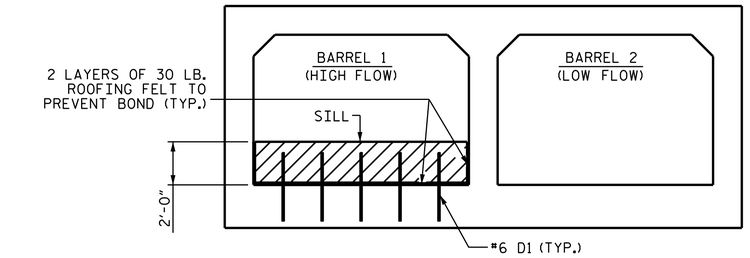
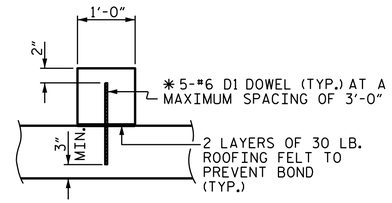


ELEVATION

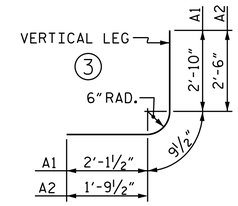
(LOOKING DOWNSTREAM)



SECTION THROUGH SILL

✱ DOWELS MAY BE PUSHED INTO GREEN CONCRETE AFTER SLAB HAS BEEN FLOAT FINISHED.

BAR TYPE



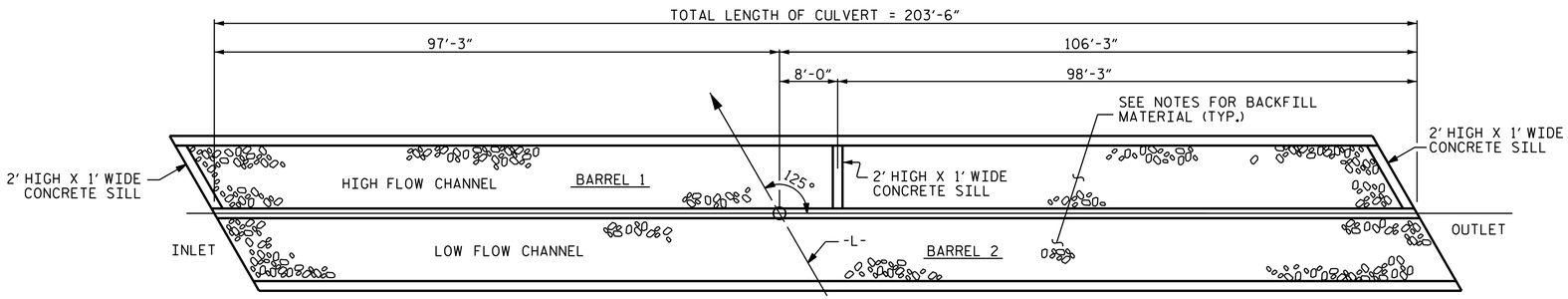
BAR DIMENSIONS ARE OUT TO OUT

SPLICE LENGTHS CHART

BAR	SIZE	SPLICE LENGTH
C1	#4	1'-11"

BILL OF MATERIAL

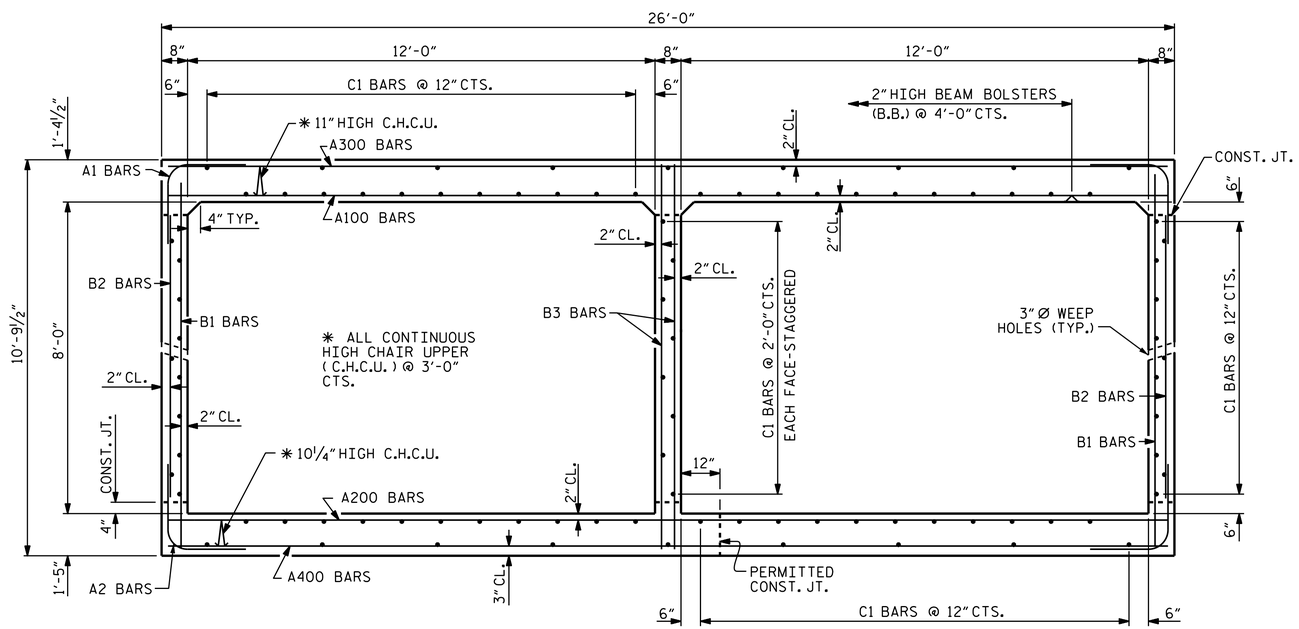
BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT	BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
A1	408	#4	3	5'-9"	1567	A300	377	#5	STR	25'-7"	10060
A2	408	#5	3	5'-1"	2163	A301	4	#5	STR	23'-9"	99
						A302	4	#5	STR	22'-0"	92
A100	377	#5	STR	25'-7"	10060	A303	4	#5	STR	20'-3"	84
A101	4	#5	STR	23'-9"	99	A304	4	#5	STR	18'-6"	77
A102	4	#5	STR	22'-0"	92	A305	4	#5	STR	16'-10"	70
A103	4	#5	STR	20'-3"	84	A306	4	#5	STR	15'-1"	63
A104	4	#5	STR	18'-6"	77	A307	4	#5	STR	13'-4"	56
A105	4	#5	STR	16'-10"	70	A308	4	#5	STR	11'-7"	48
A106	4	#5	STR	15'-1"	63	A309	4	#5	STR	9'-10"	41
A107	4	#5	STR	13'-4"	56	A310	4	#5	STR	8'-2"	34
A108	4	#5	STR	11'-7"	48	A311	4	#5	STR	6'-5"	27
A109	4	#5	STR	9'-10"	41	A312	4	#5	STR	4'-8"	19
A110	4	#5	STR	8'-2"	34	A313	4	#5	STR	2'-11"	12
A111	4	#5	STR	6'-5"	27						
A112	4	#5	STR	4'-8"	19	A400	377	#6	STR	25'-7"	14487
A113	4	#5	STR	2'-11"	12	A401	4	#6	STR	23'-9"	143
						A402	4	#6	STR	22'-0"	132
A200	377	#5	STR	25'-7"	10060	A403	4	#6	STR	20'-3"	122
A201	4	#5	STR	23'-9"	99	A404	4	#6	STR	18'-6"	111
A202	4	#5	STR	22'-0"	92	A405	4	#6	STR	16'-10"	101
A303	4	#5	STR	20'-3"	84	A406	4	#6	STR	15'-1"	91
A204	4	#5	STR	18'-6"	77	A407	4	#6	STR	13'-4"	80
A205	4	#5	STR	16'-10"	70	A408	4	#6	STR	11'-7"	70
A206	4	#5	STR	15'-1"	63	A409	4	#6	STR	9'-10"	59
A207	4	#5	STR	13'-4"	56	A410	4	#6	STR	8'-2"	49
A208	4	#5	STR	11'-7"	48	A411	4	#6	STR	6'-5"	39
A209	4	#5	STR	9'-10"	41	A412	4	#6	STR	4'-8"	28
A210	4	#5	STR	8'-2"	34	A413	4	#6	STR	2'-11"	18
A211	4	#5	STR	6'-5"	27						
A212	4	#5	STR	4'-8"	19	B1	408	#4	STR	10'-3"	2794
A213	4	#5	STR	2'-11"	12	B2	408	#4	STR	7'-4"	1999
						B3	408	#4	STR	10'-3"	2794
						C1	736	#4	STR	27'-3"	13397
						D1	15	#6	STR	3'-0"	68
						G1	8	#5	STR	29'-7"	247
						S2	12	#8	STR	29'-7"	948
						REINFORCING STEEL				LBS.	73,853



PLAN

3 CONCRETE SILLS REQUIRED

CONCRETE SILL DETAILS



RIGHT ANGLE SECTION OF BARREL

THERE ARE 92 C1 BARS IN SECTION OF BARREL. (8 BAR RUNS)

NOTES:

CULVERT FLOOR SLAB IS BURIED 1.0' BELOW EXISTING STREAM BED. SILLS ARE NOT REQUIRED IN LOW FLOW BARREL 2. BACKFILL BARRELS WITH NATIVE MATERIAL TO APPROXIMATE STREAM BED LEVEL IN LOW FLOW BARREL 2, AND TO SILL HEIGHT IN BARREL 1.

NATIVE MATERIAL CONSISTS OF MATERIAL THAT IS EXCAVATED FROM THE STREAM BED AT THE PROJECT SITE DURING CULVERT CONSTRUCTION. ONLY MATERIAL THAT IS EXCAVATED FROM THE STREAM BED MAY BE USED TO LINE THE LOW FLOW CULVERT BARREL. RIP RAP MAY BE USED TO SUPPLEMENT THE NATIVE MATERIAL IN THE HIGH FLOW CULVERT BARREL. IF RIP RAP IS USED TO LINE THE HIGH FLOW CULVERT BARREL, NATIVE MATERIAL SHOULD BE PLACED ON TOP TO FILL VOIDS AND PROVIDE A FLAT SURFACE FOR ANIMAL PASSAGE.

NATIVE MATERIAL IS SUBJECT TO APPROVAL BY THE ENGINEER AND MAY BE SUBJECT TO PERMIT CONDITIONS.

THE CONTRACTOR'S ATTENTION IS CALLED TO THE FACT THAT THE NATIVE MATERIAL BACKFILL SHALL BE PLACED PRIOR TO THE CASTING OF THE ROOF SLAB.

PROJECT NO. R-0623
MONTGOMERY COUNTY
STATION: 204+38.00 -L-

SHEET 3 OF 5

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

BARREL STANDARD

DOUBLE 12 FT. X 8 FT. CONCRETE BOX CULVERT 125° SKEW

NORTH CAROLINA PROFESSIONAL SEAL 16301 ENGINEER TING HSIUNG FANG
9/29/2014

DocuSigned by: Ting H. Fang
E72088A0977435...

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	C-22
1			3			TOTAL SHEETS
2			4			29

DRAWN BY : T. KIRSCHBAUM DATE : 2/25/13
CHECKED BY : E. OMILE DATE : 2/25/13

29-SEP-2014 11:36
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ttfang

CULVERT #4