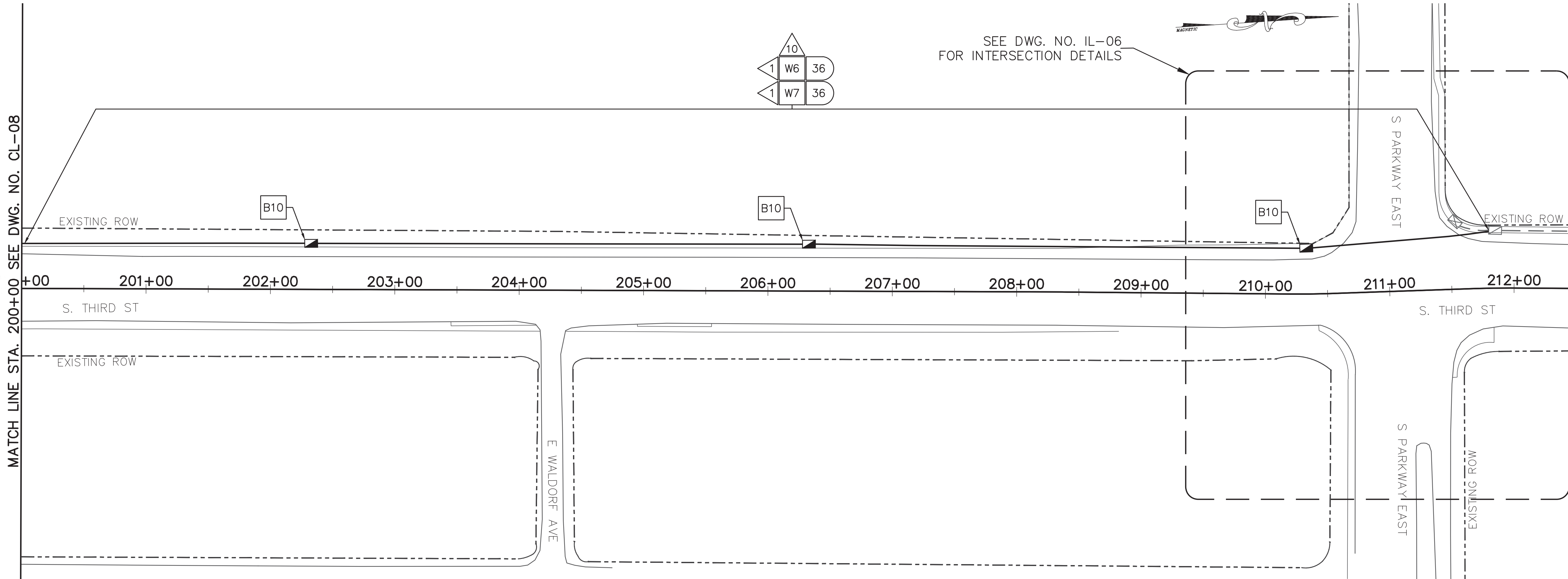
MATCH LINE STA. 212+50 SEE THIS SHEET

MATCH LINE STA. 212+50 SEE THIS SHEET

MATCH LINE STA. 225+00 SEE DWG. NO. CL-10

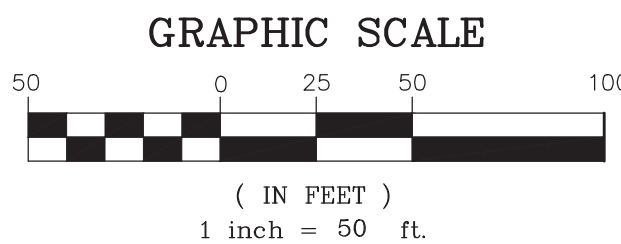
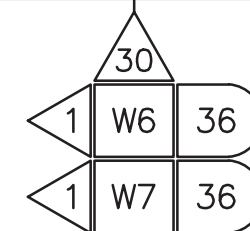


SEE DWG. NO. IL-06
FOR INTERSECTION DETAILS

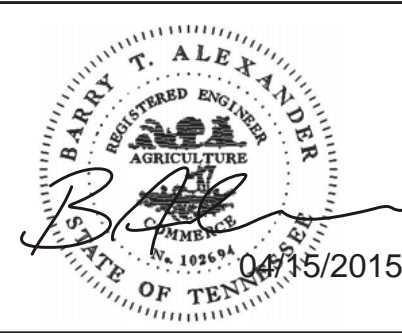


NOTES:

1 CONDUIT AND PULLBOXES IN THIS SECTION ARE TO BE
INSTALLED UNDER TDOT PROJECT NO. 79023-3218-94.



REVISIONS		
DATE	DESCRIPTIONS	APPROVED



CL-09

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #10
SHELBY COUNTY, TN.
SOUTH THIRD STREET
CABLE LAYOUT
FROM 200+00 TO 225+00

SURVEY: N/A DATE: N/A BOOK: N/A
DRAFTED: APL DATE: 06/14 SCALE: 1"=50'
DESIGNED: APL DATE: 06/14 CHECKED: N/A DATE: N/A
JURISDICTION: SHEET 15 OF 62

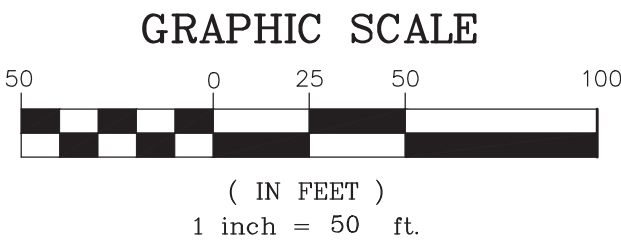
MATCH LINE STA. 225+00 SEE DWG. NO. CL-09

- NOTES:
- 1 CONDUIT AND PULLBOXES IN THIS SECTION ARE TO BE INSTALLED UNDER TDOT PROJECT NO. 79023-3218-94.
- 2 ALL WORK WITHIN RAILROAD RIGHT-OF-WAY SHALL BE DONE IN ACCORDANCE WITH THE TERMS OF THE CROSSING AGREEMENT WITH THE RAILROAD OWNER(S).

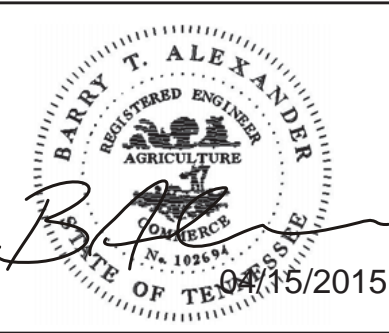
MATCH LINE STA. 237+50 SEE THIS SHEET

MATCH LINE STA. 237+50 SEE THIS SHEET

MATCH LINE STA. 250+00 SEE DWG. NO. CL-11



REVISIONS		
DATE	DESCRIPTIONS	APPROVED



POWERS HILL DESIGN
CIVIL ENGINEERING. CIVIL RESPONSIBILITY.

NEEL-SCHAFFER
Solutions you can build upon

- B1 RETAIN AND MODIFY EXISTING CABINET
- B2 REMOVE EXISTING CABINET
- B3 INSTALL NEW BASE MOUNTED CONTROLLER CABINET
- B5 INSTALL BASE MOUNTED HUB CABINET
- B6 INSTALL WEATHER PROOF SPLICE ENCLOSURE
- B7 INSTALL FIBER DISTRIBUTION BOX
- B9 INSTALL TRAFFIC SIGNAL PULLBOX
- B10 INSTALL FIBER OPTIC PULLBOX TYPE A
- B11 INSTALL FIBER OPTIC PULLBOX TYPE B
- B13 INSTALL 20' PEDESTAL POLE
- B15 MLGW POWER SERVICE CONNECTION
- D12 INSTALL NEW POLE MOUNTED RDS CABINET
- D13 INSTALL RADAR DETECTION SYSTEM
- D15 INSTALL NEW SECONDARY POLE MOUNTED RDS CABINET
- W6 SMFO CABLE
- W7 SMFO TRUNK CABLE
- W9 SMFO DROP CABLES (6-FIBER)
- W11 RDS CABLE
- 3 INSTALL 2" RISER INTO BOTTOM OF CABINET
- 4 INSTALL 2" RISER WITH WEATHERHEAD
- 5 INSTALL 2" RISER WITH SEALING BUSHING
- 6 INSTALL 2" CONDUIT ENTRANCE INTO EXISTING FOUNDATION
- 7 INSTALL 2" RGS CONDUIT ON EXISTING STRUCTURE
- 8 INSTALL 2" CONDUIT INTO EXTERIOR OF CABINET
- 9 INSTALL 2" PVC CONDUIT
- 10 JACK AND BORE 2" CONDUIT
- 11 INSTALL 2" RGS CONDUIT
- 12 INSTALL 3" PVC CONDUIT
- 13 INSTALL 3" CONDUIT ENTRANCE INTO EXISTING FOUNDATION
- 14 INSTALL 3" RISER WITH WEATHERHEAD
- 15 INSTALL 3" CONDUIT INTO CABINET
- 16 INSTALL 3" RGS CONDUIT ON EXISTING STRUCTURE
- 17 JACK AND BORE 3" CONDUIT
- 18 INSTALL 3" RISER INTO BOTTOM OF CABINET
- 19 REUSE EXISTING RISER WITH WEATHERHEAD
- 20 TIE CONDUIT INTO EXISTING PULLBOX
- 21 REUSE EXISTING CONDUIT
- 24 INSTALL CABLES IN EXISTING MAST ARM POLE
- 25 INSTALL CABLES IN EXISTING POLE IN EXISTING WEATHERHEAD
- 26 INSTALL CABLES IN EXISTING POLE IN PROPOSED WEATHERHEAD
- 27 INSTALL CABLES IN EXISTING WEATHERHEAD
- 28 INSTALL CABLES IN EXISTING POLE
- 29 INSTALL CABLES IN PROPOSED POLE
- 30 INSTALL CABLES IN EXISTING CONDUIT/INTERDUCT
- 35 ATTACH CONDUIT TO BRIDGE
- △ NUMBER OF CABLES, LOOPS, ETC.
- ⊠ NUMBER OF CONDUCTORS, PAIRS, ETC.

CL-10

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #10
SHELBY COUNTY, TN.

SOUTH THIRD STREET

CABLE LAYOUT
FROM 225+00 TO 250+00

SURVEY: N/A DATE: N/A BOOK: N/A

DRAFTED: APL DATE: 06/14 SCALE: 1"=50'

DESIGNED: APL DATE: 06/14 CHECKED: N/A DATE: N/A

JURISDICTION: SHEET 16 OF 62

MATCH LINE STA. 250+00 SEE DWG. NO. CL-10

MATCH LINE STA. 262+50 SEE THIS SHEET

MATCH LINE STA. 262+50 SEE THIS SHEET

MATCH LINE STA. 275+00 SEE DWG. NO. CL-12

- B1

RETAIN AND MODIFY EXISTING CABINET
- B2

REMOVE EXISTING CABINET
- B3

INSTALL NEW BASE MOUNTED CONTROLLER CABINET
- B5

INSTALL BASE MOUNTED HUB CABINET
- B6

INSTALL WEATHER PROOF SPLICE ENCLOSURE
- B7

INSTALL FIBER DISTRIBUTION BOX
- B9

INSTALL TRAFFIC SIGNAL PULLBOX
- B10

INSTALL FIBER OPTIC PULLBOX TYPE A
- B11

INSTALL FIBER OPTIC PULLBOX TYPE B
- B13

INSTALL 20' PEDESTAL POLE
- B15

MLGW POWER SERVICE CONNECTION
- D12

INSTALL NEW POLE MOUNTED RDS CABINET
- D13

INSTALL RADAR DETECTION SYSTEM
- D15

INSTALL NEW SECONDARY POLE MOUNTED RDS CABINET
- W6

SMFO CABLE
- W7

SMFO TRUNK CABLE
- W9

SMFO DROP CABLES (6-FIBER)
- W11

RDS CABLE
- 3

INSTALL 2" RISER INTO BOTTOM OF CABINET
- 4

INSTALL 2" RISER WITH WEATHERHEAD
- 5

INSTALL 2" RISER WITH SEALING BUSHING
- 6

INSTALL 2" CONDUIT ENTRANCE INTO EXISTING FOUNDATION
- 7

INSTALL 2" RGS CONDUIT ON EXISTING STRUCTURE
- 8

INSTALL 2" CONDUIT INTO EXTERIOR OF CABINET
- 9

INSTALL 2" PVC CONDUIT
- 10

JACK AND BORE 2" CONDUIT
- 11

INSTALL 2" RGS CONDUIT
- 12

INSTALL 3" PVC CONDUIT
- 13

INSTALL 3" CONDUIT ENTRANCE INTO EXISTING FOUNDATION
- 14

INSTALL 3" RISER WITH WEATHERHEAD
- 15

INSTALL 3" CONDUIT INTO CABINET
- 16

INSTALL 3" RGS CONDUIT ON EXISTING STRUCTURE
- 17

JACK AND BORE 3" CONDUIT
- 18

INSTALL 3" RISER INTO BOTTOM OF CABINET
- 19

REUSE EXISTING RISER WITH WEATHERHEAD
- 20

TIE CONDUIT INTO EXISTING PULLBOX
- 21

REUSE EXISTING CONDUIT
- 24

INSTALL CABLES IN EXISTING MAST ARM POLE
- 25

INSTALL CABLES IN EXISTING POLE IN EXISTING WEATHERHEAD
- 26

INSTALL CABLES IN EXISTING POLE IN PROPOSED WEATHERHEAD
- 27

INSTALL CABLES IN EXISTING WEATHERHEAD
- 28

INSTALL CABLES IN EXISTING POLE
- 29

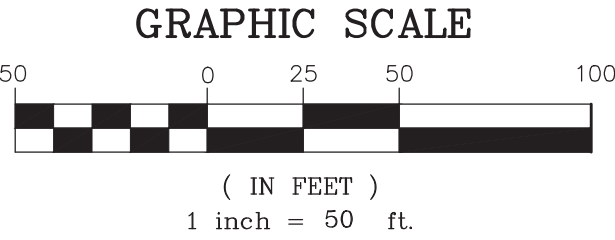
INSTALL CABLES IN PROPOSED POLE
- 30

INSTALL CABLES IN EXISTING CONDUIT/INTERDUCT
- 35

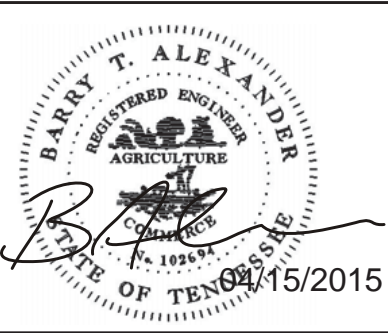
ATTACH CONDUIT TO BRIDGE
- △

NUMBER OF CABLES, LOOPS, ETC.
- ×

NUMBER OF CONDUCTORS, PAIRS, ETC.



REVISIONS		
DATE	DESCRIPTIONS	APPROVED



CL-11

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #10
SHELBY COUNTY, TN.
SOUTH THIRD STREET
CABLE LAYOUT
FROM 250+00 TO 275+00

SURVEY: N/A DATE: N/A BOOK: N/A
DRAFTED: APL DATE: 06/14 SCALE: 1"=50'
DESIGNED: APL DATE: 06/14 CHECKED: N/A DATE: N/A
JURISDICTION: SHEET 17 OF 62

MATCH LINE STA. 275+00 SEE DWG. NO. CL-11

MATCH LINE STA. 287+50 SEE THIS SHEET

MATCH LINE STA. 287+50 SEE THIS SHEET

MATCH LINE STA. 300+00 SEE DWG. NO. CL-13

SEE DWG. NO. IL-09
FOR INTERSECTION DETAILS

SEE DWG. NO. RD-02
FOR RDS T-6 DETAILS

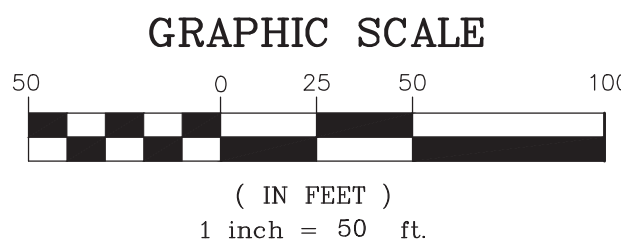
REMOVE EXISTING
SMFO CABLE (AERIAL)
AND MESSENGER WIRE
(COST ABSORBED)

REMOVE EXISTING
SMFO CABLE (AERIAL)
AND MESSENGER WIRE
(COST ABSORBED)

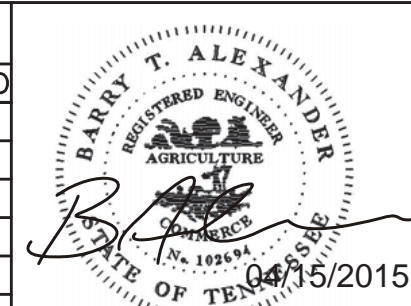
NOTES:

- 1 CONDUIT TO BE DIRECTIONAL BORED UNDER ROADWAY
- 2 ALL WORK WITHIN RAILROAD RIGHT-OF-WAY SHALL BE DONE IN ACCORDANCE WITH THE TERMS OF THE CROSSING AGREEMENT WITH THE RAILROAD OWNER(S).

- B1 RETAIN AND MODIFY EXISTING CABINET
- B2 REMOVE EXISTING CABINET
- B3 INSTALL NEW BASE MOUNTED CONTROLLER CABINET
- B5 INSTALL BASE MOUNTED HUB CABINET
- B6 INSTALL WEATHER PROOF SPLICE ENCLOSURE
- B7 INSTALL FIBER DISTRIBUTION BOX
- B9 INSTALL TRAFFIC SIGNAL PULLBOX
- B10 INSTALL FIBER OPTIC PULLBOX TYPE A
- B11 INSTALL FIBER OPTIC PULLBOX TYPE B
- B13 INSTALL 20' PEDESTAL POLE
- B15 MLGW POWER SERVICE CONNECTION
- D12 INSTALL NEW POLE MOUNTED RDS CABINET
- D13 INSTALL RADAR DETECTION SYSTEM
- D15 INSTALL NEW SECONDARY POLE MOUNTED RDS CABINET
- W6 SMFO CABLE
- W7 SMFO TRUNK CABLE
- W9 SMFO DROP CABLES (6-FIBER)
- W11 RDS CABLE
- 3 INSTALL 2" RISER INTO BOTTOM OF CABINET
- 4 INSTALL 2" RISER WITH WEATHERHEAD
- 5 INSTALL 2" RISER WITH SEALING BUSHING
- 6 INSTALL 2" CONDUIT ENTRANCE INTO EXISTING FOUNDATION
- 7 INSTALL 2" RGS CONDUIT ON EXISTING STRUCTURE
- 8 INSTALL 2" CONDUIT INTO EXTERIOR OF CABINET
- 9 INSTALL 2" PVC CONDUIT
- 10 JACK AND BORE 2" CONDUIT
- 11 INSTALL 2" RGS CONDUIT
- 12 INSTALL 3" PVC CONDUIT
- 13 INSTALL 3" CONDUIT ENTRANCE INTO EXISTING FOUNDATION
- 14 INSTALL 3" RISER WITH WEATHERHEAD
- 15 INSTALL 3" CONDUIT INTO CABINET
- 16 INSTALL 3" RGS CONDUIT ON EXISTING STRUCTURE
- 17 JACK AND BORE 3" CONDUIT
- 18 INSTALL 3" RISER INTO BOTTOM OF CABINET
- 19 REUSE EXISTING RISER WITH WEATHERHEAD
- 20 TIE CONDUIT INTO EXISTING PULLBOX
- 21 REUSE EXISTING CONDUIT
- 24 INSTALL CABLES IN EXISTING MAST ARM POLE
- 25 INSTALL CABLES IN EXISTING POLE IN EXISTING WEATHERHEAD
- 26 INSTALL CABLES IN EXISTING POLE IN PROPOSED WEATHERHEAD
- 27 INSTALL CABLES IN EXISTING WEATHERHEAD
- 28 INSTALL CABLES IN EXISTING POLE
- 29 INSTALL CABLES IN PROPOSED POLE
- 30 INSTALL CABLES IN EXISTING CONDUIT/INTERDUCT
- 35 ATTACH CONDUIT TO BRIDGE
- △ NUMBER OF CABLES, LOOPS, ETC.
- ⊗ NUMBER OF CONDUCTORS, PAIRS, ETC.



REVISIONS		
DATE	DESCRIPTIONS	APPROVED



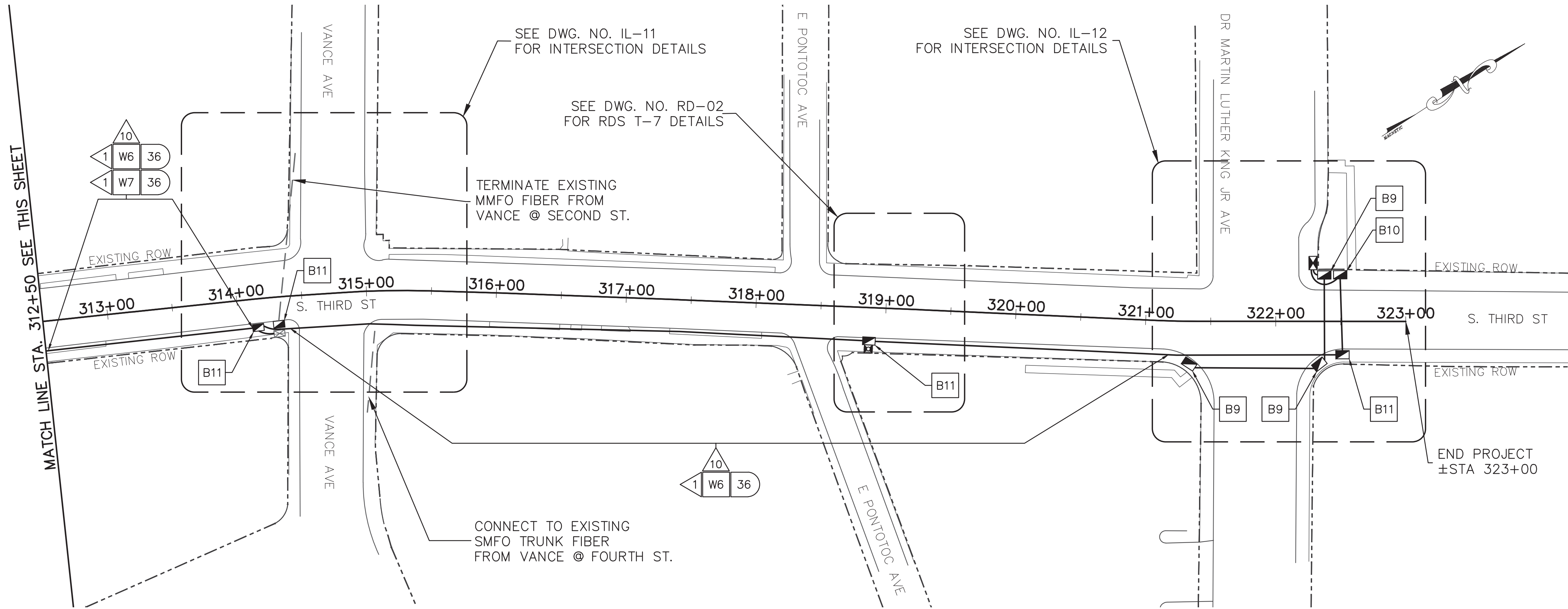
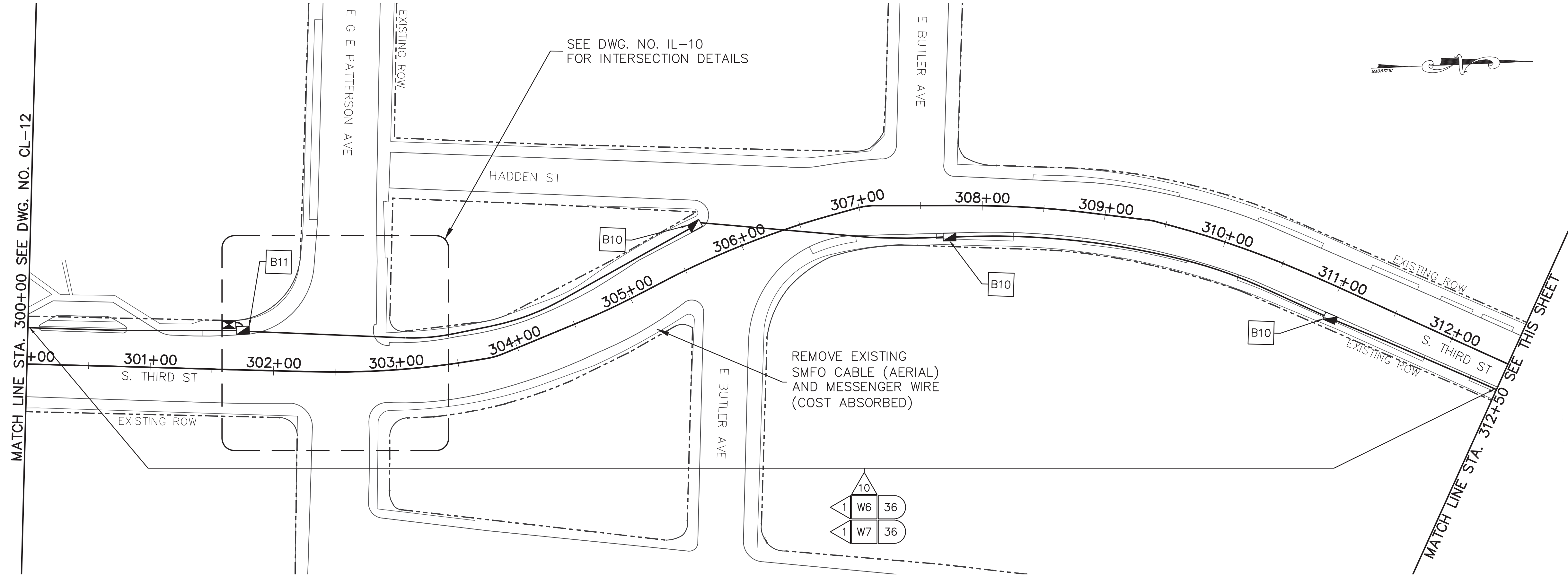
POWERS HILL DESIGN
CIVIL ENGINEERING. CIVIL RESPONSIBILITY.

NEEL-SCHAFFER
Solutions you can build upon

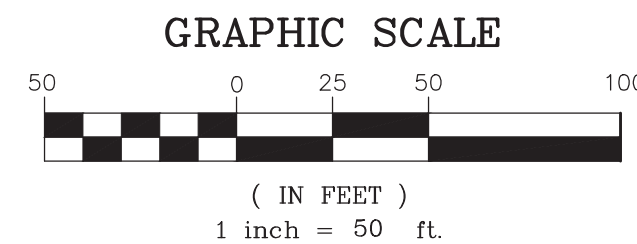
CL-12

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #10
SHELBY COUNTY, TN.
SOUTH THIRD STREET
CABLE LAYOUT
FROM 275+00 TO 300+00

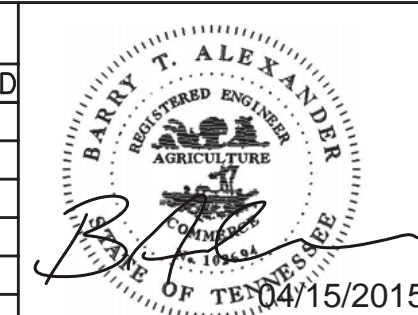
SURVEY: N/A DATE: N/A BOOK: N/A
DRAFTED: APL DATE: 06/14 SCALE: 1"=50'
DESIGNED: APL DATE: 06/14 CHECKED: N/A DATE: N/A
JURISDICTION: SHEET 18 OF 62



- B1 RETAIN AND MODIFY EXISTING CABINET
B2 REMOVE EXISTING CABINET
B3 INSTALL NEW BASE MOUNTED CONTROLLER CABINET
B5 INSTALL BASE MOUNTED HUB CABINET
B6 INSTALL WEATHER PROOF SPLICE ENCLOSURE
B7 INSTALL FIBER DISTRIBUTION BOX
B9 INSTALL TRAFFIC SIGNAL PULLBOX
B10 INSTALL FIBER OPTIC PULLBOX TYPE A
B11 INSTALL FIBER OPTIC PULLBOX TYPE B
B13 INSTALL 20' PEDESTAL POLE
B15 MLGW POWER SERVICE CONNECTION
D12 INSTALL NEW POLE MOUNTED RDS CABINET
D13 INSTALL RADAR DETECTION SYSTEM
D15 INSTALL NEW SECONDARY POLE MOUNTED RDS CABINET
W6 SMFO CABLE
W7 SMFO TRUNK CABLE
W9 SMFO DROP CABLES (6-FIBER)
W11 RDS CABLE
- 3 INSTALL 2" RISER INTO BOTTOM OF CABINET
4 INSTALL 2" RISER WITH WEATHERHEAD
5 INSTALL 2" RISER WITH SEALING BUSHING
6 INSTALL 2" CONDUIT ENTRANCE INTO EXISTING FOUNDATION
7 INSTALL 2" RGS CONDUIT ON EXISTING STRUCTURE
8 INSTALL 2" CONDUIT INTO EXTERIOR OF CABINET
9 INSTALL 2" PVC CONDUIT
10 JACK AND BORE 2" CONDUIT
11 INSTALL 2" RGS CONDUIT
12 INSTALL 3" PVC CONDUIT
13 INSTALL 3" CONDUIT ENTRANCE INTO EXISTING FOUNDATION
14 INSTALL 3" RISER WITH WEATHERHEAD
15 INSTALL 3" CONDUIT INTO CABINET
16 INSTALL 3" RGS CONDUIT ON EXISTING STRUCTURE
17 JACK AND BORE 3" CONDUIT
18 INSTALL 3" RISER INTO BOTTOM OF CABINET
19 REUSE EXISTING RISER WITH WEATHERHEAD
20 TIE CONDUIT INTO EXISTING PULLBOX
21 REUSE EXISTING CONDUIT
24 INSTALL CABLES IN EXISTING MAST ARM POLE
25 INSTALL CABLES IN EXISTING POLE IN EXISTING WEATHERHEAD
26 INSTALL CABLES IN EXISTING POLE IN PROPOSED WEATHERHEAD
27 INSTALL CABLES IN EXISTING WEATHERHEAD
28 INSTALL CABLES IN EXISTING POLE
29 INSTALL CABLES IN PROPOSED POLE
30 INSTALL CABLES IN EXISTING CONDUIT/INTERDUCT
35 ATTACH CONDUIT TO BRIDGE
- △ NUMBER OF CABLES, LOOPS, ETC.
X NUMBER OF CONDUCTORS, PAIRS, ETC.



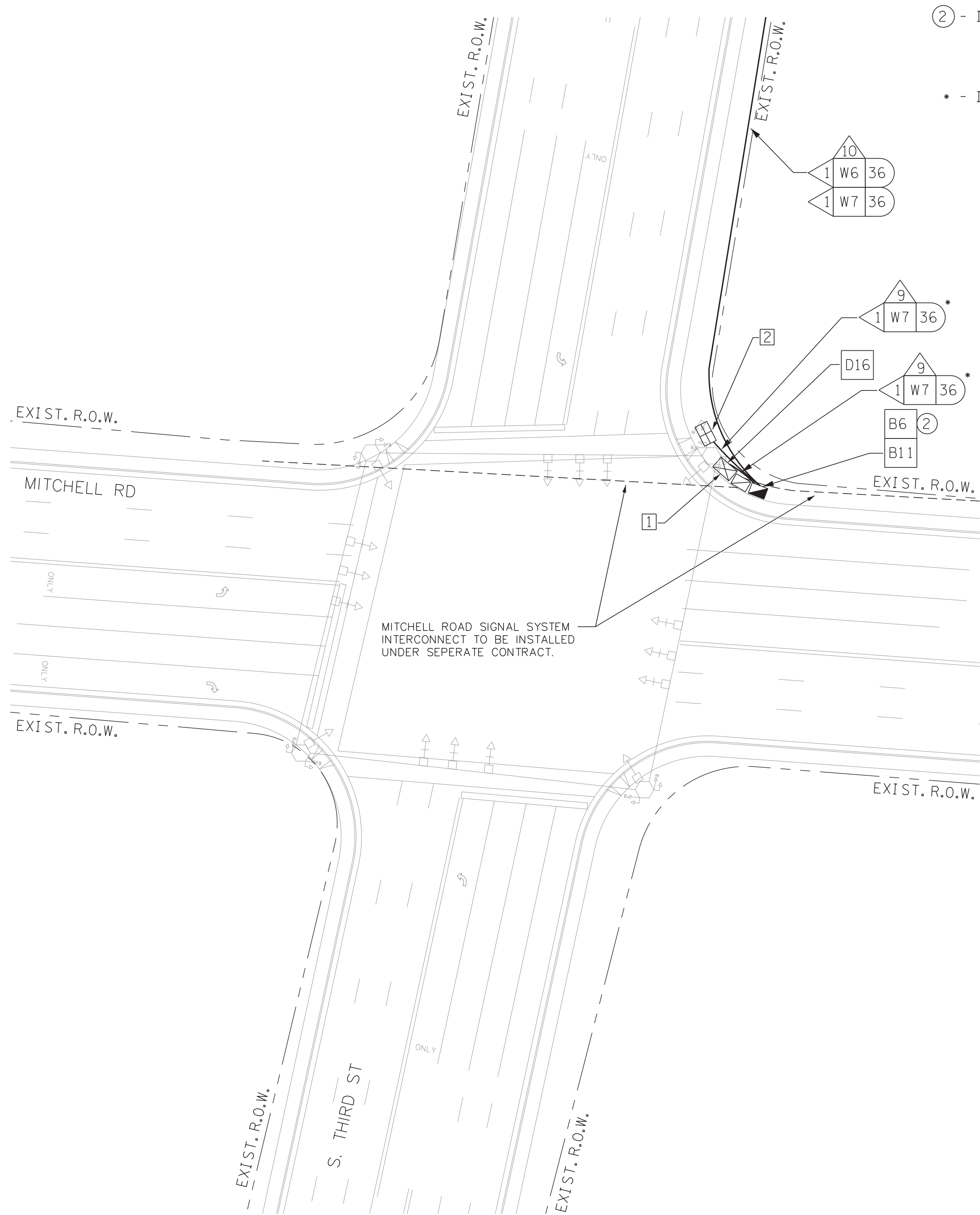
REVISIONS		
DATE	DESCRIPTIONS	APPROVED



CL-13

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #10
SHELBY COUNTY, TN.
SOUTH THIRD STREET
CABLE LAYOUT
FROM 300+00 TO 323+00

SURVEY: N/A DATE: N/A BOOK: N/A
DRAFTED: APL DATE: 06/14 SCALE: 1"=50'
DESIGNED: APL DATE: 06/14 CHECKED: N/A DATE: N/A
JURISDICTION: SHEET 19 OF 62



- ② - INSTALL 2 WEATHERPROOF SPLICE ENCLOSURES IN TYPE B FIBER OPTIC PULL BOX.
- - INSTALL DROP CABLE (36-FIBER).



- B1 RETAIN AND MODIFY EXISTING CABINET
- B2 REMOVE EXISTING CABINET
- B3 INSTALL NEW BASE MOUNTED CONTROLLER CABINET
- B5 INSTALL BASE MOUNTED HUB CABINET
- B6 INSTALL WEATHER PROOF SPLICE ENCLOSURE
- B7 INSTALL FIBER DISTRIBUTION BOX
- B9 INSTALL TRAFFIC SIGNAL PULLBOX
- B10 INSTALL FIBER OPTIC PULLBOX TYPE A
- B11 INSTALL FIBER OPTIC PULLBOX TYPE B
- B13 INSTALL 20" PEDESTAL POLE
- B15 MLGW POWER SERVICE CONNECTION
- C2 INSTALL 8-PHASE CONTROLLER
- C4 REMOVE EXISTING CONTROLLER AND INSTALL NEW CONTROLLER
- C6 INSTALL ETHERNET CABINET SWITCH
- C7 INSTALL SERIAL DEVICE SERVER
- C8 INSTALL ETHERNET HUB SWITCH
- D1 INSTALL EVP DETECTOR
- D2 INSTALL EVP CONFIRMATION BEACON
- D3 INSTALL EVP CONFIRMATION LAMP
- D4 INSTALL VIDEO DETECTION CAMERA WITH TYPE 1 MOUNT
- D5 INSTALL VIDEO DETECTION CAMERA WITH TYPE 2 MOUNT
- D6 INSTALL VIDEO DETECTION CAMERA WITH TYPE 3 MOUNT
- D8 INSTALL EVP PHASE SELECTOR
- D9 INSTALL VIDEO DETECTION PROCESSOR
- D10 INSTALL DETECTOR AMPLIFIER (4-CHANNEL) IN CABINET
- D12 INSTALL NEW POLE MOUNTED RDS CABINET
- D13 INSTALL RADAR DETECTION SYSTEM
- D14 VIDEO REMOTE MANAGEMENT CARD
- D16 INSTALL BLUETOOTH DETECTION SYSTEM
- W1 EVP DETECTOR CABLE(S)
- W2 EVP CONFIRMATION BEACON POWER CABLE(S)
- W3 EVP CONFIRMATION LAMP POWER CABLE(S)
- W4 VIDEO DETECTOR CABLE(S)
- W5 2C DETECTOR CABLE(S)
- W6 SMFO CABLE
- W7 SMFO TRUNK CABLE
- W9 DROP CABLES (6-FIBER)
- W11 RDS CABLE
- 3 INSTALL 2" RISER INTO BOTTOM OF CABINET
- 4 INSTALL 2" RISER WITH WEATHERHEAD
- 6 INSTALL 2" CONDUIT ENTRANCE INTO EXISTING FOUNDATION
- 9 INSTALL 2" PVC CONDUIT
- 10 JACK AND BORE 2" CONDUIT
- 11 INSTALL 2" RGS CONDUIT
- 12 INSTALL 3" PVC CONDUIT
- 13 INSTALL 3" CONDUIT ENTRANCE INTO EXISTING FOUNDATION
- 16 INSTALL 3" RGS CONDUIT ON EXISTING STRUCTURE
- 24 INSTALL CABLES IN EXISTING MAST ARM POLE
- 25 INSTALL CABLES IN EXISTING POLE IN EXISTING WEATHERHEAD
- 26 INSTALL CABLES IN EXISTING POLE IN PROPOSED WEATHERHEAD
- 28 INSTALL CABLES IN EXISTING POLE
- 30 INSTALL CABLES IN EXISTING CONDUIT/INTERDUCT
- 32 LASH TO EXISTING MESSENGER WIRE/SPANWIRE
- 35 ATTACH CONDUIT TO BRIDGE

- NOTES:
- ① - SIGNAL EQUIPMENT TO BE INSTALLED UNDER CITY OF MEMPHIS PROJECT NO.112905.
 - ② - HUB CABINET AND EQUIPMENT TO BE INSTALLED UNDER CITY OF MEMPHIS PROJECT NO.112905.

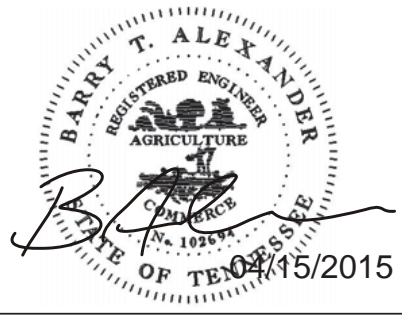
▽ NUMBER OF CABLES, LOOPS, ETC.
X NUMBER OF CONDUCTORS, PAIRS, ETC.

S. THIRD ST @ MITCHELL RD



- NOTES:
- 1. INSTALL DUPLEX GFI OUTLET IN EXISTING BASE MOUNT CABINET.
 - 2. RETAIN EXISTING SIGNAL EQUIPMENT.

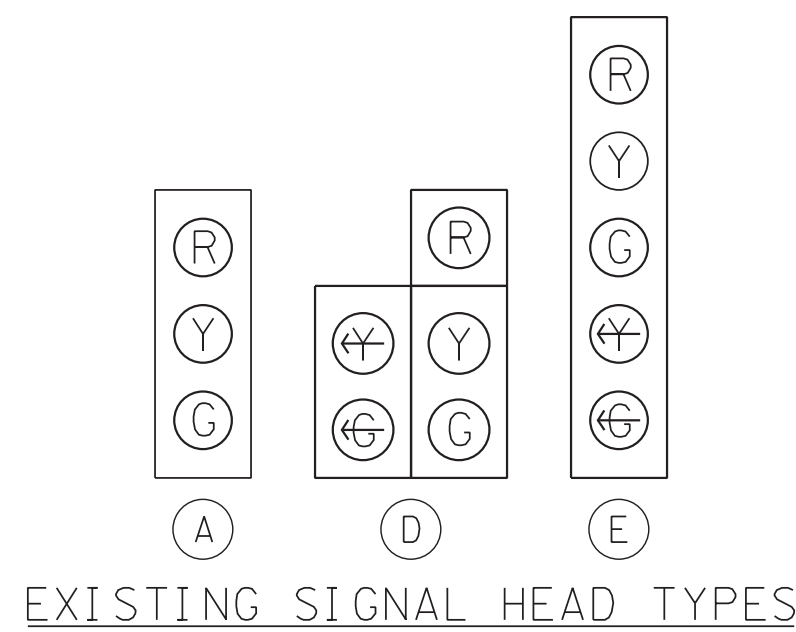
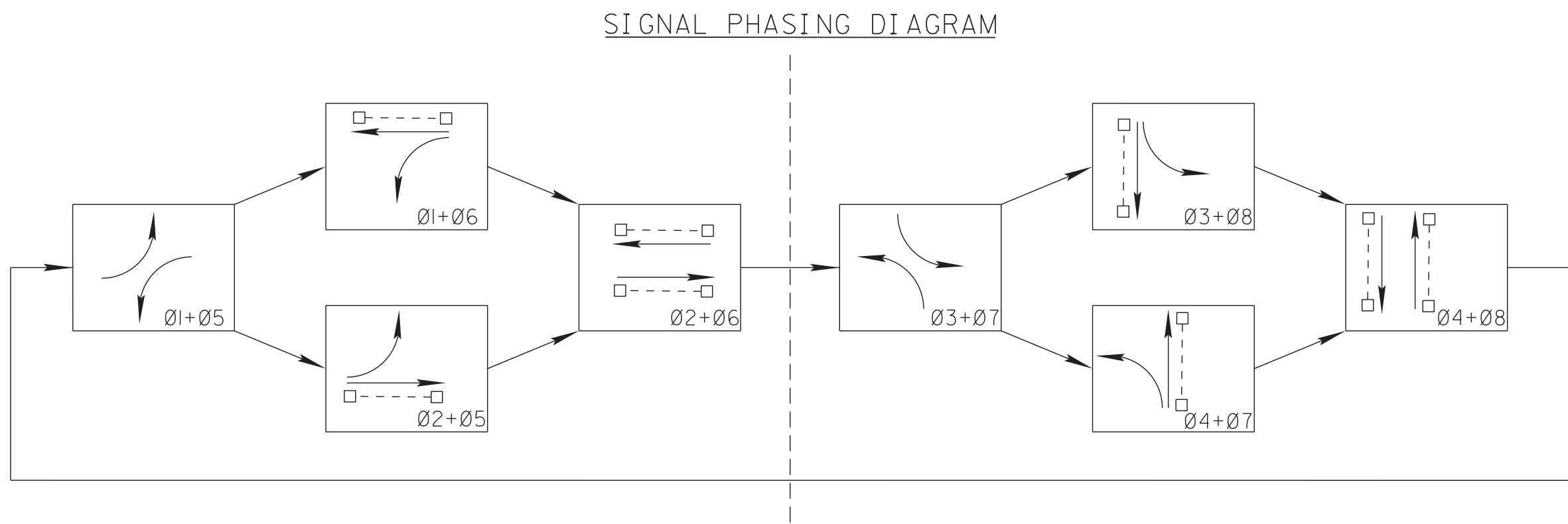
REVISIONS		
DATE	DESCRIPTIONS	APPROVED



IL-01

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #10
SHELBY COUNTY, TN.
SOUTH THIRD STREET
MITCHELL RD & E. BROOKS RD INTERSECTION LAYOUT

SURVEY: N/A DATE: N/A BOOK: N/A
DRAFTED: DATE: 03/14 SCALE: 1"=30'
DESIGNED: RSW DATE: 03/14 CHECKED: BTA DATE: 03/14
JURISDICTION: SHEET 20 OF 62

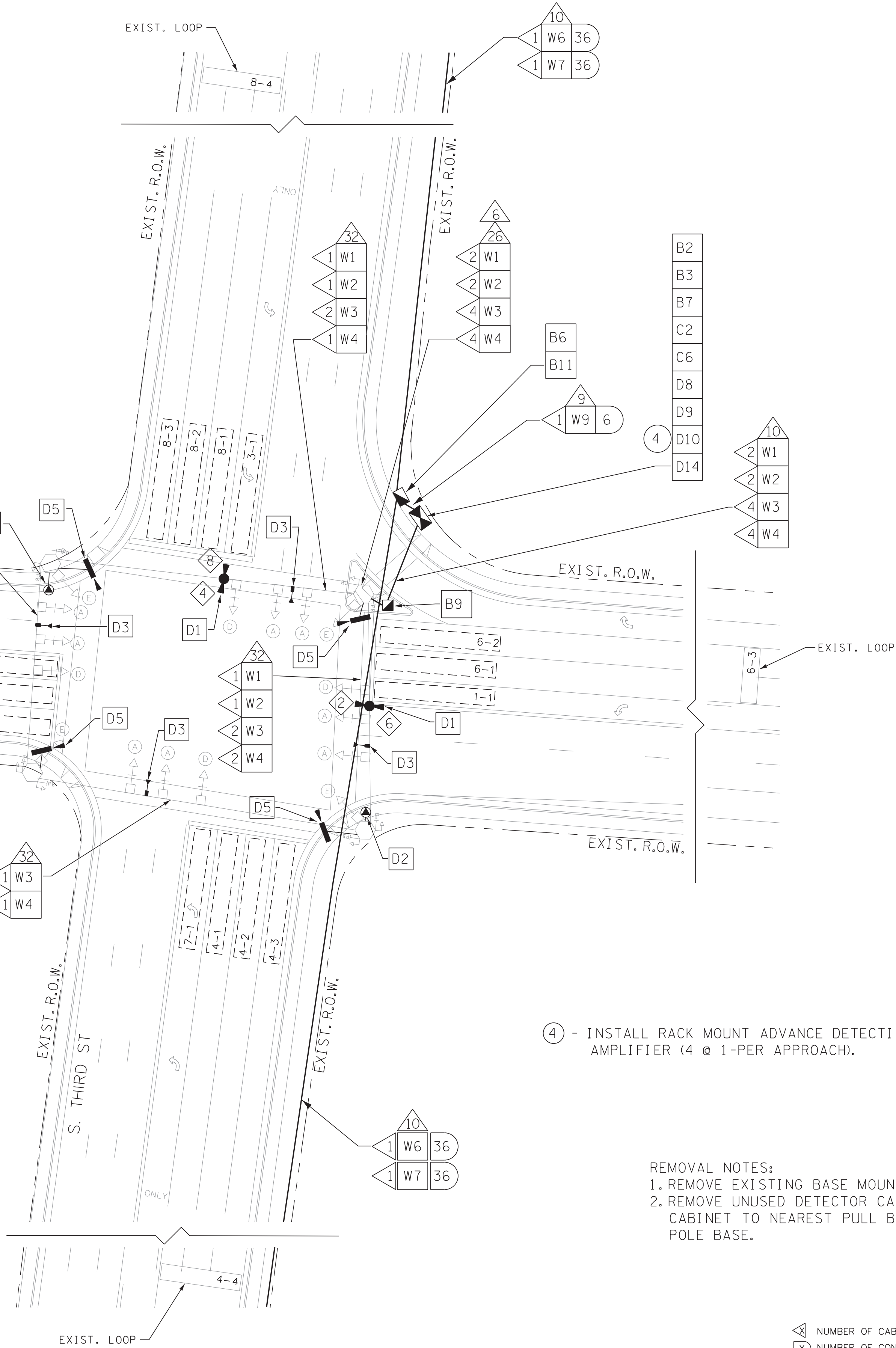


PREEMPT TABLE	
DETECTOR	PHASE(S) CALLED
2	2 + 6
4	4 + 8
6	2 + 6
8	4 + 8

DETECTOR ASSIGNMENTS					
ZONE	TYPE	TYPE	ZONE	TYPE	TYPE
1-1	VIDEO	PRESENCE	5-1	VIDEO	PRESENCE
2-1	VIDEO	PRESENCE	6-1	VIDEO	PRESENCE
2-2	VIDEO	PRESENCE	6-2	VIDEO	PRESENCE
2-3	LOOP	PULSE	6-3	LOOP	PULSE
3-1	VIDEO	PRESENCE	7-1	VIDEO	PRESENCE
4-1	VIDEO	PRESENCE	8-1	VIDEO	PRESENCE
4-2	VIDEO	PRESENCE	8-2	VIDEO	PRESENCE
4-3	VIDEO	PRESENCE	8-3	VIDEO	PRESENCE
4-4	LOOP	PULSE	8-4	LOOP	PULSE

NOTES:
1. COST FOR INSTALLATION OF PROPOSED WEATHERHEAD SHALL BE ABSORBED IN COST OF OTHER ITEMS.
2. SEE DETAIL SHEET D-03 FOR TYPICAL COUNT ZONE DETAIL.

S. THIRD ST @ E. BROOKS RD



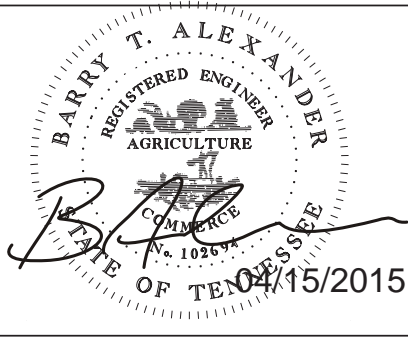
4 - INSTALL RACK MOUNT ADVANCE DETECTION AMPLIFIER (4 @ 1-PER APPROACH).

REMOVAL NOTES:
1. REMOVE EXISTING BASE MOUNT CABINET.
2. REMOVE UNUSED DETECTOR CABLES FROM CABINET TO NEAREST PULL BOX OR POLE BASE.

NUMBER OF CABLES, LOOPS, ETC.
X NUMBER OF CONDUCTORS, PAIRS, ETC.



REVISIONS		
DATE	DESCRIPTIONS	APPROVED



POWERS HILL DESIGN
CIVIL ENGINEERING. CIVIL RESPONSIBILITY.

NEEL-SCHAFFER
Solutions you can build upon

- B1 RETAIN AND MODIFY EXISTING CABINET
- B2 REMOVE EXISTING CABINET
- B3 INSTALL NEW BASE MOUNTED CONTROLLER CABINET
- B5 INSTALL BASE MOUNTED HUB CABINET
- B6 INSTALL WEATHER PROOF SPLICE ENCLOSURE
- B7 INSTALL FIBER DISTRIBUTION BOX
- B9 INSTALL TRAFFIC SIGNAL PULLBOX
- B10 INSTALL FIBER OPTIC PULLBOX TYPE A
- B11 INSTALL FIBER OPTIC PULLBOX TYPE B
- B13 INSTALL 20" PEDESTAL POLE
- B15 MLGW POWER SERVICE CONNECTION
- C2 INSTALL 8-PHASE CONTROLLER
- C4 REMOVE EXISTING CONTROLLER AND INSTALL NEW CONTROLLER
- C6 INSTALL ETHERNET CABINET SWITCH
- C7 INSTALL SERIAL DEVICE SERVER
- C8 INSTALL ETHERNET HUB SWITCH
- D1 INSTALL EVP DETECTOR
- D2 INSTALL EVP CONFIRMATION BEACON
- D3 INSTALL EVP CONFIRMATION LAMP
- D4 INSTALL VIDEO DETECTION CAMERA WITH TYPE 1 MOUNT
- D5 INSTALL VIDEO DETECTION CAMERA WITH TYPE 2 MOUNT
- D6 INSTALL VIDEO DETECTION CAMERA WITH TYPE 3 MOUNT
- D8 INSTALL EVP PHASE SELECTOR
- D9 INSTALL VIDEO DETECTION PROCESSOR
- D10 INSTALL DETECTOR AMPLIFIER (4-CHANNEL) IN CABINET
- D12 INSTALL NEW POLE MOUNTED RDS CABINET
- D13 INSTALL RADAR DETECTION SYSTEM
- D14 VIDEO REMOTE MANAGEMENT CARD
- D16 INSTALL BLUETOOTH DETECTION SYSTEM
- W1 EVP DETECTOR CABLE(S)
- W2 EVP CONFIRMATION BEACON POWER CABLE(S)
- W3 EVP CONFIRMATION LAMP POWER CABLE(S)
- W4 VIDEO DETECTOR CABLE(S)
- W5 2C DETECTOR CABLE(S)
- W6 SMFO CABLE
- W7 SMFO TRUNK CABLE
- W9 DROP CABLES (6-FIBER)
- W11 RDS CABLE

- 3 INSTALL 2" RISER INTO BOTTOM OF CABINET
- 4 INSTALL 2" RISER WITH WEATHERHEAD
- 6 INSTALL 2" CONDUIT ENTRANCE INTO EXISTING FOUNDATION
- 9 INSTALL 2" PVC CONDUIT
- 10 JACK AND BORE 2" CONDUIT
- 11 INSTALL 2" RGS CONDUIT
- 12 INSTALL 3" PVC CONDUIT
- 13 INSTALL 3" CONDUIT ENTRANCE INTO EXISTING FOUNDATION
- 16 INSTALL 3" RGS CONDUIT ON EXISTING STRUCTURE
- 24 INSTALL CABLES IN EXISTING MAST ARM POLE
- 25 INSTALL CABLES IN EXISTING POLE IN EXISTING WEATHERHEAD
- 26 INSTALL CABLES IN EXISTING POLE IN PROPOSED WEATHERHEAD
- 28 INSTALL CABLES IN EXISTING POLE
- 30 INSTALL CABLES IN EXISTING CONDUIT/INTERDUCT
- 32 LASH TO EXISTING MESSENGER WIRE/SPANWIRE
- 35 ATTACH CONDUIT TO BRIDGE

IL-02

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #10
SHELBY COUNTY, TN.
SOUTH THIRD STREET
E. BROOKS RD INTERSECTION LAYOUT

SURVEY: N/A DATE: N/A BOOK: N/A
DRAFTED: DATE: 05/14 SCALE: 1"=30'
DESIGNED: RSW DATE: 05/14 CHECKED: BTA DATE: 05/14
JURISDICTION: SHEET 21 OF 62



☐ R
☐ Y
☐ G
☐ A

② - INSTALL RACK MOUNT ADVANCE DETECTION AMPLIFIER (2 @ 1-PER APPROACH).

1. EXTEND POWER SERVICE CONDUCTORS TO PROPOSED BASE MOUNT CABINET.
2. EXTEND SIGNAL CABLES TO PROPOSED BASE MOUNT CABINET.
3. EXTEND 2c SHIELDED CABLES TO PROPOSED BASE MOUNT CABINET.

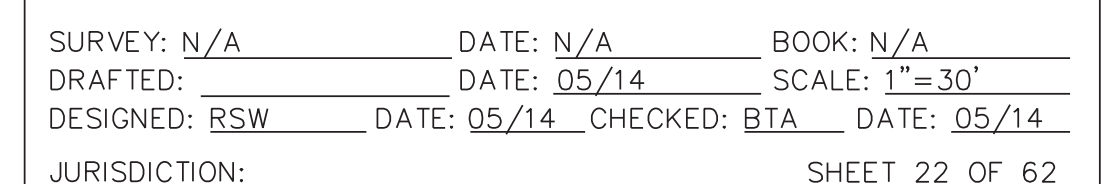
1. REMOVE EXISTING POLE MOUNT CABINET
PLUG ALL POLE OPENINGS.

3. INSTALL 2" RISER INTO BOTTOM OF CABINET
4. INSTALL 2" RISER WITH WEATHERHEAD
6. INSTALL 2" CONDUIT ENTRANCE INTO EXISTING FOUNDATION
9. INSTALL 2" PVC CONDUIT
10. JACK AND BORE 2" CONDUIT
11. INSTALL 2" RGS CONDUIT
12. INSTALL 3" PVC CONDUIT
13. INSTALL 3" CONDUIT ENTRANCE INTO EXISTING FOUNDATION
16. INSTALL 3" RGS CONDUIT ON EXISTING STRUCTURE
24. INSTALL CABLES IN EXISTING MAST ARM POLE
25. INSTALL CABLES IN EXISTING POLE IN EXISTING WEATHERHEAD
26. INSTALL CABLES IN EXISTING POLE IN PROPOSED WEATHERHEAD
28. INSTALL CABLES IN EXISTING POLE
30. INSTALL CABLES IN EXISTING CONDUIT/INTERDUIT
32. LASH TO EXISTING MESSENGER WIRE/SPANWIRE
35. ATTACH CONDUIT TO BRIDGE

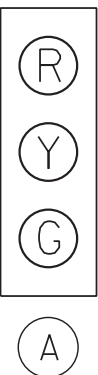
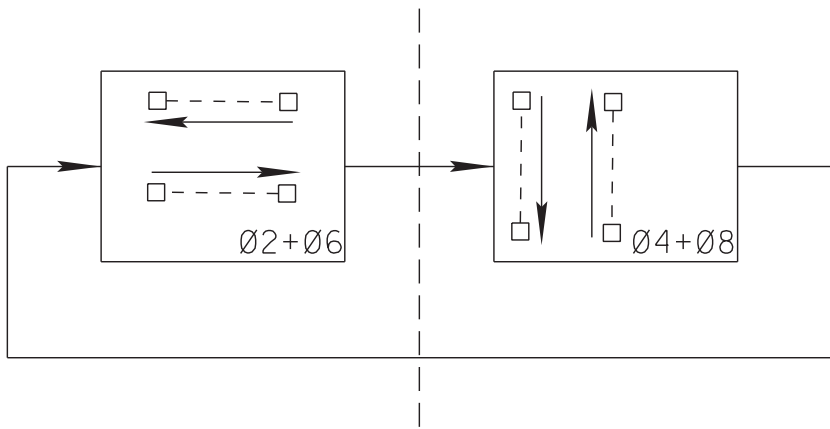
 NUMBER OF CABLES, LOOPS, ETC.
 NUMBER OF CONDUCTORS, PAIRS, ETC.

GRAPHIC SCALE

30 0 30 60



SIGNAL PHASING DIAGRAM



EXISTING SIGNAL HEAD TYPES

PREEMPT TABLE	
DETECTOR	PHASE(S) CALLED
2	2 + 6
4	4 + 8
6	2 + 6
8	4 + 8

DETECTOR ASSIGNMENTS					
ZONE	TYPE	TYPE	ZONE	TYPE	TYPE
2-1	VIDEO	PRESENCE	6-1	VIDEO	PRESENCE
2-2	VIDEO	PRESENCE	6-2	VIDEO	PRESENCE
2-3	VIDEO	PRESENCE	6-3	VIDEO	PRESENCE
4-1	VIDEO	PRESENCE	8-1	VIDEO	PRESENCE
4-2	VIDEO	PRESENCE	8-2	VIDEO	PRESENCE
4-3	VIDEO	PRESENCE	8-3	VIDEO	PRESENCE
4-4	VIDEO	PRESENCE	8-4	VIDEO	PRESENCE

NOTES:

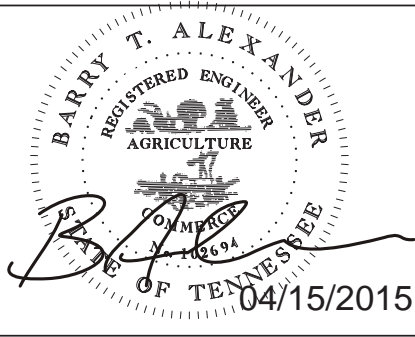
1. COST FOR INSTALLATION OF PROPOSED WEATHERHEAD SHALL BE ABSORBED IN COST OF OTHER ITEMS.
2. SEE DETAIL SHEET D-03 FOR TYPICAL COUNT ZONE DETAIL.

S. THIRD ST @ E. MALLORY AVE



- NUMBER OF CABLES, LOOPS, ETC.
X NUMBER OF CONDUCTORS, PAIRS, ETC.

REVISIONS		
DATE	DESCRIPTIONS	APPROVED



- B1 RETAIN AND MODIFY EXISTING CABINET
- B2 REMOVE EXISTING CABINET
- B3 INSTALL NEW BASE MOUNTED CONTROLLER CABINET
- B5 INSTALL BASE MOUNTED HUB CABINET
- B6 INSTALL WEATHER PROOF SPLICE ENCLOSURE
- B7 INSTALL FIBER DISTRIBUTION BOX
- B9 INSTALL TRAFFIC SIGNAL PULLBOX
- B10 INSTALL FIBER OPTIC PULLBOX TYPE A
- B11 INSTALL FIBER OPTIC PULLBOX TYPE B
- B13 INSTALL 20" PEDESTAL POLE
- B15 MLGW POWER SERVICE CONNECTION
- C2 INSTALL 8-PHASE CONTROLLER
- C4 REMOVE EXISTING CONTROLLER AND INSTALL NEW CONTROLLER
- C6 INSTALL ETHERNET CABINET SWITCH
- C7 INSTALL SERIAL DEVICE SERVER
- C8 INSTALL ETHERNET HUB SWITCH
- D1 INSTALL EVP DETECTOR
- D2 INSTALL EVP CONFIRMATION BEACON
- D3 INSTALL EVP CONFIRMATION LAMP
- D4 INSTALL VIDEO DETECTION CAMERA WITH TYPE 1 MOUNT
- D5 INSTALL VIDEO DETECTION CAMERA WITH TYPE 2 MOUNT
- D6 INSTALL VIDEO DETECTION CAMERA WITH TYPE 3 MOUNT
- D8 INSTALL EVP PHASE SELECTOR
- D9 INSTALL VIDEO DETECTION PROCESSOR
- D10 INSTALL DETECTOR AMPLIFIER (4-CHANNEL) IN CABINET
- D12 INSTALL NEW POLE MOUNTED RDS CABINET
- D13 INSTALL RADAR DETECTION SYSTEM
- D14 VIDEO REMOTE MANAGEMENT CARD
- D16 INSTALL BLUETOOTH DETECTION SYSTEM
- W1 EVP DETECTOR CABLE(S)
- W2 EVP CONFIRMATION BEACON POWER CABLE(S)
- W3 EVP CONFIRMATION LAMP POWER CABLE(S)
- W4 VIDEO DETECTOR CABLE(S)
- W5 2C DETECTOR CABLE(S)
- W6 SMFO CABLE
- W7 SMFO TRUNK CABLE
- W9 DROP CABLES (6-FIBER)
- W11 RDS CABLE

- WIRING NOTES:
1. EXTEND POWER SERVICE CONDUCTORS TO PROPOSED BASE MOUNT CABINET.
 2. EXTEND SIGNAL CABLES TO PROPOSED BASE MOUNT CABINET.

- REMOVAL NOTES:
1. REMOVE EXISTING POLE MOUNT CABINET
 - PLUG ALL POLE OPENINGS.

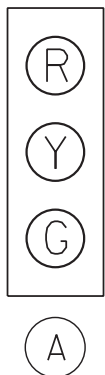
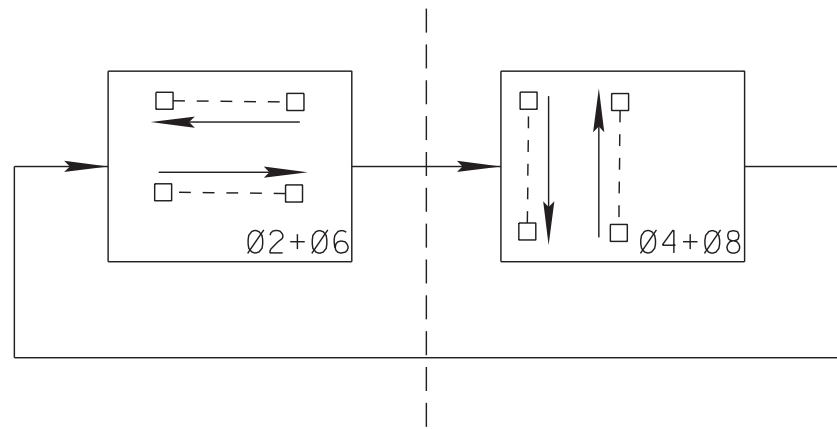
- 3 INSTALL 2" RISER INTO BOTTOM OF CABINET
- 4 INSTALL 2" RISER WITH WEATHERHEAD
- 6 INSTALL 2" CONDUIT ENTRANCE INTO EXISTING FOUNDATION
- 9 INSTALL 2" PVC CONDUIT
- 10 JACK AND BORE 2" CONDUIT
- 11 INSTALL 2" RGS CONDUIT
- 12 INSTALL 3" PVC CONDUIT
- 13 INSTALL 3" CONDUIT ENTRANCE INTO EXISTING FOUNDATION
- 16 INSTALL 3" RGS CONDUIT ON EXISTING STRUCTURE
- 24 INSTALL CABLES IN EXISTING MAST ARM POLE
- 25 INSTALL CABLES IN EXISTING POLE IN EXISTING WEATHERHEAD
- 26 INSTALL CABLES IN EXISTING POLE IN PROPOSED WEATHERHEAD
- 28 INSTALL CABLES IN EXISTING POLE
- 30 INSTALL CABLES IN EXISTING CONDUIT/INTERDUCT
- 32 LASH TO EXISTING MESSENGER WIRE/SPANWIRE
- 35 ATTACH CONDUIT TO BRIDGE

IL-04

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #10
SHELBY COUNTY, TN.
SOUTH THIRD STREET
E. MALLORY AVE INTERSECTION LAYOUT

SURVEY: N/A DATE: N/A BOOK: N/A
DRAFTED: DATE: 05/14 SCALE: 1"=30'
DESIGNED: RSW DATE: 05/14 CHECKED: BTA DATE: 05/14
JURISDICTION: SHEET 23 OF 62

SIGNAL PHASING DIAGRAM

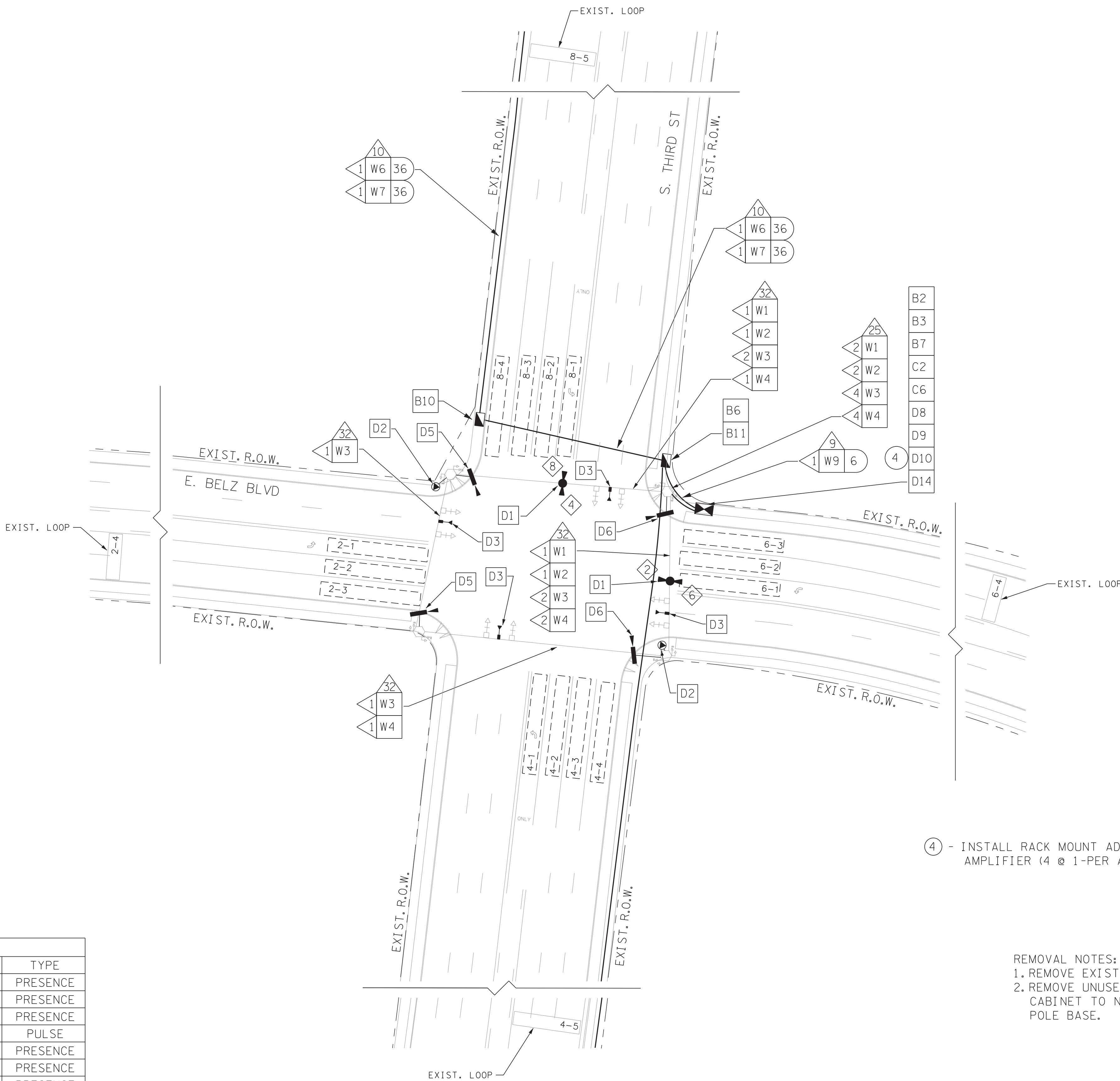


EXISTING SIGNAL HEAD TYPES

PREEMPT TABLE	
DETECTOR	PHASE(S) CALLED
2	2 + 6
4	4 + 8
6	2 + 6
8	4 + 8

DETECTOR ASSIGNMENTS					
ZONE	TYPE	TYPE	ZONE	TYPE	TYPE
2-1	VIDEO	PRESENCE	6-1	VIDEO	PRESENCE
2-2	VIDEO	PRESENCE	6-2	VIDEO	PRESENCE
2-3	VIDEO	PRESENCE	6-3	VIDEO	PRESENCE
2-4	LOOP	PULSE	6-4	LOOP	PULSE
4-1	VIDEO	PRESENCE	8-1	VIDEO	PRESENCE
4-2	VIDEO	PRESENCE	8-2	VIDEO	PRESENCE
4-3	VIDEO	PRESENCE	8-3	VIDEO	PRESENCE
4-4	VIDEO	PRESENCE	8-4	VIDEO	PRESENCE
4-5	LOOP	PULSE	8-5	LOOP	PULSE

NOTES:
1. SEE DETAIL SHEET D-03 FOR TYPICAL COUNT ZONE DETAIL.



4 - INSTALL RACK MOUNT ADVANCE DETECTION AMPLIFIER (4 @ 1-PER APPROACH).

REMOVAL NOTES:
1. REMOVE EXISTING BASE MOUNT CABINET.
2. REMOVE UNUSED DETECTOR CABLES FROM CABINET TO NEAREST PULL BOX OR POLE BASE.

NUMBER OF CABLES, LOOPS, ETC.
X NUMBER OF CONDUCTORS, PAIRS, ETC.



REVISIONS

DATE	DESCRIPTIONS	APPROVED

04/15/2015

POWERS HILL DESIGN
CIVIL ENGINEERING. CIVIL RESPONSIBILITY.

NEEL-SCHAFFER
Solutions you can build upon

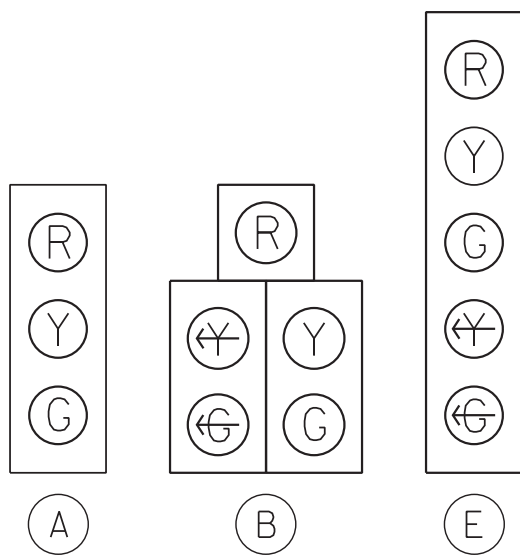
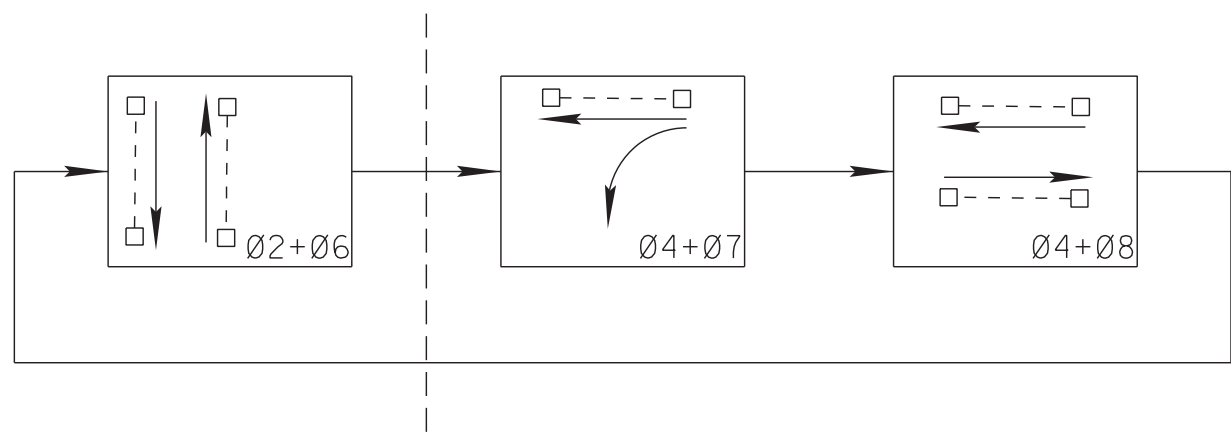
- B1 RETAIN AND MODIFY EXISTING CABINET
- B2 REMOVE EXISTING CABINET
- B3 INSTALL NEW BASE MOUNTED CONTROLLER CABINET
- B5 INSTALL BASE MOUNTED HUB CABINET
- B6 INSTALL WEATHER PROOF SPLICE ENCLOSURE
- B7 INSTALL FIBER DISTRIBUTION BOX
- B9 INSTALL TRAFFIC SIGNAL PULLBOX
- B10 INSTALL FIBER OPTIC PULLBOX TYPE A
- B11 INSTALL FIBER OPTIC PULLBOX TYPE B
- B13 INSTALL 20" PEDESTAL POLE
- B15 MLGW POWER SERVICE CONNECTION
- C2 INSTALL 8-PHASE CONTROLLER
- C4 REMOVE EXISTING CONTROLLER AND INSTALL NEW CONTROLLER
- C6 INSTALL ETHERNET CABINET SWITCH
- C7 INSTALL SERIAL DEVICE SERVER
- C8 INSTALL ETHERNET HUB SWITCH
- D1 INSTALL EVP DETECTOR
- D2 INSTALL EVP CONFIRMATION BEACON
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- D4 INSTALL VIDEO DETECTION CAMERA WITH TYPE 1 MOUNT
- D5 INSTALL VIDEO DETECTION CAMERA WITH TYPE 2 MOUNT
- D6 INSTALL VIDEO DETECTION CAMERA WITH TYPE 3 MOUNT
- D8 INSTALL EVP PHASE SELECTOR
- D9 INSTALL VIDEO DETECTION PROCESSOR
- D10 INSTALL DETECTOR AMPLIFIER (4-CHANNEL) IN CABINET
- D12 INSTALL NEW POLE MOUNTED RDS CABINET
- D13 INSTALL RADAR DETECTION SYSTEM
- D14 VIDEO REMOTE MANAGEMENT CARD
- D16 INSTALL BLUETOOTH DETECTION SYSTEM
- W1 EVP DETECTOR CABLE(S)
- W2 EVP CONFIRMATION BEACON POWER CABLE(S)
- W3 EVP CONFIRMATION LAMP POWER CABLE(S)
- W4 VIDEO DETECTOR CABLE(S)
- W5 2C DETECTOR CABLE(S)
- W6 SMFO CABLE
- W7 SMFO TRUNK CABLE
- W9 DROP CABLES (6-FIBER)
- W11 RDS CABLE
- 3 INSTALL 2" RISER INTO BOTTOM OF CABINET
- 4 INSTALL 2" RISER WITH WEATHERHEAD
- 6 INSTALL 2" CONDUIT ENTRANCE INTO EXISTING FOUNDATION
- 9 INSTALL 2" PVC CONDUIT
- 10 JACK AND BORE 2" CONDUIT
- 11 INSTALL 2" RGS CONDUIT
- 12 INSTALL 3" PVC CONDUIT
- 13 INSTALL 3" CONDUIT ENTRANCE INTO EXISTING FOUNDATION
- 16 INSTALL 3" RGS CONDUIT ON EXISTING STRUCTURE
- 24 INSTALL CABLES IN EXISTING MAST ARM POLE
- 25 INSTALL CABLES IN EXISTING POLE IN EXISTING WEATHERHEAD
- 26 INSTALL CABLES IN EXISTING POLE IN PROPOSED WEATHERHEAD
- 28 INSTALL CABLES IN EXISTING POLE
- 30 INSTALL CABLES IN EXISTING CONDUIT/INTERDUCT
- 32 LASH TO EXISTING MESSENGER WIRE/SPANWIRE
- 35 ATTACH CONDUIT TO BRIDGE

IL-05

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #10
SHELBY COUNTY, TN.
SOUTH THIRD STREET
E. BELZ BLVD INTERSECTION LAYOUT

SURVEY: N/A DATE: N/A BOOK: N/A
DRAFTED: DATE: 05/14 SCALE: 1"=30'
DESIGNED: RSW DATE: 05/14 CHECKED: BTA DATE: 05/14
JURISDICTION: SHEET 24 OF 62

SIGNAL PHASING DIAGRAM



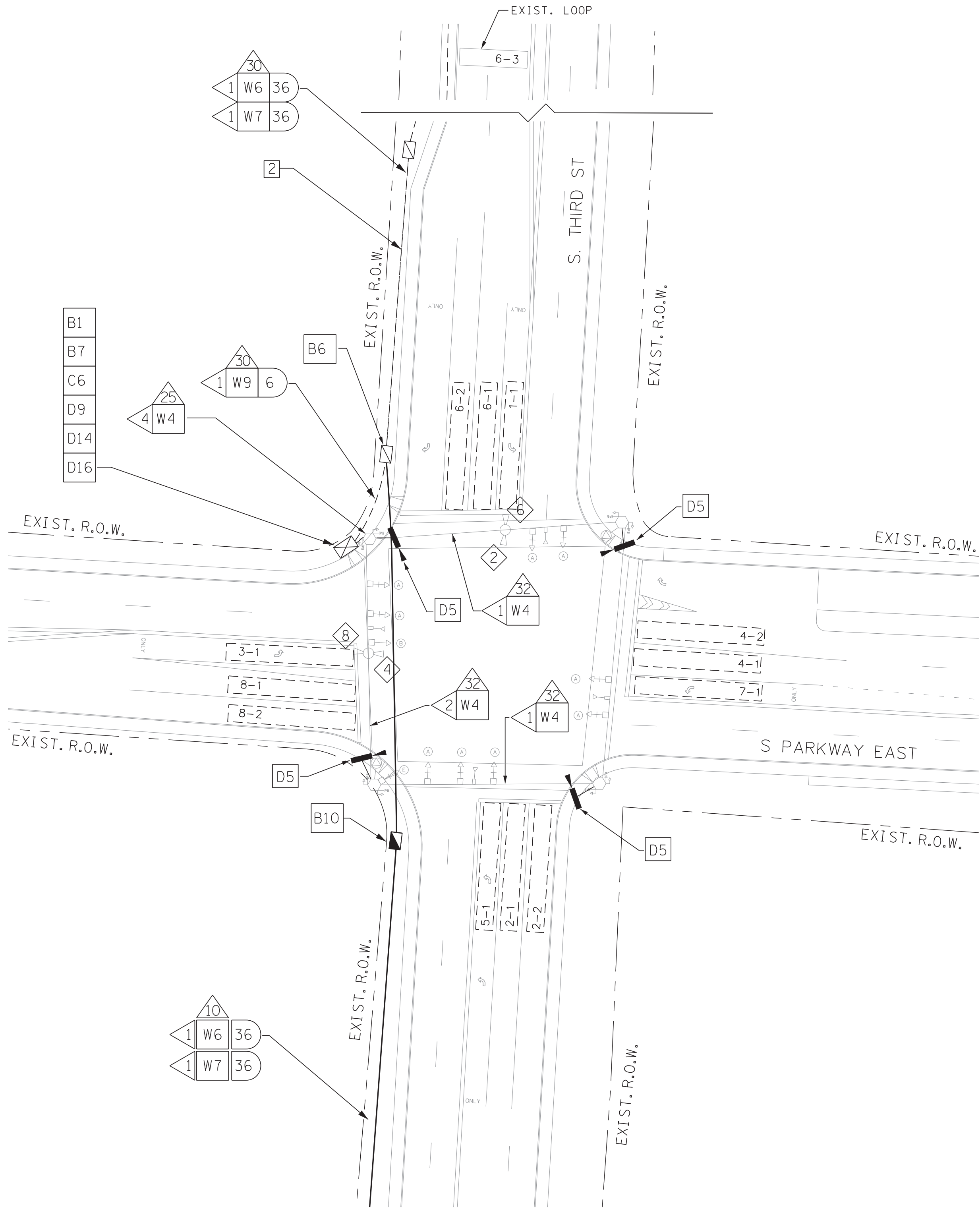
EXISTING SIGNAL HEAD TYPES

PREEMPT TABLE	
DETECTOR	PHASE(S) CALLED
2	2 + 6
4	4 + 8
6	2 + 6
8	4 + 8

DETECTOR ASSIGNMENTS		
ZONE	TYPE	TYPE
1-1	VIDEO	PRESENCE
2-1	VIDEO	PRESENCE
2-2	VIDEO	PRESENCE
3-1	VIDEO	PRESENCE
4-1	VIDEO	PRESENCE
4-2	VIDEO	PRESENCE
5-1	VIDEO	PRESENCE
6-1	VIDEO	PRESENCE
6-2	VIDEO	PRESENCE
6-3	LOOP	PULSE
7-1	VIDEO	PRESENCE
8-1	VIDEO	PRESENCE
8-2	VIDEO	PRESENCE

NOTES:

1. INSTALL DUPLEX GFI OUTLET IN EXISTING BASE MOUNT CABINET.
2. LOOP DETECTION AMPLIFIER FOR SOUTHBOUND ADVANCED DETECTION TO REMAIN.
3. RETAIN EXISTING SIGNAL EQUIPMENT AND EMERGENCY VEHICLE PREEMPTION EQUIPMENT.



NOTES:

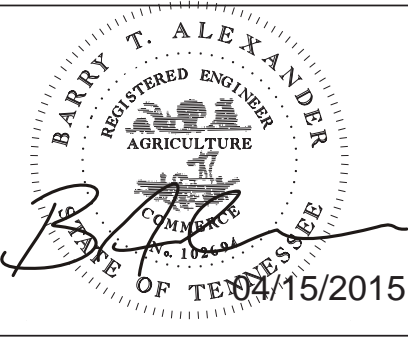
- 1 - BASE MOUNTED SIGNAL CABINET AND SIGNAL EQUIPMENT TO BE INSTALLED UNDER TDOT PROJECT NO. 79023-3218-94.
- 2 - INTERCONNECT CONDUIT AND PULL BOXES TO BE INSTALLED UNDER TDOT PROJECT NO. 79023-3218-94.

- △ NUMBER OF CABLES, LOOPS, ETC.
X NUMBER OF CONDUCTORS, PAIRS, ETC.

S. THIRD ST @ S. PARKWAY EAST



REVISIONS		
DATE	DESCRIPTIONS	APPROVED

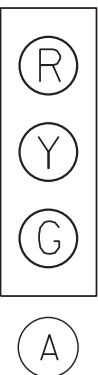
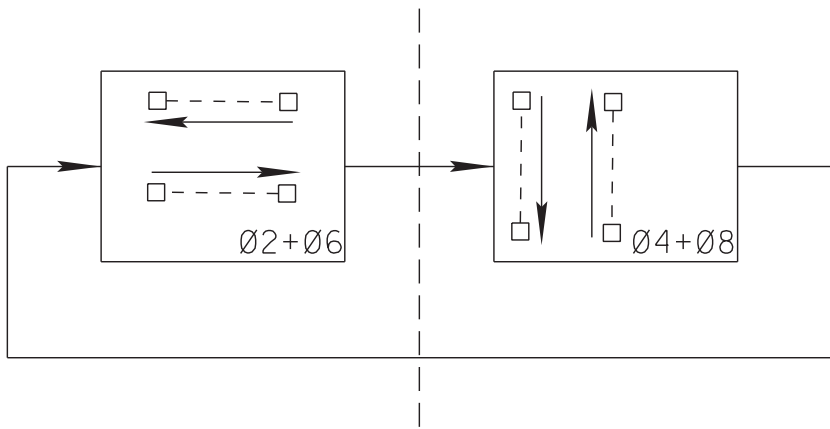


IL-06

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #10
SHELBY COUNTY, TN.
SOUTH THIRD STREET
S. PARKWAY EAST INTERSECTION LAYOUT

SURVEY: N/A DATE: N/A BOOK: N/A
DRAFTED: DATE: 05/14 SCALE: 1"=30'
DESIGNED: RSW DATE: 05/14 CHECKED: BTA DATE: 05/14
JURISDICTION: SHEET 25 OF 62

SIGNAL PHASING DIAGRAM



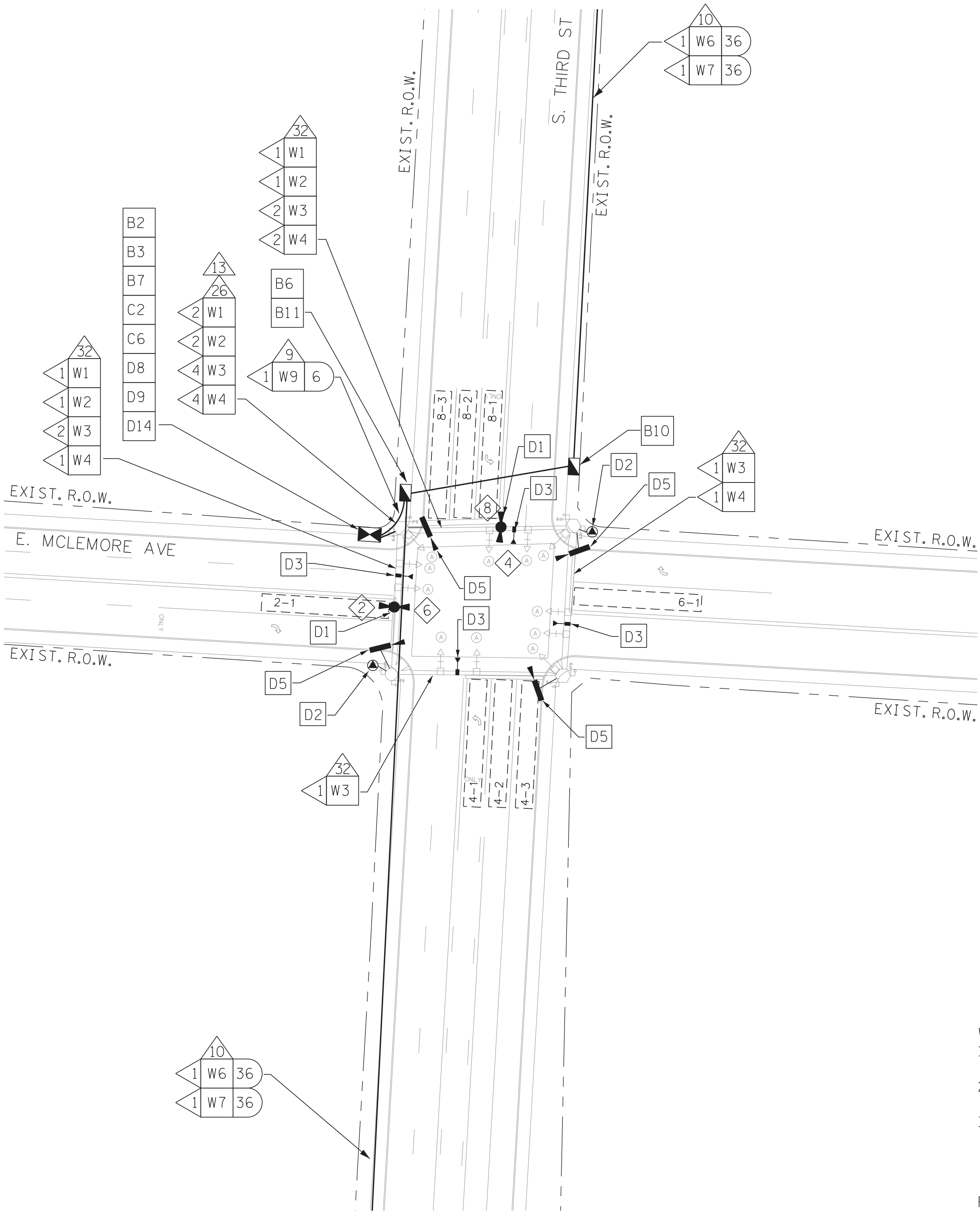
EXISTING SIGNAL HEAD TYPES

PREEMPT TABLE	
DETECTOR	PHASE(S) CALLED
2	2 + 6
4	4 + 8
6	2 + 6
8	4 + 8

DETECTOR ASSIGNMENTS					
ZONE	TYPE	TYPE	ZONE	TYPE	TYPE
2-1	VIDEO	PRESENCE	6-1	VIDEO	PRESENCE
4-1	VIDEO	PRESENCE	8-1	VIDEO	PRESENCE
4-2	VIDEO	PRESENCE	8-2	VIDEO	PRESENCE
4-3	VIDEO	PRESENCE	8-3	VIDEO	PRESENCE

NOTES:

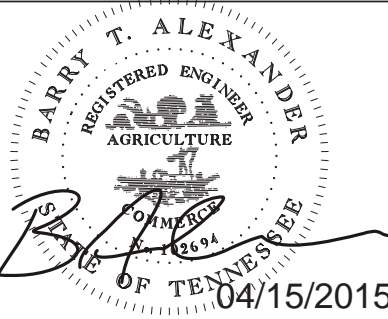
1. COST FOR INSTALLATION OF PROPOSED WEATHERHEAD SHALL BE ABSORBED IN COST OF OTHER ITEMS.
2. SEE DETAIL SHEET D-03 FOR TYPICAL COUNT ZONE DETAIL.



- WIRING NOTES:
1. EXTEND POWER SERVICE CONDUCTORS TO PROPOSED BASE MOUNT CABINET.
 2. EXTEND SIGNAL CABLES TO PROPOSED BASE MOUNT CABINET.
 3. EXTEND 2c SHIELDED CABLES TO PROPOSED BASE MOUNT CABINET.

- REMOVAL NOTES:
1. REMOVE EXISTING POLE MOUNT CABINET
 - PLUG ALL POLE OPENINGS.

- NUMBER OF CABLES, LOOPS, ETC.
X NUMBER OF CONDUCTORS, PAIRS, ETC.



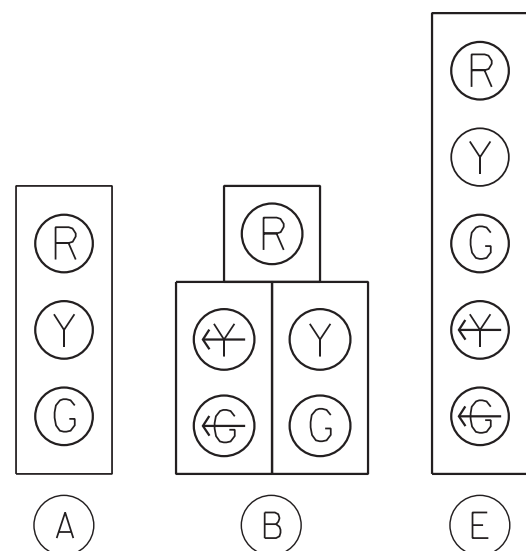
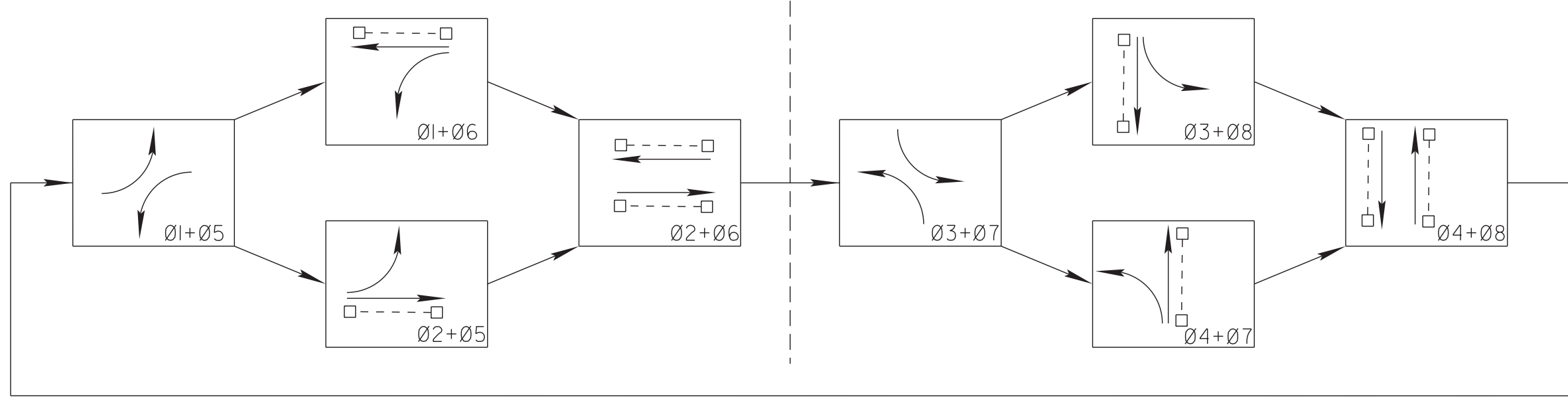
- B1 RETAIN AND MODIFY EXISTING CABINET
- B2 REMOVE EXISTING CABINET
- B3 INSTALL NEW BASE MOUNTED CONTROLLER CABINET
- B5 INSTALL BASE MOUNTED HUB CABINET
- B6 INSTALL WEATHER PROOF SPLICE ENCLOSURE
- B7 INSTALL FIBER DISTRIBUTION BOX
- B9 INSTALL TRAFFIC SIGNAL PULLBOX
- B10 INSTALL FIBER OPTIC PULLBOX TYPE A
- B11 INSTALL FIBER OPTIC PULLBOX TYPE B
- B13 INSTALL 20" PEDESTAL POLE
- B15 MLGW POWER SERVICE CONNECTION
- C2 INSTALL 8-PHASE CONTROLLER
- C4 REMOVE EXISTING CONTROLLER AND INSTALL NEW CONTROLLER
- C6 INSTALL ETHERNET CABINET SWITCH
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- D5 INSTALL VIDEO DETECTION CAMERA WITH TYPE 2 MOUNT
- D6 INSTALL VIDEO DETECTION CAMERA WITH TYPE 3 MOUNT
- D8 INSTALL EVP PHASE SELECTOR
- D9 INSTALL VIDEO DETECTION PROCESSOR
- D10 INSTALL DETECTOR AMPLIFIER (4-CHANNEL) IN CABINET
- D12 INSTALL NEW POLE MOUNTED RDS CABINET
- D13 INSTALL RADAR DETECTION SYSTEM
- D14 VIDEO REMOTE MANAGEMENT CARD
- D16 INSTALL BLUETOOTH DETECTION SYSTEM
- W1 EVP DETECTOR CABLE(S)
- W2 EVP CONFIRMATION BEACON POWER CABLE(S)
- W3 EVP CONFIRMATION LAMP POWER CABLE(S)
- W4 VIDEO DETECTOR CABLE(S)
- W5 2C DETECTOR CABLE(S)
- W6 SMFO CABLE
- W7 SMFO TRUNK CABLE
- W9 DROP CABLES (6-FIBER)
- W11 RDS CABLE

- 3 INSTALL 2" RISER INTO BOTTOM OF CABINET
- 4 INSTALL 2" RISER WITH WEATHERHEAD
- 6 INSTALL 2" CONDUIT ENTRANCE INTO EXISTING FOUNDATION
- 9 INSTALL 2" PVC CONDUIT
- 10 JACK AND BORE 2" CONDUIT
- 11 INSTALL 2" RGS CONDUIT
- 12 INSTALL 3" PVC CONDUIT
- 13 INSTALL 3" CONDUIT ENTRANCE INTO EXISTING FOUNDATION
- 16 INSTALL 3" RGS CONDUIT ON EXISTING STRUCTURE
- 24 INSTALL CABLES IN EXISTING MAST ARM POLE
- 25 INSTALL CABLES IN EXISTING POLE IN EXISTING WEATHERHEAD
- 26 INSTALL CABLES IN EXISTING POLE IN PROPOSED WEATHERHEAD
- 28 INSTALL CABLES IN EXISTING POLE
- 30 INSTALL CABLES IN EXISTING CONDUIT/INTERDUCT
- 32 LASH TO EXISTING MESSENGER WIRE/SPANWIRE
- 35 ATTACH CONDUIT TO BRIDGE

IL-07

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #10
SHELBY COUNTY, TN.
SOUTH THIRD STREET
E. MCLEMORE AVE INTERSECTION LAYOUT
SURVEY: N/A DATE: N/A BOOK: N/A
DRAFTED: DATE: 05/14 SCALE: 1"=30'
DESIGNED: RSW DATE: 05/14 CHECKED: BTA DATE: 05/14
JURISDICTION: SHEET 26 OF 62

SIGNAL PHASING DIAGRAM



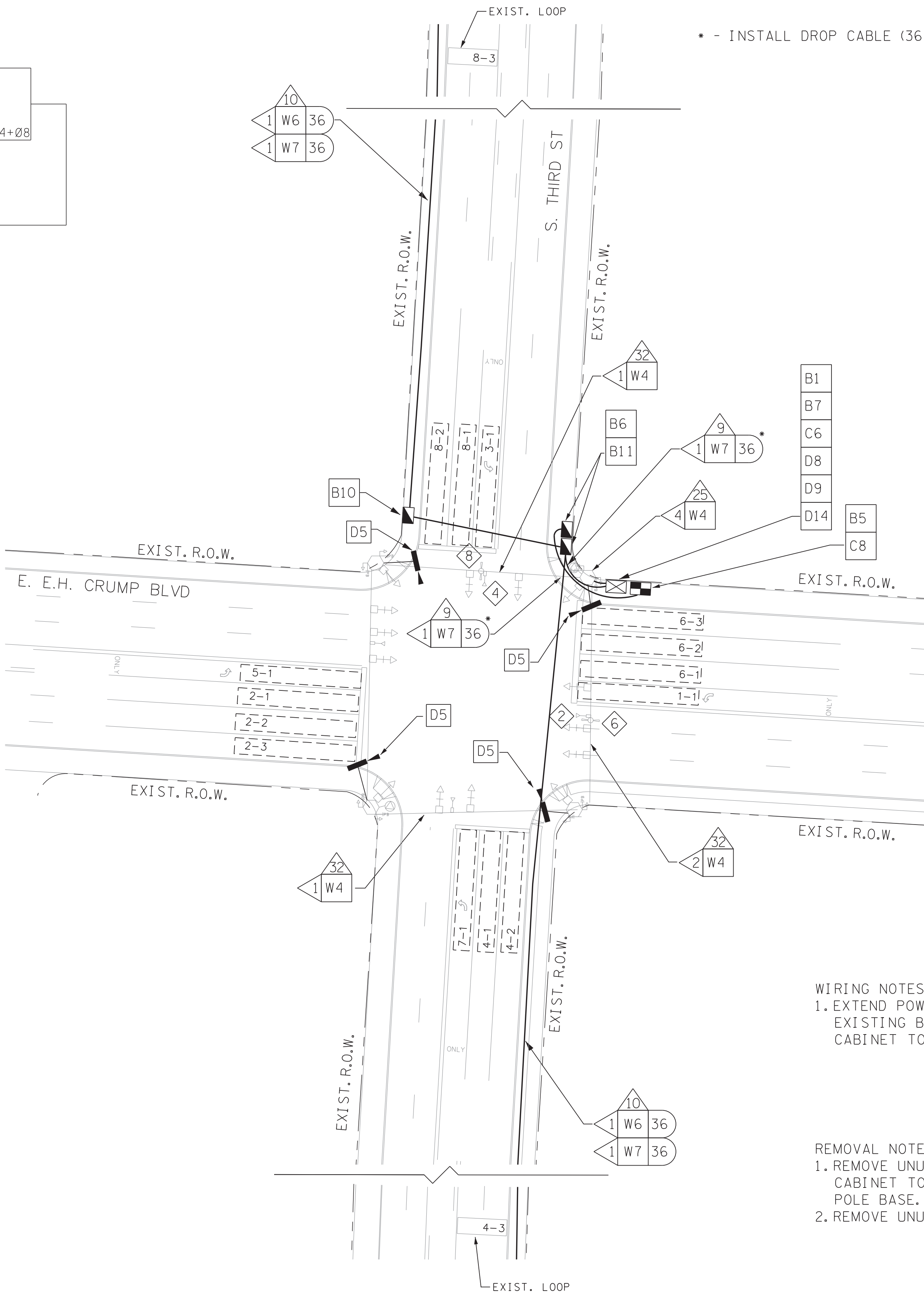
EXISTING SIGNAL HEAD TYPES

EXISTING PREEMPT TABLE	
DETECTOR	PHASE(S) CALLED
2	2 + 6
4	4 + 8
6	2 + 6
8	4 + 8

DETECTOR ASSIGNMENTS					
ZONE	TYPE	TYPE	ZONE	TYPE	TYPE
1-1	VIDEO	PRESENCE	5-1	VIDEO	PRESENCE
2-1	VIDEO	PRESENCE	6-1	VIDEO	PRESENCE
2-2	VIDEO	PRESENCE	6-2	VIDEO	PRESENCE
2-3	VIDEO	PRESENCE	6-3	VIDEO	PRESENCE
3-1	VIDEO	PRESENCE	7-1	VIDEO	PRESENCE
4-1	VIDEO	PRESENCE	8-1	VIDEO	PRESENCE
4-2	VIDEO	PRESENCE	8-2	VIDEO	PRESENCE
4-3	LOOP	PULSE	8-3	LOOP	PULSE

NOTES:

1. LOOP DETECTION AMPLIFIERS FOR NORTHBOUND AND SOUTHBOUND ADVANCED DETECTION TO REMAIN.
2. RETAIN EXISTING EMERGENCY VEHICLE PREEMPTION EQUIPMENT.
3. INSTALL DUPLEX GFI OUTLET IN EXISTING BASE MOUNT CABINET.
4. SEE DETAIL SHEET D-03 FOR TYPICAL COUNT ZONE DETAIL.



WIRING NOTES:

1. EXTEND POWER SERVICE CONDUCTORS FROM EXISTING BASE MOUNT CONTROLLER CABINET TO PROPOSED HUB CABINET.

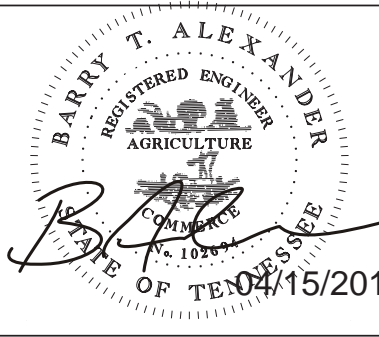
REMOVAL NOTES:

1. REMOVE UNUSED DETECTOR CABLES FROM CABINET TO NEAREST PULL BOX OR POLE BASE.
2. REMOVE UNUSED LOOP DETECTOR HARNESSSES.

NUMBER OF CABLES, LOOPS, ETC.
NUMBER OF CONDUCTORS, PAIRS, ETC.



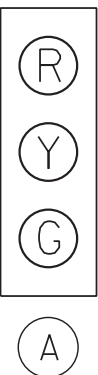
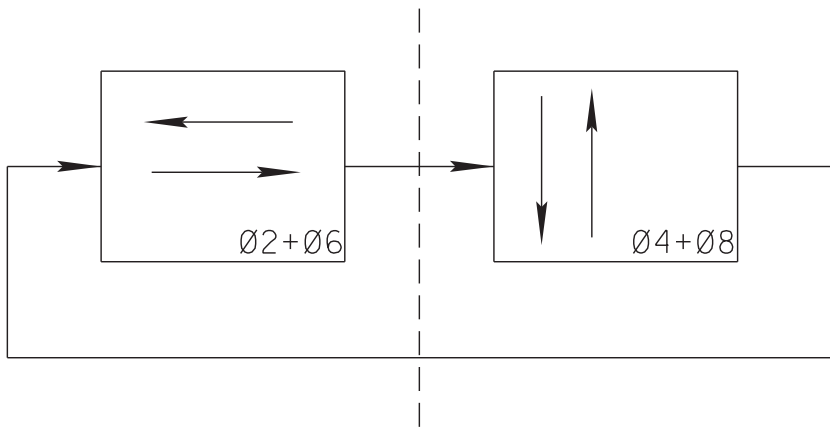
REVISIONS		
DATE	DESCRIPTIONS	APPROVED



IL-08

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #10
SHELBY COUNTY, TN.
SOUTH THIRD STREET
E. E.H. CRUMP BLVD INTERSECTION LAYOUT
SURVEY: N/A DATE: N/A BOOK: N/A
DRAFTED: DATE: 05/14 SCALE: 1"=30'
DESIGNED: RSW DATE: 05/14 CHECKED: BTA DATE: 05/14
JURISDICTION: SHEET 27 OF 62

SIGNAL PHASING DIAGRAM

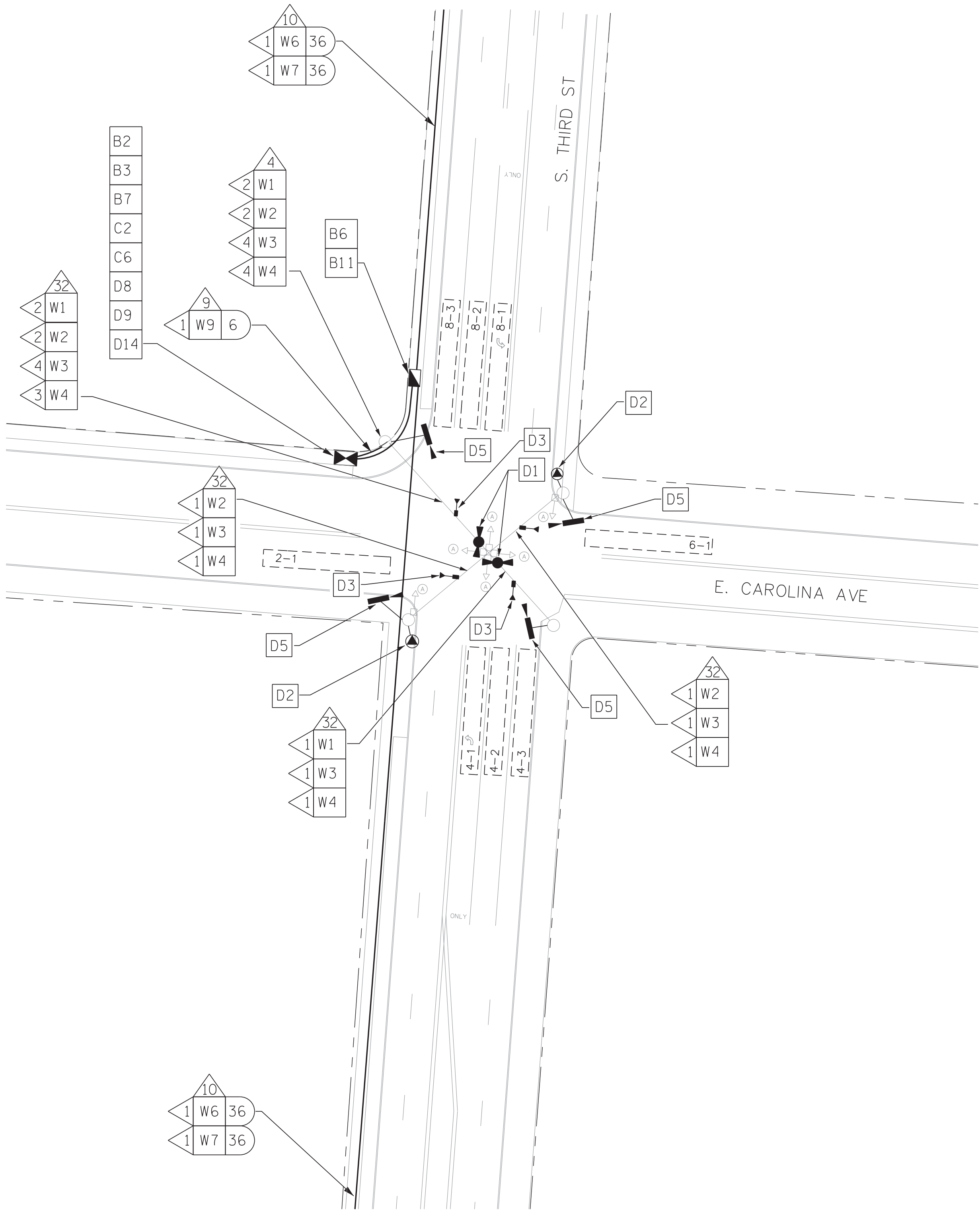


EXISTING SIGNAL HEAD TYPES

PREEMPT TABLE	
DETECTOR	PHASE(S) CALLED
2	2 + 6
4	4 + 8
6	2 + 6
8	4 + 8

DETECTOR ASSIGNMENTS					
ZONE	TYPE	TYPE	ZONE	TYPE	TYPE
2-1	VIDEO	PRESENCE	6-1	VIDEO	PRESENCE
4-1	VIDEO	PRESENCE	8-1	VIDEO	PRESENCE
4-2	VIDEO	PRESENCE	8-2	VIDEO	PRESENCE
4-3	VIDEO	PRESENCE	8-3	VIDEO	PRESENCE

NOTES:
1. SEE DETAIL SHEET D-03 FOR TYPICAL COUNT ZONE DETAIL.



WIRING NOTES:
1. EXTEND POWER SERVICE CONDUCTORS TO PROPOSED BASE MOUNT CABINET.
2. EXTEND SIGNAL CABLES TO PROPOSED BASE MOUNT CABINET.
3. EXTEND 2C SHIELDED CABLES TO PROPOSED BASE MOUNT CABINET.

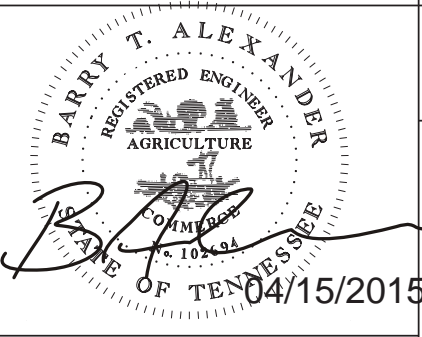
REMOVAL NOTES:
1. REMOVE EXISTING POLE MOUNT CABINET
PLUG ALL POLE OPENINGS.

NUMBER OF CABLES, LOOPS, ETC.
X NUMBER OF CONDUCTORS, PAIRS, ETC.

S. THIRD ST @ E. CAROLINA AVE



REVISIONS		
DATE	DESCRIPTIONS	APPROVED



POWERS HILL DESIGN
CIVIL ENGINEERING. CIVIL RESPONSIBILITY.
NEEL-SCHAFFER
Solutions you can build upon

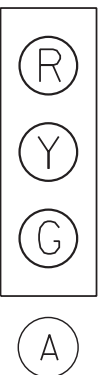
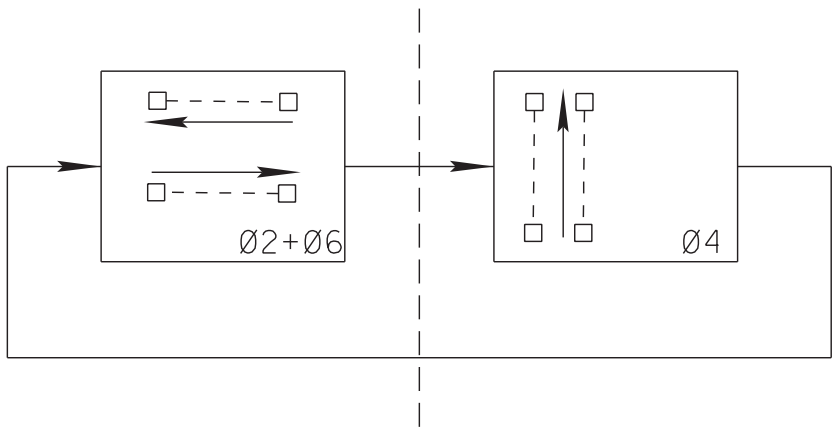
- B1 RETAIN AND MODIFY EXISTING CABINET
- B2 REMOVE EXISTING CABINET
- B3 INSTALL NEW BASE MOUNTED CONTROLLER CABINET
- B5 INSTALL BASE MOUNTED HUB CABINET
- B6 INSTALL WEATHER PROOF SPLICE ENCLOSURE
- B7 INSTALL FIBER DISTRIBUTION BOX
- B9 INSTALL TRAFFIC SIGNAL PULLBOX
- B10 INSTALL FIBER OPTIC PULLBOX TYPE A
- B11 INSTALL FIBER OPTIC PULLBOX TYPE B
- B13 INSTALL 20" PEDESTAL POLE
- B15 MLGW POWER SERVICE CONNECTION
- C2 INSTALL 8-PHASE CONTROLLER
- C4 REMOVE EXISTING CONTROLLER AND INSTALL NEW CONTROLLER
- C6 INSTALL ETHERNET CABINET SWITCH
- C7 INSTALL SERIAL DEVICE SERVER
- C8 INSTALL ETHERNET HUB SWITCH
- D1 INSTALL EVP DETECTOR
- D2 INSTALL EVP CONFIRMATION BEACON
- D3 INSTALL EVP CONFIRMATION LAMP
- D4 INSTALL VIDEO DETECTION CAMERA WITH TYPE 1 MOUNT
- D5 INSTALL VIDEO DETECTION CAMERA WITH TYPE 2 MOUNT
- D6 INSTALL VIDEO DETECTION CAMERA WITH TYPE 3 MOUNT
- D8 INSTALL EVP PHASE SELECTOR
- D9 INSTALL VIDEO DETECTION PROCESSOR
- D10 INSTALL DETECTOR AMPLIFIER (4-CHANNEL) IN CABINET
- D12 INSTALL NEW POLE MOUNTED RDS CABINET
- D13 INSTALL RADAR DETECTION SYSTEM
- D14 VIDEO REMOTE MANAGEMENT CARD
- D16 INSTALL BLUETOOTH DETECTION SYSTEM
- W1 EVP DETECTOR CABLE(S)
- W2 EVP CONFIRMATION BEACON POWER CABLE(S)
- W3 EVP CONFIRMATION LAMP POWER CABLE(S)
- W4 VIDEO DETECTOR CABLE(S)
- W5 2C DETECTOR CABLE(S)
- W6 SMFO CABLE
- W7 SMFO TRUNK CABLE
- W9 DROP CABLES (6-FIBER)
- W11 RDS CABLE

- 3 INSTALL 2" RISER INTO BOTTOM OF CABINET
- 4 INSTALL 2" RISER WITH WEATHERHEAD
- 6 INSTALL 2" CONDUIT ENTRANCE INTO EXISTING FOUNDATION
- 9 INSTALL 2" PVC CONDUIT
- 10 JACK AND BORE 2" CONDUIT
- 11 INSTALL 2" RGS CONDUIT
- 12 INSTALL 3" PVC CONDUIT
- 13 INSTALL 3" CONDUIT ENTRANCE INTO EXISTING FOUNDATION
- 16 INSTALL 3" RGS CONDUIT ON EXISTING STRUCTURE
- 24 INSTALL CABLES IN EXISTING MAST ARM POLE
- 25 INSTALL CABLES IN EXISTING POLE IN EXISTING WEATHERHEAD
- 26 INSTALL CABLES IN EXISTING POLE IN PROPOSED WEATHERHEAD
- 28 INSTALL CABLES IN EXISTING POLE
- 30 INSTALL CABLES IN EXISTING CONDUIT/INTERDUCT
- 32 LASH TO EXISTING MESSENGER WIRE/SPANWIRE
- 35 ATTACH CONDUIT TO BRIDGE

IL-09

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #10
SHELBY COUNTY, TN.
SOUTH THIRD STREET
E. CAROLINA AVE INTERSECTION LAYOUT
SURVEY: N/A DATE: N/A BOOK: N/A
DRAFTED: DATE: 05/14 SCALE: 1"=30'
DESIGNED: RSW DATE: 05/14 CHECKED: BTA DATE: 05/14
JURISDICTION: SHEET 28 OF 62

SIGNAL PHASING DIAGRAM



EXISTING SIGNAL HEAD TYPES

PREEMPT TABLE	
DETECTOR	PHASE(S) CALLED
2	2 + 6
4	4
6	2 + 6

DETECTOR ASSIGNMENTS		
ZONE	TYPE	TYPE
2-1	VIDEO	PRESENCE
2-2	VIDEO	PRESENCE
4-1	VIDEO	PRESENCE
4-2	VIDEO	PRESENCE
4-3	VIDEO	PRESENCE
6-1	VIDEO	PRESENCE
6-2	VIDEO	PRESENCE

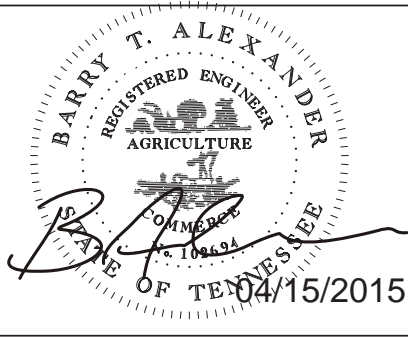
NOTES:
1. SEE DETAIL SHEET D-03 FOR TYPICAL COUNT ZONE DETAIL.

S. THIRD ST @ E. G.E. PATTERSON AVE



NUMBER OF CABLES, LOOPS, ETC.
X NUMBER OF CONDUCTORS, PAIRS, ETC.

REVISIONS		
DATE	DESCRIPTIONS	APPROVED



- B1 RETAIN AND MODIFY EXISTING CABINET
- B2 REMOVE EXISTING CABINET
- B3 INSTALL NEW BASE MOUNTED CONTROLLER CABINET
- B5 INSTALL BASE MOUNTED HUB CABINET
- B6 INSTALL WEATHER PROOF SPLICE ENCLOSURE
- B7 INSTALL FIBER DISTRIBUTION BOX
- B9 INSTALL TRAFFIC SIGNAL PULLBOX
- B10 INSTALL FIBER OPTIC PULLBOX TYPE A
- B11 INSTALL FIBER OPTIC PULLBOX TYPE B
- B13 INSTALL 20" PEDESTAL POLE
- B15 MLGW POWER SERVICE CONNECTION
- C2 INSTALL 8-PHASE CONTROLLER
- C4 REMOVE EXISTING CONTROLLER AND INSTALL NEW CONTROLLER
- C6 INSTALL ETHERNET CABINET SWITCH
- C7 INSTALL SERIAL DEVICE SERVER
- C8 INSTALL ETHERNET HUB SWITCH
- D1 INSTALL EVP DETECTOR
- D2 INSTALL EVP CONFIRMATION BEACON
- D3 INSTALL EVP CONFIRMATION LAMP
- D4 INSTALL VIDEO DETECTION CAMERA WITH TYPE 1 MOUNT
- D5 INSTALL VIDEO DETECTION CAMERA WITH TYPE 2 MOUNT
- D6 INSTALL VIDEO DETECTION CAMERA WITH TYPE 3 MOUNT
- D8 INSTALL EVP PHASE SELECTOR
- D9 INSTALL VIDEO DETECTION PROCESSOR
- D10 INSTALL DETECTOR AMPLIFIER (4-CHANNEL) IN CABINET
- D12 INSTALL NEW POLE MOUNTED RDS CABINET
- D13 INSTALL RADAR DETECTION SYSTEM
- D14 VIDEO REMOTE MANAGEMENT CARD
- D16 INSTALL BLUETOOTH DETECTION SYSTEM
- W1 EVP DETECTOR CABLE(S)
- W2 EVP CONFIRMATION BEACON POWER CABLE(S)
- W3 EVP CONFIRMATION LAMP POWER CABLE(S)
- W4 VIDEO DETECTOR CABLE(S)
- W5 2C DETECTOR CABLE(S)
- W6 SMFO CABLE
- W7 SMFO TRUNK CABLE
- W9 DROP CABLES (6-FIBER)
- W11 RDS CABLE
- 3 INSTALL 2" RISER INTO BOTTOM OF CABINET
- 4 INSTALL 2" RISER WITH WEATHERHEAD
- 6 INSTALL 2" CONDUIT ENTRANCE INTO EXISTING FOUNDATION
- 9 INSTALL 2" PVC CONDUIT
- 10 JACK AND BORE 2" CONDUIT
- 11 INSTALL 2" RGS CONDUIT
- 12 INSTALL 3" PVC CONDUIT
- 13 INSTALL 3" CONDUIT ENTRANCE INTO EXISTING FOUNDATION
- 16 INSTALL 3" RGS CONDUIT ON EXISTING STRUCTURE
- 24 INSTALL CABLES IN EXISTING MAST ARM POLE
- 25 INSTALL CABLES IN EXISTING POLE IN EXISTING WEATHERHEAD
- 26 INSTALL CABLES IN EXISTING POLE IN PROPOSED WEATHERHEAD
- 28 INSTALL CABLES IN EXISTING POLE
- 30 INSTALL CABLES IN EXISTING CONDUIT/INTERDUCT
- 32 LASH TO EXISTING MESSENGER WIRE/SPANWIRE
- 35 ATTACH CONDUIT TO BRIDGE

WIRING NOTES:
1. EXTEND POWER SERVICE CONDUCTORS TO PROPOSED BASE MOUNT CABINET.
2. EXTEND SIGNAL CABLES TO PROPOSED BASE MOUNT CABINET.
3. EXTEND 2c SHIELDED CABLES TO PROPOSED BASE MOUNT CABINET.

REMOVAL NOTES:
1. REMOVE EXISTING POLE MOUNT CABINET
PLUG ALL POLE OPENINGS.

IL-10

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #10
SHELBY COUNTY, TN.
SOUTH THIRD STREET
E. G.E. PATTERSON AVE INTERSECTION LAYOUT
SURVEY: N/A DATE: N/A BOOK: N/A
DRAFTED: DATE: 05/14 SCALE: 1"=30'
DESIGNED: RSW DATE: 05/14 CHECKED: BTA DATE: 05/14
JURISDICTION: SHEET 29 OF 62

[illegible]

EXISTING PREEMPT TABLE	
DETECTOR	PHASE(S) CALLED
2	2
4	4

DETECTOR ASSIGNMENTS		
ZONE	TYPE	TYPE
2-1	VIDEO	PRESENCE
2-2	VIDEO	PRESENCE
2-3	VIDEO	PRESENCE
4-1	VIDEO	PRESENCE
4-2	VIDEO	PRESENCE
4-3	VIDEO	PRESENCE

NOTE: EXISTING 18F-SMFO CABLE SHALL NOT BE REMOVED AND MUST REMAIN OPERATIONAL UNTIL COMPLETION OF INSTALLATION, TESTING, AND ACTIVATION OF TRUCK CABLE BETWEEN CITY OF MEMPHIS SIGNAL SHOP AND VANCE AVE.

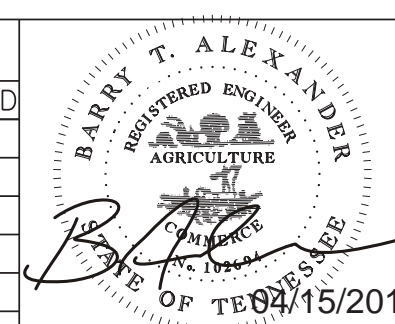
 NUMBER OF CABLES, LOOPS, ETC.
 NUMBER OF CONDUCTORS, PAIRS, ETC.

GRAPHIC SCALE

30 0 30 60



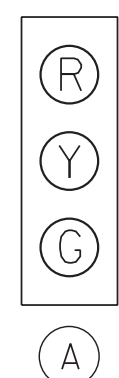
REVISIONS		
DATE	DESCRIPTIONS	APPROVE



B1	RETAIN AND MODIFY EXISTING CABINET
B2	REMOVE EXISTING CABINET
B3	INSTALL NEW BASE MOUNTED CONTROLLER CABINET
B5	INSTALL BASE MOUNTED HUB CABINET
B6	INSTALL WEATHER PROOF SPLICE ENCLOSURE
B7	INSTALL FIBER DISTRIBUTION BOX
B9	INSTALL TRAFFIC SIGNAL PULLBOX
B10	INSTALL FIBER OPTIC PULLBOX TYPE A
B11	INSTALL FIBER OPTIC PULLBOX TYPE B
B13	INSTALL 20' PEDESTAL POLE
B15	MLGW POWER SERVICE CONNECTION
C2	INSTALL 8-PHASE CONTROLLER
C4	REMOVE EXISTING CONTROLLER AND INSTALL NEW CONTROLLER
C6	INSTALL ETHERNET CABINET SWITCH
C7	INSTALL SERIAL DEVICE SERVER
C8	INSTALL ETHERNET HUB SWITCH
D1	INSTALL EVP DETECTOR
D2	INSTALL EVP CONFIRMATION BEACON
D3	INSTALL EVP CONFIRMATION LAMP
D4	INSTALL VIDEO DETECTION CAMERA WITH TYPE 1 MOUNT
D5	INSTALL VIDEO DETECTION CAMERA WITH TYPE 2 MOUNT
D6	INSTALL VIDEO DETECTION CAMERA WITH TYPE 3 MOUNT
D8	INSTALL EVP PHASE SELECTOR
D9	INSTALL VIDEO DETECTION PROCESSOR
D10	INSTALL DETECTOR AMPLIFIER (4-CHANNEL) IN CABINET
D12	INSTALL NEW POLE MOUNTED RDS CABINET
D13	INSTALL RADAR DETECTION SYSTEM
D14	VIDEO REMOTE MANAGEMENT CARD
D16	INSTALL BLUETOOTH DETECTION SYSTEM
W1	EVP DETECTOR CABLE(S)
W2	EVP CONFIRMATION BEACON POWER CABLE(S)
W3	EVP CONFIRMATION LAMP POWER CABLE(S)
W4	VIDEO DETECTOR CABLE(S)
W5	2C DETECTOR CABLE(S)
W6	SMFO CABLE
W7	SMFO TRUNK CABLE
W9	DROP CABLES (6-FIBER)
W11	RDS CABLE
3	INSTALL 2" RISER INTO BOTTOM OF CABINET
4	INSTALL 2" RISER WITH WEATHERHEAD
6	INSTALL 2" CONDUIT ENTRANCE INTO EXISTING FOUNDATION
9	INSTALL 2" PVC CONDUIT
10	JACK AND BORE 2" CONDUIT
11	INSTALL 2" RGS CONDUIT
12	INSTALL 3" PVC CONDUIT
13	INSTALL 3" CONDUIT ENTRANCE INTO EXISTING FOUNDATION
16	INSTALL 3" RGS CONDUIT ON EXISTING STRUCTURE
24	INSTALL CABLES IN EXISTING MAST ARM POLE
25	INSTALL CABLES IN EXISTING POLE IN EXISTING WEATHERHEAD
26	INSTALL CABLES IN EXISTING POLE IN PROPOSED WEATHERHEAD
28	INSTALL CABLES IN EXISTING POLE
30	INSTALL CABLES IN EXISTING CONDUIT/INTERDUCT
32	LASH TO EXISTING MESSENGER WIRE/SPANWIRE
35	ATTACH CONDUIT TO BRIDGE

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #10
SHELBY COUNTY, TN.
SOUTH THIRD STREET
VANCE AVE INTERSECTION LAYOUT

SURVEY: N/A DATE: N/A BOOK: N/A
DRAFTED: DATE: 05/14 SCALE: 1"=30'
DESIGNED: RSW DATE: 05/14 CHECKED: BTA DATE: 05/14
JURISDICTION: SHEET 30 OF 62



EXISTING PREEMPT TABLE	
DETECTOR	PHASE(S) CALLED
2	2 + 6
4	4
6	2 + 6

DETECTOR ASSIGNMENTS		
ZONE	TYPE	TYPE
2-1	VIDEO	PRESENCE
2-2	VIDEO	PRESENCE
4-1	VIDEO	PRESENCE
4-2	VIDEO	PRESENCE
4-3	VIDEO	PRESENCE
6-1	VIDEO	PRESENCE

The site plan illustrates the intersection of Dr. Martin Luther King Jr. Ave and S. Third St. Key features include:

- Streets:** DR. MARTIN LUTHER KING JR. AVE, S. THIRD ST, and THIRDO ST.
- Proposed Bus Stops (Triangles):**
 - Top left: Triangle with 24 and 1 W4.
 - Top center: Triangle with 9, 1 W9, and 6.
 - Top right: Triangle with 10, 1 W6, and 36.
 - Center: Triangle with 10, 2 W4, and 24.
 - Bottom center: Triangle with 10, 1 W4, and 24.
 - Bottom right: Triangle with 10, 1 W4, and 36.
- Proposed Bus Shelters (Rectangles):**
 - Top left: B2, B3, B7, C2, C6, D8, D9, D14, D16.
 - Top center: B6, B11.
 - Center: B9, D4, B9, B10, D4, B9.
 - Bottom center: B9.
- Other Features:**
 - EXIST. R.O.W. (Existing Right-of-Way) lines.
 - Traffic signs: STOP, YIELD, ONE WAY, and various numbered signs (1, 2, 4, 6, 10, 24, 36).
 - Street names: DR. MARTIN LUTHER KING JR. AVE, S. THIRD ST, THIRDO ST.

GRAPHIC SCALE

30 0 30 60



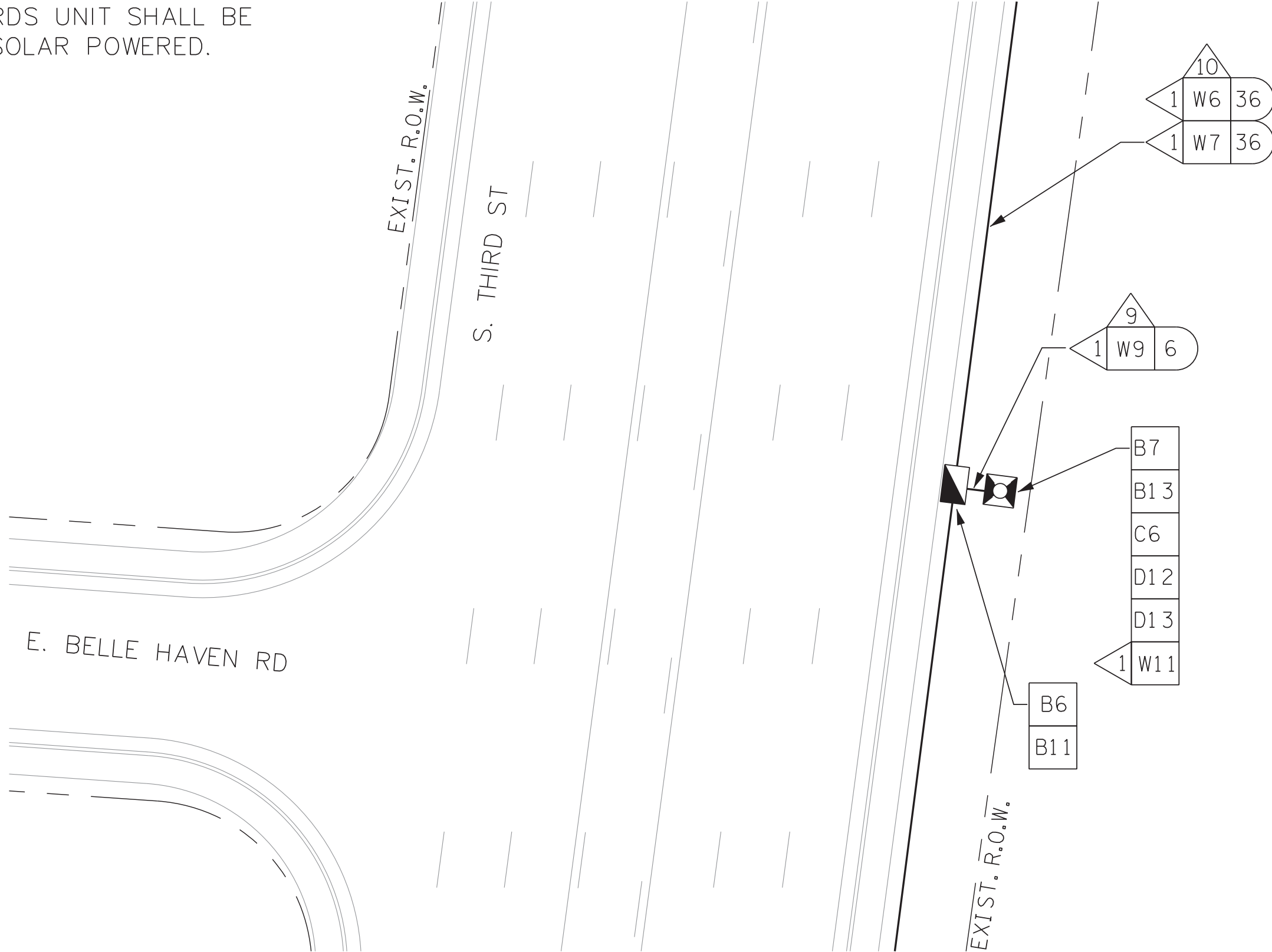
REVISIONS		
DATE	DESCRIPTIONS	APPROVE



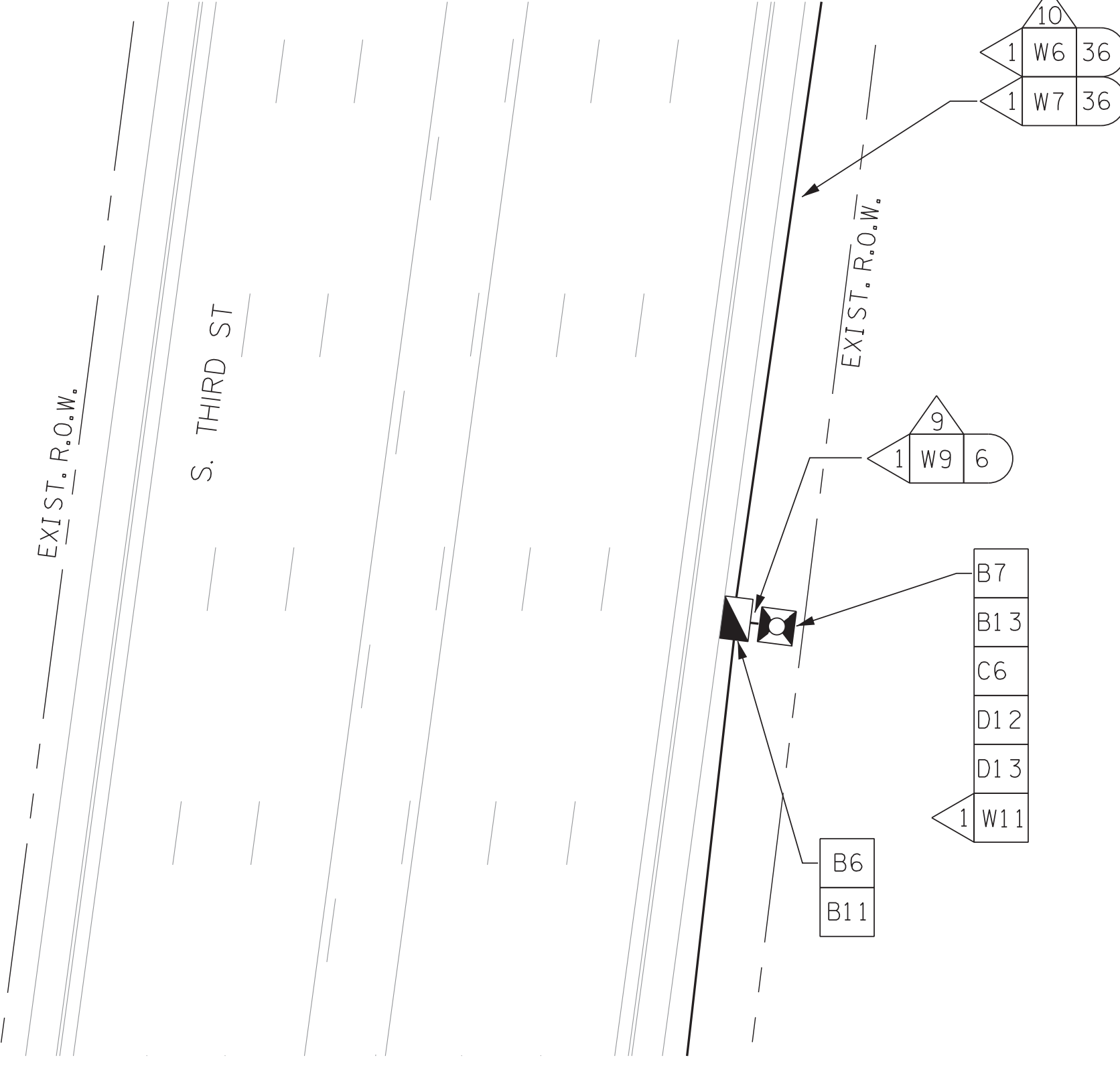
NEEL-SCHAFFER
Solutions you can build upon

SURVEY: N/A DATE: N/A BOOK: N/A
DRAFTED: _____ DATE: 05/14 SCALE: 1"=30'
DESIGNED: RSW DATE: 05/14 CHECKED: BTA DATE: 05/14
JURISDICTION: _____ SHEET 31 OF 62

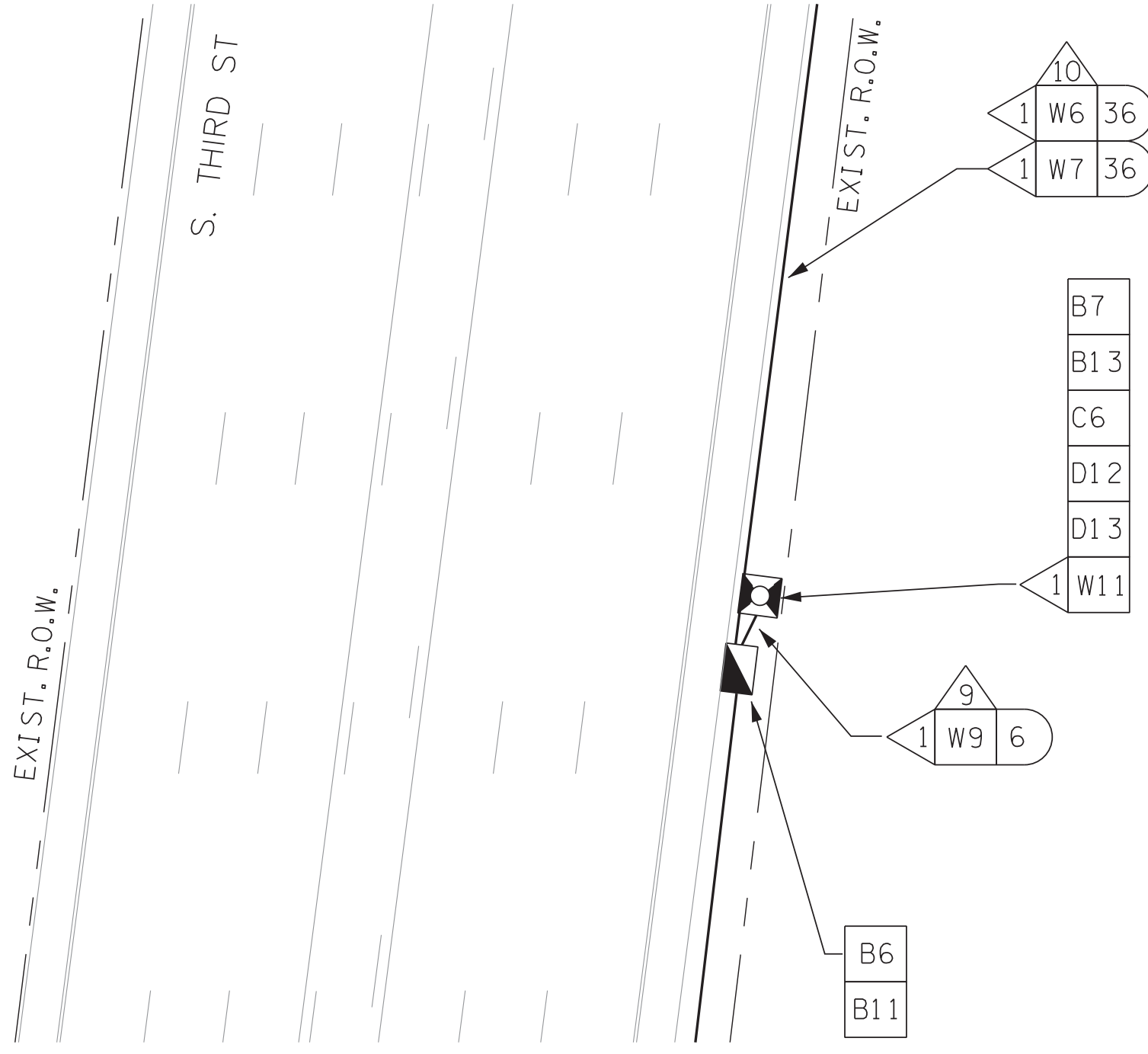
NOTE:RDS UNIT SHALL BE SOLAR POWERED.



RDS T-1
(BETWEEN MITCHELL RD & E. BROOKS RD)

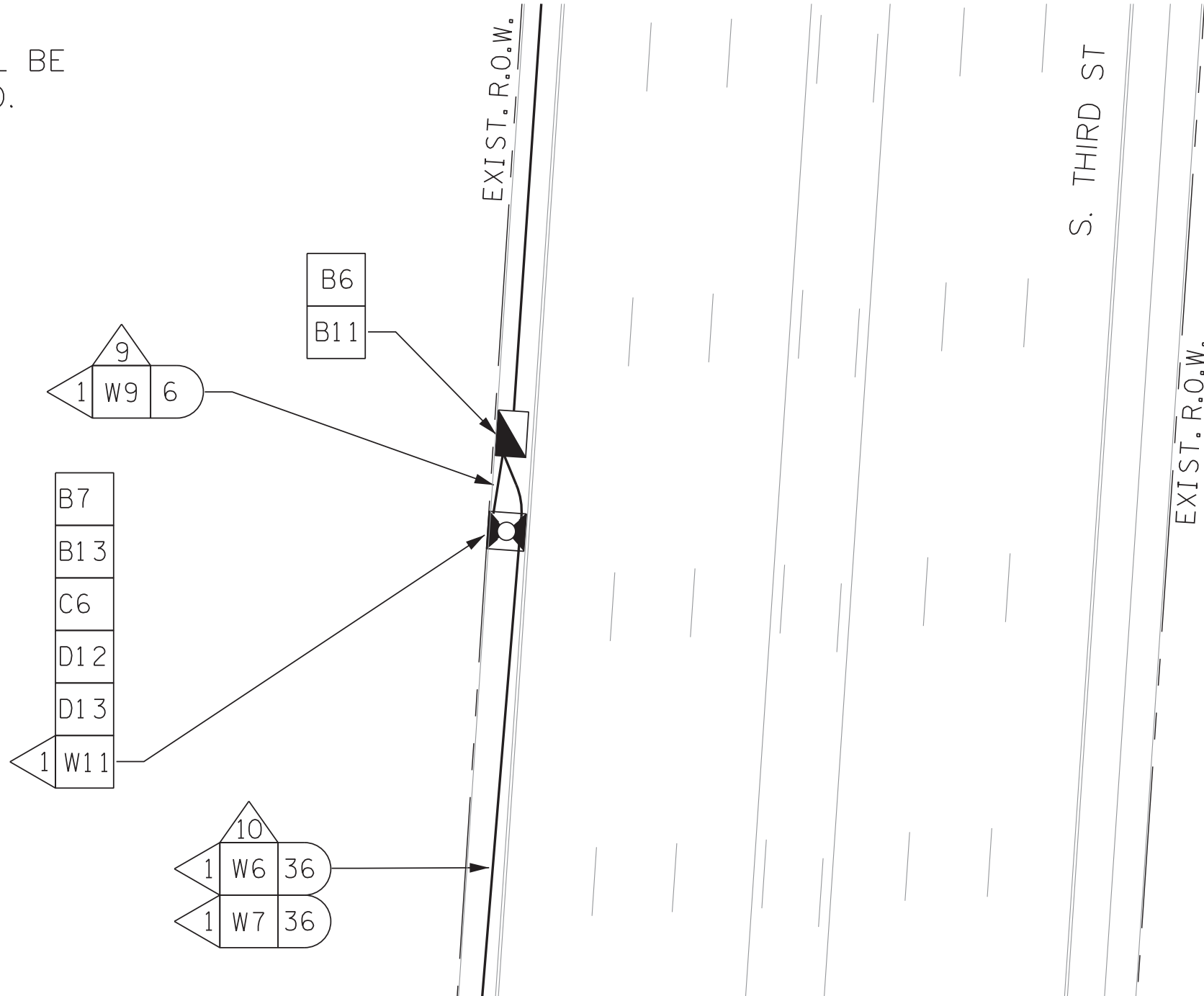


RDS T-2
(BETWEEN E. PEEBLES RD & I-55)



RDS T-3
(BETWEEN I-55 & E. MALLORY AVE)

NOTE:RDS UNIT SHALL BE SOLAR POWERED.



RDS T-4
(BETWEEN MITCHELL RD & BROOKS RD)

NOTE:RDS UNIT SHALL BE SOLAR POWERED.



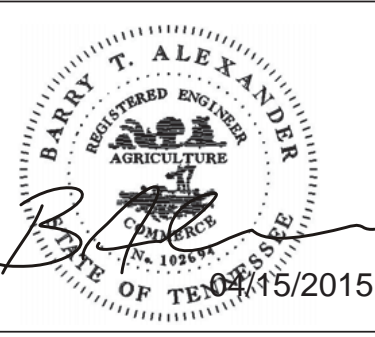
- B1 RETAIN AND MODIFY EXISTING CABINET
- B2 REMOVE EXISTING CABINET
- B3 INSTALL NEW BASE MOUNTED CONTROLLER CABINET
- B5 INSTALL BASE MOUNTED HUB CABINET
- B6 INSTALL WEATHER PROOF SPLICE ENCLOSURE
- B7 INSTALL FIBER DISTRIBUTION BOX
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- B10 INSTALL FIBER OPTIC PULLBOX TYPE A
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- B13 INSTALL 20' PEDESTAL POLE
- B15 MLGW POWER SERVICE CONNECTION
- C2 INSTALL 8-PHASE CONTROLLER
- C4 REMOVE EXISTING CONTROLLER AND INSTALL NEW CONTROLLER
- C6 INSTALL ETHERNET CABINET SWITCH
- C7 INSTALL SERIAL DEVICE SERVER
- C8 INSTALL ETHERNET HUB SWITCH
- D1 INSTALL EVP DETECTOR
- D2 INSTALL EVP CONFIRMATION BEACON
- D3 INSTALL EVP CONFIRMATION LAMP
- D5 INSTALL VIDEO DETECTION CAMERA WITH TYPE 2 MOUNT
- D6 INSTALL VIDEO DETECTION CAMERA WITH TYPE 3 MOUNT
- D8 INSTALL EVP PHASE SELECTOR
- D9 INSTALL VIDEO DETECTION PROCESSOR
- D10 INSTALL DETECTOR AMPLIFIER (4-CHANNEL) IN CABINET
- D12 INSTALL NEW POLE MOUNTED RDS CABINET
- D13 INSTALL RADAR DETECTION SYSTEM
- D14 VIDEO REMOTE MANAGEMENT CARD
- D16 INSTALL BLUETOOTH DETECTION SYSTEM
- W1 EVP DETECTOR CABLE(S)
- W2 EVP CONFIRMATION BEACON POWER CABLE(S)
- W3 EVP CONFIRMATION LAMP POWER CABLE(S)
- W4 VIDEO DETECTOR CABLE(S)
- W5 2C DETECTOR CABLE(S)
- W6 SMFO CABLE
- W7 SMFO TRUNK CABLE
- W9 DROP CABLES (6-FIBER)
- W11 RDS CABLE

- 3 INSTALL 2" RISER INTO BOTTOM OF CABINET
- 4 INSTALL 2" RISER WITH WEATHERHEAD
- 6 INSTALL 2" CONDUIT ENTRANCE INTO EXISTING FOUNDATION
- 9 INSTALL 2" PVC CONDUIT
- 10 JACK AND BORE 2" CONDUIT
- 11 INSTALL 2" RGS CONDUIT
- 12 INSTALL 3" PVC CONDUIT
- 13 INSTALL 3" CONDUIT ENTRANCE INTO EXISTING FOUNDATION
- 16 INSTALL 3" RGS CONDUIT ON EXISTING STRUCTURE
- 24 INSTALL CABLES IN EXISTING MAST ARM POLE
- 25 INSTALL CABLES IN EXISTING POLE IN EXISTING WEATHERHEAD
- 26 INSTALL CABLES IN EXISTING POLE IN PROPOSED WEATHERHEAD
- 28 INSTALL CABLES IN EXISTING POLE
- 32 LASH TO EXISTING MESSENGER WIRE/SPANWIRE
- 35 ATTACH CONDUIT TO BRIDGE

NUMBER OF CABLES, LOOPS, ETC.
X NUMBER OF CONDUCTORS, PAIRS, ETC.



REVISIONS		
DATE	DESCRIPTIONS	APPROVED



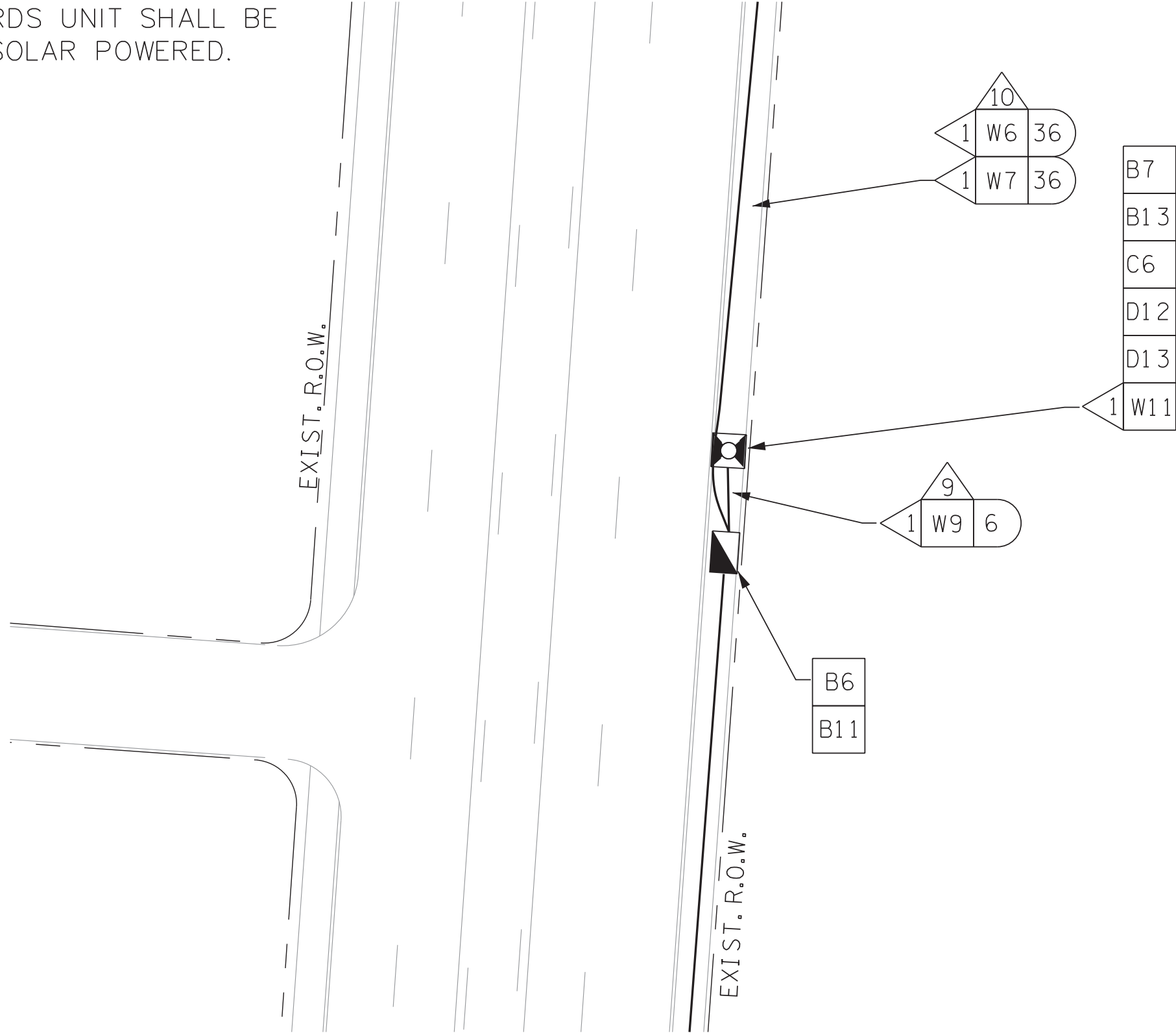
POWERS HILL DESIGN
CIVIL ENGINEERING. CIVIL RESPONSIBILITY.
NEEL-SCHAFFER
Solutions you can build upon

RD-01

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #10
SHELBY COUNTY, TN.
SOUTH THIRD STREET
RADAR DETECTION SYSTEM LAYOUT

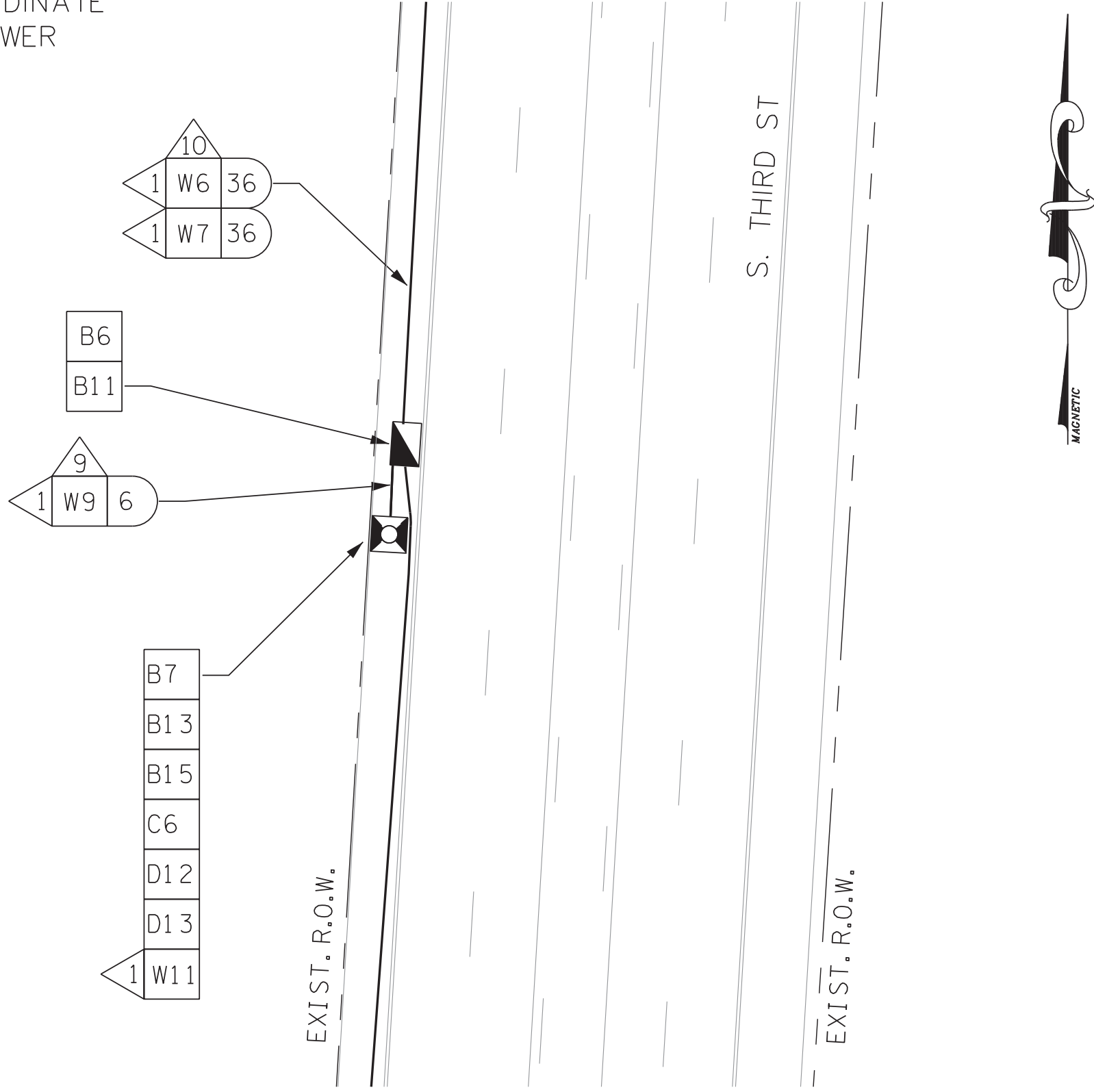
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DRAFTED: DATE: 03/14 SCALE: 1"=20'
DESIGNED: RSW DATE: 03/14 CHECKED: BTA DATE: 03/14
JURISDICTION: SHEET 32 OF 62

NOTE:RDS UNIT SHALL BE SOLAR POWERED.



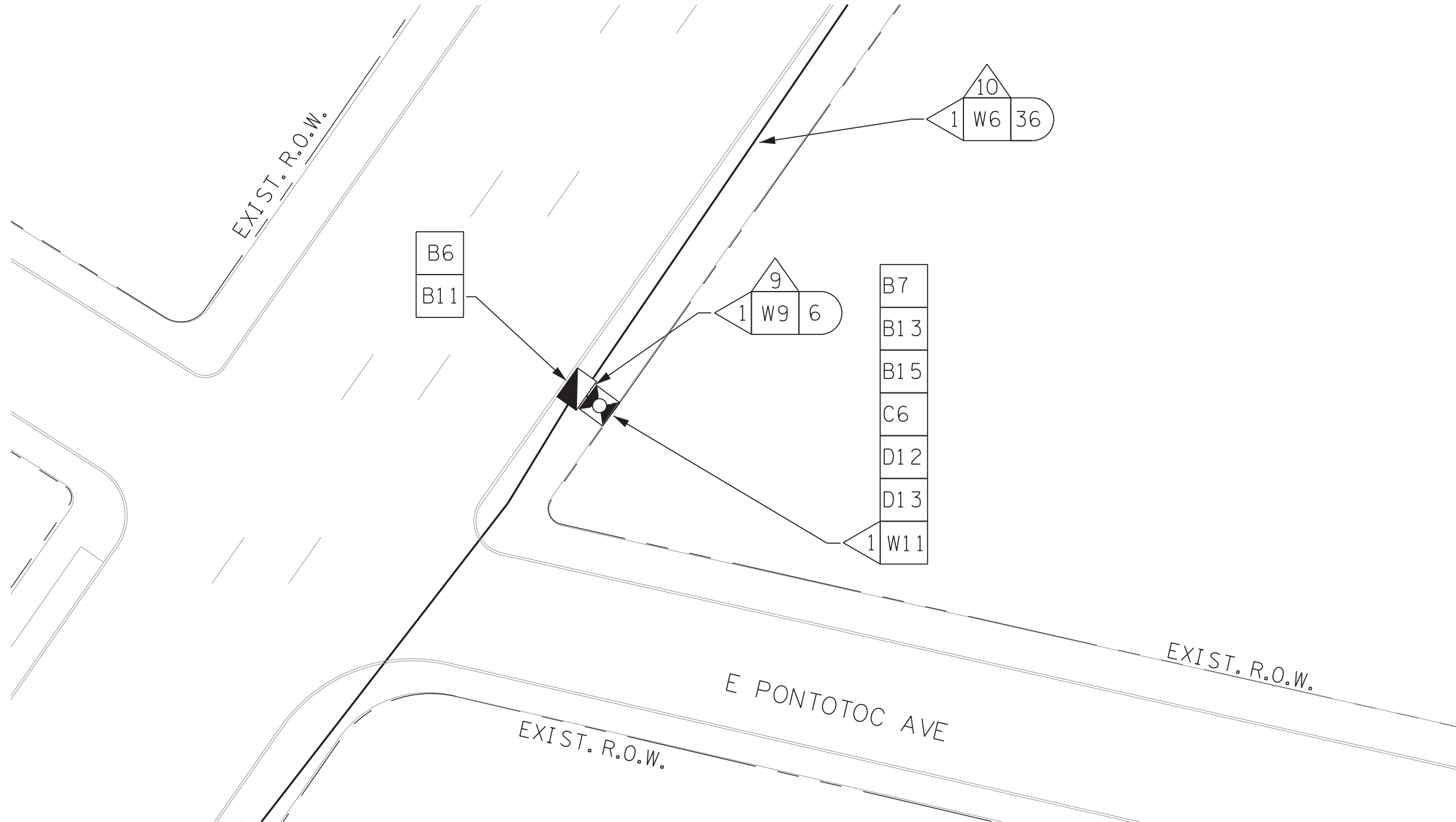
RDS T-5
(BETWEEN CITY OF MEMPHIS SIGNAL SHOP & E. E.H. CRUMP BLVD)

NOTE: CONTRACTOR SHALL COORDINATE WITH MLG&W FOR RDS POWER CONNECTION.



RDS T-6
(BETWEEN E. E.H. CRUMP BLVD & E. CAROLINA AVE)

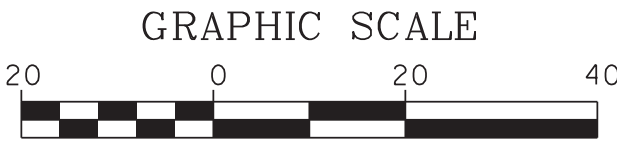
NOTE: CONTRACTOR SHALL COORDINATE WITH MLG&W FOR RDS POWER CONNECTION.



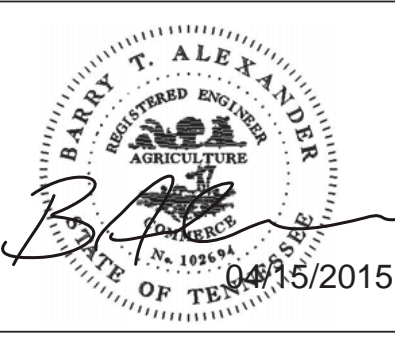
RDS T-7
(BETWEEN VANCE AVE & DR. MARTIN LUTHER KING JR. AVE)

- B1 RETAIN AND MODIFY EXISTING CABINET
- B2 REMOVE EXISTING CABINET
- B3 INSTALL NEW BASE MOUNTED CONTROLLER CABINET
- B5 INSTALL BASE MOUNTED HUB CABINET
- B6 INSTALL WEATHER PROOF SPLICE ENCLOSURE
- B7 INSTALL FIBER DISTRIBUTION BOX
- B9 INSTALL TRAFFIC SIGNAL PULLBOX
- B10 INSTALL FIBER OPTIC PULLBOX TYPE A
- B11 INSTALL FIBER OPTIC PULLBOX TYPE B
- B13 INSTALL 20" PEDESTAL POLE
- B15 MLGW POWER SERVICE CONNECTION
- C2 INSTALL 8-PHASE CONTROLLER
- C4 REMOVE EXISTING CONTROLLER AND INSTALL NEW CONTROLLER
- C6 INSTALL ETHERNET CABINET SWITCH
- C7 INSTALL SERIAL DEVICE SERVER
- C8 INSTALL ETHERNET HUB SWITCH
- D1 INSTALL EVP DETECTOR
- D2 INSTALL EVP CONFIRMATION BEACON
- D3 INSTALL EVP CONFIRMATION LAMP
- D5 INSTALL VIDEO DETECTION CAMERA WITH TYPE 2 MOUNT
- D6 INSTALL VIDEO DETECTION CAMERA WITH TYPE 3 MOUNT
- D8 INSTALL EVP PHASE SELECTOR
- D9 INSTALL VIDEO DETECTION PROCESSOR
- D10 INSTALL DETECTOR AMPLIFIER (4-CHANNEL) IN CABINET
- D12 INSTALL NEW POLE MOUNTED RDS CABINET
- D13 INSTALL RADAR DETECTION SYSTEM
- D14 VIDEO REMOTE MANAGEMENT CARD
- D16 INSTALL BLUETOOTH DETECTION SYSTEM
- W1 EVP DETECTOR CABLE(S)
- W2 EVP CONFIRMATION BEACON POWER CABLE(S)
- W3 EVP CONFIRMATION LAMP POWER CABLE(S)
- W4 VIDEO DETECTOR CABLE(S)
- W5 2C DETECTOR CABLE(S)
- W6 SMFO CABLE
- W7 SMFO TRUNK CABLE
- W9 DROP CABLES (6-FIBER)
- W11 RDS CABLE
- 3 INSTALL 2" RISER INTO BOTTOM OF CABINET
- 4 INSTALL 2" RISER WITH WEATHERHEAD
- 6 INSTALL 2" CONDUIT ENTRANCE INTO EXISTING FOUNDATION
- 9 INSTALL 2" PVC CONDUIT
- 10 JACK AND BORE 2" CONDUIT
- 11 INSTALL 2" RGS CONDUIT
- 12 INSTALL 3" PVC CONDUIT
- 13 INSTALL 3" CONDUIT ENTRANCE INTO EXISTING FOUNDATION
- 16 INSTALL 3" RGS CONDUIT ON EXISTING STRUCTURE
- 24 INSTALL CABLES IN EXISTING MAST ARM POLE
- 25 INSTALL CABLES IN EXISTING POLE IN EXISTING WEATHERHEAD
- 26 INSTALL CABLES IN EXISTING POLE IN PROPOSED WEATHERHEAD
- 28 INSTALL CABLES IN EXISTING POLE
- 32 LASH TO EXISTING MESSENGER WIRE/SPANWIRE
- 35 ATTACH CONDUIT TO BRIDGE

△ NUMBER OF CABLES, LOOPS, ETC.
X NUMBER OF CONDUCTORS, PAIRS, ETC.



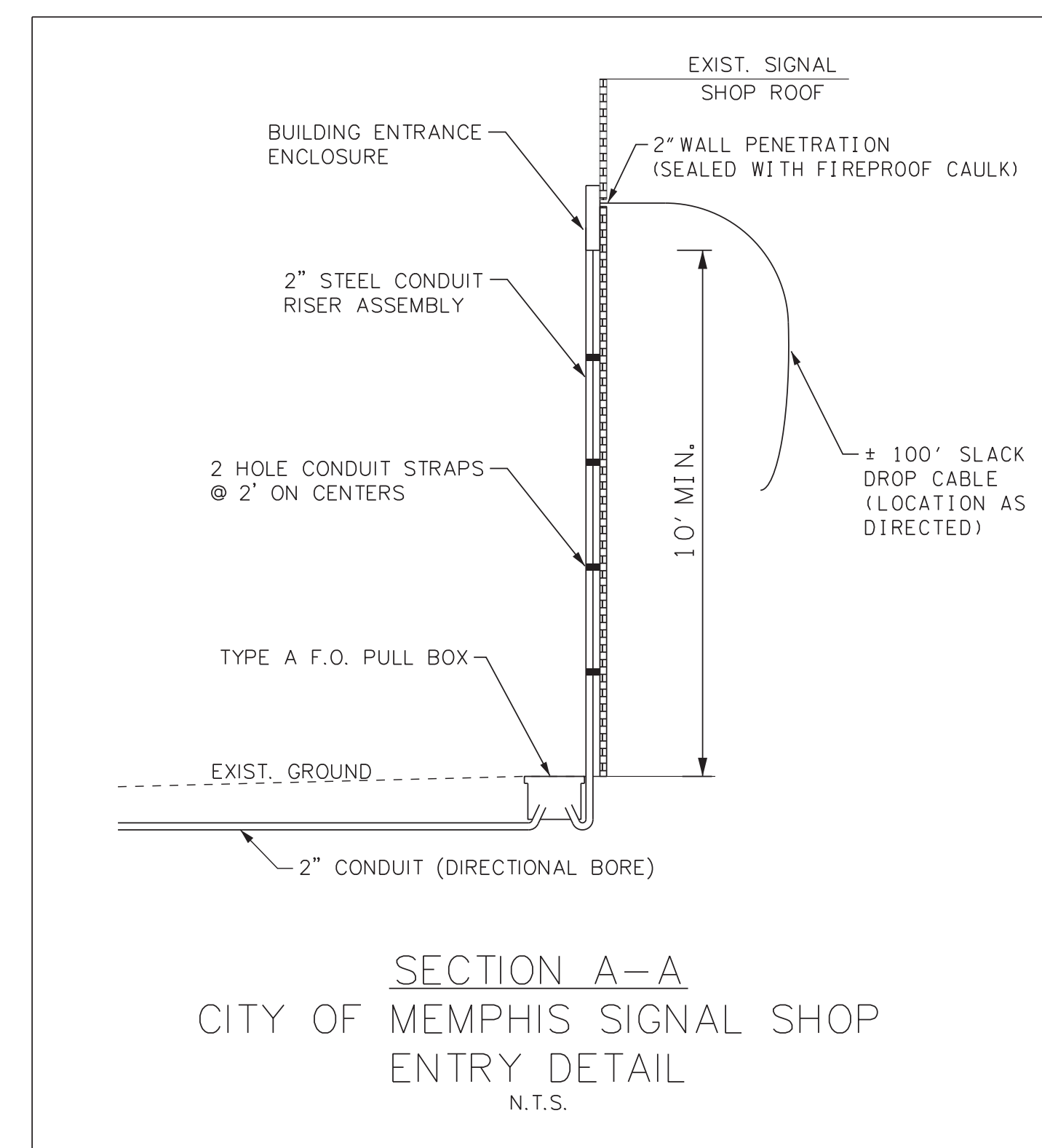
REVISIONS		
DATE	DESCRIPTIONS	APPROVED



RD-02



DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #10
SHELBY COUNTY, TN.
SOUTH THIRD STREET
RADAR DETECTION SYSTEM LAYOUT

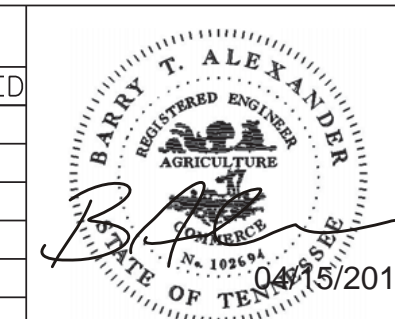
SURVEY: N/A DATE: N/A BOOK: N/A
DRAFTED: DATE: 03/14 SCALE: 1"=20'
DESIGNED: RSW DATE: 03/14 CHECKED: BTA DATE: 03/14
JURISDICTION: SHEET 33 OF 62



- | | |
|-----|---|
| B1 | RETAIN AND MODIFY EXISTING CABINET |
| B2 | REMOVE EXISTING CABINET |
| B3 | INSTALL NEW BASE MOUNTED CONTROLLER CABINET |
| B5 | INSTALL BASE MOUNTED HUB CABINET |
| B6 | INSTALL WEATHER PROOF SPLICE ENCLOSURE |
| B7 | INSTALL FIBER DISTRIBUTION BOX |
| B9 | INSTALL TRAFFIC SIGNAL PULLBOX |
| B10 | INSTALL FIBER OPTIC PULLBOX TYPE A |
| B11 | INSTALL FIBER OPTIC PULLBOX TYPE B |
| B13 | INSTALL 20' PEDESTAL POLE |
| B15 | MLGW POWER SERVICE CONNECTION |
| C2 | INSTALL 8-PHASE CONTROLLER |
| C4 | REMOVE EXISTING CONTROLLER AND INSTALL NEW CONTROLLER |
| C6 | INSTALL ETHERNET CABINET SWITCH |
| C7 | INSTALL SERIAL DEVICE SERVER |
| C8 | INSTALL ETHERNET HUB SWITCH |
| D1 | INSTALL EVP DETECTOR |
| D2 | INSTALL EVP CONFIRMATION BEACON |
| D3 | INSTALL EVP CONFIRMATION LAMP |
| D4 | INSTALL VIDEO DETECTION CAMERA WITH TYPE 1 MOUNT |
| D5 | INSTALL VIDEO DETECTION CAMERA WITH TYPE 2 MOUNT |
| D6 | INSTALL VIDEO DETECTION CAMERA WITH TYPE 3 MOUNT |
| D8 | INSTALL EVP PHASE SELECTOR |
| D9 | INSTALL VIDEO DETECTION PROCESSOR |
| D10 | INSTALL DETECTOR AMPLIFIER (4-CHANNEL) IN CABINET |
| D12 | INSTALL NEW POLE MOUNTED RDS CABINET |
| D13 | INSTALL RADAR DETECTION SYSTEM |
| D14 | VIDEO REMOTE MANAGEMENT CARD |
| D16 | INSTALL BLUETOOTH DETECTION SYSTEM |
| W1 | EVP DETECTOR CABLE(S) |
| W2 | EVP CONFIRMATION BEACON POWER CABLE(S) |
| W3 | EVP CONFIRMATION LAMP POWER CABLE(S) |
| W4 | VIDEO DETECTOR CABLE(S) |
| W5 | 2C DETECTOR CABLE(S) |
| W6 | SMFO CABLE |
| W7 | SMFO TRUNK CABLE |
| W9 | DROP CABLES (6-FIBER) |
| W11 | RDS CABLE |
| 3 | INSTALL 2" RISER INTO BOTTOM OF CABINET |
| 4 | INSTALL 2" RISER WITH WEATHERHEAD |
| 6 | INSTALL 2" CONDUIT ENTRANCE INTO EXISTING FOUNDATION |
| 9 | INSTALL 2" PVC CONDUIT |
| 10 | JACK AND BORE 2" CONDUIT |
| 11 | INSTALL 2" RGS CONDUIT |
| 12 | INSTALL 3" PVC CONDUIT |
| 13 | INSTALL 3" CONDUIT ENTRANCE INTO EXISTING FOUNDATION |
| 16 | INSTALL 3" RGS CONDUIT ON EXISTING STRUCTURE |
| 24 | INSTALL CABLES IN EXISTING MAST ARM POLE |
| 25 | INSTALL CABLES IN EXISTING POLE IN EXISTING WEATHERHEAD |
| 26 | INSTALL CABLES IN EXISTING POLE IN PROPOSED WEATHERHEAD |
| 28 | INSTALL CABLES IN EXISTING POLE |
| 30 | INSTALL CABLES IN EXISTING CONDUIT/INTERDUCT |
| 32 | LASH TO EXISTING MESSENGER WIRE/SPANWIRE |
| 35 | ATTACH CONDUIT TO BRIDGE |

- NOTES:
- ① - DIRECTIONAL BORE CONDUIT UNDER VEHICLE ENTRANCE.
 - ② - WALL PENETRATION AND ALL WORK INSIDE BUILDING SHALL CONFORM TO APPLICABLE BUILDING CODES.
 - ③ - ALL SMFO CABLE INSTALLED INSIDE BUILDING SHALL BE PLENUM RATED IN ACCORDANCE WITH NFPA 262.
 - ④ - PROVIDE ± 100 L.F. OF SLACK CABLE ROUTED TO LOCATION INSIDE BUILDING AS DIRECTED BY THE ENGINEER.

 NUMBER OF CABLES, LOOPS, ETC.
 NUMBER OF CONDUCTORS, PAIRS, ETC.

[illegible]

SS-01

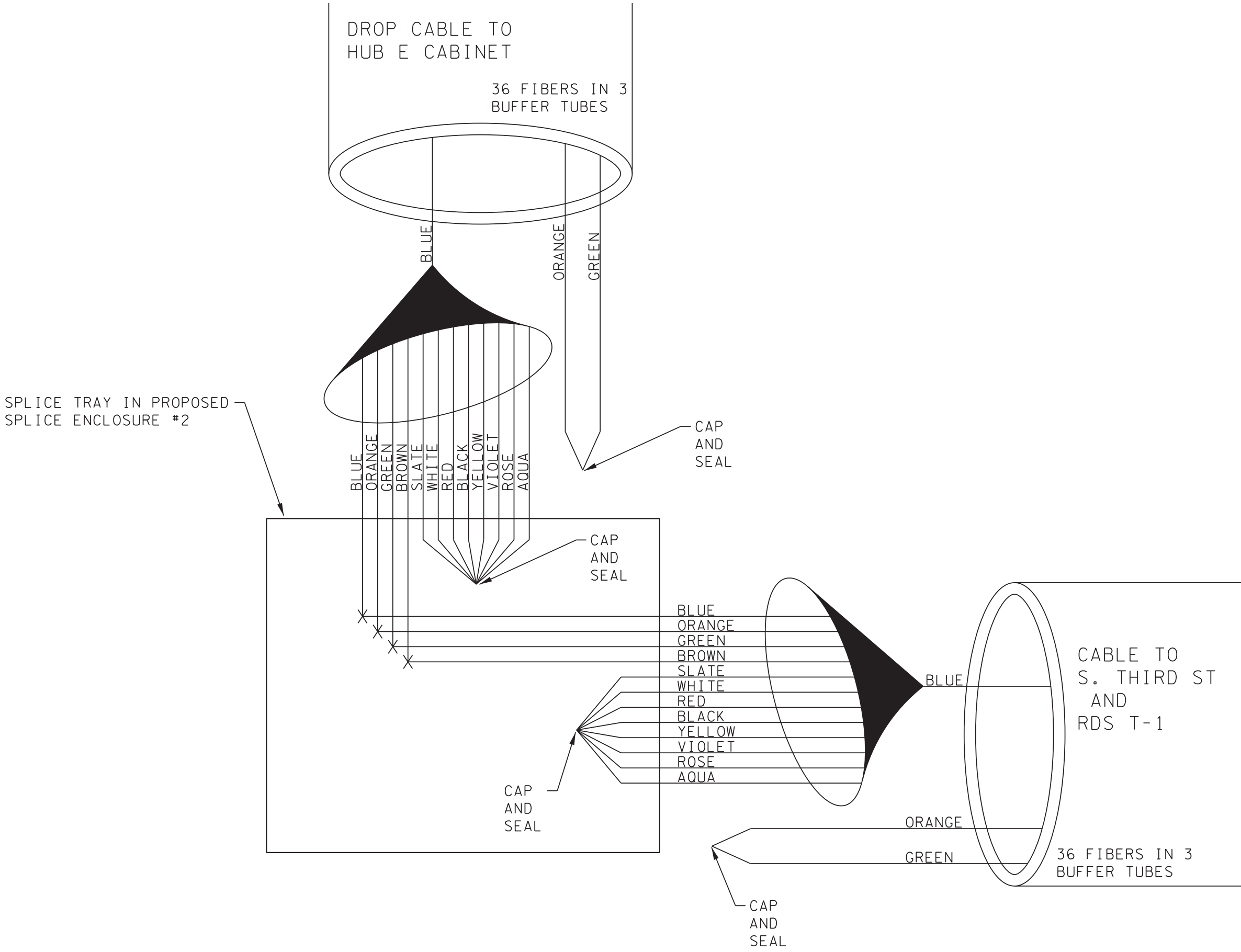
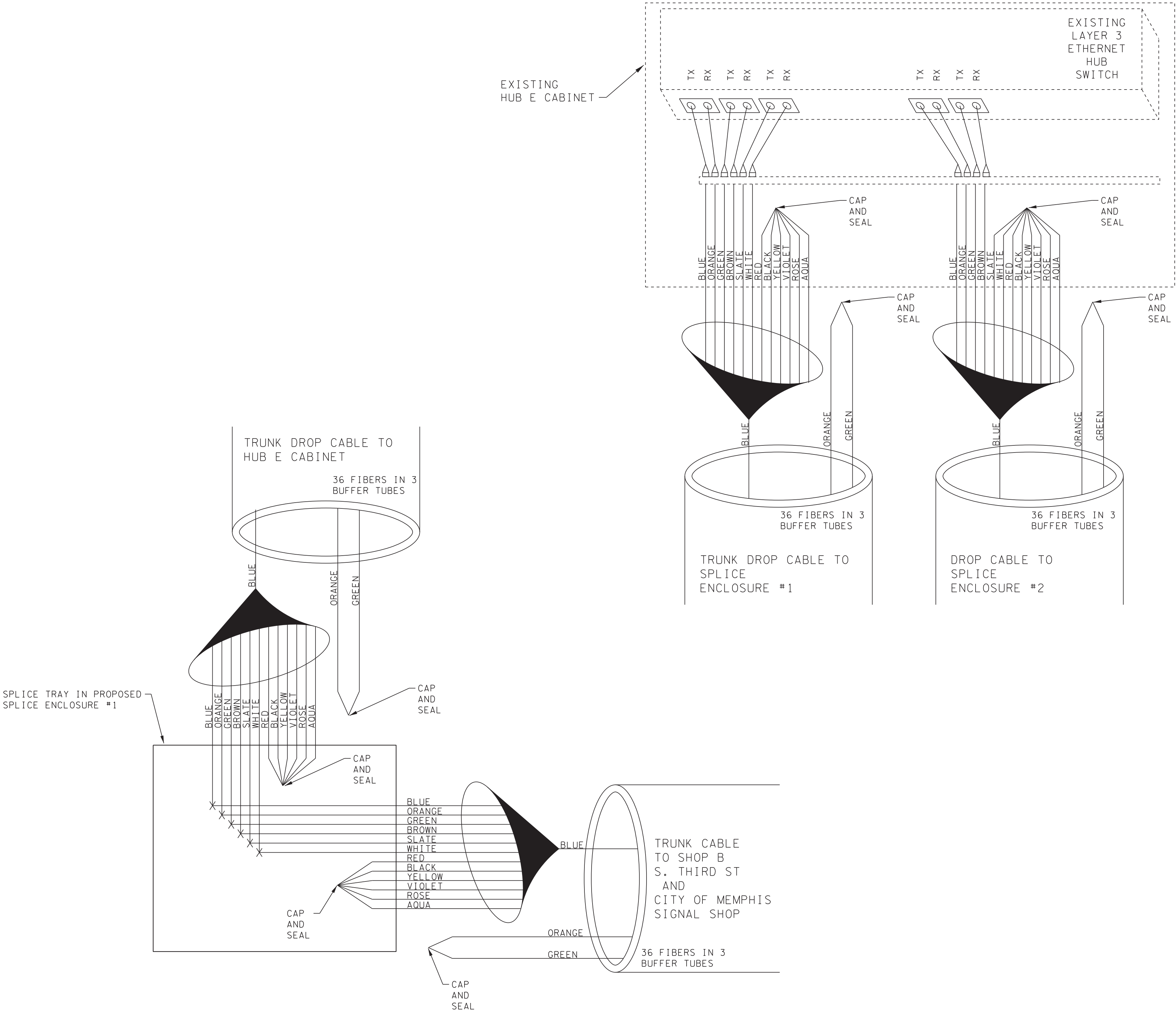
DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #10
SHELBY COUNTY, TN.
SOUTH THIRD STREET
CITY OF MEMPHIS SIGNAL SHOP LAYOUT

SURVEY: N/A DATE: N/A BOOK: N/A
 DRAFTED: DATE: 05/14 SCALE: 1"=20'
 DESIGNED: RSW DATE: 05/14 CHECKED: BTA DATE: 05/14
 JURISDICTION: SHEET 34 OF 62

CITY OF MEMPHIS SIGNAL SHOP

GRAPHIC SCALE





- NOTES:
- FIBER INTERCONNECT CENTER RACKS ARE SCHEMATIC ONLY. ACTUAL EQUIPMENT FORM MAY VARY.
 - SPLICING AND CONNECTION OF EXISTING MULTI-MODE FIBER AT THIS LOCATION SHALL BE AS DIRECTED BY THE ENGINEER.

COLOR CODE TIA/EIA 598-A	
(1) BLUE	(7) RED
(2) ORANGE	(8) BLACK
(3) GREEN	(9) YELLOW
(4) BROWN	(10) VIOLET
(5) SLATE	(11) ROSE
(6) WHITE	(12) AQUA




X - FUSION SPLICER INDIVIDUAL FIBER

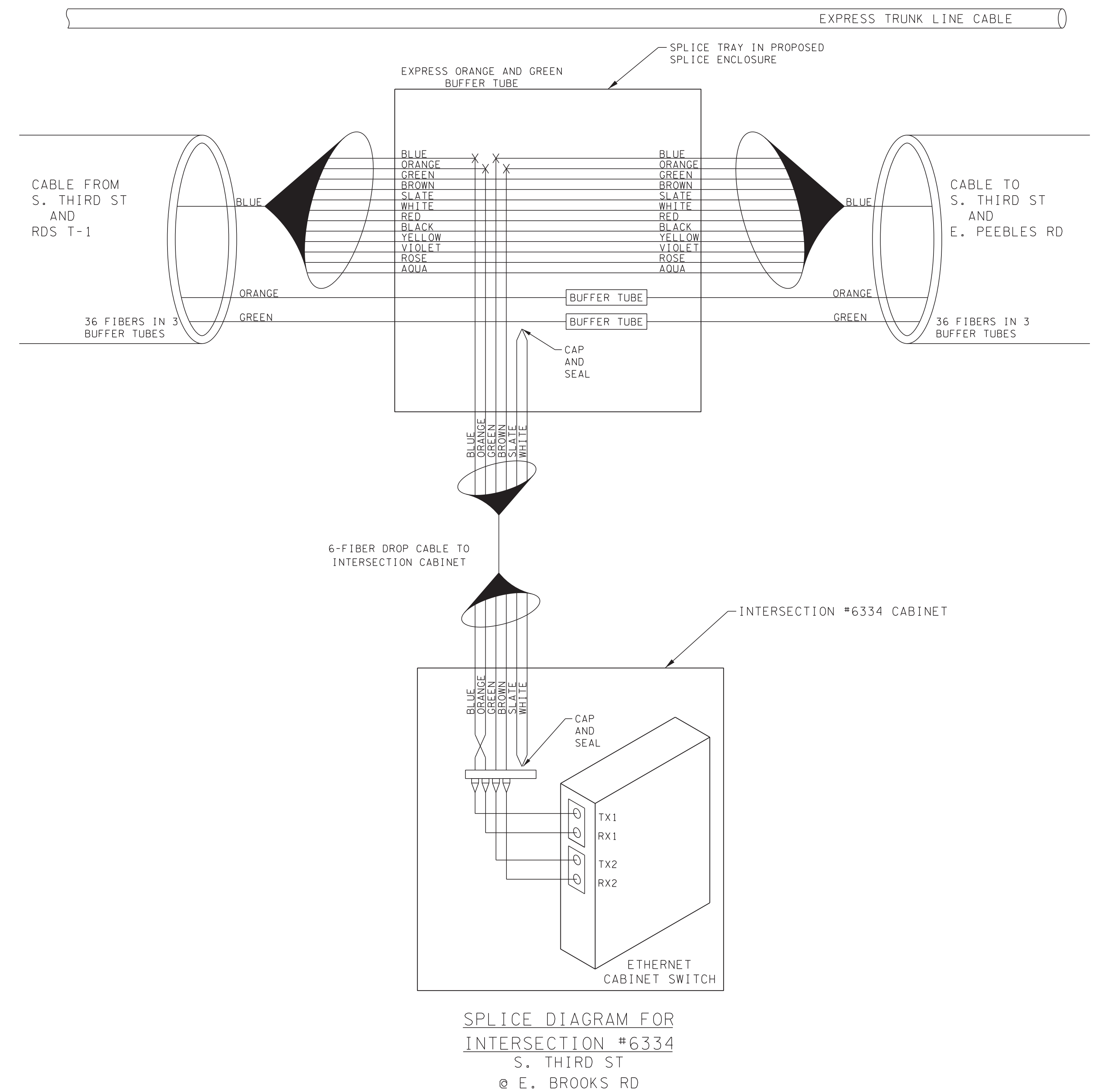
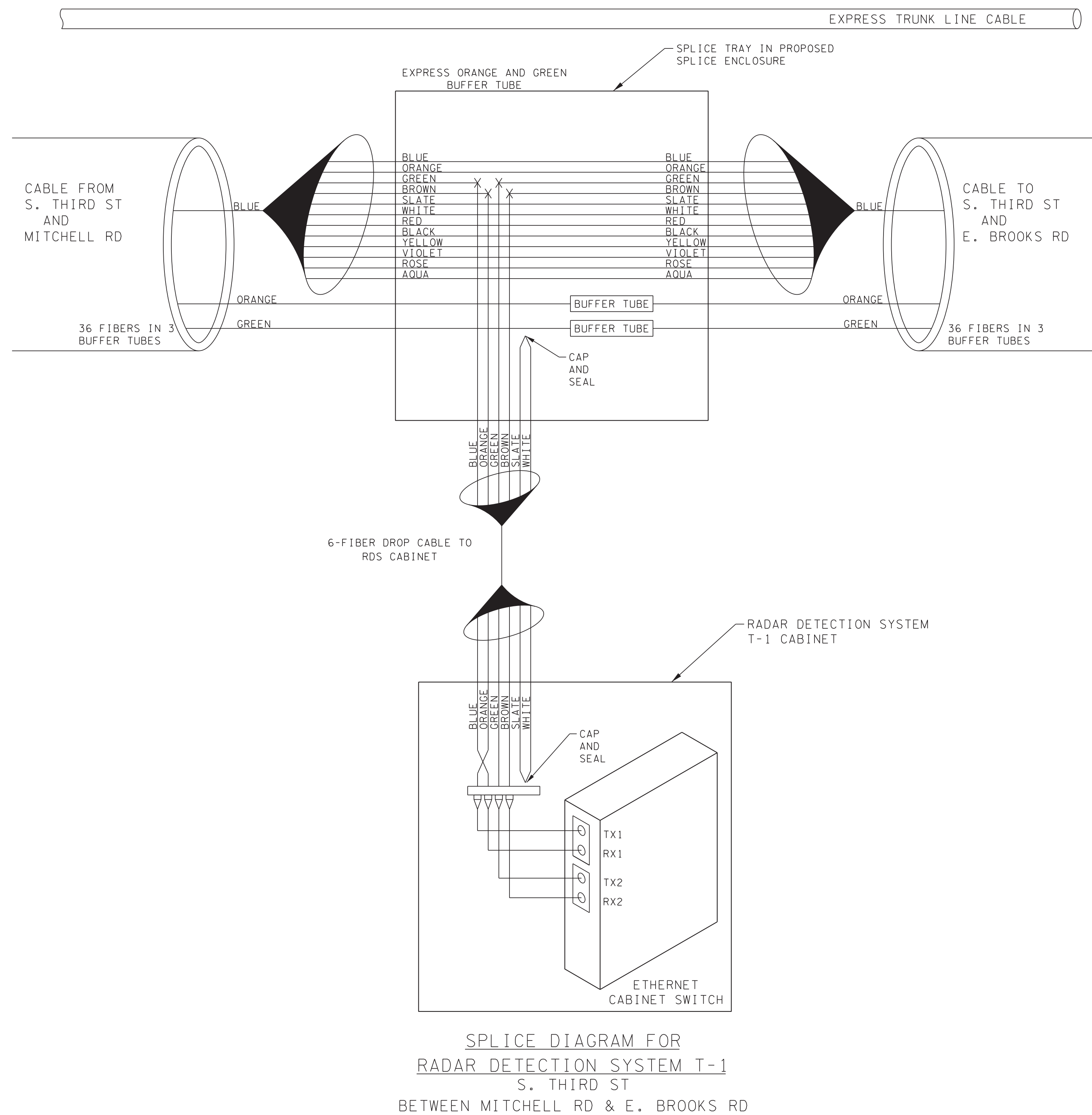
— SLICE OR EXPRESS ENTIRE BUFFER TUBE AS NOTED

— ACTIVE FIBER

----- INACTIVE FIBER

SPLICE DIAGRAM FOR
INTERSECTION #6324
S. THIRD ST
@ MITCHELL

REVISIONS			SD-01
DATE	DESCRIPTIONS	APPROVED	
			DIVISION OF PUBLIC WORKS CONGESTION MANAGEMENT PROGRAM SIGNAL SYSTEM PROJECT SET #10 SHELBY COUNTY, TN. SPlice DIAGRAM
<div><div><div>POWERS HILL DESIGN CIVIL ENGINEERING. CIVIL RESPONSIBILITY.</div></div><div><div>NEEL-SCHAFFER Solutions you can build upon</div></div></div> <div><div><p>05/15/2015</p></div><div><p>SURVEY: N/A DATE: N/A BOOK: N/A</p><p>DRAFTED: DATE: 05/14 SCALE: N.T.S.</p><p>DESIGNED: RSW DATE: 05/14 CHECKED: BTA DATE: 05/14</p><p>JURISDICTION: SHEET 35 OF 62</p></div></div>			

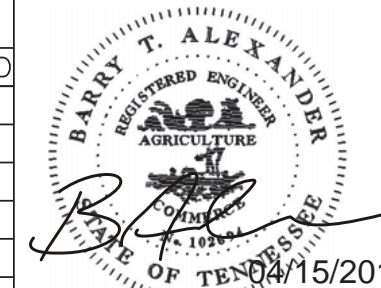


LEGEND

COLOR CODE		
TIA/EIA 598-A		
(1) BLUE	(7) RED	X - FUSION SPlice INDIVIDUAL FIBER
(2) ORANGE	(8) BLACK	SLICE OR EXPRESS ENTIRE
(3) GREEN	(9) YELLOW	BUFFER TUBE BUFFER TUBE AS NOTED
(4) BROWN	(10) VIOLET	
(5) SLATE	(11) ROSE	_____ ACTIVE FIBER
(6) WHITE	(12) AQUA	----- INACTIVE FIBER

NOTES:
1. FIBER INTERCONNECT CENTER RACKS ARE SCHEMATIC ONLY. ACTUAL EQUIPMENT FORM MAY VARY.

REVISIONS		
DATE	DESCRIPTIONS	APPROVED



SD-02

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #10
SHELBY COUNTY, TN.

SPLICE DIAGRAM

SPLICE DIAPHR

SPLICE DIAGRAM

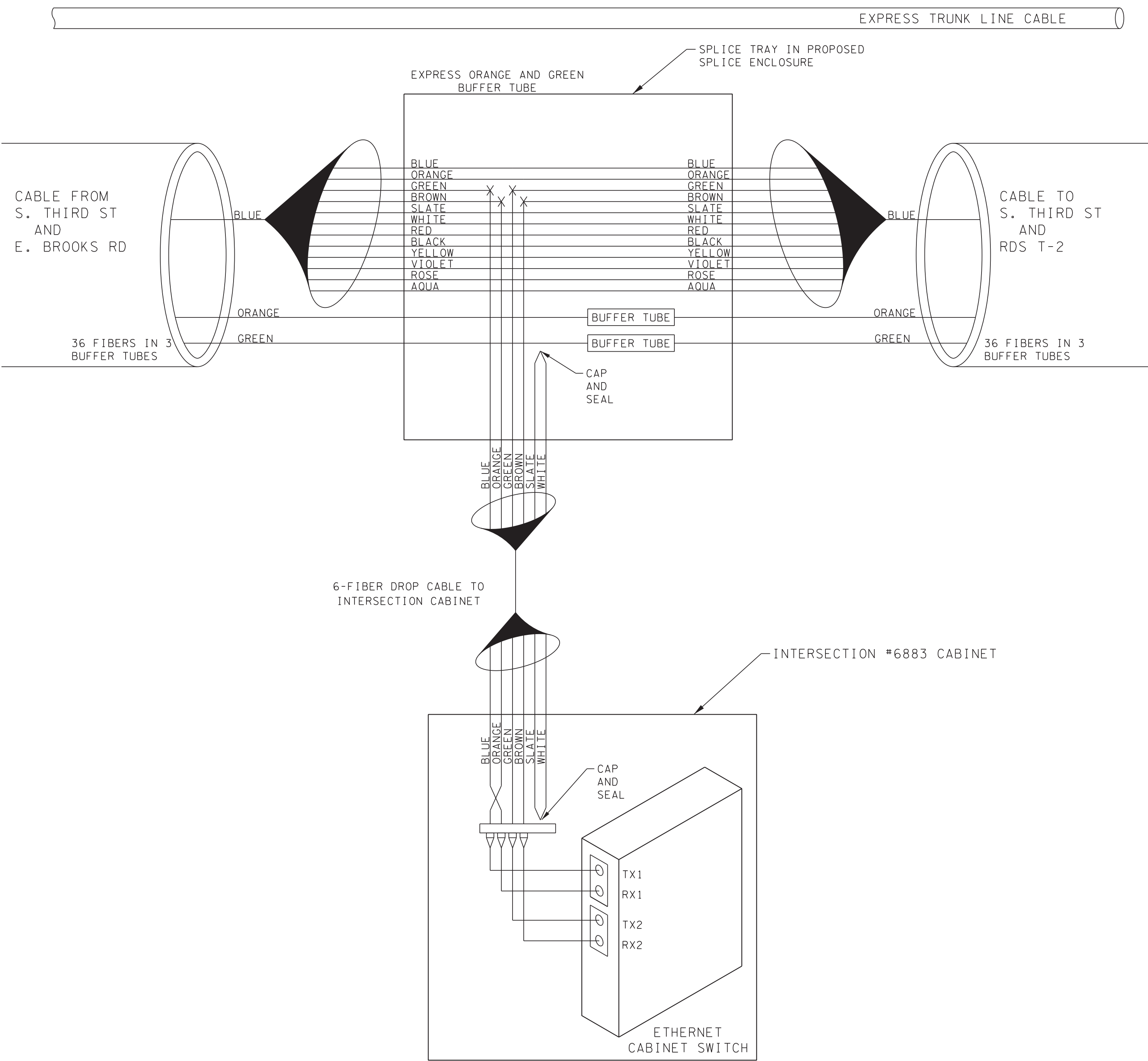
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DRAFTED: _____ DATE: 05/14 SCALE: N.T.S.
DESIGNED: RSW DATE: 05/14 CHECKED: BTA DATE: 05/14
JURISDICTION: _____ SHEET 36 OF 62

DRAFTED: _____ DATE: 05/14 _____ SCALE: N.T.S.

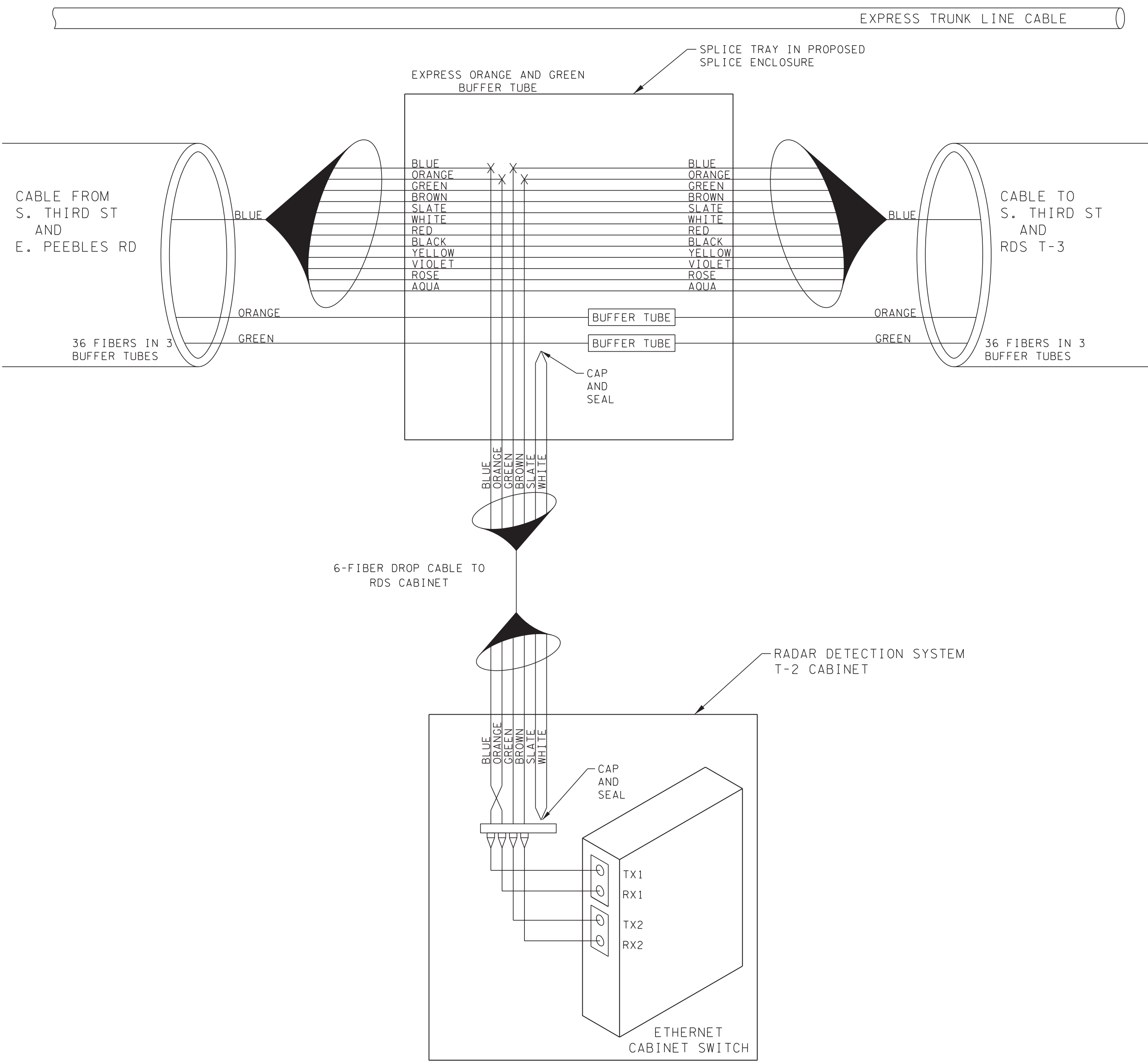
DESIGNED: RSW DATE: 05/14 CHECKED: BTA DATE: 05/14

JURISDICTION: _____ SHEET 36 OF 62





SPLICE DIAGRAM FOR
INTERSECTION #6883
S. THIRD ST
@ E. PEEBLES RD



SPLICE DIAGRAM FOR
RADAR DETECTION SYSTEM T-2
S. THIRD ST
BETWEEN E. PEEBLES RD & I-240

LEGEND

COLOR CODE TIA/EIA 598-A		
(1) BLUE	(7) RED	X - FUSION SPLICE INDIVIDUAL FIBER
(2) ORANGE	(8) BLACK	
(3) GREEN	(9) YELLOW	[BUFFER TUBE] SLICE OR EXPRESS ENTIRE BUFFER TUBE AS NOTED
(4) BROWN	(10) VIOLET	
(5) SLATE	(11) ROSE	————— ACTIVE FIBER
(6) WHITE	(12) AQUA	----- INACTIVE FIBER

NOTES:
1. FIBER INTERCONNECT CENTER RACKS ARE SCHEMATIC
ONLY. ACTUAL EQUIPMENT FORM MAY VARY.

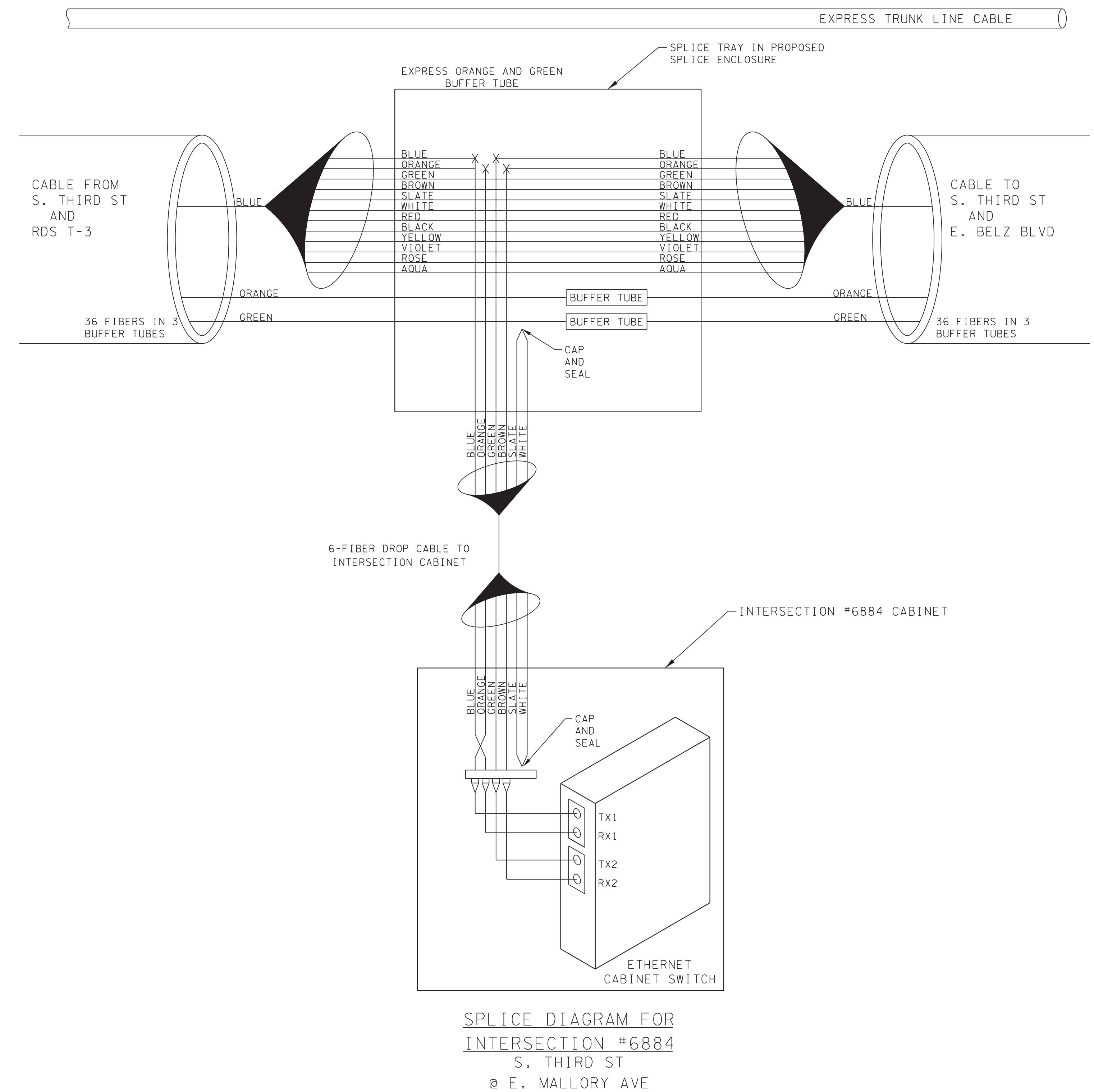
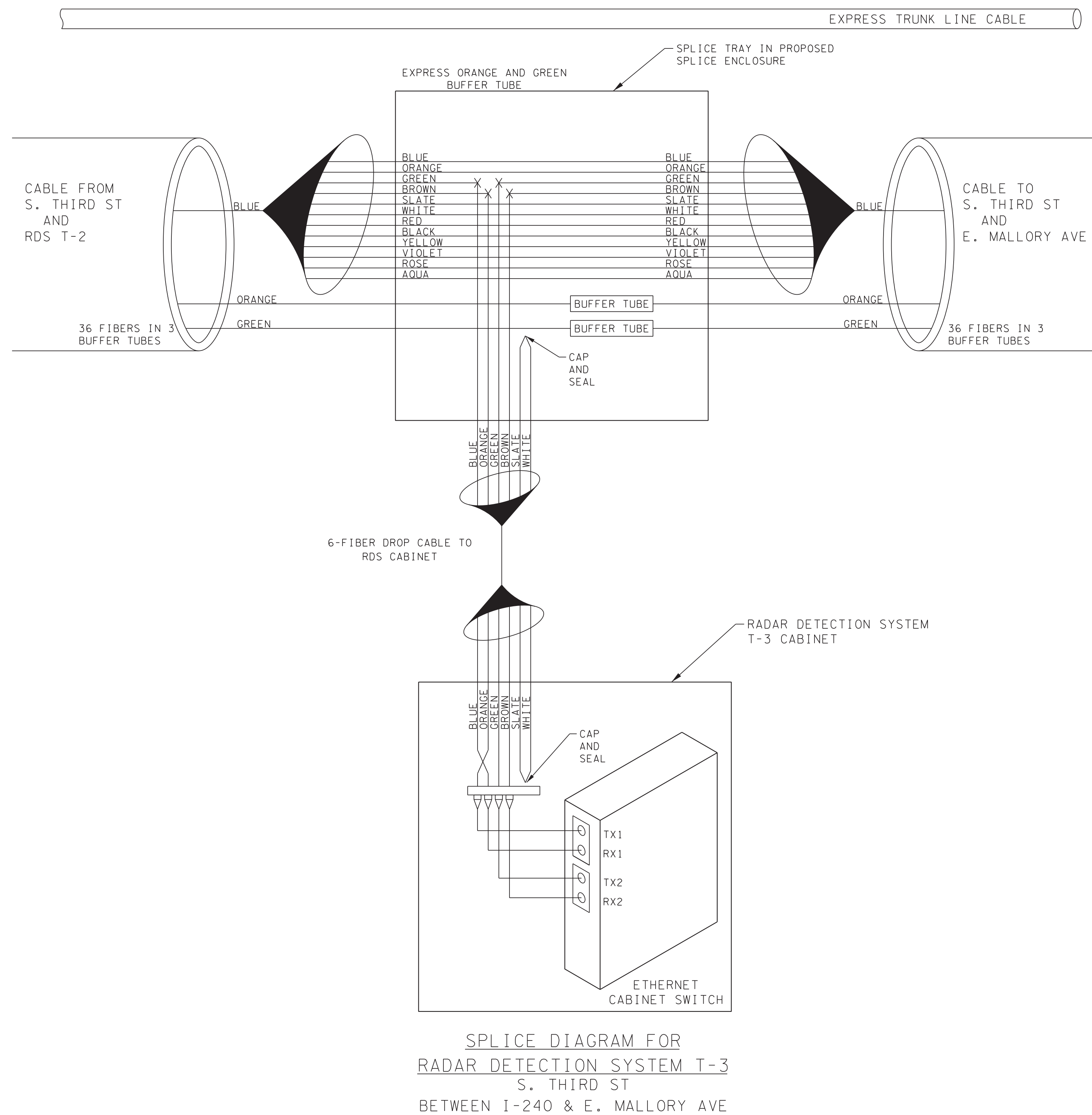
REVISIONS		
DATE	DESCRIPTIONS	APPROVED



SD-03

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #10
SHELBY COUNTY, TN.
SPLICE DIAGRAM

SURVEY: N/A DATE: N/A BOOK: N/A
DRAFTED: DATE: 05/14 SCALE: N.T.S.
DESIGNED: RSW DATE: 05/14 CHECKED: BIA DATE: 05/14
JURISDICTION: SHEET 37 OF 62



The diagram shows a 12-fiber cable with a color code box and a legend. The color code box contains the text "COLOR CODE" and "TIA/EIA 598-A". The legend lists 12 colors and their corresponding positions: (1) BLUE, (2) ORANGE, (3) GREEN, (4) BROWN, (5) SLATE, (6) WHITE, (7) RED, (8) BLACK, (9) YELLOW, (10) VIOLET, (11) ROSE, (12) AQUA. The legend also includes a section for "X - FUSION SPLICE INDIVIDUAL FIBER" and "SLICE OR EXPRESS ENTIRE BUFFER TUBE AS NOTED". The legend further defines the line styles: a solid line for "ACTIVE FIBER" and a dashed line for "INACTIVE FIBER".

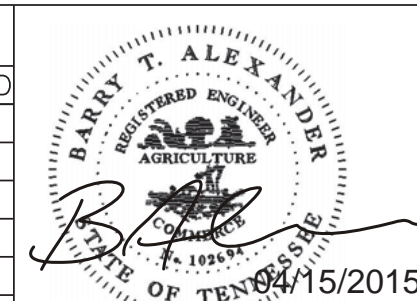
Color	Position
BLUE	(1)
ORANGE	(2)
GREEN	(3)
BROWN	(4)
SLATE	(5)
WHITE	(6)
RED	(7)
BLACK	(8)
YELLOW	(9)
VIOLET	(10)
ROSE	(11)
AQUA	(12)

X - FUSION SPLICE INDIVIDUAL FIBER
SLICE OR EXPRESS ENTIRE BUFFER TUBE AS NOTED

_____ ACTIVE FIBER
----- INACTIVE FIBER

NOTES:
1. FIBER INTERCONNECT CENTER RACKS ARE SCHEMATIC ONLY. ACTUAL EQUIPMENT FORM MAY VARY.

REVISIONS		
DATE	DESCRIPTIONS	APPROVED

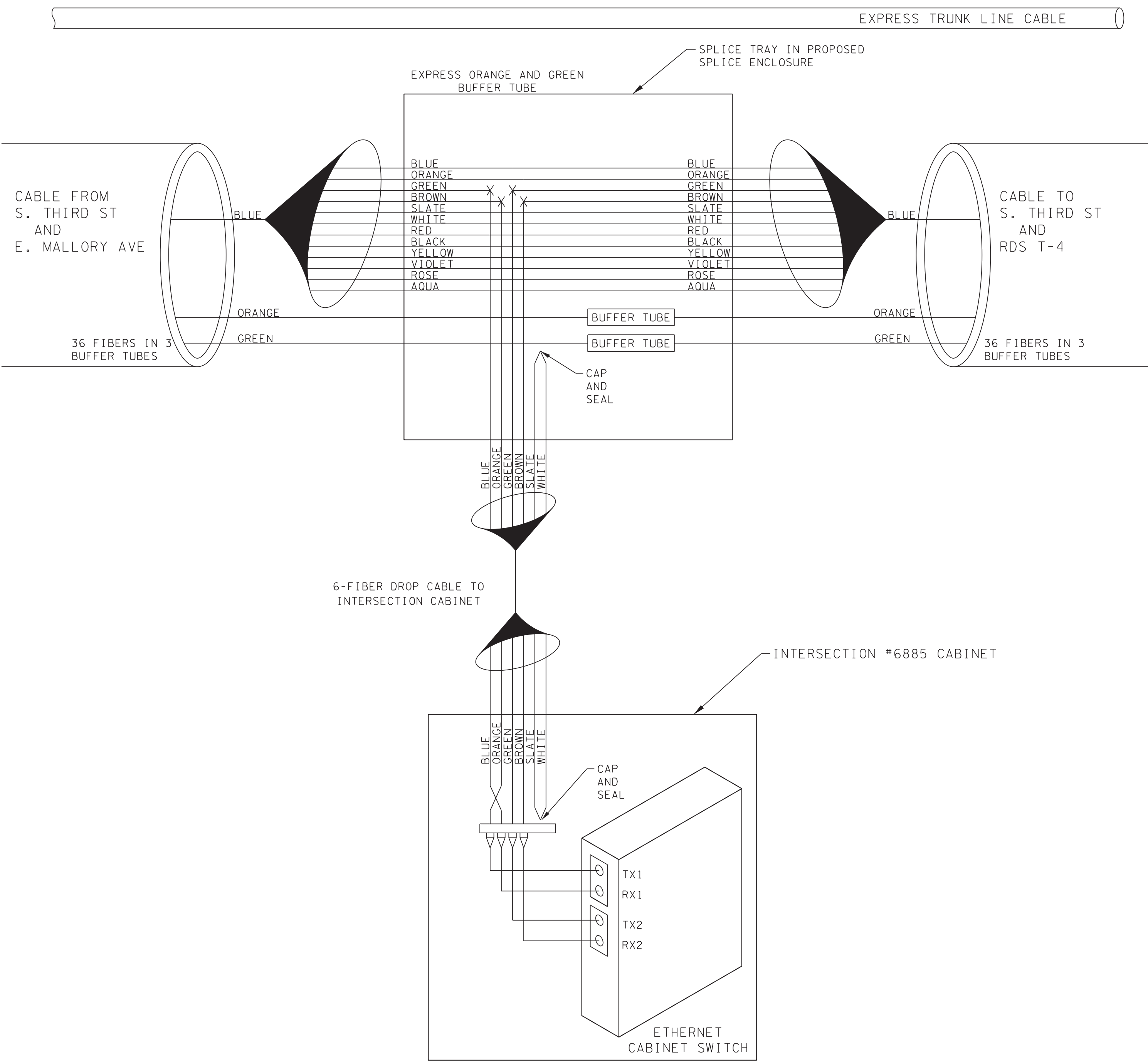


SD-04

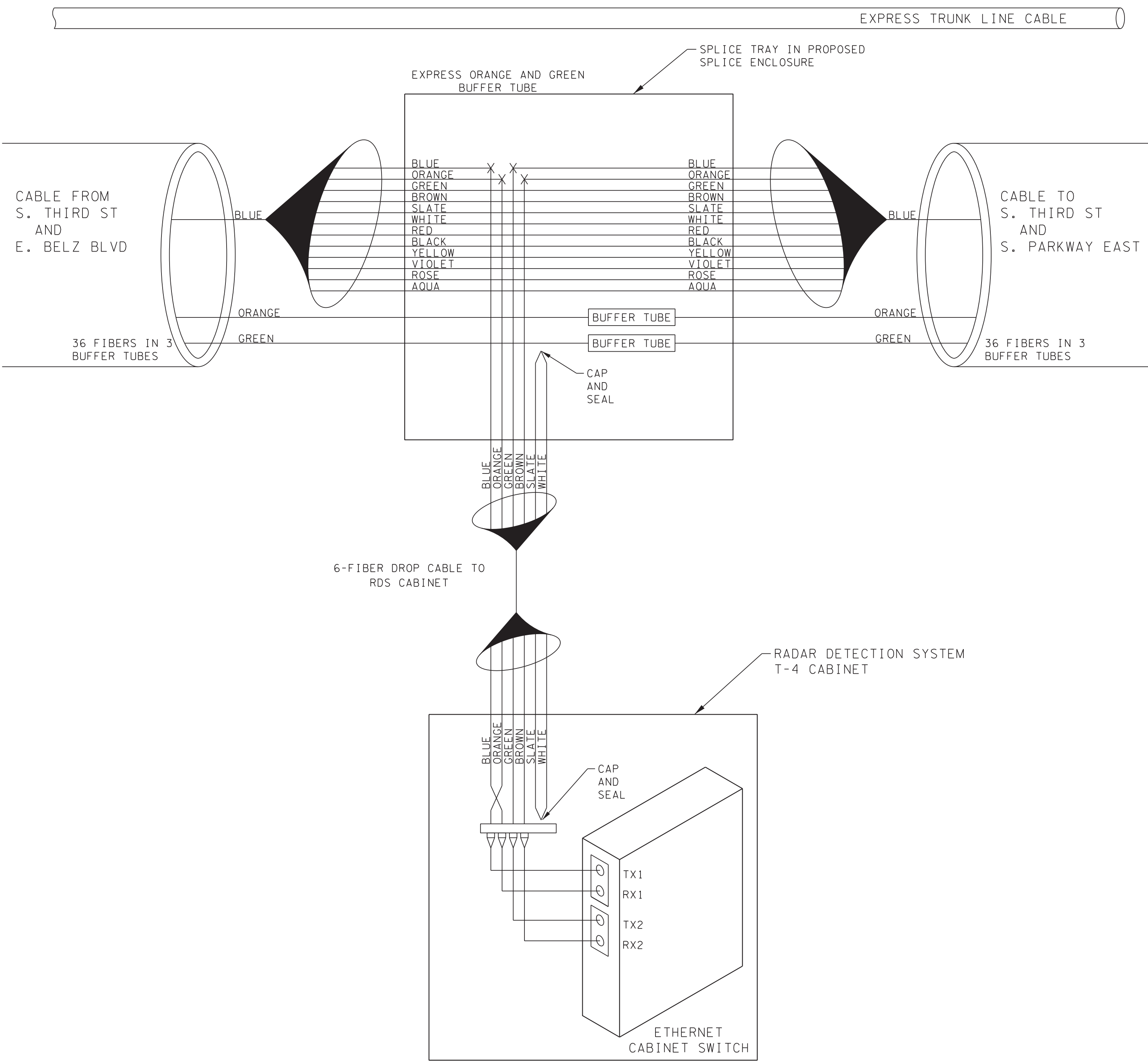
DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #10
SHELBY COUNTY, TN.

SHELBY COUNTY, IN.
SPlice DIAGRAM

SURVEY: N/A DATE: N/A BOOK: N/A
DRAFTED: _____ DATE: 05/14 SCALE: N.T.S.
DESIGNED: RSW DATE: 05/14 CHECKED: BTA DATE: 05/14
JURISDICTION: _____ SHEET 38 OF 62



SPLICE DIAGRAM FOR
INTERSECTION #6885
S. THIRD ST
@ E. BELZ BLVD



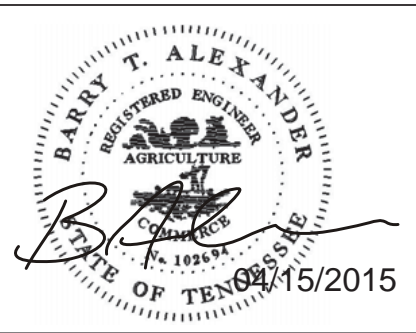
SPLICE DIAGRAM FOR
RADAR DETECTION SYSTEM T-4
S. THIRD ST
BETWEEN E. BELZ BLVD & S PARKWAY EAST

LEGEND

COLOR CODE TIA/EIA 598-A		
(1) BLUE	(7) RED	X - FUSION SPLICE INDIVIDUAL FIBER
(2) ORANGE	(8) BLACK	
(3) GREEN	(9) YELLOW	[BUFFER TUBE] SLICE OR EXPRESS ENTIRE BUFFER TUBE AS NOTED
(4) BROWN	(10) VIOLET	
(5) SLATE	(11) ROSE	——— ACTIVE FIBER
(6) WHITE	(12) AQUA	
		----- INACTIVE FIBER

NOTES:
1. FIBER INTERCONNECT CENTER RACKS ARE SCHEMATIC ONLY. ACTUAL EQUIPMENT FORM MAY VARY.

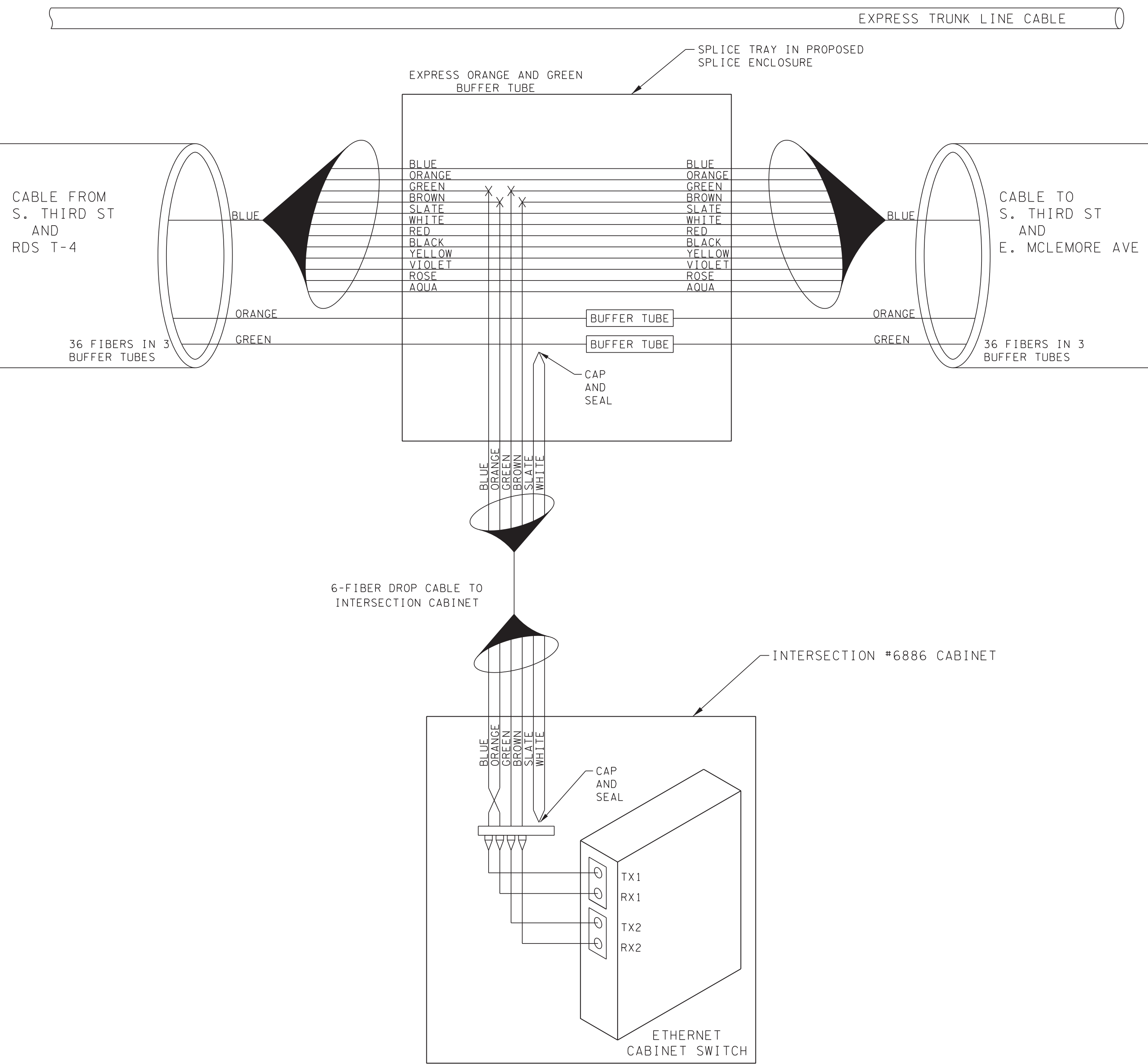
REVISIONS		
DATE	DESCRIPTIONS	APPROVED



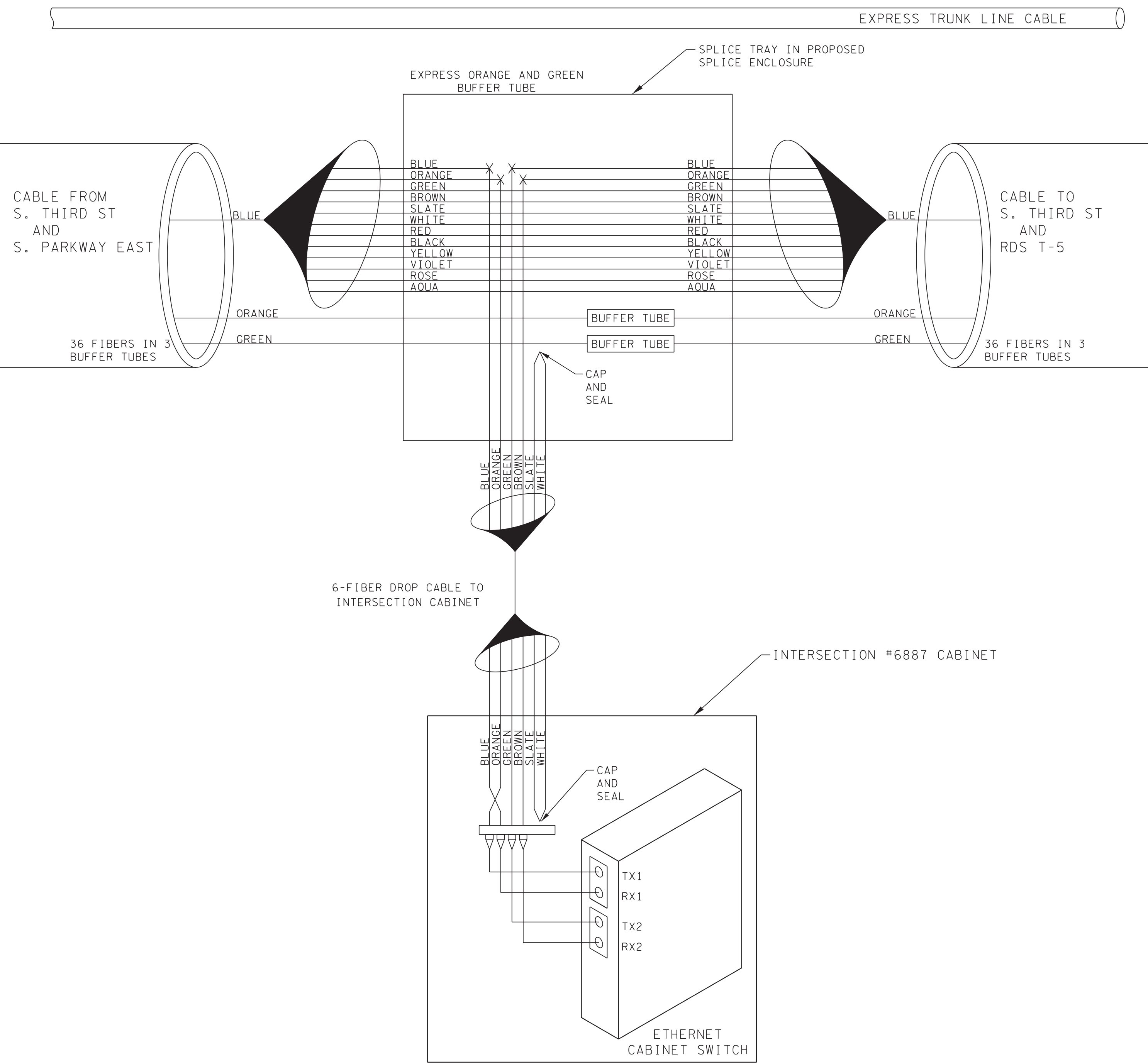
SD-05

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #10
SHELBY COUNTY, TN.
SPLICE DIAGRAM

SURVEY: N/A DATE: N/A BOOK: N/A
DRAFTED: DATE: 05/14 SCALE: N.T.S.
DESIGNED: RSW DATE: 05/14 CHECKED: BIA DATE: 05/14
JURISDICTION: SHEET 39 OF 62



SPLICE DIAGRAM FOR
INTERSECTION #6886
S. THIRD ST
@ S. PARKWAY EAST



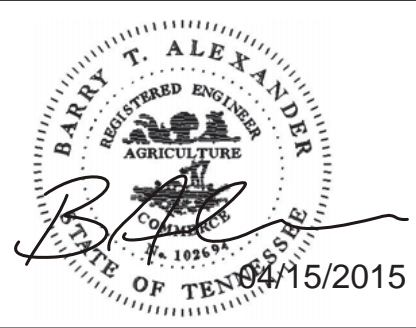
SPLICE DIAGRAM FOR
INTERSECTION #6887
S. THIRD ST
@ E. MCLEMORE AVE

LEGEND

COLOR CODE TIA/EIA 598-A		
(1) BLUE	(7) RED	X - FUSION SPLICE INDIVIDUAL FIBER
(2) ORANGE	(8) BLACK	
(3) GREEN	(9) YELLOW	[BUFFER TUBE] SLICE OR EXPRESS ENTIRE BUFFER TUBE AS NOTED
(4) BROWN	(10) VIOLET	
(5) SLATE	(11) ROSE	————— ACTIVE FIBER
(6) WHITE	(12) AQUA	----- INACTIVE FIBER

NOTES:
1. FIBER INTERCONNECT CENTER RACKS ARE SCHEMATIC ONLY. ACTUAL EQUIPMENT FORM MAY VARY.

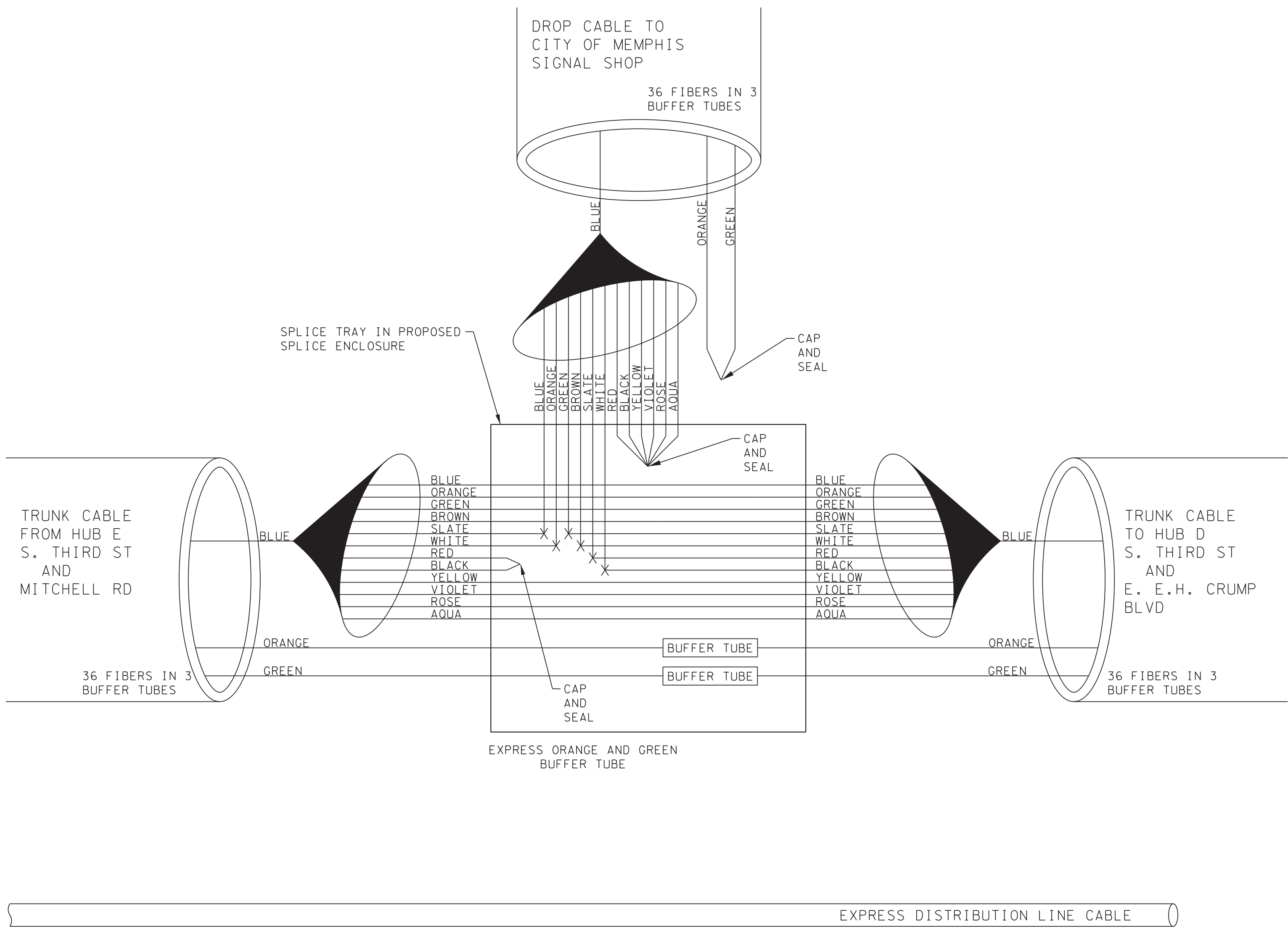
REVISIONS		
DATE	DESCRIPTIONS	APPROVED



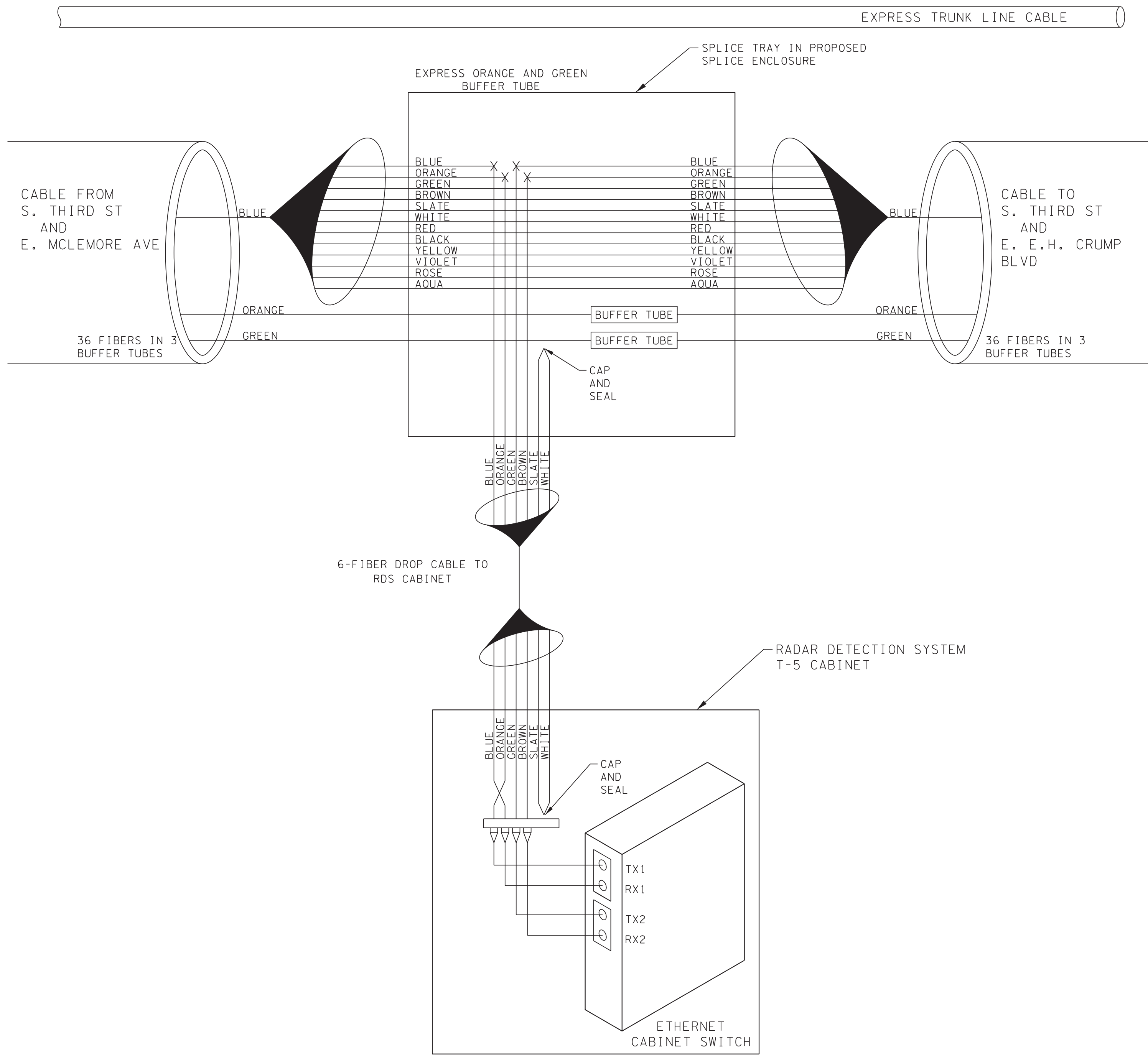
SD-06

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #10
SHELBY COUNTY, TN.
SPLICE DIAGRAM

SURVEY: N/A DATE: N/A BOOK: N/A
DRAFTED: DATE: 05/14 SCALE: N.T.S.
DESIGNED: RSW DATE: 05/14 CHECKED: BIA DATE: 05/14
JURISDICTION: SHEET 40 OF 62



SPLICE DIAGRAM FOR
SHOP B
S. THIRD ST
@ CITY OF MEMPHIS SIGNAL SHOP



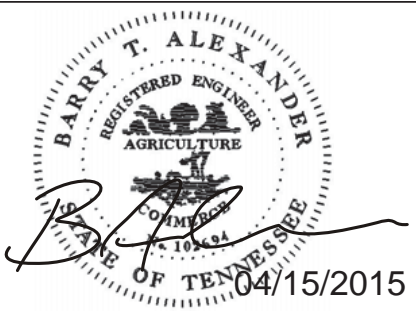
SPLICE DIAGRAM FOR
RADAR DETECTION SYSTEM T-5
S. THIRD ST
BETWEEN E. MCLEMORE AVE & E. E.H. CRUMP BLVD

LEGEND

COLOR CODE	
TIA/EIA 598-A	
(1) BLUE	(7) RED
(2) ORANGE	(8) BLACK
(3) GREEN	(9) YELLOW
(4) BROWN	(10) VIOLET
(5) SLATE	(11) ROSE
(6) WHITE	(12) AQUA
X - FUSION SPlice INDIVIDUAL FIBER	
[BUFFER TUBE] SLICE OR EXPRESS ENTIRE BUFFER TUBE AS NOTED	
————— ACTIVE FIBER	
----- INACTIVE FIBER	

NOTES:
1. FIBER INTERCONNECT CENTER RACKS ARE SCHEMATIC ONLY. ACTUAL EQUIPMENT FORM MAY VARY.

REVISIONS		
DATE	DESCRIPTIONS	APPROVED

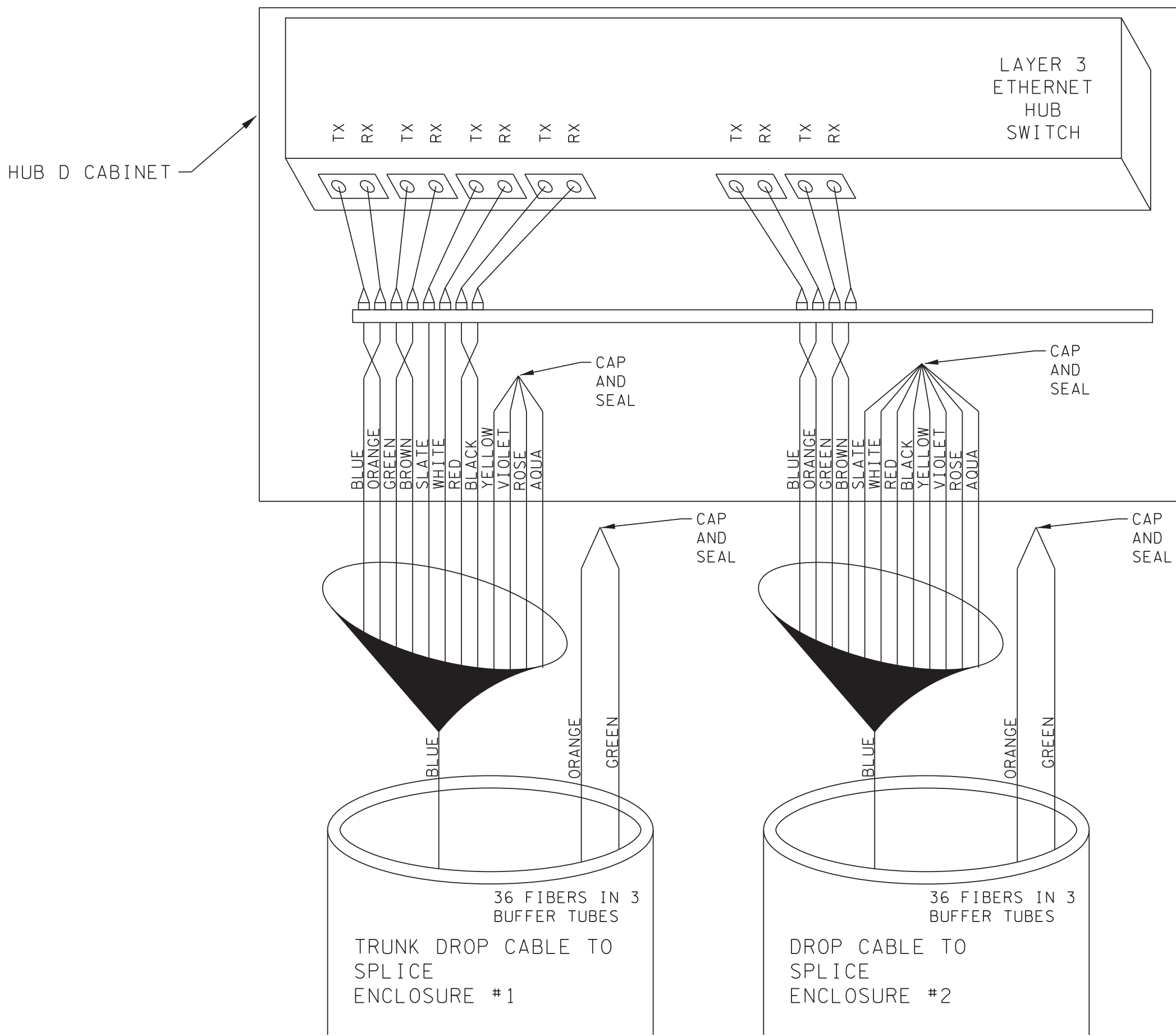
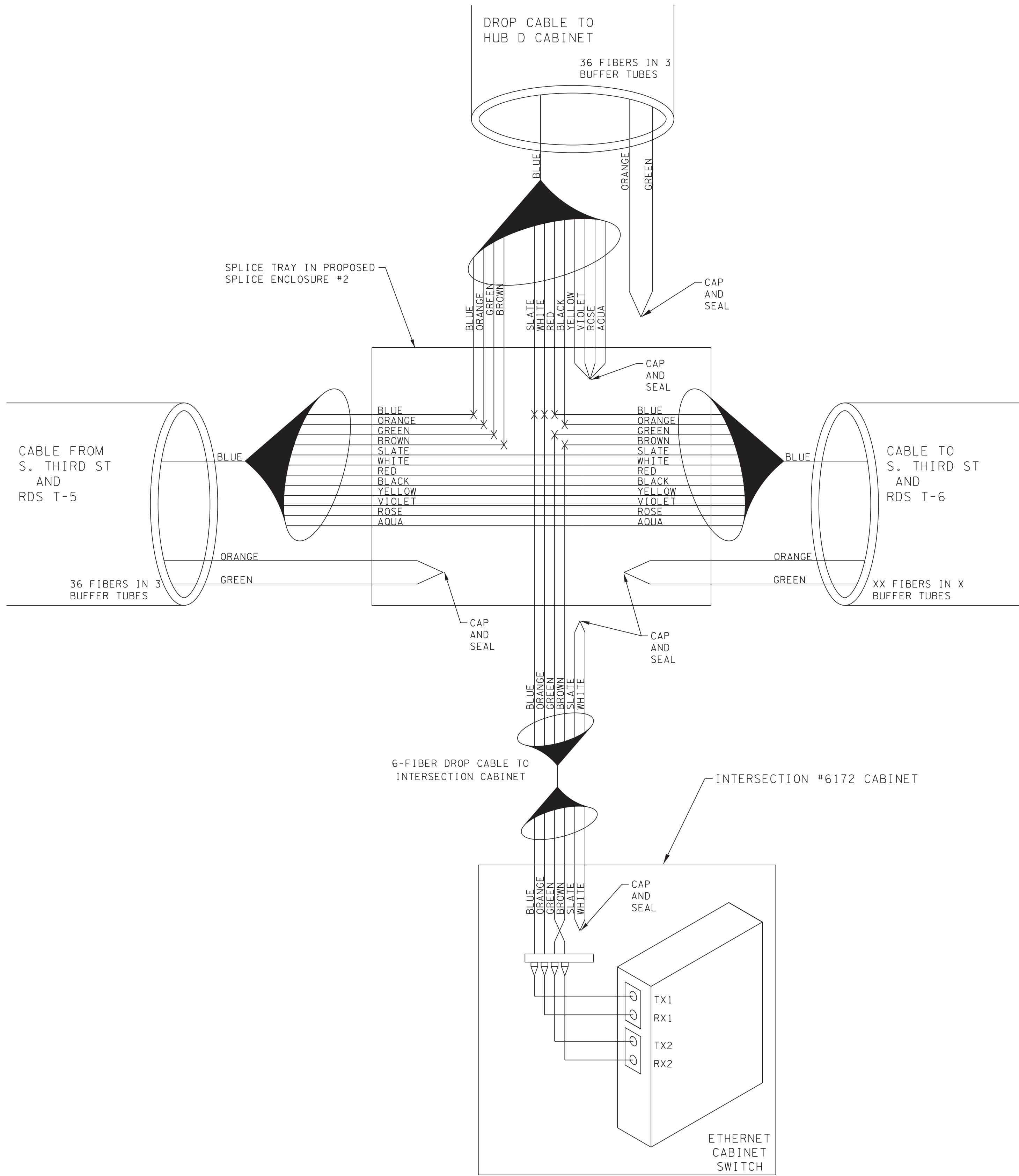
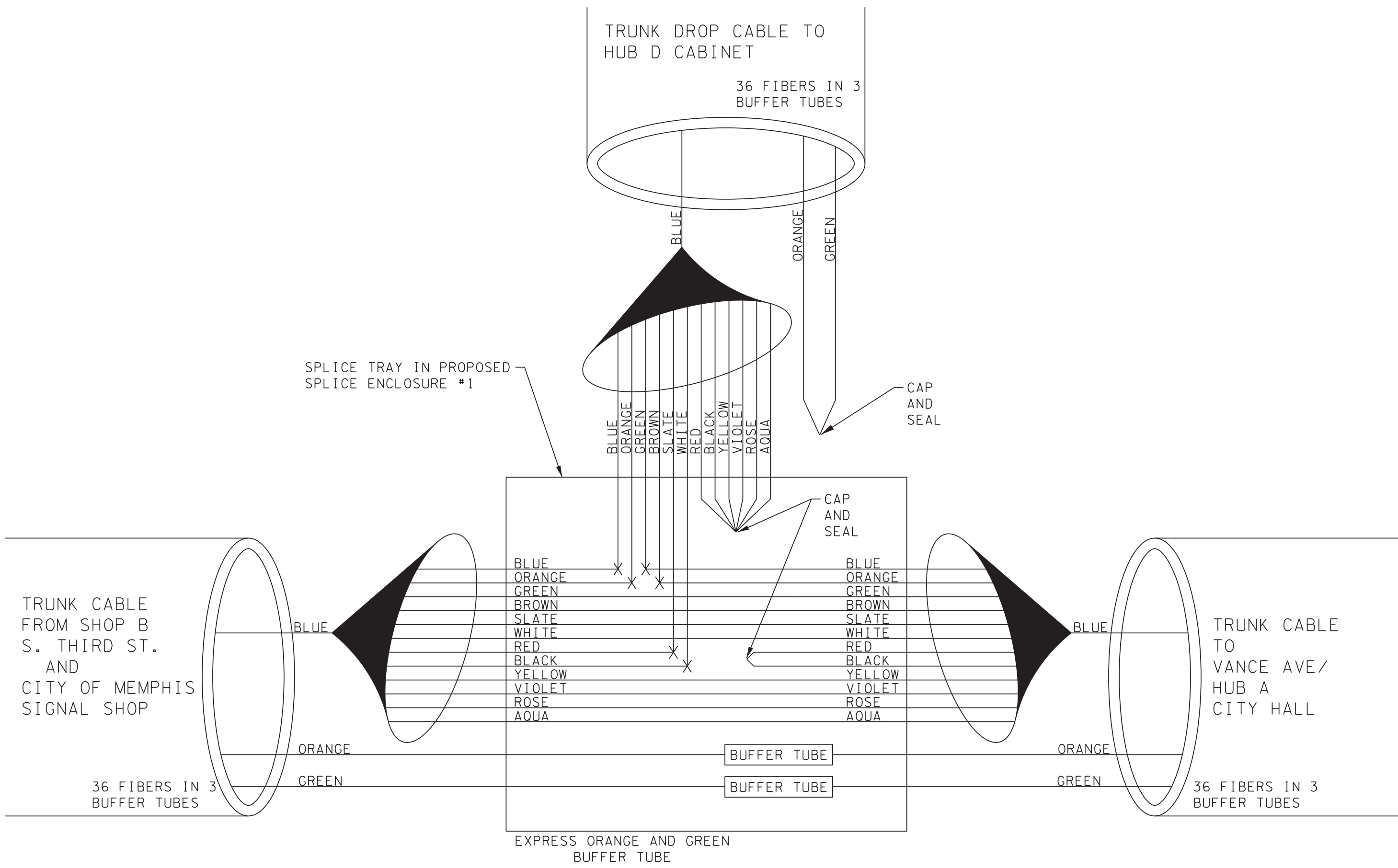


POWERS HILL DESIGN
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NEEL-SCHAFFER
Solutions you can build upon

SD-07

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #10
SHELBY COUNTY, TN.
SPLICE DIAGRAM

SURVEY: N/A DATE: N/A BOOK: N/A
DRAFTED: DATE: 05/14 SCALE: N.T.S.
DESIGNED: RSW DATE: 05/14 CHECKED: BTA DATE: 05/14
JURISDICTION: SHEET 41 OF 62



COLOR CODE	
TIA/EIA 598-A	
(1) BLUE	(7) RED
(2) ORANGE	(8) BLACK
(3) GREEN	(9) YELLOW
(4) BROWN	(10) VIOLET
(5) SLATE	(11) ROSE
(6) WHITE	(12) AQUA

X - FUSION SPLICE INDIVIDUAL FIBER

SLICE OR EXPRESS ENTIRE BUFFER TUBE AS NOTED

ACTIVE FIBER

INACTIVE FIBER

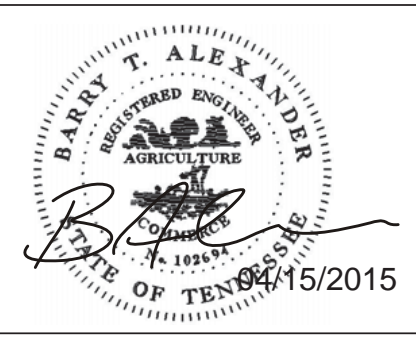
NOTES:

1. FIBER INTERCONNECT CENTER RACKS ARE SCHEMATIC ONLY. ACTUAL EQUIPMENT FORM MAY VARY.

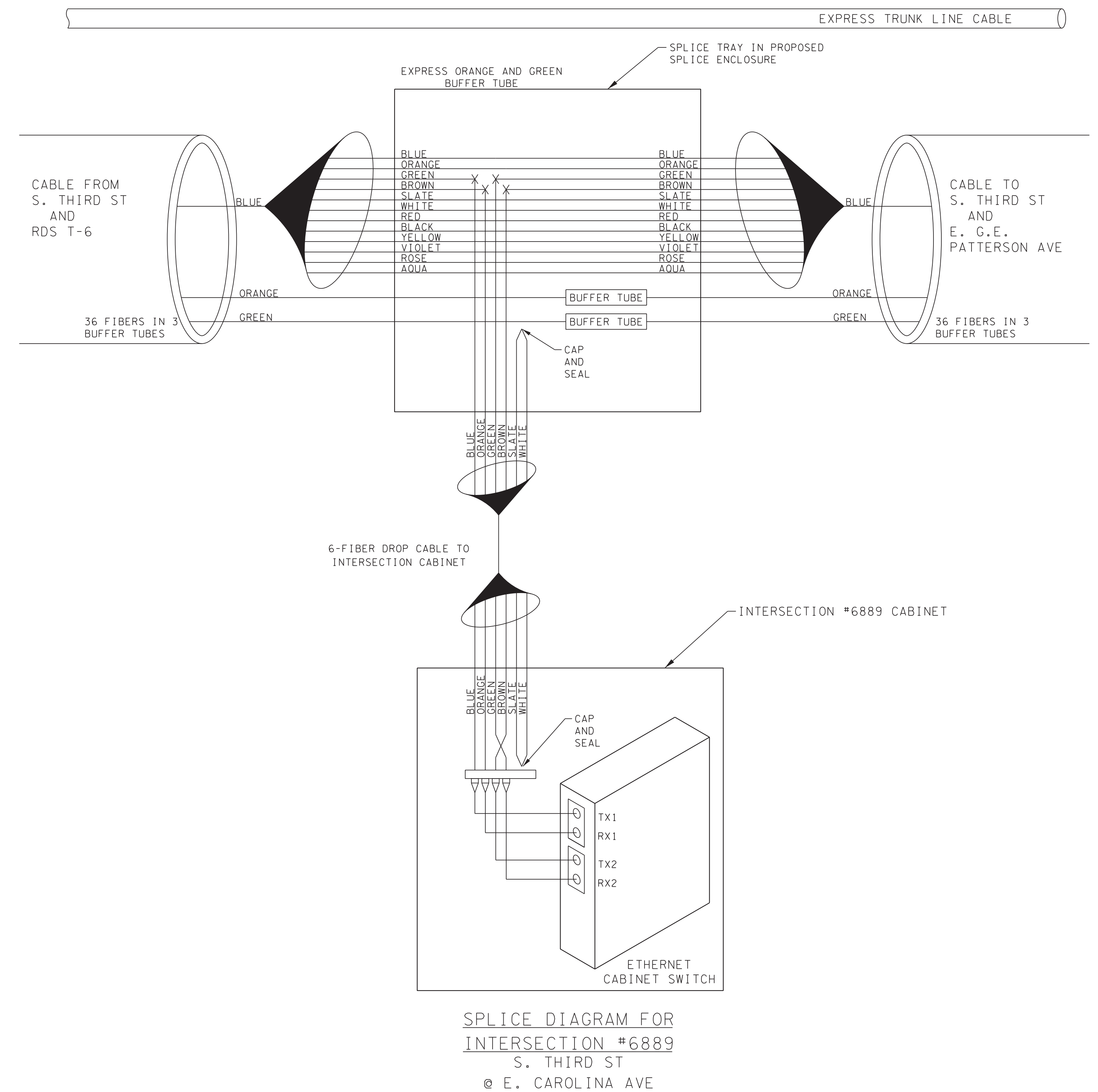
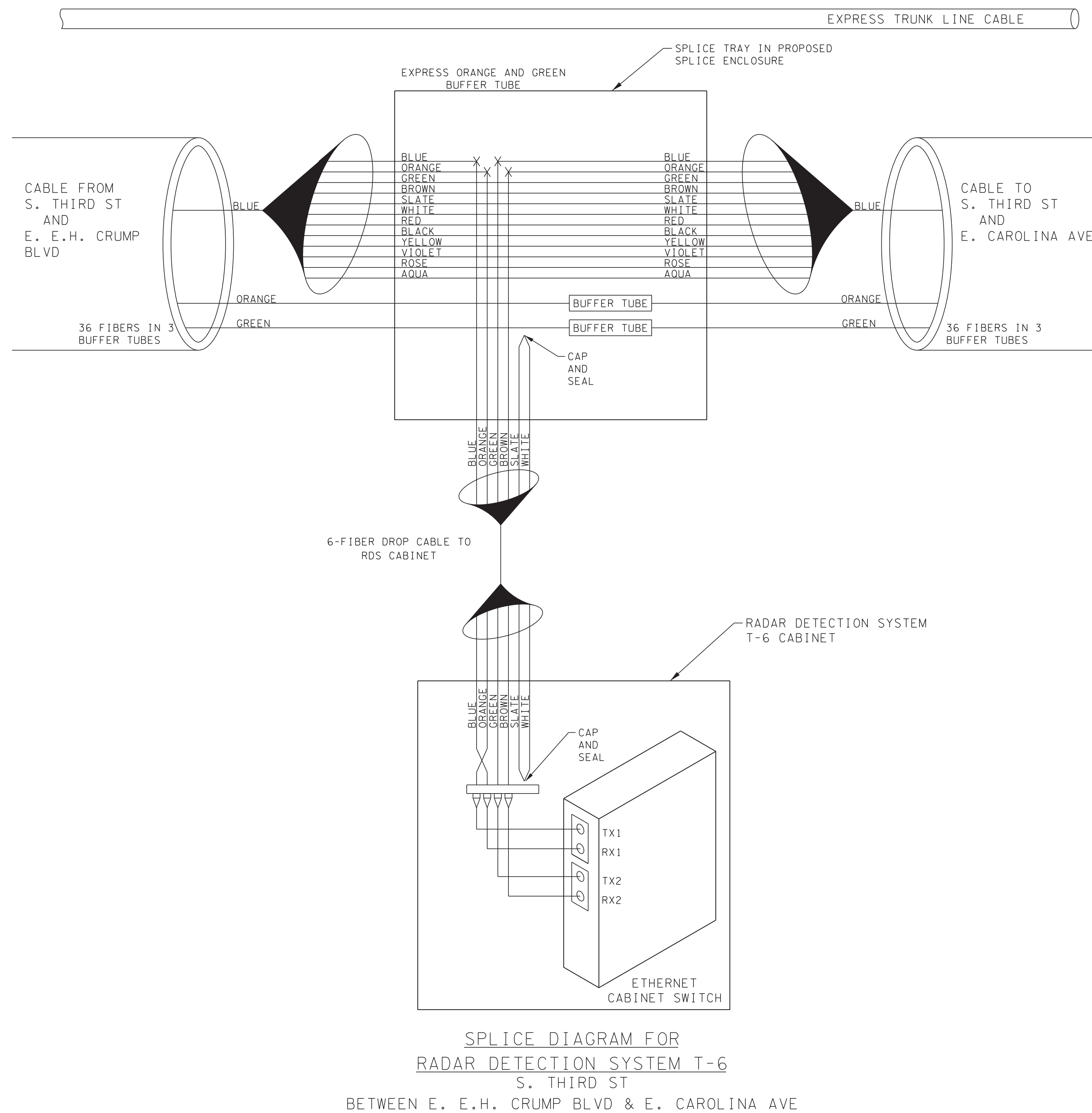
2. SPLICING AND CONNECTION OF EXISTING MULTI-MODE FIBER AT THIS LOCATION SHALL BE AS DIRECTED BY THE ENGINEER.

SPLICE DIAGRAM FOR
INTERSECTION #6172
S. THIRD ST
@ E. E.H. CRUMP BLVD

REVISIONS		
DATE	DESCRIPTIONS	APPROVED



SD-08		
DIVISION OF PUBLIC WORKS CONGESTION MANAGEMENT PROGRAM SIGNAL SYSTEM PROJECT SET #10 SHELBY COUNTY, TN. SPLICE DIAGRAM		
SURVEY: N/A	DATE: N/A	BOOK: N/A
DRAFTED: _____	DATE: 05/14	SCALE: N.T.S.
DESIGNED: RSW	DATE: 05/14	CHECKED: BIA
JURISDICTION: _____	DATE: 05/14	



LEGEND

COLOR CODE	
TIA/EIA 598-A	
(1) BLUE	(7) RED
(2) ORANGE	(8) BLACK
(3) GREEN	(9) YELLOW
(4) BROWN	(10) VIOLET
(5) SLATE	(11) ROSE
(6) WHITE	(12) AQUA

X - FUSION SPlice INDIVIDUAL FIBER

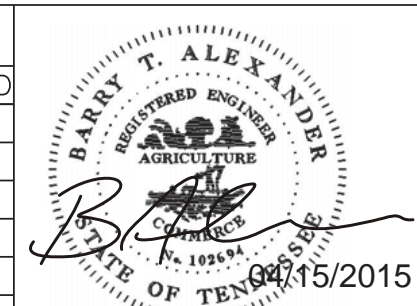
BUFFER TUBE SLICE OR EXPRESS ENTIRE BUFFER TUBE AS NOTED

_____ ACTIVE FIBER

----- INACTIVE FIBER

NOTES:
1. FIBER INTERCONNECT CENTER RACKS ARE SCHEMATIC ONLY. ACTUAL EQUIPMENT FORM MAY VARY.

REVISIONS		
DATE	DESCRIPTIONS	APPROVED



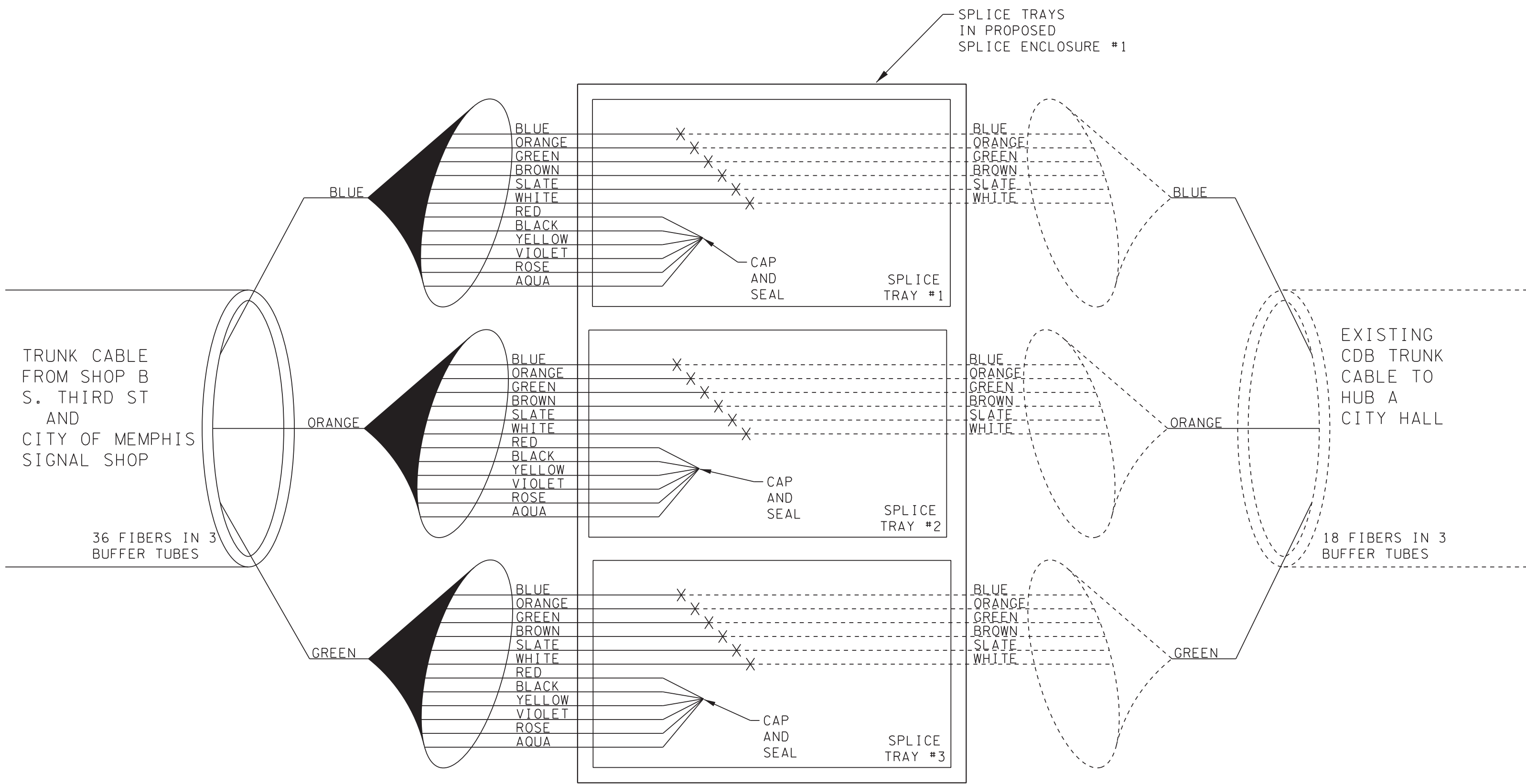
SD-09

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #10
SHELBY COUNTY, TN.

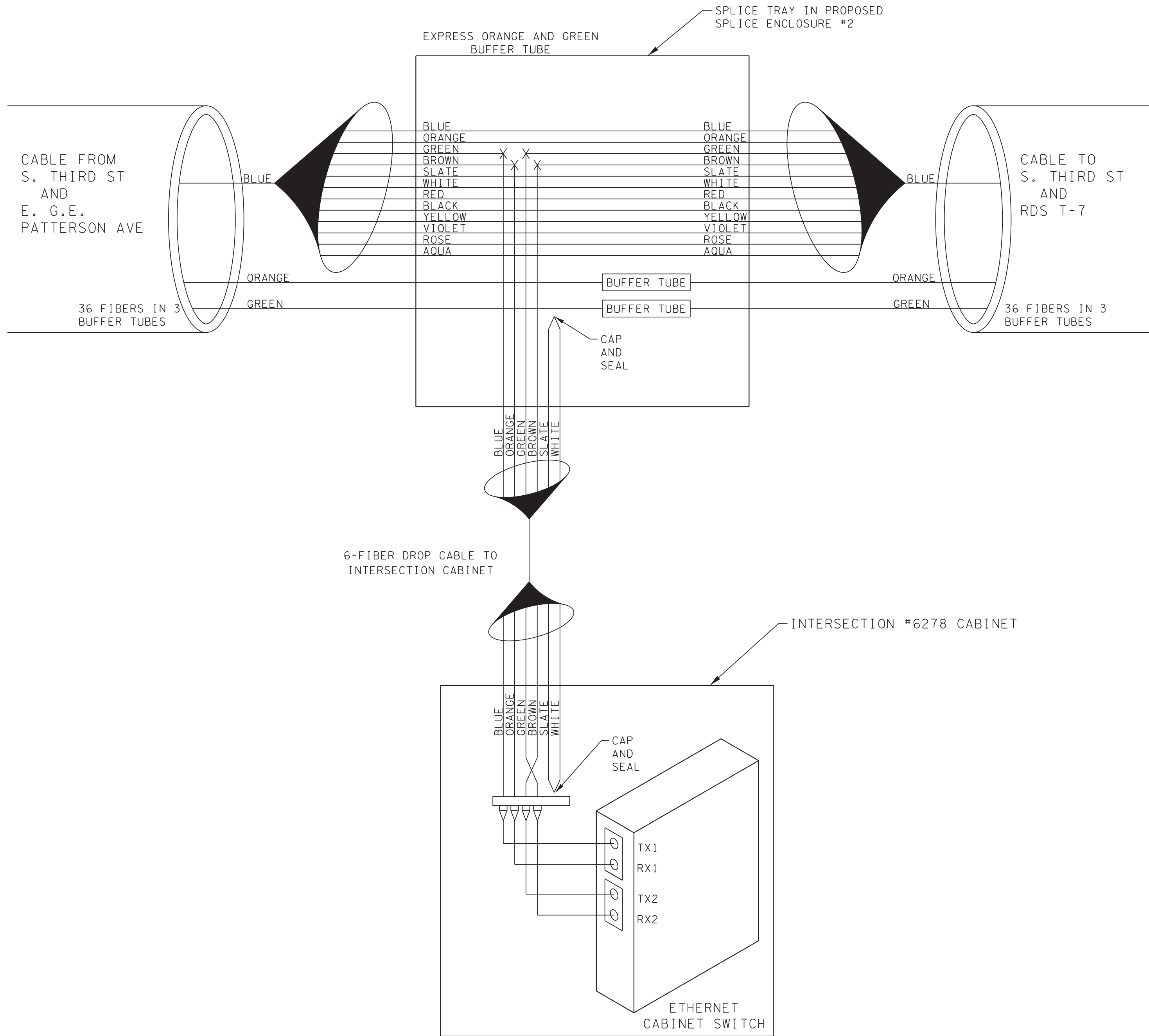
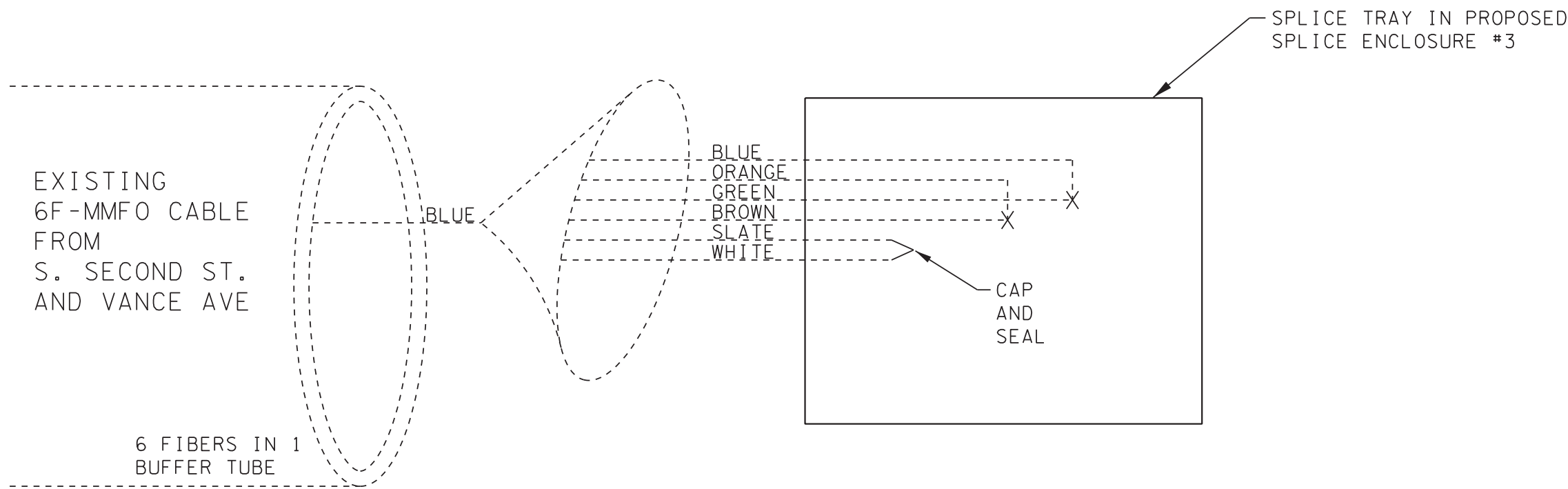
SPLICE DIAGRAM

SURVEY: N/A DATE: N/A BOOK: N/A
DRAFTED: _____ DATE: 05/14 SCALE: N.T.S.
DESIGNED: RSW DATE: 05/14 CHECKED: BTA DATE: 05/14
JURISDICTION: _____ SHEET 43 OF 62





- NOTES:
1. CONTRACTOR TO VERIFY CONTINUITY OF EXISTING FIBERS TO CITY HALL PRIOR TO SPLICING. IN THE EVENT THAT PROPOSED ACTIVE COMMUNICATION CHANNELS ARE ASSIGNED TO INOPERABLE FIBER PAIRS, REPORT FINDINGS TO THE ENGINEER FOR MODIFICATIONS.
 2. CONTRACTOR TO VERIFY TRANSMIT/RECEIVE ASSIGNMENTS AT CITY HALL SWITCH FOR COMPATIBILITY PRIOR TO CONNECTION.



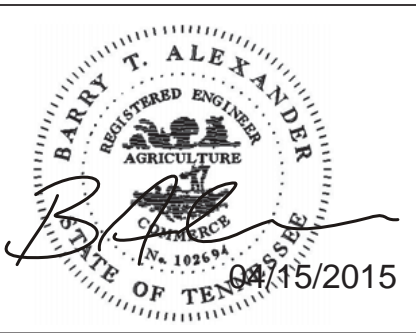
LEGEND

COLOR CODE	
TIA/EIA 598-A	
(1) BLUE	(7) RED
(2) ORANGE	(8) BLACK
(3) GREEN	(9) YELLOW
(4) BROWN	(10) VIOLET
(5) SLATE	(11) ROSE
(6) WHITE	(12) AQUA
X - FUSION SPLICED INDIVIDUAL FIBER	
[BUFFER TUBE] SLICE OR EXPRESS ENTIRE BUFFER TUBE AS NOTED	
————— ACTIVE FIBER	
----- INACTIVE FIBER	

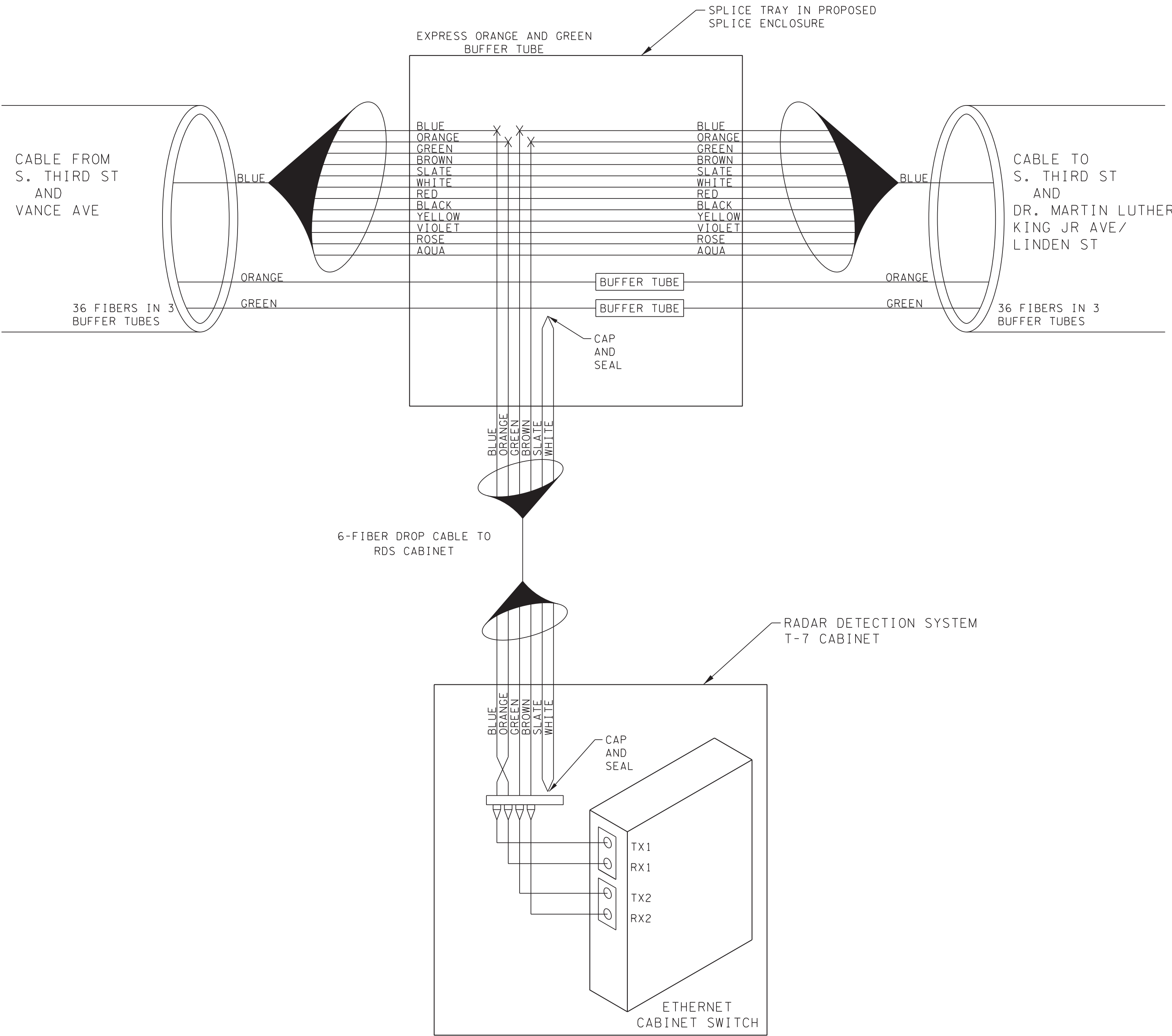
- NOTES:
1. FIBER INTERCONNECT CENTER RACKS ARE SCHEMATIC ONLY. ACTUAL EQUIPMENT FORM MAY VARY.

SPLICE DIAGRAM FOR
INTERSECTION #6278
S. THIRD ST
@ VANCE AVE

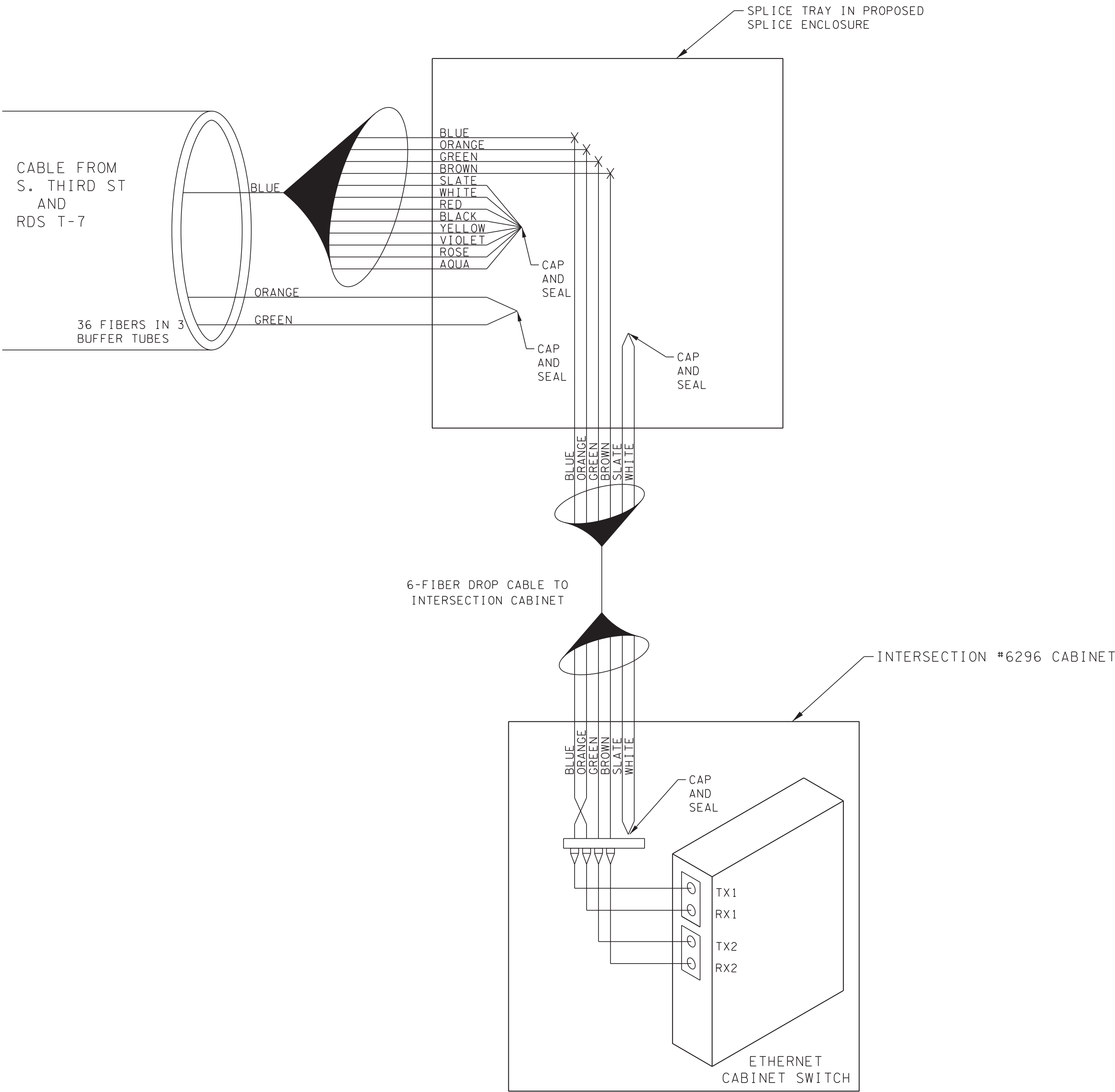
REVISIONS		
DATE	DESCRIPTIONS	APPROVED



SD-11		
DIVISION OF PUBLIC WORKS CONGESTION MANAGEMENT PROGRAM SIGNAL SYSTEM PROJECT SET #10 SHELBY COUNTY, TN. SPLICE DIAGRAM		
SURVEY: N/A	DATE: N/A	BOOK: N/A
DRAFTED: _____	DATE: 05/14	SCALE: N.T.S.
DESIGNED: RSW	DATE: 05/14	CHECKED: BJA DATE: 05/14
JURISDICTION: _____	SHEET 45 OF 62	



SPLICE DIAGRAM FOR
RADAR DETECTION SYSTEM T-7
S. THIRD ST
BETWEEN VANCE AVE & DR. MARTIN LUTHER KING JR AVE/LINDEN ST



SPLICE DIAGRAM FOR
INTERSECTION #6296
S. THIRD ST
@ DR. MARTIN LUTHER KING JR AVE/LINDEN ST

LEGEND		
COLOR CODE TIA/EIA 598-A		
(1) BLUE	(7) RED	X - FUSION SPLICE INDIVIDUAL FIBER
(2) ORANGE	(8) BLACK	
(3) GREEN	(9) YELLOW	[BUFFER TUBE] SLICE OR EXPRESS ENTIRE BUFFER TUBE AS NOTED
(4) BROWN	(10) VIOLET	
(5) SLATE	(11) ROSE	——— ACTIVE FIBER ----- INACTIVE FIBER
(6) WHITE	(12) AQUA	

NOTES:
1. FIBER INTERCONNECT CENTER RACKS ARE SCHEMATIC ONLY. ACTUAL EQUIPMENT FORM MAY VARY.

REVISIONS		
DATE	DESCRIPTIONS	APPROVED



SD-12

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #10
SHELBY COUNTY, TN.
SPLICE DIAGRAM

SURVEY: N/A DATE: N/A BOOK: N/A
DRAFTED: DATE: 05/14 SCALE: N.T.S.
DESIGNED: RSW DATE: 05/14 CHECKED: BIA DATE: 05/14
JURISDICTION: SHEET 46 OF 62

LEGEND

- E

OHE

W

G

XO(A)

XO(B)

G(A)

SS
- E

OHE

W

G

XO(A)

XO(B)

G(A)

SS
- EXISTING ELECTRIC LINE

EXISTING HV ELECTRIC

EXISTING WATER LINE

EXISTING GAS LINE

XO FIBER AERIAL

XO FIBER BURIED

ABANDONED GAS LINE

SANITARY SEWER

S

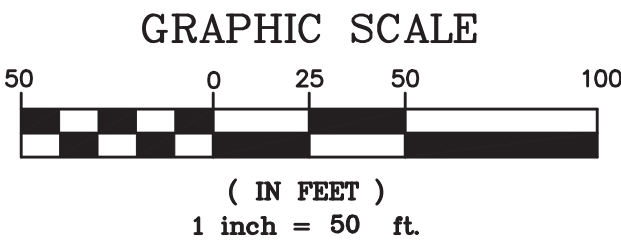
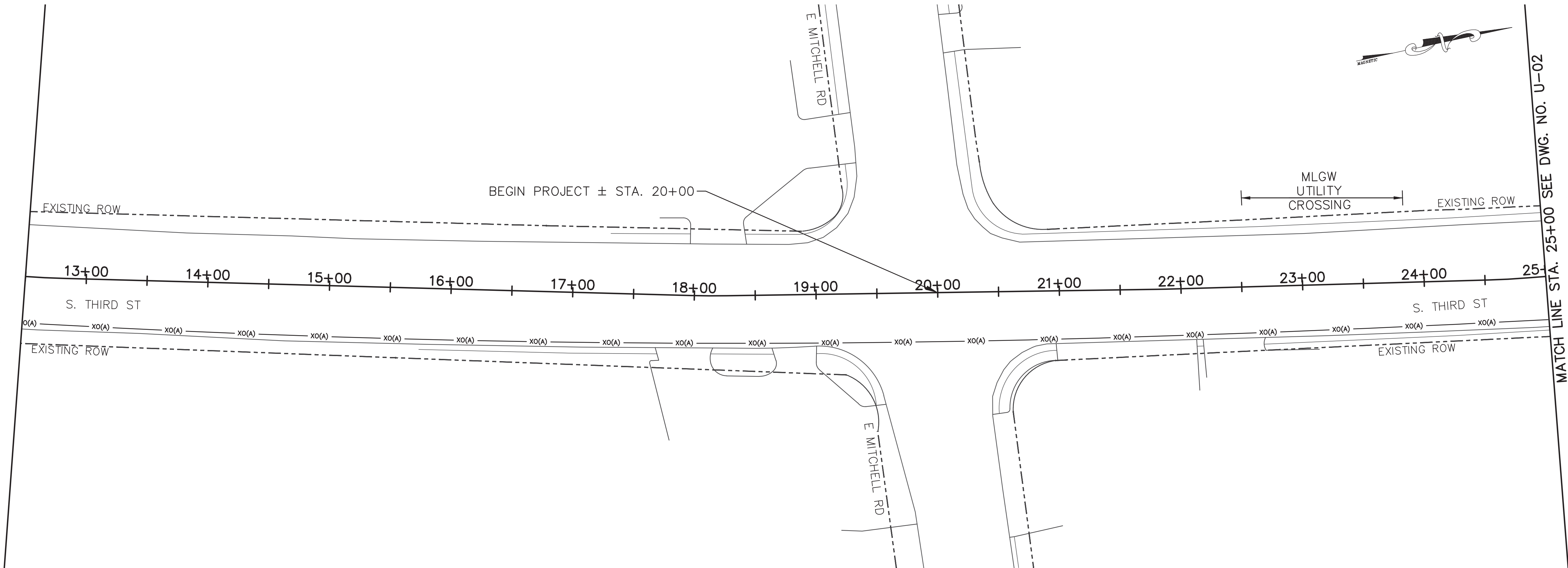
SEWER MANHOLE

X

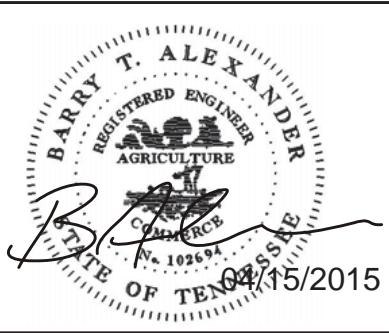
MLGW/XO MANHOLE

SOME UTILITY INFORMATION FOR THE PROJECT WORK AREA WAS NOT PROVIDED. CONTRACTOR TO VERIFY UTILITY LOCATIONS PRIOR TO CONSTRUCTION.

UTILITY LOCATIONS SHOWN ARE DEPICTIONS OF GIS DATA PROVIDED BY MLG&W AND XO COMMUNICATIONS. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OR COMPLETENESS OF THIS INFORMATION.



REVISIONS		
DATE	DESCRIPTIONS	APPROVED



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U-01

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #10
SHELBY COUNTY, TN.
SOUTH THIRD STREET
EXISTING UTILITIES
FROM 12+50 TO 25+00

SURVEY: N/A DATE: N/A BOOK: N/A
DRAFTED: APL DATE: 03/14 SCALE: 1"=50'
DESIGNED: APL DATE: 03/14 CHECKED: N/A DATE: N/A
JURISDICTION: SHEET 47 OF 62

MATCH LINE STA. 25+00 SEE DWG. NO. U-01

MATCH LINE STA. 37+50 SEE THIS SHEET

MATCH LINE STA. 37+50 SEE THIS SHEET

MATCH LINE STA. 50+00 SEE DWG. NO. U-03

LEGEND

- E

OHE

W

G

XO(A)

XO(B)

G(A)

SS
- E

OHE

W

G

XO(A)

XO(B)

G(A)

SS
- EXISTING ELECTRIC LINE

EXISTING HV ELECTRIC

EXISTING WATER LINE

EXISTING GAS LINE

XO FIBER AERIAL

XO FIBER BURIED

ABANDONED GAS LINE

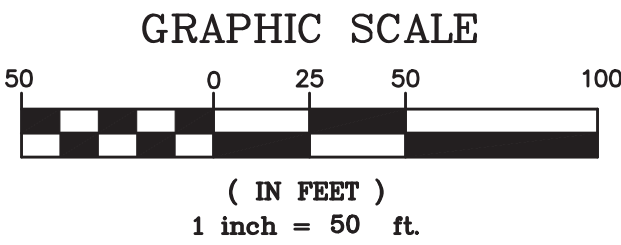
SANITARY SEWER

SEWER MANHOLE

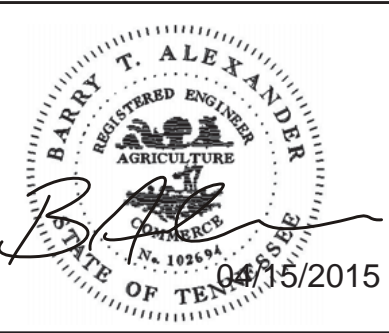
MLGW/XO MANHOLE

SOME UTILITY INFORMATION FOR THE PROJECT WORK AREA WAS NOT PROVIDED. CONTRACTOR TO VERIFY UTILITY LOCATIONS PRIOR TO CONSTRUCTION.

UTILITY LOCATIONS SHOWN ARE DEPICTIONS OF GIS DATA PROVIDED BY MLG&W AND XO COMMUNICATIONS. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OR COMPLETENESS OF THIS INFORMATION.



REVISIONS		
DATE	DESCRIPTIONS	APPROVED



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U-02

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #10
SHELBY COUNTY, TN.

SOUTH THIRD STREET
EXISTING UTILITIES
FROM 25+00 TO 50+00

SURVEY: N/A DATE: N/A BOOK: N/A
DRAFTED: APL DATE: 03/14 SCALE: 1"=50'
DESIGNED: APL DATE: 03/14 CHECKED: N/A DATE: N/A
JURISDICTION: SHEET 48 OF 62

MATCH LINE STA. 50+00 SEE DWG. NO. U-02

MATCH LINE STA. 62+50 SEE THIS SHEET

MATCH LINE STA. 62+50 SEE THIS SHEET

MATCH LINE STA. 75+00 SEE DWG. NO. U-04

LEGEND

- E

OHE

W

G

XO(A)

XO(B)

G(A)

SS
- E

OHE

W

G

XO(A)

XO(B)

G(A)

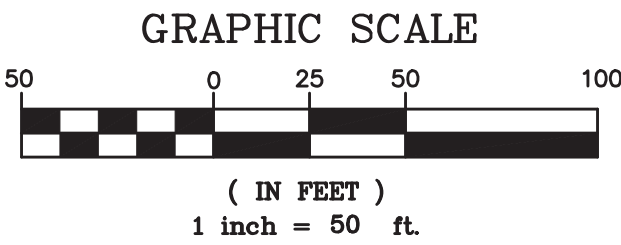
SS
- EXISTING ELECTRIC LINE
- EXISTING HV ELECTRIC
- EXISTING WATER LINE
- EXISTING GAS LINE
- XO FIBER AERIAL
- XO FIBER BURIED
- ABANDONED GAS LINE
- SANITARY SEWER
- S

SEWER MANHOLE
- X

MLGW/XO MANHOLE

SOME UTILITY INFORMATION FOR THE PROJECT WORK AREA WAS NOT PROVIDED. CONTRACTOR TO VERIFY UTILITY LOCATIONS PRIOR TO CONSTRUCTION.

UTILITY LOCATIONS SHOWN ARE DEPICTIONS OF GIS DATA PROVIDED BY MLG&W AND XO COMMUNICATIONS. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OR COMPLETENESS OF THIS INFORMATION.



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DATE	DESCRIPTIONS	APPROVED



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U-03

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #10
SHELBY COUNTY, TN.
SOUTH THIRD STREET
EXISTING UTILITIES
FROM 50+00 TO 75+00

SURVEY: N/A DATE: N/A BOOK: N/A
DRAFTED: APL DATE: 03/14 SCALE: 1"=50'
DESIGNED: APL DATE: 03/14 CHECKED: N/A DATE: N/A
JURISDICTION: SHEET 49 OF 62

MATCH LINE STA. 75+00 SEE DWG. NO. U-03

MATCH LINE STA. 87+50 SEE THIS SHEET

MATCH LINE STA. 87+50 SEE THIS SHEET

MATCH LINE STA. 100+00 SEE DWG. NO. U-05

LEGEND

- E

OHE

W

G

XO(A)

XO(B)

G(A)

SS
- E

OHE

W

G

XO(A)

XO(B)

G(A)

SS
- EXISTING ELECTRIC LINE

EXISTING HV ELECTRIC

EXISTING WATER LINE

EXISTING GAS LINE

XO FIBER AERIAL

XO FIBER BURIED

ABANDONED GAS LINE

SANITARY SEWER

Ⓢ

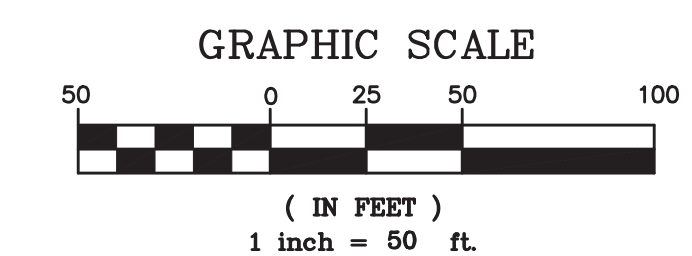
SEWER MANHOLE

ⓧ

MLGW/XO MANHOLE

SOME UTILITY INFORMATION FOR THE PROJECT WORK AREA WAS NOT PROVIDED. CONTRACTOR TO VERIFY UTILITY LOCATIONS PRIOR TO CONSTRUCTION.

UTILITY LOCATIONS SHOWN ARE DEPICTIONS OF GIS DATA PROVIDED BY MLG&W AND XO COMMUNICATIONS. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OR COMPLETENESS OF THIS INFORMATION.



REVISIONS		
DATE	DESCRIPTIONS	APPROVED

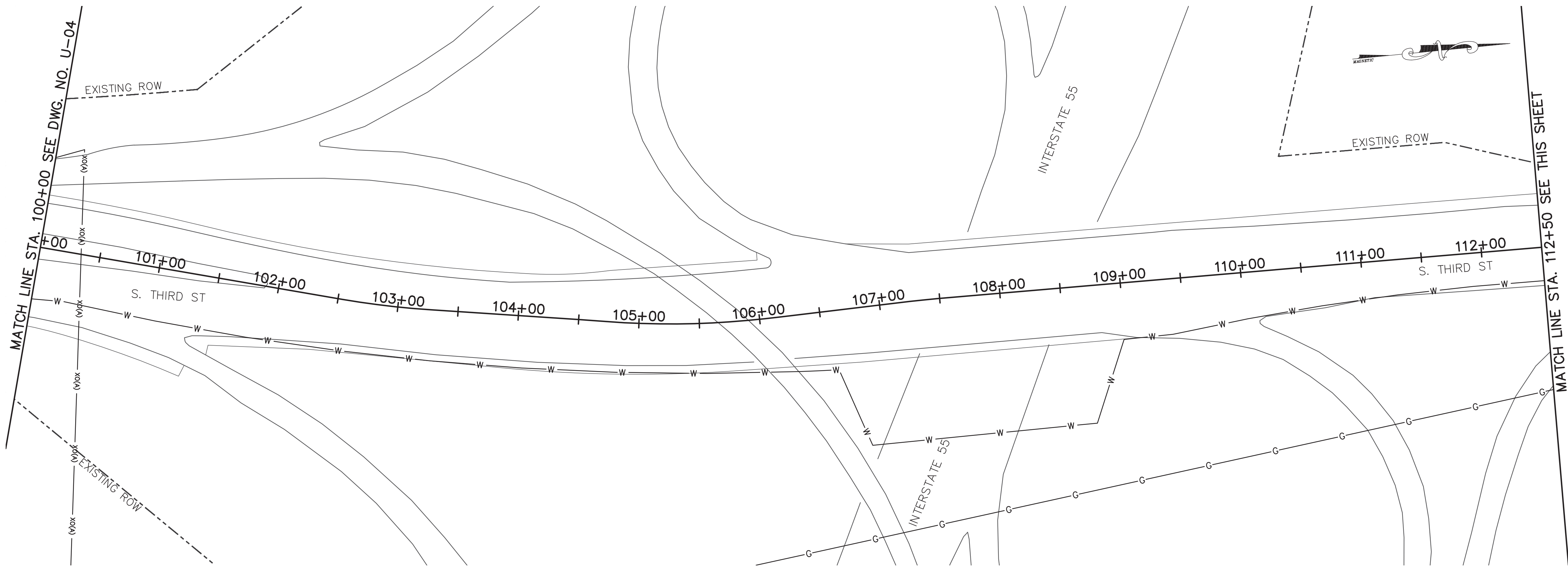
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U-04

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #10
SHELBY COUNTY, TN.
SOUTH THIRD STREET
EXISTING UTILITIES
FROM 75+00 TO 100+00

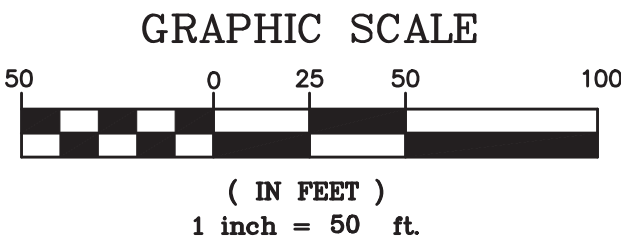
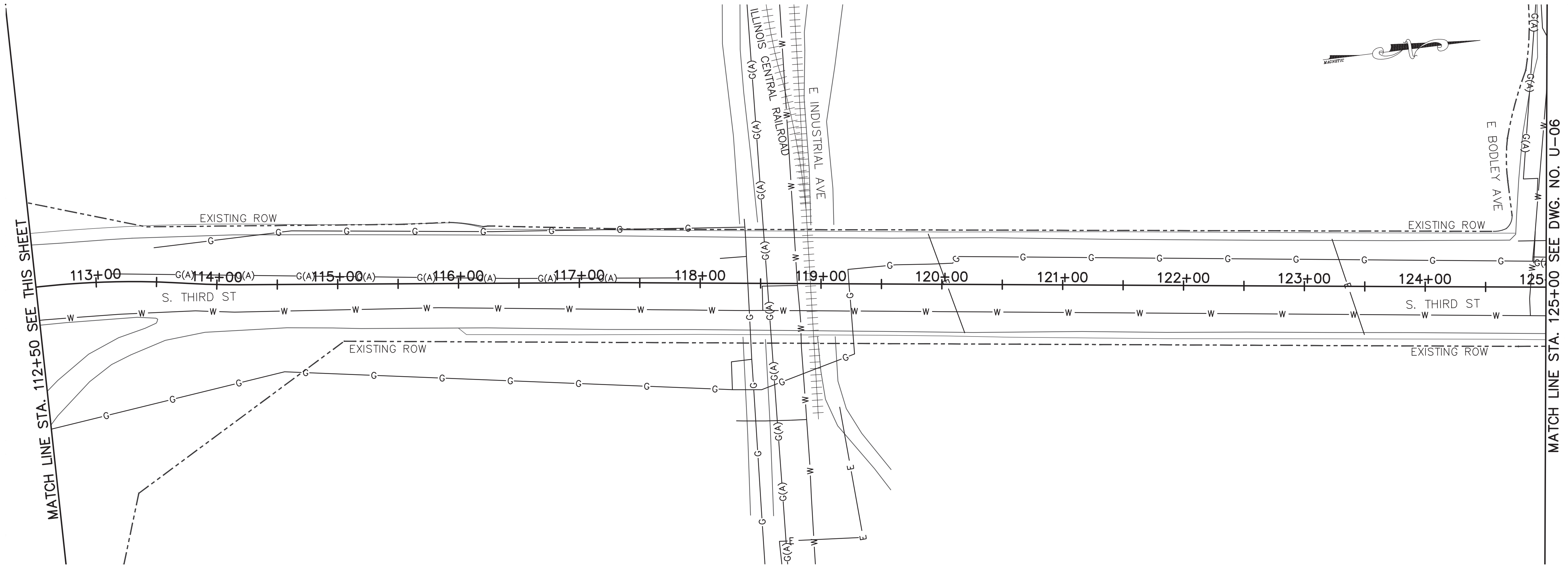
SURVEY: N/A DATE: N/A BOOK: N/A
DRAFTED: APL DATE: 03/14 SCALE: 1"=50'
DESIGNED: APL DATE: 03/14 CHECKED: N/A DATE: N/A
JURISDICTION: SHEET 50 OF 62



- LEGEND**
- | | | |
|-----------|-----------|------------------------|
| — E — | — E — | EXISTING ELECTRIC LINE |
| — OHE — | — OHE — | EXISTING HV ELECTRIC |
| — W — | — W — | EXISTING WATER LINE |
| — G — | — G — | EXISTING GAS LINE |
| — XO(A) — | — XO(A) — | XO FIBER AERIAL |
| — XO(B) — | — XO(B) — | XO FIBER BURIED |
| — G(A) — | — G(A) — | ABANDONED GAS LINE |
| — SS — | — SS — | SANITARY SEWER |
| | Ⓢ | SEWER MANHOLE |
| | ⓧ | MLGW/XO MANHOLE |

SOME UTILITY INFORMATION FOR THE PROJECT WORK AREA WAS NOT PROVIDED. CONTRACTOR TO VERIFY UTILITY LOCATIONS PRIOR TO CONSTRUCTION.

UTILITY LOCATIONS SHOWN ARE DEPICTIONS OF GIS DATA PROVIDED BY MLG&W AND XO COMMUNICATIONS. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OR COMPLETENESS OF THIS INFORMATION.



REVISIONS				U-05 DIVISION OF PUBLIC WORKS CONGESTION MANAGEMENT PROGRAM SIGNAL SYSTEM PROJECT SET #10 SHELBY COUNTY, TN. SOUTH THIRD STREET EXISTING UTILITIES FROM 100+00 TO 125+00
DATE	DESCRIPTIONS	APPROVED		
POWERS HILL DESIGN CIVIL ENGINEERING. CIVIL RESPONSIBILITY. NEEL-SCHAFFER Solutions you can build upon			SURVEY: N/A DATE: N/A BOOK: N/A DRAFTED: APL DATE: 03/14 SCALE: 1"=50' DESIGNED: APL DATE: 03/14 CHECKED: N/A DATE: N/A JURISDICTION: SHEET 51 OF 62	

MATCH LINE STA. 125+00 SEE DWG. NO. U-05

MATCH LINE STA. 137+50 SEE THIS SHEET

MATCH LINE STA. 137+50 SEE THIS SHEET

MATCH LINE STA. 150+00 SEE DWG. NO. U-07

LEGEND

- E

OHE

W

G

XO(A)

XO(B)

G(A)

SS
- E

OHE

W

G

XO(A)

XO(B)

G(A)

SS
- EXISTING ELECTRIC LINE

EXISTING HV ELECTRIC

EXISTING WATER LINE

EXISTING GAS LINE

XO FIBER AERIAL

XO FIBER BURIED

ABANDONED GAS LINE

SANITARY SEWER

S

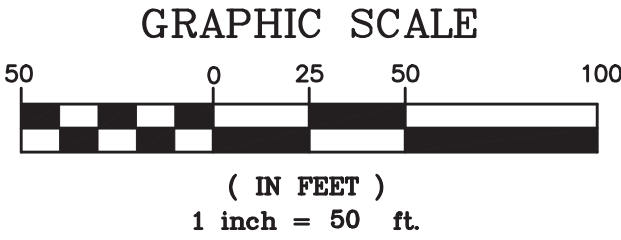
SEWER MANHOLE

X

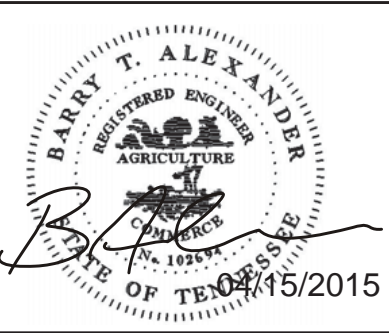
MLGW/XO MANHOLE

SOME UTILITY INFORMATION FOR THE PROJECT WORK AREA WAS NOT PROVIDED. CONTRACTOR TO VERIFY UTILITY LOCATIONS PRIOR TO CONSTRUCTION.

UTILITY LOCATIONS SHOWN ARE DEPICTIONS OF GIS DATA PROVIDED BY MLG&W AND XO COMMUNICATIONS. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OR COMPLETENESS OF THIS INFORMATION.



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DATE	DESCRIPTIONS	APPROVED



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U-06

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #10
SHELBY COUNTY, TN.

SOUTH THIRD STREET
EXISTING UTILITIES
FROM 125+00 TO 150+00

SURVEY: N/A DATE: N/A BOOK: N/A
DRAFTED: APL DATE: 03/14 SCALE: 1"=50'
DESIGNED: APL DATE: 03/14 CHECKED: N/A DATE: N/A
JURISDICTION: SHEET 52 OF 62

MATCH LINE STA. 150+00 SEE DWG. NO. U-06

MATCH LINE STA. 162+50 SEE THIS SHEET

MATCH LINE STA. 162+50 SEE THIS SHEET

MATCH LINE STA. 175+00 SEE DWG. NO. U-08

LEGEND

- E

OHE

W

G

XO(A)

XO(B)

G(A)

SS
- E

OHE

W

G

XO(A)

XO(B)

G(A)

SS
- EXISTING ELECTRIC LINE

EXISTING HV ELECTRIC

EXISTING WATER LINE

EXISTING GAS LINE

XO FIBER AERIAL

XO FIBER BURIED

ABANDONED GAS LINE

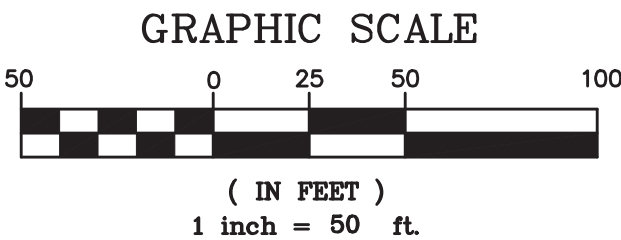
SANITARY SEWER

SEWER MANHOLE

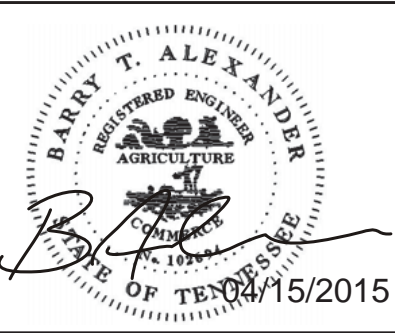
MLGW/XO MANHOLE

SOME UTILITY INFORMATION FOR THE PROJECT WORK AREA WAS NOT PROVIDED. CONTRACTOR TO VERIFY UTILITY LOCATIONS PRIOR TO CONSTRUCTION.

UTILITY LOCATIONS SHOWN ARE DEPICTIONS OF GIS DATA PROVIDED BY MLG&W AND XO COMMUNICATIONS. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OR COMPLETENESS OF THIS INFORMATION.



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DATE	DESCRIPTIONS	APPROVED



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DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #10
SHELBY COUNTY, TN.

SOUTH THIRD STREET
EXISTING UTILITIES
FROM 150+00 TO 175+00

SURVEY: N/A DATE: N/A BOOK: N/A
DRAFTED: APL DATE: 03/14 SCALE: 1"=50'
DESIGNED: APL DATE: 03/14 CHECKED: N/A DATE: N/A
JURISDICTION: SHEET 53 OF 62

MATCH LINE STA. 175+00 SEE DWG. NO. U-07

MATCH LINE STA. 187+50 SEE THIS SHEET

MATCH LINE STA. 187+50 SEE THIS SHEET

MATCH LINE STA. 200+00 SEE DWG. NO. U-09

LEGEND

- E

OHE

W

G

XO(A)

XO(B)

G(A)

SS
- E

OHE

W

G

XO(A)

XO(B)

G(A)

SS
- EXISTING ELECTRIC LINE

EXISTING HV ELECTRIC

EXISTING WATER LINE

EXISTING GAS LINE

XO FIBER AERIAL

XO FIBER BURIED

ABANDONED GAS LINE

SANITARY SEWER

S

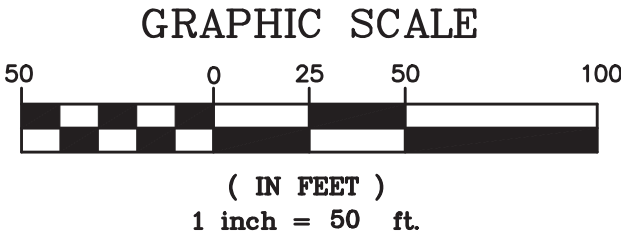
SEWER MANHOLE

X

MLGW/XO MANHOLE

SOME UTILITY INFORMATION FOR THE PROJECT WORK AREA WAS NOT PROVIDED. CONTRACTOR TO VERIFY UTILITY LOCATIONS PRIOR TO CONSTRUCTION.

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DATE	DESCRIPTIONS	APPROVED



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U-08

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #10
SHELBY COUNTY, TN.
SOUTH THIRD STREET
EXISTING UTILITIES
FROM 175+00 TO 200+00

SURVEY: N/A DATE: N/A BOOK: N/A
DRAFTED: APL DATE: 03/14 SCALE: 1"=50'
DESIGNED: APL DATE: 03/14 CHECKED: N/A DATE: N/A
JURISDICTION: SHEET 54 OF 62

MATCH LINE STA. 200+00 SEE DWG. NO. U-08

MATCH LINE STA. 212+50 SEE THIS SHEET

MATCH LINE STA. 212+50 SEE THIS SHEET

MATCH LINE STA. 225+00 SEE DWG. NO. U-10

LEGEND

- E

OHE

W

G

XO(A)

XO(B)

G(A)

SS
- E

OHE

W

G

XO(A)

XO(B)

G(A)

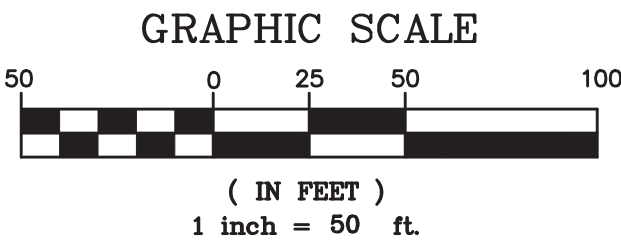
SS
- EXISTING ELECTRIC LINE
- EXISTING HV ELECTRIC
- EXISTING WATER LINE
- EXISTING GAS LINE
- XO FIBER AERIAL
- XO FIBER BURIED
- ABANDONED GAS LINE
- SANITARY SEWER
- S

SEWER MANHOLE
- X

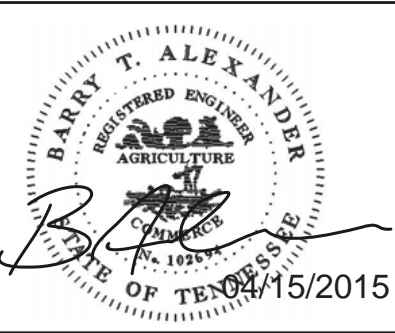
MLGW/XO MANHOLE

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CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #10
SHELBY COUNTY, TN.

SOUTH THIRD STREET
EXISTING UTILITIES
FROM 200+00 TO 225+00

SURVEY: N/A DATE: N/A BOOK: N/A
DRAFTED: APL DATE: 03/14 SCALE: 1"=50'
DESIGNED: APL DATE: 03/14 CHECKED: N/A DATE: N/A
JURISDICTION: SHEET 55 OF 62

MATCH LINE STA. 225+00 SEE DWG. NO. U-09

MATCH LINE STA. 237+50 SEE THIS SHEET

MATCH LINE STA. 237+50 SEE THIS SHEET

MATCH LINE STA. 250+00 SEE DWG. NO. U-11

LEGEND

- E

OHE

W

G

XO(A)

XO(B)

G(A)

SS
- E

OHE

W

G

XO(A)

XO(B)

G(A)

SS
- EXISTING ELECTRIC LINE

EXISTING HV ELECTRIC

EXISTING WATER LINE

EXISTING GAS LINE

XO FIBER AERIAL

XO FIBER BURIED

ABANDONED GAS LINE

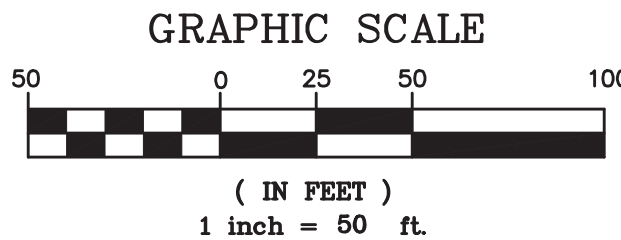
SANITARY SEWER

SEWER MANHOLE

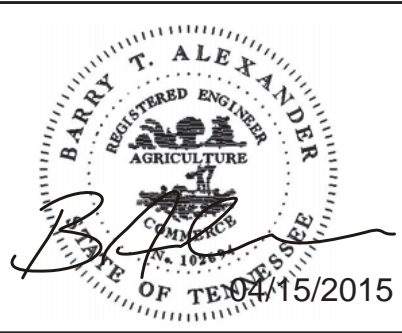
MLGW/XO MANHOLE

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DATE	DESCRIPTIONS	APPROVED



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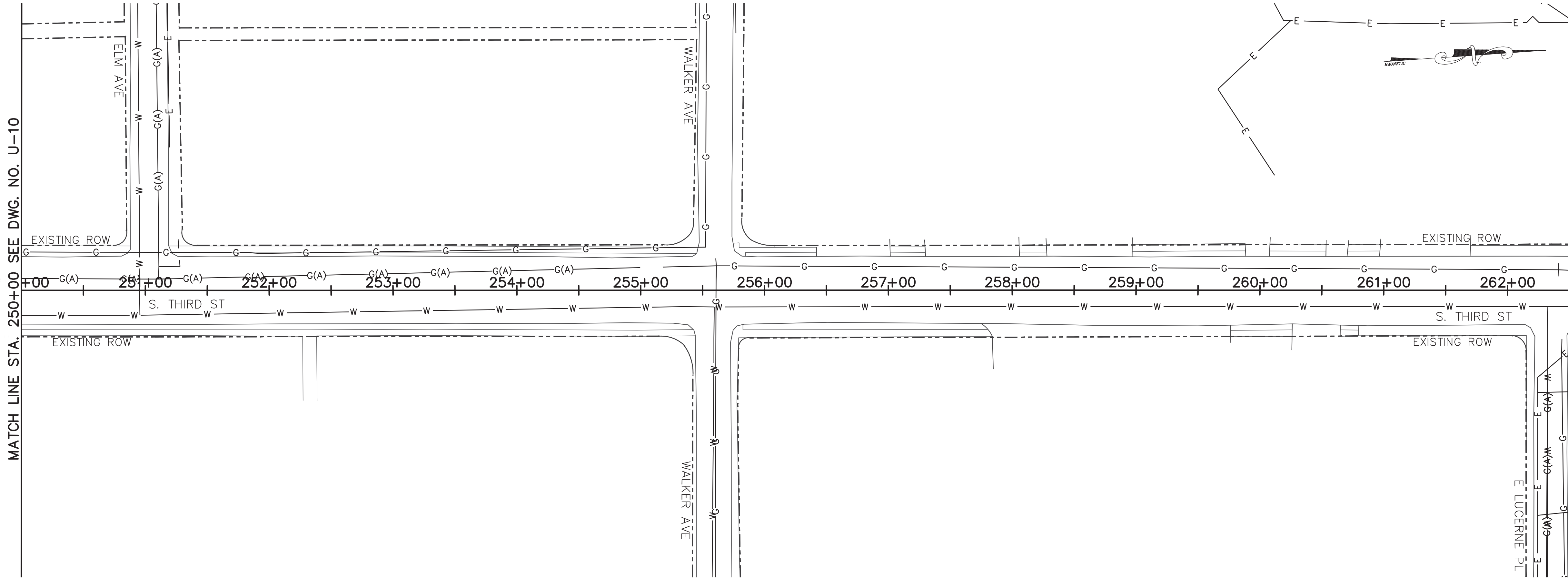
U-10

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #10
SHELBY COUNTY, TN.

SOUTH THIRD STREET
EXISTING UTILITIES
FROM 225+00 TO 250+00

SURVEY: N/A DATE: N/A BOOK: N/A
DRAFTED: APL DATE: 03/14 SCALE: 1"=50'
DESIGNED: APL DATE: 03/14 CHECKED: N/A DATE: N/A
JURISDICTION: SHEET 56 OF 62

MATCH LINE STA. 250+00 SEE DWG. NO. U-10



LEGEND

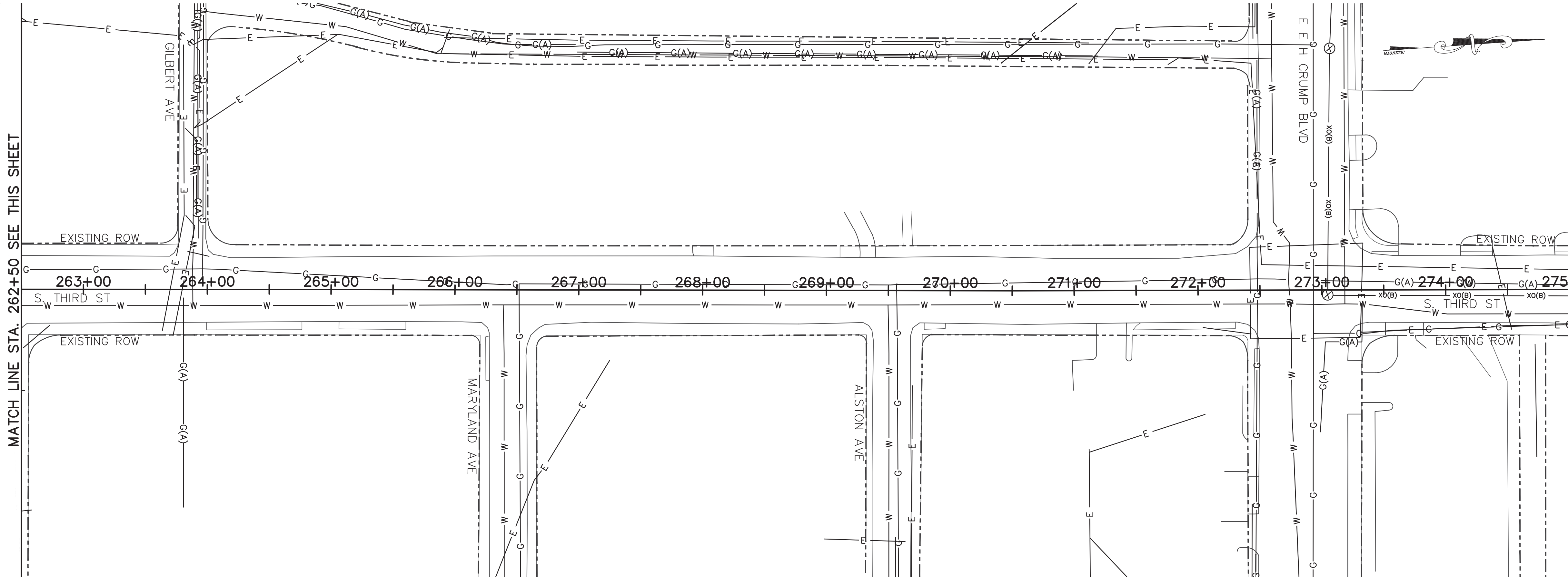
- | | | |
|-----------|-----------|------------------------|
| — E — | — E — | EXISTING ELECTRIC LINE |
| — OHE — | — OHE — | EXISTING HV ELECTRIC |
| — W — | — W — | EXISTING WATER LINE |
| — G — | — G — | EXISTING GAS LINE |
| — XO(A) — | — XO(A) — | XO FIBER AERIAL |
| — XO(B) — | — XO(B) — | XO FIBER BURIED |
| — G(A) — | — G(A) — | ABANDONED GAS LINE |
| — SS — | — SS — | SANITARY SEWER |
| | ⊙ | SEWER MANHOLE |
| | ⊗ | MLGW/XO MANHOLE |

SOME UTILITY INFORMATION FOR THE PROJECT WORK AREA WAS NOT PROVIDED. CONTRACTOR TO VERIFY UTILITY LOCATIONS PRIOR TO CONSTRUCTION.

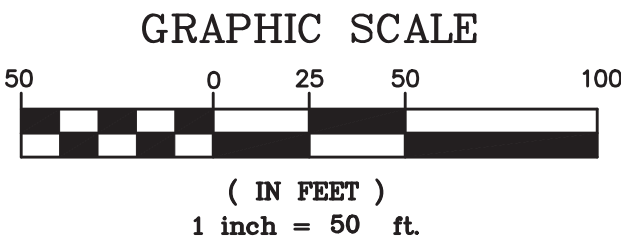
UTILITY LOCATIONS SHOWN ARE DEPICTIONS OF GIS DATA PROVIDED BY MLG&W AND XO COMMUNICATIONS. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OR COMPLETENESS OF THIS INFORMATION.

MATCH LINE STA. 262+50 SEE THIS SHEET

MATCH LINE STA. 262+50 SEE THIS SHEET



MATCH LINE STA. 275+00 SEE DWG. NO. U-12



REVISIONS		
DATE	DESCRIPTIONS	APPROVED



U-11

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #10
SHELBY COUNTY, TN.

SOUTH THIRD STREET
EXISTING UTILITIES
FROM 250+00 TO 275+00

SURVEY: N/A DATE: N/A BOOK: N/A
DRAFTED: APL DATE: 03/14 SCALE: 1"=50'
DESIGNED: APL DATE: 03/14 CHECKED: N/A DATE: N/A
JURISDICTION: SHEET 57 OF 62

MATCH LINE STA. 275+00 SEE DWG. NO. U-11

MATCH LINE STA. 287+50 SEE THIS SHEET

MATCH LINE STA. 287+50 SEE THIS SHEET

MATCH LINE STA. 300+00 SEE DWG. NO. U-13

LEGEND

- E

OHE

W

G

xo(A)

xo(B)

G(A)

SS
- E

OHE

W

G

xo(A)

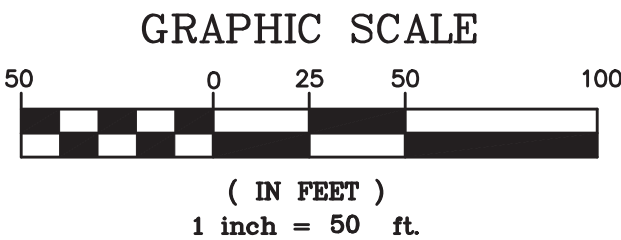
xo(B)

G(A)

SS
- EXISTING ELECTRIC LINE
- EXISTING HV ELECTRIC
- EXISTING WATER LINE
- EXISTING GAS LINE
- XO FIBER AERIAL
- XO FIBER BURIED
- ABANDONED GAS LINE
- SANITARY SEWER
- SEWER MANHOLE
- MLGW/XO MANHOLE

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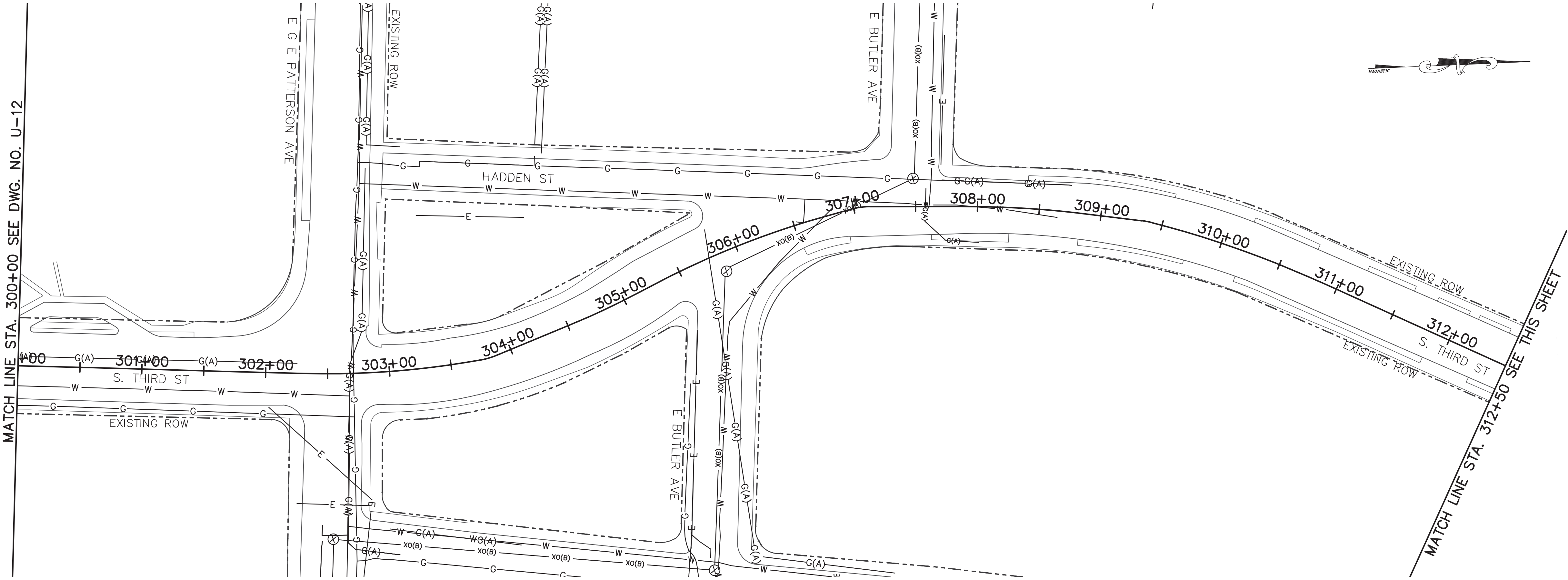
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DIVISION OF PUBLIC WORKS
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SIGNAL SYSTEM PROJECT SET #10
SHELBY COUNTY, TN.

SOUTH THIRD STREET
EXISTING UTILITIES
FROM 275+00 TO 300+00

SURVEY: N/A DATE: N/A BOOK: N/A
DRAFTED: APL DATE: 03/14 SCALE: 1"=50'
DESIGNED: APL DATE: 03/14 CHECKED: N/A DATE: N/A
JURISDICTION: SHEET 58 OF 62

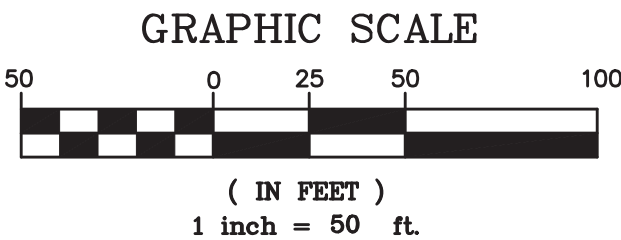
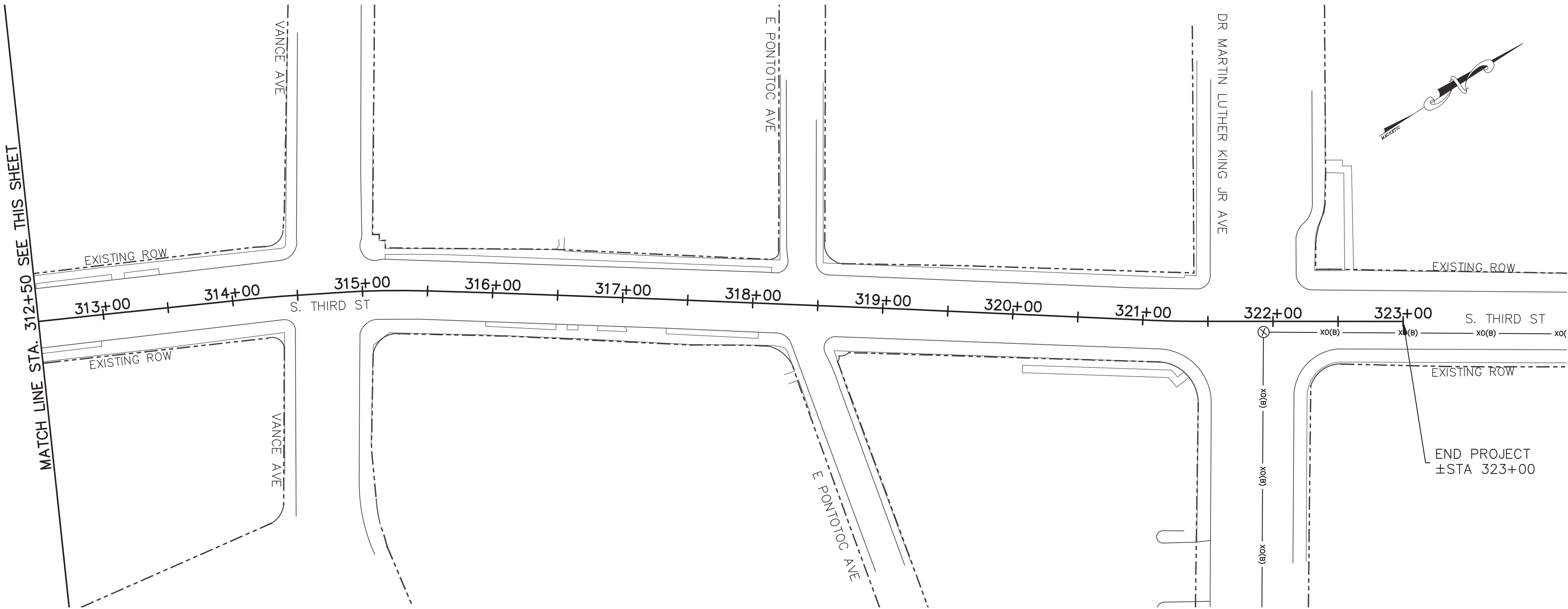


LEGEND

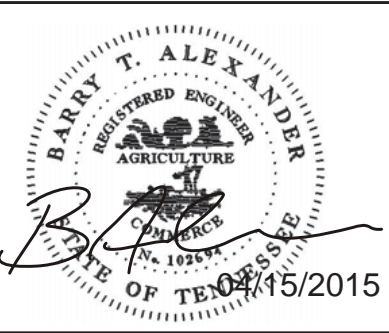
- | | | |
|-----------|-----------|------------------------|
| — E — | — E — | EXISTING ELECTRIC LINE |
| — OHE — | — OHE — | EXISTING HV ELECTRIC |
| — W — | — W — | EXISTING WATER LINE |
| — G — | — G — | EXISTING GAS LINE |
| — XO(A) — | — XO(A) — | XO FIBER AERIAL |
| — XO(B) — | — XO(B) — | XO FIBER BURIED |
| — G(A) — | — G(A) — | ABANDONED GAS LINE |
| — SS — | — SS — | SANITARY SEWER |
| | (S) | SEWER MANHOLE |
| | (X) | MLGW/XO MANHOLE |

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DATE	DESCRIPTIONS	APPROVED



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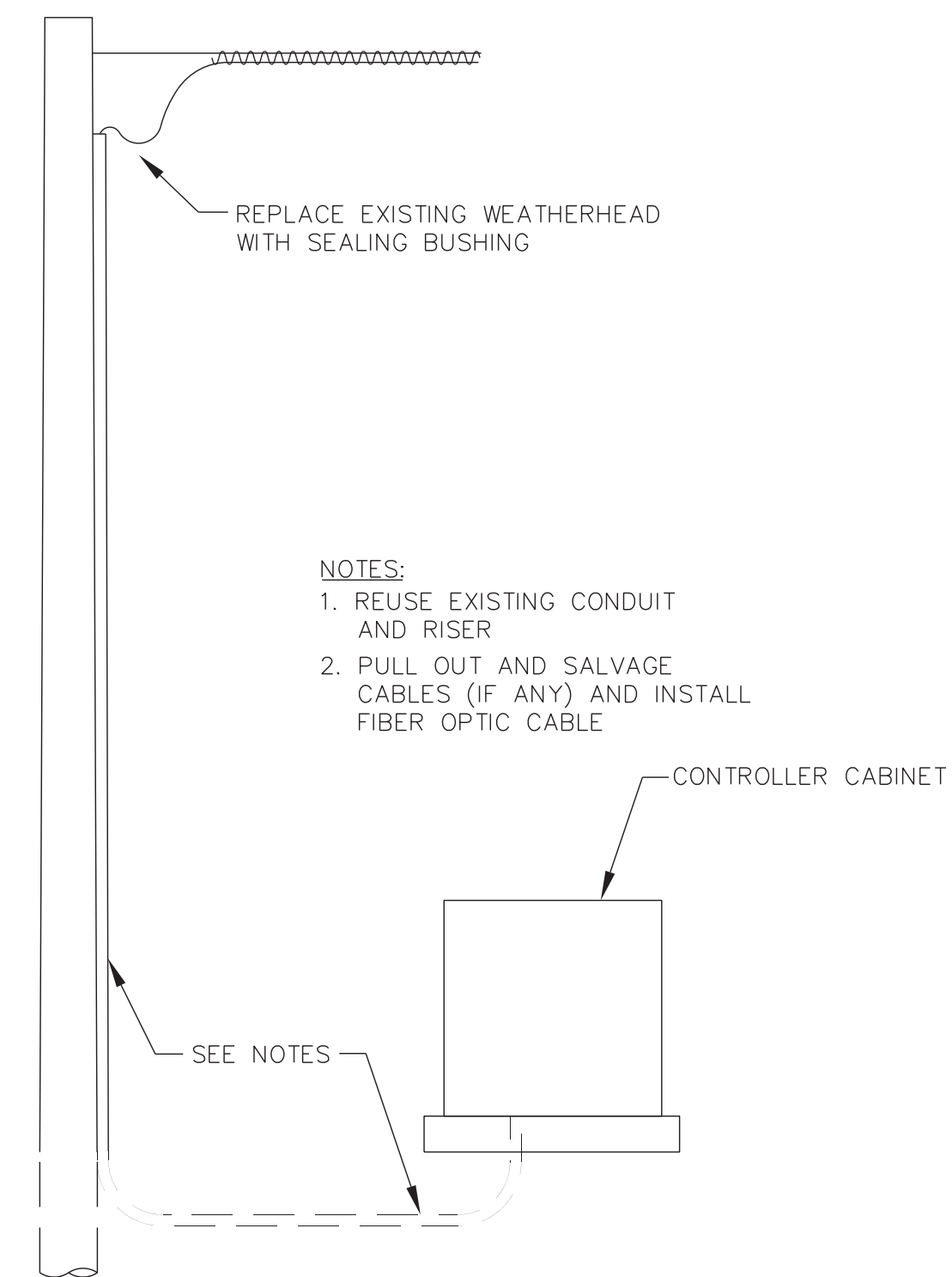
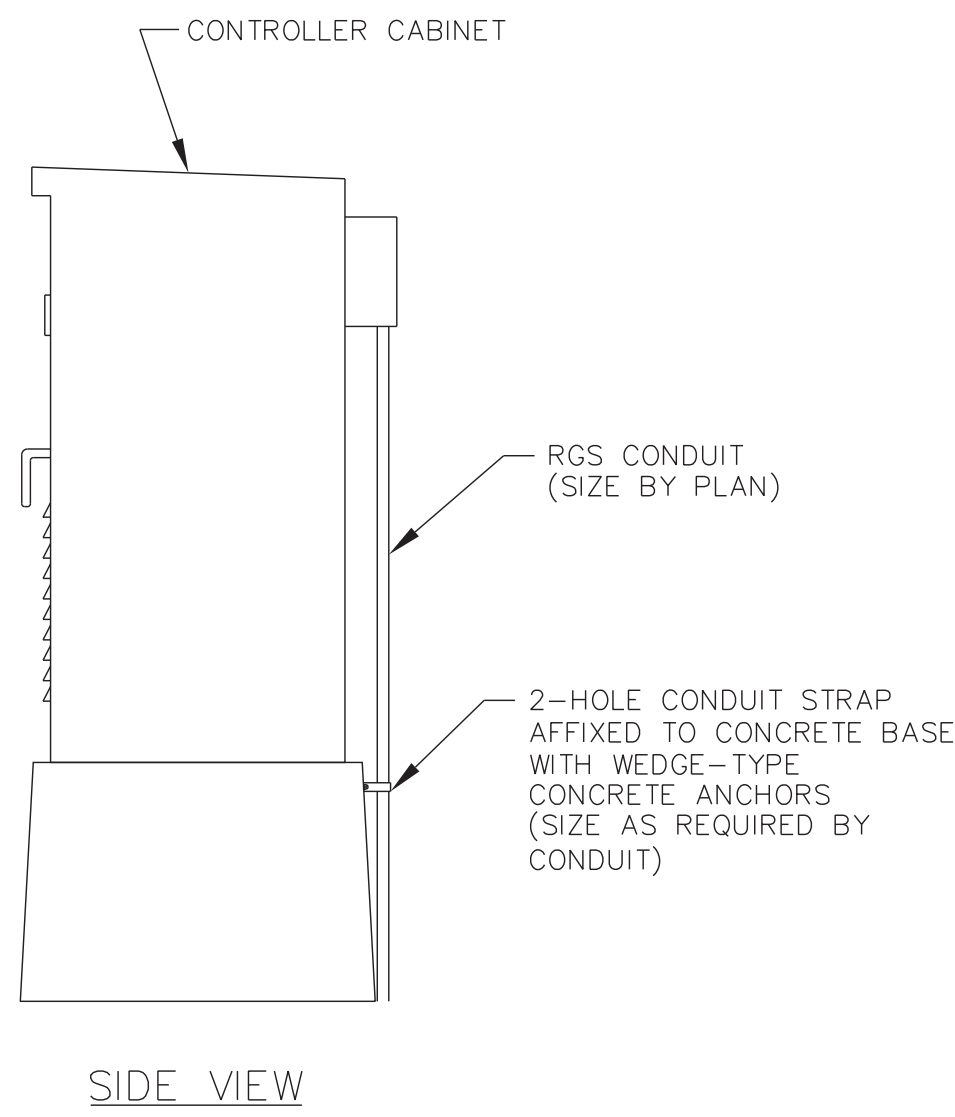
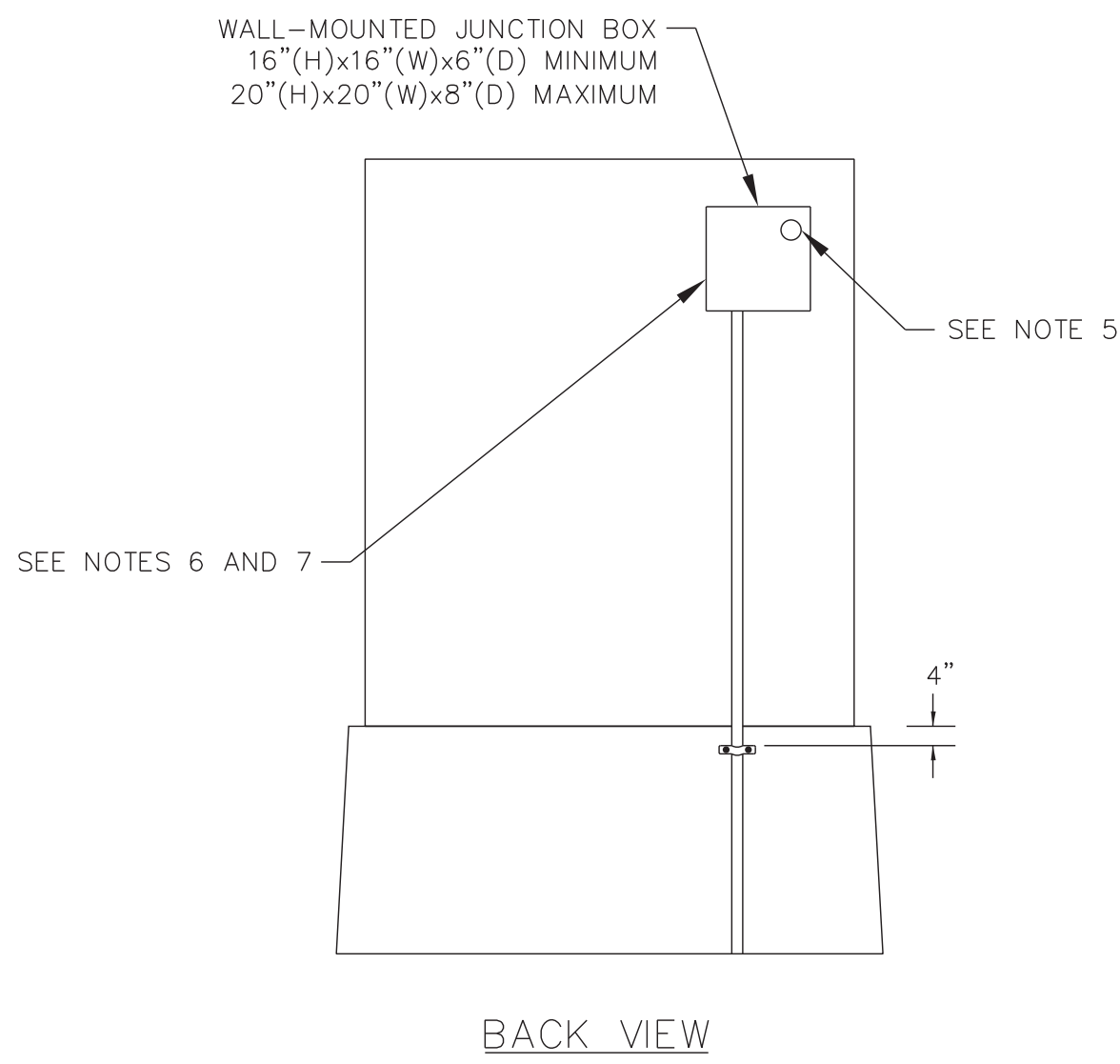
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DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #10
SHELBY COUNTY, TN.

SOUTH THIRD STREET
EXISTING UTILITIES
FROM 300+00 TO 323+00

SURVEY: N/A DATE: N/A BOOK: N/A
DRAFTED: APL DATE: 03/14 SCALE: 1"=50'
DESIGNED: APL DATE: 03/14 CHECKED: N/A DATE: N/A
JURISDICTION: SHEET 59 OF 62



OPTION 1 (SHOWN)- REUSE EXISTING RISER (USE THIS OPTION ONLY IF THERE IS A SPARE EXISTING RISER OR IF AN EXISTING RISER CONTAINS ONLY EXISTING COMMUNICATIONS CABLE)

OPTION 2 (NOT SHOWN)- INSTALL NEW CONDUIT INTO FOUNDATION AND CONNECT TO NEW RISER (SEE DETAIL THIS SHEET)

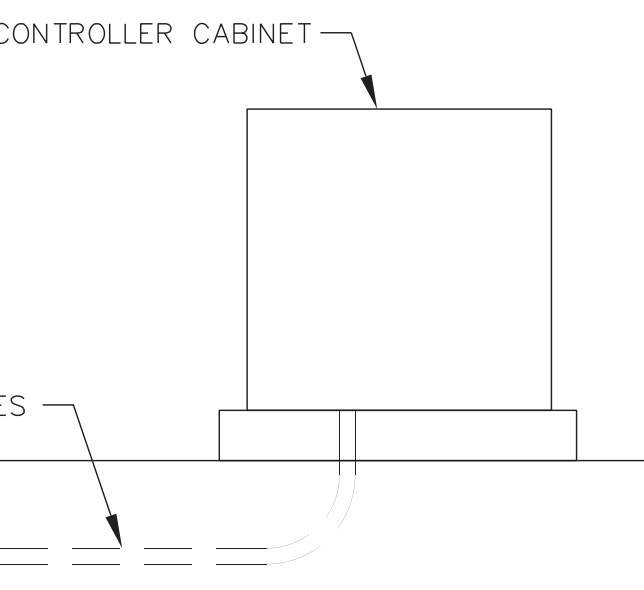
AERIAL ROUTING

DETAILS FOR INSTALLING NEW CONDUIT INTO EXISTING BASE MOUNTED CABINET FOUNDATION

- NOTES FOR OPTION 1:
1. REUSE EXISTING CONDUIT
 2. PULL OUT ALL EXISTING CABLES
 3. SALVAGE EXISTING COMMUNICATIONS (IF ANY)
 4. REINSTALL EXISTING CABLES TO BE REUSED (IF ANY) AND INSTALL NEW FIBER OPTIC CABLE

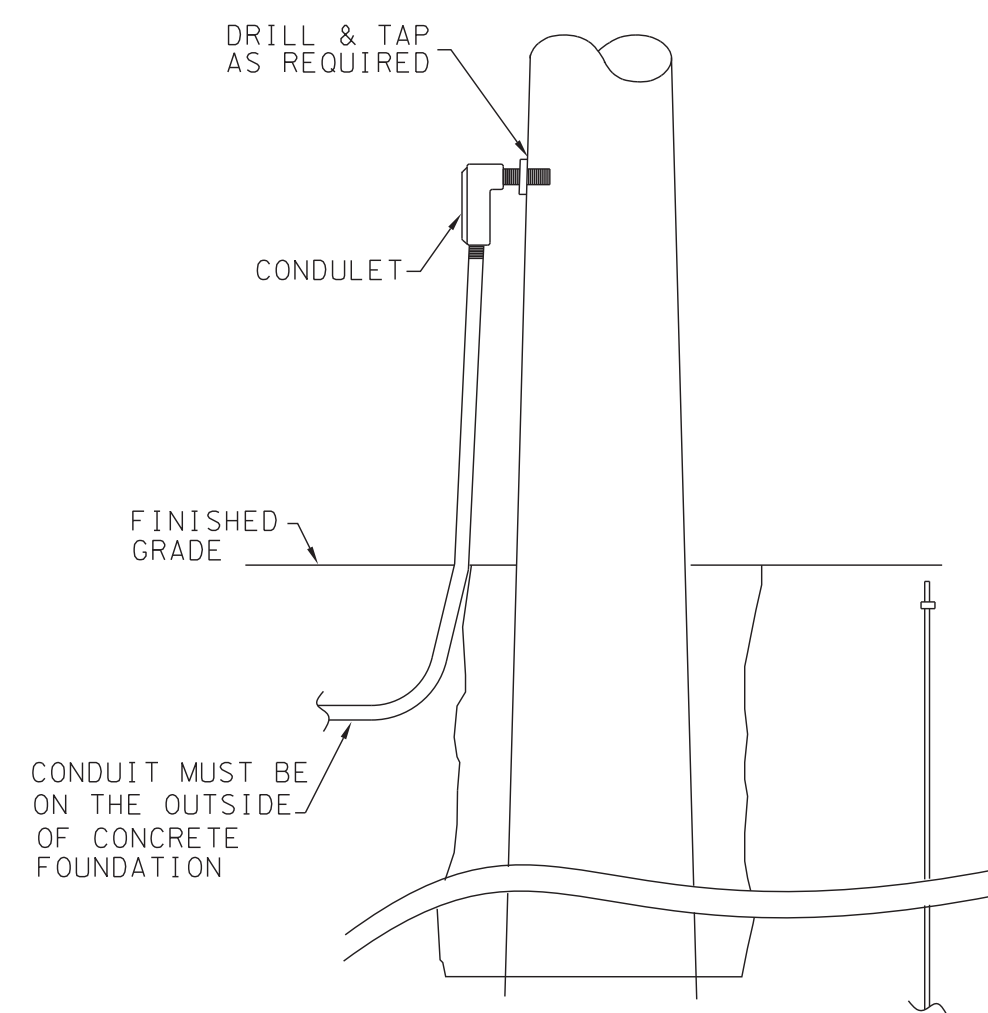
OPTION 1 (SHOWN)- REUSE EXISTING CONDUIT
OPTION 2 (NOT SHOWN)- INSTALL CONDUIT ENTRANCE INTO FOUNDATION AND CONNECT TO PULL BOX (SEE DETAIL THIS SHEET)

UNDERGROUND ROUTING

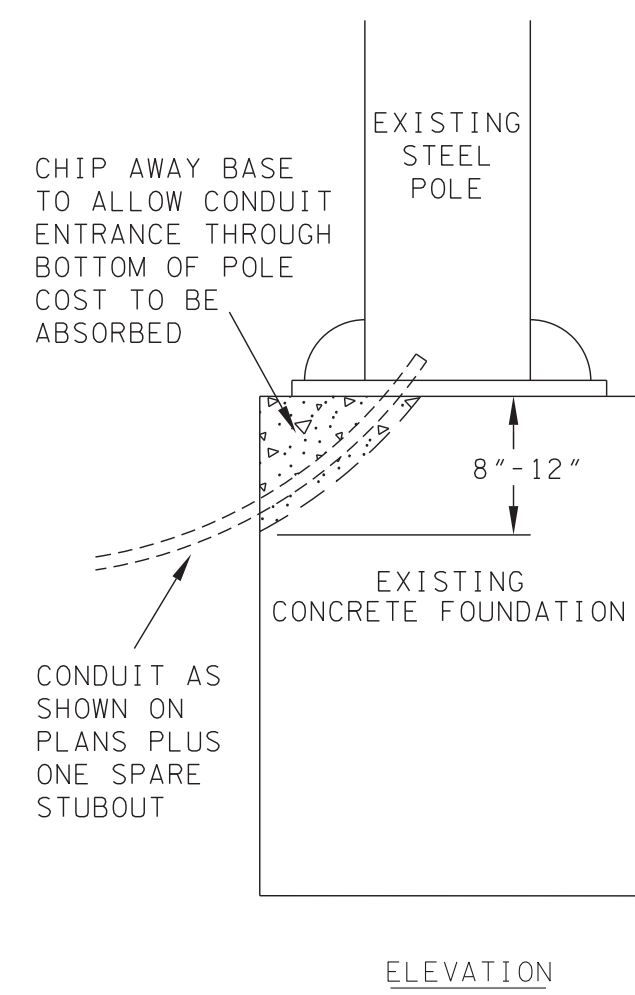
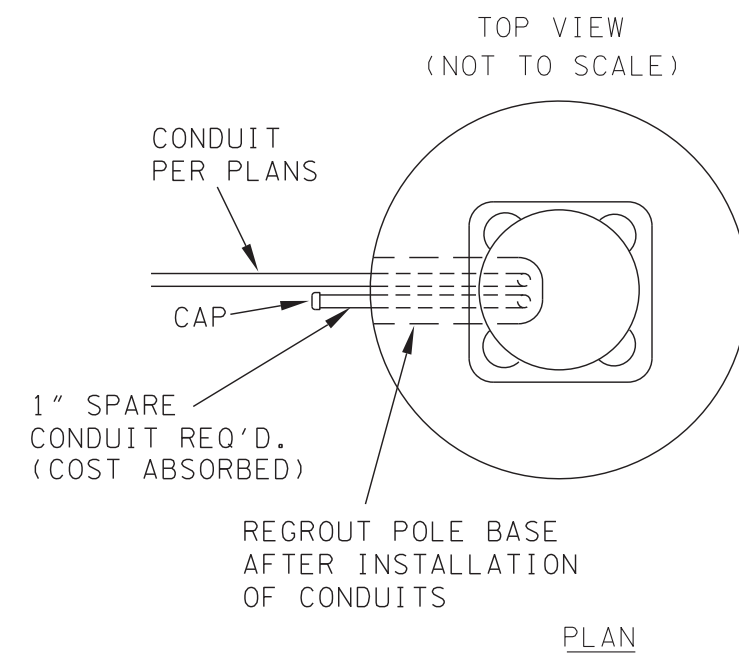


NOTES:

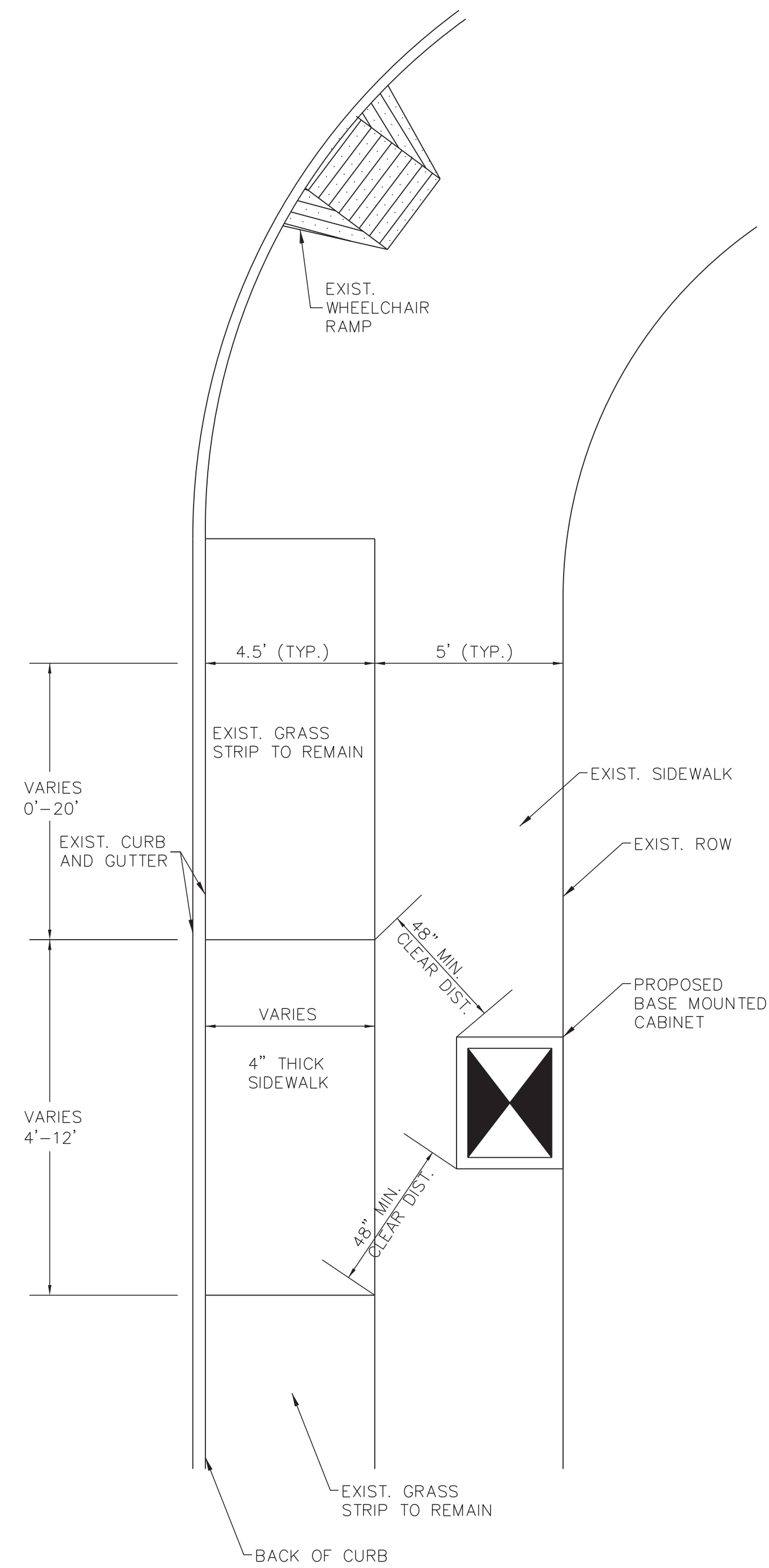
1. THIS DETAIL IS THE APPROVED METHOD FOR ENTRY INTO A SOLID-BASE CABINET FOUNDATION THAT HAS NO SPARE CONDUITS AVAILABLE. ALL OTHER CASES MUST RECEIVE PRIOR APPROVAL FROM THE CITY OF MEMPHIS.
2. WALL-MOUNTED JUNCTION BOX SHALL BE A NEMA 3R CONTINUOUS HINGED ENTRY BOX OR APPROVED EQUIVALENT. THE NEMA 3R BOX SHALL BE MADE OF GALVANIZED STEEL WITH A POWDER COATED FINISH AND SHALL HAVE A CONTINUOUS HINGE THAT IS MADE OF GALVANIZED STEEL WITH A STAINLESS STEEL PIN ON THE LEFT SIDE AND CAPTIVE SCREWS ON THE RIGHT SIDE. THE NEMA 3R BOX SHALL HAVE A HASP PROVISION (OR APPROVED ALTERNATE) ON THE RIGHT SIDE FOR PADLOCKING DOOR FOR SECURING THE DOOR.
3. THE BOX SHALL BE MOUNTED ON THE BACK SIDE OF THE CABINET NEAR THE TOP. ALTERNATIVE LOCATIONS ON THE CABINET TO SECURE THE WALL-MOUNTED JUNCTION BOX MUST HAVE PRIOR APPROVAL BY THE CITY OF MEMPHIS.
4. CONDUIT STRAP IS NOT TO BE SECURED TO THE CABINET. CONDUIT STRAP MUST BE SECURED TO THE CABINET FOUNDATION.
5. DRILL HOLE INTO CABINET AND INSTALL THREADED NIPPLE. INSTALL RUBBER GASKET, FLAT METAL WASHER AND LOCKER RING ON BOTH SIDES.
6. JUNCTION BOX SHALL BE ATTACHED SECURELY TO THE CABINET WITH FOUR METAL SCREWS. MOUNTING HOLES SHALL BE INSIDE THE BOX AROUND THE FOUR CORNERS.
7. THE CONTRACTOR SHALL APPLY SEALANT BETWEEN THE EDGE OF THE JUNCTION BOX AND THE CABINET. SEALANT SHALL BE RATED FOR OUTDOOR USE, WATER-PROOF BELOW WATER LINES, UV RESISTANT AND CLEAR OR GRAY IN COLOR.



CONDUIT ENTRANCE TO EXISTING CONCRETE POLE OR EMBEDDED STEEL POLE






CONDUIT ENTRANCE TO EXISTING STEEL POLE FOUNDATION



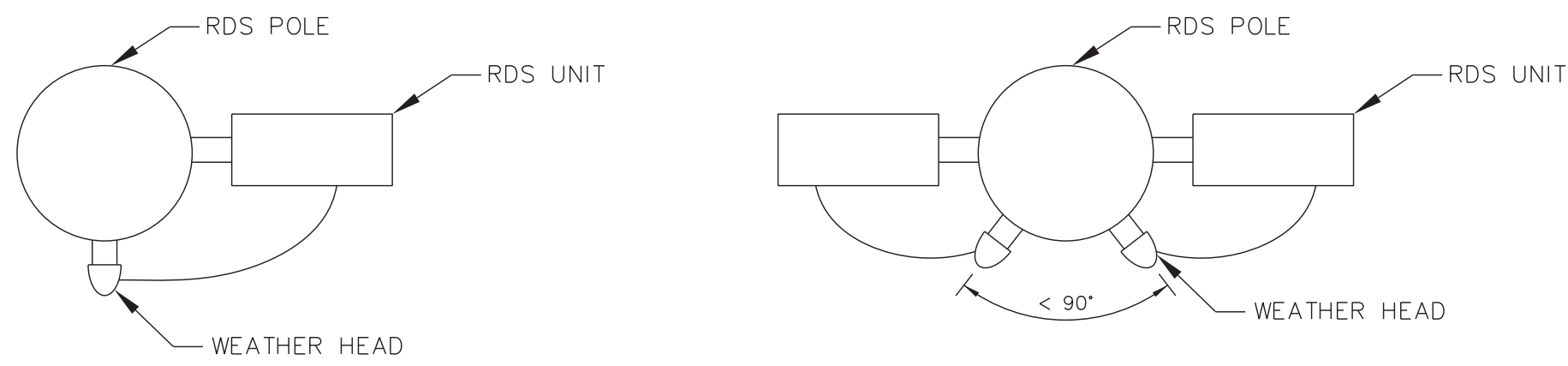
NOTES:

1. CABINET LOCATION AND LIMITS OF NEW SIDEWALK AS DIRECTED BY THE ENGINEER.
2. MAINTAIN A MINIMUM CLEAR PATH OF 48" FROM THE EDGE OF THE CABINET BASE TO THE EDGE OF SIDEWALK.
3. FINAL CABINET LOCATION SHALL BE APPROVED BY THE ENGINEER.

TYPICAL BASE MOUNTED CABINET INSTALLATION AND SIDEWALK REPLACEMENT DETAILS

REVISIONS				D-01		
DATE	DESCRIPTIONS	APPROVED				
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DRAFTED: _____ DATE: 05/14 _____ SCALE: N.T.S.						
DESIGNED: RSW _____ DATE: 05/14 _____ CHECKED: BTA _____ DATE: 05/14 _____						
JURISDICTION: _____ SHEET 60 OF 62						

SURVEY: N/A _____ DATE: N/A _____ BOOK: N/A _____
DRAFTED: _____ DATE: 05/14 _____ SCALE: N.T.S. _____
DESIGNED: RSW _____ DATE: 05/14 _____ CHECKED: BIA _____ DATE: 05/14 _____
JURISDICTION: _____ SHEET 60 OF 62

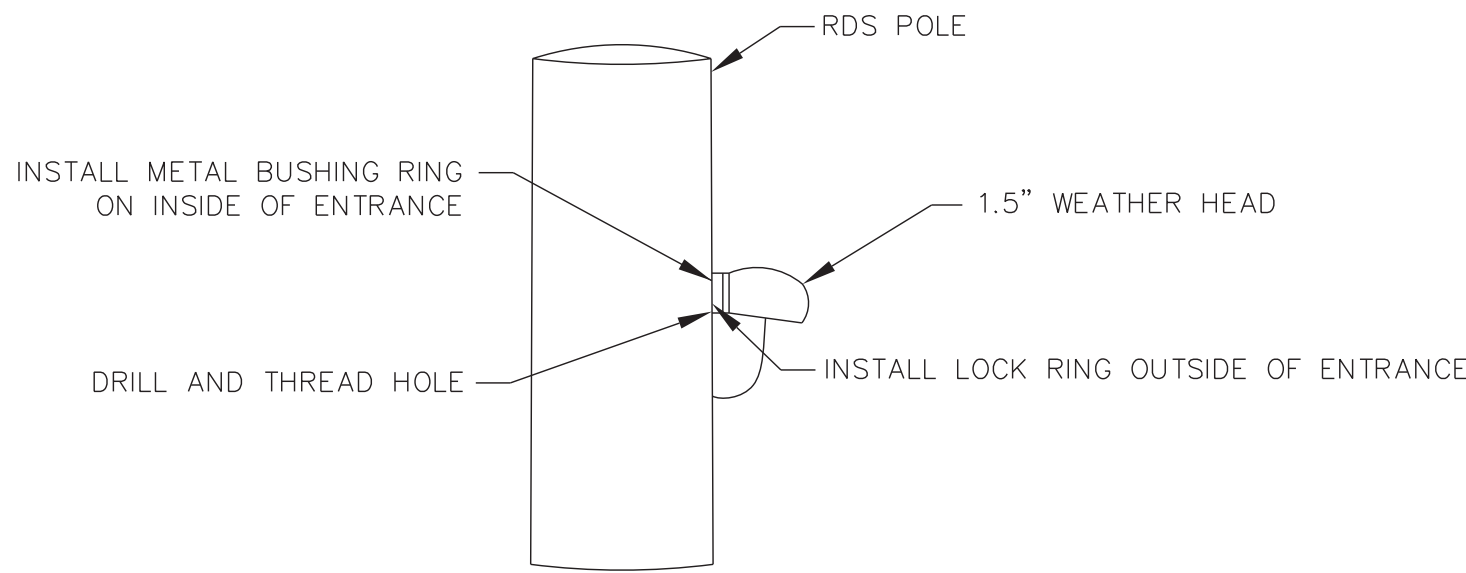


CASE 1: ONE RDS UNIT ON ONE POLE

NOTE: OFFSET HEIGHT BETWEEN WEATHER HEADS BY 2".

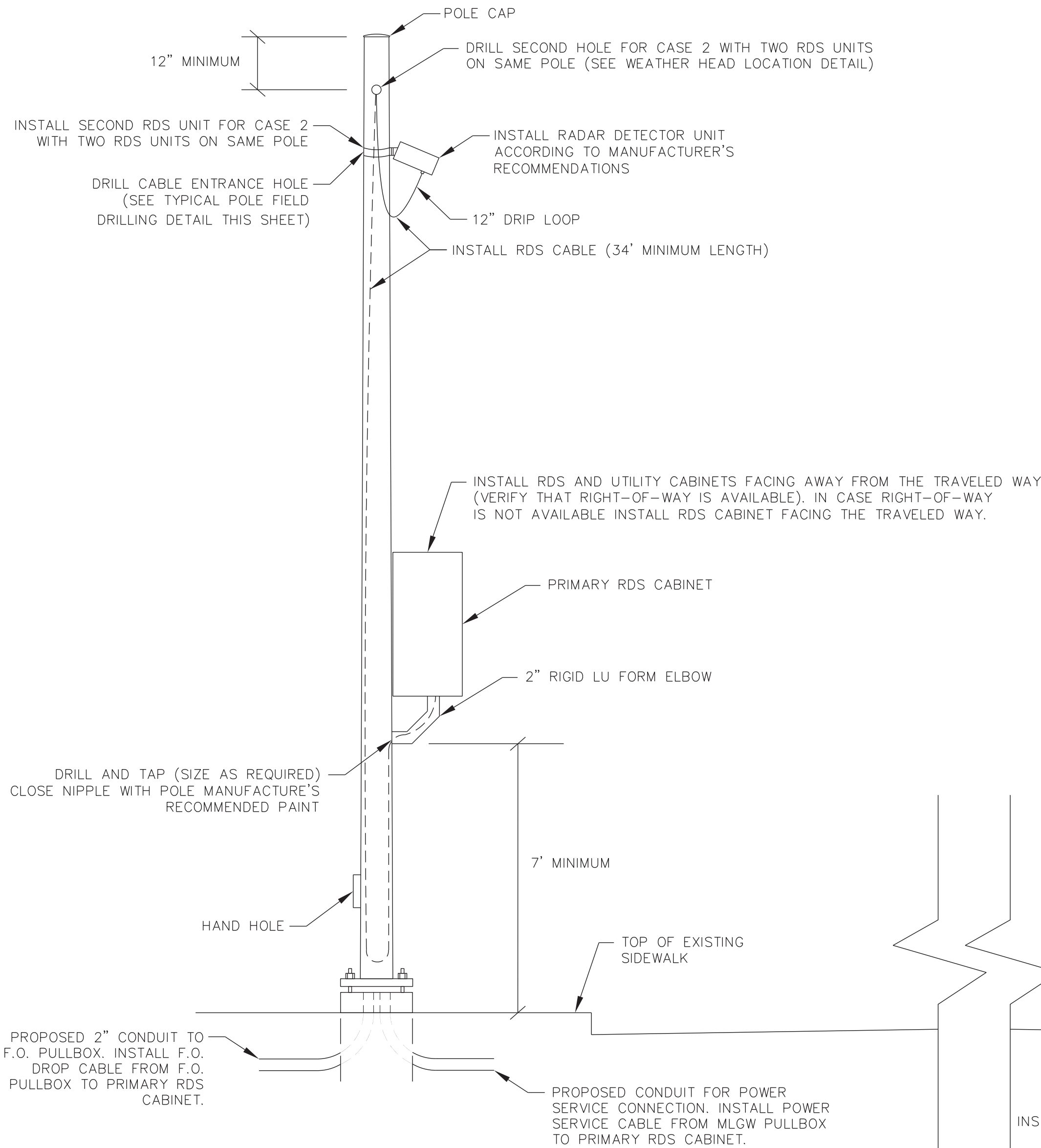
CASE 2: TWO RDS UNITS ON ONE POLE

WEATHER HEAD LOCATION DETAIL (PLAN VIEW)



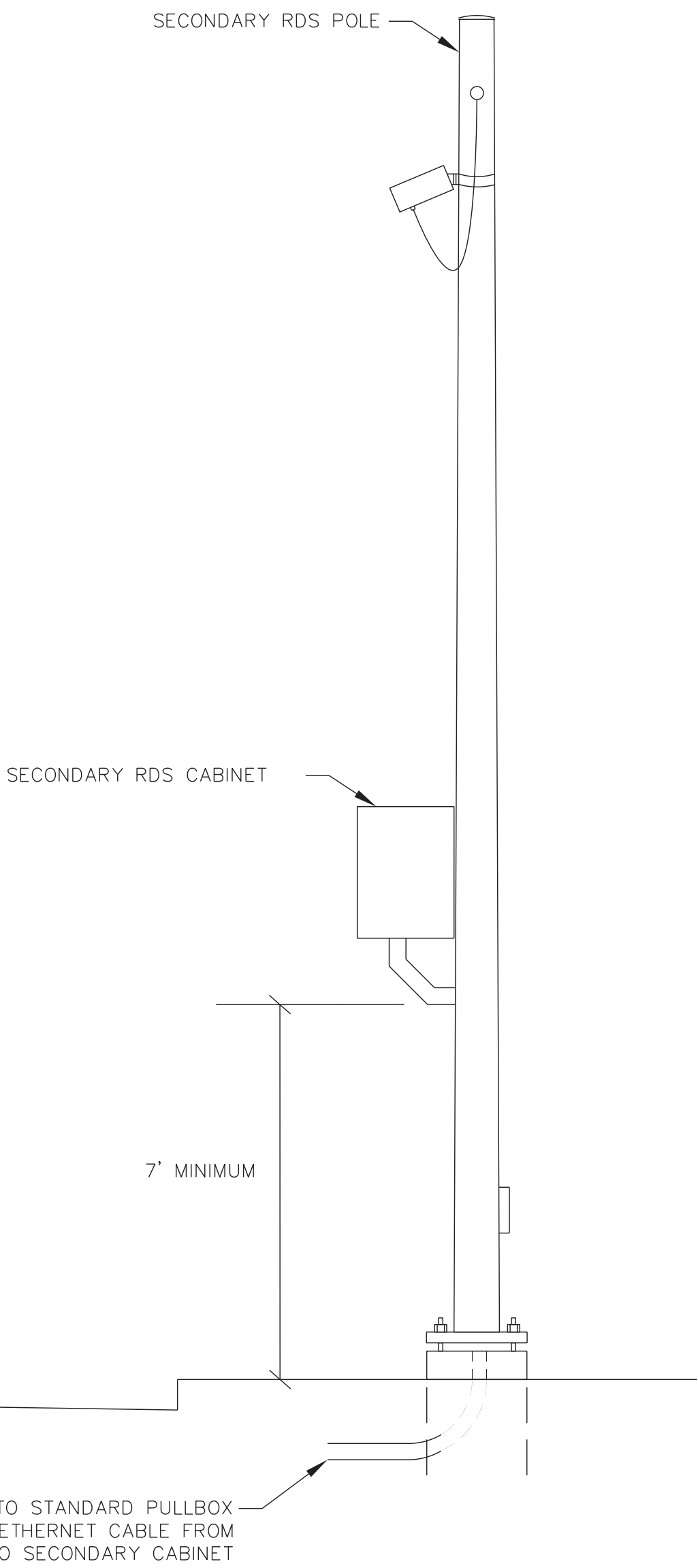
NOTE: SEE WEATHER HEAD LOCATION DETAIL FOR POSITIONING OF WEATHER HEAD(S) RELATIVE TO THE RDS UNITS.

TYPICAL POLE FIELD DRILLING DETAIL



PRIMARY POLE

INSTALL POWER AND ETHERNET CABLES FROM SECONDARY RDS CABINET TO PRIMARY RDS CABINET (IF SECONDARY POLE AND RDS UNIT IS CALLED FOR ON PLAN SHEETS)



SECONDARY POLE

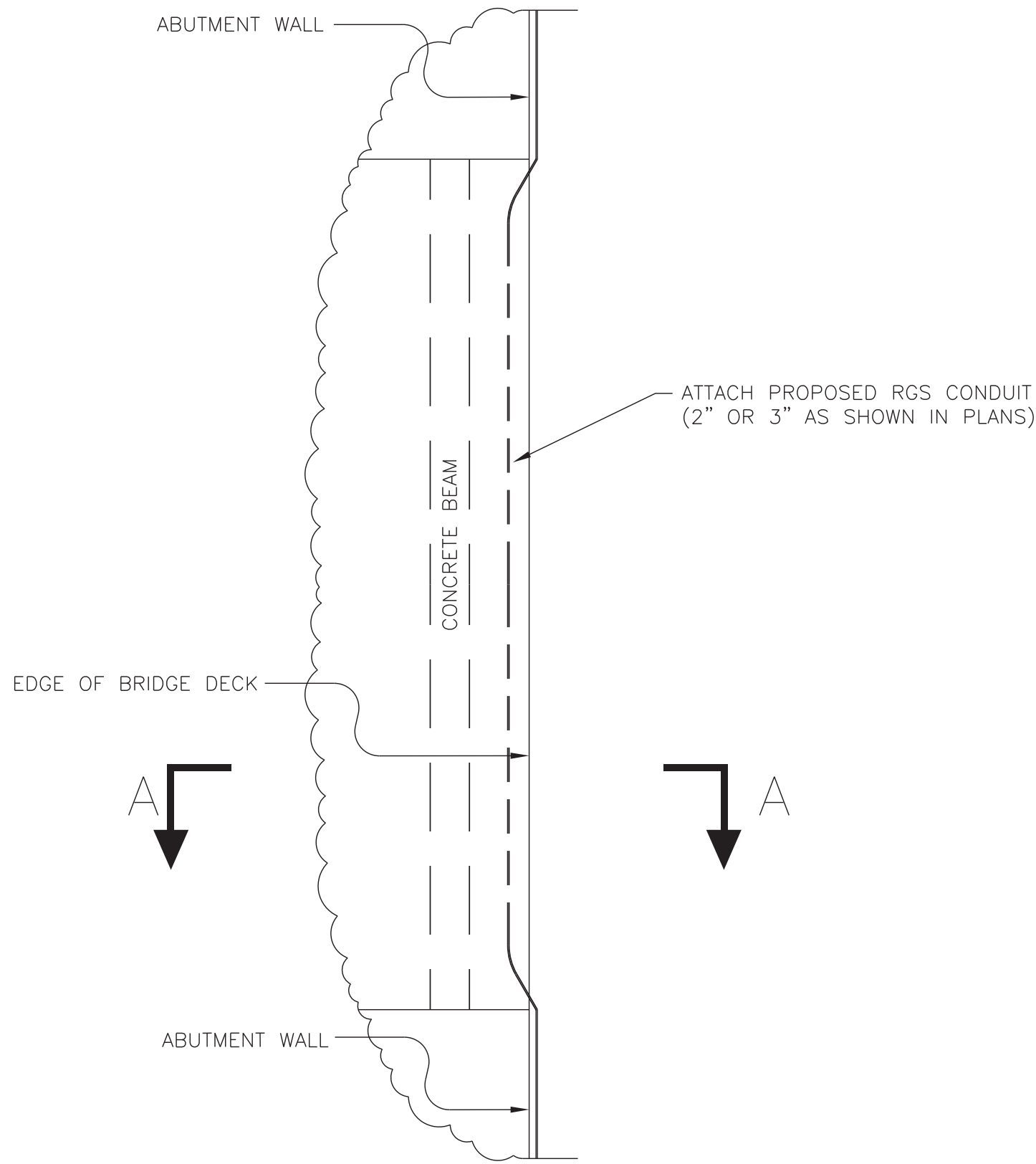
NOTE: INSTALL SECONDARY RDS POLE AS NEEDED FOR PLAN SHEETS.

NOTES:

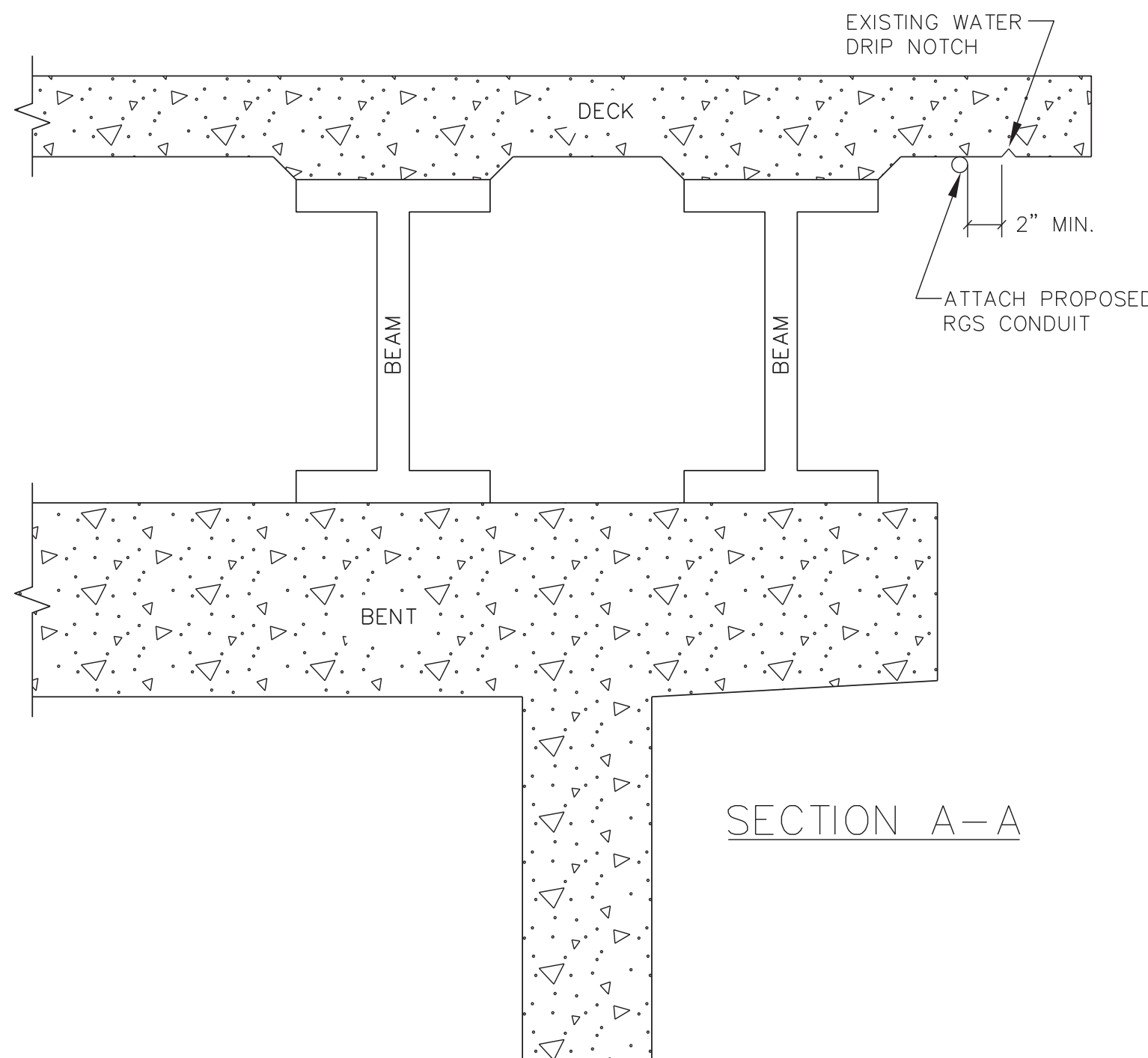
- SEE PROJECT SPECIAL PROVISIONS FOR MATERIAL AND INSTALLATION REQUIREMENTS FOR RDS UNIT, PRIMARY RDS CABINET, SECONDARY RDS CABINET AND RDS CABLE.
- SEE TDOT STANDARD DRAWING T-SG-10 FOR CONCRETE PEDESTAL POLE FOUNDATION DETAILS. ALTERNATIVELY, A STEEL SCREW-IN ANCHOR FOUNDATION CAN BE USED. SEE TDOT STANDARD DRAWING T-L-1 FOR STEEL ANCHOR FOUNDATION DETAILS.

TYPICAL RADAR DETECTION SYSTEM (RDS)

ON NEW 20' ALUMINUM PEDESTAL POLE



PLAN VIEW



SECTION A-A

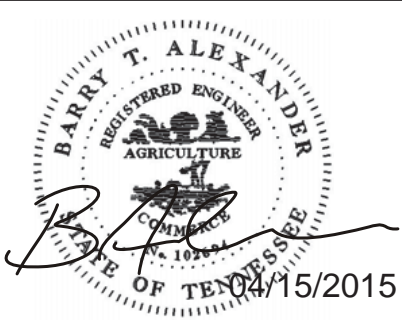
NOTES:

- ANCHOR HOLES FOR STEEL CONDUIT CLAMPS TO BE:
 - MAXIMUM DIAMETER OF 3/8"
 - MAXIMUM DEPTH OF 1 3/4"
 - SPACED 4' ON CENTER
- CONCRETE WEDGE ANCHORS WITH LOCK WASHERS SHALL BE INSTALLED

BRIDGE ATTACHMENT
CONDUIT CROSSING DETAIL

REVISIONS

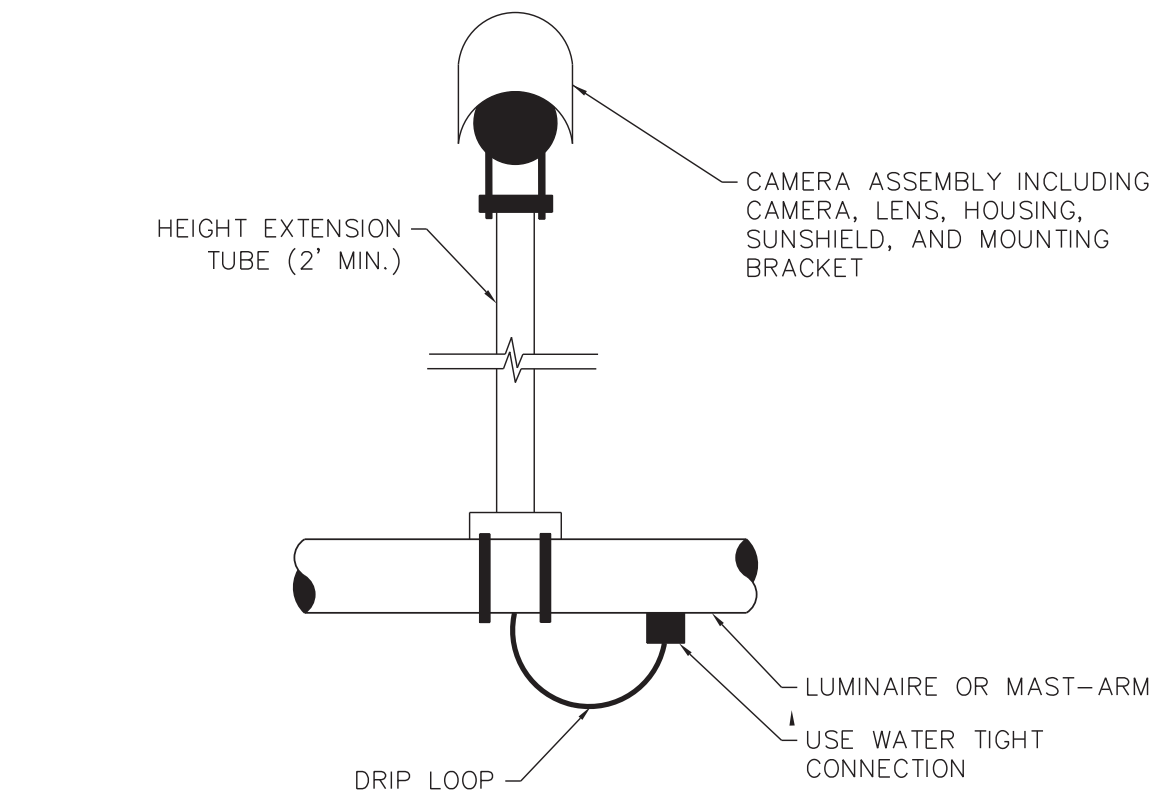
DATE	DESCRIPTIONS	APPROVED



D-02

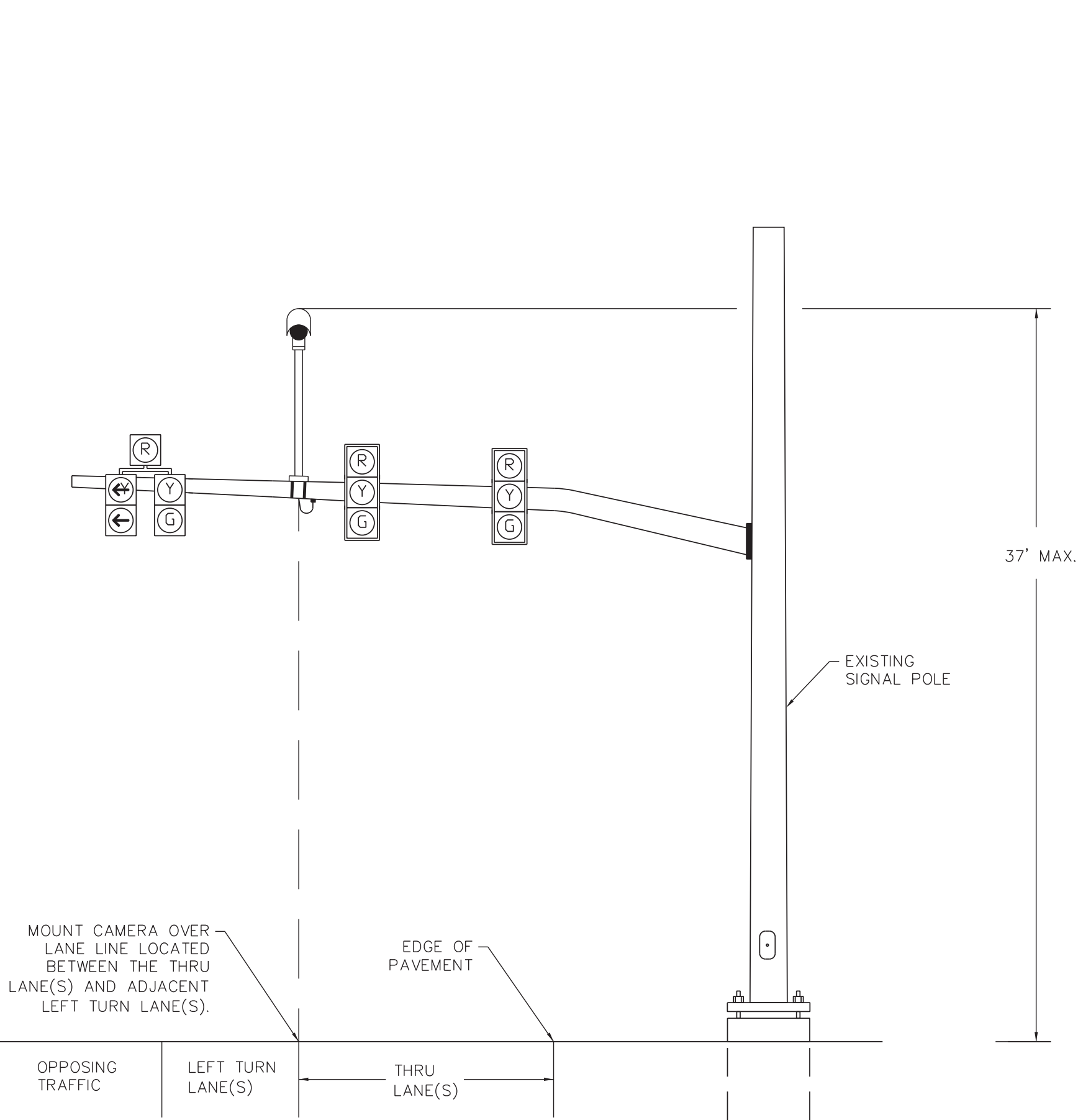
DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #10
SHELBY COUNTY, TN.
MISCELLANEOUS
DETAILS

SURVEY: N/A DATE: N/A BOOK: N/A
DRAFTED: DATE: 05/14 SCALE: N.T.S.
DESIGNED: RSW DATE: 05/14 CHECKED: BIA DATE: 05/14
JURISDICTION: SHEET 61 OF 62

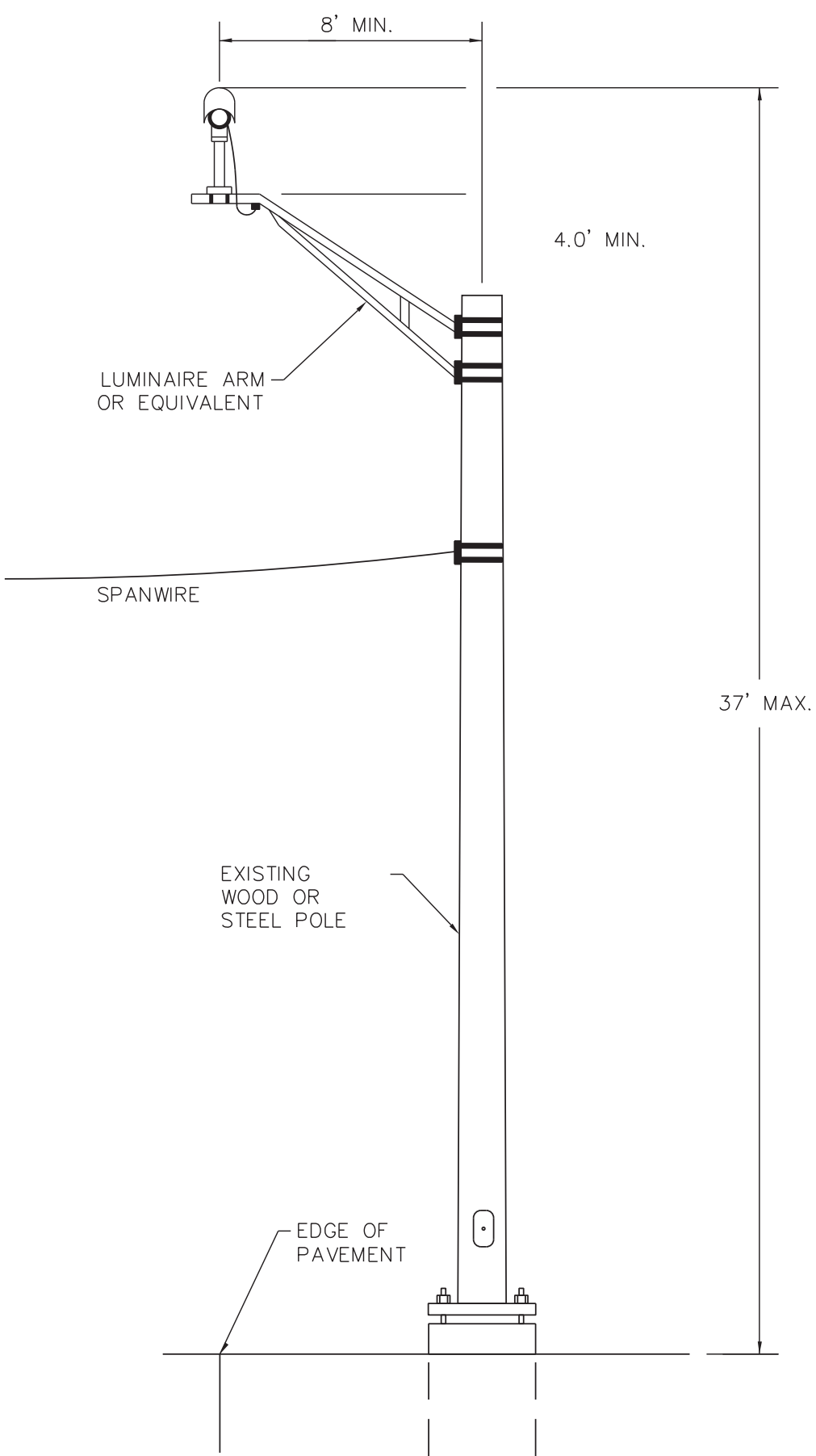


VIDEO DETECTION CAMERA MOUNTING NOTES:

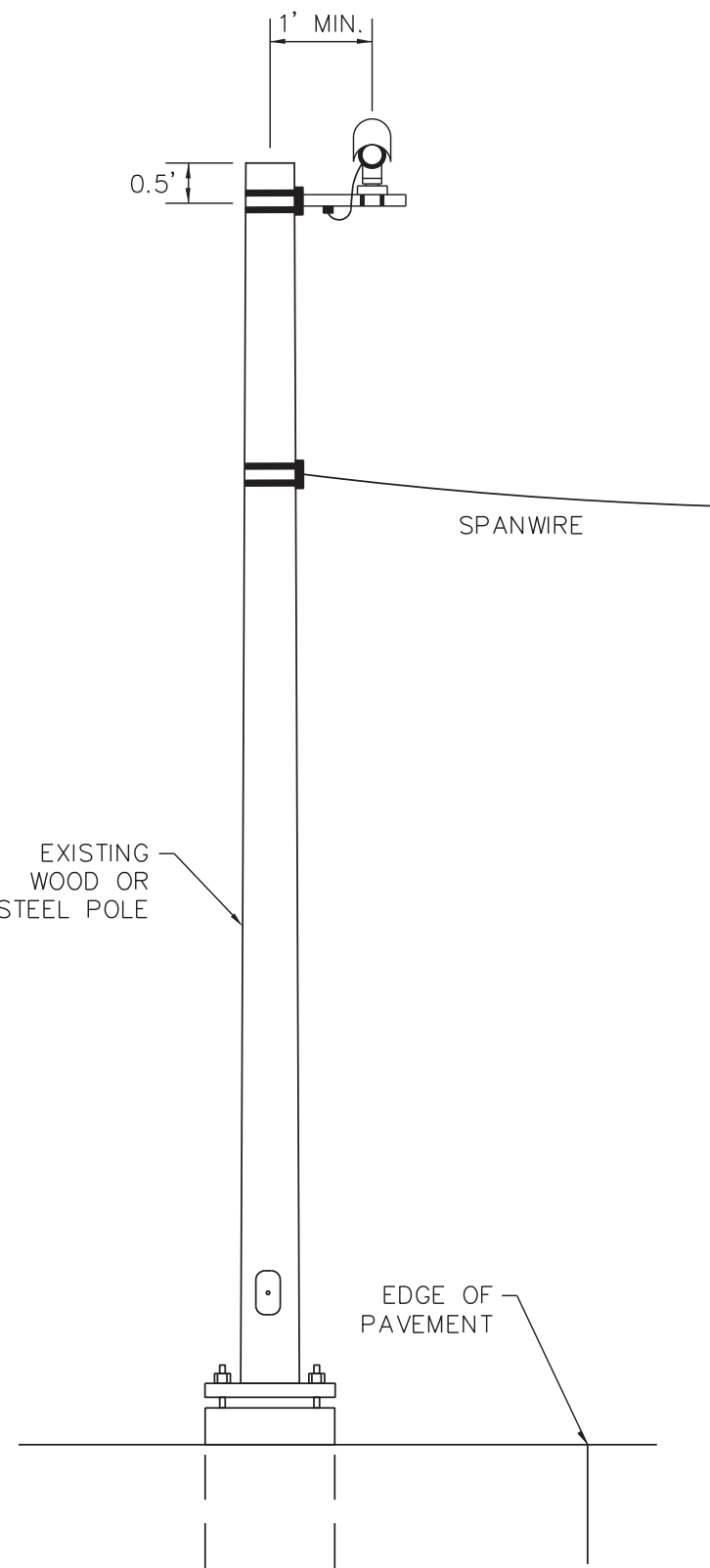
1. WHEN AIMING CAMERA, HORIZON SHALL NOT BE VISIBLE IN THE FIELD OF VIEW.
2. CAMERA ENCLOSURE ASSEMBLY SHALL BE ROTATABLE AFTER INSTALLATION TO PROVIDE PROPER ALIGNMENT.
3. VIDEO CABLE SHALL BE BELDEN OR ENGINEER-APPROVED EQUAL.
4. SUNSHIELD SHALL BE EXTENDED TO THE MAXIMUM EXTENT WITHOUT BEING IN THE CAMERA FIELD OF VIEW.



TYPE 1 MOUNT

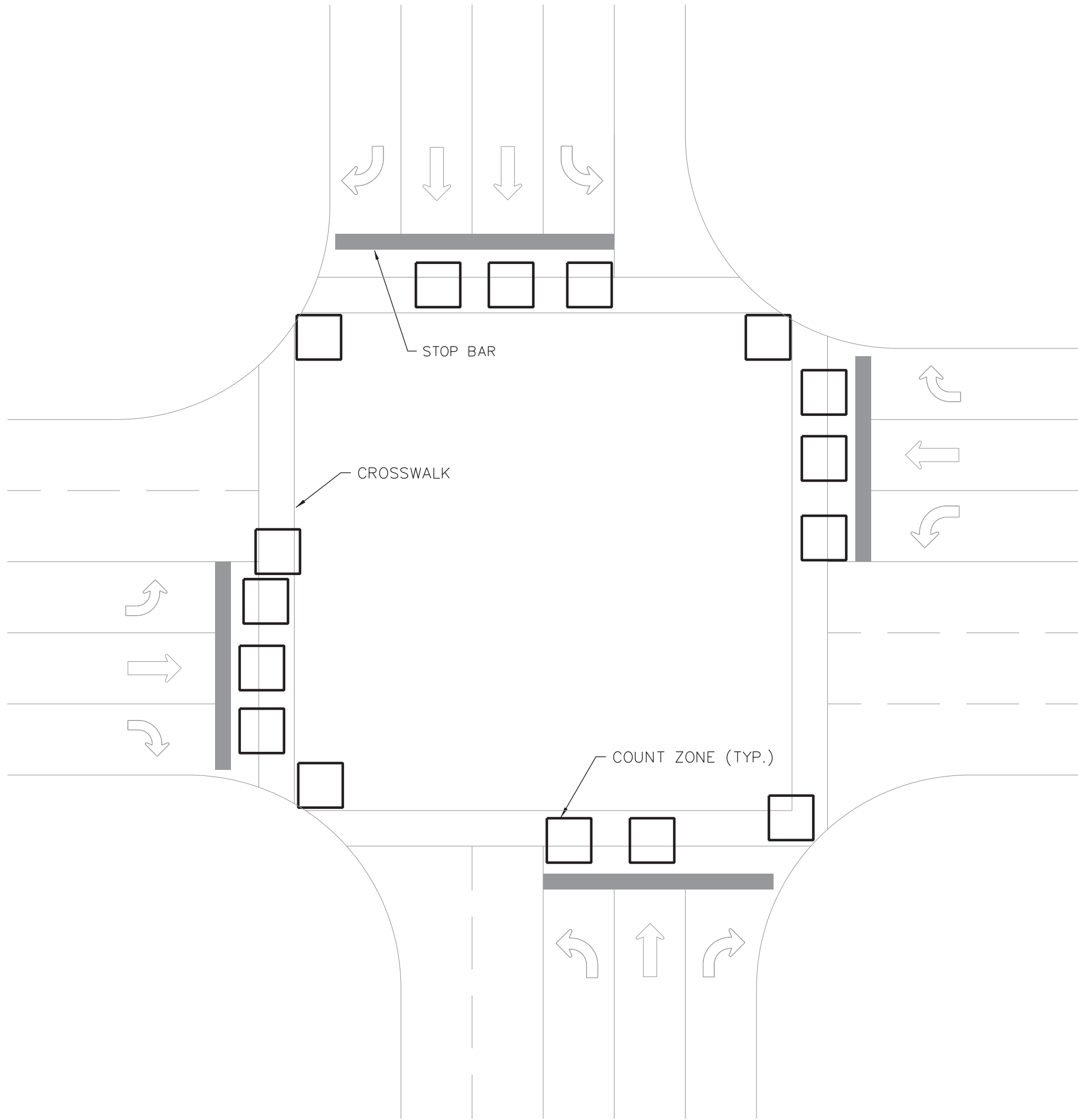


TYPE 2 MOUNT



TYPE 3 MOUNT

VIDEO DETECTION CAMERA MOUNTING DETAILS



NOTES:

1. ALL COUNT ZONES TO BE DRAWN AS 6'X6' ZONES
2. ALL COUNT ZONES TO BE SET TO DIRECTIONAL AND TO COUNT ALL THE TIME UNLESS DIRECTED OTHERWISE BY THE ENGINEER
3. ALL COUNT ZONE LOCATIONS TO BE APPROVED BY THE ENGINEER PRIOR TO FINAL ACCEPTANCE OF THE INTERSECTION
4. COUNT ZONES TO BE NUMBERED SEQUENTIALLY AFTER THE DETECTION ZONES ACCORDING TO THE PHASE ASSIGNMENT AT THE INTERSECTION.

TYPICAL COUNT ZONE DETAIL

REVISIONS				D-03	
DATE	DESCRIPTIONS	APPROVED			
<div><div>POWERS HILL DESIGN CIVIL ENGINEERING. CIVIL RESPONSIBILITY.</div><div>NEEL-SCHAFER <i>Solutions you can build upon</i></div></div>			DIVISION OF PUBLIC WORKS CONGESTION MANAGEMENT PROGRAM SIGNAL SYSTEM PROJECT SET #10 SHELBY COUNTY, TN. MISCELLANEOUS DETAILS		
SURVEY: N/A _____ DATE: N/A _____ BOOK: N/A _____ DRAFTED: _____ DATE: 05/14 _____ SCALE: N.T.S. _____ DESIGNED: <u>RSW</u> _____ DATE: 05/14 _____ CHECKED: <u>BITA</u> _____ DATE: 05/14 _____ JURISDICTION: _____ SHEET 62 OF 62					