Tracy Lower Vanasse Hagen Brustlin, Inc. 8300 Boone Boulevard, Suite 700 Vienna, VA 22182

> RE: West Broad Marketplace LOCATION: 12300 W Broad Street FILE # 5177; POD NO. 2014-00256

Dear Mrs. Lower:

We have reviewed the construction plans submitted to the Planning Department on December 15, 2014.

Please address the following comments and **resubmit revised construction plans** for review. Water and Sewer Agreements that must be executed by the Owner and the County for water and sewer improvements **have not** been executed.

General

- 1. The proposed construction plans do not conform to the meeting that was held at DPU on November 19, 2014. Per the meeting, rock was field verified at the entrance so a new connection point was discussed and proposed to avoid the rock. DPU need to know where the water main connection will be located on the utility plans. If the developer's intent is to connect to the existing water main in a different location, then it should be shown on this plan.
- 2. The sewer-shed analysis should evaluate the downstream impacts of this development. The sewer needs to be evaluated for all homes and businesses that fall within the sewer shed. Evaluating only the proposed development does not provide an adequate picture of the impact that this development may have in a critical or near-capacity run of sewer. Review the contributions for all of the sanitary sewer mains within the sewer shed, up to the 18" main located in W. Broad Street.
- 3. No Water and Sewer Quantities are provided on the plan. Update Quantities per plan comments and ensure the quantities coordinate with the Local Review Form.
- 4. Water and Sewer Agreements must be executed by the Owner and the County prior to approval of building permits or prior to the utility pre-construction meeting. DPU will authorize utility construction to proceed after the pre-con meeting.

Sheet C5.01

- 5. As previously commented, provide benchmarks every 500 ft within the proposed sewer main area in accordance with DPU Standards. No benchmarks are shown on the utility plan sheet.
- 6. As previously commented, the rim for MH-Ex 2 does not match the Broad Hill Centre approved plan. Coordinate this plan with the approved Broad Hill Centre development plans. If the manhole will be adjusted with this project, provide the following information on the plans:
 - a. Note that a maximum of 12" adjustment may be done utilizing pre-cast riser rings to raise frame & cover. For additional height adjustment, pre-cast manhole sections must be installed. Decreasing manhole depth must be done by removal/replacement of pre-cast manhole sections.
 - b. Provide a table to address the raising of existing manholes to finished grade. This table should include:
 - Existing top elevation.
 - Proposed top elevation.
 - Amount of modification required, i.e. vertical feet of raising or lowering.

- Proposed method of adjusting each manhole.
- Phase of construction each manhole modification is to be done.
- 7. Based on the changes made to the plan from the previous submittal, change the 12"x12" cross at station 30+00 in Spine Rd to a 12"x 8" cross.

Sheet C6.02

- 8. Based on the changes made to the plan from the previous submittal, there is a conflict with the fire hydrant and the proposed under drain in West Broad Street. The fire hydrant will need to be removed and replace with a new hydrant. Also, the fire hydrant should be installed per the County DPU detail instead of VDOT FH-1.
- 9. What is the horizontal distance between the fire hydrant and STR-111 in the West Broad Street? DPU suggests shifting the storm structure so that it is located approximately 5' from existing fire hydrant.

Sheet C6.03

- 10. As previously commented, label the distance between the water main and the traffic signal poles. Provide a 10' separation between the two items.
- 11. As previously commented, there appears to be a junction box located directly over the existing 16" water main. Relocate the junction box a minimum of 10' from the water main.

Sheet C8.01

- 12. Sanitary sewer should be installed at a minimum of 5.5ft deep. Provide a minimum of 5.5' of cover between MH-29 and MH-28.
- 13. As previously commented, indicate the vertical clearance between the water and storm sewer crossing on the profiles.
- 14. Provide select backfill 21A or 21B between the sanitary sewer and water main at STA: 14+92.
- 15. A 12" GV is called out at STA: 15+10 that is not shown on the utility plan.
- 16. A valve symbol is shown at STA: 30+00 and the 12" x 8" tee callout overlaps the GV callout at STA: 30+00.
- 17. Identify where the stub profiles are located on the utility plan.
- 18. There is a storm structure crossing missing between sanitary sewer MH-29 and MH-28 on the profile.

If you have any questions concerning the above noted comments or the plans, please contact me at 501-4508 or Adrianna Camargo at 501-7543.

Sincerely, Alice Thompson Utilities Engineer

cc: Jack Waghorn bc: R. Claytor

Amy Seal

T. Togba-Lee

A. Camargo

J. Woodburn, DPU

L. Pambid, Planning

AC/mab