FOUNDATION NOTES

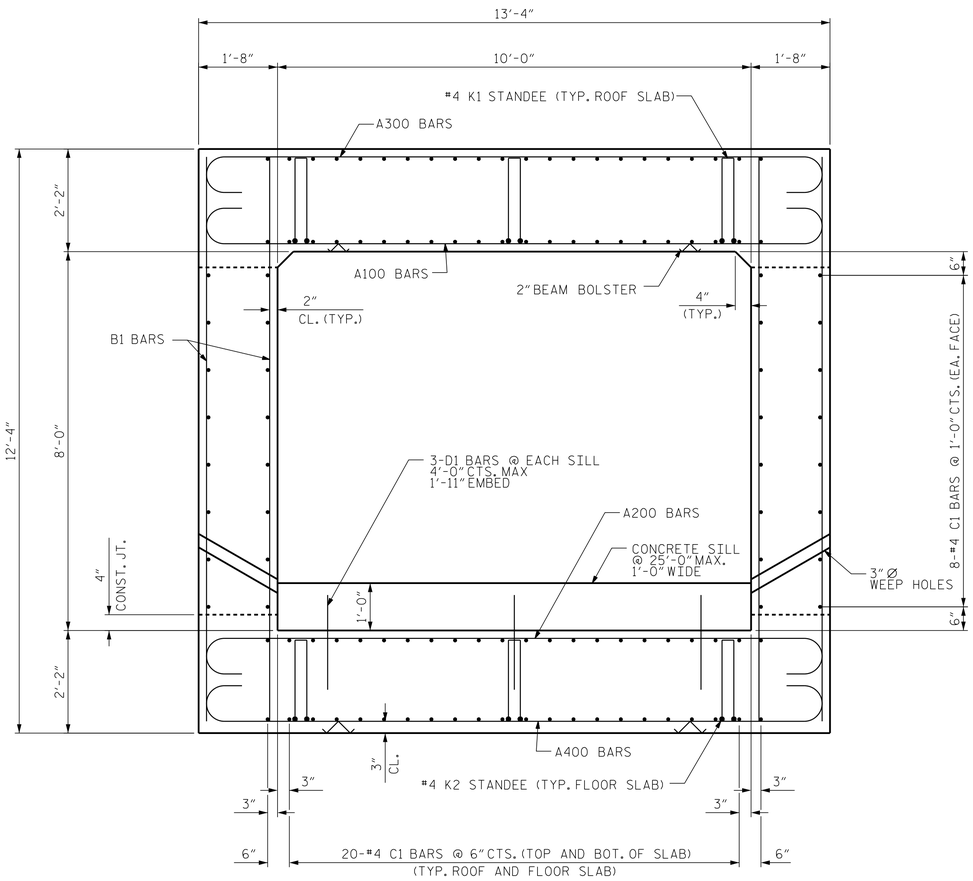
FOR CULVERT EXCAVATION, SEE SECTION 414 OF THE STANDARD SPECIFICATIONS.

THE REINFORCED CONCRETE BOX CULVERTS SHALL BE PLACED ON A 2.0 FOOT BLANKET OF FOUNDATION CONDITIONING MATERIAL. SEE SECTION 414 OF THE STANDARD SPECIFICATIONS. REMOVE WEATHERED ROCK OR ROCK AS REQUIRED TO ALLOW INSTALLATION OF THE FOUNDATION CONDITIONING BLANKET.

ADDITIONAL UNDERCUT TO REMOVE SOFT/LOOSE SOILS ENCOUNTERED BELOW THE ANTICIPATED EXCAVATION BOTTOM MAY BE REQUIRED. PERFORM CULVERT FOUNDATION TESTING USING NCDOT 1/2 INCH ROD, IN ACCORDANCE WITH NCDOT CONSTRUCTION MANUAL SECTION 410-3, TO IDENTIFY SOFT/LOOSE SOILS. UNDERCUT MATERIALS WITH BLOW COUNTS LESS THAN 12 BPF. NOTIFY THE GEOTECHNICAL OPERATIONS ENGINEER IF THE ADDITIONAL UNDERCUT EXCEEDS 3 FEET PRIOR TO PROCEEDING. BACKFILL UNDERCUT AREAS WITH ADDITIONAL FOUNDATION CONDITIONING MATERIAL AS NEEDED.

INSTALL TYPE 2 GEOTEXTILE ON THE SIDES AND TOP OF THE CULVERT FOR ITS ENTIRE LENGTH. OVERLAP GEOTEXTILES A MINIMUM OF 18 INCHES. ESTIMATED TYPE 2 GEOTEXTILE QUANTITY - 1,650 SYDS.

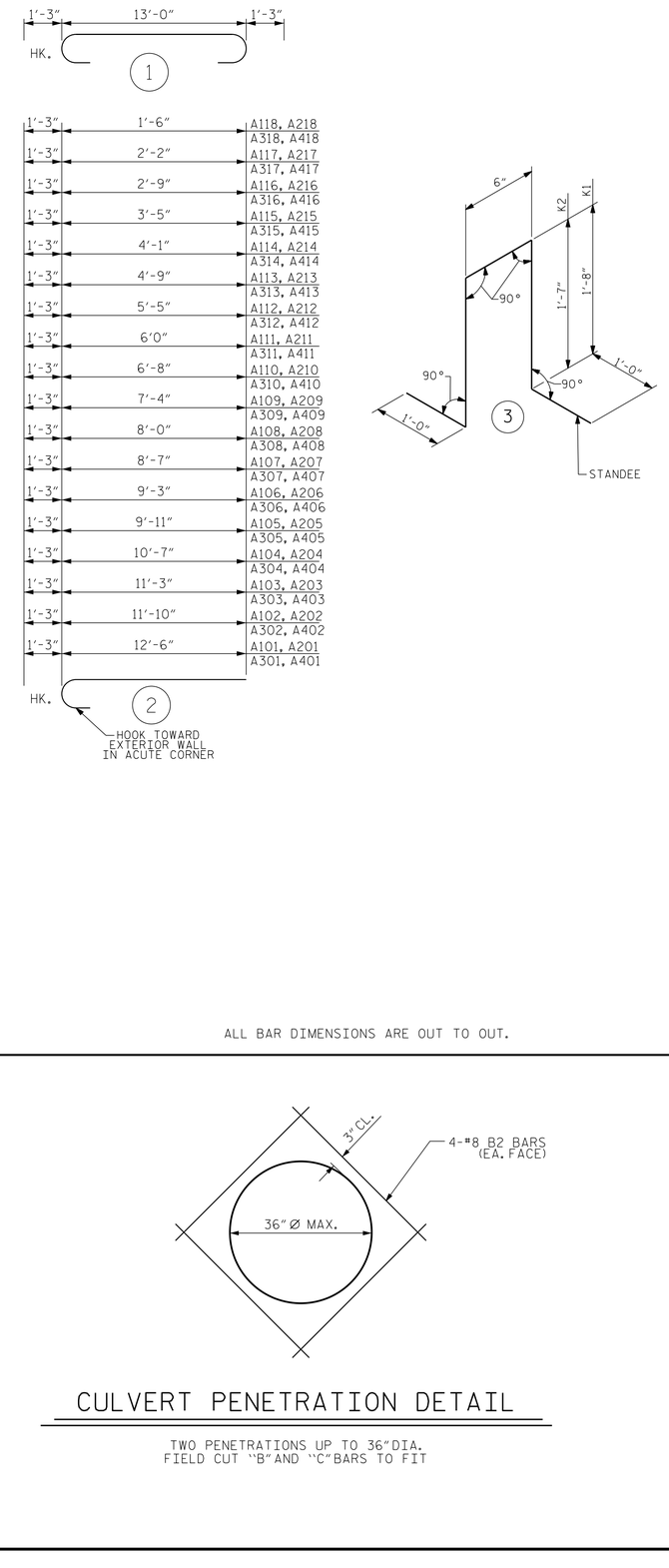
DUE TO SHALLOW WEATHERED ROCK, CAMBER IS NOT RECOMMENDED.



RIGHT ANGLE SECTION OF BARREL

THERE ARE 120 "C" BARS IN SECTION OF BARREL

BAR TYPES



ALL BAR DIMENSIONS ARE OUT TO OUT.

BILL OF MATERIAL

BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT	BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
A100	1009	#9	1	15'-6"	53174	A400	1009	#9	1	15'-6"	53174
A101	2	#9	2	13'-9"	94	A401	2	#9	2	13'-9"	94
A102	2	#9	2	13'-1"	89	A402	2	#9	2	13'-1"	89
A103	2	#9	2	12'-6"	85	A403	2	#9	2	12'-6"	85
A104	2	#9	2	11'-10"	80	A404	2	#9	2	11'-10"	80
A105	2	#9	2	11'-2"	76	A405	2	#9	2	11'-2"	76
A106	2	#9	2	10'-6"	71	A406	2	#9	2	10'-6"	71
A107	2	#9	2	9'-10"	67	A407	2	#9	2	9'-10"	67
A108	2	#9	2	9'-3"	63	A408	2	#9	2	9'-3"	63
A109	2	#9	2	8'-7"	58	A409	2	#9	2	8'-7"	58
A110	2	#9	2	7'-11"	54	A410	2	#9	2	7'-11"	54
A111	2	#9	2	7'-3"	49	A411	2	#9	2	7'-3"	49
A112	2	#9	2	6'-8"	45	A412	2	#9	2	6'-8"	45
A113	2	#9	2	6'-0"	41	A413	2	#9	2	6'-0"	41
A114	2	#9	2	5'-4"	36	A414	2	#9	2	5'-4"	36
A115	2	#9	2	4'-8"	32	A415	2	#9	2	4'-8"	32
A116	2	#9	2	4'-0"	27	A416	2	#9	2	4'-0"	27
A117	2	#9	2	3'-5"	23	A417	2	#9	2	3'-5"	23
A118	2	#9	2	2'-9"	19	A418	2	#9	2	2'-9"	19
A200	1009	#9	1	15'-6"	53174	B1	4108	#8	STR	11'-11"	130706
A201	2	#9	2	13'-9"	94	B2	16	#8	STR	5'-9"	246
A202	2	#9	2	13'-1"	89						
A203	2	#9	2	12'-6"	85	C1	1680	#4	STR	39'-0"	43767
A204	2	#9	2	11'-10"	80						
A205	2	#9	2	11'-2"	76	D1	63	#6	STR	2'-9"	260
A206	2	#9	2	10'-6"	71						
A207	2	#9	2	9'-10"	67	G1	8	#5	STR	16'-5"	137
A208	2	#9	2	9'-3"	63						
A209	2	#9	2	8'-7"	58	K1	3087	#4	3	5'-10"	12029
A210	2	#9	2	7'-11"	54	K2	3087	#4	3	5'-8"	11686
A211	2	#9	2	7'-3"	49						
A212	2	#9	2	6'-8"	45	S2	12	#8	STR	16'-5"	526
A213	2	#9	2	6'-0"	41						
A214	2	#9	2	5'-4"	36						
A215	2	#9	2	4'-8"	32						
A216	2	#9	2	4'-0"	27						
A217	2	#9	2	3'-5"	23						
A218	2	#9	2	2'-9"	19						
A300	1009	#9	1	15'-6"	53174						
A301	2	#9	2	13'-9"	94						
A302	2	#9	2	13'-1"	89						
A303	2	#9	2	12'-6"	85						
A304	2	#9	2	11'-10"	80						
A305	2	#9	2	11'-2"	76						
A306	2	#9	2	10'-6"	71						
A307	2	#9	2	9'-10"	67						
A308	2	#9	2	9'-3"	63						
A309	2	#9	2	8'-7"	58						
A310	2	#9	2	7'-11"	54						
A311	2	#9	2	7'-3"	49						
A312	2	#9	2	6'-8"	45						
A313	2	#9	2	6'-0"	41						
A314	2	#9	2	5'-4"	36						
A315	2	#9	2	4'-8"	32						
A316	2	#9	2	4'-0"	27						
A317	2	#9	2	3'-5"	23						
A318	2	#9	2	2'-9"	19						

REINFORCING STEEL	415,909 LBS
CLASS A CONCRETE	
CULVERT BARREL	1611.2 CY
SILLS	7.8 CY

CULVERT PENETRATION DETAIL

TWO PENETRATIONS UP TO 36" DIA.
FIELD CUT "B" AND "C" BARS TO FIT

PROJECT NO. R-2233BB

RUTHERFORD COUNTY

STATION: 735+38.59 -L3-

Dewberry
2610 WYCLIFF ROAD
SUITE 410
RALEIGH, NC 27607
PHONE: 919.881.9939
NC COA No. F-0929

NORTH CAROLINA PROFESSIONAL SEAL 030046 ENGINEER MATTHEW PATHE

DocuSigned by: Matthew Pathe 10/7/2021
E7C305E295FF484...

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

10' X 8'
CONCRETE BOX CULVERT
SECTION

REVISIONS								SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:			C4-3
1			3					TOTAL SHEETS
2			4					6

DRAWN BY :	MTP	DATE :	05/2021
CHECKED BY :	CBC	DATE :	05/2021
DESIGN ENGINEER OF RECORD:	MTP	DATE :	05/2021

$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$