Notice of Intent

96 Lake Avenue
Newton, Massachusetts

NARRATIVE

Existing Site Conditions

The subject property is located on the easterly side of Lake Avenue approximately 250 feet to the east of the intersection of Crystal Street. The property is located within the Single Residence 2 (SR-2) Zoning District as depicted on the City of Newton Zoning Map. According to the City Assessor's Maps, the Site is comprised of approximately 12,000± s.f., of which nearly the entire property would be considered upland area. The property abuts Crystal Lake to the south and a portion of the 100' buffer to the Lake extends into the property to approximately the midpoint of the existing structure. The limit of the lake is clearly defined by an existing retaining wall along the rear of the property.

The property has previously been improved and contains a single-family dwelling, driveway, walkways, concrete patio, utility connections and other associated site features. The existing dwelling has been vacant for approximately 20 years and has extensive water damage due to poor drainage around the structure and building has been completely permeated by mold. The site slopes generally from front to back towards the lake. The front portion of the site where the existing structure is located slopes gently towards the lake and the property drops much more steeply from the rear of the existing concrete patio behind the structure, down to the lake. This slope has been improved in the past with existing stone stairs carved into the slope along with many existing trees and landscape features. The slope flattens out at the bottom, nearer to the lake, where there is a fence along the top of the stone retaining wall with a patio, sitting area and a simple flagstone walkway. Areas of invasive Buckthorn vines were noted on the westerly side of the site, approximately near the 25' buffer and on the easterly side growing into an existing maple tree along the property line.

Proposed Development

The proposed project includes razing the existing structure to eliminate the mold concerns and reconstructing a new smaller building in its place. The 100-foot buffer zone to Crystal Lake runs approximately through the midpoint of the proposed structure. Also proposed is a new driveway location, landscape improvements (see Landscape Plans) and reconnection to the existing site utilities as necessary, some of which are outside of the 100-foot buffer zone.

Currently there are no stormwater controls on site. Roof runoff is directed into roof drains which daylight at various points along the slope behind the dwelling, creating small areas of erosion and destabilized slopes. The proposed development will contain a subsurface infiltration system in the northwesterly corner of the property where the majority of the roof runoff will be directed. Flows from a rear roof deck area will be directed into a 2' x 2'

infiltration trench which will allow overflow from larger storm events to be directed to the existing retaining wall where a large portion of the roof runoff currently flows to. Since only flow from larger storm events will be directed here, the frequency of runoff to this area will allow the area to stabilize and eliminate some erosion in that area. Additionally, a small depression will be created at the outlet and some native shrubs will be planted in this area to help stabilize the slope. A shallow vegetated swale will provide recharge and direct this overflow towards the lake as it currently flows now. The overall impervious site coverage will be reduced with a smaller building footprint, including the removal of the existing rear porch and concrete patio which will be replaced with a new permeable blue stone to the rear of the new structure.

Closer to the Lake, the site currently has a small 5'x6' paver patio at the top of the stairs which lead up to the top of the retaining wall along the lake. The Applicants have proposed to remove this patio area and re-plant with native ground cover and flagstone stepping stones to provide access to the lake. A new oval patio area approximately 9' x 8' has been proposed adjacent to the existing patio, in an area where chairs have historically sat on the ground. As mitigation for this relocated patio, native plantings and shrubs have been proposed along the easterly and westerly property lines and low ground cover along the wall near the lake to supplement the existing vegetation within the 25' buffer. The existing invasive buckthorn plants currently existing in this area will be removed from the site and disposed of in a licensed facility or other appropriate manner. Additionally, the site currently has no recharge for any stormwater running off the existing impervious areas; as part of the proposed improvements, two infiltration areas will be constructed to infiltrate stormwater from the proposed roofs on site, which will substantially reduce the volume and peak rates of runoff from the site.

A stockpile area has been shown in the front left side of the site and orange snow fence has been proposed 10-15' from existing trees which are to remain. This will ensue the majority of the root system will avoid exposure to compaction and the tree itself is protected. A small concrete washout area is shown in the front right corner of the site and construction access to the rear of the property will be along right or westerly property line to allow the mature trees on the easterly property line to remain. A contiguous line of silt sock has been shown along the entire limit of work and a line of silt sock and silt fence has been located generally along the top of the slope to contain any sedimentation from the house constructions where the majority of the construction will occur at the top of the slope. The silt fence will provide additional protection to avoid erosion and provide an elevated barrier to be more visible to contractors during construction.

Compliance with the Massachusetts Wetlands Protection Regulations

The proposed work will protect the interests of the Wetlands Protection Act and will not have any adverse impacts or adverse consequential impacts on Crystal Lake or its 100 ft-buffer zone. Standards for work within the buffer have been set forth in Act under 310 CMR 10.53(1) which states: "*If the Issuing Authority determines that a Resource Area is significant to an interest identified in M.G.L. c. 131, § 40 for which no presumption is*

stated in the Preamble to the applicable section, the Issuing Authority shall impose such conditions as are necessary to contribute to the protection of such interests. For work in the Buffer Zone subject to review under 310 CMR 10.02(2)(b)3., the Issuing Authority shall impose conditions to protect the interests of the Act identified for the adjacent Resource Area. The potential for adverse impacts to Resource Areas from work in the Buffer Zone may increase with the extent of the work and the proximity to the Resource Area. The Issuing Authority may consider the characteristics of the Buffer Zone, such as the presence of steep slopes, that may increase the potential for adverse impacts on Resource Areas. Conditions may include limitations on the scope and location of work in the Buffer Zone as necessary to avoid alteration of Resource Areas. The Issuing Authority may require erosion and sedimentation controls during construction, a clear limit of work, and the preservation of natural vegetation adjacent to the Resource Area and/or other measures commensurate with the scope and location of the work within the Buffer Zone to protect the interests of M.G.L. c. 131, § 40. Where a Buffer Zone has already been developed, the Issuing Authority may consider the extent of existing development in its review of subsequent proposed work and, where prior development is extensive, may consider measures such as the restoration of natural vegetation adjacent to a Resource Area to protect the interest of M.G.L. c. 131, § 40. The purpose of preconstruction review of work in the Buffer Zone is to ensure that adjacent Resource Areas are not adversely affected during or after completion of the work."

In order to ensure that the wetland resource areas are protected and buffer zone can function properly to provide protection to the resource area, erosion controls consisting of silt sock around the entire limit of work and a combination of silt sock and silt fence at the top of the steeper slopes to the rear of the structure will be installed. This will provide better protection against erosion and sedimentation on and below the slope and better visibility to contractors working on site to ensure the erosion controls are protected and the areas with steeper slopes will not be impacted. Stockpile areas have been shown towards the front of the site with silt sock set 10'-15' from existing trees which are to be saved and an orange construction fence has been proposed in front of the silt sock to ensure the trees are not damaged during construction.

The impervious areas on site will be reduced with the smaller house footprint, the removal of the poured concrete patio behind the house and its replacement with a new pervious paver patio. Stormwater recharge BMP's have also been proposed to infiltrate roof runoff, further reducing the volume and peak rates of runoff from the site. This will all result in a reduction in the amount of stormwater that will be directed towards the slope to the rear of the dwelling and therefore reduce the potential for any erosion or sedimentation of this slope to impact Crystal Lake.

To the extent possible, all trees with calipers over 6" will be protected on the site. A few smaller trees on the west side of the structure and some over grown shrubs which are up against the existing structure and predominantly outside of the buffer zone will be removed to allow for construction and access to the rear of the structure. Additionally, some areas where invasive buckthorn was observed have been noted on the plan and will be removed as part of the mitigation for the patio relocation. This will help improved

the health of the buffer zone both now and in the future and help maintain any existing wild life habitat on the property.

City of Newton 25-Foot Naturally Vegetate Buffer Policy

Work within the 25' buffer consists of removing old deteriorated fencing and replacing with new 42" high fencing, repairing the existing wall and step along the lake with non-toxic mortar to fill voids and relocating existing patio and walkway to the east of its current location. As mitigation for this work, the Applicant has proposed native plantings to restore some of the buffer area which has been removed over the years along the easterly and westerly property lines. Additionally, as previously mentioned, some instances of buckthorn which were noted in the area of the 25' buffer and near the side property lines will be removed from existing trees before further damage can be done to the existing vegetation. The existing patio at the top of the stairs from the Lake will also be removed and replaced with low native ground cover plantings and flagstone pavers. Other lower perennial plants or shrubs have been proposed in the area of the patio and along the wall by the Lake. The vegetation in the lower area along the Lake will be maintained as it is and supplemented with additional native plantings. See attached Landscape plans for more information on plants and patio construction, etc. No grading or tree removal is proposed in this area, all work with be limited to previously cleared areas which have historically been used for sitting areas on this site to enjoy the beauty of the Crystal Lake.