



OTTER CREEK ENGINEERING

May 11, 2016

Mr. Ken Lougee
The Belden Company
20 Belden Rd.
Rutland, VT 05701

Subject: Weston BF 013-2(13) Bridge Replacement
Traffic Control - Resubmittal

Dear Ken:

This letter and revised drawings are intended to address the submittal review comments provided by VHB, Inc. dated 4-27-2016.

As discussed, the signage and signalization plan is intended to be used only during the two week period when bridge piles will be installed and only during the evening when pile installation equipment needs to remain overnight in the work area. All other times during active work before closure of the bridge flaggers will be utilized or the roadway/bridge will remain open for two lane traffic at the end of each days work.

We understand that you will supplement the enclosed information with specifications on the temporary traffic signals. In addition, we are showing two temporary traffic signals: one for north bound traffic and one for southbound traffic on VT Route 100. The one seasonal residence that is served by Felton Road will have a "stop" sign. Timing of north and south bound signals will initially be set on a 120 cycle: 39 second green, 3 second yellow, and 78 red. This would provide a 26 second overlap in red lights to allow the clearing of traffic. Again, signals will only be during the night when traffic volumes are low. During times when signals are not operational, signal ahead signs shall be covered and signals are to be turned off. Supplier of signals will periodically check and make adjustments, if necessary, to this baseline timing.

Refer to comments/responses to made to returned submittal for added clarification.

Please feel free to contact me with any questions or clarifications regarding this letter.

Vermont Agency of Transportation

RECEIVED

ON: **May 11, 2016**

and Checked for

CONFORMANCE

BY: Jennifer Fitch DATE: 05/12/16

401-004 C7

Sincerely,

Brent F. Rakowski, P.E.
Senior Project Engineer



SUBMITTAL REVIEW

REVIEWED AND APPROVED BUT ONLY FOR CONFORMANCE TO THE CONSTRUCTION CONTRACT DOCUMENTS

REVISE AND RESUBMIT

APPROVED AS NOTED

CORRECTIONS OR COMMENTS MADE DURING THIS REVIEW DO NOT RELIEVE THE CONTRACTOR OR HIS DESIGNER FROM COMPLIANCE WITH PROFESSIONAL REQUIREMENTS OR FOR RESPONSIBILITY FOR THE ADEQUACY OF THE SUBMITTAL INFORMATION. THIS CHECK IS ONLY FOR REVIEW OF GENERAL CONFORMANCE WITH INDUSTRY STANDARDS AND GENERAL COMPLIANCE WITH THE INFORMATION GIVEN IN THE CONTRACT DOCUMENTS. VHB HAS NOT CONDUCTED A DETAILED REVIEW OF THE SUBMITTAL AND HAS NOT PERFORMED CALCULATIONS OR ASSESSED THE ADEQUACY OF LOADS, DESIGN CRITERIA, QUANTITIES, DIMENSIONS, ETC. APPROVAL OF THE SUBMITTAL DOES NOT CONSTITUTE VHB'S APPROVAL OF ANY CONSTRUCTION MEANS, METHODS OR TECHNIQUES. THESE REMAIN THE RESPONSIBILITY OF THE CONTRACTOR.



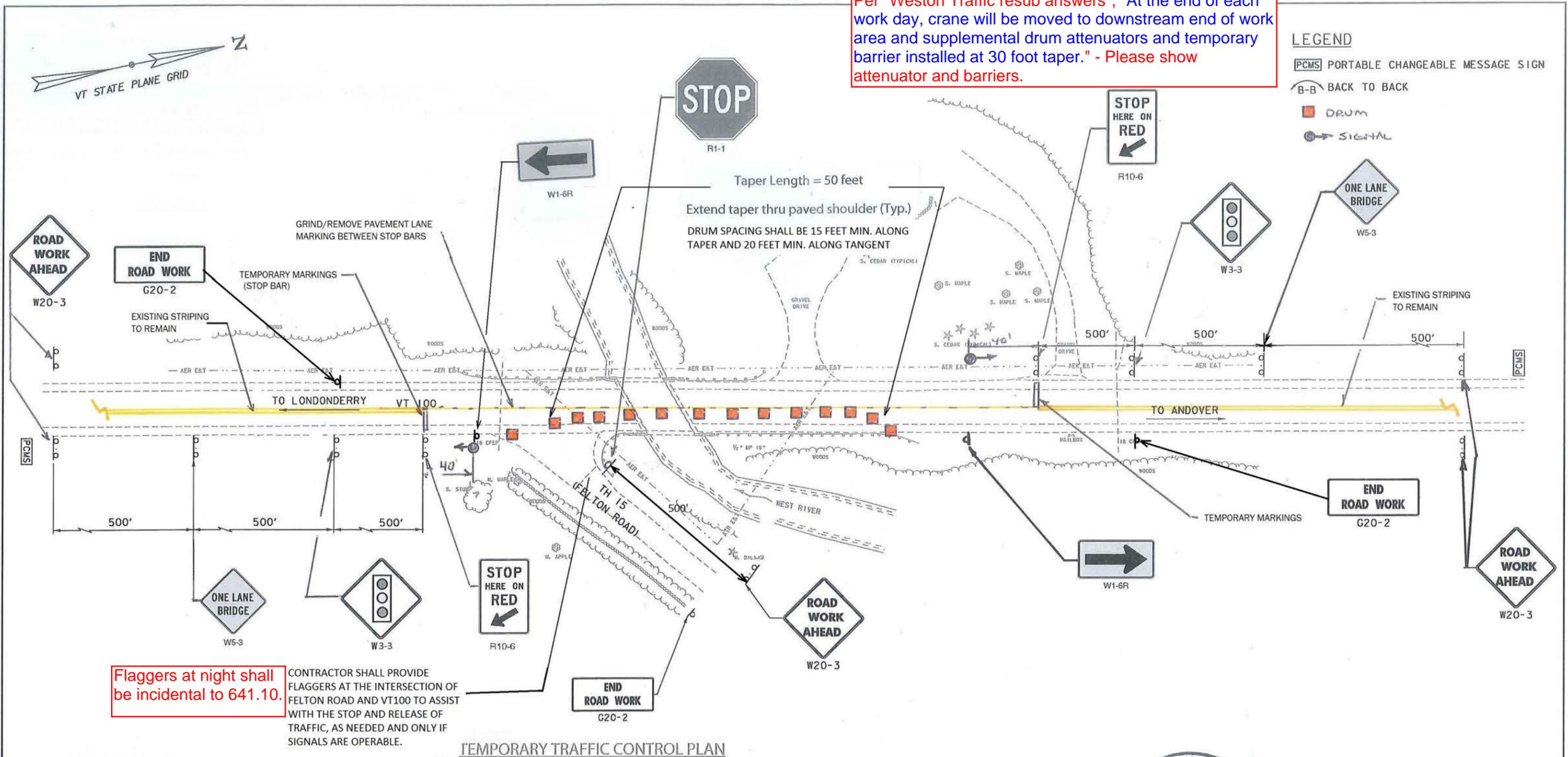
40 IDX Drive
Building 100, Suite 200
South Burlington, VT 05403
802.497.6100

Job Number: **BRF 013-2(13)**

Reviewed By: **E.F. LAWES**

Date: **MAY 12, 2016**

Per "Weston Traffic resub answers", "At the end of each work day, crane will be moved to downstream end of work area and supplemental drum attenuators and temporary barrier installed at 30 foot taper." - Please show attenuator and barriers.



Flaggers at night shall be incidental to 641.10. CONTRACTOR SHALL PROVIDE FLAGGERS AT THE INTERSECTION OF FELTON ROAD AND VT100 TO ASSIST WITH THE STOP AND RELEASE OF TRAFFIC, AS NEEDED AND ONLY IF SIGNALS ARE OPERABLE.

TEMPORARY TRAFFIC CONTROL PLAN

- 1.) This plan is intended to depict temporary traffic control measures associated with the installation of piles for the proposed replacement of Bridge 98 in Weston, Vermont. The drawing was prepared utilizing Bridge/Roadway drawings prepared by VHB, Inc. and are intended for temporary traffic control measures only. Refer to VHB contract drawings for all other work.
- 2.) The temporary traffic control measures are proposed to be in place for approximately two weeks during the installation of piles.
- 3.) The temporary traffic control plan involves a lane closure using portable traffic control signals. One way, one lane of traffic will be maintained for the duration of the bridge piling installation. Upon completion, the traffic control plan depicted on sheets 19 through 22 will be followed.
- 4.) Temporary traffic control plan depicts the schematic alignment and orientation of traffic control signage and channeling devices. Work will progress for 1/2 of the bridge, and then the plan will be mirrored to accommodate the construction on the second half of the bridge.
- 5.) Traffic control Drums will be used to warn and alert drivers and to protect workers in the temporary traffic control zone.
- 6.) Portable Changeable Message Signs are planned for the North and South sides of the bridge replacement. The PCMS will provide advanced warning to motor vehicles of the construction 1-week prior to work, and advanced warning to motorists of temporary traffic signal.
- 7.) Temporary line striping will be provided in accordance with MUTCD. A minimum of 600 feet of durable double yellow centerline is proposed in advance for the temporary stop bar.
- 8.) All signage will be installed in conformance with MUTCD.



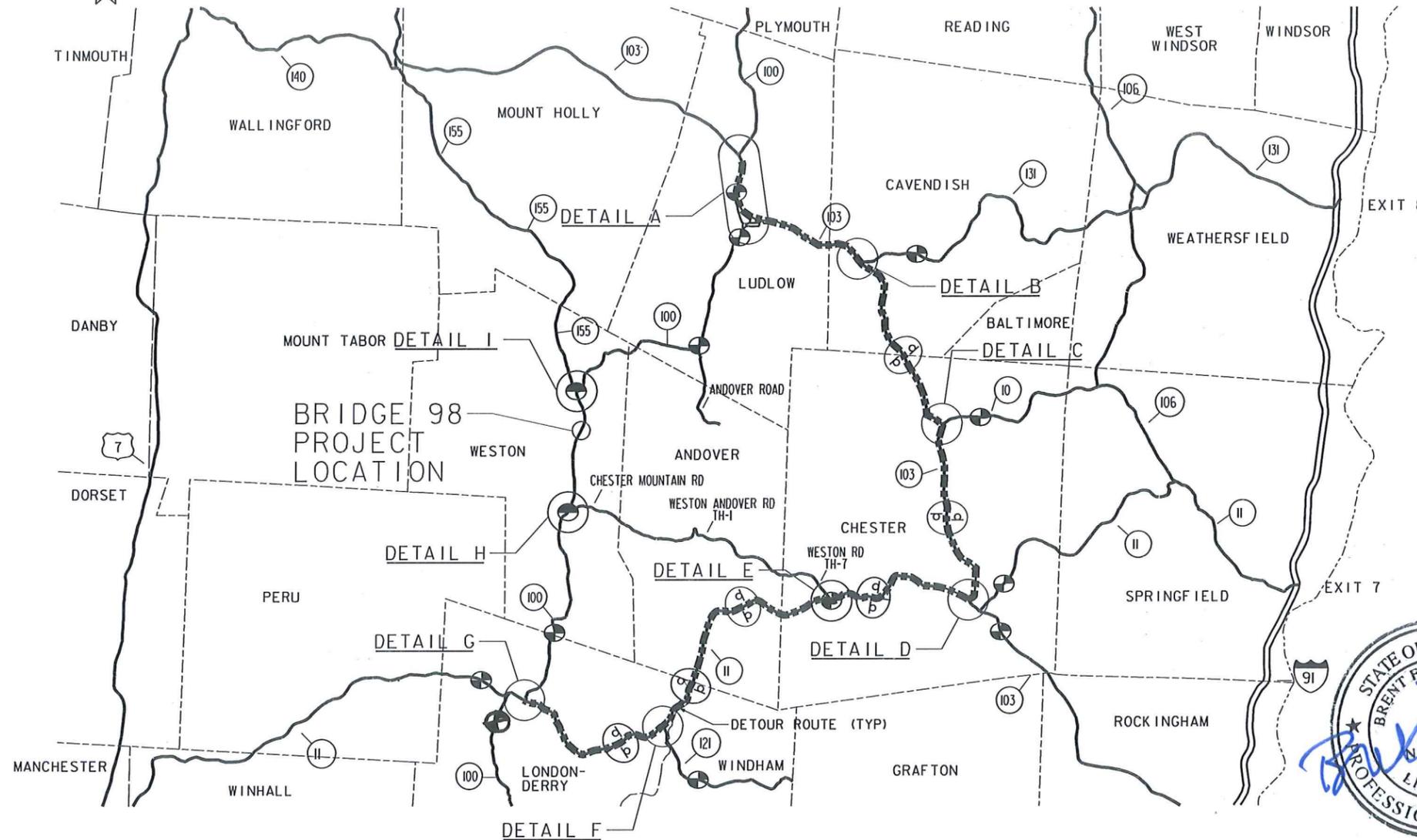
PLAN PREPARER
Otter Creek Engineering, Inc.
Brent F. Rakowski, P.E.
802-382-8522

PROJECT NAME:	WESTON
PROJECT NUMBER:	BF 013-2(I3)
FILE NAME:	TEMPORARY TRAFFIC CONTROL PLAN
PROJECT LEADER:	
DESIGNED BY:	
PLOT DATE:	
DRAWN BY:	
CHECKED BY:	
SHEET	1 OF 2



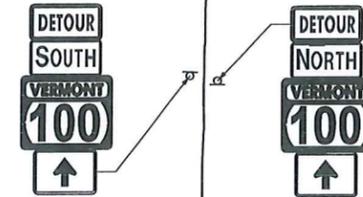
TRAFFIC CONTROL NOTES:

1. SEE TRAFFIC CONTROL PLAN 2-6 FOR ADDITIONAL NOTES.
2. INSTALL CONFIRMATORY ROUTE MARKERS ALONG THE DETOUR ROUTE AT LOCATIONS AS INDICATED ON THIS PLAN.
3. WHEN EXISTING ROUTE MARKER ASSEMBLIES ARE LOCATED AT THE INTERSECTIONS OR ALONG THE DETOUR ROUTE, THE DETOUR ROUTE MARKER ASSEMBLIES SHALL BE INSTALLED ADJACENT TO THE EXISTING ROUTE MARKER ASSEMBLIES AND THE ROUTE MARKER SHALL BE COVERED IF ASSEMBLY CONFLICTS WITH DETOUR ROUTE MARKER ASSEMBLY.
4. WHERE SIGN INSTALLATIONS ARE NOT PROTECTED BY GUARDRAIL OR OTHER APPROVED TRAFFIC BARRIERS, ALL SIGN STANDS AND POST INSTALLATIONS SHALL BE "NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM" (NCHRP) REPORT 350 COMPLIANT. NO SIGN POSTS SHALL EXTEND OVER THE TOP OF THE SIGN ARE INSTALLED ON SAID POST(S). WHEN ANCHORS ARE INSTALLED STUB SHALL NOT BE GREATER THAN FOUR INCHES ABOVE EXISTING GROUND.
5. PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) SHALL BE PLACED OFF THE EDGE OF THE ROADWAY, OUTSIDE THE CLEAR ZONE, BUT SHALL BE VISIBLE FROM THE ROADWAY. ANY VEGETATION THAT INTERFERES WITH VISIBILITY OF THE PCMS SHALL BE REMOVED. REMOVAL OF THE VEGETATION SHALL BE INCIDENTAL TO ITEM 641.15, "PORTABLE CHANGEABLE MESSAGE SIGN". WHEN PLACED BEHIND GUARDRAIL, THE BOTTOM OF THE SIGN FACE SHALL BE ABOVE THE TOP OF THE GUARDRAIL.
6. THE PCMS SHALL BE USED IN ACCORDANCE WITH SECTION 6F.60 OF THE MUTCD.
7. SEE TRAFFIC CONTROL PLANS 2-4 FOR A-1 DETAILS.



LEGEND

- CONFIRMATORY ROUTE MARKER ASSEMBLY (SEE NOTE 2 AND 3 ABOVE).
- ROAD CLOSED / XX MILES AHEAD/ NO THRU TRAFFIC (SP-1 & SP-2 SIGNS SEE SHEETS 19-24 FOR SIGN DIMENSIONS AND LOCATION).
- CLOSURE STATIC SIGN (SP-3) NOTIFICATION SEE SHEETS 19-24 FOR SIGN DETAIL AND LOCATIONS.



CONFIRMATORY ROUTE MARKER ASSEMBLY
NOT TO SCALE



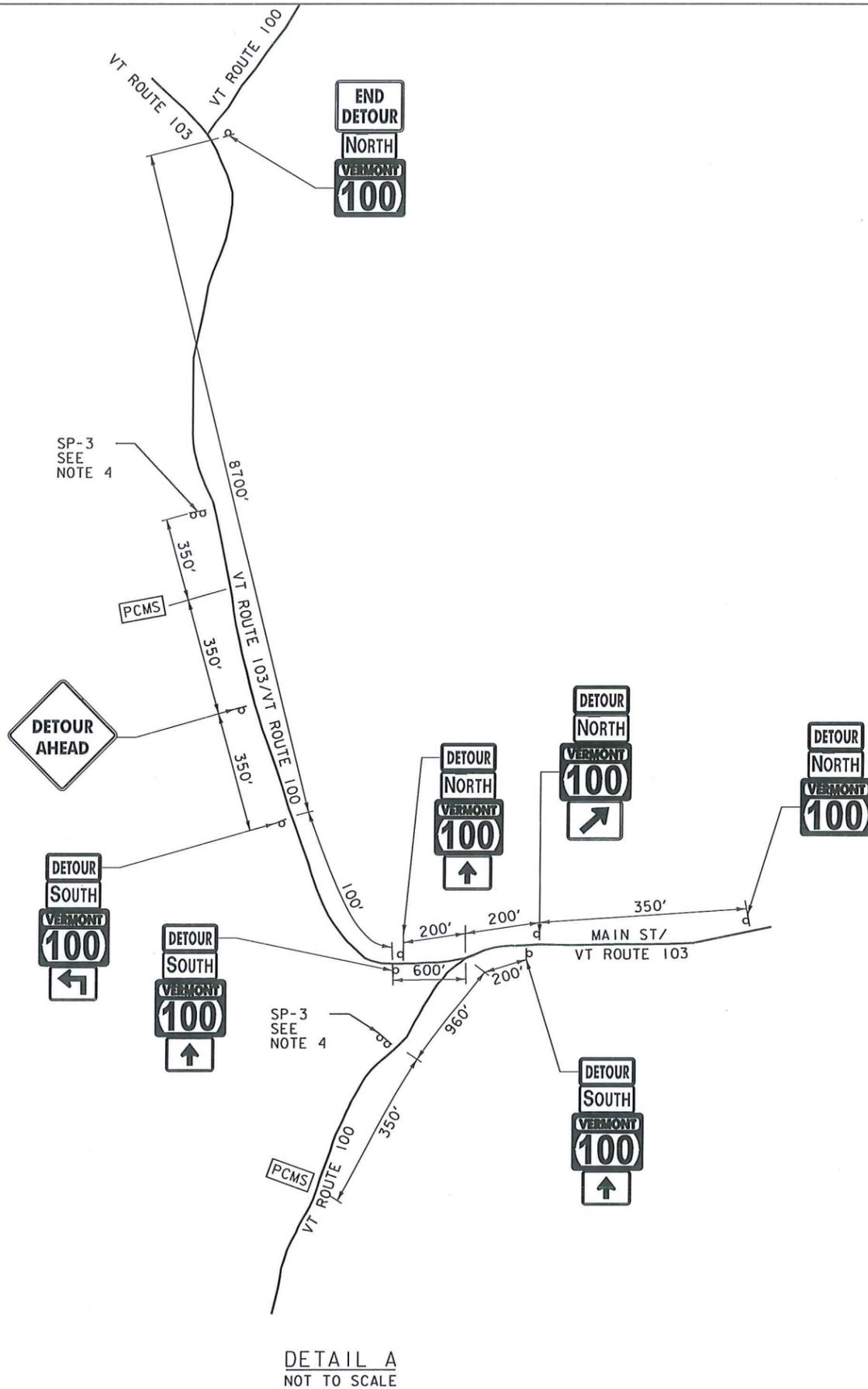
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REGIONAL TRAFFIC DETOUR

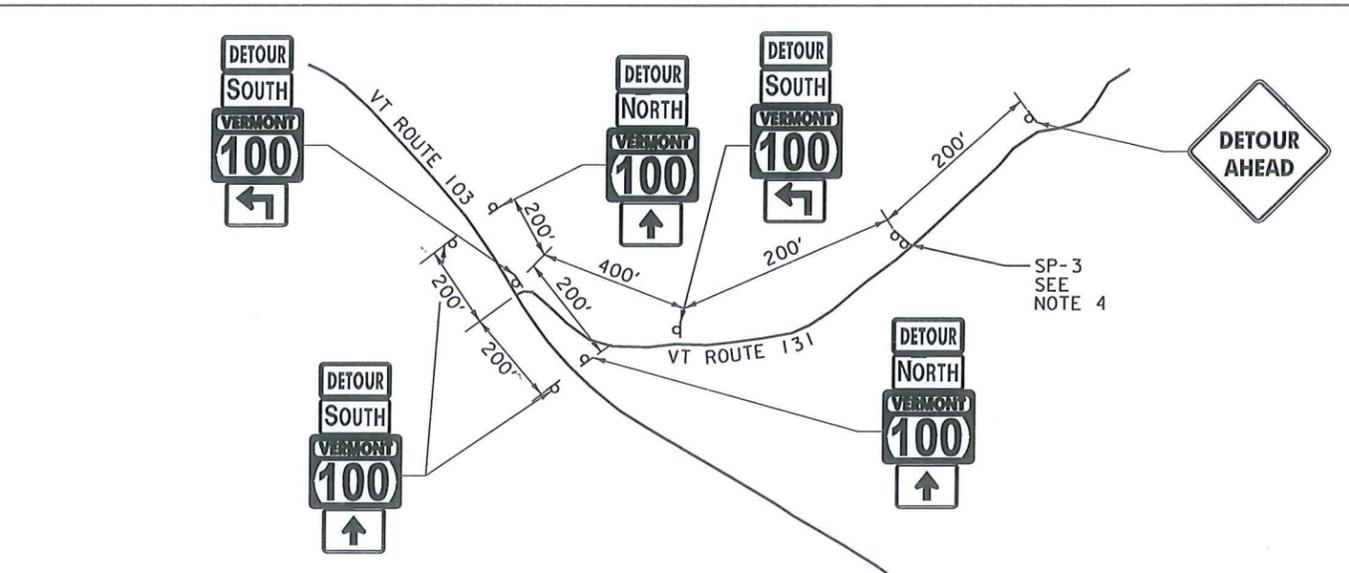
NOTE:

1. This plan is intended to depict traffic control measures for Regional and Local Traffic Control Signage during closure of Bridge 98 in Weston, Vermont. The drawing was prepared utilizing Bridge/Roadway plans titled "Weston" prepared by VHB, Inc. of Burlington, Vermont, dated 10/2/2015

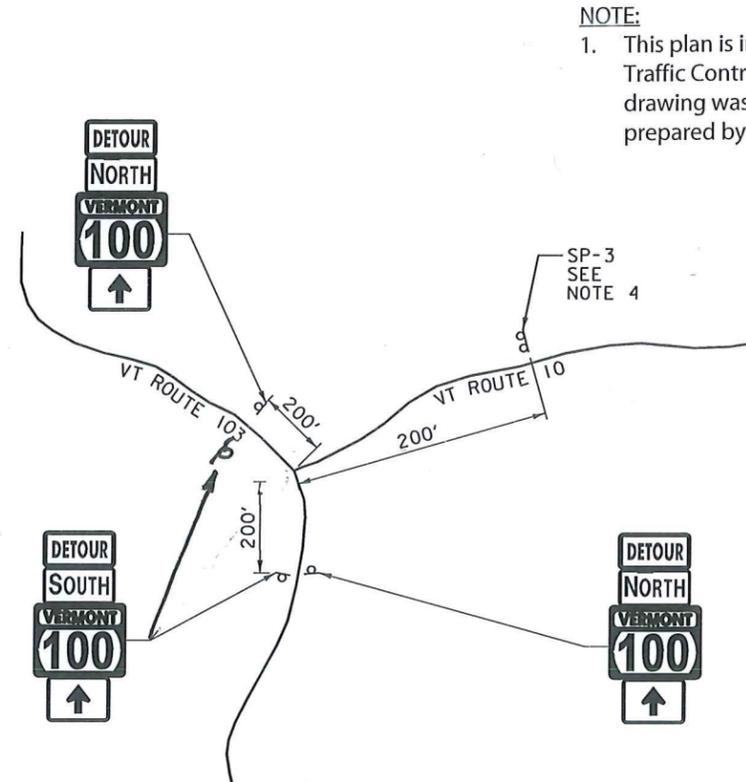
PROJECT NAME:	WESTON
PROJECT NUMBER:	BF 013-2(13)
DATE:	
TRAFFIC CONTROL PLAN (1 OF 6)	SHEET 19 OF 68



DETAIL A
NOT TO SCALE



DETAIL B
NOT TO SCALE



DETAIL C
NOT TO SCALE

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LEGEND

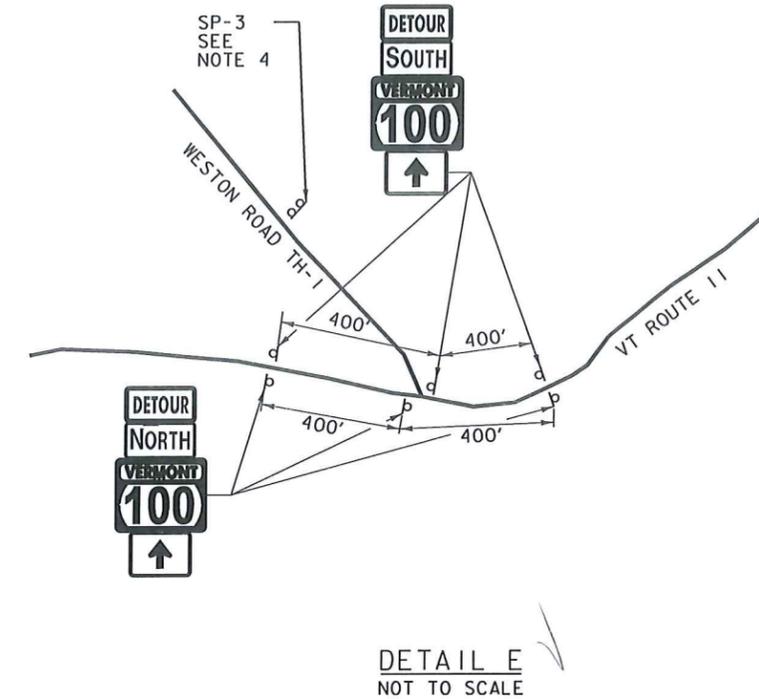
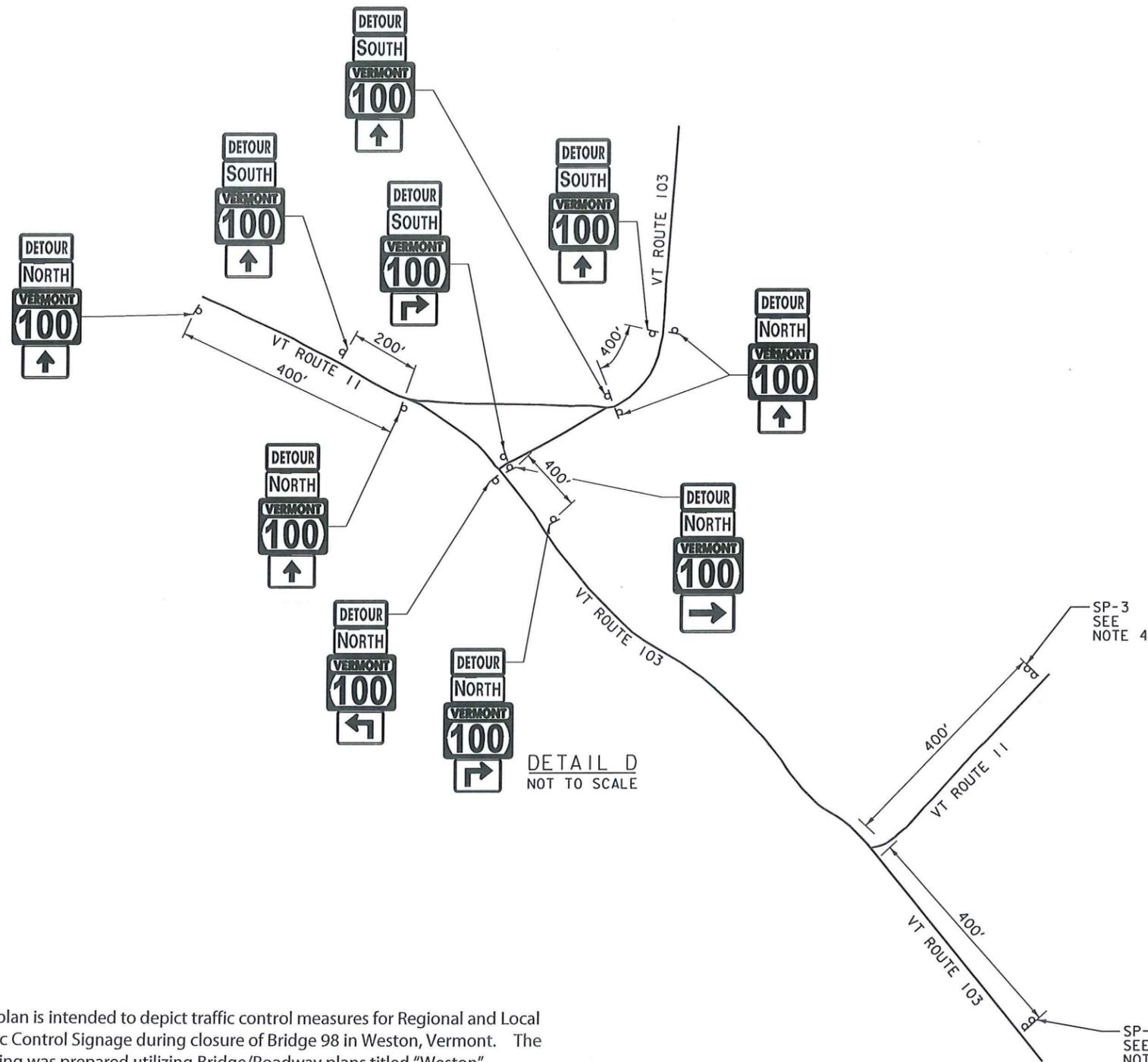
PCMS PORTABLE CHANGEABLE MESSAGE SIGN

NOTE:

1. SEE TRAFFIC CONTROL PLAN (6 OF 6) FOR PCMS MESSAGES.
2. WHEN EXISTING ROUTE MARKER ASSEMBLIES ARE LOCATED AT THE INTERSECTIONS OR ALONG THE DETOUR ROUTE, THE DETOUR ROUTE MARKER ASSEMBLIES SHALL BE INSTALLED ADJACENT TO THE EXISTING ROUTE MARKER ASSEMBLIES.
3. ALL DISTANCES ARE APPROXIMATE AND MAY VARY IN THE FIELD.
4. CLOSURE STATIC SIGN (SP-3) NOTIFICATION SEE SHEET 24 FOR SIGN DETAIL.

PROJECT NAME:	WESTON
PROJECT NUMBER:	BF 013-2(13)
TRAFFIC CONTROL PLAN (2 OF 6)	SHEET 20 OF 68

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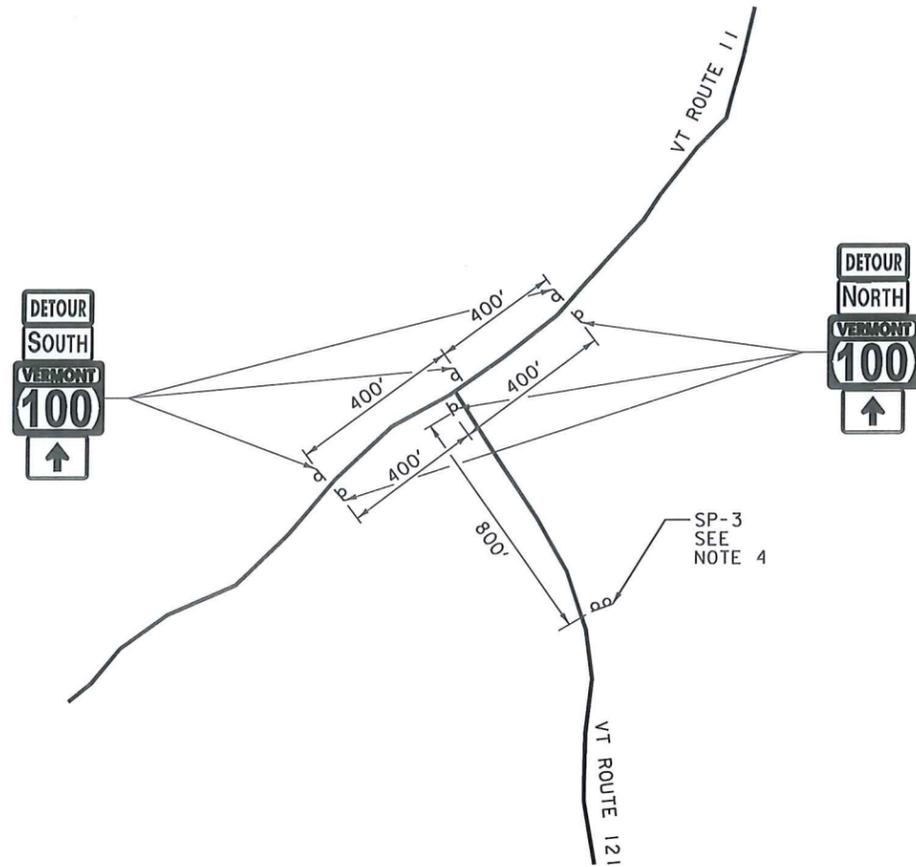
LEGEND

PORTABLE CHANGEABLE MESSAGE SIGN

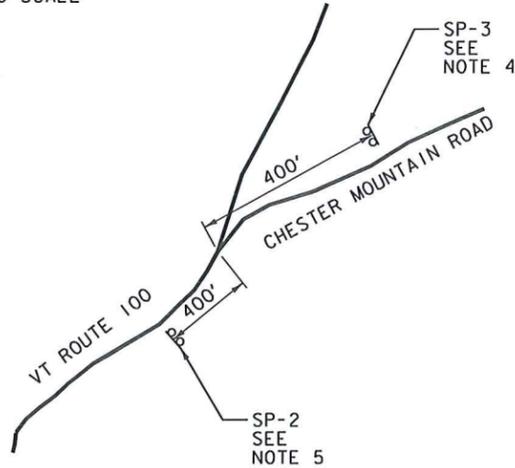
NOTE:

1. SEE TRAFFIC CONTROL PLAN (6 OF 6) FOR PCMS MESSAGES.
2. WHEN EXISTING ROUTE MARKER ASSEMBLIES ARE LOCATED AT THE INTERSECTIONS OR ALONG THE DETOUR ROUTE, THE DETOUR ROUTE MARKER ASSEMBLIES SHALL BE INSTALLED ADJACENT TO THE EXISTING ROUTE MARKER ASSEMBLIES.
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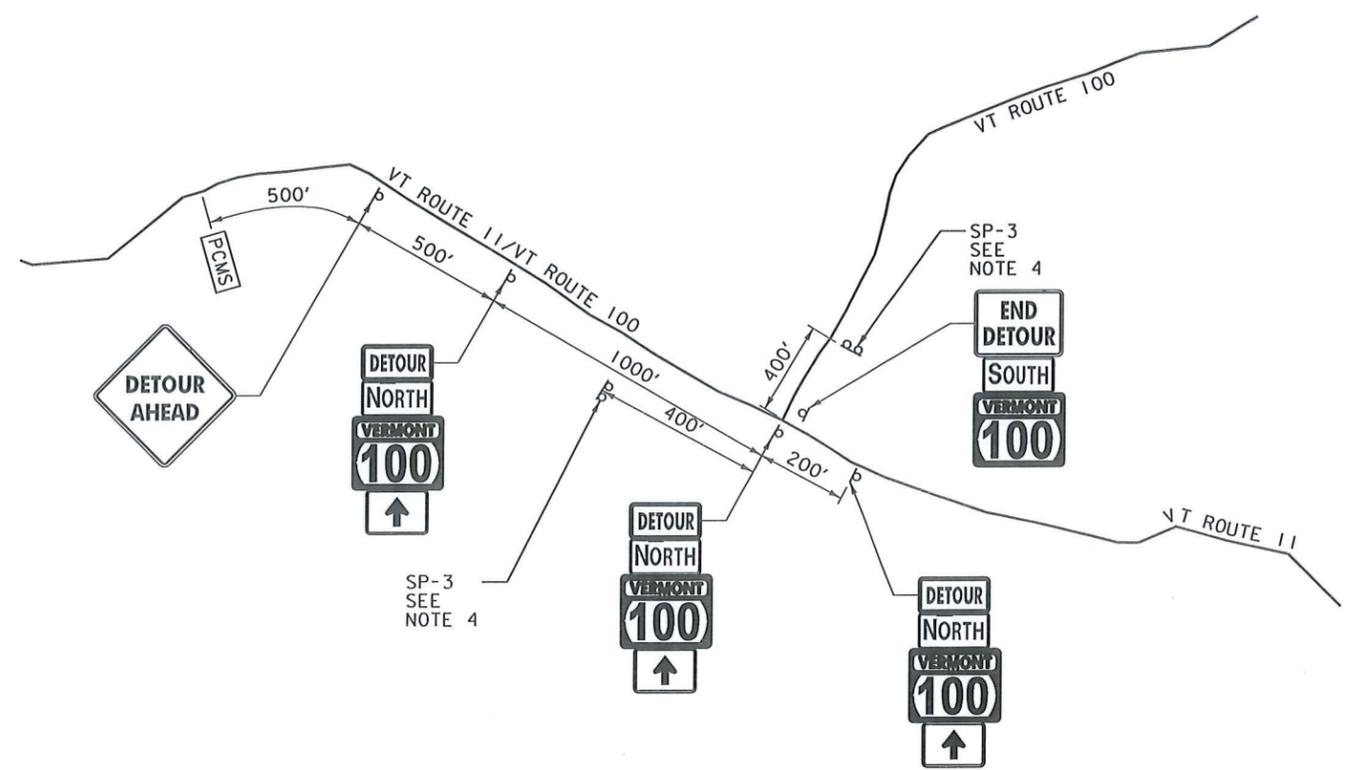
PROJECT NAME: WESTON
 PROJECT NUMBER: BF 013-2(13)



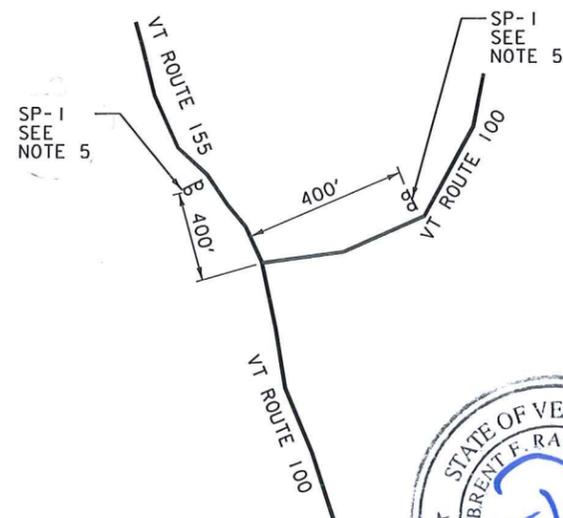
DETAIL F
NOT TO SCALE



DETAIL H
NOT TO SCALE



DETAIL G
NOT TO SCALE



DETAIL I
NOT TO SCALE



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LEGEND

PCMS PORTABLE CHANGEABLE MESSAGE SIGN

NOTE:

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2. WHEN EXISTING ROUTE MARKER ASSEMBLIES ARE LOCATED AT THE INTERSECTIONS OR ALONG THE DETOUR ROUTE, THE DETOUR ROUTE MARKER ASSEMBLIES SHALL BE INSTALLED ADJACENT TO THE EXISTING ROUTE MARKER ASSEMBLIES.
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5. ROAD CLOSED/ XX MILES AHEAD/ NO THRU TRAFFIC (SP-1 & SP-2 SIGNS) SEE SHEETS 19-24 FOR SIGN DIMENSIONS AND LOCATIONS

NOTE:

1. This plan is intended to depict traffic control measures for Regional and Local Traffic Control Signage during closure of Bridge 98 in Weston, Vermont. The drawing was prepared utilizing Bridge/Roadway plans titled "Weston" prepared by VHB, Inc. of Burlington, Vermont, dated 10/2/2015

PROJECT NAME: WESTON
PROJECT NUMBER: BF 013-2(13)



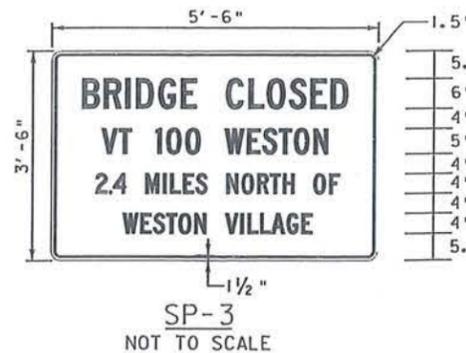
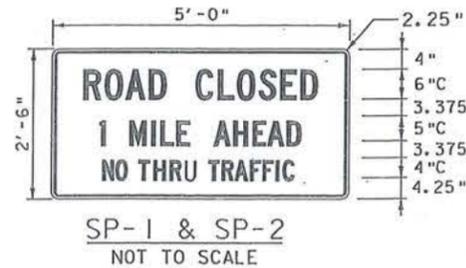
IDENTIFICATION NUMBER	SIZE OF SIGN		TEXT	NUMBER OF SIGNS REQ'D	REMARKS	COLOR
	WIDTH (IN)	HEIGHT (IN)				
M1-5	30	24		43*	SEE NOTE 2	VTRANS STD E-136B
M3-1	24	12		23*	SEE NOTE 2	VTRANS STD E-136B
M3-3	24	12		20*	SEE NOTE 2	VTRANS STD E-136B
G20-2	36	18		3	MOUNT ON ONE POST	LEGEND BLACK BACKGROUND ORANGE **
M4-8	24	12		42*	MOUNT ABOVE THE M3-1 OR M3-3	LEGEND BLACK BACKGROUND ORANGE **
M4-8A	24	18		2	MOUNT ON ONE POST	LEGEND BLACK BACKGROUND ORANGE **
M5-1L	21	15		4	MOUNT BELOW THE M1-5	LEGEND BLACK BACKGROUND ORANGE ***
M5-1R	21	15		2	MOUNT BELOW THE M1-5	LEGEND BLACK BACKGROUND ORANGE ***
M5-2R	21	15		0	MOUNT BELOW THE M1-5	LEGEND BLACK BACKGROUND ORANGE ***
M6-1L	21	15		1	MOUNT BELOW THE M1-5	LEGEND BLACK BACKGROUND ORANGE ***
M6-2L	21	15		0	MOUNT BELOW THE M1-5	LEGEND BLACK BACKGROUND ORANGE ***
M6-2R	21	15		1	MOUNT BELOW THE M1-5	LEGEND BLACK BACKGROUND ORANGE ***
M6-3	21	15		34*	MOUNT BELOW THE M1-5	LEGEND BLACK BACKGROUND ORANGE ***

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* = NUMBER OF SIGNS REQ'D ASSUMING APPROXIMATELY 3 LOCATIONS OF CONFIRMATORY ROUTE MARKER ASSEMBLY DETAIL
 ** = SIGN BACKGROUND SHALL BE RETROREFLECTIVE FLUORESCENT
 *** = SIGN BACKGROUNDS SHALL BE RETOREFLECTIVE

IDENTIFICATION NUMBER	SIZE OF SIGN		TEXT	NUMBER OF SIGNS REQ'D	REMARKS	COLOR
	WIDTH (IN)	HEIGHT (IN)				
R11-2	48	30		3	MOUNT ON TYPE III BARRICADE (MOD.)	LEGEND BLACK BACKGROUND WHITE ***
SP-1	60	30		2	MOUNT ON TWO POSTS	LEGEND BLACK BACKGROUND WHITE ***
SP-2	60	30		1	TWO POSTS DELETE TEXT	BACKGROUND WHITE ***
W20-2	48	48		2	MOUNT ON TWO POSTS	LEGEND BLACK BACKGROUND ORANGE **
W20-3	48	48		4	MOUNT ON TWO POSTS	LEGEND BLACK BACKGROUND ORANGE **
W20-3	48	48		2	MOUNT ON TWO POSTS	LEGEND BLACK BACKGROUND ORANGE **
W20-3	48	48		5	MOUNT ON TWO POSTS	LEGEND BLACK BACKGROUND ORANGE **
SP-3	42	66		11	MOUNT ON TWO POSTS	LEGEND BLACK BACKGROUND ORANGE **
W20-3	48	48		1	MOUNT ON TWO POSTS	LEGEND BLACK BACKGROUND ORANGE **



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- NOTES:**
- PAYMENT OF ALL DETOUR SIGNS AND REQUIRED SIGN POSTS WILL BE MADE UNDER ITEM 641.10, "TRAFFIC CONTROL".
 - THE M1-5, M3-1, AND THE M3-3 SIGNS SHALL BECOME PROPERTY OF THE STATE AFTER THEY ARE REMOVED FROM THE DETOUR. THE CONTRACTOR SHALL DELIVER THE SIGNS TO THE STATE GARAGE IN THE TOWN OF LONDONDERRY. ALL COSTS ASSOCIATED WITH PROVIDING SIGNS TO THE STATE WILL BE CONSIDERED INCIDENTAL TO ITEM 641.10, "TRAFFIC CONTROL".
 - ONE WEEK PRIOR (7 DAYS) COMMENCEMENT OF PILE INSTALLATION, PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) MESSAGES A AND B WILL BE DISPLAYED AT THE BRIDGE. DURING ALL ONE-LANE ALTERNATING TRAFFIC MESSAGES C AND D WILL BE DISPLAYED.
 - ONE WEEK PRIOR (7 DAYS) TO INITIATION OF ROAD/BRIDGE CLOSURE WORK, PCMS MESSAGES 1 AND 2 WILL BE DISPLAYED AT THE BRIDGE AND PCMS MESSAGES 3, 4, AND 5 WILL BE DISPLAYED REGIONALLY.
 - DURING THE BRIDGE CLOSURE, PCMS SHALL READ MESSAGES 6 AND 7 REGIONALLY.

MESSAGES FOR PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) -- AT BRIDGE

(ROUTE) ***	ONE WEEK PRIOR		ONE-LANE ALTERNATING TRAFFIC		(DATE) **
	MESSAGE A	MESSAGE B **	MESSAGE C	MESSAGE D	
VT 100	MMMM DD	ONE LANE	BE		
BRIDGE	TO	BRIDGE	PREPARED		
WORK	MMMM DD	AHEAD	TO STOP		

MESSAGES FOR PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) - AT BRIDGE

MESSAGES FOR PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) - REGIONAL DETOUR

(ROUTE) ***	ONE WEEK PRIOR TO CLOSURE			(DATE) **
	MESSAGE 3	MESSAGE 4	MESSAGE 5	
VT 100	NORTH OF	MMMM DD		
BRIDGE	WESTON	TO		
CLOSED	VILLAGE	MMMM DD		

(ROUTE) ***	DURING BRIDGE CLOSURE	
	MESSAGE 6	MESSAGE 7
VT 100	NORTH OF	
BRIDGE	WESTON	
CLOSED	VILLAGE	

- ** - MONTH SHALL BE SPELLED OUT - JUNE 10 NOT 06/10
 *** - ROUTE VT 100 SHALL SPECIFY N (NORTH) OR S (SOUTH) AS APPROPRIATE FOR THE DETOUR.

PROJECT NAME: WESTON
 PROJECT NUMBER: BF 013-2(13)