

Stuart Lieberman, Esq.
Lieberman, Blecher & Sinkevich, P.C.
10 Jefferson Plaza, Suite 400
Princeton, NJ 08540

**Re: AAVRHW Property LLC Block 41, Lot 17
Victory Road
Township of Howell
Monmouth County, New Jersey**

June 5, 2023

Dear Mr. Lieberman:

Princeton Hydro, LLC (Princeton Hydro) has been contracted by Ms. Frances Santore, on behalf of the abutters and other homeowners along Victory Road. It has been requested by the Howell Township Planning Board that a list of the topics to which I am to testify be provided prior to the next meeting to be held on June 15, 2023. As a result, the following are my comments regarding the above-referenced application.

As we understand, the applicant proposed to construct a 201,116 square foot (sf) warehouse on a 19.91 acres property, identified as Block 41, Lot 17 on the Howell Township tax records. The building will be supported by two access drives at Victory Road, driving aisles and parking around the building, a stormwater drainage and management system, electric, water, and onsite sewage disposal. The total area of disturbance is about 14.6 acres.

Extreme Filling Required by the Proposed Development

As testified by the Applicant's engineer, "the site will require import in order to provide the proper separation between seasonal high groundwater on the site and provide appropriate small-scale BMP (sic) location (sic) throughout the site". By "import", it means the importation of fill in order to elevate the site. Based on my review of the grading plans, it is roughly calculated that 87,000 cubic yards of soil must be imported. This includes the elevation of the proposed building's finished floor elevation by an average of about seven (7) feet above existing grades. According to the geotechnical engineer's report (GZA GeoEnvironmental, Inc. or GZA), there is an average of 9.5 inches of topsoil existing on the site. The specifications on the engineering plans call for 5.5 inches (an average of two contradicting topsoil thickness of 5 and 6 inches to be placed) of topsoil over 3.75 acres. With a total area of disturbance of 14 acres and leaving about 3.75 acres of non-impervious cover on this same area, it is expected that about 15,000 cubic yards of topsoil will require exportation from the site. In addition, the "infiltration" basins' embankments will require impervious core, requiring the importation of 1,832 cubic yards of clay. Assuming that a tri-axle dump truck can hold up to 18 cubic yards of material, and that excavated soil will have a "swell" factor, which will require compacting on site to achieve the required grades, it can be expected that nearly 6,000



triaxle dump truck round trips will be required to elevated the site and construct the basins, plus nearly 1,000 triaxle-dump trucks to export topsoil from the site. This calculation of truck numbers does not include the number of dump trucks required to deliver crushed stone for the slab and pavement subgrades, and asphalt, concrete trucks for the delivery of concrete, and all the material supplies for the project. As a result, there could be over 9,000 heavy truck round trips to deliver material to the site.

In fact, the GZA, March 18, 2022 report states that “...the substantial thicknesses of controlled compacted fill that will be required to reach the desired floor subgrade levels, there is a potential for greater than normal total settlements.” (underline for emphasis)

There has been much discussion regarding the number of tractor trailer trucks and associated speed limits that will impact the safety and condition of the road, however, it is important that the Planning Board also address the extensive number of trucks to travel Victory Road during construction of the project and what effect these will have on the safety and condition of Victory Road.

Howell Twp ordinance §188-26, Soil removal and redistribution

This ordinance states,

No topsoil shall be removed from the Township of Howell. Any proposal for the removal of more than 600 cubic yards of topsoil from one location in the Township to another shall be the subject of a site plan application containing the information required for an application under Article XII of this chapter for both the sending and receiving lots.” (underline for emphasis).

The Applicant must not be granted approval until a site, which must be located within the Township, is identified and approvals obtained, if not already to be able to receive this amount of topsoil. It is also cautioned that the Township should require assurances that the topsoil will not be simply sold off “piecemeal” to recipients outside of the Township boundaries.

Howell Township Article XXII, Woodlands Management

The Woodlands Management ordinance requires applicants for development to determine the number of species, size, and density to assess the required replacement trees. To determine the impacts to woodlands trees, §188-189, Definitions, defines the calculation of Average Wooded Acre is the calculation of the trees, including species and size, calculated by surveying specifically defined plot areas on a subject property. Specifically, the subsection states that a minimum plot size of 0.1 acre or a 65' x 65' area is to be used, and the total area o the plots is to equate 5% of the total Woodlands to be

cleared. Based on the Applicant's engineer's plan (Sheet C707, Woodlands Management Plan, last revised March 22, 2023, two 65' x 65' plots are identified, totaling 8,450 square feet or 0.19 acres. On this same plan, it is identified that a total of 12.9 acres (basis of calculation is unknown) of Woodlands is to be cleared. However, 5% of 12.9 acres is 0.645 acres, or 340% greater than that which the Applicant has used as the basis for their calculations.

Article XXIV Stormwater Control

The Applicant must be required to complete additional tree surveys at locations agreed upon by the Township "Planning Board...Planner, and administrative officer." The Applicant is out of compliance with this ordinance subsection.

The Applicant is not in compliance with this ordinance, for the following reasons:

Time of concentration issues

The Applicant's Engineer choice of flow paths and calculation of initial time of concentration is not correct. A review of the time of concentration (TC) for Drainage Area (DA), E1 does not follow a logical flow path and contradicts the runoff direction from the site. For example, from Point "B" on the TC line, the line follows a downgradient path, but then flows "downhill" and then "uphill" for 150 feet. This does not reflect the actual drainage paths on the site. As the Engineer modeled in Drainage Area E2, this area should have been modeled as a pond to reflect the detained drainage. Along this same TC, the area of Point "C" is also in a location that is a depression and should have been modeled as a pond. As these areas were not modeled as ponds, the peak rate reductions as required by the Stormwater Management Regulations are not met.

The TC line for DA E2 dead ends at low point at Point "C" of the TC line. As a result, there is likely never runoff from this location, resulting in existing peak rates of zero (0) cubic feet per second (CFS), and therefore, the post development conditions must be required to also retain this peak rate of runoff from this location, or the equivalent volume of total runoff must be infiltration. The Applicant's Engineer must explain if this condition is met.

Mounding and Recharge Calculations

The mounding calculations prepared using GSR32 do not reflect the findings in the field, based on the GZA soil logs and corresponding infiltration rates provided. It is noted that the calculations for mounding and recharge must be based on infiltration results above the seasonal high-water table (SHWT) and in the most restrictive horizon or stratum (NJDEP BMP Manual, Chapter 12, Section 2).

Basin #1 – The Engineer used a permeability rate of 0.5 inches per hour (in/hr) for mounding analysis and recharge calculations, however, this rate was calculated

below the SHWT. The correct rate must be employed from a result above the SHWT, as per the NJDEP BMP Manual, Chapter 12.

Basin # 2 – A rate of 0.8 in/hr was used as the basis for the infiltration rate for mounding and recharge design, however, there is a rate of less than 0.06 in/hr and 0.56 in/hr that should have been used, depending on the horizontal extent of the 0.06 in/hr. If the extent of the 0.06 in/hr extends beyond the limit of the proposed basin, then the basin must be relocated (NJDEP BMP Manual, Chapter 12).

Basin #3 – The recharge rate used for the recharge design and mounding analysis was assumed to be 20 in/hr, however, all three (3) test pits reveal that the infiltration rates above the SHWT were 1.0 in/hr or less. As in Basin #2, if the slow infiltration rates extend beyond the area of the proposed basin, then, as per the NJDEP BMP Manual, Chapter 12, Section 2, a new location for the basin must be found.

Basin #4 – The Engineer based the recharge rate on a permeability of 1.0 in/hr for the recharge design and mounding calculations, however, test pit, TP-206 has a permeability rate of 0.70 in/hr at 2 feet in depth.

Basin #5 – The Engineer based the recharge rate on a permeability 1.1 in/hr for recharge design and mounding calculations, however, this was a rate from test pit, TP-28, with the rate used at 9 feet below grade. This test was completed at a depth of over six (6) feet below the SHWT. This is not allowed per the NJDEP BMP Manual, Chapter 12.

As illustrated above, none of the proposed detention basins were modeled to reflect the requirement of the NJ BMP Manual, Chapter 12 for both mounding analysis and recharge design.

The Applicant's Engineer has designed the configuration of Basins #2, #3, and #4 to be separated by an embankment berm to meet the Green Infrastructure Standards at NJAC 7:8, 5.3 of the Stormwater Management Regulations, wherein a maximum watershed area of 2.5 acres is allowed to be discharged to each basin. However, as these basins are immediately adjacent to each other, they must be modeled, not as having overlapping recharge mounds for each individual basin, but it must be modeled as one large recharge basin to ensure that it will function as designed.

Subsurface Recharge Basin between Prop. Yard Inlet 104 and Prop. Yard Inlet 110 – According to the Engineering during his cross examination stated that this subsurface structure is not a subsurface recharge basin, and thus does not require soil pits or calculations. However, this structure is described on the plans as having perforated pipes, surrounded by crushed/clean stone, and wrapped in a filter fabric. This

description of the structure meets the definition of a recharge basin, and thus must be regulated as such.

In addition to this structure being a recharge basin, based in a review of test pit, TP-28, located below proposed Basin 5 and 30 feet from this structure, the SHWT is 74.9, nearly two (2) feet above its recharge surface. As a result, this structure will intercept groundwater during the wetter times of year when the water table rises and discharge it to Basin #4, adding a hydraulic load, not designed for in that basin.

As this structure is located below the elevation of Basin #5, and less than 30 feet away, it will intercept the recharging stormwater from Basin #5, keeping a portion of the recharge volume from replenishing groundwater as required by the Stormwater Management Regulations. The intercepted flow will then be discharged to Basin #4, adding yet more hydraulic loading to that basin than has been accounted in its design.

Prop. 15" HDPE Pipe from Prop. MH #10 to Prop. MH #9 – This pipe run is located below the SHWT and, thus, will drain the water table during the wetter times of the year, discharging this water off site, without detention or recharge.

§188-6, Environmental impact report – The EIR is a critical element for the Township to understand the overall impacts of the proposed development, but also review alternatives to the uses of the site, within that which is allowed by Zoning. Such alternatives not only include other uses for the site, but a reduced footprint of the proposed development. Under subsection §188-6 A.(1), it states that the report shall provide “[a] description of the project which shall specify what is to be done and how it is to be done, during construction and operation, as well as a recital of alternative plans deemed practicable to achieve the objective.”

The submitted EIR only describes a “no-build”, but does not discuss alternative uses for the site. The EIR states that “[v]arious concepts were evaluated; the culmination of those evaluations is the proposed development...”, but none of the “various concepts” have been provided in the EIR to allow the Planning Board to understand the relative impacts to the Township’s environment. For example, as the Application, as proposed is going to require 90,000 cubic yards plus of import of soil materials alone, a smaller footprint should be provided to determine if this massive quantity of soil import can be avoided, and reduce the impacts associated with equipment emissions, for example, or the ability to elevate the in a smaller footprint that will not negatively affect the local groundwater regime that supports surround Exceptional Resource Value wetlands.

The above topics are some of the information that will be shared at the Planning Board meeting, currently scheduled for June 15, 2023. I reserve the right to add additional testimony during that meeting, as new information is submitted by the Applicant, or

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additional information is discovered that would be pertinent to providing the Planning Board with all the facts they need to make an appropriate decision in this important case. If you have any questions, please reach out to me at your convenience.

Sincerely,

A handwritten signature in blue ink, appearing to read 'G. Goll', with a long horizontal flourish extending to the right.

Geoffrey M. Goll, P.E.
President