

BRIGHAM REIMAGINED PROJECT PRESENTATION HEARING  
TUESDAY, JUNE 4, 2024  
7:00pm

The meeting began at 7:00pm.

Those attending were Lance Lawyer, John West, Kathy Lavoie, Paul Dreher, Alice and Gary Foote, Sharon Lawyer, Kathy Lavoie, Linda McCall, Rachel Huff, Brian Westcom, Brad Alexander, Tami Brennan.

Lance welcomed those attending and said that the Brigham Academy building was built in 1897 and closed in 1987, so was in operation for almost 100 years. Lance said that a lot of our families went to grade school there and high school there and it means a lot to the town. Brigham Academy is in the center of our town and on our town welcome signs. For the last 40 years we have been trying to find a use for the building and if we don't do something soon, we are going to lose the opportunity. Three and a half years ago, Northwest Regional Planning Commission approached us and asked if we wanted to participate in a planning grant that would fund a feasibility study and we had the study done by Doug Kennedy. Lance said that Tim Smith from Franklin County Development Corporation has been helping us in this matter for 10 years. Lance said that Paul Dreher, of Dreher Design, has put in twice the number of hours that he has billed us for, trying to find ways of being creative as a labor of love for the building. Lance said we wouldn't have gotten this far without Paul and Tim and Kathy Lavoie. He said that the project is still in the planning stage as we try to find the best use, which is a bit different from what we originally wanted as that would not have been financially feasible. In the end, the building must support itself.

Paul Dreher said that Lance has worked hard on this since before the pandemic, as a labor of love for the building, the community and his children and that as a team, they have made great progress toward possibly meeting the community's needs and housing needs.

The slides of the Paul Dreher's power point presentation follow below after the recorded questions.

Questions from those attending-

Rachel Huff asked if the developer would be in charge of hunting down the money needed. Lance said that depends on who owns it. Paul said that if you went with community block grants for the implementation phase, there is a conservation board that provides a consultant for specific needs like managing this pursuit of funding. He said it would be in your best interest to have your developers' hands in that as well as any monies that can be provided that don't come out of his pocket, he may consider money spent on a consultant can be money well spent. Paul said that he didn't believe that the community of Bakersfield would be burdened with the funding but that some grants require

community endorsements and that may be what constitutes the community involvement.

Kathy Lavoie from the NWRPC who wrote the planning grant, said that she met with the potential developer, and she believes that they should hold another potential funders meeting with entities that can help you find money. She said that it is not just the grants that we can apply for, it's a matter of how you knit those funds together to get this accomplished. She said one of your resources is NWRPC and that she and Tim would still be involved and the potential developer.

Paul said that he is committed to the project and helping the community out in ways that he can.

Sharon Lawyer said that she has the utmost confidence in you folks finding the money. She said she was concerned with people being unaware that this is happening and being scared of the impact and change. Sharon said that she, herself, doesn't feel this way at all but she is worried about people's perception if at some point you need the approval of the town. Lance said that this hearing was warned, with 15 days' notice, published in the Messenger, on the town website, on Facebook, posted in town at the Jolly and the Post office, reminded of in the minutes of the previous Select Board meetings, and is being recorded and can be viewed on the town YouTube channel accessible on the home page of the town website.

Lance and John said they were disappointed with the turnout and thanked those who came.

Sharon asked if it had to go before the voters. Paul said that the board of aldermen can approve or disapprove without the vote of the people and that if the developer buys the building, he can do what he wants.

Paul said that when he and others came into town and were working around the building, people would come over and ask questions and show interest. He said when activity starts, then the community seems to show up. He said that community development builds a thread. When an excavator shows up, people start to ask questions and become informed.

John Crispell asked about the parking. Lance said that we have been offered a half-acre lot adjacent to Brigham that would give plenty of space to provide parking for the residents and then on the south side of the building, room for parking for visitors. This lot has been offered to the town to buy or lease.

Brad Alexander said that the design was for 24 units originally. Lance said that has been changed to 16 units because of restrictions from Preservation Trust and National Parks. Lance said that they wanted certain areas left so that they could be reclaimed, if possible, in the future. This effects the amount of tax credits involved, which will come to about \$800,000.00. The gymnasium area will be two multi-level units and the south stairway will be contained within a multi-level unit that incorporates the stairs so that you could reclaim the staircase by removing a few walls.

Lance said that Jim Cameron is the potential developer that he has put in his own time and money in as he is considering developing this.

Brad said that because the historical ties to Brigham and Woman's Hospital in Boston is unique, if they have considered taking one of the spaces in the building and offering rural medicine to tie the historical knot back in with them. Lance said possibly a visiting nurses office.

John said that he thought that a small store within the building for the elderly to easily access for simple day to day needs might be nice.

Linda McCall asked if they had considered moving the Post Office into the building as the Post office has outgrown their space and having more rental units would increase the need. The post office would pay rent for the space. Lance said that is something to consider and the old kitchen would be a perfect spot for that. Linda said that is what she was thinking.

Kathy said that there is no mandate for elderly housing. She said that from one of the funding streams you could get \$30,000.00/per one-bedroom unit.

Paul said that the thrust for elderly housing was that it was not felt that having multiple units in an old building of 40,000 sq feet would not be suitable for family with small children. The plan is more for a single person or a couple with no children, not family housing.

Tami brought up the Fair Housing Act that states that unless a residential complex has the restriction of 55 and older, you cannot discriminate against a family renting.

Paul said that these would be one-bedroom units, so based on unit type, you eliminate families.

Tami said that if a single parent with a child applies, you can't turn them down even though the child might be a hyper 4-year-old.

Paul said that the one bedroom would not leave room for children.

Sharon said that she has seen students living in situations just like this, living in pretty dire situations.

Rachel Huff said that since we have other community spaces in the Historical Society and the church we don't really need another, but the school does not have enough space so having community space for school access would be nice.

Lance said that room for a daycare was discussed. He said that we are just brainstorming and there are lots of ideas and no decisions have been made yet. He said that VT Preservation Trust spent over \$100,000.00 on Brigham's roof a little over 20 years ago and they insist on having a say.

Brad asked if they had an estimated property tax on the building yet and Lance said not so far. Brad said that if seniors in town decide to live in the building, they may sell their 3- or 4-bedroom houses for families.

John thanked everybody for coming and said that the video of this meeting will be posted on the town's YouTube channel located on the home page of the town website. Lance said that if anyone has any questions, they can bring it to Lance and if he can't answer it, then he will get to Tim or Kathy or Paul and get back

to you. Any questions will reach Lance if emailed to [townofbakersfield@gmail.com](mailto:townofbakersfield@gmail.com).

John thanked Lance, Paul, Kathy, Tim and Jim Cameron for all of their efforts over the years.

Kathy said that they will be closing out the planning grant the third week in June, and this public presentation was a requirement of that grant.

Lance said that next step could be an implementation grant.

Paul said those are large grants of up to a million dollars, and then the \$30,000.00/unit and then the \$800,000.00 in tax credits.

Kathy said that Jim Cameron's estimate is 3.5 million to complete the project and he would be working with that budget. He is doing all this research and prep work in-kind, as he loves the building. She said if Jim can't make the numbers work then it would be very difficult to continue.

Sharon said that in 1998, the project of Brigham was estimated to cost one million dollars and after 26 years, 3.5 million doesn't sound as high as expected.

Rachel Huff said that Preservation Trust's need to be involved could work to benefit the whole project if people are afraid of change, since there will be parameters in place.

Lance said if we wait a few more years, then we will lose the building and have to pay to have it torn down.

The meeting ended at 8:04pm.

Meeting minutes recorded by Tami Brennan.

## Context

- In 2021 the Town of Bakersfield applied for and was awarded a Community Development Block Grant.
- The purpose of the grant was to provide funds for planning purposes to evaluate the preservation of Brigham Academy.
- The intent was to explore alternatives for the re-use, and the economic impacts of preserving and revitalizing the structure.

# GOALS

- Identify potential uses of Brigham Academy through an in-depth Market Analysis.
- Determine “structural” integrity of Brigham.
- Determine the “site” capacity for septic infrastructure.
- Determine the requirements of the *Vermont Department of Historic Preservation*.
- Determine architectural capacity for preservation and reuse of the building.
- Identify a potential strategic partnership to ensure success of the project’s transition to implementation.
- Identify additional funding resources to ensure the project successfully transitions from “planning phase” to “implementation phase”.

# State of the Project

## 1. Market Study:

- *Study is available in the town offices.*
- *The conclusions suggest that some portion of Brigham Academy be re-purposed to “market rate” 1 or 2 bedroom “senior” apartments.*
- *Additional uses may include space for existing Bakersfield Town Library and/or Historical Society, or space for the creation of a Community Center with kitchen and meeting area.*

## 2. Civil Engineering:

- *Report is available in the town offices.*
- *Trudell Consulting Engineers completed, four test pits were dug.*
- *In-depth soils analysis was performed.*
- *Conclusion is the site capacity is sufficient to support the uses identified through the Market Study.*

# State of the Project

## 1. Structural Engineering:

- *Report is available in the town offices.*
- *With minor reinforcement (to achieve 40psf) the entire structure is compatible with residential uses*
- *Additional uses such as the Town Library, Town Historical Society, and/or Community Center are best suited for the base-level or first floor*
- *The second story auditorium would require significant reinforcement if used as Assembly space, it is better suited for classroom or office.*

## 2. Architectural Assessment:

- *Initial studies and drawing indicate that 24 +/- dwelling units are possible. (NOTE: Criteria for receipt of State & Federal Tax Credits could determine the actual number of units.*
- *One parking space per unit plus one parking space for every 4 units for staff and visitors.*
- *Conclusion is that the existing structure has sufficient floor area for 24+/- units and also additional Assembly space.*



# State of the Project

## 1. Department of Historic Preservation (Tax Credits)

- *This line item will be completed in development stage.*

## 2. Identifying Strategic Partnerships:

- *Existing partners include Northwest Regional Planning Commission, Franklin County Industrial Development Corporation and Preservation Trust of Vermont.*
- *A potential private developer is engaged.*

## 3. Potential Funding Sources:

- *Federal & State Historic Tax Credits*
- *Efficiency VT rebates/credits*
- *Community Development Block Grants-- Implementation Grant*
- *VT Housing Conservation Board*
- *HUD/FHA Section 232 Loans*
- *Preservation Trust of Vermont—Village Revitalization Initiative*
- *Low Income Tax Credits/VHFA*

## **State of the Project**

### **3. Potential Funding Sources (continued):**

- *USDA RD Community Facilities and/or housing grants*
- *State of VT Water/Waste Water Revolving Loan Fund*
- *Vermont Community Loan Fund*
- *Champlain Housing Trust Loan Fund*
- *Northern Borders Regional Commission*
- *Public - Private Partnership--in consideration*
- *New Market Tax Credits*
- *Designated Village incentives (Act 250 relief, etc.)*
- *Franklin County Industrial Development Corp*

# General Conclusions and Next Steps

1. **Conclusion:**
  - *All activities undertaken in this planning grant indicate that the Brigham Academy building is compatible with the use of housing and community facilities.*
2. **Next Steps & Outstanding Questions:**
  - *Ownership model*
  - *Maintenance model*
  - *Parking: Location and Ownership*
  - *Budget & Funding for Various Activities and at Various Stages of re-development*
  - *Timelines for funding sources relative to re-development*



June 3, 2021

Community Development Board

RE: Response to Planning Grant Analysis: Town of Bakersfield

Grant # 07110-PG-2020 Bakersfield-14

Summary of Project Issues: Project Need ~ Appropriateness of Funding Sources

The Development Team of Brigham Academy Reimagined has considered the Analysis and responds accordingly:

- 1) Franklin County Industrial Development Corporation (FCIDC) Board of Directors voted on June 3, 2021 to reconsider its previous motion to commit \$10,000 to the Implementation phase of the project. Upon reconsideration of the importance of the Brigham Academy project to our region's need for housing, the Board of Directors has voted to shift the \$10K donation to the Planning phase of the project, lowering our Planning Grant request from \$60,000 to \$50,000. Amended Budget is attached.
- 2) Developer Heidi Eichenberger, CEO, Housing Our Seniors in Vermont (HOSIV), has outlined in a letter attached, the commitment she has made to the project. Her contributions to the project already exceed \$22,000, not reflected in our Planning Grant budget as they are relative to the creation of legal entity Brigham Residence, LLC, as well as time spent to bring the project to a suitable stage for a Planning Grant application. Ms. Eichenberger also explains the Public/Private Partnership that will shape the management of Brigham Residence, LLC. See Attached.
- 3) The Town of Bakersfield verifies the \$313,500 value of Brigham Academy through the tax assessment card attached. Also explained in an attached letter is the agreement between the Town of Bakersfield and Brigham Residence, LLC to sell Brigham Academy for \$1 for the purpose of development purposes. See Attached (2).
- 4) Northwest Regional Planning Commission (NRPC) has donated in excess of 100 hours for Kathy Lavoie to focus on engagement and grant writing. NRPC is committed to the project, and along with FCIDC, has identified it as a regional priority on multiple State and Federal project lists.

- 5) In-Kind contributions totaling \$6000 (as required and reflected in Planning Grant budget) through NRPC, Town of Bakersfield, and Dreher Design further reflect commitment by the core Development Team. The Select Board assures that a Town employee will attend Fair Housing Training, and be efficient and prompt in grant administration, including progress and financial reporting.
- 6) Partners outside of the Development Team that are committed to the redevelopment of Brigham Academy include Preservation Trust of Vermont and Vermont Housing Conservation Board. As noted in the grant application, Preservation Trust of Vermont provided a total of \$20,000 to replace portions of the three story mansard clock tower roof in 2001, and has committed their support to the overall development of the project. Additionally since the Planning Grant submission, Efficiency Vermont has committed funds to the future development. See Attached.

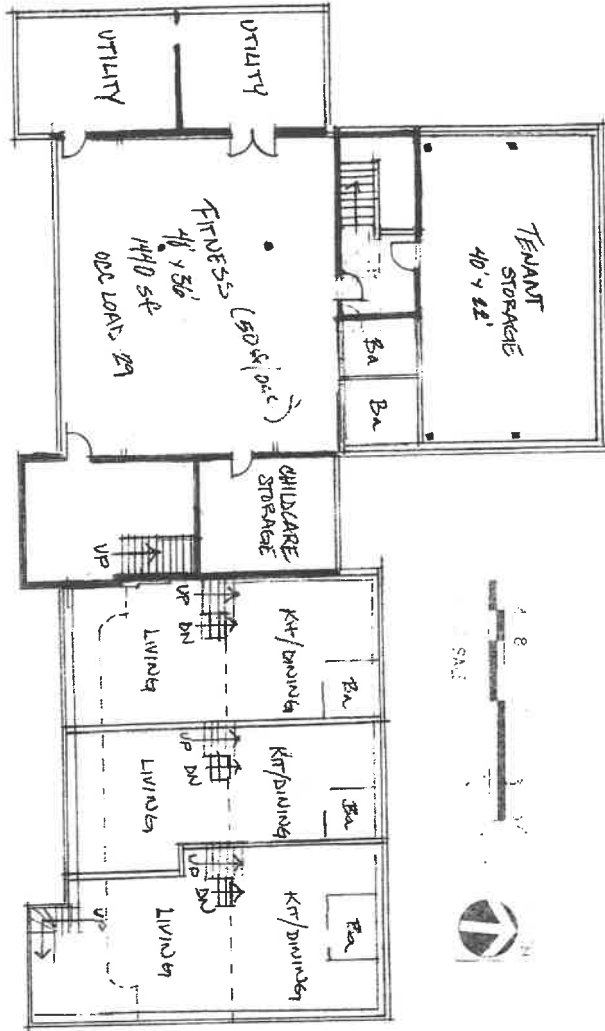
In closing, the Development Team for Brigham Academy Reimagined is very diverse and very committed. We look forward to ACCD being a part of our team, and completing a project that supports the community of Bakersfield and the housing needs of the region.

Respectfully Submitted,

Kathy L. L. Lavoie

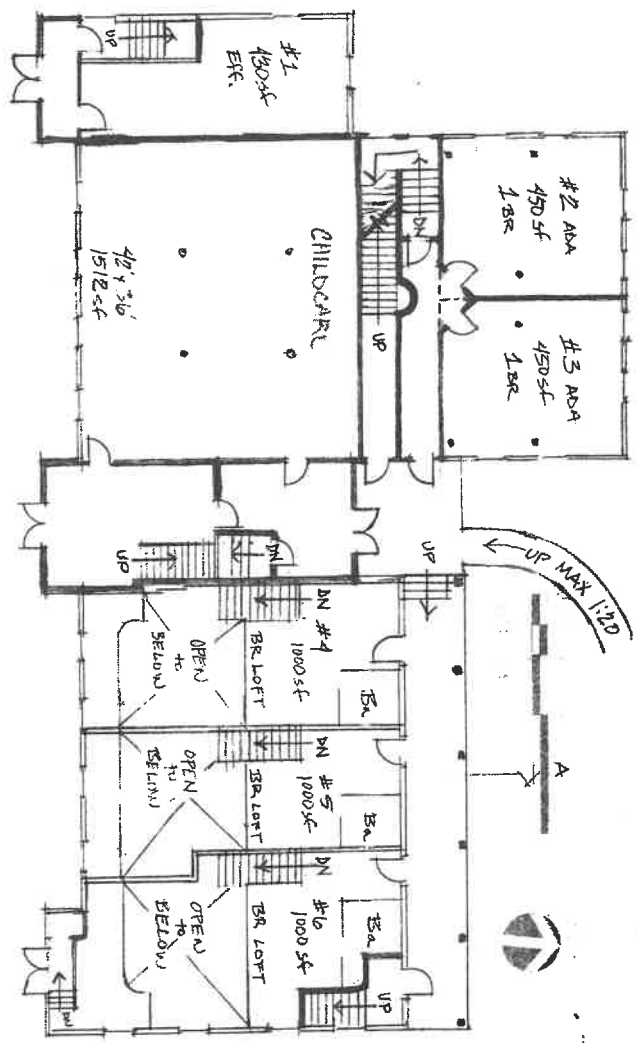
Northwest Regional Planning Commission

Special Projects for Economic Recovery



Basement

*First Floor*



— RATED WALLS  
 — EXISTING FOOT WALLS



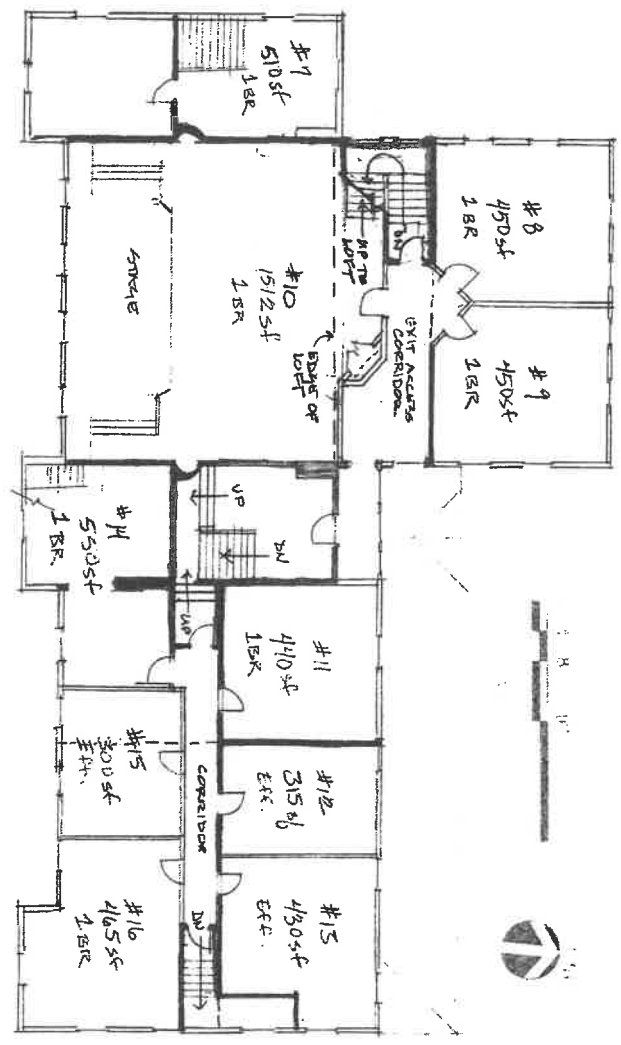
COLLEGE YOUTH VERMONT  
 100 W. MAIN ST.  
 BURLINGTON, VT 05401  
 802.868.9531

**BRIGHAM ACADEMY**  
 72 ACADEMY LANE, BAKERSFIELD, VT 05441



**2nd Floor Plan**  
 SCALE: 1/16" = 1'-0"

**SK1.3**  
 03/08/2024



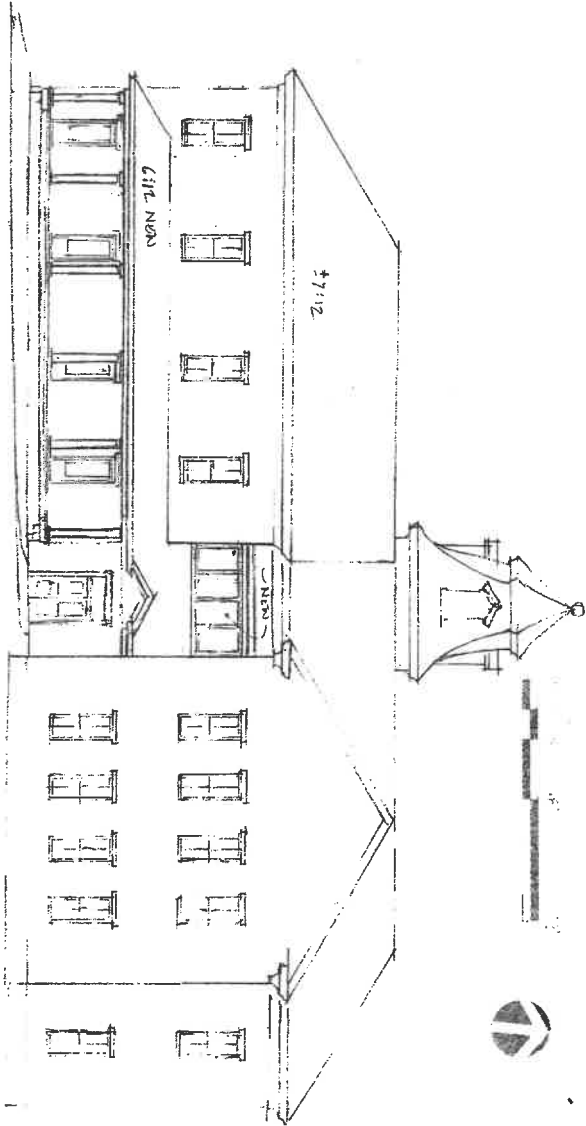
*RWB F1007*

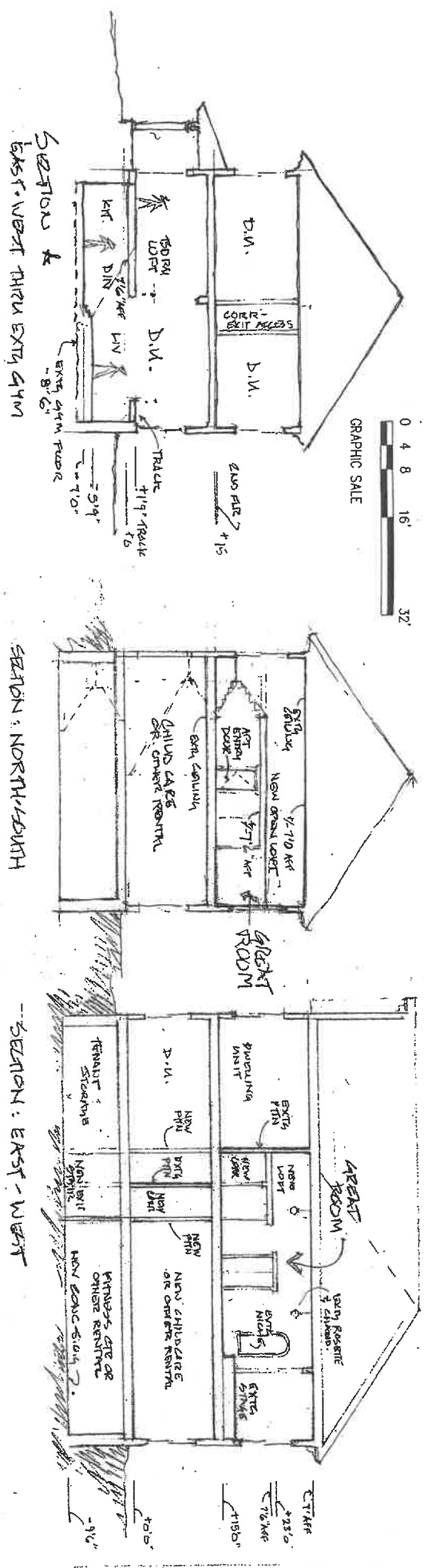
ORNDORF VIVIAN VERMANN  
ARCHITECTS, INC.  
Burlington, VT 05401  
802.241.1901

**BRIGHAM ACADEMY**  
72 ACADEMY LANE, BAKERSFIELD, VT 05441

**REAR ELEVATION**  
SCALE: 1/16" = 1'-0"

**SK2.1**  
03/08/2024





## Section 1 Introduction

---



Brigham Academy is an icon in the Town of Bakersfield, Vermont. The building, which is listed on the National Register of Historic Places, reflects the town's past as a center of secondary education. In the late 19<sup>th</sup> century, Bakersfield boasted three academies. Brigham Academy, founded with a bequest from native son Peter Bent Brigham in 1887, was at its center. In addition to agriculture, the Town's economy thrived on the commerce brought by students. Today, Bakersfield has a huge asset in its architecturally-intact Village. However, as the number of students has dwindled, so has commerce. The Academy has been vacant since 1987. There has long been interest in Bakersfield to bring life back to the Academy. It is a large task, which has had several champions over the years. Many Bakersfield residents, including the Selectboard members, went to school at the Academy remember it fondly and want to see it in use again. The current project, a Community Vision & Structural Analysis for Brigham Academy is the next stage in the process of reactivating the Academy.

The purpose of the Community Vision & Structural Analysis for Brigham Academy was to assess the building's structural integrity, generate enthusiasm for the Academy and to identify ways that the building could be reused. This report will summarize the two project components: a structural assessment of the building and a community visioning workshop. It will also present case studies showcasing success stories of similar buildings in Vermont that have been redeveloped. This project has been funded with a 2012 Municipal Planning Grant from the Vermont Agency of Commerce and Community Development, a grant from the Preservation Trust of Vermont and with Technical Assistance provided by Northwest Regional Planning Commission.

In 2003, the VT Housing and Conservation Board provided a \$134,000 grant that replaced the roof on the 114' long structure. One outcome of this grant was the 2003 Brigham Academy Agreement between the Town and the School District. The agreement states that Bakersfield Elementary School may use 75% of the building and the Town may use 25% of the building. The agreement expires in 2013, with full rights returning to the School District. The town and the school need to work together to realize Brigham Academy's full potential as a catalyst to revitalizing the village.

There have been other efforts over the years to restore Brigham Academy. The Vermont Division of Historic Preservation and The Preservation Trust of Vermont provided a total of \$20,000 to replace portions of the three story mansard clock tower roof in 2001. The 1996 Brigham Academy Restoration Plan was funded through a \$25,000 Community Development Planning Grant to the Town, which concluded that the Academy building is an "eminently useful structure...originally very well built...has withstood the ravages of time very well..." The final report suggests a long term strategy for renovating the structure and returning it to its former stature as a principal feature of Bakersfield Village. During the past 16 years, however, the removal of an addition built in 1973 has left openings on the rear of the building, snow banks have been piled against the brick walls of the Academy to clear parking spaces for the school, and runoff from the roof has damaged the foundation. A recent school bond approved an enlarged, paved parking area adjacent to the Academy, could further damage the Academy's foundation.

The next section of the report will summarize the engineer's structural assessment and findings related to the Academy.

## **Section 2                      Brigham Academy Structural Assessment**

---

The town contracted with David Boehm from Engineering Ventures, a structural engineering firm with a specialization in adaptive reuse, to conduct an assessment of the building's structural integrity focusing on the foundation, the roof and the immediate site around the building. According to the engineer, the assessment was by no means an exhaustive structural review of the structure. Rather, it was a visual overview, with selected areas chosen for some basic calculations in order to get an idea of strengths and capacities that may exist within the structure. Even these areas may not be representative of un-reviewed areas, and some key items such as connections are beyond the scope of this report.

In general, the engineer concluded that while considerable work is needed to restore and reinforce the structure, a great deal of the building's structure is sound or can be repaired or reinforced with some straightforward solutions and that structural rehabilitation to meet current standards makes sense. Over the course of two site visits, the engineer recorded the following general observations about the building:

### **Site Conditions**

The site around the building is relatively flat, which has contributed to water problems around the foundations, and water and dampness in the basement and under the gymnasium. Work underway along the north half of the north foundation wall to add



crushed stone along the wall at grade is intended to help with erosion below the drip line from the eave above and improve drainage in this area.

#### **Recommendations:**

- Basic soil tests would be in order to understand the drainage characteristics of the soil around the building. Depending on the results, options for improved drainage could be evaluated. In almost any case, the surface grading around the building should be improved.
- This could be accomplished by simply grading down from the current grades along the building to shallow swales. These would need to be extended on the surface to a lower discharge area, or piped under the surface to such an area.
- There does appear to be a lower area to the northeast of the building. An impermeable layer below the slope and swales could be used for further control of water seeping down.
- Another option is to raise the grade slightly at the building to simply create more positive drainage away from the building. This would involve some window wells and would have some small amount of impact on the weight against the basement walls.
- A more aggressive approach would be to install foundation drains if there is enough change in grade to be able to discharge to a lower area.

## **Building Conditions**

The original building dates to 1879. This includes the southeast corner of the building as well as the wing to the west. The gymnasium wing to the north was built about 1900. The building is two story and constructed of masonry, lumber, heavy timber, and steel.

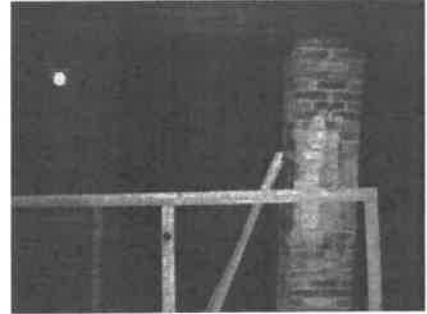
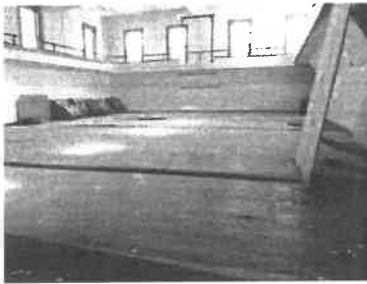
*Exterior.* The roofing has been replaced with asphalt shingles, except for the roof of the tower. The exterior walls of the building are faced with brick. Much of the brickwork is sound while localized areas show cracking, missing mortar, and weathered brick. Most of the damaged areas are at corners or over and under windows and doors. All damaged areas should be repaired.

*Basement, Foundation, and Lower Gym Level Conditions.* The basement underlies all of the building with the exception of the gymnasium wing. Exterior walls are seen to be mortared stone where exposed and appear to be substantial in thickness. Smaller, laid-up stone is used inside, while larger more uniform stones are employed above grade outside. While there are some areas of localized failure or instability seen from the inside, much of these foundation walls appear substantially intact and suitable for continued use. Other areas of the basement walls are covered and should be exposed to further view conditions and to dry out these areas. Interior first floor supports are comprised of brick piers. Additional masonry walls divide some rooms in the basement and appear in good shape. The basement floor is a concrete slab in some areas and bare soil in others.



The lower level of the gymnasium wing is a split level; not as low as the

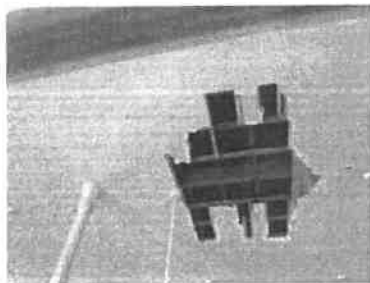
main basement floor, but well below the main floor level. The wood flooring has apparently swelled and buckled upward in several locations. The floor is built about a foot above the soil which underlies this wood gym floor. A solution here might be to remove the floor, place a concrete slab and then add a finished floor appropriate to any proposed use. Foundations are not expected to be much deeper than the basement floor. This is an issue as the building remains unheated through the winter. Heaving of these walls is likely which will loosen the stones and may lift floors, walls, and points of support.



#### Recommendations:

- Brick piers supporting the first floor are in reasonably good shape but need minor work.
- While there are some areas of localized failure or instability seen from the inside, much of these foundation walls appear substantially intact and suitable for continued use. Pointing and mortaring and relaying some stone would be required.
- The basement floor is a concrete slab in some areas and bare soil in others. A good vapor barrier and sound slab would be recommended.
- Interim steps to protect against heaving of the foundation walls might include temporary heat or insulation on the existing floors.
- Sills or wood in contact with the brick and masonry foundations may well be subject to rot and should be further investigated.

*Main Floor and Second Floor.* The structural elements are mostly covered and hidden in these floors/ceilings/walls although there is at least one exposed opening in the first floor ceiling. The structure that is seen in this opening (as well as the exposed structure in the basement ceiling) confirms joist and beam sizes that are described in the original specifications that are available for the building. This framing appears in sound condition although there may be water or moisture damage near exterior walls.



The gymnasium is characterized as a steel structure with heavy girders and beams supported by steel columns that are just inside the exterior walls. This structure appears in good conditions and supports the second floor classrooms above, and in turn, supports the roof of this wing of the building. The second floor framing in this area was not visible.



The front central entrance includes a wide staircase to the second floor. The stair appears somewhat out of level and plumb. A column has been added behind the staircase. This appears to be an added support to the main beam that probably exists at the top of the main floor staircase at the second level.

### **Recommendations:**

- The second floor framing in this area was not visible. This framing should be checked.
- The overall first to second floor stair capacity should be further reviewed.

*Roof Framing.* The tower roof shows signs of past water damage and rot. Selected members have been replaced. Many original members appear adequate, yet some areas have rot and water damage that has not yet been repaired.



The attic over the full building is accessible. Over the gym, the roof is supported by rafters. These rafters span from short knee walls at the long exterior side walls to purlins and then to the ridge. The purlins are supported by diagonal struts that bear on beams across the width of the building. These beams are supported by the east and west exterior walls of the building and by the center 2<sup>nd</sup> floor wall between classrooms. This classroom wall bears on the steel framework over the gym.

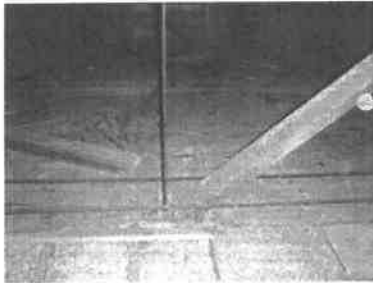
Over the south and west portions of the building, the roof is principally supported by five major trusses as well as by the four exterior walls. In the west wing, serious damage and failure occurred in at least two of the three major trusses in this west wing area. Cables have been installed along the full length of these two trusses to hold the building together.



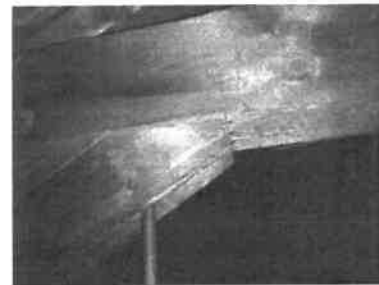


Additional columns have been added, slightly inside the exterior walls, to further support these trusses down through the floors below to the foundation.

At a primary connection of one of these trusses, a portion of timber has sheared off completely, apparently under heavy stress, and in another location a key diagonal web member of a truss has simply fallen out of place and onto the attic floor, indicating most likely that the truss has had enough movement that a joint could separate to the point that it would fail.



Other joints are seen with partial separations of the members. The third truss in the west wing attic has also had new columns added for more support but cables were not added to this truss. This truss carries somewhat different loading than the first two trusses as it is near the valley beams where the south and west wings meet.



In the south section of the attic the two other major trusses span in the same direction, at similar spacing, and with similar configuration as in the west wing, but they support rafters and a ridge that are perpendicular to those in the west wing. Given this arrangement, the loads on these trusses are different than those in the west wing. There is evidence of some failure in these trusses, and there have been new supports and joint repairs made.



#### **Recommendations:**

- Original framing members that have rot and water damage need attention.
- Joints and trusses in the south and west portions of the building require further analysis.
- Given the overloading of the first two trusses in the west wing attic, it is likely that the third truss has inadequate capacity and may experience more failure unless it is further reinforced.

## Structural Findings

Specific calculations have been made for some of the structural components and systems. While some of the material strengths are generally accurately known from historic information, such as for the steel beams, other materials such as the lumber and timbers is not well known at this point. In the latter case we have used what we believe are reasonable strength values based on historical information and our experience.

*First Floor Joists.* These joists are identified in the original specification as 2 ½"x 10" and were verified as such in at least some exposed locations. They span about 13'-6" and are spaced at 16" on center. The capacity of these joists, beyond the dead weight of the floor, is about 90 pounds per square foot (psf). This is more than adequate for a classroom floor and is very close to acceptable for an area of public assembly. Some refined analysis and testing of the wood might well show these joists suitable for public assembly use.

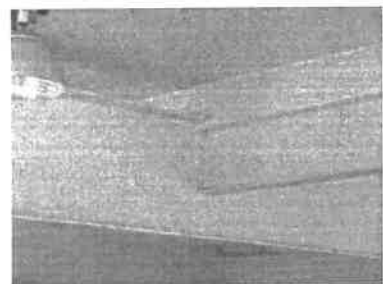
*First Floor Beams.* These beams are identified in the original specification as 10"x 10" and were verified as such in at least some exposed locations in the basement. They span about 13'-6" and are spaced about 14 feet on center. The capacity of these beams, beyond the dead weight of the floor, is only about 30 psf or 1/3 of the capacity of the joists. The current capacity of the *First Floor Beams* is only about that of a lightly used second floor residential bedroom, and is clearly below the customary capacity for classrooms.

*Second Floor Joists.* Again these were specified as 2 ½"x 10". The depth was verified as 10" in one exposed location but the width was only judged by observing from the first floor. Although these are apparently the same size joists as the first floor, they are likely notched as they frame into the supporting beams (unlike the 1<sup>st</sup> floor joists). This notching would reduce the capacity of these joists to about 30 psf (similar to the first floor beams).

*Second Floor Beams.* While these beams have similar configuration to the layout of the first floor beams, they are specified as 8"x 10" and therefore have about 80% of the already poor capacity of the first floor beams, or about 24psf.

*North Wing Roof.* While we find the rafters to have adequate capacity under current codes, neither the purlins nor the attic floor beams have the capacity to support current snow loads. The capacity for snow load is almost negligible.

*Gym Ceiling/Second Floor.* The north wing roof depends on the steel structure of the gym ceiling/second floor. We find the main 33" steel beams that cross the narrow width of the gym and their supporting columns to be adequate for full current code snow loads coming down from above, and with a reasonable 60 psf of live load allocated to the second floor. However, the 17.5" steel beams that span between these 33" beams, and to the end walls of the gym, are overstressed when we apply loads according to the code. The basic issue with these 17.5" steel beams is that, rather than being snug under the gym ceiling where they could be laterally braced by the attic floor, they are dropped below the ceiling and appear to have a short stud wall above them up to the ceiling.



Even with bracing from the ceiling they would be somewhat overstressed. Without such bracing their capacity drops dramatically.

*West and South Roofs.* While the analysis of the 5 major trusses that are discussed above are beyond the scope of this report, we have checked the rafters and the purlins in this area. As in the north wing, we find the rafters to have adequate capacity under current codes. Also, as in the north wing, we find the purlins to be overstressed considerably under code loads. Solutions in this entire roof area will be dependent on further analysis but would likely involve additional reinforcing the purlins and substantial reinforcing of the truss members and connections.

#### **Recommendations:**

- As the restoration of this building takes place it would be recommended to have some samples of the wood checked for species and evaluated further for grading.
- First floor beams could easily be reinforced for substantial capacity such as for classrooms by adding more columns in the basement.
- A solution to mitigate the notching of the second floor joists and ensure their capacity would be to add joist hangers at all of the joist ends.
- Second floor beams could be reinforced by adding to the depth of the beams below the ceiling.
- A solution to improve the negligible capacity for snow load on the North Wing roof would be to reinforce the existing purlins or add more rows of purlins, and make the current braced frames that support the purlins into true triangulated trusses with adequate member sizes and connections.
- Improving the overstressed *Gym Ceiling/Second Floor 17.5"* steel beams would involve adding adequate bracing and adding some steel plates to the 17.5" beams.
- The purlins of the West and South roofs are considerably overstressed under code loads. Solutions in this entire North Wing roof area will be dependent on further analysis, but would likely involve additional reinforcing the purlins and substantial reinforcing of the truss members and connections.

## Section 3 Success Stories

---

A natural question that arises concerning the rehabilitation and adaptive reuse of a historic building is “is it possible?” Many resources are needed, including local champions, community support, financing, and ideas for what need the building will fill. At the community vision workshop, Ann Cousins from the Preservation Trust of Vermont presented the following series of case studies showing examples of similar historic preservation adaptive reuse projects in Vermont. Projects were creative in their financing, bringing together housing developers, federal offices, community organizations, private sector developers and of course, local champions.

### Brookfield Old Town Hall

In 2002, the Brookfield Community Partnership, made up of local residents and purchased and transformed the decades-vacant Brookfield Old Town Hall using their own money and \$72,500 in VT Housing and Conservation Board funds. Built in 1850 as a boarding house for the nearby mill, the town hall is the centerpiece of Brookfield Village Historic District. An addition in 1900 served as the town hall and a gathering place for many functions in the town. Ultimately, the Town Clerk’s office will move into the rehabilitated building. The town hall is now home to many community events from poetry readings, square dances, and spelling bees. The upstairs is envisioned to serve as art or dance studios and private office space. In addition, the rehabilitation of the Old Town Hall has been supported by a \$75,000 grant from The Preservation Trust of Vermont’s Village Revitalization Initiative, which invests in projects to promote and enhanced community use and increased vitality. Town funds also have helped to pay for two composting toilets and a fire escape.



### Swanton School Apartments and Community Services

Constructed in 1912 as a public school, this building sat unoccupied throughout the 1990s until Sandy Kilburn galvanized the support of local residents and Lake Champlain Housing to convert the school into 16 units of affordable elderly apartments, a federally recognized health center, Northwestern Counseling and Supportive Services; WICK; the Senior Citizens meeting space, a community meeting space, and home for the Abenaki Learning Center. Funders include: USDA Rural Housing Service; , VHCB; Town of Swanton



through the VCDP; the HOME Program; Residential Energy Efficiency Program; VT Housing Finance Agency. The architect was Duncan-Wisniewski Architecture.

### **Thetford Community Hall**

This building, originally the Thetford District #8 schoolhouse, was built in 1900. The Thetford community Association bought the schoolhouse in 1962 for \$750 after it was closed as a school. It was renovated for a community center at the time, altering the interior by opening the hall and coat rooms into the main room. A kitchen now occupies the entire south side, including the front corner that for years served as the local volunteer library. Blackboards and original lamp globes remain and the building is now used as a community center offering exercise and other community classes.



### **Fairfield Common School**

Originally built as a town house in 1809 and converted to a school in 1828, this building served as the Fairfield Common School until 1964, when a new elementary school was built next door. The building continues to be used for arts and music programs and to house a Success-By-Six program.



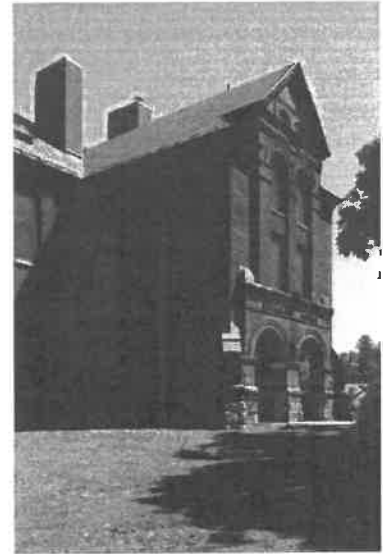
### **Green Mountain Seminary**

Completed in 1869, the first class to occupy Waterbury's Green Mountain Seminary had 106 men and 104 women. The first two floors were educational rooms, the third and fourth floors were gentlemen's rooms. There was a separate women's dorm. In 1885 the Seminary deeded the building to the Town for a graded school with the Library located on first floor. The property was purchased in 2000 by the Central Vermont Community Land Trust with Housing Vermont: Multigenerational Seminary Art Center and Affordable Housing with 8 1-bedroom and 8 2-bedroom apartments. As of 2009 the building is home to the Hunger Mountain Day Care Center and the Waterbury Center Library. The total cost of the renovation and rehabilitation is \$2.4 Million.



### **Barlow Street School, St Albans**

Built in 1897, the Barlow Street School had been vacant until the City of St. Albans devised a plan to rehabilitate the school for use as a community/youth center. One of the key users is Project Phoenix which is a model youth/adult group in which teens and adults work together to provide activities for young people. Other space in the facility is used by a variety of social service and educational groups including a pre-school. The City raised over \$525,000 of the \$650,000 total cost toward rehabilitation and renovation.



## **Section 3                    The Future of Brigham Academy and Bakersfield Village**

---

A Community Visioning Workshop was held in September 2012 with the purpose of gathering ideas and information from Bakersfield residents and to generate enthusiasm for the rehabilitation of Brigham Academy and the revitalization of Bakersfield Village. The two main issues that were presented for discussion were:

- A Vision: How should Brigham Academy contribute to a revitalized Bakersfield Village Center?
- Building Uses: What Uses Make Sense for a rehabilitated Brigham Academy?

### **A Vision: How should Brigham Academy Contribute to a Revitalized Bakersfield Village Center?**

*“That the building regains its role as beacon bringing economic prosperity, cultural enrichment, for Bakersfield and surrounding towns.”*

People feel strongly that a rehabilitated Brigham Academy could be a catalyst to revitalize Bakersfield Village. The building would activate the village, serving as a mixed-use hub used both day and evening. A recurring theme in the discussion was that it should play a role in providing jobs for young people, so that they can stay in or come back to the area where they were raised. Not only that, but as a regional magnet, it would draw more people from the region to Bakersfield.

A second theme that emerged is that of community building. Bakersfield residents value the idea of providing intergenerational activities in the village and a place where community resources can be shared. Rehabilitation of Brigham Academy is seen as an opportunity to bring town leadership together around a common interest from interest groups, including the school, library, historical society, fire department, selectboard and Planning Commission.

Participants also felt that it was important to build on the past investments in the building (see Section 1, Introduction) including the new fire station, which was built with contributions of sweat equity and volunteer time on the part of town residents. Maintaining the village and building's historic integrity is of the utmost importance.

Finally, there was an overwhelming agreement that the building should be self-sustaining, meaning that ultimately the mix of uses needs to generate revenue through the lease of office, classroom, housing or commercial space.

## **Building Uses: What Uses Make Sense for a Rehabilitated Brigham Academy?**

The visioning discussion clearly determined that a rehabilitated Brigham Academy should contain a mix of uses. The ideas for appropriate uses were diverse and for the first floor include space for the town library, recreation center and pool, a community kitchen, a walk in health clinic, a rentable community center/dining room, town offices in the gym, gallery space in the elevated track area, public uses including arts /multi-use space, retail including professional and medical offices. Ideas for the second floor include an auditorium/multi-use arts space in the existing auditorium space, housing units, an educational center leasing classroom or studio space to a technology center, STEM, CCV, or community classes, professional office space, and a cell tower on the clock tower. An architect participating in the discussion proposed that a 50% housing-50% office mix would be most appropriate for the second floor of the building, while the first floor should consist of public uses. Providing restrooms on both floors and an elevator is essential to the building's success.

Community members raised some additional points related to appropriate uses for a rehabilitated Brigham Academy and how they interact with other areas of the village. These include a proposal to put the town library or daycare in the existing town offices, if the town offices move to Brigham Academy. Some community members feel that the Brigham Library exceeds the current building's capacity.

Another idea involving Brigham Academy and other community buildings was to move Bakersfield Elementary School (K-8) to the rehabilitated Brigham Academy and the existing single story school building could become senior housing or a nursing home. Each classroom in the current school building has its own exterior entrance. While housing (particularly senior housing) was strongly supported by many, it was noted that some in the community may not support it due to fears about people living next door to the school.

## **Survey Results**

A survey was designed to gather information from community members who could not attend the visioning workshop about desired uses for a rehabilitated Brigham Academy. Survey results show strong support for a Community use, which was most frequently ranked in the first position. A Revenue Generating Use including lease space for business office/production, call center, bakery, banquets, weddings, retreats, conferences, was most frequently chosen as the second most favorable use for the building. A Municipal Use, including town hall/offices/vault/meeting rooms, H.F. Brigham Library, was the most frequent third choice, tied with

Federal/State Government Use as the fourth favorite, potentially including office relocation from "Irene," job training, NE Supervisory Union offices. Several categories were tied for fifth position, and Residential use was most frequently cited in the sixth position

## Recommendations

Based on the community visioning workshop and survey results, NRPC's recommendations for moving the rehabilitation of Brigham Academy and revitalization of Bakersfield Village forward are listed below.

- **Recommended Building Uses.** Based on the Community Visioning Workshop and the survey results, the following mix of building uses are the priorities for a rehabilitated Brigham Academy. These will need to be further assessed with respect to their market feasibility through a Feasibility/Market Study as a next step in the building rehabilitation process.

### First Floor

- Community Kitchen and Dining Room
- Community Center
- Town offices in old gymnasium
- Gallery space in track area
- Restrooms

### Second Floor

- Auditorium/multi-use arts space
- Educational Center/studios (Tech Ctr., CCV,STEM)
- Housing
- Office – 500-1500 SF
- Restrooms

- **Resolve the ownership of Brigham Academy.** Currently, the school district owns the building. The Brigham Academy Agreement, entitling the school to lease 75% and the town to lease 25% of the building, expires in 2013. The town has expressed interest in purchasing or leasing the building from the school district for a low price and taking over responsibility for long term management and maintenance and off of the school.
- **Convene a Brigham Academy Committee.** This Committee is necessary to maintain momentum for the rehabilitation of the Academy and managing the future decisions and processes involved.
  - For example, at the appropriate time, the Committee would initiate a Feasibility or Market Study weighing preferred building uses with the reality of the regional economy to determine if the uses are feasible. In addition, the Committee would issue a Request for Proposal for the building rehabilitation.
  - The Committee should have representation from the town government, school district, historical society, private sector, Preservation Trust of Vermont, and SHPO.
- **Investigate Financing Options.**
  - **Historic Preservation Tax Credits.** State and Federal tax credits totaling up to 30% exist for adaptive reuse projects but are not available to municipal, state or federal government. The town should seek out responsible non-profit and private sector partners including housing and health care organizations and experienced local developers (e.g. Jim Cameron of



Fairfield) who might be interested in investing in the building. Such investment would also likely have the benefit of resulting in revenue-generating uses.

- **Publicize The Town's Association with Peter Bent Brigham.** The Brigham Academy Committee should appeal to bigger funding universe through its relationship with Peter Bent Brigham, who also provided the founding endowment for the Peter Bent Brigham Hospital affiliated with Harvard Medical School (now Brigham and Women's Hospital). 2013 is the 100<sup>th</sup> anniversary of Brigham and Women's Hospital.