September 13, 2017

BY EMAIL: stockman.n@westonmass.org
AND IN HAND DELIVERY
Attn: Noreen H. Stockman
Staff Assistant for the Zoning Board of Appeals and Housing Partnership
Town of Weston
P.O. Box 378
Weston, MA 02493

Re: City of Cambridge’s Supplemental Response to 104 Stony Brook LLC’s G.L. c. 40B Comprehensive Permit Application for its Proposed Project at 104 Boston Post Road

Dear Members of the Weston Zoning Board of Appeals:

Enclosed please find attached the City of Cambridge’s (“City”) proposed supplemental conditions with respect to the Applicant 104 Stony Brook LLC’s (“Applicant”) Chapter 40B permit application that is currently pending before the Weston Zoning Board of Appeals (“ZBA”).

Please note that the City’s paramount concern with respect to the Applicant’s Chapter 40B application is the protection of the City’s public water supply in light of the close proximity of the Applicant’s proposed construction work to the Stony Brook and Stony Brook Reservoir, both of which the City uses for its public water supply. Although the City supports and is a proponent of the development of affordable housing in Massachusetts, the City has serious concerns with several aspects of the Applicant’s Chapter 40B permit application. These concerns are laid out in the attached proposed supplemental conditions, and in the prior comments and filings the City submitted regarding this project.

In light of these concerns, if the Weston ZBA is inclined to issue a Chapter 40B permit to the Applicant for this project, the City respectfully requests that the Weston ZBA include the attached proposed supplemental conditions in said permit as conditions that the Applicant must abide by with respect to the issuance of the permit.
Thank you for your attention to this matter.

Very truly yours,

Sean M. McKendry

cc:
Julie Barry, Prince Lobel Tye LLP
City of Cambridge Proposed Conditions and Comments
104 Stony Brook LLC’s Chapter 40B Application to Weston Zoning Board of Appeals, Weston, Massachusetts

Conditions and Supplemental Comments Related to Proposed Stormwater Management System

1. 104 Stony Brook, LLC (“Applicant”) will amend the Operation and Maintenance Plan contained in the Revised Drainage Report, dated August 11, 2017, that was prepared by Allen & Major Associates, Inc. (“Allen & Major”) to include information regarding the operation and maintenance of the proposed mechanical snow melt system as specified in the letter that Tim Williams (“Williams”) of Allen & Major submitted to David Kaplan (“Kaplan”) of the Cambridge Water Department (“CWD”) on May 16, 2017. A copy of Williams’ May 16, 2017 letter is attached to these conditions and comments as Exhibit “A” and incorporated herein.

2. As CWD has discussed with Allen & Major, including in an email correspondence Williams sent to Kaplan on May 18, 2017, based on the City of Cambridge’s (“City”) experience with other projects in the vicinity of its watershed lands, the construction phase erosion and sediment control plan needs to be modified to address the steep grades of the site of the Applicant’s proposed project and proximity to the Stony Brook, the Stony Brook Reservoir, the City’s abutting watershed land and any nearby Zone A land. The Applicant’s erosion and sediment control plan should address construction runoff to a Class A Surface Water Source under 314 CMR 4.00 et seq., and the Applicant agrees to work with CWD and the Massachusetts Department of Environmental Protection (“MADEP”) (through the BRP WM 15 permitting process) during the development of construction phase documents to design a system that captures 100% of construction-phase runoff. Although the City understands that the details of said system will be developed as part of preparing the construction phase documents, at a minimum, the Applicant shall, prior to any major disturbance/tree removal, demolition and/or site preparation, or any other activities exposing sediments to mobilization, install a sediment pond designed to capture 100% of the construction phase runoff at the site in addition to other sediment control measures that may be proposed. Williams’ May 18, 2017 email is attached to these conditions and comments as Exhibit “B” and incorporated herein.

3. The Applicant, and any of its successors in interest, must perform inspections of the construction phase and post-construction stormwater management systems every three (3) months after the start of construction and operation of said systems and provide a report to CWD detailing what effects, if any, the stormwater management systems have had on the Stony Brook, the Stony Brook Reservoir, the City’s abutting watershed land and any nearby Zone A land. Additionally, as to the construction phase stormwater system, the Applicant must provide CWD copies of each report that is submitted to the United States Environmental Protection Agency pursuant to the requirements for National Pollutant Discharge Elimination System General Permits for Discharges from Construction Activities. If any impacts are identified by either the Applicant, any of its successors in interest, or CWD, the Applicant, or any of its successors in interest, must promptly prepare a remedial plan for addressing the impacts. Any such plan must be submitted to and approved by CWD.
4. The work proposed by the Applicant will go up to the property line abutting the City’s watershed land and will involve a significant amount of blasting activity, including blasting for the purpose of, inter alia, installing the post-construction phase stormwater management system and developing stone base material for beneath this system (if it is determined that said system is feasible). The City is concerned that the Stony Brook, the Stony Brook Reservoir, its abutting watershed land and nearby Zone A will be adversely impacted by this blasting activity. The Applicant has not submitted sufficient information to allow the City to evaluate these potential impacts. See email from Charles Tripp of Kleinfelder to Kaplan dated July 26, 2017, which is attached hereto and incorporated herein as Exhibit “C.”

Therefore, as a condition of any permit issued to the Applicant by the Weston Zoning Board of Appeals (“ZBA”) for this project, the Applicant shall:

a. retain a geotechnical engineer to perform a geotechnical review, including evaluating observed bedrock and making references to fracture patterns in the bedrock and installing additional bedrock borings as necessary, and prepare a geotechnical report and a blasting plan for the proposed work demonstrating that the Stony Brook, the Stony Brook Reservoir, the City’s abutting watershed land and any nearby Zone A land will not be impacted by the proposed blasting;

b. submit any such geotechnical review and blasting plan prepared by its geotechnical engineer to the City and CWD for review and comment; and

c. obtain the City and CWD’s approval before any such blasting work is performed.

Further, this condition is not limited to blasting work related to the proposed stormwater management system. Rather, this condition encompasses any blasting work to be performed by the Applicant as part of the underlying project.

5. The geotechnical review and geotechnical report referenced in paragraph 4, above, must also evaluate the potential for migration of groundwater into the post-construction stormwater management system via foundation underdrains. The effect of groundwater if found to be present at the proposed depths would contribute significantly to the design and sizing of the proposed post-construction stormwater management system. The geotechnical review and geotechnical report must also include an evaluation into slope stability and proposed ledge face design parameters around the perimeter of the site.

6. The Applicant shall provide to the ZBA and CWD a signed “Illicit Discharge Compliance Statement” pursuant to standard no. 10 of MADEP’s Stormwater Management Standards.

7. The Applicant shall comply with 314 CMR Part 9 and other regulatory requirements regarding stormwater management systems (as well as the construction of wastewater treatment systems) in the Zone A land of a public water supply as addressed in the comments that the City and others previously submitted to the ZBA. The City also notes that it is imperative that the Applicant ensure that the level spreader and rip apron outlet remain set back 200 feet from the Stony Brook and not be field adjusted to a closer extent during construction.

8. The Applicant shall monitor the woodland areas downgradient of the post-construction stormwater management system outlet on a quarterly basis at a minimum, but specifically after
rain events in excess of a 10-year storm event to ensure that the gabion wall and mattress, level spreader, and rip rap apron are operating as intended, and that erosion and sedimentation are not impacting the Stony Brook, the Stony Brook Reservoir, the City’s abutting watershed land and any nearby Zone A. If any impacts are identified by either the Applicant, or any of its successors in interest, or the City, the Applicant, or its successors in interest, must promptly prepare a remedial plan for addressing the impacts. Any such plan must be submitted to and approved by CWD.

9. The City is specifically reserving its right to challenge the determination by the ZBA, MADEP or the Applicant that the design of the construction and post-construction stormwater management systems satisfy the requirements of all applicable environmental laws.

Conditions and Supplemental Comments Related to Proposed Wastewater Management Treatment Plant

1. The City and the Applicant have engaged in discussions regarding the City’s concerns with the design of the proposed wastewater treatment plant to be constructed at the site of the Applicant’s proposed project. The Applicant has represented to the City that the City’s concerns will be addressed in the final construction documents for the proposed wastewater treatment plant (the “WWTP Construction Documents”). The Applicant shall submit the WWTP Construction Documents to MADEP for review and approval prior to construction of the plant, and the Applicant agrees to simultaneously provide copies of the WWTP Construction Documents to the City for the City’s review. The Applicant agrees to address the reasonable comments and requested improvements of the City based on the requirements of applicable environmental laws. The City is specifically reserving its right to challenge the determination by the ZBA, MADEP or the Applicant that the final wastewater treatment plant design satisfies the requirements of all applicable environmental laws. The concerns which the Applicant must address with respect to the proposed wastewater treatment plant in the WWTP Construction documents include, but are not limited to the following:

   a. The wastewater treatment plant design is based on “medium” strength wastewater. According to the MADEP, influent to newer treatment works often has higher waste load concentrations (especially TSS), likely due to lower water use fixtures. Calculations demonstrating that the design is capable of handling intermittent periods when there may be higher strength influent waste loads to the plant must be provided.

   b. The wastewater treatment plant as currently proposed will have three evaporator units, each at a capacity of 9,600 gallons per day (total design flow is 28,850 gallons per day). Disposal of full design flows will necessitate use of all three units with no redundancy. The design includes a treated water storage tank, which provides approximately two days storage of flows should there be an issue with any of the evaporator units. The capacity of the evaporator unit assumes that the units will operate continuously for 24 hours/day. It should be noted that the long operating hours of the evaporator units could potentially increase the risk of failure, and the repair time and/or lead time for equipment/parts will likely far exceed the storage time. Therefore, redundancy with a minimum of one (1) additional evaporator unit must be added to the proposed wastewater treatment plant. Additionally, spare
parts shall be kept on site, and there shall be a written contingency plan for operations when sustained high flows or loss of a treatment unit impact the continuity of the treatment and disposal system.

c. The design of the wastewater treatment plant includes an emergency power generator to provide power for operating the entire facility. However, there is no backup gas supply provided for the ENCON Thermal Evaporators which are gas fired units. The Applicant must either provide backup gas supply or a written contingency plan for disposal of treatment effluent water in the case of gas service disruption.

d. The design of the wastewater treatment plant includes a ventilation and odor control system. Since the entire wastewater treatment plant, including the primary and flow equalization tanks, will be enclosed in a building, a continuous gas monitoring system (H₂S, O₂, and combustible gas) must be installed in the treatment works space such that any unsafe conditions will result in an alarm notification to a continuously staffed area.

e. There is potential presence of trace volatile organic matter from pharmaceutical and personal care products ("PPCP") emitted from the evaporation process with respect to the wastewater treatment plant. Under certain weather conditions, the PPCP compounds could be transported to the water bodies via atmospheric deposition. The evaporation of treated sewerage within Zone A land is an unprecedented approach. Current state level air pollution regulations only cover emissions from permitted treatment facilities which are prohibited in Zone A lands. At a minimum, monitoring of evaporated vapor air quality including, but not limited to, VOC, SO₂, H₂S, DMS (dimethyl sulfide) must be implemented and vapor emissions must comply with MADEP limits.

f. The wastewater treatment plant’s treatment process can be impacted by inappropriate disposal of household chemicals. In addition, PPCP compounds could impact source water via atmospheric deposition as described in item 1(e), above. Therefore, a written “good house-keeping” practices must be prepared and implemented, and continued by any of the Applicant’s successors in interest, to prevent inappropriate disposal of household chemicals and PPCP compounds.

g. Since all the elements of the proposed wastewater treatment plant would be located in an enclosed space (under the parking garage), access to remove/replace any of the units is through a “knock-out wall.” The final design must include more details on when and how this access would be utilized, and a copy of said design must be provided to CWD.

h. The current design of the wastewater treatment plant requires periodic removal of screenings, wastewater sludge and evaporation residuals as well as storage/delivery of chemicals essential to the wastewater treatment process. The Applicant must demonstrate how these activities will be safely managed to prevent adversely impacting the Stony Brook, Stony Brook Reservoir, the City’s abutting watershed
land and any nearby Zone A land. Issues to consider with respect to these activities must include, but not be limited to:

i. the transfer of the wastes from storage tanks to the hauling tanker truck must be handled inside the buildings;

ii. designated containment area(s) must be designed to prevent spills during filling; and

iii. any wash down of spills must occur inside the building.

i. The proposed membrane reactor plant of the wastewater treatment plant includes a membrane clean-in-place system that uses chemicals such as sodium hypochlorite (NaOCl), hydrogen peroxide (H₂O₂), and citric acid to prevent clogging and scaling of the membrane. Provisions must be provided for proper handling these chemicals pursuant to pertinent hazard waste material disposal regulations.

j. Given that the proposed project is a residential facility and located in the Zone A of a public water supply, an immediate repair/replacement account with respect to the wastewater treatment plant must be funded and maintained by the Applicant, and any successors in interest, in an amount sufficient to quickly and fully address any issues which arise with the treatment works. Guidance developed by MADEP for establishing and funding this type of account should be followed.

2. The Applicant, and any of its successors in interest, must hire a licensed operator who monitor the operation of the wastewater treatment plant, and perform an inspection of the wastewater treatment plant at a minimum of once a month after the start of construction and operation of the plant and provide a report to CWD detailing what effects, if any, the wastewater treatment plant has had on the Stony Brook, the Stony Brook Reservoir, the City’s abutting watershed land and any nearby Zone A land. The exact parameters of such inspections will be determined at a later date and will be approved by CWD, and may be further amended by the CWD if necessary. The Applicant will provide a monthly inspection report to MADEP, the Weston Board of Health and CWD. If any impacts are identified by either the Applicant, or any of its successors in interest, or the City, the Applicant, or its successors in interest, must promptly prepare a remedial plan for addressing the impacts. Any such plan must be submitted to and approved by CWD.

Other Concerns

1. The City owns watershed land that abuts the Applicant’s land to the west, southwest, south and southeast. The Applicant’s proposed project will include the construction of a building that will contain 150 residential units. In light of the scale of this project, the likelihood of trespassers accessing the City’s property and illegally using the Stony Brook and Stony Brook Reservoir will increase once the project is completed, as the use of the Applicant’s land will change from an office use to a residential use that will accommodate hundreds of people. In light of this increased risk, the Applicant, and any of its successors in interest, must take the following measures to prevent trespassers from accessing the City’s property, the Stony Brook and Stony Brook Reservoir:
a. install and maintain signage and fencing at locations acceptable to CWD prohibiting access to the City’s property as well as the Stony Brook and Stony Brook Reservoir;

b. offer to lease to the City space on the proposed residential building for $1.00 per year for the installation of a video camera directed at the City’s property to assist in monitoring its land as well as the Stony Brook and Stony Brook Reservoir; and

c. include provisions in any and all agreements for and pertaining to the rental or purchase of units in the proposed residential building to be constructed on the Applicant’s land prohibiting renters and unit owners from trespassing onto the City property, and that any trespass onto the City’s property may result in eviction in the case of rentals units.