STATE OF VERMONT
AGENCY OF TRANSPORTATION

REINFORCING STEEL SCHEDULE

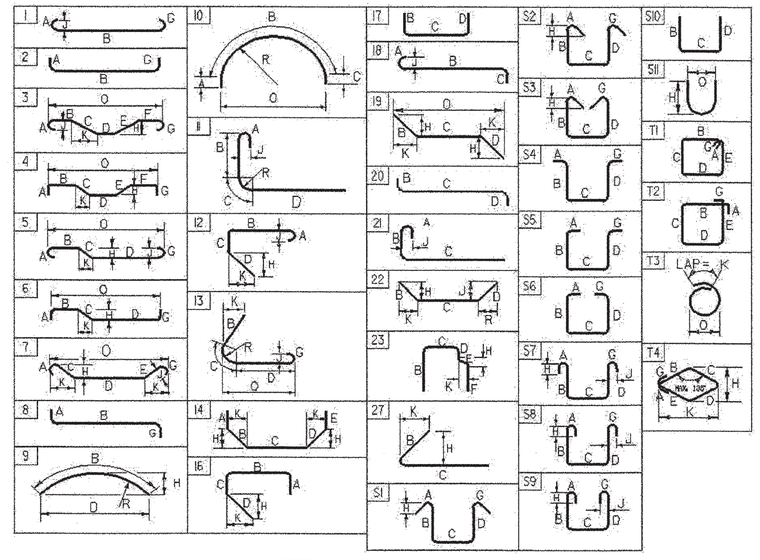
Metric

	EACH	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	R	O
SUPERSTRUCTURE																	
	289	16	8870	ES1601	STR												
✳	193	16	8340	ES1602	STR												
	50	16	3215	ES1603	S5	300	1300	140	1175			300					
	170	16	1560	ES1605	S5	300	360	240	360			300					
	58	16	1925	ES1604	16	660	440	185	640								
	28	25	810	ES2501	19		440	370	---								
APPROACH SLAB NUMBER ONE																	
✳	17	16	7540	1EAS1601	STR												
✳	52	19	4830	1EAS1901	1	500	4330							200			
APPROACH SLAB NUMBER TWO																	
✳	17	16	7540	2EAS1601	STR												
✳	52	19	4830	2EAS1901	1	500	4330							200			
ABUTMENT NUMBER ONE																	
✳	5	16	10840	1A1601	STR												
	8	16	3010	1A1602	STR												
				1A1603		NOT	USED										
	40	22	690	1A2201	STR												
▲	14	16	1840	1A1604	17		700	440	700								
				1A1605		NOT	USED										
▲	16	16	1240	1A1606	17		400	440	400								
WINGWALL NUMBER ONE																	
▲	20	16	3340	1W1601	STR												
▲	19	16	1580	1W1602	STR												
	10	16	1200	1W1603	STR												
▲	10	16	1740	1W1604	19		700	1040	---				695		120		
	5	16	1400	1W1605	19		700	700	---				690		120		
	10	16	1270	1W1606	17		490	290	490								
	4	16	1340	1W1607	17		450	440	450								
✳	11	19	2500	1W1901	20		920	1580	---								
✳	12	22	820	1W2201	STR												
WINGWALL NUMBER TWO																	
▲	18	16	8500	2W1601	STR												
▲	67	16	2180	2W1602	STR												
)	30	22	820	2W2201	STR												
	4	16	1340	2W1603	17		450	440	450								
	16	16	2320	2W1604	19		800	1520	---				655		460		
	8	16	1660	2W1605	19		660	1000	---				820		570		
	30	16	1190	2W1606	17		450	290	450								
	2	16	6860	2W1607	19		900	5960	---				185		890		
ABUTMENT NUMBER TWO																	
▲	12	16	6300	2A1601	STR												
	10	16	4420	2A1602	STR												
	10	16	4030	2A1605	STR												
	16	16	1150	2A1607	STR												
	15	16	2200	2A1608	STR												
▲	20	16	930	2A1609	STR												
✳																	
▲	19	16	1540	2A1610	17		610	930	---								
▲	38	22	1140	2A2201	STR												
▲	14	16	3020	2A1603	17		820	2200	---								
	12	16	1420	2A1604	17		450	520	450								
▲	22	16	1300	2A1606	17		390	520	390								
WINGWALL NUMBER THREE																	
▲	27	16	2500	3W1601	STR												
▲	20	16	3200	3W1602	STR												
	4	16	2210	3W1603	STR												
✳	11	22	800	3W2201	STR												
	18	16	1760	3W1604	19		710	1050	---				710		125		
	9	16	1320	3W1605	19		660	660	---				985		170		
	9	16	1610	3W1606	17		660	290	660								
✳	5	25	2870	3W2501	17		2210	660	---								

ITEM	EACH	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	R	O
WINGWALL NUMBER FOUR																	
▲	20	16	1450	4W1601	STR												
▲	26	16	5100	4W1602	STR												
▲	15	16	1800	4W1603	STR												
✳	16	19	1440	4W1901	STR												
	16	22	800	4W2201	STR												
	2	16	4000	4W1604	19		600	3400	---				238		555		
▲	15	16	3240	4W1605	17		1800	1440	---								
	15	16	1340	4W1606	17		450	440	450								
BOX CULVERT																	
HEADWALL NUMBER ONE																	
▲	8	16	3440	1H1604	STR												
	10	16	1035	1H1605	STR												
✳	10	22	2090	1H2201	STR												
	10	16	1130	1H1603	16	420	290	420	---								
	10	19	1925	1H1901	S5		---	890	1040			---					
WINGWALL NUMBER ONE																	
	12	16	4910	1W1601	STR												
▲	28	16	2460	1W1603	STR												
	20	16	3840	1W1604	STR												
✳	15	16	1775	1W1605	STR												
	18	22	2090	1W2201	STR												
	2	16	3760	1W1602	19		---	140	3620				20		3620		
	14	16	1090	1W1606	16	400	290	400	---								
	14	19	2680	1W1901	S5		---	890	1790			---					
WINGWALL NUMBER TWO																	
	12	16	5810	2W1601	STR												
▲	24	16	2460	2W1603	STR												
▲	20	16	3340	2W1604	STR												
	12	16	1775	2W1605	STR												
	12	22	2090	2W2201	STR												
	2	16	3290	2W1602	19		---	140	3150				440		3120		
	12	16	1090	2W1606	16	400	290	400	---								
✳	13	19	2680	2W1901	S5		---	890	1790			---					
HEADWALL NUMBER TWO																	
▲	8	16	3940	2H1604	STR												
✳	11	16	1045	2H1605	STR												
	14	22	2090	2H2201	STR												
	10	16	735	2H1603	16	220	290	220	---								
	10	19	1940	2H1901	S5		---	890	1050			---					
WINGWALL NUMBER THREE																	
	12	16	3895	3W1601	STR												
	22	16	2200	3W1603	STR												
▲	18	16	2840	3W1604	STR												
	11	16	1785	3W1605	STR												
✳	15	22	2090	3W2201	STR												
	2	16	2905	3W1602	19		---	220	2685				870		2540		
▲	11	16	1090	3W1606	16	400	290	400	---								
✳	12	19	2680	3W1901	S5		---	890	1790			---					
WINGWALL NUMBER FOUR																	
	12	16	3940	4W1601	STR												
	10	16	2200	4W1603	STR												
✳	15	16	1340	4W1604	STR												
	5	16	1785	4W1605	STR												
	2	16	1640	4W1602	19		---	220	1420				970		1040		
	5	16	1090	4W1606	16	400	290	400	---								
	5	19	2680	4W1901	S5		---	890	1790			---					

~ NOTES ~

1. UNLESS OTHERWISE DESIGNATED, ALL BAR REINFORCEMENT FOR CONCRETE IN SIZES UP TO AND INCLUDING 55M SHALL CONFORM TO THE REQUIREMENTS OF THE "SPECIFICATIONS FOR DEFORMED BILLET-STEEL BARS FOR CONCRETE REINFORCEMENT", AASHTO M 31M (ASTM A 615M-SI). ALL BARS SHALL BE GRADE 420, 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. ① DENOTES TWO EXTRA BARS ADDED FOR TESTING PURPOSES.
11. "E" IN PREFIX DENOTES EPOXY COATED REINFORCING STEEL.



ASTM STANDARD REINFORCING BARS

BAR SIZE	NOMINAL MASS (Kg/m)	NOMINAL DIMENSIONS ROUND SECTION		
		DIAMETER (mm)	CROSS SECTIONAL AREA (mm^2)	PERIMETER (mm)
#10	0.560	9.5	71	29.84
#13	0.994	12.7	129	39.90
#16	1.552	15.9	199	49.95
#19	2.235	19.1	284	60.00
#22	3.042	22.2	387	69.74
#25	3.973	25.4	510	79.80
#29	5.060	28.7	645	90.16
#32	6.404	32.3	819	101.47
#36	7.907	35.8	1006	112.47
#43	11.380	43.0	1452	135.09
#57	20.240	57.3	2581	180.01

PROJECT NAME: **Fair Haven - Hampton**
PROJECT NUMBER: **BRO 1443(32)**

FILE NAME: **93J021**
PROJECT LEADER: **G. Rogers**
DESIGNED BY: **C. Meunier**
REINFORCING STEEL SCHEDULE SHEET #1

PLOT DATE: **12/19/2002**
DRAWN BY: **T. Husk**
CHECKED BY: **C. Meunier**
SHEET **29** OF **53**