

TRAFFIC SIGNAL NOTES

A. NEW EQUIPMENT

- ALL SIGNAL HEADS SHALL BE RIGIDLY MOUNTED ON CANTILEVER ARMS AND SHALL BE BLACK POLYCARBONATE. ALL LENSES SHALL BE LED'S WITH A VISIBLE BEAM SPREAD OF EIGHTY DEGREES OFF-AXIS. ALL SIGNAL HEADS SHALL INCLUDE DISCONNECT HANGERS (WHERE NEEDED), AND BACKPLATES SHALL BE INCLUDED AS SPECIFIED ON THE PLANS.
- THE CONTROLLER SHALL BE ECONOLITE BRAND, MODEL ASC/3-2100 (TS-2 TYPE 2). THE GROUND MOUNTED CABINET SHALL BE TYPE P44 WITH A BASE EXTENSION.
- THE FIRE PREEMPTION SYSTEM SHALL BE A STROBECOM II 2140 SYSTEM, MANUFACTURED BY TOMAR ELECTRONICS, INC., OR APPROVED EQUAL, OPERATING IN THE ENCODED MODE. THE SYSTEM SHALL INCLUDE ALL NECESSARY INTERFACE BOARDS, WIRING, DETECTORS, AND CONFIRMATION LIGHTS. EMITTERS AND OTHER VEHICLE MOUNTED EQUIPMENT TO BE PURCHASED SEPARATELY BY THE TOWN.
- A DISCONNECT BREAKER FOR EACH CIRCUIT SHALL BE INSTALLED IN A RAINPROOF (NEMA 3R) LOCKED CABINET ON A STANCHION. CONSIDER USING OPTION #2 ON STD. E-175.
- THE CABINET SHALL BE EQUIPPED WITH A PULL-OUT SHELF CAPABLE OF SUPPORTING A LAPTOP COMPUTER.

B. SIGNAL OPERATION

- SWITCH-OVER FROM EXISTING TO REPLACEMENT SIGNALS SHALL NOT BE DONE DURING PEAK TRAFFIC PERIODS. UNIFORMED TRAFFIC OFFICERS SHALL CONTROL TRAFFIC DURING SWITCH-OVER.
- THE SIGNAL SHALL DWELL ON THE VT 15 MOVEMENT (PHASES 8 & 5 OVERLAP).
- THE VT 15 PHASE (8 & 5 OVERLAP) SHALL BE USED FOR THE START-UP PHASE FOLLOWING A FLASH OPERATION. ALL PHASES WILL START ON ALL RED INDICATION FOR FIVE SECONDS.

C. JUNCTION /PULL BOXES

- JUNCTION/PULL BOXES ARE DETAILED ON STD E-173. MINIMUM JUNCTION BOX SIZE SHALL BE 18' X 12', OR LARGER AS REQUIRED BY THE ELECTRICAL CODE.
- THE LOGO ON PULLBOXES/JUNCTION BOXES SHALL BE "SIGNAL".

D. TRAFFIC SIGNAL CONDUIT

- ALL TRAFFIC SIGNAL CONDUIT SHALL BE PVC.
- MINIMUM CONDUIT SIZE SHALL BE:
1-1/2" FOR INTERCONNECT CABLE AND LOOP WIRE.
2" FOR SHIELDED LEAD-IN CABLE, SIGNAL CABLE, POWER CABLE AND ALL OTHERS, UNLESS SPECIFIED OTHERWISE ON THE PLANS.
SEE CHART ON STD E-172 FOR DESIGN VALUES.
- THE OPEN CUT FOR BITUMINOUS CONCRETE PAVEMENT REQUIRED TO PLACE THE 6" PVC ELECTRICAL CONDUIT SLEEVE SHALL BE PERFORMED USING THE VERMONT STANDARD SHEET D-20. A SAWCUT SHALL BE PERFORMED IN THE EXISTING PAVEMENT SURFACE PRIOR TO EXCAVATION. PAYMENT WILL BE CONSIDERED INCIDENTAL TO ITEM 406.25. THE BITUMINOUS CONCRETE PAVEMENT SHALL BE PLACED SUBSEQUENT TO THE INSTALLATION OF THE 6" PVC ELECTRICAL SLEEVE AND BACKFILL WILL BE UNDER ITEM 406.25. THE NEW PAVEMENT TO MATCH EXISTING PAVEMENT SURFACE.
- WHEN CONDUIT IS PLACED BELOW THE ROADWAY OR ACROSS SIDE ROADS, IT SHALL BE PLACED IN A PVC ELECTRICAL CONDUIT SLEEVE, SIZE AS SHOWN ON THE PLANS (6" MINIMUM).

E. STREET LIGHTING

- THE MAST ARM POLE SHALL HAVE A 250 WATT HIGH PRESSURE SODIUM LUMINAIRE AS SHOWN ON THE PLANS, INSTALLED WITH A 34' +/- MOUNTING HEIGHT ABOVE THE EDGE OF PAVEMENT WITH 15' ARM. THE LUMINAIRE SHALL HAVE THE MEDIUM CUTOFF DISTRIBUTION. ARM ORIENTATION IS SHOWN ON SHEET 16.
- PAYMENT IS INCIDENTAL TO ITEM #678.15

F. VEHICLE LOOP DETECTORS

- SEE STANDARD E-172. LOOPS SHALL EXTEND 5 FEET AHEAD OF STOP BAR UNLESS OTHERWISE NOTED ON THE PLANS.
- LOOP DETECTORS SHALL BE INSTALLED AND TESTED PRIOR TO THE PLACEMENT OF THE TOP COURSE OF PAVEMENT.

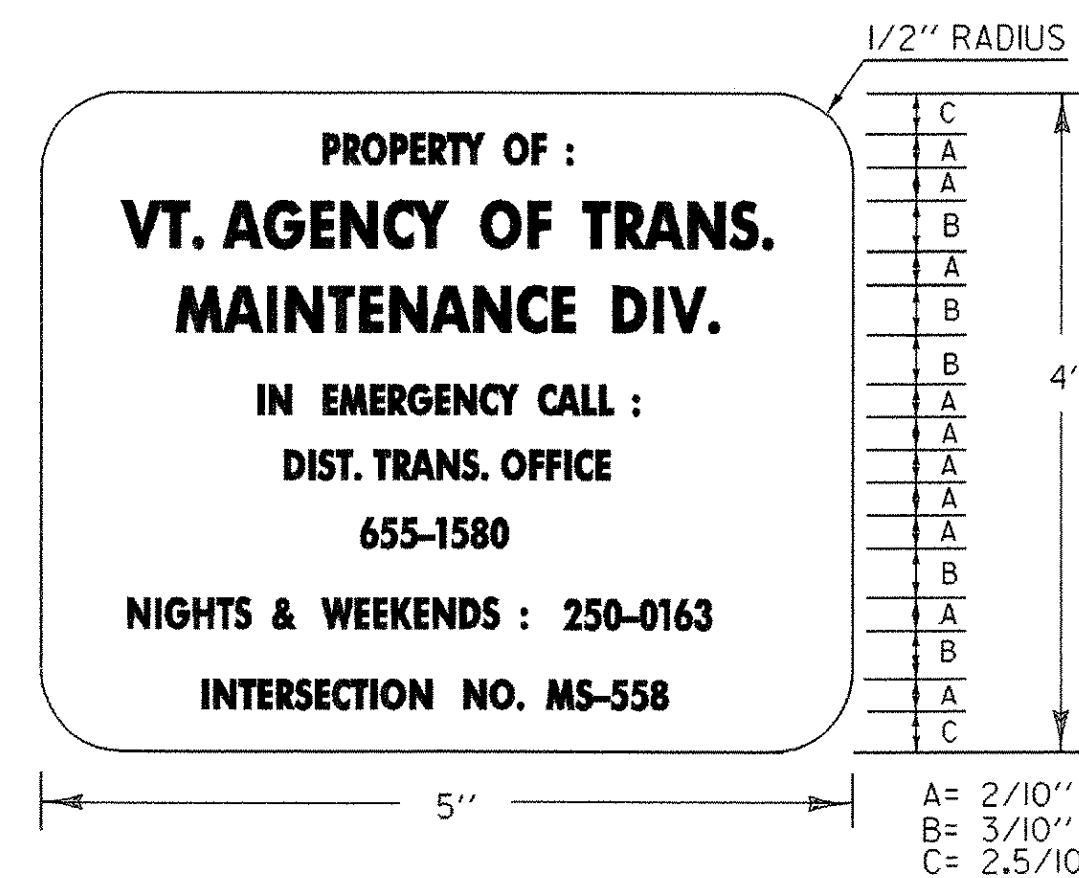
G. GENERAL

- THE CONTRACTOR SHALL ACQUIRE ALL NECESSARY PERMITS AND MAKE ALL NECESSARY ARRANGEMENTS WITH THE UTILITY COMPANY TO PROVIDE A PERMANENT POWER SUPPLY TO THE SIGNAL AND STREET LIGHTING EQUIPMENT. IF APPLICABLE, THE ROUTING OF POWER TO THE INTERSECTION SHALL BE SUCH THAT THE STATE HAS FULL RESPONSIBILITY FROM THE TRANSFORMER THROUGH THE SIGNAL. NO INTERVENING OWNERSHIP/RESPONSIBILITY SHALL BE ALLOWED.
- AN ID PLAQUE AS DETAILED ON THIS SHEET SHALL BE AFFIXED TO THE CONTROLLER CABINET.

H. REMOVAL OF EXISTING EQUIPMENT

- EXISTING SIGNAL EQUIPMENT SHALL BE REMOVED AND RETURNED BY THE CONTRACTOR TO THE DISTRICT 5 GARAGE AT 5 BARNES AVE. IN COLCHESTER WITHIN 48 HOURS OF REMOVAL. CONTACT STEVE GUYETTE AT 655-1580 WITH ANY QUESTIONS. PAYMENT IS INCIDENTAL TO ITEM # 678.15.

CONTROLLER IDENTIFICATION PLAQUE



LEGEND: - BLACK (NON-REFL.) - STAMPED PRIOR TO PAINTING
BACKGROUND: NATURAL ALUMINUM OR BRASS SURFACE

NOTES:

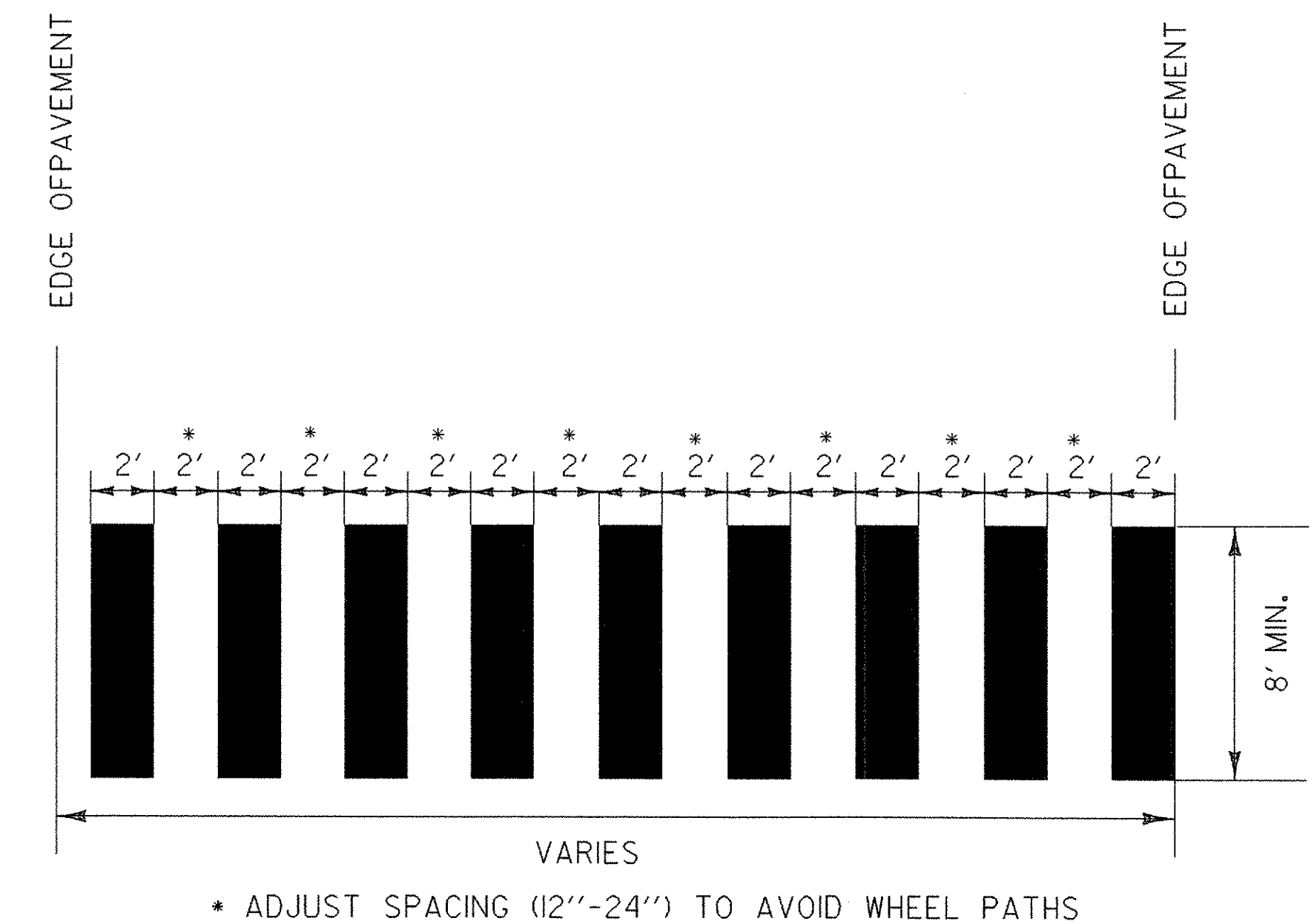
- THE PLAQUE SHALL BE MOUNTED ON ALL TRAFFIC SIGNAL CONTROLLER CABINETS. IT SHALL BE FASTENED TO THE CONTROLLER CABINET IN SUCH A MANNER AS TO BE NOT EASILY REMOVED, SUCH AS WELDED, RIVETED OR BOLTED WITH VANDAL PROOF BOLTS.
- THE LETTERS SHALL BE PUNCHED OR STAMPED, SUCH STAMPING SHALL PENETRATE AT LEAST 1/2 THE BASE MATERIAL THICKNESS.
- THE BASE MATERIAL FOR THE PLAQUE SHALL BE BRASS OR ALUMINUM WITH A MINIMUM THICKNESS OF 0.100 INCHES.

LIST OF MAJOR EQUIPMENT

EQUIPMENT ITEM - 678.15	QUANTITY
MAST ARM POLES W/CANTILEVER ARMS	1
POWER DROP STANCHION	1
NEW 12" TRAFFIC SIGNAL HEADS W/ TUNNEL VISORS, MOUNTING HARDWARE	
A. ONE-WAY 5-SEC.	1
B. ONE-WAY 3-SEC.	7
INTERSECTION CONTROLLER/CABINET	1
LUMINAIRE & BRACKET ARM (EACH)	1
ACCESSIBLE PEDESTRIAN SIGNALS	8
TOMAR PRE-EMPTION SYSTEM	1
REMOVAL OF EXISTING SIGNAL SYSTEM	1

NOTE: BACKPLATES TO BE INSTALLED ON ALL HEADS.

LOCATION	WIRED CONDUIT		ELECTRICAL CONDUIT SLEEVE	DESCRIPTION
	1-1/2"	2"	6"	
LOOPS 2&5 - PB3 - PP7 - PP6 - PP5 - PP4 - PB2 - CONTROLLER	244'			LOOPS 2 & 5
LOOP 4 - PP5	149'			LOOP 4
LOOP 8 - PBI - PP2 - PP3 - CONTROLLER	119'			LOOP 8
LOOP 6 - PP3	16'			LOOP 6
STANCHION - CONTROLLER		12'		POWER
MAP - CONTROLLER		14'		POWER
PPI - PP8 - PP2 - PP3 - CONTROLLER		137'		POWER
PP7 - PP6 - PP5 - PP4 - PB2-CONTROLLER		190'		POWER
PPI-PP2			51'	UTL. SLEEVE
PP2-PP3			42'	UTL. SLEEVE
PP4-PP5			50'	UTL. SLEEVE
PP6-PP7			50'	UTL. SLEEVE
SUBTOTALS	393'	353'	193'	
ROUNDING	7'	22'	7'	
TOTALS	400'	375'	200'	



BLOCK PATTERN CROSSWALK DETAIL

TRAFFIC SIGNAL NOTES	PROJECT:	PROJECT NO.:
		ESSEX
	DESIGN FILE NAME: /traf/96bl82/tbl82nul.dgn IPARM FILE NAME: /traf/96bl82/tbl82not.i SURVEYED BY: SQUAD LEADER: B. NYQUIST	PLOT DATE: 16-NOV-2006 SURVEY DATE: DRAWN BY: B. MCAVOY SHEET: 17 OF 29