STATE OF TENNESSEE

SHELBY COUNTY

DIVISION OF PUBLIC WORKS
PLAN FOR PROPOSED IMPROVEMENTS

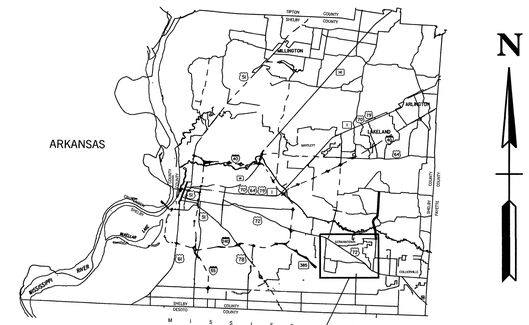
CONGESTION MANAGEMENT PROGRAM

SIGNAL SYSTEM PROJECT SET #7

TDOT P. I. N.: 115241.13
FEDERAL PROJECT NO.: CM-7900(49)
STATE P.E. NO.: 79LPLM-F1-288
STATE CONSTRUCTION NO.: 79LPLM-F3-289
LOCALLY MANAGED PROJECT

PROJECT LOCATIONS

PROJECT INTERSECTION LOCATIONS



LOCATION MAP
NOT TO SCALE

PROJECT VICINITY

N

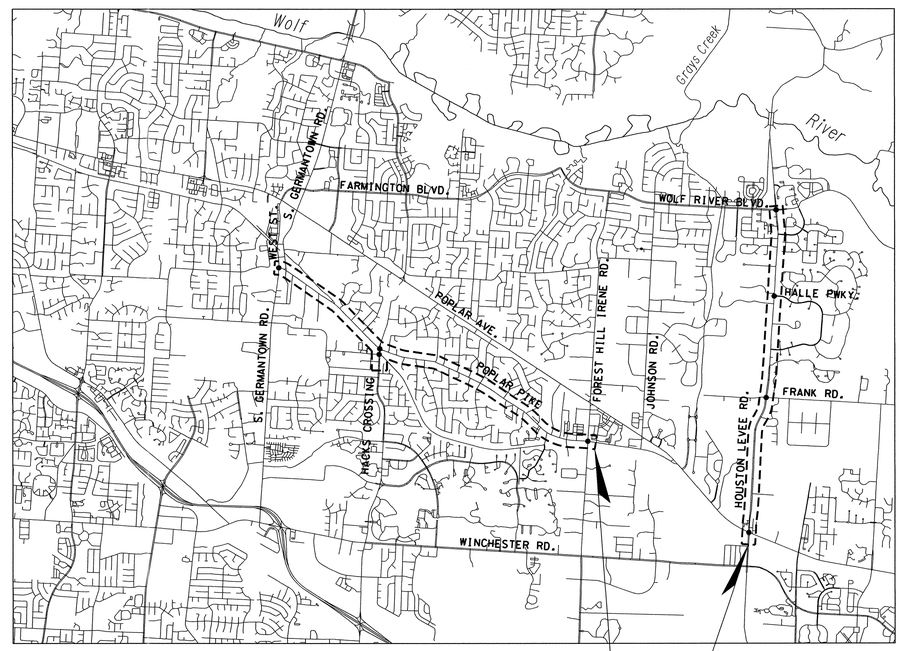
SCOPE OF WORK

THE SCOPE OF WORK INCLUDES INSTALLING CONDUIT WITH FIBER OPTIC CABLE INTERCONNECT ALONG POPLAR PIKE FROM WEST STREET TO FOREST HILL IRENE ROAD AND HOUSTON LEVEE ROAD FROM POPLAR AVENUE TO WOLF RIVER BLVD.

N

INDEX OF SHEETS

SHEET NO.	DESCRIPITION
1	COVER SHEET
2	GENERAL NOTES
3-4	TABULATED QUANTITIES
5	COMMUNICATIONS CABLE SCHEMATIC
6	COMMUNICATION CHANNEL SCHEMATIC
7-13	CONDUIT LAYOUTS - HOUSTON LEVEE ROAD
14-21	CONDUIT LAYOUTS - POPLAR PIKE
22-29	INTERSECTION LAYOUT SHEETS
30-37	SPLICE DIAGRAM SHEETS
38-51	EXISTING UTILITIES SHEETS
52	RADAR SYSTEM DETAIL



VICINITY MAP
NOT TO SCALE

EQUATIONS: NONE
EXCEPTIONS: NONE

PROJECT 25
HOUSTON LEVEE ROAD

PROJECT 32
POPLAR PIKE

NOTES:

PROPOSALS MAY BE REJECTED BY THE COUNTY ENGINEER IF ANY OF THE UNIT PRICES CONTAINED THEREIN ARE OBVIOUSLY UNBALANCED, ETHIER 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 IS 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. THOMAS E. NEEDHAM, P.E.
SHELBY COUNTY DIRECTOR OF PUBLIC WORKS

MICHAEL J. BRUGGE
Registered Engineer
No. 15866
STATE OF TENNESSEE
04/24/2015

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 RESPONSIBILITY 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. 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.

4. SOME UTILITIES CAN BE LOCATED BY CALLING THE TENNESSEE ONE CALL SYSTEM, INC. AT 1-800-351-1111. 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.

TRAFFIC CONTROL NOTES

1. NOTHING IN THIS PLAN IS INTENDED TO SUPERSEDE OR RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF INSTALLING THE APPROPRIATE TRAFFIC CONTROL DEVICES IN ACCORDANCE WITH THE CURRENT STATE OF TENNESSEE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS."

2. THE CONTRACTOR SHALL BE REQUIRED TO NOTIFY THE JURISDICTION IN WHICH THE WORK IS TO BE DONE A MINIMUM OF 72 HOURS PRIOR TO COMMENCING CONSTRUCTION OR IMPLEMENTING A TRAFFIC CONTROL PLAN FOR THIS PROJECT. THE CONTRACTOR SHALL CONTACT THE FOLLOWING AGENCIES:

   CITY OF GERMANTOWN ENGINEERING
   (901) 757-7200

   TOWN OF COLLIERVILLE ENGINEERING
   (901) 457-2340

   SHELBY COUNTY ROAD AND BRIDGE DEPARTMENT
   (901) 222-7742

ALL TRAFFIC CONTROL DEVICES MUST BE IN PLACE BEFORE CONSTRUCTION ACTIVITY BEGINS.

ALL TRAFFIC CONTROL DEVICES AND THEIR INSTALLATION SHALL MEET THE STANDARD PRESCRIBED IN THE ST ATE OF TENNESSEE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND SHALL COMPLY WITH THE STATE OF TENNESSEE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION SECTION 712 TEMPORARY TRAFFIC CONTRO

4. ACCESS TO ADJACENT PROPERTIES SHALL BE MAINTAINED AT ALL TIMES.

5. SIDE STREET, DRIVEWAY ACCESS, AND SAFE PEDESTRIAN WAYS SHALL BE MAINTAINED AT ALL TIMES.

6. THE CONTRACTOR SHALL NOT BE PERMITTED TO PARK ANY VEHICLES OR CONSTRUCTION EQUIPMENT DURING PERIODS OF INACTIVITY, WITHIN THE RIGHT-OF-WAY OR WITHIN THIRTY (30) FEET OF THE EDGE OF PAVEMENT WHICHEVER IS LESS, WHEN THE LANE IS OPEN TO TRAFFIC, UNLESS PROTECTED BY GUARDRAIL, BRIDGE RAIL, AND/OR BARRIERS INSTALLED FOR OTHER PURPOSES. PRIVATELY OWNED VEHICLES SHALL NOT BE ALLOWED TO BE PARKED WITHIN THE RIGHT-OF-WAY OR WITHIN THIRTY (30) FEET OF AN OPEN TRAFFIC LANE WHICHEVER IS LESS, AT ANY TIME UNLESS PROTECTED AS DESCRIBED ABOVE.

7. IF USED, THE CONTRACTOR SHALL USE PLASTIC DRUMS WITH TYPE "C" WARNING LIGHTS TO SEPARATE TRAFFIC FROM THE CONSTRUCTION AREA.

8. DRUMS WITH TYPE "C" WARNING LIGHTS SHALL DELINEATE THE EDGE OF PAVEMENT THROUGH THE ENTIRE CONSTRUCTION AREA, IF USED.

9. THE CONTRACTOR SHALL COVER ALL EXISTING SIGNS THAT CONFLICT WITH THE TRAFFIC CONTROL PLAN SIGNS OR DEVICES DURING CONSTRUCTION AND THEY SHALL REMAIN COVERED DURING CONSTRUCTION AND UNTIL SUCH TIME THAT N O CONFLICT EXISTS.

10. DURING CONSTRUCTION, A MINIMUM OF ONE 11 FOOT LANE OR TRAFFIC IN EACH DIRECTION SHALL REMAIN OPEN TO TRAFFIC AT ALL TIMES.

11. WORK WITHIN THE ROADWAY SHALL BE CONDUCTED BETWEEN 9:00 A.M. AND 4:00 P.M. THE ROADWAY SHALL BE COMPLETELY OPEN TO TRAFFIC AT ALL OTHER TIMES AND ALL INAPPROPRIATE SIGNS SHALL BE COVERED OR REMOVED.

12. THE CONTRACTOR SHALL CONTACT ALL APPROPRIATE AGENCIES BEFORE CLOSING ANY ROADWAYS.

13. THE CONTRACTOR SHALL CONTACT THE CITY OF MEMPHIS SIGNAL SHOP AT 901-528-2844 FOR LOCATION OF SIGNAL CONDUIT AND WIRES.

MISC. NOTES

1. 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.

2. CONTACT SHELBY COUNTY DEPARTMENT OF ROADS AND BRIDGES AT (901) 222-7742 AT LEAST 72 HOURS BEFORE BEGINNING ANY WORK ON THIS PROJECT.

3. SIGNAL EQUIPMENT AND INSTALLATION SHALL COMPLY WITH THE CITY OF MEMPHIS TRAFFIC SIGNAL SPECIFICATIONS.

4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING THE SIGNAL TIMING IN THE CONTROLLER. CONTACT THE ENGINEER TO OBTAIN TIMINGS.

5. ALL SALVAGEABLE ITEMS TO BE DELIVERED TO THE CITY OF MEMPHIS, CITY OF GERMANTOWN, TOWN OF COLLIERVILLE, AND CITY OF BARTLETT TRAFFIC SIGNAL MAINTENANCE OFFICES.

6. 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.

CABLE MARKER NOTES

1. THE CONTRACTOR SHALL INSTALL CABLE MARKERS TO IDENTIFY THE CONDUIT LOCATIONS. LEGENDS AND COOLORS FOR MARKERS ARE TO APP ACCORDING TO THE INFORMATION SUPPLIED BY THE CITY OF MEMPHIS SIGNAL MAINTENANCE DEPARTMENT. MARKERS ARE TO BE PERMANENT, BRIGHTLY COLOERED, 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 RESISTNANT.

2. CURB MARKERS SHALL BE INSTALLED TO IDENTIFYCABLES 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. CURBMARKERS ARE ALSO TO BE PLACE ON THE CURBAT 100-FOOT SPACING ALONG ANY RUN OF CABLE THAT IS PARALLEL TO THE CURB. WHERE PAVED SHOULDER EXISTS 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 FRINCK AND CO., OR APPROVED EQUAL. CURB MARKERS SHALL BE ABRASION AND UV-RESISTANT.

APPLICABLE CITY OF MEMPHIS DESIGN STANDARDS
T-S-1

APPLICABLE T.D.O.T. STANDARD DRAWINGS:
T-L-1, T-SG-2, T-SG-3, T-SG-5, T-SG-9A, T-SG-10, T-WZ-50, T-FO-1, T-FO-2, T-FO-3, T-FO-4

SPECIAL DETAILS WITHIN THIS PLAN SET SHALL SUPERCEDE THOSE FOUND ON THE LISTED STANDARD DRAWINGS.

REVISIONS		
ITEM No.	DESCRIPTION OF CHANGE	APPROVAL DATE

ENGINEERS SEAL

MICHAEL J. BRUGGE
REGISTERED ENGINEER
No. 112921
STATE OF TENNESSEE
07/24/15

PARSONS

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
INTERSECTION IMPROVEMENTS
SHELBY COUNTY, TN

GENERAL NOTES

SURVEY BY: N/A DATE: _____ BOOK: _____
DRAFTED BY: JJC DATE: 07/14 SCALE: 1"=50'
DESIGNED BY: MJB DATE: 07-14 CHECKED: _____ DATE: _____

SHEET	LOCATION	CONCRETE SIDEWALK (4")	CONCRETE COMBINED CURB AND GUTTER	RAILROAD ADVANCE WARNING SIGN AND SUPPORT	PLASTIC PAVEMENT MARKING (STOP LINE)	PLASTIC WORD PAVEMENT MARKING (RXR)	FIBER SPLICE ENCLOSURE (WEATHERPROOF)	ETHERNET SWITCH (TYPE A)	RAILROAD FLAGMAN	TERMINAL SERVER (SERIAL DEVICE SERVER)	CABINET (TYPE A)	BLUETOOTH DETECTION SYSTEM	RADAR DETECTION SYSTEM	RDS CABLE (POWER, CAT5E, AND RS232/RS485 COMPOSITE)	MODIFICATION OF EXISTING SIGNAL EQUIPMENT	INSTALL PULL BOX (FIBER OPTIC-TYPE A)	INSTALL PULL BOX (FIBER OPTIC-TYPE B)	FIBER DISTRIBUTION BOX	ELECTRICAL SERVICE CONNECTION	INTERCONNECT CABLE -- FIBER OPTIC (36 FIBER SINGLE MODE)	INTERCONNECT CABLE -- FIBER OPTIC (DROP CABLE, 6 FIBER, SINGLE MODE)	CONDUIT 2" DIAMETER (PVC)	CONDUIT 2" DIAMETER (JACK AND BORE)	CONDUIT 3" DIAMETER (JACK AND BORE)	CURB MOUNTED CABLE MARKER	MODIFY CABINET (BASE-MOUNT ENTRANCE)	EIGHT PHASE ACTUATED CONTROLLER	PEDESTAL POLE (ALUMINUM, 20' LENGTH)	WATER (SEEDING AND SODDING)	SODDING (NEW SOD)
	TDOT ITEM NUMBER	701-01.01	702-03	713-16.09	716-02.05	716-03.02	725-02.79	725-03.09	725-03.28	725-21.22	725-24.01	725-21.88	725-21.91	725-21.96	730-01.03	730-03.23	730-03.24	730-03.31	730-05.01	730-08.40	730-08.43	730-12.02	730-12.13	730-12.14	730-12.42	730-15.13	730-16.02	730-23.30	801-03	803-01
							B6	C6		C7	D12	D16	D13	W11	B1	B10	B11	B7	B15	W6	W9		10	17			C2	B13		
		S.F.	C.Y.	EACH	L.F.	EACH	EACH	EACH	DAY	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	L.F.	L.F.	L.F.	L.F.	L.F.	EACH	EACH	EACH	EACH	M.G.	S.Y.
	PROJECT 25																													
22	POPLAR AVE INTERSECTION	0																		524		202			2					202
7 - 10	FROM POPLAR TO FRANK	720					1	1			1		1	1		10	2		1	13686	140	90	6243		64			1		172
23	FRANK ROAD INTERSECTION	180	10				1	1		1		1			1	1	1	1		426	100	50	113		5	1	1			68
10 - 11	FROM FRANK TO HALLE PKWY	540					1	1			1		1	1		8	1		1	10448	100	50	4774		49			1		114
24	HALLE PKWY NORTH INTERSECTION	120	10				1	1		1					1		1	1			100	50			3	1				62
12 - 13	FROM HALLE PKWY TO WOLF RIVER	480														7	1			8966			4083		42					48
25	WOLF RIVER BLVD INTERSECTION	120					2	1		1		1			1		1	1			62	12			3	1	1			24
	SUBTOTAL PROJECT 25	2,160	20	0	0	0	6	5	0	3	2	2	2	2	3	26	7	3	2	34,050	502	454	15,213	0	168	3	2	2	0	690
	PROJECT 32																													
26	GERMANTOWN RD./ WEST ST AT MCVAY	60										1			1		1			159			109		3					6
14	FROM WEST ST TO GERMANTOWN RD	60														1				306			256		5					6
27	GERMANTOWN ROAD/ ARTHUR	180	10				1	1		1					1	1	1	1		208	205	10	235		5	1				28
14 - 17	FROM GERMANTOWN RD TO HACKS	780			50	2	1	1	4		1		1	1		10	3		1	6208	68	18	5558	150	57			1		106
28	HACKS CROSS ROAD	360		1	70	2	1	1	3	1		1			1	3	2	1		530	246	140	536		12	1				177
28	C.D. SMITH ROAD AT HACKS	120			80			1	3	1					1		1	1			190	10		130	2	1				22
18 - 22	FROM HACKS TO FOREST HILL-IRENE	1620					1	1			1		1	1		21	6		1	12564	68	18	11214		114			1		190
29	FOREST HILL - IRENE RD INTERSECTION	60	10														1						92		3					6
	SUBTOTAL PROJECT 32	3,240	20	1	200	4	4	5	10	3	2	2	2	2	4	36	15	3	2	19,975	777	196	18,000	280	201	3	0	2	0	541
	TOTAL	5,400	40	1	200	4	10	10	10	6	4	4	4	4	7	62	22	6	4	54,025	1,279	650	33,213	280	369	6	2	4	0	1,231

REVISIONS

ITEM No.	DESCRIPTION OF CHANGE	APPROVAL DATE

ENGINEERS SEAL

MICHAEL J. BRUCE — STATE OF TENNESSEE — 07/13/15

PARSONS

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
INTERSECTION IMPROVEMENTS
SHELBY COUNTY, TN

TABULATED QUANTITIES

SURVEY BY: N/A DATE: _____ BOOK: _____
DRAFTED BY: JJC DATE: 07/14 SCALE: 1"=50'
DESIGNED BY: MJB DATE: 07-14 CHECKED: KLA DATE: 7/14

	CONGESTION MANAGEMENT PROGRAM (SIGNAL SYSTEM SET #7)			
	ITEM NUMBER	ITEM	QUANTITY	AMOUNT
	105-01	CONSTRUCTION STAKES, LINES, AND GRADES	LS	1
①	209-09.43	CLEARING AND GRUBBING	L.S.	1
②	209-01.10	EROSION AND SILTATION CONTROL (SIGNALIZATION PROJECT)	LS	1
③	701-01.01	CONCRETE SIDEWALK (4")	S.F.	5400
③	702-03	CONCRETE COMBINED CURB AND GUTTER	C.Y.	40
④	712-01	TRAFFIC CONTROL	LS	1
	713-16.09	RAILROAD ADVANCE WARNING SIGN AND SUPPORT	EACH	1
⑤	714-25.09	ELECTRICAL CONNECTION (FOR MLGW COST ONLY)	ALLOW	20000
	716-02.05	PLASTIC PAVEMENT MARKING (STOP LINE)	L.F.	130
	716-03.02	PLASTIC WORD PAVEMENT MARKING (RXR)	EACH	2
	717-01	MOBILIZATION	LS	1
⑥	725-02.79	FIBER SPLICE ENCLOSURE (WEATHERPROOF)	EACH	10
⑦	725-03.09	ETHERNET SWITCH (TYPE A)	EACH	10
	725-03.28	RAILROAD FLAGMAN	DAY	10
	725-21.22	TERMINAL SERVER (SERIAL DEVICE SERVER)	EACH	6
⑧	725-24.01	CABINET (TYPE A)	EACH	4
⑨	725-21.88	BLUETOOTH DETECTION SYSTEM	EACH	4
⑩	725-21.91	RADAR DETECTION SYSTEM	EACH	4
⑩	725-21.96	RDS CABLE (POWER, CAT5E, AND RS232/RS485 COMPOSITE)	EACH	4
	730-01.03	MODIFICATION OF EXISTING SIGNAL EQUIPMENT	EACH	7
⑪	730-01.10	OVERHEAD UTILITY RELOCATION (UTILITY FEE)	L.S.	1
⑫	730-03.23	INSTALL PULL BOX (FIBER OPTIC-TYPE A)	EACH	62
⑬	730-03.24	INSTALL PULL BOX (FIBER OPTIC-TYPE B)	EACH	22
	730-03.31	FIBER DISTRIBUTION BOX	EACH	6
⑭	730-05.01	ELECTRICAL SERVICE CONNECTION	EACH	4
⑮	730-08.40	INTERCONNECT CABLE -- FIBER OPTIC (36 FIBER SINGLE MODE)	L.F.	54025
⑮	730-08.43	INTERCONNECT CABLE -- FIBER OPTIC (DROP CABLE, 6 FIBER, SINGLE MODE)	L.F.	1279
	730-12.02	CONDUIT 2" DIAMETER (PVC)	L.F.	650
	730-12.13	CONDUIT 2" DIAMETER (JACK AND BORE)	L.F.	33213
	730-12.14	CONDUIT 3" DIAMETER (JACK AND BORE)	L.F.	280
⑯	730-12.42	CURB MOUNTED CABLE MARKER	EACH	369
	730-15.13	MODIFY CABINET (BASE-MOUNT ENTRANCE)	EACH	6
⑰	730-16.02	EIGHT PHASE ACTUATED CONTROLLER	EACH	2
	730-23.30	PEDESTAL POLE (ALUMINUM, 20' LENGTH)	EACH	4
	801-03	WATER (SEEDING AND SODDING)	M.G.	2
	803-01	SODDING (NEW SOD)	S.Y.	1231

FOOTNOTES

1. FOR TREE TRIMMING AS DIRECTED BY THE ENGINEER.

2. THE CONTRACTOR IS REQUIRED TO PREVENT EROSION ON THE WORK SITE AND TO CONTAIN ALL SEDIMENT. EXCAVATED MATERIALS ARE TO BE REMOVED AND DISPOSED OF ACCORDING TO THE NOTES. THE CONTRACTOR MUST COMPLY WITH THE PROVISIONS OF TDOT AND TDEC AS EXPLAINED IN THE NOTES. THE COSTS OF MULCH, BLANKETS, SILT FENCE, CATCH BASIN PROTECTION, SEDIMENT REMOVAL, AND ANY OTHER NEEDED MEASURES ARE TO BE INCLUDED IN THE PRICE BID FOR ITEM 209-01.10.

3. THESE PAY ITEMS WILL BE USED AS DETERMINED BY THE ENGINEER BASED ON THE FINAL FIELD LOCATION CONDITIONS.

4. THE CONTRACTOR IS REQUIRED TO PROVIDE TRAFFIC CONTROL DEVICES AS NECESSARY TO PROTECT THE WORKZONE AND PROVIDE SAFE PASSAGEWAYS FOR VEHICLES AND PEDESTRIANS. THE LUMP SUM PRICE BID FOR ITEM 712-01 IS TO INCLUDE ALL NEEDED DEVICES AND LABOR TO COMPLY WITH THE TDOT STANDARD DRAWINGS.

5. 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.

6. SEE THE LATEST "CITY OF MEMPHIS -- STANDARD CONSTRUCTION SPECIFICATIONS" FOR TECHNICAL REQUIREMENTS.

7. SEE CITY OF MEMPHIS SPECIFICATIONS FOR A "RUGGEDIZED ETHERNET CABINET SWITCH."

8. SEE PROJECT SPECIAL PROVISIONS FOR UTILITY CABINETS. TYPE A CABINETS ARE FOR PRIMARY CABINETS. TYPE D CABINETS ARE FOR SECONDARY CABINETS. TYPE D CABINETS TO INCLUDE ALL NECESSARY CABLES TO CONNECT TO THE TYPE A CABINET.

9. 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.

10. SEE PROJECT SPECIAL PROVISIONS FOR RADAR DETECTION EQUIPMENT.

11. ALLOWANCE FOR ADJUSTMENT TO OVERHEAD UTILITES ONLY. THE UNIT PRICE BID FOR THIS ITEM WILL BE ADJSUTED BY SHELBY COUNTY TO MATCH THE ACTUAL FEE CHARGED BY UTILITY COMPANIES FOR ADJUSTMENT OF OVERHEAD LINES.

12. QUAZITE BRAND (MODEL NO. PG2436BB24 WITH PG2436HH6L COVER) OR APPROVED EQUIVALENT. COST INCLUDES ALL LABOR AND MATERIALS (REMOVING AND REPLACING NECESSARY SIDE WALK PANELS, REPAIR LANDSCAPING, REMOVING EXISTING PULL BOX, AND OTHER MISCELLANEOUS MATERIALS) TO COMPLETE PULL BOX INSTALLATION.

13. QUAZITE BRAND (MODEL NO. PG3048BB36 WITH PG3048HS6L COVER) OR APPROVED EQUIVALENT. COST INCLUDES ALL LABOR AND MATERIALS (REMOVING AND REPLACING NECESSARY SIDE WALK PANELS, REPAIR LANDSCAPING, REMOVING EXISTING PULL BOX, AND OTHER MISCELLANEOUS MATERIALS) TO COMPLETE PULL BOX INSTALLATION.

14. CONTRACTOR RESPONSIBLE FOR ALL COST ASSOCIATED WITH POWER CONNECTION FOR TRAFFIC SIGNAL OR RDS UNIT FROM THE DEMARCATION POINT TO THE CABINET.

15. 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.

16. PLASTIC DISK MARKERS ARE TO BE ATTACHED TO THE FACE OF THE CURB OVER EACH LOCATION WHERE CONDUIT OR SIGNAL CABLES CROSS UNDERNEATH. MARKERS ARE ALSO TO BE ATTACHED TO THE CURB AT 100-FOOT INTERVALS WHERE CONDUIT RUNS UNDER OR BEHIND AND PARALLEL TO THE CURB. MARKERS ARE TO BE ATTACHED BY THE CONTRACTOR USING AN ADHESIVE THAT MEETS THE REQUIREMENTS OF THE MANUFACTURER. BOTH F-26 CONSTRUCTION ADHESIVE AND SB-12 SUREBOND METAL SEALANT ARE ACCEPTABLE FOR THIS APPLICATION.

17. 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 EDISSMI2LEIP.

REVISIONS		
ITEM No.	DESCRIPTION OF CHANGE	APPROVAL DATE

ENGINEERS SEAL

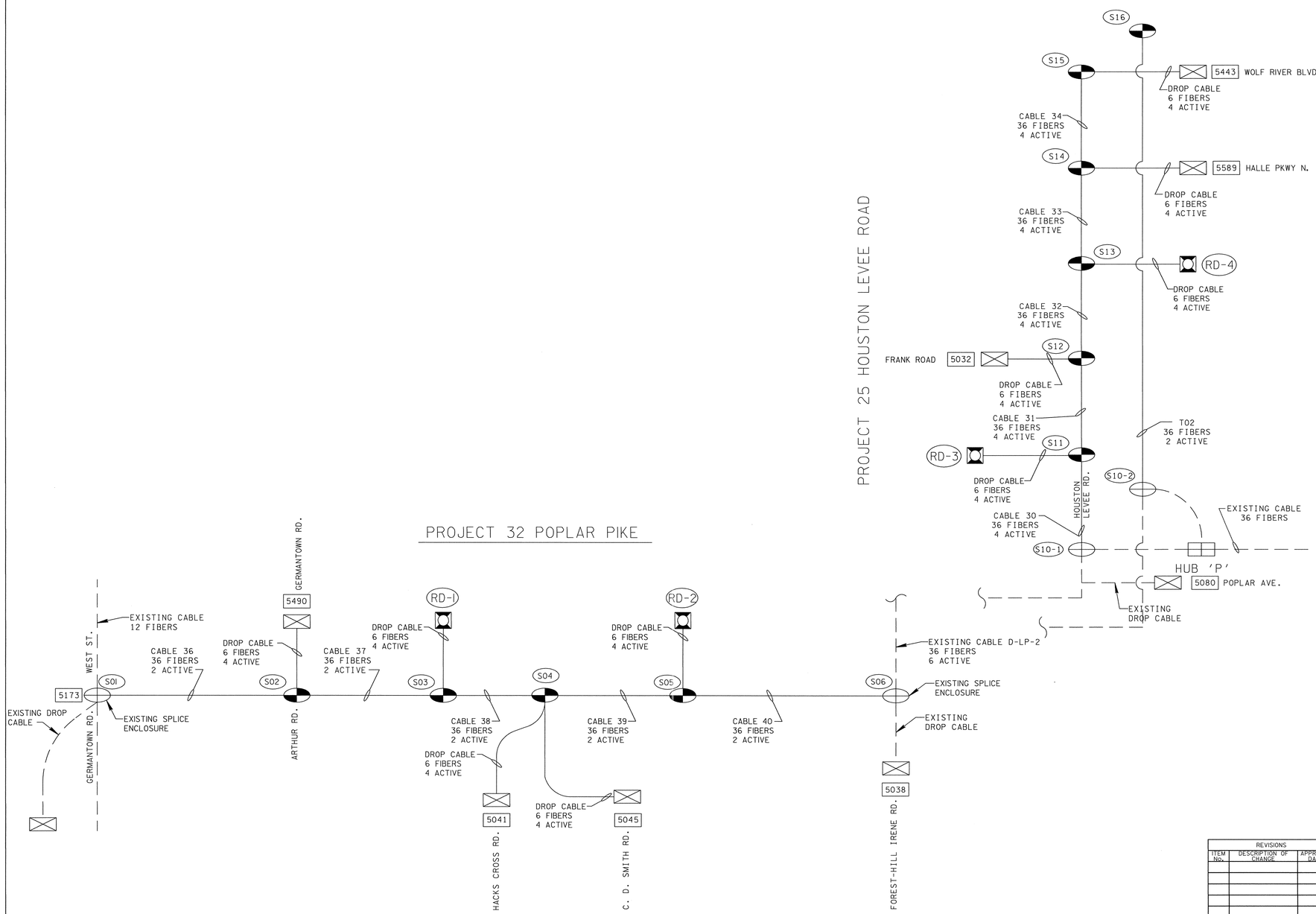
MICHAEL J. BRUGGE — STATE OF TENNESSEE — 07/14/15

PARSONS

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
INTERSECTION IMPROVEMENTS
SHELBY COUNTY, TN

QUANTITIES

SURVEY BY: N/A DATE: BOOK:
DRAFTED BY: JJC DATE: 07/14 SCALE: 1"=50'
DESIGNED BY: MJB DATE: 07-14 CHECKED: KLA DATE: 7/14



LEGEND:

	EXISTING	PROPOSED
EXISTING PULL BOX		
OVERSIZED PULL BOX		
POLE MOUNTED CONTROLLER CABINET		
PEDESTAL MOUNTED CONTROLLER CABINET		
BASE MOUNTED CONTROLLER CABINET		
BASE MOUNTED HUB CABINET		
SPLICE ENCLOSURE		

(XXX)	EQUIPMENT/CABINET REFERENCE DESIGNER
T/R	TRANSIT/RECEIVE
REGEN	REGENERATION
STR	STRING (I.E. OPTICAL FIBER CIRCUIT)
	CABLE BACKLASH
[XXXX]	INTERSECTION ID NUMBER

NOTES:

1. CABLES WITH A "T" PREFIX (E.G. CABLE T9 ARE THE SINGLE-MODE TRUNKLINE CABLES. ALL OTHER CABLES ARE SINGLE-MODE POINT TO POINT COMMUNICATIONS CABLES.
2. CABLE IDENTIFICATION IS AS SHOWN IN THE FOLLOWING EXAMPLE:

   CABLE 72
   6 FIBERS
   4 ACTIVE

   INDICATES THE NO. OF ACTIVE FIBERS WITHIN THE CABLE SHEATH.

   NO. OF FIBERS WITHIN CABLE SHEATH.

   INDICATES THE CABLE NO. ASSIGNMENT. GENERALLY THE CABLE NO. CORRESPONDS WITH THE EQUIPMENT NO. IN WHICH END OF THE CABLE IS TERMINATED (THE EXCEPTIONS ARE SINGLE-MODE TRUNK CABLES SEE NOTE 1 ABOVE).
3. INTERMEDIATE FIBER PULL BOXES ARE NOT SHOWN ON THIS SCHEMATIC.

REVISIONS		
ITEM No.	DESCRIPTION OF CHANGE	APPROVAL DATE

ENGINEERS SEAL

MICHAEL J. BRIDGE
REGISTERED ENGINEER
No. 22343
STATE OF TENNESSEE
07/22/15

PARSONS

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
INTERSECTION IMPROVEMENTS
SHELBY COUNTY, TN

COMMUNICATIONS CABLE SCHEMATIC

SURVEY BY: N/A DATE: BOOK:
DRAFTED BY: rch DATE: 1/14 SCALE: N.T.S.
DESIGNED BY: KLA DATE: 1/14 CHECKED: MJB DATE: 3/14

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 LOCAL CONTROLLERS.

2. ALL SPLICE ENCLOSURES AND DROP CABLES ARE NOT SHOWN. SEE COMMNICATION CABLE SCHEMATIC SHEET. FOR CABLE AND SPLICE ENCLOSURE DETAILS. SEE SPLICE DIAGRAMS FOR SPLICING DETAILS AND FIBER STRAND IN USE.

3. EACH LINE SHOWN ON THIS SCHEMATIC REPRESENTS TWO STRANDS OF FIBERS (TRANSMIT AND RECEIVE).

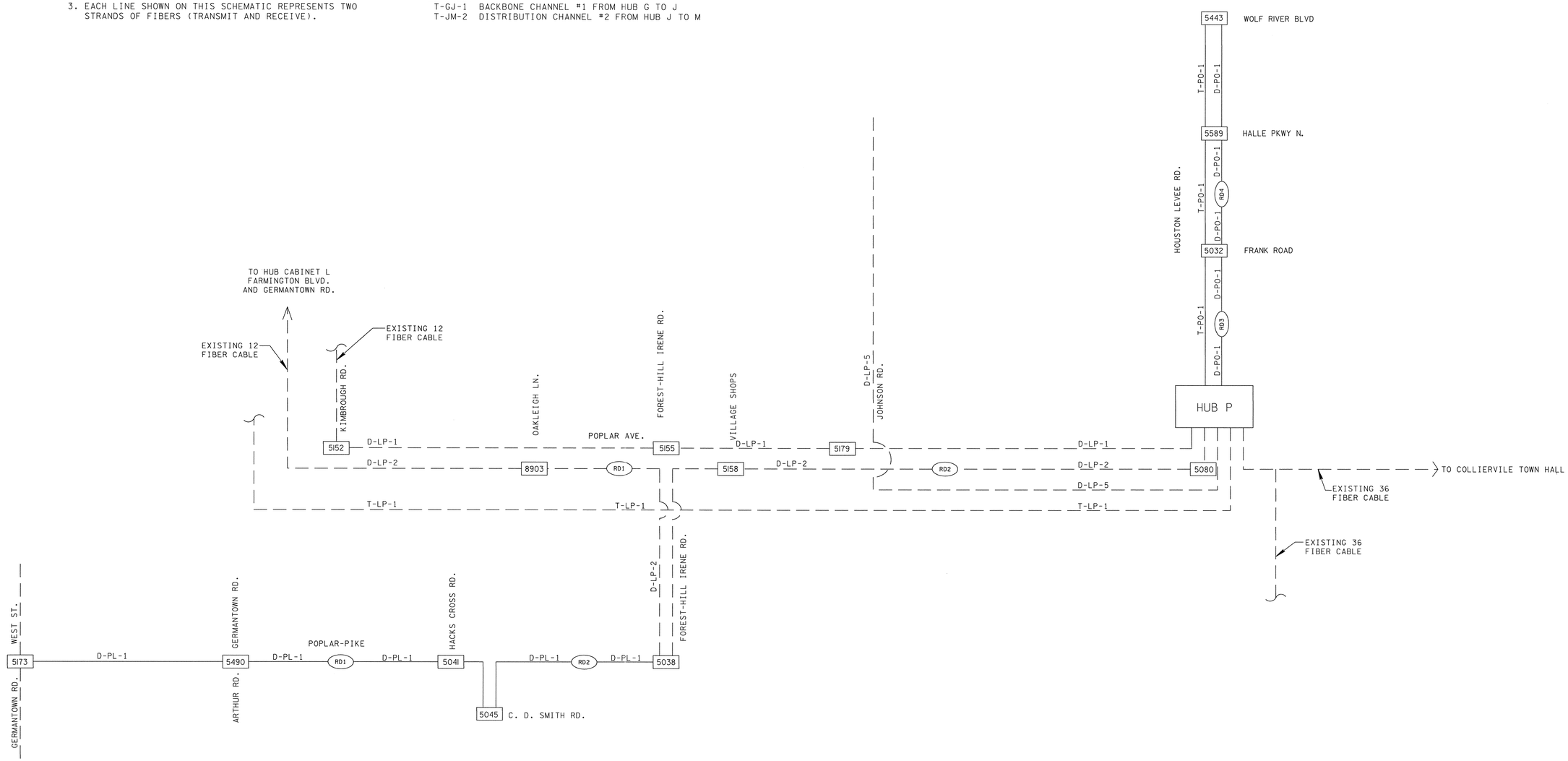
4. COMMUNICATION CHANNELS ARE NAMED BY THE FOLLOWING CONVENTION:

CHANNEL TYPE	FROM HUB ID	TO HUB ID	CHANNEL SEQUENCE

CHANNEL TYPE:
T - BACKBONE CHANNEL FOR HUB TO HUB COMMNICATIONS
D - DISTRIBUTION CHANNEL FOR FIELD DEVICE COMMNICATIONS

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

— — — EXISTING CABLES AND CABLES INSTALLED AS PART OF CMAQ SET 2.



REVISIONS		
ITEM No.	DESCRIPTION OF CHANGE	APPROVAL DATE

ENGINEERS SEAL

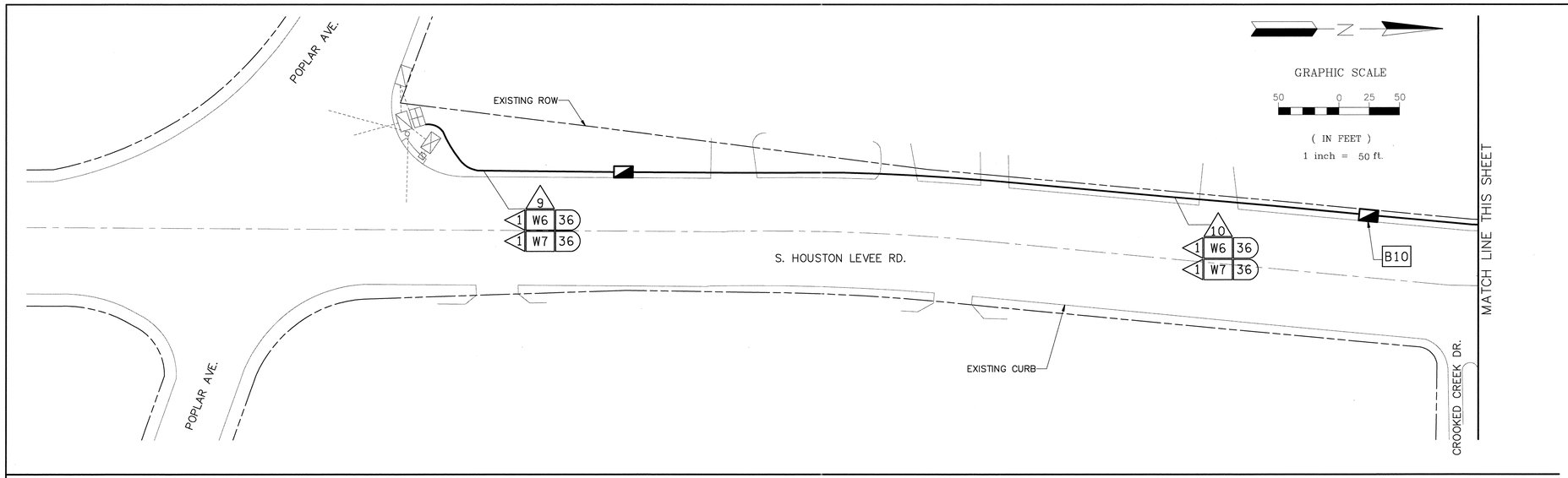
MICHAEL J. BRIGGS
STATE OF TENNESSEE
07/24/15

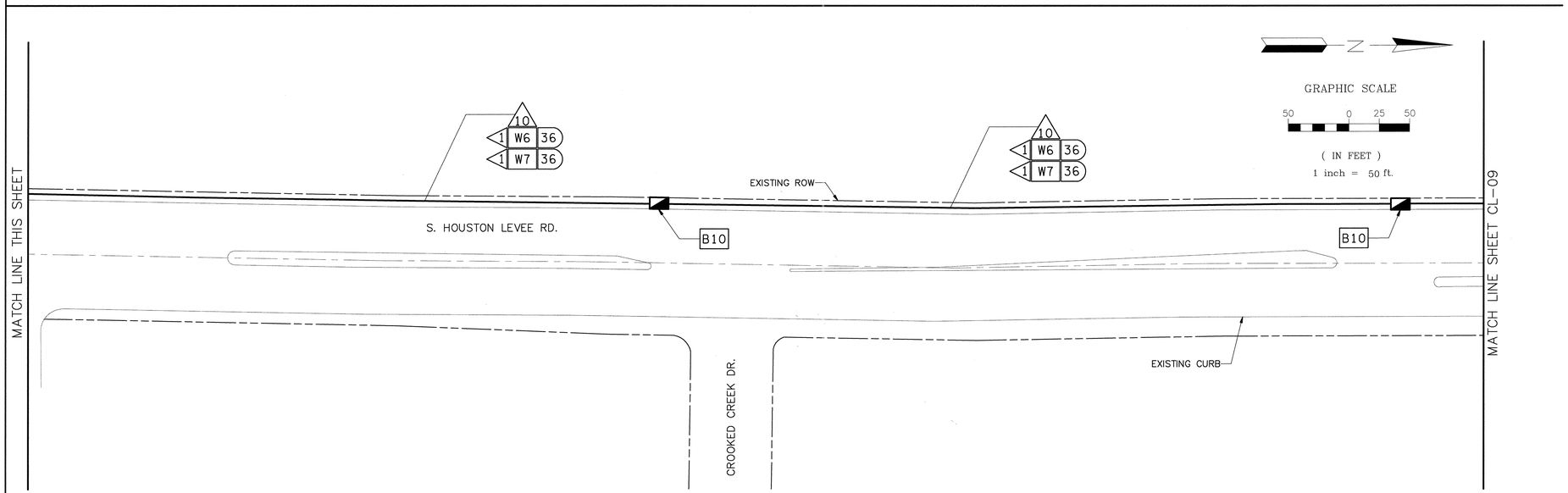
PARSONS

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
INTERSECTION IMPROVEMENTS
SHELBY COUNTY, TN

COMMUNICATION CHANNEL
SCHEMATIC PLAN

SURVEY BY: N/A DATE: BOOK:
DRAFTED BY: rch DATE: 1/14 SCALE: N.T.S.
DESIGNED BY: KLA DATE: 1/14 CHECKED: MJB DATE: 7/14





LEGEND

B1	RETAIN AND MODIFY EXISTING CABINET
B2	REMOVE EXISTING CABINET
B3	INSTALL NEW BASE MOUNTED CONTROLLER CABINET
B4	INSTALL NEW POLE MOUNTED CONTROLLER CABINET
B5	INSTALL BASE MOUNTED HUB CABINET
B6	INSTALL WEATHER PROOF SPLICE ENCLOSURE
B7	INSTALL FIBER DISTRIBUTION BOX
B8	REMOVE EXISTING PULLBOX
B9	INSTALL TRAFFIC SIGNAL PULLBOX
B10	INSTALL FIBER OPTIC PULLBOX TYPE A
B11	INSTALL FIBER OPTIC PULLBOX TYPE B
B12	INSTALL 14′ PEDESTAL POLE
B13	INSTALL 20′ PEDESTAL POLE
B14	INSTALL TELEPHONE INTERFACE (TYPE I) ON THIS POLE
B15	MLGW POWER SERVICE CONNECTION
C1	INSTALL 4-PHASE CONTROLLER
C2	INSTALL 8-PHASE CONTROLLER
C3	INSTALL FIELD MASTER CONTROLLER
C4	REMOVE EXISTING CONTROLLER AND INSTALL NEW CONTROLLER
C5	INSTALL FIBER OPTIC MODEM
C6	INSTALL ETHERNET CABINET SWITCH
C7	INSTALL SERIAL DEVICE SERVER
C8	INSTALL ETHERNET HUB SWITCH
D10	INSTALL DETECTOR AMPLIFIER (4-CHANNEL) IN CABINET
D11	REUSE SYSTEM DETECTOR AMPLIFIER(S)
D12	INSTALL NEW POLE MOUNTED RDS CABINET
D13	INSTALL RADAR DETECTION SYSTEM
D14	INSTALL VIDEO REMOTE MANAGEMENT CARD
D15	INSTALL NEW SECONDARY POLE MOUNTED RDS CABINET
D16	BLUETOOTH DETECTION SYSTEM
W6	SMFO CABLE
W7	SMFO TRUNK CABLE
W8	MMFO CABLE(S)
W9	SMFO DROP CABLE (6-FIBER)
W10	SMFO DROP CABLE (12-FIBER)
W11	RDS CABLE
W12	RDS POWER CABLE
W13	ETHERNET DATA CABLE
W14	NEW MESSENGER WIRE
W15	COIL 50′ OF SMFO CABLE
W16	COIL 50′ OF SMFO TRUNK CABLE
W17	TELEPHONE CABLE(S)
1	INSTALL 1 ″ RISER WITH WEATHERHEAD
2	INSTALL 1 1/2″ PVC CONDUIT
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 SEALING BUSHING
20	TIE CONDUIT INTO EXISTING PULLBOX
21	REUSE EXISTING CONDUIT
22	REUSE EXISTING RISER WITH WEATHERHEAD
23	ATTACH CONDUIT TO EXISTING CONDUIT STUB-OUT
24	INSTALL CABLES IN EXISTING MAST ARM POLE
25	INSTALL CABLES IN EXISTING POLE IN EXIST. WEATHERHEAD
26	INSTALL CABLES IN EXISTING POLE IN PROP. 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
31	INSTALL CABLES IN EXISTING CONDUIT(S) INTO CABINET
32	LASH TO EXISTING MESSENGER WIRE/SPANWIRE
33	LASH TO PROPOSED MESSENGER WIRE/SPANWIRE
34	DRILL HOLE NEAR TOP OF POLE INSTALL SEALING BUSHING
35	ATTACH CONDUIT TO BRIDGE

X — NUMBER OF CABLES, LOOPS, AND ETC
X — NUMBER OF CONDUCTORS, PAIRS, AND ETC
XX — INTERSECTION NUMBER

LEGEND	EXISTING	PROPOSED
FIBER OPTIC PULLBOX		
TRAFFIC SIGNAL PULLBOX		
CONTROLLER CABINET		
HUB CABINET		
CONDUIT CABLE IN SIDEWALK		
SIGNAL POLE		

REVISIONVS

DATE	DESCRIPTIONS	APPROVED

HENRY D. GRADDY REGISTERED ENGINEER LICENSE No. 17335 STATE OF TENNESSEE

ENGINEER: TYCA ENGINEERING, LLC

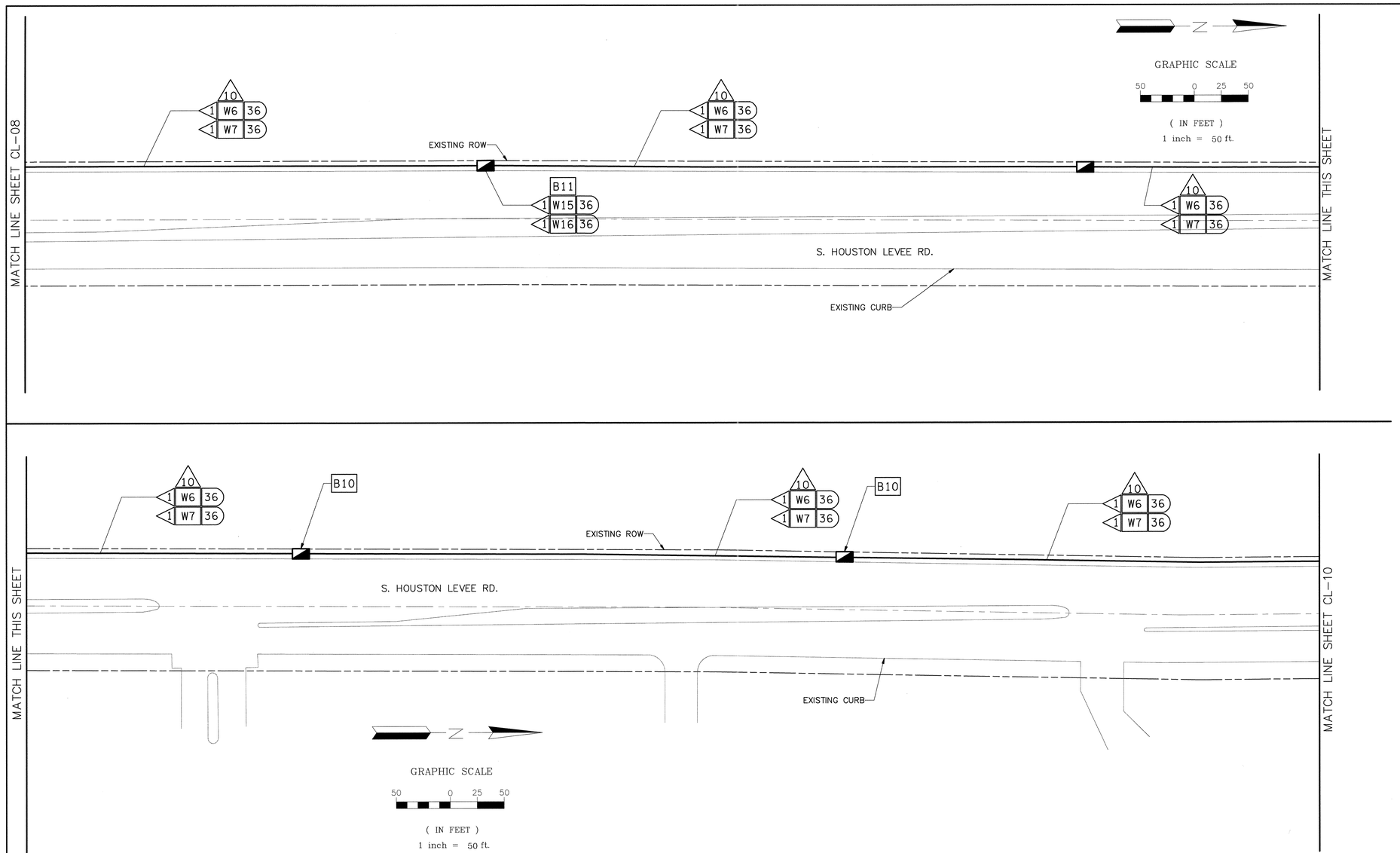
CL-08

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #7
SHELBY COUNTY, TN

CABLE LAYOUT

SURVEY: N/A DATE: N/A
DESIGNED BY: ACOT DATE: 1-14-14 BOOK: –
DRAWN BY: ACOT DATE: 1-14-14 SCALE: 1"=50'

JURISDICTION: SHEET 7 OF 52



LEGEND

B1	RETAIN AND MODIFY EXISTING CABINET
B2	REMOVE EXISTING CABINET
B3	INSTALL NEW BASE MOUNTED CONTROLLER CABINET
B4	INSTALL NEW POLE MOUNTED CONTROLLER CABINET
B5	INSTALL BASE MOUNTED HUB CABINET
B6	INSTALL WEATHER PROOF SPLICE ENCLOSURE
B7	INSTALL FIBER DISTRIBUTION BOX
B8	REMOVE EXISTING PULLBOX
B9	INSTALL TRAFFIC SIGNAL PULLBOX
B10	INSTALL FIBER OPTIC PULLBOX TYPE A
B11	INSTALL FIBER OPTIC PULLBOX TYPE B
B12	INSTALL 14' PEDESTAL POLE
B13	INSTALL 20' PEDESTAL POLE
B14	INSTALL TELEPHONE INTERFACE (TYPE I) ON THIS POLE
B15	MLGW POWER SERVICE CONNECTION
C1	INSTALL 4-PHASE CONTROLLER
C2	INSTALL 8-PHASE CONTROLLER
C3	INSTALL FIELD MASTER CONTROLLER
C4	REMOVE EXISTING CONTROLLER AND INSTALL NEW CONTROLLER
C5	INSTALL FIBER OPTIC MODEM
C6	INSTALL ETHERNET CABINET SWITCH
C7	INSTALL SERIAL DEVICE SERVER
C8	INSTALL ETHERNET HUB SWITCH
D10	INSTALL DETECTOR AMPLIFIER (4-CHANNEL) IN CABINET
D11	REUSE SYSTEM DETECTOR AMPLIFIER(S)
D12	INSTALL NEW POLE MOUNTED RDS CABINET
D13	INSTALL RADAR DETECTION SYSTEM
D14	INSTALL VIDEO REMOTE MANAGEMENT CARD
D15	INSTALL NEW SECONDARY POLE MOUNTED RDS CABINET
D16	BLUETOOTH DETECTION SYSTEM
W6	SMFO CABLE
W7	SMFO TRUNK CABLE
W8	MMFO CABLE(S)
W9	SMFO DROP CABLE (6-FIBER)
W10	SMFO DROP CABLE (12-FIBER)
W11	RDS CABLE
W12	RDS POWER CABLE
W13	ETHERNET DATA CABLE
W14	NEW MESSENGER WIRE
W15	COIL 50' OF SMFO CABLE
W16	COIL 50' OF SMFO TRUNK CABLE
W17	TELEPHONE CABLE(S)
1	INSTALL 1 " RISER WITH WEATHERHEAD
2	INSTALL 1 1/2" PVC CONDUIT
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 SEALING BUSHING
20	TIE CONDUIT INTO EXISTING PULLBOX
21	REUSE EXISTING CONDUIT
22	REUSE EXISTING RISER WITH WEATHERHEAD
23	ATTACH CONDUIT TO EXISTING CONDUIT STUB-OUT
24	INSTALL CABLES IN EXISTING MAST ARM POLE
25	INSTALL CABLES IN EXISTING POLE IN EXIST. WEATHERHEAD
26	INSTALL CABLES IN EXISTING POLE IN PROP. 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
31	INSTALL CABLES IN EXISTING CONDUIT(S) INTO CABINET
32	LASH TO EXISTING MESSENGER WIRE/SPANWIRE
33	LASH TO PROPOSED MESSENGER WIRE/SPANWIRE
34	DRILL HOLE NEAR TOP OF POLE INSTALL SEALING BUSHING
35	ATTACH CONDUIT TO BRIDGE

X	NUMBER OF CABLES, LOOPS, AND ETC
X	NUMBER OF CONDUCTORS, PAIRS, AND ETC
XX	INTERSECTION NUMBER

LEGEND	EXISTING	PROPOSED
FIBER OPTIC PULLBOX		
TRAFFIC SIGNAL PULLBOX		
CONTROLLER CABINET		
HUB CABINET		
CONDUIT CABLE IN SIDEWALK		
SIGNAL POLE		

REVISIONVS

DATE	DESCRIPTIONS	APPROVED

HENRY D. GRADDY REGISTERED ENGINEER NO. 17323 STATE OF TENNESSEE

ENGINEER: TYCA ENGINEERING, LLC

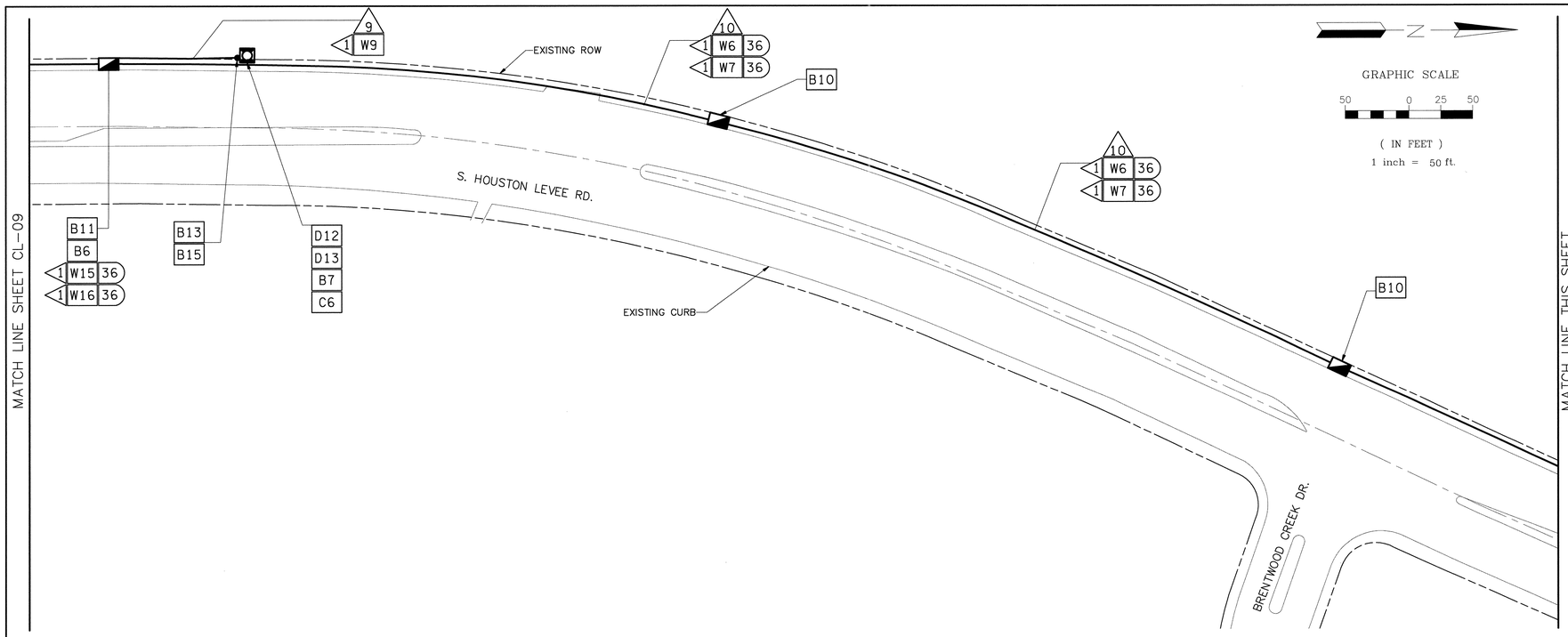
CL-09

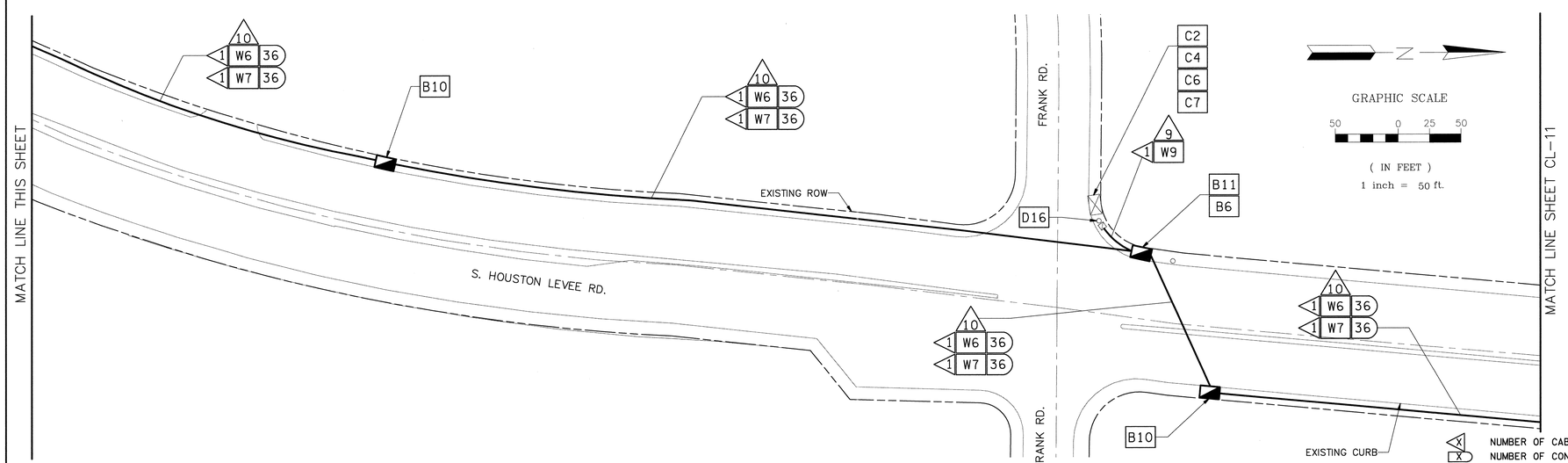
DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #7
SHELBY COUNTY, TN

CABLE LAYOUT

SURVEY: N/A DATE: N/A
DESIGNED BY: ACOT DATE: 1-14-14 BOOK: –
DRAWN BY: ACOT DATE: 1-14-14 SCALE: 1"=50'

JURISDICTION:





LEGEND

B1	RETAIN AND MODIFY EXISTING CABINET
B2	REMOVE EXISTING CABINET
B3	INSTALL NEW BASE MOUNTED CONTROLLER CABINET
B4	INSTALL NEW POLE MOUNTED CONTROLLER CABINET
B5	INSTALL BASE MOUNTED HUB CABINET
B6	INSTALL WEATHER PROOF SPLICE ENCLOSURE
B7	INSTALL FIBER DISTRIBUTION BOX
B8	REMOVE EXISTING PULLBOX
B9	INSTALL TRAFFIC SIGNAL PULLBOX
B10	INSTALL FIBER OPTIC PULLBOX TYPE A
B11	INSTALL FIBER OPTIC PULLBOX TYPE B
B12	INSTALL 14' PEDESTAL POLE
B13	INSTALL 20' PEDESTAL POLE
B14	INSTALL TELEPHONE INTERFACE (TYPE I) ON THIS POLE
B15	MLGW POWER SERVICE CONNECTION
C1	INSTALL 4-PHASE CONTROLLER
C2	INSTALL 8-PHASE CONTROLLER
C3	INSTALL FIELD MASTER CONTROLLER
C4	REMOVE EXISTING CONTROLLER AND INSTALL NEW CONTROLLER
C5	INSTALL FIBER OPTIC MODEM
C6	INSTALL ETHERNET CABINET SWITCH
C7	INSTALL SERIAL DEVICE SERVER
C8	INSTALL ETHERNET HUB SWITCH
D10	INSTALL DETECTOR AMPLIFIER (4-CHANNEL) IN CABINET
D11	REUSE SYSTEM DETECTOR AMPLIFIER(S)
D12	INSTALL NEW POLE MOUNTED RDS CABINET
D13	INSTALL RADAR DETECTION SYSTEM
D14	INSTALL VIDEO REMOTE MANAGEMENT CARD
D15	INSTALL NEW SECONDARY POLE MOUNTED RDS CABINET
D16	BLUETOOTH DETECTION SYSTEM
W6	SMFO CABLE
W7	SMFO TRUNK CABLE
W8	MMFO CABLE(S)
W9	SMFO DROP CABLE (6-FIBER)
W10	SMFO DROP CABLE (12-FIBER)
W11	RDS CABLE
W12	RDS POWER CABLE
W13	ETHERNET DATA CABLE
W14	NEW MESSENGER WIRE
W15	COIL 50' OF SMFO CABLE
W16	COIL 50' OF SMFO TRUNK CABLE
W17	TELEPHONE CABLE(S)
1	INSTALL 1 " RISER WITH WEATHERHEAD
2	INSTALL 1 1/2" PVC CONDUIT
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 SEALING BUSHING
20	TIE CONDUIT INTO EXISTING PULLBOX
21	REUSE EXISTING CONDUIT
22	REUSE EXISTING RISER WITH WEATHERHEAD
23	ATTACH CONDUIT TO EXISTING CONDUIT STUB-OUT
24	INSTALL CABLES IN EXISTING MAST ARM POLE
25	INSTALL CABLES IN EXISTING POLE IN EXIST. WEATHERHEAD
26	INSTALL CABLES IN EXISTING POLE IN PROP. 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
31	INSTALL CABLES IN EXISTING CONDUIT(S) INTO CABINET
32	LASH TO EXISTING MESSENGER WIRE/SPANWIRE
33	LASH TO PROPOSED MESSENGER WIRE/SPANWIRE
34	DRILL HOLE NEAR TOP OF POLE INSTALL SEALING BUSHING
35	ATTACH CONDUIT TO BRIDGE

X — NUMBER OF CABLES, LOOPS, AND ETC
X — NUMBER OF CONDUCTORS, PAIRS, AND ETC
XX — INTERSECTION NUMBER

LEGEND

	EXISTING	PROPOSED
FIBER OPTIC PULLBOX		
TRAFFIC SIGNAL PULLBOX		
CONTROLLER CABINET		
HUB CABINET		
CONDUIT CABLE IN SIDEWALK		
POLE MOUNTED RDS CABINET		
SIGNAL POLE		

REVISIONVS

DATE	DESCRIPTIONS	APPROVED

HENRY D. GRADDY III REGISTERED ENGINEER COMMERCE No. 17351 STATE OF TENNESSEE 7-30-15

ENGINEER: TYCA ENGINEERING, LLC

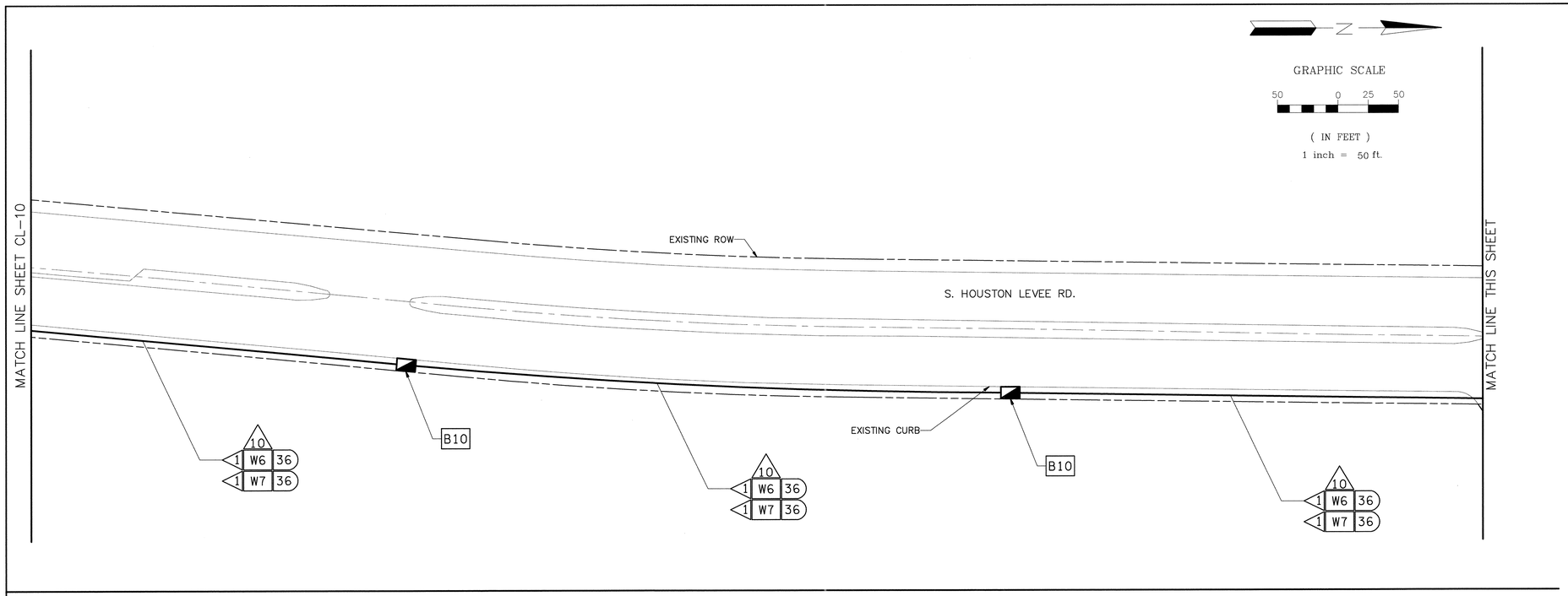
CL-10

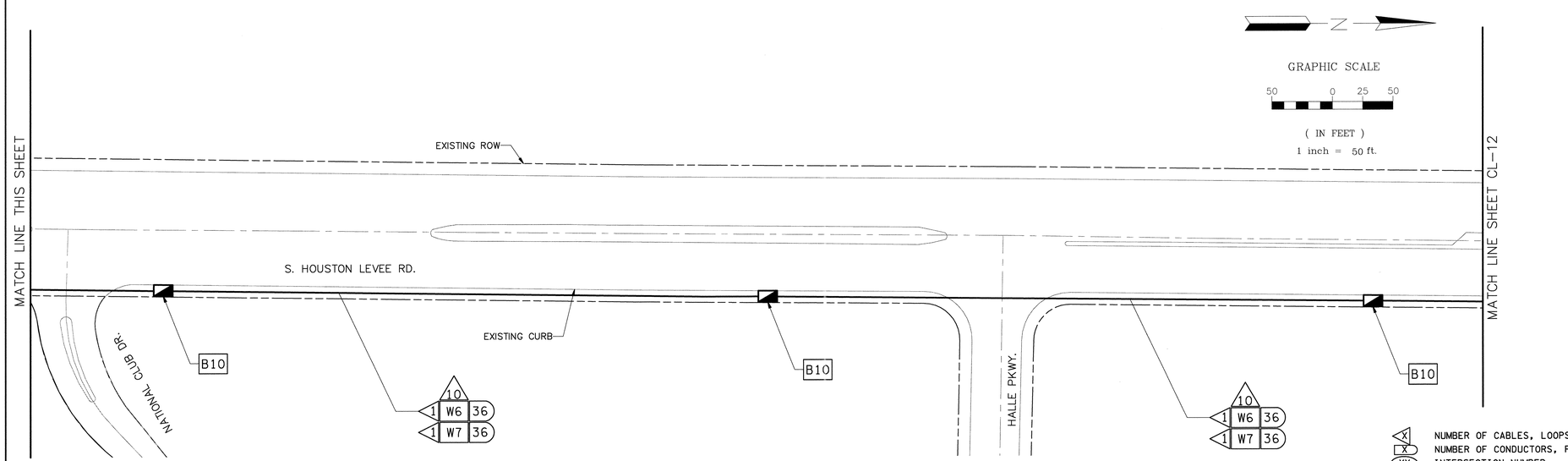
DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #7
SHELBY COUNTY, TN

CABLE LAYOUT

SURVEY: N/A DATE: N/A
DESIGNED BY: ACOT DATE: 1-14-14 BOOK: –
DRAWN BY: ACOT DATE: 1-14-14 SCALE: 1"=50'

JURISDICTION:





LEGEND

B1	RETAIN AND MODIFY EXISTING CABINET
B2	REMOVE EXISTING CABINET
B3	INSTALL NEW BASE MOUNTED CONTROLLER CABINET
B4	INSTALL NEW POLE MOUNTED CONTROLLER CABINET
B5	INSTALL BASE MOUNTED HUB CABINET
B6	INSTALL WEATHER PROOF SPLICE ENCLOSURE
B7	INSTALL FIBER DISTRIBUTION BOX
B8	REMOVE EXISTING PULLBOX
B9	INSTALL TRAFFIC SIGNAL PULLBOX
B10	INSTALL FIBER OPTIC PULLBOX TYPE A
B11	INSTALL FIBER OPTIC PULLBOX TYPE B
B12	INSTALL 14' PEDESTAL POLE
B13	INSTALL 20' PEDESTAL POLE
B14	INSTALL TELEPHONE INTERFACE (TYPE I) ON THIS POLE
B15	MLGW POWER SERVICE CONNECTION
C1	INSTALL 4-PHASE CONTROLLER
C2	INSTALL 8-PHASE CONTROLLER
C3	INSTALL FIELD MASTER CONTROLLER
C4	REMOVE EXISTING CONTROLLER AND INSTALL NEW CONTROLLER
C5	INSTALL FIBER OPTIC MODEM
C6	INSTALL ETHERNET CABINET SWITCH
C7	INSTALL SERIAL DEVICE SERVER
C8	INSTALL ETHERNET HUB SWITCH
D10	INSTALL DETECTOR AMPLIFIER (4-CHANNEL) IN CABINET
D11	REUSE SYSTEM DETECTOR AMPLIFIER(S)
D12	INSTALL NEW POLE MOUNTED RDS CABINET
D13	INSTALL RADAR DETECTION SYSTEM
D14	INSTALL VIDEO REMOTE MANAGEMENT CARD
D15	INSTALL NEW SECONDARY POLE MOUNTED RDS CABINET
D16	BLUETOOTH DETECTION SYSTEM
W6	SMFO CABLE
W7	SMFO TRUNK CABLE
W8	MMFO CABLE(S)
W9	SMFO DROP CABLE (6-FIBER)
W10	SMFO DROP CABLE (12-FIBER)
W11	RDS CABLE
W12	RDS POWER CABLE
W13	ETHERNET DATA CABLE
W14	NEW MESSENGER WIRE
W15	COIL 50' OF SMFO CABLE
W16	COIL 50' OF SMFO TRUNK CABLE
W17	TELEPHONE CABLE(S)
1	INSTALL 1 " RISER WITH WEATHERHEAD
2	INSTALL 1 1/2" PVC CONDUIT
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 SEALING BUSHING
20	TIE CONDUIT INTO EXISTING PULLBOX
21	REUSE EXISTING CONDUIT
22	REUSE EXISTING RISER WITH WEATHERHEAD
23	ATTACH CONDUIT TO EXISTING CONDUIT STUB-OUT
24	INSTALL CABLES IN EXISTING MAST ARM POLE
25	INSTALL CABLES IN EXISTING POLE IN EXIST. WEATHERHEAD
26	INSTALL CABLES IN EXISTING POLE IN PROP. 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
31	INSTALL CABLES IN EXISTING CONDUIT(S) INTO CABINET
32	LASH TO EXISTING MESSENGER WIRE/SPANWIRE
33	LASH TO PROPOSED MESSENGER WIRE/SPANWIRE
34	DRILL HOLE NEAR TOP OF POLE INSTALL SEALING BUSHING
35	ATTACH CONDUIT TO BRIDGE

X — NUMBER OF CABLES, LOOPS, AND ETC
X — NUMBER OF CONDUCTORS, PAIRS, AND ETC
XX — INTERSECTION NUMBER

LEGEND	EXISTING	PROPOSED
FIBER OPTIC PULLBOX		
TRAFFIC SIGNAL PULLBOX		
CONTROLLER CABINET		
HUB CABINET		
CONDUIT CABLE IN SIDEWALK		
SIGNAL POLE		

REVISIONVS

DATE	DESCRIPTIONS	APPROVED

HENRY D. GRADDY REGISTERED ENGINEER NO. 17355 STATE OF TENNESSEE
7-30-15

ENGINEER: TYCA ENGINEERING, LLC

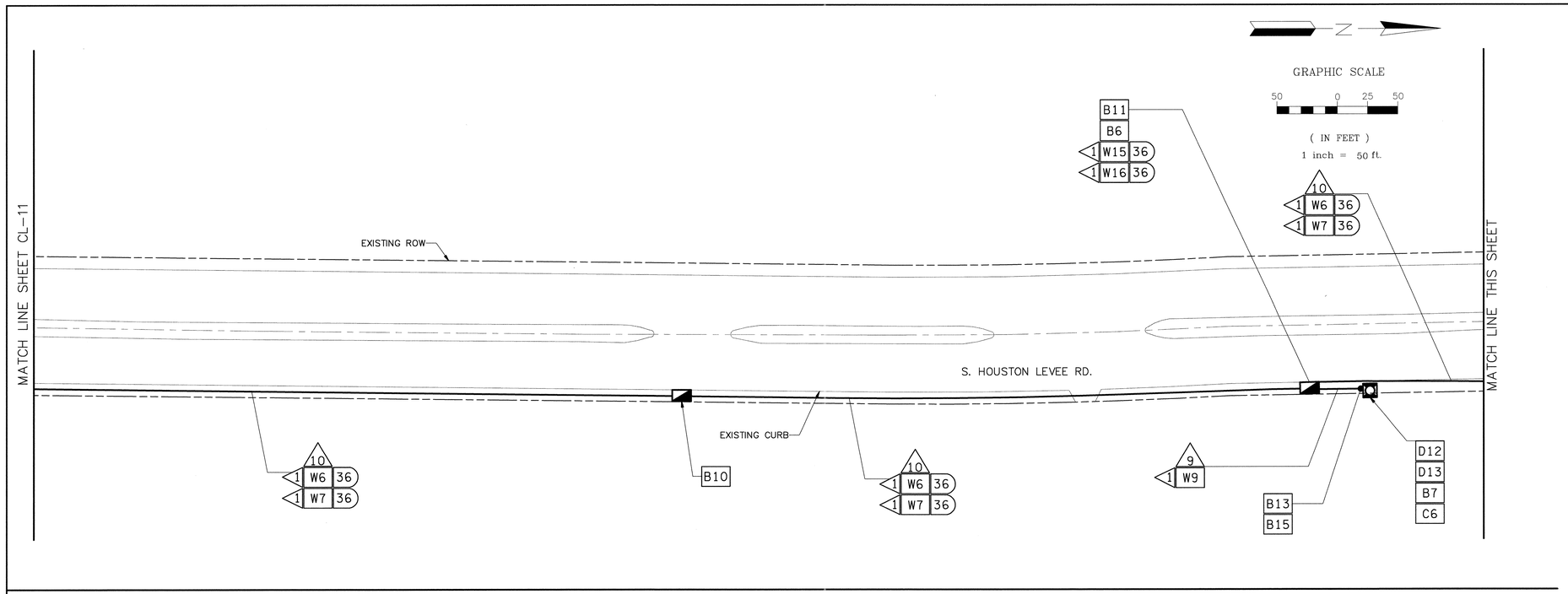
CL-11

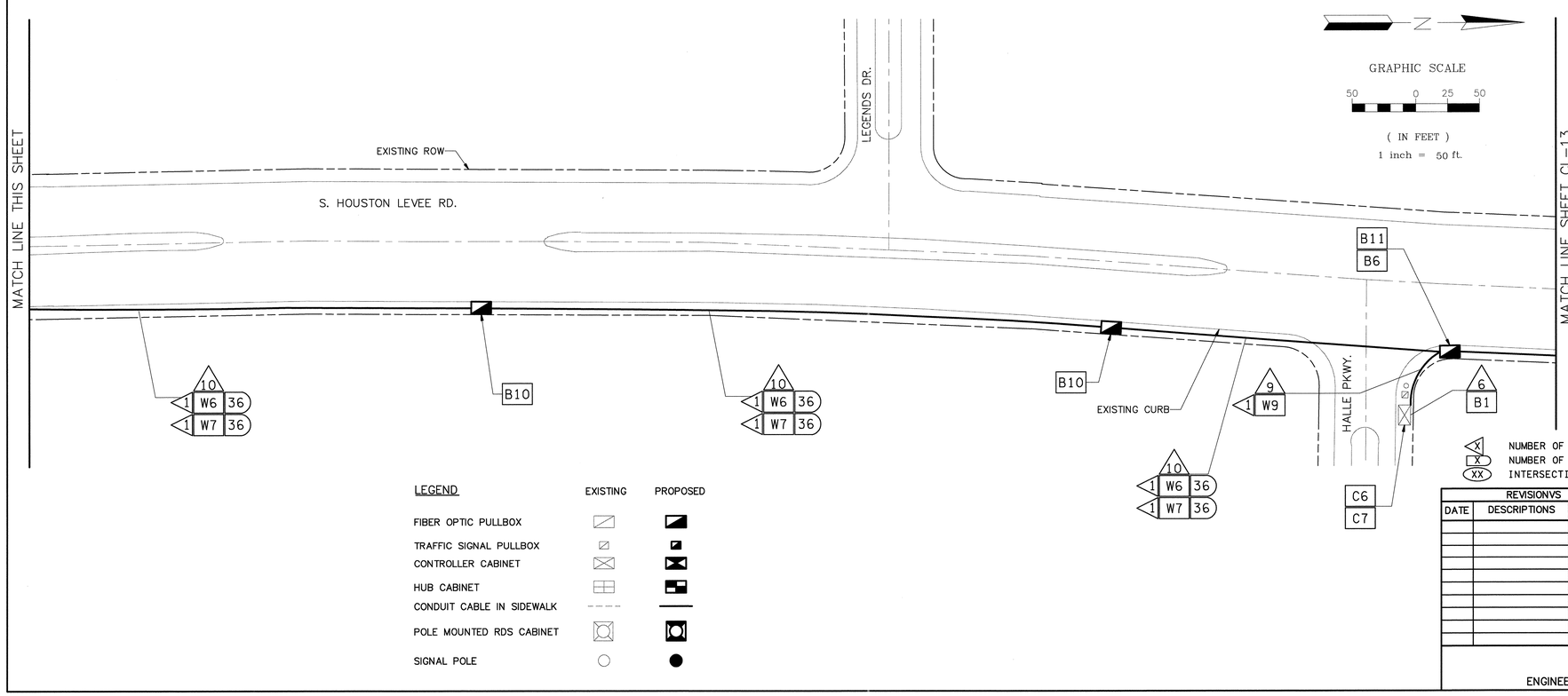
DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #7
SHELBY COUNTY, TN

CABLE LAYOUT

SURVEY: N/A DATE: N/A
DESIGNED BY: ACOT DATE: 1-14-14 BOOK: –
DRAWN BY: ACOT DATE: 1-14-14 SCALE: 1"=50'

JURISDICTION: SHEET 10 OF 52





LEGEND

B1	RETAIN AND MODIFY EXISTING CABINET
B2	REMOVE EXISTING CABINET
B3	INSTALL NEW BASE MOUNTED CONTROLLER CABINET
B4	INSTALL NEW POLE MOUNTED CONTROLLER CABINET
B5	INSTALL BASE MOUNTED HUB CABINET
B6	INSTALL WEATHER PROOF SPLICE ENCLOSURE
B7	INSTALL FIBER DISTRIBUTION BOX
B8	REMOVE EXISTING PULLBOX
B9	INSTALL TRAFFIC SIGNAL PULLBOX
B10	INSTALL FIBER OPTIC PULLBOX TYPE A
B11	INSTALL FIBER OPTIC PULLBOX TYPE B
B12	INSTALL 14' PEDESTAL POLE
B13	INSTALL 20' PEDESTAL POLE
B14	INSTALL TELEPHONE INTERFACE (TYPE I) ON THIS POLE
B15	MLGW POWER SERVICE CONNECTION
C1	INSTALL 4-PHASE CONTROLLER
C2	INSTALL 8-PHASE CONTROLLER
C3	INSTALL FIELD MASTER CONTROLLER
C4	REMOVE EXISTING CONTROLLER AND INSTALL NEW CONTROLLER
C5	INSTALL FIBER OPTIC MODEM
C6	INSTALL ETHERNET CABINET SWITCH
C7	INSTALL SERIAL DEVICE SERVER
C8	INSTALL ETHERNET HUB SWITCH
D10	INSTALL DETECTOR AMPLIFIER (4-CHANNEL) IN CABINET
D11	REUSE SYSTEM DETECTOR AMPLIFIER(S)
D12	INSTALL NEW POLE MOUNTED RDS CABINET
D13	INSTALL RADAR DETECTION SYSTEM
D14	INSTALL VIDEO REMOTE MANAGEMENT CARD
D15	INSTALL NEW SECONDARY POLE MOUNTED RDS CABINET
D16	BLUETOOTH DETECTION SYSTEM
W6	SMFO CABLE
W7	SMFO TRUNK CABLE
W8	MMFO CABLE(S)
W9	SMFO DROP CABLE (6-FIBER)
W10	SMFO DROP CABLE (12-FIBER)
W11	RDS CABLE
W12	RDS POWER CABLE
W13	ETHERNET DATA CABLE
W14	NEW MESSENGER WIRE
W15	COIL 50' OF SMFO CABLE
W16	COIL 50' OF SMFO TRUNK CABLE
W17	TELEPHONE CABLE(S)
1	INSTALL 1 " RISER WITH WEATHERHEAD
2	INSTALL 1 1/2" PVC CONDUIT
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 SEALING BUSHING
20	TIE CONDUIT INTO EXISTING PULLBOX
21	REUSE EXISTING CONDUIT
22	REUSE EXISTING RISER WITH WEATHERHEAD
23	ATTACH CONDUIT TO EXISTING CONDUIT STUB-OUT
24	INSTALL CABLES IN EXISTING MAST ARM POLE
25	INSTALL CABLES IN EXISTING POLE IN EXIST. WEATHERHEAD
26	INSTALL CABLES IN EXISTING POLE IN PROP. 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
31	INSTALL CABLES IN EXISTING CONDUIT(S) INTO CABINET
32	LASH TO EXISTING MESSENGER WIRE/SPANWIRE
33	LASH TO PROPOSED MESSENGER WIRE/SPANWIRE
34	DRILL HOLE NEAR TOP OF POLE INSTALL SEALING BUSHING
35	ATTACH CONDUIT TO BRIDGE

X — NUMBER OF CABLES, LOOPS, AND ETC
X — NUMBER OF CONDUCTORS, PAIRS, AND ETC
XX — INTERSECTION NUMBER

CL-12

REVISIONVS		
DATE	DESCRIPTIONS	APPROVED

HENRY D. GRADDY REGISTERED ENGINEER COMMERCE NO. 17354 STATE OF TENNESSEE

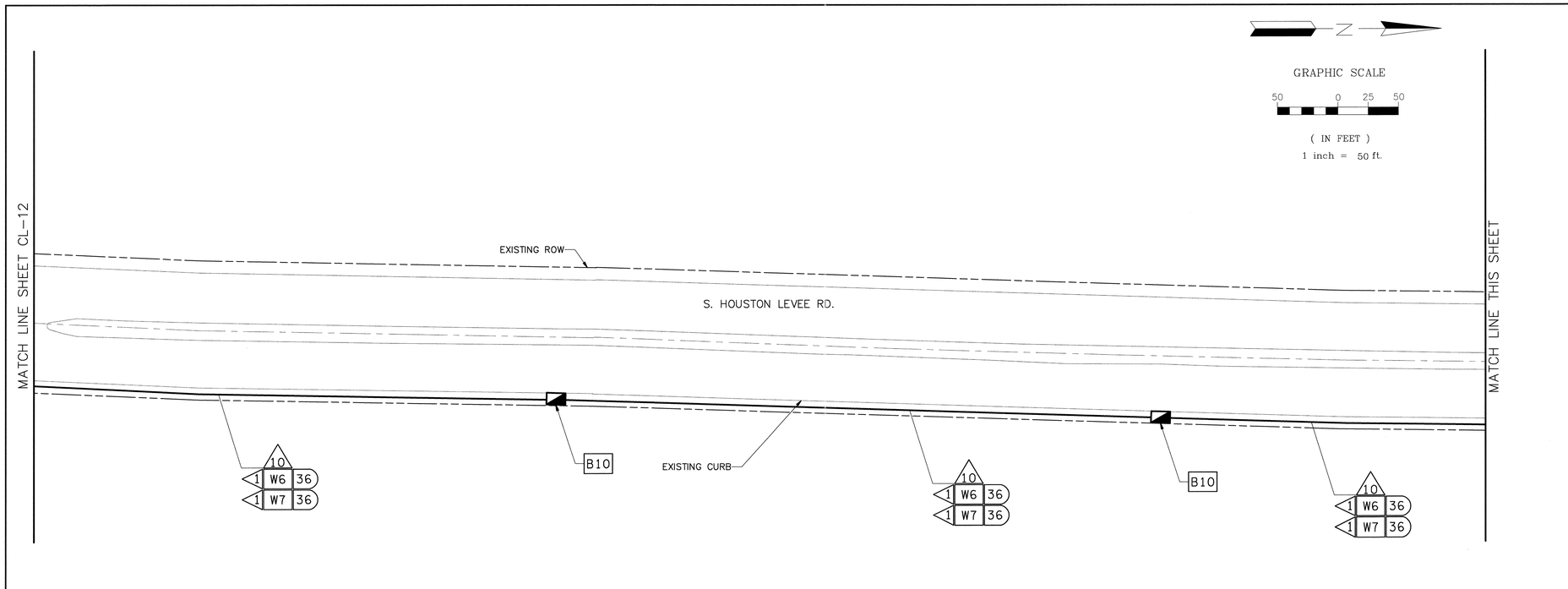
ENGINEER: TYCA ENGINEERING, LLC

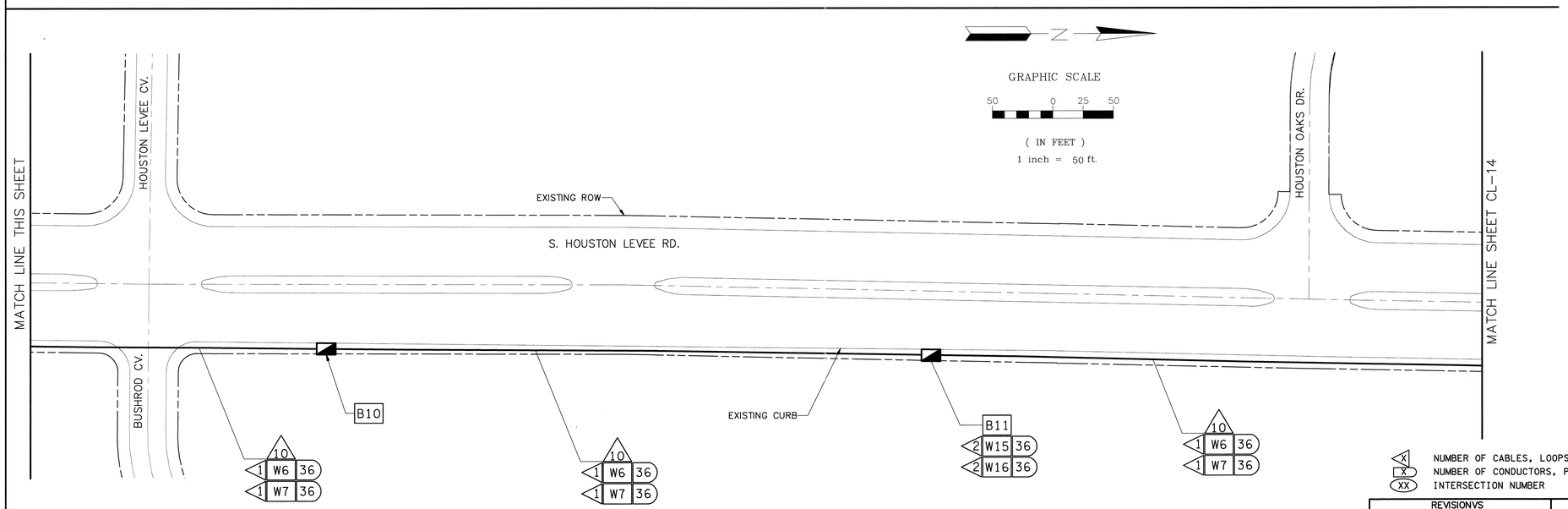
DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #7
SHELBY COUNTY, TN

CABLE LAYOUT

SURVEY: N/A DATE: N/A
DESIGNED BY: ACOT DATE: 1-14-14 BOOK: –
DRAWN BY: ACOT DATE: 1-14-14 SCALE: 1"=50'

JURISDICTION: SHEET 11 OF 52





LEGEND

B1	RETAIN AND MODIFY EXISTING CABINET
B2	REMOVE EXISTING CABINET
B3	INSTALL NEW BASE MOUNTED CONTROLLER CABINET
B4	INSTALL NEW POLE MOUNTED CONTROLLER CABINET
B5	INSTALL BASE MOUNTED HUB CABINET
B6	INSTALL WEATHER PROOF SPLICE ENCLOSURE
B7	INSTALL FIBER DISTRIBUTION BOX
B8	REMOVE EXISTING PULLBOX
B9	INSTALL TRAFFIC SIGNAL PULLBOX
B10	INSTALL FIBER OPTIC PULLBOX TYPE A
B11	INSTALL FIBER OPTIC PULLBOX TYPE B
B12	INSTALL 14′ PEDESTAL POLE
B13	INSTALL 20′ PEDESTAL POLE
B14	INSTALL TELEPHONE INTERFACE (TYPE I) ON THIS POLE
B15	MLGW POWER SERVICE CONNECTION
C1	INSTALL 4-PHASE CONTROLLER
C2	INSTALL 8-PHASE CONTROLLER
C3	INSTALL FIELD MASTER CONTROLLER
C4	REMOVE EXISTING CONTROLLER AND INSTALL NEW CONTROLLER
C5	INSTALL FIBER OPTIC MODEM
C6	INSTALL ETHERNET CABINET SWITCH
C7	INSTALL SERIAL DEVICE SERVER
C8	INSTALL ETHERNET HUB SWITCH
D10	INSTALL DETECTOR AMPLIFIER (4-CHANNEL) IN CABINET
D11	REUSE SYSTEM DETECTOR AMPLIFIER(S)
D12	INSTALL NEW POLE MOUNTED RDS CABINET
D13	INSTALL RADAR DETECTION SYSTEM
D14	INSTALL VIDEO REMOTE MANAGEMENT CARD
D15	INSTALL NEW SECONDARY POLE MOUNTED RDS CABINET
D16	BLUETOOTH DETECTION SYSTEM
W6	SMFO CABLE
W7	SMFO TRUNK CABLE
W8	MMFO CABLE(S)
W9	SMFO DROP CABLE (6-FIBER)
W10	SMFO DROP CABLE (12-FIBER)
W11	RDS CABLE
W12	RDS POWER CABLE
W13	ETHERNET DATA CABLE
W14	NEW MESSENGER WIRE
W15	COIL 50′ OF SMFO CABLE
W16	COIL 50′ OF SMFO TRUNK CABLE
W17	TELEPHONE CABLE(S)
1	INSTALL 1 ″ RISER WITH WEATHERHEAD
2	INSTALL 1 1/2″ PVC CONDUIT
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 SEALING BUSHING
20	TIE CONDUIT INTO EXISTING PULLBOX
21	REUSE EXISTING CONDUIT
22	REUSE EXISTING RISER WITH WEATHERHEAD
23	ATTACH CONDUIT TO EXISTING CONDUIT STUB-OUT
24	INSTALL CABLES IN EXISTING MAST ARM POLE
25	INSTALL CABLES IN EXISTING POLE IN EXIST. WEATHERHEAD
26	INSTALL CABLES IN EXISTING POLE IN PROP. 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
31	INSTALL CABLES IN EXISTING CONDUIT(S) INTO CABINET
32	LASH TO EXISTING MESSENGER WIRE/SPANWIRE
33	LASH TO PROPOSED MESSENGER WIRE/SPANWIRE
34	DRILL HOLE NEAR TOP OF POLE INSTALL SEALING BUSHING
35	ATTACH CONDUIT TO BRIDGE

X — NUMBER OF CABLES, LOOPS, AND ETC
X — NUMBER OF CONDUCTORS, PAIRS, AND ETC
XX — INTERSECTION NUMBER

LEGEND	EXISTING	PROPOSED
FIBER OPTIC PULLBOX		
TRAFFIC SIGNAL PULLBOX		
CONTROLLER CABINET		
HUB CABINET		
CONDUIT CABLE IN SIDEWALK		
SIGNAL POLE		

REVISIONVS

DATE	DESCRIPTIONS	APPROVED

HENRY D. GRADDY REGISTERED ENGINEER No. 173.5A STATE OF TENNESSEE

ENGINEER: TYCA ENGINEERING, LLC

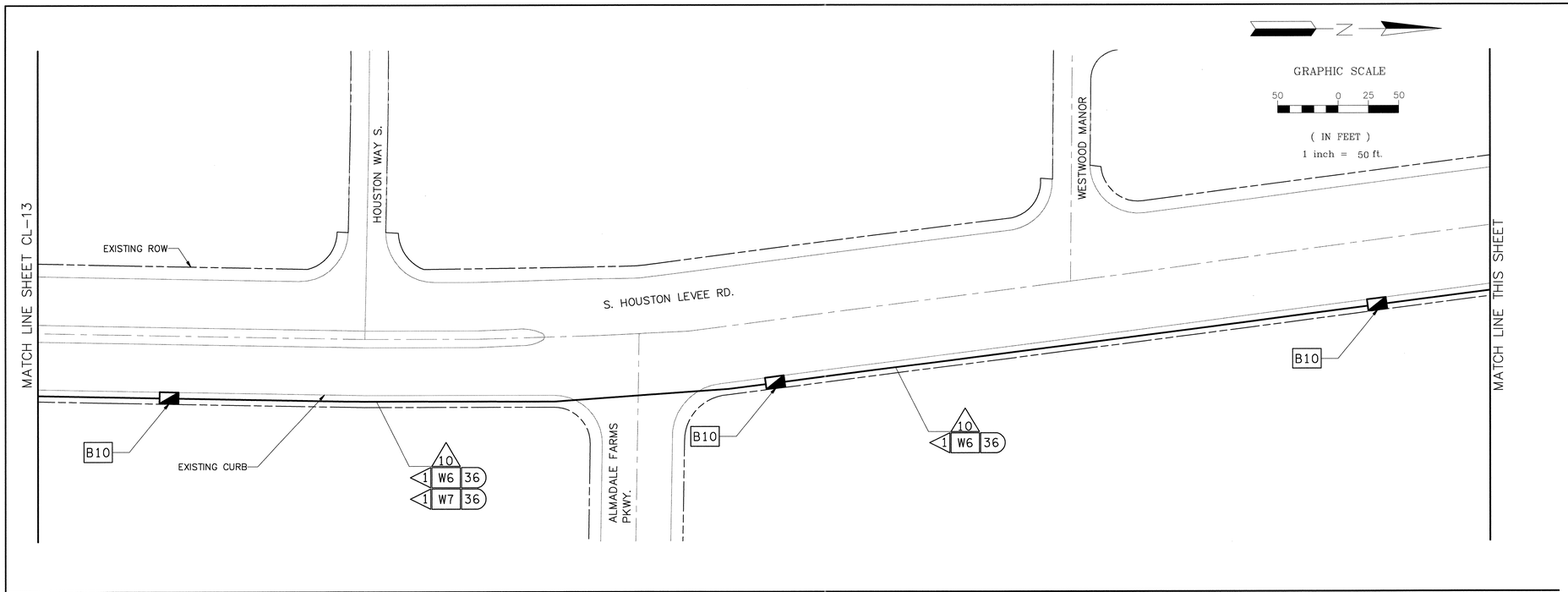
CL-13

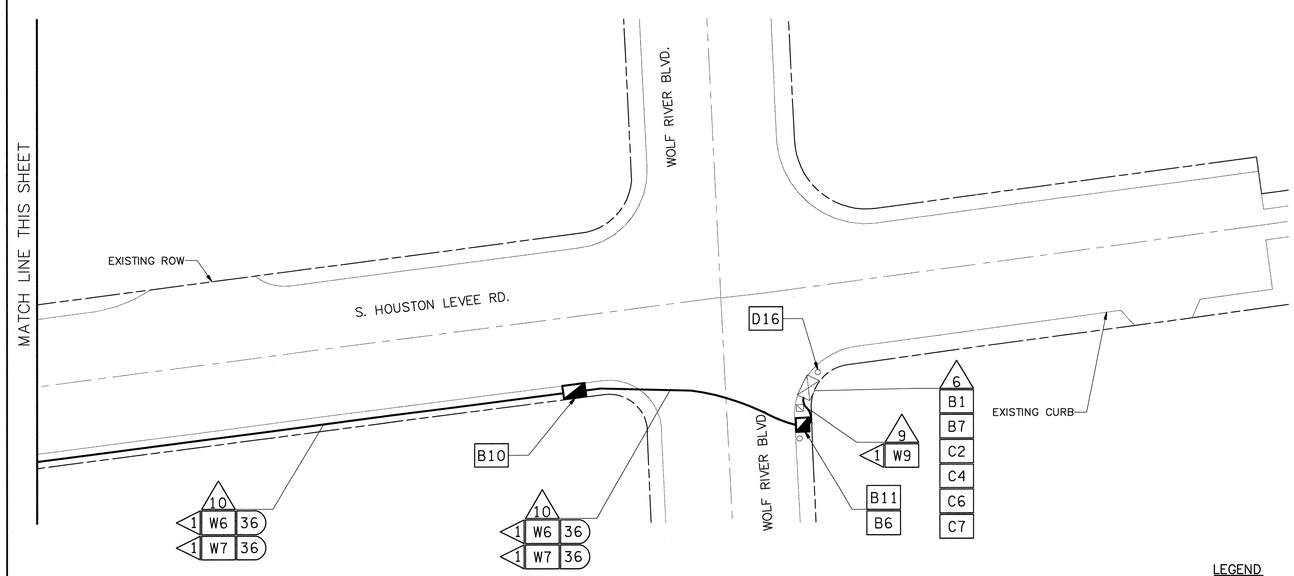
DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #7
SHELBY COUNTY, TN

CABLE LAYOUT

SURVEY: N/A DATE: N/A
DESIGNED BY: ACOT DATE: 1-14-14 BOOK: –
DRAWN BY: ACOT DATE: 1-14-14 SCALE: 1″=50′

JURISDICTION: _____ SHEET 12 OF 52





LEGEND

B1	RETAIN AND MODIFY EXISTING CABINET
B2	REMOVE EXISTING CABINET
B3	INSTALL NEW BASE MOUNTED CONTROLLER CABINET
B4	INSTALL NEW POLE MOUNTED CONTROLLER CABINET
B5	INSTALL BASE MOUNTED HUB CABINET
B6	INSTALL WEATHER PROOF SPLICE ENCLOSURE
B7	INSTALL FIBER DISTRIBUTION BOX
B8	REMOVE EXISTING PULLBOX
B9	INSTALL TRAFFIC SIGNAL PULLBOX
B10	INSTALL FIBER OPTIC PULLBOX TYPE A
B11	INSTALL FIBER OPTIC PULLBOX TYPE B
B12	INSTALL 14' PEDESTAL POLE
B13	INSTALL 20' PEDESTAL POLE
B14	INSTALL TELEPHONE INTERFACE (TYPE I) ON THIS POLE
B15	MLGW POWER SERVICE CONNECTION
C1	INSTALL 4-PHASE CONTROLLER
C2	INSTALL 8-PHASE CONTROLLER
C3	INSTALL FIELD MASTER CONTROLLER
C4	REMOVE EXISTING CONTROLLER AND INSTALL NEW CONTROLLER
C5	INSTALL FIBER OPTIC MODEM
C6	INSTALL ETHERNET CABINET SWITCH
C7	INSTALL SERIAL DEVICE SERVER
C8	INSTALL ETHERNET HUB SWITCH
D10	INSTALL DETECTOR AMPLIFIER (4-CHANNEL) IN CABINET
D11	REUSE SYSTEM DETECTOR AMPLIFIER(S)
D12	INSTALL NEW POLE MOUNTED RDS CABINET
D13	INSTALL RADAR DETECTION SYSTEM
D14	INSTALL VIDEO REMOTE MANAGEMENT CARD
D15	INSTALL NEW SECONDARY POLE MOUNTED RDS CABINET
D16	BLUETOOTH DETECTION SYSTEM
W6	SMFO CABLE
W7	SMFO TRUNK CABLE
W8	MMFO CABLE(S)
W9	SMFO DROP CABLE (6-FIBER)
W10	SMFO DROP CABLE (12-FIBER)
W11	RDS CABLE
W12	RDS POWER CABLE
W13	ETHERNET DATA CABLE
W14	NEW MESSENGER WIRE
W15	COIL 50' OF SMFO CABLE
W16	COIL 50' OF SMFO TRUNK CABLE
W17	TELEPHONE CABLE(S)
1	INSTALL 1 " RISER WITH WEATHERHEAD
2	INSTALL 1 1/2" PVC CONDUIT
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 SEALING BUSHING
20	TIE CONDUIT INTO EXISTING PULLBOX
21	REUSE EXISTING CONDUIT
22	REUSE EXISTING RISER WITH WEATHERHEAD
23	ATTACH CONDUIT TO EXISTING CONDUIT STUB-OUT
24	INSTALL CABLES IN EXISTING MAST ARM POLE
25	INSTALL CABLES IN EXISTING POLE IN EXIST. WEATHERHEAD
26	INSTALL CABLES IN EXISTING POLE IN PROP. 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
31	INSTALL CABLES IN EXISTING CONDUIT(S) INTO CABINET
32	LASH TO EXISTING MESSENGER WIRE/SPANWIRE
33	LASH TO PROPOSED MESSENGER WIRE/SPANWIRE
34	DRILL HOLE NEAR TOP OF POLE INSTALL SEALING BUSHING
35	ATTACH CONDUIT TO BRIDGE

X — NUMBER OF CABLES, LOOPS, AND ETC
X — NUMBER OF CONDUCTORS, PAIRS, AND ETC
XX — INTERSECTION NUMBER

LEGEND	EXISTING	PROPOSED
FIBER OPTIC PULLBOX		
TRAFFIC SIGNAL PULLBOX		
CONTROLLER CABINET		
HUB CABINET		
CONDUIT CABLE IN SIDEWALK		
SIGNAL POLE		

REVISIONVS

DATE	DESCRIPTIONS	APPROVED

HENRY D. GRADDY REGISTERED ENGINEER No. 17331 STATE OF TENNESSEE 7-30-15

ENGINEER: TYCA ENGINEERING, LLC

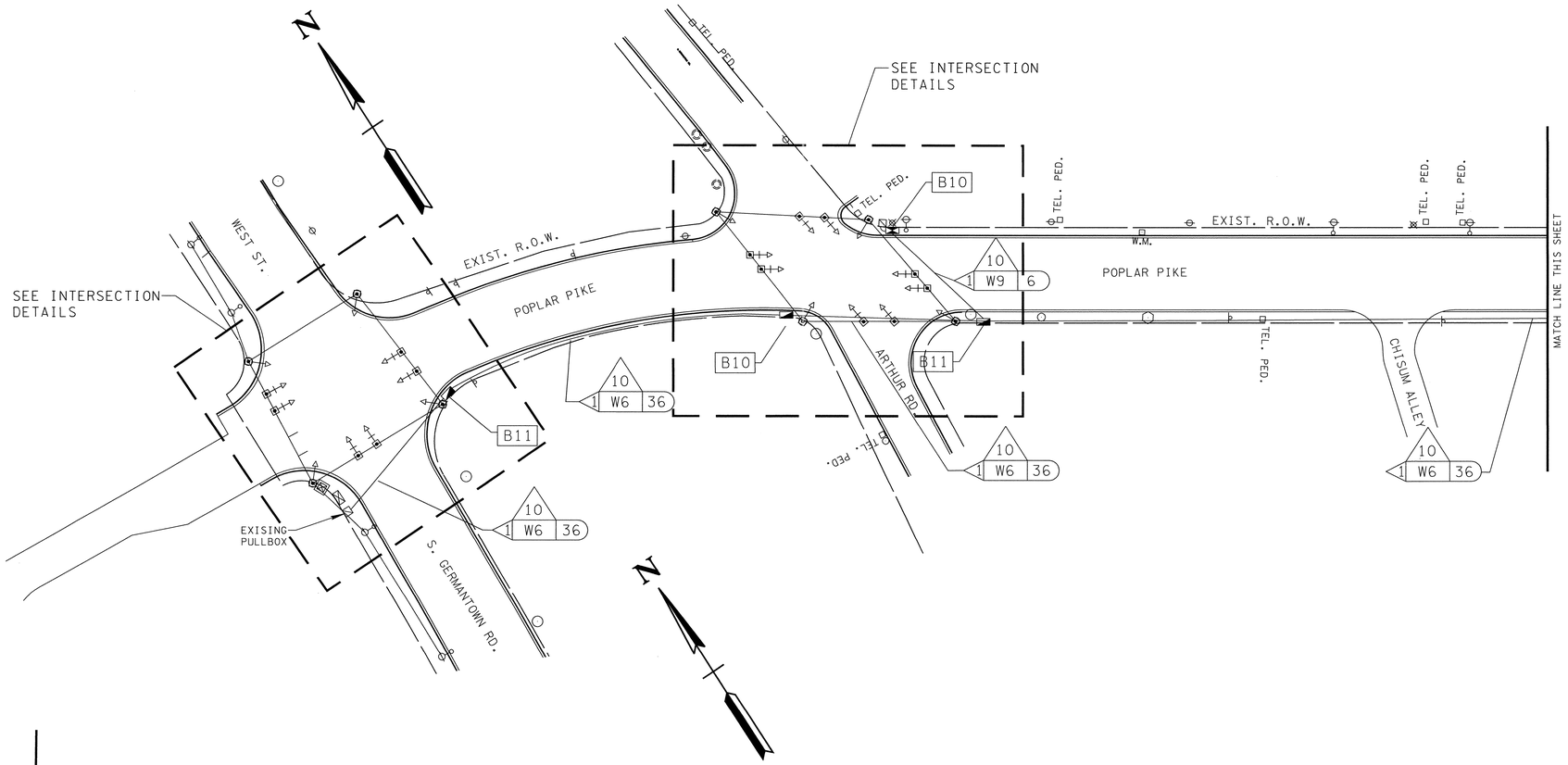
CL-14

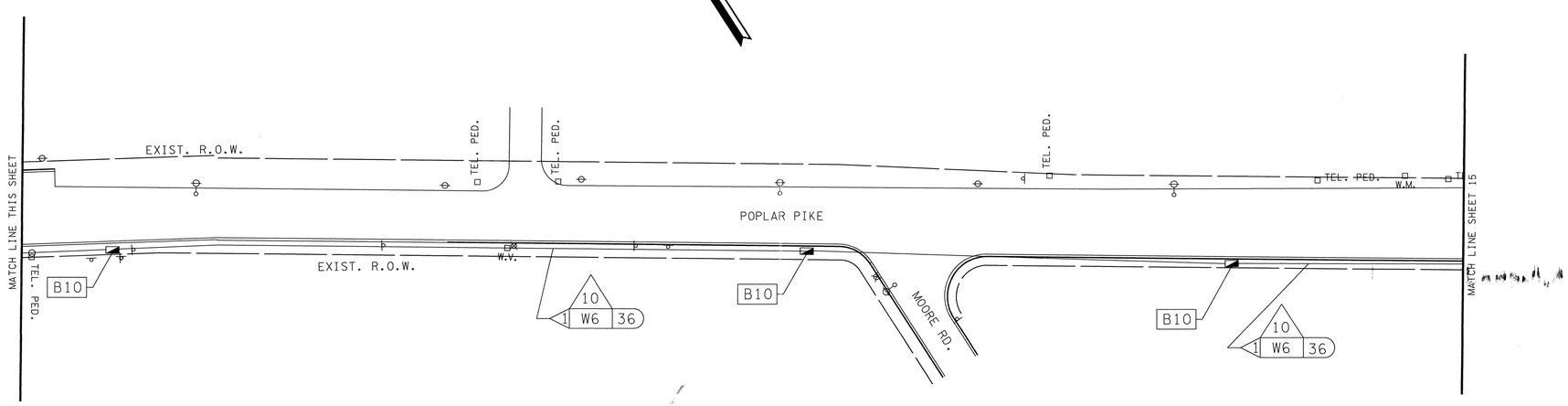
DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #7
SHELBY COUNTY, TN

CABLE LAYOUT

SURVEY: N/A DATE: N/A
DESIGNED BY: ACOT DATE: 1-14-14 BOOK: –
DRAWN BY: ACOT DATE: 1-14-14 SCALE: 1"=50'

JURISDICTION: SHEET 13 OF 52





LEGEND

B1	RETAIN AND MODIFY EXISTING CABINET
B2	REMOVE EXISTING CABINET
B3	INSTALL NEW BASE MOUNTED CONTROLLER CABINET
B4	INSTALL NEW POLE MOUNTED CONTROLLER CABINET
B5	INSTALL BASE MOUNTED HUB CABINET
B6	INSTALL WEATHER PROOF SPLICE ENCLOSURE
B7	INSTALL FIBER DISTRIBUTION BOX
B8	REMOVE EXISTING PULLBOX
B9	INSTALL TRAFFIC SIGNAL PULLBOX
B10	INSTALL FIBER OPTIC PULLBOX TYPE A
B11	INSTALL FIBER OPTIC PULLBOX TYPE B
B12	INSTALL 14' PEDESTAL POLE
B13	INSTALL 20' PEDESTAL POLE
B14	INSTALL TELEPHONE INTERFACE (TYPE I) ON THIS POLE
B15	MLGW POWER SERVICE CONNECTION
C1	INSTALL 4-PHASE CONTROLLER
C2	INSTALL 8-PHASE CONTROLLER
C3	INSTALL FIELD MASTER CONTROLLER
C4	REMOVE EXISTING CONTROLLER AND INSTALL NEW CONTROLLER
C5	INSTALL FIBER OPTIC MODEM
C6	INSTALL ETHERNET CABINET SWITCH
C7	INSTALL SERIAL DEVICE SERVER
C8	INSTALL ETHERNET HUB SWITCH
D10	INSTALL DETECTOR AMPLIFIER (4-CHANNEL) IN CABINET
D11	REUSE SYSTEM DETECTOR AMPLIFIER(S)
D12	INSTALL NEW POLE MOUNTED RDS CABINET
D13	INSTALL RADAR DETECTION SYSTEM
D14	INSTALL VIDEO REMOTE MANAGEMENT CARD
D15	INSTALL NEW SECONDARY POLE MOUNTED RDS CABINET
D16	BLUETOOTH DETECTION SYSTEM
W6	SMFO CABLE
W7	SMFO TRUNK CABLE
W8	MMFO CABLE(S)
W9	SMFO DROP CABLE (6-FIBER)
W10	SMFO DROP CABLE (12-FIBER)
W11	RDS CABLE
W12	RDS POWER CABLE
W13	ETHERNET DATA CABLE
W14	NEW MESSENGER WIRE
W15	COIL 50' OF SMFO CABLE
W16	COIL 50' OF SMFO TRUNK CABLE
W17	TELEPHONE CABLE(S)
1	INSTALL 1 " RISER WITH WEATHERHEAD
2	INSTALL 1 1/2" PVC CONDUIT
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 SEALING BUSHING
20	TIE CONDUIT INTO EXISTING PULLBOX
21	REUSE EXISTING CONDUIT
22	REUSE EXISTING RISER WITH WEATHERHEAD
23	ATTACH CONDUIT TO EXISTING CONDUIT STUB-OUT
24	INSTALL CABLES IN EXISTING MAST ARM POLE
25	INSTALL CABLES IN EXISTING POLE IN EXIST. WEATHERHEAD
26	INSTALL CABLES IN EXISTING POLE IN PROP. 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
31	INSTALL CABLES IN EXISTING CONDUIT(S) INTO CABINET
32	LASH TO EXISTING MESSENGER WIRE/SPANWIRE
33	LASH TO PROPOSED MESSENGER WIRE/SPANWIRE
34	DRILL HOLE NEAR TOP OF POLE INSTALL SEALING BUSHING
35	ATTACH CONDUIT TO BRIDGE
X	NUMBER OF CABLES, LOOPS, AND ETC
X	NUMBER OF CONDUCTORS, PAIRS, AND ETC
XX	INTERSECTION NUMBER

REVISIONS

ITEM No.	DESCRIPTION OF CHANGE	APPROVAL DATE

ENGINEERS SEAL

MICHAEL J. BRUGGE
STATE OF TENNESSEE
3/14/15

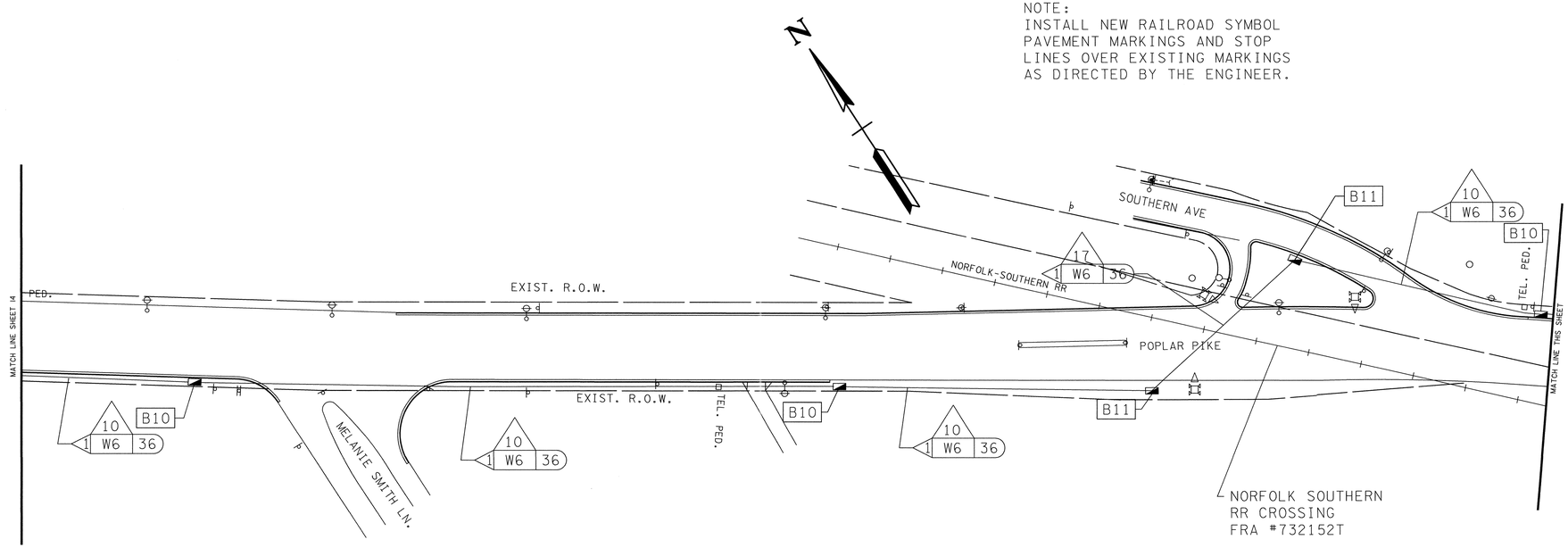
PARSONS

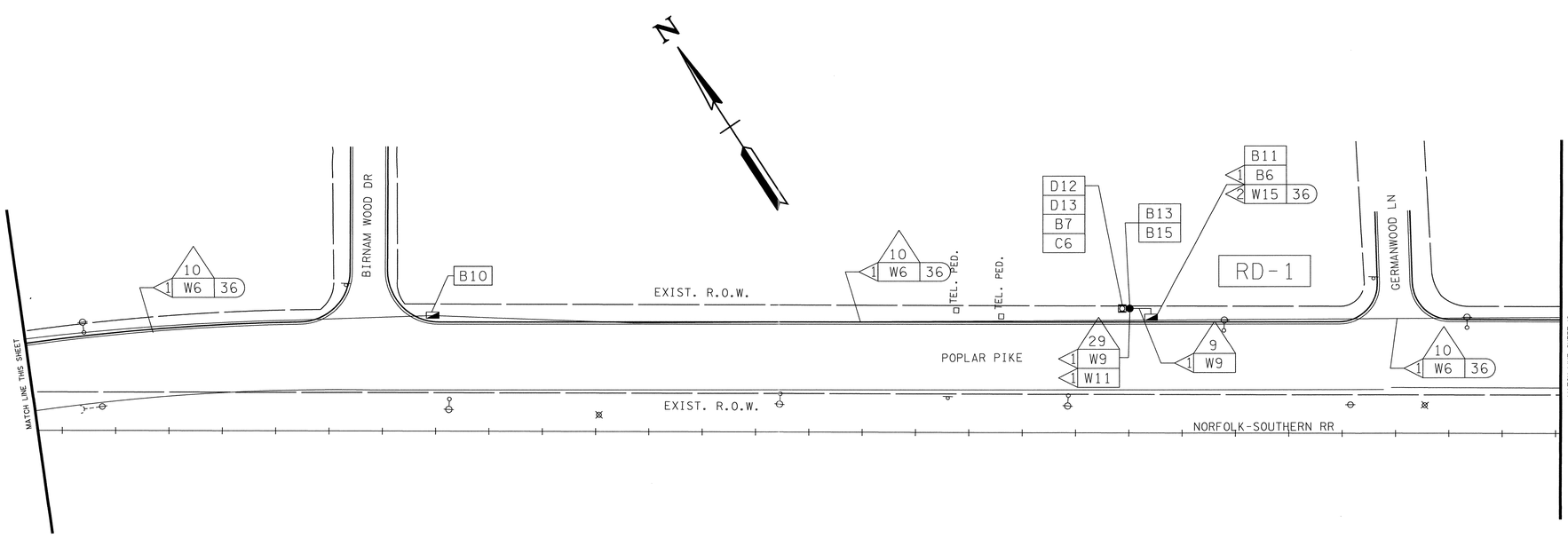
DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
INTERSECTION IMPROVEMENTS
SHELBY COUNTY, TN

CONDUIT PLANS

SURVEY BY: N/A DATE: _____ BOOK: _____
DRAFTED BY: rch DATE: 12/13 SCALE: 1"=50'
DESIGNED BY: KLA DATE: 12/13 CHECKED: MJB DATE: 3/14

NOTE:
INSTALL NEW RAILROAD SYMBOL PAVEMENT MARKINGS AND STOP LINES OVER EXISTING MARKINGS AS DIRECTED BY THE ENGINEER.





LEGEND

B1	RETAIN AND MODIFY EXISTING CABINET
B2	REMOVE EXISTING CABINET
B3	INSTALL NEW BASE MOUNTED CONTROLLER CABINET
B4	INSTALL NEW POLE MOUNTED CONTROLLER CABINET
B5	INSTALL BASE MOUNTED HUB CABINET
B6	INSTALL WEATHER PROOF SPLICE ENCLOSURE
B7	INSTALL FIBER DISTRIBUTION BOX
B8	REMOVE EXISTING PULLBOX
B9	INSTALL TRAFFIC SIGNAL PULLBOX
B10	INSTALL FIBER OPTIC PULLBOX TYPE A
B11	INSTALL FIBER OPTIC PULLBOX TYPE B
B12	INSTALL 14′ PEDESTAL POLE
B13	INSTALL 20′ PEDESTAL POLE
B14	INSTALL TELEPHONE INTERFACE (TYPE I) ON THIS POLE
B15	MLGW POWER SERVICE CONNECTION
C1	INSTALL 4-PHASE CONTROLLER
C2	INSTALL 8-PHASE CONTROLLER
C3	INSTALL FIELD MASTER CONTROLLER
C4	REMOVE EXISTING CONTROLLER AND INSTALL NEW CONTROLLER
C5	INSTALL FIBER OPTIC MODEM
C6	INSTALL ETHERNET CABINET SWITCH
C7	INSTALL SERIAL DEVICE SERVER
C8	INSTALL ETHERNET HUB SWITCH
D10	INSTALL DETECTOR AMPLIFIER (4-CHANNEL) IN CABINET
D11	REUSE SYSTEM DETECTOR AMPLIFIER(S) (SEE REMOVAL DIAGRAM)
D12	INSTALL NEW POLE MOUNTED RDS CABINET
D13	INSTALL RADAR DETECTION SYSTEM
D14	INSTALL VIDEO REMOTE MANAGEMENT CARD
D15	INSTALL NEW SECONDARY POLE MOUNTED RDS CABINET
D16	BLUETOOTH DETECTION SYSTEM
W6	SMFO CABLE
W7	SMFO TRUNK CABLE
W8	MMFO CABLE(S)
W9	SMFO DROP CABLE (6-FIBER)
W10	SMFO DROP CABLE (12-FIBER)
W11	RDS CABLE
W12	RDS POWER CABLE
W13	ETHERNET DATA CABLE
W14	NEW MESSENGER WIRE
W15	COIL 50′ OF SMFO CABLE
W16	COIL 50′ OF SMFO TRUNK CABLE
W17	TELEPHONE CABLE(S)
1	INSTALL 1 ″ RISER WITH WEATHERHEAD
2	INSTALL 1 1/2″ PVC CONDUIT
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 SEALING BUSHING
20	TIE CONDUIT INTO EXISTING PULLBOX
21	REUSE EXISTING CONDUIT
22	REUSE EXISTING RISER WITH WEATHERHEAD
23	ATTACH CONDUIT TO EXISTING CONDUIT STUB-OUT
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
31	INSTALL CABLES IN EXISTING CONDUIT(S) INTO CABINET
32	LASH TO EXISTING MESSENGER WIRE/SPANWIRE
33	LASH TO PROPOSED MESSENGER WIRE/SPANWIRE
34	DRILL HOLE NEAR TOP OF POLE INSTALL SEALING BUSHING
35	ATTACH CONDUIT TO BRIDGE
X	NUMBER OF CABLES, LOOPS, AND ETC
X	NUMBER OF CONDUCTORS, PAIRS, AND ETC
XX	INTERSECTION NUMBER

REVISIONS

ITEM No.	DESCRIPTION OF CHANGE	APPROVAL DATE

ENGINEERS SEAL

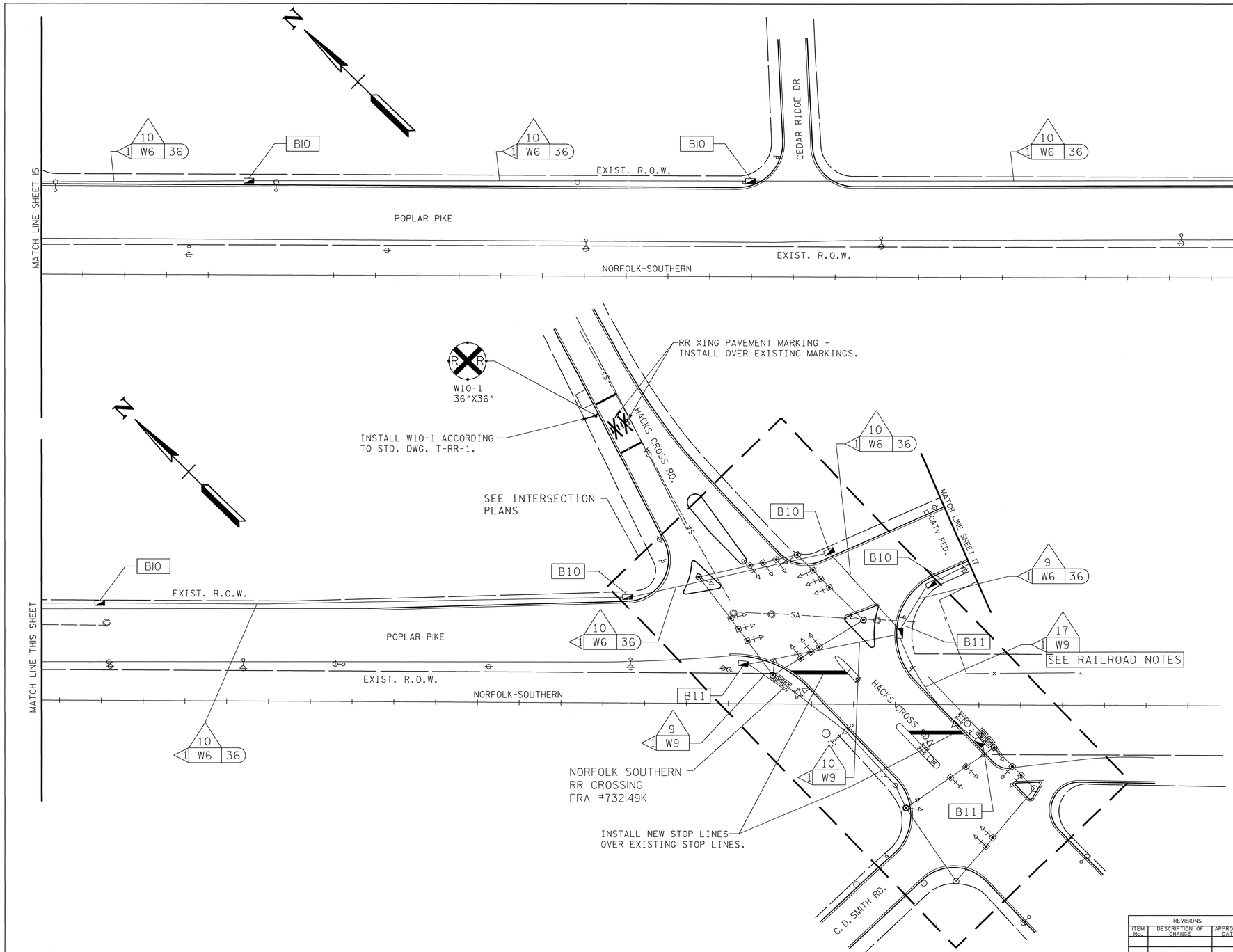
MICHAEL J. BRUGGE
STATE OF TENNESSEE
9/16/15

PARSONS

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
INTERSECTION IMPROVEMENTS
SHELBY COUNTY, TN

CONDUIT PLANS

SURVEY BY: N/A DATE: BOOK:
DRAFTED BY: rch DATE: 12/13 SCALE: 1"=50′
DESIGNED BY: KLA DATE: 12/13 CHECKED: MJB DATE: 3/14



LEGEND

B1	RETAIN AND MODIFY EXISTING CABINET
B2	REMOVE EXISTING CABINET
B3	INSTALL NEW BASE MOUNTED CONTROLLER CABINET
B4	INSTALL NEW POLE MOUNTED CONTROLLER CABINET
B5	INSTALL BASE MOUNTED HUB CABINET
B6	INSTALL WEATHER PROOF SPLICE ENCLOSURE
B7	INSTALL FIBER DISTRIBUTION BOX
B8	REMOVE EXISTING PULLBOX
B9	INSTALL TRAFFIC SIGNAL PULLBOX
B10	INSTALL FIBER OPTIC PULLBOX TYPE A
B11	INSTALL FIBER OPTIC PULLBOX TYPE B
B12	INSTALL 14' PEDESTAL POLE
B13	INSTALL 20' PEDESTAL POLE
B14	INSTALL TELEPHONE INTERFACE (TYPE I) ON THIS POLE
B15	MLGW POWER SERVICE CONNECTION
C1	INSTALL 4-PHASE CONTROLLER
C2	INSTALL 8-PHASE CONTROLLER
C3	INSTALL FIELD MASTER CONTROLLER
C4	REMOVE EXISTING CONTROLLER AND INSTALL NEW CONTROLLER
C5	INSTALL FIBER OPTIC MODEM
C6	INSTALL ETHERNET CABINET SWITCH
C7	INSTALL SERIAL DEVICE SERVER
C8	INSTALL ETHERNET HUB SWITCH
D10	INSTALL DETECTOR AMPLIFIER (4-CHANNEL) IN CABINET
D11	REUSE SYSTEM DETECTOR AMPLIFIER(S) (SEE REMOVAL DIAGRAM)
D12	INSTALL NEW POLE MOUNTED RDS CABINET
D13	INSTALL RADAR DETECTION SYSTEM
D14	INSTALL VIDEO REMOTE MANAGEMENT CARD
D15	INSTALL NEW SECONDARY POLE MOUNTED RDS CABINET
D16	BLUETOOTH DETECTION SYSTEM
W6	SMFO CABLE
W7	SMFO TRUNK CABLE
W8	MMFO CABLE(S)
W9	SMFO DROP CABLE (6-FIBER)
W10	SMFO DROP CABLE (12-FIBER)
W11	RDS CABLE
W12	RDS POWER CABLE
W13	ETHERNET DATA CABLE
W14	NEW MESSENGER WIRE
W15	COIL 50' OF SMFO CABLE
W16	COIL 50' OF SMFO TRUNK CABLE
W17	TELEPHONE CABLE(S)
1	INSTALL 1 " RISER WITH WEATHERHEAD
2	INSTALL 1 1/2" PVC CONDUIT
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 SEALING BUSHING
20	TIE CONDUIT INTO EXISTING PULLBOX
21	REUSE EXISTING CONDUIT
22	REUSE EXISTING RISER WITH WEATHERHEAD
23	ATTACH CONDUIT TO EXISTING CONDUIT STUB-OUT
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
31	INSTALL CABLES IN EXISTING CONDUIT(S) INTO CABINET
32	LASH TO EXISTING MESSENGER WIRE/SPANWIRE
33	LASH TO PROPOSED MESSENGER WIRE/SPANWIRE
34	DRILL HOLE NEAR TOP OF POLE INSTALL SEALING BUSHING
35	ATTACH CONDUIT TO BRIDGE
X	NUMBER OF CABLES, LOOPS, AND ETC
X	NUMBER OF CONDUCTORS, PAIRS, AND ETC
XX	INTERSECTION NUMBER

REVISIONS

ITEM No.	DESCRIPTION OF CHANGE	APPROVAL DATE

ENGINEERS SEAL

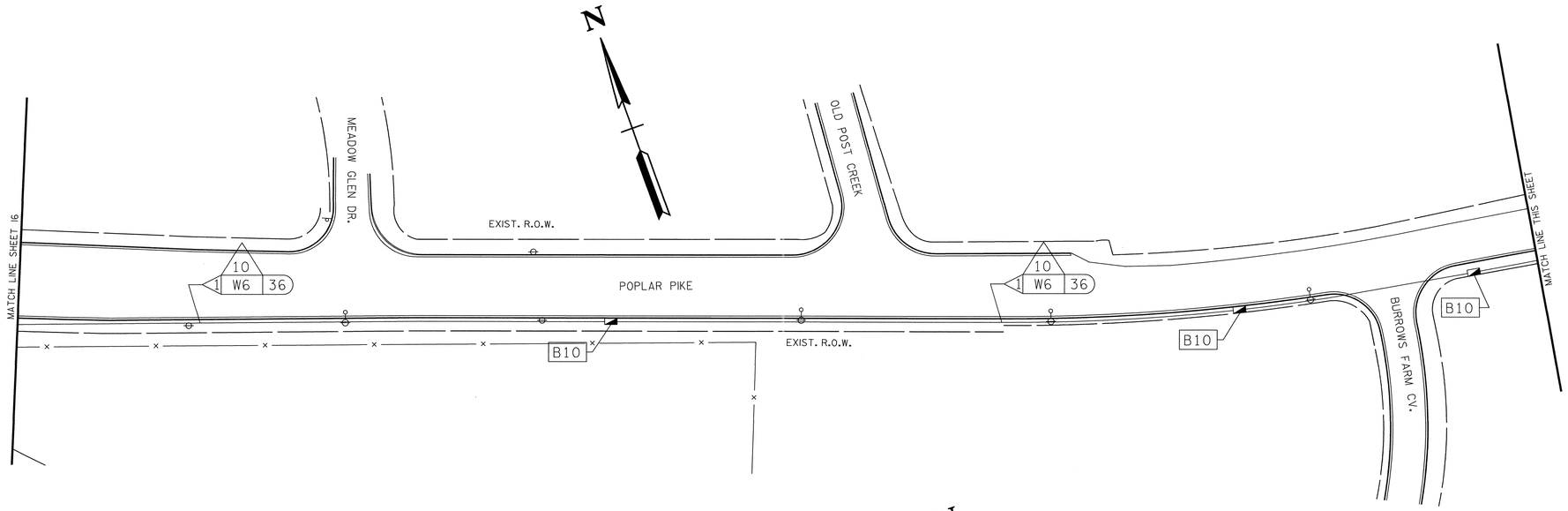
MICHAEL J. BRUGGE
REGISTERED ENGINEER
No. 102890
STATE OF TENNESSEE
07/22/15

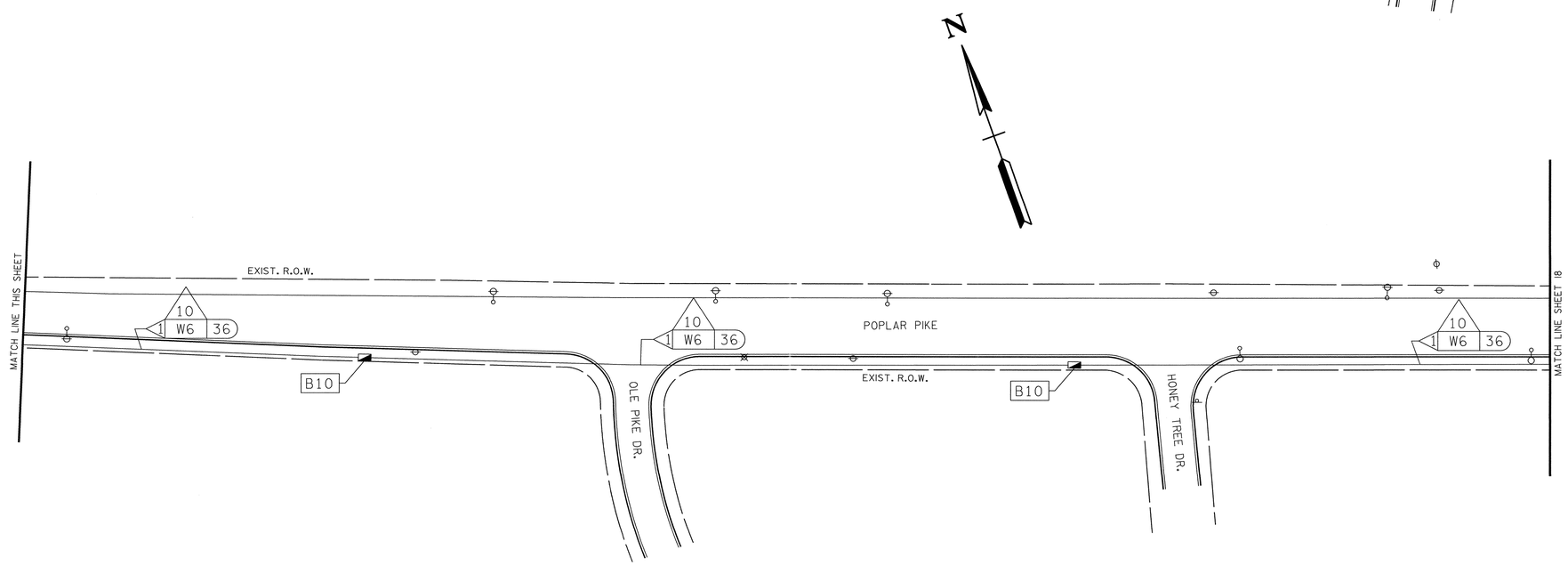
PARSONS

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
INTERSECTION IMPROVEMENTS
SHELBY COUNTY, TN

CONDUIT PLANS

SURVEY BY: N/A DATE: BOOK:
DRAFTED BY: rch DATE: 12/13 SCALE: 1"=50'
DESIGNED BY: KLA DATE: 12/13 CHECKED: MJB DATE: 3/14





LEGEND

B1	RETAIN AND MODIFY EXISTING CABINET
B2	REMOVE EXISTING CABINET
B3	INSTALL NEW BASE MOUNTED CONTROLLER CABINET
B4	INSTALL NEW POLE MOUNTED CONTROLLER CABINET
B5	INSTALL BASE MOUNTED HUB CABINET
B6	INSTALL WEATHER PROOF SPLICE ENCLOSURE
B7	INSTALL FIBER DISTRIBUTION BOX
B8	REMOVE EXISTING PULLBOX
B9	INSTALL TRAFFIC SIGNAL PULLBOX
B10	INSTALL FIBER OPTIC PULLBOX TYPE A
B11	INSTALL FIBER OPTIC PULLBOX TYPE B
B12	INSTALL 14' PEDESTAL POLE
B13	INSTALL 20' PEDESTAL POLE
B14	INSTALL TELEPHONE INTERFACE (TYPE I) ON THIS POLE
B15	MLGW POWER SERVICE CONNECTION
C1	INSTALL 4-PHASE CONTROLLER
C2	INSTALL 8-PHASE CONTROLLER
C3	INSTALL FIELD MASTER CONTROLLER
C4	REMOVE EXISTING CONTROLLER AND INSTALL NEW CONTROLLER
C5	INSTALL FIBER OPTIC MODEM
C6	INSTALL ETHERNET CABINET SWITCH
C7	INSTALL SERIAL DEVICE SERVER
C8	INSTALL ETHERNET HUB SWITCH
D10	INSTALL DETECTOR AMPLIFIER (4-CHANNEL) IN CABINET
D11	REUSE SYSTEM DETECTOR AMPLIFIER(S)
D12	INSTALL NEW POLE MOUNTED RDS CABINET
D13	INSTALL RADAR DETECTION SYSTEM
D14	INSTALL VIDEO REMOTE MANAGEMENT CARD
D15	INSTALL NEW SECONDARY POLE MOUNTED RDS CABINET
D16	BLUETOOTH DETECTION SYSTEM
W6	SMFO CABLE
W7	SMFO TRUNK CABLE
W8	MMFO CABLE(S)
W9	SMFO DROP CABLE (6-FIBER)
W10	SMFO DROP CABLE (12-FIBER)
W11	RDS CABLE
W12	RDS POWER CABLE
W13	ETHERNET DATA CABLE
W14	NEW MESSENGER WIRE
W15	COIL 50' OF SMFO CABLE
W16	COIL 50' OF SMFO TRUNK CABLE
W17	TELEPHONE CABLE(S)
1	INSTALL 1 " RISER WITH WEATHERHEAD
2	INSTALL 1 1/2" PVC CONDUIT
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 SEALING BUSHING
20	TIE CONDUIT INTO EXISTING PULLBOX
21	REUSE EXISTING CONDUIT
22	REUSE EXISTING RISER WITH WEATHERHEAD
23	ATTACH CONDUIT TO EXISTING CONDUIT STUB-OUT
24	INSTALL CABLES IN EXISTING MAST ARM POLE
25	INSTALL CABLES IN EXISTING POLE IN EXIST. WEATHERHEAD
26	INSTALL CABLES IN EXISTING POLE IN PROP. 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
31	INSTALL CABLES IN EXISTING CONDUIT(S) INTO CABINET
32	LASH TO EXISTING MESSENGER WIRE/SPANWIRE
33	LASH TO PROPOSED MESSENGER WIRE/SPANWIRE
34	DRILL HOLE NEAR TOP OF POLE INSTALL SEALING BUSHING
35	ATTACH CONDUIT TO BRIDGE
X	NUMBER OF CABLES, LOOPS, AND ETC
X	NUMBER OF CONDUCTORS, PAIRS, AND ETC
XX	INTERSECTION NUMBER

REVISIONS

ITEM No.	DESCRIPTION OF CHANGE	APPROVAL DATE

ENGINEERS SEAL

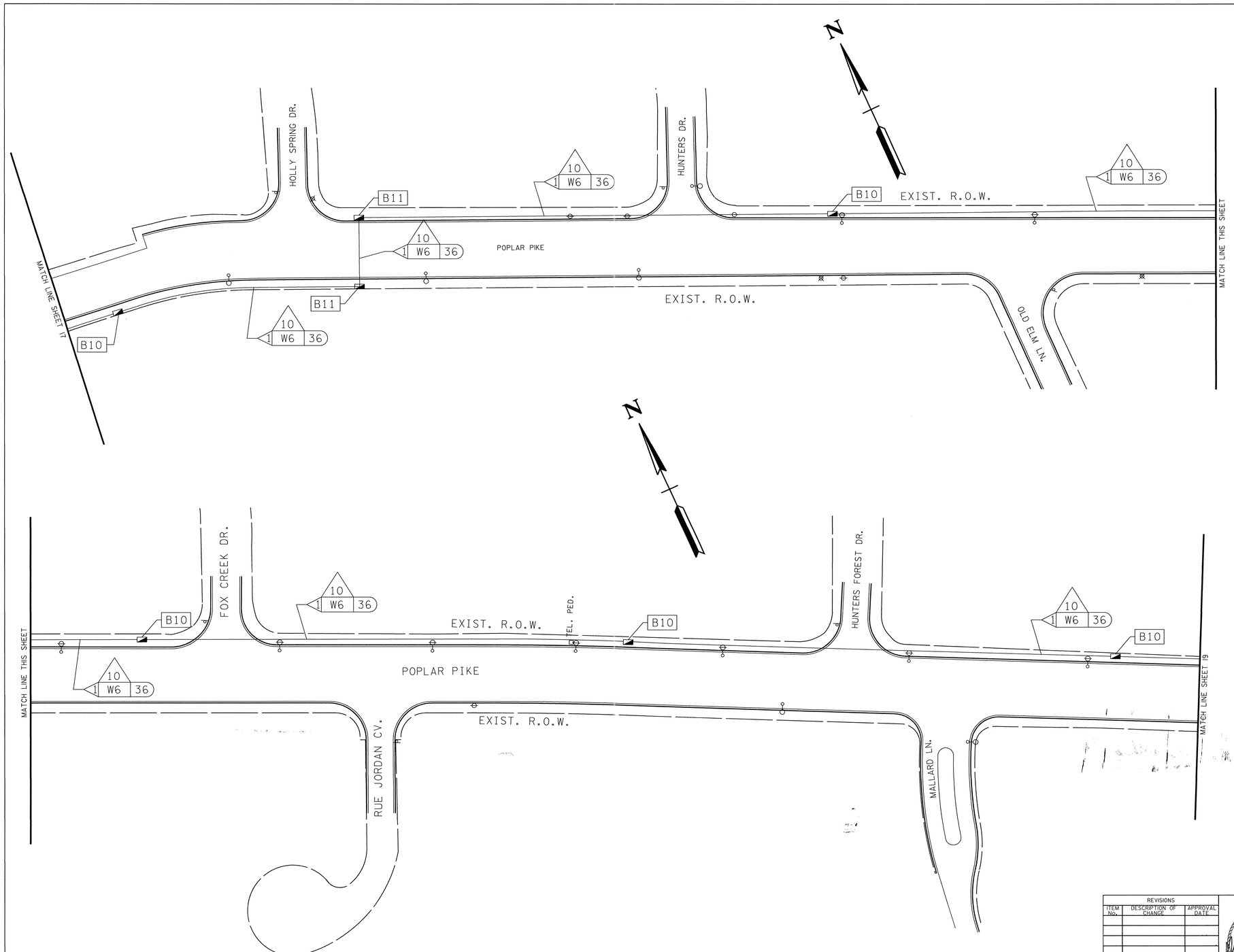
MICHAEL J. BRUGGE
REGISTERED ENGINEER
No. 112337
STATE OF TENNESSEE
Michael J. Brugge
01/12/15

PARSONS

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
INTERSECTION IMPROVEMENTS
SHELBY COUNTY, TN

CONDUIT PLANS

SURVEY BY: N/A DATE: _____ BOOK: _____
DRAFTED BY: rch DATE: 12/13 SCALE: 1"=50'
DESIGNED BY: KLA DATE: 12/13 CHECKED: MJB DATE: 3/14



LEGEND

B1	RETAIN AND MODIFY EXISTING CABINET
B2	REMOVE EXISTING CABINET
B3	INSTALL NEW BASE MOUNTED CONTROLLER CABINET
B4	INSTALL NEW POLE MOUNTED CONTROLLER CABINET
B5	INSTALL BASE MOUNTED HUB CABINET
B6	INSTALL WEATHER PROOF SPLICE ENCLOSURE
B7	INSTALL FIBER DISTRIBUTION BOX
B8	REMOVE EXISTING PULLBOX
B9	INSTALL TRAFFIC SIGNAL PULLBOX
B10	INSTALL FIBER OPTIC PULLBOX TYPE A
B11	INSTALL FIBER OPTIC PULLBOX TYPE B
B12	INSTALL 14' PEDESTAL POLE
B13	INSTALL 20' PEDESTAL POLE
B14	INSTALL TELEPHONE INTERFACE (TYPE I) ON THIS POLE
B15	MLGW POWER SERVICE CONNECTION
C1	INSTALL 4-PHASE CONTROLLER
C2	INSTALL 8-PHASE CONTROLLER
C3	INSTALL FIELD MASTER CONTROLLER
C4	REMOVE EXISTING CONTROLLER AND INSTALL NEW CONTROL
C5	INSTALL FIBER OPTIC MODEM
C6	INSTALL ETHERNET CABINET SWITCH
C7	INSTALL SERIAL DEVICE SERVER
C8	INSTALL ETHERNET HUB SWITCH
D10	INSTALL DETECTOR AMPLIFIER (4-CHANNEL) IN CABINET
D11	REUSE SYSTEM DETECTOR AMPLIFIER(S) (SEE REMOVAL DI
D12	INSTALL NEW POLE MOUNTED RDS CABINET
D13	INSTALL RADAR DETECTION SYSTEM
D14	INSTALL VIDEO REMOTE MANAGEMENT CARD
D15	INSTALL NEW SECONDARY POLE MOUNTED RDS CABINET
D16	BLUETOOTH DETECTION SYSTEM
W6	SMFO CABLE
W7	SMFO TRUNK CABLE
W8	MMFO CABLE(S)
W9	SMFO DROP CABLE (6-FIBER)
W10	SMFO DROP CABLE (12-FIBER)
W11	RDS CABLE
W12	RDS POWER CABLE
W13	ETHERNET DATA CABLE
W14	NEW MESSENGER WIRE
W15	COIL 50' OF SMFO CABLE
W16	COIL 50' OF SMFO TRUNK CABLE
W17	TELEPHONE CABLE(S)
1	INSTALL 1 " RISER WITH WEATHERHEAD
2	INSTALL 1 1/2" PVC CONDUIT
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 FOUNDATI
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 FOUNDATI
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 SEALING BUSHING
20	TIE CONDUIT INTO EXISTING PULLBOX
21	REUSE EXISTING CONDUIT
22	REUSE EXISTING RISER WITH WEATHERHEAD
23	ATTACH CONDUIT TO EXISTING CONDUIT STUB-OUT
24	INSTALL CABLES IN EXISTING MAST ARM POLE
25	INSTALL CABLES IN EXISTING POLE IN EXISTING WEATHE
26	INSTALL CABLES IN EXISTING POLE IN PROPOSED WEATHE
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
31	INSTALL CABLES IN EXISTING CONDUIT(S) INTO CABINET
32	LASH TO EXISTING MESSENGER WIRE/SPANWIRE
33	LASH TO PROPOSED MESSENGER WIRE/SPANWIRE
34	DRILL HOLE NEAR TOP OF POLE INSTALL SEALING BUSHIN
35	ATTACH CONDUIT TO BRIDGE
X	NUMBER OF CABLES, LOOPS, AND ETC
X	NUMBER OF CONDUCTORS, PAIRS, AND ETC
XX	INTERSECTION NUMBER

REVISIONS

ITEM No.	DESCRIPTION OF CHANGE	APPROVAL DATE

ENGINEERS SEAL

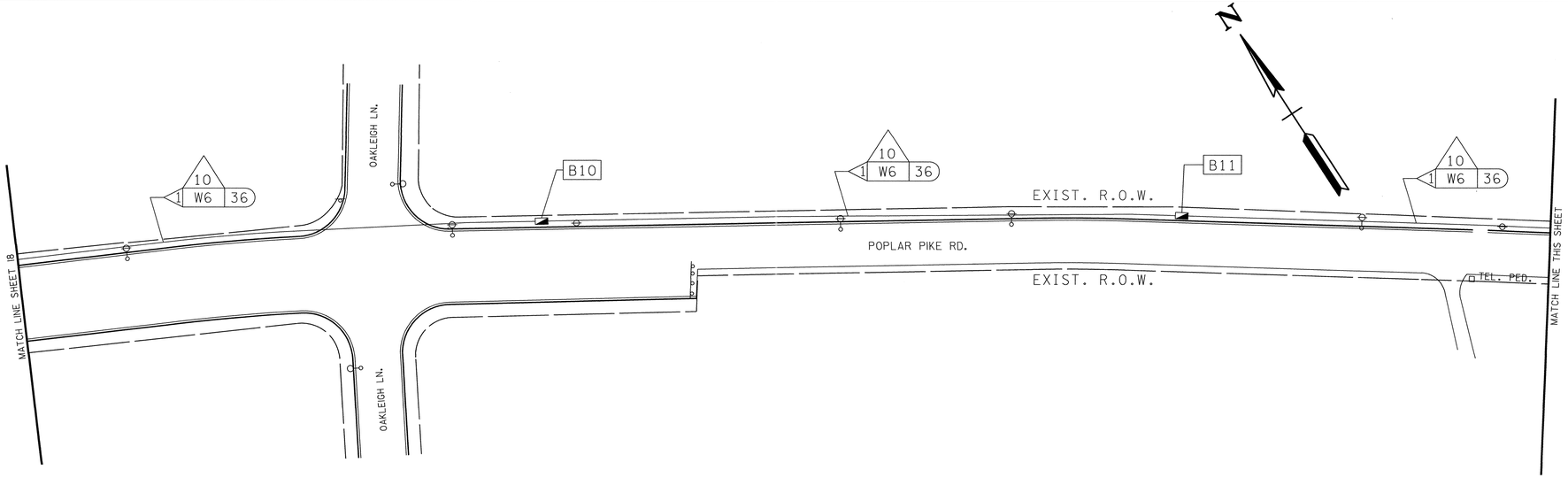
MICHAEL J. BRUCCE
STATE OF TENNESSEE
3/14/15

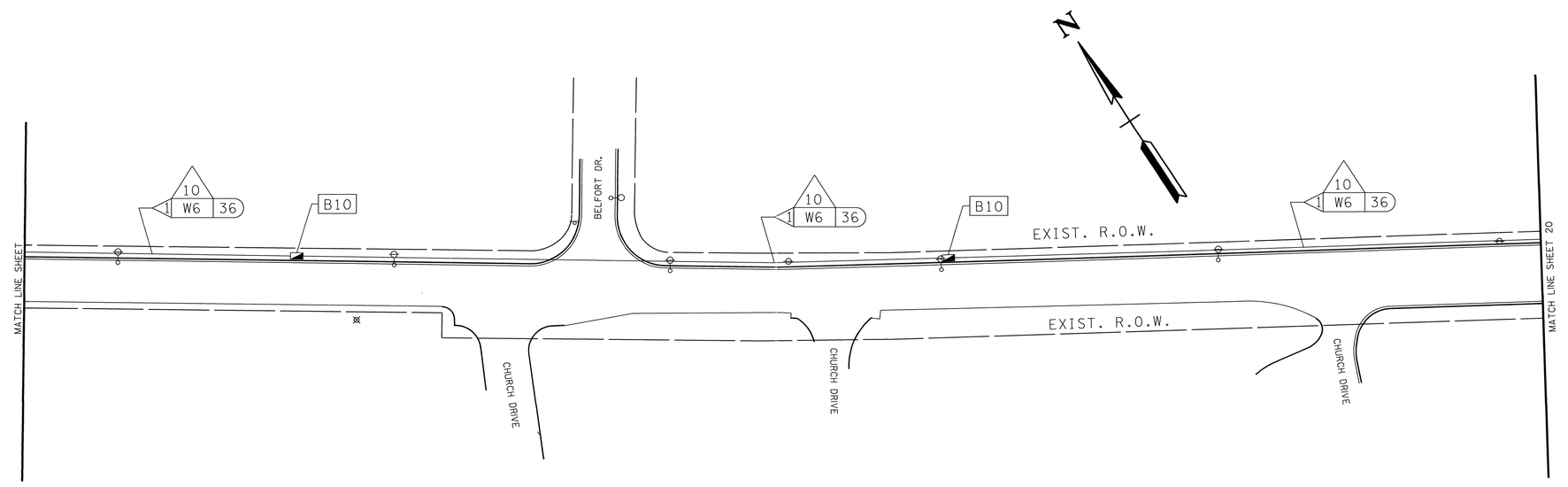
PARSONS

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
INTERSECTION IMPROVEMENTS
SHELBY COUNTY, TN

CONDUIT PLANS

SURVEY BY: N/A DATE: _____ BOOK: _____
DRAFTED BY: rch DATE: 12/13 SCALE: 1"=50'
DESIGNED BY: KLA DATE: 12/13 CHECKED: MJB DATE: 3/14





LEGEND

B1	RETAIN AND MODIFY EXISTING CABINET
B2	REMOVE EXISTING CABINET
B3	INSTALL NEW BASE MOUNTED CONTROLLER CABINET
B4	INSTALL NEW POLE MOUNTED CONTROLLER CABINET
B5	INSTALL BASE MOUNTED HUB CABINET
B6	INSTALL WEATHER PROOF SPLICE ENCLOSURE
B7	INSTALL FIBER DISTRIBUTION BOX
B8	REMOVE EXISTING PULLBOX
B9	INSTALL TRAFFIC SIGNAL PULLBOX
B10	INSTALL FIBER OPTIC PULLBOX TYPE A
B11	INSTALL FIBER OPTIC PULLBOX TYPE B
B12	INSTALL 14' PEDESTAL POLE
B13	INSTALL 20' PEDESTAL POLE
B14	INSTALL TELEPHONE INTERFACE (TYPE I) ON THIS POLE
B15	MLGW POWER SERVICE CONNECTION
C1	INSTALL 4-PHASE CONTROLLER
C2	INSTALL 8-PHASE CONTROLLER
C3	INSTALL FIELD MASTER CONTROLLER
C4	REMOVE EXISTING CONTROLLER AND INSTALL NEW CONTROLLER
C5	INSTALL FIBER OPTIC MODEM
C6	INSTALL ETHERNET CABINET SWITCH
C7	INSTALL SERIAL DEVICE SERVER
C8	INSTALL ETHERNET HUB SWITCH
D10	INSTALL DETECTOR AMPLIFIER (4-CHANNEL) IN CABINET
D11	REUSE SYSTEM DETECTOR AMPLIFIER(S) (SEE REMOVAL DIAGRAM)
D12	INSTALL NEW POLE MOUNTED RDS CABINET
D13	INSTALL RADAR DETECTION SYSTEM
D14	INSTALL VIDEO REMOTE MANAGEMENT CARD
D15	INSTALL NEW SECONDARY POLE MOUNTED RDS CABINET
D16	BLUETOOTH DETECTION SYSTEM
W6	SMFO CABLE
W7	SMFO TRUNK CABLE
W8	MMFO CABLE(S)
W9	SMFO DROP CABLE (6-FIBER)
W10	SMFO DROP CABLE (12-FIBER)
W11	RDS CABLE
W12	RDS POWER CABLE
W13	ETHERNET DATA CABLE
W14	NEW MESSENGER WIRE
W15	COIL 50' OF SMFO CABLE
W16	COIL 50' OF SMFO TRUNK CABLE
W17	TELEPHONE CABLE(S)
1	INSTALL 1 " RISER WITH WEATHERHEAD
2	INSTALL 1 1/2" PVC CONDUIT
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 SEALING BUSHING
20	TIE CONDUIT INTO EXISTING PULLBOX
21	REUSE EXISTING CONDUIT
22	REUSE EXISTING RISER WITH WEATHERHEAD
23	ATTACH CONDUIT TO EXISTING CONDUIT STUB-OUT
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
31	INSTALL CABLES IN EXISTING CONDUIT(S) INTO CABINET
32	LASH TO EXISTING MESSENGER WIRE/SPANWIRE
33	LASH TO PROPOSED MESSENGER WIRE/SPANWIRE
34	DRILL HOLE NEAR TOP OF POLE INSTALL SEALING BUSHING
35	ATTACH CONDUIT TO BRIDGE
X	NUMBER OF CABLES, LOOPS, AND ETC
X	NUMBER OF CONDUCTORS, PAIRS, AND ETC
XX	INTERSECTION NUMBER

REVISIONS

ITEM No.	DESCRIPTION OF CHANGE	APPROVAL DATE

ENGINEERS SEAL

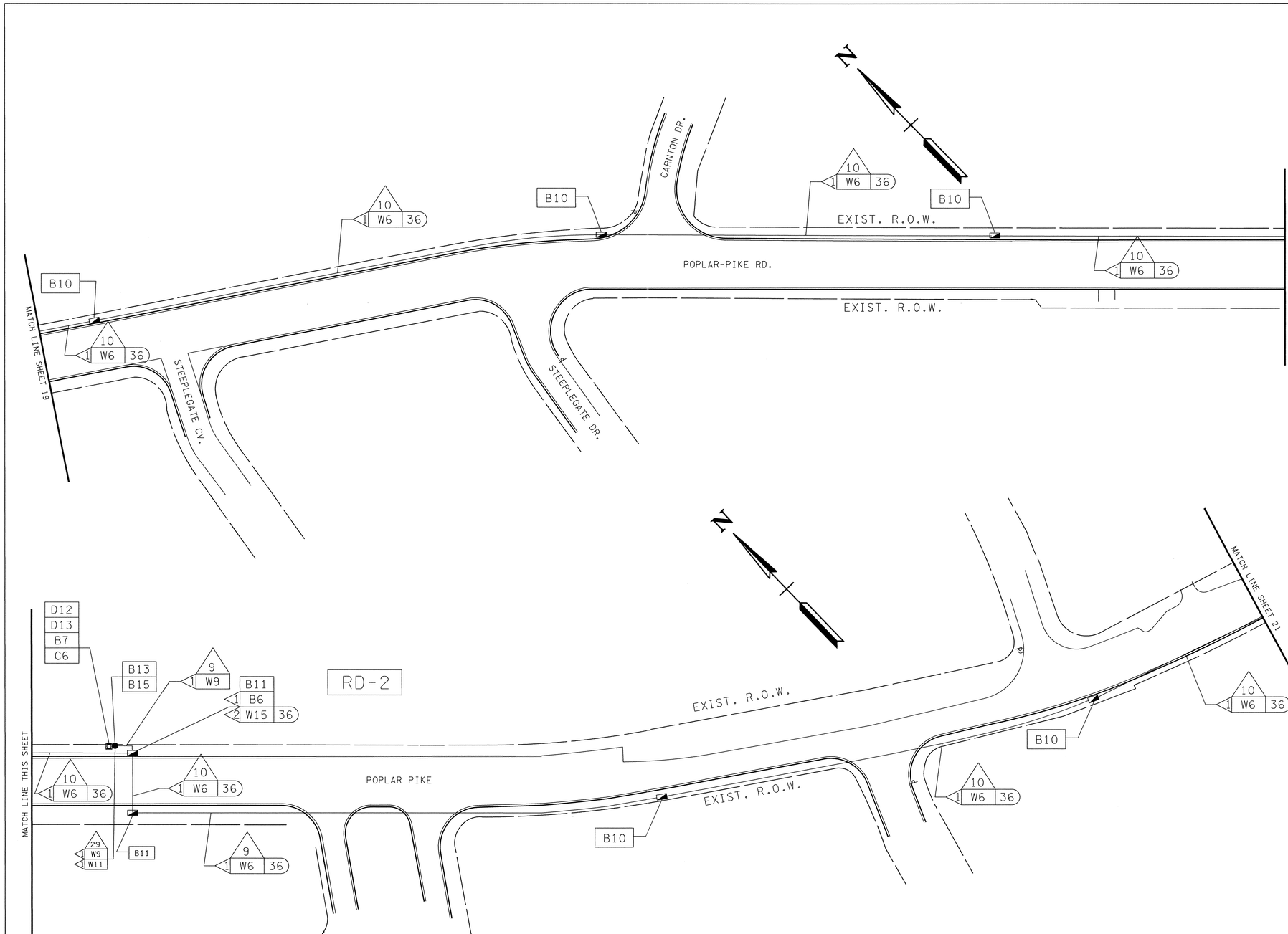
MICHAEL J. BRUGGE — STATE OF TENNESSEE — No. 15844 — 01/29/15

PARSONS

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
INTERSECTION IMPROVEMENTS
SHELBY COUNTY, TN

CONDUIT PLANS

SURVEY BY: N/A DATE: BOOK:
DRAFTED BY: rch DATE: 12/13 SCALE: 1"=50'
DESIGNED BY: KLA DATE: 12/13 CHECKED: MJB DATE: 3/14



LEGEND

B1	RETAIN AND MODIFY EXISTING CABINET
B2	REMOVE EXISTING CABINET
B3	INSTALL NEW BASE MOUNTED CONTROLLER CABINET
B4	INSTALL NEW POLE MOUNTED CONTROLLER CABINET
B5	INSTALL BASE MOUNTED HUB CABINET
B6	INSTALL WEATHER PROOF SPLICE ENCLOSURE
B7	INSTALL FIBER DISTRIBUTION BOX
B8	REMOVE EXISTING PULLBOX
B9	INSTALL TRAFFIC SIGNAL PULLBOX
B10	INSTALL FIBER OPTIC PULLBOX TYPE A
B11	INSTALL FIBER OPTIC PULLBOX TYPE B
B12	INSTALL 14′ PEDESTAL POLE
B13	INSTALL 20′ PEDESTAL POLE
B14	INSTALL TELEPHONE INTERFACE (TYPE I) ON THIS POLE
B15	MLGW POWER SERVICE CONNECTION
C1	INSTALL 4-PHASE CONTROLLER
C2	INSTALL 8-PHASE CONTROLLER
C3	INSTALL FIELD MASTER CONTROLLER
C4	REMOVE EXISTING CONTROLLER AND INSTALL NEW CONTROLLER
C5	INSTALL FIBER OPTIC MODEM
C6	INSTALL ETHERNET CABINET SWITCH
C7	INSTALL SERIAL DEVICE SERVER
C8	INSTALL ETHERNET HUB SWITCH
D10	INSTALL DETECTOR AMPLIFIER (4-CHANNEL) IN CABINET
D11	REUSE SYSTEM DETECTOR AMPLIFIER(S) (SEE REMOVAL DIAGRAM)
D12	INSTALL NEW POLE MOUNTED RDS CABINET
D13	INSTALL RADAR DETECTION SYSTEM
D14	INSTALL VIDEO REMOTE MANAGEMENT CARD
D15	INSTALL NEW SECONDARY POLE MOUNTED RDS CABINET
D16	BLUETOOTH DETECTION SYSTEM
W6	SMFO CABLE
W7	SMFO TRUNK CABLE
W8	MMFO CABLE(S)
W9	SMFO DROP CABLE (6-FIBER)
W10	SMFO DROP CABLE (12-FIBER)
W11	RDS CABLE
W12	RDS POWER CABLE
W13	ETHERNET DATA CABLE
W14	NEW MESSENGER WIRE
W15	COIL 50′ OF SMFO CABLE
W16	COIL 50′ OF SMFO TRUNK CABLE
W17	TELEPHONE CABLE(S)
1	INSTALL 1 " RISER WITH WEATHERHEAD
2	INSTALL 1 1/2" PVC CONDUIT
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 SEALING BUSHING
20	TIE CONDUIT INTO EXISTING PULLBOX
21	REUSE EXISTING CONDUIT
22	REUSE EXISTING RISER WITH WEATHERHEAD
23	ATTACH CONDUIT TO EXISTING CONDUIT STUB-OUT
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
31	INSTALL CABLES IN EXISTING CONDUIT(S) INTO CABINET
32	LASH TO EXISTING MESSENGER WIRE/SPANWIRE
33	LASH TO PROPOSED MESSENGER WIRE/SPANWIRE
34	DRILL HOLE NEAR TOP OF POLE INSTALL SEALING BUSHING
35	ATTACH CONDUIT TO BRIDGE
X	NUMBER OF CABLES, LOOPS, AND ETC
X	NUMBER OF CONDUCTORS, PAIRS, AND ETC
XX	INTERSECTION NUMBER

REVISIONS

ITEM No.	DESCRIPTION OF CHANGE	APPROVAL DATE

ENGINEERS SEAL

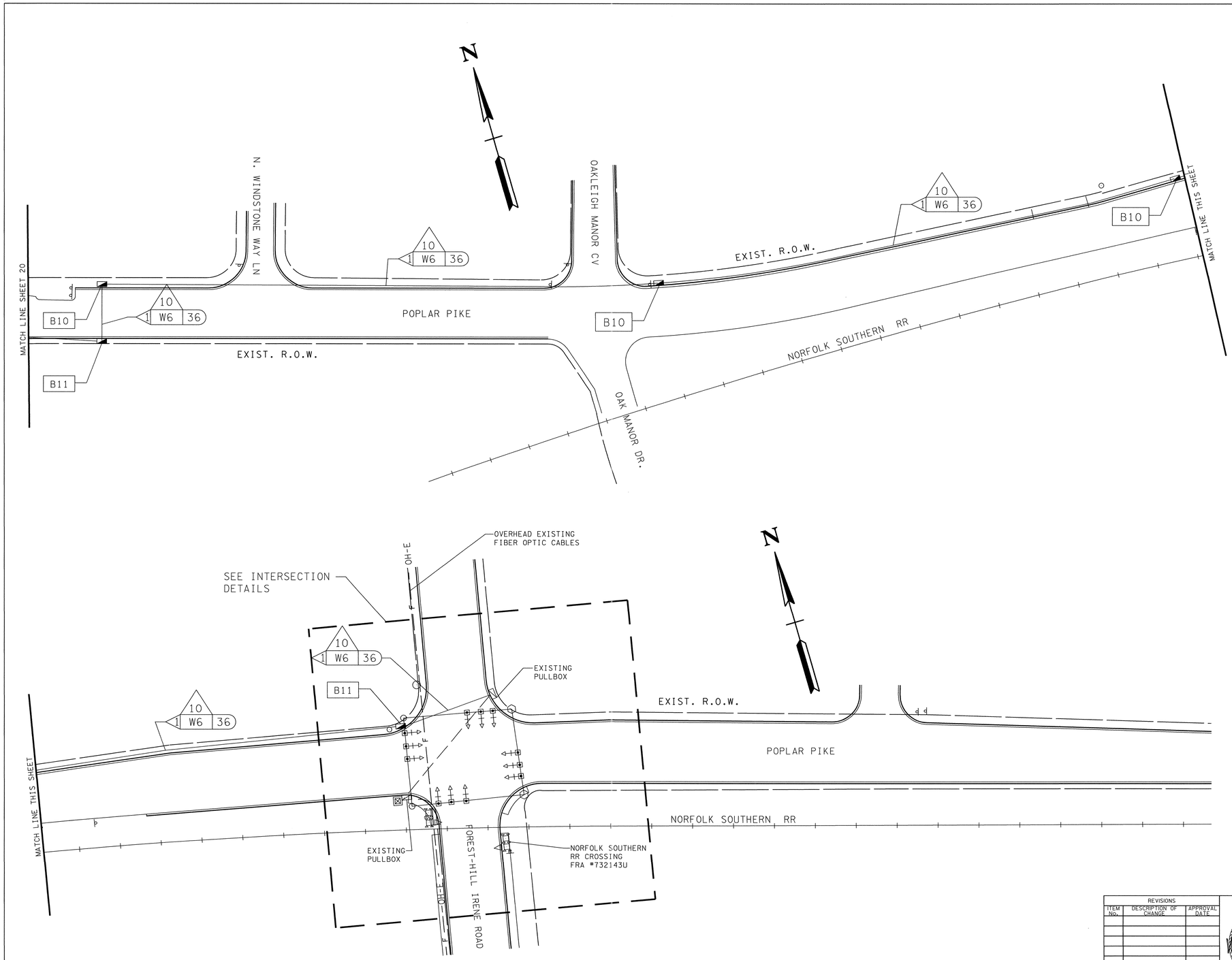
MICHAEL J. BRUGGE — REGISTERED ENGINEER — STATE OF TENNESSEE

PARSONS

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
INTERSECTION IMPROVEMENTS
SHELBY COUNTY, TN

CONDUIT PLANS

SURVEY BY: N/A DATE: BOOK:
DRAFTED BY: rch DATE: 12/13 SCALE: 1"=50′
DESIGNED BY: KLA DATE: 12/13 CHECKED: MJB DATE: 3/14



LEGEND

B1	RETAIN AND MODIFY EXISTING CABINET
B2	REMOVE EXISTING CABINET
B3	INSTALL NEW BASE MOUNTED CONTROLLER CABINET
B4	INSTALL NEW POLE MOUNTED CONTROLLER CABINET
B5	INSTALL BASE MOUNTED HUB CABINET
B6	INSTALL WEATHER PROOF SPLICE ENCLOSURE
B7	INSTALL FIBER DISTRIBUTION BOX
B8	REMOVE EXISTING PULLBOX
B9	INSTALL TRAFFIC SIGNAL PULLBOX
B10	INSTALL FIBER OPTIC PULLBOX TYPE A
B11	INSTALL FIBER OPTIC PULLBOX TYPE B
B12	INSTALL 14' PEDESTAL POLE
B13	INSTALL 20' PEDESTAL POLE
B14	INSTALL TELEPHONE INTERFACE (TYPE I) ON THIS POLE
B15	MLGW POWER SERVICE CONNECTION
C1	INSTALL 4-PHASE CONTROLLER
C2	INSTALL 8-PHASE CONTROLLER
C3	INSTALL FIELD MASTER CONTROLLER
C4	REMOVE EXISTING CONTROLLER AND INSTALL NEW CONTROLLER
C5	INSTALL FIBER OPTIC MODEM
C6	INSTALL ETHERNET CABINET SWITCH
C7	INSTALL SERIAL DEVICE SERVER
C8	INSTALL ETHERNET HUB SWITCH
D10	INSTALL DETECTOR AMPLIFIER (4-CHANNEL) IN CABINET
D11	REUSE SYSTEM DETECTOR AMPLIFIER(S) (SEE REMOVAL DIAGRAM)
D12	INSTALL NEW POLE MOUNTED RDS CABINET
D13	INSTALL RADAR DETECTION SYSTEM
D14	INSTALL VIDEO REMOTE MANAGEMENT CARD
D15	INSTALL NEW SECONDARY POLE MOUNTED RDS CABINET
D16	BLUETOOTH DETECTION SYSTEM
W6	SMFO CABLE
W7	SMFO TRUNK CABLE
W8	MMFO CABLE(S)
W9	SMFO DROP CABLE (6-FIBER)
W10	SMFO DROP CABLE (12-FIBER)
W11	RDS CABLE
W12	RDS POWER CABLE
W13	ETHERNET DATA CABLE
W14	NEW MESSENGER WIRE
W15	COIL 50' OF SMFO CABLE
W16	COIL 50' OF SMFO TRUNK CABLE
W17	TELEPHONE CABLE(S)
1	INSTALL 1 " RISER WITH WEATHERHEAD
2	INSTALL 1 1/2" PVC CONDUIT
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 SEALING BUSHING
20	TIE CONDUIT INTO EXISTING PULLBOX
21	REUSE EXISTING CONDUIT
22	REUSE EXISTING RISER WITH WEATHERHEAD
23	ATTACH CONDUIT TO EXISTING CONDUIT STUB-OUT
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
31	INSTALL CABLES IN EXISTING CONDUIT(S) INTO CABINET
32	LASH TO EXISTING MESSENGER WIRE/SPANWIRE
33	LASH TO PROPOSED MESSENGER WIRE/SPANWIRE
34	DRILL HOLE NEAR TOP OF POLE INSTALL SEALING BUSHING
35	ATTACH CONDUIT TO BRIDGE
X	NUMBER OF CABLES, LOOPS, AND ETC
X	NUMBER OF CONDUCTORS, PAIRS, AND ETC
XX	INTERSECTION NUMBER

REVISIONS

ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE

ENGINEERS SEAL

MICHAEL J. BRUGGE — STATE OF TENNESSEE — 19

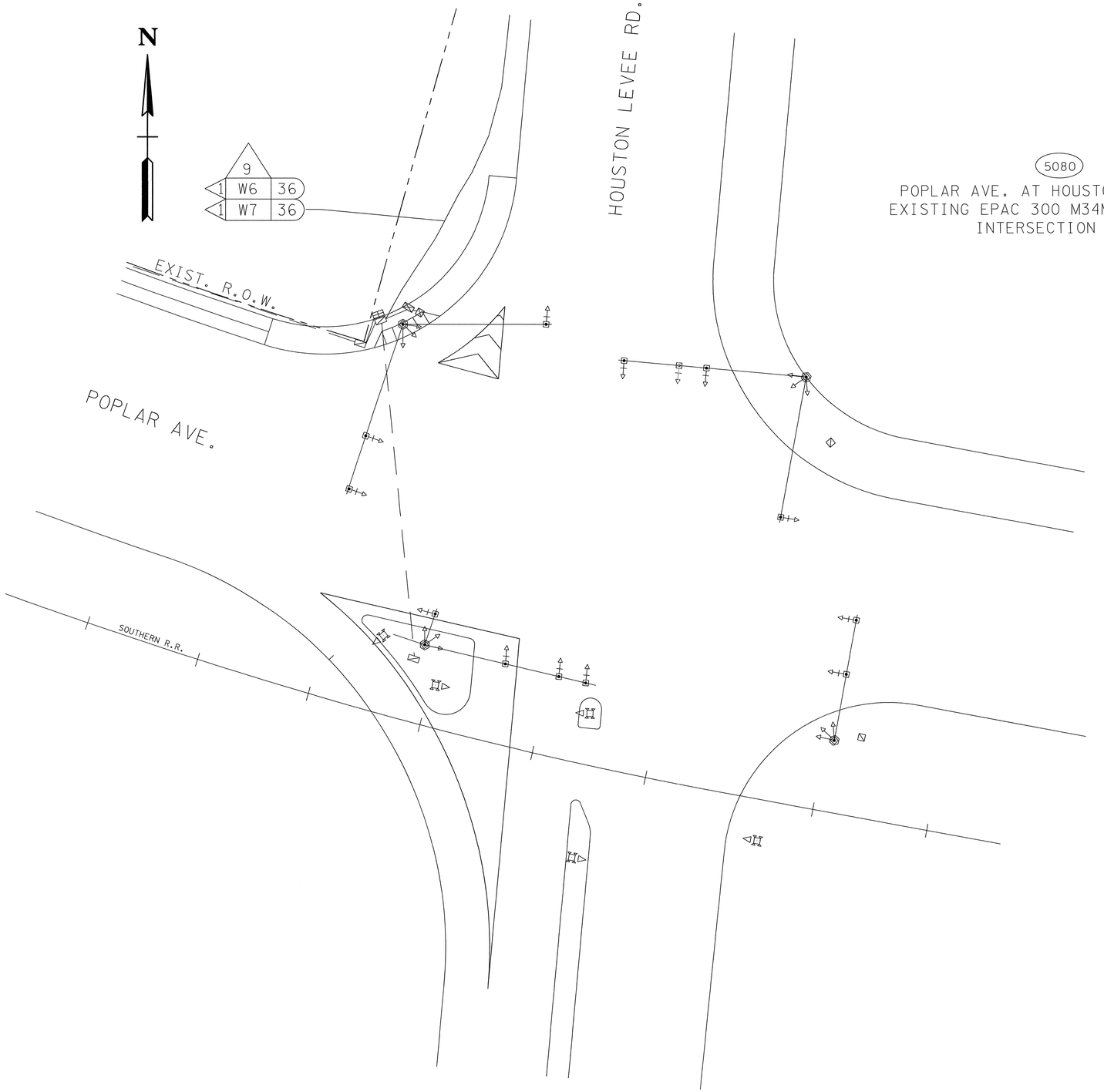
7/28/15

PARSONS

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
INTERSECTION IMPROVEMENTS
SHELBY COUNTY, TN

CONDUIT PLANS

SURVEY BY: N/A DATE: BOOK:
DRAFTED BY: rch DATE: 12/13 SCALE: 1"=50'
DESIGNED BY: KLA DATE: 12/13 CHECKED: MJB DATE: 3/14



5080

POPLAR AVE. AT HOUSTON LEVEE RD.
EXISTING EPAC 300 M34MS CONTROLLER
INTERSECTION 25-4

LEGEND

B1	RETAIN AND MODIFY EXISTING CABINET
B2	REMOVE EXISTING CABINET
B3	INSTALL NEW BASE MOUNTED CONTROLLER CABINET
B4	INSTALL NEW POLE MOUNTED CONTROLLER CABINET
B5	INSTALL BASE MOUNTED HUB CABINET
B6	INSTALL WEATHER PROOF SPLICE ENCLOSURE
B7	INSTALL FIBER DISTRIBUTION BOX
B8	REMOVE EXISTING PULLBOX
B9	INSTALL TRAFFIC SIGNAL PULLBOX
B10	INSTALL FIBER OPTIC PULLBOX TYPE A
B11	INSTALL FIBER OPTIC PULLBOX TYPE B
B12	INSTALL 14′ PEDESTAL POLE
B13	INSTALL 20′ PEDESTAL POLE
B14	INSTALL TELEPHONE INTERFACE (TYPE I) ON THIS POLE
B15	MLGW POWER SERVICE CONNECTION
C1	INSTALL 4-PHASE CONTROLLER
C2	INSTALL 8-PHASE CONTROLLER
C3	INSTALL FIELD MASTER CONTROLLER
C4	REMOVE EXISTING CONTROLLER AND INSTALL NEW CONTROLLER
C5	INSTALL FIBER OPTIC MODEM
C6	INSTALL ETHERNET CABINET SWITCH
C7	INSTALL SERIAL DEVICE SERVER
C8	INSTALL ETHERNET HUB SWITCH
D10	INSTALL DETECTOR AMPLIFIER (4-CHANNEL) IN CABINET
D11	REUSE SYSTEM DETECTOR AMPLIFIER(S) (SEE REMOVAL DIAGRAM)
D12	INSTALL NEW POLE MOUNTED RDS CABINET
D13	INSTALL RADAR DETECTION SYSTEM
D14	INSTALL VIDEO REMOTE MANAGEMENT CARD
D15	INSTALL NEW SECONDARY POLE MOUNTED RDS CABINET
D16	BLUETOOTH DETECTION SYSTEM
W6	SMFO CABLE
W7	SMFO TRUNK CABLE
W8	MMFO CABLE(S)
W9	SMFO DROP CABLE (6-FIBER)
W10	SMFO DROP CABLE (12-FIBER)
W11	RDS CABLE
W12	RDS POWER CABLE
W13	ETHERNET DATA CABLE
W14	NEW MESSENGER WIRE
W15	COIL 50′ OF SMFO CABLE
W16	COIL 50′ OF SMFO TRUNK CABLE
W17	TELEPHONE CABLE(S)
1	INSTALL 1 ″ RISER WITH WEATHERHEAD
2	INSTALL 1 1/2″ PVC CONDUIT
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 SEALING BUSHING
20	TIE CONDUIT INTO EXISTING PULLBOX
21	REUSE EXISTING CONDUIT
22	REUSE EXISTING RISER WITH WEATHERHEAD
23	ATTACH CONDUIT TO EXISTING CONDUIT STUB-OUT
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
31	INSTALL CABLES IN EXISTING CONDUIT(S) INTO CABINET
32	LASH TO EXISTING MESSENGER WIRE/SPANWIRE
33	LASH TO PROPOSED MESSENGER WIRE/SPANWIRE
34	DRILL HOLE NEAR TOP OF POLE INSTALL SEALING BUSHING
35	ATTACH CONDUIT TO BRIDGE
X	NUMBER OF CABLES, LOOPS, AND ETC
X	NUMBER OF CONDUCTORS, PAIRS, AND ETC
XX	INTERSECTION NUMBER

REVISIONS

ITEM No.	DESCRIPTION OF CHANGE	APPROVAL DATE

ENGINEERS SEAL

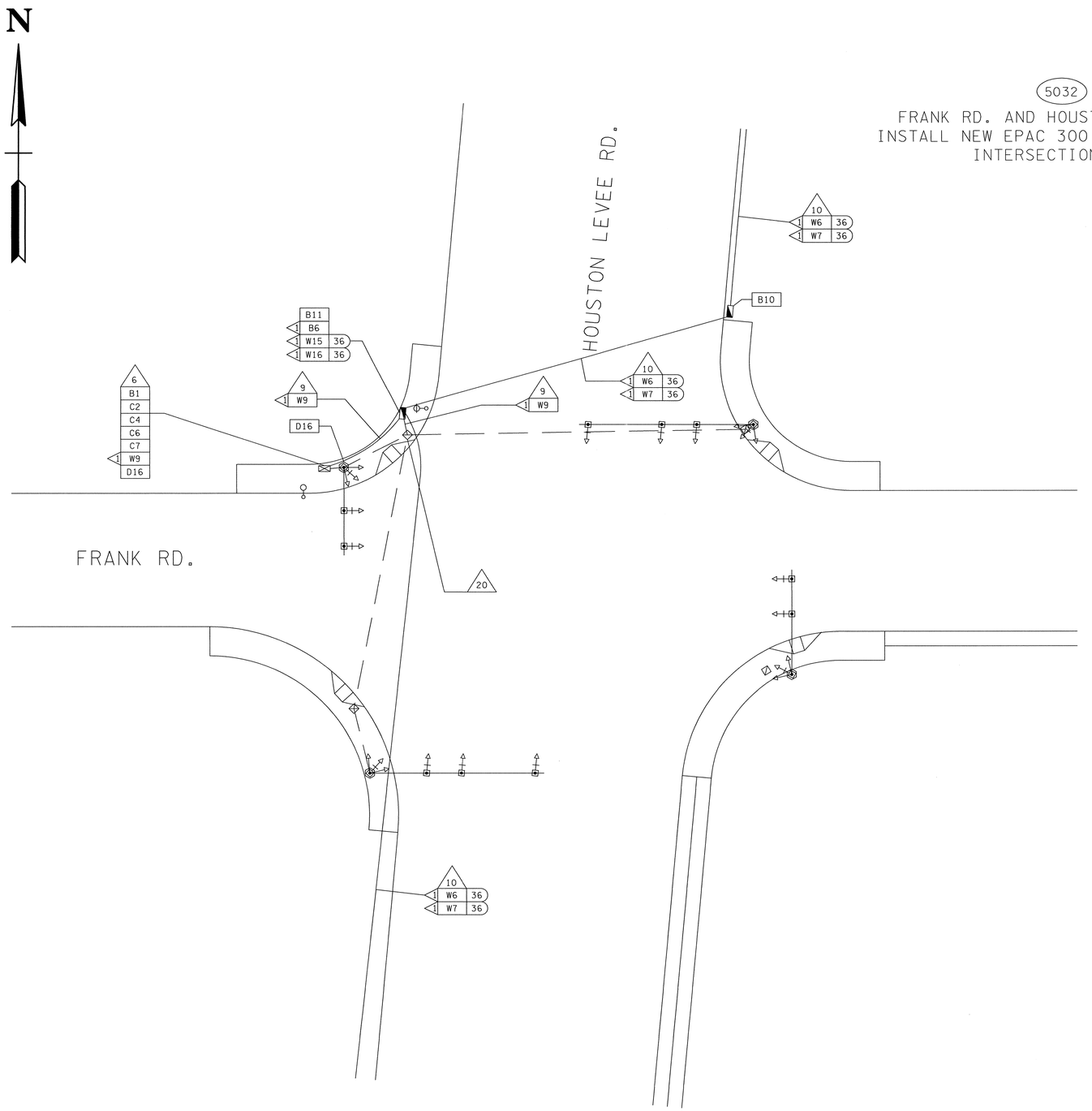
MICHAEL J. BRIDGE
STATE OF TENNESSEE
7/21/15

PARSONS

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
INTERSECTION IMPROVEMENTS
SHELBY COUNTY, TN

W. POPLAR AVE. AND HOUSTON LEVEE RD.
INTERSECTION LAYOUT

SURVEY BY: N/A DATE: N/A BOOK:
DRAFTED BY: rch DATE: 1-14 SCALE: 1″ = 20′
DESIGNED BY: MJB DATE: 1-14 CHECKED: KLA DATE: 7/14



LEGEND

B1	RETAIN AND MODIFY EXISTING CABINET
B2	REMOVE EXISTING CABINET
B3	INSTALL NEW BASE MOUNTED CONTROLLER CABINET
B4	INSTALL NEW POLE MOUNTED CONTROLLER CABINET
B5	INSTALL BASE MOUNTED HUB CABINET
B6	INSTALL WEATHER PROOF SPLICE ENCLOSURE
B7	INSTALL FIBER DISTRIBUTION BOX
B8	REMOVE EXISTING PULLBOX
B9	INSTALL TRAFFIC SIGNAL PULLBOX
B10	INSTALL FIBER OPTIC PULLBOX TYPE A
B11	INSTALL FIBER OPTIC PULLBOX TYPE B
B12	INSTALL 14' PEDESTAL POLE
B13	INSTALL 20' PEDESTAL POLE
B14	INSTALL TELEPHONE INTERFACE (TYPE I) ON THIS POLE
B15	MLGW POWER SERVICE CONNECTION
C1	INSTALL 4-PHASE CONTROLLER
C2	INSTALL 8-PHASE CONTROLLER
C3	INSTALL FIELD MASTER CONTROLLER
C4	REMOVE EXISTING CONTROLLER AND INSTALL NEW CONTROLLER
C5	INSTALL FIBER OPTIC MODEM
C6	INSTALL ETHERNET CABINET SWITCH
C7	INSTALL SERIAL DEVICE SERVER
C8	INSTALL ETHERNET HUB SWITCH
D10	INSTALL DETECTOR AMPLIFIER (4-CHANNEL) IN CABINET
D11	REUSE SYSTEM DETECTOR AMPLIFIER(S) (SEE REMOVAL DIAGRAM)
D12	INSTALL NEW POLE MOUNTED RDS CABINET
D13	INSTALL RADAR DETECTION SYSTEM
D14	INSTALL VIDEO REMOTE MANAGEMENT CARD
D15	INSTALL NEW SECONDARY POLE MOUNTED RDS CABINET
D16	BLUETOOTH DETECTION SYSTEM
W6	SMFO CABLE
W7	SMFO TRUNK CABLE
W8	MMFO CABLE(S)
W9	SMFO DROP CABLE (6-FIBER)
W10	SMFO DROP CABLE (12-FIBER)
W11	RDS CABLE
W12	RDS POWER CABLE
W13	ETHERNET DATA CABLE
W14	NEW MESSENGER WIRE
W15	COIL 50' OF SMFO CABLE
W16	COIL 50' OF SMFO TRUNK CABLE
W17	TELEPHONE CABLE(S)
1	INSTALL 1 " RISER WITH WEATHERHEAD
2	INSTALL 1 1/2" PVC CONDUIT
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 SEALING BUSHING
20	TIE CONDUIT INTO EXISTING PULLBOX
21	REUSE EXISTING CONDUIT
22	REUSE EXISTING RISER WITH WEATHERHEAD
23	ATTACH CONDUIT TO EXISTING CONDUIT STUB-OUT
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
31	INSTALL CABLES IN EXISTING CONDUIT(S) INTO CABINET
32	LASH TO EXISTING MESSENGER WIRE/SPANWIRE
33	LASH TO PROPOSED MESSENGER WIRE/SPANWIRE
34	DRILL HOLE NEAR TOP OF POLE INSTALL SEALING BUSHING
35	ATTACH CONDUIT TO BRIDGE
X	NUMBER OF CABLES, LOOPS, AND ETC
X	NUMBER OF CONDUCTORS, PAIRS, AND ETC
XX	INTERSECTION NUMBER

REVISIONS

ITEM No.	DESCRIPTION OF CHANGE	APPROVAL DATE

ENGINEERS SEAL

MICHAEL J. BRUGGE
STATE OF TENNESSEE
7/7/15

PARSONS

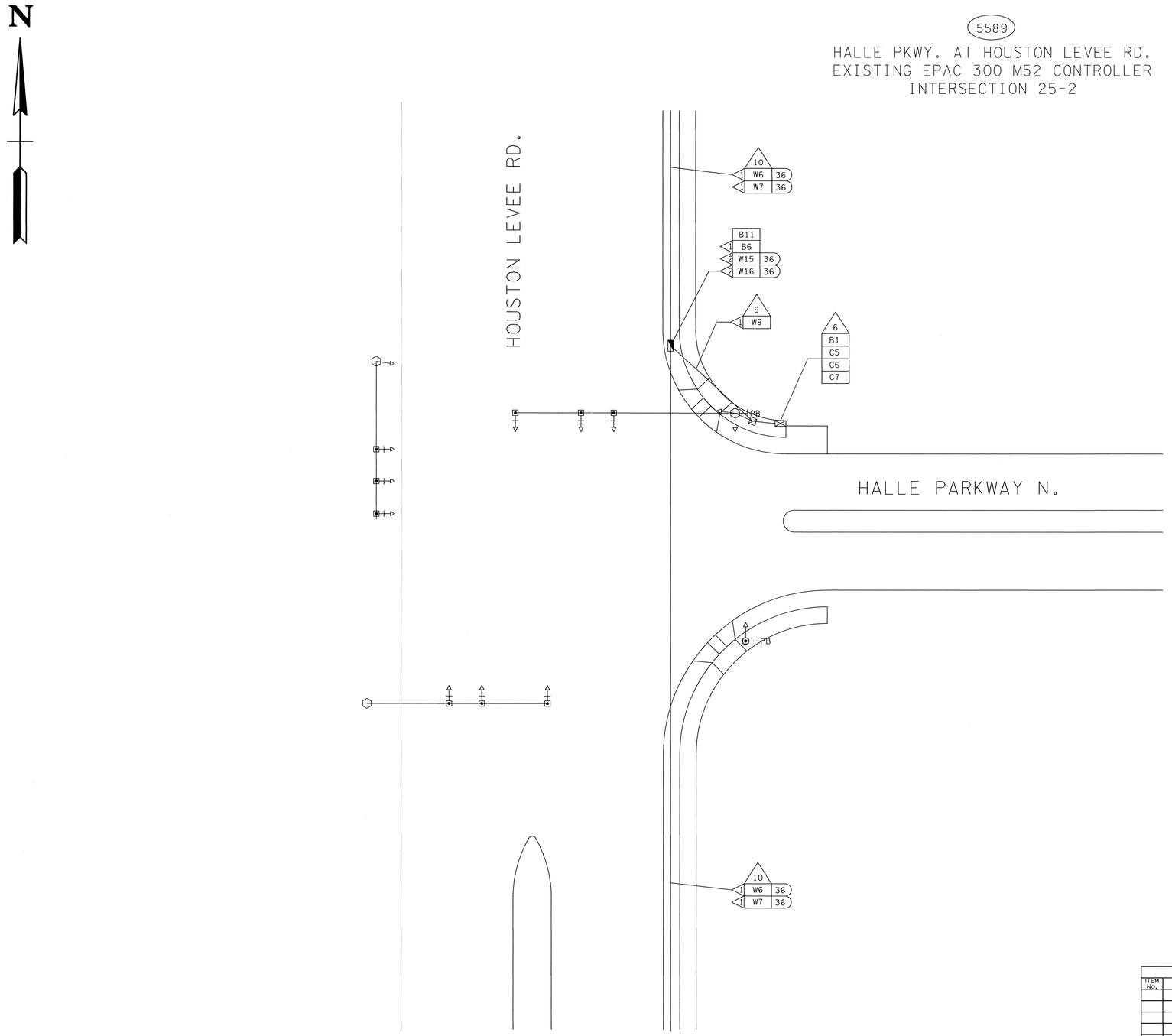
DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
INTERSECTION IMPROVEMENTS
SHELBY COUNTY, TN

FRANK RD. AT HOUSTON LEVEE RD.
INTERSECTION LAYOUT

SURVEY BY: N/A DATE: N/A BOOK:
DRAFTED BY: rch DATE: 1-14 SCALE: 1" = 20'
DESIGNED BY: MJB DATE: 1-14 CHECKED: KLA DATE: 7-14

5589

HALLE PKWY. AT HOUSTON LEVEE RD.
EXISTING EPAC 300 M52 CONTROLLER
INTERSECTION 25-2



LEGEND

B1	RETAIN AND MODIFY EXISTING CABINET
B2	REMOVE EXISTING CABINET
B3	INSTALL NEW BASE MOUNTED CONTROLLER CABINET
B4	INSTALL NEW POLE MOUNTED CONTROLLER CABINET
B5	INSTALL BASE MOUNTED HUB CABINET
B6	INSTALL WEATHER PROOF SPLICE ENCLOSURE
B7	INSTALL FIBER DISTRIBUTION BOX
B8	REMOVE EXISTING PULLBOX
B9	INSTALL TRAFFIC SIGNAL PULLBOX
B10	INSTALL FIBER OPTIC PULLBOX TYPE A
B11	INSTALL FIBER OPTIC PULLBOX TYPE B
B12	INSTALL 14' PEDESTAL POLE
B13	INSTALL 20' PEDESTAL POLE
B14	INSTALL TELEPHONE INTERFACE (TYPE I) ON THIS POLE
B15	MLGW POWER SERVICE CONNECTION
C1	INSTALL 4-PHASE CONTROLLER
C2	INSTALL 8-PHASE CONTROLLER
C3	INSTALL FIELD MASTER CONTROLLER
C4	REMOVE EXISTING CONTROLLER AND INSTALL NEW CONTROLLER
C5	INSTALL FIBER OPTIC MODEM
C6	INSTALL ETHERNET CABINET SWITCH
C7	INSTALL SERIAL DEVICE SERVER
C8	INSTALL ETHERNET HUB SWITCH
D10	INSTALL DETECTOR AMPLIFIER (4-CHANNEL) IN CABINET
D11	REUSE SYSTEM DETECTOR AMPLIFIER(S) (SEE REMOVAL DIAGRAM)
D12	INSTALL NEW POLE MOUNTED RDS CABINET
D13	INSTALL RADAR DETECTION SYSTEM
D14	INSTALL VIDEO REMOTE MANAGEMENT CARD
D15	INSTALL NEW SECONDARY POLE MOUNTED RDS CABINET
D16	BLUETOOTH DETECTION SYSTEM
W6	SMFO CABLE
W7	SMFO TRUNK CABLE
W8	MMFO CABLE(S)
W9	SMFO DROP CABLE (6-FIBER)
W10	SMFO DROP CABLE (12-FIBER)
W11	RDS CABLE
W12	RDS POWER CABLE
W13	ETHERNET DATA CABLE
W14	NEW MESSENGER WIRE
W15	COIL 50' OF SMFO CABLE
W16	COIL 50' OF SMFO TRUNK CABLE
W17	TELEPHONE CABLE(S)
1	INSTALL 1 " RISER WITH WEATHERHEAD
2	INSTALL 1 1/2" PVC CONDUIT
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 SEALING BUSHING
20	TIE CONDUIT INTO EXISTING PULLBOX
21	REUSE EXISTING CONDUIT
22	REUSE EXISTING RISER WITH WEATHERHEAD
23	ATTACH CONDUIT TO EXISTING CONDUIT STUB-OUT
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
31	INSTALL CABLES IN EXISTING CONDUIT(S) INTO CABINET
32	LASH TO EXISTING MESSENGER WIRE/SPANWIRE
33	LASH TO PROPOSED MESSENGER WIRE/SPANWIRE
34	DRILL HOLE NEAR TOP OF POLE INSTALL SEALING BUSHING
35	ATTACH CONDUIT TO BRIDGE
X	NUMBER OF CABLES, LOOPS, AND ETC
X	NUMBER OF CONDUCTORS, PAIRS, AND ETC
XX	INTERSECTION NUMBER

REVISIONS

ITEM No.	DESCRIPTION OF CHANGE	APPROVAL DATE

ENGINEERS SEAL

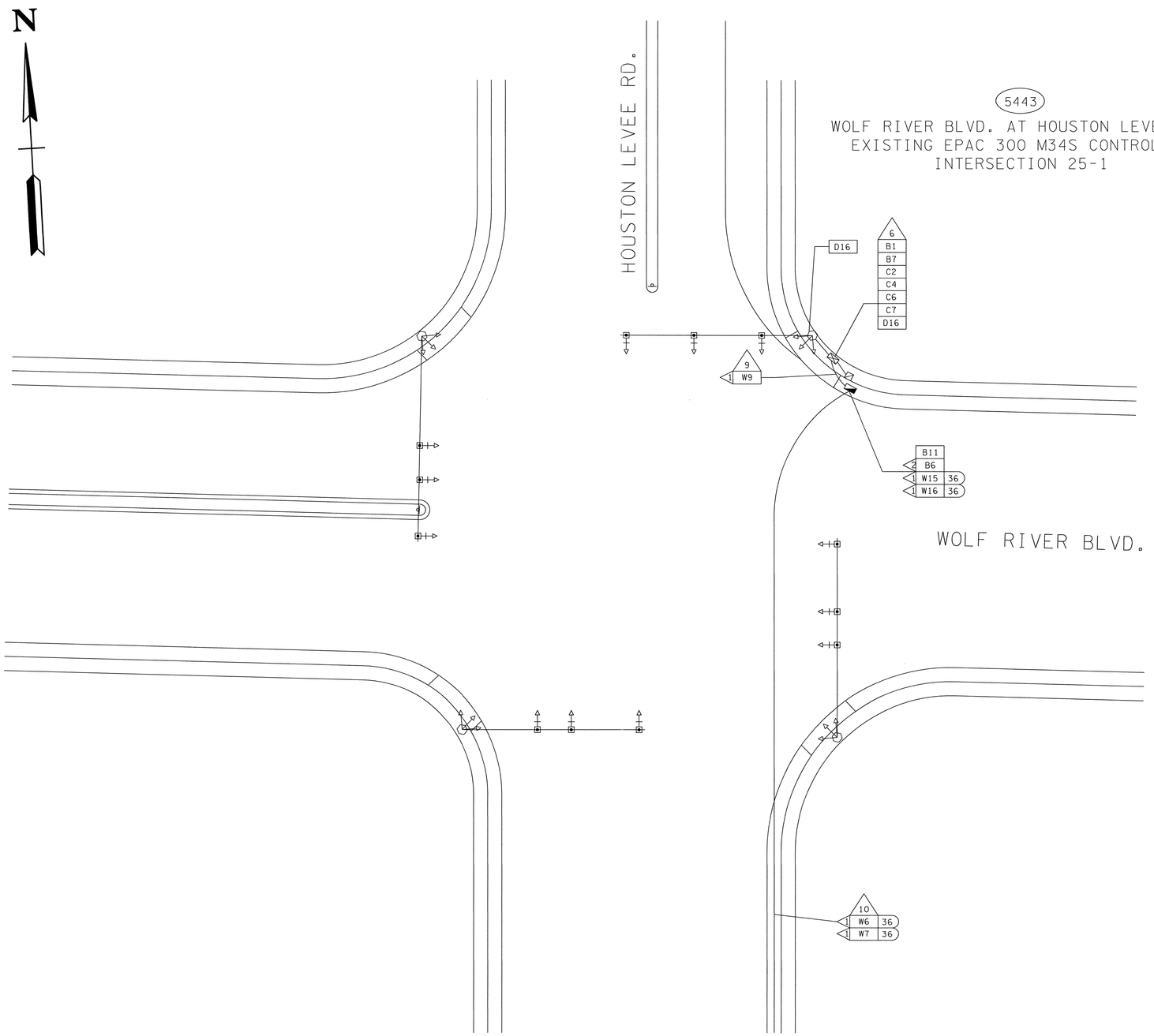
MICHAEL J. BRUCE
STATE OF TENNESSEE
11/24/15

PARSONS

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
INTERSECTION IMPROVEMENTS
SHELBY COUNTY, TN

HALLE PARKWAY N. AT HOUSTON LEVEE RD.
INTERSECTION LAYOUT

SURVEY BY: N/A DATE: N/A BOOK:
DRAFTED BY: rch DATE: 1-14 SCALE: 1" = 20'
DESIGNED BY: MJB DATE: 1-14 CHECKED: KLA DATE: 7-14



LEGEND

B1	RETAIN AND MODIFY EXISTING CABINET
B2	REMOVE EXISTING CABINET
B3	INSTALL NEW BASE MOUNTED CONTROLLER CABINET
B4	INSTALL NEW POLE MOUNTED CONTROLLER CABINET
B5	INSTALL BASE MOUNTED HUB CABINET
B6	INSTALL WEATHER PROOF SPLICE ENCLOSURE
B7	INSTALL FIBER DISTRIBUTION BOX
B8	REMOVE EXISTING PULLBOX
B9	INSTALL TRAFFIC SIGNAL PULLBOX
B10	INSTALL FIBER OPTIC PULLBOX TYPE A
B11	INSTALL FIBER OPTIC PULLBOX TYPE B
B12	INSTALL 14' PEDESTAL POLE
B13	INSTALL 20' PEDESTAL POLE
B14	INSTALL TELEPHONE INTERFACE (TYPE I) ON THIS POLE
B15	MLGW POWER SERVICE CONNECTION
C1	INSTALL 4-PHASE CONTROLLER
C2	INSTALL 8-PHASE CONTROLLER
C3	INSTALL FIELD MASTER CONTROLLER
C4	REMOVE EXISTING CONTROLLER AND INSTALL NEW CONTROLLER
C5	INSTALL FIBER OPTIC MODEM
C6	INSTALL ETHERNET CABINET SWITCH
C7	INSTALL SERIAL DEVICE SERVER
C8	INSTALL ETHERNET HUB SWITCH
D10	INSTALL DETECTOR AMPLIFIER (4-CHANNEL) IN CABINET
D11	REUSE SYSTEM DETECTOR AMPLIFIER(S) (SEE REMOVAL DIAGRAM)
D12	INSTALL NEW POLE MOUNTED RDS CABINET
D13	INSTALL RADAR DETECTION SYSTEM
D14	INSTALL VIDEO REMOTE MANAGEMENT CARD
D15	INSTALL NEW SECONDARY POLE MOUNTED RDS CABINET
D16	BLUETOOTH DETECTION SYSTEM
W6	SMFO CABLE
W7	SMFO TRUNK CABLE
W8	MMFO CABLE(S)
W9	SMFO DROP CABLE (6-FIBER)
W10	SMFO DROP CABLE (12-FIBER)
W11	RDS CABLE
W12	RDS POWER CABLE
W13	ETHERNET DATA CABLE
W14	NEW MESSENGER WIRE
W15	COIL 50' OF SMFO CABLE
W16	COIL 50' OF SMFO TRUNK CABLE
W17	TELEPHONE CABLE(S)
1	INSTALL 1 " RISER WITH WEATHERHEAD
2	INSTALL 1 1/2" PVC CONDUIT
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 SEALING BUSHING
20	TIE CONDUIT INTO EXISTING PULLBOX
21	REUSE EXISTING CONDUIT
22	REUSE EXISTING RISER WITH WEATHERHEAD
23	ATTACH CONDUIT TO EXISTING CONDUIT STUB-OUT
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
31	INSTALL CABLES IN EXISTING CONDUIT(S) INTO CABINET
32	LASH TO EXISTING MESSENGER WIRE/SPANWIRE
33	LASH TO PROPOSED MESSENGER WIRE/SPANWIRE
34	DRILL HOLE NEAR TOP OF POLE INSTALL SEALING BUSHING
35	ATTACH CONDUIT TO BRIDGE
X	NUMBER OF CABLES, LOOPS, AND ETC
X	NUMBER OF CONDUCTORS, PAIRS, AND ETC
XX	INTERSECTION NUMBER

REVISIONS

ITEM No.	DESCRIPTION OF CHANGE	APPROVAL DATE

ENGINEERS SEAL

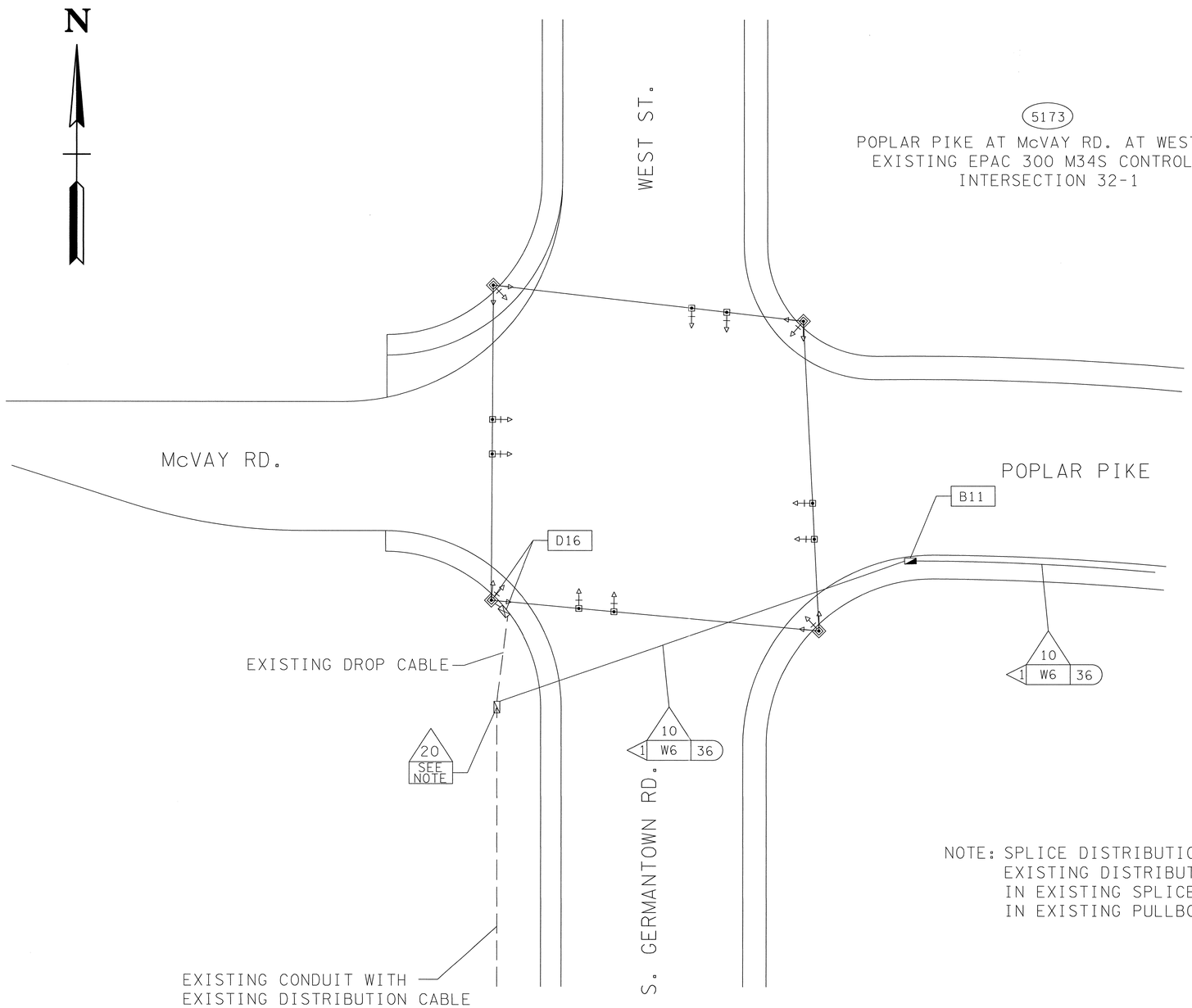
MICHAEL J. BRUGGE
STATE OF TENNESSEE
9/01/15

PARSONS

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
INTERSECTION IMPROVEMENTS
SHELBY COUNTY, TN

WOLF RIVER BLVD. AT HOUSTON LEVEE RD.
INTERSECTION LAYOUT

SURVEY BY: N/A DATE: N/A BOOK:
DRAFTED BY: rch DATE: 1-14 SCALE: 1" = 20'
DESIGNED BY: MJB DATE: 1-14 CHECKED: KLA DATE: 7-14



NOTE: SPLICE DISTRIBUTION CABLE TO EXISTING DISTRIBUTION CABLE IN EXISTING SPLICE ENCLOSURE IN EXISTING PULLBOX

LEGEND

B1	RETAIN AND MODIFY EXISTING CABINET
B2	REMOVE EXISTING CABINET
B3	INSTALL NEW BASE MOUNTED CONTROLLER CABINET
B4	INSTALL NEW POLE MOUNTED CONTROLLER CABINET
B5	INSTALL BASE MOUNTED HUB CABINET
B6	INSTALL WEATHER PROOF SPLICE ENCLOSURE
B7	INSTALL FIBER DISTRIBUTION BOX
B8	REMOVE EXISTING PULLBOX
B9	INSTALL TRAFFIC SIGNAL PULLBOX
B10	INSTALL FIBER OPTIC PULLBOX TYPE A
B11	INSTALL FIBER OPTIC PULLBOX TYPE B
B12	INSTALL 14' PEDESTAL POLE
B13	INSTALL 20' PEDESTAL POLE
B14	INSTALL TELEPHONE INTERFACE (TYPE I) ON THIS POLE
B15	MLGW POWER SERVICE CONNECTION
C1	INSTALL 4-PHASE CONTROLLER
C2	INSTALL 8-PHASE CONTROLLER
C3	INSTALL FIELD MASTER CONTROLLER
C4	REMOVE EXISTING CONTROLLER AND INSTALL NEW CONTROLLER
C5	INSTALL FIBER OPTIC MODEM
C6	INSTALL ETHERNET CABINET SWITCH
C7	INSTALL SERIAL DEVICE SERVER
C8	INSTALL ETHERNET HUB SWITCH
D10	INSTALL DETECTOR AMPLIFIER (4-CHANNEL) IN CABINET
D11	REUSE SYSTEM DETECTOR AMPLIFIER(S) (SEE REMOVAL DIAGRAM)
D12	INSTALL NEW POLE MOUNTED RDS CABINET
D13	INSTALL RADAR DETECTION SYSTEM
D14	INSTALL VIDEO REMOTE MANAGEMENT CARD
D15	INSTALL NEW SECONDARY POLE MOUNTED RDS CABINET
D16	BLUETOOTH DETECTION SYSTEM
W6	SMFO CABLE
W7	SMFO TRUNK CABLE
W8	MMFO CABLE(S)
W9	SMFO DROP CABLE (6-FIBER)
W10	SMFO DROP CABLE (12-FIBER)
W11	RDS CABLE
W12	RDS POWER CABLE
W13	ETHERNET DATA CABLE
W14	NEW MESSENGER WIRE
W15	COIL 50' OF SMFO CABLE
W16	COIL 50' OF SMFO TRUNK CABLE
W17	TELEPHONE CABLE(S)
1	INSTALL 1 " RISER WITH WEATHERHEAD
2	INSTALL 1 1/2" PVC CONDUIT
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 SEALING BUSHING
20	TIE CONDUIT INTO EXISTING PULLBOX
21	REUSE EXISTING CONDUIT
22	REUSE EXISTING RISER WITH WEATHERHEAD
23	ATTACH CONDUIT TO EXISTING CONDUIT STUB-OUT
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
31	INSTALL CABLES IN EXISTING CONDUIT(S) INTO CABINET
32	LASH TO EXISTING MESSENGER WIRE/SPANWIRE
33	LASH TO PROPOSED MESSENGER WIRE/SPANWIRE
34	DRILL HOLE NEAR TOP OF POLE INSTALL SEALING BUSHING
35	ATTACH CONDUIT TO BRIDGE
X	NUMBER OF CABLES, LOOPS, AND ETC
X	NUMBER OF CONDUCTORS, PAIRS, AND ETC
XX	INTERSECTION NUMBER

REVISIONS

ITEM No.	DESCRIPTION OF CHANGE	APPROVAL DATE

ENGINEERS SEAL

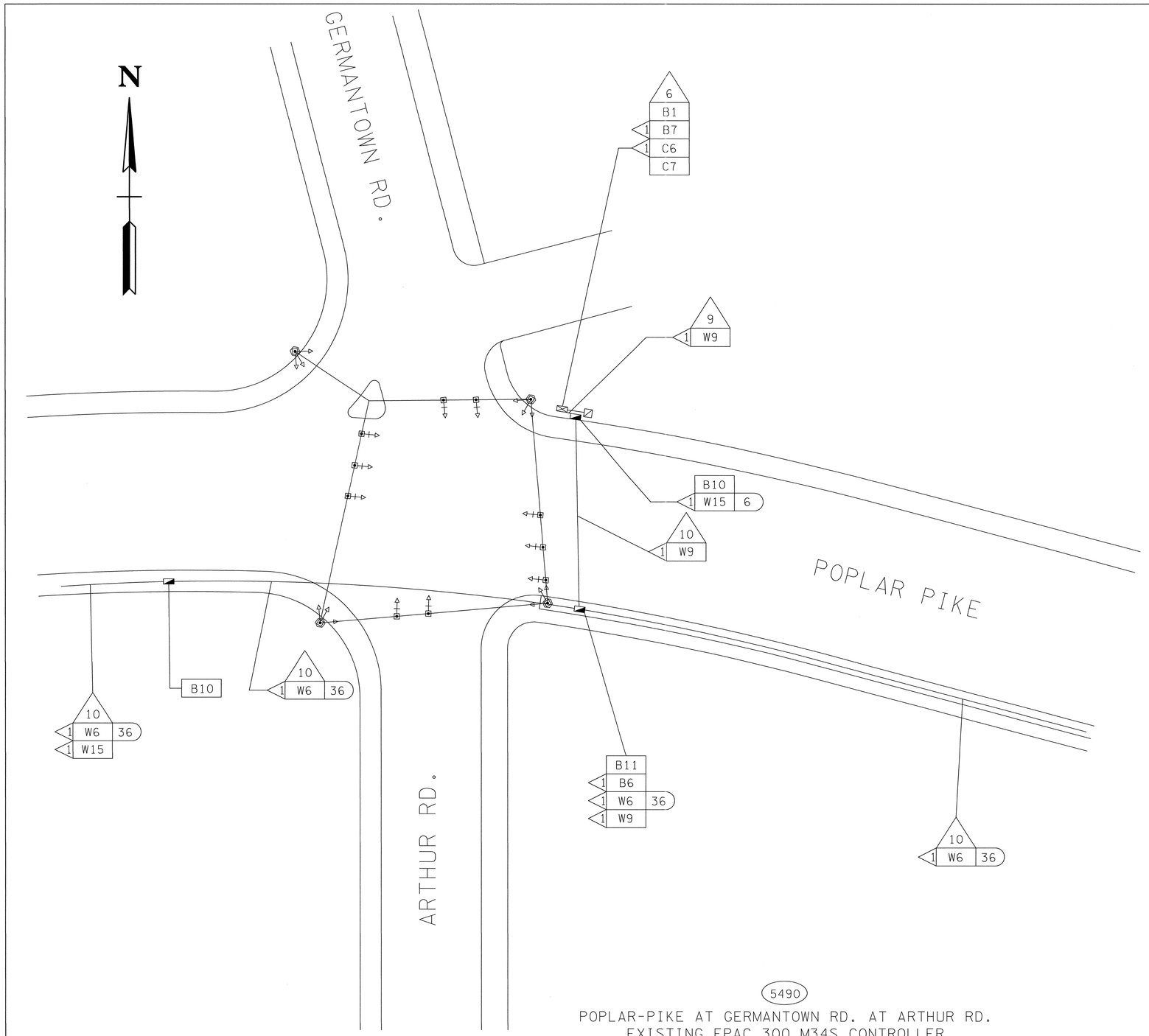
MICHAEL J. BRUGGE
TENNESSEE
STATE OF TENNESSEE

PARSONS

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
INTERSECTION IMPROVEMENTS
SHELBY COUNTY, TN

McVAY ST. AND POPLAR-PIKE AT WEST ST.
INTERSECTION LAYOUT

SURVEY BY: N/A DATE: N/A BOOK:
DRAFTED BY: rch DATE: 1-14 SCALE: 1" = 20'
DESIGNED BY: MJB DATE: 1-14 CHECKED: KLA DATE: 3/14



POPLAR-PIKE AT GERMANTOWN RD. AT ARTHUR RD.
EXISTING EPAC 300 M34S CONTROLLER
INTERSECTION 32-2

LEGEND

B1	RETAIN AND MODIFY EXISTING CABINET
B2	REMOVE EXISTING CABINET
B3	INSTALL NEW BASE MOUNTED CONTROLLER CABINET
B4	INSTALL NEW POLE MOUNTED CONTROLLER CABINET
B5	INSTALL BASE MOUNTED HUB CABINET
B6	INSTALL WEATHER PROOF SPLICE ENCLOSURE
B7	INSTALL FIBER DISTRIBUTION BOX
B8	REMOVE EXISTING PULLBOX
B9	INSTALL TRAFFIC SIGNAL PULLBOX
B10	INSTALL FIBER OPTIC PULLBOX TYPE A
B11	INSTALL FIBER OPTIC PULLBOX TYPE B
B12	INSTALL 14′ PEDESTAL POLE
B13	INSTALL 20′ PEDESTAL POLE
B14	INSTALL TELEPHONE INTERFACE (TYPE I) ON THIS POLE
B15	MLGW POWER SERVICE CONNECTION
C1	INSTALL 4-PHASE CONTROLLER
C2	INSTALL 8-PHASE CONTROLLER
C3	INSTALL FIELD MASTER CONTROLLER
C4	REMOVE EXISTING CONTROLLER AND INSTALL NEW CONTROLLER
C5	INSTALL FIBER OPTIC MODEM
C6	INSTALL ETHERNET CABINET SWITCH
C7	INSTALL SERIAL DEVICE SERVER
C8	INSTALL ETHERNET HUB SWITCH
D10	INSTALL DETECTOR AMPLIFIER (4-CHANNEL) IN CABINET
D11	REUSE SYSTEM DETECTOR AMPLIFIER(S) (SEE REMOVAL DIAGRAM)
D12	INSTALL NEW POLE MOUNTED RDS CABINET
D13	INSTALL RADAR DETECTION SYSTEM
D14	INSTALL VIDEO REMOTE MANAGEMENT CARD
D15	INSTALL NEW SECONDARY POLE MOUNTED RDS CABINET
D16	BLUETOOTH DETECTION SYSTEM
W6	SMFO CABLE
W7	SMFO TRUNK CABLE
W8	MMFO CABLE(S)
W9	SMFO DROP CABLE (6-FIBER)
W10	SMFO DROP CABLE (12-FIBER)
W11	RDS CABLE
W12	RDS POWER CABLE
W13	ETHERNET DATA CABLE
W14	NEW MESSENGER WIRE
W15	COIL 50′ OF SMFO CABLE
W16	COIL 50′ OF SMFO TRUNK CABLE
W17	TELEPHONE CABLE(S)
1	INSTALL 1 ″ RISER WITH WEATHERHEAD
2	INSTALL 1 1/2″ PVC CONDUIT
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 SEALING BUSHING
20	TIE CONDUIT INTO EXISTING PULLBOX
21	REUSE EXISTING CONDUIT
22	REUSE EXISTING RISER WITH WEATHERHEAD
23	ATTACH CONDUIT TO EXISTING CONDUIT STUB-OUT
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
31	INSTALL CABLES IN EXISTING CONDUIT(S) INTO CABINET
32	LASH TO EXISTING MESSENGER WIRE/SPANWIRE
33	LASH TO PROPOSED MESSENGER WIRE/SPANWIRE
34	DRILL HOLE NEAR TOP OF POLE INSTALL SEALING BUSHING
35	ATTACH CONDUIT TO BRIDGE
X	NUMBER OF CABLES, LOOPS, AND ETC
X	NUMBER OF CONDUCTORS, PAIRS, AND ETC
XX	INTERSECTION NUMBER

REVISIONS

ITEM No.	DESCRIPTION OF CHANGE	APPROVAL DATE

ENGINEERS SEAL

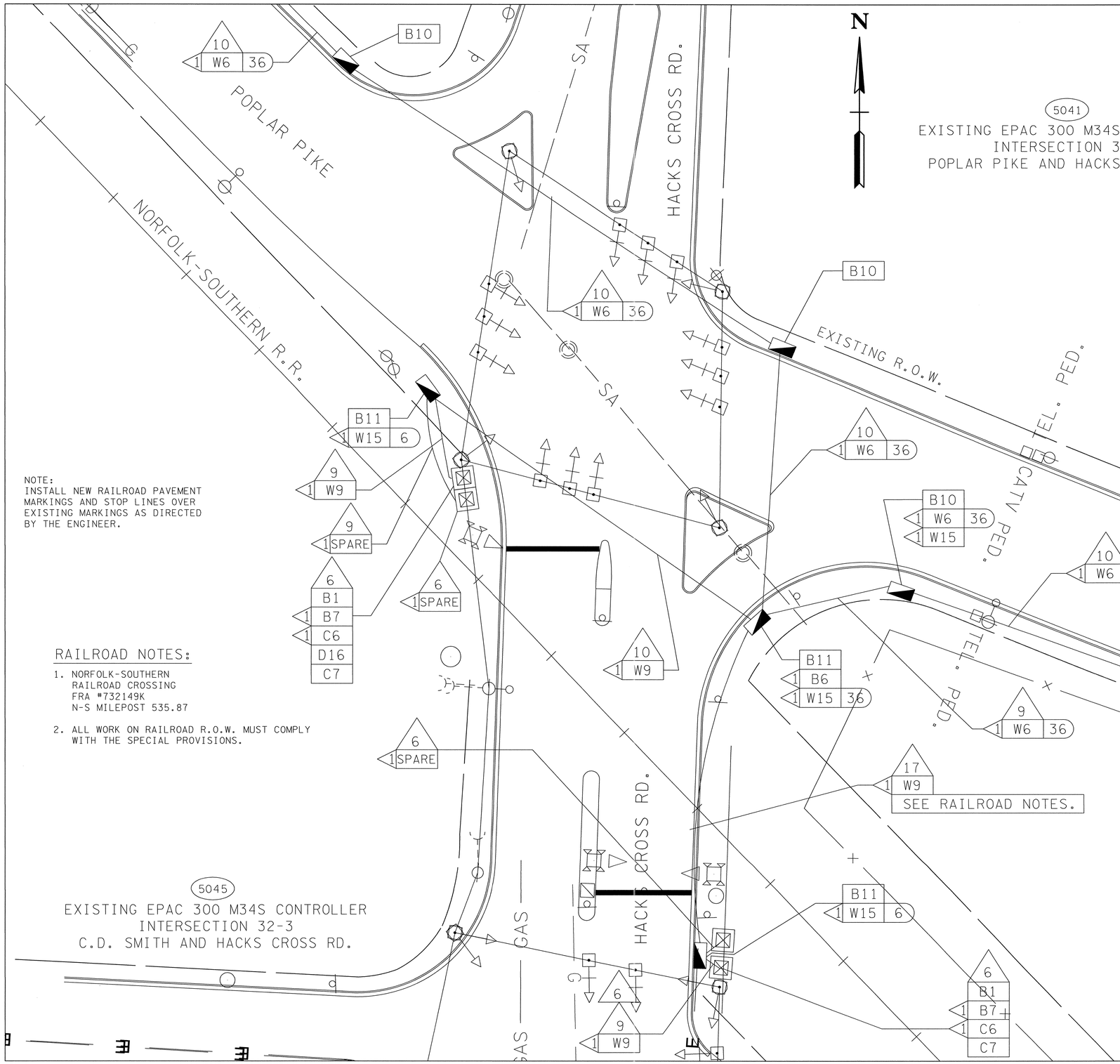
MICHAEL J. BRUCE
STATE OF TENNESSEE
7/24/15

PARSONS

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
INTERSECTION IMPROVEMENTS
SHELBY COUNTY, TN

ARTHUR RD. AND GERMANTOWN RD.
AT POPLAR-PIKE RD. INTERSECTION LAYOUT

SURVEY BY: N/A DATE: N/A BOOK:
DRAFTED BY: rch DATE: 1-14 SCALE: 1" = 20'
DESIGNED BY: MJB DATE: 1-14 CHECKED: KLA DATE: 7/14



NOTE:
INSTALL NEW RAILROAD PAVEMENT MARKINGS AND STOP LINES OVER EXISTING MARKINGS AS DIRECTED BY THE ENGINEER.

RAILROAD NOTES:

1. NORFOLK-SOUTHERN RAILROAD CROSSING FRA #732149K N-S MILEPOST 535.87
2. ALL WORK ON RAILROAD R.O.W. MUST COMPLY WITH THE SPECIAL PROVISIONS.

B1	RETAIN AND MODIFY EXISTING CABINET
B2	REMOVE EXISTING CABINET
B3	INSTALL NEW BASE MOUNTED CONTROLLER CABINET
B4	INSTALL NEW POLE MOUNTED CONTROLLER CABINET
B5	INSTALL BASE MOUNTED HUB CABINET
B6	INSTALL WEATHER PROOF SPLICE ENCLOSURE
B7	INSTALL FIBER DISTRIBUTION BOX
B8	REMOVE EXISTING PULLBOX
B9	INSTALL TRAFFIC SIGNAL PULLBOX
B10	INSTALL FIBER OPTIC PULLBOX TYPE A
B11	INSTALL FIBER OPTIC PULLBOX TYPE B
B12	INSTALL 14′ PEDESTAL POLE
B13	INSTALL 20′ PEDESTAL POLE
B14	INSTALL TELEPHONE INTERFACE (TYPE I) ON THIS POLE
B15	MLGW POWER SERVICE CONNECTION
C1	INSTALL 4-PHASE CONTROLLER
C2	INSTALL 8-PHASE CONTROLLER
C3	INSTALL FIELD MASTER CONTROLLER
C4	REMOVE EXISTING CONTROLLER AND INSTALL NEW CONTROLLER
C5	INSTALL FIBER OPTIC MODEM
C6	INSTALL ETHERNET CABINET SWITCH
C7	INSTALL SERIAL DEVICE SERVER
C8	INSTALL ETHERNET HUB SWITCH
D10	INSTALL DETECTOR AMPLIFIER (4-CHANNEL) IN CABINET
D11	REUSE SYSTEM DETECTOR AMPLIFIER(S) (SEE REMOVAL DIAGRAM)
D12	INSTALL NEW POLE MOUNTED RDS CABINET
D13	INSTALL RADAR DETECTION SYSTEM
D14	INSTALL VIDEO REMOTE MANAGEMENT CARD
D15	INSTALL NEW SECONDARY POLE MOUNTED RDS CABINET
D16	BLUETOOTH DETECTION SYSTEM
W6	SMFO CABLE
W7	SMFO TRUNK CABLE
W8	MMFO CABLE(S)
W9	SMFO DROP CABLE (6-FIBER)
W10	SMFO DROP CABLE (12-FIBER)
W11	RDS CABLE
W12	RDS POWER CABLE
W13	ETHERNET DATA CABLE
W14	NEW MESSENGER WIRE
W15	COIL 50′ OF SMFO CABLE
W16	COIL 50′ OF SMFO TRUNK CABLE
W17	TELEPHONE CABLE(S)
1	INSTALL 1 ″ RISER WITH WEATHERHEAD
2	INSTALL 1 1/2″ PVC CONDUIT
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 SEALING BUSHING
20	TIE CONDUIT INTO EXISTING PULLBOX
21	REUSE EXISTING CONDUIT
22	REUSE EXISTING RISER WITH WEATHERHEAD
23	ATTACH CONDUIT TO EXISTING CONDUIT STUB-OUT
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
31	INSTALL CABLES IN EXISTING CONDUIT(S) INTO CABINET
32	LASH TO EXISTING MESSENGER WIRE/SPANWIRE
33	LASH TO PROPOSED MESSENGER WIRE/SPANWIRE
34	DRILL HOLE NEAR TOP OF POLE INSTALL SEALING BUSHING
35	ATTACH CONDUIT TO BRIDGE
X	NUMBER OF CABLES, LOOPS, AND ETC
X	NUMBER OF CONDUCTORS, PAIRS, AND ETC
XX	INTERSECTION NUMBER
SPARE	SPARE CONDUIT

REVISIONS

ITEM No.	DESCRIPTION OF CHANGE	APPROVAL DATE

ENGINEERS SEAL

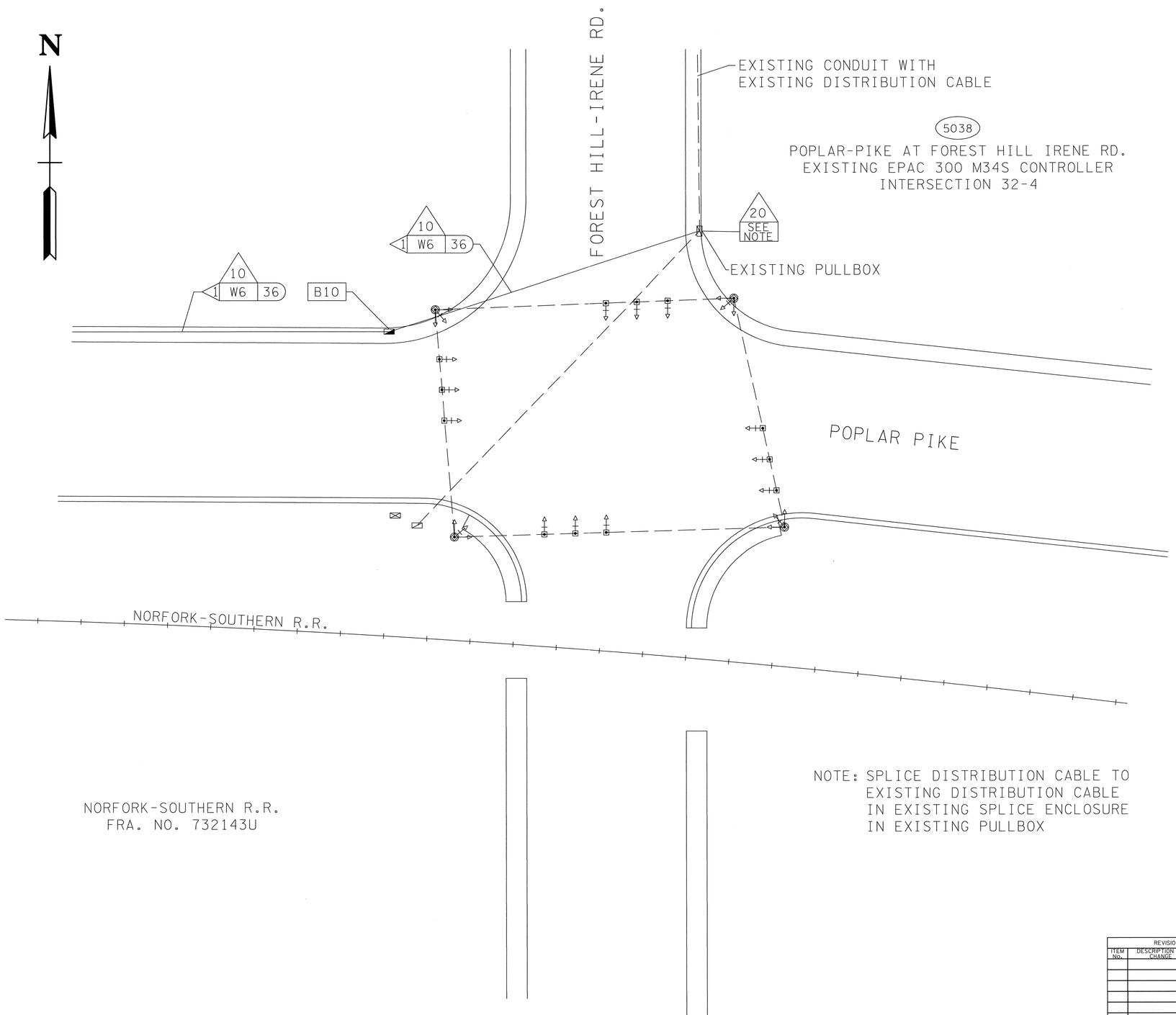
MICHAEL J. BRUDGE
STATE OF TENNESSEE

PARSONS

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
INTERSECTION IMPROVEMENTS
SHELBY COUNTY, TN

POPLAR PIKE AND HACKS CROSS RD.
INTERSECTION LAYOUT

SURVEY BY: N/A DATE: N/A BOOK:
DRAFTED BY: rch DATE: 1-14 SCALE: 1″ = 20′
DESIGNED BY: MJB DATE: 1-14 CHECKED: KLA DATE: 3/14



LEGEND

B1	RETAIN AND MODIFY EXISTING CABINET
B2	REMOVE EXISTING CABINET
B3	INSTALL NEW BASE MOUNTED CONTROLLER CABINET
B4	INSTALL NEW POLE MOUNTED CONTROLLER CABINET
B5	INSTALL BASE MOUNTED HUB CABINET
B6	INSTALL WEATHER PROOF SPLICE ENCLOSURE
B7	INSTALL FIBER DISTRIBUTION BOX
B8	REMOVE EXISTING PULLBOX
B9	INSTALL TRAFFIC SIGNAL PULLBOX
B10	INSTALL FIBER OPTIC PULLBOX TYPE A
B11	INSTALL FIBER OPTIC PULLBOX TYPE B
B12	INSTALL 14' PEDESTAL POLE
B13	INSTALL 20' PEDESTAL POLE
B14	INSTALL TELEPHONE INTERFACE (TYPE I) ON THIS POLE
B15	MLGW POWER SERVICE CONNECTION
C1	INSTALL 4-PHASE CONTROLLER
C2	INSTALL 8-PHASE CONTROLLER
C3	INSTALL FIELD MASTER CONTROLLER
C4	REMOVE EXISTING CONTROLLER AND INSTALL NEW CONTROLLER
C5	INSTALL FIBER OPTIC MODEM
C6	INSTALL ETHERNET CABINET SWITCH
C7	INSTALL SERIAL DEVICE SERVER
C8	INSTALL ETHERNET HUB SWITCH
D10	INSTALL DETECTOR AMPLIFIER (4-CHANNEL) IN CABINET
D11	REUSE SYSTEM DETECTOR AMPLIFIER(S) (SEE REMOVAL DIAGRAM)
D12	INSTALL NEW POLE MOUNTED RDS CABINET
D13	INSTALL RADAR DETECTION SYSTEM
D14	INSTALL VIDEO REMOTE MANAGEMENT CARD
D15	INSTALL NEW SECONDARY POLE MOUNTED RDS CABINET
D16	BLUETOOTH DETECTION SYSTEM
W6	SMFO CABLE
W7	SMFO TRUNK CABLE
W8	MMFO CABLE(S)
W9	SMFO DROP CABLE (6-FIBER)
W10	SMFO DROP CABLE (12-FIBER)
W11	RDS CABLE
W12	RDS POWER CABLE
W13	ETHERNET DATA CABLE
W14	NEW MESSENGER WIRE
W15	COIL 50' OF SMFO CABLE
W16	COIL 50' OF SMFO TRUNK CABLE
W17	TELEPHONE CABLE(S)
1	INSTALL 1 " RISER WITH WEATHERHEAD
2	INSTALL 1 1/2" PVC CONDUIT
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 SEALING BUSHING
20	TIE CONDUIT INTO EXISTING PULLBOX
21	REUSE EXISTING CONDUIT
22	REUSE EXISTING RISER WITH WEATHERHEAD
23	ATTACH CONDUIT TO EXISTING CONDUIT STUB-OUT
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
31	INSTALL CABLES IN EXISTING CONDUIT(S) INTO CABINET
32	LASH TO EXISTING MESSENGER WIRE/SPANWIRE
33	LASH TO PROPOSED MESSENGER WIRE/SPANWIRE
34	DRILL HOLE NEAR TOP OF POLE INSTALL SEALING BUSHING
35	ATTACH CONDUIT TO BRIDGE
X	NUMBER OF CABLES, LOOPS, AND ETC
X	NUMBER OF CONDUCTORS, PAIRS, AND ETC
XX	INTERSECTION NUMBER

REVISIONS

ITEM No.	DESCRIPTION OF CHANGE	APPROVAL DATE

ENGINEERS SEAL

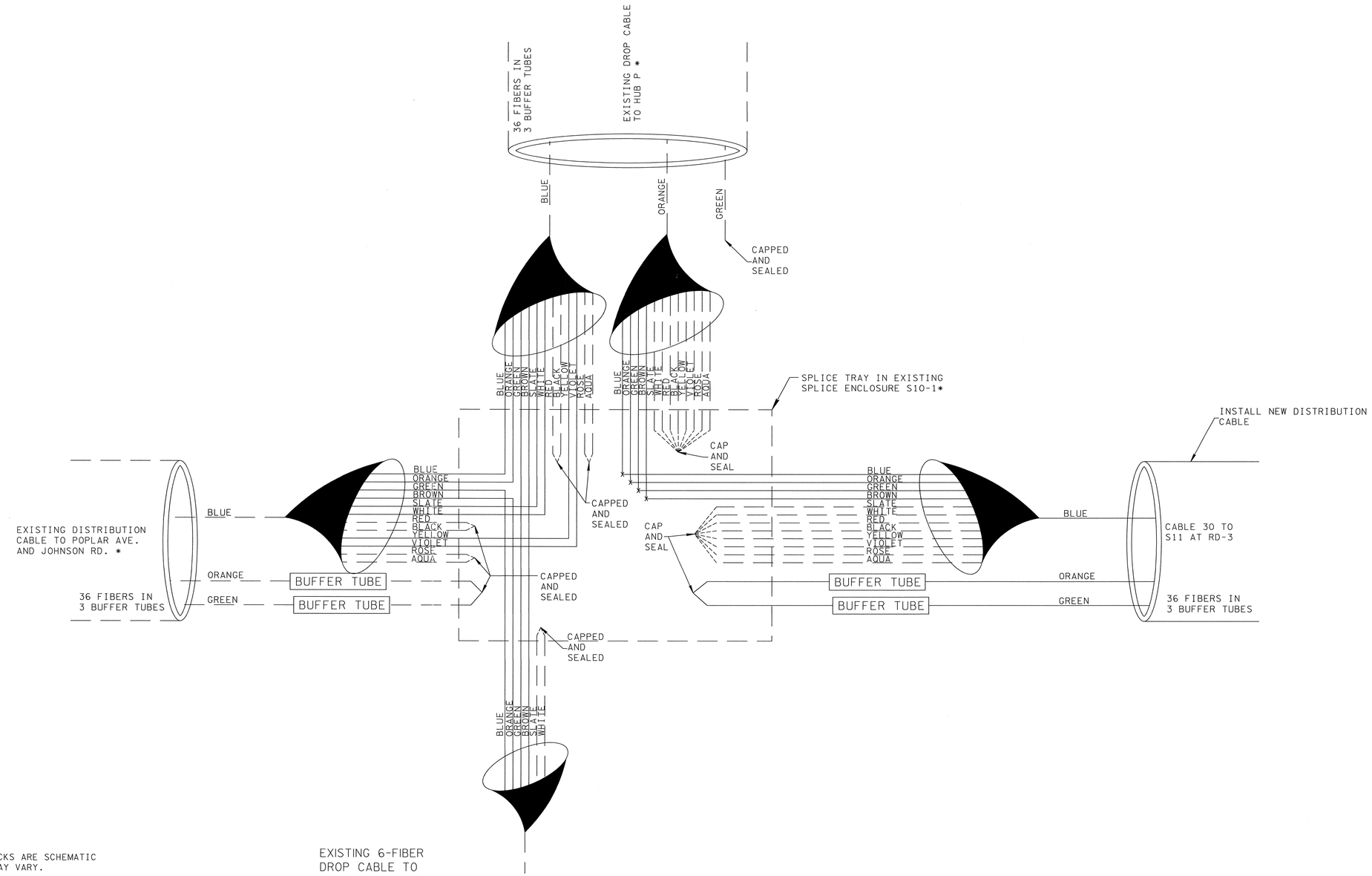
MICHAEL J. BRUCE
STATE OF TENNESSEE

PARSONS

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
INTERSECTION IMPROVEMENTS
SHELBY COUNTY, TN

FOREST HILL IRENE RD. AT POPLAR-PIKE RD.
INTERSECTION LAYOUT

SURVEY BY: N/A DATE: N/A BOOK:
DRAFTED BY: rch DATE: 1-14 SCALE: 1" = 20'
DESIGNED BY: MJB DATE: 1-14 CHECKED: MJB DATE: 7/14



* DENOTES EXISTING CABLES OR SPLICE ENCLOSURES

** DENOTES FUTURE FIBERS TO BE INSTALLED BY OTHERS

NOTE:

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

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 — SPLICE OR EXPREES ENTIRE BUFFER TUBE AS NOTED

ACTIVE FIBER

INACTIVE FIBER

X — CONNECTION/SPLICE TO BE MADE BY OTHERS

SPLICE DIAGRAM FOR INTERSECTION #5080

HOUSTON LEVEE AND POPLAR AVE.

REVISIONS		
ITEM No.	DESCRIPTION OF CHANGE	APPROVAL DATE

ENGINEERS SEAL

MICHAEL J. BRUGGE
REGISTERED ENGINEER
No. 112775
STATE OF TENNESSEE
4/14/15

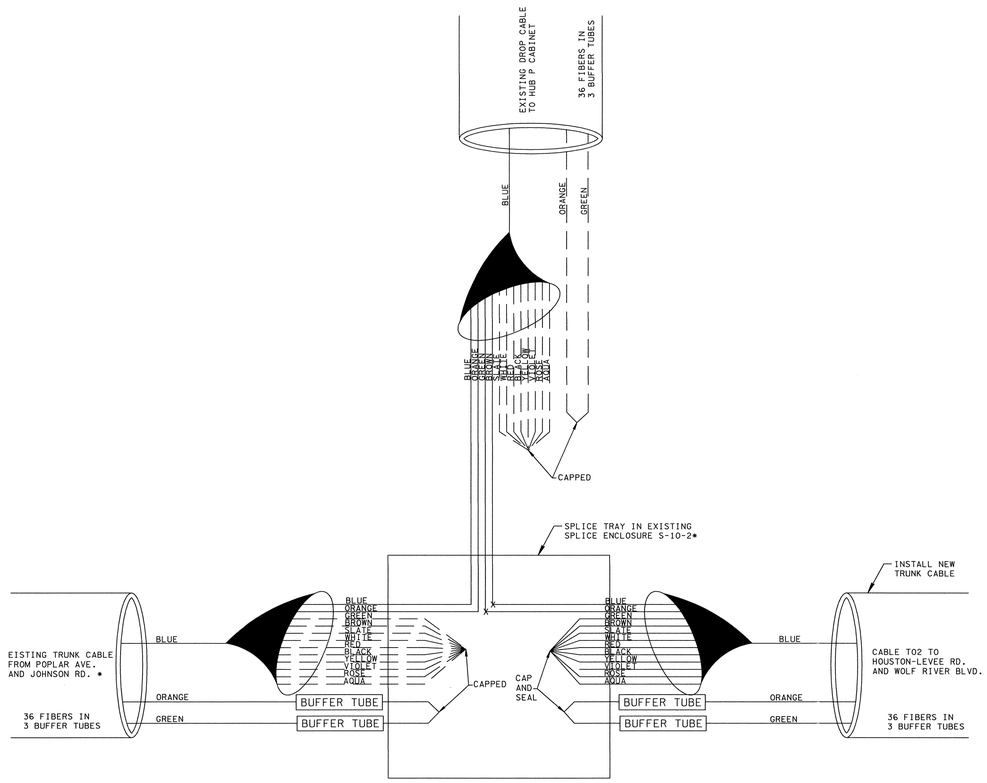
PARSONS

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
INTERSECTION IMPROVEMENTS
SHELBY COUNTY, TN

SPLICE DIAGRAM

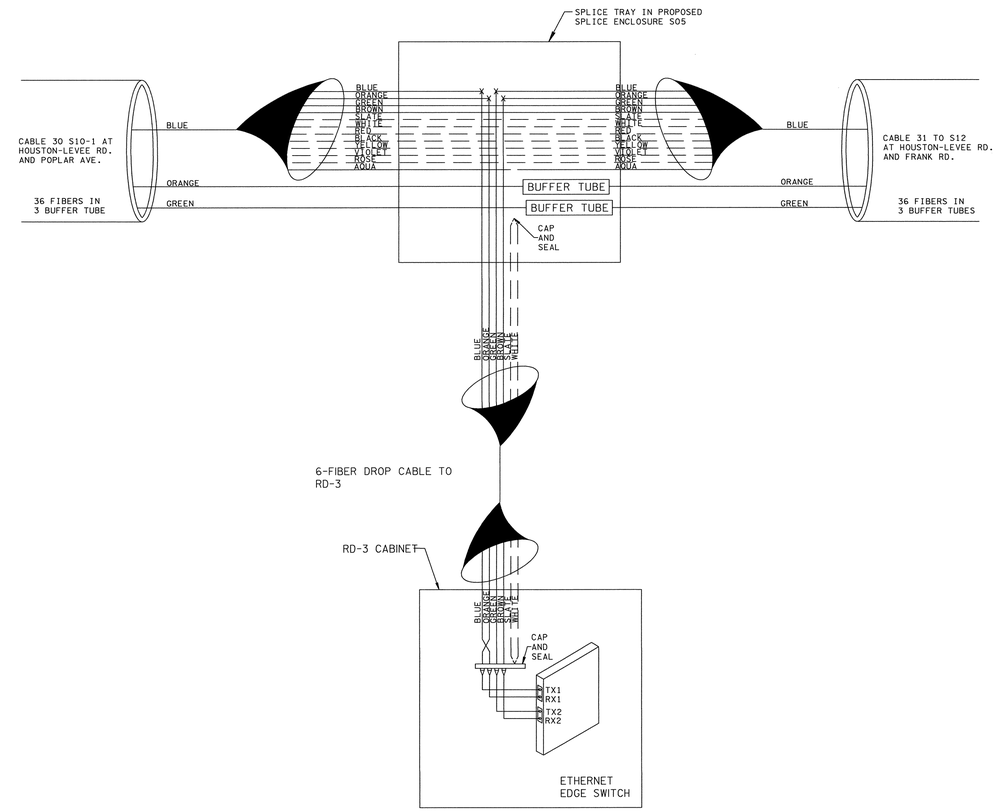
HOUSTON LEVEE RD. AT POPLAR AVE.

SURVEY BY: N/A DATE: BOOK:
DRAFTED BY: rch DATE: 12/13 SCALE: 1"=50'
DESIGNED BY: KLA DATE: 12/13 CHECKED: MJB DATE: 4/14



SPLICE DIAGRAM FOR INTERSECTION #5080

POPLAR AVE.
AND
HOUSTON LEVEE RD.



SPLICE DIAGRAM FOR RD-3

BETWEEN POPLAR AVE.
AND
FRANK RD.

* DENOTES EXISTING CABLES OR SPLICE ENCLOSURES

** DENOTES FUTURE FIBERS TO BE INSTALLED BY OTHERS

NOTE:

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

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 — SPLICE OR EXPREES ENTIRE BUFFER TUBE AS NOTED

ACTIVE FIBER

INACTIVE FIBER

CONNECTION/SPLICE TO BE MADE BY OTHERS

REVISIONS		
ITEM No.	DESCRIPTION OF CHANGE	APPROVAL DATE

ENGINEERS SEAL

MICHAEL J. BRUGGE
STATE OF TENNESSEE
5/14/15

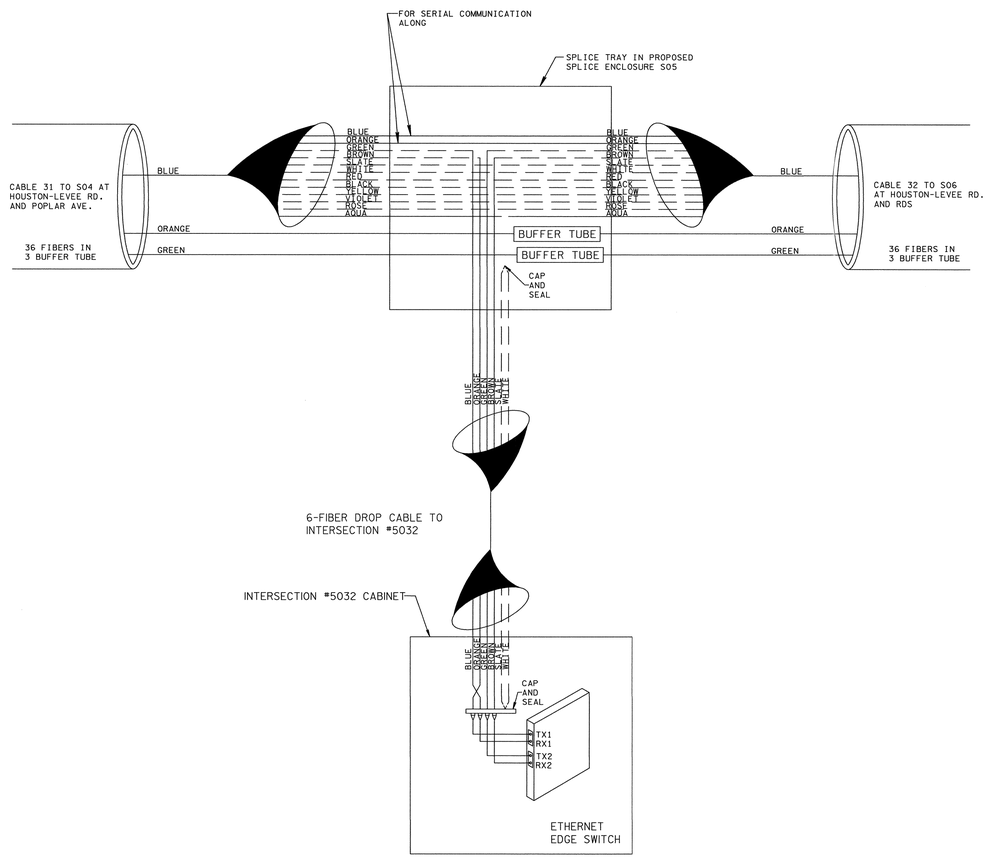
PARSONS

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
INTERSECTION IMPROVEMENTS
SHELBY COUNTY, TN

SPLICE DIAGRAM

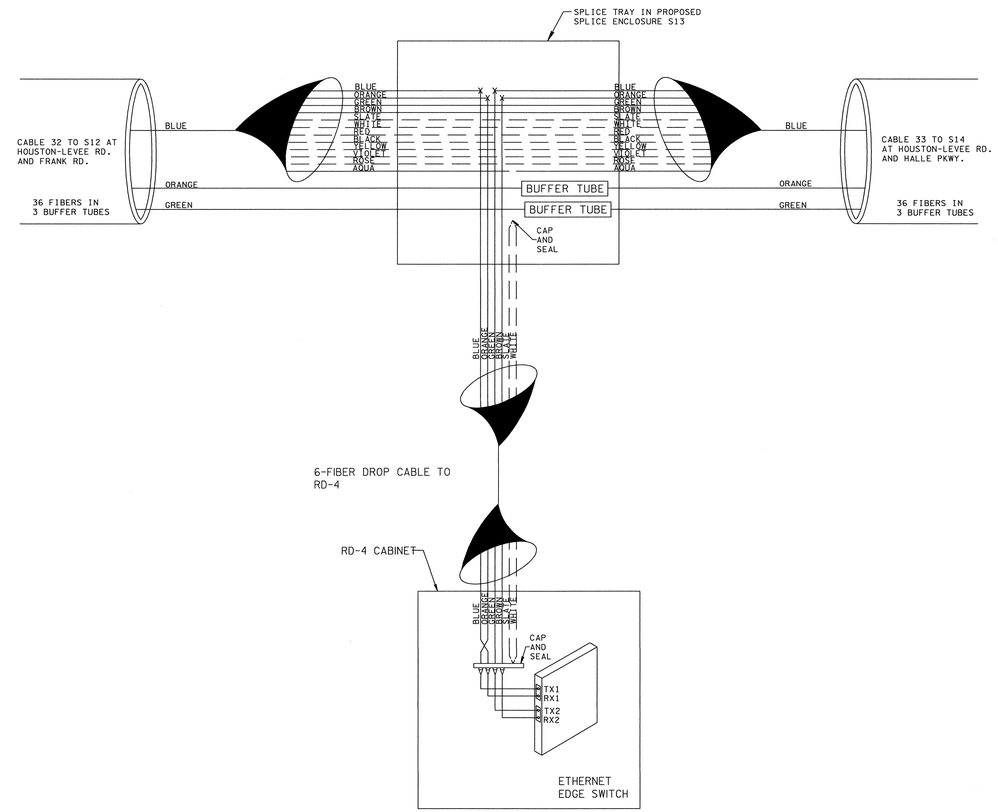
RADAR DETECTION SYSTEM FOR
HOUSTON LEVEE RD. SOUTH OF FRANK RD.
AND POPLAR AVE.AND HOUSTON LEVEE RD.

SURVEY BY: N/A DATE: BOOK:
DRAFTED BY: rch DATE: 4/14 SCALE:
DESIGNED BY: KLA DATE: 4/14 CHECKED: MJB DATE: 5/14



SPLICE DIAGRAM FOR INTERSECTION #5032

HOUSTON-LEVEE RD AND FRANK RD.



SPLICE DIAGRAM FOR RD-4

BETWEEN FRANK ROAD AND HALLE PARKWAY

* DENOTES EXISTING CABLES OR SPLICE ENCLOSURES

** DENOTES FUTURE FIBERS TO BE INSTALLED BY OTHERS

NOTE:

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

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 — SPLICE OR EXPREES ENTIRE BUFFER TUBE AS NOTED

ACTIVE FIBER

INACTIVE FIBER

X — CONNECTION/SPLICE TO BE MADE BY OTHERS

REVISIONS		
ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE

ENGINEERS SEAL

MICHAEL J. BRUGGE — REGISTERED ENGINEER — STATE OF TENNESSEE

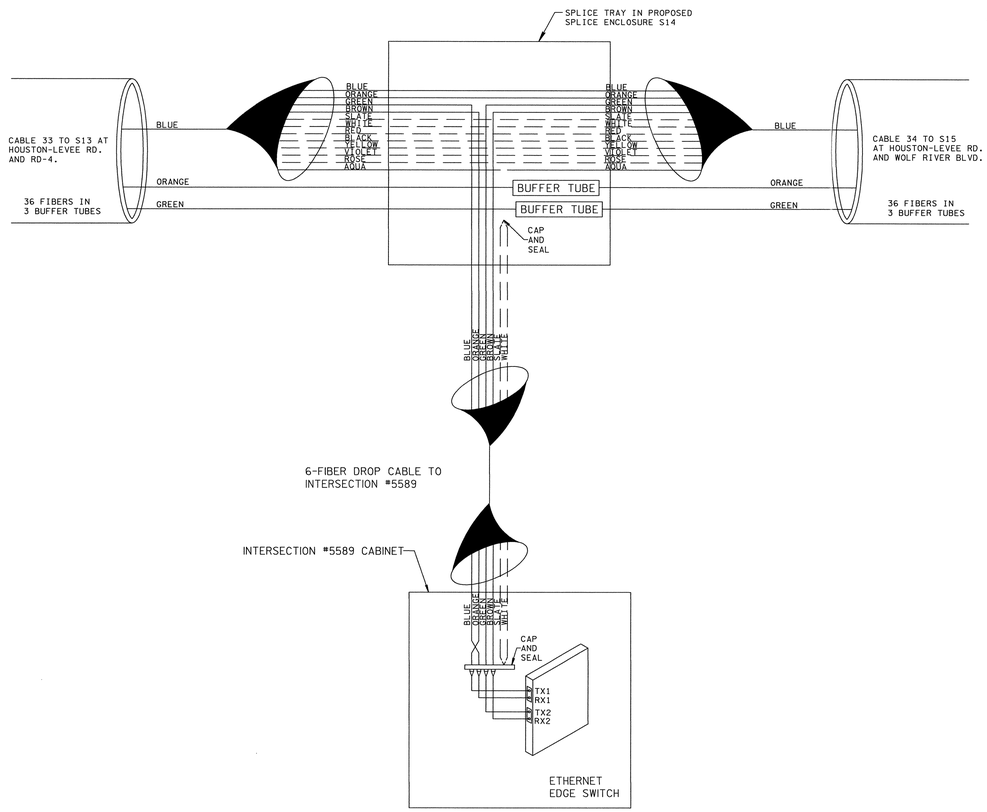
PARSONS

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
INTERSECTION IMPROVEMENTS
SHELBY COUNTY, TN

SPLICE DIAGRAM

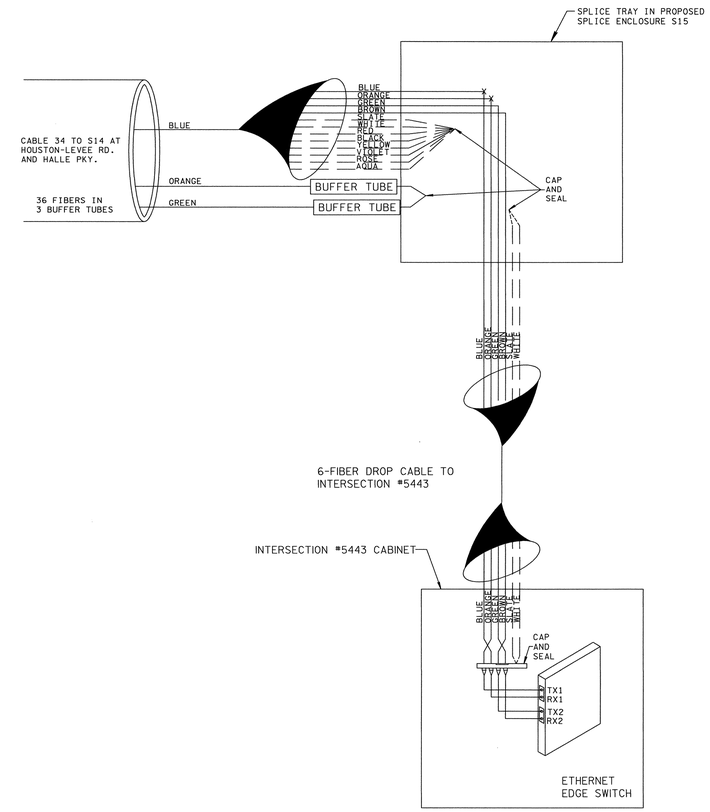
RADAR DETECTION SYSTEM FOR HOUSTON LEVEE RD. NORTH OF FRANK RD. AND FRANK RD. AND HOUSTON LEVEE RD.

SURVEY BY: N/A DATE: BOOK:
DRAFTED BY: rch DATE: 4/14 SCALE:
DESIGNED BY: KLA DATE: 4/14 CHECKED: MJB DATE: 5/14



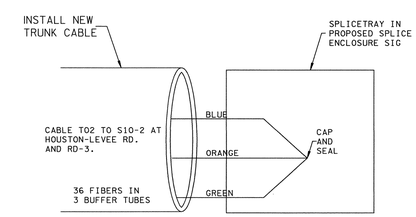
SPLICE DIAGRAM FOR INTERSECTION #5589

HOUSTON-LEVEE RD. AND HALLE PKWY. N.



SPLICE DIAGRAM FOR INTERSECTION #5443

HOUSTON-LEVEE RD. AND WOLF RIVER BLVD.



✱ DENOTES EXISTING CABLES OR SPLICE ENCLOSURES

✱✱ DENOTES FUTURE FIBERS TO BE INSTALLED BY OTHERS

NOTE:

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

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 — SPLICE OR EXPREES ENTIRE BUFFER TUBE AS NOTED

ACTIVE FIBER

INACTIVE FIBER

CONNECTION/SPLICE TO BE MADE BY OTHERS

REVISIONS		
ITEM No.	DESCRIPTION OF CHANGE	APPROVAL DATE

ENGINEERS SEAL

MICHAEL J. BRUGGE — STATE OF TENNESSEE — 4/28/15

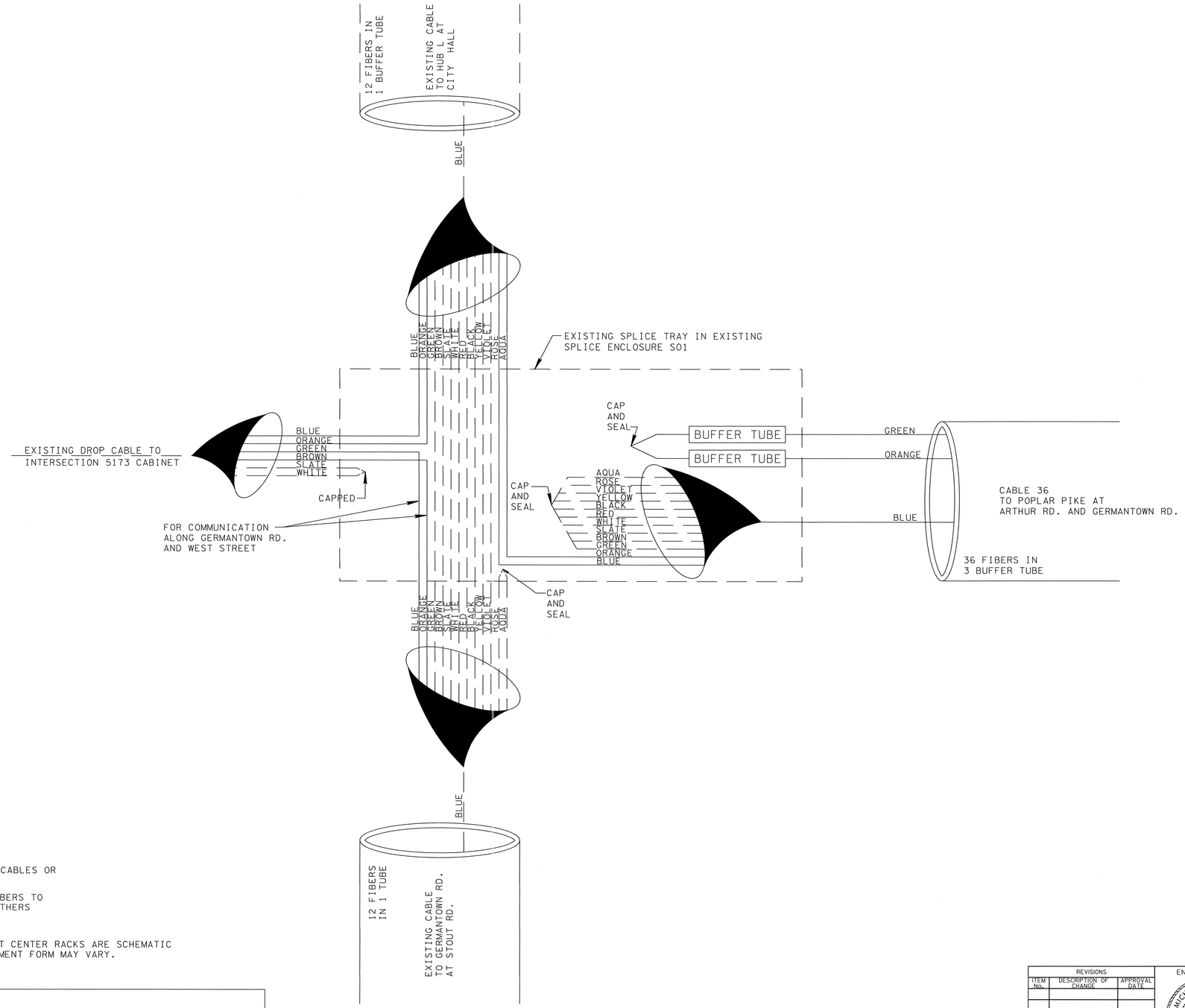
PARSONS

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
INTERSECTION IMPROVEMENTS
SHELBY COUNTY, TN

SPLICE DIAGRAM

HOUSTON-LEVEE RD. AND WOLF BLVD.
AND HALLE PARKWAY AT HOUSTON LEVEE RD.

SURVEY BY: N/A DATE: BOOK:
DRAFTED BY: rch DATE: 4/14 SCALE:
DESIGNED BY: KLA DATE: 4/14 CHECKED: MJB DATE: 5/14



* DENOTES EXISTING CABLES OR SPLICE ENCLOSURES

** DENOTES FUTURE FIBERS TO BE INSTALLED BY OTHERS

NOTE:

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

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 — SPLICE OR EXPREES ENTIRE BUFFER TUBE AS NOTED

ACTIVE FIBER

INACTIVE FIBER

CONNECTION/SPLICE TO BE MADE BY OTHERS

SPLICE DIAGRAM FOR INTERSECTION #32-1

McVAY RD. / POPLAR PIKE
AND WEST ST. / GERMANTOWN RD.

REVISIONS

ITEM No.	DESCRIPTION OF CHANGE	APPROVAL DATE

ENGINEERS SEAL

MICHAEL J. BRUGGE
STATE OF TENNESSEE
9/29/15

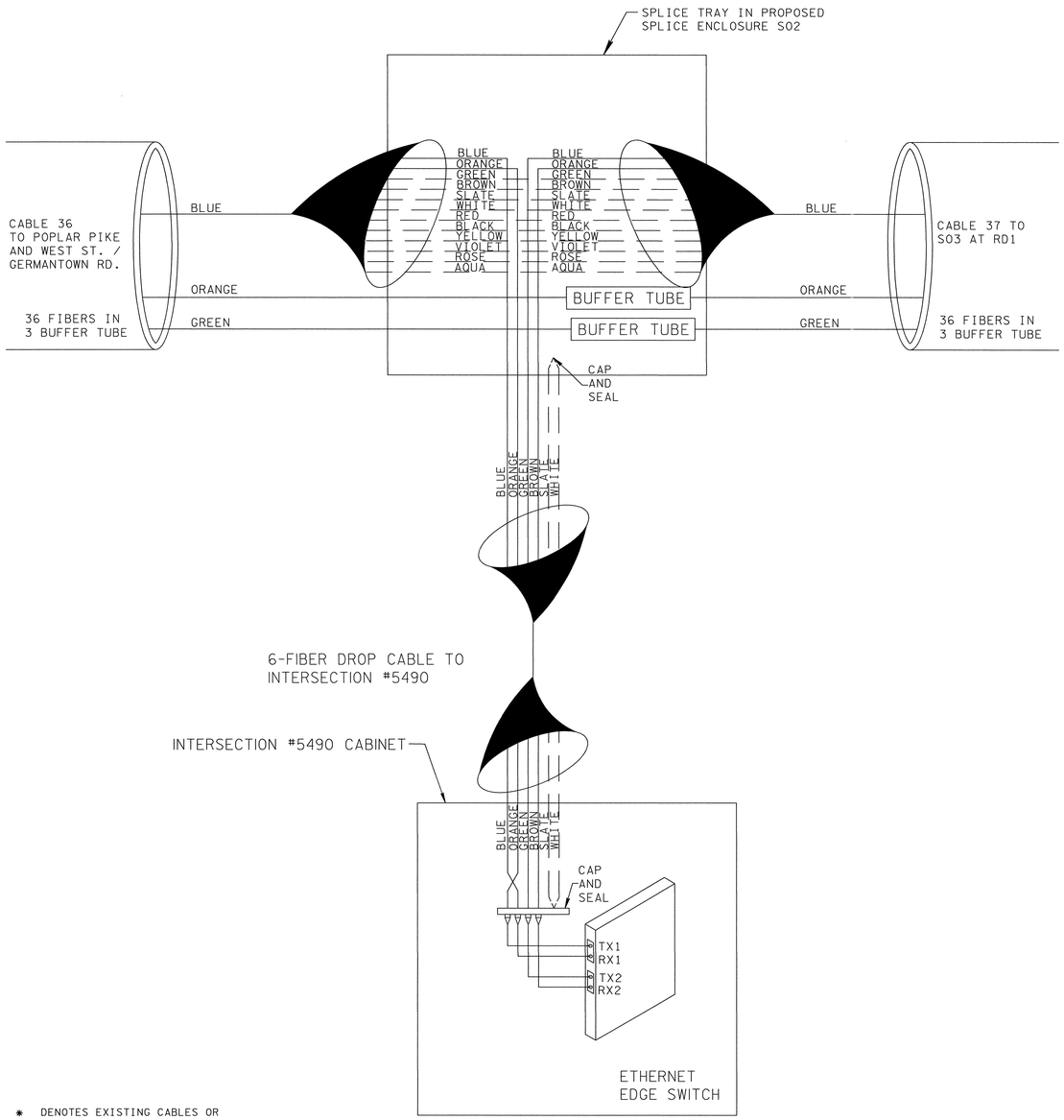
PARSONS

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
INTERSECTION IMPROVEMENTS
SHELBY COUNTY, TN

SPLICE DIAGRAM

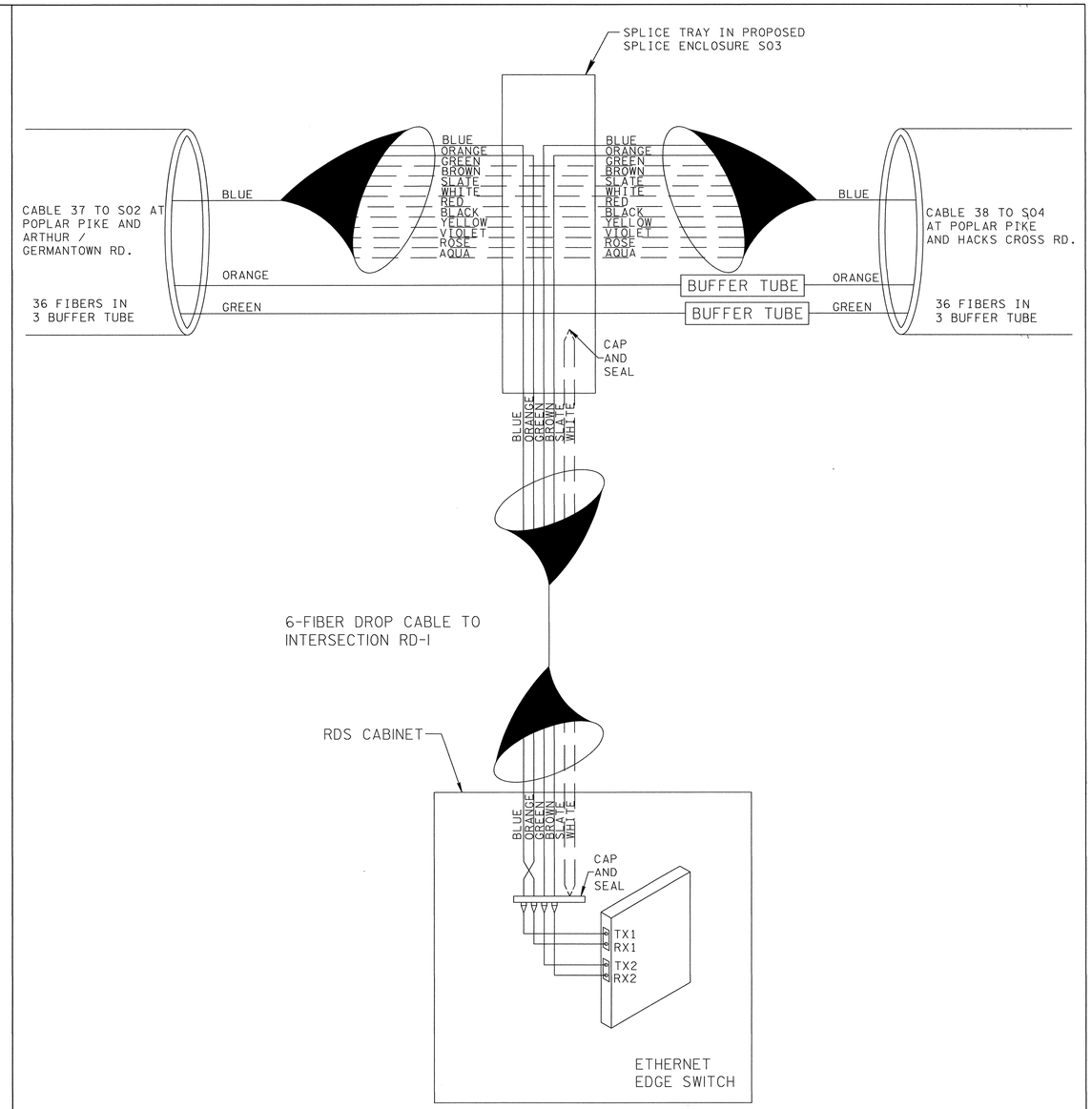
McVAY RD. / POPLAR PIKE
AT WEST RD. / GERMANTOWN RD.

SURVEY BY: N/A DATE: _____ BOOK: _____
DRAFTED BY: rch DATE: 1/14 SCALE: 1"=50'
DESIGNED BY: MJB DATE: 1/14 CHECKED: KLA DATE: 3/14



SPLICE DIAGRAM FOR INTERSECTION

POPLAR PIKE AND GERMANTOWN RD. / ARTHUR ST.



SPLICE DIAGRAM FOR RD-1

POPLAR PIKE WEST OF GERMANWOOD LANE

* DENOTES EXISTING CABLES OR SPLICE ENCLOSURES

** DENOTES FUTURE FIBERS TO BE INSTALLED BY OTHERS

NOTE:

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

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

BUFFER TUBE SPLICE OR EXPREES ENTIRE BUFFER TUBE AS NOTED

ACTIVE FIBER

INACTIVE FIBER

X CONNECTION/SPLICE TO BE MADE BY OTHERS

REVISIONS

ITEM No.	DESCRIPTION OF CHANGE	APPROVAL DATE

ENGINEERS SEAL

MICHAEL J. BRUGGE
STATE OF TENNESSEE
7/21/15

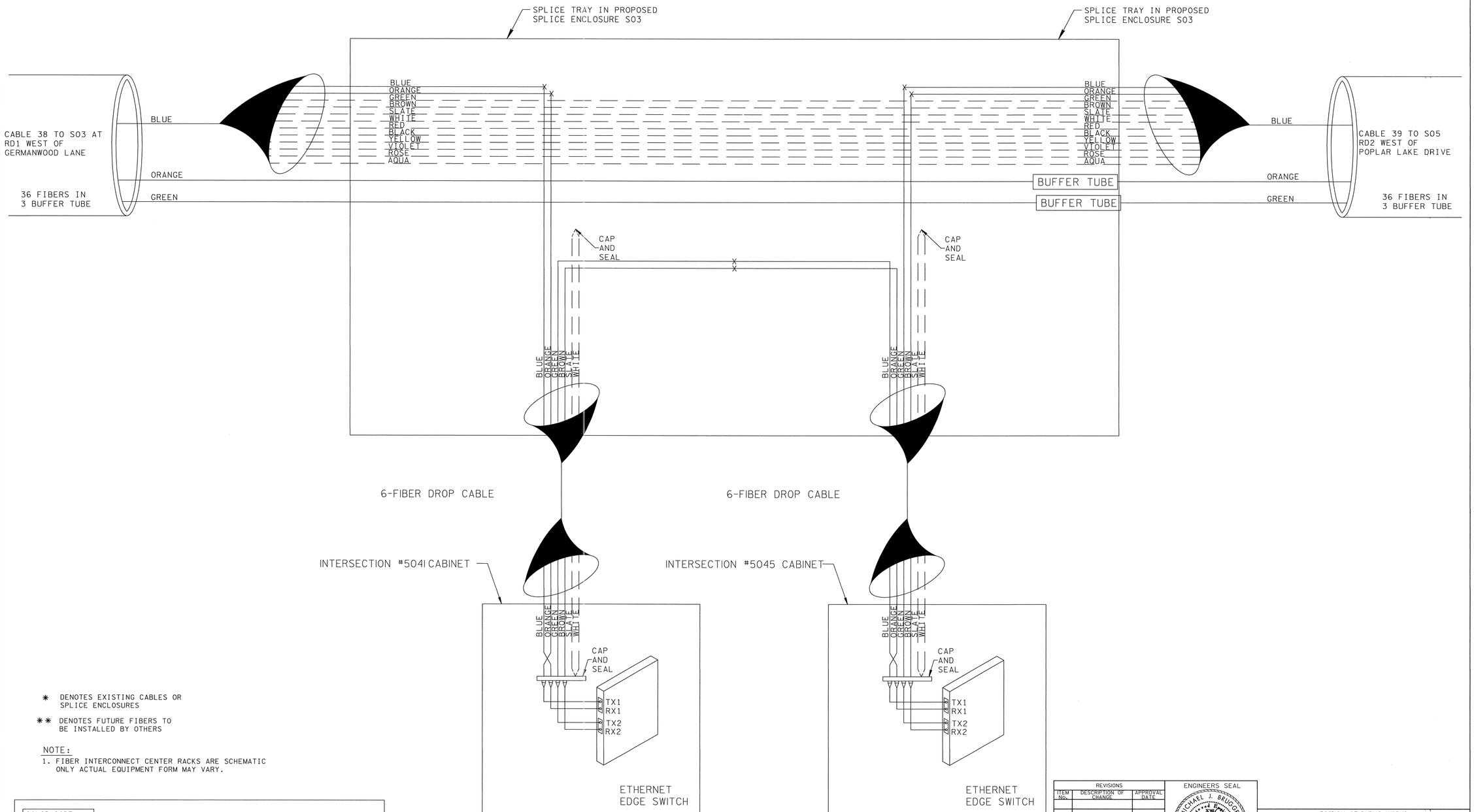
PARSONS

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
INTERSECTION IMPROVEMENTS
SHELBY COUNTY, TN

SPLICE DIAGRAM

POPLAR PIKE AND GERMANTOWN RD. /ARTHUR RD. RD'S WEST OF GERMANWOOD LANE

SURVEY BY: N/A DATE: BOOK:
DRAFTED BY: rch DATE: 12/13 SCALE: 1"=50'
DESIGNED BY: KLA DATE: 12/13 CHECKED: DATE:



SPLICE DIAGRAM FOR INTERSECTION #5041

POPLAR PIKE AND HACKS CROSS

SPLICE DIAGRAM FOR INTERSECTION #5045

C. D. SMITH RD. AND HACKS CROSS

* DENOTES EXISTING CABLES OR SPLICE ENCLOSURES

** DENOTES FUTURE FIBERS TO BE INSTALLED BY OTHERS

NOTE:

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

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 — SPLICE OR EXPREES ENTIRE BUFFER TUBE AS NOTED

ACTIVE FIBER

INACTIVE FIBER

CONNECTION/SPLICE TO BE MADE BY OTHERS

REVISIONS		
ITEM No.	DESCRIPTION OF CHANGE	APPROVAL DATE

ENGINEERS SEAL

MICHAEL J. BRUGGE — STATE OF TENNESSEE — 22 YEARS — 4/2/15

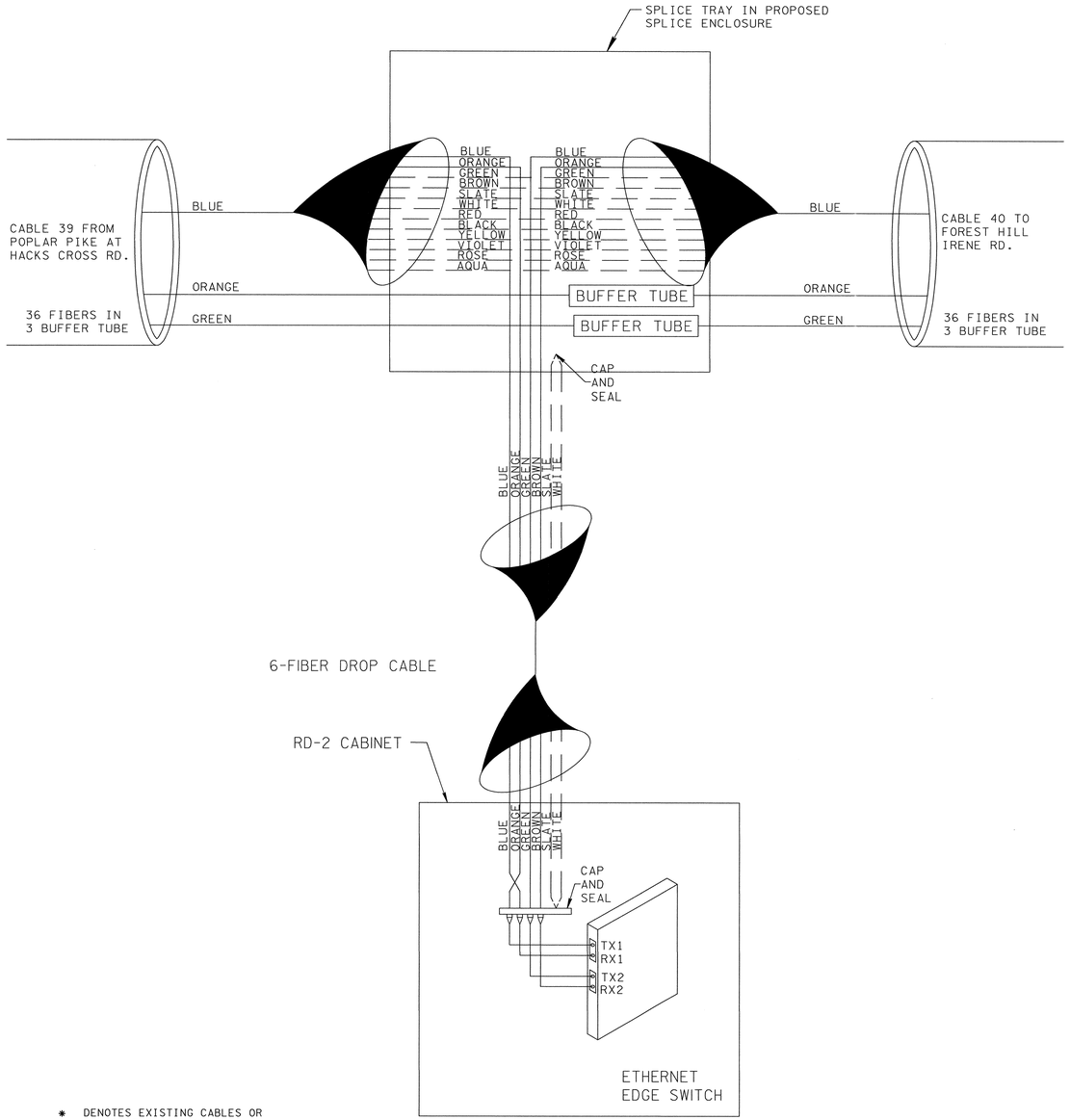
PARSONS

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
INTERSECTION IMPROVEMENTS
SHELBY COUNTY, TN

SPLICE DIAGRAM

RADAR DETECTION SYSTEM FOR POPLAR PIKE AND HACKS CROSS
C. D. SMITH RD. AND HACKS CROSS

SURVEY BY: N/A DATE: _____ BOOK: _____
DRAFTED BY: rch DATE: 2/14 SCALE: 1"=50'
DESIGNED BY: KLA DATE: 2/14 CHECKED: MJB DATE: 3/14



* DENOTES EXISTING CABLES OR SPLICE ENCLOSURES

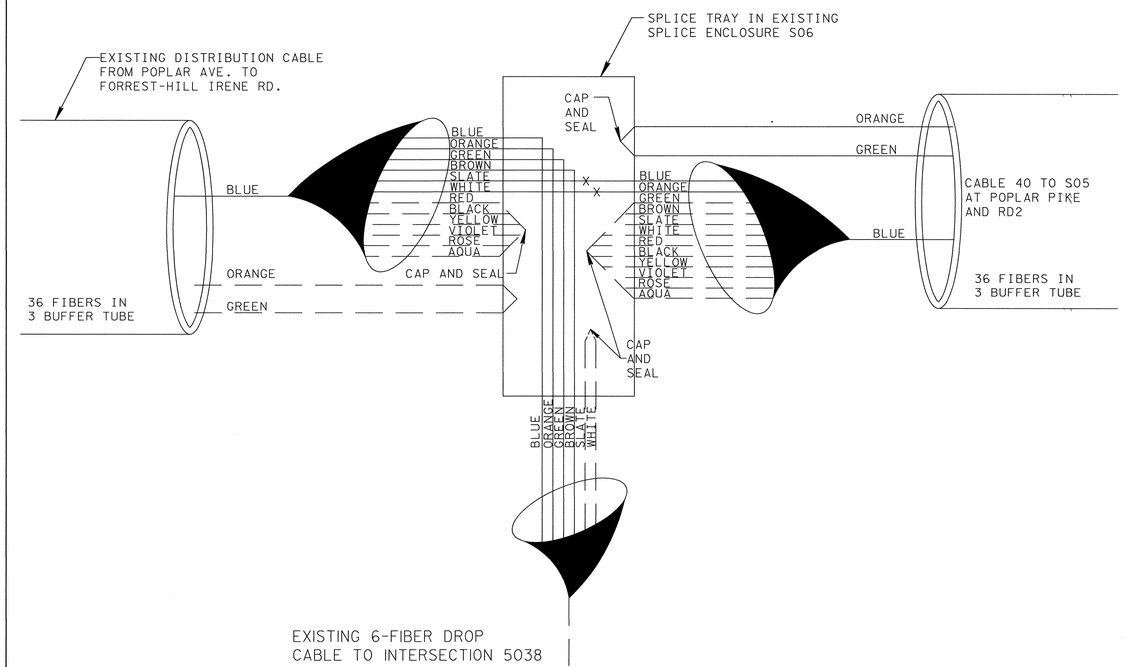
** DENOTES FUTURE FIBERS TO BE INSTALLED BY OTHERS

NOTE:

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

SPLICE DIAGRAM FOR INTERSECTION

POPLAR PIKE AT RD-2



SPLICE DIAGRAM FOR #5038

POPLAR PIKE AND FORREST HILL IRENE RD.

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

BUFFER TUBE SPLICE OR EXPREES ENTIRE BUFFER TUBE AS NOTED

ACTIVE FIBER

INACTIVE FIBER

CONNECTION/SPLICE TO BE MADE BY OTHERS

REVISIONS		
ITEM No.	DESCRIPTION OF CHANGE	APPROVAL DATE

ENGINEERS SEAL

MICHAEL J. BRUCE
STATE OF TENNESSEE
3/24/15

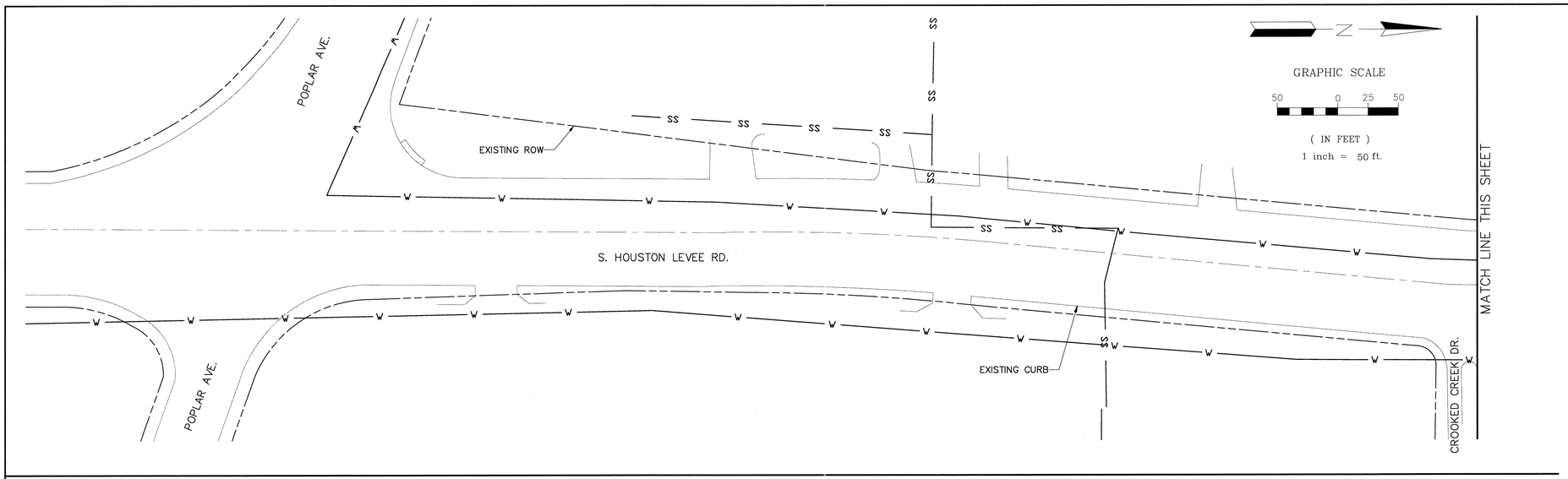
PARSONS

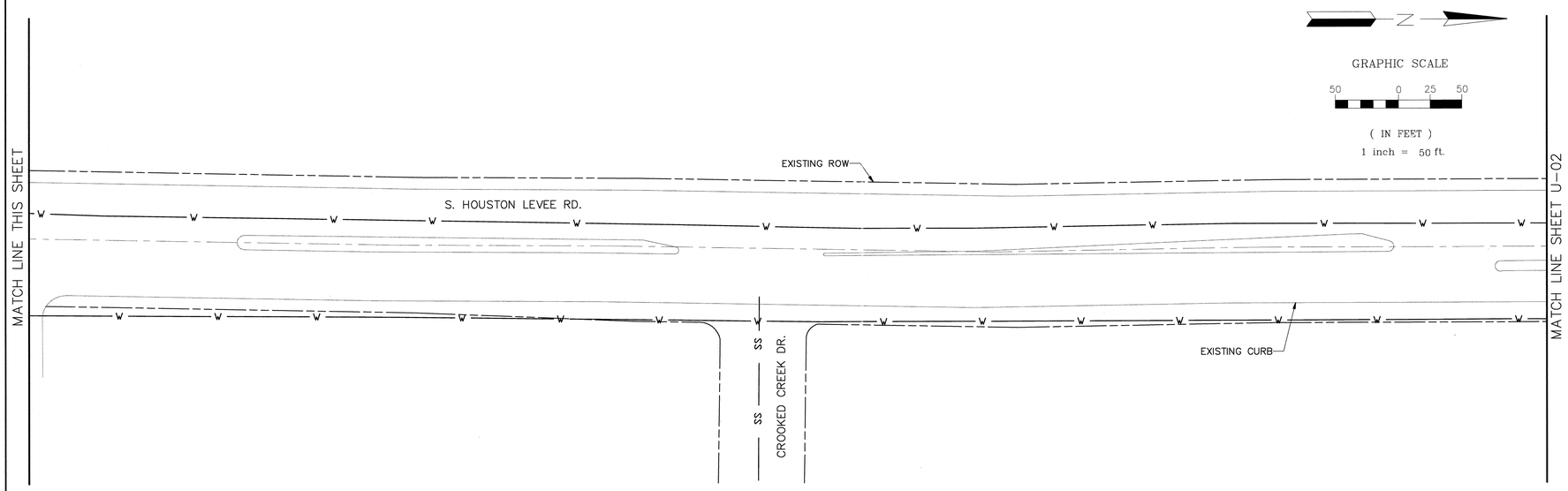
DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
INTERSECTION IMPROVEMENTS
SHELBY COUNTY, TN

SPLICE DIAGRAM

POPLAR-PIKE AT RADAR DETECTION SYSTEM 2 AND FOREST HILL-IRENE RD.

SURVEY BY: N/A DATE: BOOK:
DRAFTED BY: rch DATE: 12/13 SCALE: 1"=50'
DESIGNED BY: KLA DATE: 12/13 CHECKED: MJB DATE: 3/14





LEGEND

E	EXISTING ELECTRIC LINE
W	EXISTING WATER LINE
GAS GAS	EXISTING GAS LINE
G	ABANDONED GAS LINE
SS	EXISTING SEWER LINE

NOTES:

FOR UTILITIES: CALL "TENN. ONE CALL SYSTEMS INC.", 1-800-351-1111 72 HOURS BEFORE DIGGING.

* NOTE: UTILITIES SHOWN ARE FROM PLAN INFORMATION. GAS AND ELECTRIC ARE NOT SHOWN ON THIS SHEET DUE TO DRAWING BEING UNAVAILABLE.

REVISIONVS		
DATE	DESCRIPTIONS	APPROVED

HENRY D. GRADDY REGISTERED ENGINEER NO. 102 STATE OF TENNESSEE
7-13-15

ENGINEER: TYCA ENGINEERING, LLC

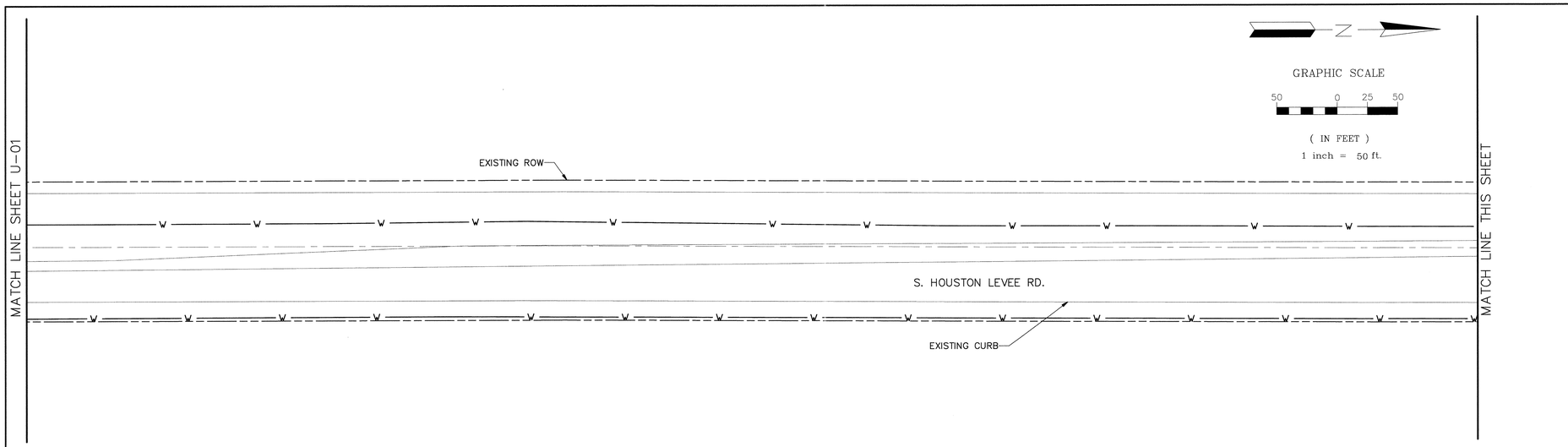
U-01

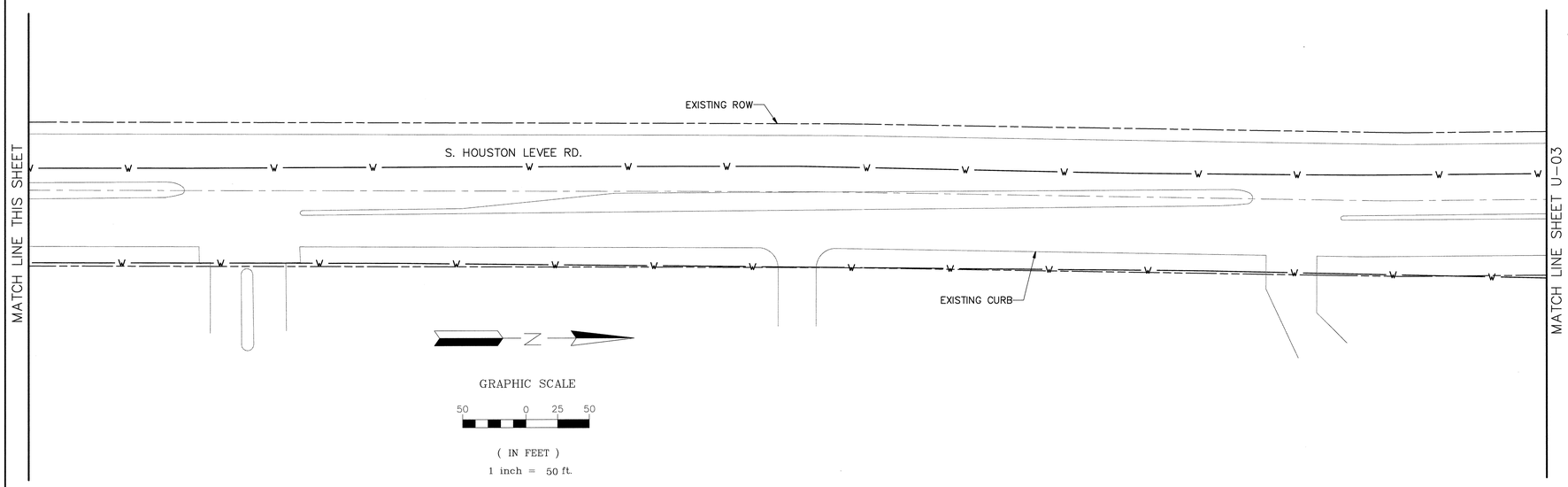
DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #7
SHELBY COUNTY, TN

EXISTING UTILITIES

SURVEY: N/A DATE: N/A
DESIGNED BY: ACOT DATE: 1-14-14 BOOK: –
DRAWN BY: ACOT DATE: 1-14-14 SCALE: 1"=50'

JURISDICTION:





LEGEND

E	EXISTING ELECTRIC LINE
W	EXISTING WATER LINE
GAS GAS	EXISTING GAS LINE
G	ABANDONED GAS LINE
SS	EXISTING SEWER LINE

NOTES:

FOR UTILITIES: CALL "TENN. ONE CALL SYSTEMS INC.", 1-800-351-1111 72 HOURS BEFORE DIGGING.

* NOTE: UTILITIES SHOWN ARE FROM PLAN INFORMATION.

REVISIONVS		
DATE	DESCRIPTIONS	APPROVED

HENRY D. GRADDY REGISTERED ENGINEER STATE OF TENNESSEE

ENGINEER: TYCA ENGINEERING, LLC

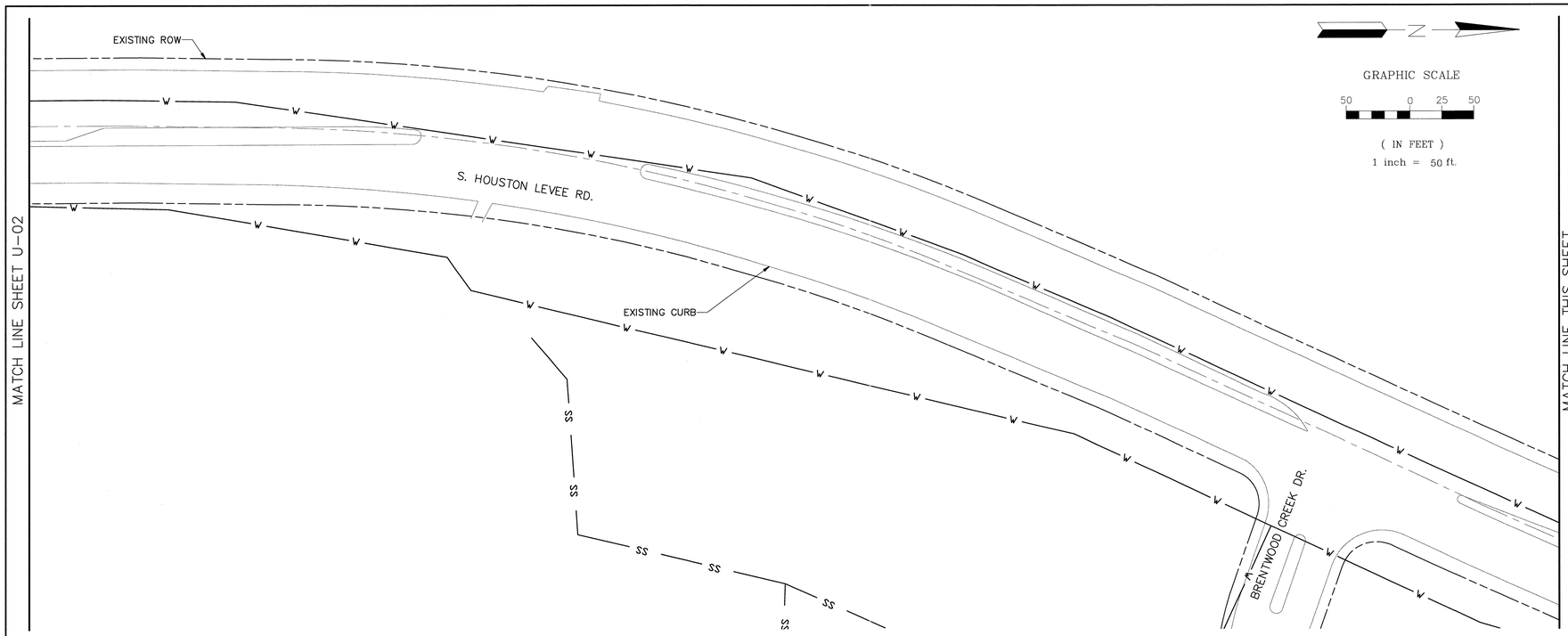
U-02

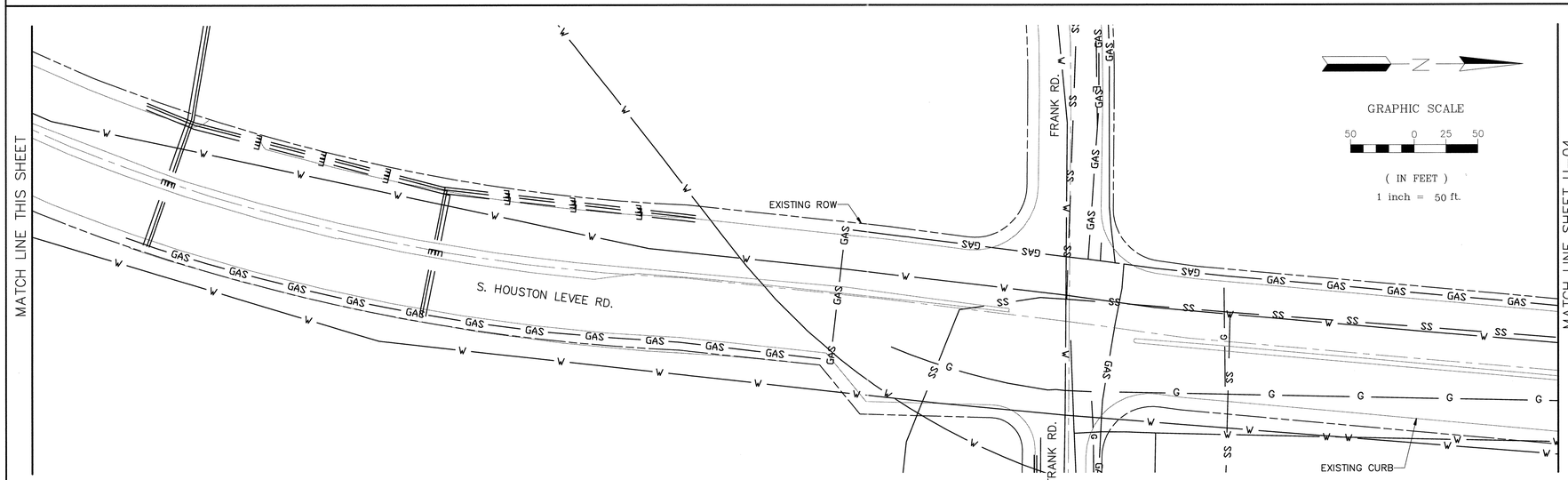
DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #7
SHELBY COUNTY, TN

EXISTING UTILITIES

SURVEY: N/A DATE: N/A
DESIGNED BY: ACOT DATE: 1-14-14 BOOK: –
DRAWN BY: ACOT DATE: 1-14-14 SCALE: 1"=50'

JURISDICTION:





LEGEND

E	EXISTING ELECTRIC LINE
W	EXISTING WATER LINE
GAS GAS	EXISTING GAS LINE
G	ABANDONED GAS LINE
SS	EXISTING SEWER LINE

NOTES:

FOR UTILITIES: CALL "TENN. ONE CALL SYSTEMS INC.", 1-800-351-1111 72 HOURS BEFORE DIGGING.

* NOTE: UTILITIES SHOWN ARE FROM PLAN INFORMATION.

REVISIONVS		
DATE	DESCRIPTIONS	APPROVED

HENRY D. GRADDY REGISTERED ENGINEER NO. 17334 STATE OF TENNESSEE

ENGINEER: TYCA ENGINEERING, LLC

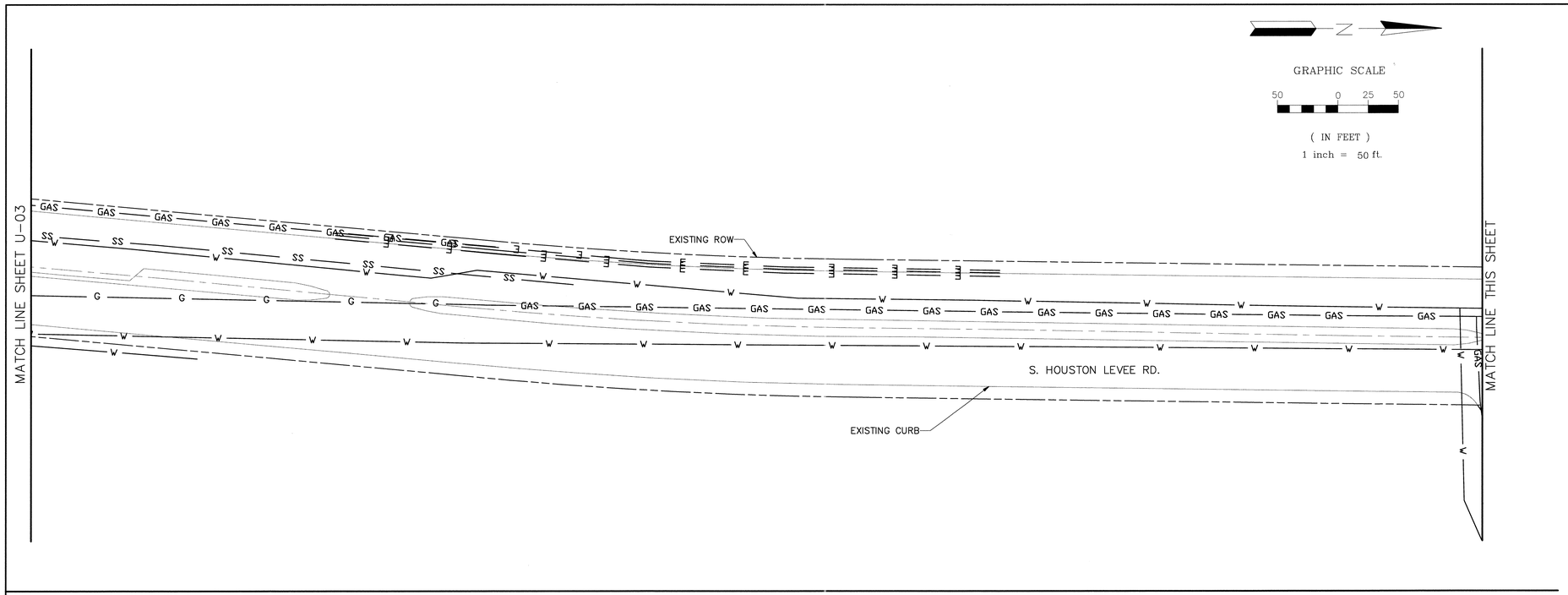
U-03

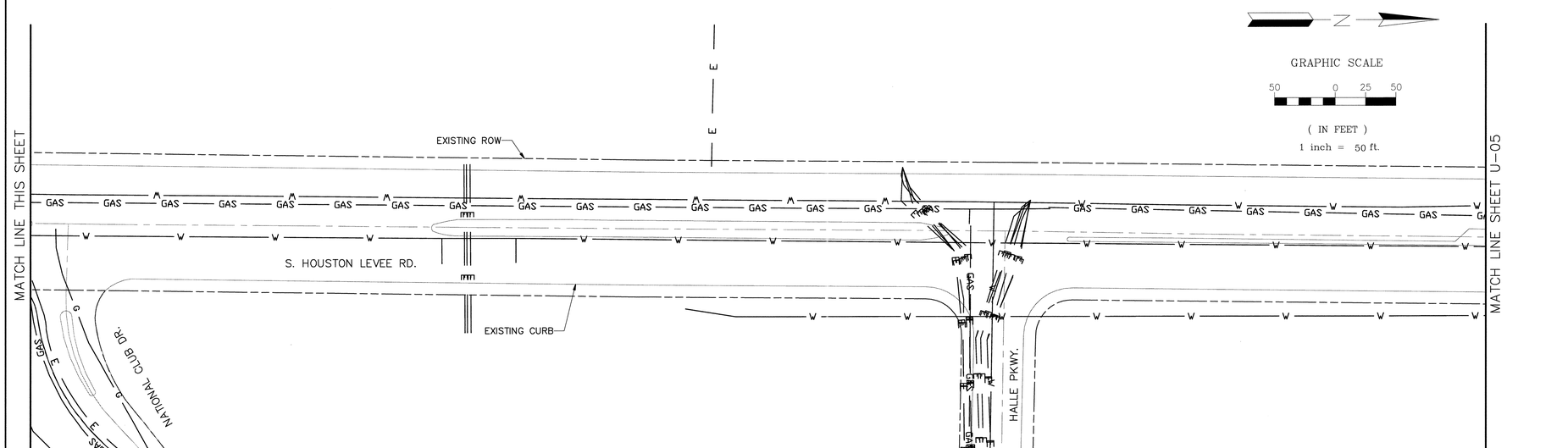
DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #7
SHELBY COUNTY, TN

EXISTING UTILITIES

SURVEY: N/A DATE: N/A
DESIGNED BY: ACOT DATE: 1-14-14 BOOK: –
DRAWN BY: ACOT DATE: 1-14-14 SCALE: 1"=50'

JURISDICTION:





LEGEND

E	EXISTING ELECTRIC LINE
W	EXISTING WATER LINE
GAS GAS	EXISTING GAS LINE
G	ABANDONED GAS LINE
SS	EXISTING SEWER LINE

NOTES:

FOR UTILITIES: CALL "TENN. ONE CALL SYSTEMS INC.", 1-800-351-1111 72 HOURS BEFORE DIGGING.

* NOTE: UTILITIES SHOWN ARE FROM PLAN INFORMATION.

REVISIONVS		
DATE	DESCRIPTIONS	APPROVED

HENRY D. GRADDY REGISTERED ENGINEER No. 17354 STATE OF TENNESSEE

ENGINEER: TYCA ENGINEERING, LLC

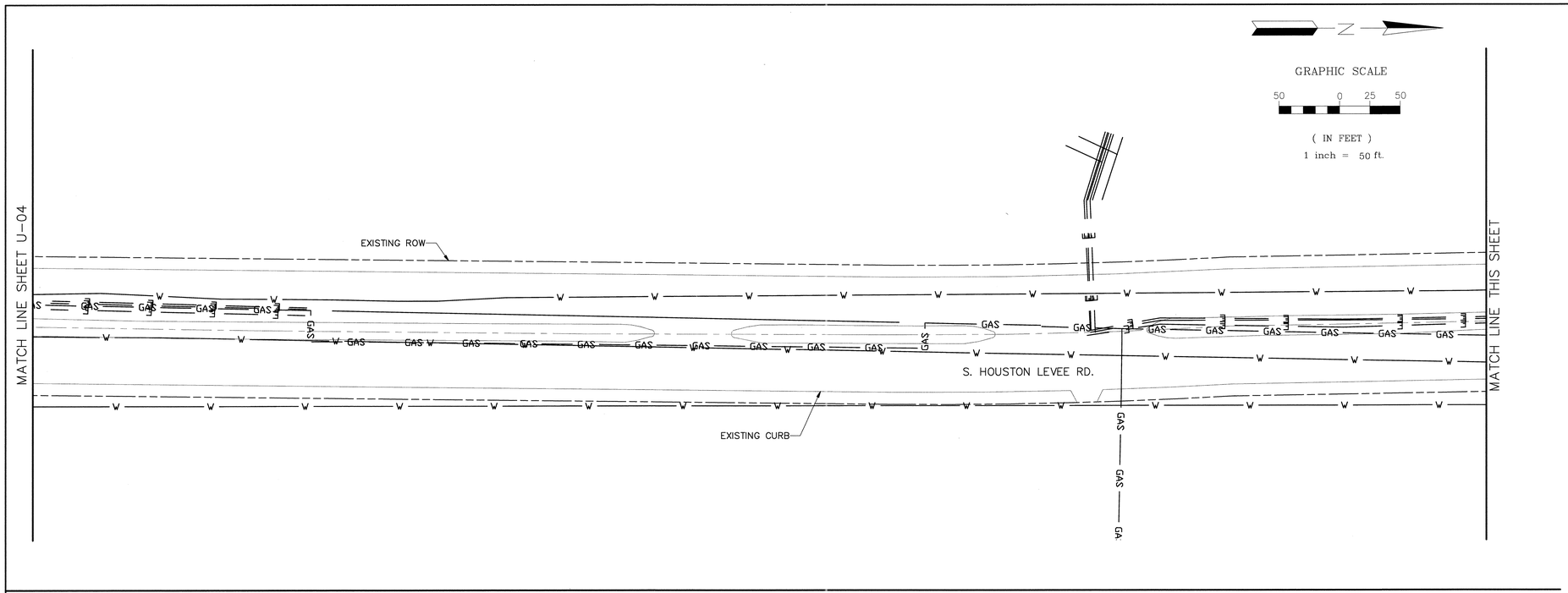
U-04

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #7
SHELBY COUNTY, TN

EXISTING UTILITIES

SURVEY: N/A DATE: N/A
DESIGNED BY: ACOT DATE: 1-14-14 BOOK: –
DRAWN BY: ACOT DATE: 1-14-14 SCALE: 1"=50'

JURISDICTION: SHEET 41 OF 52



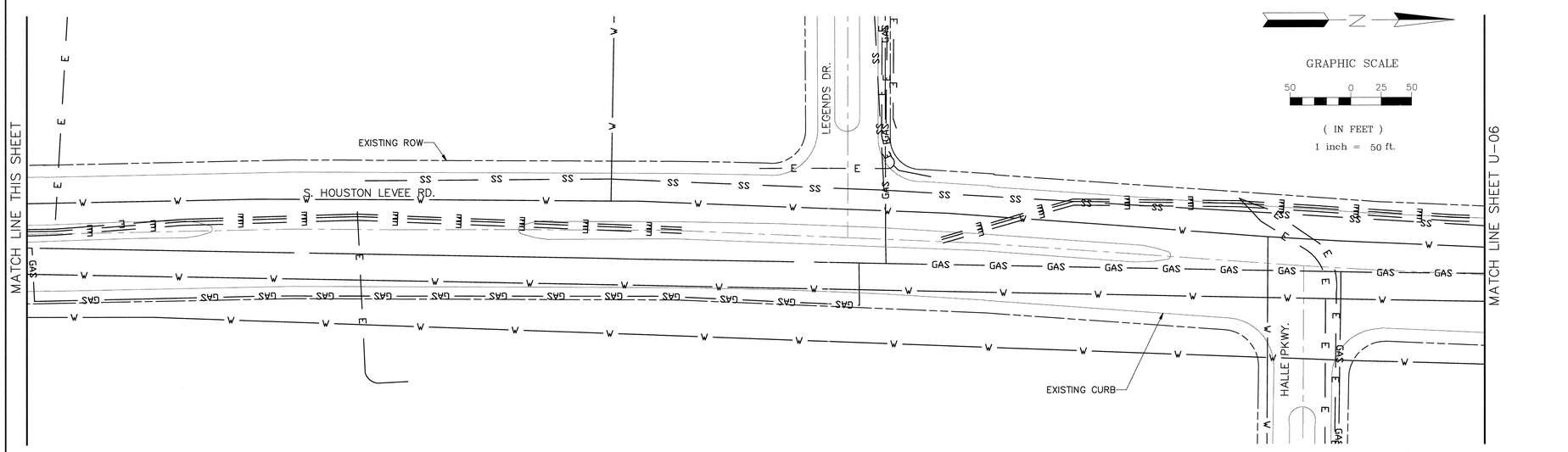
LEGEND

E	EXISTING ELECTRIC LINE
W	EXISTING WATER LINE
GAS	EXISTING GAS LINE
G	ABANDONED GAS LINE
SS	EXISTING SEWER LINE

NOTES:

FOR UTILITIES: CALL "TENN. ONE CALL SYSTEMS INC.", 1-800-351-1111 72 HOURS BEFORE DIGGING.

* NOTE: UTILITIES SHOWN ARE FROM PLAN INFORMATION.



REVISIONVS		
DATE	DESCRIPTIONS	APPROVED

HENRY D. GRADDY REGISTERED ENGINEER NO. 17354 STATE OF TENNESSEE

ENGINEER: TYCA ENGINEERING, LLC

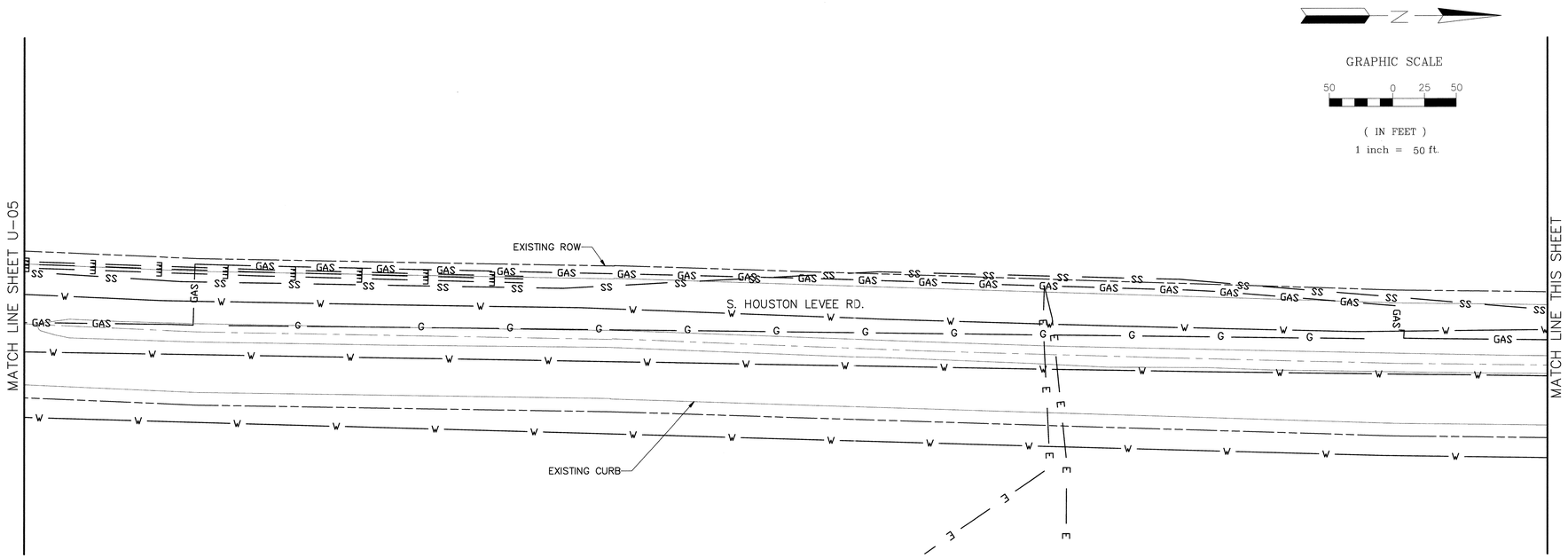
U-05

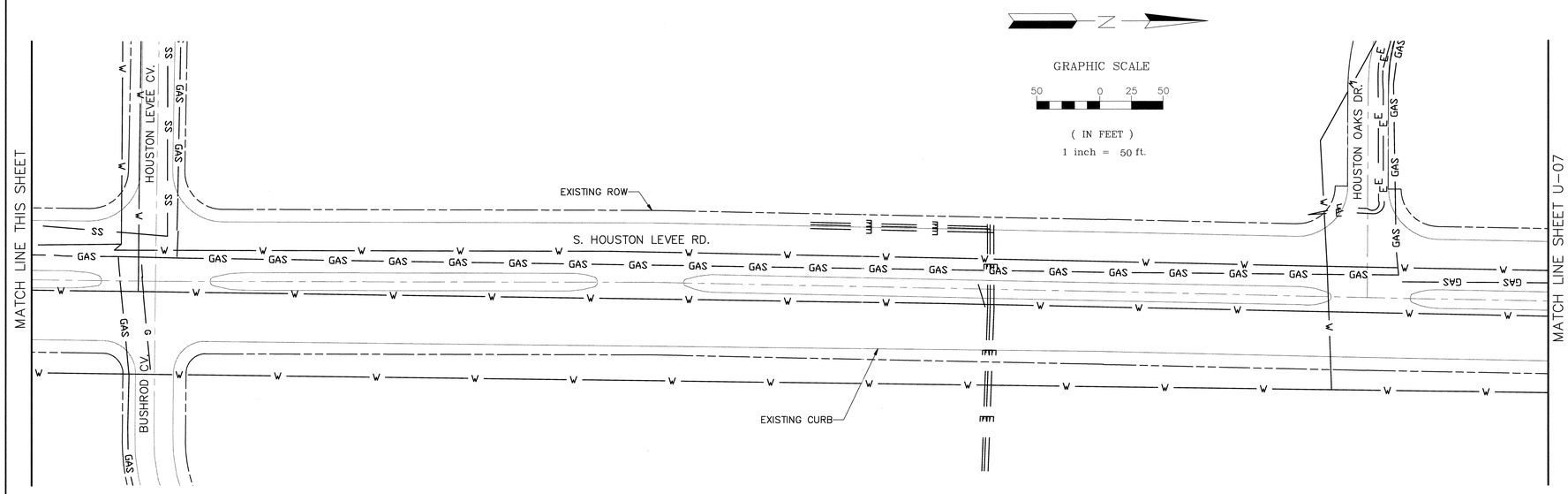
DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #7
SHELBY COUNTY, TN

EXISTING UTILITIES

SURVEY: N/A DATE: N/A
DESIGNED BY: ACOT DATE: 1-14-14 BOOK: –
DRAWN BY: ACOT DATE: 1-14-14 SCALE: 1"=50'

JURISDICTION: SHEET 42 OF 52





LEGEND

E	EXISTING ELECTRIC LINE
W	EXISTING WATER LINE
GAS	EXISTING GAS LINE
G	ABANDONED GAS LINE
SS	EXISTING SEWER LINE

NOTES:

FOR UTILITIES: CALL "TENN. ONE CALL SYSTEMS INC.", 1-800-351-1111 72 HOURS BEFORE DIGGING.

* NOTE: UTILITIES SHOWN ARE FROM PLAN INFORMATION.

REVISIONVS

DATE	DESCRIPTIONS	APPROVED

HENRY D. GRADDY REGISTERED ENGINEER NO. 17351 STATE OF TENNESSEE 1-30-15

ENGINEER: TYCA ENGINEERING, LLC

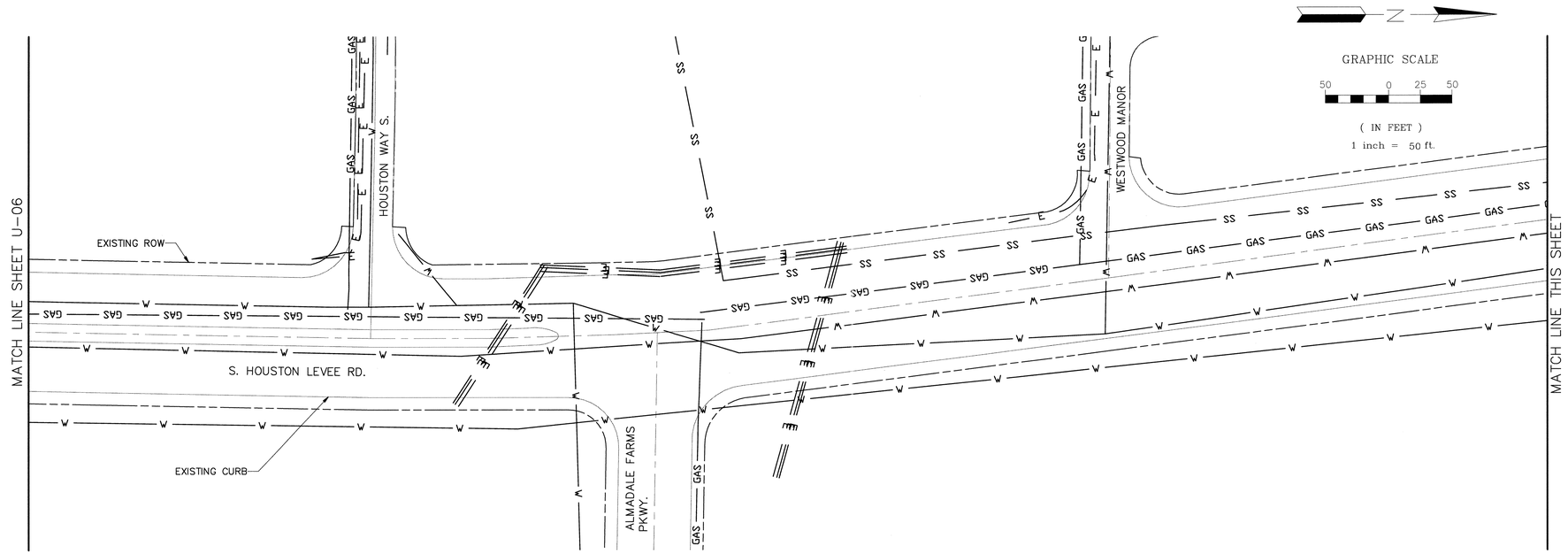
U-06

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #7
SHELBY COUNTY, TN

EXISTING UTILITIES

SURVEY: N/A DATE: N/A
DESIGNED BY: ACOT DATE: 1-14-14 BOOK: –
DRAWN BY: ACOT DATE: 1-14-14 SCALE: 1"=50'

JURISDICTION:



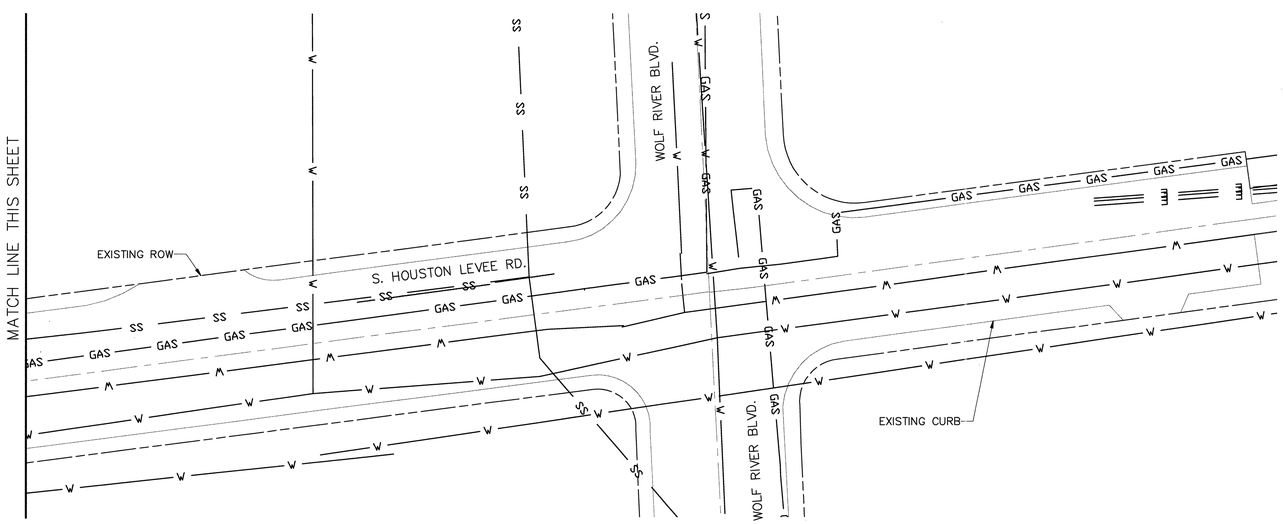
LEGEND

E	EXISTING ELECTRIC LINE
W	EXISTING WATER LINE
GAS	EXISTING GAS LINE
G	ABANDONED GAS LINE
SS	EXISTING SEWER LINE

NOTES:

FOR UTILITIES: CALL "TENN. ONE CALL SYSTEMS INC.", 1-800-351-1111 72 HOURS BEFORE DIGGING.

* NOTE: UTILITIES SHOWN ARE FROM PLAN INFORMATION.



REVISIONVS		
DATE	DESCRIPTIONS	APPROVED

HENRY D. GRADDY REGISTERED ENGINEER NO. 17354 STATE OF TENNESSEE

ENGINEER: TYCA ENGINEERING, LLC

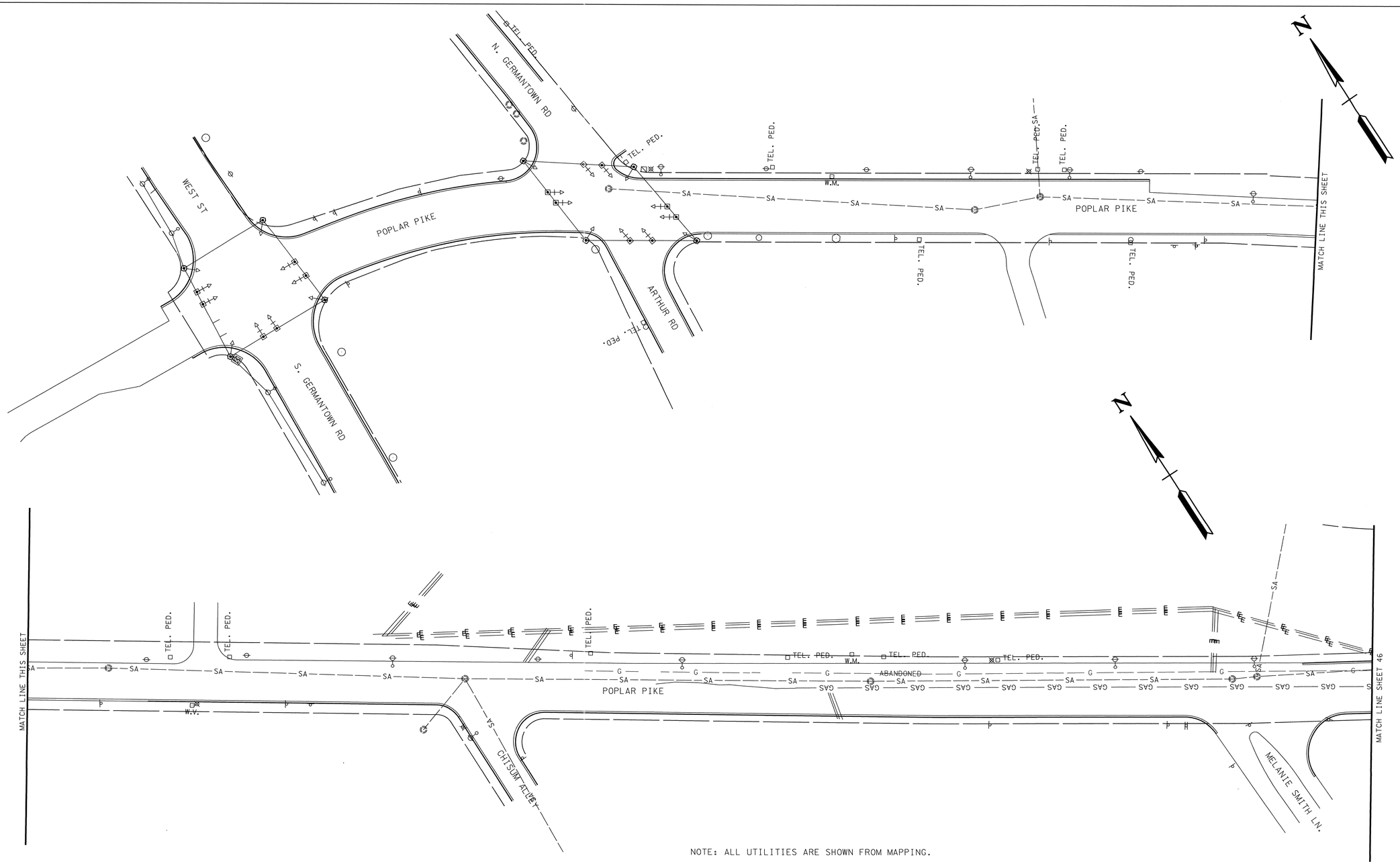
U-07

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
SIGNAL SYSTEM PROJECT SET #7
SHELBY COUNTY, TN

EXISTING UTILITIES

SURVEY: N/A DATE: N/A
DESIGNED BY: ACOT DATE: 1-14-14 BOOK: –
DRAWN BY: ACOT DATE: 1-14-14 SCALE: 1"=50'

JURISDICTION: SHEET 44 OF 52



NOTE: ALL UTILITIES ARE SHOWN FROM MAPPING.

REVISIONS		
ITEM No.	DESCRIPTION OF CHANGE	APPROVAL DATE

ENGINEERS SEAL

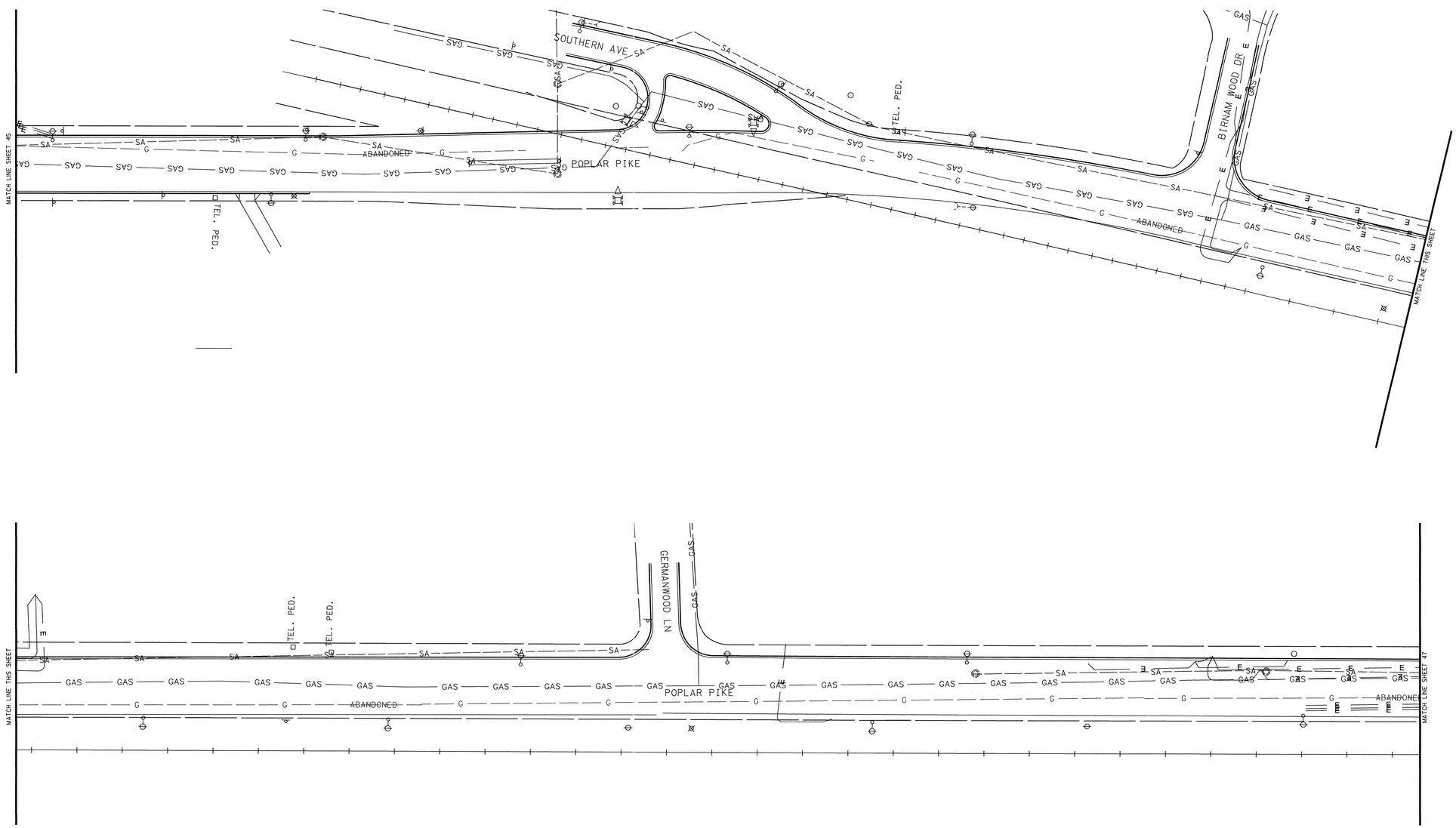
MICHAEL J. BRUGGE
REGISTERED ENGINEER
STATE OF TENNESSEE

PARSONS

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
INTERSECTION IMPROVEMENTS
SHELBY COUNTY, TN

EXISTING UTILITIES

SURVEY BY: N/A DATE: BOOK:
DRAFTED BY: rch DATE: 12/13 SCALE: 1"=50'
DESIGNED BY: KLA DATE: 12/13 CHECKED: DATE:



NOTE: ALL UTILITIES ARE SHOWN FROM MAPPING.

REVISIONS		
ITEM No.	DESCRIPTION OF CHANGE	APPROVAL DATE

ENGINEERS SEAL

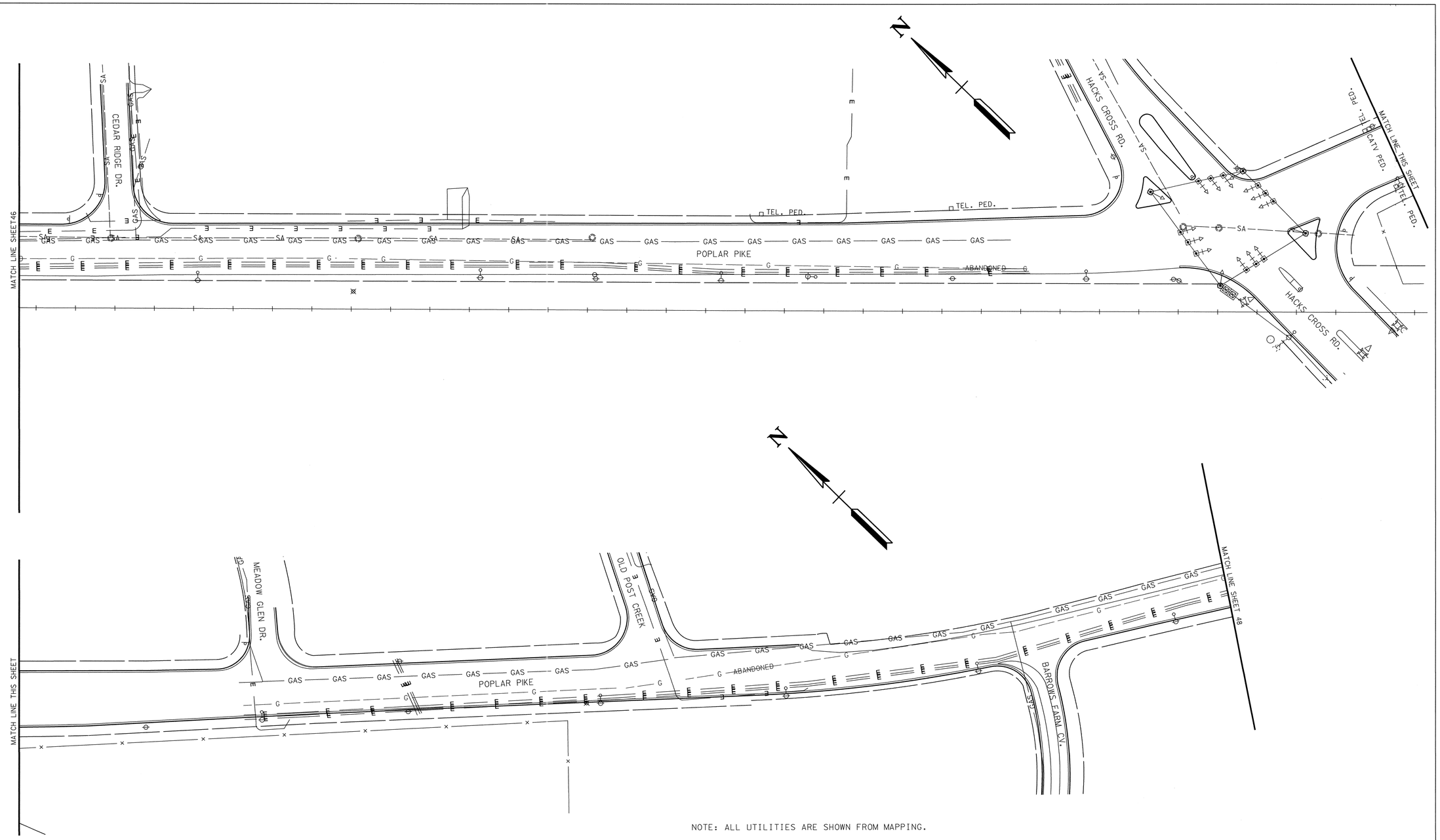
MICHAEL J. BRUGGE
REGISTERED PROFESSIONAL ENGINEER
No. 112877
STATE OF TENNESSEE
12/23/15

PARSONS

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
INTERSECTION IMPROVEMENTS
SHELBY COUNTY, TN

EXISTING UTILITIES

SURVEY BY: N/A DATE: BOOK:
DRAFTED BY: rch DATE: 12/13 SCALE: 1"=50'
DESIGNED BY: KLA DATE: 12/13 CHECKED: DATE:



NOTE: ALL UTILITIES ARE SHOWN FROM MAPPING.

REVISIONS		
ITEM No.	DESCRIPTION OF CHANGE	APPROVAL DATE

ENGINEERS SEAL

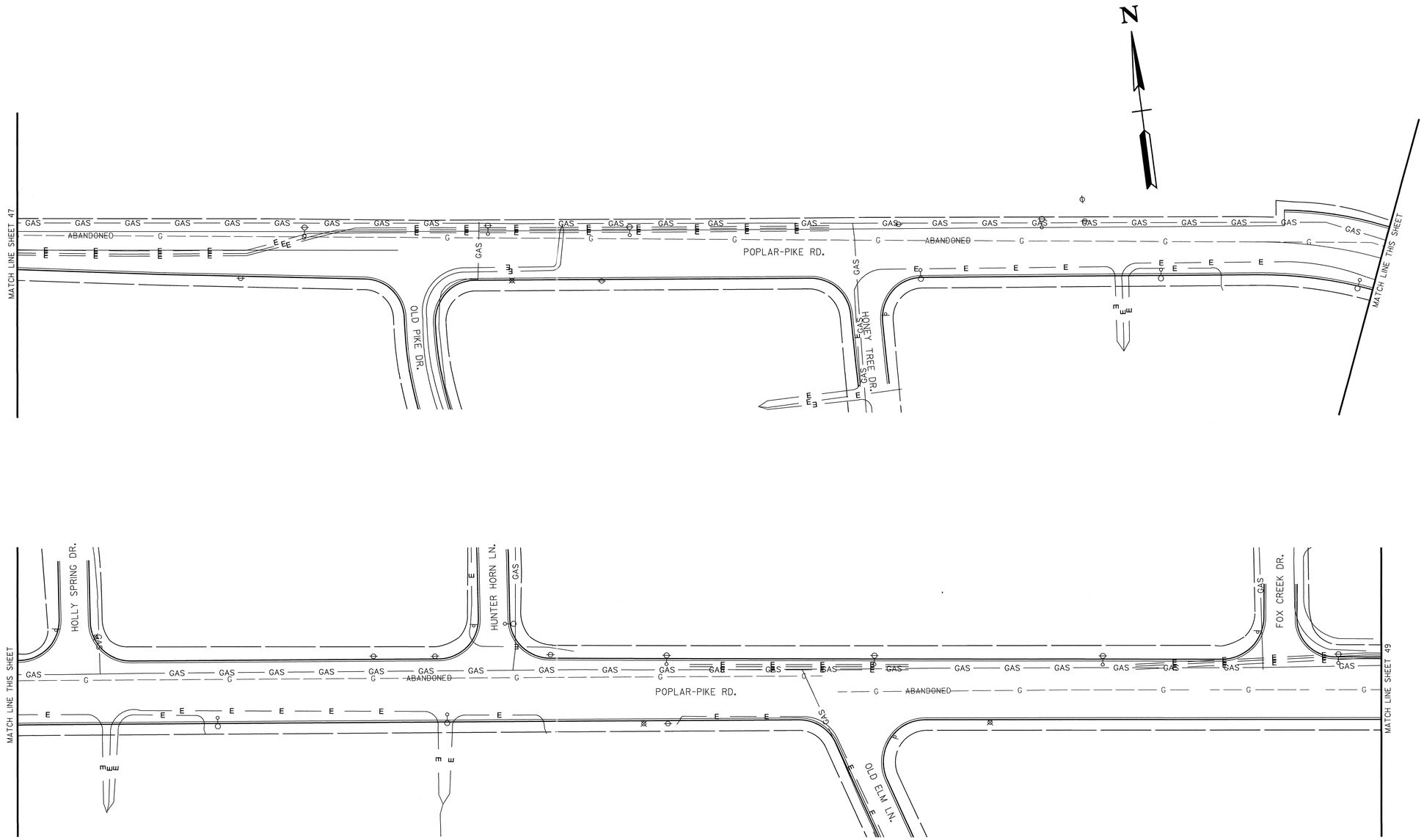
MICHAEL J. BRUGGE
STATE OF TENNESSEE
12/13/15

PARSONS

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
INTERSECTION IMPROVEMENTS
SHELBY COUNTY, TN

EXISTING UTILITIES

SURVEY BY: N/A DATE: _____ BOOK: _____
DRAFTED BY: rch DATE: 12/13 SCALE: 1"=50'
DESIGNED BY: KLA DATE: 12/13 CHECKED: _____ DATE: _____



NOTE: ALL UTILITIES ARE SHOWN FROM MAPPING.

REVISIONS		
ITEM No.	DESCRIPTION OF CHANGE	APPROVAL DATE

ENGINEERS SEAL

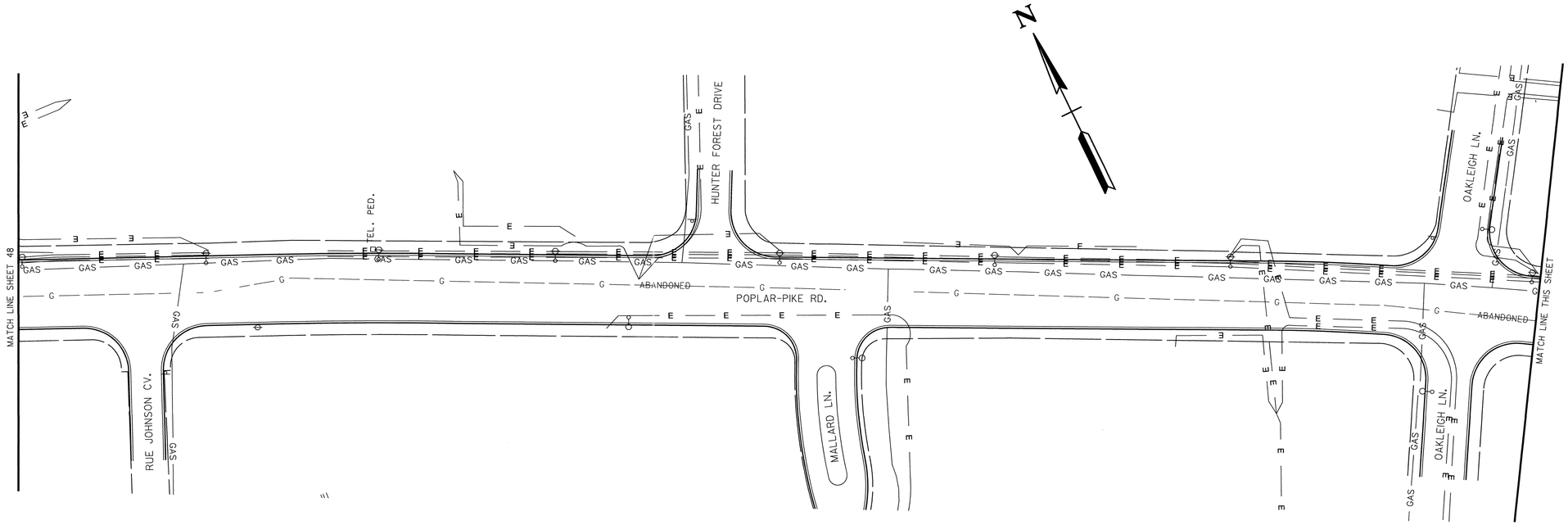
MICHAEL J. BRUDGE
REGISTERED ENGINEER
No. 112445
STATE OF TENNESSEE

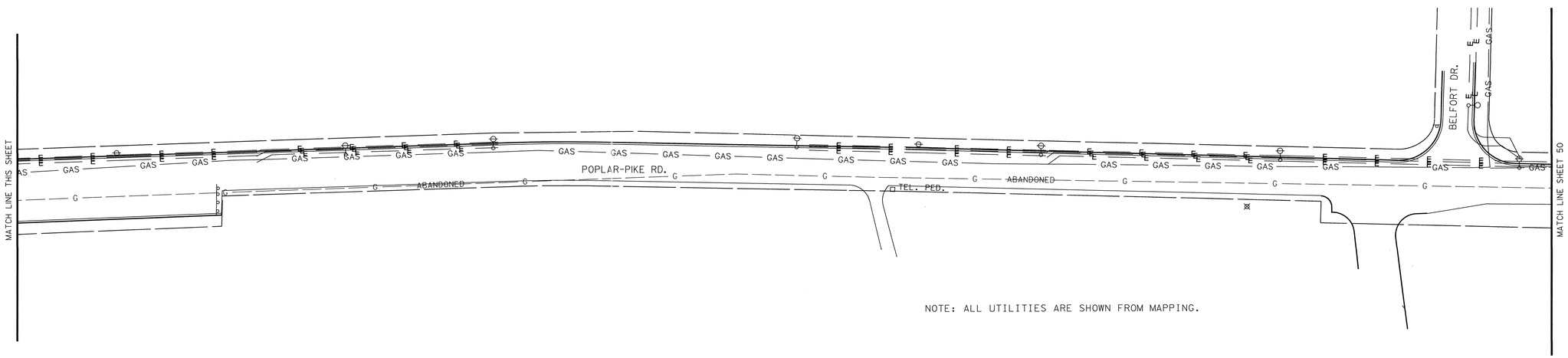
PARSONS

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
INTERSECTION IMPROVEMENTS
SHELBY COUNTY, TN

EXISTING UTILITIES

SURVEY BY: N/A DATE: BOOK:
DRAFTED BY: rch DATE: 12/13 SCALE: 1"=50'
DESIGNED BY: KLA DATE: 12/13 CHECKED: DATE:





NOTE: ALL UTILITIES ARE SHOWN FROM MAPPING.

REVISIONS		
ITEM No.	DESCRIPTION OF CHANGE	APPROVAL DATE

ENGINEERS SEAL

MICHAEL J. BRUDGE
REGISTERED ENGINEER
No. 112843
STATE OF TENNESSEE

12/23/15

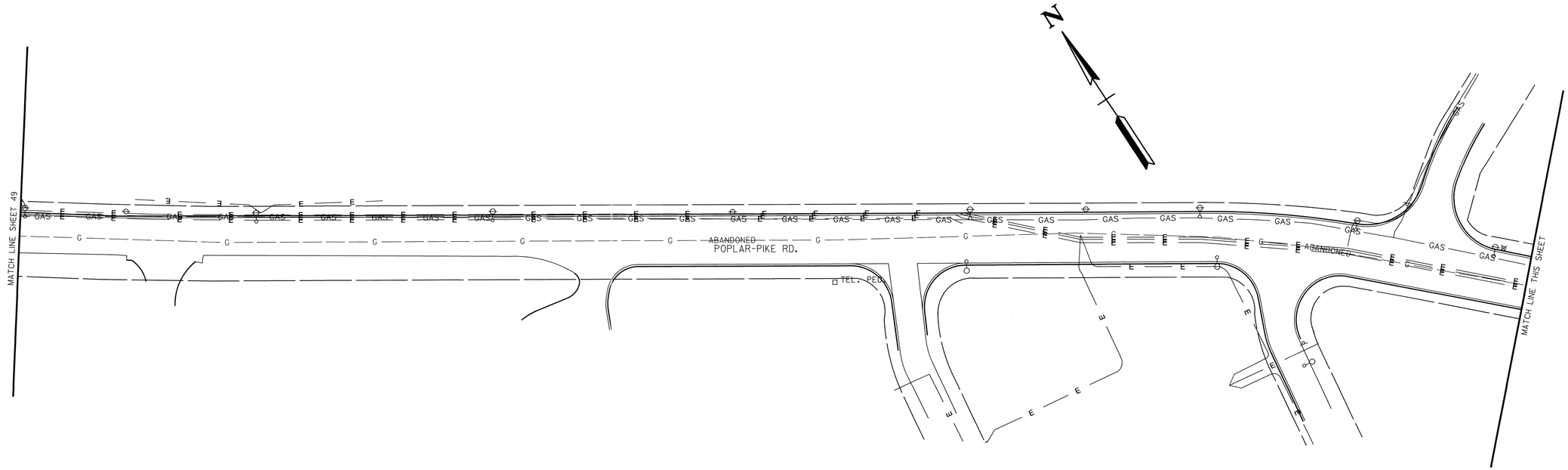
PARSONS

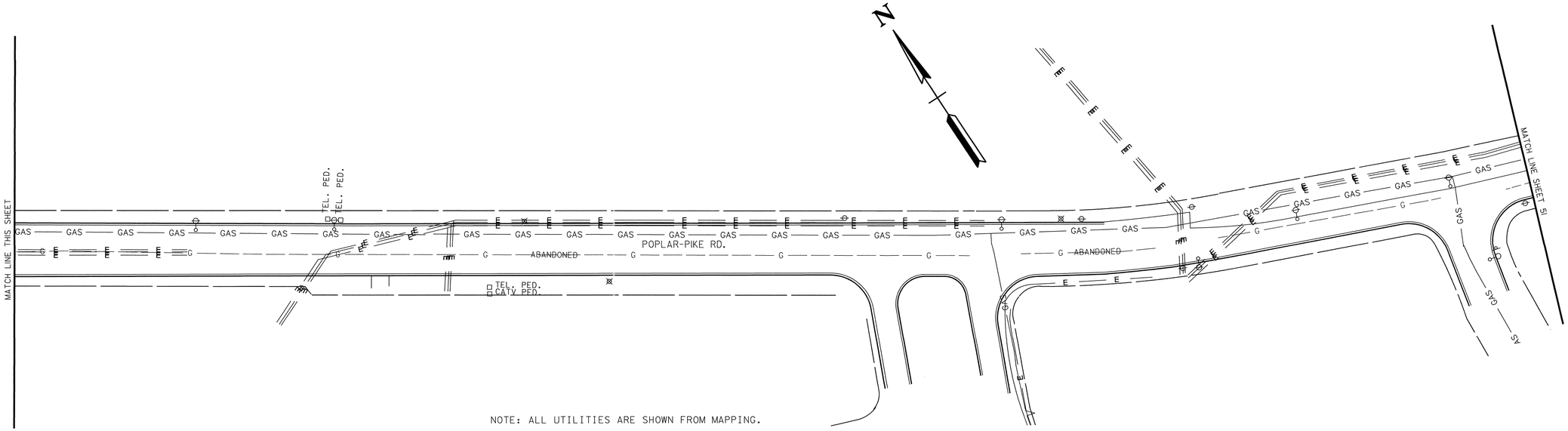
DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
INTERSECTION IMPROVEMENTS
SHELBY COUNTY, TN

EXISTING UTILITIES

SURVEY BY: N/A DATE: ____ BOOK: ____
DRAFTED BY: rch DATE: 12/13 SCALE: 1"=50'
DESIGNED BY: KLA DATE: 12/13 CHECKED: ____ DATE: ____

SHEET 49 OF 52





NOTE: ALL UTILITIES ARE SHOWN FROM MAPPING.

REVISIONS		
ITEM No.	DESCRIPTION OF CHANGE	APPROVAL DATE

ENGINEERS SEAL

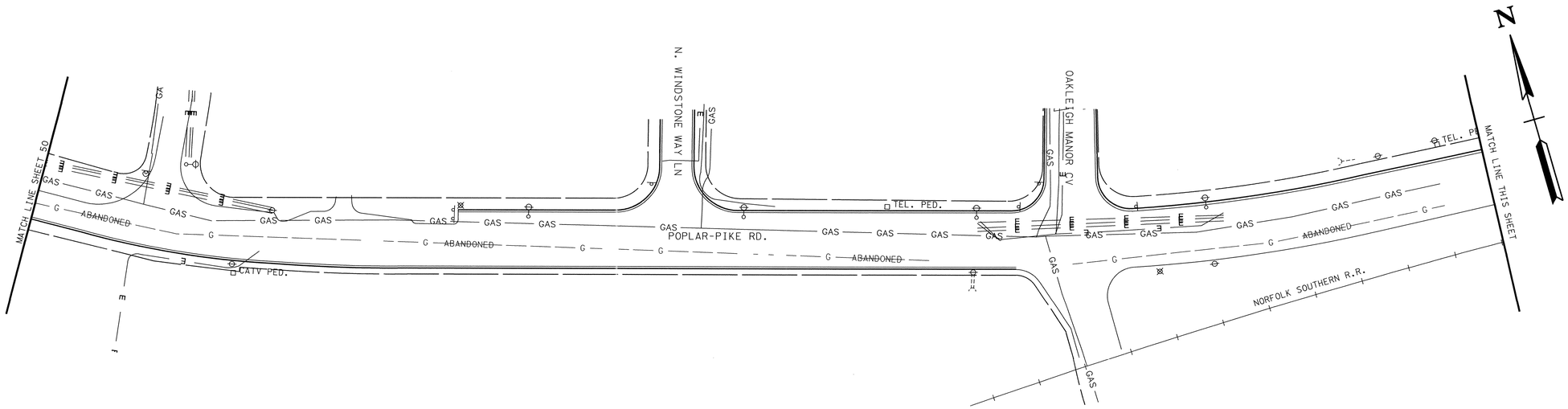
MICHAEL J. BRUGGE
REGISTERED ENGINEER
No. 15896
STATE OF TENNESSEE
12/27/13

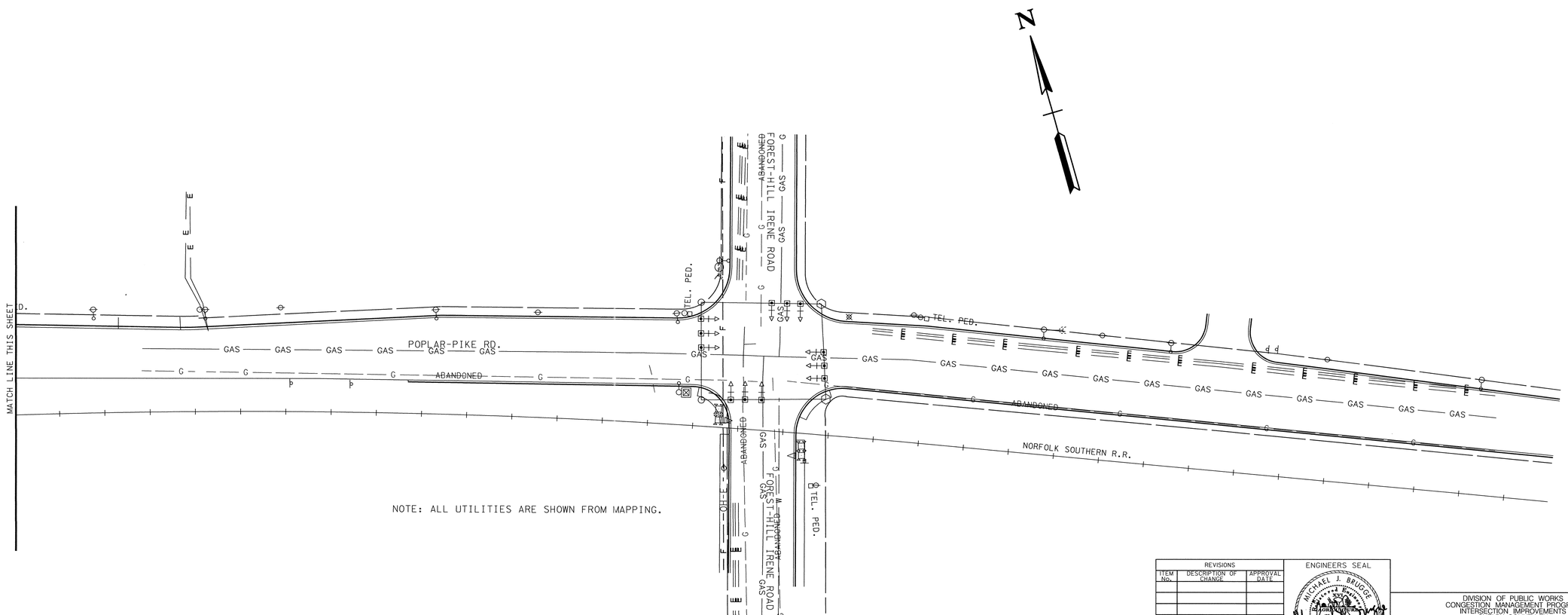
PARSONS

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
INTERSECTION IMPROVEMENTS
SHELBY COUNTY, TN

EXISTING UTILITIES

SURVEY BY: N/A DATE: _____ BOOK: _____
DRAFTED BY: rch DATE: 12/13 SCALE: 1"=50'
DESIGNED BY: KLA DATE: 12/13 CHECKED: _____ DATE: _____





NOTE: ALL UTILITIES ARE SHOWN FROM MAPPING.

REVISIONS		
ITEM No.	DESCRIPTION OF CHANGE	APPROVAL DATE

ENGINEERS SEAL

MICHAEL J. BRUGGE
STATE OF TENNESSEE

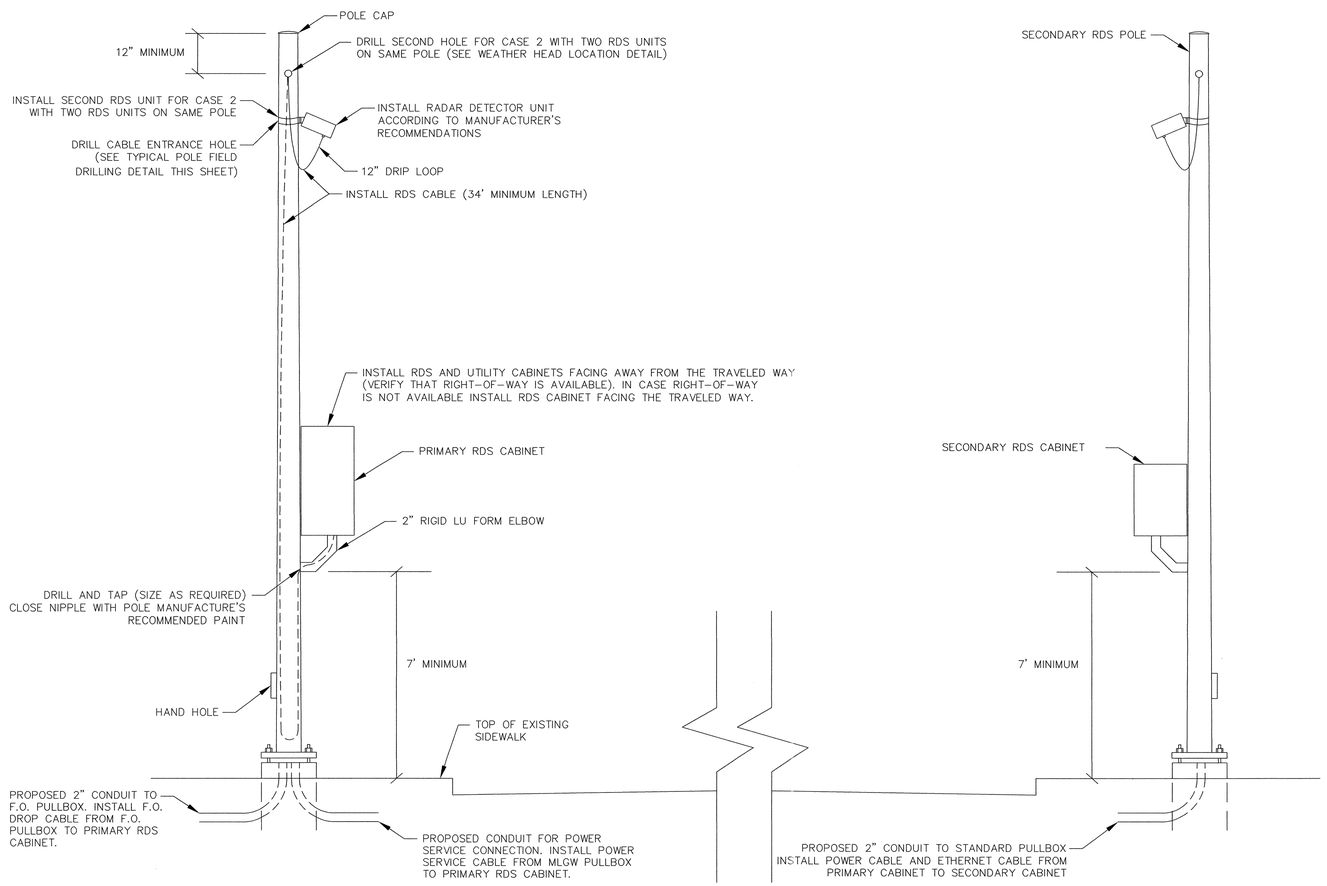
PARSONS

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
INTERSECTION IMPROVEMENTS
SHELBY COUNTY, TN

EXISTING UTILITIES

SURVEY BY: N/A DATE: BOOK:
DRAFTED BY: rch DATE: 12/13 SCALE: 1"=50'
DESIGNED BY: KLA DATE: 12/13 CHECKED: DATE:

SHEET 51 OF 52



PRIMARY POLE

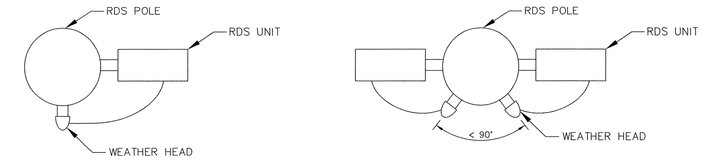
INSTALL POWER AND ETHERNET CABLES FROM SECONDARY RDS CABINET TO PRIMARY RDS CABINET (IF SECONDARY POLE AND RDS UNIT IS CALLED FOR ON PLAN SHEETS)

SECONDARY POLE

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

TYPICAL RADAR DETECTION SYSTEM (RDS)

ON NEW 20' ALUMINUM PEDESTAL POLE

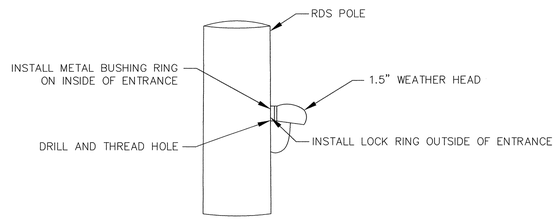


CASE 1: ONE RDS UNIT ON ONE POLE

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

NOTES:

1. SEE PROJECT SPECIAL PROVISIONS FOR MATERIAL AND INSTALLATION REQUIREMENTS FOR RDS UNIT, PRIMARY RDS CABINET, SECONDARY RDS CABINET AND RDS CABLE.

2. 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.

REVISIONS		
ITEM No.	DESCRIPTION OF CHANGE	APPROVAL DATE

ENGINEERS SEAL

MICHAEL J. BRUGGE — STATE OF TENNESSEE — 7-29-16

PARSONS

DIVISION OF PUBLIC WORKS
CONGESTION MANAGEMENT PROGRAM
INTERSECTION IMPROVEMENTS
SHELBY COUNTY, TN

RADAR SYSTEM DETAIL

SURVEY BY: N/A DATE: BOOK:
DRAFTED BY: KHA DATE: SCALE: N.T.S.
DESIGNED BY: KHA DATE: CHECKED: MJB DATE: 7-14