STATE OF VERMONT
AGENCY OF TRANSPORTATION

REINFORCING STEEL SCHEDULE

ITEM	EACH	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	R	O
APPROACH SLAB NO. 2																	
*	7	5	32'- 5"	2AS501.2	STR				236,698 #								
	6	5	32'- 7"	2AS502.2	STR				203,886 #								
	6	5	32'- 9"	2AS503.2	STR				204,950 #								
	33	9	25'- 6"	2AS901.2	1	1'- 3"	24'- 3"		2,861,100 #					0'- 11"			
						Sub total =			3,506,634 #								

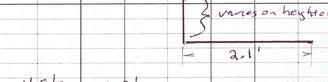
fm 1-15-15
M.W.H. 1/20/15

Total designed re-bar

from sheet		
49 of 68	overlay & curb	2,834,594 #
	Abutment #1	8,358,793 #
	Wingwall #1	3,128,809 #
	Wingwall #2	3,201,745 #
	Wingwall #2	2,896,842 #
	Approach Slab #1	3,567,342 #
	Abutment #2	5,440,600 #
	Wingwall #3	9,415,218 #
49 of 68	Wingwall #4	1,223,563 #
50 of 68	Approach Slab #2	3,506,634 #
	Total =	43,574,200 #

fm 1-15-15
M.W.H. 1/20/15

Extra fabricated bars for steps in footings #5's



1' step = 5.2'
2' step = 6.2'
3' step = 7.2'

Wingwall #1 with 1' step MIF fm

22 bars x 5.2 x 1.043 = 119.319 #

Abutment #1 with 1.5' step MIF fm

22 bars x 5.7 x 1.043 = 130.792 #

Wingwall #2 with 1.5' step MIF fm

22 bars x 5.7 x 1.043 = 130.792 #

Wingwall #3 with 2-1' steps

36 bars x 5.2 x 1.043 = 195.250 #

Abutment #2 with 2' and 3' steps

18 bars x 6.2 x 1.043 = 116.399 #

18 bars x 7.2 x 1.043 = 135.173 #

Total = 827.725 # fm 1-16-15
M.W.H. 1/20/15

ITEM	EACH	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	R	O

Contractors Calculations

Total South Side Substructure	17,582.533
Total North Side Substructure	16,078.705
Approach Slab #1	3,567.342
Approach Slab #2	3,506.634
Overlay & Curbs	2,829.273
Total =	43,564.487 # fm 1-16-15

Item 507.12 - Reinforcing Steel, Level II - See Summary Book 1A, page 10

Overlay and Curb	2,834.594 #
Abutment #1	256.320 #
Wingwall #1	161.363 #
Wingwall #2	518.579 #
Approach Slab #1	3,567.342 #
Abutment #2	234.960 #
Wingwall #3	2,067.737 #
Wingwall #4	171.167 #
Approach Slab #2	3,506.634 #
Total =	13,318.696 # fm 1-20-15

M.W.H. 1/20/15

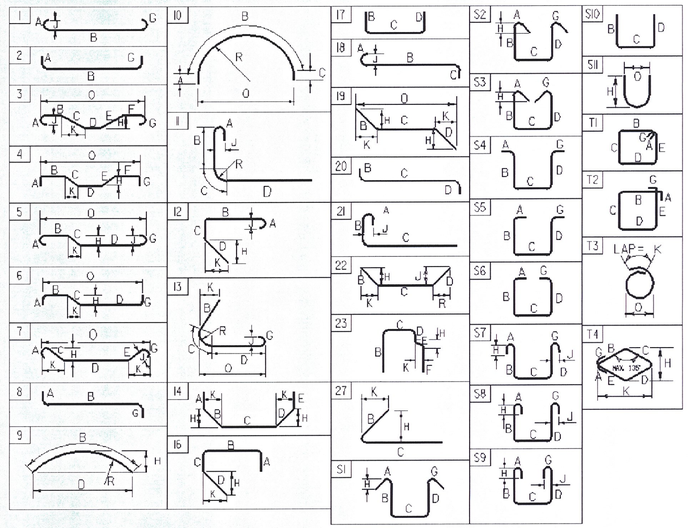
Item 507.11 - Reinforcing Steel, Level I - See Summary Book 1A, page 6

	43,574.200 #
	827.725 #
	- 13,318.696 #
Total =	31,080.229 # fm 1-20-15

M.W.H. 1/20/15

~ NOTES ~

1. UNLESS OTHERWISE DESIGNATED, ALL BAR REINFORCEMENT FOR CONCRETE IN SIZES UP TO AND INCLUDING NO. 18 SHALL CONFORM TO THE REQUIREMENTS OF THE "SPECIFICATIONS FOR DEFORMED BILLET-STEEL BARS FOR CONCRETE REINFORCEMENT", AASHTO M 31 (ASTM A 615-SI). ALL BARS SHALL BE GRADE 60, UNLESS OTHERWISE DESIGNATED.
2. FOR TYPICAL BENDING DETAILS, RECOMMENDED PIN DIAMETER "D" OF BENDS AND HOOKS, AND OTHER STANDARD PRACTICE, SEE CURRENT CONCRETE REINFORCING STEEL INSTITUTE "MANUAL OF STANDARD PRACTICE".
3. BARS WHICH REQUIRE MORE ACCURATE BENDING THAN STANDARD PRACTICES SHOULD HAVE LIMITS INDICATED.
4. ALL DIMENSIONS ARE OUT TO OUT OF BAR EXCEPT "A" AND "G" ON STANDARD 180 DEGREE AND 135 DEGREE HOOKS.
5. "J" DIMENSION ON 180 DEGREE HOOKS TO BE SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE. OTHERWISE, STANDARD HOOKS ARE TO BE USED.
6. "H" DIMENSION ON STIRRUPS TO BE SHOWN ONLY WHEN NECESSARY TO MAINTAIN CLEARANCES.
7. WHERE SLOPE DIFFERS FROM 45 DEGREES, DIMENSIONS "H" AND "K" MUST BE SHOWN.
8. ▲ DENOTES BARS TO BE CUT IN FIELD.
9. * DENOTES ONE EXTRA BAR ADDED FOR TESTING PURPOSES.
10. △ DENOTES TWO EXTRA BARS ADDED FOR TESTING PURPOSES.
11. E DENOTES EPOXY COATED REINFORCING STEEL.



ASTM STANDARD REINFORCING BARS

BAR SIZE DESIGNATION	WEIGHT POUNDS PER FOOT	NOMINAL DIMENSIONS ROUND SECTION DIAMETER INCHES	AREA INCHES²	PERIMETER INCHES
#3	0.376	0.375	0.11	1.178
#4	0.668	0.500	0.20	1.571
#5	1.043	0.625	0.31	1.963
#6	1.502	0.750	0.44	2.356
#7	2.044	0.875	0.60	2.749
#8	2.670	1.000	0.79	3.142
#9	3.400	1.128	1.00	3.544
#10	4.303	1.270	1.27	3.990
#11	5.313	1.410	1.56	4.430
#14	7.65	1.693	2.25	5.32
#18	13.60	2.257	4.00	7.09

THE REINFORCING STEEL MARKS IN THIS SCHEDULE INDICATE THE REQUIRED BAR CORROSION RESISTANCE LEVEL. CORROSION RESISTANCE LEVEL IS DENOTED WITH A .2 FOR LEVEL TWO SUFFIX OR .3 FOR LEVEL THREE SUFFIX. .1 FOR LEVEL ONE IS TO BE OMITTED. THE BAR MATERIAL TYPE AND BAR STEEL GRADE PROVIDED FOR EACH CORRIOSION LEVEL WILL BE RECORDED ON THE PLANSET PI SHEET FOR AS-BUILT RECORD PLAN ARCHIVES.

VHB Vanasse Hangen Brustlin, Inc.

PROJECT NAME:	BRATTLEBORO
PROJECT NUMBER:	BRO 1442 (35)
FILE NAME: z10j062rss.dgn	PLOT DATE: 6/5/2013
PROJECT MANAGER: S.E. BURBANK	DRAWN BY: E.A FIALA
DESIGNED BY: E.A FIALA	CHECKED BY: S.E. BURBANK
REINFORCING STEEL SCHEDULE (2 OF 2)	SHEET 50 OF 68