Edward Glass, PE HG Design Studio 5701 Grove Avenue Richmond, VA 23226

> RE: Innsbrook North End LOCATION: 10900 Nuckols Rd FILE NO: POD2023-00386

Dear Mr. Glass:

We have reviewed the construction plans submitted to the Planning Department on August 29, 2023, and received by DPU on August 31, 2023.

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. Developer shall submit an overall master plan for this development that shows the planned development and proposed utilities needed.
- 2. As previously commented, the Owner is to submit executed green card prior to final utility plan approval by DPU. A green card form was not received by DPU with the plan submittal.
- 3. As previously commented, the existing permanent sewer easements should be shown on the plans for the future trunk sewer that will be constructed. There are potential conflicts with the future trunk sewer and proposed landscaping and future road access across the dam.

#### C0.00 Cover Sheet

4. Revise water and sewer material quantities in accordance with all comments.

## C1.02-1.03 Demolition Plan:

- 5. On sheet C1.03, please note that the private water service beyond hydrant WHY006127 to an outside spigot shall be disconnected immediately as this is an illegal unmetered, and possibly unprotected condition that puts the county's system at risk for cross contamination.
- 6. Provide at least 0.1' text for the deed book and page numbers for all utility easements on site. Show these same utility easement references on the utility plan sheets as well.
- 7. As previously commented on sheet C1.02:
  - Show existing 40-foot utility easement (DB6297 PG2429) for proposed trunk sewer that starts near
    the intersection of Cox Road and Nuckols Road and extends north between Highwoods One
    building and Lake Rooty.
  - DPU records do not show a valve on the stub going to #10950 Lake Brook Drive. Please confirm whether this was field verified.

# C3.02 Layout, Grading, and Utility Plan:

- 8. As previously commented, update this sheet with the same existing utility information shown on the demolition sheet C1.02. This includes GIS ID numbers for existing utility equipment (manholes, water meters, fire hydrants, etc.) within plan view near proposed utility work.
- 9. As previously commented, a line stop appears to be necessary for the waterline and hydrant work in order to keep Highwoods One in service with fire protection. Show and callout this provision.

## C3.04-3.05 Layout, Grading, and Utility Plan:

- 10. Replace the air release valve with a standard fire hydrant at the high point. D-490 is a temporary provision for inactive lines that will be extended in the future at which time this appurtenance would be removed.
- 11. For Lake Brook Commons (Snagajob), reference the attached sketch and show the 8" fly-tie connection between the existing 8" waterline and proposed 12" waterline to be outside of the vertical waterline

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adjustment using a tapping sleeve and valve on the existing 8" line and a 12" x 8" tee with clustered 8" and 12" valves on the proposed line. In association with this, label the area where the 12" vertical waterline adjustment occurs.

- 12. Add a note that the line stops shown at either end of the 12" waterline relocation are a temporary provision that must be removed after testing and acceptance of new lines and replaced with restrained plugs to isolate the existing system that will remain in service.
- 13. To fully address a previous comment, please provide a sequence of construction to describe the utility construction approach for maintaining service to existing buildings. This would be a little more specific than the notes on sheets C1.02 and C1.03 and would at least include the following in order:
  - Install tapping sleeves and valves and line stops on existing lines and construct new relocated main.
  - Isolate, flush, and test new line for DPU acceptance.
  - Isolate each of the three connection locations with existing main so that remaining portion of
    existing mains can be cut and plugged and returned to service.
  - Remove inactive existing main and appurtenances per plans and return all fire hydrants to DPU
    Operations.
- 14. The bend at the northern end of the 12" waterline scales as 22.5 degrees.

## C4.00 Utility Profiles

- 15. Regarding "Waterline Profile":
  - Revise profile in accordance with all plan view comments.
  - The bend near station 1+00 is shown on plan view as 11.25 degrees.
  - Adjust 12" x 12" tapping sleeve and valve label to not cover up profile stationing.

## L5.04-5.08 Landscape & Lighting Plan

- 16. As previously commented, show previously mentioned 40-foot utility easement for sewer and omit/remove any trees that are within this easement.
- 17. All light poles are to be located 10 feet from public utilities. There is a light pole less than 10' from the proposed 12" water main near the northern end that must be relocated.

If you have any questions concerning the above noted comments or the plans, please contact me at 501-4501 for any necessary clarifications.

Sincerely,

John Clark, PE Utilities Engineer

#### Enclosure

cc: Jeff Emerson – Highwoods Realty Limited Partnership

bc: Marchelle Sossong

Daniel Ivy John Clark

Spencer Norman, Planning

JLC/vr

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