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Planning Department

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March 20, 2014

Ms. Alison Steinfeld
Planning Director
Town of Brookline
333 Washington Street
Brookline, MA 02445

Re: Proposed Residence of South Brookline 40B Development/Comments Regarding the Traffic Study for Hancock Village

Dear Ms. Steinfeld:

I attended the recent ZBA meeting on the Proposed Residence of South Brookline 40B Development and the recent traffic studies. I am writing to provide written comments.

I live at 45 Asheville Road in South Brookline with my wife and two children who attend the Baker School. Our home will be severely impacted by this project. As a registered professional engineer, I feel both the initial report and the corresponding peer review did not properly address some of the major issues that should have been part of a comprehensive study. These include:

1. Pedestrian Traffic and Safety was Completely Ignored

Hancock Village is currently home to dozens of families with small children. As a close abutter, I see these children playing in the green space that has been targeted for expansion/elimination. The elimination of the green space and the flood of additional families with small children will result in a crisis of "no place to play." The only suitable option is for children to play at the Hynes Field playground across the highly trafficked VFW Parkway. There are no crosswalks or walk signals in the most direct route walk to the playground as well as the extremely popular water park section of the park. I have seen almost daily occasions of children crossing the extremely dangerous four lane VFW Parkway during the summer months. Eliminating all open space will create an "attractive nuisance*," as children will now be enticed to cross an extremely dangerous roadway to get to the next closest open space for play. Below is a definition of an Attractive Nuisance Doctrine.

The Attractive Nuisance Doctrine provides that a landowner may be held liable for injuries to children trespassing on the land if the injury is caused by a hazardous object or condition on the land that is likely to attract children who are unable to appreciate the risk posed by the object or condition. The doctrine has been applied to hold landowners liable for injuries caused by abandoned cars, piles of lumber or sand, trampolines, and swimming pools. However, it can be applied to virtually anything on the property of the landowner.

In addition, pedestrian routes to and from Baker School and Putterham Circle and Hancock Village shopping centers were not part of the study and should have been addressed. Pedestrian safety should be of utmost concern and it is alarming that this issue was not adequately addressed in the reports.

2. The Study Area is not Adequate

The report ignores both the South Street intersection and Russet Road intersection with VFW Parkway. The VFW Parkway will be a major destination for most residents of Hancock Village. The South Street – VFW Parkway intersection is especially important for many reasons.

- I. This intersection has extremely short duration green lights for cars coming from South Street to either northbound or southbound on the VFW or crossing the VFW. The additional traffic will result in significant delays. Also, the expanded Bournemouth Hospital is definitely contributing to traffic at this location.
- II. The sight distance for cars traveling on the VFW Parkway in this area is extremely poor and there have been several traffic accidents at this location. I cross the VFW Parkway at this location every morning as I walk to the commuter rail, and I am aware of several occasions where the existing traffic light has been knocked over as the result of an accident and the granite curbing around the median island has signs of vehicle impact as well.
- III. The current crosswalk signal time is not adequate for pedestrians safely walk across all four lanes in a single phase. This leads to many people crossing against traffic.

3. Traffic Counts from only April 2012 are not Adequate

The study report only used traffic data compiled in April 2012 which the peer review provided was adequate. This assertion is incorrect. Beverly Road, from Zanthus Road to Independence Drive, switches from a bi-direction to a one-way road during peak morning and afternoon hours in the winter. As you can imagine, this has a significant impact on traffic in the study area. The

traffic study should have considered this circumstance when evaluating the project. Also, as noted above, the 2012 numbers do not capture the new traffic created by the expansion of Bournemouth Hospital.

4. Traffic Safety Analysis is not Adequate

The study report checked sight distances versus the posted speed limits. The peer review suggested using actual speed data to verify sight distances and suggested the 85th percentile as a design speed. I agree with the peer review that the actual speeds should be considered in evaluating sight distances. However, using the 85th percentile as the design speed will result in misleading values. Parking is allowed on public streets during the day and banned at night. The streets in the study area are so narrow that when cars are driving during the day they are forced to proceed with extreme caution in order to avoid head-on collisions. This would result in severely deflated average traffic speeds. During the evening hours, when vehicles are banned from on-street parking, there is noticeably a significant increase in vehicle speeds. When evaluating proper sight distances, the speed data for the 85th percentile, **during evening hours with on-Street parking banned**, should be used.

Also, in addition to getting crash data from the Brookline Police Department, the traffic study should obtain moving violation information for the Study Area. Speeding is a major concern for residents in the neighborhoods adjacent to Hancock Village, especially those with small children. During the occasions that Brookline Police monitors speed on my street it is not uncommon to see three, four or more vehicles pulled over and being ticketed at the same time. I believe the geometry of Hancock village roadways, with the extremely steep profiles, contributes to the tendencies to speed excessively in the area especially at the approach to the Russet Road and Asheville Road intersection.

5. The Trip Generation Data has been Presented in a Misleading Manner

The proposed trip generation of 1300 additional trips has been presented as a conservative estimation of increased trips that will only create a minor impact to existing traffic. According to the reports, there will be 192 new units with an estimated 1.8 vehicles per unit (see parking study data). This means there will be about 346 new vehicles calling Hancock Village home. If you divide 1300 by 346, it leads to 3.75 trips per vehicle. This seems extremely low. If you assume that the majority of people will travel to and from work, this will use up two trips per day. This means on average they will make less than one additional trip per day (leaving and coming uses two trips). Furthermore, since most of the residents will likely have children attending Baker School, there will be four trips per day just to drop off and pick up their children.

The majority of the new trips will occur at the Asheville Road entrance to Hancock Village. Based on the distribution of the new units, 900 new trips per day will affect Asheville Road; this will clearly result in a significant, negative impact on the street. 900 trips are equal to 1 vehicle per minute for 15 hours in a row. If this growth were representative of a 10% increase that would mean Asheville Road would see a car every 5 seconds non-stop all day long. This is an unreasonable burden to impose on residents. Typical increase is usually 1% per year. Is this development going to give us ten times this? Or more?

In addition, the intersection analysis is misleading. An intersection on Independence Drive will be so overwhelmed during peak hours that the Level of Service will drop to a LOS D. Below is a definition of LOS D.

Level of Service D: *approaching unstable flow. Speeds slightly decrease as traffic volume slightly increases. Freedom to maneuver within the traffic stream is much more limited and driver comfort levels decrease. Vehicles are spaced about 160 ft. or 8 car lengths. Minor incidents are expected to create delays. Examples are a busy shopping corridor in the middle of a weekday, or a functional urban highway during commuting hours.*

Generally, LOS D is considered an indication that the current streets are in serious danger of failing to meet traffic demands. Many cities and towns do not allow intersections to fall to LOS D as a result of planned expansion.

6. The Transportation Demand Management is Illogical

The TDM management recommendations suggest having more bike racks on site. This is inconsistent with the roadway design. The roads have been designed to be extremely narrow with steep grades and there are no bike lanes or shoulders to accommodate bike riders. A truly comprehensive traffic management plan would not only include bike racks, but have dedicated bike lanes, barriers to separate bikes from vehicles, stripping, etc., to promote alternate means of travel.

7. The Traffic Mitigation Options are Undefined

The peer review suggests traffic calming measures should be implemented at Asheville and Russet Roads, but does not make any suggestions as to what these should be. At a minimum a study should be conducted investigating the use of:

- **Narrowing:** Narrowing traffic lanes differs from other road treatments by making slower speeds seem more natural to drivers and less of an artificial imposition as opposed to most other treatments, which physically force lower speeds or restrict route choice. Such means include:

- Narrower traffic lanes — streets can be narrowed by extending the sidewalk, adding bollards or planters, or adding a bike lane or on-street parking.
- Curb extensions (also called bulbouts) that narrow the width of the roadway at pedestrian crossings.
- Chokers, which are curb extensions that narrow the roadway to a single lane at points.
- Road diets: actively remove a lane from the street.
 - Allowing parking on one or both sides of a street to reduce the number of driving lanes.
- Pedestrian refuges or small islands in the middle of the street.
- Vertical deflection: These include:
 - Speed bumps, sometimes split or offset in the middle to help emergency vehicles reduce delay.
 - Speed humps, parabolic devices that are less aggressive than speed bumps and used on residential streets.
 - Speed cushions, two or three small speed humps sitting in a line across the road that slow cars down but allows (wider) emergency vehicles to straddle them so as not to slow emergency response time.
 - Speed tables, long flat-topped speed humps that slow cars more gradually than humps.
 - Raised pedestrian crossings, which act as speed tables, often situated at intersections.
 - Changing the surface material or texture (for example, the selective use of brick or cobblestone).
- Horizontal deflection, i.e. make the vehicle swerve slightly. These include:
 - Chicanes, which create a horizontal deflection that causes vehicles to slow as they would for a curve.
 - Pedestrian refuges again can provide horizontal deflection, as can curb extensions and chokers.
- Block or restrict access. Such traffic calming means include:
 - Median diverters to prevent left turns or through movements into a residential area.
 - Boom barrier, restricting through traffic to authorized vehicles only.
 - Closing of streets to create pedestrian zones.

Traffic calming could also lead to the unintentional creation of unwanted hazards so each of these conditions need to be carefully studied in relation to a comprehensive traffic management plan.

The peer review suggests Independence Drive be reduced from four lanes to two lanes to mitigate danger to pedestrians. Route 16 in Wellesley was given as an example roadway. Anyone who lives or travels through Wellesley knows that Route 16 is a traffic nightmare during

the peak travel times. The best way to protect pedestrians and keep traffic moving is to not increase demand.

8. The Site Plan Review is Incomplete

The peer review suggests 1.4 parking spaces (or 1.8 depending on who you ask) are adequate. The review notes that there are not adequate spaces near the proposed residences, but overflow lots should accommodate parking needs. The report fails to discuss the dangers or relying on overflow parking to meet capacity demands. The current Hancock Village layout relies on overflow parking to meet demand. When residents are forced to walk long distances between parking and homes they tend to ignore parking restrictions and park on the edges of the road, especially to unload vehicles after shopping trips and to manage small children to prevent them from walking long distances. Today, this is very common on Asheville Road. Cars will park with hazard lights on and load and unload packages and children. This is a dangerous practice as the sight distance is limited and the roadway parking prevents two-way traffic on the road. If vehicles were parked on the shoulders during an emergency it could lead to critical delays in response time.

The peer review also failed to comment on the proposed 10% grades for the new roadways that will be required to access the high rise. The existing Asheville Road (or driveway depending on whom you ask) has an 8% +/- grade. During winter storms it is not uncommon to see several vehicles that cannot make it up the grade and are forced to slide back down. Since this is the only access point their only alternative is to back up and approach the road at a high rate of speed in hopes of propelling themselves up the road. The current speed limit is only 15 miles per hour. Most non-four wheel drive vehicles cannot make it up a grade of 8% with icy conditions at the posted speed limit. The proposed grade of 10% is only going to make the situation much worse. Safe driveway speeds for a driveway with a 10% grade is 10 miles per hour. This is 5 mph below the current posted speed limit that is completely ignored by the residents. A safe speed of 10 mph will be nearly impossible to enforce.

9. The Emergency Vehicles Studies are Incomplete

The emergency vehicle studies are woefully incomplete. The studies only looked at the new roads. The section of Hancock Village off of Asheville Road has a single point of entry, Asheville Road. The existing roads in the Asheville neighborhood are extremely narrow. The report says that Russet Road is 25 feet wide. Russet Road, as all the roads in the neighborhood, is lined with very large trees. These trees are so large that some are starting to encroach on the roadway. When cars are parked on these roads this width is reduced by approximately 6 ft. to 8 ft. per side depending on where cars are parked. When cars are parked on both sides of the road,

which is not uncommon, the roads are reduced to a single lane of alternating traffic. When snow is introduced into the picture the roads are further narrowed and it is not uncommon for the roads to become unpassable for even small vehicles. On many occasions in the winter I have heard cars blasting their horns to alert the residences that they have become stuck and cannot move forward or back. I'm certain that fire vehicles could become delayed in responding to emergencies due to traffic on the existing streets as well as the proposed narrow streets. Although this is an existing condition, I feel that the project would be putting more people needlessly and unknowingly in danger.

Thank you for giving me the opportunity to present comments. I would be happy to meet with you to discuss these important issues facing our South Brookline Community. If you have any questions, please let me know.

Sincerely,

A handwritten signature in blue ink that reads "William M. Varrell III". The signature is written in a cursive style with a distinct "III" at the end.

William M. Varrell, III, P.E., LEED AP