

May 29, 2024

File No. 2022-11019

Andrew J. Nowick, Mayor City of Lambertville 18 York Street Lambertville, NJ 08530-2093

Reference: Lambertville High School (a.k.a. Academy Hill) Redevelopment Memo

Block 1073, Lots 1, 3, 5-11, 33, & 33.01

Block 1090, Lots 4 & 5; Block 1091, Lots 1 & 1.01 City of Lambertville, Hunterdon County, New Jersey

## Dear Mayor:

Pursuant to your request, Gilmore & Associates, Inc. (G&A) has prepared the following stormwater management memo in regards to the proposal by K Hovnanian Homes LLC for the Lambertville High School Redevelopment site (a.k.a. Academy Hill) and offers the following comments related to stormwater management for information to the Residents of the City of Lambertville.

- 1. The City is currently in the process of preparing Ordinance No. 06-2024, which is an Ordinance to Amend the Zoning Ordinance, Article XV, Stormwater Management, specific to the provisions for stormwater control of the City of Lambertville. Ordinance No. 06-2024 is based on the model ordinance provided by the County. The City is working to adopt the Ordinance in time for use by the design engineer when designing the stormwater management measures for the development.
- 2. Stormwater management measures for the development shall be designed to provide erosion control, groundwater recharge, stormwater runoff quantity control and quality treatment.
- 3. Erosion means the detachment and movement of soil or rock fragments by water, wind, ice, or gravity.
- 4. Recharge means the amount of water from precipitation that infiltrates into the ground.
- 5. Stormwater runoff means water flow on the surface of the ground, or in storm sewers, resulting from precipitation.
- 6. Green infrastructure best management practices (GI BMPs) and low-impact development (LID) shall be utilized to meet the goal of maintaining natural hydrology to reduce stormwater runoff volume, reduce erosion, encourage infiltration and groundwater recharge, and reduce pollution.
- 7. Green infrastructure means a stormwater management measure that manages stormwater close to its source by treating stormwater runoff through infiltration into subsoil, treating stormwater runoff through filtration by vegetation or soil, or storing stormwater runoff for reuse.
- 8. Low-Impact Development (LID) means a development approach that uses practices to manage stormwater close to its source that results in or mimics that of natural hydrologic processes in order to preserve hydrologic and ecologic functions of receiving waters, such as preservation of natural landscape features, minimizing impervious surfaces, infiltration, evapotranspiration, or other use of stormwater.
- 9. The requirements of the amended Stormwater Management Ordinance are intended not only to meet but also exceed the design and performance standards found in the New Jersey Department of Environmental Protection (NJDEP) Post-Construction Stormwater Management rules (N.J.A.C. 7:8).

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- 10. The subject site is located within the Delaware and Raritan Canal Commission (DRCC) Review Zone B, which has its own stormwater requirements that the design engineer will have to utilize. If the requirements of the DRCC differ from the City requirements, then the design engineer shall follow the most stringent requirements.
- 11. The development shall be designed in accordance with the *NJ Stormwater Best Management Practices Manual* utilizing the latest National Oceanic and Atmospheric Administration (NOAA) rainfall amounts, even if not currently adopted by the state.
- 12. Whenever the stormwater management design includes one or more BMPs that will infiltrate stormwater into subsoil, the design engineer shall assess and certify the hydraulic impact on the groundwater table and design the site, so as to avoid adverse hydraulic impacts. Potential adverse hydraulic impacts include, but are not limited to, exacerbating a naturally or seasonally high-water table, so as to cause surficial ponding, flooding of basements, or interference with the proper operation of subsurface sewage disposal systems or other subsurface structures within the zone of influence of the groundwater mound, or interference with the proper functioning of the stormwater management measure itself. We note that the current Concept Site Plan illustrates the location of six (6) water quality basins and one (1) stormwater management basin throughout the site. While the facilities are spread out throughout the site, the design engineer shall still access their total hydraulic impact on the groundwater table.
- 13. Stormwater management measures shall be designed to take into account the existing site conditions, including, but not limited to, environmentally critical areas; wetlands; flood-prone areas; slopes; depth to seasonal high-water table; soil type, permeability and texture; drainage area and drainage patterns; and the presence of solution-prone carbonate rocks (limestone). We note that a large stormwater management basin is proposed in the location of an existing structure surrounded by steep slopes. The basin shall be designed to factor into the design the steep slopes on the downslope side of the basin.
- 14. Field testing is required to derive values for permeability (hydraulic conductivity). The location of the stormwater management features shall be determined based on the results of the required field testing. The field testing shall take place throughout the site and the locations with the greatest permeability values shall be the locations for the stormwater management features. Also, the testing shall indicate the depth to the restrictive feature (i.e. bedrock or groundwater table) to ensure that the stormwater management feature maintains the required separation distance.
- 15. Whenever possible, the discharge pipes for the proposed stormwater management features shall be connected to public storm sewer and not have concentrated discharge down a steep slope in order to prevent future erosion and stormwater runoff issues. If a public storm sewer system does not exist within close proximity of the site, then at a minimum a level spreader shall be added below all discharge points in order to convert concentrated flow back to spread flow.

If you have any questions regarding the above, please contact this office.

Sincerely,

Douglas C. Rossino, P.E. Gilmore & Associates, Inc.

Douglas C. Rossino

City Engineer

**DCR**