Tracy Lower, P.E. Vanasse Hangen Brustlin, Inc 8300 Boone Boulevard, Suite 700 Vienna, VA 22182

> RE: West Broad Marketplace 12300 W. Broad St File #: 5177; POD. #: 2014-00256

Dear Ms. Lower:

We have reviewed the construction plans submitted to the Planning Department on October 20, 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.

## **Sheet C2.01:**

1. Change specification number in Note-10 under demolition from "1.1.04C and 9.3.10" to "1.4.01C and 10.3.10" per the 2014 DPU Standards.

## **Sheet C5.01:**

- 2. To allow brick pavers to be installed over the proposed water/sewer mains and within utility easements, a Hold Harmless Agreement with the County is required. This Agreement states the Owner will be responsible for replacement of brick pavers if the pavers will need to be removed to allow the County to repair or replace the water and sewer mains within the ROW and//or utility easements.
- 3. The manhole information for MH-EX 2 (rim and inverts) does not match the Broad Hill Centre approved plan information. Coordinate this plan with the approved Broad Hill Centre development plans.
- 4. Provide a .10 fall across manholes. Review the invert at MH-EX 25 and revise as necessary.
- 5. Show the location of the existing utility easements on the Broad Hill Centre development. Also, provide the deed book and page number for the existing easements.
- 6. The sewer main between MH- EX 25 and MH-S-25 does not exist. Change the dash line style to a solid line style for all proposed utilities shown on the plan.
- 7. Provide benchmarks every 500' within the area of the proposed sewer main on the utility plan sheet.
- 8. Two valves are required at a tee per D-480. Review the tees for the waterline stubs.
- 9. From reviewing the whole West Broad Marketplace development, the fire hydrant located at STA:34+00 in Spine Rd would be better serve for fire protection by relocating the fire hydrant at STA:31+50. DPU suggests consulting with fire to ensure there will be no issues with relocating the fire hydrant.
- 10. Relocate the 8" waterline stubs within the pavement.

- 11. The 12" water main in Spine Rd will be extended in the future when the road is extended. Extend the 12" water main past the retaining wall as shown on the previous submittal.
- 12. Why are 12" x 12" crosses with 12" x 8" reducers being proposed in Entrance Rd instead of 12" x 8" crosses?

## Sheet C6.02

- 13. There is a conflict with the fire hydrant and the proposed turn lane in West Broad Street. The fire hydrant will need to be removed and replace with a new hydrant to relocate it out of the turn lane.
- 14. The existing sewer and water main conflicts with the proposed STR-6-3A. The structure should be located 10' from the existing sewer and 16" water main.
- 15. Provide a profile of the existing sewer main in relation to the proposed grading near West Broad Street. Will the manhole need to be adjusted due to the proposed grading?

# Sheet C6.03

- 16. Show the location of the 24" water main in relation to the traffic signal poles on the other side of West Broad Street.
- 17. Label the distance between the water main and the traffic signal poles. Provide a 10' separation between the two items.
- 18. There is 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**

- 19. Several appurtenances (tees, valves, hydrants, etc) are missing from the waterline profile.
- 20. Why is the waterline adjustment at STA: 11+00 so deep? The waterline should adjust under the storm sewer with 18" of clearance per the water adjustment detail D-485.
- 21. Reference the sheet location of the waterline adjustment detail on the waterline adjustment callouts.
- 22. Indicate the vertical clearances between the water and storm sewer crossings on the profiles.
- 23. The water main should not deflect under the storm sewer crossings. Use bends in accordance with the waterline adjustment detail to adjust under the storm sewer.
- 24. Valves should be shown to proposed grade on the profiles.
- 25. Profile all 8" waterline stubs on the plan.

# Sheet C8.01

- 26. Tie the run of sewer between MH-S25 and MH-EX25 to the manhole bench of MH-EX25.
- 27. Several storm and water crossings are missing from the profiles. Review and revise.

#### General:

- 28. Provide a detail and cross section of the proposed retaining wall in relation to the water main crossing at the end of the water main in Spine Rd.
- 29. Based on the master utility plan, MH-S-25 will conflict with the proposed sidewalk. DPU suggest relocating the manhole to avoid conflicts with the future sidewalk.
- 30. This plan will need to comply with the 2014 DPU Standards. The following information will need to be included in the plan:
  - a. Marker balls are required for this project. Provide the Marker Ball details D-740 and D-750 on the plans.
  - b. All details and callouts provided within the plan will need to be updated to the 2014 DPU Standards.
  - c. Provide an Engineering Report (F-1) for this project.

- d. The Local Review has been modified. A copy of the new Local Review Form will be provided with plan comments.
- 31. Provide a sanitary sewer analysis for the whole development.
- 32. Agreements have not been executed for this project. The Owner and the County must execute Agreements prior to authorization to proceed with construction of County water and sewer improvements.

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, NV Retail

bc: R. Claytor

J. Woodburn, DPW

A. Seal

L. Pambid, Planning

ANT/mab