



DAVIS  
SQUARE  
ARCHITECTS

240A Elm Street  
Somerville, MA 02144  
617.628.5700, tel  
davissquarearchitects.com

Brooks A. Mostue, AIA  
Clifford J. Boehmer, AIA  
Ross A. Speer, AIA  
Iric L. Rex, AIA

June 18, 2016

Jody Kablack, Director of Planning and Community Development  
TOWN OF SUDBURY  
Flynn Building, 278 Old Sudbury Road  
Sudbury, MA 01776

RE: Village at Sudbury Station 40B Development  
Architectural Peer Review Report

Dear Jody:

I'm writing to provide you with a Peer Review Report in accordance with the email RFP that you sent me on April 8, 2016, and my letter proposal to you dated April 11, 2016. This report is formatted substantially in alignment with the summary of services included in the April 11 proposal, but I hope you will contact me if there is any additional information that you require in your review of the Village at Sudbury Station development.

**Review of the Developer's Application, Plans, and Drawings (and other related documents)**

***Documents reviewed:***

(FROM THE DEVELOPMENT TEAM)

Comprehensive Permit Site Approval Application, dated January 2016 (binder includes numerous documents that may be referred to in this Peer Review).

Architectural "Progress Prints" dated 18 April, 2016 (included are typical four-story fit plans and main elevation; typical three-story fit plans and elevation; sections of three and four story buildings; townhome fit plans; townhome section; townhome primary elevation; maintenance building plan and elevation; waste water building plan and elevation; clubhouse plans, elevation, and section.

Package of rendered building elevations and perspective views dated 2.09.16 and 5.18.16 (14 drawings).

Package of rendered birds-eye views and street level view from within development (date-stamped May 19, 2016).

Preliminary Site Plan set (civil engineering drawings) dated January 25, 2016, various revision dates (latest is 3/18/16).

Final Site Concept – Sections dated August 25, 2015.

Final Site Concept – Enlarged Plan Topography dated August 25, 2015.

Final Site Concept – View 2 Topography dated August 25, 2015

Four Sketches resulting from Working Sessions, including original submission, Site Plan Concepts #2, 3, and 4 dated June 14, 2016. Letter from William Henchy dated June 16, 2016 that describes working sessions and explicates revised concept sketches.

Traffic Impact and Access Study (MDM Consultants) dated December 2015.

Response to Peer Review Comments (MDM Consultants) dated March 15, 2015.

Memo from William Henchy re: comments from Conservation Commission, Board of Selectmen, and Historic District Commission.

Visual Analysis study (Cecil Group) dated April 19, 2016.

Architectural and Exterior Materials Narrative (Cube3) dated 5/13/16.

LEED and Environmental Narrative (Cube 3) dated 5/13/16.

Catalog cuts describing proposed exterior light fixtures.

Supplemental Transportation Responses (MDM Consultants) dated May 31, 2016.

Proposed Construction Management Plan dated June 10, 2016.

Memo from Robert Michaud, MDM Consultants, to Jody Kablack dated June 16, 2016.

**(FROM THE TOWN AND TOWN CONSULTANTS)**

Letter from I. William Place, Sudbury Department of Public Works dated February 9, 2016

Memo from Jody Kablack to the ZBA dated February 17, 2016.

Memo from Mark H., Sudbury Building & Inspections Department to Jody Kablack dated February 18, 2016.

Letter from John Whalen, Sudbury Fire Department to Jody Kablack dated February 14, 2016.

Letter from Jeffrey Dirk, VAI Engineers, to Jody Kablack dated March 3, 2016 (Traffic Peer Review letter).

Memo from Charles Russo, Sudbury Conservation, to ZBA dated March 8, 2016.

Memo from Bill Murphy, Sudbury Board of Health, to ZBA dated March 18, 2016.

Letter from Rebecca McEnroe, Sudbury Water District, to Chris Claussen dated May 20, 2016

Letter from Sudbury Historic District Commission to ZBA dated June 7, 2016.

Letter from Jeffrey Dirk, VAI, to Jody Kablack dated June 14, 2016.

Historic Property Effects Assessment from PAL dated June 16, 2016.

**(VARIOUS OTHER PROJECT-RELATED DOCUMENTS REVIEWED)**

Email and site analysis document from David Hornstein dated April 21, 2016

Memo from Barbara J. Saint Andre to the ZBA dated April 25, 2016

“Comments on “Sudbury Station” developer proposal” prepared by Frank Riepe dated April 26, 2016.

Email and project design critique from David Hornstein dated May 4, 2016.

**(REFERENCE MATERIALS)**

Local 40B Review and Decision Guidelines published by MHP and Edith Netter, November 2005

Guidelines for Comprehensive Permit (40B) Developments, Town of Sudbury, 4/3/2007

Handbook: Approach to Chapter 40B Design Reviews, prepared by The Cecil Group, Inc. for DHCD, MassDevelopment, MassHousig, and MHP, January, 2011

**Initial Meeting with the Developer’s Design team and Representative of the Town**

The development team conducted a site walkthrough on the afternoon of April 25, 2016. A partial list of those attending included Cliff Boehmer (Architectural Peer Reviewer), Joe Peznola (Civil Engineering Peer Review), ZBA members, Mike Jacobs, Chris Claussen, Steve Cecil, other development team members. During the walkthrough the developer presented some aspects of the team’s design concepts, including the location of the buildings closest to the cemetery (the corners of these buildings had been staked out). While there were many individual discussions ongoing throughout the walkthrough, some points relating to the project’s design included:

- In order to construct the buildings closest to the cemetery, virtually all of the existing buffer would have to be removed.
- Some historic stone walls were observed within the development area. The developer suggested a willingness to retain as many walls as possible, and/or reconstruct walls using salvaged stones.
- The developer discussed potential alternatives to the construction of the large retaining wall along the railroad right of way. He noted that in order to eliminate or greatly reduce the height of the wall, it would be necessary to regrade into the railroad’s right of way.
- There was discussion of relocating the entry into the development to the other side of the railroad right of way in order to align with the road across the street.

**Attendance at ZBA hearings**

*April 25, 2016*

Design-related issues discussed at the hearing included:

- The developer’s site designer, Steve Cecil, presented their April 19 Visual Impact study.
- Visual impact study focused on what can be seen from the athletic field, the cemetery, and along the roadways. Biggest impact was at the cemetery and athletic field; building 5, clubhouse, and wastewater facility visible from Hudson Road.
- Given the complexity of the site plan, and as an alternative to reliance on the developer’s 3-D modeling, a “balloon mockup” of building heights was suggested by this reviewer to better assess visual impact of the proposed structures. The ZBA chose not to require this of the developer.

- The developer's architect, Doug Carr, presented the building designs, highlighting aspects that he believed connected the project design to New England vernacular, including porches, steep roofs, window trim, corner boards, stone bases, lap siding. Building scale is broken down by different colors and textures of siding, dormers at the roof level, balcony structures.
- The design of the clubhouse was presented as similar to train station.
- Developer noted that none of the development was within the historic district.
- Lighting impact of the development was discussed.
- Building heights that were not clear from submitted documents were discussed.
- This Peer Reviewer requested that the developer submit an accessibility diagram that verifies that all of the site amenities are on accessible paths.
- Developer noted that overall parking ratio is 2:1, 1:1 for structured parking spaces.
- The developer requested that the Town provide him with a bicycle parking ratio.
- Sudbury resident comments included: 3-D model that was presented is not accurate; inadequate number of site sections were studied; retaining wall along tracks would be 20' tall, which is not represented in the Visual Impact study; plans generally assume site grades that aren't accurate; the construction of the site will require a huge number of truckloads of concrete...for the tall retaining wall in particular.

May 23, 2016

Design-related issues discussed at the hearing included:

- The developer was asked to study the hydrostatic pressure behind the tall retaining wall at the railroad right of way.
- A better understanding of the hydrology of the hillside would be critical to understanding how the on-site leaching fields would perform.
- The Board was concerned that there may be "mounding" of the water table in the adjacent ball field (is there a chance of effluent break out?).
- The developer agreed to place monitoring wells and a test pit in the ball field to study hydrology.
- There was discussion of what would result from a power failure, followed by failure of the emergency generator that powers septic pumps.

#### **ZBA/Developer Working Sessions**

Three public workshop sessions took place outside of the ZBA hearings. This reviewer was not asked to attend, but was provided with alternative site plan sketches that resulted from the meetings (a total of three revised concepts), as well as a memo from the developer's attorney that summarizes the design aspects of each of the revised plan concepts. Comments on these plans are included in the "report" section that follows.

#### **Report to ZBA:**

***Orientation of principal buildings in relation to each other, and to streets, parking areas, open space, and on-site amenities, and to solar access.***

Submitted Plan:

The orientation of the large buildings is primarily determined by the steeply sloped site, which even after re-grading, appears to have an approximately 25 to 30 foot drop from the upper drive to the parking area along the railroad right of way tall retaining wall. With the exception of Building 3, the other four large buildings are oriented parallel to the site contours. The length of the large buildings varies between about 210 feet and 250 feet long. Because of this "contour following" strategy, the orientation of the buildings relative to each other is incidental (i.e., there is no discernable order to their placement). This type of siting strategy can be successful if the massing of the buildings and their placement relative to the circulation around the site reinforces the sense of connection to and appreciation of the site topography. Because of the length and big-box minimally articulated footprints, the form of the large buildings does not enhance the "contour-following" approach. This problem

could be addressed through significantly increasing the modulation of the building footprint (which would also help break up the extremely long, unbroken double-loaded corridors within the buildings).

The orientation of the smaller scale townhouse buildings follows the eastern property line, which also roughly follows the site contours. As such, they are set into the hillside, with individual garage parking spaces built into the basement area (with numerous garage doors facing the street). These buildings provide the street wall edge of the site, and while highly visible to the cemetery, effectively screen the view to the large box buildings. As is the case with this type of housing, the only direct relationship building-to-building is at the outdoor rear patio. There appear to be parking spaces planned in front of the garage entries to the townhouse structures. While a sidewalk is indicated along the front of the townhouses, it would be continuously interrupted with curb cuts necessary to get into the garage spaces.

The clubhouse (with swimming pool) is sited near the Hudson Road entry to the development. It too appears to have no particular relationship to the other structures beyond fitting into the available space on the site. Its visual function in that location could be as an entry piece into the site, and as a transitional piece with regard to architectural scale.

Approximately half of the parking is outdoor, surface double-loaded lots and single loaded 90 degree spaces off of the driveway. They are located for the convenience of the residents, i.e., the provision of a space near each unit. The remainder of the parking (approximately 250 spaces) are located beneath buildings, and accessed from the ends of the box buildings.

In general, if the relationship between the buildings is determined by the experience of moving through the site and discovering the different views of the buildings and their relationship to each other (as was presented by the site designer), then more information regarding the quality of the streetscape should be presented for review (there appears to have been no landscaping plan included in the materials). As currently conceived, the primary vehicular and pedestrian path around the periphery of the site is clearly a driveway along the eastern edge, and a series of connected parking lots on the western edge. As such, the notion of a "village like" experience for the residents and visitors is not possible. Consideration should be given to conceiving of the parking, walkway, and landscaping layout (including fencing and other hardscape elements) as a small village street. Parallel parking, space for street trees, outdoor furniture, etc. could be used to create that quality. Traffic calming measures should be introduced across the streets that also provide multiple access points to the public green space (e.g., raised crosswalks).

The placement of the box buildings succeeds in defining an open space for use of all residents. It appears that there will be an approximate 16-foot grade change across the "central green", and pedestrian pathways as well as grass-paved emergency access lanes are indicated on the preliminary site plan. It is not evident from the submitted materials the degree to which that space is "programmable" for the use of the residents. Given the high density of the developed area of the site (approximately three times more than the Sudbury 40B guidelines suggest), along with the contours of the site, it is critical to be realistic about what can actually happen in that space. Clearly, a diminution of the density would help address this issue.

No play areas for young children are indicated on the plans, which could be a problem considering that more than half of the units are 2 or 3 bedroom units. The site plan indicates community gardening areas in the agricultural preservation area of the site, blocked from the green by Building 3. No areas for children to gather to load on school buses is indicated on the site plan.

The open space is oriented with its long axis north-south (the broad part of the triangular space is on the north end). Given the east-west grade change across the site, and the height of Buildings 4 and 5, there will be significant shadow impact on the green space in the morning hours (variable depending upon the season). Similarly, given the additional height of Building 2 on the western edge of the site, it will have shadow impact on the green during the afternoon. As the sun rises in the southern sky, the green space will see more direct sunlight.

It is recommended that shadow studies be undertaken as part of the programming exercise for the greenspace to ensure that it will be a place where people will want to gather.

Revised Site Plan Concept #4 (this is the only site plan generated through the working session meetings that will be commented on in this letter, as it is reportedly the most desirable to the working group):

This revised concept, while not addressing the issues noted above relative to streetscape, building footprints, etc., is generally superior to the originally submitted plan for the following reasons:

- Eliminating the townhouses along the cemetery edge allows a meaningful landscape buffer to exist between the cemetery and the development. In addition to the improved visual buffer, elimination of the homes with outdoor patios, etc. will have acoustical benefits that will help to maintain the contemplative nature of the cemetery.
- Relocation of the clubhouse to the eastern, central edge of the green will provide clues of how to program and organize the function of the green space.
- Sliding Building 3 down the hill and making it slightly smaller will help to connect the courtyard space with the agricultural area.
- Fewer units will mean fewer required parking spaces, less impact on surrounding protected areas (a concern expressed by Conservation), and less demand on green spaces with the development. Revised Plan #4 reduces unit count to 224 (a further reduction would improve the plan).

Concern with the Revised Site Plan #4:

- Moving townhouses to the southern, Hudson Road entry end of the site, while providing an opportunity for a more convincing building scale transitional zone, breaks up the continuity of pedestrian walkways through the site (see concern above regarding multiple townhouse garage entries). This reviewer recommends studying a continuous, well landscaped, pedestrian path on the western edge of the main drive (village street). This would require the elimination of Building 12, or perhaps eliminate Building 3 and replace it with a string of townhouses that step down the sloping site.

#### ***Elevations and massing:***

Starting with the massing. As discussed above, the large-scale, boxy nature of the large buildings create issues with the integration of the buildings into the landscape. This can be greatly improved by increasing the modulation of the building footprint. And also as noted above, while along the historic edges of the site the impact of building massing is minimized (at least in Revised Site Plan #4), the massing and scale of the large buildings has negative impact on the usable outdoor space within the development (as well as along the driveways).

This reviewer suggests that the developer consider a building massing and façade treatment course that would be consistent with a comment within MassHousing's Project Eligibility Letter. The letter notes that the lay out of the buildings "limits visibility to or from surrounding developments...(and) establishes its own building typology, though with reference to the surrounding traditional New England village context." Specifically, large, double-loaded buildings, three or four stories tall (on the uphill side), will never directly relate to the existing residential scale in Sudbury. Consideration should be given to eliminating the sloped roofs on the large buildings (which greatly increase the mass of the buildings, create the need to break up the large roof with dormers, and in turn further increase the height of the street facades...). More attention should be placed on articulating the footprints, increasing the number of entries to the buildings that will enliven the streetscape, creating a strong horizontal cornice line (on a flat roofed building), etc. Eliminating the large, sloped roofscapes may save some development dollars, increase ongoing serviceability of rooftop equipment, and potentially create roof area that can be dedicated to solar arrays. Retaining sloped roofs on the smaller scale townhouse structures probably makes sense, as they are more in scale with existing Sudbury residences, and the variation in roof types and massing will provide more visual interest and hierarchy within the development.

If sloped roofs are maintained on the large box buildings, it is likely that end elevations should be scaled down by eliminating some units or rooms on the top floor units.

***Side and rear elevations visible from the street, public areas, or from the vantage point of nearby residential neighborhoods.***

Given that several of the edges of the site border on historically significant spaces, the developer has made efforts to minimize visibility of the development from outside of the development. With the exception of the athletic fields and bike path to the west, the Revised Site Plan Concept #4 largely succeeds in this respect (although take note of concerns with lining both sides of the entry drive with townhouses). And it can be argued that if the development has impact to other areas of Sudbury, then it makes the most sense that the “window” into the high density should be from the athletic field (as opposed to the cemetery and roadways through the historic district). If one acknowledges these points, there remain some concerns and opportunities:

- Continuing to study the possibility of diminishing or eliminating the high retaining wall along the right of way is important. This could impact the site grading into the open green space, potentially in a way that could increase the interest and programmability of the area.
- The transition zone between the development and the right of way could be a means of making connections (most likely, ramp/retaining wall structures) between the circulation in the development and the future bike path (not to mention the athletic fields, which would be a great amenity for the residents of the development).
- As the site design develops, in addition to resolving issues of unwanted impact outside of the site, efforts should be made to make the site inviting to all residents of Sudbury, particularly by encouraging pedestrian traffic within.

***Compatibility of building design with surrounding areas, including but not limited to design elements to mitigate the visual impact of higher density and taller buildings on nearby residential neighborhoods.***

As noted or implied in several places above, the proposed building designs bear little resemblance to existing Sudbury buildings in most fundamental ways, most importantly in the overall bulk of the larger structures (length, height, and width). Accordingly, the site development strategy has been to minimize any views into the site from the outside. However, as noted in the Elevation and Massing paragraphs above, the façade designs can “farm the community” for detailing opportunities that will help to tie the development into the existing town fabric surrounding them. The developer has indicated that they will employ façade strategies that include use of trim, varieties of lapped siding, stone building bases, compatible color selections, and other pedestrian scale building features.

***Relationship between proposed building design and existing multifamily buildings or other appropriate larger-scale buildings in Sudbury.***

Larger scale buildings in Sudbury are largely limited to civic structures. As noted above, the development strategy is the creation of their own typology, restricted to within the bounds of their own site.

***Integration of buildings and site, including but not limited to preservation of tree cover.***

The development of this site will require clear cutting and regrading most of the site (although the Revised Site Plan Concept #4 does a better job of retaining a landscape buffer at the cemetery edge). Working with existing grade, to the greatest degree possible, will make the most sense economically, and provides an opportunity for creating an interesting topography that is, at the least, reminiscent of the original conditions. To that end, the building forms can help to reinforce the connection with the site (see Orientation of Buildings paragraphs above).

Similarly, a well-developed road, paved walkway, and site pathway plan can work with the new grades to provide interesting perspectives on the structures that will help to tie the buildings into the landscape. As noted above, the materials submitted to date do not include landscape plans, etc., that would make it possible to review what is proposed.

***Exterior materials.***

With the exception of vinyl windows, the exterior building cladding materials that are proposed can be deployed in a way that ensure some connection with typical Sudbury residential structures, and can be long lasting and maintainable.

***Placement and design of accessory structures, such as garages.***

There are three accessory structures proposed, a wastewater treatment plant, a maintenance structure, and a clubhouse. In all likelihood, the wastewater plant is located by necessity (although this should be confirmed by the Civil Peer Reviewer, as it is the first structure seen from the Hudson Road entry). Concern from the abutter was noted at an open hearing about odors associated with pumping out tanks. This is an important detail of operation that should be resolved by the developer.

The Revised Site Plan Concept #4 does a better job of placing the Clubhouse, compared with the original submission in this reviewer's opinion. Its central location in #4 will help to activate the green space.

Maintenance shed is also shown in two different locations. This one may be better located in the original scheme (versus 4), as if it generates noise, it may be disturbing the peacefulness of the cemetery.

***Exterior lighting.***

Not enough materials were submitted to facilitate a review. Should be integrated into the landscape design.

***Any other design-related considerations identified in the course of its review.***

- Floor plans that are available for review are only "fit plans", that is, only box out the gross square footage of the units within the proposed overall footprint of the building. It is therefore not possible to review layouts in any level of detail. This concern was noted by the Department of Public Works, the Building & Inspections Department, and the Board of Health (who was concerned about rooms that may be construed as bedrooms per local wastewater regulations).
- Fit plans do not indicate locations/types of proposed Group 2 accessible units. Note that all units in elevator fed buildings must be at a minimum, Group 1 units.
- After a final preliminary site plan is decided on, a plan showing the anticipated area that will be cleared should be submitted to facilitate assessment of offsite impact.
- Consideration should be given to the development providing some public parking at an access point to the future bike trail.
- Some notes in letters/memos from town officials state that the buildings have no elevators. There appears to be an elevator indicated in the fit plans. Can the developer confirm that the large buildings will be equipped with an elevator?
- Building #3 is indicated to be extremely close to the property line that abuts the agricultural area. Is it feasible to construct the building without encroaching on the offsite area?
- Fire Department has concerns about access to all elevations of the large buildings. Fire lanes on the latest site plan address this issue with the exception of one elevation at buildings 1 and 3.
- Sudbury Conservation has expressed concern about overuse of the trails in sensitive wetland and open space areas. Has the developer addressed this issue in any way?
- Conservation also expresses concern about the impact of site lighting on surrounding wildlife natural habitat. It is not possible to review this without more information.
- In a letter dated May 20, the Sudbury Water District noted that the developer is required to submit a Water Impact Report prior to the approval of a water service to the site.
- Sudbury Historic Districts Commission expresses in a letter of June 7, 2016, that the project density is double what they would consider acceptable, the architecture is uninspired, and the offsite impact, particularly at the cemetery is visually jarring. This reviewer concurs that while the offsite impact is mitigated in the Revised Conceptual Site Plan #4 (with the exception of the athletic field), the density within the site has created a number of very difficult to resolve issues related to the livability for the residents, as well as the impact on the sensitive open spaces surrounding the site.
- The Historic Effects Assessment prepared by the Public Archaeology Laboratory (June 16, 2016) concluded that the overall impact of the development on the Sudbury Center Historic District will be minimal. It does recommend that the indirect impact at the cemetery edge be addressed by retaining a portion of the existing mature tree line adequate to shield the Project from view.

- Given the large number of parking spaces on the site, is it possible to pave “overflow” spaces with grow-through pavers?
- How will trash be handled on the site? The Proposed Construction Management Plan dated June 10, 2016, mentions a trash management facility on site. Where is this in the site plan?
- MDM memo dated June 16, 2016 appears to address issues related to fire apparatus turn radii, cut-through traffic, and the installation of RRFB’s at both the Concord Road and Hudson Road pedestrian crossings.
- Construction Management Plan indicates work hours of 7:00AM to 6:00PM. Is this in conformance with Town regulations?
- Will the developer be responsible for Town road damage resulting from extensive heavy trucking?

I hope you will contact me to discuss this memo in detail, or to talk about issues that I have failed to cover. Thank you very much.

Sincerely,

A handwritten signature in blue ink, appearing to read 'C. Boehmer', with a long, sweeping horizontal stroke extending to the right.

Clifford Boehmer, AIA