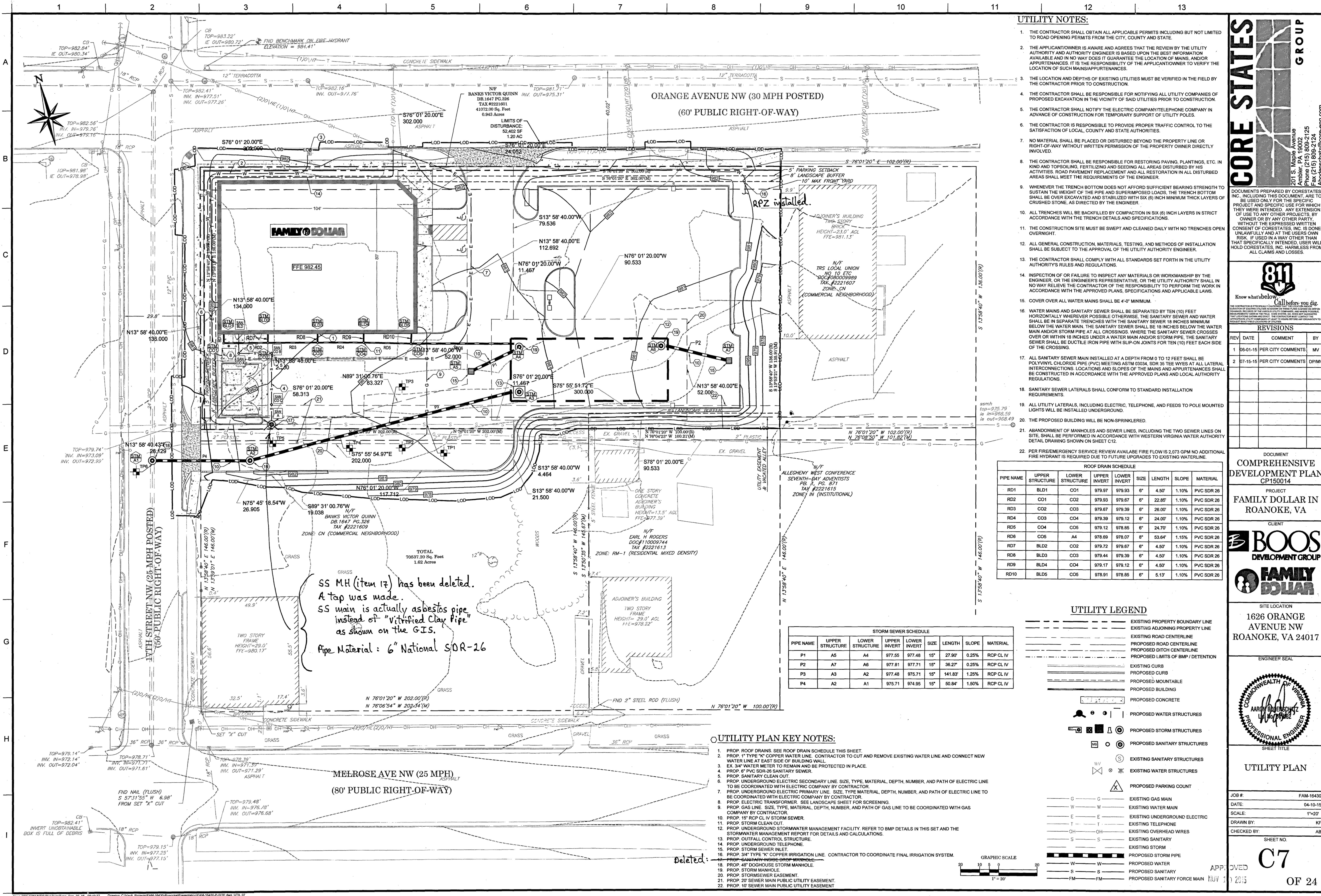




- UTILITY NOTES:**
1. THE CONTRACTOR SHALL OBTAIN ALL APPLICABLE PERMITS INCLUDING BUT NOT LIMITED TO ROAD OPENING PERMITS FROM THE CITY, COUNTY AND STATE.
 2. THE APPLICANT/OWNER IS AWARE AND AGREES THAT THE REVIEW BY THE UTILITY AUTHORITY AND AUTHORITY ENGINEER IS BASED UPON THE BEST INFORMATION AVAILABLE AND IN NO WAY DOES IT GUARANTEE THE LOCATION OF MAINS, AND/OR APPURTENANCES. IT IS THE RESPONSIBILITY OF THE APPLICANT/OWNER TO VERIFY THE LOCATION OF SUCH MAINS/APURTENANCES.
 3. THE LOCATION AND DEPTHS OF EXISTING UTILITIES MUST BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
 4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING ALL UTILITY COMPANIES OF PROPOSED EXCAVATION IN THE VICINITY OF SAID UTILITIES PRIOR TO CONSTRUCTION.
 5. THE CONTRACTOR SHALL NOTIFY THE ELECTRIC COMPANY/TELEPHONE COMPANY IN ADVANCE OF CONSTRUCTION FOR TEMPORARY SUPPORT OF UTILITY POLES.
 6. THE CONTRACTOR IS RESPONSIBLE TO PROVIDE PROPER TRAFFIC CONTROL TO THE SATISFACTION OF LOCAL, COUNTY AND STATE AUTHORITIES.
 7. NO MATERIAL SHALL BE PLACED OR DISTURBED BEYOND THE PROPERTY LINE OR RIGHT-OF-WAY WITHOUT WRITTEN PERMISSION OF THE PROPERTY OWNER DIRECTLY INVOLVED.
 8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING PAVING, PLANTINGS, ETC. IN KIND AND TOPSOILING, FERTILIZING AND SEEDING ALL AREAS DISTURBED BY HIS ACTIVITIES. ROAD PAVEMENT REPLACEMENT AND ALL RESTORATION IN ALL DISTURBED AREAS SHALL MEET THE REQUIREMENTS OF THE ENGINEER.
 9. WHENEVER THE TRENCH BOTTOM DOES NOT AFFORD SUFFICIENT BEARING STRENGTH TO SUSTAIN THE WEIGHT OF THE PIPE AND SUPERIMPOSED LOADS, THE TRENCH BOTTOM SHALL BE OVER EXCAVATED AND STABILIZED WITH SIX (6) INCH MINIMUM THICK LAYERS OF CRUSHED STONE, AS DIRECTED BY THE ENGINEER.
 10. ALL TRENCHES WILL BE BACKFILLED BY COMPACTION IN SIX (6) INCH LAYERS IN STRICT ACCORDANCE WITH THE TRENCH DETAILS AND SPECIFICATIONS.
 11. THE CONSTRUCTION SITE MUST BE SWEEPED AND CLEANED DAILY WITH NO TRENCHES OPEN OVERNIGHT.
 12. ALL GENERAL CONSTRUCTION, MATERIALS, TESTING, AND METHODS OF INSTALLATION SHALL BE SUBJECT TO THE APPROVAL OF THE UTILITY AUTHORITY ENGINEER.
 13. THE CONTRACTOR SHALL COMPLY WITH ALL STANDARDS SET FORTH IN THE UTILITY AUTHORITY'S RULES AND REGULATIONS.
 14. INSPECTION OF OR FAILURE TO INSPECT ANY MATERIALS OR WORKMANSHIP BY THE ENGINEER, OR THE ENGINEER'S REPRESENTATIVE, OR THE UTILITY AUTHORITY SHALL IN NO WAY RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY TO PERFORM THE WORK IN ACCORDANCE WITH THE APPROVED PLANS, SPECIFICATIONS AND APPLICABLE LAWS.
 15. COVER OVER ALL WATER MAINS SHALL BE 4'-0" MINIMUM.
 16. WATER MAINS AND SANITARY SEWER SHALL BE SEPARATED BY TEN (10) FEET HORIZONTALLY WHEREVER POSSIBLE OTHERWISE, THE SANITARY SEWER AND WATER SHALL BE IN SEPARATE TRENCHES WITH THE SANITARY SEWER 18 INCHES MINIMUM BELOW THE WATER MAIN. THE SANITARY SEWER SHALL BE 18 INCHES BELOW THE WATER MAIN AND/OR STORM PIPE AT ALL CROSSINGS. WHERE THE SANITARY SEWER CROSSES OVER OR WITHIN 18 INCHES UNDER A WATER MAIN AND/OR STORM PIPE, THE SANITARY SEWER SHALL BE DUCTILE IRON PIPE WITH SLOPE JOINTS FOR TEN (10) FEET EACH SIDE OF THE CROSSING.
 17. ALL SANITARY SEWER MAIN INSTALLED AT A DEPTH FROM 0 TO 12 FEET SHALL BE POLYVINYL CHLORIDE PIPE (PVC) MEETING ASTM D3034, SDR 35 TEE WYES AT ALL LATERAL INTERCONNECTIONS. LOCATIONS AND SLOPES OF THE MAINS AND APPURTENANCES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE APPROVED PLANS AND LOCAL AUTHORITY REGULATIONS.
 18. SANITARY SEWER LATERALS SHALL CONFORM TO STANDARD INSTALLATION REQUIREMENTS.
 19. ALL UTILITY LATERALS, INCLUDING ELECTRIC, TELEPHONE, AND FEEDS TO POLE MOUNTED LIGHTS WILL BE INSTALLED UNDERGROUND.
 20. THE PROPOSED BUILDING WILL BE NON-SPRINKLERED.
 21. ABANDONMENT OF MAINHOLES AND SEWER LINES, INCLUDING THE TWO SEWER LINES ON SITE, SHALL BE PERFORMED IN ACCORDANCE WITH WESTERN VIRGINIA WATER AUTHORITY DETAIL DRAWING SHOWN ON SHEET C12.
 22. PER FIRE/EMERGENCY SERVICE REVIEW AVAILABLE FIRE FLOW IS 2.073 GPM NO ADDITIONAL FIRE HYDRANT IS REQUIRED DUE TO FUTURE UPGRADES TO EXISTING WATERLINE.

ROOF DRAIN SCHEDULE									
PIPE NAME	UPPER STRUCTURE	LOWER STRUCTURE	UPPER INVERT	LOWER INVERT	SIZE	LENGTH	SLOPE	MATERIAL	
RD1	BLD1	CO1	979.97	979.93	6"	4.50'	1.10%	PVC SDR 26	
RD2	CO1	CO2	979.93	979.67	6"	22.85'	1.10%	PVC SDR 26	
RD3	CO2	CO3	979.67	979.39	6"	26.00'	1.10%	PVC SDR 26	
RD4	CO3	CO4	979.39	979.12	6"	24.00'	1.10%	PVC SDR 26	
RD5	CO4	CO5	979.12	978.85	6"	24.70'	1.10%	PVC SDR 26	
RD6	CO5	A4	978.69	978.07	8"	53.64'	1.15%	PVC SDR 26	
RD7	BLD2	CO2	979.72	979.67	6"	4.50'	1.10%	PVC SDR 26	
RD8	BLD3	CO3	979.44	979.39	6"	4.50'	1.10%	PVC SDR 26	
RD9	BLD4	CO4	979.17	979.12	6"	4.50'	1.10%	PVC SDR 26	
RD10	BLD5	CO5	978.91	978.85	6"	5.13'	1.10%	PVC SDR 26	

STORM SEWER SCHEDULE						
PIPE NAME	UPPER STRUCTURE	LOWER STRUCTURE	UPPER INVERT	LOWER INVERT	SIZE	LENGTH
P1	A5	A4	977.55	977.48	15"	27.90'
P2	A7	A6	977.81	977.71	15"	36.27'
P3	A3	A2	977.48	975.71	15"	141.83'
P4	A2	A1	975.71	974.95	15"	50.84'

UTILITY LEGEND

- EXISTING PROPERTY BOUNDARY LINE
- EXISTING ADJOINING PROPERTY LINE
- EXISTING ROAD CENTERLINE
- PROPOSED ROAD CENTERLINE
- PROPOSED DITCH CENTERLINE
- PROPOSED LIMITS OF BMP / DETENTION
- EXISTING CURB
- PROPOSED CURB
- PROPOSED MOUNTABLE
- PROPOSED BUILDING
- PROPOSED CONCRETE
- PROPOSED WATER STRUCTURES
- PROPOSED STORM STRUCTURES
- PROPOSED SANITARY STRUCTURES
- EXISTING SANITARY STRUCTURES
- EXISTING WATER STRUCTURES
- PROPOSED PARKING COUNT
- EXISTING GAS MAIN
- EXISTING WATER MAIN
- EXISTING UNDERGROUND ELECTRIC
- EXISTING TELEPHONE
- EXISTING OVERHEAD WIRES
- EXISTING SANITARY
- EXISTING STORM
- PROPOSED STORM PIPE
- PROPOSED WATER
- PROPOSED SANITARY
- PROPOSED SANITARY FORCE MAIN

- UTILITY PLAN KEY NOTES:**
1. PROP. ROOF DRAINS. SEE ROOF DRAIN SCHEDULE THIS SHEET.
 2. PROP. 1" TYPE "K" COPPER WATER LINE. CONTRACTOR TO CUT AND REMOVE EXISTING WATER LINE AND CONNECT NEW WATER LINE AT EAST SIDE OF BUILDING WALL.
 3. EX. 3/4" WATER METER TO REMAIN AND BE PROTECTED IN PLACE.
 4. PROP. 6" PVC SDR-26 SANITARY SEWER.
 5. PROP. SANITARY CLEAN OUT.
 6. PROP. UNDERGROUND ELECTRIC SECONDARY LINE. SIZE, TYPE, MATERIAL, DEPTH, NUMBER, AND PATH OF ELECTRIC LINE TO BE COORDINATED WITH ELECTRIC COMPANY BY CONTRACTOR.
 7. PROP. UNDERGROUND ELECTRIC PRIMARY LINE. SIZE, TYPE, MATERIAL, DEPTH, NUMBER, AND PATH OF ELECTRIC LINE TO BE COORDINATED WITH ELECTRIC COMPANY BY CONTRACTOR.
 8. PROP. ELECTRIC TRANSFORMER. SEE LANDSCAPE SHEET FOR SCREENING.
 9. PROP. GAS LINE. SIZE, TYPE, MATERIAL, DEPTH, NUMBER, AND PATH OF GAS LINE TO BE COORDINATED WITH GAS COMPANY BY CONTRACTOR.
 10. PROP. 15" RCP CL IV STORM SEWER.
 11. PROP. STORM CLEAN OUT.
 12. PROP. UNDERGROUND STORMWATER MANAGEMENT FACILITY. REFER TO BMP DETAILS IN THIS SET AND THE STORMWATER MANAGEMENT REPORT FOR DETAILS AND CALCULATIONS.
 13. PROP. OUTFALL CONTROL STRUCTURE.
 14. PROP. UNDERGROUND TELEPHONE.
 15. PROP. STORM SEWER INLET.
 16. PROP. 3/4" TYPE "K" COPPER IRRIGATION LINE. CONTRACTOR TO COORDINATE FINAL IRRIGATION SYSTEM.
 17. PROP. 48" DOGHOUSE STORM MANHOLE.
 18. PROP. STORM MANHOLE.
 19. PROP. STORMSEWER EASEMENT.
 20. PROP. 20" SEWER MAIN PUBLIC UTILITY EASEMENT.
 21. PROP. 10" SEWER MAIN PUBLIC UTILITY EASEMENT.
 22. PROP. 10" SEWER MAIN PUBLIC UTILITY EASEMENT.

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REVISIONS

REV	DATE	COMMENT	BY
1	06-01-15	PER CITY COMMENTS	MV
2	07-15-15	PER CITY COMMENTS	DPW

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
COMMONWEALTH OF VIRGINIA
AARON BUEHLER, P.E.
No. 007962

UTILITY PLAN

JOB #: FAM-16430
DATE: 04-10-15
SCALE: 1"=20'
DRAWN BY: KF
CHECKED BY: AB
SHEET NO. C7 OF 24