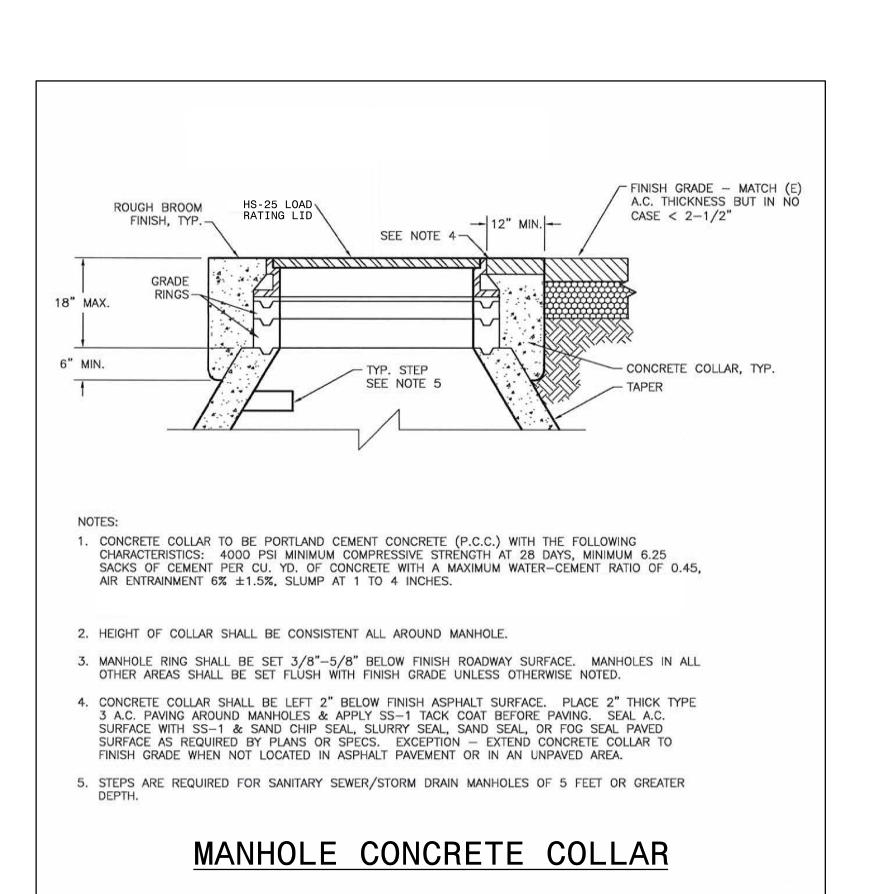
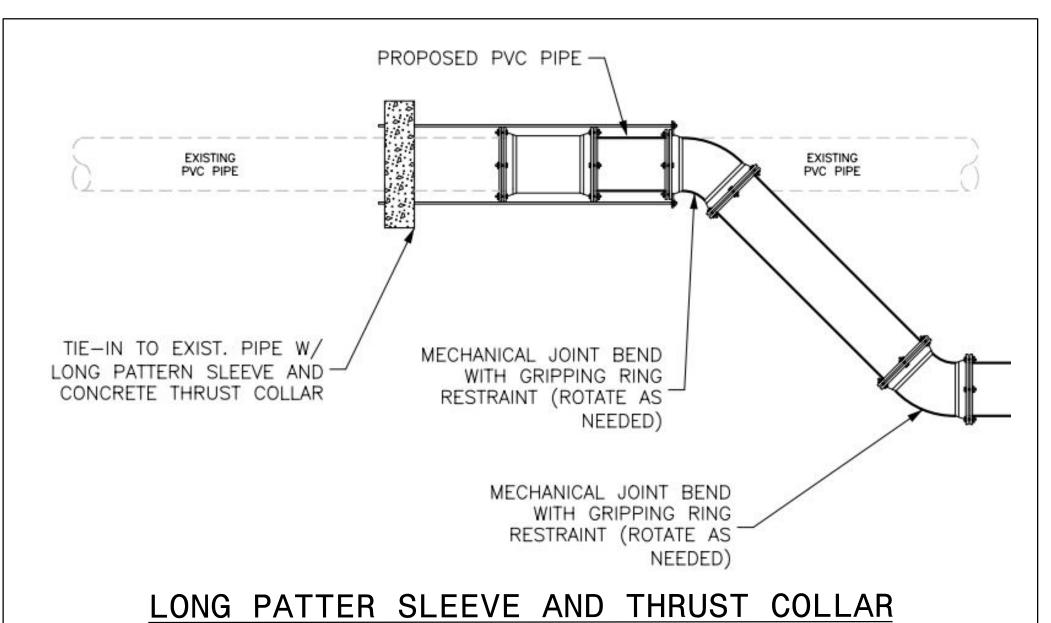
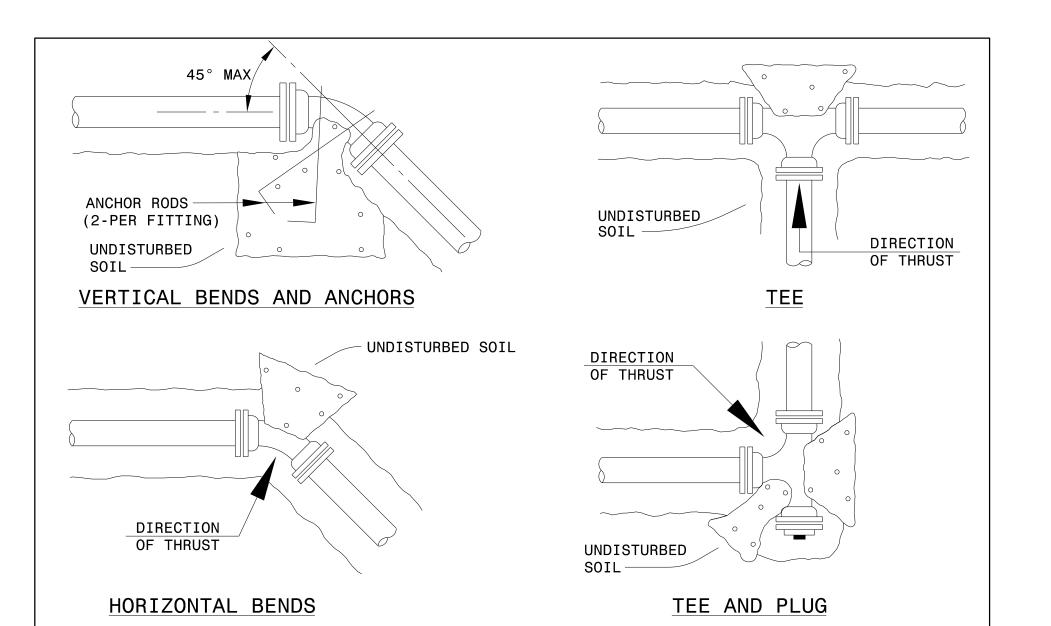
PROJECT TYPICAL DETAILS







CONCRETE THRUST BLOCKING SCHEDULE							NCRETE /ERTICA	ANCHOR ROD SIZE		
FITTING	BEARING AREA IN SQUARE FEET					MIN. CU. YARDS CONCRETE				FOR VERTICAL BEND AND
SIZE	TEE/PLUG	90°	45°	22-1/2°	11-1/4°	90°	45°	22-1/2°	11-1/2°	ANCHORS
4"	1	2	1	1	1	1	1	1	1	1/2"
6"	3	3	2	1	1	1	1	1	1	
8"	4	6	3	2	1	2	2	1	1	3/4"
10"	7	9	5	3	2	3	3	2	1	
12"	9	12	7	4	2	5	3	2	1	7/8"
14"	12	17	9	5	3	6	4	3	2	
16"	16	22	12	6	3	8	6	3	2	
18"	20	27	15	8	4	10	7	4	2	
20"	24	34	18	10	5	12	9	5	3	1-1/8"
24"	34	48	26	14	7	17	12	7	4	
30"	53	75	41	21	11	27	19	10	5	
36"	77	108	59	30	15	38	27	15	8	1-3/8"

NOTES:

- 1. MINIMUM BEARING AREA (IN SQUARE FEET) AGAINST UNDISTURBED TRENCH WALL OF SAND.
- 2. AREAS SHOWN ARE FOR 150 PSI TEST PRESSURE. IF TEST PRESSURE IS OTHER THAN 150 PSI, ADJUST AREA
- OF REACTION BACKING IN DIRECT PROPORTION.
- 3. OTHER SOIL CONDITIONS: CEMENTED SAND OR HARDPAN MULTIPLY ABOVE BY 0.5 GRAVEL OR HARD DRY CLAY - MULTIPLY ABOVE BY 0.7

- MULTIPLY ABOVE BY 2.0 MUCK: SECURE ALL FITTINGS WITH APPROVED HARNESS OR TIE ROD CLAMPS, WITH CONCRETE REACTION BACKING THE SAME AS LISTED FOR SAND CONDITIONS.

THRUST BLOCKING AND ANCHORING



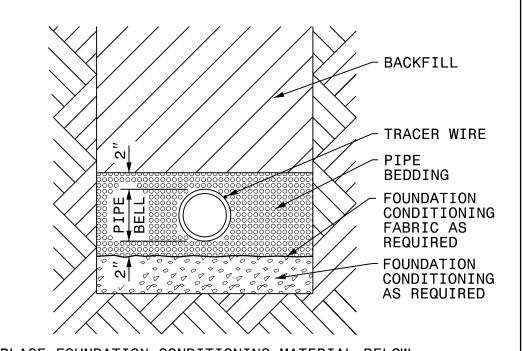
1223 Jones Franklin Rd. Raleigh, N.C. 27606 License No. F-0377 Bus: 919 851 8077 Fax: 919 851 8107

TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN CIVIL/SITE DESIGN - GIS/GPS - SURVEY/SUE - UTILITIES - CONSTRUCTION OBSERVATI

PROJECT REFERENCE NO. SHEET NO. HB-0003 UC-3A DESIGNED BY: PKP RAWN BY: TWR LigoFESSION,... CHECKED BY: PPROVED BY: SLK 10773 REVISED: NORTH CAROLINA DEPARTMENT OF PO ENGINEERO G. TRANSPORTATION UTILITIES ENGINEERING SEC PHONE: (919)707-6690 UTILITY CONSTRUCTION PLANS ONLY FAX: (919)250-4151

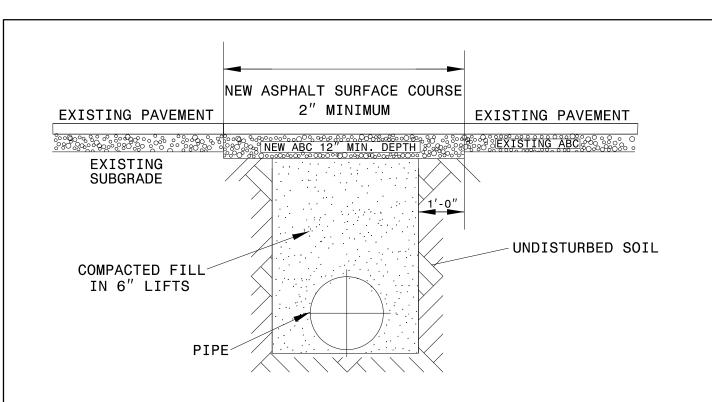
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

UTILITY CONSTRUCTION



PLACE FOUNDATION CONDITIONING MATERIAL BELOW BEDDING IF REQUIRED, AS DIRECTED BY ENGINEER. PIPE BEDDED IN SELECT MATERIAL, CLASS II (TYPE 1) OR CLASS III. TRENCH BACKFILLED IN LOOSE 6" LAYERS COMPACTED TO TOP OF TRENCH USING LOCAL EXCAVATED MATERIAL IF APPROVED BY THE ENGINEER. OR SELECT MATERIAL ALL MATERIAL SHALL BE FREE OF ROCKS, FOREIGN MATERIAL, AND FROZEN EARTH. COMPACTION SHALL BE TO APPROXIMATELY 95% DENSITY IN ACCORDANCE WITH AASHTO T-99 AS MODIFIED BY THE DEPARTMENT OF TRANSPORTATION.

TRENCH DETAIL



1. IN NCDOT MAINTAINED ROADWAYS ENCROACHMENT PAVEMENT PATCH

REQUIREMENTS SHALL TAKE PRECEDENCE. 2. THE PAVEMENT CUT SHALL BE DEFINED BY A STRAIGHT EDGE AND CUT WITH AN APPROPRIATE SAWCUT MACHINE.

3. THE TRENCH SUBGRADE MATERIAL SHALL BE BACKFILLED WITH SUITABLE MATERIAL AND COMPACTED TO A DENSITY OF AT LEAST 95% OF THAT OBTAINED BY COMPACTING A SAMPLE OF THE MATERIAL IN ACCORDANCE WITH AASHTO T-99 AS MODIFIED BY NCDOT.

4. THE FINAL 1' OF FILL SHALL CONSIST OF ABC MATERIAL COMPACTED TO A

DENSITY EQUAL TO 100% OF THAT OBTAINED BY COMPACTING A SAMPLE OF THE MATERIAL IN ACCORDANCE WITH AASHTO T-80 AS MODIFIED BY NCDOT. 5. THE ENTIRE THICKNESS AND VERTICAL EDGE OF CUT SHALL BE TACKED. 6. THE SAME DEPTH OF PAVEMENT MATERIAL WHICH EXISTS SHALL BE REINSTALLED, BUT IN NO CASE SHALL THE ASPHALT BE LESS THAN 2" THICK. 7. THE ASPHALT PAVEMENT MATERIAL SHALL BE INSTALLED AND COMPACTED THOROUGHLY WITH A SMOOTH DRUM ROLLER TO ACHIEVE A SMOOTH LEVEL PATCH. 8. REFER TO NCDOT STANDARDS FOR TRENCHES AND PIPE BEDDING FOR

ADDITIONAL DETAILS. 9. NO HAND PATCHING ALLOWED. 10. PAVEMENT CUTS WITHIN NCDOT ROW SHALL CONFORM TO THE APPROVED ON

SITE ENCROACHMENT PERMIT.

STANDARD ASPHALT PAVEMENT PATCH