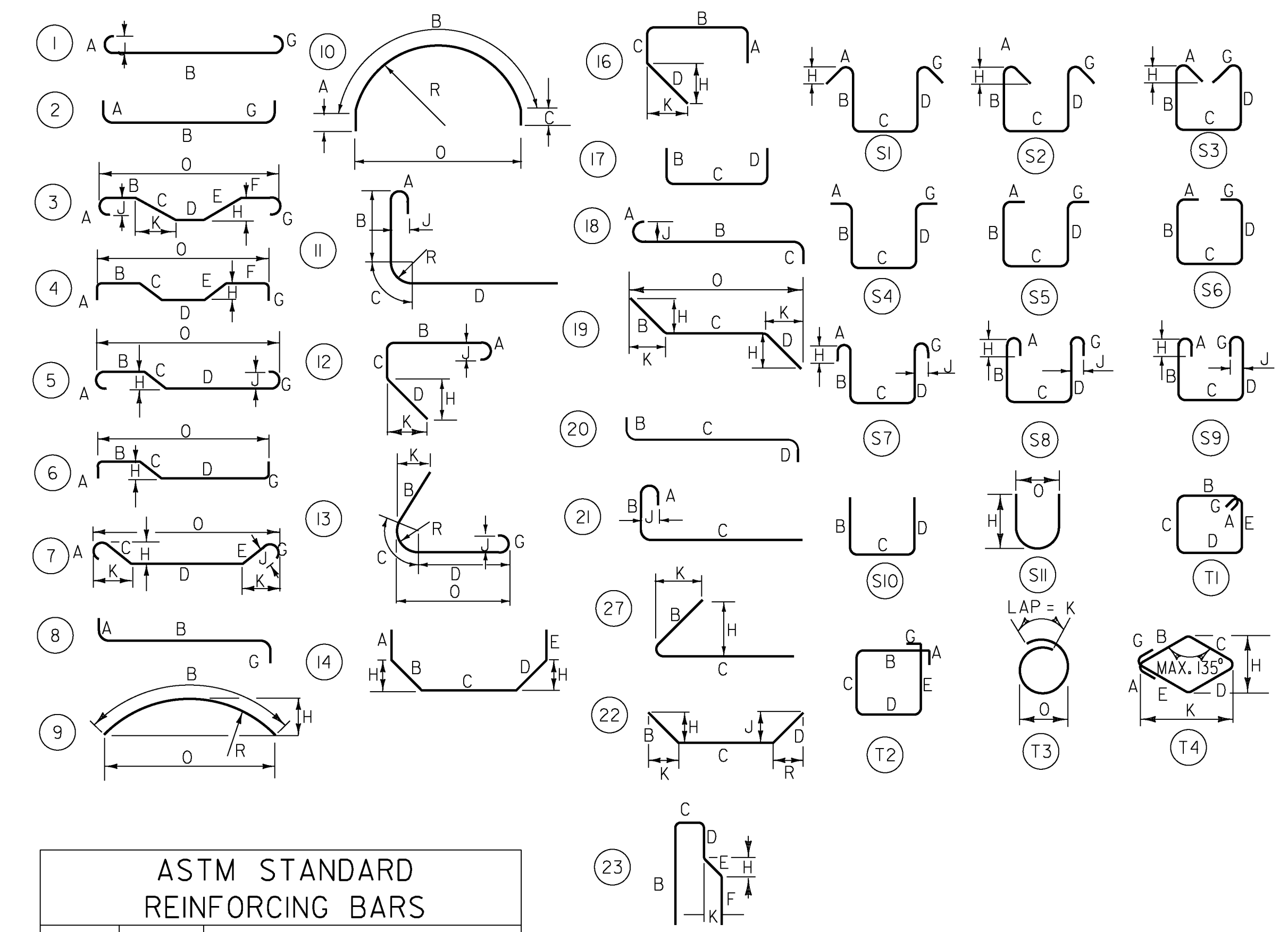


REINFORCING STEEL SCHEDULE

NO.										NO.																									
ITEM	PIECES	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	R	O	ITEM	PIECES	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	R	O
CULVERT 59-2 INLET HEADWALL																																			
1*	22	5	3'-5"	W501	STR.																														
2▲	40	5	19'-6"	W502	STR.																														
3▲	21	5	9'-9"	W503	STR.																														
4	21	5	2'-10"	W504	17					1'-0"	0'-10"	1'-0"																							
5	4	5	15'-0"	W505	14	2'-9"	2'-9"	2'-9"	2'-9"	2'-9"				2'-0"		2'-0"																			
6*	22	7	7'-9"	W701	STR.																														
7▲	21	7	9'-9"	W702	STR.																														
8▲	21	7	8'-7"	W703	17			3'-10"	4'-9"																										
CULVERT 59-2 OUTLET CRADLE HEADWALL																																			
12▲	24	5	10'-6"	W511	STR.																														
13▲	12	5	9'-8"	W512	17		6'-3"	3'-5"	-																										
14▲	12	5	6'-3"	W513	STR.																														
15*	23	5	4'-0"	W514	STR.																														
16	2	5	8'-11"	W515	10	-	8'-11"	-								3'-0"	6'-0"																		
17	12	5	4'-7"	W516	SIO		2'-0"	0'-7"	2'-0"																										

~ 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 "SPECIFICATION FOR DEFORMED BILLET-STEEL BARS FOR CONCRETE REINFORCEMENT", AASHTO M 31 (ASTM A 615-S1). 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" IN PREFIX DENOTES EPOXY COATED REINFORCING STEEL.



ASTM STANDARD REINFORCING BARS				
BAR SIZE DESIGNATION	WEIGHT POUNDS PER FOOT	NOMINAL DIMENSIONS ROUND SECTION		
		DIAMETER INCHES	CROSS SECTIONAL AREA SQ. INCHES	PERIMETER INCHES
#3	.376	.375	.11	1.178
#4	.668	.500	.20	1.571
#5	1.043	.625	.31	1.963
#6	1.502	.750	.44	2.356
#7	2.044	.875	.60	2.749
#8	2.670	1.000	.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

PROJECT NAME: RICHMOND - WILLISTON
 PROJECT NUMBER: IM CULV(16)
 FILE NAME: ...15-reinforcing steel schedule.rvt DATE: 2/25/2010
 PROJECT LEADER: G. BOGUE DRAWN BY: E. ALLING
 DESIGNED BY: M. CHENETTE CHECKED BY:
REINFORCING STEEL SCHEDULE SHEET 15 OF 18

