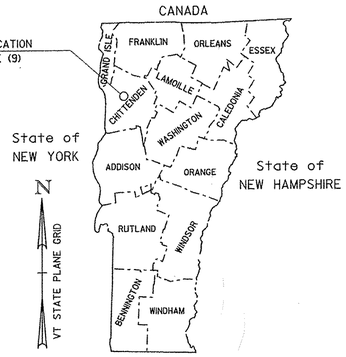
INDEX OF SHEETS
SEE SHEET 2

STATE OF VERMONT
AGENCY OF TRANSPORTATION

PROJECT LOCATION
TCSP TCSE (9)



LOCATION MAP

1 0 1 2
SCALE 1" = 1MI.

PROPOSED IMPROVEMENT
TOWN OF COLCHESTER
COUNTY OF CHITTENDEN
VT ROUTE 15 - PRINCIPAL ARTERIAL

BEGINNING AT A POINT, APPROXIMATELY 0.734 MILES EAST OF THE WINOOSKI/COLCHESTER TOWN LINE AT APPROXIMATE MILE MARKER 0.734 AND EXTENDING EASTERLY 0.114 MILES TO APPROXIMATE MILE MARKER 0.848.

LENGTH OF ROADWAY: 600 FEET = 0.114 MILES
LENGTH OF PROJECT: 600 FEET = 0.114 MILES

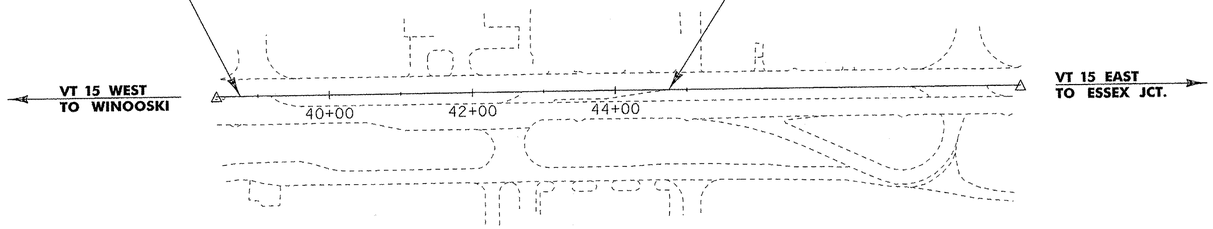
THE PROJECT SHALL CONSIST OF THE INSTALLATION OF A NEW PEDESTRIAN SIGNAL, TRAFFIC SIGNS, PAVEMENT MARKINGS, AND OTHER RELATED ITEMS.

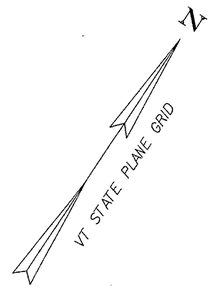
TRAFFIC DATA

LOCATION	AADT		DHV	ADTT	%T	%D	ESALS	ESALS	V
	2010	2030	2030	2030	2030	2030	(2010 - 2030)	(2010 - 2050)	
VT ROUTE 15 EAST LEG	27,300	28,600	3000	2000	3.6	55	6,927,000	17,099,000	35 MPH
VT ROUTE 15 WEST LEG	27,500	28,800	3000	2000	4.0	57	7,071,000	17,456,000	35 MPH
COMMERCIAL DRIVE NORTH LEG	1,000	1,100	110	40	0.0	52	89,000	206,000	N/A
FANNY ALLEN HOSPITAL SOUTH LEG	1,700	1,800	190	150	11.8	100	318,000	723,000	N/A

STA 38+75.00 VT 15
BEGIN PROJECT

STA 44+75.00 VT 15
END PROJECT





RECORD PLANS

CONTRACTOR: DON WESTON EXCAVATING,INC. – WILLISTON, VT
RESIDENT ENGINEER: DALE NORTON
CONSTRUCTION BEGAN: JULY 24, 2012
CONSTRUCTION COMPLETE: JUNE 22, 2013
RECORD PLANS BY: DALE NORTON & JENNA HYDE

I HEREBY CERTIFY THAT ALL THE CONSTUCTION REQUIRED BY THIS SET OF DRAWINGS HAS BEEN ACCOMPLISHED AS INDICATED HEREIN.

BY Dale R. Norton RESIDENT ENGINEER
DATE June 02, 2014

NOTE: Any further information concerning final quantities, amounts or other details relative to this project may be found at Central Files in the electronic archives.

QUALITY ASSURANCE PROGRAM: LEVEL 2

CONVENTIONAL SYMBOLS

COUNTY LINE
TOWN LINE
LIMITS OF ACCESS
POINT OF ACCESS
FENCE LINE
STONE WALL
TRAVELED WAY
GUARD RAIL
RAILROAD
SURVEY LINE
CULVERT
POWER POLE
TELEPHONE POLE
TREES
CONTROL OF ACCESS
PROPERTY LINE
R.O.W. TAKING LINE
SLOPE RIGHTS (SR SR SR)
TOP OF CUT
TOE OF SLOPE

SURVEYED BY : L. ORVIS
SURVEYED DATE : 03-31-2009

DATUM
VERTICAL NAVD88
HORIZONTAL NAD83(07)

0 100 200
SCALE IN FEET

THESE PLANS ARE SUBJECT TO SUCH ENGINEERING CHANGES AS MAY BE REQUIRED BY THE FEDERAL HIGHWAY ADMINISTRATION OR THE DIRECTOR OF PROGRAM DEVELOPMENT.

CONSTRUCTION IS TO BE CARRIED ON IN ACCORDANCE WITH THESE PLANS AND THE STANDARD SPECIFICATIONS FOR CONSTRUCTION DATED 2011, AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION ON JULY 20, 2011 FOR USE ON THIS PROJECT, INCLUDING ALL SUBSEQUENT REVISIONS AND SUCH REVISED SPECIFICATIONS AND SPECIAL PROVISIONS AS ARE INCORPORATED IN THESE PLANS.

DIRECTOR OF PROGRAM DEVELOPMENT
APPROVED [signature] DATE 2-23-12

PROJECT MANAGER : J. SCHULTZ

PROJECT NAME : COLCHESTER
PROJECT NUMBER : TCSP TCSE (9)

SHEET 1 OF 22 SHEETS

STATE OF VERMONT
AGENCY OF TRANSPORTATION

INDEX OF SHEETS

INDEX OF SHEETS

STANDARDS LIST

C-10	CURBING	2/11/2008
C-2A	PORTLAND CEMENT CONCRETE SIDEWALK DRIVE ENTRANCES WITH SIDEWALK ADJACENT TO CURB	10/14/2005
C-2B	PORTLAND CEMENT CONCRETE SIDEWALK DRIVE ENTRANCES WITH SIDEWALK AND GREEN STRIP	10/14/2005
C-3A	SIDEWALK RAMPS	3/10/2008
C-3B	SIDEWALK RAMPS AND MEDIAN ISLANDS	3/10/2008
D-20	HIGHWAY CROSSING FOR UNDERGROUND UTILITIES	3/3/2003
E-100	CONSTRUCTION APPROACH SIGNS	1/2/2004
E-100A	SIDE ROAD CONSTRUCTION - APPROACH SIGNS	1/2/2004
E-101	CONSTRUCTION SIGN DETAILS	5/30/2003
E-102	CONSTRUCTION SIGN DETAILS	6/30/2003
E-102A	CONSTRUCTION SIGN DETAILS	5/1/2004
E-103	MAINLINE TRAFFIC CONTROL DIVIDED HIGHWAY ONE LANE CLOSED	3/1/2004
E-106	TRAFFIC CONTROL- MISCELLANEOUS DETAILS	3/1/2004
E-107	DELINEATION, BARRICADES AND DETOURS FOR CONSTRUCTION ARE/	6/30/2003
E-107A	BREAKAWAY BARRICADE DETAILS	6/8/2009
E-110	MAJOR MAINTENANCE OPERATION LANE CLOSURE	8/8/1995
E-119	UTILITY WORK ZONE	3/1/2004
E-120	STANDARD SIGN PLACEMENT - EXPRESSWAY & FREEWAY	8/8/1995
E-121	STANDARD SIGN PLACEMENT - CONVENTIONAL ROAD	8/8/1995
E-164	SQUARE STEEL SIGN POST	6/8/2009
E-170	TRAFFIC CONTROL SIGNALS PEDESTAL POST MOUNTED	11/4/1999
E-171A	TRAFFIC CONTROL SIGNALS GENERAL NOTES & DETAILS	8/9/1995
E-171B	TRAFFIC CONTROL SIGNALS MISC. DETAILS	8/9/1995
E-171C	TRAFFIC CONTROL SIGNALS CANTILEVER MOUNTING DETAILS	8/9/1995
E-173	PULL BOXES AND JUNCTION BOXES	8/9/1995
E-175	POWER DROP STANCHIONS	6/8/2009
E-191	PAVEMENT MARKING DETAILS	2/1/1999
E-192	PAVEMENT MARKING DETAILS	10/12/2000
E-193	PAVEMENT MARKING DETAILS	8/18/1995

PROJECT NAME: COLCHESTER
PROJECT NUMBER: TCSP TCSE (9)

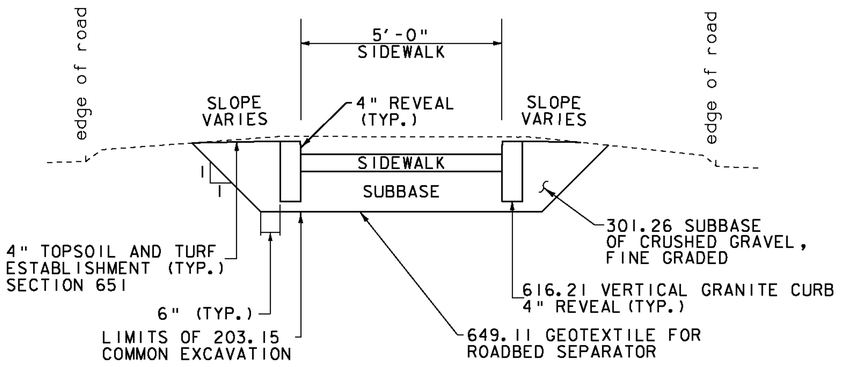
FILE NAME: t06b242frm.dgn
PROJECT LEADER: J. SCHULTZ
DESIGNED BY: D. LYMAN
INDEX OF SHEETS

PLOT DATE: 23-FEB-2012
DRAWN BY: D. LYMAN
CHECKED BY: J. SCHULTZ
SHEET 2 OF 22

VT ROUTE 15
TYPICAL MEDIAN SIDEWALK SECTION

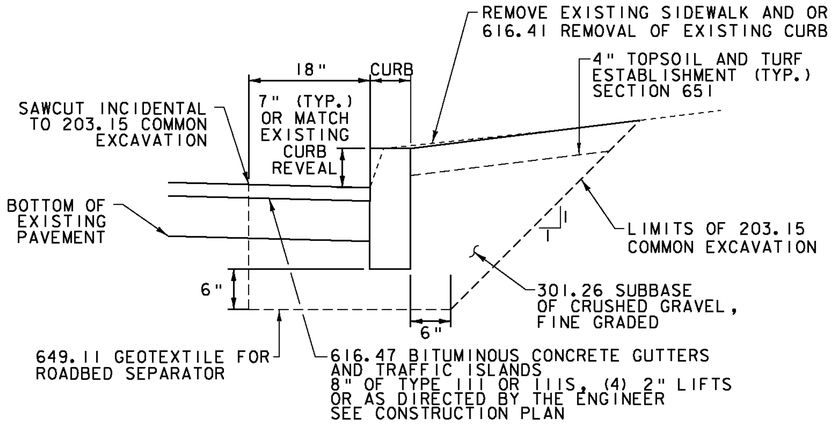
NOT TO SCALE

5" - 618.10 PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH
12" - 301.26 SUBBASE OF CRUSHED GRAVEL, FINE GRADED



VERTICAL GRANITE CURB

NOT TO SCALE



GENERAL NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING ALL ARRANGEMENTS FOR ANCHORING, SUPPORTING AND/OR RELOCATING AND PROTECTING ALL UTILITIES DURING CONSTRUCTION. ALL COSTS SHALL BE INCLUDED IN THE UNIT PRICES BID. IN THE CASE OF DAMAGE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COST OF ALL REPAIRS. SEE UTILITY SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

2. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF THE EXISTING FEATURES AND STRUCTURES WITHIN AND ADJACENT TO THE WORK. IN THE CASE OF DAMAGE, THE REPAIRS OR REPLACEMENT SHALL BE COMPLETED AT THE CONTRACTOR'S EXPENSE AS APPROVED BY THE ENGINEER.

3. ANY DISCREPENCIES BETWEEN THESE DRAWINGS AND ACTUAL FIELD CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH THE WORK.

4. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ANY EXISTING STRUCTURES OR PIPES, WHICH CONNECT TO PIPES THAT ARE SPECIFIED TO BE PLUGGED, FILLED OR ABANDONED. IN THE EVENT THAT ADJOINING STRUCTURES OR PIPES ARE FOUND IT SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH THE WORK. ALL SUCH WORK SHALL BE PAID UNDER ITEM 204.22 TRENCH EXCAVATION OF EARTH, EXPLORATORY.

5. MAY IT BE KNOWN TO THE CONTRACTOR THAT A PRESENCE OF PETROLEUM ODOR WAS DISCOVERED AT THE PROPOSED LOCATION OF MAST ARM POLE #1. FOR FURTHER INFORMATION, PLEASE REFER TO THE BORING SHEET AND SECTION 900 OF THE SPECIAL PROVISIONS.

VAOT RURAL AREA MIX					
	LBS/AC				
% WEIGHT	BROADCAST	HYDROSEED	NAME	GERM %	PURITY %
37.5%	22.5	45	CREEPING RED FESCUE	85%	98%
37.5%	22.5	45	TALL FESCUE	90%	95%
5.0%	3	6	RED TOP	90%	95%
15.0%	9	18	BIRDSFOOT TREFOIL	85%	98%
5.0%	3	6	ANNUAL RYE GRASS	85%	95%
100%	60	120			

VAOT URBAN AREA MIX					
	LBS/AC				
% WEIGHT	BROADCAST	HYDROSEED	NAME	GERM %	PURITY %
42.5%	34	68	CREEPING RED FESCUE	85%	98%
10.0%	8	16	PERENNIAL RYE GRASS	90%	95%
42.5%	34	68	KENTUCKY BLUE GRASS	85%	85%
5.0%	4	8	ANNUAL RYE GRASS	85%	95%
100%	80	160			

SOIL AMENDMENT GUIDANCE			
FERTILIZER		LIME	
BROADCAST	HYDROSEED	BROADCAST	HYDROSEED
10-20-10	*FOLLOW*	PELLETIZED	*FOLLOW*
500 LBS/AC	*MANUFACTURER*	2 TONS/AC	*MANUFACTURER*

CONSTRUCTION GUIDANCE

1. RURAL SEED MIX: USE AS INDICATED IN THE PLANS AND/OR FOR ALL ESTABLISHED UPLAND (NON WETLAND) AREAS DISTURBED BY THE CONTRACTOR.

2. URBAN SEED MIX: USE AS INDICATED IN THE PLANS AND/OR FOR ALL ESTABLISHED LAWN AREAS DISTURBED BY THE CONTRACTOR.

3. ALL SEED MIXTURES: SHALL NOT HAVE A WEED CONTENT EXCEEDING 0.40% BY WEIGHT AND SHALL BE FREE OF ALL NOXIOUS SEED.

4. FERTILIZER AND LIMESTONE: SHALL FOLLOW RATES SHOWN ON PLAN OR AS DIRECTED BY THE ENGINEER

5. HAY MULCH: TO BE PLACED ON EARTH SLOPES AT THE RATE OF 2 TONS/ACRE, ACHIEVE 90% GROUND COVER OR AS DIRECTED BY THE ENGINEER.

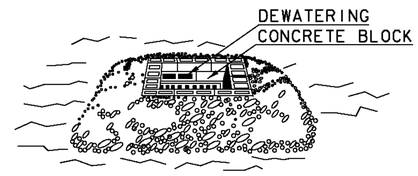
6. TOPSOIL: TO BE USED WITH SEED AS INDICATED ON THE PLANS, OR AS DIRECTED BY THE ENGINEER.

7. HYDROSEEDING: ALTHOUGH GUIDANCE IS GIVEN ABOVE THE SITE CONDITIONS AND THE TYPE OF HYDROSEED WILL ULTIMATELY DICTATE THE AMOUNTS AND TYPES OF SOIL AMENDMENTS TO BE APPLIED

8. TURF ESTABLISHMENT: PLACING SEED, FERTILIZER, LIME AND MULCH PRIOR TO SEPTEMBER 15 AND AFTER APRIL 15 CAN BETTER ENSURE A VIGOROUS GROWTH OF GRASS.

ADAPTED FROM VTRANS TECHNICAL LANDSCAPE MANUAL FOR ROADWAYS AND TRANSPORTATION FACILITIES	TURF ESTABLISHMENT

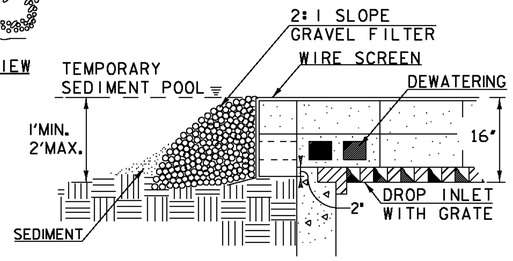
REVISIONS	
JUNE 23, 2009	WHF
JANUARY 15, 2010	WHF
FEBRUARY 16, 2011	WHF



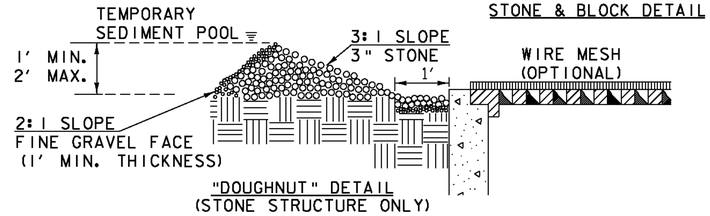
STONE & BLOCK PLAN VIEW

SYMBOL

NOT TO SCALE



STONE & BLOCK DETAIL



CONSTRUCTION SPECIFICATIONS

1. LAY ONE BLOCK ON EACH SIDE OF THE STRUCTURE ON ITS SIDE FOR DEWATERING. FOUNDATION SHALL BE 2" MINIMUM BELOW REST OF INLET AND BLOCKS SHALL BE PLACED AGAINST INLET FOR SUPPORT.

2. HARDWARE CLOTH OR ½" WIRE MESH SHALL BE PLACED OVER BLOCK OPENINGS TO SUPPORT STONE.

3. USE CLEAN STONE OR GRAVEL ½"- ¾" IN DIAMETER PLACED 2" BELOW TOP OF THE BLOCK ON A 2:1 SLOPE OR FLATTER.

4. FOR STONE STRUCTURES ONLY, A 1' THICK LAYER OF THE FILTER STONE WILL BE PLACED AGAINST THE 3" STONE AS SHOWN ON THE DRAWINGS.

5. MAXIMUM DRAINAGE AREA 1 ACRE

ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC ORIGINALLY DEVELOPED BY USDA-NRCS VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION	STONE & BLOCK DROP INLET PROTECTION

NOTES:
REFER TO 'THE VERMONT STANDARDS & SPECIFICATIONS FOR EROSION PREVENTION & SEDIMENT CONTROL -2006- ' FROM THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL GUIDANCE.

THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 653 FOR INLET PROTECTION DEVICE, TYPE I (PAY ITEM 653.40).

REVISIONS	
MARCH 6, 2008	WHF
JANUARY 13, 2009	WHF

PROJECT NAME: COLCHESTER
PROJECT NUMBER: TCSP TCSE (9)

FILE NAME: t06b242frm.dgn
PROJECT LEADER: J. SCHULTZ
DESIGNED BY: D. LYMAN
TYPICAL SHEET

PLOT DATE: 23-FEB-2012
DRAWN BY: D. LYMAN
CHECKED BY: J. SCHULTZ
SHEET 3 OF 22

STATE OF VERMONT
AGENCY OF TRANSPORTATION

QUANTITY SHEET 1

SUMMARY OF ESTIMATED QUANTITIES					TOTALS		DESCRIPTIONS				DETAILED SUMMARY OF QUANTITIES		
ROADWAY	LANDSCAPING	EROSION CONTROL	FULL C.E. ITEMS		GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	ROUND	QUANTITIES	UNIT	ITEMS
1					1		LS	CLEARING AND GRUBBING, INCLUDING INDIVIDUAL TREES AND STUMPS	201.10	-			
155					155		CY	COMMON EXCAVATION	203.15	6			
1					1		CY	TRENCH EXCAVATION OF EARTH, EXPLORATORY (N.A.B.I.)	204.22	-			
90					90		CY	SUBBASE OF CRUSHED GRAVEL, FINE GRADED	301.26	4			
1					1		MGAL	DUST CONTROL WITH WATER	609.10	EST			
0.5					0.5		TON	DUST AND ICE CONTROL WITH CALCIUM CHLORIDE	609.15	EST			
485					485		LF	VERTICAL GRANITE CURB	616.21	11			
25					25		LF	CAST-IN-PLACE CONCRETE CURB, TYPE B	616.28	5			
30					30		LF	REMOVING AND RESETTING CURB	616.40	EST			
425					425		LF	REMOVAL OF EXISTING CURB	616.41	12			
35					35		TON	BITUMINOUS CONCRETE GUTTERS AND TRAFFIC ISLANDS	616.47	1.8			
55					55		SY	PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH	618.10	2.4			
45					45		SF	DETECTABLE WARNING SURFACE	618.30	5			
80					80		HR	UNIFORMED TRAFFIC OFFICERS	630.10	EST			
320					320		HR	FLAGGERS	630.15	EST			
			1		1		LS	TESTING EQUIPMENT, CONCRETE	631.16	-			
1					1		LS	MOBILIZATION/DEMOBILIZATION	635.11	-			
1					1		LS	TRAFFIC CONTROL	641.10	-			
2					2		EACH	PORTABLE CHANGEABLE MESSAGE SIGN	641.15	-			
2					2		EACH	PORTABLE ARROW BOARD	641.16	-			
65					65		LF	DURABLE 24 INCH STOP BAR	646.480	5			
65					65		LF	DURABLE CROSSWALK MARKING	646.500	2			
130					130		LF	TEMPORARY 24 INCH STOP BAR	646.680	10			
130					130		LF	TEMPORARY CROSSWALK MARKING	646.700	4			
600					600		SF	REMOVAL OF EXISTING PAVEMENT MARKINGS	646.85	10			
510					510		SY	GEOTEXTILE FOR ROADBED SEPARATOR	649.11	11			
	10				10		LB	SEED	651.15	EST			
	60				60		LB	FERTILIZER	651.18	EST			
	0.2				0.2		TON	AGRICULTURAL LIMESTONE	651.20	EST			
	0.2				0.2		TON	HAY MULCH	651.25	EST			
	70				70		CY	TOPSOIL	651.35	EST			
		1			1		EACH	INLET PROTECTION DEVICE, TYPE I	653.40	-			
145.42					145.42		SF	TRAFFIC SIGNS, TYPE A	675.20	-			
129					129		LF	SQUARE TUBE SIGN POST AND ANCHOR	675.341	-			
7					7		EACH	REMOVING SIGNS	675.50	-			
2					2		EACH	ERECTING SALVAGED SIGNS	675.60	-			
2					2		EACH	SETTING SALVAGED POSTS	675.61	-			
1					1		EACH	TRAFFIC CONTROL SIGNAL SYSTEM, INTERSECTION	678.15	-			
95					95		LF	WIRED CONDUIT (2")(PVC)(SCH. 80)	678.23	7			
90					90		LF	WIRED CONDUIT (3")(PVC)(SCH. 80)	678.23	6			

PROJECT NAME: COLCHESTER
PROJECT NUMBER: TCSP TCSE (9)

FILE NAME: t06b242frm.dgn
PROJECT LEADER: J. SCHULTZ
DESIGNED BY: D. LYMAN
QUANTITY SHEET 1

PLOT DATE: 23-FEB-2012
DRAWN BY: D. LYMAN
CHECKED BY: J. SCHULTZ
SHEET 4 OF 22

STATE OF VERMONT
AGENCY OF TRANSPORTATION

QUANTITY SHEET 2

SUMMARY OF ESTIMATED QUANTITIES				TOTALS		DESCRIPTIONS				DETAILED SUMMARY OF QUANTITIES		
ROADWAY	LANDSCAPING	EROSION CONTROL	FULL C.E. ITEMS	GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	ROUND	QUANTITIES	UNIT	ITEMS
85				85		LF	WIRED CONDUIT (4")(PVC)(SCH. 80)	678.23	7			
3				3		EACH	PULL BOX, STANDARD	678.25	-			
1				1		EACH	BRACKET ARM	679.47	-			
1				1		EACH	LUMINAIRE	679.50	-			
5				5		CY	SPECIAL PROVISION (EXCAVATION OF PETROLEUM CONTAMINATED SOILS, CLASS I)	900.608	EST			
5				5		CY	SPECIAL PROVISION (EXCAVATION OF PETROLEUM CONTAMINATED SOILS, CLASS II)	900.608	EST			
5				5		CY	SPECIAL PROVISION (EXCAVATION OF PETROLEUM CONTAMINATED SOILS, CLASS III)	900.608	EST			
105				105		LF	SPECIAL PROVISION (HORIZONTAL DIRECTIONAL DRILLING)(4 X 4" SCH. 80 HDPE CASING PIPES)	900.640	4			

PROJECT NAME:	COLCHESTER
PROJECT NUMBER:	TCSP TCSE (9)
FILE NAME: t06b242frm.dgn	PLOT DATE: 14-MAY-2012
PROJECT LEADER: J. SCHULTZ	DRAWN BY: D. LYMAN
DESIGNED BY: D. LYMAN	CHECKED BY: J. SCHULTZ
QUANTITY SHEET 2	SHEET 5 OF 22

STATE OF VERMONT
AGENCY OF TRANSPORTATION

ITEM DETAIL SHEET

CURB

BEGIN STATION	END STATION	POSITION LEFT FT	POSITION RIGHT FT	REMARKS
616.21 - VERTICAL GRANITE CURB				
38+86.67 RT	39+05.72 RT		19	
41+00.00 RT	42+11.87 RT		112	MEDIAN
WITH SLOPE TO VERTICAL TRANSITION SECTION				
41+00.00 RT	42+42.00 RT		142	MEDIAN
WITH SLOPE TO VERTICAL TRANSITION SECTION				
42+00.97 RT	42+12.20 RT		11	
42+12.37 RT	42+42.50 LT		46	MEDIAN
42+17.16 RT	42+22.34 RT		7	
42+17.37 RT	42+47.50 LT		46	MEDIAN
42+17.87 RT	42+36.63 RT		19	MEDIAN
42+35.50 LT	42+42.50 LT	7		
42+36.63 RT	42+68.37 RT		35	MEDIAN
				70'RAD
42+47.50 LT	42+54.50 LT	7		
42+48.00 RT	42+67.73 RT		20	MEDIAN
42+67.73 RT	42+68.37 RT		3	MEDIAN
				2' RAD
SUBTOTAL		14	460	474
ROUND				11
TOTAL				485
616.28 - CAST-IN-PLACE CONCRETE CURB, TYPE B				
39+16.28 RT	39+35.93 RT		20	DRIVE
SUBTOTAL			20	20
ROUND				5
TOTAL				25

SIDEWALK

BEGIN STATION	END STATION	POSITION LEFT SY	POSITION RIGHT SY	REMARKS
618.10 - PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH				
42+04.17 RT	42+08.24 RT		6.7	4' WIDTH
42+04.24 RT	42+12.17 RT		5.5	SLOPED PAD
42+12.12 RT	42+17.12 RT		4.5	RAMP
42+12.39 RT	42+47.50 LT		25.4	MEDIAN
42+37.39 LT	42+52.49 LT	10.5		RAMP
SUBTOTAL		10.5	42.1	52.6
ROUND				2.4
TOTAL				55.0

GUARD RAIL

BEGIN STATION	END STATION	POSITION LEFT FT	POSITION RIGHT FT	END TREATMENT BEGIN EA	END TREATMENT END EA

UNDERDRAIN

BEGIN STATION	END STATION	TYPE	POSITION	DIA. IN	LENGTH FT	TRENCH EARTH CY	TRENCH ROCK CY	GRAN BKFILL CY	FB EA	MKR PST EA

PROJECT NAME:	COLCHESTER
PROJECT NUMBER:	TCSP TCSE (9)

FILE NAME: t06b242frm.dgn
PROJECT LEADER: J. SCHULTZ
DESIGNED BY: D. LYMAN
ITEM DETAIL SHEET

PLOT DATE: 23-FEB-2012
DRAWN BY: D. LYMAN
CHECKED BY: J. SCHULTZ

STATE OF VERMONT
AGENCY OF TRANSPORTATION

RIGHT - OF - WAY DETAIL SHEET

TABLE OF PROPERTY ACQUISITION

PARCEL NO.	PROPERTY OWNER	SHEET NO.	BEGINNING STATION	ENDING STATION	TAKE	REMAINDER	RIGHT			RECORDING DATA					REMARKS
					AREA±	AREA±	TYPE	(T)/(P)	AREA ±	TITLE	DATE	TOWN / CITY	BOOK	PAGE	
1	FANNY ALLEN HOLDINGS, INC. LESSOR	5	38+88.5 RT	39+50 RT			ACCESS	(T)	2,100 SF			COLCHESTER			ACCESS DURING CONSTRUCTION
	FLETCHER ALLEN HEALTH CARE, INC.		38+94 RT	39+05 RT			ALL R.T. & I.								SIDEWALK WITHIN R.O.W.
	LESSEE		38+99 RT	39+35.93 RT			REMOVE	(T)	275 SF						SIDEWALK AND CURBS; REPLACE
															WITH TOPSOIL, SEED & MULCH
			41+50 RT	42+50 RT			ACCESS	(T)	3,020 SF						ACCESS DURING CONSTRUCTION
			41+86 RT	42+17 RT			INSTALL & MAINT	(P)							PEDESTRIAN SIGNALIZATION SYSTEM
			42+04.17 RT	42+17.12 RT			INSTALL	(T)	141 SF						SIDEWALK AND RAMP; INCLUDES
															REMOVAL OF EXISTING SIDEWALK
															AND RAMP
			42+04.73 RT	42+22.18 RT			INSTALL	(T)	34 SF						VERTICAL GRANITE CURB; INCLUDES
															REMOVAL OF EXISTING CURB
2	CUMBERLAND FARMS, INC.	5	42+00 LT	42+80 LT			ACCESS	(T)	1,570 SF						ACCESS DURING CONSTRUCTION
			42+07 LT	42+77 LT			INSTALL	(T)	530 SF						TEMPORARY SIDEWALK AND
															LONGITUDINAL CHANNELIZING
															DEVICES
			42+35 LT	42+44 LT			INSTALL	(T)	78 SF						INLET PROTECTION

TABLE OF REVISIONS

REVISION NO.	SHEET NO.	DESCRIPTION	DATE

PLOT DATE 01/13/12

PLAN LEGEND

EXISTING RIGHT-OF-WAY		TOE OF SLOPE	
TAKING WITH ACCESS		TOP OF CUT	
TAKING WITHOUT ACCESS		SLOPE RIGHT	
CLEAR ZONE		CONSTRUCTION RIGHT	
PROPERTY LINE	PDF ——— PDF	PROJECT DEMARCATION FENCE	

EC	-EROSION CONTROL
(P)	-PERMANENT
(T)	-TEMPORARY
DR.	-DRAINAGE RIGHT
DIT.	-DITCHING RIGHT
CH.	-CHANNEL RIGHT
DRIVE	-DRIVE RIGHT
CUL.	-CULVERT RIGHT
C&T	-CLEARING & TRIMMING RIGHT
SR	-SLOPE RIGHT
UE	-UTILITY EASEMENT

APPROVED: HARRY PETROVS DATE: 03-28-11
CHIEF, PLANS & TITLES

PROJECT NAME: **COLCHESTER**
PROJECT NUMBER: **TCSP TCSE (9)**

FILE NAME: **r06b242detail.xls**
PROJECT LEADER: **J. SCHULTZ**
DESIGNED BY: **D. LYMAN**
R.O.W. DETAIL SHEET

PLOT DATE:
DRAWN BY: **M. TROTTIER**
CHECKED BY: **E. PIERCE**
SHEET **7** OF **22**

N

VT STATE PLANE GRID

616.21 - VERTICAL GRANITE CURB
STA 38+86.67 RT - 39+05.72 RT
STA 41+00.00 RT - 42+11.87 RT (MEDIAN WITH SLOPE TO VERTICAL TRANSITION SECTION)
STA 41+00.00 RT - 42+42.00 RT (MEDIAN WITH SLOPE TO VERTICAL TRANSITION SECTION)
STA 42+00.97 RT - 42+12.20 RT
STA 42+12.37 RT - 42+42.50 LT (MEDIAN)
STA 42+16.16 RT - 42+22.34 RT
STA 42+17.37 RT - 42+47.50 LT (MEDIAN)
STA 42+17.87 RT - 42+36.63 RT (MEDIAN)
STA 42+35.50 LT - 42+42.50 LT
STA 42+36.63 RT - 42+68.37 RT (MEDIAN) (70' RAD)
STA 42+47.50 LT - 42+54.50 LT
STA 42+48.00 RT - 42+67.73 RT (MEDIAN)
STA 42+67.73 RT - 42+68.37 RT (MEDIAN) (2' RAD)

616.28 - CAST-IN-PLACE CONCRETE CURB, TYPE B
STA 39+16.28 RT - 39+35.95 RT (DRIVE)

616.40 - REMOVING AND RESETTING CURB
*AS NEEDED TO INSTALL NEW VERTICAL GRANITE CURB

616.41 - REMOVAL OF EXISTING CURB
STA 38+86.66 RT - 38+93.89 RT
STA 38+98.72 RT - 39+05.72 RT
STA 39+16.27 RT - 39+23.28 RT (DRIVE)
STA 39+28.70 RT - 39+35.93 RT (DRIVE)
STA 42+00.97 RT - 42+22.35 RT (2)
STA 41+00.00 RT - 41+00.00 RT (MEDIAN)
STA 42+35.50 LT - 42+54.50 LT

618.10 - PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH
STA 42+04.17 RT - 42+08.24 RT (4' WIDTH)
STA 42+04.24 RT - 42+12.17 RT (SLOPED PAD)
STA 42+12.39 RT - 42+17.12 RT (RAMP)
STA 42+12.39 RT - 42+47.50 RT (MEDIAN ISLAND)
STA 42+37.49 LT - 42+52.49 LT (RAMP)

CONSTRUCT SIDEWALK RAMP
STA 42+14.65 RT - RAMP TYPE 1
STA 42+14.87 RT - MEDIAN ISLAND CUT THROUGH
STA 42+45.00 RT - MEDIAN ISLAND CUT THROUGH
STA 42+45.00 LT - RAMP TYPE 2

618.30 - DETECTABLE WARNING SURFACE
STA 42+14.65 RT
STA 42+14.87 RT (MEDIAN)
STA 42+45.00 RT (MEDIAN)
STA 42+45.00 LT

NOTE: DETECTABLE WARNING SURFACES SHALL BE CAST IRON FROM ONE OF MANUFACTURERS ON THE AGENCY'S APPROVED PRODUCTS LIST.

653.40 - INLET PROTECTION, TYPE I
STA 42+39.68 LT

N/F ST. MICHAELS COLLEGE

CUMBERLAND FARMS, INC.

N/F ZAHARIADIS

EXISTING TOPO SHOWN IN RED

MT. VIEW RD.

STATION 38+75.00
BEGIN PROJECT

TIE INTO GRANITE SLOPED EDGING INSTALLED AS PART OF COLCHESTER TCSP TCSE (007) PROJECT (STATIONING APPROXIMATE)
CONTRACTOR SHALL USE SECTION OF SLOPE TO VERTICAL TRANSITION CURB (GRANITE)

REPLACE EXISTING GRANITE SLOPED EDGING WITH VERTICAL GRANITE CURB 7" REVEAL (TYP.)

VT ROUTE 15
TO WINOOSKI

VT ROUTE 15
TO ESSEX JCT.

N 56°01'54" E

BEGIN R.O.W. PROJECT
STA. 38+88.5, 51.8' RT

END R.O.W. PROJECT
STA. 42+80, 33.6' LT

VERTICAL GRANITE CURB BEGIN STATION SHALL BE ADJUSTED TO MATCH EXISTING GRANITE CURB JOINT

ACCESS (T)
INSTALL (T)
INSTALL & MAINT (P)
REMOVE (T)

SIDEWALK TO BE REMOVED AND REPLACED WITH TURF ESTABLISHMENT

STATION 44+75.00
END PROJECT

NOTE: REMOVAL OF THE EXISTING BITUMINOUS SIDEWALK SHALL BE PAID FOR UNDER CONTRACT ITEM 203.15 COMMON EXCAVATION.

NOTE: THE LOCATION OF MT. VIEW ROAD HAS CHANGED SINCE THE SURVEY FOR THIS PROJECT WAS CONDUCTED.

NOTE: EXISTING LANDSCAPE FEATURES AND SIGNS SHALL REMAIN UNDISTURBED THROUGHOUT CONSTRUCTION UNLESS OTHERWISE NOTED

NOTE: IN AREAS WHERE NEW CURB CUTS AND SIDEWALK RAMPS ARE BEING INSTALLED, CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE TO AVOID PONDING.

NOTE: EXISTING DETECTABLE WARNING SURFACES SHALL BE CAREFULLY REMOVED AND SALVAGED TO VTRANS DISTRICT 5 MAINTENANCE GARAGE PRIOR TO PROJECT COMPLETION. COORDINATE THROUGH DICK HOSKING AT 802-655-1580.

203.15 COMMON EXCAVATION
STA 38+93.64 RT - 39+28.81 RT
(SIDEWALK REMOVAL)

616.47 BITUMINOUS CONCRETE GUTTERS AND TRAFFIC ISLANDS
STA 38+86.67 RT - 39+05.72 RT
STA 39+16.28 RT - 39+35.95 RT
STA 41+00.00 LT - 41+00.00 RT (MEDIAN)
STA 42+00.97 RT - 42+23.35 RT
STA 42+35.50 LT - 42+54.50 LT

(1) FANNY ALLEN HOLDINGS, INC., LESSOR; FLETCHER ALLEN HEALTH CARE, INC., LESSEE

LINE SHOWN ON THIS PLAN AS EXISTING PROPERTY LINES P/L ARE BELIEVED TO BE ACCURATE BUT SHOULD NOT BE RELIED UPON FOR PURPOSES UNRELATED TO THE STATE OF VERMONT'S AQUISITION OF LAND AND RIGHTS FOR THIS PROJECT.

FOR R.O.W. PURPOSES ONLY

0 20 40
SCALE IN FEET

PROJECT NAME: COLCHESTER
PROJECT NUMBER: TCSP TCSE (9)

FILE NAME: r06b242row.dgn
PROJECT LEADER: J. SCHULTZ
DESIGNED BY: D. LYMAN
R.O.W. LAYOUT PLAN

PLOT DATE: 23-FEB-2012
DRAWN BY: D. LYMAN
CHECKED BY: J. SCHULTZ
SHEET 8 OF 22

GPS CONTROL POINTS

HVCTRL #1

C95014
NORTH = 730793.670
EAST = 1471671.960
ELEV. = 326.540

DESCRIBED BY VERMONT AGENCY OF TRANSPORTATION 1996 (CHR) GENERAL LOCATION, ESSEX, VT. TO REACH FROM THE 5 CORNERS INTERSECTION OF VT ROUTES 2A, 15, AND 117 IN ESSEX JUNCTION GO NORTHWEST ALONG VT ROUTE 15 FOR 1.6 MI (2.6 KM) TO THE INTERSECTION OF SUSIE WILSON ROAD RIGHT. CONTINUE STRAIGHT AHEAD AND GO WEST ALONG VT ROUTE 15 FOR 0.4 MI (0.6 KM) TO THE MARK ON THE RIGHT IN A GRASS STRIP BETWEEN THE ROAD AND A WOVEN WIRE FENCE. IT IS 1.6 MI (2.6 KM) EAST ALONG VT ROUTE 15 FROM THE I-89 BRIDGES OVER VT ROUTE 15 AT EXIT 15 IN WINOOSKI. THE MARK IS SET 10 CM BELOW GROUND SURFACE IN THE TOP OF A CAST ALUMINUM MONUMENT. IT IS 3.9 M (12.8 FT) NORTH OF THE NORTH CURB OF VT ROUTE 15, 22.2 M (72.8 FT) SOUTHEAST OF A 100 CM OAK, 17.4 M (57.1 FT) WEST OF A 40 CM PINE, 6.9 M (22.6 FT) SOUTH OF A FIBERGLASS WITNESS POST AGAINST THE WOVEN WIRE FENCE, AND 0.2 M (0.7 FT) SOUTH OF A LONE FIBERGLASS WITNESS POST.

HVCTRL #2

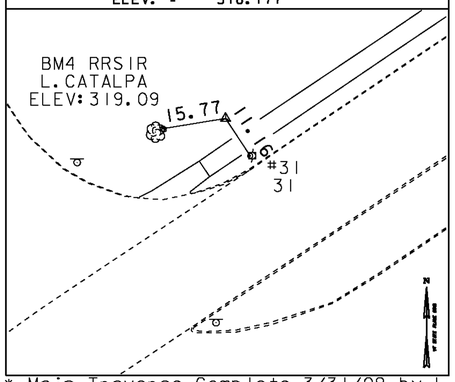
NOYES
NORTH = 729317.840
EAST = 1469377.460
ELEV. = 318.030

DESCRIBED BY VERMONT AGENCY OF TRANSPORTATION 1977 1.7 MI ENE FROM WINOOSKI. TO REACH THE STATION FROM THE LINCOLN INN, GO WEST ALONG VT. ROUTE 15 APPROXIMATELY 2.6 MILES TO GATE NO. 1 ENTRANCE TO CAMP JOHNSON, ON THE NORTHWEST SIDE OF THE ROAD, 251.5 FEET NORTHEAST OF THE CENTERLINE OF THE ENTRANCE TO CAMP JOHNSON, 47.8 FEET WEST OF THE CENTER OF A MAN-HOLE COVER IN THE SIDEWALK, 18 FEET NORTHWEST OF A DRILLHOLE IN THE TOP OF THE CURB ABOVE THE WEST CORNER OF A DRAIN INLET (THIS BEING THE SECOND DRAIN INLET NORTHEAST ALONG VT. ROUTE 15 FROM THE ENTRANCE TO CAMP JOHNSON), 18.8 FEET SOUTHEAST OF THE RIGHT-OF-WAY FENCE, 8.5 FEET NORTHWEST OF THE NORTHWEST EDGE OF A BITUMINOUS SIDEWALK, 61.5 FEET SOUTHWEST OF AN 18-INCH ELM, 38.7 FEET NORTHEAST OF A 20-INCH ELM.
STATION RECOVERY (1996) RECOVERY NOTE BY VERMONT AGENCY OF TRANSPORTATION (CHR) RECOVERED AS DESCRIBED. NOTE, ELM TREES AND DRILL HOLE IN CURB AT DI ARE GONE. TABLET HAS BEEN BEAT ON, HOWEVER INTEGRITY OF POSITION SHOULD STILL BE OK.

TRAVERSE TIES

HVCTRL #4

NORTH = 728651.533
EAST = 1468395.224
ELEV. = 318.777



NORTH =
EAST =
ELEV. =

NORTH =
EAST =
ELEV. =

NORTH =
EAST =
ELEV. =

NORTH =
EAST =
ELEV. =

* Main Traverse Complete 3/31/09 by L.Orvis P.C. & R.Bockus

ALIGNMENT TIES

NORTH =
EAST =
ELEV. =

NORTH =
EAST =
ELEV. =

NORTH =
EAST =
ELEV. =

NORTH =
EAST =
ELEV. =

NORTH =
EAST =
ELEV. =

DATUM

VERTICAL NAVD 88
HORIZONTAL NAD 83(07)
ADJUSTMENT Compass

PROJECT NAME: COLCHESTER
PROJECT NUMBER: TCSP TCSE (9)

FILE NAME: t06b242frm.dgn
PROJECT LEADER: J. SCHULTZ
DESIGNED BY: D. LYMAN
TIE SHEET

PLOT DATE: 23-FEB-2012
DRAWN BY: R. BULLOCK
CHECKED BY: P. HODGE
SHEET 9 OF 22

N

VT STATE PLANE GRID

616.21 - VERTICAL GRANITE CURB
STA 38+86.67 RT - 39+05.72 RT
STA 41+00.00 RT - 42+11.87 RT (MEDIAN WITH SLOPE TO VERTICAL TRANSITION SECTION)
STA 41+00.00 RT - 42+42.00 RT (MEDIAN WITH SLOPE TO VERTICAL TRANSITION SECTION)
STA 42+00.97 RT - 42+12.20 RT
STA 42+12.37 RT - 42+42.50 LT (MEDIAN)
STA 42+17.16 RT - 42+22.34 RT
STA 42+17.37 RT - 42+47.50 LT (MEDIAN)
STA 42+17.87 RT - 42+36.63 RT (MEDIAN)
STA 42+35.50 LT - 42+42.50 LT
STA 42+36.63 RT - 42+68.37 RT (MEDIAN) (70' RAD)
STA 42+47.50 LT - 42+54.50 LT
STA 42+48.00 RT - 42+67.73 RT (MEDIAN)
STA 42+67.73 RT - 42+68.37 RT (MEDIAN) (2' RAD)

616.28 - CAST-IN-PLACE CONCRETE CURB, TYPE B
STA 39+16.28 RT - 39+35.93 RT (DRIVE)

616.40 - REMOVING AND RESETTING CURB
*AS NEEDED TO INSTALL NEW VERTICAL GRANITE CURB

616.41 - REMOVAL OF EXISTING CURB
STA 38+86.66 RT - 38+93.89 RT
STA 38+98.72 RT - 39+05.72 RT
STA 39+16.27 RT - 39+23.28 RT (DRIVE)
STA 39+28.70 RT - 39+35.93 RT (DRIVE)
STA 42+00.97 RT - 42+22.35 RT
STA 41+00.00 RT - 41+00.00 RT (MEDIAN)
STA 42+35.50 LT - 42+54.50 LT

618.10 - PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH
STA 42+04.17 RT - 42+08.24 RT (4' WIDTH)
STA 42+04.24 RT - 42+12.17 RT (SLOPED PAD)
STA 42+12.39 RT - 42+17.12 RT (RAMP)
STA 42+12.39 RT - 42+47.50 RT (MEDIAN ISLAND)
STA 42+37.49 LT - 42+52.49 LT (RAMP)

CONSTRUCT SIDEWALK RAMP
STA 42+14.65 RT - RAMP TYPE 1
STA 42+14.87 RT - MEDIAN ISLAND CUT THROUGH
STA 42+45.00 RT - MEDIAN ISLAND CUT THROUGH
STA 42+45.00 LT - RAMP TYPE 2

618.30 - DETECTABLE WARNING SURFACE
STA 42+14.65 RT
STA 42+14.87 RT (MEDIAN)
STA 42+45.00 RT (MEDIAN)
STA 42+45.00 LT

NOTE: DETECTABLE WARNING SURFACES SHALL BE CAST IRON FROM ONE OF MANUFACTURERS ON THE AGENCY'S APPROVED PRODUCTS LIST

653.40 - INLET PROTECTION, TYPE I
STA 42+39.68 LT

MT. VIEW RD.
STATION 38+75.00
BEGIN PROJECT
VT ROUTE 15
TO WINOOSKI
TIE INTO GRANITE SLOPED EDGING INSTALLED AS PART OF COLCHESTER TCSP TCSE (007) PROJECT (STATIONING APPROXIMATE)
CONTRACTOR SHALL USE SECTION OF SLOPE TO VERTICAL TRANSITION CURB (GRANITE)
REPLACE EXISTING GRANITE SLOPED EDGING WITH VERTICAL GRANITE CURB 7" REVEAL (TYP.)
DETECTABLE WARNING SURFACE (TYP.)
PROP. SIDEWALK ELEV=318.25
PROP. SIDEWALK ELEV=318.27 (SEE DETAIL ON TYPICAL SHEET)
VERTICAL GRANITE CURB BEGIN STATION SHALL BE ADJUSTED TO MATCH EXISTING GRANITE CURB JOINT
SIDEWALK TO BE REMOVED AND REPLACED WITH TURF ESTABLISHMENT
STANCHION
CONTROLLER
PB1
PB2
PB3
P1
P2
P3
P4
MAP1
B101
R=70
R=2
N 56°01'54" E
39+00
40+00
41+00
42+00
43+00
44+00
VT ROUTE 15
TO ESSEX JCT.
STATION 44+75.00
END PROJECT

NOTE: REMOVAL OF THE EXISTING BITUMINOUS SIDEWALK SHALL BE PAID FOR UNDER CONTRACT ITEM 203.15 COMMON EXCAVATION.

NOTE: THE LOCATION OF MT. VIEW ROAD HAS CHANGED SINCE THE SURVEY FOR THIS PROJECT WAS CONDUCTED.

NOTE: EXISTING LANDSCAPE FEATURES AND SIGNS SHALL REMAIN UNDISTURBED THROUGHOUT CONSTRUCTION UNLESS OTHERWISE NOTED

NOTE: IN AREAS WHERE NEW CURB CUTS AND SIDEWALK RAMPS ARE BEING INSTALLED, CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE TO AVOID PONDING.

NOTE: EXISTING DETECTABLE WARNING SURFACES SHALL BE CAREFULLY REMOVED AND SALVAGED TO VTRANS DISTRICT 5 MAINTENANCE GARAGE PRIOR TO PROJECT COMPLETION. COORDINATE THROUGH DICK HOSKING AT 802-655-1580.

203.15 COMMON EXCAVATION
STA 38+93.64 RT - 39+28.81 RT
(SIDEWALK REMOVAL)

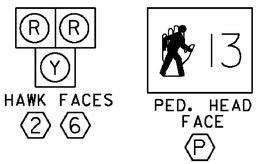
616.47 BITUMINOUS CONCRETE GUTTERS AND TRAFFIC ISLANDS
STA 38+86.67 RT - 39+05.72 RT
STA 39+16.28 RT - 39+35.95 RT
STA 41+00.00 LT - 41+00.00 RT (MEDIAN)
STA 42+00.97 RT - 42+23.35 RT
STA 42+35.50 LT - 42+54.50 LT

0 20 40
SCALE IN FEET

PROJECT NAME:	COLCHESTER
PROJECT NUMBER:	TCSP TCSE (9)
FILE NAME: t06b242bdr.dgn	PLOT DATE: 23-FEB-2012
PROJECT LEADER: J. SCHULTZ	DRAWN BY: D. LYMAN
DESIGNED BY: D. LYMAN	CHECKED BY: J. SCHULTZ
CONSTRUCTION PLAN	SHEET 10 OF 22

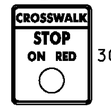
EQUIPMENT ITEM 678.15	QUANTITY
ECONOLITE ASC/3-2100 TRAFFIC SIGNAL CONTROLLER	1
ECONOLITE "P44" BASE MOUNTED CONTROLLER CABINET WITH 15-INCH EXTENDED BASE ON A CONCRETE FOUNDATION, PAINTED FLAT BLACK WITH ANCILLARY CONTROL EQUIPMENT	1
FLAT BLACK PAINTED STEEL MAST ARM SIGNAL POLE WITH 33 FOOT MAST ARM AND 36 FOOT MAST ARM (MAP1)	1
FLAT BLACK PAINTED PEDESTAL POST (8')	4
ONE WAY, 3-SECTION, HAWK, 12-INCH POLYCARBONATE MAST ARM MOUNTED LED TRAFFIC SIGNAL HEAD WITH TUNNEL VISORS AND 5" LOUVERED BACKPLATES WITH ALL PIECES PAINTED FLAT BLACK (BACKPLATES SHALL HAVE A 2" YELLOW RETROREFLECTIVE STRIP AROUND PERIMETER)	5
POST MOUNTED 16-INCH LED COUNTDOWN PEDESTRIAN SIGNAL HEAD WITH AUDIBLE INDICATORS	4
VTRANS SPEC ACCESSIBLE PEDESTRIAN PUSH BUTTONS WITH R10-3e TYPE SIGN ASSEMBLY	4
ASTRO-BRACKETS	5
ENCOM MODEL EP-5200, RS-232, SHELF MOUNT RADIO	1
YAGI ANTENNA, 8.5 DB, 900 MHZ	1
LIGHTNING PROTECTION	1
6' RF JUMPER CABLE	1
ENCOM DATA CABLE, CB-81	1
LMR COAXIAL CABLE, CB-1055	1

SIGNAL FACE ARRANGEMENT

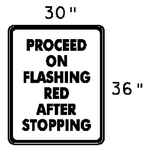


ALL HEADS TO BE LED'S

W11-2



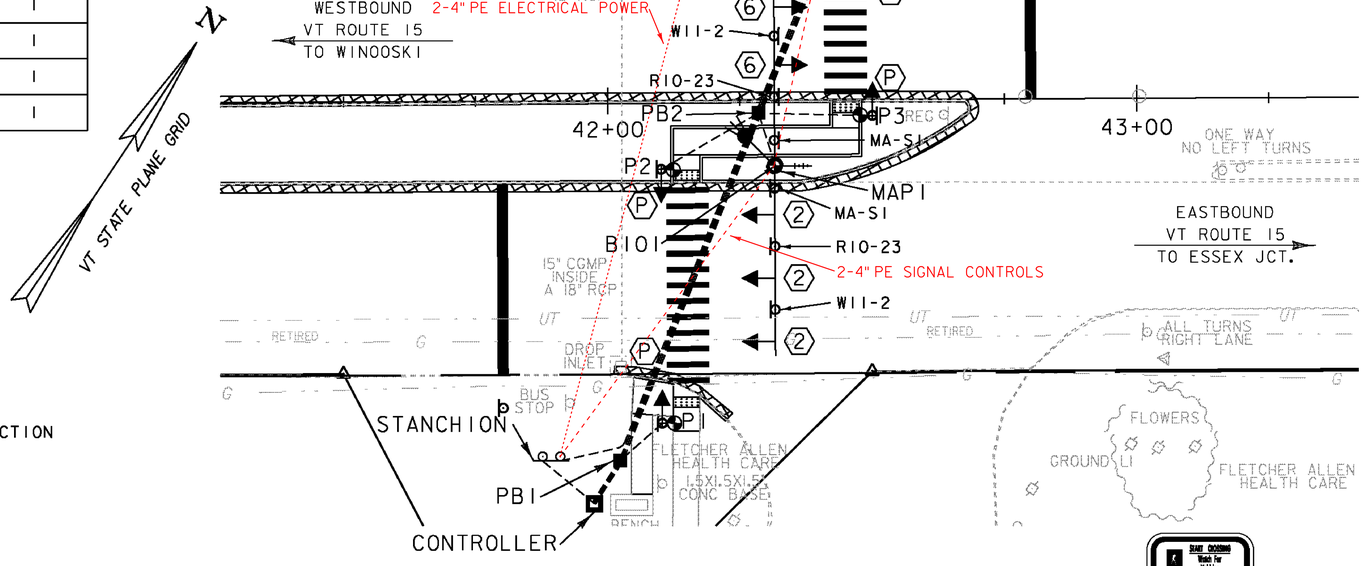
R10-23



MA-S1

678.23 - WIRED CONDUIT (PVC) (SCH 80)	CONDUIT SIZE 2"	3"	4"	DESCRIPTION
POWER TO HDD			57'	*POWER SERVICE
HDD TO STANCHION			21'	*POWER SERVICE
STANCHION TO CONTROLLER		23'		POWER
PB1 TO CONTROLLER		45' (3X15)		POWER AND SPARE
PB1 TO P1	17'			POWER
PB3 TO P4	16'			POWER
PB2 TO P3	28'			POWER
PB2 TO MAP1		16'		POWER
PB2 TO P2	27'			POWER
SUBTOTALS	88'	84'	78'	
ROUNDING	7'	6'	7'	
TOTALS	95'	90'	85'	

*-CONDUIT QUANTITY INCLUDES PVC RUN ON UTILITY POLE #33/33. ELECTRICAL SERVICE CONDUIT SHALL REMAIN AS ONE CONTINUOUS RUN FROM POLE TO STANCHION AND SHALL NOT ENTER ANY PULL BOXES. HORIZONTAL DIRECTIONAL DRILLING (HDD) SHALL BE PAID FOR AS SPECIAL PROVISION 900.640 ITEM AND NOT AS 678.23 WIRED CONDUIT.



678.15 TRAFFIC CONTROL SIGNAL SYSTEM, INTERSECTION

MAST ARM POLE
STA 42+31.50 RT (12.40' RT) MAP1

CABINET/CONTROLLER
STA 41+97 RT (76.00' RT)

POWER STANCHION
STA 41+89.00 RT (68.00' RT)

PEDESTRIAN SIGNAL POLES
STA 42+10.00 RT (61.00' RT) P1
STA 42+10.00 RT (13.00' RT) P2
STA 42+50.00 RT (3.00' RT) P3
STA 42+50.00 LT (26.50' LT) P4

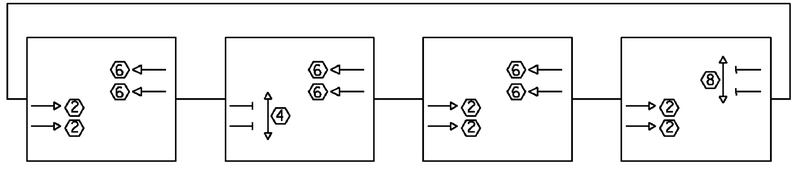
678.25 PULL BOX, STANDARD
STA 42+02.00 RT (68.00' RT) PB1
STA 42+28.50 RT (2.45' RT) PB2
STA 42+40.00 LT (26.00' LT) PB3

679.47 BRACKET ARM
STA 42+31.50 RT - 250W - HPS FULL-CUTOFF (MAP1)

679.50 LUMINAIRE
STA 42+31.50 RT - 250W - HPS FULL-CUTOFF (MAP1)

SPECIAL PROVISION 900.640
(HORIZONTAL DIRECTIONAL DRILLING) (4 X 4" SCH. 80 HDPE CASING PIPES)
STA 42+02.00 RT - 42+40.00 LT JB1 - JB3

PHASING DIAGRAM



PEDESTRIAN PHASE CROSSING VT 15 EAST

PEDESTRIAN PHASE CROSSING VT 15 WEST

R10-3e
9" X 15"

PEDESTRIAN PUSHBUTTON SIGN

SIGNAL PHASING NOTES:

1. SIGNAL HEADS SHALL REMAIN IN THE DARK MODE IF THERE IS NO PEDESTRIAN ACTIVATION.

2. WHEN PUSH BUTTON IS ACTIVATED THE SIGNAL HEADS SHALL GO TO FLASHING YELLOW FOR 5 SECONDS. THE SIGNAL HEADS SHALL THEN GO TO SOLID YELLOW FOR 4 SECONDS.

3. THE SIGNAL HEADS SHALL GO TO SOLID RED FOR 5 SECONDS (BOTH RED SECTIONS) AND PEDESTRIAN SIGNAL HEADS SHALL SHOW WALK AND COUNT DOWN SHALL BEGIN.

4. THE SIGNAL HEADS SHALL SHOW FLASHING ALTERNATING RED FOR 11 SECONDS FOR WEST BOUND VT ROUTE 15 AND 15 SECONDS FOR EAST BOUND VT ROUTE 15 AND THE PEDESTRIAN SIGNAL HEADS SHALL SHOW FLASHING "DON'T WALK" WITH THE CORRESPONDING COUNT DOWN DISPLAY. THE PEDESTRIAN SIGNAL HEADS SHALL SHOW SOLID "DON'T WALK" FOR THE FINAL 4 SECONDS OF EACH PHASE AS A BUFFER INTERVAL.

5. THE SIGNAL HEADS SHALL RETURN TO DARK MODE UNTIL ANOTHER PEDESTRIAN ACTIVATION. THE PEDESTRIAN SIGNAL SHALL SHOW THE SOLID "DON'T WALK".

6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROGRAMMING THE CONTROLLER SUCH THAT IT WILL RUN IN COORDINATION WITH THE ADJACENT COORDINATED SIGNAL SYSTEM. THE CONTRACTOR SHALL CONTACT THE ENGINEER FOR ANY EXISTING TIMING INFORMATION AS NEEDED.

EXISTING	NEW	LEGEND
		UTILITY POLE
		LUMINAIRE
		STRAIN POLE
		CONTROLLER CABINET
		PULLBOX/JUNCTION BOX
		SIGNAL HEAD
EX		CONDUIT
		PEDESTAL POST
		STANCHION
		RADIO ANTENNA
		PEDESTRIAN PUSH BUTTON

0 15 30
SCALE

PROJECT NAME: COLCHESTER
PROJECT NUMBER: TCSP TCSE (9)

FILE NAME: t06b242ts.dgn
PROJECT LEADER: J. SCHULTZ
DESIGNED BY: D. LYMAN
TRAFFIC SIGNAL PLAN

PLOT DATE: 23-FEB-2012
DRAWN BY: D. LYMAN
CHECKED BY: J. SCHULTZ
SHEET 11 OF 22

TRAFFIC SIGNAL NOTES

A. NEW SIGNAL EQUIPMENT

1. ALL SIGNAL HEADS SHALL BE 12" POLYCARBONATE.
2. ALL SIGNAL HEADS SHALL HAVE 5" BLACK LOUVERED BACK PLATES WITH A 2" YELLOW RETROREFLECTIVE STRIP AROUND PERIMETER.
3. THE TRAFFIC SIGNAL CONTROLLER AND RELATED EQUIPMENT SHALL BE MANUFACTURED BY ECONOLITE CONTROL PRODUCTS, INC. CONTROLLER SHALL BE AN ECONOLITE ASC/3-2100 (NEMA TS2) IN A NEMA P44 TRAFFIC CONTROL CABINET WITH 15-INCH BASE EXTENSION INSTALLED AT THE LOCATION SHOWN ON TRAFFIC LAYOUT SHEET. TRAFFIC CONTROL CABINET SHALL BE ORIENTATED SUCH THAT THE DOOR DOES NOT FACE THE ROADWAY. THE CONCRETE BASE FOR THE CONTROLLER CABINET SHALL HAVE A 18" X 12" OPENING FOR TRAFFIC SIGNAL CONDUIT LOCATED IN THE CENTER.
4. ALL SIGNAL HEADS SHALL HAVE RED AND YELLOW LED SIGNALS WITH A VISIBLE BEAM SPREAD OF 80 DEGREES OFF AXIS.
5. ALL SIGNAL EQUIPMENT SHALL BE PAINTED FLAT BLACK IN ACCORDANCE WITH THE SPECIAL PROVISIONS.
6. ALL SIGNAL EQUIPMENT AND MAST ARM MOUNTED SIGNS SHALL HAVE SAFETY CABLES.

B. SIGNAL OPERATION

1. SWITCH-OVER TO NEW SIGNAL SYSTEM SHALL NOT BE DONE DURING PEAK TRAFFIC PERIODS. UNIFORMED TRAFFIC OFFICERS SHALL CONTROL TRAFFIC DURING SWITCH-OVER.
2. ALL SIGNALS SHALL REMAIN DARK UNLESS ACTIVATED.
3. SIGNAL TIMING SHOWN ON THE PLANS MAY REQUIRE FINE-TUNING IN THE FIELD BASED ON TRAFFIC OBSERVATION AND/OR ADDITIONAL FIELD STUDIES.

C. PULLBOXES AND JUNCTION BOXES

1. PULLBOXES AND JUNCTION BOXES ARE DETAILED ON STANDARD E-173. MINIMUM JUNCTION BOX SIZE SHALL BE 18" x 12" x 12", OR LARGER AS REQUIRED BY THE ELECTRICAL CODE.
2. THE LOGO ON PULLBOXES / JUNCTION BOXES SHALL BE "TRAFFIC SIGNAL".
3. ALL PULLBOXES / JUNCTION BOXES SHALL BE INSTALLED IN ACCORDANCE WITH SECTION 678.

D. TRAFFIC SIGNAL CONDUIT

1. ALL TRAFFIC SIGNAL WIRED CONDUIT SHALL BE 2-INCH, 3-INCH, OR 4-INCH SCHEDULE 80.
2. ALL TRAFFIC SIGNAL CONDUIT WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 678.

E. MAST ARM FOUNDATIONS

1. SEE TRAFFIC GENERAL NOTES AND THE CONTRACT DOCUMENTS FOR THE GEOTECHNICAL ANALYSIS.

F. GENERAL

1. A UNIFORMED TRAFFIC OFFICER WITH A BLUE LIGHT SHALL BE PRESENT DURING ALL LANE CLOSURES.
2. THE CONTRACTOR SHALL ACQUIRE ALL THE NECESSARY PERMITS AND MAKE ALL NECESSARY ARRANGEMENTS WITH THE UTILITY COMPANY TO PROVIDE A PERMANENT POWER SUPPLY TO THE TRAFFIC SIGNAL 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.
3. THE CONTRACTOR SHALL RETURN ANY SALVAGED SIGNS TO THE VTRANS DISTRICT 5 MAINTENANCE GARAGE IN COLCHESTER PRIOR TO PROJECT COMPLETION. COORDINATE THROUGH STEVE GUYETTE AT 802-655-1580.
4. SEE CONTROLLER ID PLAQUE DETAIL ON THIS SHEET.
5. THE NEW SIGNAL SHALL BE INTERCONNECTED WITH THE INTERSECTION AT VT ROUTE 15 AND VERMONT NATIONAL GUARD ROAD. THE NEW ANTENNA SHALL BE SECURELY MOUNTED TO MAST ARM POLE 1 OR AS DIRECTED BY THE ENGINEER. ALL REQUIRED EQUIPMENT AND SET UP OF THE INTERCONNECT SHALL BE INCIDENTAL TO CONTRACT ITEM 678.15 TRAFFIC CONTROL SIGNAL SYSTEM, INTERSECTION.
6. ALL ELECTRICAL WIRING SHALL BE DONE BY A LICENSED ELECTRICIAN AND OVERSEEN BY A MASTER ELECTRICIAN.
7. SEE SPECIAL PROVISIONS FOR HORIZONTAL DIRECTIONAL DRILLING INFORMATION.

CONTROLLER IDENTIFICATION PLAQUE

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

NOTES:

1.) 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.

2.) THE LETTERS SHALL BE PUNCHED OR STAMPED, SUCH STAMPING SHALL PENETRATE AT LEAST 1/2 THE BASE MATERIAL THICKNESS.

3.) THE BASE MATERIAL FOR THE PLAQUE SHALL BE BRASS OR ALUMINUM WITH A MINIMUM THICKNESS OF 0.100 INCHES.

PROJECT NAME:	COLCHESTER
PROJECT NUMBER:	TCSP TCSE (9)
FILE NAME: t06b242ts.dgn	PLOT DATE: 27-FEB-2012
PROJECT LEADER: J. SCHULTZ	DRAWN BY: D. LYMAN
DESIGNED BY: D. LYMAN	CHECKED BY: J. SCHULTZ
TRAFFIC SIGNAL NOTES	SHEET 12 OF 22

TRAFFIC SIGNAL GENERAL NOTES

1. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE STATE OF VERMONT, AGENCY OF TRANSPORTATION'S STANDARD SPECIFICATIONS FOR CONSTRUCTION, DATED 2011, AND ITS LATEST REVISIONS.

2. OVERHEAD SIGN/SIGNAL SUPPORTS SHALL CONFORM TO AASHTO'S PUBLICATION ENTITLED ''STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS'', DATED 2009 OR ITS LATEST REVISION.

3. THE DESIGN CALCULATIONS SHALL TAKE INTO ACCOUNT THE FOLLOWING CRITERIA:

   STRUCTURE CRITERIA
   DESIGN LIFE: 50 YEARS
   WIND LOAD - 90 MPH, UNLESS SPECIAL SITE CONDITIONS DICTATE
   ICE LOAD PER AASHTO'S PUBLICATION ENTITLED "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINARES, AND TRAFFIC SIGNALS", DATED 2009

   FATIGUE CRITERIA
   FATIGUE CATEGORY:
   I FOR MAST ARM SIGN STRUCTURES, 2 FOR SIGNAL MAST ARMS
   VORTEX SHEDDING: INCLUDE
   NATURAL WIND GUSTS: INCLUDE
   TRUCK INDUCED WIND GUSTS: INCLUDE FOR ROADWAYS WHERE SPEED LIMIT IS 40 MPH OR GREATER.
   GALLOPING: DO NOT INCLUDE IN DESIGN CALCULATIONS

   FOUNDATION CRITERIA
   CONCRETE: CONCRETE, HIGH PERFORMANCE CLASS B, STATE OF VERMONT, AGENCY OF TRANSPORTATION'S "STANDARD SPECIFICATIONS FOR CONSTRUCTION", DATED 2011, SECTION 501.
   REINFORCING STEEL: STATE OF VERMONT, AGENCY OF TRANSPORTATION'S "STANDARD SPECIFICATIONS FOR CONSTRUCTION", DATED 2011, SUBSECTION 713.01.
   ALLOWABLE BEARING CAPACITY: TO BE DETERMINED BY THE CONTRACTOR IN ACCORDANCE WITH MREI 10-01
   INTERNAL SOIL FRICTION ANGLE, Φ : TO BE DETERMINED BY THE CONTRACTOR IN ACCORDANCE WITH MREI 10-01

4. ANCHOR BOLTS

   FOUR STAINLESS STEEL ANCHOR BOLTS WITH TWO HEXAGON NUTS, ONE WASHER AND ONE LOCK WASHER PER BOLT SHALL BE FURNISHED WITH EACH POLE. ANCHOR BOLT PLATES, WHEN USED, SHALL ALSO BE STAINLESS STEEL. STATE OF VERMONT, AGENCY OF TRANSPORTATION'S "STANDARD SPECIFICATIONS FOR CONSTRUCTION", DATED 2011, SUBSECTION 714.09.

5. FLANGE BOLTS

   ALL FLANGE BOLTS AND HEX NUTS SHALL BE HIGH STRENGTH STEEL AND SHALL CONFORM TO STATE OF VERMONT, AGENCY OF TRANSPORTATION'S "STANDARD SPECIFICATIONS FOR CONSTRUCTION", DATED 2011, SUBSECTION 714.05.

6. HORIZONTAL AND VERTICAL MEMBERS

   STEEL TUBES SHALL BE FORMED AND WELDED WITH ONE CONTINUOUS LONGITUDINAL WELD ONLY. AFTER FORMING AND WELDING THEY SHALL BE COLD ROLLED TO ENSURE UNIFORMITY OF SIZE AND SMOOTHNESS OF WELD. THERE SHALL BE NO TRANSVERSE WELDING EXCEPT AT THE FLANGE CONNECTIONS AND POLE BASE PLATES, WHERE THE TUBES SHALL TELESCOPE THE FLANGES AND PLATES AND BE CONTINUOUSLY WELDED BOTH SIDES, INSIDE AND OUT TO WITHSTAND THE FULL TRANSFER OF THE BENDING STRENGTH TO THE BOLTS. OPTIONALLY, THE MEMBERS MAY BE A SERIES OF TWO OR THREE DIFFERENT DIAMETER PIPES WELDED TOGETHER. STEEL TUBES SHALL BE CONSTRUCTED FROM MATERIALS CONFORMING TO STATE OF VERMONT, AGENCY OF TRANSPORTATION'S "STANDARD SPECIFICATIONS FOR CONSTRUCTION", DATED 2011, SUBSECTION 752.02.

7. GALVANIZING

   ALL STEEL COMPONENTS, EXCEPT CONCRETE REINFORCING AND STAINLESS STEEL HARDWARE, ARE TO BE HOT DIPPED GALVANIZED AFTER FABRICATION. THE ASSEMBLIES SHALL BE DESIGNED AND FABRICATED TO PERMIT GALVANIZING ON ALL INTERIOR AND EXTERIOR SURFACES AND SHALL BE FREE OF POCKETS AND OTHER STRUCTURAL OBSTRUCTIONS THAT WILL NOT PERMIT PROPER DEPOSITION OF ZINC COATING. GALVANIZING SHALL BE IN ACCORDANCE WITH STATE OF VERMONT, AGENCY OF TRANSPORTATION'S "STANDARD SPECIFICATIONS FOR CONSTRUCTION", DATED 2011, SUBSECTION 752.02.

8. WELDING

   ALL DESIGN DETAILS, WORKMANSHIP, PROCEDURES AND INSPECTION SHALL CONFORM TO VTRANS SPECIFICATIONS SUBSECTION 506.10.

9. FOUNDATIONS

   A. FOUNDATIONS SHALL BE DESIGNED IN ACCORDANCE WITH THE MREI 10-01 GUIDELINES ISSUED BY THE AGENCY.

   B. FOUNDATIONS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE FOLLOWING NOTES:

      1. EXCEPT FOR THE UPPERMOST 2 FT OF SOIL, THE DRILLED SHAFT FOUNDATION SHALL BE POURED AGAINST UNDISTURBED MATERIAL; THE TOP 2 FT OF SOIL SHALL BE NEGLECTED FOR DESIGN PURPOSES. A DISPOSABLE CIRCULAR CONCRETE FORM, IF USED, SHALL NOT BE PLACED DEEPER THAN 2FT, IN ORDER NOT TO REDUCE THE FRICTION BETWEEN THE SOIL AND THE CONCRETE.

      2. BACKFILL MATERIAL PLACED ADJACENT TO THE FOUNDATION SHALL MEET THE REQUIREMENTS FOR GRANULAR BACKFILL FOR STRUCTURES, VTRANS SPECIFICATION SUBSECTION 704.08. BACKFILL MATERIAL SHALL BE COMPACTED AS DESCRIBED IN VTRANS' CONSTRUCTION SPECIFICATIONS SUBSECTION 204.08.

      3. CONCRETE FOR THE FOUNDATION SHALL CONFORM TO THE REQUIREMENTS OF SECTION 501, HPC STRUCTURAL CONCRETE. THE CONCRETE SPECIFICATIONS MAY NEED TO BE ADJUSTED FOR CONSTRUCTABILITY ISSUES. HOWEVER, IF REQUIRED, THE CONTRACTOR SHALL SUBMIT ANY CHANGES TO THE CONCRETE SPECIFICATION FOR REVIEW BY THE VTRANS PROJECT MANAGER.

      4. STEEL PILES SHALL MEET THE REQUIREMENTS OF SECTION 505.

      5. WHEN THE DESIGN DEPTH OF A FOUNDATION CANNOT BE OBTAINED DUE TO UNFORESEEN FIELD CONDITIONS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER FOR THE MANUFACTURER TO OBTAIN A REVISED FOUNDATION DESIGN. SUCH A REVISION SHALL BE SUBMITTED TO THE VERMONT, AGENCY OF TRANSPORTATION, PROJECT MANAGER AND MAY REQUIRE UP TO A 4 WEEK REVIEW PERIOD BY VTRANS.

   C. SIGNALS/SIGNS SHALL BE INSTALLED AND LEVELED AND POLES SHALL BE PLUMB PRIOR TO PLACING GROUT UNDER POLE BASE. GROUT MATERIAL SHALL BE NON-SHRINKING MORTAR CONFORMING TO SUBSECTION 707.03.

10. EACH OVERHEAD TRAFFIC SIGNAL/SIGN SUPPORT SHALL BE GROUNDED. THE GROUND SHALL CONSIST OF:

    A. AN INTERNAL GROUND LUG OPPOSITE THE HAND HOLE.

    B. A #6 AWG (MIN.) SOFT DRAWN COPPER GROUNDING ELECTRODE CONDUCTOR.

    C. A 5/8 IN. X 8 FT (MIN) COPPER CLAD GROUNDING ELECTRODE. THE RESISTANCE TO GROUND SHALL BE 25 OHMS OR LESS. ADDITIONAL GROUNDING ELECTRODES MAY BE REQUIRED (MINIMUM SPACING SHALL BE 6 FT). WHEN A POWER SERVICE, METER AND DISCONNECT ARE ATTACHED TO A POLE, THERE SHALL BE A CONTINUOUS GROUNDING ELECTRODE CONDUCTOR FROM THE METER AND DISCONNECT WHICH MAY RUN INTERNAL TO THE UPRIGHT, THROUGH THE 1/2 IN. FLEXIBLE TUBING IN THE CONCRETE BASE TO THE REQUIRED GROUNDING ELECTRODE(S). THE GROUNDING ELECTRODE CONDUCTOR FROM THE POLE GROUNDING LUG, CONTROLLER CABINET AND/OR LUMINAIRE MAY ATTACH TO THIS CONTINUOUS GROUNDING ELECTRODE CONDUCTOR FROM THE SERVICE METER AND DISCONNECT. THE CONTRACTOR SHALL PERFORM A RESISTANCE TO GROUND TEST ON THE CONTINUOUS GROUNDING ELECTRODE CONDUCTOR FROM THE SERVICE METER AND DISCONNECT, AND PROVIDE A WRITTEN STATEMENT TO THE AREA ELECTRICAL INSPECTOR THAT THE GROUNDING ELECTRODE CONDUCTOR IS CONTINUOUS FROM THE SERVICE METER AND DISCONNECT AND THE RESISTANCE TO GROUND IS 25 OHMS OR LESS.

11. HORIZONTAL MEMBERS SHALL BE CAMBERED AND THE VERTICAL POLES BACK RAKED (WHERE APPLICABLE) TO THE ANTICIPATED DEAD LOAD DEFLECTION PLUS THE CAMBER, IF ANY, SPECIFIED ON THE PLANS.

12. AN EQUIVALENT ALTERNATE DESIGN MAY BE SUBSTITUTED FOR THE DETAILS AND MATERIALS SHOWN.

13. THE DETAILS OF DESIGN FOR THE STRUCTURE AND FOUNDATION ARE TO BE SUPPLIED BY THE CONTRACTOR AND/OR BY THE MANUFACTURER, THE STRUCTURE SHALL BE DESIGNED TO RESIST THE MAXIMUM LOADING AS OUTLINED IN THE AASHTO STANDARD SPECIFICATIONS (SEE NOTE 2). ALL DESIGN CALCULATIONS FOR THE STRUCTURE AND THE FOUNDATION SHALL BE CHECKED AND STAMPED BY A LICENSED PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF VERMONT PRIOR TO SUBMITTAL OF THE FABRICATION DRAWINGS TO THE VERMONT AGENCY OF TRANSPORTATION.

14. THE CONTRACTOR SHALL SUBMIT THREE(3) COPIES OF THE DESIGN CALCULATIONS TO THE VERMONT AGENCY OF TRANSPORTATION, PROJECT MANAGER, SHOWING THE FOLLOWING INFORMATION FOR EACH OF THE VERTICAL AND HORIZONTAL COMPONENTS OF THE STRUCTURE AND FOUNDATION:

    A. THE DESIGN AXIAL AND SHEAR FORCES AND BENDING AND TORSIONAL MOMENTS ACTING AT THE TOP OF THE FOUNDATION.

    B. THE DESIGN AXIAL, BENDING AND SHEAR STRESSES AND THE COMBINED STRESS RATIO.

    C. THE ALLOWABLE AXIAL, BENDING, AND SHEAR STRESSES.

    D. ITEMS A, B, C SHALL BE SHOWN FOR EACH OF THE GROUP LOADINGS (I, II, III) AND FOR THE BASIC WIND LOAD APPLIED TO THE TWO CASES OUTLINED IN THE AASHTO STANDARD SPECIFICATIONS (SEE NOTE 2) SECTION 1.2.5(D)(4).

    E. FAILURE TO SUPPLY THE PROPER DESIGN INFORMATION SHALL BE CAUSE FOR REJECTION OF THE STRUCTURE.

    F. A MINIMUM OF FOUR (4) WEEKS SHALL BE REQUIRED FOR REVIEW BY THE VERMONT AGENCY OF TRANSPORTATION.

    G. EVERY MEMBER AND CONNECTION IN AN OVERHEAD TRAFFIC SIGNAL SUPPORT SHALL BE DESIGNED TO PROVIDE ADDITIONAL RESIDUAL CAPACITY FOR FUTURE MODIFICATION EQUIVALENT TO A 5-SECTION TRAFFIC SIGNAL HEAD WITH A 5 INCH LOUVERED BACKPLATE LOCATED ON THE OUTERMOST EXTENT OF THE MAST ARM.

15. FABRICATION DRAWINGS (6 COPIES OF EACH) SHALL BE SUBMITTED TO THE STATE OF VERMONT, AGENCY OF TRANSPORTATION, PROJECT MANAGER FOR APPROVAL PRIOR TO FABRICATION. THE FABRICATION DRAWINGS SHALL INCLUDE THE FOLLOWING INFORMATION:

    A. DETAILED DRAWING OF EACH COMPONENT OF THE STRUCTURE.

    B. MATERIAL SPECIFICATION FOR EACH COMPONENT OF THE STRUCTURE, EITHER BY COMPLETE SPECIFICATION OR REFERENCE TO APPLICABLE ASTM STANDARDS.

    C. NOTATION OF PROJECT NAME, PROJECT NUMBER, ROUTE NUMBER, AND STRUCTURE STATIONING (TO BE INCLUDED ON EACH SHEET).

    D. DETAILS FOR LOCATION OF SIGNS/SIGNALS AND ATTACHMENT HARDWARE FOR THE SUPPORT STRUCTURE.

    E. ALL ELEVATIONS AND DIMENSIONS NECESSARY TO PROVIDE A COMPLETE SET OF RECORD PLANS.

    F. DEAD LOAD DEFLECTION AND CAMBER INFORMATION.

    G. WELDING DETAILS AND PROCEDURES ARE REQUIRED FOR ALL WELDS. PROCEDURES SHALL BE SUBMITTED FOR APPROVAL WITH REFERENCE TO EACH WELD IDENTIFIED ON THE FABRICATION DRAWINGS. (SEE SUBSECTION 506.10).

16. THE TRAFFIC SIGNALS SHALL BE MOUNTED TO THE ARM OR POLE USING A FIXED MOUNT SYSTEM, UNLESS OTHERWISE NOTED ON THE CROSS SECTION SHEET. FOR SIGNALS MOUNTED ON A MAST ARM, THE MAST ARM AND MOUNTING POINT SHALL BE IN THE MIDDLE OF THE SIGNAL HEAD.

17. BASE PLATES SHALL BE STAMPED WITH THE VERTICAL POLE DIAMETER, HEIGHT, YIELD STRENGTH, GAUGE AND THE HORIZONTAL MEMBER DIAMETER, LENGTH, YIELD STRENGTH, GAUGE. ALTERNATELY, THE INFORMATION MAY BE STAMPED ON A METAL TAG RIVETED TO THE POLE NEAR THE HAND HOLE.

18. SEE STANDARD E-171A FOR ADDITIONAL NOTES. SEE SHEET 17 FOR BORING INFORMATION.

PROJECT NAME:	COLCHESTER
PROJECT NUMBER:	TCSP TCSE (9)
FILE NAME: t06b242ts.dgn	PLOT DATE: 23-FEB-2012
PROJECT LEADER: J. SCHULTZ	DRAWN BY: D. LYMAN
DESIGNED BY: D. LYMAN	CHECKED BY: J. SCHULTZ
TRAFFIC SIGNAL GENERAL NOTES	SHEET 13 OF 22

STREET LIGHTING NOTES

LUMINAIRE TYPE:
LENS FINISH: DROP LENS GLASS
HOUSING: ALUMINUM

LAMP TYPE:
TYPE: 250W HIGH PRESSURE SODIUM
LUMENS: 28500

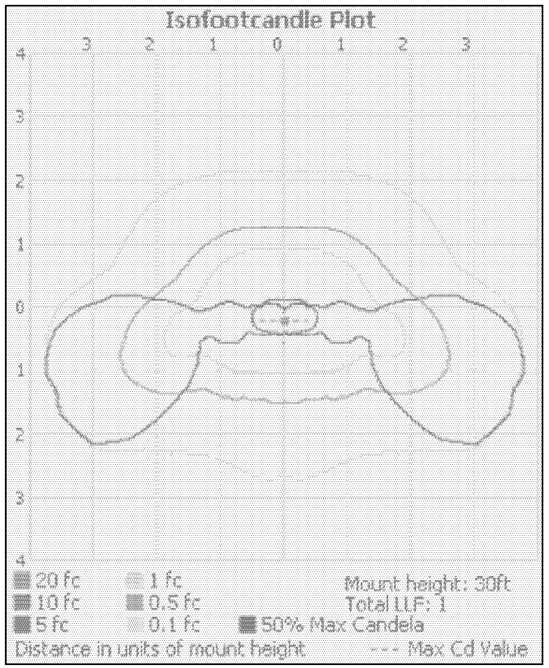
ANSI/IES TYPE:
MEDIUM, TYPE III, FULL CUT-OFF OPTICS

LUMINAIRE:
AMERICAN ELECTRIC LIGHTING
I25 25S R3 FG HP

LAMP:
250W HPS

LUMINAIRE MOUNTING HEIGHT:
30'-0"

ISOFOOTCANDLE PLOT



LUMINAIRES

ALUMINUM, COBRA HEAD TYPE, 250 WATT HIGH PRESSURE SODIUM (HPS), TYPE X DISTRIBUTION, EQUIVALENT TO AMERICAN ELECTRIC LIGHTING CATALOG NO. I25 25S R3 FG HP.

LUMINAIRE SUBSTITUTIONS SHALL MEET THE ISOFOOTCANDLE DATA AND THE ILLUMINATION LEVELS AS SHOWN ON THIS PLAN.

WIRE

ALL WIRING BETWEEN THE METER AND/OR POWER SOURCE AND THE FIRST POLE AND/OR PULLBOX AND BETWEEN POLES AND/OR PULLBOXES SHALL BE COPPER AND SIZED AS SPECIFIED ON THE PLANS. ALL WIRE SHALL HAVE TYPE XHHW INSULATION OR EQUIVALENT.

GROUNDING

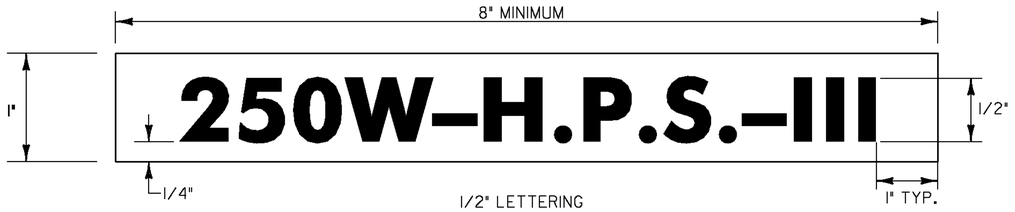
ALL CONDUIT MUST INCLUDE A GROUNDING CONDUCTOR. ALL CONDUIT SHALL BE PROPERLY CONNECTED AT THE JOINTS SO AS TO BE WATERTIGHT AND MAINTAIN ELECTRICAL CONTINUITY AND HAVE GROUNDING BUSHINGS SO AS TO ACT AS A GROUNDING CONDUCTOR. ALUMINUM WIRE SHALL NOT BE USED FOR GROUND WIRE.

GENERAL

THE LOAD ON EACH BRANCH OF A THREE WIRE CIRCUIT SHALL BE AS BALANCED AS POSSIBLE. LOAD TO NEUTRAL.

DETAIL FOR TAGS ATTACHED TO STREET LIGHT POLES

NOT TO SCALE



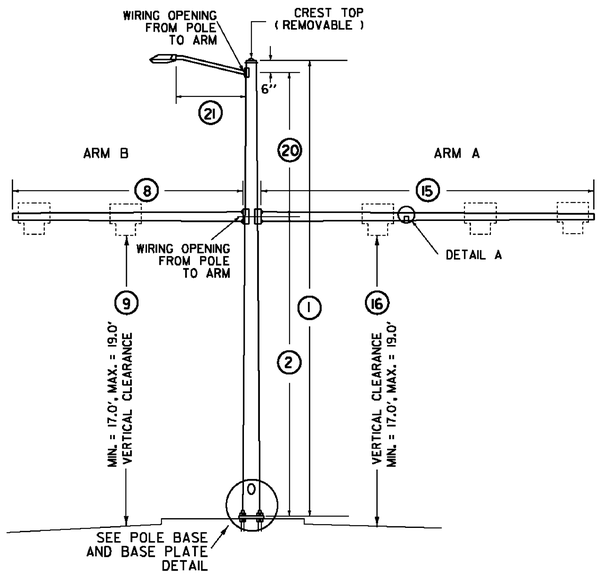
LEGEND: BLACK OR WHITE (NON-REFLECTIVE) - STAMPED PRIOR TO PRINTING/PAINTING.
BACKGROUND: FLAT BLACK SURFACE, THE SAME AS POLE FINISH.

NOTES:

1. THE TAG SHALL BE MOUNTED ON ALL STREET LIGHT POLES IN SUCH A MANNER AS NOT TO BE EASILY REMOVED, SUCH AS WELDED, RIVETED, OR BOLTED WITH VANDAL PROOF BOLTS.
2. THE LETTERS SHALL BE PUNCHED, STAMPED, ENGRAVED, OR PHOTO-ETCHED. PUNCHING, STAMPING OR ENGRAVING SHALL PENETRATE AT LEAST 1/2 THE BASE MATERIAL THICKNESS.
3. THE BASE MATERIAL FOR THE TAG SHALL BE ALUMINUM WITH A MINIMUM THICKNESS OF 0.10 INCHES.
4. THE TAG SHALL BE ATTACHED TO THE POLE ABOVE THE HANDHOLE, 6 INCHES MAXIMUM, IF THE POLE HAS A TRANSFORMER BASE, ATTACH TAG TO COVER.

PROJECT NAME:	COLCHESTER
PROJECT NUMBER:	TCSP TCSE (9)

FILE NAME: t06b242ts.dgn	PLOT DATE: 23-FEB-2012
PROJECT LEADER: J. SCHULTZ	DRAWN BY: D. LYMAN
DESIGNED BY: D. LYMAN	CHECKED BY: J. SCHULTZ
STREET LIGHTING NOTES	SHEET 14 OF 22



MAP1

POLE BASE DIAMETER (3)

POLE GAUGE (4)

POLE TAPER RATE (5)

ARM B DIAMETER (10)

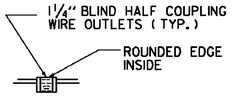
ARM B GAUGE (11)

ARM B TAPER RATE (12)

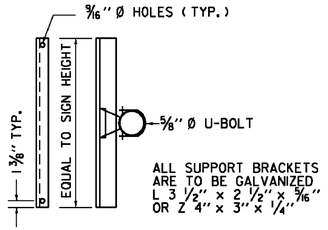
ARM A DIAMETER (17)

ARM A GAUGE (18)

ARM A TAPER RATE (19)



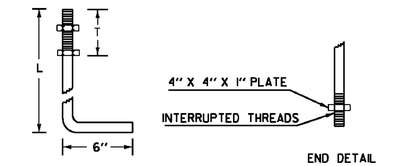
DETAIL A



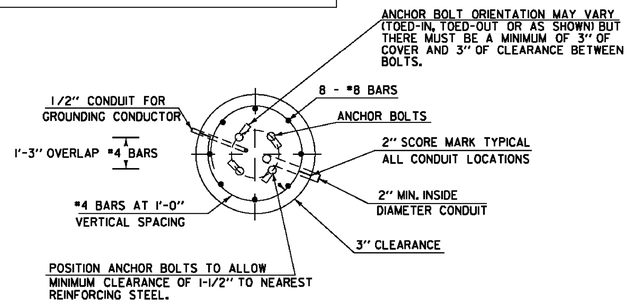
SIGN ON SINGLE MAST ARM

SIGN BRACKET DETAILS

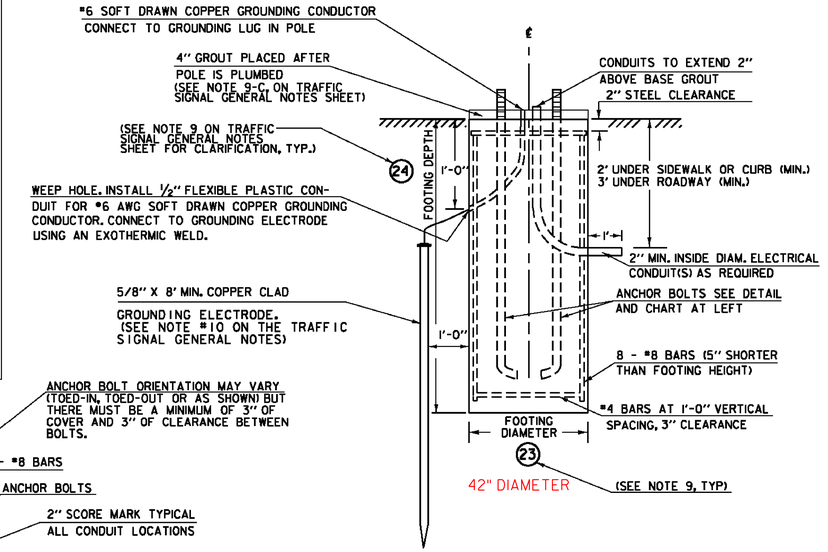
ANCHOR BOLT DETAIL		
SIZE	L (IN)	T (IN)
1- 1/4" X 48"	42	8
1- 1/2" X 60"	54	9
1- 3/4" X 90"	84	9
2" X 96"	96	9



ANCHOR BOLT DETAIL



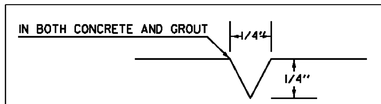
SECTION



ELEVATION

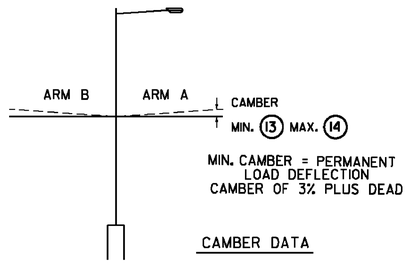
CANTILEVER FOOTING DETAIL

(DRILLED SHAFT)

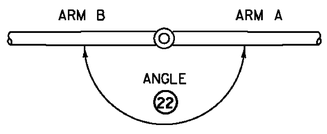


USED FOR CONDUIT LOCATION, SEE SECTION DETAIL AT LEFT

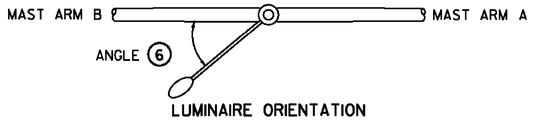
2" SCORE MARK DETAIL



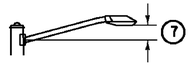
CAMBER DATA



ARM ORIENTATION

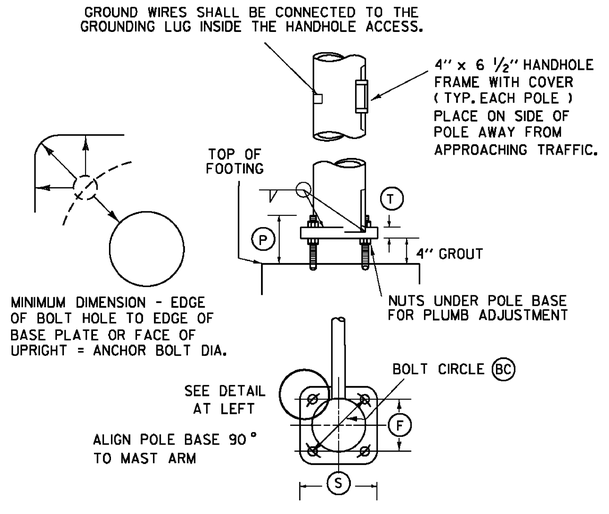


LUMINAIRE ORIENTATION



LUMINAIRE ARM RISE

STRUCTURE DIMENSIONS (IN FEET)																															
	POLE DATA							ARM DATA																FOOTING DATA		BASE PLATE / BOLT DATA						
POLE	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(BC)	(F)	(S)	(T)	(P)	ANCHOR BOLT SIZE
MAP1	19.5	18				45	2	33	17.5						36	18				10	6	180								



POLE BASE AND BASE PLATE DETAIL

NOTE:
DETAILS
NTS

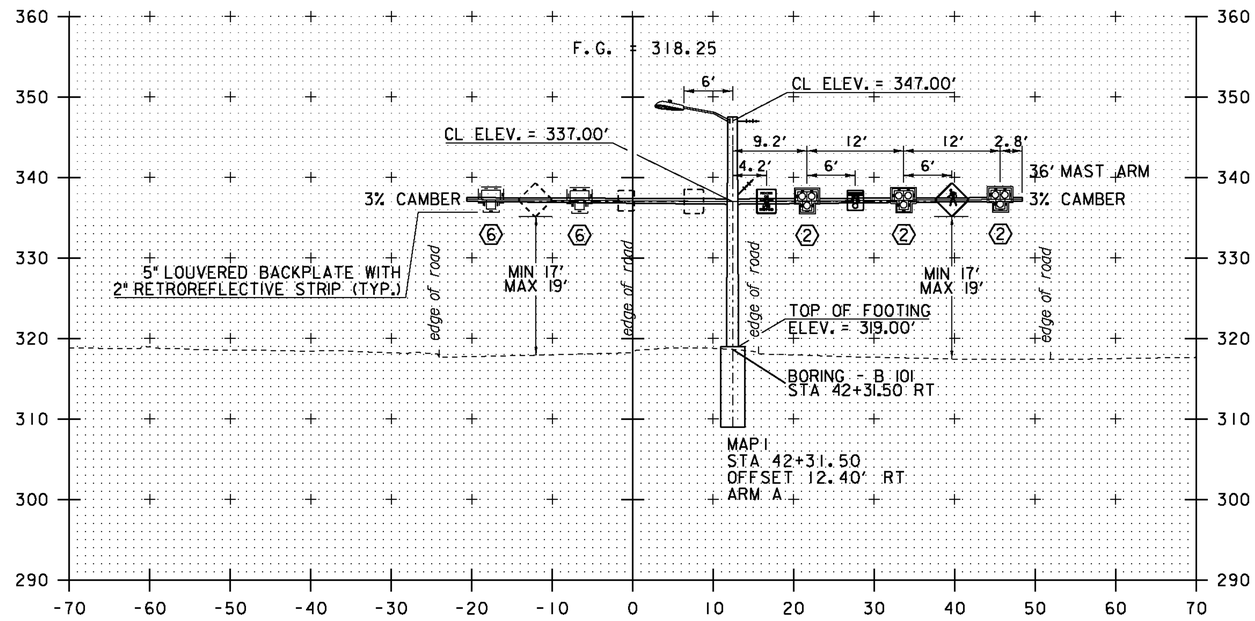
DOUBLE MAST ARM CANTILEVER FOOTING DETAIL SHEET

PROJECT NAME: COLCHESTER
PROJECT NUMBER: TCSP TCSE (9)

FILE NAME: t06b242ts.dgn
PROJECT LEADER: J. SCHULTZ
DESIGNED BY: D. LYMAN
MAST ARM CANTILEVER FOOTING DETAILS

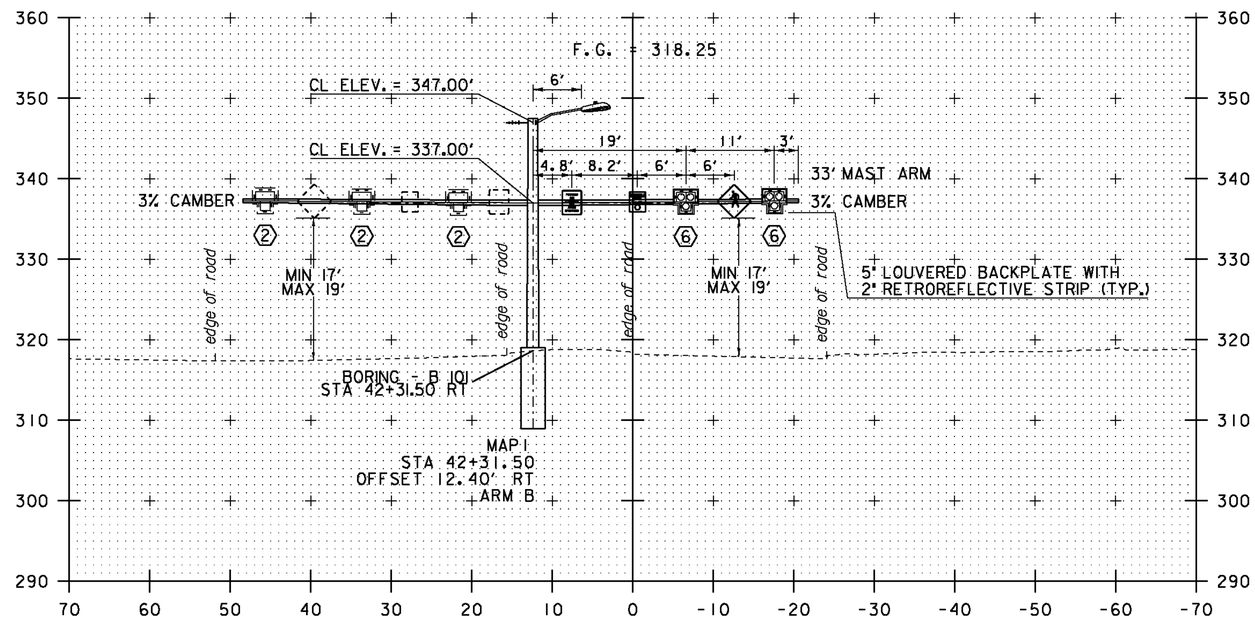
PLOT DATE: 23-FEB-2012
DRAWN BY: D. LYMAN
CHECKED BY: J. SCHULTZ
SHEET 15 OF 22

MAST ARM A
LOOKING EAST ON
VT ROUTE 15



42+31.50 - VT ROUTE 15

MAST ARM B
LOOKING WEST ON
VT ROUTE 15



42+31.50 - VT ROUTE 15

NOTES :

1. ALL MAST ARM FOOTINGS SHALL INCLUDE A 4" REVEAL. ELEVATIONS SHOWN IN CROSS-SECTIONS ARE APPROXIMATE FINAL GRADE ELEVATIONS FOR CONTRACTOR BIDDING PURPOSES ONLY. ACTUAL FOOTING ELEVATIONS SHALL BE DETERMINED BY THE CONTRACTOR PRIOR TO SUBMITTING WORKING DRAWINGS.

2. MAST ARM FOOTING SIZES ARE NOT TO SCALE. FOOTING DESIGNS SHALL BE DETERMINED BY THE CONTRACTOR IN ACCORDANCE WITH SOIL CONDITIONS AND ACTUAL MAST ARM LOADINGS TRANSMITTED TO THE TOP OF THE FOOTINGS.

3. PLEASE REFER TO SHEET 17 FOR BORING INFORMATION. FOR ADDITIONAL INFORMATION PLEASE REFER TO THE GEOTECHNICAL REPORT IN THE CONTRACT DOCUMENTS.

4. LOCATIONS OF WIRELESS RADIO INTERCONNECT EQUIPMENT ARE APPROXIMATE. FINAL LOCATIONS FOR WIRELESS RADIO INTERCONNECT EQUIPMENT SHALL BE DETERMINED BY THE CONTRACTOR AND THE ENGINEER IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

5. SIGNAL HEADS SHALL BE MOUNTED ON THE VERTICAL CENTER OF THE MAST ARM.

0 10 20
SCALE

PROJECT NAME: COLCHESTER
PROJECT NUMBER: TCSP TCSE (9)

FILE NAME: t06b242ts.dgn
PROJECT LEADER: J. SCHULTZ
DESIGNED BY: D. LYMAN
MAST ARM CROSS SECTIONS

PLOT DATE: 23-FEB-2012
DRAWN BY: D. LYMAN
CHECKED BY: J. SCHULTZ
SHEET 16 OF 22

SOIL CLASSIFICATION

AASHTO

A1	GRAVEL AND SAND
A2	SILTY OR CLAYEY GRAVEL AND SAND
A3	FINE SAND
A4	SILTY SOIL - LOW COMPRESSIBILITY
A5	SILTY SOIL - HIGHLY COMPRESSIBLE
A6	CLAYEY SOIL - LOW COMPRESSIBILITY
A7	CLAYEY SOIL - HIGHLY COMPRESSIBLE

ROCK QUALITY DESIGNATION

R.Q.D. (%)	ROCK DESCRIPTION
<25	VERY POOR
25 to 50	POOR
51 to 75	FAIR
76 to 90	GOOD
>90	EXCELLENT

SHEAR STRENGTH

UNDRAINED SHEAR STRENGTH IN P.S.F.	CONSISTENCY
<250	VERY SOFT
250-500	SOFT
500-1000	MED. STIFF
1000-2000	STIFF
2000-4000	VERY STIFF
>4000	HARD

CORRELATION GUIDE OF "N" TO DENSITY / CONSISTENCY

DENSITY (GRANULAR SOILS) N	DESCRIPTIVE TERM	CONSISTENCY (COHESIVE SOILS) N	DESCRIPTIVE TERM
<5	VERY LOOSE	<2	VERY SOFT
5-10	LOOSE	2-4	SOFT
11-24	MED. DENSE	5-8	MED. STIFF
25-50	DENSE	9-15	STIFF
>50	VERY DENSE	16-30	VERY STIFF
		31-60	HARD
		>60	VERY HARD

COMMONLY USED SYMBOLS

▼	WATER ELEVATION
⊗	STANDARD PENETRATION BORING
⊕	AUGER BORING
⊙	ROD SOUNDING
S	SAMPLE
N	STANDARD PENETRATION TEST
	BLOW COUNT PER FOOT FOR: 2" O.D. SAMPLER 1⅜" I.D. SAMPLER HAMMER WEIGHT OF 140 LBS. HAMMER FALL OF 30"
VS	FIELD VANE SHEAR TEST
US	UNDISTURBED SOIL SAMPLE
B	BLAST
DC	DIAMOND CORE
MD	MUD DRILL
WA	WASH AHEAD
HSA	HOLLOW STEM AUGER
AX	CORE SIZE 1⅛"
BX	CORE SIZE 1⅝"
NX	CORE SIZE 2⅛"
M	DOUBLE TUBE CORE BARREL USED
LL	LIQUID LIMIT
PL	PLASTIC LIMIT
PI	PLASTICITY INDEX
NP	NON PLASTIC
W	MOISTURE CONTENT (DRY WGT. BASIS)
D	DRY
M	MOIST
MTW	MOIST TO WET
W	WET
SAT	SATURATED
BO	BOULDER
GR	GRAVEL
SA	SAND
SI	SILT
CL	CLAY
HP	HARDPAN
LE	LEDGE
NLTD	NO LEDGE TO DEPTH
CNPF	CAN NOT PENETRATE FURTHER
TLOB	TO LEDGE OR BOULDER
NR	NO RECOVERY
REC.	RECOVERY
%REC.	PERCENT RECOVERY
RQD	ROCK QUALITY DESIGNATION
CBR	CALIFORNIA BEARING RATIO
<	LESS THAN
>	GREATER THAN
R	REFUSAL (N>100)

COLOR

blk	BLACK	pnk	PINK
bl	BLUE	pu	PURPLE
brn	BROWN	rd	RED
dk	DARK	tn	TAN
gry	GRAY	wh	WHITE
gn	GREEN	yel	YELLOW
lt	LIGHT	mltc	MULTICOLORED
or	ORANGE		

VTrans Working to Get You There — Vermont Agency of Transportation

STATE OF VERMONT
AGENCY OF TRANSPORTATION
MATERIALS & RESEARCH SECTION
SUBSURFACE INFORMATION

BORING LOG

COLCHESTER
TCSP TCSE(9)
VT-15 MAST ARM POLE

Boring No.: B 101
Page No.: 1 of 1
Pin No.: 06B242
Checked By: NSM

Boring Crew: PORTER, WERNER, MAHMUTOVIC
Date Started: 8/10/10 Date Finished: 8/10/10
VTSPG NAD83: N 728764.00 ft E 1468652.07 ft
Station: 42+31.50 Offset: 12.40
Ground Elevation: 318.64 ft

	Casing	Sampler
Type:	H.S.A.	SS
I.D.:	2.75 in	2.35 in
Hammer Wt:	N.A.	140 lb.
Hammer Fall:	N.A.	30 in.
Hammer/Rod Type:	Auto/AWJ	
Rig:	CME 45C SKID	CE = 1.33

Groundwater Observations

Date	Depth (ft)	Notes
08/10/10	9.0	

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		A-2-4, GrSiSa, brn, Moist, Rec. = 1.6 ft	2-6-12-13 (18)	6.1	20.9	56.2	22.9
		A-2-4, GrSa, brn, Moist, Rec. = 1.4 ft	31-26-20-16 (46)	4.5	20.1	65.9	14.0
5		A-1-b, GrSa, brn, Moist, Rec. = 1.6 ft	12-20-26-16 (46)	2.9	31.0	63.2	5.8
		A-1-b, GrSa, brn, Moist, Rec. = 1.7 ft	12-13-14-13 (27)	3.3	20.1	73.9	6.0
		A-3, Sa, brn, MTW, Rec. = 1.8 ft	4-6-8-8 (14)	13.6	5.8	87.9	6.3
10		A-3, Sa, brn, Wet, Rec. = 0.5 ft	2-3-6-7 (9)	22.9	3.7	90.5	5.8
		Visual Classification, Sa, black, Wet, Rec. = 1.0 ft, Very strong petroleum odor.					
		Not Sampled					
15		A-3, Sa, brn-gry, Wet, Rec. = 2.0 ft	2-2-2-4 (4)	23.6	0.9	88.8	10.3
		Field Note:, From 12.0 ft. to 25.0 ft. was flowing sand. The plug for the auger stuck at 20.0 feet. Advanced auger to 25.0 feet. Material density was consistent from 15 ft to 25 ft.					
20							
		A-4, SaSi, This was a grab sample from auger flight.		19.8	1.9	47.3	50.8
25		Hole stopped @ 25.0 ft NLTD					

Notes:
1. Stratification lines represent approximate boundary between material types. Transition may be gradual.
2. N Values have not been corrected for hammer energy. CE is the hammer energy correction factor.
3. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING LOG 2 COLCHESTER TCSP TSCE(9).GPJ VERMONT AOT.GDT 8/30/10

GENERAL NOTES

1. THE SUBSURFACE EXPLORATION SHOWN HEREIN WAS MADE ON AUGUST 10, 2010 BY THE AGENCY.
2. SOIL AND ROCK CLASSIFICATIONS, PROPERTIES AND DESCRIPTIONS ARE BASED ON ENGINEERING INTERPRETATION FROM AVAILABLE SUBSURFACE INFORMATION BY THE AGENCY AND MAY NOT NECESSARILY REFLECT ACTUAL VARIATIONS IN SUBSURFACE CONDITIONS THAT MAY BE ENCOUNTERED BETWEEN INDIVIDUAL BORING OR SAMPLE LOCATIONS.
3. OBSERVED WATER LEVELS AND/OR CONDITIONS INDICATED ARE AS RECORDED AT THE TIME OF EXPLORATION AND MAY VARY ACCORDING TO THE PREVAILING RAINFALL, METHODS OF EXPLORATION AND OTHER FACTORS.
4. ENGINEERING JUDGEMENT WAS EXERCISED IN PREPARING THE SUBSURFACE INFORMATION PRESENTED HEREIN. ANALYSIS AND INTERPRETATION OF SUBSURFACE DATA WAS PERFORMED AND INTERPRETED FOR AGENCY DESIGN AND ESTIMATING PURPOSES. PRESENTATION OF THE INFORMATION IN THE CONTRACT IS INTENDED TO PROVIDE THE CONTRACTOR ACCESS TO THE SAME DATA AVAILABLE TO THE AGENCY. THE SUBSURFACE INFORMATION IS PRESENTED IN GOOD FAITH AND IS NOT INTENDED AS A SUBSTITUTE FOR PERSONAL INVESTIGATION, INDEPENDENT INTERPRETATION, INDEPENDENT ANALYSIS OR JUDGEMENT BY THE CONTRACTOR.

DEFINITIONS (AASHTO)

BEDROCK (LEDGE) - ROCK IN ITS NATIVE LOCATION OF INDEFINITE THICKNESS.
BOULDER - A ROCK FRAGMENT WITH AN AVERAGE DIMENSION >12 INCHES.
COBBLE - ROCK FRAGMENTS WITH AN AVERAGE DIMENSION BETWEEN 3 AND 12 INCHES.
GRAVEL - ROUNDED PARTICLES OF ROCK <3" AND > 0.0787" (#10 SIEVE).
SAND - PARTICLES OF ROCK < 0.0787" (#10 SIEVE) AND > 0.0029" (#200 SIEVE).
SILT - SOIL < 0.0029" (#200 SIEVE), NON OR SLIGHTLY PLASTIC AND EXHIBITS NO STRENGTH WHEN AIR-DRIED.
CLAY - FINE GRAINED SOIL, EXHIBITS PLASTICITY WHEN MOIST AND CONSIDERABLE STRENGTH WHEN AIR-DRIED.
VARVED - ALTERNATE LAYERS OF SILT AND CLAY.
HARDPAN - EXTREMELY DENSE SOIL, CEMENTED LAYER, NOT SOFTENED WHEN WET.
MUCK - SOFT ORGANIC SOIL (CONTAINING > 10% ORGANIC MATERIAL).
MOISTURE CONTENT -WEIGHT OF WATER DIVIDED BY DRY WEIGHT OF SOIL.
FLOWING SAND -GRANULAR SOIL SO SATURATED (LOOSE) THAT IT FLOWS INTO DRILL CASING DURING EXTRACTION OF WASH ROD.
STRIKE -ANGLE FROM MAGNETIC NORTH TO LINE OF INTERSECTION OF BED WITH A HORIZONTAL PLANE.
DIP - INCLINATION OF BED WITH A HORIZONTAL PLANE.

PROJECT NAME: COLCHESTER
PROJECT NUMBER: TCSP TCSE (9)

FILE NAME: t06b242frm.dgn
PROJECT LEADER: J. SCHULTZ
DESIGNED BY: D. LYMAN
BORING SHEET

PLOT DATE: 23-FEB-2012
DRAWN BY: D. LYMAN
CHECKED BY: J. SCHULTZ
SHEET 17 OF 22

N

VT STATE PLANE GRID

675.50 REMOVING SIGNS
STA 41+92.59 RT
STA 42+26.34 LT
STA 42+29.18 LT
STA 42+34.34 LT (2)
STA 42+63.46 RT (2)

675.60 ERECTING SALVAGED SIGNS
STA 41+80.00 RT - 1
STA 42+75.00 LT - 1

675.61 SETTING SALVAGED POSTS
STA 41+80.00 RT - 1
STA 42+75.00 LT - 1

0150
0405
0080
R
R

STA 42+26.34 LT

CCTA BUS STOP
R+S
R+S

STA 42+29.18 LT

AHEAD
R
R

STA 42+34.34 LT

0150
0405
0080
N
N

STA 42+34.34 LT

PROCEED ON FLASHING RED AFTER STOPPING
N

MAST ARM #1
MAST ARM #2

CROSSWALK
STOP ON RED
N

MAST ARM #1
MAST ARM #2

N

MAST ARM #1
MAST ARM #2

N
N

PEDESTAL POST P3

N
N

PEDESTAL POST P4

AHEAD
N
N

STA 44+74.00 LT

AHEAD
N
N

STA 44+74.00 RT
MEDIAN

CCTA BUS STOP
S
S

STA 42+75.00 LT

39+00 40+00 41+00 42+00 43+00 44+00

P4 P3 P2 P1 MAP1

CCTA BUS STOP
S
S

STA 41+80.00 RT

CCTA BUS STOP
R+S
R+S

STA 41+92.59 RT

R
R
R

STA 42+63.46 RT
MEDIAN

SIGN LEGEND	
R	= REMOVE
S	= SALVAGE
N	= NEW
RET	= RETAIN
B-B	= BACK TO BACK
EXISTING	= ———
NEW	= ———

AHEAD
N
N

STA 39+61.00 RT
MEDIAN

AHEAD
N
N

STA 39+61.00 RT

N
N

PEDESTAL POST P2

N
N

PEDESTAL POST P1

NOTE: EXISTING PEDESTRIAN SIGNS SHALL BE CAREFULLY REMOVED AND SALVAGED TO VTRANS DISTRICT 5 MAINTENANCE GARAGE PRIOR TO PROJECT COMPLETION. COORDINATE THROUGH DICK HOSKING AT 802-655-1580.

NOTE: ALL EXISTING SIGNS ARE NOT TO BE DISTURBED UNLESS OTHERWISE NOTED OR AS DIRECTED BY THE ENGINEER

646.480 DURABLE STOP BAR
STA 41+80.00 RT - 41+80.00 RT
STA 42+80.00 LT - 42+80.00 LT

646.500 DURABLE CROSSWALK MARKING
STA 42+15.00 RT - 42+15.00 RT
STA 42+45.00 LT - 42+45.00 LT

646.85 REMOVAL OF EXISTING PAVEMENT MARKINGS
STA 41+80.00 RT - 42+19.00 RT (BROKEN WHITE LANE LINE)
STA 42+41.00 LT - 42+80.00 LT (BROKEN WHITE LANE LINE)
STA 41+92.00 RT - 42+00.00 RT (RIGHT TURN ARROW)

0 20 40
SCALE IN FEET

PROJECT NAME: COLCHESTER
PROJECT NUMBER: TCSP TCSE (9)

FILE NAME: t06b242tspmbdr.dgn
PROJECT LEADER: J. SCHULTZ
DESIGNED BY: D. LYMAN
TRAFFIC SIGN AND PAVEMENT MARKING PLAN

PLOT DATE: 23-FEB-2012
DRAWN BY: D. LYMAN
CHECKED BY: J. SCHULTZ
SHEET 18 OF 22

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TRAFFIC SIGN SUMMARY SHEET 1

MILEMARKER, STATION, OR SIGN NUMBER	SIGN LEGEND	SIGN DIMENSIONS EA	WIDTH (In)	HEIGHT (In)	NEW & SALVAGED SIGNS "A"	"B"	SALV SIGN	SALV TIS	EXIST POST RETAIN	EXIST POST SALVAGE	NEW SIGN POSTS NO. OF POSTS	FLANGED CHANNEL lb/ft 1.12	FLANGED CHANNEL lb/ft 2.0	FLANGED CHANNEL lb/ft 3.0	SQUARE STEEL (In) 2.0 lb/ft 2.16	SQUARE STEEL (In) 2.0 lb/ft 2.42	SQUARE STEEL (In) 2.5 lb/ft 3.35	ANCHOR	SLEEVE	TUBULAR ALUMINUM Ø (In) 3.0 lb/ft 1.3	TUBULAR ALUMINUM Ø (In) 4.0 lb/ft 1.7	TUBULAR ALUMINUM Ø (In) 4.0 MOD lb/ft 1.7	TUBULAR STEEL Ø (In) FOUNDATION	TUBULAR STEEL Ø (In) 3.0 lb/ft 7.6	TUBULAR STEEL Ø (In) 3.5 lb/ft 9.0	TUBULAR STEEL Ø (In) 4.0 lb/ft 10.8	TUBULAR STEEL Ø (In) 5.0 lb/ft 14.6	W-SHAPE STEEL FTG. SIZE 24"	W-SHAPE STEEL FTG. SIZE 30"	W-SHAPE STEEL WEIGHT	W-SHAPE STEEL POST SIZE	SIGN FRAME REQUIRED	REMARKS	SIGN DETAIL DETAIL ON SHEET NUMBER	SIGN DETAIL STD. SHEET NUMBER
											OPTION ITEMS																									
39+61.00 RT		1	36	36	9.00						2					X		X																	PEDESTRIAN SIGN, MUTCD W11-2 FLUORESCENT YELLOW-GREEN		SHSM
39+61.00 RT		1	30	18	3.75						N/A					N/A																	"AHEAD" PLAQUE, MUTCD W16-9P SHALL BE MOUNTED ON SAME POSTS AS THE PEDESTRIAN SIGN FLUORESCENT YELLOW-GREEN		SHSM
39+61.00 RT MEDIAN		1	36	36	9.00						2					X		X																	PEDESTRIAN SIGN, MUTCD W11-2 FLUORESCENT YELLOW-GREEN MIRROR OF TYPICAL		SHSM
39+61.00 RT MEDIAN		1	30	18	3.75						N/A					N/A																	"AHEAD" PLAQUE, MUTCD W16-9P SHALL BE MOUNTED ON SAME POSTS AS THE PEDESTRIAN SIGN FLUORESCENT YELLOW-GREEN		SHSM
41+80.00 RT		1					1			1																										
PEDESTAL POST P1		1	36	36	9.00						N/A																								PEDESTRIAN SIGN, MUTCD W11-2 FLUORESCENT YELLOW-GREEN		SHSM
PEDESTAL POST P1		1	30	18	3.75						N/A																								LEFT DIAGONAL ARROW PLAQUE, MUTCD W16-7pL SHALL BE MOUNTED ON SAME PEDESTAL POST AS THE PEDESTRIAN SIGN FLUORESCENT YELLOW-GREEN		SHSM
PEDESTAL POST P2		1	36	36	9.00						N/A																								PEDESTRIAN SIGN, MUTCD W11-2 FLUORESCENT YELLOW-GREEN MIRROR OF TYPICAL		SHSM
PEDESTAL POST P2		1	30	18	3.75						N/A																								RIGHT DIAGONAL ARROW PLAQUE, MUTCD W16-7pR SHALL BE MOUNTED ON SAME PEDESTAL POST AS THE PEDESTRIAN SIGN FLUORESCENT YELLOW-GREEN		SHSM
MAST ARM 1 MAST ARM 2		2	30	36	15.00						N/A																								PROCEED ON FLASHING RED AFTER STOPPING SHALL BE MOUNTED ON EACH MAST ARM AS SHOWN ON SHEET 16	21	
MAST ARM 1 MAST ARM 2		2	24	30	10.00						N/A																								CROSSWALK STOP ON RED, MUTCD R10-23 SHALL BE MOUNTED ON EACH MAST ARM AS SHOWN ON SHEET 16		SHSM
MAST ARM 1 MAST ARM 2		2	36	36	18.00						N/A																								PEDESTRIAN SIGN, MUTCD W11-2 SHALL BE MOUNTED ON EACH MAST ARM AS SHOWN ON SHEET 16 FLUORESCENT YELLOW-GREEN		SHSM
42+34.34 LT		1	6	10	0.42						1				X			X																	MILEMARKER SIGN		E-138

SHSM = FHWA'S STANDARD HIGHWAY SIGNS & MARKINGS

FINAL POST LENGTHS ARE TO BE DETERMINED IN THE FIELD. POST SIZES ARE COMPUTED BASED ON INFORMATION FURNISHED ON THE STANDARD SHEETS AND THE VTRANS "SIGN POST DESIGN GUIDELINE."

		FT	FT	FT	FT	FT	FT		EA	LB	LB	LB		LB	LB	LB	LB																		
					9	60																														
TOTALS	SF 94.42	SF	EA 1	SF		FT			FT 69			LB		EA		LB																		EA	EA	LB

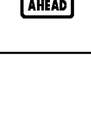
PROJECT NAME: COLCHESTER
PROJECT NUMBER: TCSP TCSE (9)

FILE NAME: t06b242frm.dgn
PROJECT LEADER: J. SCHULTZ
DESIGNED BY: D. LYMAN
TRAFFIC SIGN SUMMARY SHEET 1

PLOT DATE: 23-FEB-2012
DRAWN BY: D. LYMAN
CHECKED BY: J. SCHULTZ
SHEET 19 OF 22

STATE OF VERMONT
AGENCY OF TRANSPORTATION

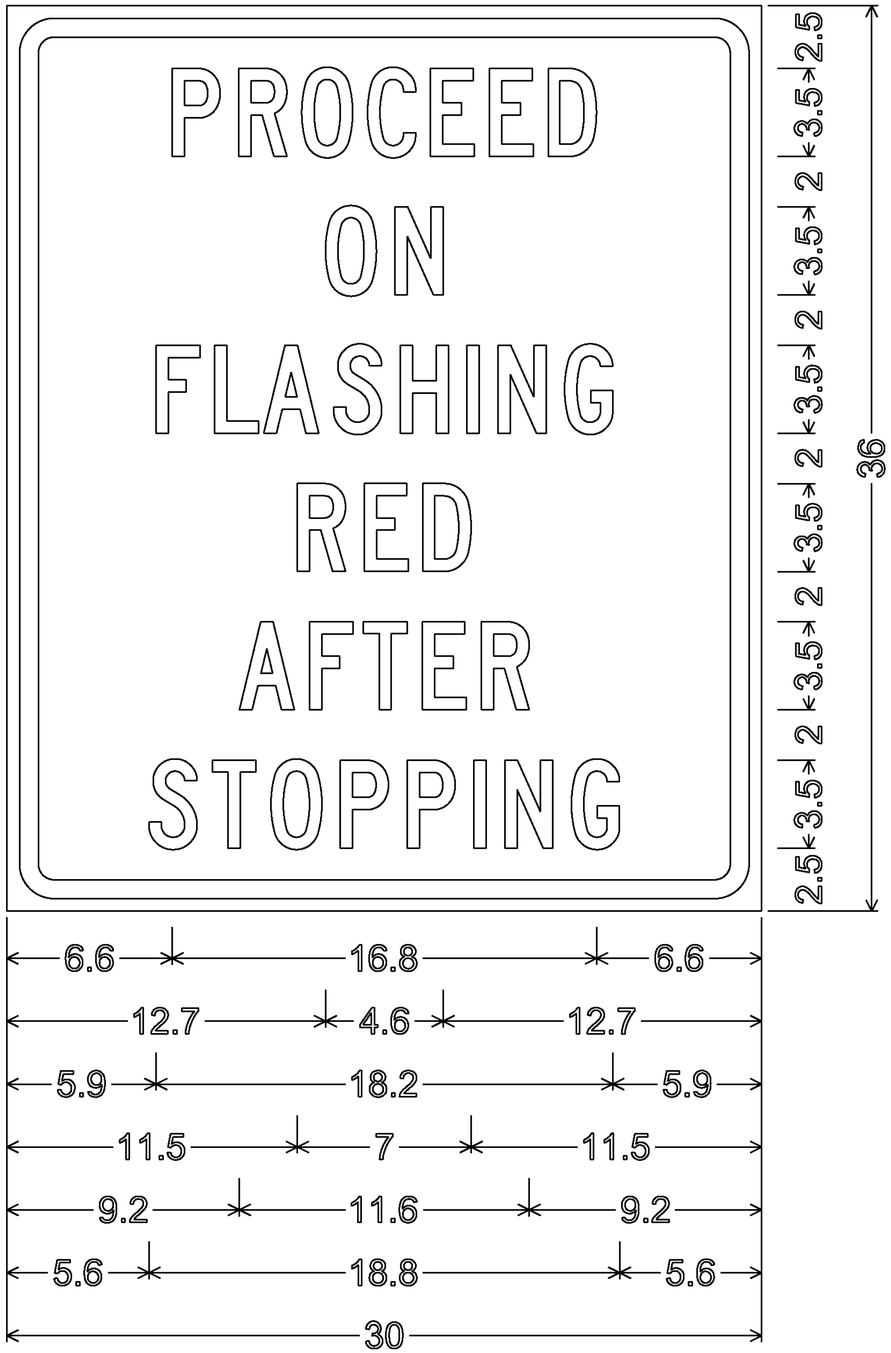
TRAFFIC SIGN SUMMARY SHEET 2

MILEMARKER, STATION, OR SIGN NUMBER	SIGN LEGEND	SIGN DIMENSIONS EA	WIDTH (In)	HEIGHT (In)	NEW & SALVAGED SIGNS "A"	"B"	SALV SIGN	SALV TIS	EXIST POST RETAIN	EXIST POST SALVAGE	NEW SIGN POSTS NO. OF POSTS	FLANGED CHANNEL lb/ft 1.12	FLANGED CHANNEL lb/ft 2.0	FLANGED CHANNEL lb/ft 3.0	SQUARE STEEL (In) 2.0 lb/ft 2.16	SQUARE STEEL (In) 2.0 lb/ft 2.42	SQUARE STEEL (In) 2.5 lb/ft 3.35	ANCHOR	SLEEVE	TUBULAR ALUMINUM Ø (In) 3.0 lb/ft 1.3	TUBULAR ALUMINUM Ø (In) 4.0 lb/ft 1.7	TUBULAR ALUMINUM Ø (In) 4.0 MOD lb/ft 1.7	TUBULAR STEEL Ø (In) FOUNDATION	TUBULAR STEEL Ø (In) 3.0 lb/ft 7.6	TUBULAR STEEL Ø (In) 3.5 lb/ft 9.0	TUBULAR STEEL Ø (In) 4.0 lb/ft 10.8	TUBULAR STEEL Ø (In) 5.0 lb/ft 14.6	W-SHAPE STEEL FTG. SIZE 24"	W-SHAPE STEEL FTG. SIZE 30"	W-SHAPE STEEL WEIGHT	W-SHAPE STEEL POST SIZE	SIGN FRAME REQUIRED	REMARKS	SIGN DETAIL DETAIL ON SHEET NUMBER	SIGN DETAIL STD. SHEET NUMBER
															OPTION ITEMS																						
PEDESTAL POST P4		1	36	36	9.00						N/A					N/A																			PEDESTRIAN SIGN, MUTCD W11-2 FLUORESCENT YELLOW-GREEN		SHSM
PEDESTAL POST P4		1	30	18	3.75						N/A					N/A																	LEFT DIAGONAL ARROW PLAQUE, MUTCD W16-7pL SHALL BE MOUNTED ON SAME PEDESTAL POST AS THE PEDESTRIAN SIGN FLUORESCENT YELLOW-GREEN		SHSM
PEDESTAL POST P3		1	36	36	9.00						N/A					N/A																	PEDESTRIAN SIGN, MUTCD W11-2 FLUORESCENT YELLOW-GREEN MIRROR OF TYPICAL		SHSM
PEDESTAL POST P3		1	30	18	3.75						N/A					N/A																	RIGHT DIAGONAL ARROW PLAQUE, MUTCD W16-7pR SHALL BE MOUNTED ON SAME PEDESTAL POST AS THE PEDESTRIAN SIGN FLUORESCENT YELLOW-GREEN		SHSM
42+75.00 LT		1					1			1																										
44+74.00 LT		1	36	36	9.00						2					X		X															PEDESTRIAN SIGN, MUTCD W11-2 FLUORESCENT YELLOW-GREEN		SHSM
44+74.00 LT		1	30	18	3.75						N/A					N/A																	"AHEAD" PLAQUE, MUTCD W16-9p SHALL BE MOUNTED ON SAME POSTS AS THE PEDESTRIAN SIGN FLUORESCENT YELLOW-GREEN		SHSM
44+74.00 RT MEDIAN		1	36	36	9.00						2					X		X															PEDESTRIAN SIGN, MUTCD W11-2 FLUORESCENT YELLOW-GREEN MIRROR OF TYPICAL		SHSM
44+74.00 RT MEDIAN		1	30	18	3.75						N/A					N/A																	"AHEAD" PLAQUE, MUTCD W16-9p SHALL BE MOUNTED ON SAME POSTS AS THE PEDESTRIAN SIGN FLUORESCENT YELLOW-GREEN		SHSM
	TSS SHEET 1TOTALS				94.42		1			1					9	60																				
	TSS SHEET 2 TOTALS				51.00		1			1						60																				
SHSM = FHWA'S STANDARD HIGHWAY SIGNS & MARKINGS FINAL POST LENGTHS ARE TO BE DETERMINED IN THE FIELD. POST SIZES ARE COMPUTED BASED ON INFORMATION FURNISHED ON THE STANDARD SHEETS AND THE VTRANS "SIGN POST DESIGN GUIDELINE."												FT	FT	FT	FT 9	FT 120	FT		EA	LB	LB	LB		LB	LB	LB	LB								
TOTALS					SF 145.42	SF	EA 2	SF				FT			FT 129					LB			EA	LB				EA	EA	LB						

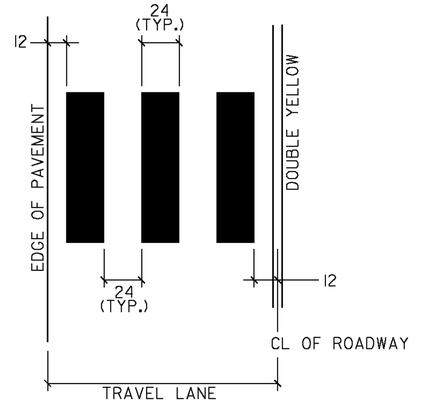
PROJECT NAME: COLCHESTER
PROJECT NUMBER: TCSP TCSE (9)

FILE NAME: t06b242frm.dgn
PROJECT LEADER: J. SCHULTZ
DESIGNED BY: D. LYMAN
TRAFFIC SIGN SUMMARY SHEET 2

PLOT DATE: 23-FEB-2012
DRAWN BY: D. LYMAN
CHECKED BY: J. SCHULTZ
SHEET 20 OF 22



1.9" Radius, 0.8" Border, 0.5" Indent, Black on White;
"PROCEED" C; "ON" C; "FLASHING" C;
"RED" C; "AFTER" C; "STOPPING" C;



NOTES:

1. ADJUST SPACING (1-2 FEET TO AVOID WHEEL PATHS)
2. THE BLOCK PATTERN IS THE VTRANS PREFERRED CROSSWALK MARKING. SEE M.U.T.C.D. FOR APPROVED OPTIONS.

BLOCK PATTERN CROSSWALK DETAIL

NOTE: ALL DIMENSIONS IN INCHES

NOT TO SCALE

PROJECT NAME:	COLCHESTER
PROJECT NUMBER:	TCSP TCSE (9)

FILE NAME: t06b242frm.dgn	PLOT DATE: 23-FEB-2012
PROJECT LEADER: J. SCHULTZ	DRAWN BY: D. LYMAN
DESIGNED BY: D. LYMAN	CHECKED BY: J. SCHULTZ
TRAFFIC SIGN & PAVEMENT MARKING DETAILS	SHEET 21 OF 22

N

VT STATE PLANE GRID

641.10 - TRAFFIC CONTROL

LONGITUDINAL PEDESTRIAN CHANNELIZING DEVICES
42+08.30 LT - 42+75.03 LT

TEMPORARY SIDEWALK
42+06.42 LT - 42+77.68 LT

45+50.00 LT
NOT TO SCALE

OR

FLASHING ARROW PANEL

46+50.00 LT
46+50.00 RT MEDIAN
NOT TO SCALE

OR

PORTABLE
GATE POSTED

47+50.00 LT
47+50.00 RT MEDIAN
NOT TO SCALE

RIGHT LANE CLOSED AHEAD

OR

LEFT LANE CLOSED AHEAD

PORTABLE
GATE POSTED

48+50.00 LT
48+50.00 RT MEDIAN
NOT TO SCALE

ROAD WORK AHEAD

SIGNAL UNDER CONSTRUCTION

FIXED
GATE POSTED

48+50.00 RT
48+50.00 RT MEDIAN
NOT TO SCALE

END ROAD WORK

FIXED
GATE POSTED

35+00.00 RT MEDIAN
35+00.00 LT
NOT TO SCALE

END ROAD WORK

FIXED
GATE POSTED

42+05.00 LT,
OFFSET 37'
NOT TO SCALE

DETOUR

FIXED

42+81.00 LT,
OFFSET 38'
NOT TO SCALE

DETOUR

FIXED

TEMPORARY SIDEWALK
4' MINIMUM WIDTH
2% MAXIMUM CROSS SLOPE

LONGITUDINAL PEDESTRIAN CHANNELIZING DEVICES

MT. VIEW RD.

STATION 38+75.00
BEGIN PROJECT

VT ROUTE 15
TO WINOOSKI

39+00 40+00 41+00 42+00 43+00 44+00

PB2 PB3 P2 P3 P4 MAP1

VT ROUTE 15
TO ESSEX JCT.

STATION 44+75.00
END PROJECT

39+25.00 RT
OFFSET 90'
NOT TO SCALE

SIDEWALK CLOSED

42+14.50 RT
OFFSET 100'
NOT TO SCALE

SIDEWALK CLOSED

STANCHION

PB1

CONTROLLER

P1

35+00.00 RT
35+00.00 RT MEDIAN
NOT TO SCALE

ROAD WORK AHEAD

SIGNAL UNDER CONSTRUCTION

FIXED
GATE POSTED

36+00.00 RT
36+00.00 RT MEDIAN
NOT TO SCALE

RIGHT LANE CLOSED AHEAD

OR

LEFT LANE CLOSED AHEAD

PORTABLE
GATE POSTED

37+00.00 RT
37+00.00 RT MEDIAN
NOT TO SCALE

OR

PORTABLE
GATE POSTED

38+00.00 RT
NOT TO SCALE

OR

FLASHING ARROW PANEL

TEMPORARY TRAFFIC CONTROL NOTES:

1. NO CONSTRUCTION SIGNS SHALL BE INSTALLED AS TO INTERFERE OR OBSTRUCT THE VIEW OF EXISTING TRAFFIC DEVICES AND STOPPING SIGHT DISTANCES

2. TEMPORARY LANE AND/OR SHOULDER CLOSURES SHALL BE ALLOWED ONLY UNDER THE FOLLOWING CONDITIONS;
WESTBOUND LANE CLOSURES SHALL NOT OCCUR BEFORE 9:00 AM AND EASTBOUND LANE CLOSURES SHALL NOT OCCUR AFTER 3:00 PM. WHEN A LANE IS CLOSED, A UTO WITH A BLUE LIGHT SHALL BE PRESENT. REFER TO MUTCD FIGURE 6H-33 STATIONARY LANE CLOSURE ON A DIVIDED HIGHWAY (TYPICAL APPLICATION 33) FOR DETAILS NOT SHOWN ON THIS SHEET. VT ROUTE 15 SHALL BE RESTORED TO FULL CAPACITY AT THE CLOSE OF DAILY CONSTRUCTION ACTIVITIES.

3. TEMPORARY SIDEWALK AND LONGITUDINAL PEDESTRIAN CHANNELIZING DEVICES SHALL MEET ALL REQUIREMENTS AS DESCRIBED IN MUTCD PART 6 TEMPORARY TRAFFIC CONTROL SECTION 6D PEDESTRIAN AND WORKER SAFETY. TAPE, ROPE OR PLASTIC CHAIN SHALL NOT BE STRUNG BETWEEN CHANNELIZING DEVICES PER MUTCD REGULATIONS.

4. ADDITIONAL TRAFFIC CONTROL WARNING DEVICES MAY BE REQUIRED AND SHALL BE INSTALLED AS REQUESTED BY THE RESIDENT ENGINEER PER THE MUTCD. PAYMENT FOR TRAFFIC CONTROL WARNING DEVICES WILL BE MADE UNDER CONTRACT ITEM 641.10.

5. ACCESS TO RESIDENTIAL DRIVES, COMMERCIAL DRIVES, AND TOWN HIGHWAYS SHALL BE MAINTAINED THROUGHOUT THE PROJECT'S DURATION.

PROJECT NAME: COLCHESTER
PROJECT NUMBER: TCSP TCSE (9)

FILE NAME: t06b242tcbdr.dgn
PROJECT LEADER: J. SCHULTZ
DESIGNED BY: D. LYMAN
TRAFFIC CONTROL PLAN

PLOT DATE: 23-FEB-2012
DRAWN BY: D. LYMAN
CHECKED BY: J. SCHULTZ
SHEET 22 OF 22

0 20 40
SCALE IN FEET