



Places Associates, Inc.

Planning, Landscape Architecture, Civil Engineering and Surveying
Certified WBE

September 11, 2017

Boxborough Planning Board
29 Middle Road,
Boxborough Ma 01719

Re: **Site Plan Review**
Enclave at Boxborough aka Regency at Boxborough
Project No. 5249

Dear Board Members:

This office has reviewed the revised submission for the above referenced project. The following items were received as part of the revisions:

1. Stamski and McNary, Inc. Response Letter dated September 1, 2017
2. "Stormwater Management Report, Regency at Boxborough, prepared by Stamski and McNary Inc., dated December 22, 2016, revised June 23, 2017 and August 31, 2017.
3. Site Plan for Regency at Boxborough sheets 1-30, prepared by Stamski and McNary Inc., dated December 22, 2016, revised June 22, 2017, revised August 30, 2017.
4. Landscape Plan, Regency at Boxborough sheets 1-8, prepared by ESE Consultants Inc., dated 12-22-16, revised 6/21/17 and revised September 1, 2017.
5. Fire Truck Turning Plan, 2 sheets, prepared by Stamski and McNary, Inc. dated August 29, 2017.

These items have been reviewed for compliance with the *Town of Boxborough Zoning Bylaw (2012)*, the *Town of Boxborough Site Plan Approval Rules and Regulations (2011)*, *MADEP Stormwater Management Standards* and standard engineering practices.

This letter will address only those items outstanding from our January review or any other items resulting from the revised plans. At this time we have the following comments and concerns:

Stormwater Comments:

25. The applicant has indicated all buildings will be provided with gutters and downspouts. **It is recommended that this be included as a condition of approval since it is integral to the drainage system and it is clear in the event that there are any architectural changes.**

8-19-17 Additional Comments

1. The plans do not indicate how the various SMA will be accessed for maintenance which is limited with the steep grades, use of retaining walls and landscaping. Of particular concern is SMA 4, SMA 6 and SMA 8. **Access has been indicated but the access to SMA 3 and 4 are through the sediment forebay of SMA-4. This would require the mower etc. to drive over the stone berm separating the sediment forebay from the main basins which could damage the berm. Access to SMA-6 is blocked by retaining walls and tree plantings. This needs to be addressed.**

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6. There is an inconsistency between the drainage calculations and the outlet details shown on sheet 25. **Several inconsistencies require revisions to SMA-7 and SMH-4 (minor).**

9-8-17 Additional Comments:

1. Provide freeboard to Sediment forebay # 3
2. Sediment Forebay #7 – please provide detail of DMH 18-A
3. (see #6 above)
4. DMH 18 – pipes enter at sharp angle and same elevations which may not allow any sidewall on manhole between pipes – 6" minimum should be design goal.
5. Road cross section shows cape cod berm being installed with finish pavement which is not typical as berm mix is usually a finer aggregate size than finish pavement.
6. (see # 1 above)
7. Sediment Forebays 2&3 are barely large enough – concern of lost capacity if not maintained.

The above 7 comments have been responded to by the Design Engineer except for the additional questions on accessing the SMA areas for maintenance. It appears that all of these items can be addressed with minor plan revisions.

Landscape Plan Comments:

33. Screening to adjacent properties. The revised plans depict increased screening to the abutters principally in the form of a privacy fence. We identified three significant areas in our original comment. Some still remain:

- a. The outside play areas to the west of the club house are 20' (bocce court) and 30' (Pickle court) off of the westerly property line. This area has been provided with extensive landscape screening; however, due to the proximity to the abutter and the active nature of the proposed activities (pickle and bocce) we recommend that the privacy fence also be added to this area. No fencing screening or buffering to the immediate neighbor is proposed. The limit of clearing line (clouded tree line) depicts clearing up to the property line in this area.

A graphic has been added to the plan to depict a fence to be installed. We note that the graphic of the fence line is not labelled, but matches that on other plan sheets. We recommend that the graphic be labelled to ensure that the proper fence type is installed (6' cedar privacy fence as shown on sheet 9).

- b. To the west of units 8-10 (Private Drive C) the limit of clearing has been moved ~ 20' off the common property line and a six foot tall privacy fence is proposed at the edge of lawn. We agree that this is an improvement to protect the privacy of the abutters; however, no landscape plantings are proposed in the rear of these units to aid in noise reduction. We recommend that some plantings be placed in the rear yards to decrease noise travel and impacts.

Some plantings have been added.

- c. To the south and east of units 36-31, a 6' tall privacy fence has been added in this area and some landscaping placed between the fence and abutters. These plantings should extend behind the proposed unit 35 and continue to the east to the rear of unit 32 to enhance privacy and noise reduction to the abutters in this area.

Some plantings have been added.

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34. Landscape Trees/Lawn Areas: The number of lawn and landscape trees has been increased; however there are still large areas of the project that are devoid of any trees.
- See the areas behind units 17,16,15 and 18. While much of this area is comprised of drainage basins, there are areas that can support trees without affecting the basins.

Some plantings have been added. We note, for the benefit of the Planning Board, that these basins have retaining walls and the bottoms are lined with stone, they are not planted. The resulting appearance will be of a varied series of unplanted holes in the ground, not a positive aesthetic appearance. It is our opinion that more plantings are appropriate to provide some shade and screening to the units that abut these basins.

- Areas behind 19 to 22 should have some shade producing trees to break up the space and address the large open area created by the drainage systems.

See comment to a, above.

- A large number of trees and shrubs are located behind units 23 to 25 to create screening of the effluent disposal area. Generally these areas are large, level grassed areas that can be used for active recreation. The area behind the effluent disposal area is woods with no abutters nearby making this screening not necessary for abutter protection. They may want to screen this area for the benefit of the unit owners; however, we believe that these plantings can be best used elsewhere on the project.

In addition, it is not appropriate to plant sugar maples (or any large trees) within the potential spread of the roots for the tree, as they may disturb the leaching area. The plan depicts sugar maples and blue spruce within 10' of the edge of the leaching area. As proposed, the likelihood of these trees impacting the leaching area is more than probable.

The response to the above comment does not acknowledge that the leaching area is one of the only flat, grassed, open areas that will be maintained on the site, making it suitable for outdoor activities. The responder advises this office to "note the age demographic that will be occupying this community...". As we understand this project it is for people age 55 and older. It has been our experience in designing these communities in other towns and visiting them, that the modern 55+ demographic is mobile and active, not restricted to clubhouse and related amenities.

The intent of our comment was to highlight that this is a flat, grassed area that can be utilized for many purposes, by the residents and their guests. This area is not like those areas cited in a & b, above, as those are open areas occupied by stone-lined drainage basins.

- There are two areas (indicated by cloud lines) that are proposed to be outside the limit of clearing. These are located to the west of unit 41 and in the center of the loop for private drive B. We recommend that the plans be amended to note, "Area of no clearing, woodlands to be preserved". It is our belief that the line type indication is not sufficient to ensure the protection of these areas. **[This item has been resolved]**

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35. Parking Lot Planting. They have modified the parking lot planting to address our comment of the use of one type of species and have added "Bowhall Maple" a variety of red maple to the plantings. As noted below, item 37, the new plantings rely on a large number of maples for street trees. The Bowhall Maple is a narrow form of red maple that does not get wider than 15'. The other tree proposed in this area is a "Shademaster Thornless Honey Locust", this tree becomes almost as wide as tall. Our comment is both aesthetic and practical: these shapes are not compatible and they seem to now be over-using maples-site wide. **[This item has been resolved]**

36. Town Center District (4.4, 5), requires that the use of bituminous concrete be minimized and alternate paving materials be used.

- Civil plans (Sheet 26 of 30) indicate that most sidewalks will be bituminous concrete. The sidewalk near to the club house will be cast-in-place concrete with vertical granite curb.
- They have detailed the planted island and entry radius to be granite, as requested.
- No details for crosswalks are provided. Crosswalks are depicted on both the civil and landscape plan but no detail is provided to indicate if they are painted only or if a textured/colored pavement is proposed. We recommend textured/colored pavement as the spacing between the crosswalks is widely spaced. The enhance recognition of a texturized/colored sidewalk by seniors would be of a benefit to drivers and pedestrians alike.

The response to a. to c. is, "Crosswalks will be textured/colored." We were not able to find a detail to address our comments and cannot respond to whether the design, construction or other aspects of the crosswalks are appropriate or code compliant.

d. Belgian Block Curbing: The applicant has noted that they have added a detail to the plans for the use of Belgian Block Curb (which is granite cobbles set on end in a bed of cast-in-place concrete). The roadway cross-section detail note that this type of curbing can be substituted for cape cod curbing. No indications of where these substitutions and use are indicated on the drawings.

The response to our comment is, "Applicant will utilize the block primarily around the dwelling units at a minimum. The use of cape cod berm is being reserved as the base option."

We are not clear what is being proposed where. We recommend that the applicant define where each type of curbing will be used. If the applicant reserves the right of a base option, that should be presented clearly to the Board for the Board's review and consideration.

e. Landscape Plan 4 of 6 indicates a "cobble strip" at both ends of access easement C (leading to Stow Road). No detail on the construction of the cobble strip is provided in the civil or landscape plans. **[This item has been resolved]**

37. Street trees:

a. Species:

1. Our original comment on the landscape included a critique of the species proposed. They have modified the species to include five varieties of maple: Armstrong Red Maple, Bowhall Red Maple, October Glory Red Maple, Redpointe and Sugar Maple. While all are indigenous, they comprise a significant number of the tree species. We recommend

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reducing the predominance of maples and add other species with similar characteristics species to increase diversity. **[This item has been resolved]**

2. Black Gum (*Nyssa sylvatica*) This is an unusual choice for a street tree, though it is both indigenous and hardy in this environment. This tree is not usually used as a street tree due to the fact that the lower branches tend to droop down, creating an impediment if located next to a sidewalk and not pruned. If this plant is to be used, it should be noted that the lower branches should be pruned-off, so they do not extend into walking paths or travelled ways. **[This item has been resolved]**
- b. Spacing/Placement:
1. Our previous comment was that insufficient street trees were provided. Noting a total of 114 trees were proposed. The current number is 124. Again, given that the area of development will essentially require a clear cut of the developed area (with two small exceptions); we believe that a greater number of street trees should be provided. Overall spacing should average accommodate the subdivision standards, Section 5, E.:
“Street trees shall generally be spaced at intervals of approximately 50 feet on center, but no closer than 35 feet. If approved by the Board, trees may be clustered to provide a more natural appearance. If clustered, the total number of trees required shall be the equivalent of a 50-foot spacing along the entire roadway.” (Our comment remains. We defer this item for the Board’s consideration.)
 2. We do not believe that the plan addresses the requirements of (4.4 2). **(Our comment remains. We defer this item for the Board’s consideration.)**
 3. Street Trees depicted to the north of unit 45 raise concerns about interference with the roadway sight distances.

The respondent acknowledges our comment but refers to Section 4.4.2 as a justification for them to remain in this area. Our concerns are related to sight distances, a public safety design issue, not aesthetics. These are street trees that can be located outside of the line of sight. As currently shown the location of these trees will interfere with buried utilities as well as potentially obstructing line of sight. (Our comment remains.)

40. Boxwood Blight is a fungal issue with the Boxwoods. It is recommended that an alternative plant species be specified as the boxwood is used extensively (80 plants) in this design *(This comment remains)*. **[This item has been resolved]**
42. The applicant should consider the development of walking paths and/or trails. We would anticipate that some of the residents would want to walk to the club house and may make a trail through the woods as opposed to walking on the sidewalks. The development of casual walking paths along the wood line from the easterly portion of the site (drive b) to the clubhouse and Drive A should be considered.***(This comment remains)***.

The applicant responded, “The development of walking trails within site typically occur naturally by the residents following development.”

It is again our position that walking paths connecting the various clusters created by this development should be connected via walking paths through open space to the clubhouse and other general amenities of the site. This is a senior housing development, not a residential subdivision with children exploring the woods or making short-cuts to bus stops, etc.. The residents of an up-scale development such as this should not be forced to walk through brambles of brush, mud, tick laden vegetation, poison ivy, wetlands etc. to forge casual walking paths. It is very typical for the developer to provide stone dust or wood chip paths through the wooded and

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open areas. These types of paths encourage outdoor use, birdwatching. The informal paths increases the potential disturbance of wetlands, potential for increase erosion and other unintended/undesirable impacts. ***(We do not accept the respondent's proposed reasoning for not providing this amenity. This comment remains, We defer this item for the Board's consideration).***

43. We routinely require on our projects that an arborist to review the remaining trees after clearing operations to determine if additional dead, diseased, damaged or leaning trees should be trimmed or removed. We recommend the Board consider such a requirement. *(This comment remains).* We also note that since they are proposing treed areas to remain, these too should be reviewed by the arborist to ensure that they are viable areas and not a grouping of unsuitable trees or habitat areas.

The respondent's response is, "The applicant acknowledges this comment." We recommend that the Board make a condition of any approval that after the completion of clearing operations all tree lines and tree "islands" to remain be reviewed by a Massachusetts Licensed Arborist to ensure healthy trees remain. The recommendations of the Arborist shall be implemented by the applicant prior to issuance of the first building permit.

44. We recommended that a Landscape Maintenance Guide be provided to the Homeowner's. They have agreed to this recommendation. We suggest that the Planning Board require that they receive a copy of this document to ensure good practices are recommended and invasive species are not allowed to be planted.

The respondent's response is, "The applicant acknowledges this comment." We recommend that the Board make a condition of any approval that the Homeowner's Association and Planning Board be given a Landscape Maintenance Guide.

45. An Irrigation system is proposed, see Landscape Note no. 17. Its design is to be developed after the approval of the project. It is our recommendation that this plan be submitted to the Board for the files. It is also noted that it will be supplied from the proposed on-site water supply. This connection should be made with the appropriate backflow preventers and we recommend the use of a rain sensor for water conservation. NABOH may have other comments regarding the relative to the use of a potable water supply for irrigation.

The respondent's response is, "The applicant acknowledges this comment." We recommend that the Board make a condition of any approval that information on the design of the irrigation system, including backflow devices be provided to the Board for its files.

Additional Landscape Comments from the June 2017 revision:

1. Landscape Plan Graphics: The landscape plan graphics vary from those used industry-wide. The proposed plantings are indicated at the size they will be planted, not at a mature sizing (industry standard). There are a variety of plants that grow to large sizes that are depicted as 10-15' in diameter and the plant spacing accommodates this immature sizing. The result is that many of these plantings will become overgrown from being planted far too close to one another.

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By means of example, Landscape Plan 1 of 9, along Massachusetts Avenue depicts two sugar maples to be 12' apart, typical spacing is 30-50' apart. When mature a sugar maple is fully grown they can reach heights of 70'-80' feet with a spread of 30'-60'. Similarly, White Pine is proposed in this planting group. They are depicted as being 10' in diameter and spaced 10' apart. These plants also grow to 60'-80' ht and have spreads of 40'+.

We recommend that the plant depiction and spacing be updated to reflect reasonable spacings.

(The graphics on the plan have been modified to accommodate the proposed plants and associated spacing.

The respondent further states, "The applicant trusts that the reviewer is aware that this increase in size and spacing will result in a reduction of proposed buffer plant material."

We find this comment to be very odd. The proper placement and quantity of plant materials is the obligation of the landscape designer to undertake properly. There is no need to reduce the number of plants to accommodate proper plant spacing and placement. If the number of plants has been reduced, we recommend that the Board ascertain how many plants have been removed from the project between plan iterations. We have commented before in this review that the number of plants proposed is not sufficient. We believe that if the number of plants has been reduced as a result of industry standard design practices, that they be increased to match the original at a minimum.)

2. Landscape Plan sheet 4 of 9, depicts landscaping interior to a drainage basin. The location of the landscaping obstructs access to the basin. **[This item has been resolved]**
3. Landscape Plan sheet 8 of 9, has been modified to include many of our previous comments but no notation as to the amount or depth of loam to be used in seeded, sodded or other non-planting beds has been provided. We recommend a minimum of 4" of loam in low maintenance, non-landscaped areas. We recommend a minimum of 6" of loam in landscaped areas. **[This item has been resolved]**

Site Lighting:

46. A total of six light posts are proposed for the project. The posts are proposed as 10' tall with a shielded lantern configuration fixture. This light will not have an extensive light "throw" and will not illuminate a large area. The Board should review if they believe that amount of lighting is sufficient. ***(This comment remains).***

Additional Landscape Comments from the June 2017 revision:

1. The applicant submitted a lighting plan prepared by Phillips Lighting. It demonstrates how little on-site lighting is proposed for this development. Many areas are noted as having no footcandles of light except directly in the area of the proposed fixture. ***(This comment remains).***

Additional Comments (8-9-17)

1. The sight distance at the curve of Drive B, adjacent to the emergency access to Sherriff's Meadow has a combination of a vertical sag curve (low point) and a relatively sharp (100' radius) horizontal curve. When viewed in combination with the retaining wall proposed by Unit 45 and the proposed street trees, the stopping sight distance is very limited. It is also noted that the Landscape plan indicates that there will be a fence on the wall, to be determined later.

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Stopping sight distance is a 3.25' driver's eye height viewing a 6" high object in the roadway. This sight distance will be further limited by snowbanks. We recommend that this area be critically reviewed with the full wall details and the sight distance maximized to the extent practicable. It is recommended that the applicant's traffic engineer review to see if any additional measures are needed to create safe sight distances at this corner.

The response is that this site distance is sufficient given the travel speeds. This office recommends that the street trees and other plantings be setback farther from the roadway to improve sight distances and keep them from being on top of the utilities. We also recommend alternatives be considered for the retaining wall adjacent to unit 45B entry.

Please contact this office should you have any questions regarding this review or the project in general.

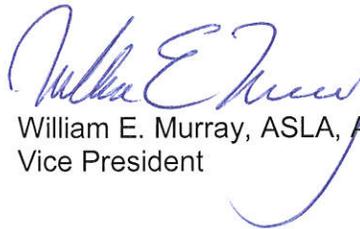
Thank you.

Very truly yours,
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BY:



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