Stig Owens, PE Sekiv Solutions 14207 Pond Chase Place Midlothian, VA 23113

> RE: Meadow Springs Run Subdivision LOCATION: Chartwood Drive and Meadow Rd POD NO. 2023-00259

Dear Mr. Owens:

The Department of Public Utilities (DPU) has reviewed the subdivision construction plans submitted to the Planning Department on February 6, 2024.

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. Owner to submit executed Utility Agreements prior to approval of building permits, prior to the utility pre-construction meeting and authorization to proceed with utility construction by DPU and prior to subdivision plat approval.
- 2. Since average sewer flows exceed 40,000 gpd when offsite acreage is factored into the total design flow, utility plans shall be submitted to DEQ for acceptance and a certificate to construct (CTC) obtained from DEQ prior to DPU approval. A flow acceptance letter from DPU will be forthcoming to accompany this submittal.
- 3. Please revise the Project Summary Report to reflect the corrected pipe quantities.

C-109 thru C-111(Utility Plan)

- 4. Revise pipe size and material callouts on the plan view to match the profiles as 10" DI pipe was not correctly labeled.
- 5. Provide benchmarks consistent with DPU Spec. 5.5 L which require benchmarks every 500 feet along the sewer main alignment.
- 6. Revise water and sewer material quantities in accordance with all plan review comments and per the following:
 - Revise waterline quantity for 8" and 6" PVC pipe lengths to match the plans.
 - Per subsequent comment, include 6"x4" tees and 4" valves for the flushing hydrants.
 - There are 3-12" gate valves.
 - 1" PVC W/L should be 1" copper service line
 - Update sewer pipe quantities to show 10" DI sewer and adjust the other pipe quantities accordingly.
 - Delineate between PVC and DIP sanitary laterals in regard to number and adjust total pipe length shown.
- 7. Adjust lateral for lot 13 to be at least 10 feet from adjacent lot property boundary.
- 8. Adjust lead arrow for 8" DI pipe(sewer) near manhole 21 to point to sewer line.
- 9. Provide a 6" x 4" tee and 4" gate valve for all three flushing hydrants per DPU D-500.

10. At Kingfisher Court and Meadowrise Lane, replace the watermain tee, valve and reducer shown with an 8"x6" tee and 6" valve.

C-201(Road Profiles)

- 11. As previously commented, for all sanitary sewer profiles, provide separate sewer stationing starting at the most downstream connection and proceeding upgradient with equalities (STA_=STA_) at each junction manhole. Equalities were not provided and there were a couple of small profiles where the stationing did not proceed upgradient. Also, there were a couple of locations where the sanitary sewer stationing got reversed with the road stationing.
- 12. As previously commented, provide profiles for any sanitary laterals where there is 1.5 feet or less of separation from storm sewers or water mains. Profiles were provided for lots 42 and 43, but still needed for lots 44-46 too. Laterals should have at least 1 foot of separation where crossing under storm sewers and water main and at least 6" where crossing above the same. If this is not achievable, then we will accept a 6" lateral at 1.04% slope with 6" of separation going under water and storm sewer where going over these same pipes has inadequate depth of cover (less than 3.5 feet).
- 13. Revise the following for the Hawk Ridge Road profile:
 - Incorporate the previous design objectives and adjust laterals for lots 42-46.
 - Provide vertical adjustments of water main where needed for just the lateral crossings while keeping the water main upward at 3.5 feet of cover at the water service connections.
 - The extent of vertical waterline adjustment from station 3+60 to 4+50 can be reduced to just cover the lot 42 lateral.
 - Label the lot numbers for each of these laterals (42-46).
- 14. Resolve overlapping text on specification note on length of mechanical joint restraint for dead end waterline at Station 9+75 on Meadowrise Lane profile.

C-202(Storm Sewer Profiles)

15. Label the 8" sewer pipe going under storm sewer from structures 104 to 102 and from structures 114 to 108 as DIP since there is less than 1 foot of separation.

C-203 thru C-204(Utility Profiles)

- 16. Regarding the sanitary sewer lateral profiles for lots 42 and 43:
 - Provide slopes and bends for the lateral pipe.
 - Use 1.04% slope for the 6" laterals and try to extend under the storm pipe with at least 6" of separation. Use DIP for these laterals. Vertically adjust waterline downward for lot 42 lateral as needed.

L-101 thru L-102(Landscape)

17. Landscape sheets were omitted but need to be coordinated with the utilities services locations and the light poles. Several trees shown on the lighting plan sheets are in unacceptable locations and may also conflict with proposed light poles when trees are relocated.

LI-101(Lighting)

- 18. Position light poles, and trees shown, to not block continuation of private water and sewer services towards each house.
- 19. Show sanitary laterals for all lots as these were mostly not legible.

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

Sincerely,

John L. Clark PE Utilities Engineer

cc:

Kevin Jones, Meadow Developments LLC

bc:

Marchelle Sossong

Daniel Ivy

Christina Goggin, Planning

JLC/vr