

May 19, 2014

Bryant Gammon, P.E.
Highmark Engineering, LLC.
13281 River Bend Blvd., Suite 201
Chester, VA 23836

**RE: Dollar General at 2536 New Market Road
File No. 5168; POD2014-00165**

Dear Mr. Gammon:

The Department of Public Utilities has completed a review of the water and sewer plans that are part of the plan of development submitted to the Planning Department on May 1, 2014.

DPU recommends approval of these plans by the Planning Commission.

Please address the following comments before submitting the construction plans for signature.

General:

1. Owner to submit executed Utility Agreements **prior to approval of building permits or prior to the utility pre-construction meeting and authorization to proceed with utility construction** by DPU.
2. Engineer to provide hydraulic calculations demonstrating adequate residual pressure throughout the distribution system assuming fire flow at worst case fire hydrant(s).
3. DPU recommends that public sewer be extended within New Market Road to serve this property in lieu of constructing and installing a new onsite septic system. Existing sewer is only 553 feet from the existing property corner and approximately 765 feet from the proposed building.

C-1 (Cover):

4. Add following note on cover sheet
"All water service accessories and fittings shall be lead-free in compliance with Section 1417 of the Safe Drinking Water Act, and NSF 61 approved."
5. Revise water material quantities in accordance with all comments.
6. Use a darker line weight for all roads shown within the vicinity map.

C-4 (Existing Conditions):

7. Provide field verified locations of existing 16" and 8" water mains to better coordinate with proposed storm sewer design and areas where vertical waterline adjustments are being proposed.
8. Show and label on this sheet, and all other related sheets, the two waterlines crossing New Market Road in front of this site. One line near the Gregg Road intersection is an 8" waterline that is back tapped off the 16" waterline and crosses within casing pipe. The other line near the western property line is a water service.

C-5 (Demolition Plan):

9. Revise utility note regarding existing hydrant to indicate that this hydrant will be removed only after installation and acceptance of new hydrant at site entrance. See the subsequent comment on the utility plan for how the hydrant assembly is to be removed.

C-12 (Site Layout & Utility Plan):

10. Revise the waterline design layout to provide the following:
 - Abandon by removal the existing hydrant assembly at the corner of New Market Road. Remove the valve box and permanently close the valve. Return the hydrant to DPU Operations.
 - Extend 8" water main from the 16" waterline up Gregg Road to past the site entrance.
 - Provide adequate number of hydrants to meet DPU Standards regarding the 350 foot maximum hose lay and the ISO fire flow requirements. Provide a hydrant at the point of tangent of the entrance and another hydrant onsite. Hydrant locations shall also meet the 50 foot minimum building set back where possible and shall also be coordinated with Fire Division logistical needs.
 - Both domestic and irrigation meters should connect to the new proposed main instead of the existing 16" main near the proposed Capitol Bike Trail.
11. Investigate if it is possible to avoid the two waterline vertical adjustments proposed on the plans. Field locate existing 16" and 8" waterlines, and casing pipe, both vertically and horizontally to determine available vertical separation from proposed storm sewer at crossings and horizontal separation where parallel along New Market Road. Contact and coordinate with DPU Operations staff in regards to performing any test holes where needed. In addition, coordinate with DPW requirements on the possible use of elliptical storm pipe or other design options in order to increase clearance and avoid waterline adjustment at the crossings.
12. Show and label location of any required vertical waterline adjustment in the plan view. Reference the standard vertical waterline adjustment detail where applicable and include this detail in the plans.

C-14 (Profile):

13. Add "Utility Plan" to sheet title block and on the sheet index on the cover sheet.
14. Either provide complete stationing for the vertical waterline adjustment profiles or remove what is shown and reference the standard waterline adjustment detail.
15. Provide accurate layout and profile depth of existing 8" water main crossing New Market Road towards the Varina Elementary School. Specifically, this must be shown for the area where proposed storm sewer is crossing. This main is connected from a back tap off of the 16" water main and is within an 18" casing pipe under New Market Road that also needs to be shown.
16. Label minimum wall to wall horizontal separation of the proposed storm sewer pipe parallel to the existing 16" water main. Provide a minimum horizontal separation of 6 feet wall to wall.
17. If, after field evaluation, it is confirmed that vertical waterline adjustments are still required, provide a sequence of construction that notifies at least 48 hours in advance the customers in the immediate area where service will be completely disrupted, notifies the Fire Marshal at least 48 hours in advance on the reduction of fire flow protection for the general area, and commits the contractor to construct with minimal interruption of services.
18. Provide 45 degree bends for the 8" vertical waterline adjustment cross section profile.

C-15 (Calculations):

19. Provide the current water meter sizing form instead of the form found in the draft standards. A meter sizing form for the irrigation meter is not necessary since the peak demand has been stated on the plan view callout.

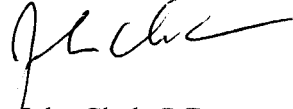
Bryant Gammon, P.E.
Page 3 of 3
May 19, 2014

Dollar General at 2536 New Market Road

20. Review stated area of the proposed building versus the building dimensions. The building area appears to be larger than 9100 ft². Revise ISO fire flow calculations accordingly.

If you have any questions concerning the above noted comments or the plans, please contact me at 501-4501 or Hyung (John) Yi at 501-4511.

Sincerely,



John Clark, P.E.
Utilities Engineer

cc: Bernard L. Mahone
Lee Pittman, Par 3 Development, LLC
bc: R. Claytor
J. Yi, A. Seal
M. Ward, Planning
JLC/mab