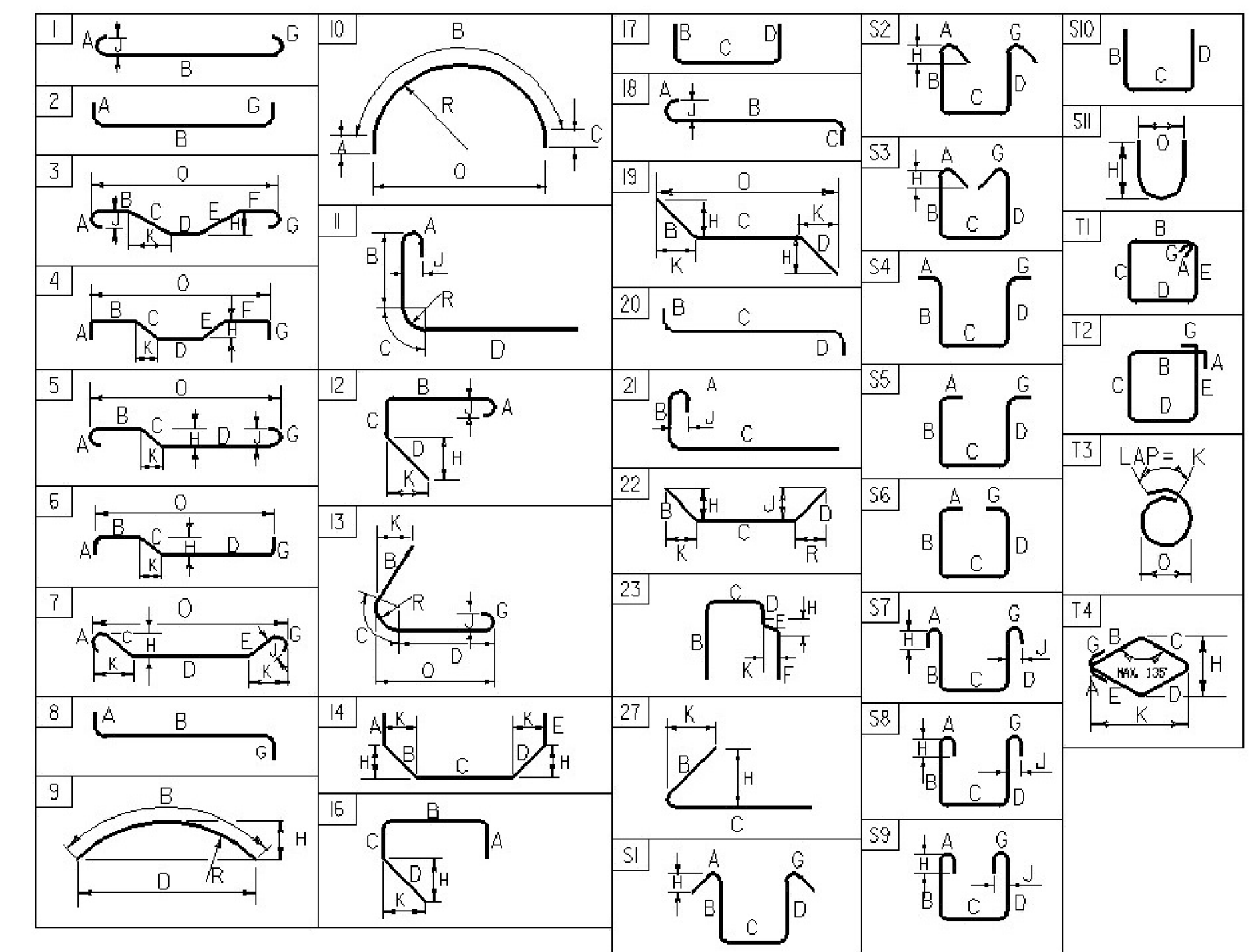


REINFORCING STEEL SCHEDULE

ITEM	EACH	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	R	O	ITEM	EACH	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	R	O																																																								
CONCRETE DECK OVERLAY																		ABUTMENT # 2																																																																									
*	181	5	21'- 4"	S501.2	STR													*	▲	7	5	5'- 1"	2A504	STR																																																																			
*	157	5	37'- 1"	S502.2	STR													139	5	7'- 4"	2A501	S10	4'- 9"	2'- 7"	---																																																																		
*	61	6	21'- 7"	S601.2	STR													47	5	6'- 11"	2A503	S10	2'- 2"	2'- 7"	2'- 2"																																																																		
*	63	6	6'- 0"	S602.2	STR													TOTAL LEVEL I 2,030.63 LBS																																																																									
▲	▲	234	7	5'- 4"	S701.2	STR												16	5	23'- 10"	2A503.2	STR																																																																					
TOTAL ~ 844.65 LBS LEVEL I FOR WINGWALLS																		▲	8	5	3'- 8"	2A505.2	STR																																																																				
TOTAL ~ 16,239.26 LBS LEVEL II																		TOTAL LEVEL II 759.39 LBS																																																																									
APPROACH SLAB #1																		76	5	5'- 4"	2A501.2	S10	4'- 6"	0'- 10"	---																																																																		
*	47	5	17'- 11"	1A501	STR													29	5	6'- 6"	2A502.2	S10	4'- 8"	1'- 10"	---																																																																		
*	40	9	20'- 9"	1A501	I	---	19'- 6"											35	5	4'- 4"	2A504.2	S10	0'- 7"	3'- 2"																																																																			
TOTAL ~ 3,611.00 LBS																		9	5	14'- 11"	2A506.2	S10	6'- 2"	2'- 7"	6'- 2"																																																																		
APPROACH SLAB #2																		WINGWALL # 3																																																																									
*	47	5	17'- 11"	2A501	STR													*	11	5	7'- 1"	3W501	STR																																																																				
*	40	9	20'- 9"	2A501	1	---	19'- 6"											13	5	8'- 7"	3W502	STR																																																																					
TOTAL ~ 3,611.00 LBS																		WINGWALL #4																																																																									
ABUTMENT # 1																		*	11	6	7'- 1"	3W601	STR																																																																				
*	▲	7	5	5'- 0"	1A504	STR												8	5	5'- 11"	3W503	S10	2'- 2"	1'- 7"	2'- 2"																																																																		
139	5	7'- 4"	1A501	S10	4'- 9"	2'- 7"	---										10	5	4'- 4"	3W504	22	2'- 2"	2'- 2"	---																																																																			
47	5	6'- 11"	1A503	S10	2'- 2"	2'- 7"	2'- 2"										▲	6	5	13'- 8"	3W505	22	2'- 2"	9'- 4"	2'- 2"																																																																		
TOTAL LEVEL I 2,029.63 LBS																		RETAINING WALL																																																																									
16	5	23'- 10"	1A503.2	STR													45	5	14'- 6"	R501	STR																																																																						
▲	8	5	3'- 8"	1A505.2	STR												16	5	3'- 11"	R502	STR																																																																						
76	5	5'- 4"	1A501.2	S10	4'- 6"	0'- 10"	---									33	5	13'- 7"	R503	STR																																																																							
29	5	6'- 6"	1A502.2	S10	4'- 8"	1'- 10"	---									TOTAL 2,128.77 LBS																																																																											
35	5	4'- 4"	2A504.2	S10	0'- 7"	3'- 2"										*	17	9	10'- 0"	R901	STR																																																																						
9	5	14'- 7"	1A506.2	S10	6'- 0"	2'- 7"	6'- 0"									16	5	5'- 5"	R504	S10	2'- 2"	1'- 1"	2'- 2"																																																																				
WINGWALL #1																		WINGWALL #2																																																																									
*	11	5	8'- 7"	1W501	STR												*	11	5	12'- 1"	2W501	STR																																																																					
17	5	8'- 6"	1W502	STR												▲	23	5	8'- 3"	2W502	STR																																																																						
*	11	6	8'- 7"	1W601	STR											TOTAL 830.26 LBS																																																																											
10	5	5'- 11"	1W503	S10	2'- 2"	1'- 7"	2'- 2"								13	5	5'- 11"	2W503	S10	2'- 2"	1'- 7"	2'- 2"																																																																					
10	5	4'- 4"	1W504	27	2'- 2"	2'- 2"	---								10	5	4'- 4"	2W504	22	2'- 2"	2'- 2"	---																																																																					
6	5	10'- 8"	1W505	22	2'- 2"	6'- 4"	2'- 2"								6	5	13'- 8"	2W505	22	2'- 2"	9'- 4"	2'- 2"																																																																					
*	11	6	7'- 4"	1W602	27	2'- 2"	5'- 2"								TOTAL 2,128.77 LBS																																																																												
WINGWALL #2																		WINGWALL #3																																																																									
*	11	5	12'- 1"	2W501	STR										*	17	7	9'- 0"	R701	S10	5'- 11"	3'- 1"	---																																																																				
▲	23	5	8'- 3"	2W502	STR										TOTAL 2,128.77 LBS																																																																												
*	11	6	12'- 1"	2W601	STR										ASTM STANDARD REINFORCING BARS																																																																												
13	5	5'- 11"	2W503	S10	2'- 2"	1'- 7"	2'- 2"							<table border="1"> <thead> <tr> <th>GRADE</th><th>YIELD STRENGTH (ksi)</th><th>TENSILE STRENGTH (ksi)</th><th>ELONGATION (%)</th><th>WELDED ELONGATION (%)</th></tr> </thead> <tbody> <tr><td>#3</td><td>0.376</td><td>0.375</td><td>0.11</td><td>1.178</td></tr> <tr><td>#4</td><td>0.668</td><td>0.500</td><td>0.20</td><td>1.571</td></tr> <tr><td>#5</td><td>1.043</td><td>0.625</td><td>0.31</td><td>1.963</td></tr> <tr><td>#6</td><td>1.502</td><td>0.750</td><td>0.44</td><td>2.356</td></tr> <tr><td>#7</td><td>2.04</td><td>0.875</td><td>0.60</td><td>2.749</td></tr> <tr><td>#8</td><td>2.670</td><td>1.000</td><td>0.79</td><td>3.14</td></tr> <tr><td>#9</td><td>3.400</td><td>1.13</td><td>1.00</td><td>3.54</td></tr> <tr><td>#10</td><td>4.3</td><td>1.270</td><td>1.27</td><td>3.990</td></tr> <tr><td>#11</td><td>5.31</td><td>1.410</td><td>1.56</td><td>4.430</td></tr> <tr><td>#14</td><td>7.65</td><td>1.69</td><td>2.25</td><td>5.32</td></tr> <tr><td>#18</td><td>13.60</td><td>2.26</td><td>4.00</td><td>7.09</td></tr> </tbody> </table>																		GRADE	YIELD STRENGTH (ksi)	TENSILE STRENGTH (ksi)	ELONGATION (%)	WELDED ELONGATION (%)	#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	2.04	0.875	0.60	2.749	#8	2.670	1.000	0.79	3.14	#9	3.400	1.13	1.00	3.54	#10	4.3	1.270	1.27	3.990	#11	5.31	1.410	1.56	4.430	#14	7.65	1.69	2.25	5.32	#18	13.60	2.26	4.00	7.09
GRADE	YIELD STRENGTH (ksi)	TENSILE STRENGTH (ksi)	ELONGATION (%)	WELDED ELONGATION (%)																																																																																							
#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	2.04	0.875	0.60	2.749																																																																																							
#8	2.670	1.000	0.79	3.14																																																																																							
#9	3.400	1.13	1.00	3.54																																																																																							
#10	4.3	1.270	1.27	3.990																																																																																							
#11	5.31	1.410	1.56	4.430																																																																																							
#14	7.65	1.69	2.25	5.32																																																																																							
#18	13.60	2.26	4.00	7.09																																																																																							

~ NOTES ~

- 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 M31 (ASTM A 615-S1). ALL BARS SHALL BE GRADE 60, UNLESS OTHERWISE DESIGNATED.
- 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".
- BARS WHICH REQUIRE MORE ACCURATE BENDING THAN STANDARD PRACTICES SHOULD HAVE LIMITS INDICATED.
- ALL DIMENSIONS ARE OUT TO OUT OF BAR EXCEPT "A" AND "G" ON STANDARD 180 DEGREE AND 135 DEGREE HOOKS.
- "J" DIMENSION ON 180 DEGREE HOOKS TO BE SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE. OTHERWISE, STANDARD HOOKS ARE TO BE USED.
- "H" DIMENSION ON STIRRUPS TO BE SHOWN ONLY WHEN NECESSARY TO MAINTAIN CLEARANCES.
- WHERE SLOPE DIFFERS FROM 45 DEGREES, DIMENSIONS "H" AND "K" MUST BE SHOWN.
- ▲ DENOTES BARS TO BE CUT IN FIELD.
- * DENOTES ONE EXTRA BAR ADDED FOR TESTING PURPOSES.
- △ DENOTES TWO EXTRA BARS ADDED FOR TESTING PURPOSES.
- E IN BAR MARK PREFIX DENOTES EPOXY COATED REINFORCING STEEL.



ASTM STANDARD REINFORCING BARS

GRADE	YIELD STRENGTH (ksi)	TENSILE STRENGTH (ksi)	ELONGATION (%)	WELDED ELONGATION (%)
#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	2.04	0.875	0.60	2.749
#8	2.670	1.000	0.79	3.14
#9	3.400	1.13	1.00	3.54
#10	4.3	1.270	1.27	3.990
#11	5.31	1.410	1.56	4.430
#14	7.65	1.69	2.25	5.32
#18	13.60	2.26	4.00	7.09

~ REINFORCING STEEL CORROSION RESISTANCE LEVEL ~

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 CORROSION LEVEL WILL BE RECORDED ON THE PLAN SET SHEET FOR AS-BUILT RECORD PLAN ARCHIVES.

REVISION	DATE	DESCRIPTION	BY
▲	OCT-28-2014	ADD 3" PAYMENT, LOWER BRIDGE SEAT, ADD 3" CONCRETE PEDESTAL	GNR

PROJECT NAME: **JOHNSON**
PROJECT NUMBER: **BRF 030-2(26)**

FILE NAME: s88b193rss.xls PLOT DATE: **05-NOV-2014**
PROJECT MANAGER: C. CARLSON DRAWN BY: **G. ROKES**
DESIGNED BY: H. SALLS CHECKED BY: **H. SALLS**
REINFORCING STEEL SCHEDULE SHEET **38** OF **69**