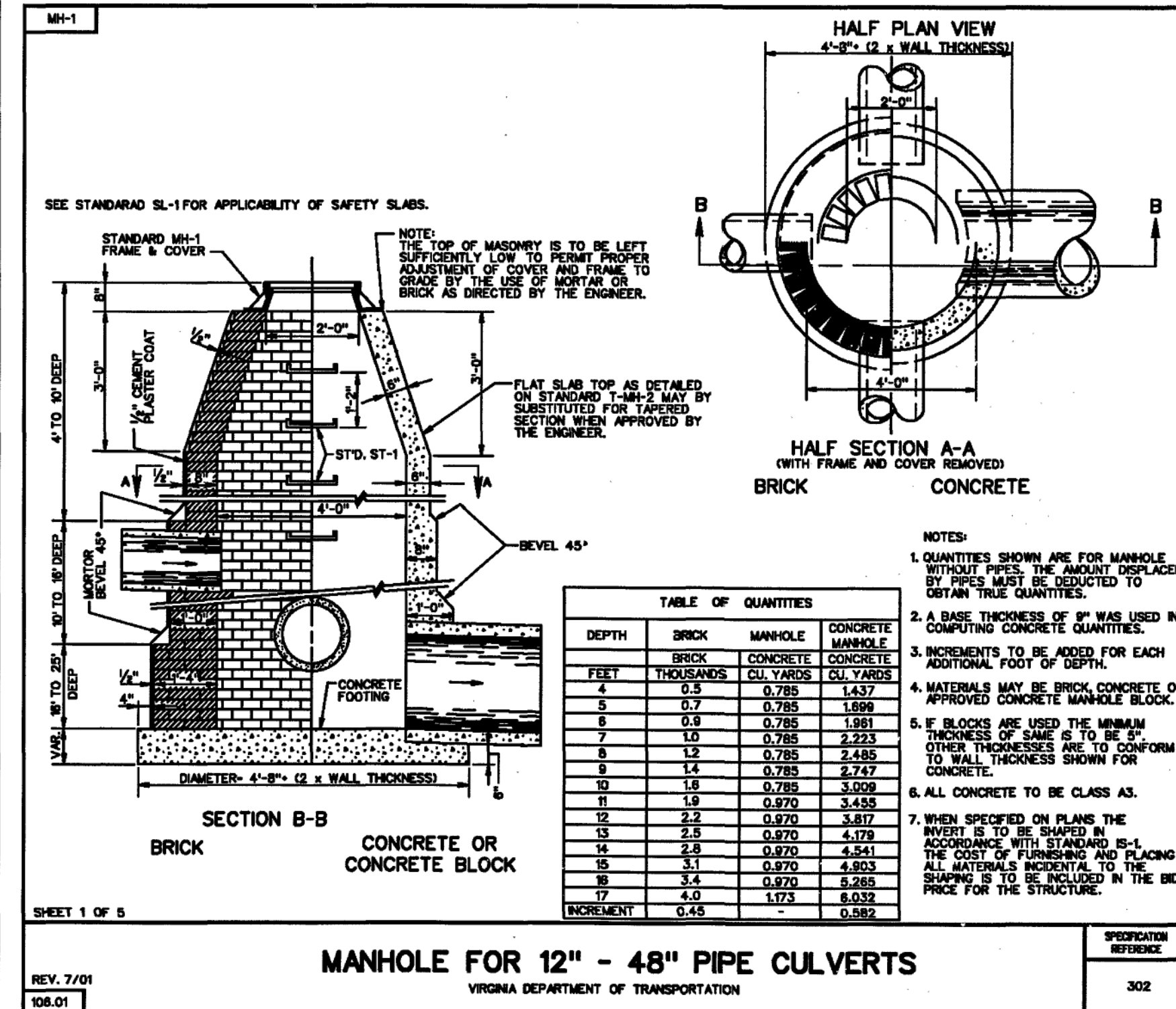
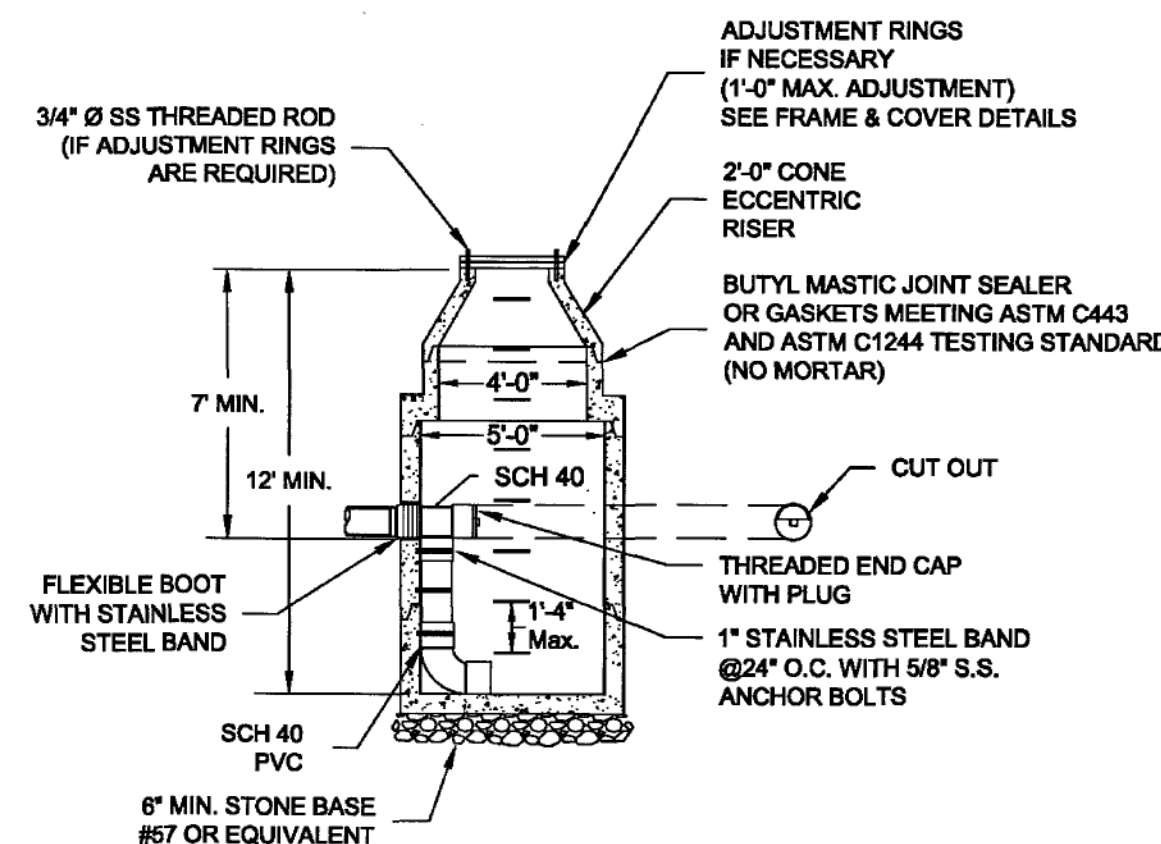


1. MATERIALS AND FABRICATION IN ACCORDANCE WITH ASTM C478-90.
2. STEPS SHALL BE VERTICALLY ALIGNED. FIRST STEP SHALL BE WITHIN 12" OF COVER, BOTTOM STEP SHALL BE WITHIN 24" OF BOTTOM OF MANHOLE.
3. THE FRAME AND COVER SHALL BE PROPERLY ALIGNED WITH THE 2 FOOT OPENING OF THE MANHOLE STRUCTURE AND BOLTED IN PLACE.
4. RELINER BY DURAN INSIDE DROP BOWLS AND PIPE BRACKETS WILL BE ALLOWED.
5. GROUT ANNUAL SPACE BETWEEN PIPE AND PRECAST MANHOLE ON INSIDE OF MANHOLE.
6. STEPS SHALL BE WITHIN 90 DEGREES FROM DROP OR RISE.
7. INSIDE DROP ONLY ALLOWED WHEN DEPTH EXCEEDS 12' AND APPROVED BY PARTICIPATING UTILITY.
8. 6" MINIMUM DIAMETER MANHOLE REQUIRED FOR TWO OR MORE INSIDE DROP CONNECTIONS (MAIN LINE OR LATERAL).
9. SEE FRAME AND COVER DETAIL.
10. SEE DETAIL S-01 FOR EXTERIOR COATING AND JOINT SEAL REQUIREMENTS.



DEPTH	BRICK	MANHOLE	CONCRETE MANHOLE
FEET	BRICK	CONCRETE CULYARS	CONCRETE
4	0.5	0.785	1.1
5	0.7	0.785	1.699
6	0.9	0.785	1.981
7	1.0	0.785	2.223
8	1.2	0.785	2.485
9	1.4	0.785	2.747
10	1.6	0.785	3.009
11	1.9	0.970	3.455
12	2.2	0.970	3.817
13	2.5	0.970	4.179
14	2.8	0.970	4.541
15	3.1	0.970	4.903
16	3.4	0.970	5.265
17	4.0	1.73	6.032
INCREMENT	0.5		0.582

NOTES:

1. QUANTITIES SHOWN ARE FOR MANHOLE WITHOUT PIPES, THE AMOUNT DISPLACE BY PIPES MUST BE ADJUSTED TO OBTAIN TRUE QUANTITIES.
2. A BASE THICKNESS OF 6" WAS USED IN COMPUTING CONCRETE QUANTITIES.
3. INCREMENTS TO BE ADDED FOR EACH ADDITIONAL FOOT OF DEPTH.
4. MATERIALS MAY BE BRICK, CONCRETE OR APPROVED CONCRETE MANHOLE BLOCK.
5. IF BLOCKS ARE USED THE MINIMUM THICKNESS OF GRADE IS TO BE 6" OTHER ADDRESSES ARE TO CONFORM TO WALL THICKNESS SHOWN FOR CONCRETE.
6. ALL CONCRETE TO BE CLASS AS.
7. WHEN SPECIFIED ON PLANS THE INVERT IS TO BE SHAPED IN ACCORDANCE WITH THE STANDARD D-1. THE COST OF FURNISHING AND PLACING ALL MATERIALS INCIDENTAL TO THE SHAPE IS TO BE INCLUDED IN THE BID PRICE FOR THE STRUCTURE.

DOCUMENTS PREPARED BY CORESTATES, INC., INCLUDING THIS DOCUMENT, ARE TO BE USED ONLY FOR THE SPECIFIC PROJECT AND SPECIFIC USE FOR WHICH THEY WERE INTENDED. ANY EXTENSION OF USE TO ANY OTHER PROJECTS, BY OWNER OR BY ANY OTHER PARTY, WITHOUT THE EXPRESSED WRITTEN CONSENT OF CORESTATES, INC. IS DONE UNLAWFULLY AND AT THE USERS OWN RISK. IF USED IN A WAY OTHER THAN THAT SPECIFICALLY INTENDED, USER WILL HOLD CORESTATES, INC. HARMLESS FROM ALL CLAIMS AND LOSSES.



Know what's below **Call before you dig.**

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON DESIGN DRAWMINGS, RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, INVESTIGATIONS TAKEN IN THE FIELD. CORE STATES, INC. DOES NOT GUARANTEE THAT LOCATIONS SHOWN ARE EXACT. THE CONTRACTOR MUST CONTACT THE APPROPRIATE UTILITY COMPANIES AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF UTILITIES.

REVISIONS

[illegible]

DOCUMENT
COMPREHENSIVE
DEVELOPMENT PLAN
CP150014

PROJECT
FAMILY DOLLAR IN
ROANOKE, VA

CLIENT
BOOS
DEVELOPMENT GROUP



FAMILY DOLLAR

SITE LOCATION
1626 ORANGE
AVENUE NW
ROANOKE, VA 24017

ENGINEER SEAL



SHEET TITLE

CONSTRUCTION DETAILS

JOB #:	FAM-16430
DATE:	04-10-15
SCALE:	N/A
DRAWN BY:	KP
CHECKED BY:	AB

SHEET NO.

C11
OF 24

APPROVED
Nov 10 2015