## **FOOTNOTES**

- (1) FOR TREE TRIMMING AS DIRECTED BY THE ENGINEER.
- (2) TO BE USED AS DIRECTED BY THE ENGINEER
- 3 SEE SUBSECTION 209.07 OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR MAINTENANCE REPLACEMENT.
- TO INCLUDE ALL NECESSARY ITEMS TO PROVIDE TRAFFIC CONTROL IN ACCORDANCE WITH TDOT STANDARD DRAWINGS T-WZ-12, T-WZ-51, AND T-WZ-52.
- 4 ALLOWANCE TO COVER THE COST ASSOCIATED WITH POWER CONNECTION FOR THE TRAFFIC SIGNAL OR RDS
- 6 SEE THE LATEST "CITY OF MEMPHIS STANDARD CONSTRUCTION SPECIFICATIONS" FOR TECHNICAL REQUIREMENTS.
- 7) SEE CITY OF MEMPHIS STANDARD SPECIFICATIONS FOR "RUGGEDIZED ETHERNET CABINET SWITCH."
- (8) SEE CITY OF MEMPHIS STANDARD SPECIFICATIONS FOR "SERIAL DEVICE SERVER."
- 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 HARWARE 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.
- (1) SEE PROJECT SPECIAL PROVISIONS FOR UTILITY CABINETS. TYPE A CABINETS ARE FOR PRIMARY CABINETS. TYPE D CABINETS ARE FOR SECONDARY CABINETS. TYPE D CABINET TO INCLUDE ALL NECESSARY CABLING TO CONNECT TO TYPE A CABINET.
- (2) 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 DEMARCATION POINT TO THE CABINET.
- 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 INSTALLED ON EXISTING SIGNAL POLE (SEE IL SHEETS AS NOTED ON LEGEND NOTE 24)
- (6) SEE CONSTRUCTION DETAIL SHEETS FOR BRIDGE ATTACHMENT DETAILS. ITEM TO INCLUDE ALL MATERIALS NESSESARY TO ATTACH CONDUIT TO BRIDGE.
- TO BE ITERIS VANTAGE SYSTEM OR APPROVED EQUIVALENT. INCLUDES DETECTION CAMERAS, PROCESSOR UNIT, CARD RACK, POWER SUPPLY UNIT, 10" COLOR LCD MONITOR, VIDEO REMOTE MANAGEMENT CARD, MOUSE AND ALL OTHER CABLING, CONNECTIONS AND HARDWARE TO COMPLETE THE INSTALLATION OF A FULL Y FUNCTIONAL VIDEO DETECTION SYSTEM
- (18) INSTALL ONE (1) DETECTOR CARD PER INTERSECTION APPROACH WHERE ADVANCE DETECTION LOOPS ARE TO BE REPAIRED OR REPLACED. SEE INTERSECTION LAYOUT SHEETS.
- TO BE GTT OPTICOM SYSTEM OR APPROVED EQUIVALENT. INCLUDES OPTICAL DETECTORS, CONFIRMATION LAMPS (PAR 90), POLE-MOUNTED BEACONS, FOUR-CHANNEL PHASE SELECTOR, CARD RACK (OPTICOM 760) AND ALL CABLING, CONNECTIONS AND HARDWARE TO COMPLETE THE INSTALLATION OF A FULLY-FUNCTIONAL PREEMPTION SYSTEM, INCLUDING FIELD FINE-TUNING.
- (20) SEE INTERSECTION LAYOUT SHEET FOR CABINET MODIFICATION DETAILS.
- (21) THE CONTROLLER CABINET SHALL BE AN EIGHT PHASE CABINET SIZE P CABINET. CABINET SHALL INCLUDE 1 VEHICLE DETECTOR CARD (4-CHANNEL) IN ADDITION TO THE QUANTITIES OF ITEM NUMBER 730-13.02.
- THE TRAFFIC SIGNAL CONTROLLER SHALL BE AN EAGLE EPAC M52 KEYBOARD UNIT OR APPROVED EQUIVALENT WITH BUILT-IN PORT 3 FIBER MODEM (SINGLE MODE), 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.
- (23) INCLUDES CONCRETE FOUNDATION OR SCREW DOWN ANCHOR FOUNDATION AS APPROVED BY THE ENGINEER.
- 24) SEE TYPICAL COUNT ZONE DETAIL FOR ZONE LOCATION SETUP.
- (25) INCLUDES CONCRETE USED TO REPLACE PANELS FOR PULL BOXES. ITEM TO INCLUDE REMOVAL OF CONCRETE SIDEWALK.