



PSI Staff Report  
 Babson First Year Residence PSI-13-01

Report Date: May 1, 2013  
 Prepared by: Meghan Jop, Planning Director

**GENERAL INFORMATION**

Owner: Babson College  
 10 College Drive  
 Wellesley, MA 02482

Applicant: Same as Owner

Location: Interior to Babson College between College Drive, Tomasso Hall, and Park Manor. Aerial photo attached to clearly depict project site.

Land Area: Babson College consists of 178 acres.

Zoning: The Development Area is zoned as both as Educational and Water Supply Protection District

Surrounding Land: The surrounding land uses to this project are primarily residential and recreational (Wellesley Country Club)

Documents associated with the staff review include the following:

1. Application for Project of Significant Impact & Site Plan Review submitted February 15, 2013 prepared by Sasaki Associates, Inc. 64 Pleasant Street, Watertown, MA 02472 stamped by Stephen E. Hamwey on 2/14/13.
2. First Year Residence Hall at Babson College Wellesley, MA:  
 Sasaki Associates, Inc. 64 Pleasant Street, Watertown, MA 02472 stamped by Stephen E. Hamwey on 2/14/13 and further revised 4/19/13

<u>Drawing</u>	<u>Page</u>	<u>Date</u>	<u>Revised</u>
General Notes	C-0.1	4/19/13	
Existing Conditions	EC-01	11/7/12	
Utility and Planning Schedule	EC-02	11/7/12	
Sediment Control and Demo Plan	C1-1	2/15/13	4/19/13
Layout and Materials Plan	C2-1	2/15/13	4/19/13
Grading and Drainage Plan	C3-1	2/15/13	4/19/13
Utility Profiles	C-3.2	4/19/13	
Sewer Lines Utility Profiles	C-3.3	4/19/13	
Utilities Plan	C-4-1	2/15/13	4/19/13
Planting Plan	C-5-1	2/15/13	4/19/13
Irrigation Plan	C-6.1	4/19/13	
Site Preparation Details	C-7.1	4/19/13	
Utilities	C-7.2	4/19/13	
Utility Details	C-7.3	4/19/13	
Site Details	C-7.4	4/19/13	
Site Details	C-7.5	4/19/13	

Site Details	C-7.6	4/19/13
Planting Details	C-7.7	4/19/13
Ground Floor Evac. Plan	A-020	2/15/13
First Floor Evac. Plan	A-021	2/15/13
Second Floor Evac. Plan	A-022	2/15/13
Third Floor Evac Plan	A-023	2/15/13
Electrical Site Plan	ES-100	2/15/13

3. Traffic Impact and Access Study prepared by TEPP LLC, Transportation Engineering Planning and Policy, 93 Stiles Road, Suite 201, Salem, NH 03079. Stamped by Kim Eric Hazarvarttan and dated February 6, 2013
4. Memorandum to George Saraceno from Zachary Chrisco dated May 1, 2013 Re: PSI Review Comments.

### **Existing Conditions**

The project site is located at Babson College, 10 College Drive. The site is bounded by Wellesley Avenue to the north, Forest Street to the east, College Drive (interior to campus) to the west and Park Manor (interior to campus) to the south. Residential areas about the campus to the north along Wellesley Avenue. The Wellesley Country Club is across the street to the east. The remaining portion of the Project site is interior to the campus. The Project site is currently vacant land.

### **Proposed Project**

The Project consists of the construction of a 78,000 square foot 200-bed traditional style residence hall. In addition to the structure, new landscape elements including plazas, terraced seating and new tree planting will be added to the site. The location for the project was chosen to create two new quadrangles, Tomasso Lawn and the new Residential quad. Parking areas will not be added. Students will continue to use the existing on-site parking facilities.

### **Staff Review Comments:**

The Projects of Significant Impact Bylaw mandates an assessment of the development impact on the Town's infrastructure. Under this provision, any new project, exceeding 10,000 square feet of floor area and building renovation exceeding 15,000 square feet for a change of use, will require a Special Permit from the Planning Board. After extensive review of the proposed development with other Town boards, departments and consultants the Planning Board is authorized to issue a Special Permit only if it deems that there are adequate municipal services available. Components reviewed are water, sewer, storm drainage, electric service, fire protection and life safety, traffic, pedestrian and bicycle safety and accommodations, and refuse disposal and recycling. Each infrastructure component, the proposed modification, and review comment from the applicable Board is described below.

**The Water, Sewer, Electric, Refuse, Fire, Pedestrian Safety, Stormwater reports were prepared by Sasaki Associates Inc. 64 Pleasant Street, Watertown, MA 02472**

**Water :** The proposed project is anticipated to generate 17,653 gallons per day (gpd) on an average basis. The proponents believe the actual demand will be less given the incorporation of low flow fixtures.

The project proposes to provide domestic water and fire suppression via a wet tap off of the existing 12" main in Babson College Drive. The applicants have also provided a hydrant

flow test which indicates there is adequate pressure in the existing hydrant located 135 feet from the proposed building.

**Engineering:** The Engineering Department issued a recommendation on April 19, 2013 which states the following is needed to meet the minimum service standards:

1. Provide a 4" water gate to the proposed water service connection to the residence hall building.
2. Label all water pipe sizes on the plans.

**Revised Plans:** Sasaki submitted revised plans for review on May 1, 2013. The plans have labeled all water pipe sizes and have provided a 4" water gate.

---

**Sewer:** The proposed project is anticipated to generate 16,048 gallons per day of sewer. There are two sewer trunk lines in close proximity to the project. The applicants evaluated the capacity of both the Fuller Brook and Brookside Trunk systems and determined that the Brookside Trunk System has a greater capacity. To further reduce inflow and infiltration Babson agreed to conduct a video assessment of the pipes to repair any portions with cracks or leaks. The sewer flows will be in excess of 15,000 GPD and a Mass DEP Sewer Connection Permit will be required.

**Engineering:** The Engineering Department issued a recommendation on April 19, 2013 which states the following is needed to meet the minimum service standards:

1. Label the proposed sewer manholes, including proposed rim and invert elevations.
2. Label pipe size, material type and flow arrows for the proposed sewer pipe.
3. Describe what inflow and infiltration reduction improvements will be recommended.

**Revised Plans:** Sasaki submitted revised plans for review on May 1, 2013. In the memorandum accompanying the plans, it is noted that Babson retained a company to video, analyze and remediate the inflow and infiltration of the pipes. The Brookside Trunk system was videotaped and currently being reviewed. Engineering is reviewing the tape and analysis and should have an update prior to the meeting on May 6, 2013. All other plan deficiencies have been added to the revised plans.

---

**Electric:** The project as proposed will require a new 2500 Amp service for the residence hall and it is anticipated the completed project will use up to 270 kW at times of the year. A new electrical duct bank will be constructed and will be fed from a new unit substation at the new residence hall.

**MLP:** The Municipal Light Plant issued a recommendation on February 22, 2013, which indicates the existing electrical infrastructure has enough capacity to support the proposed electric service.

---

**Traffic:** The Zoning Bylaw defines a Roadway Impacted by Development Traffic as a roadway segment, including one or more approaches to an intersection, shall be considered as impacted if traversed by 20 or more vehicles related to the project in a single direction during any single hour and:

- a. A signalized intersection and Average Daily Traffic or Peak-Hour Traffic will increase by 5% or more; or
- b. Is an unsignalized intersection with a minor street approach with Peak-Hour Traffic of 50 or more vehicles; or
- c. Is substandard, as determined by the Town Engineer, in terms of structure, pavement surface, or other deficiencies; or
- d. Exhibits safety problems as identified by the Town Engineer, Town Traffic Engineer or other qualified professional as determined by the Planning Board.

**TEPP LLC**, conducted the Traffic Impact and Access Study to evaluate the traffic portion of the PSI. The Traffic Study indicates that the improvement project will create additional on-campus housing, but will not increase student enrollment. The traffic study included the following roadways and intersections:

1. Wellesley Avenue/Forest Street
2. Wellesley Avenue/ Babson West Gate Entrance
3. Forest Street/ Babson Main Gate Entrance.

Proposed Conditions were projected out to the year 2017, representing a 5-year design build and a no build scenario. Under the no build scenario a background growth factor of 1 percent is added to existing vehicle trips. The trip distribution analysis shows the project would not result in an increase of traffic on the area roadways and intersections. The applicants state the peak hour traffic is not expected to impact the operation of this location and could in fact reduce volumes under the Build Condition.

In review of sight lines, improvements are proposed to further increase sight lines looking east (right) exiting the Babson Main Gate driveway on Forest Street. It is recommended that the lower branches of an evergreen tree located at the main entrance be trimmed. In addition, Babson will continue Transportation Demand Management strategies including:

- Shuttle bus service to Olin and Wellesley College
- Carpooling support
- Expanded bicycle use support and bicycle sharing program
- Flex-time schedule
- The summer four-day work week program and wellness program.

**BETA:** Beta Engineering, the Town's traffic consultant, conducted a peer review of the project and submitted a memo to the Board of Selectmen on April 22, 2013. The letter states one concern that the Wellesley Avenue traffic counts were collected on a Wednesday where the elementary schools had a ½ day in November. It was recommended a 5% increase be added to the Wednesday count. Beta agreed with the trip distribution analysis prepared by the applicant that the project would not meet the PSI criteria for an impacted roadway.

Beta recommended the following:

1. The evening peak analysis is revised to reflect the higher traffic volume on a normal school day.
2. The applicant should provide information on the number of students who currently commute that will now live on campus and an estimate for the number of trips that will be reduced as a result.
3. Beta recommended clarifying the staffing levels and new trips possibly generated for the residence hall, clarifying which driveway students will use, and how the internal circulation of the site may be impacted.

4. The residence hall construction should be coordinated with the Wellesley Country Club project.

**Selectmen:** The Board of Selectmen will be conducting a public hearing prior to the start of our meeting. The meeting is scheduled for May 6, 2013 at 7:15 pm.

**Staff:** The applicants have trimmed the trees looking east at the Main Gate entrance to improve sight lines. Staff and the Engineering Department discussed at a May 1, 2013 meeting pedestrian access along Wellesley Avenue. Babson has agreed to look at posting signage to direct pedestrians along the internal sidewalks along Wellesley Avenue to improve safety along Wellesley Avenue to the existing sidewalk network at Forest Street.

---

**Refuse:** Currently Babson utilizes private haulers to remove solid waste from the property; the waste is then brought to a licensed disposal facility. The process will not be altered as a result of the project.

**Engineering:** The Engineering Department issued a recommendation on April 19, 2013, which recommends a recycling program be provided for the proposed project and that refuse be removed by private haulers.

---

**Fire:** The project will be accessed in case of emergency from Campus Drive. A fire control annunciator with a fire control panel will be installed in the electrical room. A fire hydrant is located 135 feet from the proposed building and an automatic sprinkler system will be provided throughout the building as required by State Building Code. An evacuation plan has also been submitted and reviewed by the Fire Department.

**Fire Dept.** The Wellesley Fire Department on March 14, 2013 stated they have no objection to moving forward with the project.

---

**Storm Drainage:** The proposed project will result in a new increase in impervious area of .49 acres from the new building roof and associated entry plazas. A subsurface detention structure is proposed to reduce flow rates below the pre-development conditions. The increase in impervious will also likely result in additional suspended solids with the runoff from the site; therefore, a water quality structure is proposed to maintain the quality of water running off the site. The proposed plan will reduce runoff rates for 2, 10, 25, and 100 year storm events.

Soils analysis for the project has indicated the soils are poor draining glacial till, therefore recharge of groundwater cannot reasonable be achieved as part of the stormwater management plan. The project seeks to connect into the Town's existing stormwater drainage system.

Babson is confident the Town's system has enough capacity to handle the additional run off and will design the connection to meet the Town's connection regulations.

**Engineering:**

The Engineering Department issued a recommendation on April 19, 2013, which recommends the following items be provided:

1. The condition of the existing drainage system that will be directly impact by this project be investigated with the aid of a closed circuit television camera.
2. Provide a wash pad for construction.
3. Show hay bales and silt fence or erosion control sock on plan
4. Revise Study Point #4 to state it discharges to the existing 15" pipe on Forest Street.
5. Show detail and cross section of proposed infiltration system
6. Provide and Operation and Maintenance Plan for proposed infiltration system
7. Provide a description of each Stormwater Management Standards per MassDEP in the Storm Drainage Impact Analysis
8. Provide the pipe capacity of the existing 8" storm drain.
9. On Drainage Plan label the proposed drainage structures.
10. Provide a complete description of the drainage system and infiltration chambers to complete the review.

**Revised Plans:**

Sasaki submitted revised plans for review on May 1, 2013. In the memorandum accompanying the plans Babson addressed Engineering's comments. Numbers sync with above.

1. Babson retained a company to video the culvert as requested.
2. A detail for the wash station will be added to the plan for Site Plan Review.
3. Plan updated
4. Revised storm drain report has been submitted.
5. Plan updated
6. O & M will be provided during Site Plan
7. Revised storm drain report has been submitted
8. Plan Updated
9. Plan Updated
10. Plan Updated with detail.

---

**Zoning Bylaw Conformance****Section XVIA. Project Approval. (C) (3.) (e) states:**

**The Planning Board shall grant a special permit provided the following minimum service standards are met:**

**Water:** There shall be sufficient water capacity to meet the flow demands of the proposed use without causing municipal water flow characteristics off site to fall below the standards adopted by the Board of Public Works.

**Staff:** Minor plan revisions have been completed to show requested modifications to meet DPW standards, the project meets the minimum service standards.

**Sewer:** There shall be sufficient sewer capacity to meet the flow demands of the proposed use without causing surcharge in those sewer lines which serve the project and consistent with the standards adopted by the Board of Public Works.

**Staff:** Minor plan revisions have been completed to meet DPW standards; the project meets the minimum service standards.

**Storm Drainage:** There shall be sufficient storm drainage capacity to meet the flow demands of the proposed development site without causing surcharge in those storm drainage lines which serve the project and consistent with the standards adopted by the Board of Public Works.

**Staff:** The Engineering Department required additional information to complete their analysis. A revised storm drainage report has been submitted, along with required details and plan updates. Engineering is reviewing the new information and will try and complete the review prior to the opening of the hearing on May 6, 2013.

**Electric:** There shall be sufficient electrical capacity to meet the peak service demands of the proposed use without causing the service in adjacent areas to fall below the standards adopted by the MLP.

**Staff:** The MLP has verified the proposed project meets the minimum service standards.

**Traffic, Pedestrian and Bicycle Safety:** The project proponents and Town's traffic consultants have verified the project does not generate any "Impacted Intersections" or "Roadways Impacted by Development Traffic". Clause 1 under traffic does not apply.

Clause 2 and 3:

With respect to unsignalized impacted intersections having fewer than 50 Peak Hour vehicle trips on any minor approach, the Applicant shall undertake an evaluation to identify any specific circumstances requiring further action or mitigation, which may be the subject of negotiated improvements at the discretion of the Planning Board.

Pedestrian and bicycle circulation shall be provided in accordance with recognized safety standards; provided in all cases sidewalks within a distance of 600 feet of the Project shall be provided and in addition sidewalk connections within such radius to surrounding neighborhoods and to public transportation shall be provided as required by the SPGA in a safe and convenient condition and consistent with standards of the Massachusetts Highway Project Development and Design Guide.

**Staff:** There are no additional sidewalks proposed as part of the project. The sidewalk located at Wellesley Ave and Forest St. to (a point) 600 feet west of Forest St. were replaced as well as from Wellesley Ave/Forest Street along Forest Street to Abbott Road, western side of the road in 2006. Staff discussed sidewalk concerns along Wellesley Avenue. Babson has indicated the installation of sidewalks would be disruptive to the neighbors on the north side of Wellesley Ave, and would require significant tree and wall removal on their property (south side), which too would visually disrupt the neighborhood. Staff and the DPW have asked whether there are existing routes that could be formalized for public access.

**Fire Protection and Life Safety :** There shall be sufficient municipal fire alarm system capacity to meet the operating requirements of the proposed use under applicable codes, regulations and statutes enforced by the Fire Chief. There shall be off-site fire protection facilities serving the development site in the opinion of the Fire Chief meeting the needs of the project based on the intended use and occupancy including fire flow requirements, location of and access to fire hydrants and access for emergency

vehicles. The Fire Chief may require a comprehensive emergency plan which shall include an evacuation plan satisfactory to the Fire Chief and meeting the specifications and standards adopted by the Fire Chief.

**Staff:** The Fire Department has indicated the minimum service standards have been met.

**Refuse Disposal:** Refuse recycling and disposal system, consistent with the standards adopted by the Board of Public Works, shall be provided.

**Staff:** The minimum service for waste disposal has been met.