

DRAWING NAME: K:\WEM_TPTO\115087002 - Shelby County CMP 2\Design\Level 4 - Signal System\Bld Set 2\Plans\BldSet 2-04-Quantities.dwg Layout1 Oct 22, 2014 11:09AM BY: blaine.lynch

CONGESTION MANAGEMENT PROGRAM (SIGNAL SYSTEM SET #2)			
ITEM NO.	DESCRIPTION	UNIT	QUANTITY
105-01	CONSTRUCTION STAKES, LINES AND GRADES	L.S.	1
202-03	REMOVAL OF RIGID PAVEMENT, SIDEWALK, ETC.	S.Y.	315
209-05	SEDIMENT REMOVAL	C.Y.	10
209-08.02	TEMPORARY SILT FENCE (WITH BACKING)	L.F.	150
209-09.43	CURB INLET PROTECTION (TYPE 4)	EACH	66
701-01.01	CONCRETE SIDEWALK (4 ")	S.F.	2240
712-01	TRAFFIC CONTROL	L.S.	1
714-25.09	ELECTRICAL CONNECTION (FOR MLGW COST ONLY)	EACH	2
717-01	MOBILIZATION	L.S.	1
725-02.79	FIBER SPLICE ENCLOSURE (WEATHER PROOF)	EACH	16
725-03.09	ETHERNET SWITCH (TYPE A)	EACH	12
725-03.10	ETHERNET SWITCH (TYPE B)	EACH	1
725-03.28	RAILROAD FLAGMAN	DAY	20
725-21.22	TERMINAL SERVER (SERIAL DEVICE SERVER)	EACH	2
725-21.88	BLUETOOTH DETECTION SYSTEM	EACH	4
725-21.91	RADAR DETECTION SYSTEM	EACH	2
725-21.96	RDS COMM CABLE	EACH	2
725-24.01	CABINET (TYPE A)	EACH	2
725-24.11	ITS COMMUNICATIONS HUB (INCLUDING PATCH PANEL)	EACH	1
730-03.21	INSTALL PULL BOX (TYPE B)	EACH	15
730-03.23	INSTALL PULL BOX (FIBER OPTIC-TYPE A)	EACH	81
730-03.24	INSTALL PULL BOX (FIBER OPTIC-TYPE B)	EACH	16
730-03.31	FIBER DISTRIBUTION BOX	EACH	9
730-05.01	ELECTRICAL SERVICE CONNECTION	EACH	3
730-08.40	INTERCONNECT CABLE - FIBER OPTIC (36-FIBER, SINGLE MODE)	L.F.	72950
730-08.41	INTERCONNECT CABLE - FIBER OPTIC (DROP CABLE, 6-FIBER, SINGLE MODE)	L.F.	2075
730-11.11	RISER ASSEMBLY (2")	EACH	3
730-11.12	RISER ASSEMBLY (3")	EACH	2
730-12.02	CONDUIT 2" DIAMETER (PVC)	L.F.	522
730-12.03	CONDUIT 3" DIAMETER (PVC)	L.F.	72
730-12.13	CONDUIT 2" DIAMETER (JACK AND BORE)	L.F.	50698
730-12.14	CONDUIT 3" DIAMETER (JACK AND BORE)	L.F.	170
730-12.42	CURB MARKER (CURB MOUNTED CABLE MARKER)	EACH	445
730-13.02	VEHICLE DETECTOR (VIDEO)	EACH	4
730-13.03	VEHICLE DETECTOR (4-CHANNEL, RACK-MOUNT)	EACH	3
730-13.06	VEHICLE DETECTOR (OPTICALLY ACTIVATED PRIORITY CONTROL)	EACH	4
730-14.01	SHIELDED DETECTOR CABLE	L.F.	2180
730-14.02	SAW SLOT	L.F.	370
730-14.03	LOOP WIRE	L.F.	1110
730-15.13	MODIFY CABINET (BASE-MOUNT ENTRANCE)	EACH	4
730-15.32	CABINET (EIGHT PHASE BASE MOUNTED)	EACH	1
730-16.02	EIGHT PHASE ACTUATED CONTROLLER	EACH	3
730-18.01	MASTER CONTROLLER	EACH	1
730-23.30	PEDESTAL POLE (ALUMINUM, 20' LENGTH)	EACH	2
801-03	WATER (SEEDING & SODDING)	M.G.	2
803-01	SODDING (NEW SOD)	S.Y.	730
920-10.04	VIDEO DETECTION REMOTE MANAGEMENT CARD	EACH	9
920-16.07	RAILROAD PROTECTIVE INSURANCE	EACH	1

FOOTNOTES

- 1
- TO BE USED AS DIRECTED BY THE ENGINEER.
- 2
- SEE SUBSECTION 209.07 OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR MAINTENANCE REPLACEMENT.
- 3
- TO INCLUDE ALL MATERIALS NECESSARY TO PROVIDE TRAFFIC CONTROL IN ACCORDANCE WITH TDOT STANDARD DRAWINGS.
- 4
- ALLOWANCE TO COVER THE COST ASSOCIATED WITH POWER CONNECTION FOR THE THE TRAFFIC SIGNAL OR RDS UNIT FROM THE TRANSFORMER TO THE DEMACATION POINT.
- 5
- SEE THE LATEST "CITY OF MEMPHIS - STANDARD CONSTRUCTION SPECIFICATIONS" FOR TECHNICAL REQUIREMENTS.
- 6
- SEE CITY OF MEMPHIS STANDARD SPECIFICATIONS FOR "RUGGEDIZED ETHERNET CABINET SWITCH."
- 7
- SEE CITY OF MEMPHIS STANDARD SPECIFICATIONS FOR "RUGGEDIZED ETHERNET HUB SWITCH."
- 8
- SEE CITY OF MEMPHIS STANDARD SPECIFICATIONS FOR "SERIAL DEVICE SERVER."
- 9
- THE INSTALLATION AT EACH LOCATION SHALL INCLUDE BLUETOOTH SENSOR, NEMA ENCLOSURE, CONDUIT AND RISER FROM CONTROLLER CABINET TO SIGNAL POLE, CELLULAR COMMUNICATION SYSTEM, 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. THIS LUMP SUM ITEM ALSO INCLUDES THE BLUETOOTH SOFTWARE LICENSE FEE AND 24-MONTH BLUETOOTH CELLULAR SERVICE FEE FOR ALL INSTALLED UNITS. THE LUMP SUM PRICE INCLUDES ALL SOFTWARE AND HARDWARE INSTALLATION AND INTEGRATION WORK PROVIDE A FULLY FUNCTIONAL BLUETOOTH SYSTEM THAT ALLOWS THE CITY TO MONITOR AND RETRIEVE TRAVEL TIME AND SPEED DATA REMOTELY.
- 10
- SEE PROJECT SPECIAL PROVISIONS FOR RADAR DETECTION EQUIPMENT.
- 11
- SEE PROJECT SPECIAL PROVISIONS FOR UTILITY CABINETS. TYPE A CABINETS ARE FOR PRIMARY CABINETS, TYPE D CABINETS ARE FOR SECONDARY CABINETS.
- 12
- COST INCLUDES ALL LABOR AND MATERIALS (REPAIR LANDSCAPING, REMOVING EXISTING PULL BOX, AND OTHER MISCELLANEOUS MATERIALS) TO COMPLETE PULL BOX INSTALLATION.
- 13
- CONTRACTOR RESPONSIBLE FOR ALL COST ASSOCIATED WITH POWER CONNECTION FOR TRAFFIC SIGNAL OR RDS UNIT FROM THE DEMACATION POINT TO THE CABINET.
- 14
- 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.
- 15
- TO BE ITERIS VANTAGE SYSTEM OR APPROVED EQUIVALENT. INCLUDES DETECTION CAMERAS, PROCESSOR UNIT, CARD RACK, VIDEO REMOTE MANAGEMENT CARD, POWER SUPPLY UNIT, SERIES SURGE PROTECTION EQUIPMENT, 10" LCD COLOR MONITOR, MOUSE AND ALL OTHER CABLING, CONNECTIONS AND HARDWARE TO COMPLETE THE INSTALLATION OF A FULLY FUNCTIONAL VIDEO DETECTION SYSTEM.
- 16
- INSTALL ONE (1) DETECTOR CARD PER INTERSECTION APPROACH WHERE ADVANCE DETECTION LOOPS ARE TO BE REPAIRED OR REPLACED. SEE INTERSECTION LAYOUT SHEETS.
- 17
- TO BE GTT OPTICOM SYSTEM OR APPROVED EQUIVALENT. INCLUDES OPTICAL DETECTORS, CONFIRMATION LAMPS (PAR 90), POLE-MOUNTED BEACONS, FOUR-CHANNEL PHASE SELECTOR, CARD RACK (OPTICOM 760) AND ALL OTHER CABLING, CONNECTIONS AND HARDWARE TO COMPLETE THE INSTALLATION OF A FULLY-FUNCTIONAL PREEMPTION SYSTEM, INCLUDING FIELD FINE-TUNING.
- 18
- SEE INTERSECTION LAYOUT SHEET FOR CABINET MODIFICATION DETAILS.
- 19
- THE CONTROLLER CABINET SHALL BE AN EIGHT PHASE CABINET SIZE P CABINET.
- 20
- THE TRAFFIC SIGNAL CONTROLLER SHALL BE AN EAGLE EPAC M52 KEYBOARD UNIT OR APPROVED EQUIVALENT WITH NTCIP COMPLIANT SOFTWARE AND SEPAC, BUILT-IN ETHERNET PORT AND BUILT-IN STRETCH AND DELAY FEATURES FOR EACH PHASE. THE TRAFFIC CONTROLLER INSTALLATION ALONG WITH ALL AUXILIARY EQUIPMENT TO BE INSTALLED IN THE CABINET SHALL BE MANUFACTURED, SUPPLIED AND INSTALLED IN ACCORDANCE WITH THE LATEST CITY OF MEMPHIS TRAFFIC SIGNAL CONTROLLER AND CABINET SPECIFICATIONS. THE INSTALLATION SHALL HAVE A 12-CHANNEL MALFUNCTION MONITOR UNIT INSTALLED AS MODEL EDI SSM12LE-P. EACH NEW CONTROLLER CABINET SHALL INCLUDE 4 VEHICLE DETECTOR CARDS (4-CHANNEL) SEPARATE FROM THE QUANTITIES OF ITEM NUMBER 730-13.03.
- 21
- INCLUDES CONCRETE FOUNDATION OR SCREW DOWN ANCHOR FOUNDATION AS APPROVED BY THE ENGINEER.
- 22
- TO BE USED FOR THE INSTALLATION OF PULL BOXES.

REVISIONS		
DATE	DESCRIPTIONS	APPROVED
10/2014	ADDED ITEMS AND FOOTNOTES	

DIVISION OF PUBLIC WORKS

CONGESTION MANAGEMENT PROGRAM

SIGNAL SYSTEM PROJECT SET #2

SHELBY COUNTY, TN.

QUANTITIES

SURVEY: N/A

DRAFTED: KHA

DESIGNED: KHA

DATE: N/A

DATE: 08/12

DATE: 08/12

BOOK: N/A

SCALE: N.T.S.

CHECKED: DAS

DATE: 09/14

DATE: 09/14

DATE: 09/14

JURISDICTION: _____

SHEET 4 OF 68

Kimley»Horn