



July 28, 2021

**BY ELECTRONIC MAIL: [ayogurtian@belmont-ma.gov](mailto:ayogurtian@belmont-ma.gov)  
AND BY FIRST CLASS MAIL**

Belmont Zoning Board of Appeals  
Belmont Town Hall  
455 Concord Avenue  
Belmont, MA 02478

Re: Application for Comprehensive Permit – 91 Beatrice Circle, Belmont

Dear Members of the Board:

As you know, I represent neighbors and abutters to the proposed 12-unit Chapter 40B project at 91 Beatrice Circle in Belmont (the “Project”), including the Belmont citizens group, Build Wise Belmont. Since January, when this public hearing opened, we have commented extensively on a variety of project design issues, through our civil engineering consultant, John Chessia, P.E., and our traffic engineer, David Black. Despite numerous plan changes and critical commentary from the Board’s peer review engineer and the Belmont Planning Board, the Project still represents an over-utilization of its half-acre site, presenting a number of public safety and planning concerns. There are certainly ways to mitigate these impacts, including most obviously reducing the size and scale of the Project, which the Applicant has thus far resisted.

Since the Applicant is not voluntarily making the changes to its Project that would address the outstanding concerns, we respectfully suggest that the Board impose the necessary conditions on its comprehensive permit. Through this letter we are offering specific language that you can use for your “findings” and “conditions.”<sup>1</sup>

### **Proposed Findings for Comprehensive Permit**

#### **A. Site Design – Setback Nonconformities, Privacy and Protecting Trees**

1. The Project consists of 12 housing units and associated parking areas, driveways, and utilities on a half-acre of land, rendering it practically impossible to adequately mitigate the impacts on neighboring properties and the public way (Frontage Road).

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<sup>1</sup> This list of proposed condition is not intended to be exhaustive. Further, the proposed conditions as drafted would not exclude two-family structures on the Project Site. This should not be construed as the Neighbors’ assent or admission that two-family structures may lawfully be constructed on the Project Site, and the Neighbors expressly reserve the right to enforce the deed restriction encumbering the Project Site as set forth in Certificate of Title 271959 filed with the Middlesex South Registry District of the Land Court, which restriction also appears in the certificates of title of the land owned by many of the Neighbors.

2. The proposed 3-story townhouse building in the rear of the Site is over a hundred feet long, from end to end, and will be set back as close as 12 feet from the property line of Daniel and Valerie Devine at 37 Beatrice Circle. Proposed outdoor patios behind these units will be even closer to the property line. The Applicant is proposing to install noisy air-conditioning chiller units behind each unit, approximately 12 – 16 feet from the rear property line.

3. The Town's Noise Bylaw, Section 60-615(A) states as follows:

It shall be unlawful for any person at any location within the area of the Town to create any loud noise, or to allow the creation of any noise, on property owned, leased, occupied or otherwise controlled by such person, which causes the sound level when measured on any other property to exceed the greater of: (1) The maximum allowable exterior sound level outlined in Table I; or (2) Five dB over the background sound level.

4. Under Table I of the Noise Bylaw, the maximum allowable exterior sound level for residential areas is 55 dBA during the day, and 45 dBA at night. The Applicant suggested that it can comply with the Noise Bylaw because its condensers' sound levels will not exceed 45 dBA at the property line. This does not prove compliance with the Noise Bylaw, as it does not account for background noise; when factoring in background noise, the sound level at the property line could exceed 45 dBA if the condensers alone emit noise at 45 dBA. Under state law, sound levels cannot be increased more than 10 dBA above ambient levels, which was not established by the Applicant because the Applicant has not provided ambient sound readings at the property line.

5. As illustrated in the architectural plans, and in particular Sheet A13, the proposed 3-story townhouse building will loom over the neighbors at 29, 37 and 43 Beatrice Circle. Windows on the second and third floors of the building will be a mere 12 - 20 feet from, and facing directly into, the backyards of those abutters. In the underlying SR-A zoning district, buildings must have a 40-foot rear-yard setback.

6. There are a number of mature trees situated on the rear property line or adjacent to it on the neighbors' properties. Based on the latest site plans and architectural plans, excavation will likely occur to at least five feet below the existing grade in the location of the proposed townhouse building. The garage floor of the rear buildings appears to be at elevation 226' – 227', and this building will presumably require a slab foundation with footings that will be installed at least five feet below grade (i.e., 221 feet). The proposed townhouse building is set back between 12 and 20 feet from the rear property line.

7. The Devines filed a report from a Massachusetts Certified Arborist, Carl Cathcart, who inventoried 15 trees located on or near the rear property line. Mr. Cathcart opined that these trees will be negatively impacted ("at risk of fatality") by construction activity within the "critical root zones" of these 15 trees. Mr. Cathcart opined that the loss of these trees would result in a total economic loss of \$123,250.

8. On the north side of the Site, between the Project's 4-story building and Frontage Road, the Applicant's Landscape Plan and various sheets of its Architectural Plans show a dense swath of evergreen trees within the old Beatrice Circle layout. Many of those trees, however, will be removed or trimmed in order to provide the horizontal sight lines required for intersection sight distance at the Project's intersection with Frontage Road. MDM Memo, 4/26/21, Ex. 5. The trees will also be impacted by the proposed 6-foot sidewalk connecting the Project to the Frontage Road sidewalk.

9. Mature trees in this neighborhood serve a critical function of screening air pollution, particularly noise and motor vehicle emissions, from Route 2 – an eight-lane highway that is only 75 feet north of the Project Site. The loss of trees on land abutting the Project Site (the rear abutters and the old Beatrice Circle layout) will have a particular negative impact on existing residents on Beatrice Circle, who currently benefit from this natural buffer.

10. On the east side the Site, the Applicant is proposing a retaining wall that is set back just 2 feet from the property line of 105 Beatrice Circle, is over 80 feet long, and is 8 feet tall at its tallest point, with a 3.5' fence on top. The wall is designed to retain fill on the Project Site; the face of the wall will loom over the residence at 105 Beatrice Circle.

11. During the public hearing, the Board's peer review engineer, Jesse Johnson at Weston & Sampson, expressed concern about the structural stability of the wall. W&S Memo, 7/8/21, p. 4. Specifically, he opined that stormwater recharged through the infiltration system under the driveway will likely flow over the surface of the existing subsurface ledge towards the retaining wall, as the ledge will prevent the water from infiltrating. This could cause hydrostatic pressure behind the wall. Adding weep holes in the face of the wall is problematic as the wall is on the property line, and water would therefore flow onto 105 Beatrice Circle.

12. The Applicant refused to continue the public hearing or to engage a structural engineer to evaluate the concern raised by Weston & Sampson, and the Board is confined by Housing Appeals Committee precedent from conditioning its permit on a post-permit review and approval process.

13. The Zoning Bylaw imposes a maximum lot coverage requirement of 20% in the underlying zoning district. By the Applicant's calculations, the Project's structures will cover 29.9% of the Project Site.

13. The Applicant's shadow study reveals that the Project's tall buildings will cast shadows on the neighbors at 43 Beatrice Circle during the summer, and on 75 Beatrice Circle most of the year. See, Architectural Plans, Sheets A14 – A16.

14. Under Chapter 40B, the Board's comprehensive permit decision is evaluated under a "consistent with local needs" standard. Section 20 of the statute frames the "consistent with local needs" standard as weighing the need for housing against "the need to protect the health or safety of the occupants of the proposed housing or of the residents of the city or town,

to promote better site and building design in relation to the surroundings, or to preserve open spaces.” (emphasis added). The current design of the Project substantially deviates from the Zoning Bylaw’s rear-yard setback, building height, and maximum lot coverage requirements, resulting in predictable, material impacts on neighbors in the form of loss of privacy, loss of vegetative screening from Route 2, increased noise, and the casting of new shadows.

B. Site Design – Open Space

15. As noted above, an interest protected under Chapter 40B is the need to preserve open spaces. G.L. c. 40B, § 20.

16. Under the Zoning Bylaw, 50% of a development lot must be kept as “open area,” which excludes buildings and paved surfaces. By the Applicant’s calculations, only 38.3% of the Project Site will consist of open area.

17. All the proposed units will have 3 or 4 bedrooms, which will likely attract families with children, but none of the units have any dedicated yard areas for children to play outdoors, or even for adults to enjoy passive recreation. There is a small token lawn area on the west side of the Site, which in the Board’s view is inadequate for 12 large housing units. There are no public open spaces or outdoor recreational areas in Belmont within walking distance to the Project Site. The public park in Arlington (across Route 2) is a long walk from the Project Site, and the commute would require crossing the westbound “frontage road” in Arlington at an unsignalized crosswalk. Further, the perpetual existence of parks in Arlington cannot be controlled or assured by the Town of Belmont.

C. Parking Arrangements and On-Site Traffic Circulation.

18. The parking ratio for the Project is 1.75 spaces per unit, with no dedicated visitor parking spaces. Under the Zoning Bylaw, §5.1.2(a), dwelling units must provide a minimum of 2 spaces for each unit that has 2 bedrooms or more. The MBTA bus stop on Frontage Road is unlikely to temper demand for personal vehicle trips, as the bus stop is convenient for getting to the Alewife train station but not to most parts of Belmont, including our schools, parks, town offices, and retail amenities. The closest shopping and offices are a mile away, thus not within walking distance for most people.

19. There are several aggravating factors that will contribute to traffic congestion and traffic safety concerns on the Project Site and on neighboring streets:

- There is no “loading area” proposed for temporary vehicle trips from services like Uber and Lyft, grocery delivery services, take-out delivery, Amazon, etc., which will likely be even more frequent for the Project’s residents given that not every adult resident will have a car. Relatedly, the lack of a dedicated loading zone will generate conflicts when garbage trucks enter and exit the Site, and whenever anyone moves in and out with a moving truck.
- 12 of the 21 parking spaces are garage spaces that can accommodate only one

vehicle. Since the housing units have no attics, and there are relatively little storage areas, one can expect that the garages will be used for storage and that the outdoor parking spaces will be always occupied.

- There is no accommodation for visitor parking, which will likely result in visitors parking illegally on the Project driveway, or on residential streets in the neighborhood, including Beatrice Circle.
- There is very little recreation areas on the Project Site for children to play in, and therefore one should expect that children will play in the parking and driveway areas. The Applicant's landscape architect acknowledged this during the Board's hearing.

20. The Board heard testimony that the Project does not comply with the state Fire Prevention Code mandate that dead-end fire access roads in excess of 150 feet have an adequate turnaround area. See, 527 CMR Section 1 (NFPA § 18.2.3.4.4). The length of the driveway from Frontage Road to its western end is approximately 270 feet, and there is no turnaround area at the end of the driveway.

21. The driveway has a downgrade of 10% as it approaches a pedestrian crosswalk and Frontage Road with prevailing vehicle speeds of 50 MPH. There is no "levelling area" at the bottom of the driveway as is customarily required in the design of new streets and roads. This will likely present dangerous conditions in the winter when the driveway is coated with snow or ice.

22. The Applicant's reliance on the MBTA bus stop to serve the Project's transportation needs is overstated. The Board heard testimony during the public hearing from many of the neighbors that the sidewalk along Frontage Road is treacherous in the winter, and not safe for children year-round.

23. The Board finds that the Project will not provide sufficient vehicular parking, and without dedicated visitor parking and temporary loading areas for deliveries and pick-ups the Project's driveway will likely suffer from vehicular congestion which will present traffic safety concerns for drivers and pedestrians.

D. Intersection Safety

24. The Project's access is off of Frontage Road. The Board has received conflicting information as to whether Frontage Road is under local or state jurisdiction. Frontage Road is a service road to Route 2, providing direct access to an on-ramp to Route 2 eastbound. Frontage Road is a two-lane, one-way street, and vehicle speeds have been measured at around 50 miles per hour.

25. There are no state regulations governing minimum sight distances at intersections, but there are widely-accepted industry standards published in the manual "Geometric Design of Highways and Streets" by the American Association of State Highway and Transportation Officials ("AASHTO"). The Massachusetts Department of Transportation ("MassDOT") Project

Development and Design Guide, Chapter 3, contains a section on sight distances, and states that project designers should refer to the AASHTO Manual “for the use and calculation of sight distances.” § 3.7 (p. 3-37). The AASHTO standards have been accepted by state Housing Appeals Committee in Chapter 40B appeals as minimum criteria for public safety. See, *Washington Green Development, LLC v. Groton ZBA*, HAC No. 04-09 (Sept. 20, 2005).

26. The crest of Frontage Road is approximately 500 feet west of, and uphill from, the intersection. According to AASHTO standards, and as a matter of physics, drivers travelling along a steep downgrade require more time to decelerate or stop in order to avoid colliding with an object or another vehicle in its path, and consequently the minimum sight distance required under AASHTO for downgrade intersecting streets is longer than for flat streets or upgrade streets. See, AASHTO, *Geometric Design of Highways and Streets* (2018) (“AASHTO”), Table 9-5. The grade of Frontage Road at this location is between 7.2-8% (downgrade).

27. AASHTO provides a formula that calculates the minimum required stopping sight distance and intersection sight distance at intersections. Key input variables are the slope of the approaching street (i.e., Frontage Road) and the speed of existing vehicles in the travel lane into which vehicles from the Project will be turning. The Applicant initially represented to the Board that existing travel speeds on Frontage Road in front of the Site were 38 MPH, based on data collected using automated traffic recorders (“ATR”) placed in the road for a period of 48 hours. It was later discovered that one of the two travel lanes on Frontage Road was closed for construction during the period that the Applicant’s speed data was collected, making the results statistically irrelevant.

28. A group of neighbors retained a traffic engineer, David Black, formerly of VHB, and a third-party contractor, Accurate Counts, Inc., to collect speed data with ATR’s on January 26, 2021 and January 27, 2021. Mr. Black reported that the 85<sup>th</sup> percentile speed in the left-hand lane was 52 MPH, and in the right-hand lane, 47 MPH. The Board’s traffic peer review consultant, Kevin Santos, collected addition ATR-recorded speed data between April 13, 2021 and April 16, 2021. The 85<sup>th</sup> percentile speed as measured 450 feet west of the intersection (uphill) was 48 MPH; at the location of the proposed intersection, it was measured at 51 MPH, consistent with the data collected by Accurate Counts. Mr. Santos agreed with the Applicant’s traffic engineer’s use of 48 MPH as the “design speed” for purposes of making the sight distance calculations.

29. According to the Applicant’s traffic engineer, Robert Michaud, the minimum required Stopping Sight Distance (“SSD”) at this intersection is **455 feet** under AASHTO. The Neighbors’ engineer, David Black, re-calculated the minimum sight distance requirements using the more conservative 50 MPH as the design speed. Applying the AASHTO tables and equations, Mr. Black calculated the minimum required SSD for 50 MPH to be **510 feet**. The minimum Intersection Sight Distance (“ISD”) value is the same as the minimum SSD value, either 455 feet or 510 feet, depending on what design speed is used. AASHTO also has a “recommended” ISD value, which Mr. Black calculated using AASHTO’s equations as **573 feet**.

30. In his April 29, 2021 letter, Mr. Michaud claims that there is 475 feet of “available” stopping sight distance looking west, which he states was surveyed in the field. According to Mr. Black’s analysis, the Project would not have 500 feet of stopping sight distance, due to the crest in Frontage Road – as illustrated by the profile plan attached to Mr. Black’s June 10, 2021 Memorandum, the sight line would pass below the roadway surface. Therefore, the sight line is obstructed vertically, and the more-conservative 500-foot SSD standard cannot be met. Mr. Black opined that this is a significant deficiency with public safety implications.

31. In his April 29, 2021 letter, Mr. Michaud claimed that there is 475 feet of available intersection sight distance looking west. Under AASHTO, available ISD is the clear, unobstructed line of sight from a driver positioned 14.5 feet back from the edge of the paved surface of the approaching street (here, Frontage Road).<sup>2</sup> There are two dimensions to sight distance – horizontal and vertical. To be truly unobstructed, the horizontal sight line cannot cross over private property that the Applicant does not control, either through ownership or an easement. To prove that an intersection’s available ISD meets the minimum requirements of AASHTO, traffic engineers usually prepare a scaled sight-line diagram and roadway profile, illustrating that the available sight lines meet or exceed the minimum requirements, both horizontally and vertically.

32. Mr. Michaud’s scaled sight line diagrams attached as Exhibit 3 and 4 to his April 26<sup>th</sup> letter presents the “available” sight line approximately 8 feet from the travel lane of Frontage Road, not 14.5 feet, as required by AASHTO. Further, the sight line diagrams do not contain property boundary details, making it impossible to tell whether an appropriately-drawn available sight line crosses over the abutting property to the west, 75 Beatrice Circle. On May 4, 2021, the Applicant’s attorney supplemented the April 26<sup>th</sup> letter with a new sight line diagram, labelled “Exhibit 5.” This diagram appears to correctly measure the sight line from 14.5-feet back from the paved surface of Frontage Road. Even without the property boundary detail it is clear that the sight line, when measured 14.5 feet back from the street, crosses over 75 Beatrice Circle in order to achieve 475 feet of distance. As such, the Applicant has not proven that it satisfies the minimum ISD requirements of AASHTO, even using the lower design speed of 48 MPH.

#### E. Stormwater Management

33. Under the State Stormwater Standards, which are applicable because this Project will be discharging stormwater runoff into the public drainage system in Frontage Road, developers must make adequate arrangements for controlling stormwater runoff, including ensuring that runoff rates and volumes do not exceed pre-development conditions, and roughly maintaining the same balance between runoff and infiltration that occurs under existing conditions. To prevent runoff from exceeding pre-development rates, engineers design systems to infiltrate and detain stormwater on-site. Infiltration relies on suitable, pervious soils. The

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<sup>2</sup> AASHTO Manual, p. 9-43.

state's Stormwater regulations require developers to present soil data from at least two test pits for every infiltration system proposed.

34. As the Board's peer review engineer, Mr. Johnson from Weston & Sampson, noted, shallow ledge is prevalent across the Project Site, challenging the Applicant's ability to infiltrate stormwater runoff. The Applicant initially failed to present test pit data to the Board in the locations of the proposed infiltration systems. After it finally acknowledged that ledge was present just a few feet below the surface, the Applicant's engineer refused to change its model inputs to reflect that stormwater will not recharge through ledge. After further peer review comments from Mr. Johnson and the Neighbors' engineer, John Chessia, the Applicant's engineer corrected his stormwater model, but it is still dubious given that there will be just two feet of sand between the bottom of the infiltration chambers and ledge, resulting in a groundwater "mound" of nearly four feet. Mr. Johnson opined that recharged water will not dissipate as would normally occur in an infiltration system, because ledge is nearly impermeable.

35. As noted above, Mr. Johnson is concerned that recharged groundwater will cause hydrostatic pressure against the proposed 8-foot retaining wall along the eastern property boundary, which could cause the wall to prematurely fail. The Applicant did not adequately address this concern during the public hearing.

36. In its latest submittal on July 7, 2021, the Applicant's engineer provided what it called an "Off-Site Watershed Analysis," purporting to demonstrate that there will be no adverse impacts with the proposed connection of the Project's drainage to the network of catch basins and pipes in Frontage Road. However, the Applicant's report provided no analysis of the capacity of the drainage system within Frontage Road, including where that system eventually outlets.

37. The Applicant's attorney stated in a letter to Town Counsel dated June 18, 2021 that "no permission is needed from MassDOT to connect to the public drainage infrastructure in Frontage Road." However, because the Applicant has not undertaken a correct off-site infrastructure analysis, it has not explained where the Frontage Road ultimately discharges to. The Town of Belmont's GIS maps do not show any piping in front of 91 Beatrice Circle, but do show a network of pipes further down Frontage Road, which apparently connects to a system within the right-of-way of Route 2, a state highway.

38. The Project's direct connection to the Frontage Road system, whether managed locally or by the Commonwealth, triggers regulatory compliance with the federal Clean Water Act ("CWA"), administered by the EPA and DEP under the Municipal Separate Storm Sewer System ("MS4") program. The EPA and DEP jointly issued a "general permit" in 2016, which was modified in 2020, that lays out specific requirements that municipalities in Massachusetts must follow to prevent pollution in the "waters of the United States." Since the MS4 General Permit and its requirements are grounded in federal law, it cannot be waived through this Chapter 40B comprehensive permitting process. Zoning Bd. of Appeals of Holliston v. Hous. Appeals Comm., 80 Mass. App. Ct. 406, 412 (2011). One of key provisions of the MS4 General Permit is that all projects must comply with the State Stormwater Standards.



39. The Applicant's test pit data indicates that there are more suitable locations on the Project Site for infiltration. A project that required less excavation to allow for natural recharge into native soils that mimics existing drainage conditions could bring the Project into compliance with the State Stormwater Standards. A project with substantially less impervious areas would also reduce the demand for artificial recharge and the need for large, subsurface detention basins to modulate the rates of runoff into Frontage Road.

### **Proposed Conditions**

#### **Project Design and Intensity of Use**

1. All buildings and structures, including walls taller than 3 feet, shall be set back at least 30 feet from the rear property boundary (abutting 27, 37, and 43 Beatrice Circle). All buildings and structures, including walls taller than 3 feet, shall be set back at least 15 feet from the side property boundaries (abutting 75 and 105 Beatrice Circle). The front-yard setback requirement in the Zoning Bylaw is waived in its entirety.
2. No grading, compaction, excavation, or snow storage shall occur within 20 feet of the rear property boundary, and within 15 feet of the side property boundaries, to provide protection to the existing trees on or in close proximity to the property lines. Ground-level patios shall be set back at least 20 feet from the rear property boundary and 15 feet from the side property boundaries.
3. There shall be no HVAC or air conditioning condenser units or similar mechanical equipment within any setback areas defined above, or between any building and the side or rear property boundaries, or on a balcony or roof of any building. Any such condensers units shall be located on the north side of any building, and shall be screened with sound baffling and fencing. The Project and all of its mechanical equipment shall not cause noise levels to exceed 55dBA/45 dBA during day/night at the property boundaries.
4. The maximum lot coverage and minimum open area requirements in the underlying zoning district (20% / 50%) shall be complied with.
5. No residential building in the Project shall contain more than two units, and there shall be at least 25 feet of separation between buildings.
6. The residential buildings in the Project shall have a maximum height of 36 feet and 2.5 stories, as defined in the Zoning Bylaw.
7. There shall be no exterior balconies facing the side or rear yards.

Landscaping / Buffering

8. All exterior lighting at the Site shall be dark sky compliant and shall not allow spillover of light onto adjoining properties.
9. The Applicant shall implement the property boundary landscaping as shown on its final landscape plan submitted to the Board, with the following exceptions:
  - a) The row of 20 Emerald Green Arborvitae shall be modified to include a mix of the faster-growing “Green Giant” Arborvitae, Norway Spruce, and other dense evergreen species, and the Applicant shall consult with the Neighbor’s landscape architect in the final property line landscaping design.
  - b) A six-foot tall pressure-treated, western red cedar fence (unpainted and 3/4” thick) with diagonal lattice on the top shall be installed and perpetually maintained along the rear property boundary.
  - c) Parking areas shall be illuminated by ground-level fixtures, rather than the light poles shown on the Applicant’s landscape plan.

Parking

10. There shall be a minimum of two (2) off-street vehicular parking spaces per residential unit in the Project, and the dimensions of the spaces shall be at least 8 feet by 16 feet. In addition, the Project shall provide at least one visitor parking space for every third residential unit; if the number of units is not divisible by three, the number of visitor spaces shall be rounded up. There shall further be provided a separate dedicated temporary parking/loading area that can accommodate a “box” type truck like a UPS delivery vehicle or contractor’s van.

Intersection Safety

11. The sight triangle area shown on the plan labelled “Exhibit 5” and intended to be attached to the April 26, 2021 technical memorandum from MDM Consultants shall be graded and cleared of vegetation as necessary to provide clear sight lines within that sight triangle. The sight triangle area shall thereafter be perpetually maintained and kept clear by the Applicant and its successors to provide 500 feet of intersection sight distance measured from a point in the driveway 14.5 feet back from the edge of the paved surface of Frontage Road.
12. No building permits for the Project shall issue unless and until the proposed intersection improvements shown on the Applicant’s site plans (new crosswalks, flashing light, ramp and accessibility to the pedestrian bridge, etc.) are approved by MassDOT. No occupancy permits shall issue until said improvements are finally completed.

General Conditions

13. Consistent with the Town's obligations under the federal MS4 permit, no building permit for the Project shall issue until the Applicant has obtained the ZBA's approval of a Construction Management Plan, which shall address the following topics at a minimum:

i. Hours of construction

Construction and installation of the roadway and municipal services shall only occur Monday through Friday between the hours of 7:00 a.m. and 5:00 p.m., and Saturday 8:00 AM to 5:00 PM, and there shall be no construction activity on State or Federal holidays, provided that during the months of June through August, Construction Activities may continue until 7:00 p.m.

ii. Truck routes

number of truck trips  
hours of operation for truck trips  
size of and specification of trucks, and plans to mark truck with identification placards

iii. Trash and debris removal

iv. Construction Phasing and Schedule (critical path)

timing and phasing of construction  
site clearing; construction of roadways and utilities;  
buildings, etc.

v. Communications

(Emergency Contacts)

vi. Noise and Dust Control

Control Plan  
Mitigation Measures  
Monitoring  
Reporting  
Tree removal (chipping, etc.)  
Public street cleaning and repair

vii. Blasting (if necessary)

Blasting Plan  
Identification of petitioner's blasting consultant (if

- required by Fire Chief)
- Selection of independent blasting consultant (if required by Fire Chief)
- Selection of blasting contractor
- Pre- and post-blast survey (scope and content)
- Insurance coverage
- Blasting limits
- Notification to all abutters, and abutters to abutters within 300 feet of the Project Site of blasting schedule a minimum of two weeks prior to blasting activities.
- Road closures (if necessary)
- School bus conflicts (limits on hours)

- viii. Construction Staging
  - Staging areas
  - Site office trailers
  - Storage trailers/containers
  - Open storage areas
  - Delivery truck holding areas
  - Re-fueling areas
- ix. Traffic and Parking (during construction)
  - On-site locations
  - Off-site locations
  - Snow removal
  - Police details
  - Warning signs

(the “CMP”).

14. The Applicant shall at all times use all reasonable means to minimize inconvenience to residents in the general area. During construction, the Applicant shall provide means to secure the front entrance to the Site at appropriate times to protect against unauthorized entry or vandalism, and all construction materials shall be stored or stockpiled in a safe manner. Any floodlights used during the construction period shall be located and directed so as to prevent spillover or illumination onto adjacent properties. All construction activities are to be conducted in a workmanlike manner.

15. Blasting - Any rock blasting shall be performed by a licensed blasting professional, who shall first obtain all required permits from the Belmont Fire Department. All blasting and removal of debris shall be performed in accordance with state regulations and local Fire Department requirements, and the Applicant shall provide evidence thereof to the Fire Chief.

- a. Selection of the Blasting Contractor. A blasting contractor, acceptable to both the Applicant and the Belmont Fire Department, shall be selected after review of the qualifications of such contractor.
- b. Independent Blasting Consultant. If required by the Fire Chief, an independent geotechnical-blasting consultant shall be selected and paid for by the Applicant, subject to the approval of the Belmont Fire Department. The consultant shall review the qualifications of the blasting contractor, and review the final blasting plan prepared by the blasting contractor, check the calibration of the seismograph monitors, approve the location and installation of the seismograph monitors, and, if required by the Belmont Fire Department, determine the blast limits throughout the blast period, and shall consult with the Belmont Fire Department as needed throughout the blasting period.
- c. Pre-blast Survey. Before any blasting on the Site, the Applicant shall conduct a pre-blasting survey that shall include video-recording of the foundations of all direct abutters to the Project, and shall provide copies of that survey to the ZBA, Fire Chief and each abutter upon request. See Condition 16 below.
- d. Insurance Coverage. The blasting contractor shall carry comprehensive public liability insurance in the amount of not less than \$1,000,000 for property damage in respect of any one occurrence and \$2,000,000 aggregate. A certificate shall be submitted to the Belmont Fire Department by the contractor documenting that the required coverage will be in force for the duration of the blasting at the site. If there is a general contractor or developer associated with the blasting, each shall carry a minimum of \$1,000,000 of comprehensive liability insurance.
- e. Blasting Limits. The Commonwealth of Massachusetts blasting limits shall be observed. However, if, based upon the recommendation of the independent blasting consultant, the Belmont Fire Department feels that a lower limit is necessary to protect the site and the abutting residential neighbors, that lower limit shall be in effect.
- f. Notification. Not less than two weeks before the commencement of any period of blasting, the Applicant shall notify the immediate abutters within 200 feet of the blast area, stating when the blasting period shall begin. Notification under this provision and under any other provision in the Comprehensive Permit shall be by the following three methods: (1) phone or in person; (2) by email; and (3) by letter. Such notification shall include an explanation of the warning procedures for blasting, including soundings. The Applicant shall send another letter notifying the same abutters that the blasting period has been completed. In addition, the

Applicant shall notify the Fire Department 30 minutes before each blast, and a Fire Department detail is required for every blast, who shall be certified by the Fire Academy regarding the requirements of the state blasting regulation.

g. No perchlorate shall be used during blasting at any time.

16. Prior to commencement of demolition or site preparation of the Project, the Applicant shall conduct a pre-construction video survey to document the preexisting condition of each of the five abutting neighbor properties (including interior and exterior foundations), provided that the owners allow access to enable conducting said survey, and the Applicant shall provide a copy of said survey to the owners prior to the commencement of site preparation for the Project. The Applicant shall be liable for any damages to abutting properties caused by construction activities;
17. During the excavation phase of the Project, Applicant shall install seismic monitoring devices along each property boundary. Data shall be collected on a daily basis during all excavation activity. Data records shall be promptly filed with the Belmont Building Department and kept by the Applicant for a period of at least one year after the issuance of the final certificate of occupancy.
18. No areas shall be left in an open, unstable condition longer than sixty (60) days. Bare ground that cannot be permanently stabilized within sixty (60) days shall be stabilized by annual rye grass following U.S. Natural Resource Conservation Service procedures. Final stabilization shall be accomplished by loaming and seeding exposed areas. Disturbed areas shall be brought to final finished grade and stabilized permanently against erosion as soon as practicable.
19. Prior to the commencement of site preparation activities, the Applicant shall post cash, a bond or enter into a Tri-Party Agreement with its construction lender in the amount of \$25,000 to provide surety to the Town in the event that the Project Site is disturbed, cleared, grubbed, etc. and abandoned in a state with insufficient erosion control, site stabilization or interim stormwater management. The surety shall be released by the Board upon completion of the driveway to base gravel course and all other infrastructure.
20. The Project's stormwater management arrangements must conform to State Stormwater Standards and Belmont's Stormwater Bylaw in its entirety.
21. No grading, land disturbance, or construction shall commence until the Applicant or MassHousing has supplied the Board with written evidence of an executed Regulatory Agreement under the qualifying subsidy program. The Permit granted by this Decision shall lapse and become void and shall be considered without force or effect if the Applicant or MassHousing does not supply the ZBA with such written correspondence.

22. The Applicant shall not enter onto anyone else's property without obtaining the necessary permission or legal right to do so, in advance.
23. Each condition in this Decision shall run with the land and shall, in accordance with its terms, be applicable to and binding on the Applicant and the Applicant's successors and assigns.
24. Prior to the issuance of any building permit, the Applicant shall:
  - a. Deliver to the ZBA revised site plans, architectural drawings, and landscaping plans for the Project that conform to the conditions and terms of this Decision, which will be subject to the review and approval by the ZBA for consistency with this Decision. The revised plans, as may be approved by the ZBA, shall be referred to as the "Final Plans."
  - b. Deliver to the ZBA for all buildings shown on the Final Plans providing a scaled depiction of the front, rear and side elevations, duly sealed and signed by an architect registered in the Commonwealth of Massachusetts.
  - c. Deliver to the ZBA full and detailed landscaping plans duly sealed and signed by a Landscape Architect registered in the Commonwealth of Massachusetts that show suitable on-site landscaping and screenings, shade trees as well as the type and number, size and location of all proposed landscaping materials.
  - d. Deliver to the ZBA and the Building Inspector final and detailed utilities plans and profiles including properly labeled drainage components and all site utilities; electric, gas, water supply wells, water supply lines, wastewater disposal systems and appurtenances and dwelling unit connections thereto, and to the detail required to obtain a building permit in accordance with the State Building Code.
  - e. Deliver to the ZBA and the Building Inspector final and detailed plans and profiles prepared and duly sealed and signed by a structural engineer. Final plans shall be delivered to the Building Inspector for review to determine if they are in conformance with this Decision and after any necessary peer review paid for by Applicant prior to issuance of building permits. Copies of the final approved plans shall be filed with the ZBA.
  - f. Deliver to the ZBA a written submission describing all easements and covenants affecting the use of the Site, referring to such covenants and locating such easements on a site plan. The Applicant shall submit any written or recorded instruments granting or agreeing to such easements and covenants.
  - g. Deliver to the Town of Belmont Fire Department a fire access plan for review and approval by the Fire Department as required under 527 CMR 18. A copy of the

fire access plan shall be delivered to the ZBA.

- h. Provide to the Building Inspector a final Stormwater Pollution and Prevention Plan to address specific sedimentation, erosion and dust control, which illustrates, at a minimum, locations of measures such as hay socks, silt fence, sedimentation basins, and all other erosion controls on the plans, and provides detailed construction sequencing and methods to protect the infiltration capacity of each infiltration system.
  - i. Obtain a National Pollutant Discharge Elimination System General Permit (NPDES) from the United States Environmental Protection Agency, as necessary for construction of the Project at the Site.
  - j. Provide procedures that outline the specific operation and maintenance measures for all stormwater/drainage facilities, including any temporary facilities that shall be employed to minimize or eliminate the threat of transmission of mosquito-born diseases to the residents of the Project and nearby residents.
25. Prior to the occupancy or use of any building constituting a part of the Project, the Applicant shall submit to the ZBA "As-Built Plans" showing all pavement, buildings, drainage structures, landscaping, and other infrastructure as they exist on the Site, above and below grade, including appropriate grades and elevations. The As-Built Plans shall be duly sealed and signed by a registered land surveyor or civil engineer certifying that the Project as built conforms and complies with the conditions of this Comprehensive Permit. Nothing herein shall prohibit the issuance of an occupancy certificate for one or more buildings constituting a portion of the Project, subject to the approval of the Building Inspector.
26. Prior to the occupancy or use of any building constituting a part of the Project, the Applicant shall submit to the ZBA and the Town Engineer accurate as-built utilities plans and profiles, showing actual in-ground installation of all utilities, copies of which shall be submitted to the Belmont Department of Public Works after completion of construction.
27. During construction, no run-off shall be directed down the driveway onto Frontage Road or onto abutting properties. The following conditions shall be implemented by the Applicant during construction:
- a. Maintain the construction site free of dust that would create a hazard or nuisance to adjacent properties.
  - b. Trucks hauling debris shall be covered and wet down as required to minimize dust. Spillage on roads shall be cleaned up immediately, and overloading trucks, which may contribute to spillage on haul roads, is prohibited.



- c. Maintain any drainage or sediment controls in good working order (hay bales, silt fencing, etc.). Inspect all drainage and sediment controls prior to and immediately after, any storm event.
  - d. Frontage Road shall be swept clean of dirt, sediment, construction debris, etc., at the end of each workday.
- 28. Covered dumpster(s) shall be used during construction to keep debris within the Site, and the Applicant shall be responsible for the prompt removal of any debris which escapes enclosure. Use of the dumpster(s) shall be limited to the duration of the active construction period.
- 29. All fill used in connection with this Project shall be clean fill, as approved by the applicable Town of Belmont department or official with jurisdiction. No fill shall contain any trash, refuse, rubbish or debris, including, but not limited to: lumber, brick, asphalt, plaster, wire, lath, paper, cardboard, pipe, tires, ashes, appliances, motor vehicles or any part of the foregoing. Any fill subject to specialized disposal in conformance with current environmental criteria shall not be used.
- 30. Prior to issuance of building permits, the Applicant shall conduct a hydrant flow test to determine available flow and pressure to fight a fire, and provide the results of such test to the Water Superintendent and Fire Chief. In the event that there is insufficient water pressure or volume for fire protection, plans shall include on-site improvements such as a fire pump or off-site improvements to the municipal water distribution system as required to maintain a residual pressure of 20 psi in the municipal water distribution system. If any such additional site improvement proves necessary, the Applicant must obtain the Board's approval for a modification of the Permit and the Final Plans. The procedure for flushing, disinfecting and pressure testing of the water mains shall be approved by the Town's Water Superintendent.

Tree Protection

- 31. The following conditions must be adhered to prior to any construction activities and during construction:
  - a. The Applicant shall stake the perimeter of the Site every ten feet a few inches inside the property line.
    - i. No part of the stakes along the perimeter shall be on abutters' properties.
    - ii. Trees straddling the property line shall be assumed to be jointly owned by the Applicant and the abutter. The perimeter stakes shall be installed on the Applicant's side of jointly owned trees, entirely on the Applicant's property.
  - b. The Limit of Work is the limit of grading and general excavation. No

construction staging or stockpiling of equipment or materials shall be placed outside the Limit of Work.

- c. The Applicant shall install a Limit of Work fence at the limit of grading and excavation as shown on the Final Plans, which shall conform with the Conditions of this Decision. The fence shall prevent debris from exiting the Site and shall prevent trespassers from entering the Site. The fence shall be inspected and approved by the Building Inspector prior to construction for conformance with this Decision.
- d. No grading or excavation shall disturb, or undermine the ground of, the adjacent properties. The Applicant shall adjust plant locations whenever existing roots are encountered during excavation for root balls.
- e. No work of any kind shall be permitted outside of the Limit of Work line, either above or below ground, except for the landscaping improvements shown on the Final Plans.
- f. Any excavation proposed within 50 feet of the trunk of the 50" (DBH) Northern Red Oak located near the rear property boundary on the land of 37 Beatrice Circle shall be performed using an air spade, either directly by or under the guidance of a Certified Arborist. In the event that roots are encountered within said 50-foot area, the Applicant's Arborist shall prepare a plan for preserving the roots or minimizing cutting in such a manner that will not threaten the overall health of the tree, and such plan shall be provided to the abutter's Arborist, Carl Cathcart, for review and comment prior to any root cutting or removal.
- g. During construction of the Project, any exposed roots within thirty (30) feet of the property line shall be protected as directed by a Certified Arborist.
- h. The Applicant shall use an air spade to excavate for plant pits for any plantings proposed within ten (10) feet of the property line where there are existing trees within 20 feet. In the event roots are encountered, applicant shall adjust planting locations in the field to minimize existing root disturbance.

Very truly yours,

*/s/ Daniel C. Hill*

Daniel C. Hill

cc: David Lyons, Esq. (by email)  
Jesse Schomer, Esq. (by email)