STATE OF VERMONT
AGENCY OF TRANSPORTATION

REINFORCING STEEL SCHEDULE

Metric

SUPER STRUCTURE

	EACH	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	R	O
△	12	16	11240	ES1601	STR												
△	40	19	5730	ES1902	STR												
	76	16	2640	ES1602	S6	300	410	1220	410			300					
△	41	29	11615	ES2901	1	375	11240		240			---					

ABUTMENT #1

	EACH	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	R	O
	12	16	9120	1A1601	STR												
	31	16	1190	1A1602	STR												
✳	25	16	3150	1A1603	STR												
	20	16	2800	1A1604	STR												
	48	16	4270	1A1605	STR												
	6	16	3520	1A1606	STR												
▲	7	16	3920	1A1607	STR												
△	27	22	2050	1A2201	STR												
	13	25	1050	1A2501	STR												
	10	25	1180	1EA2502	STR												
▲	20	16	2180	1A1608	19		1090	1090	---				900	---	630	---	
▲	20	16	2160	1A1609	19		1080	1080	---				1055	---	225	---	
	27	16	1910	1A1610	S10		720	470	720								
	11	16	3500	1A1611	22		660	2180	660				420	420	510	510	
	11	16	4070	1A1612	22		660	2750	660				300	300	590	590	
	26	22	2670	1A2202	17		1070	1600	---								

WINGWALL #1

	EACH	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	R	O
	15	16	3640	1W1601	STR												
	12	16	1190	1W1602	STR												
▲	12	16	3870	1W1603	STR												
✳	12	16	1910	1W1604	STR												
▲	26	16	3300	1W1605	STR												
	21	22	2600	1W2201	STR												
	12	22	2170	1W2202	STR												
	6	25	1050	1W2501	STR												
	2	16	3440	1W1606	19		760	2680	---				280	---	710	---	
	12	16	1220	1W1607	S10		450	320	450								
△	26	25	3180	1W2502	17		1120	2060	---								

WINGWALL #2

	EACH	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	R	O
	15	16	2510	2W1601	STR												
	7	16	1190	2W1602	STR												
▲	7	16	4070	2W1603	STR												
	7	16	2100	2W1604	STR												
▲	28	16	2060	2W1605	STR												
	11	22	2600	2W2201	STR												
	7	22	2170	2W2202	STR												
	3	25	1050	2W2501	STR												
	2	16	2070	2W1606	19		740	1330	---				75	---	740	---	
	7	16	1220	2W1607	S10		450	320	450								
	14	25	3180	2W2502	17		1120	2060	---								

ABUTMENT #2

ITEM	EACH	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	R	O
	14	16	8670	2A1601	STR												
✳	53	16	2450	2A1602	STR												
	30	16	1190	2A1603	STR												
	24	16	3920	2A1604	STR												
	20	16	2820	2A1605	STR												
	56	16	4180	2A1606													
	6	16	3540	2A1607	STR												
▲	6	16	4670	2A1608	STR												
	13	25	1050	2A2501	STR												
	10	25	1180	2EA2502	STR												
	52	16	3500	2A1609	17		1170	2330	---								
▲	44	16	2180	2A1610	19		1090	1090	---				900	---	630	---	
	26	16	1870	2A1611	S10		700	470	700								
▲	28	16	4070	2A1612	22		660	2750	660				300	300	590	590	

WINGWALL #3

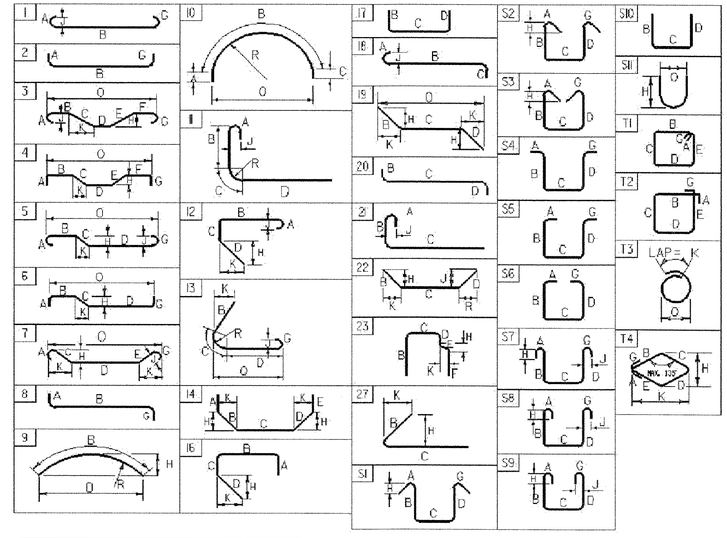
ITEM	EACH	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	R	O
	15	16	2750	3W1601	STR												
	9	16	1190	3W1602	STR												
▲	9	16	4630	3W1603	STR												
▲ ✳	33	16	2460	3W1605	STR												
△	17	22	2600	3W2201	STR												
	7	22	2170	3W2202	STR												
	4	25	1050	3W2501	STR												
	2	16	2510	3W1606	19		790	1720	---				180	---	770	---	
	9	16	1220	3W1607	S10		450	320	450								
✳	19	25	3180	3W2502	17		1120	2060	---								

WINGWALL #4

ITEM	EACH	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	R	O
	15	16	2260	4W1601	STR												
	7	16	1190	4W1602	STR												
▲	7	16	4670	4W1603	STR												
	7	16	2710	4W1604	STR												
▲	32	16	1980	4W1605	STR												
	11	22	2600	4W2201	STR												
	7	22	2170	4W2202	STR												
	3	25	1050	4W2501	STR												
	2	16	2240	4W1606	19		790	1450	---				445	---	650	---	
	7	16	1220	4W1607	S10		450	320	450								
✳	15	25	3180	4W2502	17		1120	2060	---								

~ 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. △ 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 (mm²)	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: GRANVILLE
PROJECT NUMBER: BRO 1444 (34)

FILE NAME: pw94j100/s94j100xls.dgn
PROJECT LEADER: C.P.WILLIAMS
DESIGNED BY: N. WARK
REINFORCING STEEL SCHEDULE SHEET

PLOT DATE: 7/1/2004
DRAWN BY: N. WARK
CHECKED BY: K. HIGGINS
SHEET 21 OF 39