

GREGORY LOMBARDI DESIGN

Landscape Architecture

25 February 2021

30 December 2020

Town of Lakeville
346 Bedford Street
Lakeville, MA 02347

RE: Lakeville Hospital Redevelopment – Peer Review
43 Main Street, Lakeville, Massachusetts

To whom it may concern,

Based on the letter provided by IBI Group, dated February 10, 2021, the team feels comfortable refining the documents accordingly and as noted below. We feel this process will provide the town of Lakeville with a beautiful natural landscape that can be a benchmark for future projects.

Compliance with Lakeville Zoning By-Laws

1. Section 5.2.4.1 requires a buffer strip to provide visual and acoustic screening for adjacent Residential Districts. It remains difficult for us to assess the effectiveness of the proposed berm as a visual screen without knowing the elevation of the adjacent residential lots; however, the applicant has taken substantial steps to achieve a visual screen through the lowering of the building's finish floor, the raising of the top of the western berm, and increasing the amount of planting on the berm. The steepening of the side slopes of the berm to a 2:1 un-mowable slope will need to be addressed (see item # 1 in the next section).

VHB Response: Section 5.2.4.1 requires a buffer strip of no less than forty (40) feet wide adjacent to Residential Districts. The provided buffer strip is more than one-hundred (100) feet wide and includes a landscaped berm ranging in height from 14'-23' with an 8' tall fence equipped with Acousti-Fence atop the berm. Topographical information within 200' of the property line based on publicly available LiDAR data found on MassGIS is included on Sheet C3.00 .

2. Section 5.2.4.2. requires the positioning of lights to be such that it is not offensive to any adjacent abutter.
 - a. The photometric plan indicates that the lighting of the eastern entry drive spills light across the roadway and into the adjacent property at levels up to .7 footcandles, which is close to the industry-wide recommended light level for walkways of 1.0 footcandles. While there appears to be no current use of the site that would find the light offensive; future development may find the light problematic. We recommend that the selected cut-off features of the fixtures be adjusted to avoid light trespass onto the adjacent property.

GLDI Response: Agreed. A revised photometric will be submitted.

- b. While light trespass does not occur on the ground plane at the west side of the property adjacent to the residences, the visibility of the lighting from the adjacent residential lots cannot be assessed without the information noted in item #1 above. An understanding of the time periods for lighting will also be important; we recommend that information regarding the proposed timing for lighting, especially indicating any fixtures that will be illuminated in the 11 pm to 7 am time range be provided.

GLDI Response: The lighting will be planned to be on to ensure operational safety. Specific times will be determined by the operational aspects of the tenant.

- 3. Section 6.7.1.4 requires the protection of environmental features on the site and in adjacent areas. For the protection of all existing trees to remain—woodland edges, clumps of trees, and free-standing individual trees—it is important that all plans document the means of tree protection along with the requirement for tree protection to remain for the entire duration of construction activity.

- a. Nine trees along Main Street are identified on the Planting Plan to be protected with a fencing symbol. This is not included on the grading plan; leaving the trees vulnerable during site grading. The addition of this symbol to the legend on both sheets identifying the required fencing material, its placement 12" beyond the dripline, and the duration of its use is recommended to ensure the protection of these trees as well as for any other free-standing individual trees to remain.

VHB Response: The Erosion and Sedimentation Plan (Sheet C5.00) indicates straw wattle and silt fence to be located around the entire limit of work of the Project. These erosion controls will be installed prior to the commencement of any earth disturbing activities. However, to be responsive to this comment, the erosion control line will also be shown on the grading plan in the March 2021 Revised Site Plans.

- b. The limit of tree removal indicated on the plans is not accurate in some portions of the site due to the use of right angles to connect existing and proposed grades. The actual incorporation of proposed with existing contours will require additional space, requiring the removal of additional existing trees and vegetation. We recommend that the grading and the limit of tree removal be revised to provide a clear indication of the limits of removal.

VHB Response: The proposed site grading has been designed using AutoCAD Civil 3D modeling methods. There are many benefits to using 3D modeling to design site grading, including accuracy of earthworks calculations, improved pipe conflict detection, improved ADA/AAB accessibility detection, and many others. Unfortunately, a limitation of the using 3D modeling for site grading is the technology is not yet available to display rounded/smooth tie-ins between existing and proposed contours and therefore the proposed contours are shown to tie into existing contours at various sharp angles. There is sufficient space between the limits of grading and the proposed tree line to allow for smooth connection between existing and proposed conditions and VHB does not anticipate this level of fine grading the perimeter of the project to significantly impact the proposed tree line depicted on the Site Plans. A

note will be adding the grading plans included in the March 2021 Revised Site Plans indicating "All perimeter site grading shall be tied into existing conditions by use of smooth transitions." As noted in the response to Comment #3a included herein, erosion controls will be installed at the limit of work for the entire project, as shown on the plans, prior to any earth disturbing activities.

- c. We recommend that the means of tree protection for woodland edges to remain be clearly marked on all plans, and that it be stated that the protection remain in place throughout the entire period of construction activity. The straw wattle/silt fence shown on the Erosion and Sedimentation Control Plan will adequately serve as tree protection for the woodland edges to remain; however, the plan only requires it to be maintained until the area has been stabilized. We recommend that it be maintained for the duration of construction activity. In addition, a gap in the proposed straw wattle/silt fence east of the eastern stormwater infiltration basin leaves adjacent woodlands unprotected. For this area, we recommend that a tree protection line be established by an orange construction fence. We recommend that the line of tree protection should be shown and labeled on all plans.

VHB/GLDI Response: The straw wattle/silt fence will be extended to align with the limit of work, including those areas shown off the property. Orange construction fence shall be illustrated on all plans.

- d. The straw wattle/silt fence/tree protection line location on the planting plans does not match that shown on the Erosion and Sedimentation Control Plan; no line is shown at all on the grading plans. We recommend that the location of the tree protection line on the Erosion and Sedimentation Control, planting and grading plans be coordinated, and the straw wattle/tree clearing/tree protection line be included and labeled on all plans.

VHB Response: The straw wattle/silt fence/tree protection lines have been coordinated and be add to the grading plans included in the March 2021 Revised Site Plans.

4. Section 6.7.1.5 requires the management of stormwater runoff. A bit more coordination of the Planting Plan with the Gravel Wetland detail on C6.03 is needed. The Planting Plan calls for the planting of woody plant material and Ernst Seed's Showy Northeast Native Wildflower & Grass Mix on slopes above the gravel wetland, while detail C6.03 calls for Ernst Seed's New England Conservation seed mix on upland slopes

GLDI / VHB Response: Detail shall be coordinated.

5. Section 6.7.2 requires applications to include trees to be removed and retained. There is extensive removal of trees across the site. The extent of removal is not clearly 3 communicated on any plan. We recommend that a limit of clearing plan that shows all trees to be removed be provided.

VHB Response: Given the size of various wooded areas under existing conditions across the 49.5± acre site, it is infeasible to label individual trees across the property that will be removed or are to remain. It is expected that all existing trees and wooded areas within the limits of work/erosion control will be removed. The site plans will continue to label general areas and limits of trees that will remain. The limit of work is denoted by the limits of erosion control line as shown on the Erosion and Sedimentation Control Plan (Sheet C5.00).

6. Section 7.6.4.2 requires no more than 60 percent of parking areas be located between the façade of the building and the primary public right-of-way unless it is screened. As noted in the December 3, 2020 peer review letter by Environmental Partners, the proposed project contains 74% of the vehicular parking between the proposed building and Main Street under full build conditions, thereby requiring screening of the parking from the public way. The revised grading and planting provide the desired screening of the views of the parking areas from Main Street, except at the entry drive where the berm will not help screen the parking in the initial view of the site. The shifting of the evergreen *Myrica pensylvanica* to this location in lieu of the proposed deciduous *Clethra* and *Lindera* and perennial asters will provide the desired screening. We note that Section 1 on L3.00 has not been updated to communicate this improved screening provided by the berm and planting.

GLDI Response: Section shall be updated.

Compliance with Industry-wide Best Practices

1. Slopes greater than 3:1 are too steep to be safely mown but need slope stabilization. The raised western berm, along with areas adjacent to parking and drives at the southeast and northwest corners of the site, have 2:1 slopes, which are not safely mown. The mowing of the creeping red fescue is required to keep woody successional plant growth at bay. The meadow areas require a specific mowing regimen for their establishment followed by annual mowing to deter woody growth. With that in mind, we recommend that meadow mixes not be seeded on steep slopes, and the following:

GLDI Response: The current plan uses jute to minimize erosion in the 2:1 slopes. In addition, we agree with your note; for the addition of live stakes and actual logs from the site. This will be included in the plan documents and plant schedule.

- a. Seeding a no-mow grass mix for steep slopes (preferably including warm season grass species) where ecologically succession is welcomed on the site, as on the western berm. No mowing would be required and the grass would stabilize the slopes until the slopes are held by the root growth of the woody plantings. The spacing of the shrubs and trees would not allow them to stabilize the slope for some years, requiring some immediate stabilization by grasses and other erosion control measures.

- b. Promoting reforestation in these areas—stabilization of the slopes with staked coir logs or actual logs from the trees removed on site and supplementing the planting of small container-grown shrubs and trees with live stakes, seedlings and saplings that are planted in the stabilized slopes just above the staked logs along with other erosion control measures. We recommend early successional tree species and the selection of species for live staking that are easily grown from stakes, such as willow and dogwood.
2. The incorporation of shade trees into parking areas and the provision of them at the perimeter of those areas is important to the minimization of the heat island effect on the site.

- a. We recommend that large shade trees be added to the perimeter of parking areas to provide shade at the rate of one tree for every 25' lineal feet of parking perimeter, or for the front parking area, where screening from Main Street is desired, provide three large shade trees for every 50' lineal feet of parking perimeter.

GLDI Response: Agreed. Canopy trees will be added at the spacing noted above for the parking lot on the Main Street side of the site. Please note, the species selection will grow to be a large canopy tree, but installation shall be 2.5" caliper.

- b. We recommend that large shade trees be added to the proposed parking islands in the front parking area and incorporate two additional islands along the outer bays so that the maximum number of spaces unbroken by a parking island is 20, as is shown in the interior bays of the lot.

GLDI Response: Agree with the comments, although we will integrate shade trees along the perimeter of the parking area to help minimize the urban heat island effect.

- c. Healthy tree growth within parking islands is related to soil volume. We recommend that the terminal islands be expanded to provide a minimum 10' width. Completely backfilling islands with planting soil to a minimum depth of 18" is also recommended.

GLDI Response: Agree with the comments, although we are using low shrubs, to maintain clear views over the plants.

3. Maintaining clear sight lines is important for safety in parking lots; shrubs within parking islands should be under 4' in height. The shrub substituted in this submission, *Myrica gale*, also grows to height of 4-5 or 4-6' depending on your sources. We recommend the specification of dwarf and short varieties so that clear sight lines can be achieved without requiring regular pruning.

GLDI Response: If the plants exceed 4', the maintenance team will prune them. It is rare cases that *M. gale* will exceed 4' ht.

4. An understanding of the proposed plan for snow removal and storage is important in the placement of plantings and selection of species to ensure that plantings in snow storage areas are tolerant of road salt. Given the vast amount of pavement on the site, we recommend the indication of snow storage areas on the planting plan and the confirmation of the adaptability of the proposed plantings in those storage areas for the weight of the snow and the added salt.

VHB Response: The general limits of snow storage areas have been added to the planting plans.

5. Plantings will require water for establishment. We recommend that the plans indicate how the water will be sourced and delivered to the plantings along with the duration of the watering.

GLDI Response: A watering regimen, including amount and duration will be included on the planting plans.

6. The success of such an extensive landscape will be enhanced with the simplification of its proposed plantings. The revisions of enlarged swaths of shrubs and trees and reduced perennial beds will promote the establishment of a successful landscape. We agree with the goal of achieving a naturalistic appearance; however, the small isolated areas and finger-like projections of meadow areas between planting beds are not conducive to establishing meadows. Ernst Seeds recommends 10,000 sf as an appropriate size. With this in mind, we recommend that:

- d. The large areas on the site currently planted with fescue, including the land-banked area for parking, be considered for planting as a meadow

GLDI Response: Agreed, plans will reflect this change.

- e. The proposed meadow areas at the front of the site be seeded with no-mow grasses (as appropriate to the adjacent established turf areas) and the remnant meadow areas eliminated with adjustments to the planting beds

GLDI Response: Agreed, plans will reflect this change.

- f. The proposed shrub planting west of the entry drive be consolidated to the west edge with no-mow grass or meadow, as appropriate, consolidated to the east and a maintenance plan be provided for the perennial beds that is compatible with the maintenance of the surrounding area.

GLDI Response: Agreed, plans will reflect this change.

- g. The proposed meadow areas on the western berm be replaced with a seed mix as recommended by Ernst Seeds for steep, unmowable slopes. In addition, the area of seeding on the slopes should be expanded to stabilize the slopes until the shrubs and trees are established (see item #1 above)

GLDI Response: Agreed, plans will reflect this change.

7. A clear understanding by the contractor of the maintenance requirements for the establishment of a meadow is critical to its success. We recommend that the applicant provide a maintenance plan that includes the protocols by month and year for the establishment and maintenance of the meadow and require the contractor's guarantee and maintenance responsibilities for weeding, watering, and mowing to extend for a 3-year period after final acceptance.

GLDI Response: The maintenance regimen will be developed with the owner and issued as a submittal for review by the LA. The watering regimen will maintain a 2-year commitment.

8. Much of the site is designated to be seeded with Creeping red fescue. The minimization of mown lawns should be embraced for environmental and energy consumption reasons. While the seed supplier, Ernst Seeds, cites Creeping red fescue as a no-mow species, the applicant needs to provide a maintenance plan for the establishment and maintenance of the fescue that stipulates that the area is only to be mown once in the spring to ensure that its environmental benefit is realized. In addition, the use of a seed mix containing more than one native warm season grass species would be ecologically beneficial.

GLDI Response: Agreed, a mix will be created with ERNST as the specification.

9. The identification of invasive plant species on the site and means and methods for their removal and long-term maintenance is important to the health of the local ecosystem. As the property is a formerly disturbed landscape that has been long neglected, it is likely that invasive species have gained a foothold on the site. For the success of the proposed landscape we recommend that the drawings include a note calling for the identification of invasive plants growing adjacent to areas of clearing along with their eradication.

GLDI Response: Agreed, the eradication will be proposed by the landscape contractor.

10. Provide lighting on the site to ensure safety while complying with dark sky requirements, incorporating environmental measures that minimize impact to the insects and wildlife, employing energy efficiency measures, and minimizing the impact of the fixtures in daytime hours. We recommend that the applicant:

- a. confirm that the proposed lighting complies with dark sky requirements.

GLDI Response: Confirm.

- b. provide information regarding environmental and energy efficiency measures such as timers and sensors to be incorporated into the lighting system.

GLDI Response: Confirm.

- c. confirm that the temperature of the light will be 3000K or lower.

GLDI Response: Confirm.

- d. confirm the selection of a dark color for the pole and fixtures.

GLDI Response: Confirm.

Sincerely yours,



William Madden

Director of Institutional Practice
Gregory Lombardi Design, Inc.