

**Planning Board  
Board Room, Municipal Building at 7:30 pm  
October 9, 2007**

In attendance:

**Members:** Nancy Collier, Bill Dietrich, Judith Esmay, Jim Hornig, Michael Mayor

**Alternates:** Bill Baschnagel, Joan Garipay, Mike Hingston

**Staff:** Judy Brotman, Jonathan Edwards, Vicki Smith

Others: See attached sheet

**Report of Wetlands Update Committee**

Arthur Gardiner spoke on behalf of the Wetlands Update Committee which comprises Mr. Gardiner, Judy Brotman, Nancy Collier, Bill Dietrich, Jonathan Edwards, Jim Kennedy, Doug McIlroy, Anne Morris, Judith Reeve, Joanna Whitcomb and Vicki Smith. Mr. Gardiner also recognized Perry Seale's contribution to the committee. The committee submitted a 33-page report to the Board dated October 9, 2007 that is the product of a compromise of divergent points of view regarding protection of water resources and wetlands, the environmental amenities they represent, and the legitimate interest of fostering sensible development. COLLIER acknowledged Mr. Gardiner's leadership role as chair of the committee, which, she said, contributed greatly to the report.

Mr. Gardiner walked the Board through the Summary of Committee Recommendations:

1. Improve wetlands protection by strengthening focus on the wetlands protection criteria in the Zoning Ordinance during Site Plan and Subdivision Review by the Planning Board. The Planning Board has flexibility to look at more available options.
2. Increase landowner awareness of wetland protection concerns by publishing an improved water resource map, adopting an improved process for refining the map, and publishing a Wetlands Protection Guidebook to guide affected landowners through the requirements imposed by the Town and State for activity in water resources and their buffers. The committee believes that resources thought by the Town to be important should be identified by the Town.
3. Adopt revisions to the Zoning Ordinance that will:

Eliminate unnecessary regulation by exempting minor activities and those affecting comparatively insignificant resources.

Simplify permitting procedures by using State filing and approval requirements whenever possible. The State's Permit by Notification and Minimum Impact Expedited Application both require the participation of the Hanover Conservation Commission. The Ordinance could be revised to give the Commission the right to ask for more information to encourage dialogue between the Commission and applicant.

Clarify the scope of Section 702 and the standards it imposes.

Incorporate into Section 318.10 a more comprehensive regulation of the terrain alteration activity that falls outside the jurisdiction of the Planning Board's Site Plan Review and Subdivision procedures but that may have significant and adverse scenic and environmental effects.

Allow an Administrative Permit to applicants with State approval of a planned activity in the buffer. The Zoning Administrator would decide whether the activity is the least feasible alternative with the least impact on the wetland.

HORNIG questioned whether other communities were drafting guidebooks or had already done so. He asked whether it remained for each community to develop its own guidebook or whether the State could be urged to work with communities to prepare a common guidebook. Vicki Smith said the proposed guidebook would reflect Hanover's perspective on the regulations as well as incorporate the State process. She questioned the State's ability to articulate Hanover's interest and regulations.

HORNIG questioned the Town's current GIS capabilities. Jonathan Edwards said he utilized a graphic system but was not able to relate the non-graphic information to the graphic information. It was also not possible to make the current system available to the public.

BASCHNAGEL questioned the proposed changes to Section 318. Mr. Gardiner said the State had a terrain alteration statute that requires review by the NHDES of defined activities involving projects of 50,000 to 100,000 sq ft. Section 318.10 of Hanover's Ordinance requires review of projects involving a deposition of more than 200 cubic yards of fill. The Committee was looking to fill the gap.

BASCHNAGEL said he agreed with the notion of identifying critical areas but the nature of the geography of New Hampshire is such that there was a lot that fell below the prime threshold. He said it would be very difficult for the Town to pick up that responsibility. Mr. Gardiner suggested focusing on headwater areas that are particularly important. HINGSTON asked how the delineation of prime wetlands would be implemented. COLLIER said the Committee thought Hanover may not have many prime wetlands as defined by the State but that more identification of known wetlands should be mapped.

GARIPAY asked who would enforce the regulations when an alleged violation is reported on a project where the Town accepted the State's approval rather than require additional local review. Mr. Gardiner said the Zoning Administrator would investigate violations under the authority of the Administrative Permit that was required for work in a buffer area.

The Board reached consensus to continue review of the Committee's recommendations on December 11, 2007. COLLIER opened the floor to the public. There was no public comment.

**07-16 Continuation of submission of application for public hearing and request by Dartmouth College for site plan review for an 174,500 gross square foot building for biological sciences, including faculty and teaching laboratories, classrooms, lecture spaces, to be located north of Vail Hall on North College Street, Tax Map 38, Lot 11, in the "I" zoning district.**

HORNIG stepped down.

COLLIER said this was the Board's third review of this project. Previous hearings were held September 4, 2007 and September 18, 2007.

Steve Campbell, Director of Dartmouth's Office of Planning, Design and Construction, advised of a supplemental package of materials dated October 3, 2007 that had been submitted to the Board. Mr. Campbell said the Life Sciences Building (LSB) would be a national exemplar in performance, consuming half the amount of energy of any comparable building in the country. Energy performance features include reclamation of storm water, retention of one million gallons of rainwater per year for use in the building, and improvement of runoff capability on the site. Mr. Campbell said he was prepared to focus on four issues raised in previous presentations: sound mitigation efforts, lighting, roundabout proposal, and storm water monitoring. He reported that the College maintained good dialogue with the Occom Pond Neighborhood Association (OPNA) following each Board review of the application.

## Sound mitigation efforts

Jeff Fullerton, of Acentech Inc., described the design changes relative to noise mitigation including locating rooftop fans within the building, facing greenhouse fans toward the courtyard and away from neighbors, developing attenuation for the fans and equipment around the building, constructing a large wall around the cooling towers, and utilizing attenuation on the louvers at all of the inlet and outlet locations around the building.

Mr. Fullerton said in daytime, at full capacity, this building would generate a noise level of 50 dBA at the property line. At night, much of the equipment used for energy efficiency would drop 20% in capacity resulting in a 5 dBA decrease in noise level. BASCHNAGEL asked if a control system would be set to ensure that would be the case. David Madigan, of vanZelm Engineers, said the College did not anticipate significant lab use throughout the building after 7:00 or 8:00 p.m. When unoccupied the labs would reduce to roughly 50% capacity. It was noted that the Ordinance allows a maximum sound level of 70 dBA (daytime) and 55 dBA (nighttime) for this property.

Mr. Fullerton walked the Board through *Figure H – Sections across the Model (across Vail and LSB) Sound Level Contours for Daytime and Nighttime Conditions*. This depicted sound levels for (1) existing ambient sound, (2) existing ambient and LSB with original cooling tower location, (3) existing ambient and LSB with no cooling tower, and (4) existing ambient with LSB and alternate cooling tower location. Mr. Fullerton said most of the sound on the site was generated from the Vail building. The proposed cooling towers would not control the noise levels at the property line. There was not a substantial difference between locating the towers internally or externally.

GARIPAY asked how the noise level from the proposed building compared to existing conditions. Mr. Fullerton said the noise level would increase because the LSB had a far greater ventilation requirement than the existing buildings. Mr. Campbell reminded the Board that the original plan submitted for this project predicted a noise level of 20 dBA below the zoning requirement. He said the College was committed to reducing the noise generated from Vail an additional 3 to 7 dBA at the property line by attenuating the sound of air intake on the north side of the building. This additional attenuation was not depicted in the most recent submittal. DIETRICH said the Board would need to see that.

COLLIER opened the floor to public comment. Kirthi Govindarajan, of 13 Rope Ferry Road, reported early morning trash compactor noise and noise from trash trucks throughout the day. She said the neighbors had asked the College to consider the impacts to the neighbors located farther from the project site. She expressed concern for noise generated at the proposed loading dock. Mr. Campbell said attenuating the noise at Vail would have a beneficial impact further south. He added that the noise being heard currently was not related to construction work. It resulted from NE Waste's pick-ups and the Vail compactor. The College was looking into the frequency of garbage pick-ups. COLLIER asked how garage trucks serviced the buildings. Mr. Campbell said there was an existing dumpster at the Vail loading dock and a trash compactor was proposed for the LSB dock area. COLLIER asked if the compactor would be monitored. Mr. Campbell said the College was working to improve whatever it could in terms of operations on that site to minimize noise.

Barry Schuster, counsel for the OPNA, questioned the College about the noise from the air handlers, the design changes implemented since the original submittal, and the source of the greatest noise. Mr. Fullerton said the greatest noise would differ depending on one's location around the building and proximity to the noise. He said the changes proposed to date were to enclose a number of rooftop fans, face the greenhouse fans inward, and attenuate all air handling unit intakes and discharge locations. This will result in a substantial noise reduction to the northwest corner of the property. It was noted that not all of these changes were depicted in the recent submittal.

Doug McIlroy, of 1 Hayfield Road, asked for the anticipated use of the courtyard. Mr. Fullerton said the courtyard would be used for student gathering, relaxation between classes, and as a thoroughfare entering and exiting the building.

Jeff Boffa, of 29 Rope Ferry Road, suggested enclosing the air handler that created the largest source of noise toward the northwest. Mr. Campbell said the College was proposing sound mediation in that duct. He reiterated that, after all of the mitigation efforts are incorporated, the noise level at the property line would be 25 dBA below the zoning requirements.

## **Lighting**

Natalie Gentile, of Bohlin Cywinski Jackson, provided a night view of the proposed building depicting a metal screen over the stair tower enclosure. The screen, made up of horizontal elements of different shapes and sizes, will be located five to eight feet from the glass enclosure and will block 50% of the light bounced out of the tower. The internal stair lighting would direct light downward. The building will use the minimal amount of light necessary to meet safety requirements. The lights would be off during the day. The stairs and walls will be neutral in color. Ms. Gentile advised of a Code regulation which limits the amount of curtaining to 10% of the wall and ceiling surface in a fire stair, allowing for only a very small, ineffective shade.

Ms. Gentile said minimal light would spill from the laboratory, auditorium, and classroom windows during the evening hours. The laboratory windows would have motorized screens. Lights in the teaching labs would primarily be off in the evening. New light poles were proposed along Dewey Field Road. The head would be cut-off, with no light coming out from the top. They would not reflect light back onto the building. Mr. Boffa asked if the motorized shades would be 100% opaque. Mark Loeffler said they would be 90 to 95% opaque.

ESMAY asked if the goal was to filter light escaping the building in the evening but still provide enough light into the building during the day to reduce the use of lights. Ms. Gentile said yes.

ESMAY asked about the nature of the screening material of the motorized screens. Ms. Gentile said a mesh which comes in different densities. BASCHNAGEL asked if they were insulated. Ms. Gentile said no.

COLLIER spoke in favor of the screen design stating that the relevance was its effect on the neighborhood.

ESMAY asked if the windows at the top of the tower would appear as bright as they are depicted in the presentation. Ms. Gentile said no, there is no up light in the stairs at all. Mr. Boffa asked if the metal screening could go to the top of the glass enclosure. Ms. Gentile said the top was not screened to allow more light to enter. Mr. Campbell said review of the screening by the College was on-going. They would consider increasing the height.

Ms. Smith asked which other lights would be on all night. Ms. Gentile displayed floor plans and pointed out the egress paths where 24-hour lighting was required. She also located a two-story stair, visible from the west, that would also be screened. Mr. Loeffler said all of the light fixtures directed downward lighting.

Barbara McIlroy, of 1 Hayfield Road, asked about parking lot and pedestrian lighting and the percentage of light above the fixtures. Mr. Loeffler explained the design of the proposed cut-off, fully shielded fixtures.

## **Roundabout proposal**

Mr. Campbell said discussion of a roundabout proposal would need to be evaluated to the point of an engineered document to determine the impacts to this project. The rain garden and a bus stop location may be affected. BASCHNAGEL said the Town wanted to be sure nothing was done to preclude the installation of a roundabout. Ms. Smith agreed that the roundabout should be planned for rather than incurring extra cost in the future. Mr. Campbell said he did not believe the current proposal precluded that option. ESMAY questioned the ability to conduct that type of planning without the support of

engineered studies. COLLIER said she believed the Board had ruled previously that this would not be part of this application. Mary Gorman, Executive Officer to the Provost, said the College would continue to talk with Pete Kulbacki, Hanover Public Works Director, to minimize changes to the site plan due to future impacts from a roundabout. Mr. Boffa urged the Board to consider minimizing disruption of people using that intersection.

### **Storm water monitoring**

Kevin Worden, of Engineering Ventures, said the goal of infiltration was to direct runoff into areas where it could infiltrate. Three existing catch basins along the south side of Dewey Field Road should pick up the bulk of the flow from the proposed site. The area of the rain garden will also allow for infiltration. Attenuation trenches would also be utilized. Mr. Worden said percolation tests indicated rates of five inches per hour, marginal for a full-on infiltration system. The water would be filtered and treated prior to entering the infiltration systems. The attenuation trenches would be treated through disconnects, the water coming off the impervious areas would flow across grass prior to entering the trenches. The water entering the rain garden would be pretreated in catch basin stumps.

Mrs. McIlroy cautioned that a huge aquifer lies under that whole area. She questioned the use of geotextile cloth filters and asked whether this project required review under the Alteration of Terrain rules. Mr. Worden said it was necessary for the College to seek an Alteration of Terrain permit from the State. He had talked with DES and the UNH Storm Water Center at length about this project. The filter fabric was part of standard practice.

### **Construction Site Logistics**

BASCHNAGEL asked where Gates A, E and C were located and where staging would occur. Mr. Campbell said the main entry to the site would be from College Street at approximately the location of the proposed roundabout as depicted in the 10-03-07 "Project Site Plan with proposed roundabout overlay". There will be a fenced entry leading to the main entry of Vail/Remsen on the southern end. Staging would occur in the courtyard. BASCHNAGEL asked how the use of Vail/Remsen and the other buildings would be maintained. Mr. Campbell said a temporary bus stop would be provided just to the south of the current one. A fenced walkway would lead to the entry of Dana and Vail/Remsen.

### **Summary**

Mr. Campbell said the College had demonstrated through documentation and testimony to the Board that the project not only met but far exceeded many requirements. Beyond that the College had been responsive and given thoughtful concern to issues raised by the Board and OPNA.

Mr. Edwards suggested the College and neighbors consider a stipulation that would allow without limitation work inside a closed building and not audible from other properties.

HINGSTON questioned the parking calculations relative to the credits gained from the building demolitions. He asked if there were records of the parking requirements for these buildings. Mr. Edwards said this issue had been raised before and staff had found that the information was almost non-existent. The numbers presented were reflective of research conducted prior to the Dewey Field lot expansion approval. COLLIER said the Planning Board relied on the Zoning Administrator to approve the parking requirements prior to project approval, which she had done.

The College offered the following in response to questions posed by Vicki Smith:

4. The College will send letters offering vibration monitoring to all abutters within 500 feet of the site.
5. Deliveries and trash pick-ups will be restricted to after 7:00 a.m.
6. Noise during construction will commence after 7:00 a.m.
7. Construction would be limited to ten Saturdays. The College will work with the neighbors and the Town regarding the scheduling.

8. A drainage analysis report will be submitted.
9. Faculty parking will be provided in the Dewey Field lot.
10. Monitoring was not needed for the air quality from vents.
11. The College agreed to provide a 24-hour operator.

COLLIER asked if the Board was prepared to draft a list of conditions of approval. BASCHNAGEL acknowledged the sound reporting to date but said prior to approving the project he wanted a report of the final product incorporating all attenuation efforts. He said he also wanted to review the materials submitted at the start of the hearing.

COLLIER opened the floor to the public.

Wes Chapman, OPNA President, asked that the Board give the process and information flow a chance to see if the neighbors and College could come up with something that works for both parties that could be presented to the Board in a clear, complete, and correct format. COLLIER said it was important for the Board to remember what their review standards were and whether this project had met them. She said it was a Board responsibility not to become part of neighborhood conversations that go beyond requirement imposed by Site Plan Review Regulations.

Mr. Schuster said closing the hearing would be premature and submitted a list of unresolved issues. He said the OPNA should be given the opportunity to review and respond to the materials submitted at the start of the hearing.

**It was moved by DIETRICH, seconded by HINGSTON, to continue this hearing to November 6, 2007. THE MOTION PASSED UNANIMOUSLY.**

The College is to provide the following before the next hearing: details of the roundabout feasibility, construction rules and further settlement with the neighborhood, a crosswalk and pedestrian light to Dewey Field, Rivercrest impact to traffic, and traffic impact of staff parking relocation. COLLIER asked that additional comments be forwarded to Jonathan Edwards for distribution.

**Other Business:**

The Route 120 Report will be distributed soon for discussion in November.

The Penfield application will be before the Board October 16, 2007 along with an informal discussion with the Co-Op about a proposed project.

**Adjournment:** The meeting adjourned at 10:40 pm.

Respectfully Submitted,

Beth Rivard, Administrative Assistant  
Judith Esmay, Clerk