

STATE OF VERMONT AGENCY OF TRANSPORTATION



PROPOSED IMPROVEMENT BRIDGE PROJECT

TOWN OF RICHMOND
COUNTY OF CHITTENDEN
BRIDGES NO. 58 N&S

PROJECT LOCATION: BRIDGES NO. 58 N&S LOCATED ON I-89 OVER WINOOSKI RIVER AND JOHNNIE BROOK ROAD (T.H. 16)

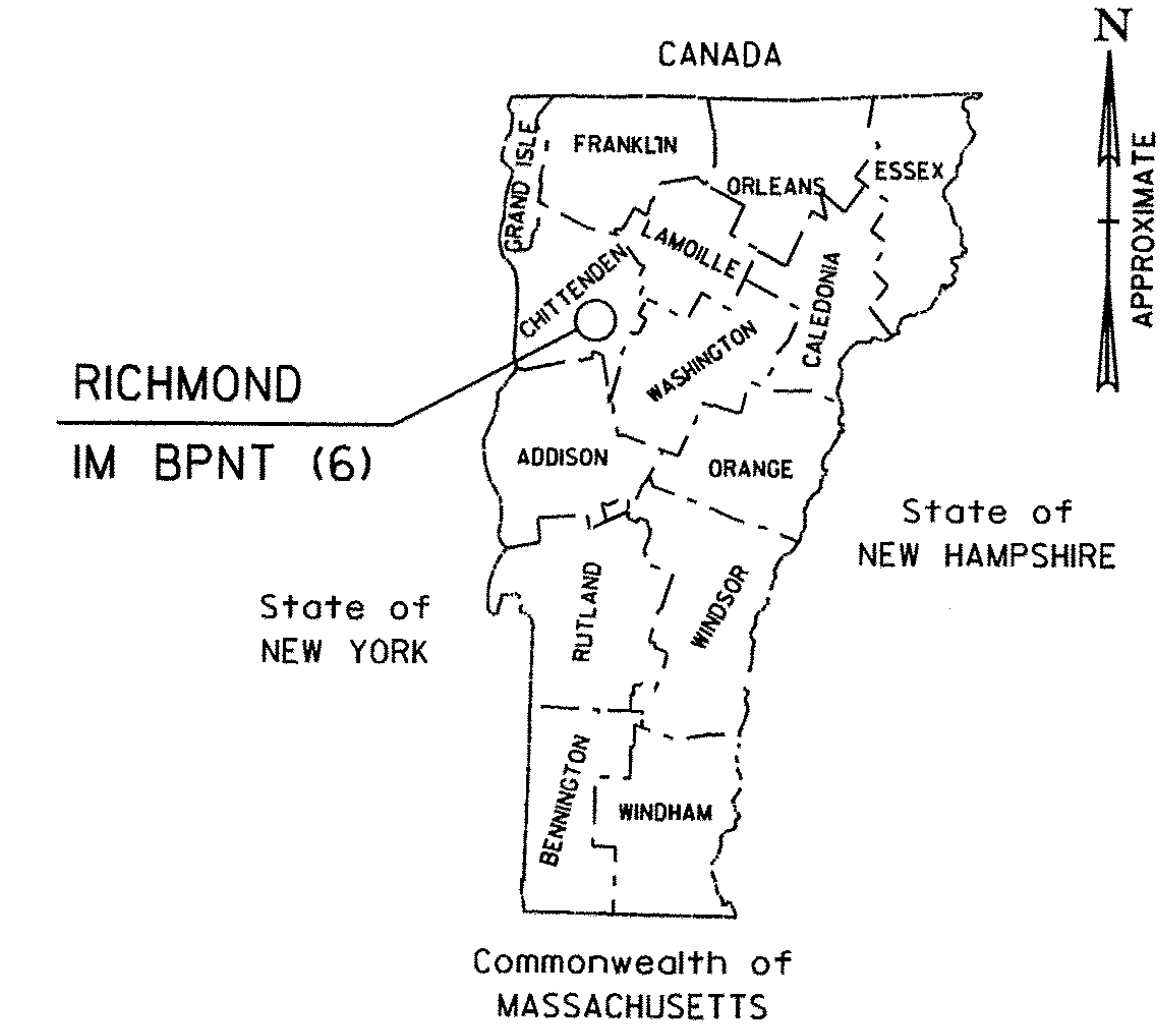
PROJECT DESCRIPTION: THIS PROJECT INVOLVES CLEANING AND REPAINTING THE EXISTING STEEL SUPERSTRUCTURE MEMBERS AND MINOR ASSOCIATED WORK.

INDEX OF SHEETS

- 1 TITLE SHEET
- 2 QUANTITY SHEET
- 3 PROJECT NOTES
- 4-6 TRAFFIC CONTROL SHEETS
- 7-9 REFERENCE SHEETS - BRIDGE 58
- 10 REFERENCE SHEET - BRIDGE 58 RIGHT OF WAY

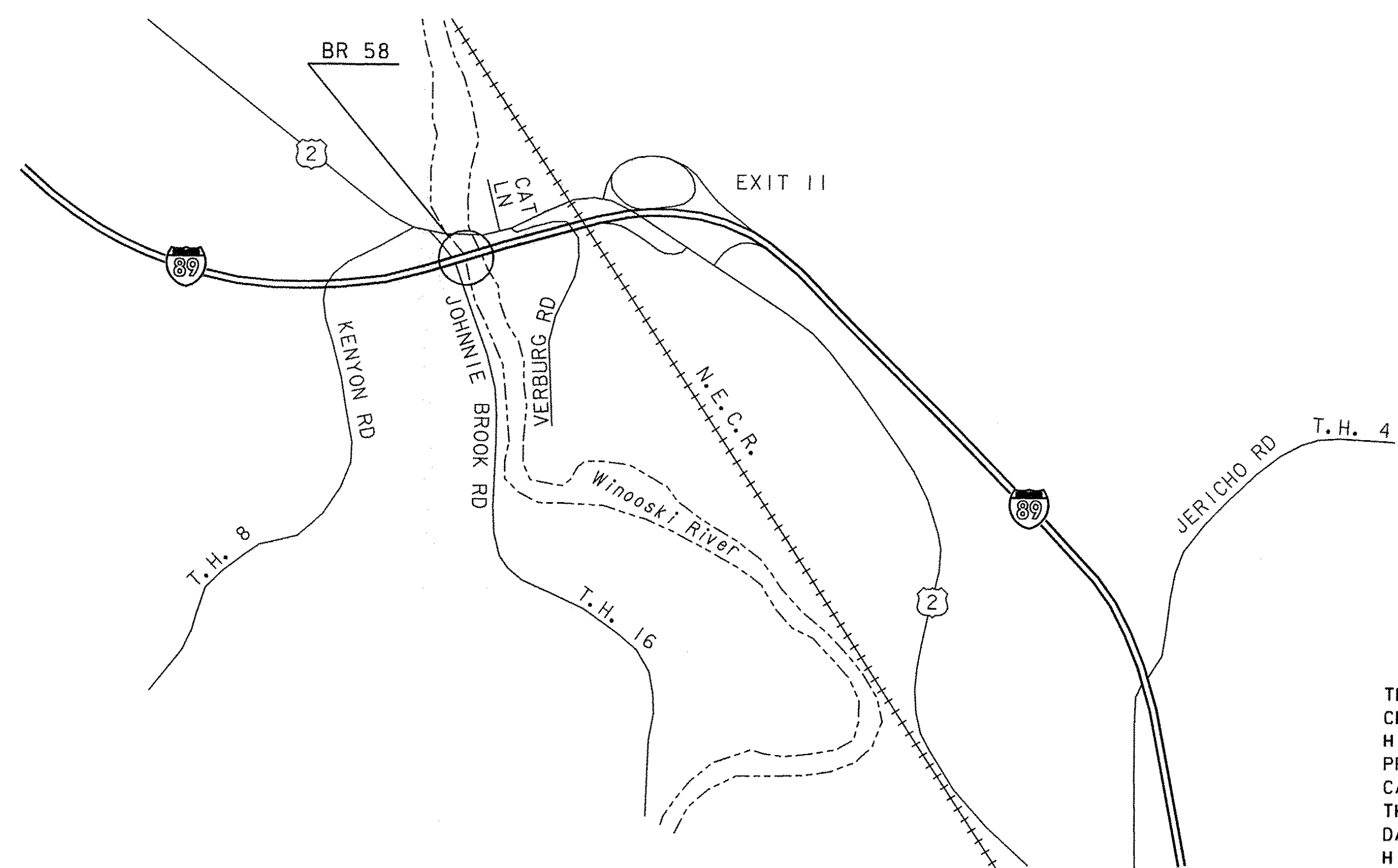
STANDARD SHEETS

- E-100 01/02/04
- E-100A 01/02/04
- E-101 05/30/03
- E-102 06/30/03
- E-102A 05/01/04
- E-103 03/01/04
- E-106 03/01/04
- E-107 06/30/03
- E-107A 06/03/09



LOCATION MAP
NOT TO SCALE

RECORD PLANS	
CONTRACTOR:	ATSALIS BROTHERS PAINTING CO.-WARREN, MI
RESIDENT ENGINEER:	SCOTT WHEATLEY
CONSTRUCTION BEGAN:	JULY 13, 2010
CONSTRUCTION COMPLETE:	MARCH 26, 2012
RECORD PLANS BY:	SCOTT WHEATLEY
I HEREBY CERTIFY THAT ALL THE CONSTRUCTION REQUIRED BY THIS SET OF DRAWINGS HAS BEEN ACCOMPLISHED AS INDICATED HEREIN.	
BY	<i>Scott Wheatley</i> RESIDENT ENGINEER
DATE	July 31, 2012
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.	

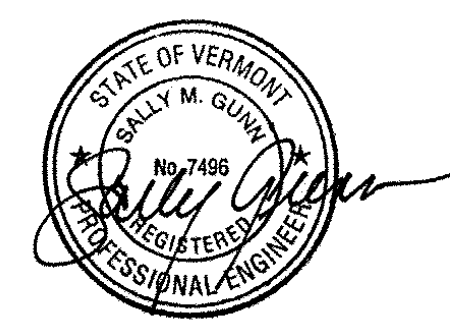


PLAN
NOT TO SCALE

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	
R.O.W. LINE	
PROPERTY LINE	
R.O.W. TAKING LINE	
SLOPE RIGHTS	
CLEAR ZONE	
TOP OF CUT	
TOE OF SLOPE	

DATUM	
VERTICAL	N/A
HORIZONTAL	N/A

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 2006, AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION ON JUNE 15, 2006 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 <i>John H. Weaver</i>	DATE 7/27/09
PROJECT MANAGER : JOHN H. WEAVER, P.E.	
PROJECT NAME : RICHMOND	
PROJECT NUMBER : IM BPNT (6)	
SHEET 1 OF 10 SHEETS	

VHB Vanasse Hangen Brustlin, Inc.

QUANTITY SHEET

SUMMARY OF ESTIMATED QUANTITIES						TOTALS		DESCRIPTIONS				DETAILED SUMMARY OF QUANTITIES						
					BRIDGE NO. 58 N	BRIDGE NO. 58 S	EROSION CONTROL	ROADWAY	FULL CE ITEMS	GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	ROUND	QUANTITIES	UNIT	ITEMS
					800	800				1600		HR	TRUCK-MOUNTED ATTENUATOR	608.45				
					500	500				1000		LF	TEMPORARY TRAFFIC BARRIER	621.90				
					800	800				1600		HR	UNIFORMED TRAFFIC OFFICERS	630.10				
					400	400				800		HR	FLAGGERS	630.15				
									1	1		LS	FIELD OFFICE - ENGINEERS	631.10				
									1	1		LS	TESTING EQUIPMENT, PROTECTIVE COATINGS	631.18				
									1	1		LU	FIELD OFFICE - TELEPHONE (N.A.B.I.)	631.25				
								1		1		LS	MOBILIZATION/DEMOBILIZATION	635.11				
								1		1		LS	TRAFFIC CONTROL (I-89 - BRIDGE NO. 58N)	641.10				
								1		1		LS	TRAFFIC CONTROL (I-89 - BRIDGE NO. 58S)	641.10				
					2	2				4		EA	PORTABLE CHANGEABLE MESSAGE SIGN	641.15				
					1	1				2		EA	PORTABLE ARROW BOARD	641.16				
							100			100		SY	GEOTEXTILE FOR SILT FENCE	649.51				
							200			200		SY	TEMPORARY EROSION MATTING	653.20				
					1					1		LS	SPECIAL PROVISION (CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES) (I-89 - BR. NO. 58N)	900.645				
						1				1		LS	SPECIAL PROVISION (CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES) (I-89 - BR. NO. 58S)	900.645				
					1					1		LS	SPECIAL PROVISION (QC/QA CLEAN AND PAINT EXISTING STEEL STRUCTURES, BARE STEEL) (I-89 - BR. NO. 58N)	900.645				
						1				1		LS	SPECIAL PROVISION (QC/QA CLEAN AND PAINT EXISTING STEEL STRUCTURES, BARE STEEL) (I-89 - BR. NO. 58S)	900.645				

**STATE OF VERMONT
AGENCY OF TRANSPORTATION**

Town Of RICHMOND	Bridge No. 58
Highway No. I-89 N&S	Log Sta. Surv. Sta.
I-89 N&S	
QUANTITY SHEET	
Designed By C. L. CILLEY	Drawn By C. L. CILLEY
Checked By S. M. GUNN	Bridge Design Supervisor S. M. GUNN
Date 9/09	Date 9/09
PROJECT RICHMOND	PROJECT NO. IM BPNT (6)
I.G.C. Info.	
Bridge Sheet No. Z09A174-BR58-QSSheet 2 of 10	

VHB Vanasse Hangen Brustlin, Inc.

PROJECT NOTES:

GENERAL

1. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO STATE OF VERMONT, AGENCY OF TRANSPORTATION, 2006 STANDARD SPECIFICATIONS FOR CONSTRUCTION, AND ITS LATEST REVISIONS.
2. ALL WORK AND ANY ASSOCIATED ACTIVITY ON THIS PROJECT SHALL BE PERFORMED WITHIN THE EXISTING RIGHT-OF-WAY LIMITS. THE RIGHT-OF-WAY FOR ALL HIGHWAYS OTHER THAN I-89, SHALL BE ASSUMED TO BE 3 RODS UNLESS SHOWN OTHERWISE ON REFERENCE PLANS.
3. STAGING AREAS OFF THE PAVEMENT SHALL UNDERGO VTRANS CONSTRUCTION STAGING REVIEW. ALL DISTURBED STAGING AREAS SHALL BE RESTORED TO THEIR ORIGINAL CONDITION. TEMPORARY STAGING AREAS OFF PAVEMENT, IF APPROVED, SHALL UTILIZE ITEMS 649.51 GEOTEXTILE FOR SILT FENCE AND 653.20 TEMPORARY EROSION MATTING TO PREVENT EROSION AND CONTROL SEDIMENT FROM THE STAGING AREAS.
4. GREASE COATING SHALL BE APPLIED TO ALL STRUCTURAL STEEL WITHIN 20 FEET OF EACH ABUTMENT (FIXED AND EXPANSION JOINTS). COST SHALL BE INCIDENTAL TO ITEM 900.645, SPECIAL PROVISION (QC/QA CLEAN AND PAINT EXISTING STEEL STRUCTURES, BARE STEEL).

TRAFFIC CONTROL

1. THE CONTRACTOR SHALL SUBMIT SITE SPECIFIC TRAFFIC CONTROL PLANS DEPICTING EACH PHASE OF THE PLANNED WORK FOR ANY WORK ON I-89 OR FROM THE ROADS BELOW THE BRIDGES. THE DESIGN SHALL ENSURE STATE-REGULATED WIDE LOADS CAN BE ACCOMMODATED DURING LANE CLOSURES. PLANS SHALL BE SUBMITTED IN ACCORDANCE WITH SUBSECTION 105.03 AND SHALL BE STAMPED BY A PROFESSIONAL ENGINEER LICENSED IN AN APPROPRIATE DISCIPLINE IN THE STATE OF VERMONT.
2. THE CONTRACTOR SHALL OBTAIN THE MOST CURRENT TRAFFIC VOLUMES FOR I-89 AND U.S. 2 FOR USE IN THE PROJECT SPECIFIC TRAFFIC CONTROL PLANS.

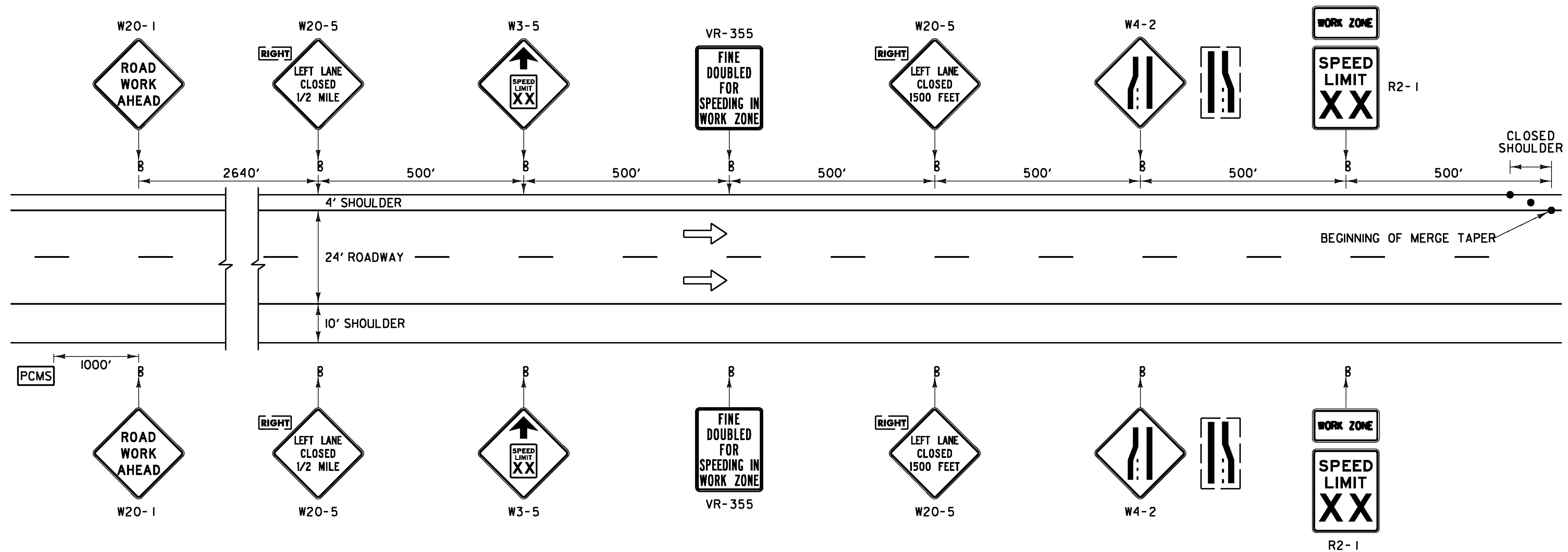
BRIDGE NUMBER	2009 AADT	
	NORTHBOUND	SOUTHBOUND
56	13,700	10,300
57	13,700	13,700
58	13,700	13,700
59	13,700	13,700

3. THE TRAFFIC CONTROL PLANS SHALL SHOW ALL RAMPS AND I-89 ACCELERATION AND DECELERATION LANES AT EXIT II.
4. UNIFORMED TRAFFIC OFFICERS ARE REQUIRED FOR THE TRAFFIC CONTROL DESIGN ON I-89.
5. NIGHT WORK WILL BE THE PREFERRED METHOD OF CONSTRUCTION UNLESS OTHERWISE APPROVED BY THE RESIDENT ENGINEER. LANE CLOSURES WILL NOT BE ALLOWED DURING THE FOLLOWING TIME PERIODS;
 - I-89 NORTHBOUND
 - 6AM-10AM MONDAY-THURSDAY
 - 6AM-10AM AND 2PM-7PM FRIDAY
 - I-89 SOUTHBOUND
 - 3PM-7PM MONDAY-THURSDAY
 - 2PM-7PM FRIDAY
6. UNLESS COVERED UNDER INDIVIDUAL PAY ITEMS, ALL COSTS FOR TEMPORARY TRAFFIC CONTROL DEVICES WILL BE CONSIDERED TO BE INCLUDED IN THE CONTRACT LUMP SUM PRICE FOR TRAFFIC CONTROL, ITEM 641.10.
7. THE PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) AND PRINT MEDIA SHALL BE USED 2 WEEKS IN ADVANCE OF NIGHTTIME LANE CLOSURE AS DIRECTED BY THE ENGINEER.
8. RIGHT-OF-WAY FENCE MAY HAVE TO BE REMOVED AND RESET IN ACCORDANCE WITH SECTION 620 FOR EGRESS AND INGRESS. THIS WORK SHALL BE INCIDENTAL TO TRAFFIC CONTROL, ITEM 641.10.

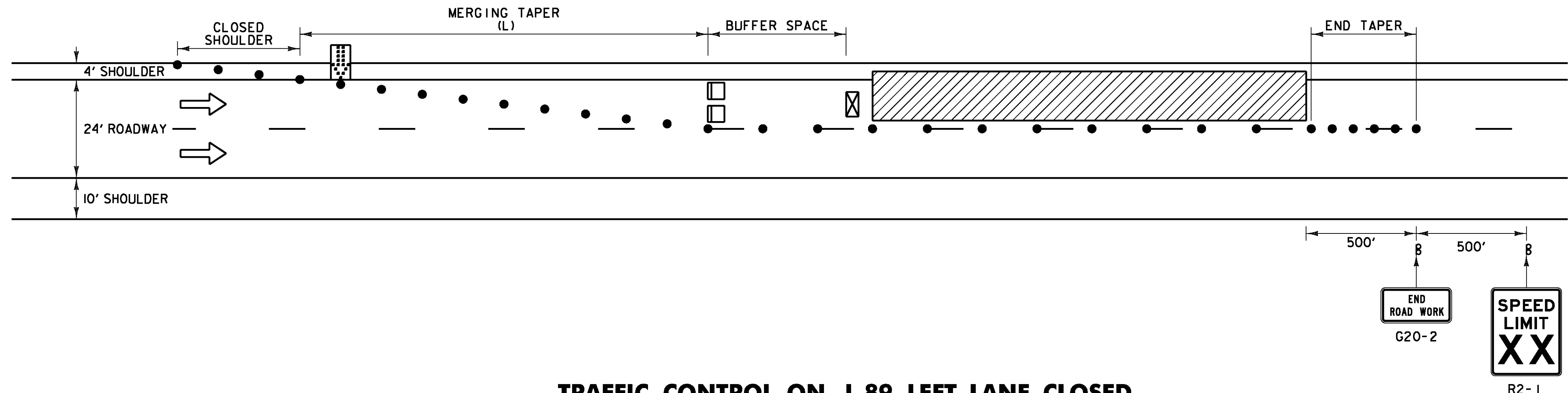
UTILITIES

1. REFER TO UTILITIES SPECIAL PROVISIONS.

STATE OF VERMONT AGENCY OF TRANSPORTATION			
Town Of RICHMOND		Bridge No. 58	
Highway No. I-89 N&S		Log Sta. Surv. Sta.	
I-89 N&S			
PROJECT NOTES			
Designed By C. L. CILLEY	Date	Drawn By C. L. CILLEY	Date
Checked By S. M. GUNN	9/09	Bridge Design Supervisor S. M. GUNN	Date 9/09
PROJECT RICHMOND		PROJECT NO. IM BPNT (6)	
I.G.C. Info.			
Bridge Sheet No. Z09A174-BR58-DET Sheet 3 of 10			



CONSTRUCTION APPROACH SIGNING ON I-89, LEFT LANE CLOSED



TRAFFIC CONTROL ON I-89, LEFT LANE CLOSED
(SEE SHEET 5 FOR RIGHT LANE CLOSURE)

TRAFFIC CONTROL NOTES I-89:

1. THE TRAFFIC CONTROL PLAN SHOWN IS A SCHEMATIC ONLY AND SHOULD BE USED AS A REFERENCE. THE CONTRACTOR SHALL SUBMIT A SITE SPECIFIC TRAFFIC CONTROL PLAN FOR BRIDGE 58 TO VTRANS FOR APPROVAL. PAYMENT FOR PREPARING AND SUBMITTING THE TRAFFIC CONTROL PLAN, AND MAKING ANY NECESSARY REVISIONS TO THE PLAN, WILL BE INCLUDED IN THE UNIT PRICE BID FOR CONTRACT ITEM 6410. THE CONTRACTOR SHALL ALLOW TWO WEEKS FOR APPROVAL OF THE TRAFFIC CONTROL PLAN. NO WORK SHALL COMMENCE UNTIL THE CONTRACTOR HAS AN APPROVED TRAFFIC CONTROL PLAN.
2. THE EXISTING SPEED LIMIT FOR I-89 IS 65 MPH. THE SPEED LIMIT WILL BE REDUCED TO 50 MPH IN THE WORK ZONE FOR THIS PROJECT. ANY EXISTING SPEED LIMIT SIGNS WITHIN THE SPEED REDUCTION AREA SHALL BE COMPLETELY COVERED.
3. SIGNS SHALL BE INSTALLED SO AS NOT TO OBSTRUCT EXISTING SIGNS.
4. ALL SIGNS SHALL BE IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD) AND THE "STANDARD HIGHWAY SIGNS" BOOK (SHS) PUBLISHED BY THE FEDERAL HIGHWAY ADMINISTRATION (FHWA).
5. SOLID SUBSTRATE CONSTRUCTION SIGNS SHALL HAVE RETROREFLECTIVE SHEETING EQUAL TO OR EXCEEDING "AMERICAN SOCIETY FOR TESTING AND MATERIALS" (ASTM) TYPE VII, VIII OR IX REQUIREMENTS, UNLESS OTHERWISE NOTED.
6. ROLL UP SIGNS SHALL HAVE RETROREFLECTIVE SHEETING EQUAL TO OR EXCEEDING ASTM TYPE VI.
7. SIGNS SHALL BE ERECTED BEFORE THE START OF ANY WORK AND SHALL BE COVERED UNTIL WORK COMMENCES, DURING PERIODS OF INACTIVITY OR UPON COMPLETION OF THE WORK. EACH SIGN SHALL BE ERECTED IN A NEAT AND WORKMANLIKE MANNER. SIGNS SHALL BE REMOVED UPON COMPLETION OF THE WORK AT THE DISCRETION OF THE ENGINEER.
8. FIXED SIGNS SHALL BE SET SECURELY IN THE GROUND. THE BOTTOM OF A SIGN SHALL BE AT LEAST SEVEN FEET ABOVE THE EDGE OF PAVEMENT. THE NEAREST EDGE OF A SIGN SHALL BE AT LEAST SIX FEET OUTSIDE THE SHOULDER POINT OR FOUR FEET OUTSIDE GUARDRAIL.
9. PORTABLE SIGNS SHALL BE PLACED ON THE EDGE OF ROADWAY AND A ONE FOOT MINIMUM ABOVE TRAVELED WAY. ALL VEGETATION THAT INTERFERES WITH VISIBILITY OF THE SIGNS SHALL BE REMOVED. WHEN PLACED BEHIND GUARDRAIL, THE BOTTOM OF THE SIGN FACE SHALL BE ABOVE THE TOP OF THE GUARDRAIL.
10. 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 INSTALLED ON SAID POST(S). WHEN ANCHORS ARE INSTALLED STUB SHALL NOT BE GREATER THAN FOUR INCHES ABOVE EXISTING GROUND.
11. THE CONTRACTOR SHALL HAVE SIGNS FOR CLOSURE OF RIGHT AND LEFT LANES ON PROJECT BEFORE WORK COMMENCES.
12. THE NUMBER OF CHANNELIZING DEVICES, TYPE III BARRICADE AND OTHER TRAFFIC CONTROL DEVICES SHOWN ARE FOR ILLUSTRATIVE PURPOSES ONLY. THE ACTUAL NUMBER REQUIRED ARE TO BE DETERMINED BASED ON INDIVIDUAL DETOUR CONDITIONS (TAPERS, SPEED LIMITS, LENGTH OF DETOUR, CURVE, ETC.). WARNING LIGHTS SHALL NOT BE USED ON CHANNELIZING DEVICES.
13. PLACE LAST CHANNELIZING DEVICE 100 FEET BEYOND THE ANTICIPATED WORK ZONE TERMINAL POINT EACH DAY AND THEN START THE END TAPER. THE END TAPER SHALL BE CONSTRUCTED OF 5 ADDITIONAL RETROREFLECTIVE DRUMS SPACED AT 10 FEET ON CENTER.
14. THE ARROW BOARD SHALL BE PLACED ON THE SHOULDER OF THE ROADWAY, OR IF PRACTICAL FURTHER FROM THE TRAVELED LANE AT THE END OF THE SHOULDER TAPER.
15. THE PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) SHALL BE USED AT THE DISCRETION OF THE ENGINEER, THE PCMS SHALL BE USED IN ACCORDANCE WITH SECTION 6F.55 OF THE MUTCD.
16. TRAVEL LANE SHALL BE MINIMUM 12 FEET WIDE.

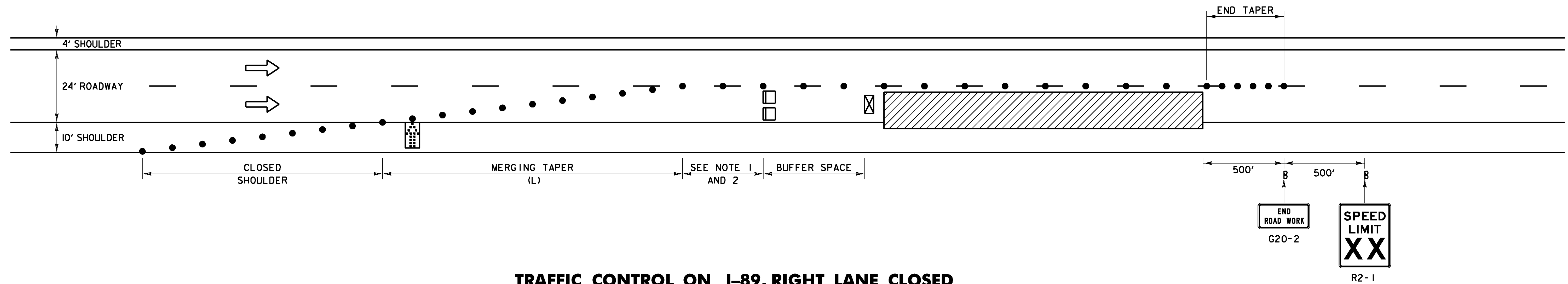
- LEGEND**
- ➔ FLOW OF TRAFFIC
 - RETROREFLECTIVE PLASTIC DRUM
 - ▤ PORTABLE ARROW BOARD
 - ▣ TYPE III BARRICADE
 - ▨ WORK AREA
 - ⊠ TRUCK/TRAILER MOUNTED ATTENUATOR
 - PCMS PORTABLE CHANGEABLE MESSAGE SIGN (SEE NOTE 15)

POSTED SPEED (MPH)	TAPER LENGTHS (FT)		TANGENT W=12 FT (L/2)	BARRIER FLARE RATE (MINIMUM)	MINIMUM BUFFER SPACE LENGTH (FT)	MAXIMUM CHANNELIZING DEVICE SPACING (FT)	
	SHOULDER W=10 FT (L/3)	MERGING 12 FT LANE (L)				TAPER (S)	TANGENT (2S)
≤40	90	320	160	1:9	305	40	80
45	150	540	270	1:9	360	45	90
50	170	600	300	1:11	425	50	100
55	185	660	330	1:13	495	55	110
60	200	720	360	1:13	570	60	120
65	215	780	390	1:13	645	65	130

TAPER RATES ARE DETERMINED USING THE FOLLOWING EQUATION:
 $L = WS$ FOR POSTED SPEEDS OF 45 MPH OR GREATER
 $L = WS/60$ FOR POSTED SPEEDS OF 40 MPH OR LESS
 L = MINIMUM LENGTH OF TAPER
 W = WIDTH OF OFFSET IN FEET. (TYPICAL)
 S = POSTED SPEED IN MPH

VHB Vanasse Hangen Brustlin, Inc.

STATE OF VERMONT AGENCY OF TRANSPORTATION	
Town Of RICHMOND	Bridge No. 58
Highway No. I-89 N&S	Log Sta. _____ Surv. Sta. _____
I-89 N&S	
TRAFFIC CONTROL (SHEET 1 OF 3)	
Designed By VTRANS	Drawn By VTRANS
Checked By S. M. GUNN	Date 9/09
PROJECT RICHMOND	PROJECT NO. IM BPNT (6)
I.G.C. Info.	
Bridge Sheet No. Z09A174-BR58-TC Sheet 4 of 10	



TRAFFIC CONTROL NOTES:

SEE NOTES ON SHEET 4

LEGEND

- FLOW OF TRAFFIC
- RETROREFLECTIVE PLASTIC DRUM
- PORTABLE ARROW BOARD
- TYPE III BARRICADE
- WORK AREA
- TRUCK/TRAILER MOUNTED ATTENUATOR
- PORTABLE CHANGEABLE MESSAGE SIGN (SEE NOTE 15 ON TRAFFIC CONTROL SHEET 1)

POSTED SPEED (MPH)	TAPER LENGTHS (FT)		TANGENT W=12 FT (L/2)	BARRIER FLARE RATE (MINIMUM)	MINIMUM BUFFER SPACE LENGTH (FT)	MAXIMUM CHANNELIZING DEVICE SPACING (FT)	
	SHOULDER W=10 FT (L/3)	MERGING 12 FT LANE (L)				TAPER (S)	TANGENT (2S)
≤40	90	320	160	1:9	305	40	80
45	150	540	270	1:9	360	45	90
50	170	600	300	1:11	425	50	100
55	185	660	330	1:13	495	55	110
60	200	720	360	1:13	570	60	120
65	215	780	390	1:13	645	65	130

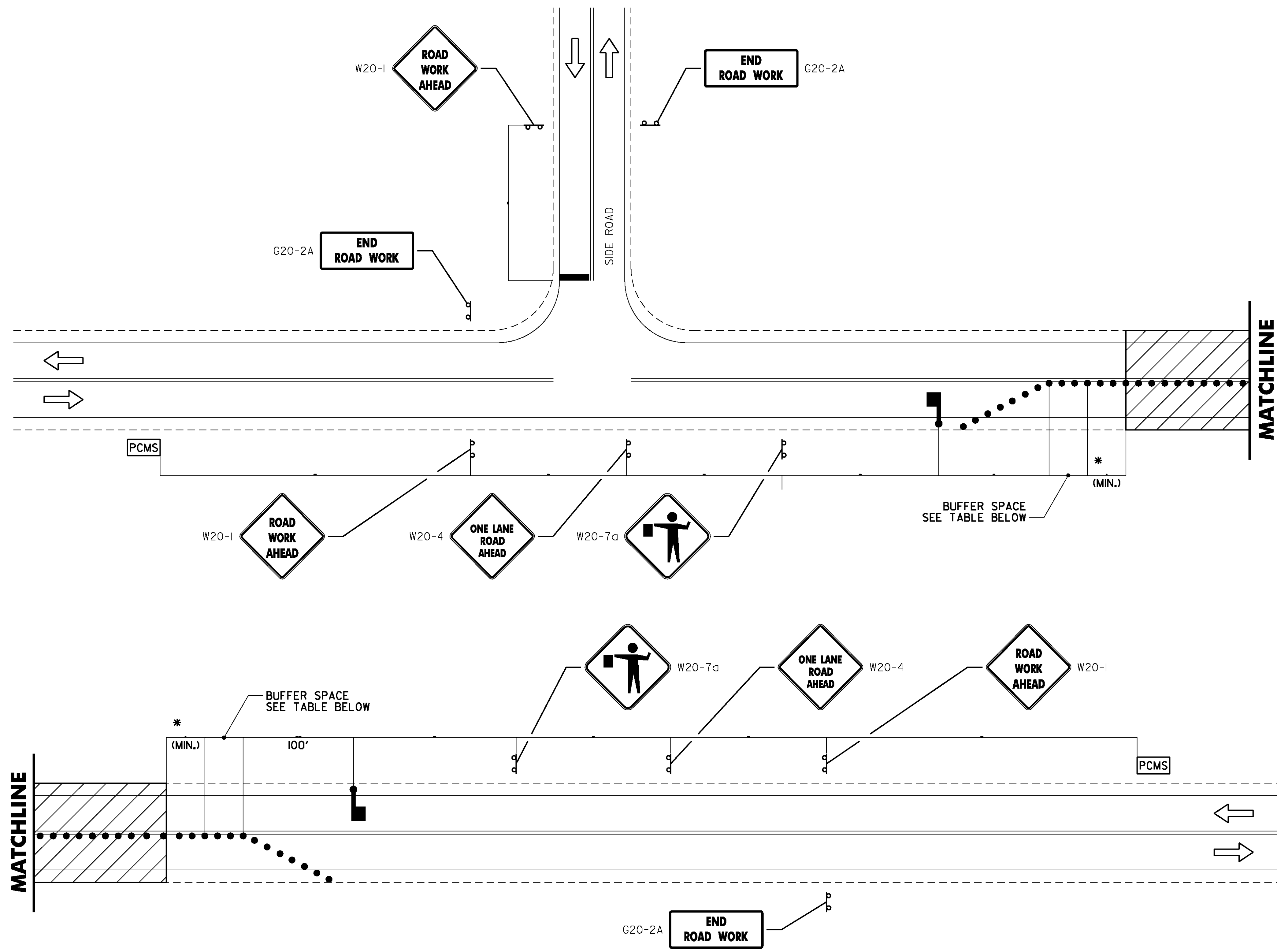
TAPER RATES ARE DETERMINED USING THE FOLLOWING EQUATION:
 $L = WS$ FOR POSTED SPEEDS OF 45 MPH OR GREATER
 $L = WS^2/60$ FOR POSTED SPEEDS OF 40 MPH OR LESS

L = MINIMUM LENGTH OF TAPER
W = WIDTH OF OFFSET IN FEET. (TYPICAL)
S = POSTED SPEED IN MPH

**STATE OF VERMONT
AGENCY OF TRANSPORTATION**

Town Of RICHMOND	Bridge No. 58
Highway No. I-89 N&S	Log Sta.
	Surv. Sta.
I-89 N&S	
TRAFFIC CONTROL (SHEET 2 OF 3)	
Designed By VTRANS	Drawn By VTRANS
Checked By S. M. GUNN	Date 9/09
Bridge Design Supervisor S. M. GUNN	Date 9/09
PROJECT RICHMOND	PROJECT NO. 1M BPNT (6)
I.G.C. Info.	
Bridge Sheet No. Z09A174-BR58-TC Sheet 5 of 10	

VHB Vanasse Hangen Brustlin, Inc.



* - ACTUAL DIMENSION TO BE DETERMINED BY INDIVIDUAL BRIDGE SITE CONDITIONS AND TO BE SHOWN ON TRAFFIC CONTROL PLANS SUBMITTED BY THE CONTRACTOR.

TRAFFIC CONTROL PLAN ON HIGHWAYS BELOW BRIDGES
NOT TO SCALE

- LEGEND**
- FLOW OF TRAFFIC
 - RETROREFLECTIVE PLASTIC DRUM OR CONCRETE BARRIER
 - WORK AREA
 - FLAGGER
 - PORTABLE CHANGEABLE MESSAGE SIGN (SEE NOTE 13)

BUFFER SPACE TABLE

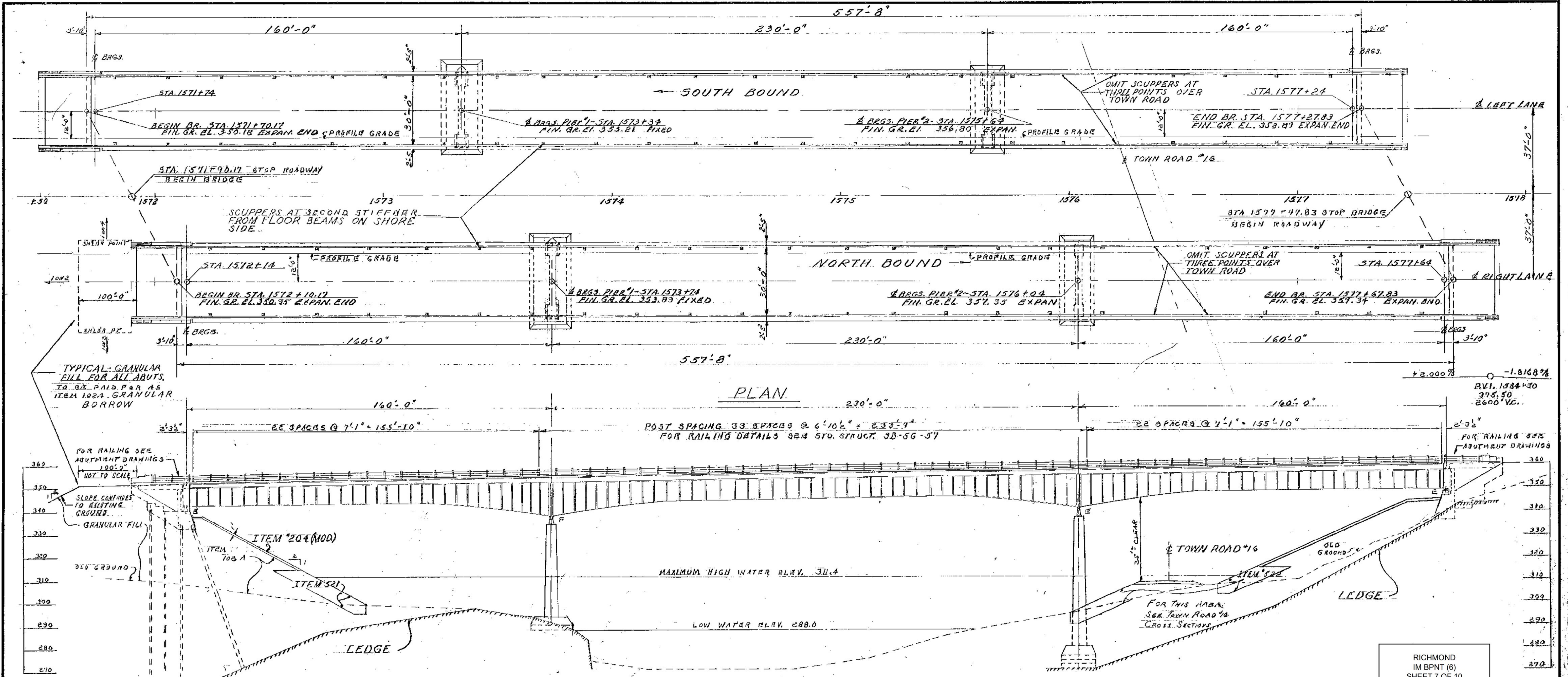
POSTED SPEED (MPH)	MINIMUM BUFFER SPACE LENGTH (FT)
35	250
40	305
45	360
50	425

TRAFFIC CONTROL NOTES OTHER HIGHWAYS:

1. THE TRAFFIC CONTROL PLAN SHOWN IS A SCHEMATIC ONLY AND SHOULD BE USED AS A REFERENCE. THE CONTRACTOR SHALL SUBMIT A SITE SPECIFIC TRAFFIC CONTROL PLAN FOR BRIDGE 58 TO VTRANS FOR APPROVAL. PAYMENT FOR PREPARING AND SUBMITTING THE TRAFFIC CONTROL PLAN, AND MAKING ANY NECESSARY REVISIONS TO THE PLAN, WILL BE INCLUDED IN THE UNIT PRICE BID FOR CONTRACT ITEM 641.0. THE CONTRACTOR SHALL ALLOW TWO WEEKS FOR APPROVAL OF THE TRAFFIC CONTROL PLAN. NO WORK SHALL COMMENCE UNTIL THE CONTRACTOR HAS AN APPROVED TRAFFIC CONTROL PLAN.
2. ANY PARKING AREAS OR DRIVES WITH AN ENTRANCE/EXIT BETWEEN THE FLAGGER AND THE WORK ZONE SHALL HAVE THAT ENTRANCE/EXIT CLOSED WITH CONES OR DRUMS, PROVIDED ADDITIONAL ENTRANCES/EXITS EXIST IN THE AREA APPROACHING THE FLAGGER.
3. ANY PUBLIC HIGHWAYS BETWEEN THE FLAGGER AND THE WORK ZONE WILL REQUIRE AN ADDITIONAL FLAGGER TO MAINTAIN TRAFFIC CONTROL FOR THE PUBLIC HIGHWAY.
4. SIGNS SHALL BE INSTALLED SO AS NOT TO OBSTRUCT EXISTING SIGNS OR CORNER SIGHT DISTANCE FROM TOWN HIGHWAYS OR DRIVES.
5. ALL SIGNS SHALL BE IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD) AND THE "STANDARD HIGHWAY SIGNS" BOOK (SHS) PUBLISHED BY THE FEDERAL HIGHWAY ADMINISTRATION (FHWA).
6. SOLID SUBSTRATE CONSTRUCTION SIGNS SHALL HAVE RETROREFLECTIVE SHEETING EQUAL TO OR EXCEEDING "AMERICAN SOCIETY FOR TESTING AND MATERIALS" (ASTM) TYPE VII, VIII OR IX REQUIREMENTS, UNLESS OTHERWISE NOTED.
7. ROLL UP SIGNS SHALL HAVE RETROREFLECTIVE SHEETING EQUAL TO OR EXCEEDING ASTM TYPE VI.
8. SIGNS SHALL BE ERECTED BEFORE THE START OF ANY WORK AND SHALL BE COVERED UNTIL WORK COMMENCES, DURING PERIODS OF INACTIVITY OR UPON COMPLETION OF THE WORK. EACH SIGN SHALL BE ERECTED IN A NEAT AND WORKMANLIKE MANNER. SIGNS SHALL BE REMOVED UPON COMPLETION OF THE WORK AT THE DISCRETION OF THE ENGINEER.
9. FIXED SIGNS SHALL BE SET SECURELY IN THE GROUND. THE BOTTOM OF A SIGN SHALL BE AT LEAST SEVEN FEET ABOVE THE EDGE OF PAVEMENT. THE NEAREST EDGE OF A SIGN SHALL BE AT LEAST SIX FEET OUTSIDE THE SHOULDER POINT OR FOUR FEET OUTSIDE GUARDRAIL.
10. PORTABLE SIGNS SHALL BE PLACED ON THE EDGE OF ROADWAY AND AT ONE FOOT MINIMUM ABOVE TRAVELED WAY. ALL VEGETATION THAT INTERFERES WITH VISIBILITY OF THE SIGNS SHALL BE REMOVED. WHEN PLACED BEHIND GUARDRAIL, THE BOTTOM OF THE SIGN FACE SHALL BE ABOVE THE TOP OF THE GUARDRAIL.
11. 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 INSTALLED ON SAID POST(S). WHEN ANCHORS ARE INSTALLED STUB SHALL NOT BE GREATER THAN FOUR INCHES ABOVE EXISTING GROUND.
12. THE NUMBER OF CHANNELIZING DEVICES SHOWN ARE FOR ILLUSTRATIVE PURPOSES ONLY, THE ACTUAL NUMBER REQUIRED ARE TO BE DETERMINED BY THE CONTRACTOR AND SHOWN ON THE TRAFFIC CONTROL PLAN SUBMITTED BY THE CONTRACTOR. WARNING LIGHTS SHALL NOT BE USED ON CHANNELIZING DEVICES.
13. THE PORTABLE CHANGEABLE MESSAGE SIGN (PCMS) SHALL BE USED AT THE DISCRETION OF THE ENGINEER, THE PCMS SHALL BE USED IN ACCORDANCE WITH SECTION 6F.55 OF THE MUTCD. THE PCMS SHALL READ "ONE WAY TRAFFIC AHEAD BE PREPARED TO STOP".

STATE OF VERMONT	
AGENCY OF TRANSPORTATION	
Town Of RICHMOND	Bridge No. 58
Highway No. 1-89 N&S	Log Sta.
	Surv. Sta.
1-89 N&S	
TRAFFIC CONTROL (SHEET 3 OF 3)	
Designed By VTRANS	Drawn By VTRANS
Checked By S. M. GUNN	Date 9/09
Bridge Design Supervisor S. M. GUNN	Date 9/09
PROJECT RICHMOND	PROJECT NO. 1M BPNT (6)
I.G.C. Info.	
Bridge Sheet No. Z09A174-BR58-TC	Sheet 6 of 10

VHB Vanasse Hangen Brustlin, Inc.



PLAN

ESTIMATED QUANTITIES for TWO BRIDGES

ITEM#	DESCRIPTION	UNIT	TOTAL	ITEM#	DESCRIPTION	UNIT	TOTAL
222	Gravel Backfill	C.Y.	338	501	Furnishing Equip. for Driving Piles	L.S.	1
106-C	Unclass. Channel Excav.	C.Y.	1402	501A	Preparing Subsoil for Driving Piles	L.S.	14
107	Structure Excavation	C.Y.	1402	503	Splices for Steel Piling	Ea	40
207	Sub-base of Cr. Rock Mod.	C.Y.	338	504	Steel Piling	L.F.	3870
318	Tar Emulsion for Gr. Floors	Gal.	1200	521	Stone Fill (Heavy Type)	C.Y.	3376
361-B	Bituminous Conc. Pavt (Mod)	TONS	660	522	Stone Fill for Slope Protection	C.Y.	7230
401-B	Concrete Class B (Mod.)	C.Y.	1290				
401-D	Concrete Class D (Mod.)	C.Y.	1838	556-C	Granite Bridge Curbs	L.F.	2348
402	Reinforcing Steel	Lbs.	427400	572	Bridge Railing	L.F.	2320
404-A	Structural Steel	Lbs.	5533000				
404-B	Steel Superstructure (Sup. Apr. 6-8-82)	L.S.	0				
407	Asphaltic-Asbestos Coating	S.Y.	70				

* Included in Roadway Quantities

ELEVATION NORTH BOUND

LIST of SHEETS

Bridge Sheet No.	Contract Sheet No.	Description
1	35	Preliminary Information
2	36	Plan & Elevation Scale 1"=20'
3	37	Plan View Scale 1"=30'
4	38	Boring Sheet #1
5	39	Boring Sheet #2
6	40	Plan View 5' Contours
7	41	Framing Plan & Girder Details
8	42	Typical Bridge Cross Section
9	43	Max. Moment & Shear Diag.
10	44	Lat. Bracing & Def. Jt. at Curb Details
11	45	Details of Boring Devices
12	46	Deck & App. Slab Relat. Details
13	47	Details of Abut #1 N.B. & S.B.
14	48	Details of Abut #2 N.B.
15	49	Details of Pier #1 N.B. & S.B.
16	50	Details of Pier #2 N.B. & S.B.
17	51	Details of Pier #2 N.B.
18	52	Details of Pier #2 S.B.
19	53-54	Std. Struct. SA-30-60(142)
20	55	Reinforcing - Superstr. & Abuts.
21	56	Reinforcing - Pier #1 N.B. & S.B.
22	57	Reinforcing - Pier #2 N.B. & S.B.
23	58	Bridge Earthwork Sheet
24-25	59-60	Channel Baseline Cross Sections

RICHMOND
IM BPNT (6)
SHEET 7 OF 10
BRIDGE 58
FOR REFERENCE ONLY

BR 58 N+S

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

TOWN OF RICHMOND-WILLISTON

ROUTE No. I-89 LOG STA. _____

Winanski River Bridge 151120 PLAN

N.B. & S.B., PROFILE N.B.

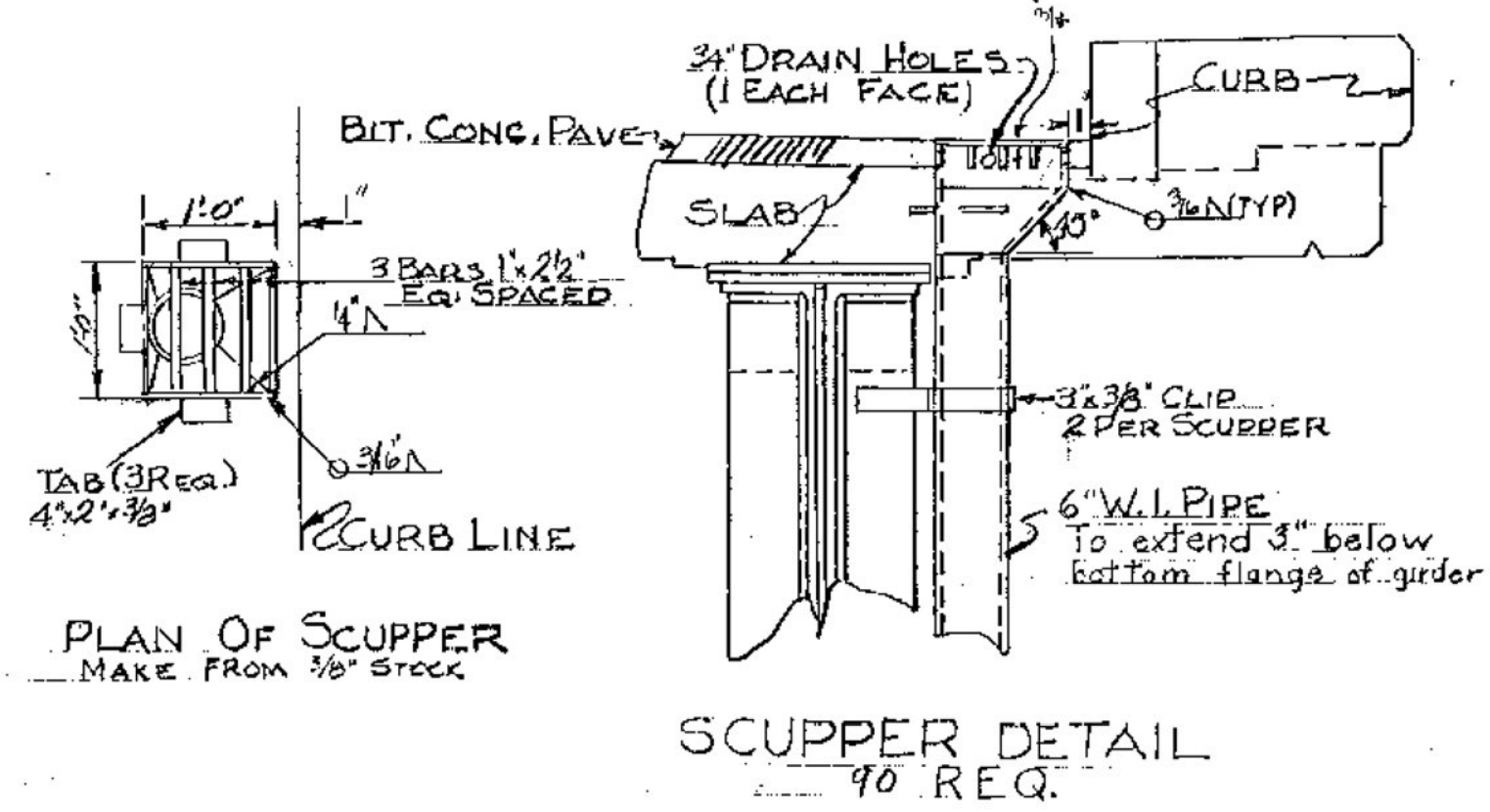
SCALE 1"=20'

SURVEYED BY _____

DRAWN BY A.C.C. CHECKED BY W.M.S.

PROJECT No. I-89-2(7)

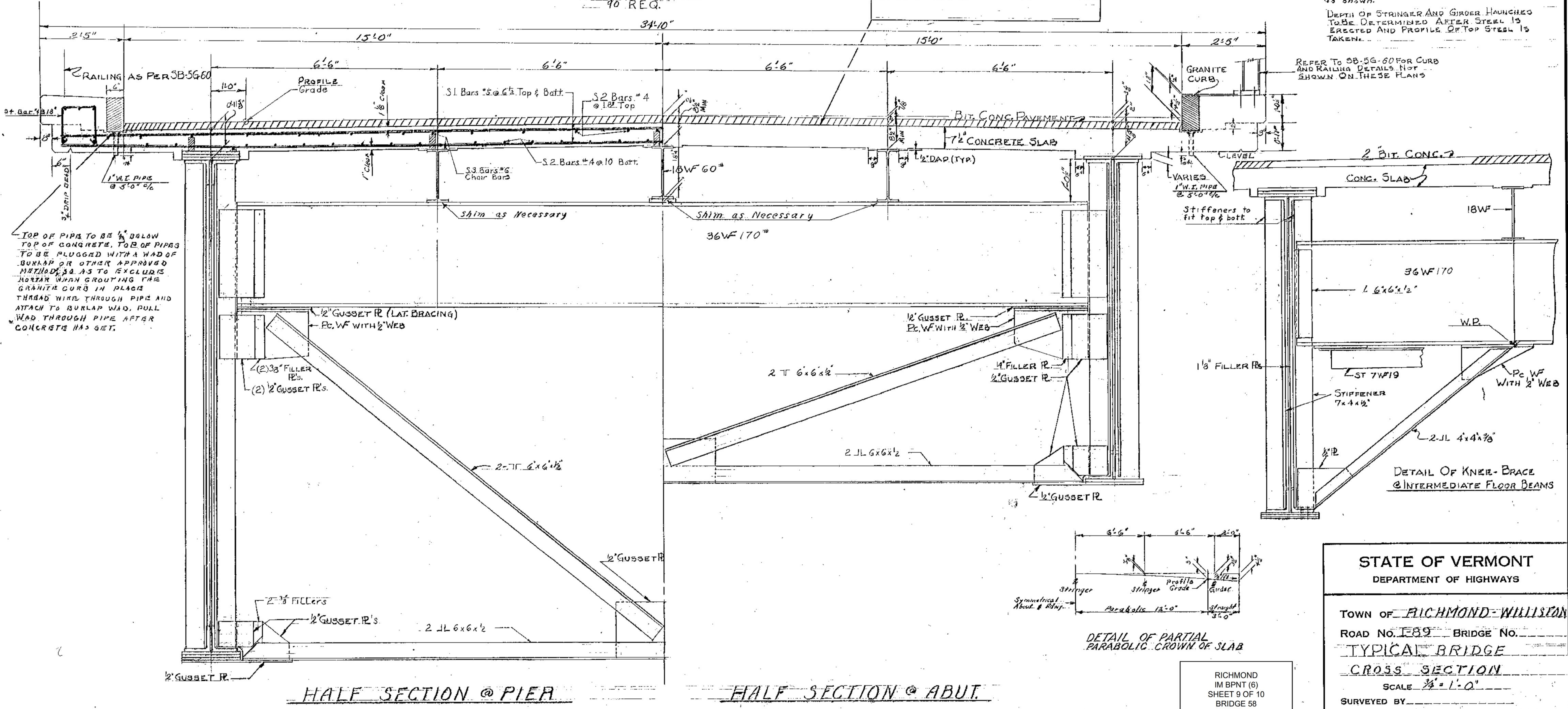
SHEET 130 OF 118 Cont.



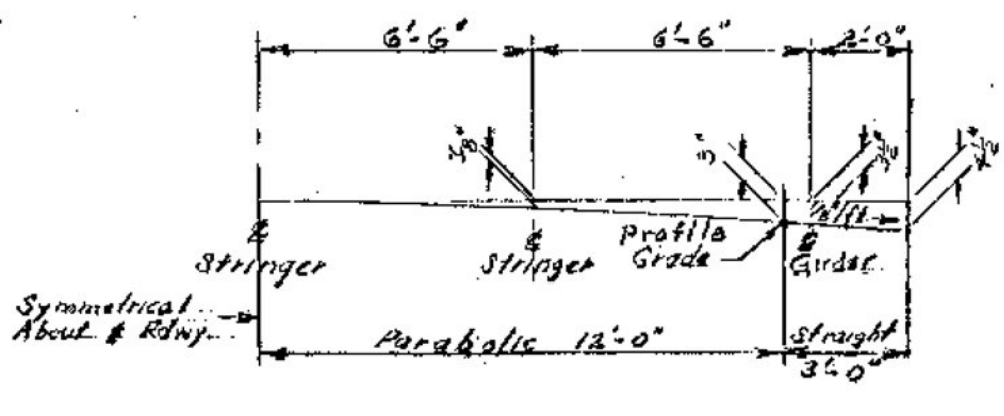
WATER PROOF WITH TWO COATS OF ITEM 318 TAR EMULSION FOR BRIDGE FLOORS

GENERAL NOTES:
Floor slab to be concrete class B 7 1/2" thick, dopped as shown at beam haunch, surface to be screeded, floated and broomed. Partial parabolic crown, as per detail, to be obtained by stepping.
DEPTH OF STRINGER AND GIRDER HAUNCHES TO BE DETERMINED AFTER STEEL IS ERECTED AND PROFILE OF TOP STEEL IS TAKEN.

REFER TO SB-5G-60 FOR CURB AND RAILING DETAILS NOT SHOWN ON THESE PLANS



TOP OF PIPE TO BE 1/4" BELOW TOP OF CONCRETE. TOP OF PIPES TO BE PLUGGED WITH A WAD OF BURLAP OR OTHER APPROVED METHOD, AS TO EXCLUDE MOISTURE WHEN GROUTING THE GRANITE CURB IN PLACE. THREAD WIRE THROUGH PIPE AND ATTACH TO BURLAP WAD. PULL WAD THROUGH PIPE AFTER CONCRETE HAS SET.



STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

TOWN OF RICHMOND-WILLISDON
ROAD NO. 189 BRIDGE NO. _____
TYPICAL BRIDGE
CROSS SECTION
SCALE 1/4" = 1'-0"

RICHMOND IM BPNT (6)
SHEET 9 OF 10
BRIDGE 58
FOR REFERENCE ONLY

SURVEYED BY _____
DRAWN BY E.A.B. CHECKED BY W.M.S.
PROJECT NO. I-89-2 (9)
SHEET 12 OF 118 - Cont #1



RICHMOND
IM BPNT (6)
SHEET 10 OF 10
BRIDGE 58
FOR REFERENCE ONLY