

WITH GENERATOR HOOKUP PLUG INSTALLED. THE CABINET SHALL BE INSTALLED ON THE FOUNDATION WITH THE DOOR FACING AWAY FROM TRAFFIC.

TRAFFIC SIGNAL NOTES

A. NEW EQUIPMENT

- ALL SIGNAL HEADS MOUNTED ON CANTILEVER ARMS SHALL BE POLY-CARBONATE. BACKPLATES SHALL BE REQUIRED ON ALL HEADS.
- CONTROLLER SHALL BE ECONOLITE ASC/3S-2100 (TS2, TYPE 2) AND THE CABINET SHALL BE ECONOLITE GROUND MOUNTED P44 WITH A BASE EXTENSION WITH GENERATOR HOOKUP PLUG INSTALLED. THE CABINET SHALL BE INSTALLED ON THE FOUNDATION WITH THE DOOR FACING AWAY FROM TRAFFIC.
- A DISCONNECT BREAKER FOR EACH CIRCUIT SHALL BE INSTALLED IN A RAINPROOF (NEMA 3R), LOCKED CABINET ON A STANCHION NEXT TO OR BELOW THE METER SOCKET. RECOMMENDED OPTION #2 ON STD E-175.

B. SIGNAL OPERATION

- UPON STARTUP THE SIGNAL TIMING SHOWN ON THE PLANS MAY REQUIRE FINE-TUNING IN THE FIELD BASED ON TRAFFIC OBSERVATION.
- THE TRAFFIC SIGNALS SHALL NOT BE OPERATED BEFORE PAVEMENT MARKINGS AND SIGNAL RELATED SIGNING IS IN PLACE.
- ALL SIGNALS SHALL DWELL ON THE VT 116 THRU MOVEMENT PHASES (2+6).
- VT 116 THRU PHASES 2+6 SHALL BE USED FOR THE START-UP PHASE FOLLOWING FLASHING OPERATION.

C. TRAFFIC SIGNAL CONDUIT

- ALL TRAFFIC SIGNAL CONDUIT SHALL BE PVC.
- MINIMUM CONDUIT SIZES SHALL BE:
 - 1-1/2" FOR LOOP LEAD-INS,
 - 2" FOR ALL OTHERS.
- 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).

D. VEHICLE DETECTOR LOOP - SEE STD E-172

- ALL LOOP DETECTORS SHALL BE LABELED WITH THE PHASE NUMBER, APPROACH DIRECTION AND MOVEMENT CONTROLLED BY THE UNIT (I.E. PHASE 2, SB)
- ALL LOOP DETECTORS SHALL BE A TYPE THAT FAIL IN THE 'ON' MODE.

E. VIDEO DETECTION

- PHASE 3 DETECTION SHALL BE A NON-INTRUSIVE, NON-MICROWAVE, VIDEO BASED, VEHICLE PRESENCE SYSTEM WITH 2.5MM OPTICS, TRAFICAM OR APPROVED EQUAL.
- THE VIDEO DETECTION UNIT HAS BEEN RECOMMENDED FOR MOUNTING ABOVE THE POST MOUNTED PEDESTRIAN AND SIGNAL HEAD ASSEMBLY. THE CONTRACTOR MAY OPTIONALLY INSTALL THE UNIT BEHIND SIGNAL HEAD 4 (AS SHOWN ON THE TRAFFIC SIGNAL LAYOUT) IF BETTER VISUAL ACUITY CAN BE OBTAINED. THIS DECISION CAN BE MADE IN THE FIELD WITH APPROVAL BY THE ENGINEER. VIDEO DETECTION EQUIPMENT AND INSTALLATION IS INCIDENTAL TO THE TRAFFIC SIGNAL INSTALLATION, ITEM 678.15.

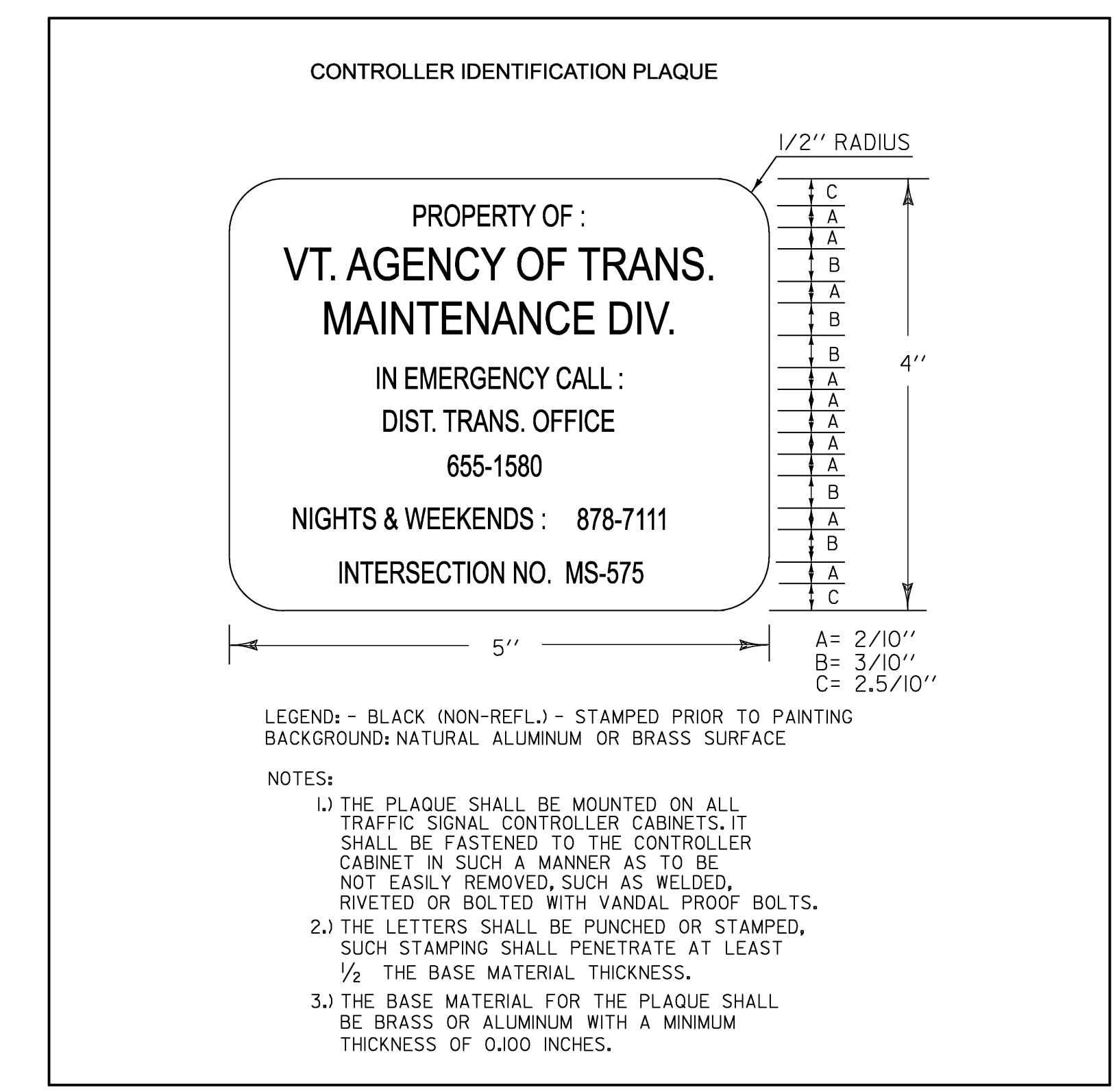
F. GENERAL

- 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.
- SEE SUPPLEMENTAL SPECIFICATIONS FOR SECTIONS 678, 679, 752 & 753 FOR ADDITIONAL INFORMATION.
- THE CONTRACTOR SHALL REFERENCE SECTION 678 OF THE STANDARD SPECIFICATIONS FOR FURNISHING AND INSTALL PEDESTRIAN SIGNAL EQUIPMENT. NOTE THAT NO AUDIBLE EQUIPMENT OR PEDESTRIAN PUSHBUTTONS SHALL BE REQUIRED FOR THE PEDESTAL POST CONTROLLING PEDESTRIAN MOVEMENT ACROSS THE RETAIL DRIVEWAY GIVEN THAT THESE PEDESTRIAN SIGNALS SHALL BE ON RECALL WITH ALL PHASES EXCEPT PHASE 3.
- THE CONTRACTOR SHALL NOTE THAT POLE #3 IS TO BE LOCATED BEHIND EXISTING OVERHEAD UTILITY LINES. THE CONTRACTOR SHALL POSITION AND INSTALL THE FACE 3 SIGNAL HEADS SO THAT ALL LENSES ARE VISIBLE FROM THE ADJACENT APPROACH WHILE CONFORMING TO MUTCD AND VTRANS VERTICAL HEIGHT CRITERIA. IF FULL VIEW OF ALL THREE (RED, YELLOW, AND GREEN) LENSES IS FOUND INFEASIBLE, THE CONTRACTOR SHALL OPTIONALLY POLE MOUNT THE NORTHERN MOST SIGNAL HEAD ON POLE #3 (SEE SHEET 13 FOR ADDITIONAL INFORMATION).
- DUE TO THE PRESENCE OF MANY EXISTING OVERHEAD UTILITIES IN THE VICINITY OF THE VT116 AND CHARLOTTE ROAD INTERSECTION, THE CONTRACTOR SHALL FIELD VERIFY AND ADJUST AS NECESSARY THE FINAL LOCATION OF THE SIGNAL STRUCTURES TO ENSURE ALL APPLICABLE CRITERIA IN THE NATIONAL ELECTRICAL CODE (NEC) AND NATIONAL ELECTRICAL SAFETY CODE (NECS) IS MET. TO ASSIST IN MEETING THIS CRITERIA, SPECIAL CURVED MAST ARM POLES HAVE BEEN PROPOSED WITH A 16-FOOT VERTICAL MAST MOUNTING AND A 10-FOOT MINIMUM HORIZONTAL CURVED MAST ARM BEFORE THE 20 FOOT VERTICAL MAST ARM HEIGHT IS ACHIEVED; HOWEVER, THE 10-FOOT HORIZONTAL CURVED SECTION CAN BE MODIFIED PER MANUFACTURERS RECOMMENDATION WITH APPROVAL OF THE ENGINEER UPON SUBMISSION OF SHOP DRAWINGS.
- SEE THE CONTROLLER ID PLAQUE DETAIL ON THIS SHEET.

TIMING AND PHASING

	PHASE 2+6 (DWELL)					PHASE 3					PHASE 4					PED PHASE 9					FLASHING OPERATION						
	R/W	Ø 3	Ø 4	Ø 4	PED Ø9	R/W	Ø 4	PED Ø9	Ø 2+6	Ø 2+6	R/W	PED Ø9	Ø 2+6	Ø 3	R/W	Ø 2+6	Ø 3	Ø 4									
AM PEAK 7-9 AM	VEHICLE	4				2				2																	
	MINIMUM	8	4	2	4	2	4	2	4	2	8	4	2	4	2	4	2										
	MAXIMUM																										
	MAXIMUM2	40	4	2	4	2	4	2	4	2	15	4	2	4	2	4	2										
	PED ACT														7	17	3	1	3	1	3	1					
OFF PEAK REST OF DAY	VEHICLE	4				2				2																	
	MINIMUM	8	4	2	4	2	4	2	4	2	8	4	2	4	2	4	2										
	MAXIMUM																										
	MAXIMUM2	25	4	2	4	2	4	2	4	2	12	4	2	4	2	4	2										
	PED ACT														7	17	3	1	3	1	3	1					
PM PEAK 3:00-6:00 PM	VEHICLE	4				2				2																	
	MINIMUM	8	4	2	4	2	4	2	4	2	8	4	2	4	2	4	2										
	MAXIMUM																										
	MAXIMUM2	40	4	2	4	2	4	2	4	2	15	4	2	4	2	4	2										
	PED ACT														7	17	3	1	3	1	3	1					
FACE 2	G	Y	R	Y	R	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	F	Y			
FACE 3	R	R	R	R	R	R	R	G	Y	R	Y	Y	R	R	R	R	R	R	R	R	R	R	R	R	F	R	
FACE 4A	R	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	Y	Y	R	R	R	R	R	R	R	F	R
FACE 4B	R	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	Y	Y	R	R	R	R	R	R	R	F	R
FACE 6	G	Y	R	Y	R	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	F	Y
PED 9	D	W	D	W	D	W	D	W	D	W	D	W	D	W	D	W	D	W	D	W	D	W	D	W	D	B	
CONC PED	W	F	D	W	W	W	W	D	W	D	W	D	W	D	W	D	W	D	W	D	W	D	W	D	W	B	

W = WALK, FD = FLASHING DON'T WALK, DW = DON'T WALK, B = BLANK
 * = FACE NUMBERS ARE BASED ON NEMA PHASES (2, 4, 6 & 8 FOR THRU/RIGHTS)
 ** = A CONCURRENT PEDESTRIAN PHASE ACROSS LANTMANS DRIVE SHALL BE PROGRAMMED FOR ALL VEHICLE PHASES EXCEPT PHASE 3
 *** = LED BLANKOUT B02 SHALL BE ILLUMINATED WITH EXCLUSIVE PEDESTRIAN PHASE 9. LED BLANKOUT B01 SHALL BE ILLUMINATED DURING ALL HOURS OF THE DAY.



PROGRAM PERIODS OF OPERATION

	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
	AM												PM											
SUNDAY																								
MONDAY																								
TUESDAY																								
WEDNESDAY																								
THURSDAY																								
FRIDAY																								
SATURDAY																								

NOTES:
 PLAN 1 - OFFPEAK (MAXIMUM 1): MIDNIGHT TO 7:00 AM, M-F
 9:00 AM TO 3:00 PM, M-F
 6:00 PM TO MIDNIGHT, M-F
 ALL DAY SATURDAY AND SUNDAY
 PLAN 2 - RUSH HOUR PEAK (MAXIMUM 2): 7:00 AM TO 9:00 AM, M-F
 3:00 PM TO 6:00 PM, M-F