

TRAFFIC CONTROL GENERAL NOTES

MAINTENANCE OF TRAFFIC SIGNAL / FLASHER INSTALLATIONS

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING TRAFFIC SIGNAL INSTALLATIONS WITHIN THE PROJECT UNDER THE FOLLOWING CONDITIONS:

- A) NEW SIGNAL INSTALLATIONS OR DEVICES, INSTALLED BY THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF THESE FROM THE TIME OF INSTALLATION UNTIL THE WORK IS ACCEPTED.
- B) EXISTING SIGNAL INSTALLATIONS OR DEVICES, INSTALLED OR MODIFIED BY THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF THESE FROM THE TIME OF INITIAL INSTALLATION OR MODIFICATION UNTIL THE WORK IS ACCEPTED.

THE CONTRACTOR SHALL CORRECT AS QUICKLY AS POSSIBLE ALL OUTAGES OR MALFUNCTIONS. HE SHALL PROVIDE THE CITY AND THE ENGINEER SUCH ADDRESSES AND PHONE NUMBERS WHERE HIS MAINTENANCE FORCES CAN BE CONTACTED. THE CONTRACTOR SHALL PROVIDE ONE OR MORE PERSONS TO RECEIVE ALL CALLS AND DISPATCH THE NECESSARY MAINTENANCE FORCES TO CORRECT OUTAGES. SUCH A PERSON OR PERSONS MAY BE USED TO PERFORM OTHER DUTIES AS LONG AS PROMPT ATTENTION IS GIVEN TO THESE CALLS AND A PERSON IS READILY AVAILABLE CONTINUOUSLY 24 HOURS A DAY, 7 DAYS A WEEK. ALL LAMP OUTAGES, CABLE OUTAGES, ELECTRICAL FAILURES, EQUIPMENT MALFUNCTIONS AND MISALIGNED SIGNAL HEADS SHALL BE CORRECTED TO THE SATISFACTION OF THE ENGINEER WITH THE SIGNAL BACK TO SERVICE WITHIN FOUR (4) HOURS AFTER THE CONTRACTOR HAS BEEN NOTIFIED OF THE OUTAGE.

IN THE EVENT NEW SIGNALS ARE DAMAGED PRIOR TO ACCEPTANCE, ALL DAMAGED EQUIPMENT SHALL BE REPLACED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER. THE SIGNAL SHALL BE BACK IN SERVICE WITHIN EIGHT (8) HOURS AFTER THE CONTRACTOR'S NOTIFICATION OF THE OUTAGE OR MALFUNCTION.

IF POLES AND/OR CONTROL EQUIPMENT ARE DAMAGED AND MUST BE REPLACED, THE CONTRACTOR SHALL MAKE TEMPORARY REPAIRS AS NECESSARY TO BRING THE SIGNAL BACK INTO FULL OPERATION WITHIN THE ALLOWED 8-HOUR PERIOD, AND SHALL MAKE PERMANENT REPAIRS OR REPLACEMENT AS SOON THEREAFTER AS POSSIBLE.

NONE OF THE ABOVE SHALL BE CONSTRUED AS COLLECTIVE OR CONSECUTIVE OUTAGE TIME PERIODS AT ANY ONE LOCATION. THAT IS, WHERE MORE THAN ONE OUTAGE OCCURS AT ANY ONE LOCATION, THEN THE ALLOTTED TIME LIMIT SHALL BE FOR THE WORST SINGLE OUTAGE.

WHERE OUTAGES ARE THE DIRECT RESULT OF A VEHICLE ACCIDENT, THE RESPONSE OF THE CONTRACTOR SHALL BE AS OUTLINED ABOVE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COLLECTION OF ANY COMPENSATION FOR THIS WORK FROM THOSE PARTIES RESPONSIBLE FOR THE DAMAGE.

WHERE THE CONTRACTOR HAS FAILED TO OR CANNOT RESPOND TO AN OUTAGE OR SIGNAL EQUIPMENT MALFUNCTION AT THESE LOCATIONS WITHIN HIS RESPONSIBILITY, WITHIN PERIODS AS OUTLINED ABOVE, THE ENGINEER MAY INVOKE THE PROVISIONS OF SECTION 105.15 AND ANY SUBSEQUENT BILLINGS TO THE STATE OR THE CITY OF MENTOR FOR POLICE SERVICE AND MAINTENANCE SERVICES BY CITY FORCES SHALL BE DEDUCTED FROM MONEYS DUE OR TO BECOME DUE THE CONTRACTOR IN ACCORDANCE WITH PROVISIONS OF SECTION 105.15.

THE CONTRACTOR SHALL PROVIDE THE MAINTENANCE SERVICE ENTIRELY WITH HIS FORCES OR HE MAY CHOOSE TO ENTER INTO A COOPERATIVE UNDERSTANDING WITH THE LOCAL MAINTAINING AGENCY TO PROVIDE THE MAINTENANCE. THE CONTRACTOR SHALL INFORM THE ENGINEER, IN WRITING, OF THE MAINTENANCE METHOD SELECTED.

ANY VEHICULAR TRAFFIC SIGNAL HEAD, EITHER NEW OR EXISTING, WHICH WILL BE OUT OF OPERATION SHALL BE COVERED IN THE MANNER DESCRIBED IN SECTION 632.24.

THIS ITEM SHALL BE CONSIDERED A SUBSIDIARY WORK ITEM AND THE COST SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR THE VARIOUS ITEMS MAKING UP THE SIGNAL SYSTEM.

ITEM 625 - TRENCH IN PAVED AREA, TYPE B, AS PER PLAN

THIS ITEM SHALL INCLUDE ANY TRENCH NECESSARY FOR THE INSTALLATION OF CONDUIT AND WIRE FOR THE TRAFFIC SIGNALS. TRENCH IN PAVEMENTS OF ANY THICKNESS SHALL ALSO BE INCLUDED IN THIS ITEM. ALL TRENCHING SHALL BE DONE AND CONDUIT INSTALLED PRIOR TO FINAL PAVEMENT AND/OR SIDEWALK BEING INSTALLED. ANY SIDEWALK SLAB OR DRIVE APRON DAMAGED BY TRENCHING OPERATIONS SHALL BE REMOVED AND REPLACED IN KIND. SIDEWALK AND DRIVE APRON REPLACEMENT SHALL EXTEND TO THE NEAREST ORIGINAL JOINT. PAVEMENT SHALL BE SAW CUT AND REPLACED AT A MINIMUM OF 1' TO EACH SIDE OF TRENCH CENTERLINE. ALL DAMAGED PAVEMENT SHALL BE REPLACED. ALL RESTORATION (INCLUDING PAVEMENT, DRIVE APRONS, CURB RAMPS AND CONCRETE, BRICK, OR SANDSTONE SIDEWALK) SHALL BE INCLUDED IN THIS ITEM AND AS INDICATED ON RESTORATION OF DISTURBED AREAS PLAN NOTE.

ITEM 630 - SIGN HANGER ASSEMBLY, MAST ARM, AS PER PLAN

SIGNS MOUNTED ON PROPOSED TRAFFIC SIGNAL MAST ARMS SHALL BE RIGIDLY ATTACHED TO THE ARM AND CENTERED VERTICALLY ON THE ARM. THE CONTRACTOR MAY USE THE METHOD OF ATTACHMENT SHOWN IN STANDARD CONSTRUCTION DRAWING TC-16.20 OR ANOTHER METHOD OF RIGID ATTACHMENT AS APPROVED BY THE ENGINEER.

THE CONTRACTOR SHALL INSURE THE SIGN FACE IS MOUNTED PERPENDICULAR (90 DEGREES) TO THE DIRECTION OF TRAFFIC.

PAYMENT FOR ITEM 630 - SIGN HANGER ASSEMBLY, MAST ARM, AS PER PLAN SHALL BE MADE AT THE CONTRACT UNIT PRICE BID FOR EACH. PAYMENT SHALL BE FULL COMPENSATION FOR ALL MATERIALS, LABOR, TOOLS, EQUIPMENT AND ALL PARTS NECESSARY TO ERECT ONE INDIVIDUAL SIGN.

ITEM 632 - SIGNAL CABLE MISC.: PREEMPTION DETECTOR CABLE

PREEMPTION DETECTOR CABLE SHALL CONFORM TO O.D.O.T. SPECIFICATION 632. THE CABLE SHALL BE APPROVED FOR BOTH OVERHEAD AND UNDERGROUND USE. THE JACKET SHALL BE HOMOGENOUS IN CHARACTER AND SHALL BE SO COMPOUNDED THAT IT WILL CONFORM TO THE FOLLOWING REQUIREMENTS WHEN TESTED IN ACCORDANCE WITH THE PROCEDURE AS GIVEN IN A.S.T.M. DESIGNATION D-470, LATEST REVISION.

PAYMENT FOR SIGNAL CABLE MISC.: PREEMPTION DETECTOR CABLE, WILL BE MADE AT THE CONTRACT PRICE FOR EACH UNIT IN PLACE, COMPLETELY INSTALLED IN THE LOCATION SHOWN IN THE PLANS, WIRED, TESTED AND ACCEPTED.

ITEM 632 - SIGNAL CABLE MISC.: PREEMPTION DETECTOR CABLE, ALTERNATE BID

PREEMPTION DETECTOR CABLE SHALL CONFORM TO O.D.O.T. SPECIFICATION 632. THE CABLE SHALL BE MODEL 138 DETECTOR CABLE OR AN APPROVED EQUAL. THE CABLE SHALL BE APPROVED FOR BOTH OVERHEAD AND UNDERGROUND USE. THE JACKET SHALL BE HOMOGENOUS IN CHARACTER AND SHALL BE SO COMPOUNDED THAT IT WILL CONFORM TO THE FOLLOWING REQUIREMENTS WHEN TESTED IN ACCORDANCE WITH THE PROCEDURE AS GIVEN IN A.S.T.M. DESIGNATION D-470, LATEST REVISION.

PAYMENT FOR SIGNAL CABLE MISC.: PREEMPTION DETECTOR CABLE, WILL BE MADE AT THE CONTRACT PRICE FOR EACH UNIT IN PLACE, COMPLETELY INSTALLED IN THE LOCATION SHOWN IN THE PLANS, WIRED, TESTED AND ACCEPTED.

POWER SUPPLY FOR TRAFFIC SIGNALS

THE CONTRACTOR SHALL OBTAIN ELECTRIC POWER FROM THE CLEVELAND ELECTRIC ILLUMINATING COMPANY AT THE LOCATION INDICATED ON THE SIGNAL PLAN. POWER SUPPLIED SHALL BE 120 VOLTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH OBTAINING POWER.

ITEM 632. POWER SERVICE, 30 AMP, AS PER PLAN

POWER SERVICE SHALL CONSIST OF EQUIPMENT TO PROVIDE A POLE ATTACHED WIRING RACEWAY AND DISCONNECT SWITCH FOR USE WITH POWER CABLE ROUTED FROM THE SERVICE ENTRANCE TO THE CONTROLLER CABINET. THE POWER SERVICE INSTALLATION SHALL INCLUDE A WEATHER HEAD, CONDUIT AND FITTINGS, A DISCONNECT SWITCH WITH ENCLOSURE, AND ATTACHMENT CLAMPS. THE 1" CONDUIT RISER SHALL TERMINATE WITH A 1" WATERTIGHT HUB AT THE DISCONNECT SWITCH. THE CONDUIT SHALL BE BENT AWAY FROM THE POLE AT THE TOP AND BOTTOM OF THE RISER TO ALLOW THE CONDUIT TO ENTER STRAIGHT INTO THE ENCLOSURE AND PROVIDE SPACE FOR THE WEATHER HEAD WHEN THE RISER IS PULLED TIGHT AGAINST THE POLE. ALL CONDUIT CONNECTIONS AND DISCONNECT SHALL BE MADE WATERTIGHT BY THE USE OF CONDUIT HUBS LISTED ON THE ENCLOSURE UL LABEL. THE DISCONNECT (2 POLE, 3 WIRE) SHALL HAVE ITS NEUTRAL BAR GROUNDED DIRECTLY TO THE POLE GROUNDING LUG.

FROM THE BOTTOM OF THE DISCONNECT: SEE NOTE 1 & 2

NOTE 1: (STEEL POLE) A 1 1/2" CONDUIT "LB" SHALL GO DIRECTLY INTO THE STEEL POLE. A 2" CONDUIT SHALL BE PROVIDED FROM THE POLE FOUNDATION UNDERGROUND AND TRAVEL DIRECTLY INTO THE CABINET FOUNDATION.

NOTE 2: (WOOD POLE) A 2" CONDUIT SHALL RUN UNDERGROUND AND TRAVEL DIRECTLY INTO THE CONTROLLER FOUNDATION. CONDUIT STRAPS SHALL HOLD THE CONDUIT TIGHTLY AGAINST THE WOOD POLE.

DISCONNECT: NEMA TYPE 4, 240 VOLT, 30 AMP FUSED, UL LISTED, STAINLESS STEEL WATERTIGHT, 2 POLE, 3 WIRE W/ NEUTRAL KIT. LOCKABLE FROM THE SIDE AND BOTTOM. LOCKABLE IN BOTH "ON" AND "OFF" POSITIONS.

POWER WIRE: # 8 RHH/RHW, STRANDED COPPER, 3 CONDUCTORS

ITEM 632. PEDESTRIAN PUSHBUTTON, AS PER PLAN

PEDESTRIAN PUSHBUTTONS SHALL BE CAST ALUMINUM WITH ADA ("MUSHROOM CAPPED") PUSHBUTTON, PEDESTRIAN SYMBOL AND INDICATOR LIGHT. THE CITY ENGINEER WILL FIELD LOCATE THE PEDESTRIAN PUSHBUTTON FOR THE CONTRACTOR. ALL HOLES FOR PEDESTRIAN PUSHBUTTONS SHALL BE FIELD DRILLED AFTER BEING LOCATED BY THE ENGINEER.

THE MAXIMUM FORCE REQUIRED TO OPERATE THE PUSHBUTTON SHALL BE 5 POUNDS PER FOOT (22.2N)

THE PUSHBUTTON SHALL BE RAISED OR FLUSH AND SHALL BE A MINIMUM OF 2 INCHES (50mm) AT ITS SMALLEST DIMENSION.

ITEM 632 - REMOVAL OF TRAFFIC SIGNAL INSTALLATION, AS PER PLAN

THIS WORK SHALL CONSIST OF REMOVAL OF THE EXISTING TRAFFIC SIGNAL EQUIPMENT, AS DESIGNATED ON THE PLANS, WHICH MAY INCLUDE SIGNAL HEADS, SIGNAL AND POWER CABLE, INTERCONNECT CABLE, POLES, PULL BOXES, CONTROLLER, CABINET AND ALL FOUNDATIONS TO BE ABANDONED. THE CONTRACTOR SHALL STORE MATERIALS ON SITE AND ARRANGE WITH THE CITY OF MENTOR PUBLIC WORKS DEPARTMENT FOR THE CONTRACTOR'S DELIVERY OF THE POLES, PULL BOXES, CONTROLLER, CABINET, SIGNAL HEADS AND INTERCONNECT CABLE TO THE DESTINATION OF THE CITY'S CHOICE. SIGNAL CABLE, MESSENGER WIRE AND ANY ITEMS THE CITY DOES NOT WISH TO RETAIN SHALL BE DISPOSED OF BY THE CONTRACTOR.

(PLOT 2)

DATE: 10-28-01 - H:\CT\97125\SDSK\TRAFFIC\97125TINI.DWG - PLOT SCALE = 1 : 1

CALCULATED
T.J.F. & T.E.B.
CHECKED
I.M.H.

S.R. 615
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