
Sudbury Town Hall Renovation Project

Sudbury, Massachusetts



FINAL REPORT

Prepared by

Bargmann Hendrie + Archetype, Inc.
Boston, Massachusetts

for

Town of Sudbury Public Facilities Department
275 Old Lancaster Road
Sudbury, MA 01776

November 2013

Purpose of this Report

Erected in 1932, Sudbury Town Hall is currently underutilized. Occupied by the Town Clerk's Office and the Sudbury Historical Society, the building is otherwise employed only for storage, Selectmen's meetings, and Town voting. The Town proposes to relocate and consolidate Town Office functions currently occupying the Flynn Office Building into a renovated and, if necessary, expanded Town Hall. As a second option, the Town proposes the School Administration offices in the Fairbank Community Center to relocate to the Town Hall. The Town contracted with Bargmann Hendrie + Archetype, Inc. to assess existing conditions and to prepare schematic recommendations for renovations, additions and alterations. It is hoped that this document will help the Town prioritize and advance the renovation project as a way to better serve the needs of local residents and businesses.

Executive Summary

The Town of Sudbury is considering renovating the Town Hall to provide additional office, facility and operational space to insure the most effective administration of Town government and the most effective delivery of Town services to its citizens. Bargmann Hendrie + Archetype (bh+a) was retained by the Town to perform a Conditions Assessment and Recommendations for the renovation of the Town Hall, a Programming Assessment for the Town Offices in the Flynn building and the School Administration in the Fairbank Building, schematic drawings and cost estimate for the renovation. The Study was overseen by the Sudbury Permanent Building Committee. The following four Town buildings were included in this study:

Town Hall, 322 Concord Road
Alan Flynn Building, 278 Old Sudbury Road
Loring Parsonage, 288 Old Sudbury Road
Fairbank Community Center, 40 Fairbank Road

Survey and Investigations

In conjunction with Bolton & DiMartino, Allied Consultant Engineering, and Samiotes Consultants, bh+a toured the facilities, observing existing conditions and noting deficiencies. Building materials, spaces and systems were observed, and Department heads and other relevant personnel were interviewed. Structural investigations were undertaken to observe the construction of the floors and stage.

Conditions Assessment and Recommendations

In general, the team found the building to be structurally sound and in fair condition. However, certain deficiencies were identified, and long-standing problem areas were acknowledged. Most of the building systems and services are recommended to be replaced, such as the plumbing, heating, and electrical equipment. Accessibility and egress were reviewed and recommendations were incorporated in the schematic designs. Consultant existing condition reports and recommendations are located in the Appendix of this report.

Programming Assessment and Recommendations

The selected Town Department and School Administration leaders filled out space planning questionnaires in order for bh+a to better understand their space needs and adjacencies. Bh+a also inventoried the current office layouts, furniture configurations, file storage, kitchen areas, and printing/copying needs in the Town Hall, Flynn Building and Fairbank Community Center.

Schematic Design

Working from original paper drawings, bh+a prepared existing condition drawings of the Town Hall. Many design options were produced for the Town Offices moving to the Town Hall. Scheme 1 and Scheme 2 are reviewed in the Town Offices Programming Assessment and Recommendations section of this report, but the Committee selected Scheme 2 as the preferred option. The preferred design concept removes the basement and one-story rear addition and creates a new rear addition that replicates the existing height and massing of the original.

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Two Schemes were proposed for the School Administration moving into the Town Hall and are reviewed in the School Administration Programming Assessment and Recommendations section of this report. The Committee decided that Scheme 2 for the School Administration was the preferred scheme. Scheme 2 provides a second-story addition on top of the 1955 building to gain more usable program space. It also provides a one story addition at the rear of the building for a Selectmen and School Committee Meeting room and allows the School Administration to gain more program space in the existing Town Hall. The designs address the programmatic needs as well as accessibility, egress, restroom requirements, and system upgrades to the building.

If the Town Offices move into the Town Hall, the School Administration is slated to move into the Flynn Building. A third study was undertaken to determine programmatic needs of the Town Departments that would still occupy the Flynn building and program the School Administration into the remaining area.

Cost estimates were prepared for the Town Office and School Administration schemes programed into Town Hall, as well as a scheme to renovate the building as-is, bringing it up to most current codes and solving accessibility issues, and a scheme to tear down the Town Hall and build a new building that uses space efficiently for the Town Offices or School Administration.

The following consultants contributed to this study, including preparing reports and drawings:

Civil Engineers

Samiotos Consultants, Inc.
20 A Street
Framingham, MA 01701

Structural Engineers

Bolton & DiMartio, Inc.
100 Grove Street
Worcester, MA 01605

M/E/P/FP Engineers

Allied Consulting Engineers
215 Boston Post Road
Sudbury, MA 01776

Cost Estimating

D.G. Jones International, Inc.
3 Baldwin Green Common, Suite 202
Woburn, MA 01801

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A. GENERAL DESCRIPTION AND HISTORY

The Sudbury Town Hall is located in Sudbury Center, between Concord Road and Old Sudbury Road. The original Greek Revival Town Hall was built in 1846 in Sudbury Center, but was destroyed by a fire in 1930. The current Town Hall building was designed in 1931 by a Sudbury architect named Charles H. Way and finished construction in 1932.¹ The Town Hall is located in the Sudbury Centre Historic District, a National Register District designated in 1976, and is surrounded by historic buildings.² This district is primarily located along Old Sudbury Road and Concord Road (Figure 2). One of the oldest buildings in Sudbury, named the Loring Parsonage, is located to the southeast of the Town Hall. This two-story wood building was constructed in 1730 now houses the Sudbury Credit Union. Grange Hall, a former school house, was built in 1849 and is located directly north of the Town Hall.³ The Alan Flynn Administration Building is located just past the Loring Parsonage on Old Sudbury Road. The Town Hall, Loring Parsonage, Grange Hall, and Flynn Building are all listed in the Sudbury Centre Historic District.

The 1931 Town Hall is a Greek-Revival building with massive fluted wood columns supporting a wood pediment at the front façade. The building is in the shape of a cross, with a north and south wing at the rear of the main building. The exterior walls are constructed of cinder block masonry and brick, while the front (west) elevation is wood construction with horizontal planks at the exterior. There is a steel column, beam, and truss superstructure that act as the main support system for the building. The original slate roof is still extant though showing great signs of deterioration. A driveway with two retaining walls on either side provides access to the basement from Old Sudbury Road.

The building has a basement, first, second, and balcony level, with intermediate floor levels throughout. The fire station was located in the original basement with two garage bays for equipment. A basement addition was constructed at an unknown date for an additional bay for the fire station. It is possible that during this renovation, the original two-door bays were combined into one larger bay by removing the brick pier between the doors, adding a steel lintel above, and installing a single garage door.

The first floor has a large vestibule at the front entry and two staircases to the second floor. Down three steps from the lobby, the original Supper Room had a small platform stage with an adjacent kitchen. The Supper Room is now the Selectmen's Meeting Room, Town Voting room and event room for other Town organizations. The kitchen was divided into a restroom and storage room. Offices in the rear of the building are a half level above the Supper Room and are accessed from a stair hall at the south wing. A library room was housed in the north wing and accessed from the north stair hall. This room was used as the police office but is now storage for the ballot boxes and other inventory used during voting. In 1955, a one-story addition was constructed on top of the previously added fire station bay. This addition created more space for the Town Offices, including the Town Clerk, Selectmen, and welfare office. The Town Clerk's office and Veterans Agent now occupy the office space.

A simple yet large auditorium was located on the second floor, with a raised stage, dressing rooms, and balcony above for extra seating. The auditorium is a two story space with large windows providing ample light. These rooms are now used for the Sudbury Historical Society's offices and collection storage.

¹ Historic Buildings of Massachusetts. "Sudbury Town Hall, 1932." <http://mass.historicbuildingsct.com/?p=653>

² Historic District Commission. Sudbury's Historic Districts. "Sudbury Centre Historic District." <http://sudbury.ma.us/departments/historicdistricts/committees/custom/historicdistricts.asp>

³ Sudbury Historical Society. "Historic Sudbury Tour." 2010. <http://sudbury01776.org/tour.html#>

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| Floors | 1931 Town Hall Area | Area of Additions |
|-------------------|---------------------|-------------------|
| Basement | 1,870 GSF | 1,400 GSF |
| First | 4,640 GSF | 1,400 GSF |
| Second | 4,640 GSF | 0 |
| Balcony | 850 GSF | 0 |
| Area | 12,000 GSF | 2,700 GSF |
| Total Area | 14,700 GSF | |



Figure 1. Ariel view of Sudbury Center with Town Hall highlighted. Maps.google.com

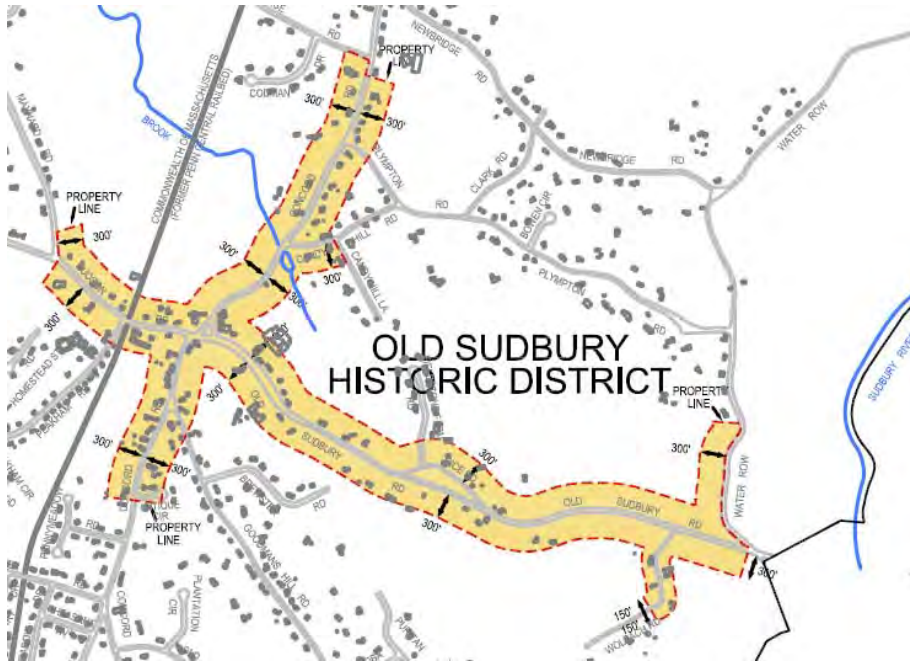


Figure 2. Sudbury Centre Historic District map.

<http://sudbury.ma.us/departments/historicdistricts/committees/custom/distmaps/sudburycenter.jpg>



Figure 3. Sudbury Town Hall east façade.

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Figure 4. Sudbury Town Hall south façade.



Figure 5. Sudbury Town Hall east façade.

B. CONDITIONS ASSESSMENT AND RECOMMENDATIONS

The building conditions portion of the report is based primarily on visual inspections. There was minimal removal of materials, except for a section of the ceiling in the first floor men's room that was cut out to inspect the second floor framing near the front stairs. The expectation is that the information here will be suitable for preparing conceptual cost estimates and allowing for a scope determination to be made. Once the desired scope of work has been identified, a more detailed review of some elements will be required outside of the scope of this report. That might include removal of some materials, detailed documentation of conditions and dimensions, and access to inaccessible regions of the building to inspect areas that are difficult to see from below. This more detailed information will inform future cost estimates and the bid documents.

Definitions for terms used in the condition assessment:

- *Excellent condition:* Element is in new or equivalent condition. No work needed other than routine maintenance.
- *Good condition:* Element is performing its intended function or is otherwise serviceable, although it may show signs of wear. No repair required other than routine maintenance.
- *Fair condition:* Element may require work, usually minor, to better perform its intended function, bring to a maintainable state, or return to a condition resembling its historic appearance.
- *Poor condition:* Major work needed to for element to perform its intended function or to bring item to a maintainable state.
- *Original:* Dates to the period of initial construction.

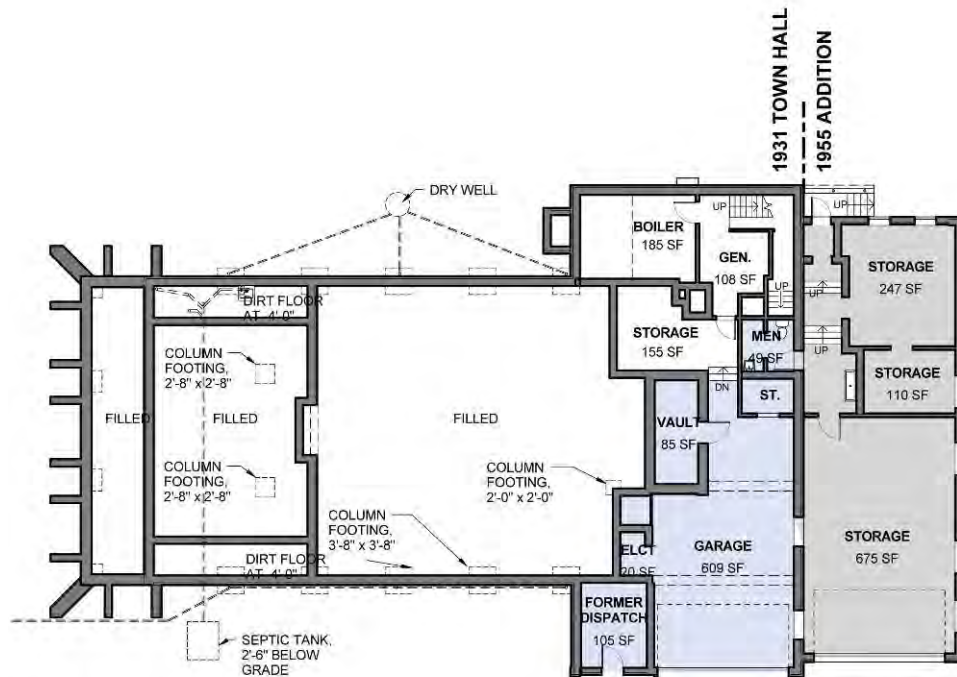


Figure 6. Sudbury Town Hall basement floor.

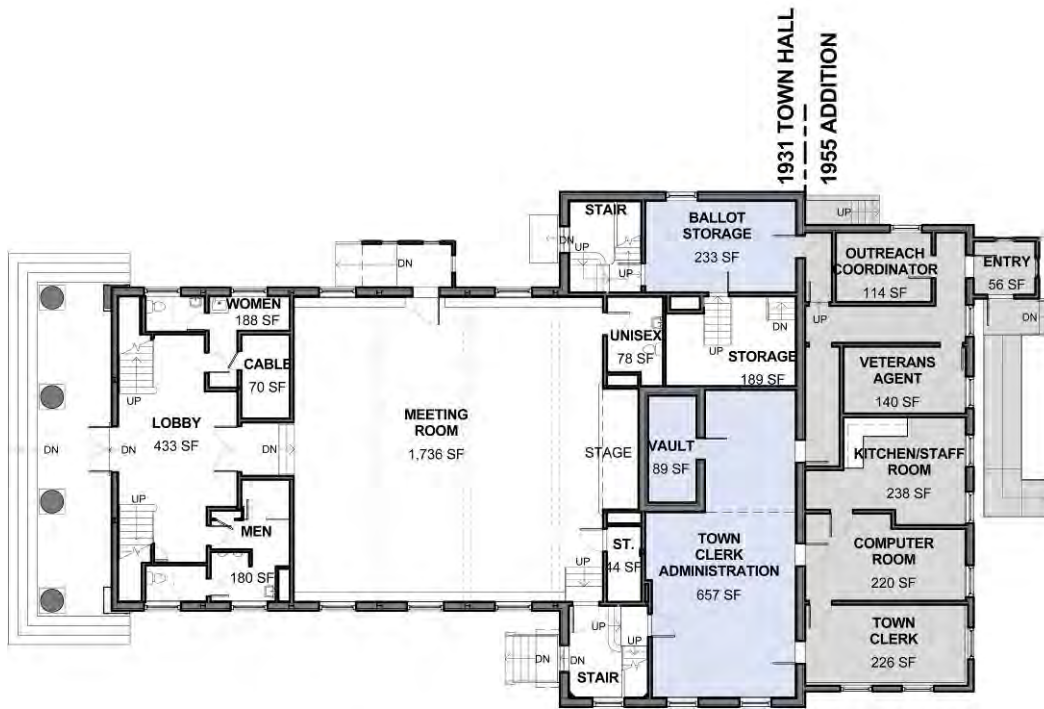


Figure 7. Sudbury Town Hall first floor.

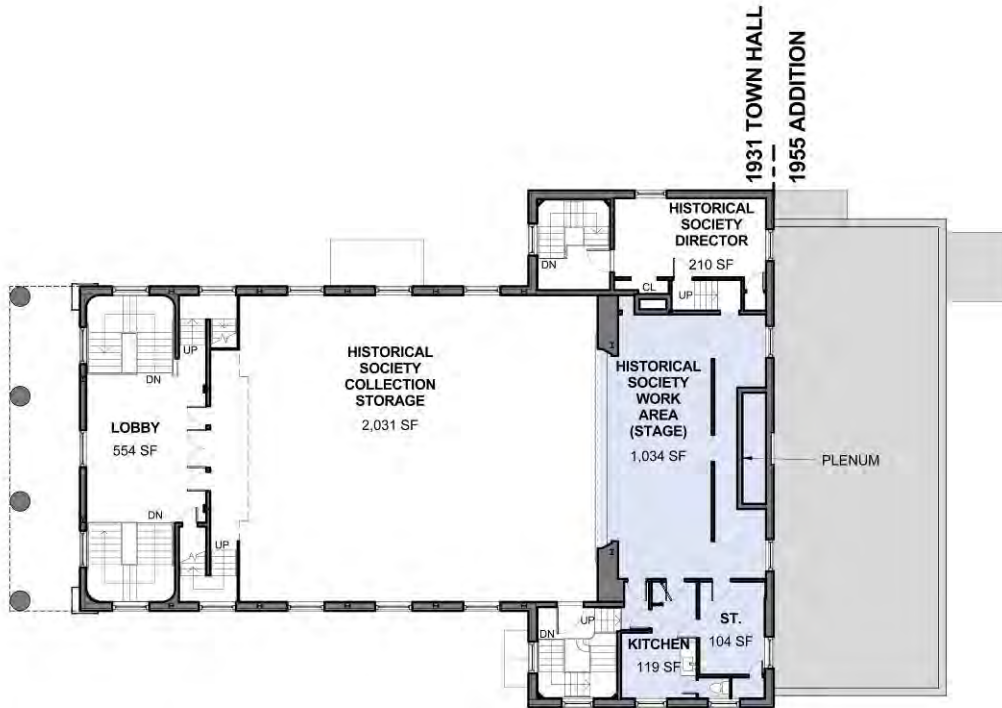


Figure 8. Sudbury Town Hall second floor.

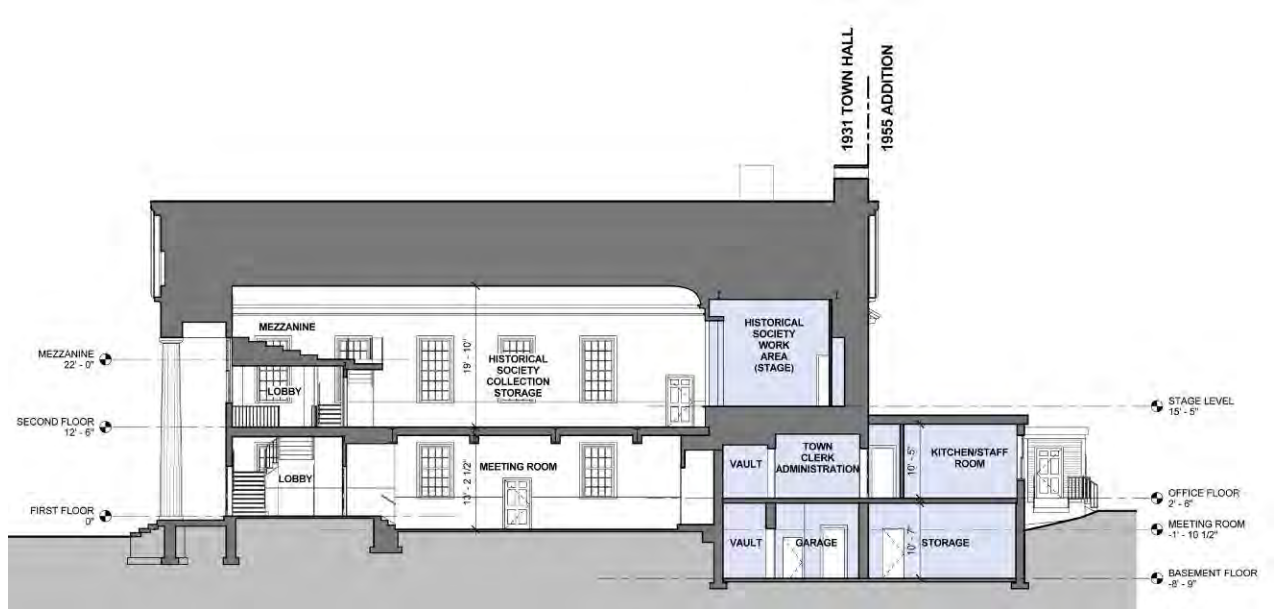


Figure 9. Sudbury Town Hall Section.

Substructure

Foundations: Condition unknown

(Refer to Bolton & DiMartino's Existing Structural Conditions Report)

The west lobby and meeting room floors on the first floor are slab on grade. While they do not have a basement under them, they do have concrete foundation walls at the perimeter of the building. The thickness of the foundation walls varies from 1'-2" to 1'-4" based off the original drawings. There are plumbing chases on the north and south side below the restrooms that are 4'-0" below grade level. The old fire station room floors in the basement are also slab on grade and are in fair condition. There is some cracking and uneven sections in the surface of the floors. The foundation walls and footings are poured concrete. The grand columns at the portico have 3'-0" x 3'-0" concrete footings and the granite stairs are supported by stepped concrete foundation walls.

Recommendations

Test pits should be conducted in the design phase to determine the size and condition of the existing concrete footings. A leveling finish could be applied to the concrete floor to provide an even surface and finish for new program spaces.

Basement Construction: Fair condition

(Refer to Bolton & DiMartino's Existing Structural Conditions Report)

The basement ceilings are concrete with concrete beams supporting the floors above. The walls in the basement are a variety of materials, including concrete, brick, and cinder block. Some are painted, while other walls are covered in tile. The base of the interior cinder block partition walls are spalling. There is a trench along the vault wall that is filled in with brick and concrete rubble. Masonry walls in the boiler room were added at a later date and the top of the walls do not appear to be connected to the floor above.

Recommendations

Once the machinery and other storage is moved out of the basement, investigation in the next phase of work should be conducted to review the condition of the entire concrete floor surface and base of the masonry bearing walls. Spalled cinder-block units should be removed or repaired. If the interior walls are not required for the renovation, these walls can be removed. The trench should be reviewed to see if it can be filled in to create an even floor surface. Seismic anchors should be installed at the top of the masonry walls and a rusting lintel above a doorway should be repaired.



Figure 10. Old fire station bays now used as storage



Figure 11. 1955 fire station bay. Note concrete beam supporting floor above.



Figure 12. Stairs leading to the north exterior door in the 1955 addition.

Shell

Floor Construction: Fair Condition

(Refer to Bolton & DiMartino's Existing Structural Conditions Report and Building Code Review Report)

The floor construction differs throughout the building. The office level floors are structural concrete slabs that are supported by bearing walls and concrete beams. The auditorium floors are 2x12" wood joists that span between 24" wide I-beams. The wood joists run east to west and the I-beams run north to south. These joists stop at the stage and are cantilevered off of a beam below. The stage framing consists of 2x10 joists running east to west. The south rooms off of the stage were men's and women's dressing rooms with a small toilet, sink, and make-up bench. The wood floor joists for the rooms at the stage level are supported by an I-beam below running east to west. The I-beam and floor construction can be seen in the original section (Figure 13).

Recommendations:

One of the goals of the renovation of Town Hall would be to add and remove floors to minimize the number of levels on each floor. If the stage level is retained, the structure should be reviewed to determine if added support is needed. Cracking plaster in the walls below the stage might indicate that the framing is sagging and will need added support. If the stage framing is removed, the ceiling framing in the Town Clerk offices will most likely be removed as well. The Town should be aware that it will involve shoring walls, reframing large areas, and will trigger a full structural review of the building. Removal of the stage will be a costly undertaking and will need to meet the requirements of Level 3 Alterations in the International Existing Building Code summarized in Bolton & DiMartino's Building Code Review report.

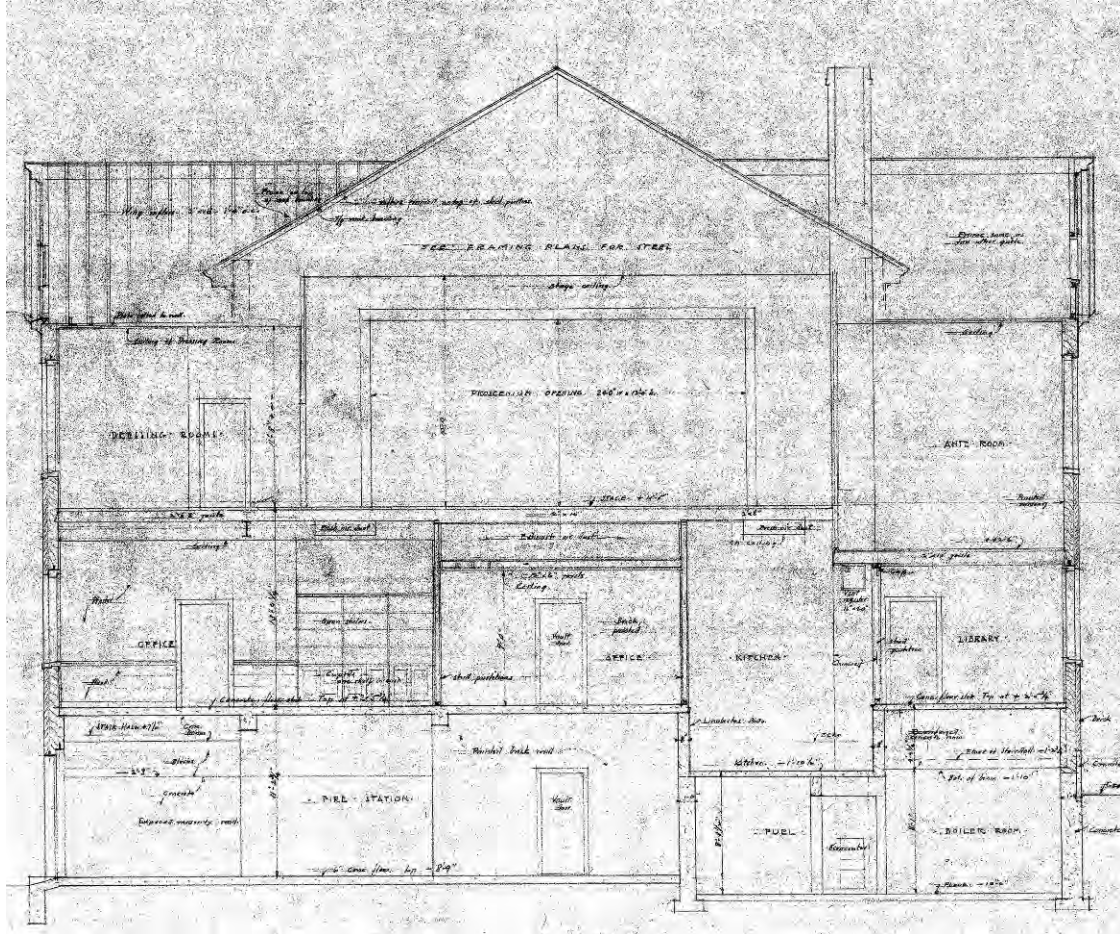


Figure 13. Original drawings of a latitudinal section looking to the east. Note the concrete foundation walls and concrete basement and first floors. The second floors are constructed of wood floor joists. A beam is located between the stage and second floor level, making it complicated to remove the stage flooring if desired.



Figure 14. First floor ceiling framing below and second floor stage framing above with a duct in the plenum space that runs to the east exterior wall.

Structural Columns and Beams: Good Condition

(Refer to Bolton & DiMartino's Existing Structural Conditions Report and Structural Feasibility Options Report and bh+a Structural Presentation)

The structural columns can be found on the original plans and can physically be seen under the stage plenum and in the attic. The steel columns and beams at the exterior walls extend from the first floor to the attic and are connected by steel roof trusses. These columns are mostly located in the exterior walls of main part of the building that houses the meeting hall and auditorium because of the need for large open rooms. Smaller round columns are located in the walls of the first floor restrooms, meeting room stage platform, and the interior walls of the north and south wing that align with the main building's exterior walls. Small I-beams are located in the second floor vestibule wall to support the balcony above. Large I-beams support the proscenium opening on either side, but had different conditions from one side to the other. The north proscenium column bears on a beam that is supported on the vault ceiling (Figure 15). The south column runs down to the first floor and is supported on a foundation wall and footing in the basement. A beam in the south wing supports the stage level dressing rooms, now Historical Society kitchen and office. This beam runs above the second floor level and below the stage level and will be problematic if removal of the stage is required during renovation.

Recommendations

Inspection of the steel columns and connections is recommended in the next phase of design. Removal of existing columns and beams is not recommended and the renovation should make every effort to retain existing steel supports. If the stage framing is to be removed, the beam between the second and stage level can possibly be removed and moved down to the second floor level.



Figure 15. Steel proscenium column supported on beam under stage.



Figure 16. Steel beam in attic supported on brick and cinder block pier. This condition should be thoroughly reviewed in the next phase of work.

Roof Construction: Good Condition

(Refer to Bolton & DiMartino's Existing Structural Conditions Report and Building Code Review Report)

The roof consists of steel double angle trusses that are connected to wall plates and ridge beams (Figure 18). There are also steel cross braces under the ridge beam between trusses. The truss locations align with the column locations in the walls below. Wood roof rafters frame the gable roof for the main building and wings. Roof rafters are toe-nailed to wood top plates anchored to the exterior masonry walls (Figure 19). The wood sheathing is showing some signs of water damage near the ridge and chimneys, but is otherwise in good condition. The attic is an unconditioned space and is not insulated.

Recommendations

Further inspect water stained wood sheathing to determine if leaks in roofing are still occurring. Determine allowance for repair and/or replacement of rotted wood sheathing. Inspect steel structure and trusses for any failures. Inspect masonry piers at attic level. If 25% or more of the slate roofing is removed, installation of wall anchors are required to tie the roof structure to masonry walls to resist seismic loads.

A determination will need to be made regarding whether or not to insulate the attic space. One option would be to insulate the attic floor. The advantage of this would be that energy costs would be reduced, as warm air would not rise to the attic space. If new systems are located in the attic, they would need to be designed to withstand the cold. Another option would be to insulate the underside of the roof. This would also help reduce energy costs associated with heat escaping through the roof. One downside to this approach would be that insulation would result in the exterior surface of the roof to remain cold. It would then hold more snow in winter. This change to the loading conditions would need to be addressed structurally.



Figure 17. View of roof steel trusses, steel beams, wood rafters and cinder block chimney beyond.



Figure 18. View of auditorium ceiling framing, steel truss and steel beam.



Figure 19. Roof rafters at north and south wings bear directly on blocking and cinder block exterior wall.

Roofing: Fair to Poor Condition

(Refer to Russo Barr Associates and Rondeau Construction Roof Condition Reports for photographs and existing conditions.)

The 1931 Town Hall roof has its original slate roof, copper flashing and copper gutters intact. The original grey slates are very soft and show signs of cracking and delamination after over 80 years. Many of the edges of the slates are broken and missing. Maintenance on the slate roof has been performed to remove individual failed slate and replace it with new.

The copper gutters are lined with tar and have rusted hangers. Sections of the gutters on the south side of the roof are leaking and wetting the masonry wall below. The north downspout near the ramp is leaking as well as the downspout at the north wing near the stair hall entrance.

The copper ridge caps are in fair condition and have rusting metal fasteners. The copper flashing around the chimneys is in fair/poor condition and signs of water damage were observed from the interior around the chimneys.

The 1955 addition has an EPDM roof and aluminum gutters and downspouts that were installed in 2008 and are in good condition. There is a rolled roof on the vestibule on the east and the shed over the ramp on the north. These are

in good condition. The roof over the north basement entrance is a flat seam copper system with soldered joints and is in fair condition. The small pediment above the south wing entrance has an asphalt shingle roof and is in good condition, although the edges of the counter flashing are broken and not covering the stepped flashing as they should to prevent water infiltration.

Snow guards on the sloped roofs are rusting and the north side rails are bent. A leaking skylight located in the north wing roof was removed and patched over with new slate.

Recommendations

The Town has a few options when it comes to retaining or replacing the original slate roof. They can choose to keep maintaining the slate roof, copper gutters, flashings and downspouts every few years until they have the funding or there is an urgent need to replace the roofing system. The roof replacement could be a separate smaller project that can be done separately from the interior renovation. The Town can also choose to remove the slate and replace it during the Town Hall renovation project. The slate, copper flashings, and copper gutters can be replaced in-kind, or can be replaced with more inexpensive materials such as aluminum gutters or plastic slates.

Rusting metal snow guards should be removed and replaced. Any unused antennas or other equipment can be removed from the roof. The counter flashing at the south entrance pediment should be inspected and replaced if necessary.



Figure 20. View of slate at southeast corner



Figure 21. View of painted copper gutters and snow guards at northeast corner



Figure 22. View of slate valleys.



Figure 23. View of slate valleys and slate condition.



Figure 24. Leaking south copper gutter.



Figure 25. Leaking downspout at north wing.

Exterior Wall Construction: Fair to Good Condition

(Refer to Bolton & DiMartino's Existing Structural Conditions Report and Structural Feasibility Options Report)

The exterior walls are constructed of cinder block at the interior and brick at the exterior. The cinder block is most-likely two wythes thick with brick headers tying the brick back to the cinder block. The original drawings indicate that the thickness of the masonry is 1'-0" without the thickness of the interior finishes. Cinder block is not a very sturdy building material because of the large cinder aggregate used to make them. They tend to crumble when they get wet and are not as strong as modern concrete masonry block. Their condition will need to be reviewed once interior finishes are removed. It is probable that the exterior walls do not have insulation. The brick is bowing at the lintel of the fire station door at the basement level (Figure 26).

The east exterior wall is built of wood and has two steel columns located at either side of the main entry doors. The exterior horizontal wood boards are in fairly good condition without much water damage due to protection provided by the portico overhang. The brick walls stop at the bottom of the pediment and the north, south, and west pediments were constructed of wood.

A large wood trim board and moldings wrap around the building at the top of the masonry walls (Figure 28). There is some water damage at the wood trim. The trim is in fair condition.

Recommendations

The cinder block should be reviewed for water damage once the interior finishes are removed. Cinder block and brick piers in the attic should be reviewed and reinforced where required. Insulation should be added to the interior of the exterior walls.

The steel lintel above the first station garage door should be removed and a portion of the brick wall above the lintel might need to be rebuilt. The programming layout might determine the recommendation for this driveway area. Program spaces in the basement might mean that the doors are removed and replaced with windows. If the space is used as storage and the natural slope is restored, the large doors could be removed and filled in with solid walls. A review of the forces of the dirt fill on the masonry walls would be required.

Wood exterior boards at the three pediments should be reviewed for water damage. Repair or replace rotted wood trim and molding around the building.



Figure 26. Damaged brick at lintel of garage door.



Figure 27. Cinder block at exterior wall behind stage.



Figure 28. Wood trim around exterior walls.

Chimneys: Fair Condition

The Town Hall has two chimneys, one located at the rear (east) side and one in the middle of the north wing. The east chimney starts above the stage ceiling and is supported by a steel beam system at the attic level. The base is constructed of cinder blocks and transitions into brick before it punctures through the roof. The base course of cinder blocks are crumbling and showing signs of deterioration. The chimney was used for air ventilation from the first floor meeting room and second floor auditorium (Figure 66). A 15'-4" wide sheet metal air duct under the stage carried warm air from the auditorium up through the chimney and out of the building. There is some rust staining on the exterior of the chimney due to rusting vents. Water stains on the wood in the attic reveal that water is entering the building through the chimney flashing (Figure 30).

The north chimney contains a vent from the basement boiler unit. The condition of the chimney lining is unknown. The mortar at the exterior of the chimney is deteriorating, especially at the top 4 courses. Some of the bricks at the stage

level are cracked and have been spot repointed. There is some water damage at the stage ceiling and the chimney (Figure 32).

Recommendations

Structural review of both chimneys should be performed to determine their structural integrity. Review the condition of the chimney liner in the north chimney. This chimney is part of a bearing wall and should be retained if possible. Rebuild the top courses and report the exterior portion. Review the condition of the cinder block units at the base of the east chimney. Repair or replace the metal vents at the top, remove vegetation and clean rust stains on the east chimney. Inspect chimney flashing and stepped flashing. Judging by the stains on the roof sheathing, the flashing for both chimneys should be replaced.



Figure 29. East chimney above roof.



Figure 30. East chimney showing signs of water infiltration.



Figure 31. North chimney above roof.

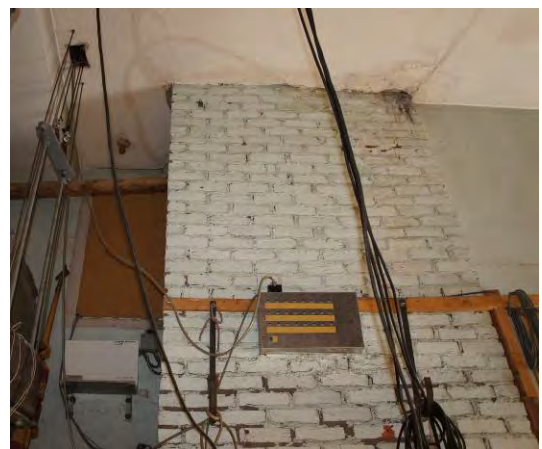


Figure 32. North chimney at stage level

Windows: Fair to Good Condition

All of the first floor meeting room wood windows were removed and replaced with aluminum windows (Figure 33). These windows have internal grilles that do not match the profile of the original grills. The rest of the windows, except for one aluminum window on the south elevation, are the original wood sash, double hung single glazed windows. The Town has slowly been restoring the first floor rear windows and second floor windows, but not all of them have been completed (Figure 34). The fanlight at the pediment of the front (west) elevation has painted plywood replicating the original window (Figure 36).

Recommendations

The mechanics of the aluminum windows should be reviewed to determine if they are easily opened by the occupants. If they are not easily operable, some consideration should be made to replacing them with historically accurate and easily operable windows. The restored windows should be reviewed to see if the mechanics are working properly, such as the sash ropes, pulleys, weights and locks. The rest of the original wood windows should be restored. A new fanlight should be installed at the west pediment. Exterior or interior storm windows and weatherstripping can be installed to prevent air infiltration, provide better occupant comfort and less strain on a new HVAC system.



Figure 33. Aluminum meeting room window.



Figure 34. Second floor original wood window.

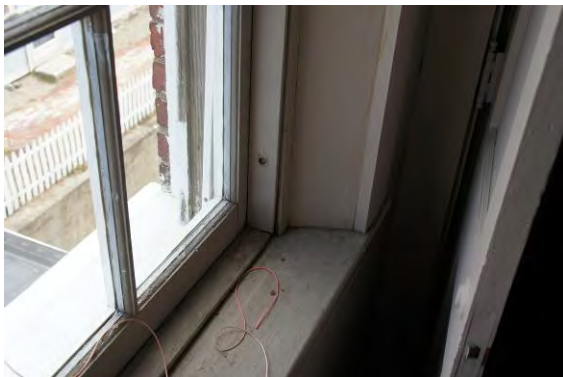


Figure 35. Wood window on the east elevation that was not restored.



Figure 36. Painted plywood fanlight window.



Figure 37. Restored original wood window on the south elevation.

Exterior Doors: Good Condition

The front of the Town Hall has wood double doors with a glass transom above (Figure 38). The panel doors seem to be original but have modern hardware. This entrance does not comply with the American's with Disability Act (ADA) and the Massachusetts Architectural Access Board (MAAB) because it has a step directly below the door. The hardware does not comply with the MAAB at the exterior because it requires tight grasping and pinching to release the lever. The north and south wing doors are probably the original wood doors. Although the south wing door has accessible hardware, the door does not exit at grade and is not accessible (Figure 40). The north wing door does not have exterior hardware and seems to be used as an emergency egress door. The two large basement fire station doors have glass at the top. These are most likely not original doors, but were probably installed at the same time because they match each other.

Recommendations

It is recommended to retain the original doors at the front, north and south wings, but not use them as the main access to the building. These doors all have steps up to the threshold and do not meet MAAB regulations. The fire station doors can be retained if the program in the basement allows, or can be removed and replaced with windows or filled in with brick. The determination will be based on the decision to retain the driveway and retaining walls, or fill in the earth to restore the natural slope of the site. If the existing doors remain, new code-compliant hardware should be installed.



Figure 38. Front entrance doors under portico.



Figure 39. Interior of entrance doors.



Figure 40. South wing entrance door to Town Clerk's office.

Exterior Stairs/Ramps: Good Condition

The grand front portico has four granite stairs on all sides (Figure 41). Visitors rarely use these stairs and entrance. They are used if townspeople are coming to vote or if there is a special event in the meeting room. There are handrails on the north and south sides of the stairs that are not code compliant. The south door has six granite stairs and the north door only has two. This is because the grade is slightly lower and the vestibule floor level is higher on the south side of the building. The south stairs do not have code compliant handrails and guardrails while the north stairs do not have handrails at all. Two accessibility improvements have been made to the Town Hall with the use of ramps to get to the meeting room and office floor levels. A ramp at the rear entrance provides accessibility to the Town Clerk's office (Figure 43). A ramp up to the meeting room level from the drive on the north side with a window removed and replaced by an egress door provides accessibility to the meeting room (Figure 42). Both handrails at the two ramps and handrails at the east vestibule entrance do not meet current code because they do not extend past the ramp/stairs.

Recommendations

Review of the egress patterns after the schematic design drawings have been produced will determine what entry doors will be used by the public. An accessible path to the office level and meeting room level would be most beneficial to be close to the parking lot in the rear. If the ramps and stairs are retained, code-compliant handrails and guardrails should be installed.



Figure 41. West entry stairs with non-compliant handrail Figure 42. North meeting room ramp.



Figure 43. East entry stair and ramp to Town Clerk.

INTERIORS

Interior Construction: Good Condition

The interior of the Town Hall auditorium has some notable features such as the proscenium opening wood paneling and moldings, the plaster cove molding at the ceiling and large wood windows. The interior walls are wood construction except for the vaults which are brick with a concrete ceiling. There are interior wood bearing walls that carry loads down to the foundations. These bearing walls are the walls that align with the exterior walls of the main building at the north and south wings. Two more bearing walls align with the vault and are located in the office. These walls carry the loads of the stage down to the foundations.

The walls in the office addition have been altered slightly throughout the years. The original bearing wall near the vault was altered with a wide cased opening to combine two rooms. The support beam at the head of the opening is bowing (Figure 48).

Recommendations

All bearing walls should be inspected for failures. The bowed header beam at the opening in the office should be repaired or replaced.



Figure 44. View of balcony in auditorium.



Figure 45. View of proscenium from balcony.



Figure 46. Proscenium trim and paneling.



Figure 47. View of platform stage at meeting room.



Figure 48. Bowing header beam at Town Clerk's office

Interior Stairs: Fair Condition

The multiple floor levels and amount of stairs and circulation contribute to difficulty of providing universal accessibility. The west entry vestibule has two staircases on either side to get to the second floor (Figure 49). These wood stairs have rubber tread coverings and possible asbestos tile on the landings. The railings and guardrails do not meet current code. They do not extend past the first and last risers and are not tall enough.

A stair hall is located in the north and south wing that serve all levels of the building (Figure 51). They are steel construction with partial rubber treads. The stairs and landings are covered with floor tiles that possibly have asbestos in them. The Town Clerk's office can be accessed from the south stair hall entrance. The stair section from the entry to the Town Clerk has vinyl tile on the treads and landing. The handrails and guardrails do not meet current code.

Two sets of stairs access the balcony level (Figure 52). The north stair is accessed from the second floor vestibule, but the south stair is accessed from inside the auditorium. These wood stairs have a metal nose guard and possible asbestos tiles on the treads and landings. When the auditorium was used and filled to capacity, these six stair halls would have been flooded with people. Now, they are excess circulation that may not be needed if converted into an office building.

Concrete stairs from the basement boiler room lead to the old kitchen room and then up again to the ballot storage room. These stairs are simple wooden construction (Figure 53). A second set of concrete stairs in the basement lead up to a storage room and then outside to the north exit.

Recommendations

It is recommended to remove all of the possible asbestos tiles and refinish the stairs. New or supplemental handrails and guardrails should be added to meet the International Building Code and MAAB. A fire stair is recommended for egress from all floors directly outside. Review of the egress patterns for the renovation might result in an excess of existing stairs. Consideration for removing select existing stairs might provide more usable program space.



Figure 49. North stair in main vestibule



Figure 50. Three stairs down from vestibule to meeting room

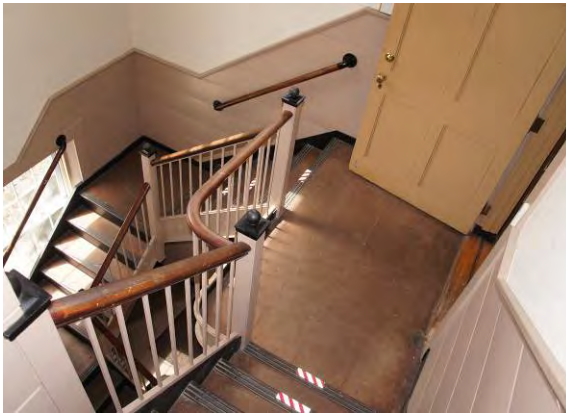


Figure 51. South wing stairs from stage level.



Figure 52. South balcony stairs



Figure 53. Stairs from former kitchen up to ballot storage room.

Restrooms: Poor Condition

The original restrooms were located in separate coat rooms for the men and women next to the front vestibule and staircases (Figure 55). The existing restrooms are located in the same rooms, but have spread out into the old coat rooms. These fixtures are aged but still in usable condition. They however, do not meet MAAB compliance for accessible restrooms. A restroom in the basement is aged and is not used anymore. A more modern unisex restroom is located in the meeting room and is accessible for visitors of the meeting room. Unfortunately, this is the main employee restroom for the Town Clerk. It is not accessible to these employees because they must go down two sets of stairs to access the restroom. A small restroom is located on the stage level for the Historical Society. This toilet room does not meet MAAB code and users need to wash their hands in the kitchen sink outside of the room (Figure 54).

Recommendations

If minor renovation is required, the unisex restroom near the meeting room is the only restroom that meets MAAB accessibility code. If extensive renovation is required, all restrooms should be removed and central, code-compliant restrooms should be incorporated into the proposed scheme.



Figure 54. Toilet room on stage level in Historical Society kitchen.



Figure 55. Men's restroom at front vestibule.

Interior Finishes: Fair Condition

The interior walls and ceilings have a rough plaster finish. The walls are in fair condition due to some walls having step cracking. Step cracking was observed in the plaster over two windows on the north wall in the auditorium (Figure 57). Plaster cracks were observed in the Historical Society kitchen and office on the stage level. They were also observed in the west wall of the Town Clerk's office and at the vault (Figure 56). The plaster cracks at the vault might be due to extra loading on the stage level that is being transferred to the vault wall.

The ceilings are in good condition and very few cracks were observed on the plaster ceilings. The meeting room ceiling and the 1955 office ceilings are covered in acoustical ceiling tiles. Plaster ceilings were observed in the auditorium, on the stage, in the first and second floor vestibules, and in the Town Clerk main office. The plaster ceiling above the old library (now Historical Society office) has major water damage due to a leaky skylight that was recently removed (Figure 60). The stage ceiling plaster at the north chimney is showing signs of water damage, possibly due to water infiltration at the chimney flashing.

Floor finishes differ throughout the building but are generally in good condition. The entry vestibule and restroom floors have vinyl tile, the Town Clerk and ballot storage room has carpet, and the auditorium and stage have the original wood floor boards. Possible asbestos tiles are found in the 1955 addition hallway at the rear entry.

Recommendations

If the walls are insulated in the renovation, the plaster on the exterior walls will probably be removed and replaced with a modern drywall finish. Inspection of the exterior and interior walls at the plaster cracks in recommended. The auditorium ceiling plaster can be retained. Water damaged ceiling and wall plaster should be removed and patched. Leaks in the roof covering should be reviewed and patched to prevent further deterioration of the interior finishes. It is recommended to remove all of the possible asbestos tiles on the floors. The vinyl tile should be removed and replaced with a more appropriate floor covering. The wood floor in the auditorium can be retained and refinished, or covered with area rugs or carpets.



Figure 56. Cracked plaster at vault wall at Town Clerk.



Figure 57. Stepped crack in plaster above window in auditorium.



Figure 58. Wood flooring at auditorium floor.



Figure 59. Vinyl tile on floor, plaster on walls, and acoustic ceiling tiles at meeting room.



Figure 60. Water damage at Historical Society office in north wing.

SERVICES

Conveying

(Refer to Allied's M/E/P/FP Existing Conditions Report and Feasibility Report)

Elevators and Lifts

There is no elevator in the existing building.

Recommendations:

Provide an elevator in the renovated building. Consider the possibility of a pit-less elevator due to foundations and footings at the basement.

Plumbing

(Refer to Allied's M/E/P/FP Existing Conditions Report and Feasibility Report and Samiotes Site and Utilities report)

Plumbing Fixtures

The plumbing fixtures are dated but in fair condition and appear to be functioning properly. Given that bathrooms need to be made accessible and that piping needs major replacement, the expectation should be that fixtures are replaced.

Domestic Water Distribution

The main water for the building enters under the south stair in the west lobby. The piping is old and the solder joints are probably lead. The floor drains in the basement floors appear to be clogged. An electric water heater under the south lobby stairs is assumed to serve the toilet rooms and is in good condition. Another water heater is located in a storage room near the boiler in the basement and is in good condition. It is assumed that this water heater services other fixtures at the rear of the building.



Figure 61. Old sink in basement.



Figure 62. Plumbing pipes behind south stairs.

Sanitary System

A 4" cast-iron sanitary line is located close to the water service at the west of the building and collects the toilet rooms located there. The additional fixtures at the rear of the building may drain to this line or a separate line toward the addition. The sanitary piping is cast-iron with lead and oakum, bell and spigot and hubless joints. The existing septic system was installed in 1976-1977 and serves the Town Hall, the Loring Parsonage, and Grange Hall. The system has a series of septic tanks for each building that transmits the sewage to the soil absorption system in the ball field at the end of the parking lot. The system is maintained by the Town and has a capacity of approximately 1,745 gallons of water per day. It will be important to not exceed its design capacity in the Town Hall renovation.

Storm Water Drainage

The external system consists of gutters and downspouts that continue below grade to a collection system. The water then drains to the drywell on the south of the garage entrance or to drainage systems in Concord or Old Sudbury Roads. The drainage system is in fair to good condition but should be inspected before renovations.

Recommendations:

Provide a new sanitary system if extensive renovations are proposed. The condition of the sanitary discharge and code requirements should be reviewed. It likely should be replaced and separated from the domestic water line. The existing water service is adequately sized for the building but may need to be replaced if the building undergoes major renovation. The existing water pipes should be replaced because they are likely to have lead solder joints. The water heaters should be replaced for a major renovation, but can be retained for minor renovations. The gas service is adequately sized for the building but should be resized if the new heating system requires gas.

HVAC

(Refer to Allied's M/E/P/FP Existing Conditions Report and Feasibility Report)

Heat Generating Systems

A boiler supplies steam to the original Town Hall building and also serves as a hot water converter that provides hot water to heat the addition. Heat is transferred through steam baseboards and steam radiators. The boiler is in poor condition and is leaking. The boiler vents to the north masonry chimney. The condensate receiver is corroded and in poor condition, although the condensate pump is in good condition. Two steam unit ventilators are located on the second floor and provide the heat to the stage. These units are in poor condition and are at the end of their useful life.



Figure 63. Existing Boiler.



Figure 64. Mechanical equipment.

Cooling Generating Systems

An air conditioning unit on the roof of the addition provides air conditioning to the addition and the Town Clerk's office. The basement and first floor vault have an air conditioning system that was installed in the past few years. The air handler unit is located in a storage room and the outdoor unit is located on the north side of the building. The rest of the building does not have air conditioning.



Figure 65. Air conditioning for Town Clerk's office.

Ventilation Systems

The building does not have an operable ventilation system. The original ventilation system for the auditorium was a large duct under the stage that drew the hot air out and up through the east chimney (Figure 66). A mechanical ventilation system may not be required because of the operable windows in the building. Exhaust is not provided in most of the toilet rooms.

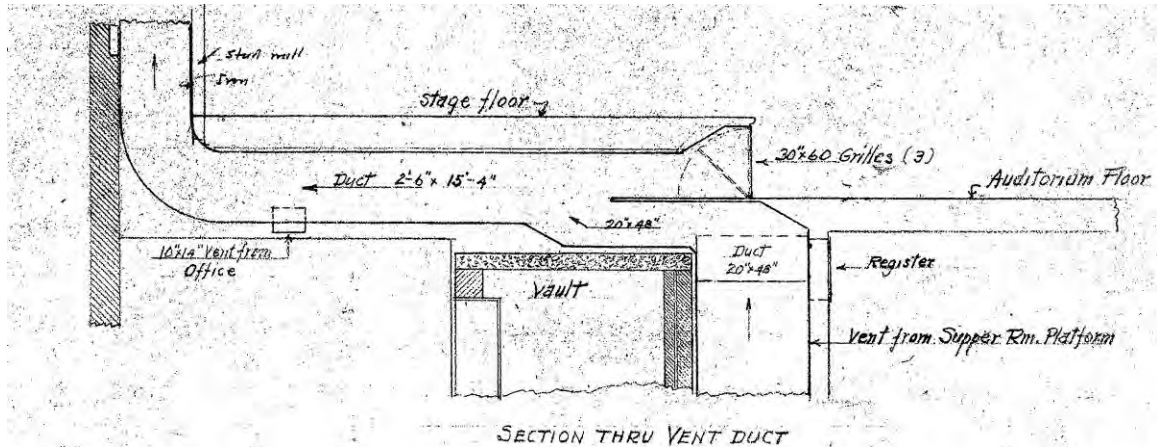


Figure 66. Existing section through duct under stage showing original ventilation system through chimney.

Recommendations:

Abandon the steam system including the boiler, condensate receiver and piping. The air conditioning rooftop unit is outdated and should be removed. It can be retained if the renovations are minor. A new HVAC system would be more energy efficient, allow for zoning and control in different areas, and could be ductless which provides flexibility in existing buildings. The potential systems include variable refrigerant volume (VRF) heating, energy recovery ventilation (ERV) systems to ventilation large meeting spaces and rooms without windows. An alternate could be a hydro-air system with DX fan coil units. Provide exhaust fans in the restrooms.

Fire Protection

(Refer to Allied's M/E/P/FP Existing Conditions Report and Feasibility Report)

Fire Suppression System

The building currently does not have a sprinkler system.

Recommendations:

Provide a full fire suppression system in the building, including plenum and attic spaces. A sprinkler system will require a new 4" water service. A flow test should be performed to determine if the water pressure and flow is adequate without a fire pump.

Electrical

(Refer to Allied's M/E/P/FP Existing Conditions Report and Feasibility Report)

Electrical Service and Distribution

The electrical service enters the building along the south garage area and ends at a main breaker. The 400 amp electrical service may need to be replaced and upgraded for extensive renovations. The Town Hall generator provides the Sudbury Center traffic lights with emergency power. The generator room in the basement does not meet code because it is not enclosed. Older electrical panels exist throughout the building.

Lighting and Branch Wiring

Lighting fixtures are functional but outdated. Old fixtures and plugs existing on the second floor and stage areas can be removed. A portion of the building has automatic lighting controls including occupant sensors that are in good condition.



Figure 67. Existing light fixture.



Figure 68. Existing electrical room in basement.



Figure 69. Strip florescent lighting in auditorium

Fire Alarm System and Other

An existing addressable fire alarm system is in good condition and a zoned system in the basement is in good condition. Emergency lighting is in poor condition and non-functional. Exit signs are partially functional but in poor condition. Exterior egress emergency lights are not installed.



Figure 70. Fire alarm equipment



Figure 71. Fire alarm equipment

Recommendations:

A load calculation should be performed to determine if the electrical service needs to be upgraded, but it is likely that a new service will be provided. Remove the second floor electrical panel and remove unused and abandoned wiring. Provide a new exterior generator if extensive renovations are planned. New interior and exterior emergency lighting should be installed. Replace exit signs with LED signs and back-up batteries. Provide new high efficiency light fixtures, preferably with LED lamping. Occupant sensors throughout the whole building should be provided. Provide a new addressable fire alarm system as part of a major renovation. A voice activated system might be required if the occupant load exceeds 300 people. Provide a new security, including card access, motion sensors, etc. if desired by client. Provide new data cable with gigabit rated plugs, jacks, routers, and switches if desired by client for faster cable service.

SITE

(Refer to Samiotes Site and Utilities report)

The Town Hall sits between the historic Loring Parsonage and Grange Hall around Sudbury Center. Most of the site is paved drives and parking lot, but there is some green space to the west and south of the building. A drop-off driveway is located in the front (west) of the building, although it is not used often. The main vehicular access to the building is from a narrow driveway between Grange Hall and Town Hall that leads to the parking lot in the rear of the building. The parking lot currently has approximately 110 spaces, with approximately 177 spaces in the whole Town complex including the Peter Noyes School and Flynn Building parking. Nine parking spaces are located at the south basement drive. This area has a concrete retaining wall on the east and a stone retaining wall on the west. Other stone retaining walls are located along the walkway on the south of the building.

An Activity & Use Limitation (AUL) encompasses nearly the entire immediate site surrounding the Town Hall. The AUL was established in 1997 when a leaking 10,000 gallon oil tank was found in the ground behind Grange Hall and to the north of Town Hall. The soils have oil and hazardous material concentrations that are higher than normal standards but the site has a "no significant risk" designation. Development and activities are not allowed to disturb or relocate the contaminated subsurface soil in the AUL area.

Recommendations

Create a planting buffer at the north driveway between the asphalt and the building. Remove the drop-off driveway at the west entrance and create a patio and landscaped area. Fill in the south driveway with dirt to return the natural slope of the hill between the Loring Parsonage and the Town Hall. Re-strip the parking lot to provide additional spaces and add more accessible spaces close to the rear entrance. Retain a walkway from the Town Hall parking lot to the Loring Parsonage. After the program for the renovated Town Hall is proposed, the AUL should be investigated by a

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Licensed Site Professional to determine how it will affect the development of the property. See Samiotes Site and Utilities report for map of AUL designated area.



Figure 72. Existing site plan with north up.



Figure 73. North driveway and asphalt butts right up against the building.



Figure 74. Stone retaining wall on south side of Town Hall with stairs leading up to the Town Clerk door.



Figure 75. Concrete retaining wall at south side of Town Hall next to Loring Parsonage.



Figure 76. Northeast view of Town Hall from parking lot.



Figure 77. View of parking lot and accessible parking spaces near ramp at east entrance.



Figure 78. View of east of Town Hall showing close proximity to Loring Parsonage.

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C. HAZARDOUS COMPONENTS ABATEMENT

A Hazardous Material Determination testing has not been completed as part of this report. The Town of Sudbury should contract a professional environmental consultant to conduct a survey of the building.

Asbestos could possibly be found in window framing caulking, vinyl floor tile at stairs and the 1955 addition, stage curtains, and various insulated pipes in the basement. While this material does not pose a problem if left undisturbed, the assumption is that the renovation project will involve removal of many of these components. All ACM (asbestos-containing material) must be removed by a Massachusetts licensed asbestos abatement contractor under the supervision of a Massachusetts licensed project monitor prior to any renovation or demolition activities.

Lead-based paint could possibly be found throughout the building. Paint is generally well bonded to substrates such as millwork and plaster, and it can be disposed of as part of those elements if and when they are removed as part of the renovation. The paint at the exterior of windows also likely contains lead and should be treated as such. Disposal of construction materials containing lead-based paint are to be in accordance with applicable Federal, State and Local laws ordinances and codes. This work does not need to be done by a licensed lead contractor since the building is not residential. The Massachusetts Lead Law only applies to residential buildings and therefore does not apply to the Town Hall.

Levels of PCBs (polychlorinated biphenyl) could also be found in the window glazing. This material, which was widely used in caulking and elastic sealant materials from the 1950's through the 1970's, is considered a toxin. Sometimes, the levels found in buildings are lower than the amounts that trigger requirements for disposal as PCBs.

Hazardous materials abatement can be incorporated into the bid documents and reformed as part of the General Contractor's work.

Recommendations

Test for hazardous materials in the paint, tile, window caulking, pipe insulations, and interior fabrics. Incorporate hazardous materials abatement into construction documents for the building renovation.



Figure 79. Possibly asbestos tile at south wing stairs.



Figure 80. Possible asbestos tile at 1955 addition entry hall.

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D. CODE ISSUES

Applicable Codes and Regulations

Codes and regulations governing the renovation of the Sudbury Town Hall include but are not limited to the following:

- International Building Code, 2009
- International Existing Building Code, 2009
- The Massachusetts State Building Code Supplement
- The Massachusetts State Plumbing Code (248 CMR)
- Massachusetts Architectural Access Board (521 CMR)
- International Energy Conservation Code (IECC)

Existing Building Area in gsf

| | |
|--------------|-------------------|
| Basement | 3,170 gsf |
| First Floor | 6,040 gsf |
| Second Floor | 4,640 gsf |
| Balcony | 850 gsf |
| Total | 14,700 gsf |

Existing Use B Business, A-3 Assembly

Type of Construction Type III Construction, Masonry bearing wall

The existing building does not meet current building code requirements with regard to several items. Most of these are not required to be addressed until renovation work is performed on the building. In addition to items already mentioned in the body of the report, some of the major deficiencies include the following:

Accessibility

The building is not fully accessible. While the added entry ramp at the east and north doors allow access to the Town Clerk office level and Meeting Room, the west entry, basement, second floor, stage, and balcony are not accessible. As Title II of the ADA requires that a public entity make its programs accessible to people with disabilities, only the office level and meeting room level are used by the public. The Historical Society on the second floor is not accessible, though the public does visit by appointment.

Additionally, the west vestibule restrooms and meeting room restroom are not accessible to the Town Clerk, stairs do not have required dimensional components, accessible signage does not exist, door hardware includes non-compliant handles, etc. Upgrading the building to meet accessibility requirements is one of the main reasons the renovation project is needed.

The Massachusetts Architectural Access Board (MAAB) states that when the scope of work of a renovation project amounts to 30% or more of the *full and fair cash value* of the *building*, the entire building is required to comply with 521 CMR. The town's Property Record Card for the building indicates a value of \$864,700 for the building, so a major renovation easily will trigger this requirement.

Egress

The existing building has many stairways that lead down from the auditorium and stage, and up from the basement and out of the building. None of the exit stairways are code-compliant fire stairs. All of the stairs have dimensional issues that do not meet code requirements; handrails are not continuous and guardrails do not meet required height criteria. Modifying the stairs can be considered. The renovation project should plan on providing an internal egress stair that meets the requirements for new construction.

Plumbing Fixtures

The existing building includes a men's and women's restroom near the west vestibule, a unisex restroom in the Meeting Room, a single restroom in the basement, and a single restroom on the stage level. A renovation project will be required to provide fixtures that meet the requirements of the International Plumbing Code and the Massachusetts Plumbing code, based on the actual use of the various spaces.

The original restrooms were located in separate coat rooms for the men and women next to the front vestibule and staircases (Figure 55). The existing restrooms are located in the same rooms, but have spread out into the old coat rooms. These fixtures are aged but still in usable condition. They however, do not meet MAAB compliance for accessible restrooms. A restroom in the basement is aged and is not used anymore. A more modern unisex restroom is located in the meeting room and is accessible for visitors of the meeting room. Unfortunately, this is the main employee restroom for the Town Clerk. It is not accessible to these employees because they must go down two sets of stairs to access the restroom. A small restroom is located on the stage level for the Historical Society. This toilet room does not meet MAAB code and users need to wash their hands in the kitchen sink outside of the room (Figure 54).

Fire Suppression

The existing building does not have sprinkler system. If the building is untouched, there is no requirement that sprinklers be added. Massachusetts General Law c. 148, s. 26G (Chapter 508 of the Acts of 2008), requires buildings that are larger than 7,500 sf and are receiving major modifications (affecting 33% of gross square footage) have sprinkler systems installed.

Structural Issues

The Bolton & DiMartino Structural Code Review report describes in detail the various levels of work that trigger structural upgrades. If few changes to the structure are made and the building use does not change, upgrading structural elements to meet current codes is not required. If extensive structural work is required for building modifications, structural analysis is required by code as part of the process, and upgrades for loading and seismic issues may be needed. Seismic upgrades would involve stronger connections of framing and walls and the addition of interior sheer walls.

Energy Code

The International Energy Conservation Code, 101.4.2 lists designations of Historic buildings that are exempt from this code. The fact that Town Hall is part of the Sudbury Centre Historic District puts it into that category.

E. TOWN OFFICES PROGRAMMING ASSESSMENT AND RECOMMENDATIONS

One of the primary goals of the renovation project is to provide adequate space for selected Town Offices in the existing Town Hall. Most of the Town Offices are currently in the nearby Flynn Building (see location on site plan), but are proposed to be relocated to the Town Hall. This relocation is part of a master plan to move the Central School Administration at the Fairbank Community Center to the Flynn Building, eventually making the Fairbank Community Center Sudbury's main community building. The second part of this study programs the School Administration into the Town Hall, instead of the Town Offices to provide an alternative for discussion. The third section of the programming report inventories the existing Flynn Building and provides a programming option for the School Administration to move into the Flynn Building.

The selected Town Department leaders filled out a space planning questionnaire, provided by bh+a, to the best of their ability. Bh+a then visited the departments and individually met with the leaders to discuss the survey and ask any additional questions. Bh+a also took an inventory of the current office layout, furniture configurations, file storage, kitchen areas, and printing/copying needs in both the Town Hall and Flynn Building. For detailed information, see the Space Planning Questionnaires, the Programming Matrix, and Inventory Plans in the Appendix.

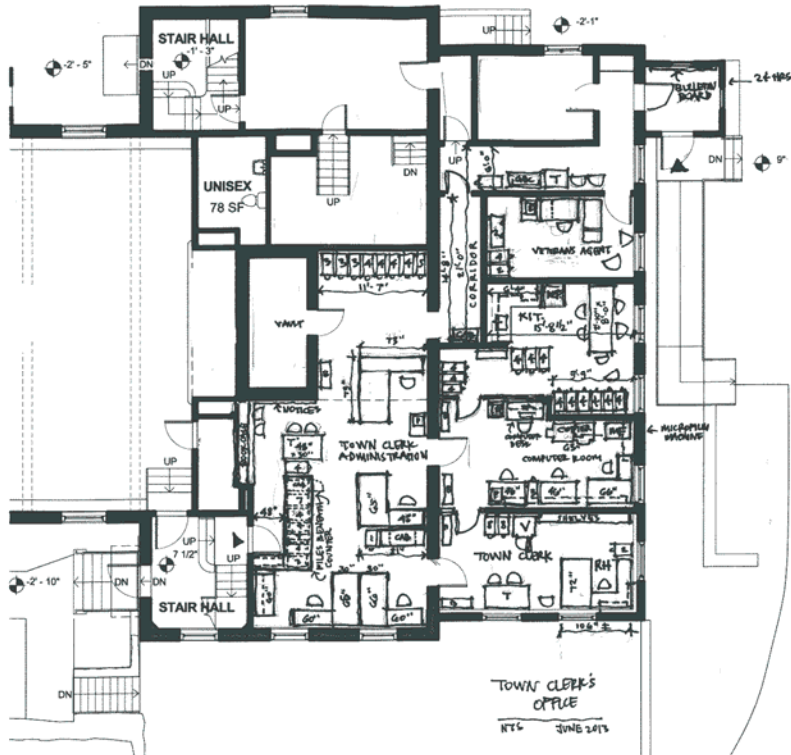
Existing Conditions

Town Hall

The existing Town Hall is approximately 14,700 gross square feet including the basement, first, second and balcony levels. The basement rooms are used as storage for machinery and permanent records. The large meeting room on the first floor accommodates the Selectmen's meetings and Town elections. The Town Clerk, Veteran's Agent, and Outreach Coordinator are also located on the first floor. The Sudbury Historical Society has a work area on the second floor stage and collection storage of Sudbury relics in the auditorium space and on the balcony above the auditorium.

Town Clerk visitors either park in the rear parking lot and enter the rear of the building, or park in the lower lot, walk up the stairs, and enter in the south wing door. The rear parking is more convenient to the entrance, but visitors then have to walk down two hallways to get to the Town Clerk reception desk. The main service counter is easily accessed if the visitor walks in the south wing entrance, but the flights of stairs from the lower parking up to the office can be difficult for some people.

The existing Town Hall building is fairly underutilized because of the large program rooms, i.e. meeting room and auditorium in the original building, the amount of stair halls and lobbies, and the multiple (12+) floor levels throughout the building. The building does not have an elevator or an accessible means to the second floor, stage or balcony.



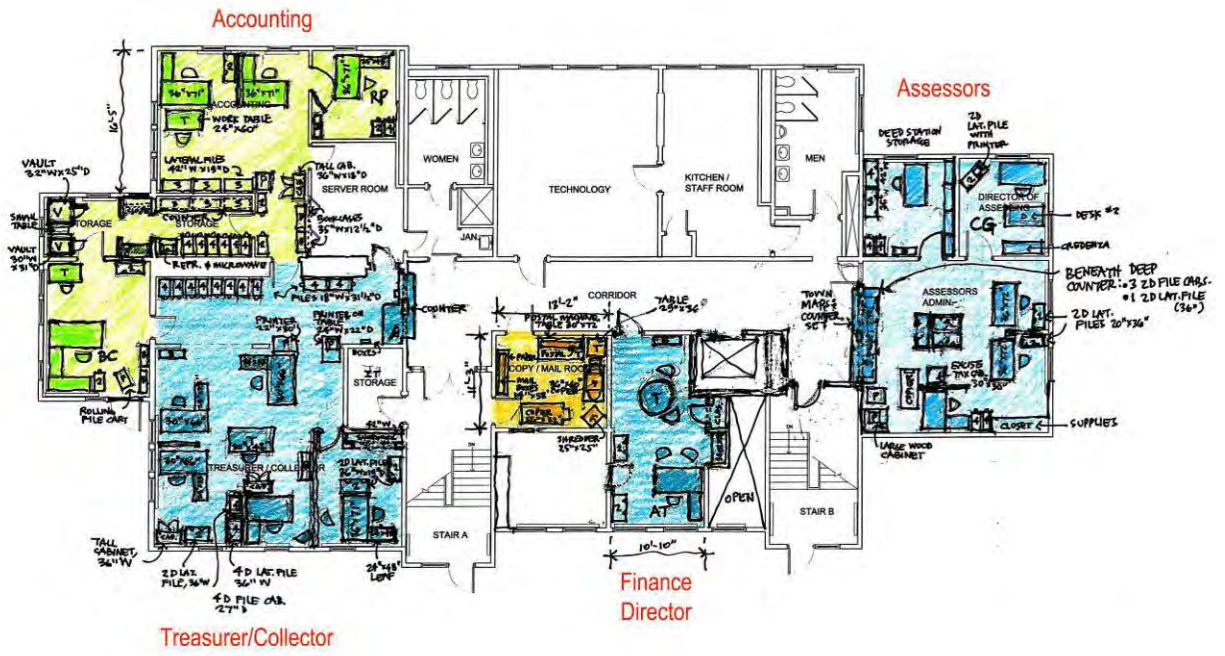
Inventory Plan of Town Clerk's office, first floor of the rear section of Town Hall.

Flynn Building

Most of the Town departments in the Flynn building are proposed to relocate to the Town Hall. The 17,700 gross square foot building includes a basement and first and second floor offices. The basement was not surveyed in depth, but the majority of the departments use it for remote storage. It is beyond the scope of work in this study to determine exactly how much storage space the departments use in the basement and how much storage will need to remain or be moved to the Town Hall.

The finance departments are located on the first floor, including the Assessors, Treasurer/Collector/Finance Director, and Accounting. The administration departments are on the second floor and consist of the Selectmen's office/Town Manager, Assistant Town Manager/Human Resources, Planning and Community Development, and Law departments. Each floor has a kitchen area and copy room. The second floor has two shared conference rooms, leaving the finance departments without an accessible conference room.

The current adjacencies work well but some of the office space in the suites are not ideal. Some private offices are too large while others are too small. Some spaces are separate from the main suite even though they are part of the department, i.e. the Finance Director's office is not located in the Treasurer/Collector's suite and the Planning and Community Development storage and copier is not located in their suite. Because the departments moved into the existing rooms in the Flynn building, the offices do not necessary represent the required space for each department. For example, some departments are larger than needed and some interior walls are not necessary to divide the offices in the ATM/HR office and Planning and Community Development office.



Inventory Plan of first floor of Flynn Building.



Inventory Plan of second floor of Flynn Building.



Exterior of Flynn Building

Loring Parsonage

At the beginning of this study, the historic Loring Parsonage adjacent to the Town Hall was considered for usable program space. The house and property is owned by the Town and is currently being used by the Sudbury Credit Union as office space. There are three offices and a meeting room on the first floor, but the second floor is vacant. The rooms are small with low ceilings, the entry and stair to the second floor is narrow, and the floor plan is not considered accessible by code. A direct interior link and a covered walkway link from a new addition at the rear of the Town Hall to the north side of the Parsonage were studied.

It was determined that the Town Hall program was not a good fit for this building and making the second floor accessible as well as other code requirements was not a priority at this time. A direct link from the Town Hall to the Parsonage was abandoned, but because of its close proximity, the building was still included in the site planning and concept design. A new addition to the Town Hall should be respectful of the massing and views to and from the Parsonage.



Loring Parsonage exterior



Loring Parsonage Interior

Existing Program

Selectmen's Office / Town Manager



Town Manager's office



Selectmen's office

The staff in the Selectmen's office includes the Town Manager, the executive assistant to the Town Manager, the Selectmen's office manager, and a part-time recording secretary. The Board of Selectmen act as the policy-making body of the Town and have a staff to serve as the liaisons between the Selectmen and the public. The staff handles phone calls, visitors and correspondence, as well as maintains records of the Board of Selectmen's meetings. The Town Manger is responsible for the management of the Town Offices and oversees budgetary, financial and personnel activities. Staff also prepares warrants for annual and special Town Meetings, election notices, and coordinates the Town Annual Report.

The Town Manager needs a large office with a small meeting table and wants a second exit other than through the waiting area. Three open workstations and two work tables are adequate for the staff. The department serves an average of 4 people a day and would like a waiting area outside of the office and a service counter for security. The staff work closely with the Assistant Town Manager's office and should be adjacent to each other.

There is a small dedicated storage room along with many filing cabinets in the existing open office. There is a need for a larger dedicated file storage room in the department. Remote storage is located in the Flynn basement and is accessed monthly.

Weekly meetings for 2-10 people are currently held in shared conference rooms or the Town Manager's private office. A conference room for 10 people and one for 25 people would accommodate special meetings for this department. A conference table for 6 people is currently located in the Town Manger's suite, but ideally, a separate small conference room should be located in the department for private meetings.

Assistant Town Manager / Human Resources



ATM/HR Director's office



Open work station in ATM/HR office

The Assistant Town Manager/Human Resources department is responsible for job postings, hiring and employee orientation. The department manages employee issues, workers compensation, retiree issues, collective bargaining and contracts. The staff includes the Assistant Town Manager/Human Resources Director, the Benefits Coordinator/Human Resources Assistant, a part-time senior worker and a part-time assistant.

The ATM/HR director needs a very private office with a meeting table. The Benefits coordinator should be near two open workstations for the part-time employees. The department serves 8-12 employees and visitors per day. A service counter is not needed, but a waiting area outside the office is required. The department interacts with the Selectmen's office and Accounting and should be located adjacent to the Selectmen's office.

A dedicated confidential file room is desired because all employee records are held in the office. A remote storage room in the Flynn basement (approximately 400 sf) is used to store permanent records.

The ATM/HR director holds meetings regularly, while the Benefits Coordinator occasionally has meetings. Meetings are held in the office, a conference room, and sometimes in rooms in the Library, Town Hall, or the Grange. Training sessions using webinars and video-conferencing are held frequently. These meetings accommodate up to 50 people but sometimes can support 100-200 people.

Law Office



Law office



Law office

The Legal department consists of the Town Counsel and an assistant that provide legal services for the Town officials, boards, and committees.

The two full-time workers need two workstations in an open office with the ability to close off a section of the office for more privacy. Two 6-ft work tables are needed for ongoing work for long periods of time. This department has limited interaction with the public, so a service counter and waiting area are not required. The legal department shares work with the Selectmen's office and should be in close proximity.

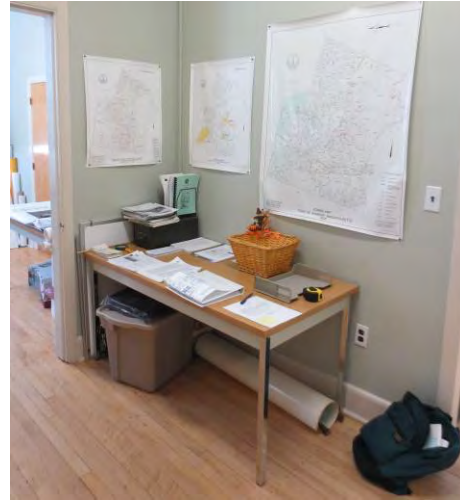
Temporary files are stored in the office. Currently, cold case files are also stored in the office, but can be put in long term storage. The Flynn basement is also used to store remote files.

Most of the meetings with the Law office occur in the office itself and are with 1-2 participants. Occasionally, meetings are held in a small or large conference room. Privacy is important, and the office should have the ability to close off part of it for confidential meetings. Extra seating at the Town Counsel's desk and assistant would be sufficient instead of meeting tables.

Planning and Community Development



Open office in Planning and Community Development



Information table in vestibule

This department staffs the Planning Board, Design Review Board, Zoning Board of Appeals, Sudbury House Trust, Community Preservation Committee, and Sudbury Center Improvement Advisory Committee. The staff is responsible for land use permits and administration for community and regional housing.

A director and a coordinator make up the full-time staff. These positions should each have a private office and the director should have a meeting table. Two open workstations should be located in the open office for three part-time employees to share. One of the desks should be a reception desk at the main door. A map table is desired in the open office. The department serves 5-10 visitors a day. A waiting area should be located outside of the office but a service counter is not required. The public is brought into the open office for transactions such as picking up or dropping off applications and inquiring about property information. An information table should be located in the waiting area to display public information.

An existing copier and plan storage room is located in the Flynn building and should be included program space. There are approximately 12 filing cabinets in the office. Additional files can be located in remote storage with easy access. The department has existing storage in the Flynn basement.

Meetings are held 2-3 times per week, mostly in conference rooms in the Flynn building. Approximately 3-10 planning department representatives and the public attend these meetings. Other meetings include multiple departments. These meetings can occur in shared conference rooms and not in the office suite.

Accounting



Open office in Accounting



Lateral files in Accounting

The Town Accountant's Office maintains the financial records for the Town and handles payroll and accounts payable for the Town and school departments. The department is made up of the Town Accountant, the Assistant Town Accountant, two accounting assistants, and one part-time Senior Worker.

The Town Accountant needs a large office with a meeting table and the Assistant Town Accountant needs a private office. These offices should be close to each other. The two assistants and senior worker share the open office space. A work table is used as the part-time worker's desk and by other office personnel. The counter on top of storage files is used frequently as a work surface. A work area for up to 3 auditors is needed in the office. Currently, the auditors use the Thompson conference room in the Flynn building. The auditors use the office space twice a year for three weeks at a time. The Accounting department does not deal with the public and does not need a service counter or a waiting area. They do interact with the Treasurer and Assessor and should be located near these offices.

The Accounting office keeps all of the financial records for the Town and Schools in printed format. They have tall filing cabinets, lateral files, and open shelves to store the files. These files should be located near the private offices rather than a dedicated file room. Microfilm is stored in the Town Hall and two storage rooms are used in the Flynn building basement.

Meetings are not held often, but when they are, they take place with 2-3 participants in private offices or a meeting room. They are held with representatives from the School Department and the Department of Public Works.

Treasurer / Collector / Finance Director



Open office in Treasurer/Collector/Finance office



Service counter

The Treasurer/Collector/Finance Director department supports the Town and other departments with financial, accounting, and administrative services. The Collector/Treasurer is responsible for collecting money for real estate taxes, personal property taxes, motor vehicle excise taxes, parking tickets, departmental receipts, notary service, and passport applications. There are five full-time employees and one part-time employee, including a Finance Director, Assistant Town Treasurer/Collector, a Financial Analyst, and two Accounting Clerks.

The Finance Director should have a private office with a meeting/work table, and the Assistant Treasurer should also have a private office. These offices should not be located near the service counter. The open office should have 4 workstations (3 for full-time and 1 for part-time employees). The workstations for the Accounting Clerks should be located near the service counter. The department serves 10-20 people per day and even more during crowded tax due days. Security and safety at the service counter is important to the department as well as better visibility and locked access to the hallway. A wide service counter is needed for a workstation computer on top of the counter. Two embossers (date and time stamp machine and check endorser) and a cash drawer are needed under the counter. Two spaces are needed at the counter plus a counter or table for the public to write checks. Currently, the staff brings visitors into the suite to process passport applications. Ideally, a separate counter, workstation, or room should be provided for passport applications and taxpayer discussions so the public would not need to enter the suite. A waiting area should be located outside of the suite near the service counter. One common work table is required as well as a work table for auditors that come twice a year. The department should be adjacent to the Accounting Department and Assessors Department. An exterior drop box for tax payments should be relocated to Town Hall.

File storage for two years of data is stored in 10 file cabinets. Two fire-proof safes are also required to protect property records, money and passport information. Remote storage for permanent files and files older than 2 years are stored in the basement of the Flynn building. Some of the remote storage is accessed on a weekly basis.

Meetings with the Treasurer/Collector/Finance Director are rare.

Assessors Office



Open office in Assessors



Service counter

The Assessors are responsible for determining the value of property in Sudbury. The department maintains current property assessments, abatements, exemptions, mapping, property transfers, property inspections and associated data entry. The office has three full-time employees (Director, Assessing Analyst, and Data Collector) and two part-time employees, but the staffing is currently in transition.

The Director requires a large office with a meeting table adjacent to the open office. Three workstations should be located in the open office, with two of them being close to the service counter. One workstation is shared between the two part-time employees. A 10-15 foot long service counter is required for two computer stations at the counter that serve 5-15 visitors per day. A 5-foot long public counter is required to display Sudbury maps. A separate mapping table should also be located in the suite for staff use. A waiting area should be located outside of the suite near the service counter. The finance departments should all be close to each other, but at the very least, the Assessor and Tax Collector need to be adjacent.

A separate room is dedicated for deed storage with a work table. Files are stored in bookcases and filing cabinets. Some lateral files are located in the middle of the open office. More storage space is needed in the suite for bookcases. A separate file room would be ideal, although many files should be located near the service counter. Extensive storage is located in the Flynn basement. This remote storage does not need to be accessed frequently, but the damp basement is not ideal for document preservation.

If a visitor requires a private consultation, they are currently brought into a private office or a shared conference room. An in-suite conference room for 4-6 people that is close to the maps, files, and a computer would be ideal for these meetings.

Town Clerk



Town Clerk's private office



Service counter in open office

The Town Clerk's office is the central "go-to" office for Town records and official documents. This department is responsible for issuing permits, copies of records, voter registration, absentee voting ballots, marriage licenses, and other licenses and permits. This department has a Town Clerk and two assistant full-time employees, along with two part-time employees.

The Town Clerk requires a private office with a meeting/work table. The open office should have three workstations near the service counter and one workstation in a more private and screened area. A large service counter is required to serve between 10-60 visitors per day (average 25 visitors). Some transactions take between 5-10 minutes while others can take 10 minutes to 1 hour. Sometimes a computer is needed to complete the transactions and the employees need to leave the counter. Preferable, two computers should be located at the service counter for transactions. A larger waiting area is needed with space for an information table and notices. A bulletin board is required by law to be available seven days a week. The existing bulletin board is located in the vestibule in the rear of the Town Hall and is always unlocked. A desk and pin-up area is needed to display printed material and public notices. Two accessible work tables are needed as much as the service counter is. A computer room is needed for three State computers and one State printer used for voter registration and printing voter lists and forms.

A large storage room at the north of the Town Hall is used to store for the election ballots and voting lists. The Town Clerk could use a high density storage area for permanent files that are not accessed too often. A dedicated file room would be useful to store the 30+ filing cabinets in the office. The Town Clerk uses the vault in the suite daily. See Vault section for more information about vault storage.

Weekly meetings occur with staff in the public meeting room. The department has trainings two times per year with about 60 people in the public meeting room.

Selectmen's Meeting Room / Voting Room



Selectmen's meeting room in Town Hall

The Selectmen's meeting room is located on the first floor of the Town Hall. The board of Selectmen consists of 5 members that are elected for a three-year term. They meet two times a month and the meetings are open to the public. Approximately 30 chairs are for the public and 10 chairs around the large conference table are for the selectmen and other guests. Presentations are viewed from a projector and screen that pulls down over the platform area or from a second projector that projects the image on the north wall. The projection facing the north wall makes it easier for the Selectmen to see the presentation, but harder for the public audience. Other boards such as the Planning Board and Board of Appeals meet in this room during the week. The Historical Society has presentations and lectures in the meeting room periodically.

The meeting room is also used for voting during Sudbury elections. Depending on the year and agenda, as many as 7 elections a year occur in this room. Two tables for check-in are located at the entrance near the lobby, the voting booths are in the middle of the room, and two ballot boxes are placed near the exits. The Warden and Clerk are seated at one end of the room to oversee the voting. It is important to have one-way pedestrian flow in, around, and out of the room.

The room is currently about 1,700 sf. This is just about adequate for Town voting, but could be larger to give voting more space. If the new space is any smaller than 1,700 sf, voting cannot continue at Town Hall and will need a new location. The current room is too large for Selectmen's meetings and could be reduced in size to about 1,000 sf. The meeting room can also be used as a large conference room and should comfortably fit about 100 people.

Cable Studio



Equipment rack in Cable Studio



Television in storage room

The Cable Studio is located adjacent to the meeting room and is accessed from the west lobby through the women's restroom. This room is about 70 sf, but could be larger. A window looks out into the meeting room, but this is not required. The technicians will know if something is not working properly without looking into the meeting room. One to two people sit in the room and manage the broadcast of the Selectmen's meetings. The 2 equipment racks combined are 44" wide, 20" deep and 77" tall. It is important to have enough clearance in the back of the racks for someone to walk behind them to access the equipment plugs. Two other shelves in the room hold the wireless microphones and other accessories needed during the broadcast.

Cables run from this room to outlets in the front of the meeting room for projectors and HDMI and VGA cables. Two cameras are located in the back of the room (west wall) and one is located in the front of the room (east wall). A storage room in the meeting room holds a large television that is wheeled out during meetings so the Selectmen can watch and monitor the live broadcast. The Comcast feed is located in the basement. The cable studio should be adjacent to the Meeting room.

Kitchen / Staff Room



Kitchen in Town Clerk's office



Kitchen on 2nd floor of Flynn building

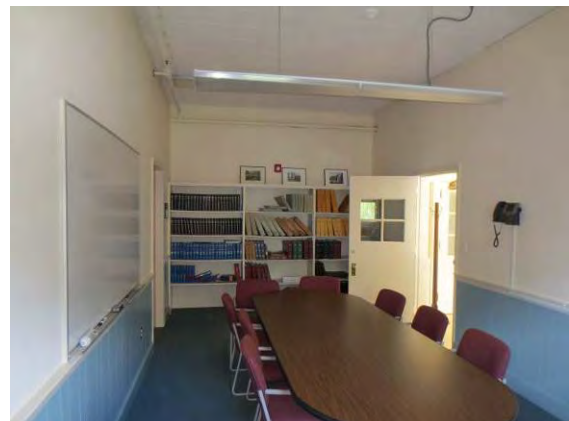
Many of the departments suggested a central kitchen and break room as a place to retreat during their lunch hour. There is currently a kitchen and staff room in the Town Clerk's office in the Town Hall. The staff room has gradually been taken over by filing cabinets and other storage and the kitchen table is usually used as a work space. A small kitchen sink and table for the Historical Society is located in an old dressing room at the stage level.

In the Flynn building, a kitchen and staff room is located on the first floor and a kitchen/copy room is on the second floor. Although adequate kitchen areas are provided in the Flynn, some departments have a small refrigerator and microwave in their suites for convenience.

Conference Rooms



Large conference room in Flynn building



Small conference room (Thompson room) in Flynn

The second floor of the Flynn Building has a large and small conference room that are used by many of the departments and committees. The large room is about 420 sf and can fit about 25 people. The smaller Thompson conference room is about 270 sf and can fit about 10 people. The conference rooms should be easily accessible to the departments.

Vaults



Basement vault in Town Hall



First floor vault in Town Clerk's office (Town Hall)



Two small vaults in Treasurer/Collector/Finance Department in Flynn

The two vaults in the Town Hall are both used by the Town Clerk. The one in the Town Clerk's office stores six voting boxes, vital records such as birth, marriage and death certificates, and money collected from townspeople. This vault is required to be in the suite because of its constant use. A small vault is also located in the Town Clerk's private office. The vault in the basement stores older permanent records. There is a need for a larger vault for all of the Town's vital records.

Two smaller vaults are in the Accounting department office, but are primarily used by the Treasurer/Collector/Finance Department. The safes store money and passport information. The two smaller safes could be replaced with one larger safe in a new facility.

Storage



Basement storage in Town Hall



Storage on balcony in Town Hall



Town Clerk storage in north storage room on 1st floor



Storage rooms for Offices in basement of Flynn

Most of the Town Offices need remote storage for their paper archive files. A 250 sf Records Storage room in the basement of the Town Hall holds permanent records for the Zoning Board of Appeals and the Town Clerk. The Town Clerk also has a 200 sf storage room on the first floor of the Town Hall to keep election ballots and voting lists. The balcony level above the auditorium in the Town Hall is currently used by the Historical Society for storage.

The Town Offices in the Flynn building have small storage rooms with shelving in the basement of Flynn. Some departments access the storage on a weekly basis, i.e. the Treasurer/Collector/Finance office, some access it on a monthly basis, i.e. Selectmen's office, while others use it only for archive storage. The Flynn building basement has a capacity for approximately 3,500 sf of storage, but it is unknown at this time exactly how much is used by the departments.

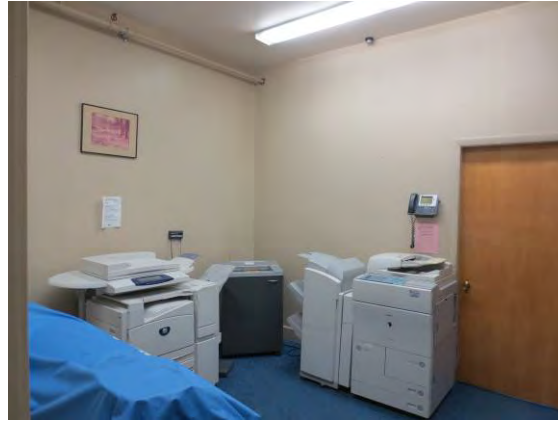
Storage in the existing basement of Town Hall and the Flynn Building should be avoided due to inadequate temperature controls, high humidity and risk of flooding. If storage in the basement is required in the renovation, air conditioning, heating, dehumidifiers, and water sensors can be installed for a better storage environment. Keep boxes elevated and off the ground to prevent damage from flooding.⁴

⁴ Angelina Altobellis. "Report of a General Preservation Assessment." Sudbury Town Hall. October 21, 2008.

Mail / Copy Rooms



Mail/Copy room on first floor in Flynn Building



Copiers in Mail/Copy room

A combined mail and copy room is located on the first floor of the Flynn Building. A mail box shelving unit sorts and holds all of the Sudbury departments' mail, including the ones in other buildings. A postage machine is on a 30" wide by 72" long table and two copiers are used by the departments on the first floor. A kitchen/copy room on the second floor of the Flynn Building has 1 color copier. A second small copy/storage room in Planning and Development has a large copier that is shared with other departments.

The Town Clerk does not have a separate copy room, but a large copier is located in the computer room and a printer is in the open office.

Entry and Lobby



Bulletin Board in vestibule in Town Hall



Payment Drop outside of Flynn building

The Town Clerk is required to display notices and information that is accessible 7 days a week. The exterior vestibule doors are not locked to grant visitors access to this information. A bulletin board like the current one should be included in the renovations to Town Hall.

A payment drop box for after-hours payment to the Treasurer/Collector/Finance Director is located outside of the Flynn Building. This box would need to be relocated to the Town Hall after renovations.

Many of the departments asked for a central lobby and directory for easier public way-finding through the building.

Recommendations

Typical Office Requirements

After collecting information from each department, it was analyzed to produce a required amount of space for each department. The existing office layouts were reviewed and noted inefficiencies in layout, circulation, storage, and location were taken into consideration for future space planning. Typical area requirements for commercial offices were also reviewed and helped determine the space requirement for the Town Offices in the renovated Town Hall. The area per department is based on the number of private offices, workstations, and work tables each suite required, as well as storage needs, waiting area, and service counters.

| Typical Office Space | Area |
|---------------------------|------------------|
| Department head office | 150-180 sf |
| Office with meeting table | (12'x13') 160 sf |
| Assistant office | (10'x12') 120 sf |
| Clerical workstation | (10'x10') 100 sf |
| Work tables | (3'x5') 50 sf |
| Service counter | (3'x15') 50 sf |
| Waiting area | 50 -100 sf |

Note: workstation areas include circulation space and personal file storage, but not file storage for the department.

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Precedent Projects

Recently renovated Town Offices in Lincoln, MA and Lexington, MA were studied to compare the size of the total building, the size and layouts of departments, and required adjacencies for the departments. Sudbury has a population of about 18,000, while Lincoln has about 8,000 residents and Lexington has around 30,000 residents.

The Lincoln Town Office building is about 14,000 gross sf and the office suites range in size from 550 sf to 900 sf. The Town Clerk, Meeting Room, and Selectmen's office is located on the first floor, while the other finance offices are grouped together on the lower level near a large vault. The meeting room is about 650 sf to accommodate less than 100 people, but voting does not occur in this room.

As a comparison, the Lexington Town Offices are approximately 25,000 gross sf with office suite sizes ranging from 600 sf to 1,300 sf. The Town Clerk, Treasurer, and Assessor are located on the first floor, while the Finance department and Selectmen's meeting room is located on the second floor. The meeting room is only 500 sf but the building next to the Cary Memorial Building has ample auditorium and meeting room space. Multiple, smaller vaults are located in the finance departments for convenience.



Lincoln Town Offices



Lexington Town Offices

Community Preservation Act (CPA) Funding

CPA funds are available for preservation and accessibility projects in Sudbury. \$2.3 million may be available but many projects are looking for funding from this source. The preferred Town Hall scheme could be presented to the Sudbury Community Preservation Committee (CPC) for approval; the CPC recommends funding at Town Meeting for rehabilitation of Sudbury's historic resources.

Required Program

A required building program was developed to aid in conceptual drawings and layouts for the Sudbury Town Hall renovation. The chart on the next page takes in to account all of the main program spaces as well as support spaces, mechanical, circulation, wall thickness, etc. The required area is approximately 16,700 gross square feet, while the existing building is only 14,700 gross square feet. A new addition is recommended to provide the needed space for all of the departments being relocated to Town Hall.

Town Hall Program for Town Offices

| Space Designation | Existing Area | Totals | Required Area | Totals |
|--|---------------|----------|---------------|----------|
| Flynn Building Departments | | | | |
| Selectmen's Office / Town Manager | 1,270 SF | | 800 SF | |
| Assistant Town Manager / Human Resources | 670 SF | | 580 SF | |
| Law Office | 420 SF | | 450 SF | |
| Planning and Community Development | 840 SF | | 780 SF | |
| Accounting | 840 SF | | 920 SF | |
| Treasurer / Collector / Finance Director | 1,160 SF | | 1,030 SF | |
| Assessors | 770 SF | 5,970 SF | 930 SF | 5,490 SF |

| | | | | |
|------------------------------|----------|----------|----------|----------|
| Town Hall Departments | | | | |
| Town Clerk | 1,350 SF | | 1,250 SF | |
| Vaults | 160 SF | | 200 SF | |
| Ballot and Archive Storage | 480 SF | | 480 SF | |
| Selectmen's Meeting Room | 1,740 SF | | 1,000 SF | |
| Cable Studio | 70 SF | 3,800 SF | 90 SF | 3,020 SF |

| | | | | |
|---|------------|----------|----------|----------|
| Additional Program | | | | |
| Large Conference Room | 415 SF | | 400 SF | |
| Small Conference Room | 270 SF | | 200 SF | |
| Kitchen / Staff Room | 250 SF | | 300 SF | |
| Storage | unknown SF | | 1,000 SF | |
| Mail Room | 150 SF | | 150 SF | |
| Copy Rooms (1 per floor at 120 SF each) | 200 SF | | 240 SF | |
| IT/Server Room | n/a SF | | 120 SF | |
| Custodial (1 Per Floor at 50 SF each) | n/a SF | | 150 SF | |
| Restrooms | n/a SF | | 800 SF | |
| Mechanical Spaces | n/a SF | | 500 SF | |
| Entry and Lobby Spaces | n/a SF | | 1,200 SF | |
| Elevator | n/a SF | 1,285 SF | 300 SF | 5,360 SF |

Required Area Total **13,870 SF**

Total Gross Square Feet (x1.2) **16,644 GSF**

Existing Town Hall **14,700 GSF**

Renovation Concepts and Plans

Renovation / Addition Goals

A series of conceptual options based on the programming needs identified as part of this analysis were prepared. The Sudbury Town Hall is located in a National Register District and a renovation / addition project should follow the Secretary of the Interior's Standards for Rehabilitation as well as be approved by the local Sudbury Historical Commission. The Committee is interested in Community Preservation Act funds to supplement the cost of the renovation.

The Sudbury Permanent Building Committee's goals are to minimize modifications to the exterior, other than removing recent additions or components not contributing to the historic character of the building. The Committee is interested in gaining as much usable space in the building by removing extra circulation or raised levels of the original building.

Renovation and addition goals:

- Provide a new accessible entrance near the parking lot
- Provide a lobby for way-finding and congregating
- Provide horizontal circulation through the building, mitigating the existing floor level changes as much as possible
- Create code-compliant vertical circulation with a new elevator and fire stairs
- Remove 1955 one-story addition and its foundations
- Provide a new addition at the rear of the Town Hall that is sympathetic to the massing and character of the Town Hall and adjacent Loring Parsonage
- Upgrade all building systems including electrical, plumbing, HVAC, and fire suppression
- Renew finishes at interior of existing building
- Re-grade the site for a more natural slope at the south elevation and remove the retaining walls and asphalt at the basement level

Programming goals:

- Meet program needs and required sizes for departments
- Use the basement for storage and not occupancy
- Locate the Selectmen's Meeting Room/Voting Room on the first floor for easy accessibility. Ideally, this space could function when the rest of the building is closed
- Locate the Town Clerk on first floor for easy accessibility
- Locate the finance departments together, but if not possible, the Treasurer/Collector/Finance Director and the Assessors should be adjacent to each other
- Locate the Selectmen/Town Manager, ATM/HR, and Law offices adjacent to each other
- Provide transaction counters for the public that are easy to find and use, as well as provide security and safety for the departments
- Include amenity spaces such as copy rooms, mail room, kitchen/staff room, accessible restrooms
- Provide small conference rooms on each floor for convenience

Proposed Options for Town Offices in Town Hall

Renovation options were presented to the Sudbury Permanent Building Committee throughout the concept design process. bh+a met with the Committee on July 25, 2013 to present three concept options. One option was to add a mezzanine level in the two-story auditorium. Although it created much-needed space inside the footprint of the existing building, there were many disadvantages to this idea. New columns would need to be added to the first floor with cross-bracing that interrupted program space, new footings would need to be poured, the occupants would not get views from the existing windows, and the first floor head height was very low. The most substantial reason why this scheme was abandoned was because the structural engineer was not confident that the building could resist the lateral seismic forces if this mezzanine floor was introduced. The existing cinder block walls are not as strong as brick or concrete block and their performance under stress is not ideal. bh+a also presented two schemes to link the Loring Parsonage with the Town Hall. These were abandoned because the Parsonage is not an ideal space for Town Offices because of its small rooms, low ceilings, and it does not have an accessible route to the first or second floor.

On August 26, 2013, bh+a presented two schemes to the Committee, both of similar scale and massing but with different interior layouts. The Committee chose Scheme 2 as the preferred scheme. bh+a and the Committee met with the Town department heads Oct 3, 2013 to review the Scheme 2 space layouts and get valuable input from the employees. bh+a revised Scheme 2 based on their comments and have concluded the schematic design for the Town Office plan to move to the Town Hall.

Both schemes propose to remove the 1955 rear basement and first floor addition and build a larger addition that replicates the massing and character of the existing building. They retain the existing raised Town Clerk area because the raised floor is made of concrete and should not be removed and lowered. The schemes remove the south stair in the front lobby, the stair in the south wing, the interior and exterior basement stair, the south mezzanine stair, the two meeting room stairs, and the north and south stage stair to provide more program space. A new accessible entrance is added at the rear addition that is close to the parking lot. The Voting/ Meeting Room is placed on the first floor rear of the building for the convenience of citizens during elections. It was later determined that a voting room should be as large or larger than the existing room (1,740 sf) but a meeting room only needs to be 1,000 sf. To keep the addition at a reasonable footprint and costs down, it was decided that voting will occur at a different location and will not be part of the program. A new fire stair services all of the main floor levels, including the basement and third floor, while a new elevator accesses all main and intermediate levels, making the building fully accessible. A new floor is added above the existing meeting room floor to meet the level of the front entry hall. A third floor is added in the new addition and still allows for the rooflines of the existing and new to match the same height. The balcony of the existing auditorium is only accessed by stair and is not accessible, therefore, can only be remote storage or other program space that the public or employee does not need to access.

Scheme 1 tries to retain raised floor levels to keep disturbance to the existing structure as minimal as possible. It retains the raised concrete floor at first floor north storage room because removing this would be difficult and expensive. It also retains the raised stage on the 2nd floor because a beam is located between the stage and second floor level and too much disturbance in the existing building would trigger a full review of the structural loading. Restrooms and storage areas are located on these raised floors. The scheme retains the existing "cut-away" grade at the basement level but adds landscaping and a walkway. Office space is located in the basement with windows overlooking the landscaped lower walkway. The Assessors and Treasurers office are located adjacent to each other on the first floor while the Accounting department is on the third floor. Ideally, these finance departments would all be adjacent to each other. The Selectmen, Assistant Town Manager, and Planning and Community Development are adjacent to each other on the second floor, but the Law Office should be in that grouping instead of in the basement. They are located in the basement because they normally do not get public visitation. The Town Clerk is located on the second floor but is the main stop for most visitors and should be located on the first floor.

Scheme 2 builds off of Scheme 1 but lowers the north storage room floor to meet the first floor level and removes the wood stage and framing to provide one level on the second floor. This scheme will have more sheers walls and structural interventions to leave the building as sound as before the renovation. The Town Clerk is located on the first floor with a new vault in the suit. The Planning and Community Development is on the first floor, but ideally should be

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located near the Selectmen's office and Assistant Town Manager. The Law office is located near the Selectmen and Assistant Town Manager on the second floor and the Assessors and Treasurers office are adjacent to each other. Small conference rooms are on each floor, but the departments can also use the meeting room for larger meetings. Two dormers can be added to the south roofline so the Assessors' can gain more light and views from the third floor. A kitchen/ staff room, mail room, and plenty of storage fill in the basement. Since offices are not located in the basement, the driveway, retaining walls, and garage doors of the old fire station can be removed and filled in to re-create a natural slope of earth on the south side of the building.

Scheme 2 is the preferred scheme for the Town Offices. The following pages include a program sheet and floor plans for to illustrate the design intent. Scheme 1 is located in the Appendix for reference.

| | Scheme 1 | Scheme 2 |
|------|--|---|
| Pros | <ul style="list-style-type: none"> Retains most of the existing structure. Planning, Selectmen, and Assistant Town Manager are adjacent. | <ul style="list-style-type: none"> Gains more usable floor area on the first floor without raised storage room and second floor without raised stage. Provides suitable space for the Town Offices |
| Cons | <ul style="list-style-type: none"> Not effectively using all of the available space due to raised floors and extra circulation. Program space in basement is not ideal work environment. Town clerk not on the first floor for convenient public access. Undersized Selectmen's office. Restrooms are on raised floors and not on main floors. New vault on second floor would need added support. Accounting not adjacent to the other finance departments. Mezzanine can only be used for storage. | <ul style="list-style-type: none"> Raised floor on the first floor. Planning and Community Development not adjacent to Selectmen and Assistant Town Manger. Accounting not adjacent to the other finance departments. Mezzanine can only be used for storage. |

Town Hall Program for Town Offices

| Space Designation | Required Area | Totals | Scheme 2 | Totals |
|--|---------------|-------------------|----------|-------------------|
| Flynn Building Departments | | | | |
| Selectmen's Office / Town Manager | 800 SF | 5,490 SF | 1,075 SF | 6,120 SF |
| Assistant Town Manager / Human Resources | 580 SF | | 650 SF | |
| Law Office | 450 SF | | 350 SF | |
| Planning and Community Development | 780 SF | | 885 SF | |
| Accounting | 920 SF | | 995 SF | |
| Treasurer / Collector / Finance Director | 1,030 SF | | 1,075 SF | |
| Assessors | 930 SF | | 1,090 SF | |
| Town Hall Departments | | | | |
| Town Clerk | 1,250 SF | 3,020 SF | 1,245 SF | 3,225 SF |
| Vaults | 200 SF | | 260 SF | |
| Ballot and Archive Storage | 480 SF | | 530 SF | |
| Selectmen's Meeting Room | 1,000 SF | | 1,100 SF | |
| Cable Studio | 90 SF | | 90 SF | |
| Additional Program | | | | |
| Large Conference Room | 400 SF | 5,360 SF | 160 SF | 6,305 SF |
| Small Conference Room | 200 SF | | 150 SF | |
| Kitchen / Staff Room | 300 SF | | 370 SF | |
| Storage | 1,000 SF | | 1,970 SF | |
| Mail Room | 150 SF | | 170 SF | |
| Copy Rooms (1 per floor at 120 SF each) | 240 SF | | 240 SF | |
| IT/Server Room | 120 SF | | shared | |
| Custodial (1 Per Floor at 50 SF each) | 150 SF | | 140 SF | |
| Restrooms | 800 SF | | 565 SF | |
| Mechanical Spaces | 500 SF | | 540 SF | |
| Entry and Lobby Spaces | 1,200 SF | | 1,600 SF | |
| Elevator | 300 SF | | 400 SF | |
| Required Area Total | | 13,870 SF | | 15,650 SF |
| Total Gross Square Feet (x1.2) | | 16,644 GSF | | 20,660 GSF |
| Existing Town Hall | | 14,700 GSF | | |

[Note: this page deliberately left blank.]

Sudbury Town Hall Study

Town Offices

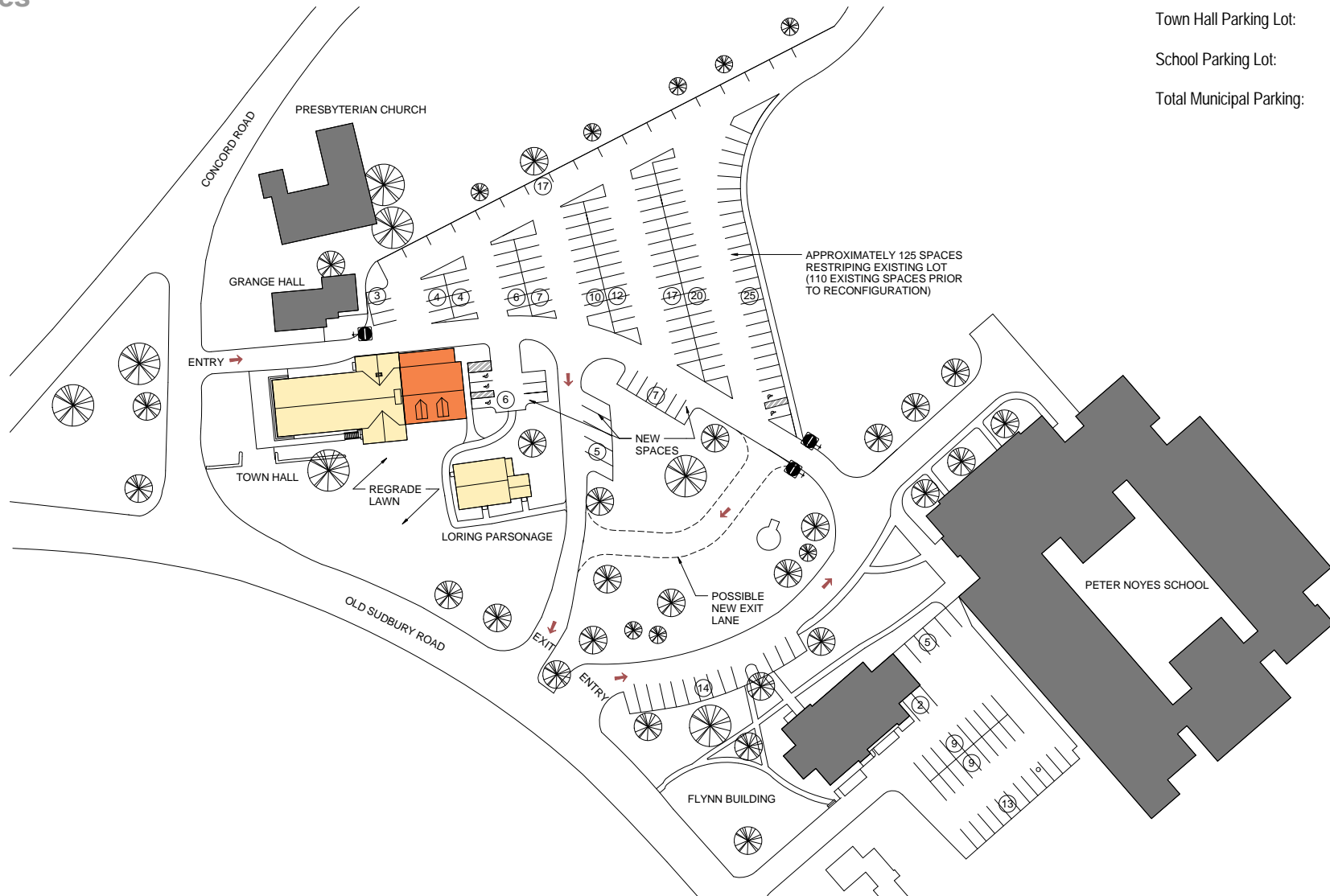
Town of Sudbury Permanent Building Committee

278 Old Sudbury Road, Sudbury MA

Town Hall Parking Lot: 143 (approximate)

School Parking Lot: 52 (approximate)

Total Municipal Parking: 195 (approximate)



2.0

SCHEME 2
SITE PLAN



Sudbury Town Hall Study

Town Offices

Town of Sudbury Permanent Building Committee
278 Old Sudbury Road, Sudbury MA

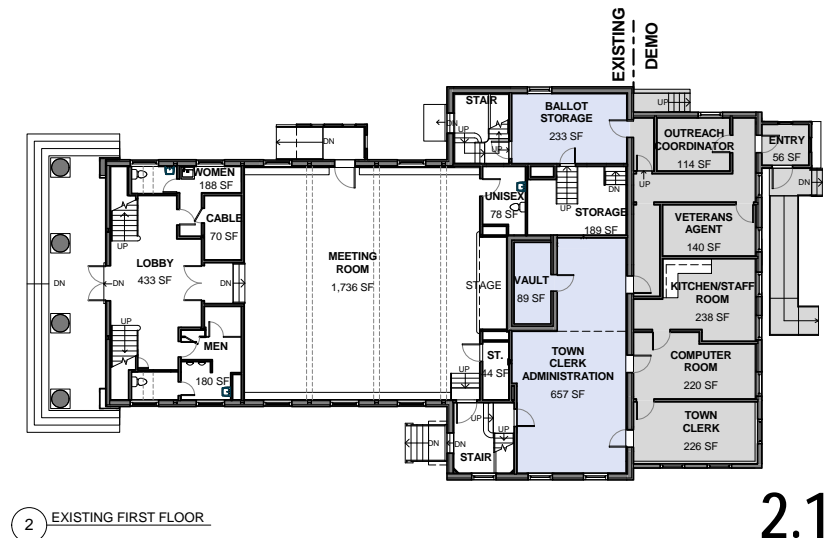
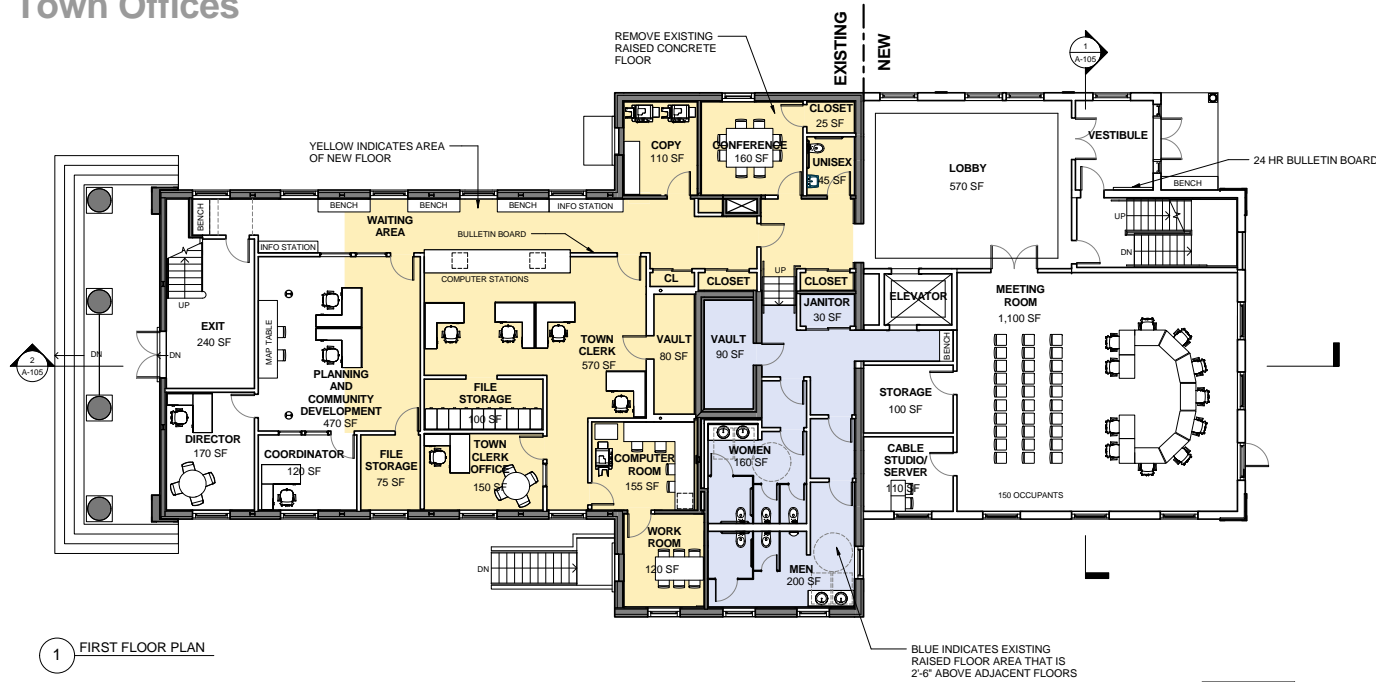
Total Building Area: 20,660 GSF

First Floor Area: 7,200 GSF

First Floor Occupant Load per IBC: 202

Actual Occupant Load for Fixtures: 159

| Required Fixture Count First Floor | | |
|------------------------------------|-----------------|------|
| | Toilets/Urinals | Lavs |
| Female | 4 | 2 |
| Male | 2/1 | 2 |



2.1

SCHEME 2
FIRST FLOOR PLAN



Sudbury Town Hall Study

Town Offices

Town of Sudbury Permanent Building Committee
278 Old Sudbury Road, Sudbury MA

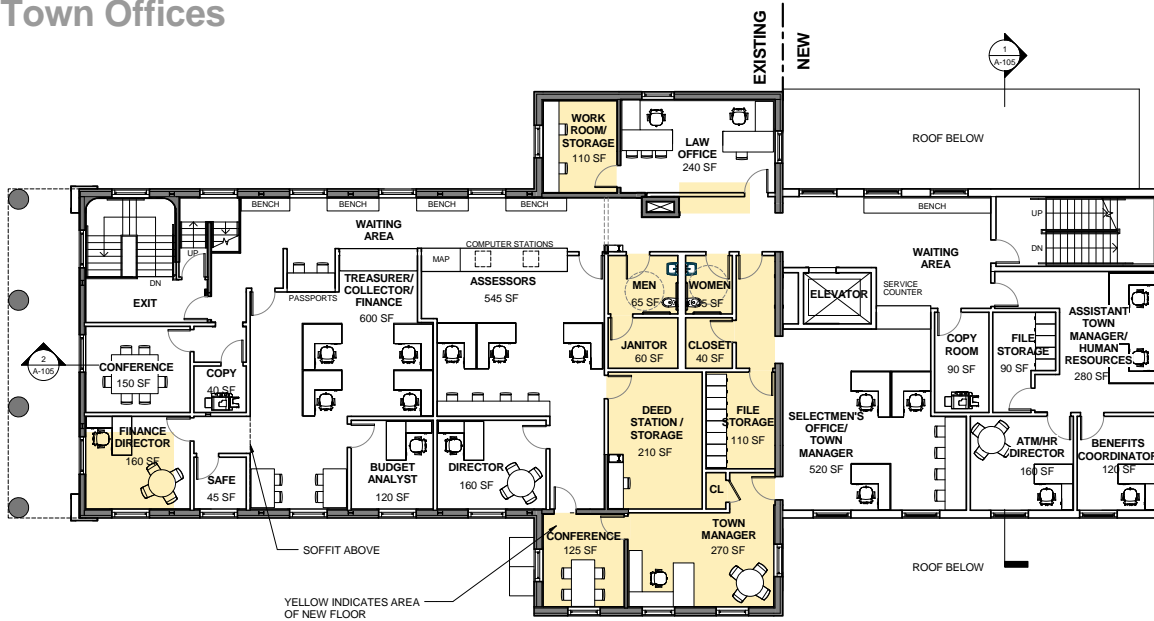
Total Building Area: 20,660 GSF

Second Floor Area: 6,720 GSF

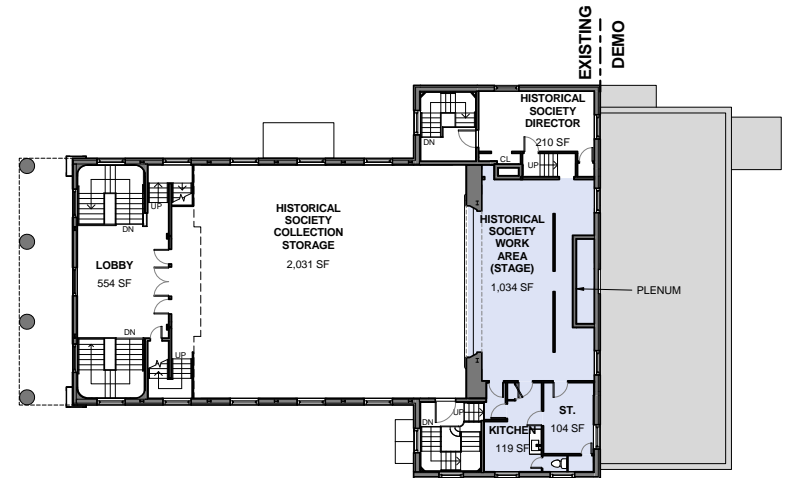
Second Floor Occupant Load per IBC: 61

Actual Occupant Load for Fixtures: 20

| Required Fixture Count Second Floor | | |
|-------------------------------------|-----------------|------|
| | Toilets/Urinals | Lavs |
| Female | 1 | 1 |
| Male | 1 | 1 |



1 SECOND FLOOR PLAN



2 EXISTING SECOND FLOOR



Sudbury Town Hall Study

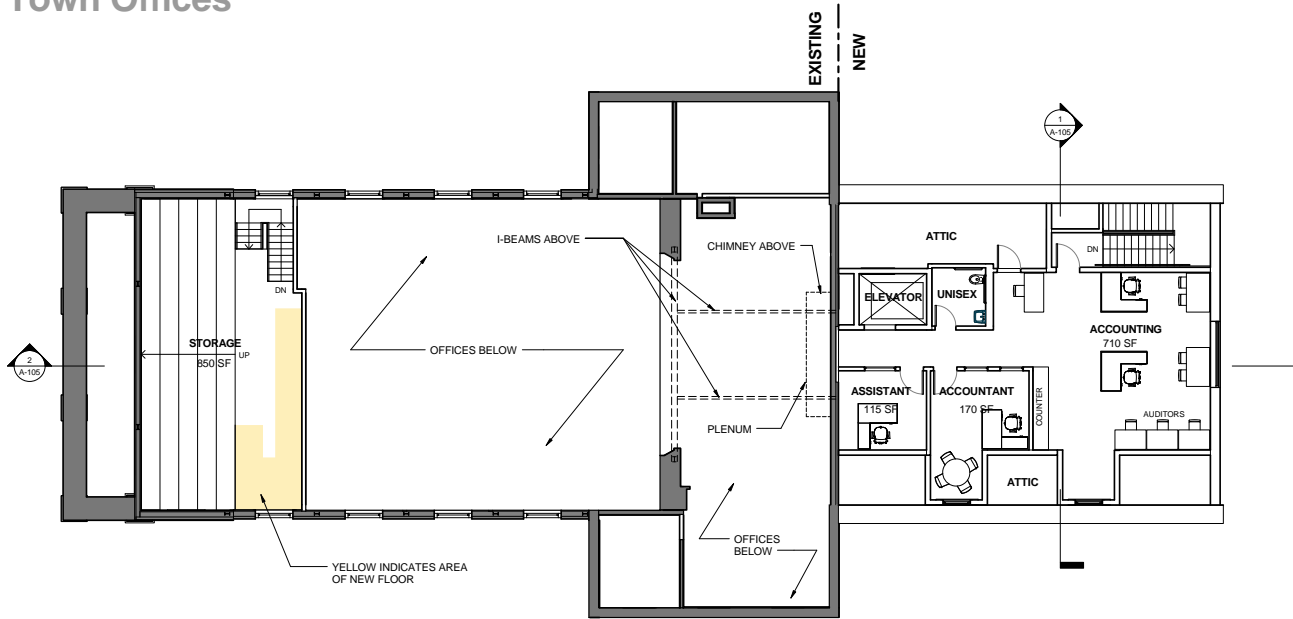
Town Offices

Town of Sudbury Permanent Building Committee
278 Old Sudbury Road, Sudbury MA

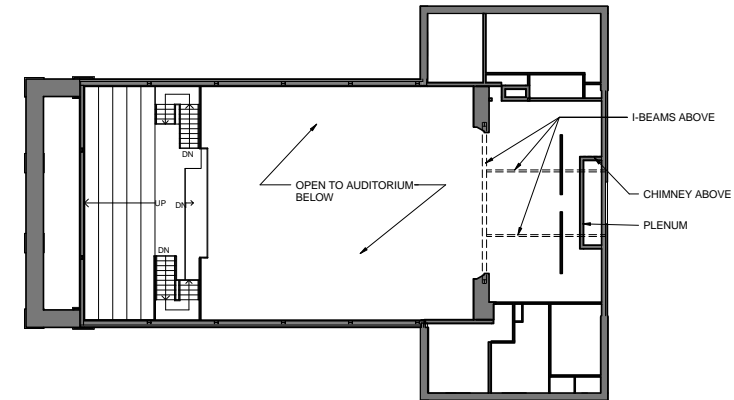
Total Building Area: 20,660 GSF
Third Floor Area: 2,310 GSF
Third Floor Occupant Load per IBC 12
Actual Occupant Load for Fixtures: 5

| Required Fixture Count Third Floor | | |
|------------------------------------|-----------------|------|
| | Toilets/Urinals | Lavs |
| Unisex | 1 | 1 |

Floor area is under 1,200 sf and not required to have separate restrooms



1 THIRD FLOOR PLAN



2 EXISTING BALCONY LEVEL

2.3

SCHEME 2
THIRD FLOOR PLAN



Sudbury Town Hall Study

Town Offices

Town of Sudbury Permanent Building Committee

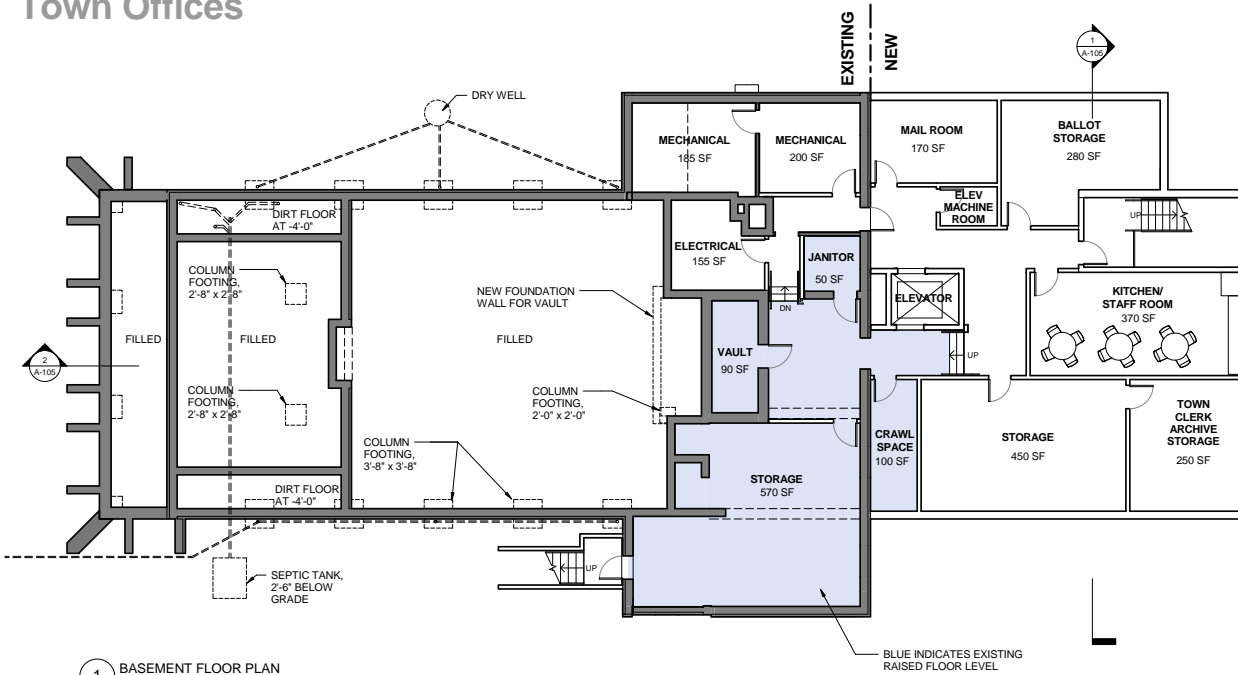
278 Old Sudbury Road, Sudbury MA

Total Building Area: 20,660 GSF

Basement Floor Area: 4,430 GSF

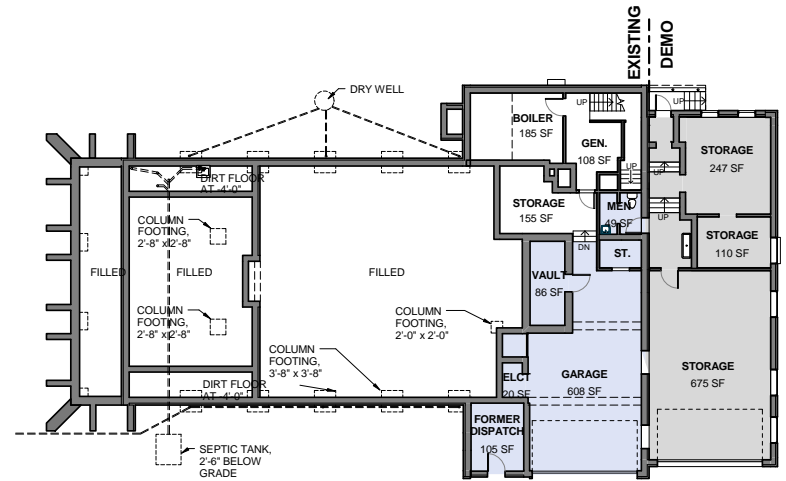
Third Floor Occupant Load per IBC 37

Actual Occupant Load for Fixtures: 0



1 BASEMENT FLOOR PLAN

Elevation -10'-0" from First Floor
Elevation -8'-9" in blue area



2 EXISTING BASEMENT FLOOR PLAN

2.4

SCHEME 2
BASEMENT FLOOR PLAN

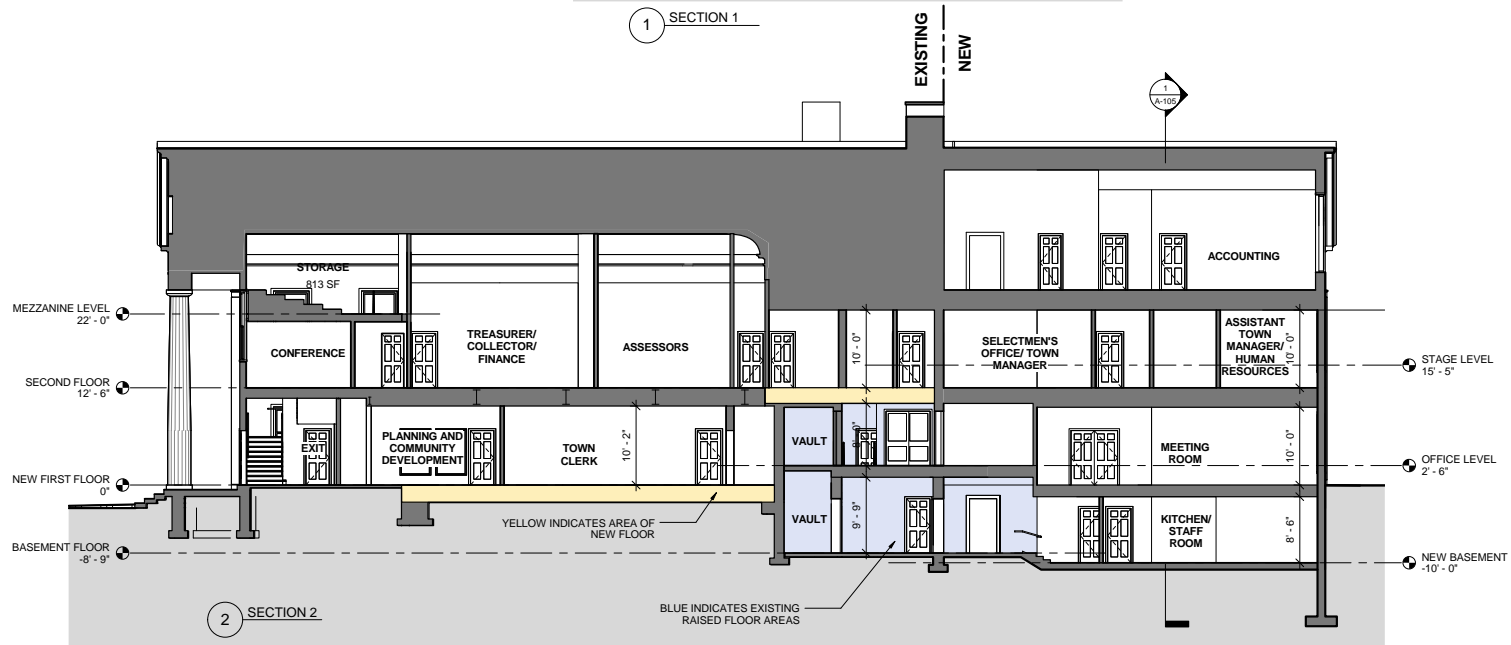
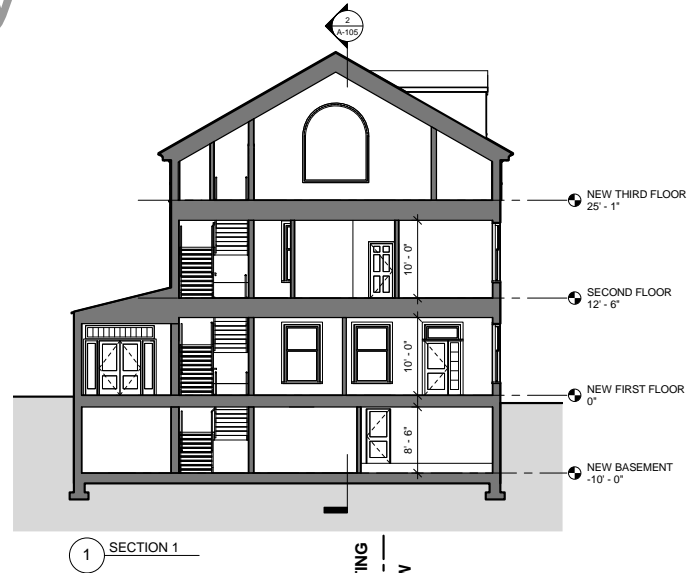


Sudbury Town Hall Study

Town Offices

Town of Sudbury Permanent Building Committee

278 Old Sudbury Road, Sudbury MA



2.5

SCHEME 1 SECTIONS



Sudbury Town Hall Study

Town Offices

Town of Sudbury Permanent Building Committee

278 Old Sudbury Road, Sudbury MA

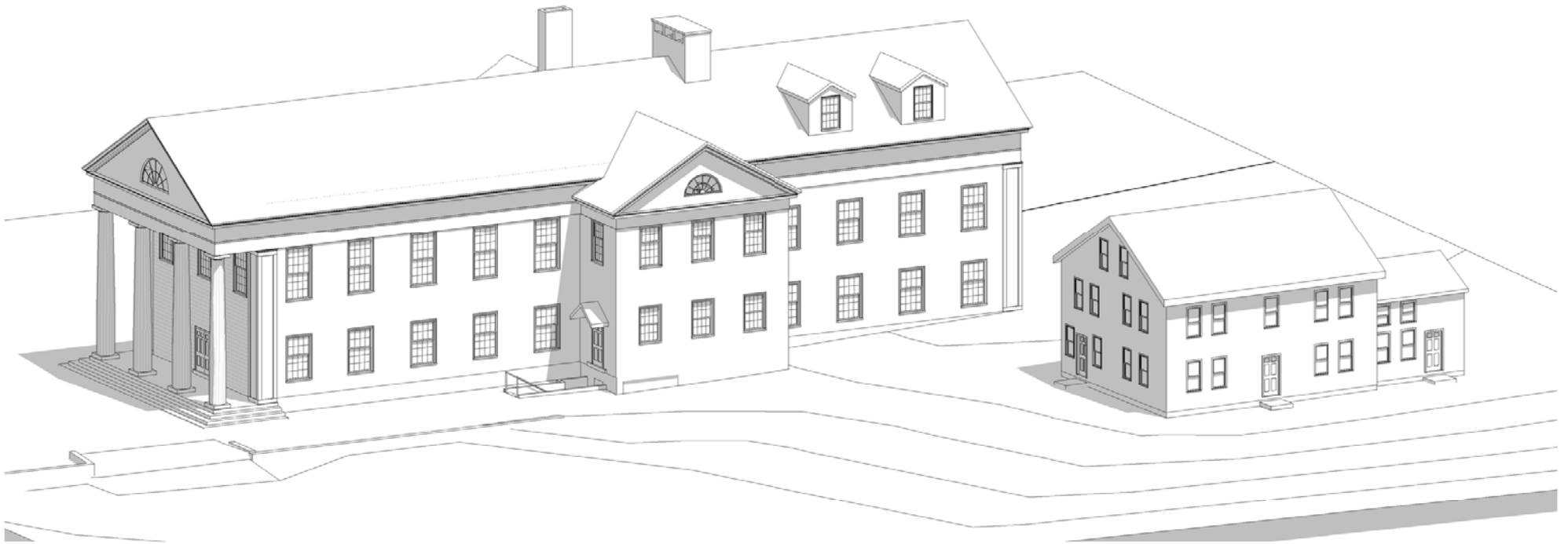


Sudbury Town Hall Study

Town Offices

Town of Sudbury Permanent Building Committee

278 Old Sudbury Road, Sudbury MA



F. SCHOOL ADMINISTRATION PROGRAMMING ASSESSMENT AND RECOMMENDATIONS

The Sudbury Permanent Building Committee requested bh+a to review the School Administration department needs and program their offices into the existing Town Hall as an alternative option to the Town Offices. Their concern was that the Town Offices needed a lot of extra space in a large addition that would also drive up the cost of the project. Since the School Administration is slated to move out of the Fairbank Community Center, the Town Hall building could be their new headquarters. The second part of this study reviews the School Administration existing conditions, their department space needs and programs their offices into the Town Hall building.

The School Administration department heads filled out a space planning questionnaire, provided by bh+a, to the best of their ability. Bh+a met with the Superintendent and Director of Business and Finance to discuss space needs and department adjacencies. Bh+a also took an inventory of the current office layout, furniture configurations, file storage, kitchen areas, and printing/copying needs in the Fairbank Community Building. For more detailed information, see the Space Planning Questionnaires, the Programming Matrix, and Inventory Plans in the Appendix.

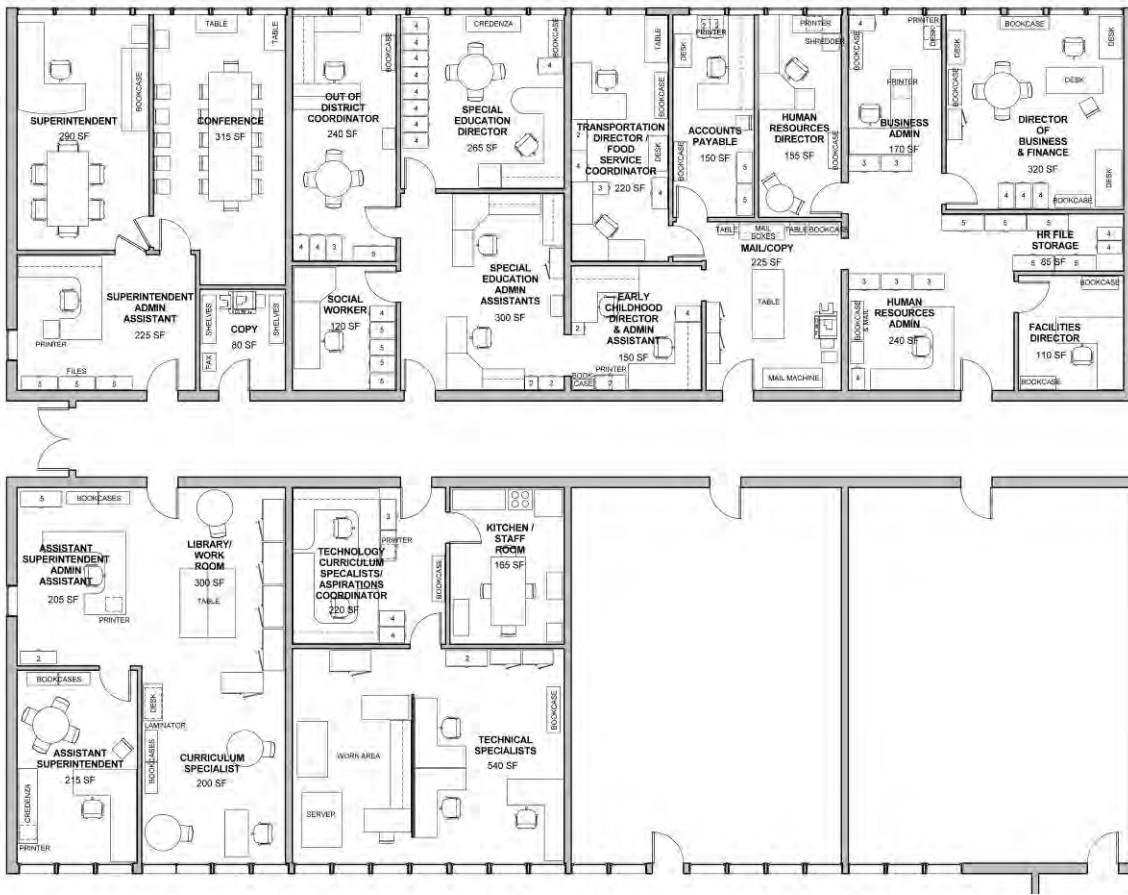
Existing Conditions

The School Administration provides supervision, direction, and administrative support to the operation of the Sudbury Public Elementary and Middle Schools and oversees the academic, cultural, artistic, emotional, and physical development of the student population. The Town schools include 4 elementary schools and 1 middle school. The high school is regionalized with the Town of Lincoln and has its own separate school district. The department currently has a staff of 23 full-time and 4 part-time employees. Ideally, the new department would provide space for 29 full-time and 4 part-time employees. The School Administration department is broken down into 5 distinct departments: Superintendent, Teaching and Learning, Technology, Special Education, and Business and Human Resources.

The School Administration Department currently operates out of one wing of the Fairbank Community Center and occupies about 5,750 square feet of program space. This department presently uses 6 classroom spaces that were subdivided to accommodate their office space needs. Office spaces and meeting spaces are inadequate in terms of size, provision of privacy, and working and meeting space. There is only one meeting room for the department. This room is undersized and always occupied. There is no dedicated meeting space in this building for the School Committee. There are Curriculum Specialists located in other Sudbury school buildings that should be combined into one work area in the School Administration offices. They are dispersed because of inadequate space in the current Curriculum Specialists work area. The Business and Human Resources Department foresees the need for one more administrative assistant. The Technology Department could also expand if the current pilot program of a 1:1 ratio of students to computers in the Middle School is continued. Storage space is inadequate and the kitchen/staff room is too small. The restroom facilities on this wing of the building are child-size and shared by the children participating in programs at the community center. These shared facilities are not suitable for this department. The department also requires parking for 8 vans that are used by the schools.

The office and meeting space in the Fairbank Community Center is too small to accommodate current operations, the building may need upgrades, and the Community Center may need the space occupied by the School Administration for use as an expanded community center. The School Administration was studied by bh+a to determine their current and future space needs. Bh+a has programed the department into the Town Hall building if the Town Offices do not move to the Town Hall.

Sudbury Town Hall
 Conditions Assessment and Feasibility Study
 Sudbury, Massachusetts
 November 2013



Existing School Administration layout in the Fairbank Community Center

Existing Program

Superintendent's Office



Superintendent's Office



Superintendent's Administrative Assistant



Superintendent's Conference Room

The Superintendent's Office oversees the Sudbury School District and School Administrative Departments. The department includes the Superintendent, the Superintendent Administration Assistant, and a dedicated conference room.

The Superintendent's office should be very private and out of the main traffic area. The office should accommodate the existing 6-8 person meeting table and a large desk. The Superintendent and Assistant communicate frequently. The door to the Superintendent's office should be located off of the Assistant and not off of the hallway. This department interacts with the other School departments, but adjacency to other departments is not crucial. A public counter/table to display materials is needed and a counter in front of the Assistant's workstation would be helpful for privacy for the assistant. The department uses the shared copy/printer in the copy room.

All of the files in the department should be secure but easily accessible. More storage areas at the Assistant's workstation and one bookshelf are needed.

Meetings are held daily with other School departments, teachers, and user groups. Since this is the only conference room for the School Departments, it is frequently overbooked. The Superintendent would like a dedicated conference room for the Superintendent's department and a second conference room for the use of other School Departments. The conference room should be able to hold 20-25 people, have a coffee/food bar and water cooler area.

Teaching and Learning Department



Assistant Superintendent's Office



Assistant Superintendent Administrative Assistant

The Teaching and Learning Department oversees and coordinates all teaching and learning activities in the Sudbury Public Schools. Daily tasks include communication activities, acquisition, storage, organization, and dissemination of materials. This department includes the Assistant Superintendent, Assistant Superintendent Administrative Assistant, five Curriculum Specialists including the English Language Arts, Mathematics, Sciences & Engineering Technology, Wellness, and Technology Integration. One more part-time Technology Integration should be included if space allows. Currently, only the English Language Arts and Mathematics Specialists have workstations in the Fairbank building. The other Curriculum Specialists are distributed in other Sudbury schools but should be combined in one office.

Visitation varies from 5 to 20 people per day for student registration, material delivery and interactions with other departments. The existing layout has the Assistant, Curriculum Specialists, and Library/Work room all in one open room. Ideally, the Assistant Superintendent would have a private office off of the Administrative Assistant's work area, and the Curriculum Specialists would have an open work area with a private Library/Work room. The Assistant needs a better area for student registration information and a work area. A counter in front of the Assistant workstation would be helpful for privacy. The existing work room table is not used often because of privacy issues. Verbal communication among the department is useful but visual supervision is not required. This department should be adjacent to the Technology Department because Technology operates under Teaching and Learning. The department should also be close to the Superintendent's office for collaboration between all aspects of learning.

The department holds meetings daily. Private meetings are held in the Assistant Superintendent's office, at open workstations, in the kitchen, and in the Superintendent's Conference room. Meetings should accommodate about 2-15 people. They should be located in a dedicated Technology & Learning shared meeting/work space. Another conference room should be provided for up to 20 people with a projector and whiteboard.

The office stores curriculum material, district professional development records, & office supplies. Remote storage is located in school buildings (Nixon, Haynes, ECMS) because there is not enough room in the Fairbank offices and they need to be near the people that use them. The department uses the shared copier, printer, and fax machine in the copy room. There should be a designated document production area to assemble teaching materials for Curriculum Specialists and staff to assemble mass mailings.



Curriculum Specialists work area



Curriculum Library/Work Room/Storage

Technology Department



Technology Office



Technology Curriculum Specialist

This department supports a full range of technology services used in a modern school. They maintain over 1,200 computers and 24 servers for all teachers and students and online systems. Most of the state reports come out of this office. The department is involved in a full range of planning, deployment and support from network infrastructure to classroom presentation tools and emerging technologies. The department includes a Director of Technology, Data Specialist, Technician, Technology Curriculum Specialist and 1 part-time Technology Curriculum Specialist. The department does not officially know their future needs because the Middle School is in a pilot program to have a 1:1 ratio of students to computers. If this is continued, a second Technician and a second full-time Technology Curriculum Specialist would be needed. A part-time Aspirations Coordinator shares the part-time desk but is not included in the department.

The existing configuration has an office for the full and part-time Technology Curriculum Specialists and one office/work area for the rest of the Technology department. The servers are in the work area, requiring the air conditioning to be set on full blast to keep the room to a low temperature. Ideally, the Director and Data Specialists would have private offices and the three Curriculum specialists would share an office. These private offices would provide focus and quiet conditions rather than the current loud work area. The Data Specialist works daily with confidential student and teacher information.

The Technician area (2 workstations and work tables) should be at the entrance to the department. The work area should have a minimum of 4 work tables to set up laptops. The department usually has 12 laptops and 6 desktops on work tables plus 100 laptops in the summer. If the school district adopts the 1:1 computing ratio, the Technology Department would require space for 400 computers.

The department maintains the School District's central services for thousands of accounts on the servers. Eight servers on two racks are located in the work space. Ideally, these servers should be on open tables in a designated server room.

The department receives about 6 visitors per day, but most people are serviced through emails, video conferencing and remote work. Visitors currently wait in the lunch room but would like a better waiting area. The department offices should be located close to each other because communication among the department is constant and continual. They should also be close to the Assistant Superintendent's office because they operate under the Teaching and Learning department's direction and oversight. The Curriculum Specialists provide focused feedback where technology is needed in the curriculum. Librarians provide curriculum/research direction. Secretaries in the schools make sure the data in the system is collected and accurate.

One bookcase to store printed backup for state reports should be located in the Data Specialist's office. Office supplies are currently stored in the Assistant Superintendent's area. The department needs storage for cables, keyboards, mice, laptops and repair parts. Remote storage for servers is located in the Sudbury Schools and Fairbank Building.

The department holds two meetings per week in the lunchroom. Ideally, they should have a meeting table in the technology area. A separate meeting area is needed for 8-12 people for meetings and small group trainings.



Server and work area



Work area

Special Education Department



Special Education Administrative Assistants



Special Education Director



Social Worker's Office



Early Childhood Director and Admin office

The Special Education Department oversees and administers all aspects of special education, 504 accommodation plans, guidance and counseling, nursing services, homeless education, and early childhood. The department includes a Social Worker, Out of District Coordinator, Special Education Director, two Special Education Administrative Assistants, Early Childhood Director, and one part-time Early Childhood Administrative Assistant.

The Department receives about 10 visitors per day, which are mostly parents dropping off paperwork or for scheduled meetings and conferences. The Special Education Administrative Assistants currently act as greeters for the department because they are located at the door to the department. Their workstations serve as service counters for transactions. A lobby and waiting area for visitors would be helpful to keep the public out of the assistant's work area. Shared work tables would be beneficial in the Assistant work area. The Social Worker and Early Childhood Director do not have adequately sized offices. The Early Childhood Director should have a separate office from the Assistant. Private offices should have small meeting tables. There is ongoing and constant communication and supervision throughout the department. This department should be adjacent to the Special Education Department.

This department has an abundance of files. The 400+ student files and inactive student files must be kept for 7 years in secure filing cabinets. The files also contain financial information for the School departments. Eight filing cabinets are stored in the Special Education Director's private office due to lack of space. Ideally, 9 file cabinets for active students should be in the Assistants' office for easy access and 5 file cabinets for inactive files should be in a separate storage room. The Early Childhood Director stores registration materials for kindergarten & preschool. These files should be stored in a locked office.

Meetings are held 2 to 3 times per week with small and large groups. The department would like small meeting spaces and a larger space to accommodate 20 to 30 people.

Business and Human Resources Department



Business and Human Resources Admin



Director of Business and Finance Office



Accounts Payable Manager



Transportation Director/ Food Service Coordinator

The Business and Human Resources Department runs the business, operations and human resources for the Sudbury School District. The department includes the Director of Business & Finance, a part-time Business & Finance Administrative Assistant, Human Resources Director, Human Resources Administrative Assistant, Transportation Director/Food Service Coordinator, Accounts Payable, and Facilities Director.

The department receives about 25 visitors per day that enter in the Human Resources and Business & Finance Assistants work area. The Transportation Director and Accounts Payable have to go through the Copy/Mail room to get to their offices. A more efficient layout would cluster the offices by their function and have one open area for the HR/Business Assistants. One more HR/Business Assistant is needed in the immediate future. A work table is desired in the Assistant area and meeting tables are desired in the private offices. Human Resources and Accounts Payable offices require privacy. A counter or barrier to separate the public from the staff would be helpful, especially at the Business Assistant and Transportation Director's desk. These departments handle money and should have some privacy. The department works with the other School Departments as well as Town Departments, parents, the public, and vendors. They also use the shared color copier a few times a week.

The department stores staff files, accounting paperwork, financial paperwork, student finances and paperwork, and Human Resources paperwork in 10 large file cabinets for Human Resources and 5 large file cabinets for the Business office. These filing cabinets should be in a designated file storage room and at workstations. Remote storage is located at the schools that should be stored at the department. The Facilities Director does not have adequate storage in the small office. The private offices would like storage closets.

Meetings are held weekly in private offices and Superintendent's conference room for 5-10 people including the public, school staff & other employees. A shared conference room for 15-20 people would also be helpful to hold meetings.

Recommendations

Typical Office Requirements

After collecting information from each department, it was analyzed to produce a required amount of space for each department. The existing office layouts were reviewed and noted inefficiencies in layout, circulation, storage, and location were taken into consideration for future space planning. Typical area requirements for commercial offices were also reviewed and helped determine the space requirement for the School Administration in the renovated Town Hall. The area per department is based on the number of private offices, workstations, and work tables each suite required, as well as storage needs and waiting areas.

This chart provides typical area requirements for private offices, workstations, and work tables. These areas were used to help determine space requirements for School Administration

| Typical Office Space | | Area |
|----------------------------|---------|--------|
| Superintendents | 14'x14' | 200 sf |
| Department head office | 12'x13' | 150 sf |
| Administrative workstation | 10'x12' | 120 sf |
| Work tables | 3'x5' | 50 sf |

Required Program

A required building program was developed to aid in conceptual drawings and layouts for the Sudbury Town Hall renovation. The program includes the School Administration, Town Clerk, and Selectmen/School Committee meeting room. The chart on the next page takes in to account all of the main program spaces as well as support spaces, mechanical, circulation, wall thickness, etc. The required area is approximately 14,800 gross square feet, while the existing building is only 14,700 gross square feet. The existing building does not have an efficient circulation system because of multiple levels per floor, abundant hallways, excess stairs, and multiple lobbies. A greater floor area is used up by just circulation alone. A new addition is recommended to provide the needed space for all of the departments relocated to Town Hall.

Sudbury Town Hall
Conditions Assessment and Feasibility Study
Sudbury, Massachusetts
November 2013

Existing and Required Town Hall Program for School Administration Study

| Space Designation | Existing Area | Area per Department | Required Area | Area per Department |
|--|---------------|---------------------|---------------|---------------------|
| School Administration | | | | |
| Superintendent | 290 SF | | 200 SF | |
| Superintendent's Administrative Assistant | 225 SF | | 200 SF | |
| Superintendent's Conference Room | 315 SF | 830 SF | 350 SF | 750 SF |
| Assistant Superintendent | 215 SF | | 150 SF | |
| Assist. Super. Admin. Assistant | 205 SF | | 150 SF | |
| Curriculum Specialists (5 workstations) | 200 SF | | 600 SF | |
| Curriculum Library / Work Room / Storage | 300 SF | 920 SF | 200 SF | 1,100 SF |
| Director of Technology | 540 SF | | 150 SF | |
| Data Specialist | shared | | 120 SF | |
| Technology Curriculum Specialists (3 workstations) | 220 SF | | 300 SF | |
| Technicians (2 workstations + work tables) | shared | 760 SF | 350 SF | 920 SF |
| Special Education Director | 265 SF | | 150 SF | |
| Special Education Administrative Assistants | 300 SF | | 250 SF | |
| Special Education Department File Storage | 0 SF | | 100 SF | |
| Early Childhood Director | 150 SF | | 150 SF | |
| Early Childhood Administrative Assistant | shared | | 120 SF | |
| Out of District Coordinator | 240 SF | | 150 SF | |
| Social Worker | 120 SF | 1,075 SF | 150 SF | 1,070 SF |
| Director of Business & Finance | 320 SF | | 175 SF | |
| Business & Human Resources Administrative Assistants | 410 SF | | 350 SF | |
| Human Resources Director | 155 SF | | 150 SF | |
| Human Resources File Storage | 85 SF | | 100 SF | |
| Accounts Payable Manager | 150 SF | | 150 SF | |
| Transportation Director / Food Service Coordinator | 220 SF | | 150 SF | |
| Facilities Director | 110 SF | 1,450 SF | 120 SF | 1,195 SF |
| Subtotal for School Administration | | 5,035 SF | | 5,035 SF |

Town Clerk

| | | | | |
|-------------------------------|----------|----------|--------|----------|
| Open Office | 665 SF | | 500 SF | |
| Town Clerk Office | 225 SF | | 150 SF | |
| Computer Room | 220 SF | | 200 SF | |
| Work Room (currently Kitchen) | 240 SF | | 200 SF | |
| Vaults | 160 SF | | 200 SF | |
| File Storage | included | | 200 SF | |
| Ballot & Archive Storage | 480 | | 480 SF | |
| Waiting Area | included | 1,990 SF | 100 SF | 2,030 SF |

Additional Program

| | | | | |
|--|----------|----------|----------|----------|
| Selectmen / School Committee Meeting Room / Voting | 1,740 SF | | 1,000 SF | |
| Cable Studio | 70 SF | | 90 SF | |
| Conference Room | n/a SF | | 250 SF | |
| Kitchen / Staff Room | 165 SF | | 300 SF | |
| Supply Storage | n/a SF | | 80 SF | |
| A/V Equipment Storage | n/a SF | | 80 SF | |
| Storage | n/a SF | | 500 SF | |
| Mail Room (can be eliminated if Flynn has mail room) | 225 SF | | 150 SF | |
| Copy Rooms (2 at 110 SF each) | 80 SF | | 220 SF | |
| IT/Server Room | n/a SF | | 120 SF | |
| Custodial (1 Per Floor at 50 SF each) | n/a SF | | 150 SF | |
| Restrooms | n/a SF | | 500 SF | |
| Mechanical | n/a SF | | 500 SF | |
| Entry and Lobby Spaces | n/a SF | | 1,000 SF | |
| Elevator | n/a SF | 2,280 SF | 300 SF | 5,240 SF |

Required Area Total

12,305 SF

Total Gross Square Feet (x1.2)

14,766 GSF

Existing Town Hall Gross Square Feet

14,700 GSF

Renovation Concepts and Plans

Renovation / Addition Goals

A series of conceptual options based on the programming needs identified as part of this analysis were prepared. The Sudbury Town Hall is located in a National Register District and a renovation / addition project should follow the Secretary of the Interior's Standards for Rehabilitation as well as be approved by the local Sudbury Historical Commission. The Committee is interested in Community Preservation Act funds to supplement the cost of the renovation.

The Sudbury Permanent Building Committee's goals are to minimize modifications to the exterior, other than removing recent additions or components not contributing to the historic character of the building. The Committee is interested in gaining as much usable space in the building by removing extra circulation or raised levels of the original building.

Renovation and addition goals:

- Provide an accessible entrance near the parking lot
- Provide a lobby for way-finding and congregating
- Provide horizontal circulation through the building, mitigating the existing floor level changes as much as possible
- Create code-compliant vertical circulation with a new elevator and fire stairs
- Retain the 1955 one-story addition and its foundations
- Try to fit the School Administration program in the existing footprint if possible. If needed, provide a new addition at the rear of the Town Hall that is sympathetic to the massing and character of the Town Hall and adjacent Loring Parsonage
- Upgrade all building systems including electrical, plumbing, HVAC, and fire suppression
- Renew finishes at interior of existing building
- Re-grade the site for a more natural slope at the south elevation and remove the retaining walls and asphalt at the basement level

Programming goals:

- Meet program needs and required sizes for departments
- Use the basement for storage and not occupancy
- Locate the Selectmen's and School Committee Meeting Room on the first floor for easy accessibility. Ideally, this space could function when the rest of the building is closed
- Locate the Town Clerk on first floor for easy accessibility
- Locate the Superintendent in a private and quiet section of the building
- Do not split up departments. Locate the Business and Finance department offices together and the Special Education Department together
- Locate the Assistant Superintendent and the Curriculum Specialists together
- Include amenity spaces such as copy rooms, mail room, kitchen/staff room, accessible restrooms
- Provide small conference rooms on each floor for convenience

Proposed Options for School Administration in Town Hall

The Sudbury Permanent Building Committee met with bh+a on October 22, 2013 to review two design concepts. Since the Committee is looking for an option that provides adequate space for a reasonable price, bh+a thought it best to keep the 1955 addition and include it in the renovation, instead of demolishing it as proposed in the Town Offices scheme. One option removed the Town Clerk from the program which allowed the School Administration to occupy the whole building without an addition. The Town Clerk could be programmed in the future into the Flynn Building with the rest of the Town Offices. The Committee felt that the Town Clerk is the central office for the public and because of its close association with the Town Hall, it should stay in the building. During a Committee meeting on November 12, 2013, bh+a presented two schemes to the Committee and Scheme 2 was selected as the preferred scheme.

Both schemes build off of the accessibility solutions that came out of the Town Offices study. They raise the meeting room floor to be flush with the front lobby, add an elevator in the north wing stair hall, remove excess circulation throughout the building, and remove the stage level on the second floor. The north portion of the basement floor in the existing boiler room is raised to meet the main basement level. The raised floor level in the basement should only be used as storage rooms. Both schemes propose an addition on the second floor above the existing 1955 1-story addition. Columns would need to be added on the first and basement floor to support the first floor concrete beams.

Scheme 1 retains the existing entrance vestibule at the rear parking area and makes this the main accessible entrance to the building. The Town Clerk's office is reconfigured to have a service counter and waiting area at the entrance. An elevator and lobby bring the public down to the lower level of the first floor, the basement, and up to the second floor to access the School Administration program. The second floor addition allows the Superintendent and Assistant Superintendent to have a suite in a quiet section of the building. The Selectmen and School Administration meeting room is also located on the second floor in the two-story auditorium space. This room would be difficult for Town voting because it is not large enough and being on the second floor, does not provide easy access for masses of residents that come to vote. Although the existing meeting room could be retained to keep voting on the first floor, the smaller School Administration offices would feel out of scale on the second floor with a two-story ceiling. It also might be more convincing to the Community Preservation Committee to use CPA funding if the project retains and restores the large auditorium space. Offices are programmed on the basement floor because of lack of space on the first and second floors. This is not ideal because the Business and Finance department is split between two floors and the Technology Department has electronics that should not be in the basement. The lower driveway is retained and windows are provided in the basement offices instead of the existing garage doors. This scheme does not provide adequate office spaces for the present and future needs of the School Administration, but does have a lower renovation cost. It was excluded from the cost summary section, but can be found in the detailed cost estimates in the Appendix.

Scheme 2 builds on the first scheme, but removes the Meeting room and restrooms from the second floor and creates a new addition for these program spaces on the first floor. The School Administration program fills the first and second floor without a need to use the basement for program space. Accessible restrooms are created on both levels of the first floor. The Special Education department and Town Clerk office is located on the first floor along with a conference room and kitchen/staff room. The Superintendent and Teaching and Learning Department have offices in the existing auditorium, the Technology Department is located at the lowered stage area, and the Human Resources Department is in the new 2nd-floor addition. Mechanical and storage spaces are programmed into the basement, allowing the lower driveway to be filled in to restore the sloped grade along Old Sudbury Road.

Scheme 2 is the preferred scheme for the School Administrative Offices. The following pages include a program sheet and floor plans for to illustrate the design intent. Scheme 1 plans are located in the Appendix for reference.

Sudbury Town Hall
 Conditions Assessment and Feasibility Study
 Sudbury, Massachusetts
 November 2013

| | Scheme 1 | Scheme 2 |
|------|---|---|
| Pros | <ul style="list-style-type: none"> • Adds a minimal addition with a lower renovation/ construction cost. • Retains the large auditorium space as a grand meeting room. | <ul style="list-style-type: none"> • Provides suitable space for the School Administration with room to grow in the future. • Offices in each department are located adjacent to each other and not spread throughout the building. • Basement is used for storage only and not program space. |
| Cons | <ul style="list-style-type: none"> • Extra circulation on the first floor due to raised floor level. • Business and Finance department split between first and basement floor. • Does not provide adequate space for Human Resources Admin, Special Education Admin, Early Childhood Director, Curriculum Specialists, and Technology Department. • Meeting Room is too small for voting but larger than required for meeting. • Restrooms are not accessible to the School Admin on the first floor. • Mezzanine can only be used for storage. | <ul style="list-style-type: none"> • First floor has two main floor levels • Provides a rather large addition on the first floor for the Meeting room which drives up cost. • Extra circulation and lobby space on the first floor due to raised floor level and new addition lobby for meeting room. • Mezzanine can only be used for storage. |

Town Hall Program for School Administration Study: Scheme 2

| Space Designation | Required Area | Total Area per Department | Scheme 2 | Total Area per Department |
|--|---------------|---------------------------|----------|---------------------------|
| School Administration | | | | |
| Superintendent | 200 SF | | 240 SF | |
| Superintendent's Administrative Assistant | 200 SF | | 200 SF | |
| Superintendent's Conference Room | 350 SF | 750 SF | 325 SF | 765 SF |
| Assistant Superintendent | 150 SF | | 175 SF | |
| Assist. Super. Admin. Assistant | 150 SF | | 150 SF | |
| Curriculum Specialists (5 workstations + work table) | 600 SF | | 525 SF | |
| Curriculum Library / Work Room / Storage | 200 SF | 1,100 SF | 145 SF | 995 SF |
| Director of Technology | 150 SF | | 140 SF | |
| Data Specialist | 120 SF | | shared | |
| Technology Curriculum Specialists (3 workstations) | 300 SF | | 225 SF | |
| Technicians (2 workstations + work tables) | 350 SF | 920 SF | 380 SF | 745 SF |
| Special Education Director | 150 SF | | 150 SF | |
| Special Education Administrative Assistants | 250 SF | | 260 SF | |
| Special Education Department File Storage | 100 SF | | 120 SF | |
| Early Childhood Director | 150 SF | | 150 SF | |
| Early Childhood Administrative Assistant | 120 SF | | 150 SF | |
| Out of District Coordinator | 150 SF | | 150 SF | |
| Social Worker | 150 SF | 1,070 SF | 170 SF | 1,150 SF |
| Director of Business & Finance | 175 SF | | 200 SF | |
| Business & Human Resources Administrative Assistants | 350 SF | | 430 SF | |
| Human Resources Director | 150 SF | | 150 SF | |
| Human Resources File Storage | 100 SF | | shared | |
| Accounts Payable Manager | 150 SF | | 150 SF | |
| Transportation Director / Food Service Coordinator | 150 SF | | 180 SF | |
| Facilities Director | 120 SF | 1,195 SF | 150 SF | 1,260 SF |
| Town Clerk | | | | |
| Open Office | 500 SF | | 570 SF | |
| Town Clerk Office | 150 SF | | 165 SF | |
| Work Room | 200 SF | | 185 SF | |
| Computer Room | 200 SF | | 185 SF | |
| Vaults | 200 SF | | 160 SF | |
| File Storage | 200 SF | | 185 SF | |
| Ballot & Archive Storage | 480 SF | | 465 SF | |
| Waiting Area | 100 SF | 2,030 SF | 260 SF | 2,175 SF |
| Additional Program | | | | |
| Selectmen / School Committee Meeting Room / Voting | 1,000 SF | | 1,050 SF | |
| Cable Studio | 90 SF | | 90 SF | |
| Conference Room | 250 SF | | 185 SF | |
| Kitchen / Staff Room | 300 SF | | 225 SF | |
| Supply Storage | 80 SF | | 260 SF | |
| A/V Equipment Storage | 80 SF | | 20 SF | |
| Storage | 500 SF | | 2,200 SF | |
| Mail Room (can be eliminated if Flynn has mail room) | 150 SF | | n/a | |
| Copy Rooms (2 at 110 SF each) | 220 SF | | 135 SF | |
| IT/Server Room | 120 SF | | 100 SF | |
| Custodial (1 Per Floor at 50 SF each) | 150 SF | | 65 SF | |
| Restrooms | 500 SF | | 200 SF | |
| Mechanical | 500 SF | | 225 SF | |
| Entry and Lobby Spaces | 1,000 SF | | 1,100 SF | |
| Elevator | 300 SF | 5,240 SF | 300 SF | 6,155 SF |
| Required Area Total | | 12,305 SF | | 13,245 SF |
| Total Gross Square Feet (x1.2) | | 14,766 GSF | | 18,460 GSF |
| Existing Town Hall Gross Square Feet | | 14,700 GSF | | |

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Sudbury Town Hall Study

2. School Administration with Meeting Room

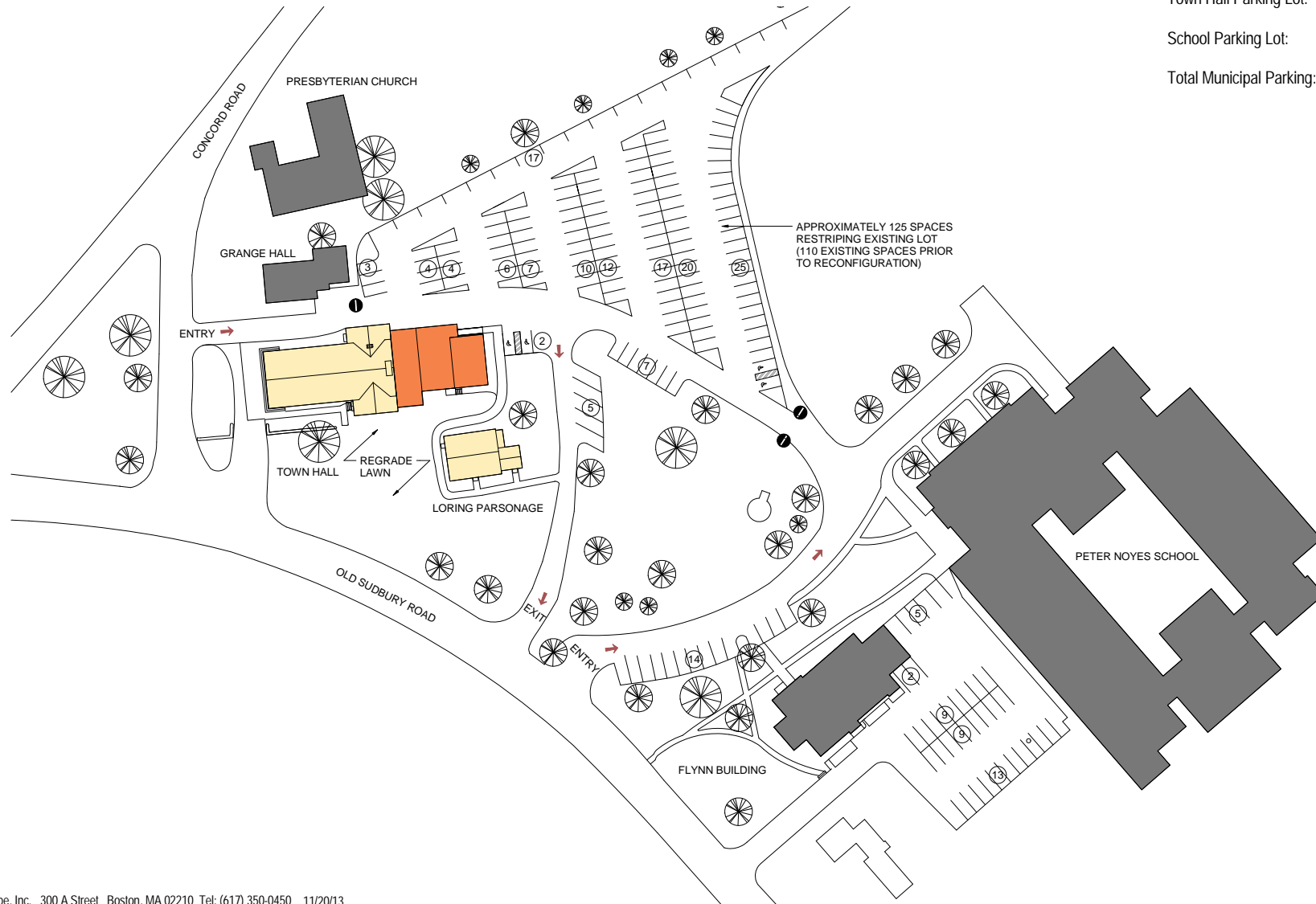
Town of Sudbury Permanent Building Committee

278 Old Sudbury Road, Sudbury MA

Town Hall Parking Lot: 139 (approximate)

School Parking Lot: 52 (approximate)

Total Municipal Parking: 191 (approximate)



Sudbury Town Hall Study

2. School Administration with Meeting Room

Town of Sudbury Permanent Building Committee

278 Old Sudbury Road, Sudbury MA

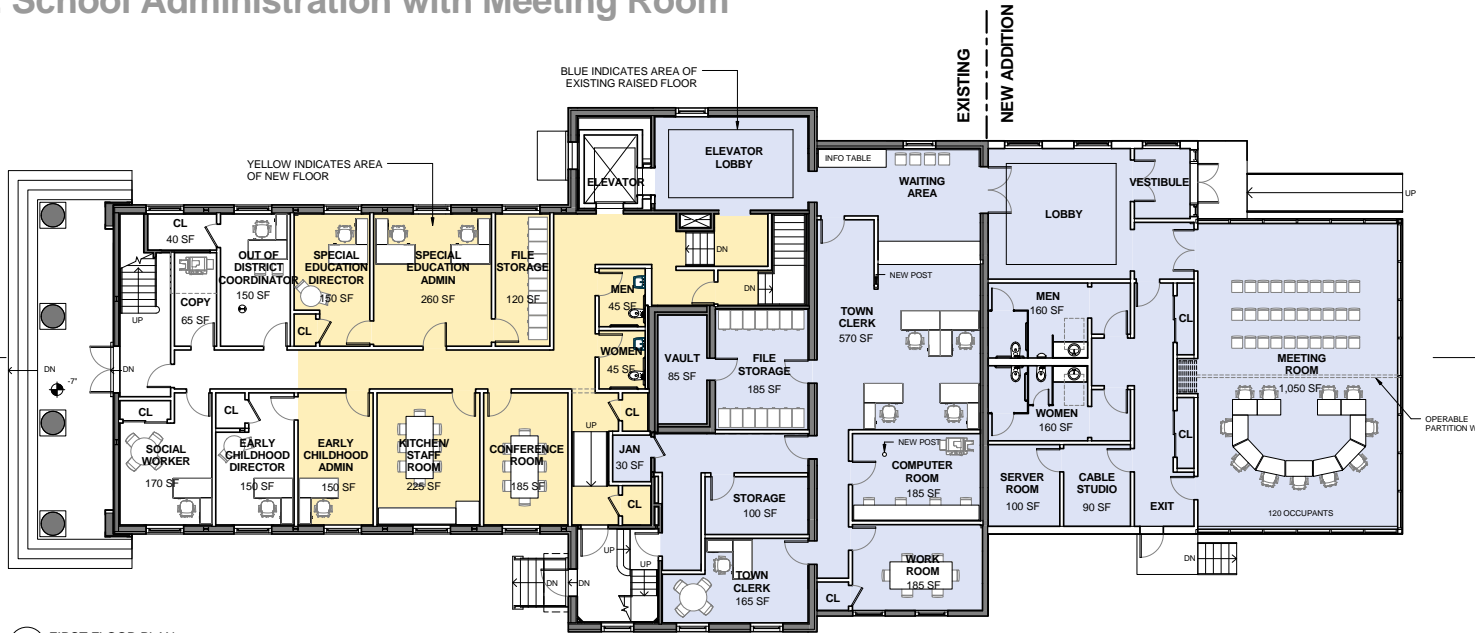
Total Building Area: 18,550 GSF

First Floor Area: 8,490 GSF

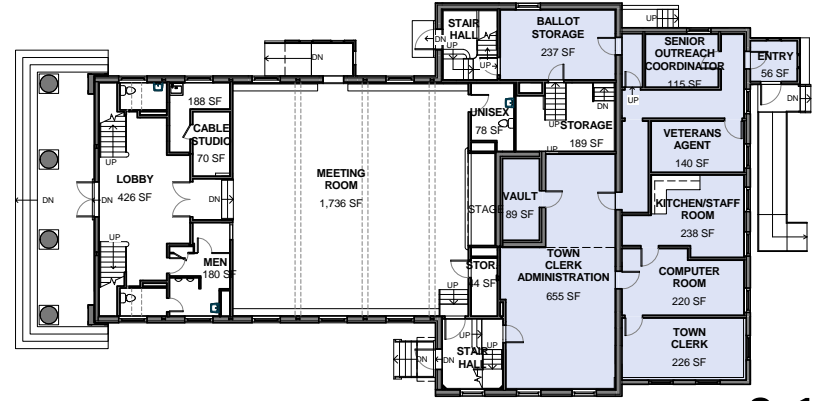
First Floor Occupant Load per IBC: 220

Actual Occupant Load for Fixtures: 132

| Required Fixture Count First Floor | | |
|------------------------------------|-----------------|------|
| | Toilets/Urinals | Lavs |
| Female | 3 | 1 |
| Male | 1/1 | 1 |



1 FIRST FLOOR PLAN



2 EXISTING FIRST FLOOR

2.1

FIRST FLOOR PLAN



Sudbury Town Hall Study

2. School Administration with Meeting Room

Town of Sudbury Permanent Building Committee

278 Old Sudbury Road, Sudbury MA

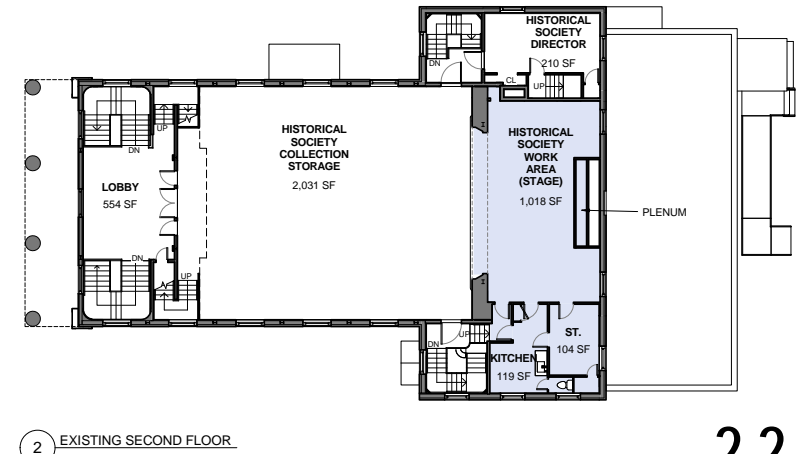
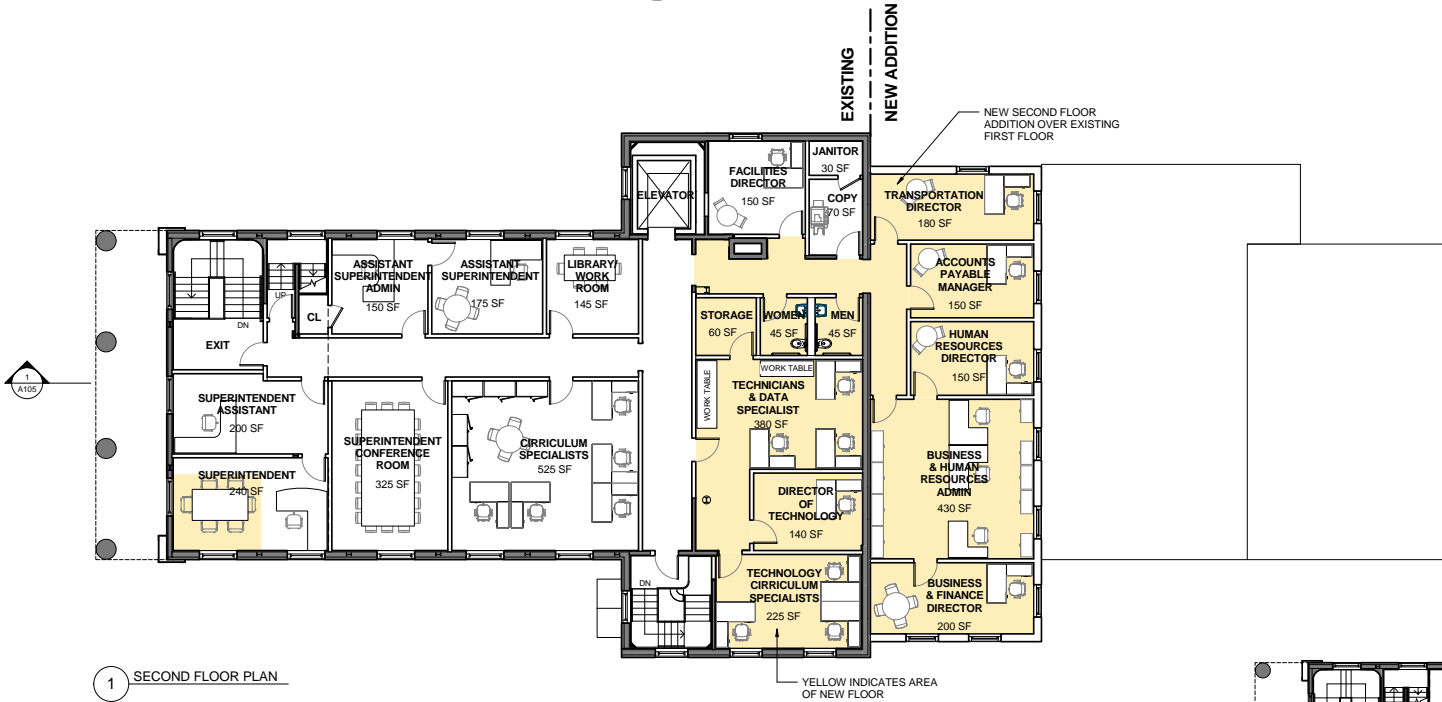
Total Building Area: 18,550 GSF

Second Floor Area: 6,040 GSF

Second Floor Occupant Load per IBC: 90

Actual Occupant Load for Fixtures: 40

| Required Fixture Count Second Floor | | |
|-------------------------------------|-----------------|------|
| | Toilets/Urinals | Lavs |
| Female | 1 | 1 |
| Male | 1 | 1 |



2.2

SECOND FLOOR PLAN



Sudbury Town Hall Study

2. School Administration with Meeting Room

Town of Sudbury Permanent Building Committee

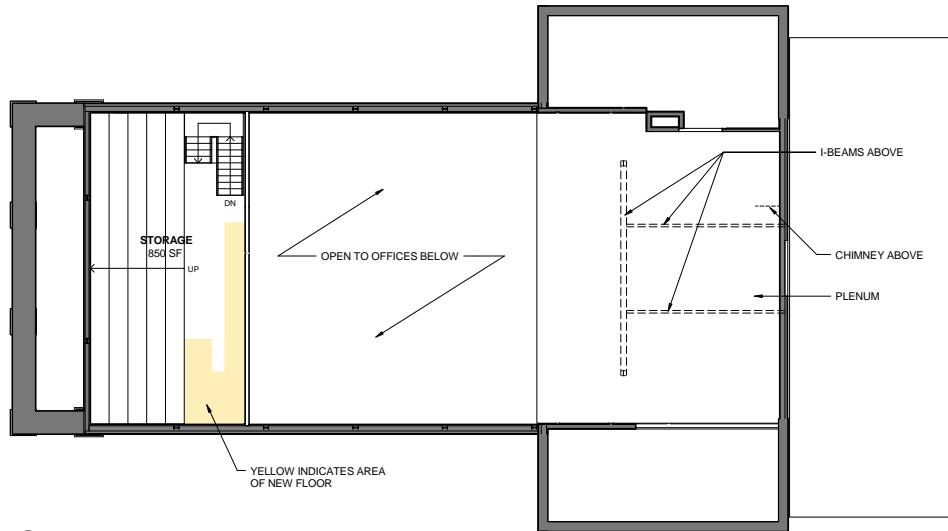
278 Old Sudbury Road, Sudbury MA

Total Building Area: 18,550 GSF

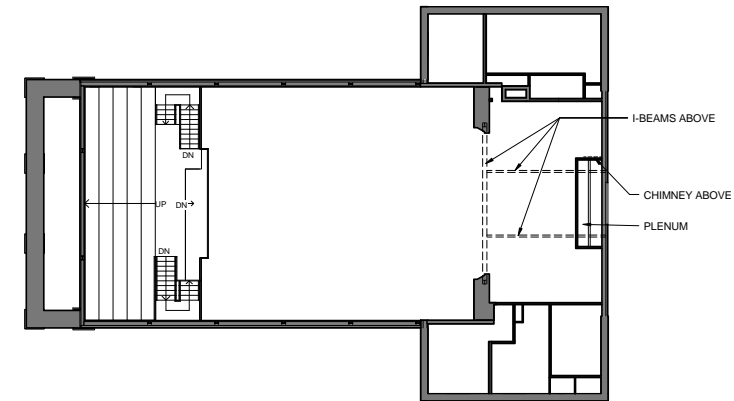
Balcony Floor Area: 850 GSF

Balcony Floor Occupant Load per IBC: 4

Actual Occupant Load for Fixtures: 0



1 BALCONY



2 EXISTING BALCONY LEVEL

2.3

BALCONY FLOOR PLAN



Sudbury Town Hall Study

2. School Administration with Meeting Room

Town of Sudbury Permanent Building Committee

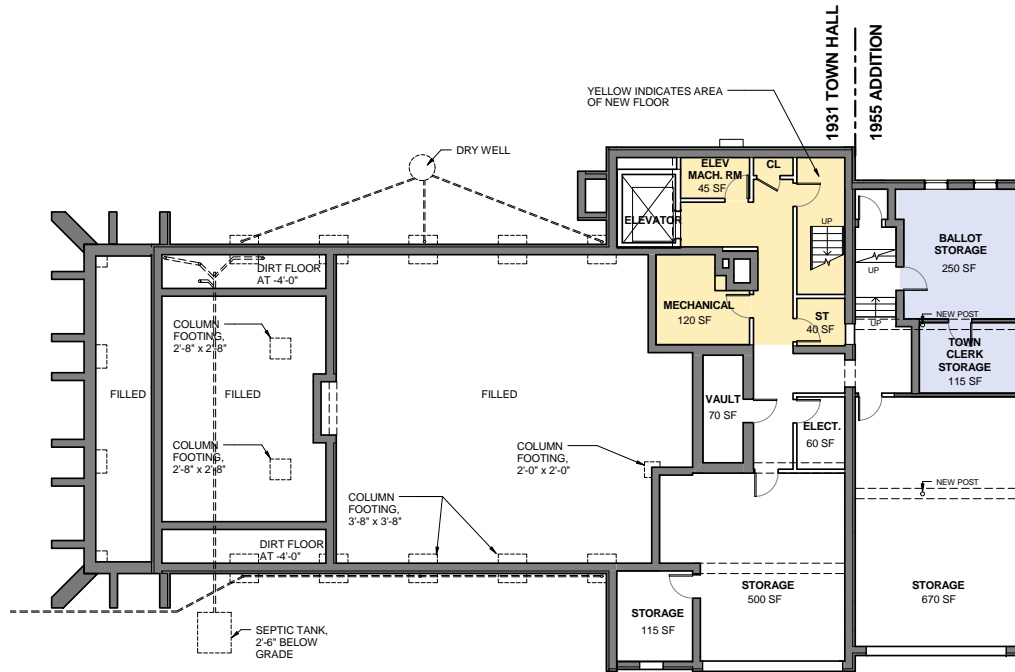
278 Old Sudbury Road, Sudbury MA

Total Building Area: 18,550 GSF

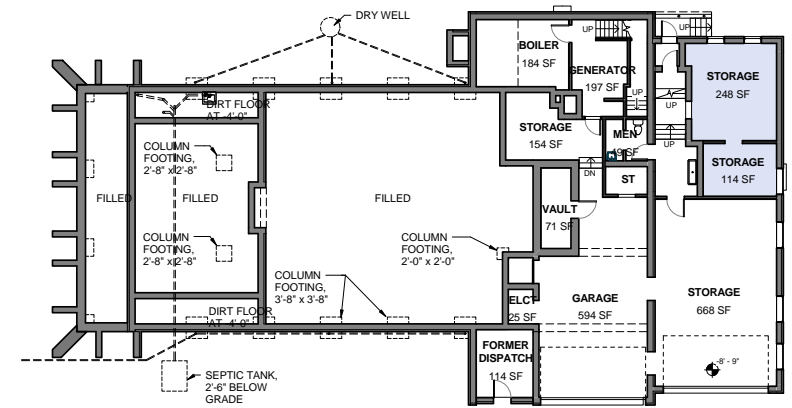
Basement Floor Area: 3,170 GSF

Basement Floor Occupant Load per IBC: 10

Actual Occupant Load for Fixtures: 0



1 BASEMENT FLOOR PLAN



2 EXISTING BASEMENT FLOOR

2.4

BASEMENT FLOOR PLAN

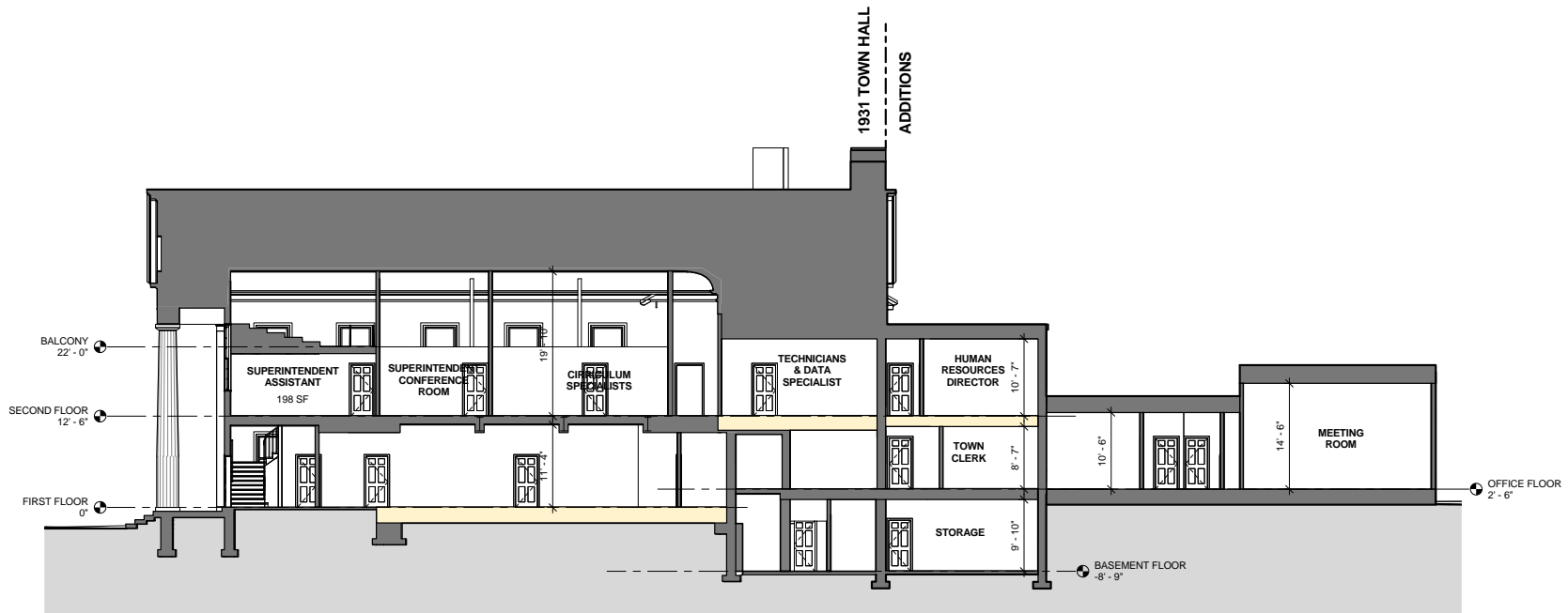


Sudbury Town Hall Study

2. School Administration with Meeting Room

Town of Sudbury Permanent Building Committee

278 Old Sudbury Road, Sudbury MA



2.5
SECTION

Sudbury Town Hall Study

2. School Administration with Meeting Room

Town of Sudbury Permanent Building Committee

278 Old Sudbury Road, Sudbury MA



2.6

MASSING STUDY

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G. SCHOOL ADMINISTRATION PROGRAMMING ASSESSMENT AND RECOMMENDATIONS IN FLYNN

The third section of the programming report reviews the existing conditions of the Flynn Building and provides a programming option for the School Administration to move into the building after the Town Offices move out.

Existing Conditions

The Alan Flynn Administration Building at 278 Old Sudbury Road currently houses the Sudbury Town Offices. If the Town Offices move to Town Hall, the School Administration is slated to move to the Flynn Building. Bha has reviewed the existing conditions in the Flynn building and the required program for the School Administration and other Town Departments that will need to remain in the building.

The portion of the building fronting Old Sudbury Road was originally built as a schoolhouse in 1898. A large rear addition was added to create an expanded High School. The current area of the building is approximately 17,700 gross square feet. In 1955, a new high school was built and the Flynn Building transformed into a Town Office building with various departments moving in and out throughout the years. The Town Technology Department moved into the building in approximately 1997-1998 and has expanded since then. The current offices moved into the building in approximately 2004 and the building was made accessible by adding an elevator, exterior ramp and accessible restrooms on the first floor.

This building is a two-story structure built of wood frame construction, with a raised basement. The exterior is clad in painted clapboard and wood shingles and is in good condition. Several roof types, including gable, hipped, and flat are combined. Clad in asphalt shingles, the gable and hipped roofs are in good condition. The flat roof was leaking but has since been repaired prior to 2002. Most of the original windows have been replaced with aluminum double hung windows with applied mullions.



Flynn building west elevation from Old Sudbury Road



South elevation of two entrances

There are two entry doors on the east side of the building, adjacent to the parking lot. The west entry has one step up to the door, but the east entry has a code-compliant concrete ramp and acts as the accessible path to the building. The elevator near the east entry brings employees and visitors down to the basement or up to the first and second floors. The Massachusetts Architectural Access Board requires the whole building be brought up to the accessibility code if the construction cost of renovations is 30% or more of the assessed value of the building. Since the assessed value of the Flynn Building is \$608,800, any renovation that is \$182,640 or more will trigger accessibility code conformance. The majority of the building is accessible and meets the requirements of the MAAB. Noted items that should conform to the code are door thresholds, hardware, and door maneuvering clearances. Existing door thresholds should be reviewed to make sure they have a maximum vertical height of 1/2". If so, they should be switched out for accessible thresholds. Existing interior doorknobs are not ADA compliant because they require tight grasping, pinching, or twisting of the wrist to operate. Door hardware is recommended to be switched to handles. Many doors were noted to not have

the required clearances on the sides of the doors. They should be reconfigured to meet the MAAB code. The second floor small unisex restroom is not accessible and should be replaced with separate, single men and women restrooms.



Non-code compliant 2nd floor restroom

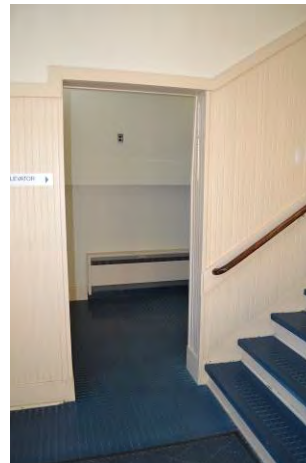


Door clearances obstructed by furniture

Per the International Existing Building Code (IEBC), alterations to any building shall comply with the requirements of the International Building Code for new construction. Because this building is listed on the National Register, it follows the Historic Buildings section in the IEBC. Stairway enclosures of three stories or less do not need to have a fire-resistance rating. Doors that enter into private offices and storage rooms directly off of the stair halls are recommended to be removed to create fire stairs for adequate emergency egress and fire safety. An elevator is not allowed to open into an exit stair as it does now. A new partition and door should separate the elevator from the stair hall. Elevator lobbies at each floor do not need to be enclosed because the elevator does not connect more than three stories and protected by a sprinkler system. Supplemental guardrails should be installed to meet required height regulations of 42" per IBC. Handrails shall comply with the IBC for continuous rails and required extensions and heights. It is recommended to add supplemental handrails to meet code.



Non-continuous handrails that is not high enough to be a guardrail



Elevator lobby opens into fire stair

The interior finishes are in good condition. Most walls are painted plaster with painted wood trim. Interior bearing walls and non-structural partition walls were reviewed during at bh+a site visit. The ceilings throughout the building are painted plaster; however in some office spaces, suspended acoustic ceiling tiles or suspended gypsum wallboard have been installed. In the main corridors and kitchen, acoustic ceiling tiles have been applied directly to the plaster ceiling.

The floor finishes in most offices are hardwood or carpet, and vinyl tile is used in the bathrooms and kitchen. The Information Systems office has a new engineered wood floor. Rubber treads were installed on the stairs and rubber flooring was installed in the elevator lobby. If the renovation removes existing partition walls, new flooring is recommended to be installed. Review of the condition of the existing plaster ceiling should take place, but ideally, the surface mounted and hung acoustical ceilings would be removed to expose the original height of the ceilings and energy efficient light fixtures installed.

The Town reports that floor loading has been a major problem for this building. When it was built as a school, the loading was designed for 100 lbs/sf, but the vaults and fireproof file cabinets that are used in Town Offices create point loads that exceed this capability. Extra support has already been added in the west sections of the basement to support the loads in the Treasurer/Collector's and Accounting offices; additional support may be needed if the School Administration moves into the building. A split first floor beam was noted in the basement Telecom Room. A full review of the building's structural system is recommended.

Central air conditioning was never installed in this building, so window and wall unit air conditioners are used for cooling – an inefficient use of energy. A problem with the electrical loading is evident throughout the building during the summer months because most computers and air conditioning units cannot be used simultaneously without causing power drops and, thus, computer problems. The second floor meeting room does not have an air conditioning unit because it is too loud during meetings. Sometimes the meetings in the room are recorded and broadcasted. There is a ductless, supplemental cooling system that services the Server Room and Information Systems office. Central heating is provided for the building by a 7-year old boiler and hot water baseboards throughout the building. This system is not zoned and does not provide individual thermostats for every office. One example of the balancing problems is that the south side of the building is reported to be always warm, no matter what the weather. A few occupants said that the restrooms and the offices on the east side of the building are usually cold. The existing heating and cooling systems should be thoroughly reviewed to determine the recommendations for renovation. The window units are recommended to be removed. A ductless Variable Refrigerant Volume system can be installed for cooling only or heating and cooling if the hot water baseboard heat is abandoned. Alternatively, a more traditional ducted air conditioning system can be installed, with units on the roof. The wall A/C units should be removed and patched with sheathing, singles and siding to match the existing.



Added supports in basement



Window and wall air conditioning units and supplemental air conditioning units

Sudbury Town Hall
Conditions Assessment and Feasibility Study
Sudbury, Massachusetts
November 2013

This building is fully sprinklered and is equipped with heat detectors and a fire alarm system. The plate on the sprinkler system in the basement indicates it was installed in 1968. Possible upgrades might be required and review of any plenum spaces that are not sprinklered is recommended, such as the attic and space between the basement floor and intermediate elevator lobby floor.

Parking is inadequate for the current occupancy of the Flynn Building. Several departments use municipal vehicles during the day, so parking for two vehicles is required for those employees. The close proximity of this parking lot to the entrance to the school building behind it often attracts school traffic, which exacerbates this lack of parking. If the School Administration moves to the Flynn, adequate parking space for the school vans will need to be identified.

Flynn Conversion for School Admin

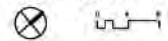
Existing Conditions

Town of Sudbury Permanent Building Committee

278 Old Sudbury Road, Sudbury MA



EXISTING FLYNN BUILDING
FIRST FLOOR PLAN



Flynn Conversion for School Admin

Existing Conditions

Town of Sudbury Permanent Building Committee

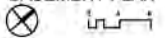
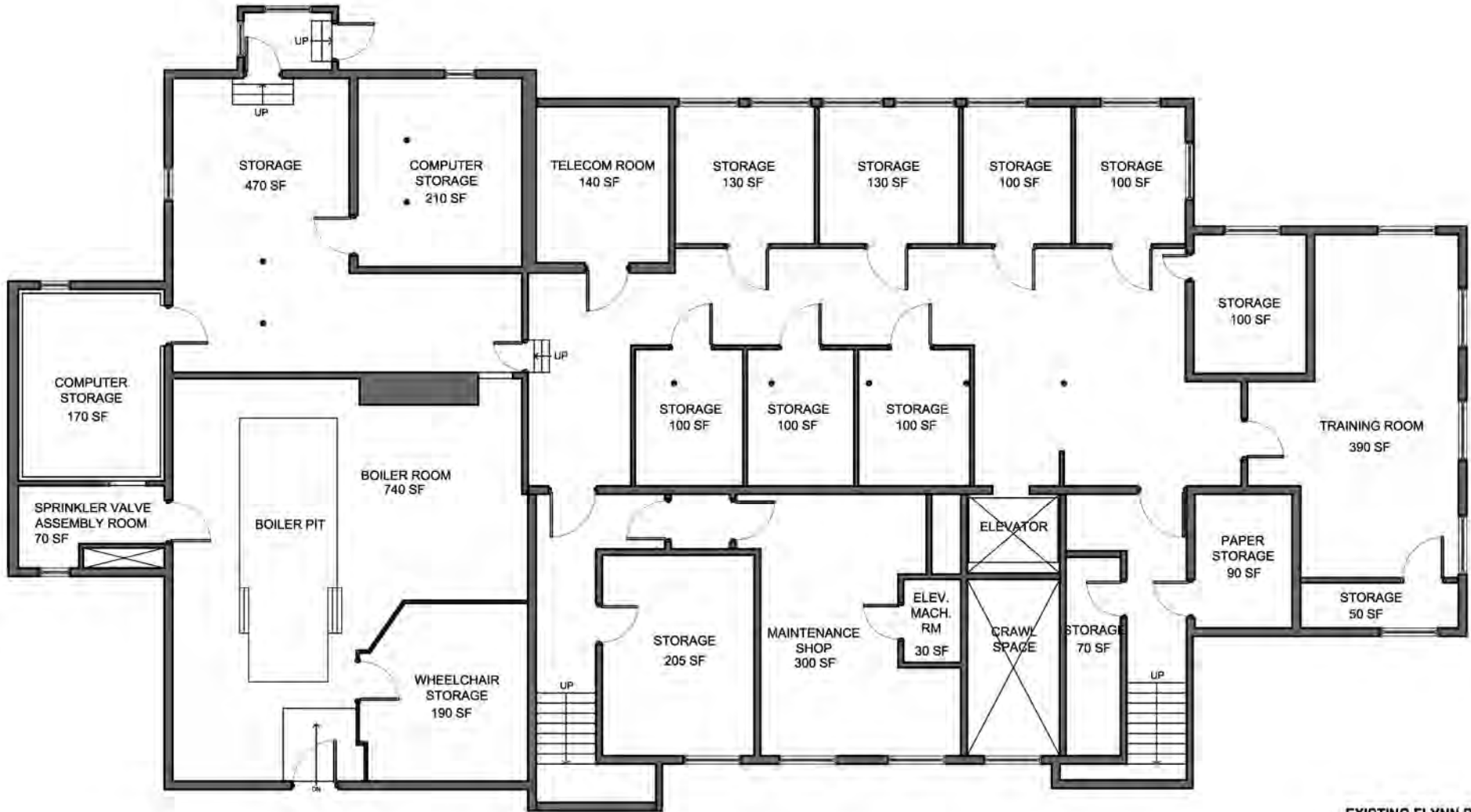
278 Old Sudbury Road, Sudbury MA



Flynn Conversion for School Admin

Existing Conditions

Town of Sudbury Permanent Building Committee
 278 Old Sudbury Road, Sudbury MA



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Existing Program

The School Administration departments would move into the Flynn Building and have the same needs as indicated in the section above. The Information System department would stay in the Flynn because it would disrupt the Town's servers by moving them. A Social Worker on the second floor works for the Board of Health. If this office needed to move, it could move to the Fairbank Community Center or Department of Public works. A Housing Specialist office has two employees that consult on affordable housing and other housing matters. These consultants are not part of the Sudbury Town Departments. A Senior Worker office that is part of the Information Systems department does not need to be next to the Information Systems office. The Social Worker, Housing Specialists, and Senior Worker should remain in the building. It is undetermined if the mail efforts can be combined with the Town Offices to remove mail duties, space and equipment from the School Administration program. A storage space in the basement for wheelchairs and walkers and a Maintenance Shop should remain. If extra space remains in the building, the Credit Union could possibly use office space. This Town Department is currently in the Loring Parsonage.

Information Systems Department



Information Systems office



Information Systems summer employees work area

The Information Systems Department implements the network of systems and information that connects all Town departments. They are the keepers of the network servers for the Town offices and other departments. The department has two full-time employees and two summer employees. A GIS mapping position used to be filled in the summer, and should be included in the future needs of the department. The five workstations can be in an open office with work tables for setting up computers. A separate server room is located in the building but is not large enough for a server rack that is located in the Information Systems office. The servers are loud and require a colder temperature than a normal working environment. It is ideal to provide an air-conditioned a space large enough to fit all of the department's servers. The servers in the server room should not be moved so more space should be created around them. A storage closet is needed for computers, cords, and other equipment that is easily accessible to the work area. Storage is currently located in the basement for spare computer parts and monitors. It is not ideal to have this equipment in the basement. A second storage area for computers that are to be given away once a summer is located in the basement. A small training room in the basement is not used often because of older computer equipment, but has been used for software training.



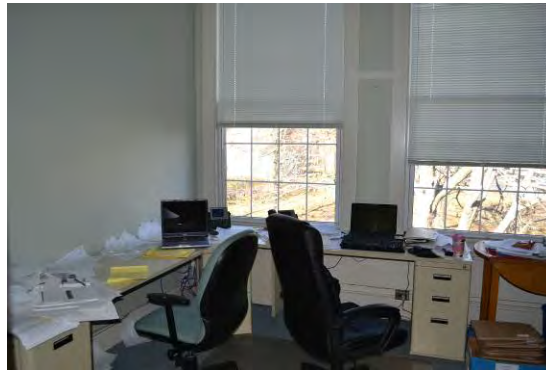
Information Systems storage in office



Server Room



Social Worker office



Housing Specialists office

Recommendations

A required building program was developed to aid in conceptual drawings and layouts for the Flynn Building renovation for the School Administration. The program includes the School Administration, Information Systems, Social Worker, Housing Specialists, and Senior Worker. The chart on the next page shows the existing and required areas for the departments.

Sudbury Town Hall
Conditions Assessment and Feasibility Study
Sudbury, Massachusetts
November 2013

Existing and Required School Administration Program for Flynn Building

| Space Designation | Existing Area | Area per Department | Required Area | Area per Department |
|--|---------------|---------------------|---------------|---------------------|
| School Administration | | | | |
| Superintendent | 290 SF | | 200 SF | |
| Superintendent's Administrative Assistant | 225 SF | | 200 SF | |
| Superintendent's Conference Room | 315 SF | 830 SF | 350 SF | 750 SF |
| Assistant Superintendent | 215 SF | | 150 SF | |
| Assist. Super. Admin. Assistant | 205 SF | | 150 SF | |
| Curriculum Specialists (5 workstations) | 200 SF | | 600 SF | |
| Curriculum Library / Work Room / Storage | 300 SF | 920 SF | 200 SF | 1,100 SF |
| Director of Technology | 540 SF | | 150 SF | |
| Data Specialist | shared | | 120 SF | |
| Technology Curriculum Specialists (3 workstations) | 220 SF | | 300 SF | |
| Technicians (2 workstations + work tables) | shared | 760 SF | 350 SF | 920 SF |
| Special Education Director | 265 SF | | 150 SF | |
| Special Education Administrative Assistants | 300 SF | | 250 SF | |
| Special Education Department File Storage | 0 SF | | 100 SF | |
| Early Childhood Director | 150 SF | | 150 SF | |
| Early Childhood Administrative Assistant | shared | | 120 SF | |
| Out of District Coordinator | 240 SF | | 150 SF | |
| School Social Worker | 120 SF | 1,075 SF | 150 SF | 1,070 SF |
| Director of Business & Finance | 320 SF | | 175 SF | |
| Business & Human Resources Administrative Assistants | 410 SF | | 350 SF | |
| Human Resources Director | 155 SF | | 150 SF | |
| Human Resources File Storage | 85 SF | | 100 SF | |
| Accounts Payable Manager | 150 SF | | 150 SF | |
| Transportation Director / Food Service Coordinator | 220 SF | | 150 SF | |
| Facilities Director | 110 SF | 1,450 SF | 120 SF | 1,195 SF |
| Subtotal for School Administration | | 5,035 SF | | 5,035 SF |

Town Offices

| | | | | |
|-----------------------|--------|----------|--------|----------|
| Information Systems | 420 SF | | 550 SF | |
| Server Room | 145 SF | | 250 SF | |
| A/V Equipment Storage | 70 SF | | 100 SF | |
| Training Room | 390 SF | | 390 SF | |
| Computer Storage | 380 SF | | 380 SF | |
| Senior Worker | 150 SF | | 150 SF | |
| Town Social Worker | 110 SF | | 150 SF | |
| Housing Specialists | 140 SF | | 150 SF | |
| Maintenance Shop | 300 SF | 2,105 SF | 300 SF | 2,420 SF |

Additional Program

| | | | | |
|--|----------|----------|-----------|----------|
| School Committee Meeting Room / Voting | 1,740 SF | | Town Hall | |
| Cable Studio | 70 SF | | Town Hall | |
| Conference Room | 410 SF | | 250 SF | |
| Kitchen / Staff Room | 255 SF | | 300 SF | |
| Supply Storage | n/a SF | | 80 SF | |
| Storage | 2,000 SF | | 500 SF | |
| Mail Room (can be eliminated if Town Hall has mail room) | 140 SF | | 150 SF | |
| Copy Rooms (2 at 110 SF each) | 140 SF | | 220 SF | |
| Custodial (1 Per Floor at 50 SF each) | 100 SF | | 150 SF | |
| Restrooms | 300 SF | | 500 SF | |
| Mechanical | 810 SF | | 810 SF | |
| Entry and Lobby Spaces | n/a SF | | 1,000 SF | |
| Elevator | 300 SF | 6,265 SF | 300 SF | 4,260 SF |

Required Area Total

11,715 SF

Total Gross Square Feet (x1.2)

14,058 GSF

Existing Flynn Building Gross Square Feet

17,700 GSF

Renovation Concepts and Plans

Renovation / Addition Goals

A series of conceptual options based on the programming needs identified as part of this analysis were prepared. The Flynn Building is located in a National Register District and a renovation / addition project should follow the Secretary of the Interior's Standards for Rehabilitation as well as be approved by the local Sudbury Historical Commission. The Committee is interested in Community Preservation Act funds to supplement the cost of the renovation.

The Sudbury Permanent Building Committee's goals are to minimize modifications to the exterior, other than removing exterior air conditioning units or other components not contributing to the historic character of the building. The existing building does have elevator access to all three floors of the building, except the older front section of the basement.

Renovation goals:

- Upgrade air conditioning from window/wall units to forced air. Review all building systems including plumbing, electrical, heating, and fire suppression systems.
- Remove exterior wall and window air conditioning units. Patch walls with sheathing, singles and/or siding to match the existing.
- Review existing structural systems including new live and dead loads on floors.
- Review accessibility issues such as door thresholds, door hardware, and door clearances. Upgrade thresholds, door hardware, and reconfigure doors.
- Remove existing non-accessible 2nd floor toilet room and replace with a single men and women's accessible restroom.
- Enclose stair halls to create fire stairs by removing doors from program space into stairs and adding a separation between the elevator lobby and fire stairs.
- Add supplemental handrails and guardrails to meet height and extension requirements.
- Remove acoustical ceiling tile to reveal full height of spaces and add energy efficient light fixtures.
- Minimize demolition of structural walls and interior partitions. Use existing space available from existing partitions before tearing down and rebuilding.
- Review parking requirements to allow for occupants, visitors, and 8 school vans.

Programming goals:

- Meet program needs and required sizes for departments.
- Use the basement for storage and not occupancy.
- Locate the Superintendent in a private and quiet section of the building.
- Do not split up departments. Locate the Business and Finance department offices together and the Special Education Department together.
- Locate the Assistant Superintendent and the Curriculum Specialists together.
- Combine Town Technology and School Technology department together for efficiency.
- Include office space for the miscellaneous Town departments that remain in the building after the Town Offices move out, including Social Worker, Housing Specialists, and Senior Worker.
- Include amenity spaces such as copy rooms, mail room, and kitchen/staff room.

Proposed Options for School Administration in Flynn Building

Pros and Cons chart for 2 schemes to program the School Administration into the Flynn Building:

| | Scheme 1 | Scheme 2 |
|------|--|--|
| Pros | <ul style="list-style-type: none"> • Provides adequate space for the School Administration with minimal change to the existing interior layout. • Retains large conference room on the second floor to share among departments. • Combined Town and School Technology Department operates more efficiently. | <ul style="list-style-type: none"> • Provides space for most School Admin offices together on second floor. • Provides extra space for Credit Union on first floor. |
| Cons | <ul style="list-style-type: none"> • Business and Finance on separate floor from Special Education and Superintendents. • Some offices are larger than required because of existing walls and a few offices do not have direct windows. • No extra space for other Town Departments such as Credit Union. | <ul style="list-style-type: none"> • Additional demolition and new construction of interior walls. • Some offices smaller than and a few offices do not have direct windows. • Extra conference room is on first floor and not adjacent to offices. |

Sudbury Town Hall
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 Sudbury, Massachusetts
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Scheme 1 School Administration Program for Flynn Building

| Space Designation | Required Area | Area per Department | Scheme 1 | Area per Department |
|--|---------------|---------------------|----------|---------------------|
| School Administration | | | | |
| Superintendent | 200 SF | | 220 SF | |
| Superintendent's Administrative Assistant | 200 SF | | 245 SF | |
| Superintendent's Conference Room | 350 SF | 750 SF | 300 SF | 765 SF |
| Assistant Superintendent | 150 SF | | 170 SF | |
| Assist. Super. Admin. Assistant | 150 SF | | 160 SF | |
| Curriculum Specialists (5 workstations) | 600 SF | | 550 SF | |
| Curriculum Library / Work Room / Storage | 200 SF | 1,100 SF | 150 SF | 1,030 SF |
| Director of Technology | 150 SF | | 200 SF | |
| Data Specialist | 120 SF | | 130 SF | |
| Technology Curriculum Specialists (3 workstations) | 300 SF | | 200 SF | |
| Technicians (2 workstations + work tables) | 350 SF | 920 SF | 500 SF | 1030 SF |
| Special Education Director | 150 SF | | 200 SF | |
| Special Education Administrative Assistants | 250 SF | | 365 SF | |
| Special Education Department File Storage | 100 SF | | 115 SF | |
| Early Childhood Director | 150 SF | | 175 SF | |
| Early Childhood Administrative Assistant | 120 SF | | 170 SF | |
| Out of District Coordinator | 150 SF | | 200 SF | |
| School Social Worker | 150 SF | 1,070 SF | 180 SF | 1,405 SF |
| Director of Business & Finance | 175 SF | | 125 SF | |
| Business & Human Resources Administrative Assistants | 350 SF | | 360 SF | |
| Human Resources Director | 150 SF | | 120 SF | |
| Human Resources File Storage | 100 SF | | 80 SF | |
| Accounts Payable Manager | 150 SF | | 165 SF | |
| Transportation Director / Food Service Coordinator | 150 SF | | 165 SF | |
| Facilities Director | 120 SF | 1,195 SF | 120 SF | 1,135 SF |
| Subtotal for School Administration | | 5,035 SF | | 5,365 SF |

Town Offices

| | | | | |
|-----------------------|--------|----------|--------|----------|
| Information Systems | 550 SF | | 430 SF | |
| Server Room | 250 SF | | 250 SF | |
| A/V Equipment Storage | 100 SF | | 155 SF | |
| Training Room | 390 SF | | 390 SF | |
| Computer Storage | 380 SF | | 380 SF | |
| Senior Worker | 150 SF | | 160 SF | |
| Town Social Worker | 150 SF | | 140 SF | |
| Housing Specialists | 150 SF | | 160 SF | |
| Maintenance Shop | 300 SF | 2,420 SF | 300 SF | 2,365 SF |

Additional Program

| | | | | |
|--|--------------|----------|------------|----------|
| School Committee Meeting Room / Voting | Town Hall SF | | Town Hall | |
| Cable Studio | Town Hall SF | | Town Hall | |
| Conference Room | 250 SF | | 410 SF | |
| Kitchen / Staff Room | 300 SF | | 255 SF | |
| Supply Storage | 80 SF | | 100 SF | |
| Storage | 500 SF | | 2,000 SF | |
| Mail Room (can be eliminated if Town Hall has mail room) | 150 SF | | eliminated | |
| Copy Rooms (2 at 110 SF each) | 220 SF | | 210 SF | |
| Custodial (1 Per Floor at 50 SF each) | 100 SF | | 30 SF | |
| Restrooms | 500 SF | | 365 SF | |
| Mechanical | 810 SF | | 810 SF | |
| Entry and Lobby Spaces | 1,000 SF | | 1,000 SF | |
| Elevator | 300 SF | 4,210 SF | 300 SF | 5,480 SF |

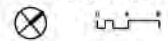
| | | |
|--|-------------------|-------------------|
| Required Area Total | 11,665 SF | 13,210 SF |
| Total Gross Square Feet (x1.2) | 13,998 GSF | 15,852 GSF |
| Existing Flynn Building Gross Square Feet | 17,700 GSF | 17,700 GSF |

Flynn Conversion for School Admin

Scheme 1

Town of Sudbury Permanent Building Committee

278 Old Sudbury Road, Sudbury MA

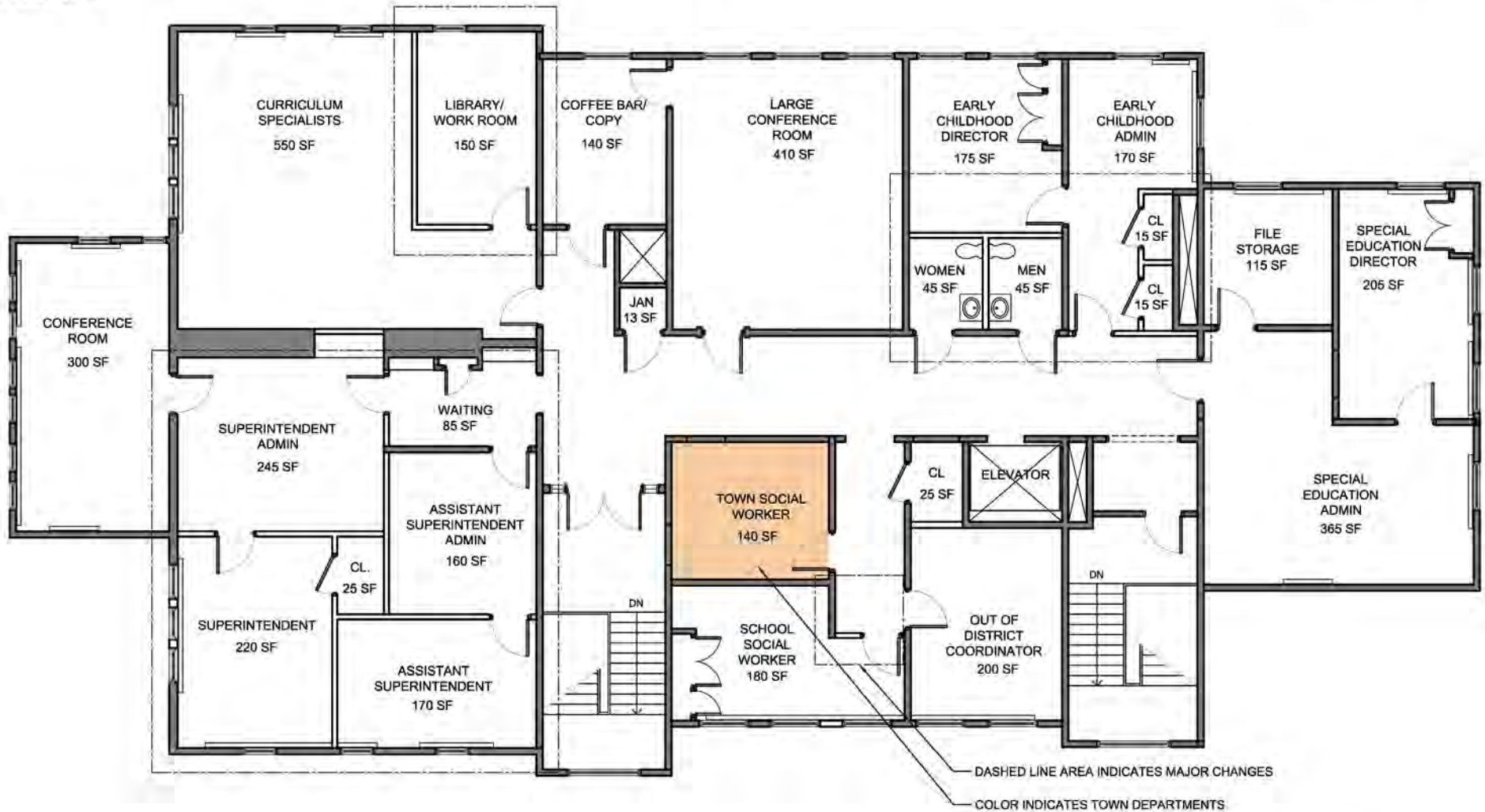


Flynn Conversion for School Admin

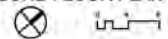
Scheme 1

Town of Sudbury Permanent Building Committee

278 Old Sudbury Road, Sudbury MA



**SCHEME 1 FLYNN BUILDING
SECOND FLOOR PLAN**

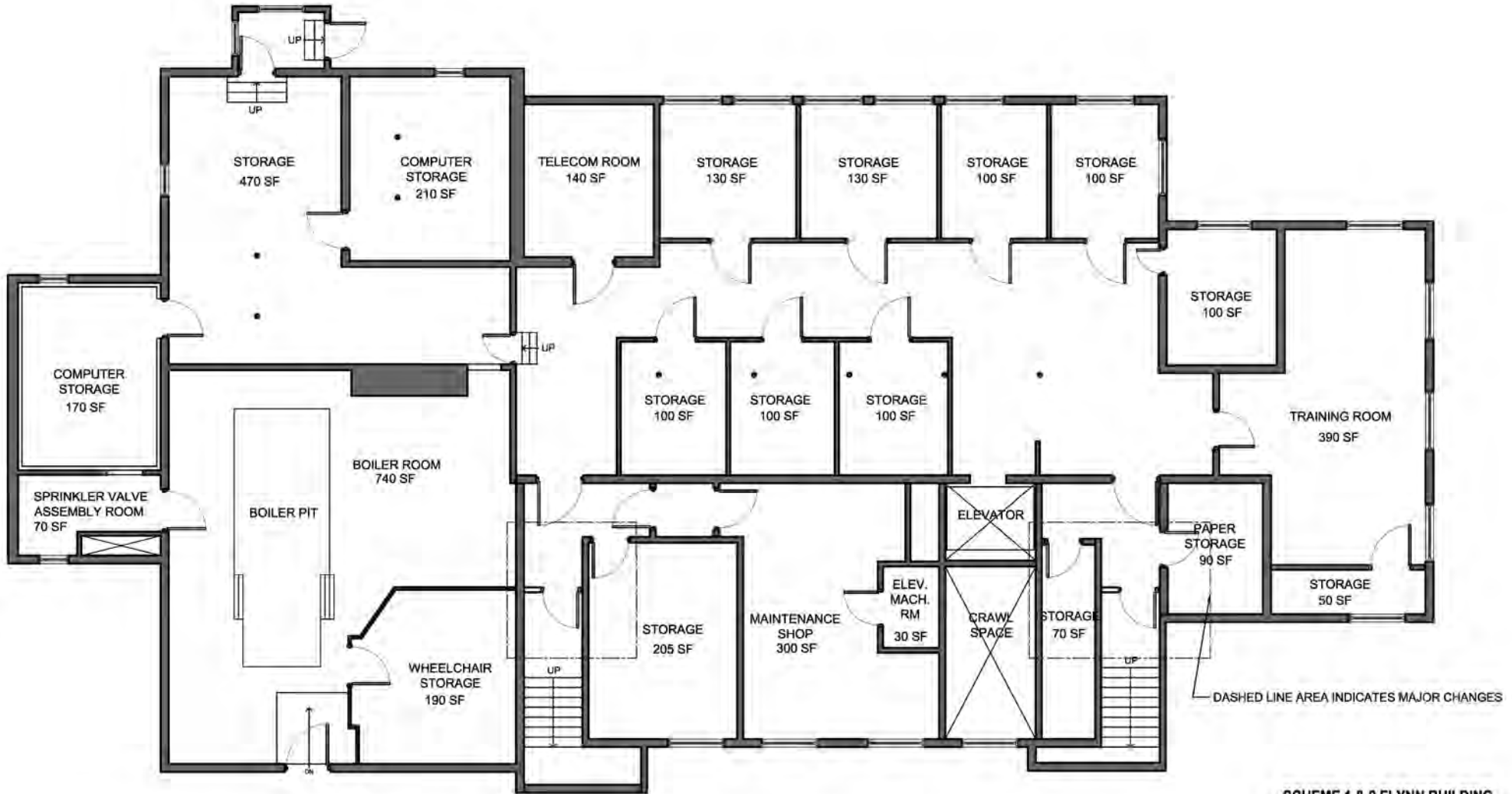


Flynn Conversion for School Admin

Scheme 1 & 2

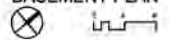
Town of Sudbury Permanent Building Committee

278 Old Sudbury Road, Sudbury MA



DASHED LINE AREA INDICATES MAJOR CHANGES

**SCHEME 1 & 2 FLYNN BUILDING
BASEMENT PLAN**



Sudbury Town Hall
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Scheme 2 School Administration Program for Flynn Building

| Space Designation | Required Area | Area per Department | Scheme 2 | Area per Department |
|--|---------------|---------------------|----------|---------------------|
| School Administration | | | | |
| Superintendent | 200 SF | | 300 SF | |
| Superintendent's Administrative Assistant | 200 SF | | 150 SF | |
| Superintendent's Conference Room | 350 SF | 750 SF | 270 SF | 720 SF |
| Assistant Superintendent | 150 SF | | 150 SF | |
| Assist. Super. Admin. Assistant | 150 SF | | 190 SF | |
| Curriculum Specialists (5 workstations) | 600 SF | | 460 SF | |
| Curriculum Library / Work Room / Storage | 200 SF | 1,100 SF | 150 SF | 950 SF |
| Director of Technology | 150 SF | | 200 SF | |
| Data Specialist | 120 SF | | 130 SF | |
| Technology Curriculum Specialists (3 workstations) | 300 SF | | 200 SF | |
| Technicians (2 workstations + work tables) | 350 SF | 920 SF | 445 SF | 975 SF |
| Special Education Director | 150 SF | | 140 SF | |
| Special Education Administrative Assistants | 250 SF | | 290 SF | |
| Special Education Department File Storage | 100 SF | | 60 SF | |
| Early Childhood Director | 150 SF | | 120 SF | |
| Early Childhood Administrative Assistant | 120 SF | | 120 SF | |
| Out of District Coordinator | 150 SF | | 120 SF | |
| School Social Worker | 150 SF | 1,070 SF | 140 SF | 990 SF |
| Director of Business & Finance | 175 SF | | 150 SF | |
| Business & Human Resources Administrative Assistants | 350 SF | | 300 SF | |
| Human Resources Director | 150 SF | | 115 SF | |
| Human Resources File Storage | 100 SF | | 120 SF | |
| Accounts Payable Manager | 150 SF | | 155 SF | |
| Transportation Director / Food Service Coordinator | 150 SF | | 150 SF | |
| Facilities Director | 120 SF | 1,195 SF | 115 SF | 1,105 SF |
| Subtotal for School Administration | | 5,035 SF | | 4,740 SF |

Town Offices

| | | | | |
|-----------------------|--------|----------|--------|----------|
| Information Systems | 550 SF | | 430 SF | |
| Server Room | 250 SF | | 250 SF | |
| A/V Equipment Storage | 100 SF | | 85 SF | |
| Training Room | 390 SF | | 390 SF | |
| Computer Storage | 380 SF | | 380 SF | |
| Senior Worker | 150 SF | | 120 SF | |
| Town Social Worker | 150 SF | | 165 SF | |
| Housing Specialists | 150 SF | | 165 SF | |
| Maintenance Shop | 300 SF | 2,420 SF | 300 SF | 2,285 SF |

Additional Program

| | | | | |
|--|--------------|----------|-----------|----------|
| School Committee Meeting Room / Voting | Town Hall SF | | Town Hall | |
| Cable Studio | Town Hall SF | | Town Hall | |
| Conference Room | 250 SF | | 420 SF | |
| Kitchen / Staff Room | 300 SF | | 255 SF | |
| Supply Storage | 80 SF | | 40 SF | |
| Storage | 500 SF | | 2,000 SF | |
| Mail Room (can be eliminated if Town Hall has mail room) | 150 SF | | shared | |
| Copy Rooms (2 at 110 SF each) | 220 SF | | 150 SF | |
| Custodial (1 Per Floor at 50 SF each) | 100 SF | | 30 SF | |
| Restrooms | 500 SF | | 365 SF | |
| Mechanical | 810 SF | | 810 SF | |
| Entry and Lobby Spaces | 1,000 SF | | 1,000 SF | |
| Elevator | 300 SF | 4,210 SF | 300 SF | 5,370 SF |

| | | |
|--|-------------------|-------------------|
| Required Area Total | 11,665 SF | 12,395 SF |
| Total Gross Square Feet (x1.2) | 13,998 GSF | 14,874 GSF |
| Existing Flynn Building Gross Square Feet | 17,700 GSF | 17,700 GSF |

Flynn Conversion for School Admin

Scheme 2

Town of Sudbury Permanent Building Committee

278 Old Sudbury Road, Sudbury MA



SCHEME 2 FLYNN BUILDING
FIRST FLOOR PLAN

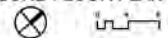


Flynn Conversion for School Admin

Scheme 2

Town of Sudbury Permanent Building Committee

278 Old Sudbury Road, Sudbury MA



H. SUMMARY OF OPTIONS AND COST ESTIMATES

Three overall action plans have emerged from this study and associated meetings with the Permanent Building Committee. The Town Hall can be renovated and a new addition can be constructed to provide program space for the Town Offices or the School Administration in the existing Town Hall building. As a second option the building can be renovated to meet accessibility standards, most current building codes, and upgrades to the building systems without a set program or use for the building. In the cost estimate summary, a description of the renovation that would fall under CPA funding has been identified. An associated cost summary was created to get a total project cost for the renovation of the building without a determined program. Lastly, the building can be demolished and a new Town Hall or School Administration building can be built in its place. This would allow the inefficiencies of the existing building's horizontal and vertical circulation, structural constraints and existing space configurations to be removed from the equation to build a new building in a small footprint for the required amount of space that each department needs. The following chart summarizes the pros and cons of each scheme.

| scheme | Renovate to consolidate floor levels with new Addition | | CPA Renovation, No Addition | Demolish Existing and Rebuild |
|---------|---|---|--|---|
| program | Town Offices Scheme 2 | School Admin Scheme 2 | tbd | Town Offices & School Admin |
| Pros | <ul style="list-style-type: none"> Provides suitable space for the Town Offices to work in the same building. Town Office and government are associated with the Town Hall building. Can possibly get CPA funding for the project. | <ul style="list-style-type: none"> Provides suitable space for the School Administration with room to grow in the future. Can possibly get CPA funding for the project | <ul style="list-style-type: none"> Lower renovation cost with more flexibility for program space. Can get CPA funding for the project | <ul style="list-style-type: none"> Requires less area than renovating the building because a new building can use space more efficiently Costs the same or less than renovating the existing. Can meet all code requirements, especially seismic code in case of a natural disaster. |
| Cons | <ul style="list-style-type: none"> Provides a large 4-story addition Drives up project cost that the Town may not be willing to pay for. Requires more area due to inefficiencies in vertical and horizontal circulation. | <ul style="list-style-type: none"> Provides a large addition on the first floor for the meeting room which drives up cost. The Town Clerk is located in the building instead of having a dedicated School Admin building. The School Admin is associated with the Town Hall. Requires more area due to inefficiencies in vertical and horizontal circulation. | <ul style="list-style-type: none"> It is a significant amount of money to renovate the existing building. Without a determined program, the project may not receive support from officials or residents. | <ul style="list-style-type: none"> No CPA funding for the project. Could receive negative support from officials and residents. |

Estimated Project Cost Summary

| scheme | Renovate to consolidate floor levels with New Addition | | CPA Renovation, no Addition | Demolish Existing & Rebuild without level changes | |
|-------------------|--|-----------------------|-----------------------------|---|----------------|
| | Town Offices Scheme 2 | School Admin Scheme 2 | tbd | Town Offices | School Admin |
| gross area | 20,660 sf | 18,550 sf | 14,700 sf | 16,700 sf | 14,800 sf |
| construction cost | \$7.80 m | \$6.40 m | \$4.30 m | \$7.10 m | \$6.50 m |
| soft cost | \$1.32 m | \$1.16 m | \$0.87 m | \$1.20 m | \$1.10 m |
| contingency | \$0.90 m | \$0.75 m | \$0.52 m | \$0.80 m | \$0.76 m |
| Total Cost | \$10.0 m | \$8.3 m | \$5.7 m | \$9.1 m | \$8.4 m |

Breakdown of Costs

| | | |
|-----------------------------------|----------|----------|
| base building with site utilities | \$5.70 m | \$5.70 m |
| interior fit-out | \$0.40 m | \$0.40 m |
| addition | \$3.30 m | \$1.60 m |
| sitework | \$0.60 m | \$0.60 m |

Summary of Schemes

Town Offices Scheme 2: Removes the 1955 addition and adds a new 4-story addition (including basement) at the rear of the building.

School Administration Scheme 2: Adds a 1-story addition on top of the 1955 addition and a 1-story meeting room at the rear of the building.

CPA Renovation: Brings the building up to most current codes (excludes structural seismic) without an established program.

Demolish and Rebuild Town Offices or School Administration: Demolish the existing building and provide a new building using the required area and efficient space planning that the current building cannot provide. School Admin area includes Town Clerk and meeting room.

Sudbury Town Hall
Conditions Assessment and Feasibility Study
Sudbury, Massachusetts
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Sudbury Town Offices

| Gross Floor Area (sf) = | <u>Consolidated</u> | | <u>Addition</u> | | <u>Renovation</u> | |
|---|----------------------------|---------------------|----------------------------|---------------------|----------------------------|---------------------|
| | 20,660 | | 8,660 | | 12,000 | |
| | <u>Element (\$)</u> | <u>\$/sf</u> | <u>Element (\$)</u> | <u>\$/sf</u> | <u>Element (\$)</u> | <u>\$/sf</u> |
| <u>A Substructure</u> | 269,962 | 13.07 | 214,611 | 24.78 | 55,351 | 4.61 |
| A10 Foundations | 269,962 | 13.07 | 214,611 | 24.78 | 55,351 | 4.61 |
| A20 Basement Construction | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| <u>B Shell</u> | 1,462,035 | 70.77 | 818,480 | 94.51 | 643,556 | 53.63 |
| B10 Superstructure | 712,581 | 34.49 | 399,793 | 46.17 | 312,788 | 26.07 |
| B20 Exterior Enclosure | 471,128 | 22.80 | 321,183 | 37.09 | 149,946 | 12.50 |
| B30 Roofing | 278,326 | 13.47 | 97,504 | 11.26 | 180,822 | 15.07 |
| <u>C Interiors</u> | 1,071,144 | 51.85 | 510,117 | 58.90 | 561,026 | 46.75 |
| C10 Interior Construction | 545,141 | 26.39 | 255,223 | 29.47 | 289,918 | 24.16 |
| C20 Stairs | 59,609 | 2.89 | 48,859 | 5.64 | 10,750 | 0.90 |
| C30 Interior Finishes | 466,394 | 22.57 | 206,036 | 23.79 | 260,358 | 21.70 |
| <u>D Services</u> | 1,593,455 | 77.13 | 748,180 | 86.39 | 845,275 | 70.44 |
| D10 Conveying Systems | 155,358 | 7.52 | 155,358 | 17.94 | 0 | 0.00 |
| D20 Plumbing | 140,051 | 6.78 | 48,723 | 5.63 | 91,328 | 7.61 |
| D30 HVAC | 658,172 | 31.86 | 275,884 | 31.86 | 382,288 | 31.86 |
| D40 Fire Protection Systems | 154,950 | 7.50 | 64,950 | 7.50 | 90,000 | 7.50 |
| D 50 Electrical Systems | 484,924 | 23.47 | 203,264 | 23.47 | 281,660 | 23.47 |
| <u>E Equipment and Furnishings</u> | 151,530 | 7.33 | 66,020 | 7.62 | 85,510 | 7.13 |
| E10 Equipment | 13,700 | 0.66 | 6,850 | 0.79 | 6,850 | 0.57 |
| E 20 Furnishings | 137,830 | 6.67 | 59,170 | 6.83 | 78,660 | 6.56 |
| <u>F Special Construction and Demolition</u> | 335,853 | 16.26 | 5,940 | 0.69 | 329,913 | 27.49 |
| F10 Special Construction (Canopy) | 5,940 | 0.29 | 5,940 | 0.69 | 0 | 0.00 |
| F20 Selective/Building Demolition | 257,913 | 12.48 | 0 | 0.00 | 257,913 | 21.49 |
| F20 Asbestos Abatement | 72,000 | 3.48 | 0 | 0.00 | 72,000 | 6.00 |
| <u>Sub Total Building Cost</u> | 4,883,979 | 236.40 | 2,363,348 | 272.90 | 2,520,631 | 210.05 |
| <u>G Building Sitework</u> | 376,941 | 18.24 | | | | |
| G10 Site Preparation | 37,625 | 1.82 | | | | |
| G20 Site Improvements | 186,072 | 9.01 | | | | |
| G30 Site Civil/Mechanical Utilities | 109,919 | 5.32 | | | | |
| G40 Site Electrical Utilities | 33,325 | 1.61 | | | | |
| G90 Other Site Construction | 10,000 | 0.48 | | | | |
| <u>Sub Total Construction</u> | 5,260,919 | 254.64 | | | | |
| General Conditions/Requirements | 853,199 | 41.30 | | | | |
| Escalation to mid point of construction 2Q2016 | 10.32% | 630,977 | 30.54 | | | |
| Estimating Contingency | 15.00% | 1,011,764 | 48.97 | | | |
| Building Permit Fee | | Excluded | | | | |
| <u>Sub Total Cost</u> | 7,756,859 | 375.45 | | | | |
| Soft Costs | 1,316,500 | 63.72 | | | | |
| Contingency (Hard and Soft Cost) | 904,000 | 43.76 | | | | |
| <u>Total Project Cost</u> | 9,977,359 | 482.93 | | | | |

Sudbury School Administration Scheme 2

| Gross Floor Area (sf) = | <u>Consolidated</u> | | <u>Addition</u> | | <u>Renovation</u> | |
|--|---------------------|---------------|---------------------|---------------|---------------------|---------------|
| | 18,550 | | 3,850 | | 14,700 | |
| | <u>Element (\$)</u> | <u>\$/sf</u> | <u>Element (\$)</u> | <u>\$/sf</u> | <u>Element (\$)</u> | <u>\$/sf</u> |
| <u>A Substructure</u> | 162,097 | 8.74 | 92,610 | 24.05 | 69,487 | 4.73 |
| A10 Foundations | 162,097 | 8.74 | 92,610 | 24.05 | 69,487 | 4.73 |
| A20 Basement Construction | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| <u>B Shell</u> | 1,225,144 | 66.05 | 541,607 | 140.68 | 683,537 | 46.50 |
| B10 Superstructure | 573,101 | 30.89 | 237,552 | 61.70 | 335,549 | 22.83 |
| B20 Exterior Enclosure | 396,146 | 21.36 | 228,980 | 59.48 | 167,166 | 11.37 |
| B30 Roofing | 255,897 | 13.79 | 75,075 | 19.50 | 180,822 | 12.30 |
| <u>C Interiors</u> | 790,742 | 42.63 | 186,511 | 48.44 | 604,230 | 41.10 |
| C10 Interior Construction | 421,422 | 22.72 | 115,761 | 30.07 | 305,660 | 20.79 |
| C20 Stairs | 16,125 | 0.87 | 0 | 0.00 | 16,125 | 1.10 |
| C30 Interior Finishes | 353,195 | 19.04 | 70,750 | 18.38 | 282,445 | 19.21 |
| <u>D Services</u> | 1,422,517 | 76.69 | 303,991 | 78.96 | 1,118,525 | 76.09 |
| D10 Conveying Systems | 144,882 | 7.81 | 0 | 0.00 | 144,882 | 9.86 |
| D20 Plumbing | 112,158 | 6.05 | 62,100 | 16.13 | 50,058 | 3.41 |
| D30 HVAC | 590,953 | 31.86 | 122,651 | 31.86 | 468,302 | 31.86 |
| D40 Fire Protection Systems | 139,125 | 7.50 | 28,875 | 7.50 | 110,250 | 7.50 |
| D 50 Electrical Systems | 435,399 | 23.47 | 90,366 | 23.47 | 345,033 | 23.47 |
| <u>E Equipment and Furnishings</u> | 58,870 | 3.17 | 23,950 | 6.22 | 34,920 | 2.38 |
| E10 Equipment | 10,850 | 0.58 | 4,000 | 1.04 | 6,850 | 0.47 |
| E 20 Furnishings | 48,020 | 2.59 | 19,950 | 5.18 | 28,070 | 1.91 |
| <u>F Special Construction and Demolition</u> | 311,356 | 16.78 | 6,319 | 1.64 | 305,037 | 20.75 |
| F10 Special Construction (Canopy) | 6,319 | 0.34 | 6,319 | 1.64 | 0 | 0.00 |
| F20 Selective/Building Demolition | 216,837 | 11.69 | 0 | 0.00 | 216,837 | 14.75 |
| F20 Asbestos Abatement | 88,200 | 4.75 | 0 | 0.00 | 88,200 | 6.00 |
| Sub Total Building Cost | 3,970,726 | 214.06 | 1,154,989 | 300.00 | 2,815,737 | 191.55 |
| <u>G Building Sitework</u> | 363,331 | 19.59 | | | | |
| G10 Site Preparation | 16,125 | 0.87 | | | | |
| G20 Site Improvements | 193,962 | 10.46 | | | | |
| G30 Site Civil/Mechanical Utilities | 109,919 | 5.93 | | | | |
| G40 Site Electrical Utilities | 33,325 | 1.80 | | | | |
| G90 Other Site Construction | 10,000 | 0.54 | | | | |
| Sub Total Construction | 4,334,057 | 233.64 | | | | |
| General Conditions/Requirements | 704,030 | 37.95 | | | | |
| Escalation to mid point of construction 2Q2016 | 10.32% | 519,931 | 28.03 | | | |
| Estimating Contingency | 15.00% | 833,703 | 44.94 | | | |
| Building Permit Fee | | Excluded | | | | |
| Sub Total Cost | 6,391,720 | 344.57 | | | | |
| Soft Cost | 1,161,900 | 62.64 | | | | |
| Contingency | 751,000 | 40.49 | | | | |
| Total Project Cost | 8,304,620 | 447.69 | | | | |

Sudbury Town Hall: CPA Renovation / No Addition

Description of work:

This cost estimate determines the price of a renovation to Town Hall without providing a set program and use for the building. The renovation would make the building accessible, meet current building codes, and upgrade the building systems. Similar to the proposed Town Offices and School Administration studies, a new first floor would be constructed at the level of the west lobby to reduce the number of levels in the building. The north wing steel stair would be removed to insert an elevator to access all floor levels. The auditorium stage would remain as well as the 1955 rear addition and excess stairs throughout the building. The meeting room floor level would be raised to the first floor level.

A Substructure

New footings for elevator walls
Excavate for elevator pit
Minor wall construction
Patch and level existing concrete floor
Structural improvements to walls

B Shell

Restore wood windows at second floor
Add storm windows
Remove plaster at exterior walls, add insulation and vapor barrier
Renovate existing doors and add accessible door hardware
Add new floors as required for accessibility
Structural upgrades/repairs to roof framing, lintels, and concrete block piers and walls
Rebuild portion of chimney, repoint chimneys, clean brick, replace flashing and vents
Replace slate roof, flashing, gutters, downspouts, and snow guards

C Interiors

Replace or add select doors
Select new partition walls
Elevator shaft walls
Toilet room accessories
Building signage
Refurbish auditorium wood floor
Finishes at walls, floors, ceilings, stairs

D Services

Elevator and conveying systems
Restroom fixtures for new accessible restrooms, including floor drains, hydrants, and clean-outs
Piping for plumbing fixtures
Water heaters
HVAC equipment for a Mitsubishi Variable Refrigerant Volume system.
Sprinkler system throughout building
Upgrades to electrical system, wiring, and fire alarm system

E Equipment and Furnishings

Lavatory Countertops

F Special Construction and Demolition

Demolish select floors, stairs, and roofing
Removal of demolished material
Asbestos Abatement and safe removal

G Building Sitework

Civil, Mechanical & Electrical Utilities
Add new railings at exterior entrances and ramps to meet building code

CPA Renovation/ No Addition

| Gross Floor Area (sf) = | | <u>Renovation</u> | |
|---|--------|----------------------------|---------------------|
| | | 14,700 | |
| | | <u>Element (\$)</u> | <u>\$/sf</u> |
| <u>A Substructure</u> | | 57,101 | 3.88 |
| A10 Foundations | | 57,101 | 3.88 |
| A20 Basement Construction | | 0 | 0.00 |
| <u>B Shell</u> | | 697,615 | 47.46 |
| B10 Superstructure | | 338,020 | 22.99 |
| B20 Exterior Enclosure | | 178,773 | 12.16 |
| B30 Roofing | | 180,822 | 12.30 |
| <u>C Interiors</u> | | 385,237 | 26.21 |
| C10 Interior Construction | | 90,348 | 6.15 |
| C20 Stairs | | 16,125 | 1.10 |
| C30 Interior Finishes | | 278,764 | 18.96 |
| <u>D Services</u> | | 1,171,114 | 79.67 |
| D10 Conveying Systems | | 144,882 | 9.86 |
| D20 Plumbing | | 102,647 | 6.98 |
| D30 HVAC | | 468,302 | 31.86 |
| D40 Fire Protection Systems | | 110,250 | 7.50 |
| D 50 Electrical Systems | | 345,033 | 23.47 |
| <u>E Equipment and Furnishings</u> | | 1,650 | 0.11 |
| E10 Equipment | | 0 | 0.00 |
| E 20 Furnishings | | 1,650 | 0.11 |
| <u>F Special Construction and Demolition</u> | | 243,590 | 16.57 |
| F10 Special Construction (Canopy) | | 0 | 0.00 |
| F20 Selective/Building Demolition | | 155,390 | 10.57 |
| F20 Asbestos Abatement | | 88,200 | 6.00 |
| <u>Sub Total Building Cost</u> | | 2,556,307 | 173.90 |
| <u>G Building Sitework</u> | | 151,134 | 10.28 |
| G10 Site Preparation | | 0 | 0.00 |
| G20 Site Improvements | | 7,891 | 0.54 |
| G30 Site Civil/Mechanical Utilities | | 109,919 | 7.48 |
| G40 Site Electrical Utilities | | 33,325 | 2.27 |
| G90 Other Site Construction | | 0 | 0.00 |
| <u>Sub Total Construction</u> | | 2,707,441 | 184.18 |
| General Conditions/Requirements | | 698,514 | 47.52 |
| Escalation to mid point of construction 2Q2016 | 10.32% | 351,495 | 23.91 |
| Estimating Contingency | 15.00% | 563,617 | 38.34 |
| Building Permit Fee | | Excluded | |
| <u>Sub Total Cost</u> | | 4,321,067 | 293.95 |
| Soft Cost | | 876,900 | 59.65 |
| Contingency (Hard and Soft Cost) | | 516,000 | 35.10 |
| <u>Total Project Cost</u> | | 5,713,967 | 388.71 |

Sudbury Town Hall Demo & Rebuild

| | | <u>Town Offices</u> | |
|--|--------|----------------------------|---------------------|
| Gross Floor Area Required(sf) = | | 16,700 | |
| | | <u>Element (\$)</u> | <u>\$/sf</u> |
| Town Hall Building Demolition | | 400,000 | 23.95 |
| Asbestos Abatement | | 150,000 | 8.98 |
| New Construction (includes site work) | | 4,175,000 | 250.00 |
| Sub Total Construction | | 4,725,000 | 282.93 |
| General Conditions/Requirements | | 854,355 | 51.16 |
| Escalation to mid point of construction 2Q2016 | 10.32% | 575,789 | 34.48 |
| Estimating Contingency | 15.00% | 923,272 | 55.29 |
| Building Permit Fee | | Excluded | |
| Sub Total Cost | | 7,078,416 | 423.86 |
| Soft Cost | | 1,225,500 | 73.38 |
| Contingency (Hard and Soft Cost) | | 827,000 | 49.52 |
| Total Project Cost | | 9,130,916 | 546.76 |

| | | <u>School Administration</u> | |
|--|--------|-------------------------------------|---------------------|
| Gross Floor Area Required(sf) = | | 14,800 | |
| | | <u>Element (\$)</u> | <u>\$/sf</u> |
| Town Hall Building Demolition | | 400,000 | 27.03 |
| Asbestos Abatement | | 150,000 | 10.14 |
| New Construction (includes site work) | | 3,700,000 | 250.00 |
| Sub Total Construction | | 4,250,000 | 287.16 |
| General Conditions/Requirements | | 854,355 | 57.73 |
| Escalation to mid point of construction 2Q2016 | 10.32% | 526,769 | 35.59 |
| Estimating Contingency | 15.00% | 844,669 | 57.07 |
| Building Permit Fee | | Excluded | |
| Sub Total Cost | | 6,475,793 | 437.55 |
| Soft Cost | | 1,146,500 | 68.65 |
| Contingency (Hard and Soft Cost) | | 759,000 | 45.45 |
| Total Project Cost | | 8,381,293 | 551.66 |

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1. Consultant Narratives

- a. Bolton and DeMartino Structural Existing Conditions Report
- b. Bolton and DeMartino Structural Code Review
- c. Bolton and DeMartino Structural Feasibility Options Report
- d. bh+a Structural Presentation
- e. Allied Consultants M/E/P/FP Existing Conditions Report
- f. Allied Consultants M/E/P/FP Feasibility Report and Drawings
- g. Samiotes Civil Engineering Report
- h. C3 Code Consultants Accessibility Memo

2. Programming Information

- a. Existing Town Department and School Administration Plans
- b. Town Department and School Administration Programming Spreadsheet
- c. Town Department and School Administration Surveys

3. Drawings

- a. Existing Condition Drawings
- b. Other Concept Schemes and Drawings

4. Cost Estimates

- a. D.G. Jones Cost Estimating

5. Previous Reports

- a. Russo Barr Associates Roof Condition Survey. February 13, 2012
- b. Rondeau Construction Roof Analysis Report. November 20, 2006

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1. CONSULTANT NARRATIVES

- a. Bolton and DeMartino Structural Existing Conditions Report
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Sudbury Town Hall- Existing Structural Conditions

322 Concord Road
Sudbury, Massachusetts
May 17, 2013
Updated September 10, 2013

Introduction:

The Sudbury Town Hall building is a 14,600 ft² structure that is being investigated for renovation, and possible addition, to address the aging condition of the building and support increased Town use. The original 11,900 ft² building was constructed in 1931 for town offices, public assembly, and as a Fire Station. A 2,700 ft² addition was built in 1955, adding office space and increased basement parking for the Fire Department. It is our understanding that the goal of the current renovation and addition project is to address the current building deficiencies and space limitations. This report will describe the general conditions of the existing structure to aid in planning for a building renovation and addition. Refer to "Building Code Review" for additional renovation requirements associated with the Massachusetts State Building Code.

Basis of the Report:

- This report is based on the visible observations during our site visits on April 5, 2013 and August 6, 2013.
- 1931 Partial Architectural Construction Drawings "Charles H. Way, Architect" dated April 14, 1931. (Structural Drawings not available)
- 1955 Addition Partial Architectural Drawings "Charles H. Way, A.I.A. Architect" dated July 1955.

Our observations of the existing building were limited to what was readily visible. We did not evaluate strengths of materials, remove finishes, or take measurements; therefore, we are unable to comment on any structural capacities or deficiencies of the existing structural systems.

Building Description:

The two-story structure, with a partial basement, was constructed in 1931 to provide Town office space, public meeting space, and to house a Fire Station. The building is clad with brick veneer and white painted wood boards with a grand portico at the front of the building. The building is framed with non-combustible concrete construction in the basement, wood floor framing with steel girders at the second floor, masonry exterior walls, and wood roof framing with steel trusses. The interior and exterior of the building is in generally good condition, but does require regular maintenance.

The one-story addition, with a basement, was added to the rear of the building in 1955 to provide additional office space and an additional parking bay in the basement for the Fire Department. Similar to the original building, the basement area and first floor was constructed of non-combustible concrete and the roof was framed with wood rafters. The exterior walls appear to be brick veneer backed up by masonry bearing walls. The 1955 addition also appears to be in generally good condition.



Figure 1-Front Portico

Existing Conditions:

General Exterior:

The exterior walls are typically brick veneer backed up by unreinforced masonry walls (cinder block). The exterior brick veneer is in generally good condition, but does require some minor repointing. The cinder block back-up walls are generally covered with finishes, so we could not view the condition of the walls, but the finishes appear to be in generally good condition. We did notice some cinder block deterioration that should be repaired as part of any renovation. The front of the building is white painted wood boards, which also appears to be in generally good condition.

General Interior:

The interior of the building appears to have remained relatively unchanged for several decades. The plaster walls and interior masonry walls have minor cracks associated with the age of the structure, but in general, the building appears to be in good condition.

Original 1931 Building

The two-story building, with a basement, consists of:

- Foundations:
 - Concrete foundation walls and interior spread footings.
 - Concrete slab on grade.
- Floors:
 - Concrete slab-on-grade.
 - Structural concrete floor above basement areas.
 - Wood framed floors with steel wide flange girders (steel girders shown on Architectural Drawings, no Structural Drawings available to determine size).
- Columns:

- Steel wide flange columns embedded in masonry exterior walls at beam/truss lines at auditorium.
- Steel interior columns (wide flange and steel pipe) supporting floor framing at Auditorium, Stage, and Lobby spaces.
- Roof:
 - Steel trusses over auditorium (approximately 11'-6" o.c.), supporting wood roof framing.
 - Wood rafters and deck boards throughout building.
 - Slate roofing.
- Walls:
 - Unreinforced masonry walls at the exterior walls (cinderblock and brick backup, brick veneer).
 - Wood stud walls with wood siding at front portico wall.
 - Granite block veneer at base and 4" Brick veneer above.

Note: Structural Drawings were not available. Indicated framing is either from Architectural Drawings, or as noted during our site visit.

The 1931 structure appears to have remained relatively unchanged from its original construction except for a few changes to room layouts. A few concrete masonry walls have been added to the basement to address the changing boiler room layouts, and interior walls have been slightly modified to create restroom changes, but the general layout of the building has remained. The structural framing for the building is generally not visible due to plaster walls and ceilings throughout the building, but the room layouts appear to be similar to the original Architectural layouts. If the renovation scope includes altering wall locations, or changing the loads locally, we would recommend opening up the ceilings to determine the structural systems that would be impacted by the renovation.

In the basement boiler room, CMU walls have been added to reconfigure the space. The CMU walls do not appear to be connected to the floor diaphragm above to resist seismic loads. Also, the intersection of the CMU to the exterior wall is located above a doorway and the lintel spans from the new CMU to the existing wall and appears to be rusting. We recommend installing seismic anchors to the top of the CMU walls and repairing the lintel angle.

The exterior walls are brick veneer backed up by unreinforced masonry bearing walls, and they appear to be in good condition with minimal cracking or movement. Window and door openings have remained relatively unchanged at the exterior wall assembly, except two large openings that were added to the rear of stage area to provide ventilation (see Figure #5 above second story windows). The interior of the building appears to have remained untouched other than typical plaster repairs and changes made during the 1955 renovation and addition. There are a few water stains at the auditorium ceiling and plaster cracks, but otherwise the finishes appear to be in good condition. The roof is clad with slate shingles, and it is our understanding that the slate will remain.

In the basement, a concrete beam and column were removed to convert the two original fire station truck doors to a single larger opening at the exterior wall. When this was done, a new steel beam and lintel was added to the opening, and the beam and lintel appear to be either under designed or deteriorating since the bricks at the head of the door are separating from the original brick veneer above. We recommend repairing or removing this lintel system as part of any renovation since the condition of the lintel is obviously deteriorating.



Figure 2-Expanded Fire Station Door and Masonry Separation

The plaster walls are in generally good condition, but we did notice one wall that appears to have some damage at the first floor Town Clerk Administration office area. The wall at the first floor vault entrance area has several horizontal cracks, and the plaster appears to have separated from the masonry backup at several locations. The cracks are consistent with settlement cracks, but there did not appear to be any distress in the brick backup wall. The ceiling framing above this wall is spans from the vault wall to the exterior wall, forming the bottom of a large duct located in the plenum between the ceiling and the auditorium stage above. Also, it should be noted that an original bearing wall to the left of the vault entrance was removed and replaced with a header member to create the open Town Clerk Administration office, and the header appears to be undersized due to the slight settlement of the ceiling at the header. We were able to climb into the plenum from the rear of the stage and view the ceiling framing and vault concrete cap. The cap appears to be intact, but there were some cracks at the corner where the new header member was added to remove the bearing wall below. We recommend repairing or replacing the framing during any planned renovations.



Figure 3-Plaster Cracks at First Floor Vault

The roof is framed with a combination of steel trusses and wood rafters. The steel trusses clear span the auditorium floor span and provide support for the wood roof rafters at the ridge and quarter points of the gable roof span. The auditorium ceiling is also supported on the bottom

chord of the steel truss. The trusses are typical double angle trusses with the bottom chord located a few feet above the exterior wall connection. The trusses cantilever a few feet below the auditorium ceiling to steel columns in the exterior wall with double channel members. The steel and wood framing at the roof appears to be in good condition. There are signs of some water infiltration at the wood rafters, but we did not notice rotted wood or rusted steel members.



Figure 4-Auditorium Roof Truss and Rafter Framing

During our second site visit, we traversed the attic space above the stage to a small platform above the Historical Society Director's office to view the framing at the North exterior wall. One of the steel beams at the attic level bears on a masonry pier that appeared to be slightly deteriorated from water infiltration. The cinderblock portion of the pier was soft at along the edges, and we recommend rebuilding the pier with reinforced CMU from the bottom of the beam to the top of the main wall a few feet below. Since lower quality cinder block was used for the entire building, it should be expected that similar damaged cinder block may be found where water infiltration has previously occurred, and may require local repair that may not be discovered until finishes are removed.



Figure 5-Masonry Pier Supporting Attic Beam (North Side Gable)

Since the building contains unreinforced masonry walls, we tried to review several of the Building Code seismic triggers:

- Parapets: There are no masonry parapets.
- Unsupported partitions: Interior and exterior masonry walls appear to be bearing walls and do not appear to be free standing. We were unable to determine actual attachment details due to finishes and lack of structural drawings, but the wood and steel framing appears to be bearing directly onto the walls.
- Roof diaphragm attachment to masonry walls: Wood plates appear to be attached to the top of masonry walls with anchor bolts set in grouted cells. Rafters are attached to the wood plates with birds mouth cut and toe nailing.

1955 Addition

The one-story building, with a basement, consists of:

- Foundations:
 - Concrete foundation walls.
 - Concrete slab on grade.
- Floors:
 - Structural concrete slab with concrete beams.
- Roof:
 - 3x12 low slope wood rafters attached to ledger on 1931 wall and bearing on new exterior wall.
 - Wood deck boards with built up roofing.
- Walls:
 - Brick veneer with masonry backup walls.



Figure 6-1955 Addition at Rear of Town Hall

The 1955 addition appears to have been a two-step process, adding a single-story concrete basement structure for the fire department, then converting the concrete roof to an office floor

and adding a wood framed roof above. Brick veneer and white trim was used to match the existing Town Hall veneer.

Similar to the 1931 building, the basement was framed with non-combustible construction, since it was used as a garage for the fire department. The concrete slabs at the basement and first floor appear to be in good condition. The interior and exterior walls of the addition appear to be in good condition, but finishes covered the structure at the first floor and roof.

Conclusions and Recommendations:

The purpose of this report is to identify any structural deficiencies and liabilities that will need to be addressed during any substantial renovation, which we understand, is being considered. The report is based on the premise that the existing building will remain in use as Town Offices and Town Assembly. We have reviewed the general conditions of the building, but did not remove finishes or perform computations to determine structural capacities. This report, along with the Building Code Review, shall be used as the basis for the renovation. The following items are meant to highlight structural conditions or deficiencies noted in the report. Refer to “Building Code Review” for additional structural requirements associated with the proposed renovation and addition.

General Information:

- Existing building area is 14,600 ft².
 - 1931 Building: 11,900 ft²
 - 1955 Addition: 2,700 ft²
- 1931 Building: Structural drawings do not exist; framing members exposed to view appear to be in good condition. Further investigation will be required to assess the general condition of the structure prior to a full renovation. This may include removing ceiling tiles or wall finishes and assessing the general condition of the structural elements.
- 1955 Addition: Structural drawings do not exist; framing members exposed to view appear to be in good condition.
- Exterior masonry veneer requires some repointing at 1931 building, especially near basement overhead door where lintel replacement may be required if overhead door remains.
- Masonry walls are a mix of brick and cinderblock at 1931 building. Renovations used some concrete masonry units (CMU). Reinforcing is unknown, but assumed to not be present. If renovations include increasing the loads on the masonry, we recommend further investigation to verify the lack of reinforcing and general condition of the masonry walls. Cinderblock is rarely used in current construction due to its low strength and we would recommend against adding new loads to the cinderblock walls.
- One cinderblock pier in the attic was noted to be deteriorating, north of the stage at the exterior side gable, and should be repaired with new CMU block down to solid masonry a few feet below.
- Steel columns are present at the exterior walls and some interior locations, but we do not know the member sizes due to lack of Structural Drawings. Renovations that increase the load on the columns will need to include investigating the column size and foundation bearing capacities. In conjunction with the masonry wall unknowns, we would recommend that any new floors or loads be supported on new columns and foundations. Foundation work would need to be reviewed by a geotechnical engineer to determine appropriate bearing capacities of the soil.
- Front wall is framed with wood studs, not masonry, and will resist lateral loads differently than rest of building. Revisions to walls, or adding floors, will require review of front wall to resist lateral loads.

- Stage framing appears to be settling from current storage loading and previously modified bearing walls below. Further investigation will be required to determine future use loads, and possible re-framing.
- Floor diaphragm connections are unknown. Wood and steel framing members appear to be built into masonry. Second floor diaphragms appear to be wood boards with finish wood flooring over.
- Roof trusses and rafters appear to be in good condition. Minor water damage was noticed, and slate roof should be inspected/repared as part of renovation.
- Roof rafters are toe-nailed to top plates anchored to masonry walls. Renovation to roof framing may require uplift anchors and blocking for diaphragm attachment.

Christopher Tutlis, PE
Bolton & Dimartino, Inc.

Sudbury Town Hall- Building Code Review

**322 Concord Road
Sudbury, Massachusetts
May 17, 2013**

General:

This report presents the results of our Massachusetts State Building Code (MSBC) Structural review of the Sudbury Town Hall for the planned renovations, and possible addition. Our review has been completed in conformance with Chapter 34 of the Eighth Edition of the Massachusetts State Building Code, which became effective August 6, 2010 and the International Existing Building Code, 2009 Edition. Refer to the "Existing Structural Conditions" report for additional building information.

Basis of the Report:

- This report is based on the visible observations during our site visit on April 5, 2013.
- 1931 Partial Architectural Construction Drawings "Charles H. Way, Architect" dated April 14, 1931. (Structural Drawings not available)
- 1955 Addition Partial Architectural Drawings "Charles H. Way, A.I.A. Architect" dated July 1955.

Our observations of the existing building were limited to what was readily visible. We did not evaluate strengths of materials, remove finishes, or take measurements; therefore, we are unable to comment on any structural capacities or deficiencies of the existing structural systems.

Building Code Review- Structural:

This review presents our interpretation of the structural requirements of the International Existing Building Code, as modified by the Massachusetts State Building Code. In general, the provisions of The International Existing Building Code are intended to maintain or increase public safety, health, and general welfare in existing buildings by permitting repair, alteration, addition, and/or change of use without requiring full compliance with the code for new construction except where otherwise specified.

Assumptions:

In order to review the requirements of the Building Code for a renovation to the Sudbury Town Hall, the scope of the project must be defined. Presently, three design options are being reviewed:

1. General repairs and maintenance.
2. Renovation to existing Town Hall Building and structurally isolated addition.
3. Renovation to existing Town Hall Building, structurally isolated addition, and new floor infill above auditorium.

For this Code Review we are assuming that the project would include a complete renovation and addition (Options 2 or 3), and would include:

- Complete renovation to interior finishes of existing Buildings (Painting, flooring, wall finishes, etc.)
- New mechanical systems throughout existing Buildings.

- Selective Demolition.
- Structurally isolated Addition.
- New floor infill (Option 3).

If Option 1 is chosen, work will need to conform to Code requirements for Level 1 or 2 work, depending on the scope. Refer to Level 1 & 2 requirements below for structural requirements.

Building Codes:

- Massachusetts State Building Code, 8th Edition.
- International Building Code, 2009 Edition (IBC).
- International Existing Building Code, 2009 Edition (IEBC).

Classification of Work: Level 3 (IEBC Section 405) Work area will exceed 50% of the aggregate area of the building.

Structural Requirements associate with Level 3 Work:

Level 3 Work is the highest level of Alteration and the Work must conform to the Structural requirements of Levels 1, 2, & 3.

Level 1 Structural Requirements:

606.2 Addition or replacement of roofing or replacement of equipment: Where addition or replacement of equipment results in additional dead loads, structural components supporting such reroofing or equipment shall comply with the gravity load requirements of the International Building Code.

- The existing 1931 slate roof will likely be repaired due to its age and general condition, but it is our understanding that the roof will not be replaced with a differing system. There is a chance that the slate will be removed and replace “in-kind” if the condition of the slate or anchors are worse than anticipated. If there is reroofing work, the work will not increase the force in the element by more than 5 percent, provided roofing materials do not change. If new equipment or modification to roof openings increase the forces in elements by more than 5 percent, a review of the element in accordance with the IBC will be required.
- Reroofing of the 1955 addition is not planned, but if the building is reroofed, the framing will be reviewed in accordance with this section.

606.2.1 Wall anchors for concrete and masonry buildings: Where a permit is issued for reroofing more than 25 percent of the roof area of a building assigned to Seismic Design Category B, C, D, E or F with a structural system consisting of concrete or reinforced masonry walls with a flexible roof diaphragm or unreinforced masonry walls with any type of roof diaphragms, the work shall include installation of wall anchors at the roof line to resist the reduced International Building Code level seismic forces as specified in the IEBC.

- The Town Hall is assigned to Seismic Design Category B and the existing walls throughout the 1931 building are unreinforced masonry walls and will need to conform to the requirements of this section, if the buildings are being reroofed. At this point, the 1931 building will not be reroofed and will not require new attachment to the masonry walls. If the 1931 building is reroofed, the diaphragm connections will need to be reviewed and possibly upgraded to conform to the anchorage requirements.

606.3.1 Bracing for unreinforced masonry bearing wall parapets: Where a permit is issued for reroofing for more than 25 percent of the roof area of a building that is assigned to Seismic Design Category B, C, D, E or F that has parapets constructed of unreinforced masonry, the work shall include the installation of parapet bracing to resist the reduced International Building Code seismic forces specified.

- There are no unreinforced masonry parapets on the building.

606.3.2 Roof diaphragms resisting wind loads in high wind regions: Where roofing materials are removed from more than 50 percent of the roof diaphragm of a building or section of a building located where the basic wind speed is greater than 90 mph or in a special wind region, as defined in Section 1609 of the International Building Code, roof diaphragms and connections that are part of the main wind-force resisting system shall be evaluated for the wind loads specified in the International Building Code, including wind uplift. If the diaphragms and connections in their current condition do not comply with these wind provisions, they shall be replaced or strengthened in accordance with the loads specified in the International Building Code.

- Design wind speed in Sudbury is 100 mph. Reroofing work will not be more than 50% of the roof area, based on our current understanding. If the reroofing work is expanded or includes more than 50% of the roof area, the roof diaphragm connections would need to be reviewed as part of the reroofing work.

Level 2 Structural Requirements:

707.2 New structural elements: New structural elements in alterations, including connections and anchorage, shall comply with the International Building Code (IBC).

- New structural elements will comply with the IBC.

707.3 Minimum design loads: The minimum design loads on existing elements of a structure that do not support additional loads as a result of an alteration shall be the loads applicable at the time the building was constructed.

- The renovation will not change the minimum design loads on the existing structure. Existing design loads are not known for the 1931 and 1955 portions of the building since there are no structural drawings and the member sizes and spacing are not fully known. Existing framing appears to be appropriate for current loads, except the stage framing, which should be reviewed for current live loads as part of the renovation.

707.4 Existing structural elements carrying gravity loads: Alterations shall not reduce the capacity of the existing gravity load-carrying structural elements unless it is demonstrated that the elements have the capacity to carry the applicable design gravity loads required by the International Building Code. Exceptions include structural elements whose stress is not increased by more than 5 percent.

- Design loads will be reviewed, but should remain unchanged at the existing structure. Structural elements will be reviewed at altered areas of the structure.

707.5 Existing structural elements resisting lateral loads: Any existing lateral load-resisting structural element whose demand-capacity ratio with the alteration considered is more than 10 percent greater than its demand-capacity ratio with the alteration ignored shall comply with the structural requirements specified in Section 807.4.

- The existing unreinforced masonry walls currently provide lateral support for the building, as well as the wood framed wall at the front entrance wall of the building. Modifications to the existing building to change wall locations or details will likely increase the demand capacity of the walls by more than 10% and will require an

analysis and most likely new structural elements to resist the Code mandated loads. New elements may include reinforced CMU shear walls or structural steel bracing.

- Additions that are structurally isolated will not change the demand capacity of existing structural elements.
- Floor infill as part of design option 3 will likely increase the demand capacity of the elements that the infill are connected to, and trigger further review. We recommend installing new seismic bracing for the floor infill, and limiting the connection of the floor infill to existing masonry walls. The front wall is not masonry and will not meet the general performance of the remainder of the building. New lateral force resisting elements would be required, especially at the front wall of the Town Hall building.

707.6 Voluntary improvement of the seismic force-resisting system: Alterations to existing structural elements or addition of new structural elements that are not otherwise required by this chapter and are initiated for the purpose of improving the performance of the seismic force-resisting system of an existing structure or the performance of seismic bracing or anchorage of existing nonstructural elements shall be permitted, providing that an engineering analysis is submitted demonstrating the following:

- The altered structure and the altered nonstructural elements are no less conforming with the provisions of this code with respect to earthquake design than they were prior to the alteration.
- New structural elements are detailed and connected to the existing structural elements as required by Chapter 16 of the International Building Code.
- New or relocated nonstructural elements are detailed and connected to existing or new structural elements as required by Chapter 16 of the International Building Code.
- The alterations do not create a structural irregularity as defined in ASCE 7 or make an existing structural irregularity more severe.
- It would be our intention to present improvement options to the Owner as part of a renovation to be included in future work. Improvements to the 1931 and 1955 structures may be cost prohibitive with the current unreinforced masonry bearing wall system, but options could be explored during the design process.

Level 3 Structural Requirements:

807.2 New structural elements: New structural elements shall comply with Section 707.2.

- New structural elements will comply with the IBC, per 707.2.

807.3 Existing structural elements carrying gravity loads: Existing structural elements carrying gravity loads shall comply with 707.4.

- The 1931 and 1955 portions of the building should remain unchanged and structural elements will not change. If the 1931 and 1955 portions of the building remain, we recommend reviewing the stage floor structure due to concerns of the gravity load carrying capacity of the elements.

807.4 Structural alterations: All structural elements of the lateral-force-resisting system undergoing Level 3 structural alterations or buildings undergoing Level 2 alterations as triggered by Section 707.5 shall comply with this section.

- Alterations to the building structure will be reviewed for conformance to this section. If the building undergoes a renovation/addition that includes demolition and modification of the existing structure, the building will need to be analyzed to support the code mandated loads. Based on our review of the building, the 1931 building uses unreinforced masonry bearing walls to resist lateral forces.

807.4.1 Evaluation and analysis: An engineering evaluation and analysis that establishes the structural adequacy of the altered structure shall be prepared by a registered design professional and submitted to the code official.

- Renovation to the interior finishes and systems is acceptable without a detailed analysis, but if masonry partitions or portions of the building are subject to demolition, an analysis will need to be completed. It should be understood that the existing lateral force resisting system was not designed or detailed in accordance with the current seismic code in mind. Option 3 will likely require new seismic force resisting elements in order to conform to the Code.

807.4.2 Substantial structural alteration: Where more than 30 percent of the total floor area and roof areas of the building or structure have been or are proposed to be involved in structural alterations within a 12-month period, the evaluation and analysis shall demonstrate that the altered building or structure complies with the International Building Code for wind loading and with the reduced International Building Code level seismic forces as specified in Section 101.5.4.2 for seismic loading. For seismic considerations, the analysis shall be based on one of the procedures specified in Section 101.5.4. The areas to be counted toward the 30 percent shall be those areas tributary to the vertical load-carrying components, such as joists, beams, columns, walls and other structural components that have been removed, added or altered, as well as areas such as mezzanines, penthouses, roof structures and in-filled courts and shafts.

- Based on preliminary planning, less than 30 percent of the total floor area of the building will be structurally altered. Alterations to the structure will be reviewed during design to verify conformance with this section.

807.4.3 Limited structural alteration: Where not more than 30 percent of the total floor and roof areas of the building are involved in structural alteration within a 12-month period, the evaluation and analysis shall demonstrate that the altered building or structure complies with the loads applicable at the time of the original construction or of the most recent substantial structural alteration as defined by Section 807.4.2. Any existing structural element whose demand-capacity ratio with the alteration considered is more than 10 percent greater than its demand-capacity ratio with the alteration ignored shall comply with the reduced International Building Code level seismic forces as specified in Section 101.5.4.2. For the purposes of calculating demand-capacity ratios, the demand shall consider applicable load combinations with design lateral loads or forces in accordance with sections 1609 and 1613 of the International Building Code with Massachusetts Amendments. For purposes of this section, comparisons of demand-capacity ratios and calculation of design lateral loads, forces, and capacities shall account for the cumulative effects of additions and alterations since original construction.

- The existing systems will be reviewed if there is a limited structural alteration.

Conclusions and Recommendations:

The purpose of this report is to identify Massachusetts State Building Code requirements that will need to be addressed during a substantial renovation, which we understand, is being considered for the Sudbury Town Hall. This report, in addition to the “Existing Structural Conditions” report, shall be used as the basis for the renovation. The following items are meant to highlight Building Code requirements triggered by the renovation, but do not limit the work required.

General Information:

- Existing building area is 14,600 ft².
 - 1931 Building: 11,900 ft²
 - 1955 Addition: 2,700 ft²
- Three schemes are being investigated:

1. General repairs and maintenance.
 2. Renovation to existing Town Hall Building and structurally isolated addition.
 3. Renovation to existing Town Hall Building, structurally isolated addition, and new floor infill above auditorium.
- The proposed Options 2 and 3 will result in a finished building of approximately 20,300 ft².
 - Any structural work associated with Option 1 shall conform to the International Existing Building Code, as amended by the Massachusetts State Building Code, and specifically any additional requirements for Level 1, or 2, work, depending on the scope of work.
 - Any structural work associated with Options 2 and 3 shall conform to the International Existing Building Code, as amended by the Massachusetts State Building Code, and specifically any additional requirements for Level 3 work.

Structural Requirements for Renovation/Addition:

- Geotechnical exploration will be required for any new construction, as well as any structural foundation work to the existing building.
- Roof snow loads:
 - Original: Unknown at 1931 Building & 1955 Addition.
 - New Additions: In accordance with Massachusetts State Building Code.
- Lateral load resisting systems at existing building, unreinforced masonry, will need to be reviewed at renovations involving significant structural modifications.
 - If the existing building/addition remains unchanged, the current system may remain.
 - New shear walls or bracing systems may be required at partial demolition and/or minor structurally attached addition areas.
 - New shear walls or bracing systems will be required at significant demolition/addition or structural changes to the existing building.
 - Additions should be seismically separated, if possible, to avoid adding lateral loads to the existing masonry walls.
- Unreinforced masonry walls will need to be reviewed at re-roofing areas for adequate anchorage to the roof diaphragms to resist wind and seismic loads. General re-roofing is not planned, but could occur and the implications should be understood.

Based on our review of the existing conditions, as well reviewing Chapter 34 of the Massachusetts State Building Code, it is our professional opinion that the existing building is capable of being structurally renovated and reused as a Town Hall.

Christopher Tutlis, PE
Bolton & DiMartino, Inc.

General Information

We have reviewed the basic design options for the Sudbury Town Hall feasibility study by BH+A, and will present a basic description of each structural system. We will also describe the structural scope and general building code implications of each design option. The combined area of the existing 1913 Town Hall, and 1955 Addition, is approximately 14,600 ft². The renovated building will be approximately 20,300 ft² after the demolition, renovation, and addition is complete. The basic design options are:

1. Addition and Renovation
 - o Option A: Selective Interior Demo, Stair Infills, Demo 1955 Addition & New Addition.
 - o Option B: Selective Interior Demo, Demo Stage, Demo Concrete Floor Above Boiler Room, Stair Infills, Demo 1955 Addition & New Addition.

This report is intended to highlight the differences between the proposed feasibility options. Refer to the "Existing Structural Conditions Report" and "Building Code Review" for a more in-depth review of the existing conditions and renovation requirements.

Addition and Renovation Options

The Addition and Renovation options include two variations of partial demolition and renovation of the existing building, with a new addition structurally isolated from the existing building. The scope of demolition of the existing structure ranges from a few partitions and stairwells in Option A to a more extensive scope of demolition of partitions, stairwells, stage framing, and local floor framing in Option B. Due to the area of renovation work involved within the existing building, the renovation portion of the Addition and Renovation option will need to conform to the International Existing Building Code for Level 3 Work (the highest level of the three levels), as modified by Chapter 34 of the Massachusetts State Building Code for both renovation options. The new construction portion of the project (structurally isolated additions) will need to conform to the International Building Code, as modified by the Massachusetts State Building Code for New Construction.

Existing Structural Systems:

The two-story building, with a basement, consists of:

- Foundations:
 - o Concrete foundation walls and interior spread footings.
 - o Concrete slab on grade.
- Floors:
 - o Concrete slab-on-grade.
 - o Structural concrete floor above basement areas (non-combustible construction above the mechanical rooms and former fire station).
 - o Wood framed floors with steel wide flange girders (steel girders shown on Architectural Drawings, no Structural Drawings available to determine size).
- Columns:
 - o Steel wide flange columns embedded in masonry exterior walls at beam/truss lines at auditorium.
 - o Steel interior columns (wide flange and steel pipe) supporting floor framing at Auditorium, Stage, and Lobby spaces.
- Roof:
 - o Steel trusses over auditorium (approximately 11'-6" o.c.), supporting wood roof framing.

- Wood rafters and deck boards throughout building.
- Slate roofing.
- Walls:
 - Unreinforced masonry walls at the exterior walls (cinderblock and brick backup, brick veneer).
 - Wood stud walls with wood siding at front portico wall.
 - Granite block veneer at base and 4" Brick veneer above.

New Addition Structural Systems:

- Foundations (Assumed based on existing conditions, to be verified by Geotechnical Engineer):
 - Interior concrete spread footings
 - Continuous reinforced concrete frost wall and footing at exterior walls
 - Concrete slab-on-grade
- Columns:
 - Wide flange steel column (W8) or steel tube column (HSS6x6)
- Roof:
 - Wide flange steel beams and steel trusses.
 - Metal roof deck
 - Design for a flat roof snow load of 42 psf.
- Lateral Force Resisting System:
 - Concentrically braced steel frames

Structural Scope at Existing Building:

Option A (Limited Demolition):

- Demo existing stairwells at select locations and install new wood framing to support floor loads. Framing will bear on existing masonry walls, new wood bearing walls, and/or new steel posts and foundations.
- Install new wood shear walls where possible at Portico Entrance side of building.
- Install structural steel bracing at top of existing masonry partitions that are not currently anchored to the steel framing at roof level to brace existing walls for out-of-plane seismic loads. (Most exterior walls are already attached to wood sill plates and framing and will not need bracing, but this may apply to select interior partitions).
- Install new wood framing at damaged/deteriorated/undersized existing framing (Example: Undersized header installed to replace bearing wall in Town Clerk Administration Office).
- Repair deteriorated masonry (Deteriorated cinder block pier in attic, separated brick lintel at basement overhead door).

Option B (Increased Demolition Scope):

- Complete all items in Option A scope of work.
- Demo concrete floor above boiler room and install new concrete slab at lower level. Provide shoring for structural framing above the floor and bearing walls during construction.
- Demo stage framing and install new floor framing at lower elevation, including steel beam, wood framing, and floor joists.
- Install CMU bearing wall below new concrete framed floor and extend to second floor, if possible to increase seismic-force-resisting system.
- Review building for compliance with International Existing Building Code, including seismic hazards associated with unreinforced masonry walls and the ability for the building to resist Code mandated seismic loads.

Comments: From a structural point of view, Option B is more involved due to the significant renovation demolition, shoring, and reconstruction. Also, due to the increased scope of work, the building will need to be reviewed for conformance to the seismic loads specified in the International Existing Building Code, which may require several new wood or masonry shear walls. At a minimum, the existing building will need to be brought into compliance with the International Existing Building Code, as modified by Chapter 34 of the MSBC to increase basic life safety to the minimum requirements of the Code, specifically Appendix A1 which is intended to reduce masonry hazards in existing structures.

For Option A, structural work will likely entail bracing the tops of CMU partitions that are not secured to the floor or roof diaphragm. Since most masonry walls are remaining in place, the seismic system of unreinforced masonry walls may remain in place. For Option B, new reinforced CMU shear walls may be needed since the increased demolition work will trigger seismic upgrades.

The brick veneer will need to be repointed at deteriorated locations. Other water damage or deteriorated conditions may be discovered after finishes are removed for renovation and will need to be corrected at that time.

It should be understood that the renovation will slightly increase the life safety of the existing building, but the renovation will not bring the existing building up to standards of the current Building Code due to the limitation of existing materials and design practices at the time of original construction. Ideally, the existing unreinforced masonry walls would be replaced with new reinforced CMU walls to resist both gravity and seismic loads, but the work would be cost prohibitive, and not practical. We recommend reducing seismic hazards within the structure and providing new seismic force resisting elements (shear walls) where possible to maintain the existing structure.

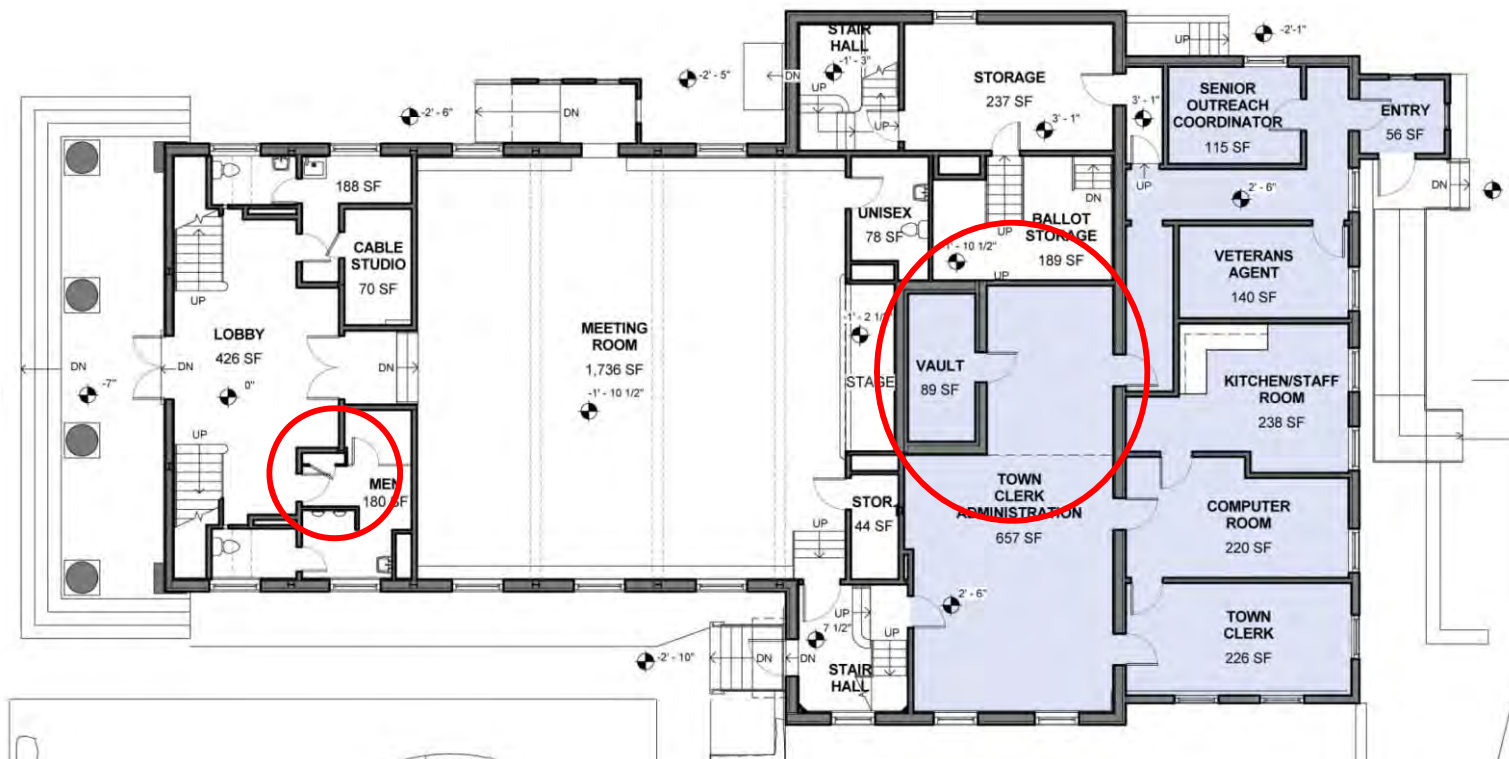
Conclusions:

We have reviewed the two design options and it our professional opinion that both of the "Renovation and Addition" options are structurally feasible, but the more involved Option B will require more structural modifications to the existing structure. The Addition should be structurally separated from the existing structure and should be designed in accordance with the current Massachusetts State Building Code. Also, since the existing building was constructed in 1913, prior to the development of current seismic codes, the "Addition and Renovation" Option B that includes significant structural demolition will require new reinforced CMU walls to resist the Building Code mandated loads at select locations.

Structural Investigation

Investigation took place on August 6, 2013 with Structural Engineer Bolton & DiMartino.

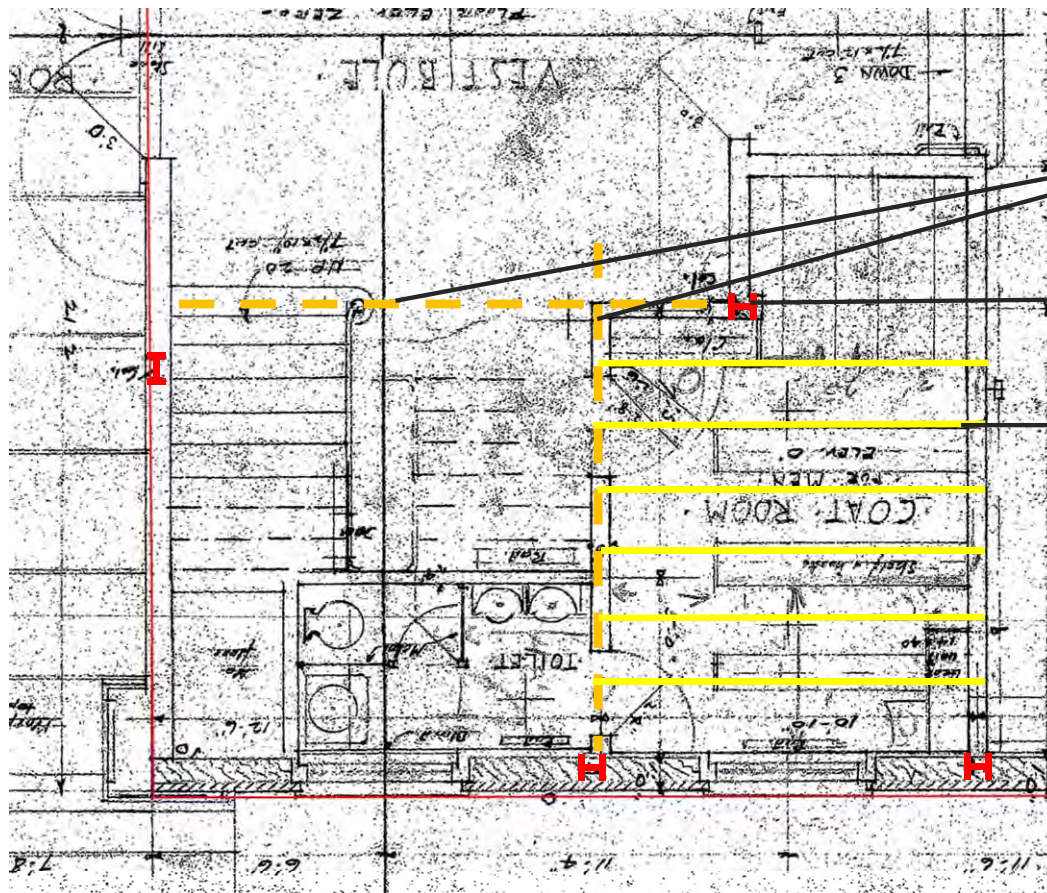
1. Investigated removal of south front lobby stairs and lobby partition walls.
2. Opened up ceilings to view the structure.
3. Investigated possibility of removing the second floor stage and viewed the structure.



Structural Investigation

At the first floor south lobby stair:

- Small steel members frame the existing stair opening.
- Wood joists frame the rest of the ceiling.
- It **will be possible** to remove the stair and add new framing for a second floor. The existing steel structure will remain.

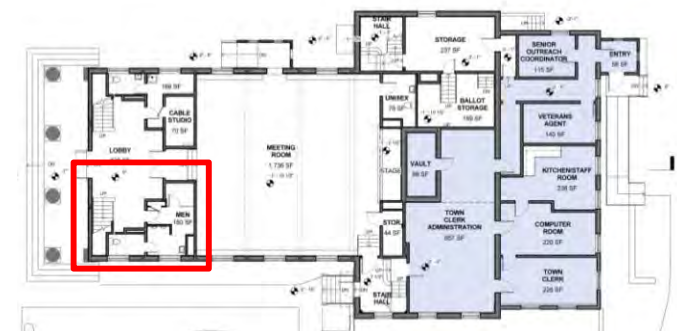


Original Plan

Existing +/- 6" steel beams in ceiling

Existing +/- 6" steel column in wall

Existing 2nd floor wood floor joists above



Key Plan

Structural Investigation

Lobby Staircase

Conclusions / Recommendations:

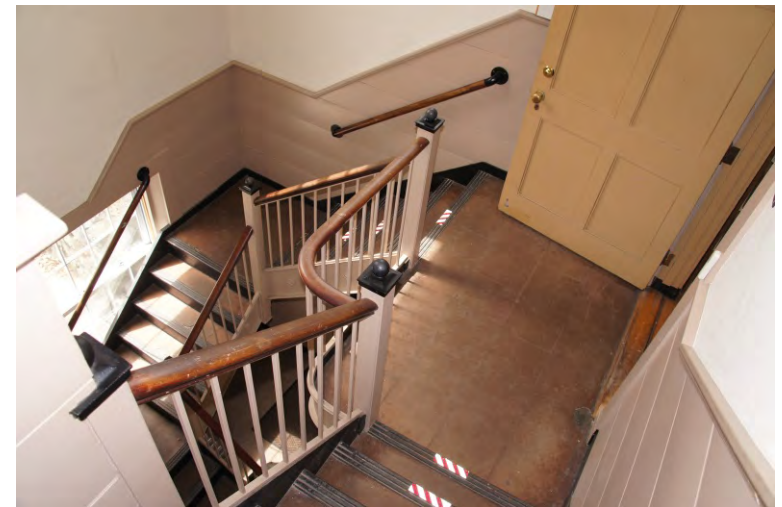
The south lobby staircase **can be removed** and in-filled with new structure. The existing partition walls in the lobby can be removed but the structural columns must remain.

The north and south steel stairs **can be removed**, but the bearing walls must remain.

The south mezzanine stair **can be removed**.



North lobby staircase to remain



South steel staircase to be removed

Structural Investigation

Investigated Town Clerk Office to determine cause of cracking plaster and a bowing support beam.

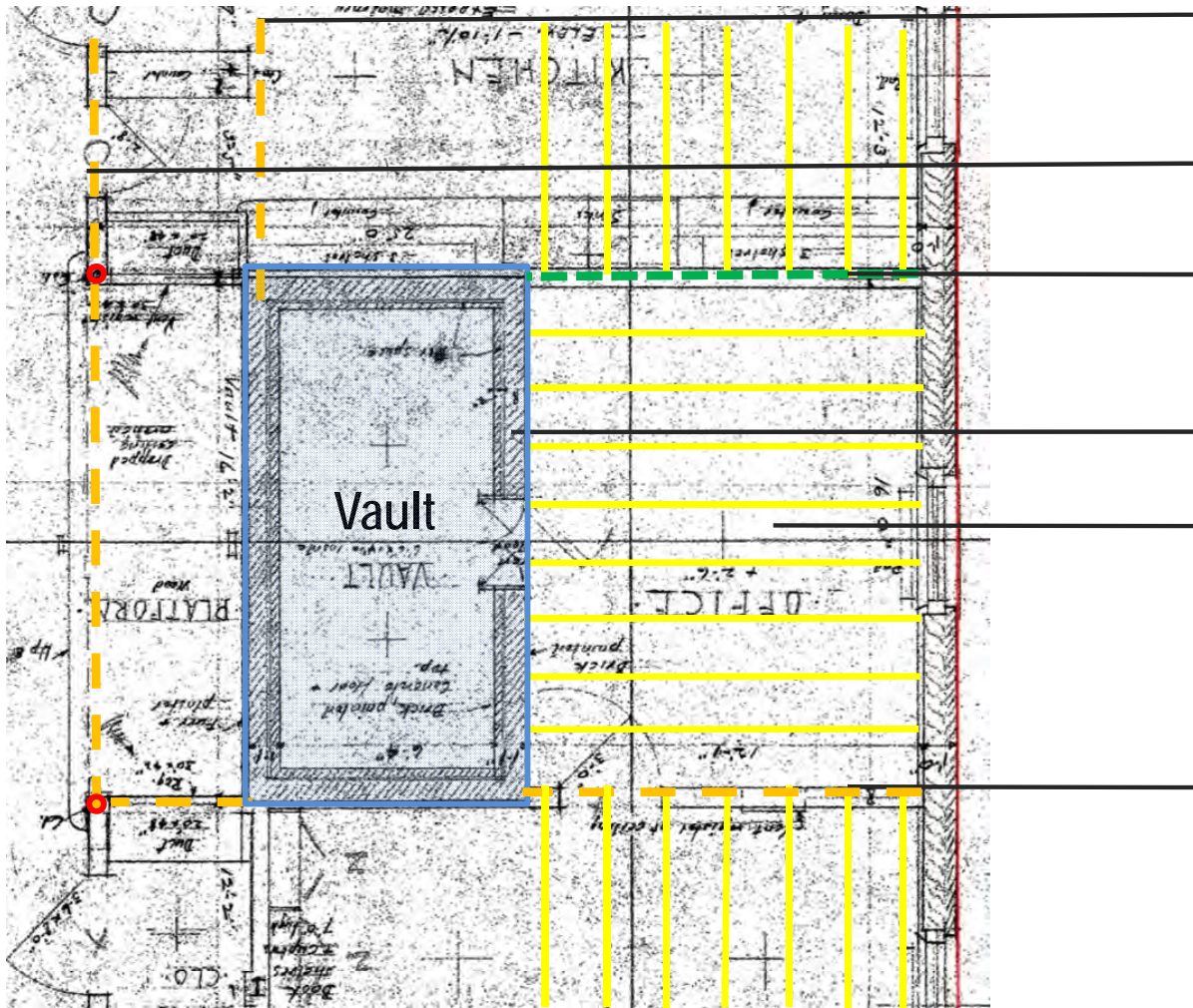


Original bearing wall was removed to provide a wide opening. The support beam at the ceiling is sagging.



Plaster cracking at first floor vault wall.

Structural Investigation



Existing 1st floor ceiling framing

Steel beam supported on vault ceiling supports proscenium column

Steel beam supports opening for Meeting Room platform

Bearing wall continues to support stage framing above

Existing concrete vault ceiling

Existing wood ceiling joists wrapped in sheet metal for air duct

Steel or wood supporting beam over wall opening below. Bearing wall continues to support stage framing above



Key Plan

Structural Investigation

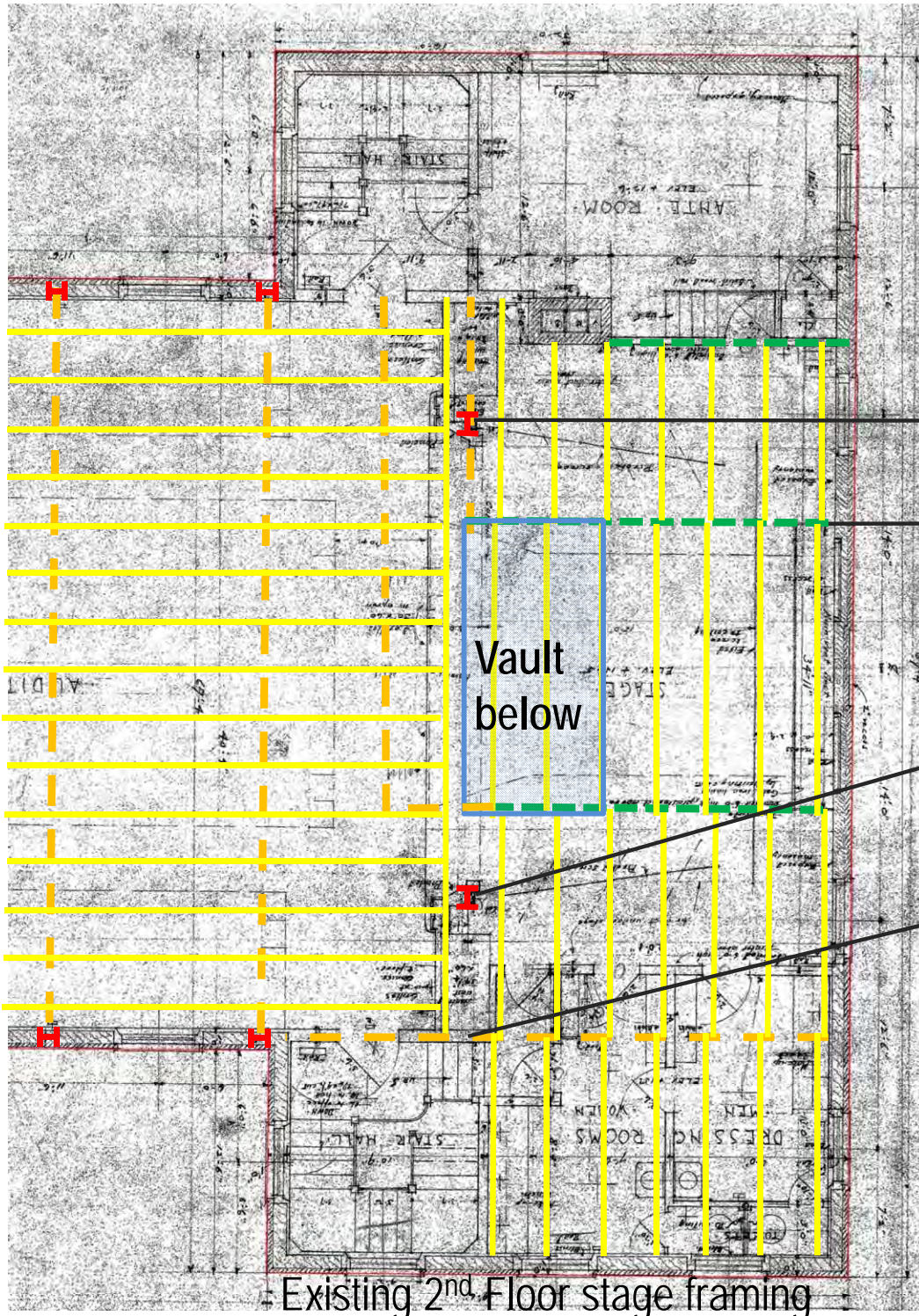


1st floor ceiling joists wrapped in sheet metal for air flow under stage and up through shaft at back of stage



Steel beam supported by concrete vault ceiling at north end. This beam supports the proscenium column.

Structural Investigation



Existing 2nd Floor stage framing

Existing steel proscenium column supported by a steel beam. Framing is not tied in to the column.

Existing wood stage floor joists supported by wall below

Existing steel column starts at first floor and runs up through proscenium

Beam between second floor and stage level



Key Plan

Structural Investigation

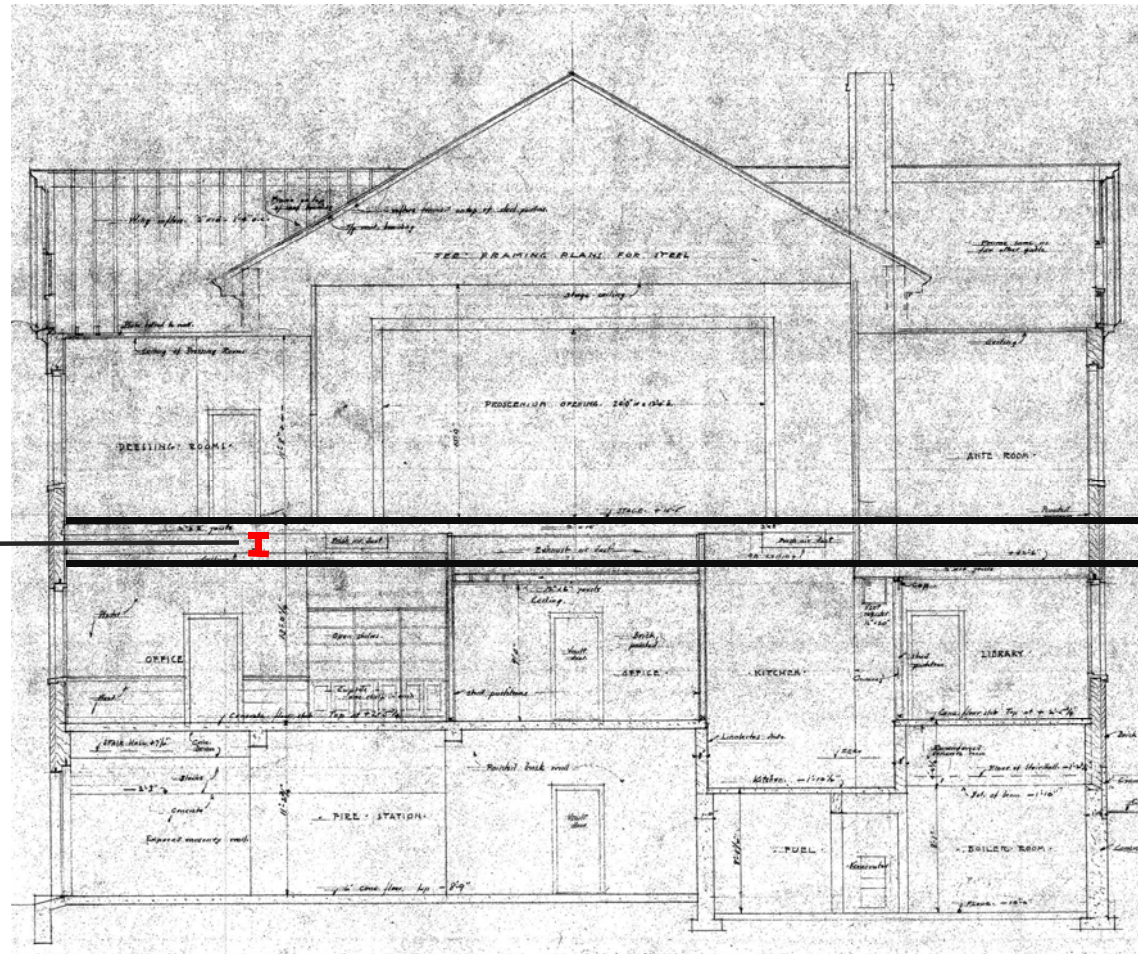


Steel proscenium column supported by beam



Stage floor and 1st floor ceiling joists at cinderblock exterior wall

Structural Investigation: Stage & Beam



Beam above second floor level indicated on existing drawings is problematic for removing stage level

Stage floor level
Second floor level

Beam below stage level in original section

Stage Level

Conclusions / Recommendations:

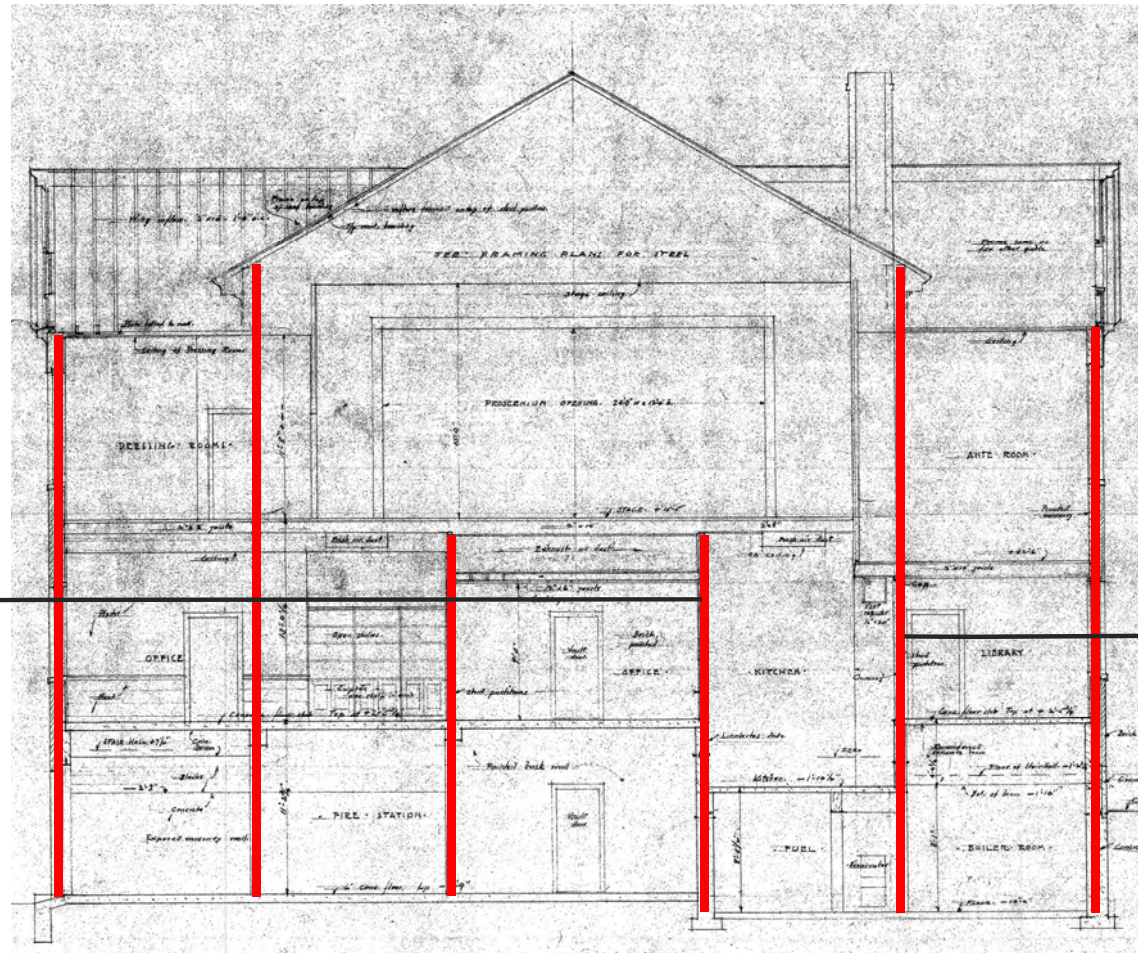
The stage level **should remain** and avoid being removed. The cost would be prohibitive and the demolition, shoring up bearing walls and addition of new structure would be difficult.

A beam above the second floor level is problematic for the removal of the stage level. This can be seen in the existing section but was not noted on site.



Existing auditorium stage at 2nd floor

Structural Investigation: Bearing Walls



Red lines indicate bearing walls.

Bearing walls at Town Clerk's office should remain

Bearing wall at north storage room will make it difficult to remove and lower the concrete floor

Bearing walls in original section

Bearing Walls

Conclusions / Recommendations:

The existing exterior wall is constructed of cinder block masonry and brick veneer. The brick is tied back to the cinder block with brick headers and will not need reinforcement.

Seismic upgrades for the existing building should be avoided. If bearing walls or large amounts of floor area are demolished, it will trigger a full seismic upgrade. Removal the slate roof will require minor structural upgrades.

The proposed addition will be framed as a separate building and will not tie in to the existing structure. It will appear that it is seamless transition between existing and new construction.

The new building will comply with current building codes.



Existing roof rafters at cinderblock exterior wall

Mezzanine Floor

Conclusions / Recommendations:

A mezzanine floor **should not be** added, because it will be difficult to resist lateral/seismic forces by adding extra load to the third floor of the existing building. The unreinforced cinder block structure is not as strong as regular concrete block. Deteriorated block was found in the attic at the base of the chimney and piers supporting steel beams.

The existing mezzanine should continue to be used as storage if it will not be made accessible with a wheelchair lift. A variance would need to be sought for an inaccessible space, but would most likely not be granted because this would not be considered technically infeasible or a hardship. See code consultant C3 Memo for more information.

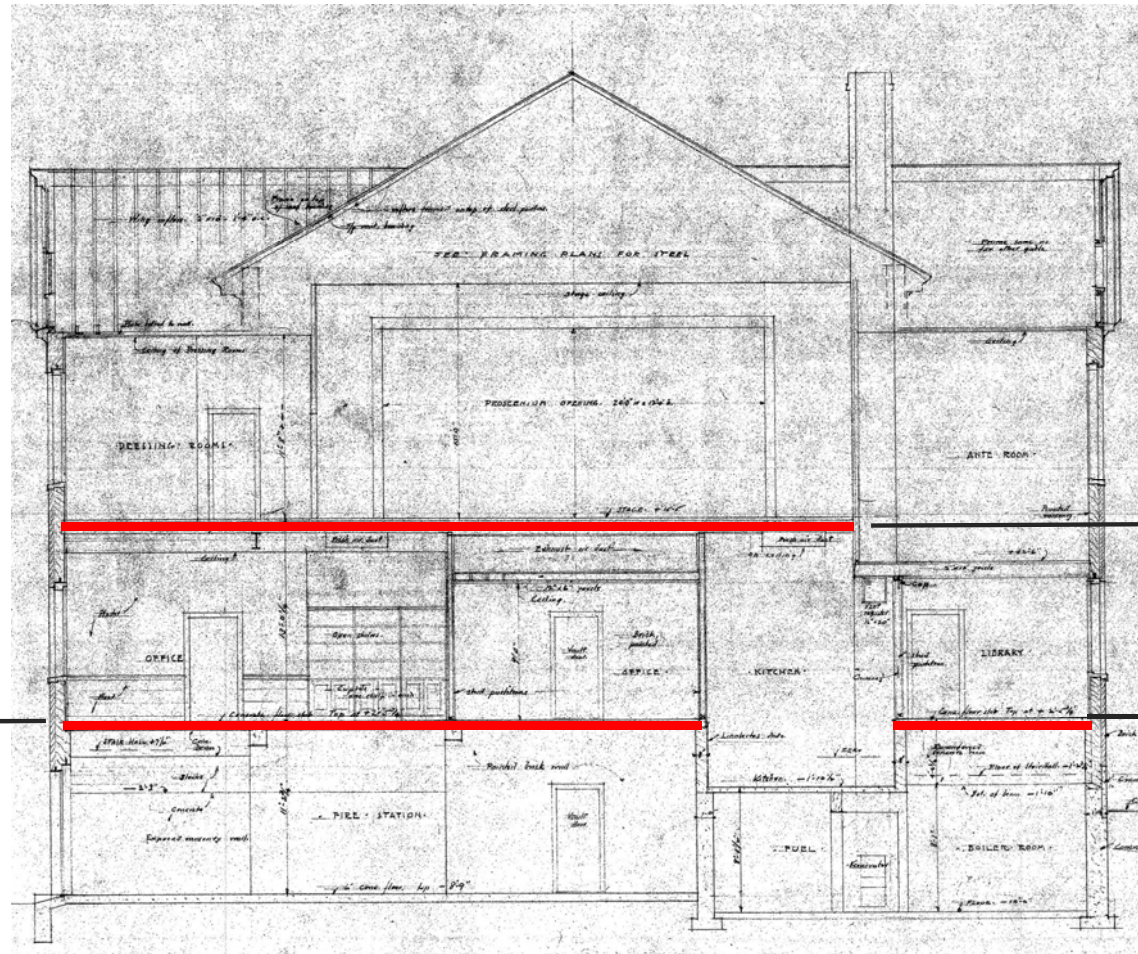


View of auditorium from mezzanine



Mezzanine storage

Structural Investigation: Concrete Floors



Concrete floor at Town Clerk office level should not be removed.

Raised floor levels in original section

Stage level should remain and avoid being removed.

Concrete floor at north storage room should remain but can possibly be removed.

Structural Investigation

Concrete Floors

Conclusions / Recommendations:

The concrete floor at the first floor raised office level **should remain**. Removing this floor would be very time consuming and expensive.

It is recommended that the concrete floor at the raised office level in the north storage room (old library) remain, but if absolutely necessary, it **could be removed** by shoring up the bearing walls. While this work would be costly, it would provide usable program space for the first floor.



Raised concrete floor at Town Clerk office should remain



Raised concrete floor at storage could possibly be removed

Sudbury Town Hall
Sudbury, Massachusetts

May 7, 2013

Existing MEP Narrative

Introduction

The intent of this report is to describe the existing systems and discuss deficiencies and recommendations if the building is to undergo extensive renovations. We visited the site to review the existing HVAC, plumbing and electrical systems. Most of the system components and equipment are located in the basement and were visible. We also walked the upper floors and noted items that were visible without opening walls and ceilings.

The basement has storage rooms, the boiler room and a garage. The first floor has offices and a large meeting room. The second floor has a large meeting space with a stage which currently houses the Historical Society. There is an attic space that serves as storage.

The building has two main parts, the older, front part (called “original building” in the rest of the report), and the newer rear part (called “addition”).

Heating and Ventilation System Description

The existing heating system for the building consists of a 1.03 million Btuh output low pressure steam boiler located in the basement. The exact age of the boiler is unknown. It is currently leaking and is at the end of its useful life. There is a condensate pump and a condensate receiver with boiler feed pump. The condensate receiver is corroded and appears to be at the end of its useful life. The condensate pump seems comparatively in good condition. There is a chemical treatment system for the boiler water.



Figure 1 – Existing Boiler



Figure 2- Existing Cond. Receiver

The boiler vents to a masonry chimney. The condition of the chimney lining is unknown.

The boiler supplies steam to the original building. There is an automatic steam control valve that controls steam to some portion of the building. There is another steam line from the boiler that is not controlled by a valve.

The boiler also serves a hot water converter, which we understand provides hot water to heat the addition. The hot water converter seems to be in good condition, as do the pump that circulates hot water from the boiler to the converter, and from the converter to the building. Hot water is piped from the converter to heating devices (baseboard) in the addition.

The steam and condensate are piped throughout the building to steam baseboard and steam radiators. The steam and condensate piping is mostly uninsulated. There are steam traps located in the boiler room, some old and some new. There did not appear to be steam traps at each steam heating device. Steam is also piped to two steam unit ventilators located in the upper floor at the stage. These units appear to provide the heat for this space. The units appear old and are likely at the end of their useful life.



Figure 3 - Unit Ventilator



Figure 4 - Baseboard Heat

Most of the building does not have cooling. The addition has a 3-ton cooling-only rooftop unit that provides cooling to the addition as well as the Town Clerk area in the original building. The rooftop unit was manufactured in 2003 and contains refrigerant R22.

The vault has a split system air conditioning system with an air handler located in the ballot storage room and the outdoor unit located at grade on the north side of the building. This unit was installed within the past two years.

The building does not have a ventilation system. Since the windows are operable, mechanical ventilation is not necessary for most spaces. There is no exhaust provided in the toilet rooms, and this should be corrected.

Plumbing System Description

The main water service for the building appears to be 1½” or 2” and enters under the southwest stair in the lobby. There is a water meter located in a pit under the stair.

There is a 4” cast-iron sanitary line that exits the building at the same location as the water service. It is assumed that this collects the toilet rooms at the front of the building. There are additional toilet rooms and miscellaneous fixtures at the rear of the building which may either drain to this line or there may be an additional line toward the addition.

The garage has two floor drains. The drains appear to be clogged. The drains are required to go to an oil interceptor, but it is not known if they do.

Most of the sanitary piping in the building is cast iron with a mix of lead and oakum, bell and spigot and hubless joints depending on age.

Most of the plumbing fixtures in toilet rooms that are still in use appear serviceable but dated.

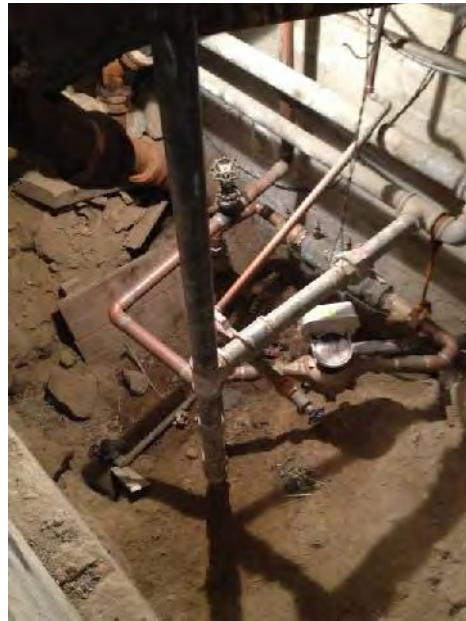


Figure 5 – Sanitary & Water Service

There are two water heaters in the building. There is a 15 gallon electric water heater located under the southwest stair in the lobby. It is assumed that this water heater serves the toilet rooms at the front of the original building. According to the serial number on the unit, the water heater was manufactured in 2003. It appears to be in good condition, but is beyond the warranty period.

The other water heater is 40 gallon, gas type, gravity vented, located in a storage room adjacent to the boiler room. It is vented to a masonry chimney. The condition of the chimney liner is unknown. According to the serial number the water heater was manufactured in 2005. It appears to be in good condition, but is close to being out of warranty, or is already out of warranty. It is assumed that this water heater serves the toilet rooms and other fixtures at the rear of the existing building and in the addition.

There is a gas meter on the south side of the building adjacent to the garage. This gas piping serves the boiler, water heater and generator.

The storm drainage for the building all appears to be external, with gutters and downspouts.

Electrical System Description

The existing electrical service is a 400 amp, 120/240V, 1-phase service that enters at grade along the Southeast of the building (in the garage area) and terminates to a 400 amp main breaker. Feeders in a 4" conduit are routed from the pad mount transformer at the street to the main breaker. The building is served by a single meter.



The town hall feeds the Sudbury center traffic light. This is particularly note-worthy for future upgrades as these lights would have to be kept up and running.

The existing electrical equipment in general is a mix of “old” and “newer” equipment and all appear to be installed within the last 20 to 50 years. There are numerous electrical sub-panels throughout the building, which have been added over the years as they were needed. Several panels are missing hinged covers, some circuit breakers are not labeled, and circuit breaker plates have been removed exposing the busbars. Rust is noticeable on several pieces of equipment.

There is one screw-fuse type electrical panel which serves parts of the second floor. This system is a 2-wire system and is outdated. The remaining electrical equipment is in mediocre condition and will soon be beyond its useful life. If major renovations are to occur, it is recommend all electrical equipment be replaced.

The lighting is mostly fluorescent strip lights with T8 lamps and incandescent older lighting. These are functional but outdated. Existing lighting is in fair condition – still operational, however, several fixtures are missing lenses or are in poor condition.

The exit signs throughout do not appear to be functional. Exit signs are required to be illuminated at all times. Either power has been disconnected or the lamps have burnt out.

There does not appear to be any functional emergency lighting. Several emergency battery banks are located throughout the building but are very old and most likely not functional.

Branch circuit wiring throughout the building is a mix of old and new. In many areas of the basement, there are junction boxes without cover plates and wiring exiting conduit without properly being terminated in junction boxes. It's unknown if the said wiring is energized, but proper action should be taken for safety concerns.

The existing fire alarm system is an addressable system by Autopulse that back feeds an older panel. Horn/strobes, strobes, smoke detectors, and pull stations are located throughout the building although coverage is neither consistent nor complete. The system is monitored by the local fire department via a master box mounted adjacent to the fire alarm panel. There did not appear to be an annunciator panel by the main entrance.

Existing data and telephone systems needed for operation of the building as office space are active. A server is located in the basement and appears to be functional. In many areas, wiring is exposed and hanging from the ceiling. Where exposed, wiring should be installed in conduit or fished in the walls and/or ceilings. Many wires from older systems have been abandoned in place and the overall data/telephone wiring system is therefore confusing.

Building security is comprised of a motion sensors and appears to be functional and in fair condition.

System Deficiencies and Potential Upgrades

HVAC

The steam system including the boiler, condensate receiver and piping are at the end of their useful life. We don't recommend reusing any of the system. The hot water system serving the addition is in better condition, but is dependent on the boiler as the heat source. We recommend replacement of this system also.

The rooftop unit is outdated and can be expected to become a maintenance issue in the following years. We don't recommend reusing this unit unless the renovations are minor and there won't be a major space reconfiguration.

The new system can be heating only or can include air conditioning. The system will integrate the original building and the addition. The new system will be more energy efficient, allow for zoning of different spaces and provide proper control for all areas of the building. Potential systems include variable refrigerant volume, rooftop VAV, and air handlers with hot water heating and DX cooling coils with air cooled condensing units.

The building currently does not have mechanical ventilation. Since the majority of the spaces have operable windows, it is not required by code. However, the meeting room on the lower level can have a large number of people and it would be appropriate to provide mechanical ventilation to provide comfortable conditions. The same is true for the meeting room upstairs if it is ever used as a, auditorium space in the future.

The ventilation can be provided through fresh air connections to the air handlers or by a dedicated outdoor air system. The optimum system will depend on the layout of the spaces and the amount of ventilation required.

Most of the toilet rooms do not have exhaust. This can be provided by individual exhaust fans or as part of a building ventilation system through an energy recovery ventilator.

Plumbing

The existing sanitary system is old and should be replaced if extensive renovations are to be done. The condition of the existing sanitary discharge can be assessed to determine if it should be reused. Currently the sanitary discharge does not appear to meet code because it is located too close to the domestic water line. Current code requires a separation of 10 feet horizontally from or two feet vertically below domestic water lines outside the building. Given the age of the sanitary line, it would be advisable to replace it. At the same time it can be separated from the domestic water line as required to meet code.

The existing water piping is old and likely has lead solder joints and should be replaced.

The water heaters are beyond their warranty periods and are subject to fail. They could be reused if the renovations are minor, but we recommend replacement if extensive renovations are done.

The age of the existing water service is unknown. It is adequately sized for the building, but it would be appropriate to replace this line if there is an extensive renovation.

The building gas service currently serves the building heating requirements. If the new system for the building is gas, the existing service and meter should be adequately sized and be reuseable.

Fire Protection

The building currently does not have a sprinkler system. We expect that the renovations will be extensive enough to require the building to be brought to current code, which will require a sprinkler system. The sprinkler will require a new 4" or 6" water service. A flow test will be required to determine if the water pressure and flow available are adequate to serve the system without the need for a fire pump.

Electrical

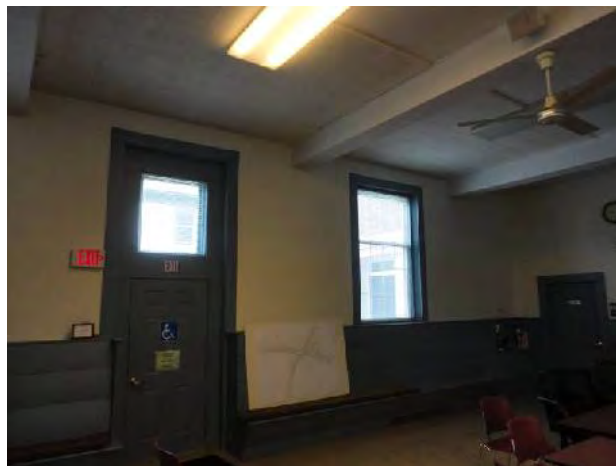
The existing electrical equipment is near the end of its useful life and should be replaced if extensive renovations are to be done.

The existing electrical distribution equipment is located in a shallow nook in the garage. Rust is visible on much of the equipment although it appears to be in working condition. Work space in the nook is limited and does not meet National Electrical Code requirements. Furthermore, the space is used for general storage and the equipment has plumbing pipes running above it (not permitted by the National Electrical Code). The electrical service enters along the Southeast corner of the building. Ideally, the equipment should be located in a dedicated room with more working space.



The existing 400amp electrical service may need to be replaced and upgraded if electrical loads are increased. The electrical service for a building of this size with updated HVAC, plumbing, lighting, and tel/data is typically 600A. A load calculation will determine the service size but cannot be performed until all electrical loads are finalized. Note that only a portion of the building has air conditioning.

The existing lighting consists mainly of fluorescent strip lights utilizing T8 lamps and incandescent lamps. Although functional, the fixtures are outdated. Utility costs can be decreased by installing fixtures that utilize T5, compact fluorescent, and LED lamps. Future lighting fixture and/or lamping selection would have to be carefully considered to maintain the historic character of the building. Exit signs are partially functional and are mix-matched from different time periods. We recommend they be replaced with LED signs that utilize a battery for backup power. Exterior egress emergency lights need to be added (they are not presently installed). If the major renovation is performed then it is recommended that the lighting scheme be redone for energy savings, better functionality of lighting (more suited to the application) and to present a more consistent look throughout the building. The building also has some antiquated fixtures/plug-ins (such as the theatrical lighting on the second floor) that can be removed.



The remote emergency battery packs providing emergency lighting in the building are old and several are non-functional (as tested). New emergency lighting is required to be installed as per the building code. Emergency lighting can be achieved by remote battery

heads, emergency ballast integral to the light fixture, or remote battery bank. We recommend any of the listed options as it is more of a preference based on aesthetics and cost. The emergency lighting is also provided by a mix-match of fixtures from various time periods. As a minimum, we recommend new emergency lighting be installed regardless of any planned renovation.

The building partially utilizes automatic lighting controls (mainly occupancy sensors) and most of the controls seem to be in working condition. Complete lighting controls (in all areas) would further decrease utility costs by automatically turning lights off when rooms become unoccupied. If extensive renovations are to occur, automatic controls would be required throughout in order to conform to the latest code.

The second floor contains some a screw-fuse type panel which appears to still be functional/energized, and most likely powers other devices on the second floor. We recommend that this panel and associated wiring be replaced regardless of any planned renovation.



The existing generator seems to be fully operational (yet dated) and provides emergency power to the Sudbury center traffic lights. The room does not appear to meet code requirements as it is not fully enclosed. The exhaust system seems to be intact although it is recommended that the duct/piping be tested for leaks. Any leaks would create an unsafe condition in the basement areas. It is recommended that this generator be replaced with a new exterior generator if an extensive renovation is planned.



The fire alarm panel is an intelligent addressable system and is in good working condition. An existing zoned system is also present in the garage area and appears to be backed by the new system. If extensive renovations occur, we recommend a single new intelligent addressable fire alarm system be installed with coverage to be determined by building use type and extent of sprinkler system upgrades. Coverage of fire alarm detection in the building varies depending on area, period of construction/renovation and several detectors and notification appliances appear outdated. If major renovations occur and the occupant load exceeds 300 persons, the fire department may require the fire alarm system be upgraded to a voice/evacuation system. A single building-wide system would also provide an easier system for fire fighters to work with in case of an emergency, ease of maintenance/service and provide a consistent appearance throughout the building.



The telephone and data system consists of old and new cable. In many areas, telephone and data cables have been surface mounted to the walls and baseboards (especially in the basement) which is typical in a building of this age. In a few areas data cables are hanging from the ceilings. New CAT6 data cable with high transfer rates is available, but optional. CAT6 cable allows data to be transferred from computer to computer or server in a much shorter period of time. In order to fully utilize CAT6 cable, new Gigabit rated plugs, jacks, routers, and switches would need to be installed. Several low

voltage wires appear to be abandoned and no longer used. Demolition of all unused wiring is recommended (for ease of future maintenance/troubleshooting and a general clean up).



An existing security system is in place and is functioning as desired (mainly motion detection on the second floor). Future security options can be evaluated depending on the extent of renovation and future building use.



HVAC

Base HVAC System

The heating and cooling for the building will be provided by a Mitsubishi Variable Refrigerant Volume (VRF) System. The units will be of the Heat Recovery type and will be air cooled. One condensing unit will serve the basement and first floor (Model - PURY-P192TKMU-A), and the other will serve the second floor (PURY-P192TKMU-A). The condensing units are to be 208 Volt/3 phase. Both condensing units will be placed at ground level at the south side of the building. Each system will have a branch circuit (BC) controller.

The indoor units will be equal to Mitsubishi PLFY and PMFY (ceiling cassette), PKFY (wall mount) and PEFY (ceiling concealed, ducted). Condensate piping shall be Type M copper insulated with 1" ASJ fiberglass pipe insulation with sealed butt joints. The units will be provided with a communicating type control system by the manufacturer.

A VRF system has several advantages over conventional systems. This system provided excellent energy performance in both heating and cooling, and does not require a boiler. The system also has the ability to provide small zones which will provide better control and occupant comfort, and has a large variety of indoor units, both ducted and ductless, which provide flexibility in locating units. The disadvantage is this system has a higher first cost than conventional systems.

Fresh air will be distributed throughout the building to areas that cannot be naturally ventilated (storage, inner corridors and offices) based on space occupancy and floor area. A 600 cfm RenewAire energy recovery unit (HE1XINH) will mechanically ventilate these areas and utilize the toilet exhaust as the energy recovery exhaust air stream. The ERV will be located in the attic or in the basement. The toilet room exhaust will be ducted up to the ERV and then out of the building through a louver or roof cap. Fresh air will be brought in through a separate louver or roof cap. The first floor Meeting/Conference room will have a RenewAire EV450 for supplemental ventilation, located in the attic and ducted down to the Meeting Room. Each of the ERVs will have an electric duct heater in the supply duct.

Spaces such as storage rooms and vestibules will have electric heaters.

A ductless split system will be provided for the Server Room. The outdoor unit will be located at grade in the rear of the building.

Refer to the HVAC plans for additional VRF system information.

Materials

- All ductwork shall be sheetmetal constructed in accordance with SMACNA standards.
- Flexible ductwork shall be allowable in lengths up to four feet.

- Supply ducts in conditioned spaces and in the attic (attic to be insulated at the roof) shall be insulated with fiberglass duct wrap, minimum R5.
- Supply and return ducts in the unconditioned attic shall be insulated with fiberglass duct wrap, minimum R8.
- In the alternate HVAC system, the fan coil unit supply and return ducts shall have 1" fiberglass duct liner for the first 5 feet away from the units, or past the first elbow, whichever is further.
- Refrigerant piping shall be Type M flexible copper or Type L copper with brazed joints.
- All refrigerant piping (liquid and gas) shall be insulated with "Armaflex" type insulation, 1-1/2" thick.
- Exterior refrigerant piping insulation shall be coated with UV protectant.

Alternate HVAC System

As an alternate to the VRF system described above, the HVAC shall be a hydro-air system with DX fan coil units, air cooled condensing units, hot water heating coils and two high efficiency boilers. The ventilation system (ERVs) shall be the same.

- Fan coil units shall be variable speed with ECM motors equal to Lennox CBX32MV.
- Condensing units shall be two-stage, equal to Lennox XC-16. Condensing units shall be located on the ground in the rear (south) of the building.
- Heating coils shall be duct mounted with two-way control valves.

Basement

- Provide hydronic unit heaters in each storage room, the mechanical room and the boiler room.

First Floor

- Provide one 3-ton system to serve the Lobby, Waiting Area and Conference Room, with two zone dampers.
- Provide one 5-ton system to serve the Meeting/Conference Room.
- Provide one 1-1/2 ton system to serve the Law Office.
- Provide one 3-ton system to serve the Town Clerk area.
- Provide one 2-ton system to serve the Planning and Community Development area.
- All fan coil units will be located in closets near the spaces to be served and ducted to ceiling diffusers in each space.

Second Floor

- Provide a 4-ton system with two zone dampers to serve the Selectmen's and Assistant Town Manager/Human Resources area.
- Provide a 3 ton system to serve the Assessors area.
- Provide a 3-ton system to serve the Treasurers area.
- Provide a 2-1/2 ton system to serve the Waiting Area, Kitchen, Conference Room and toilet areas, with three zone dampers.

- The fan coil units will be located in the attic spaces above and ducted to ceiling grilles.

Third Floor

- Provide a 3-ton system serve the Accounting Area.

Boiler System

- Provide two (2) Lochinvar KBN500 boilers.
 - Provide PVC vent and combustion air intakes up to the roof.
- Provide a circulator for each boiler and a pair of duty/standby system circulators.
- Provide hot water piping to each fan coil unit.
- The hot water system shall have 30% propylene glycol.
- Pipes shall be insulated with fiberglass pipe insulation.

Alternate #2

- Provide gas fired furnaces in lieu of the fan coil units.
- Provide PVC venting through the roof for each furnace.
- Delete the boilers and hot water piping and pumps.

PLUMBING

1. Scope

- A) Removal and disposal of existing plumbing fixtures, gas piping, hot water piping, cold water piping, drainage piping, vent piping, and any insulation, hangers or other plumbing associated materials.
- B) The condition of the existing domestic water and sanitary drain lines is unknown, but the existing locations of both is remote from the location of the new toilet rooms. We recommend installing new services. We do not expect an ejector pump to be required.
- C) Alternate: Existing gas service to be reused if possible for the alternate HVAC system. If the VRF system is used, gas will not be required.
- D) Provide and install:
 - 1) A new commercial electric water heater, all associated piping and equipment including but not limited to vacuum breaker and thermostatic mixing valve.
 - 2) All new plumbing fixtures and associated piping
 - 3) ALTERNATE: Provide gas piping and connection to all gas fired heating equipment based on alternate boiler application per HVAC narrative.
 - 4) All pipe insulation for hot, cold, and re-circulating hot water systems.

2. Domestic Water Heating

- A) The water heater will be a 10 gallon electric water heater, located in the basement or in a janitors closet.
- B) The water heater will be fitted with a Leonard Thermostatic mixing valve model 220.

C) Water heater sizing will be confirmed upon receipt of the fixture schedule.

3. Water Distribution System

A) The domestic water distribution will be accomplished by means of a branch type system. Each bathroom group will be capable of isolation through the use of valves located in access panels adjacent to the bathrooms being served.

4. Pipe and Materials

A) Sanitary waste and vent piping systems above grade, within the building foundation walls:

- 1) Drainage piping 2" and larger shall be no-hub cast iron with rubber gaskets and mechanical couplings. Vent piping 2" and larger may be DWV type copper.
- 2) Drainage piping 1-1/2" and smaller shall be no-hub cast iron piping with the exception of sink traps which shall be DWV type copper with wrought copper drainage fittings, 95/5 lead-free solder joints.
- 3) Vents 1-1/2" smaller may be DWV type copper.

B) Sanitary waste and vent drainage piping below grade:

- 1) Sanitary waste and vent: cast iron, bell and spigot, rubber gasket joints, service weight, coated on exterior.

C) Water piping:

- 1) Underground domestic water: Type K copper tubing conforming to ASTM B88 with cast brass fittings conforming to ANSI B16.22.
- 2) Above ground: Copper tubing, Type L, conforming to ASTM B-88 with solder joint wrought copper fittings conforming to ANSI B16.18 or B16.22, lead-free solder joints.
- 3) All water piping shall be insulated with a minimum 1 inch thick, fibrous glass, sectional pipe insulation with a white flame retardant vapor barrier jacket covering all pipe insulation.

5. Service Sizes

A) The domestic water service will be 1-1/2". Water service size will be confirmed and finalized upon confirmation of the final plumbing fixture schedule. The existing water line comes from Old Sudbury Road or Concord Street.

B) The building sanitary drain will be 4". The building sanitary drain size will be confirmed and finalized upon confirmation of the final plumbing fixture schedule. The sanitary appears to currently discharge to a septic tank on the south side of the building.

C) Gas service will be confirmed upon confirmation of gas boiler schedule. The existing gas service may should be adequately sized, but the meter may be relocated.

FIRE PROTECTION

1. Scope

- A) The building will be equipped with a new wet pipe sprinkler system throughout the building.
 - B) Each floor level will be equipped with a floor control valve assembly located in the egress stair.
 - C) The sprinkler system will be served by a new 4" sprinkler service with double check valve assembly and alarm check valve.
2. Pipe and Materials
- A) Concealed type sprinkler heads shall be used in finished ceiling areas.
 - B) Upright brass sprinkler heads shall be used in areas without ceilings.
 - C) Semi-recessed white heads shall be used in storage areas and other "back of house" spaces with ceilings
 - D) All sprinkler heads are to be quick response.
 - E) Wet system piping shall be standard weight black steel pipe, Schedule 40, ASTM-A-120, Grade B, with cast iron, 175 pound, screwed fittings for piping 1-1/2 inch and smaller, schedule 10 black steel pipe and fittings for piping larger than 1-1/2 inch in size.
 - F) Piping larger than 1-1/2 inch shall be assembled with mechanical joints using either rolled grooved method. Threaded connections are not acceptable on schedule 10 piping.
 - G) Piping may be of an alternate material such as CPVC, provided the piping and fittings are installed according to their listing and NFPA 13, and is acceptable by the AHJ.
3. Fire Pump
- A) We do not anticipate the need for a fire pump to serve the sprinkler systems for the structure. This will be confirmed upon receipt of hydrant flow data.

ELECTRICAL

1. Introduction
- A) All proposed work described herein is new (unless otherwise noted). Items may plan on being reused or salvaged as coordinated with the Owner during various phases of this project.
2. Power Distribution System
- A) The building will be powered by a new 208Y120V, 400A (estimated) three phase, four-wire underground electrical service via a new utility pad-mount transformer. A three-phase service is required for the new HVAC system and the elevator.
 - B) The transformer will be located at the existing transformer location and the service entrance equipment will be located in the new electrical room.
 - C) The main electrical equipment will consist of a feed-through meter cabinet, distribution panel-board, and a number of electrical panels located throughout the building.

- D) Power intensive loads such as the elevator, major HVAC units, and electrical water heater will be powered by the distribution panel-board while less intensive loads such as receptacles, light fixtures, miscellaneous HVAC and Plumbing equipment will be powered by branch electrical panels.
- E) The distribution panel-board will feed two branch electrical panels on each floor (basement, 1st, and 2nd). The size and number of panel-boards required will be determined upon finalization of loads.
- F) All new panels shall have copper bussing, be NEMA-1, and be manufactured by Siemens, Square "D", GE, or Eaton. All circuits shall be clearly identified at panel-boards with typed circuit schedules. All other electrical equipment shall be labeled with white engraved with black lettering laminated nameplates.

3. Lighting and Lighting Controls

- A) Lighting Systems: Generally, lighting performance and criteria shall be based upon energy conservation, visual comfort, controlled brightness and functional use of the given space.
- B) Fluorescent and LED lighting systems with electronic ballasts shall be utilized throughout. Indirect lighting will be used except in the corridors and other spaces where direct lighting is more conducive to the space application. Light fixtures will include (but not be limited to): troffers (direct and indirect), recessed can lights, wall sconces, linear pendants, task lighting, low-wall LED lights. The primary goal in lamping choice and luminaire layout will be to maintain IESNA lighting standards while meeting the 780 CMR and the International Energy Conservation Code.
- C) Emergency and exit lighting shall be provided in all corridors and areas considered as means of egress. Generally, selected emergency battery pack fixtures will be used for ease of maintenance and aesthetics. Emergency power shall be provided to exterior egress building mounted fixtures via remote battery inverters or battery packs depending on the type of fixtures selected.
- D) Exit lights shall be LED edge lit type with battery back-up.
- E) Lighting intensities shall be based upon Illuminating Engineering Society recommendations.
- F) All occupancy sensors and switches shall be ultrasonic type. Ceiling mounted sensors with manual off over-ride switch shall be installed in all areas over 600 square feet. Wall mounted switch-type sensors shall be installed in offices, storage, meeting rooms and vestibules. Manual switches (with no corresponding occupancy sensor) are to be installed in Electrical and Mechanical rooms only.
- G) An astronomical digital time clock with single photocell over-ride shall control exterior building mounted light fixtures and other exterior lighting.

4. General Power and Grounding

- A) Wiring systems shall be in accordance with the National Electrical Code. All wiring shall be in an approved raceway. All wiring and raceway shall be concealed except in mechanical/electrical rooms. Minimum wire size shall be #12. Wiring shall be color coded per the National Electric Code. All wiring and other electrical work shall be done in a neat workmanlike manner and the

Contractor shall keep their portion of work clean and orderly. Conductors unless noted otherwise shall be rated at 600 volts, based upon an ambient temperature of 86 degrees Fahrenheit and generally as follows:

- 1) Material: Copper only.
 - 2) Type: Single or Multi-Conductor THHN.
 - 3) Branch circuits shall have dedicated neutral and ground conductors.
- B) Commercial grade wiring shall be used with the type of wire/raceway to match the application. MC cable is acceptable for interior branch circuits only.
- C) All interior devices shall be commercial grade and rated for 20 amps.
- D) All equipment requiring power shall be powered from the nearest panel. Equipment installed outdoors shall be Nema-3R rated and devices shall be equipped with weather-proof covers listed for exterior use. All electrically powered equipment shall be equipped with local disconnects.
- E) In general devices shall be located as follows:
- 1) Small Offices: 4 power outlets; 1 tele/data outlet
 - 2) General Office: 8 power outlets; 4 tele/data outlets (depending on layout) with individual power for clerk desks, etc.
 - 3) Toilets: 1 GFCI outlet
 - 4) Corridors: 1 outlet every 30'
 - 5) Conference & Meeting Rooms: 5 outlets including one floor box; 2 tele/data outlets
 - 6) Storage: 1 power outlet
 - 7) AV closet: 3 dedicated 120V 20A power outlets.
- F) Devices installed on brick/block walls (existing) shall be surface mounted. At each device location, exposed 4" metallic boxes with raised metallic cover plates and EMT conduit shall be used. Raceway routing shall be approved by the Architect prior to installation. Refer to Architectural plans of brick/block wall locations.
- G) Grounding shall be per Article 250 of the National Electrical Code 2011 and shall include the electrical systems ground, equipment grounding and all auxiliary systems grounding such that all systems and components maintain low potential differences.
- H) Provisions will be made to continue service to the existing traffic lights including installation of a new standby generator (located to the exterior of the building).
5. Fire Alarm
- A) The new fire alarm system shall be fully addressable. The fire alarm control panel will be located adjacent to the electrical service equipment. Notification appliances (horns & strobes) shall be located per 780 CMR and NFPA 72. Smoke detectors shall be located in all corridors, storage rooms, stairwells, AV/IT closets, mechanical/elec rooms, elevator lobbies, and rooms larger than 200sqft. A remote annunciator with LCD display shall be located by the firefighter's main

entrance. Acceptable manufacturers shall be by Notifier, Advanced Fire Systems, EST or Gamewell FCI. A masterbox and/or dialer shall be used to communicate with the fire department as required by the fire department.

B) Sequence of Operation: When a fire alarm condition is detected and reported by one of the system initiating devices, the following functions will immediately occur:

- 1) Cause system notification appliances to operate.
- 2) Cause elevator to go into "Recall" mode of operation
- 3) Indicate device in alarm at control panel LCD display.
- 4) Indicate device in alarm on remote annunciator LCD display
- 5) Initiate off-site alarm notification system.

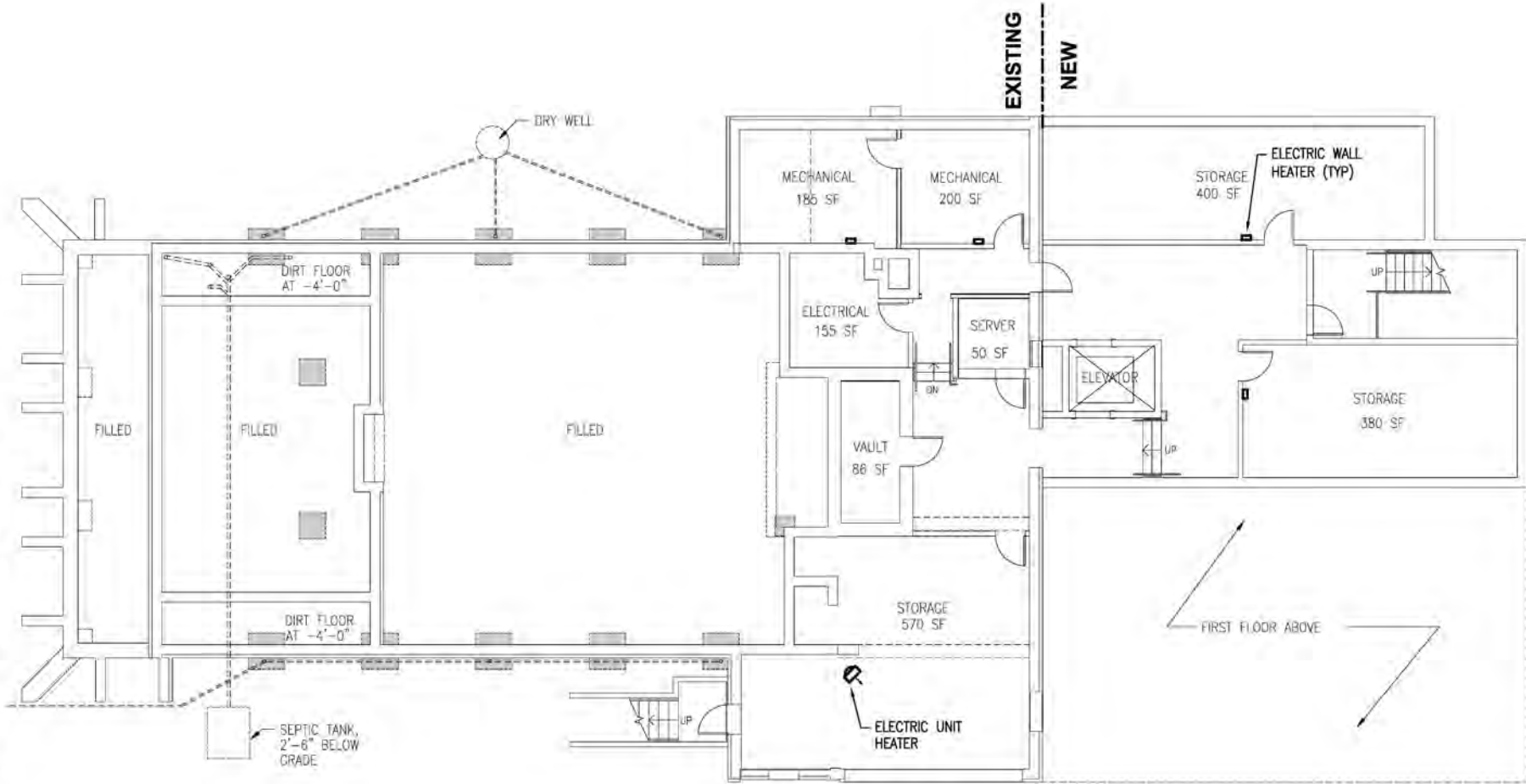
C) The security system (if Owner required) will be designed by the Owner's service provider.

6. Auxiliary (Low Voltage) Systems

A) Voice, data and television outlets will be located throughout the building with locations closely coordinated with furniture layouts, the floor-plan and end user needs. Wiring from each outlet to the central hubs shall be completed by the Contractor (including testing, terminations and raceway (cable-ladders)). Head-end equipment (patch panels, etc.) shall be by the Owner's service provider.

END OF NARRATIVE

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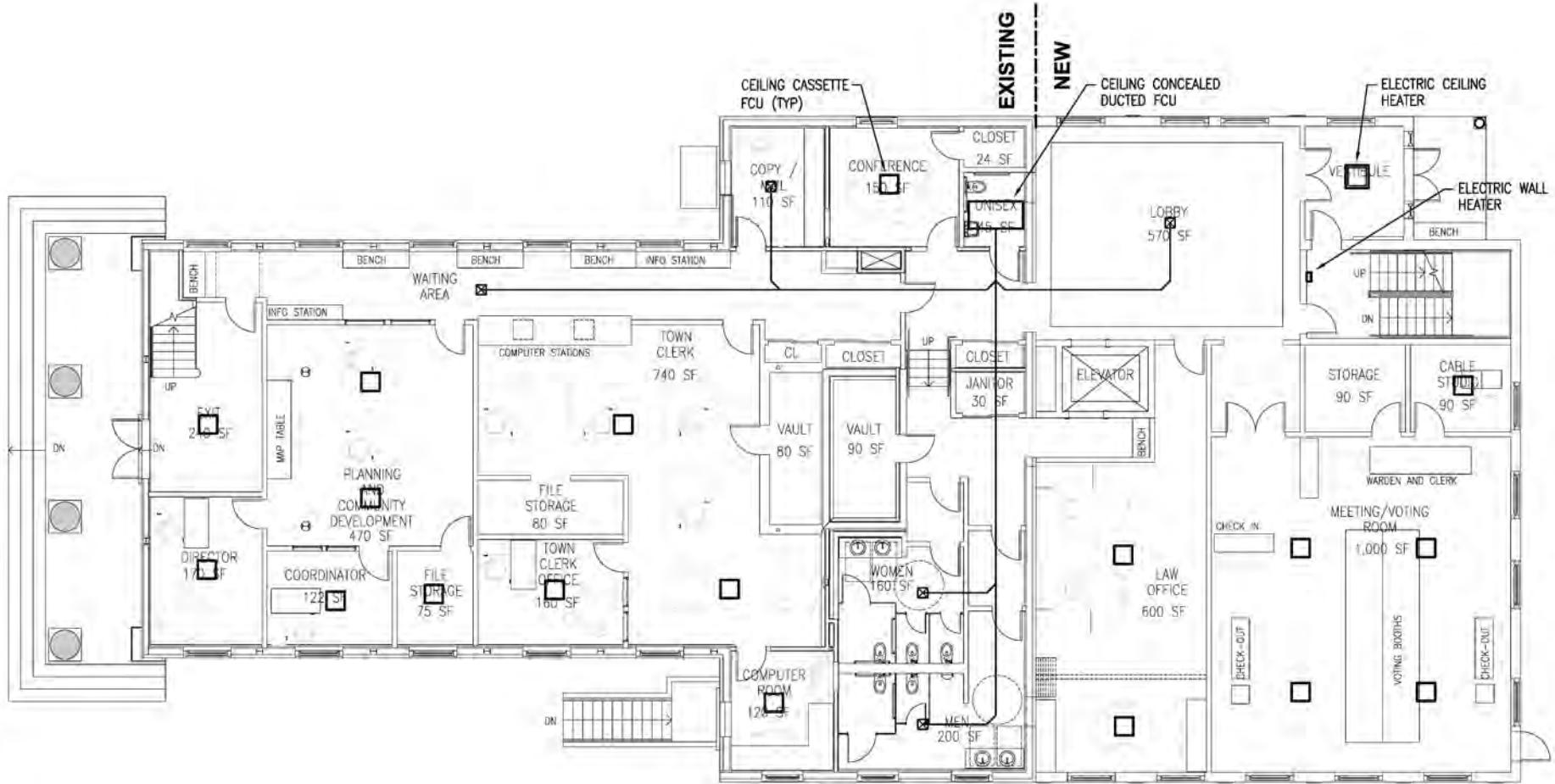


**SUDBURY TOWN HALL
RENOVATION**
SCHEMATIC DESIGN 09/09/13

HVAC
BASEMATIC PLAN
H-100

1 HVAC BASEMATIC PLAN
3/32"=1'-0"

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SUDBURY TOWN HALL RENOVATION

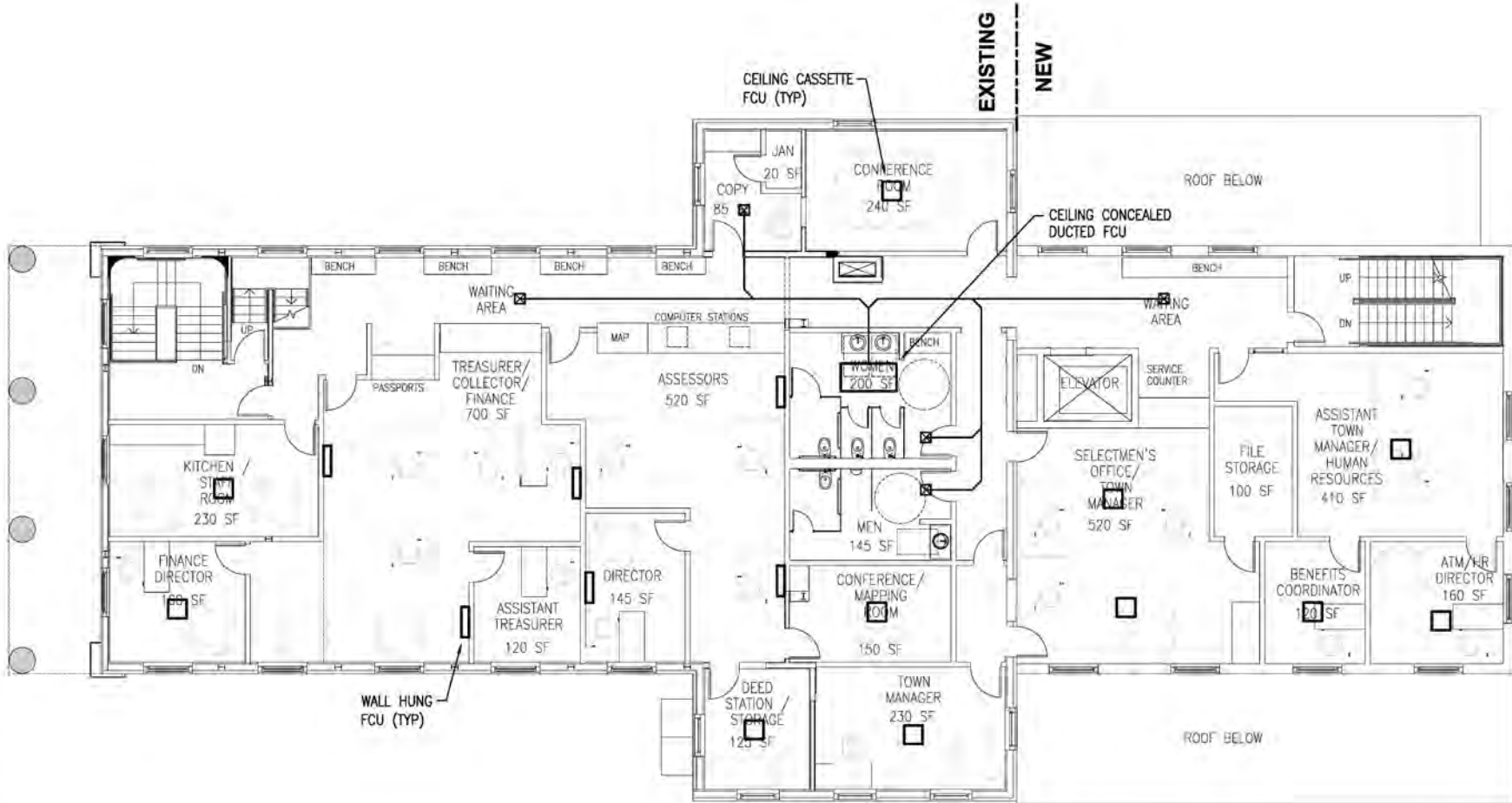
SCHEMATIC DESIGN 09/09/13

HVAC FIRST
FLOOR PLAN

H-101

1 HVAC FIRST FLOOR PLAN
 $\frac{3}{32}'' = 1'-0''$

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SUDBURY TOWN HALL RENOVATION

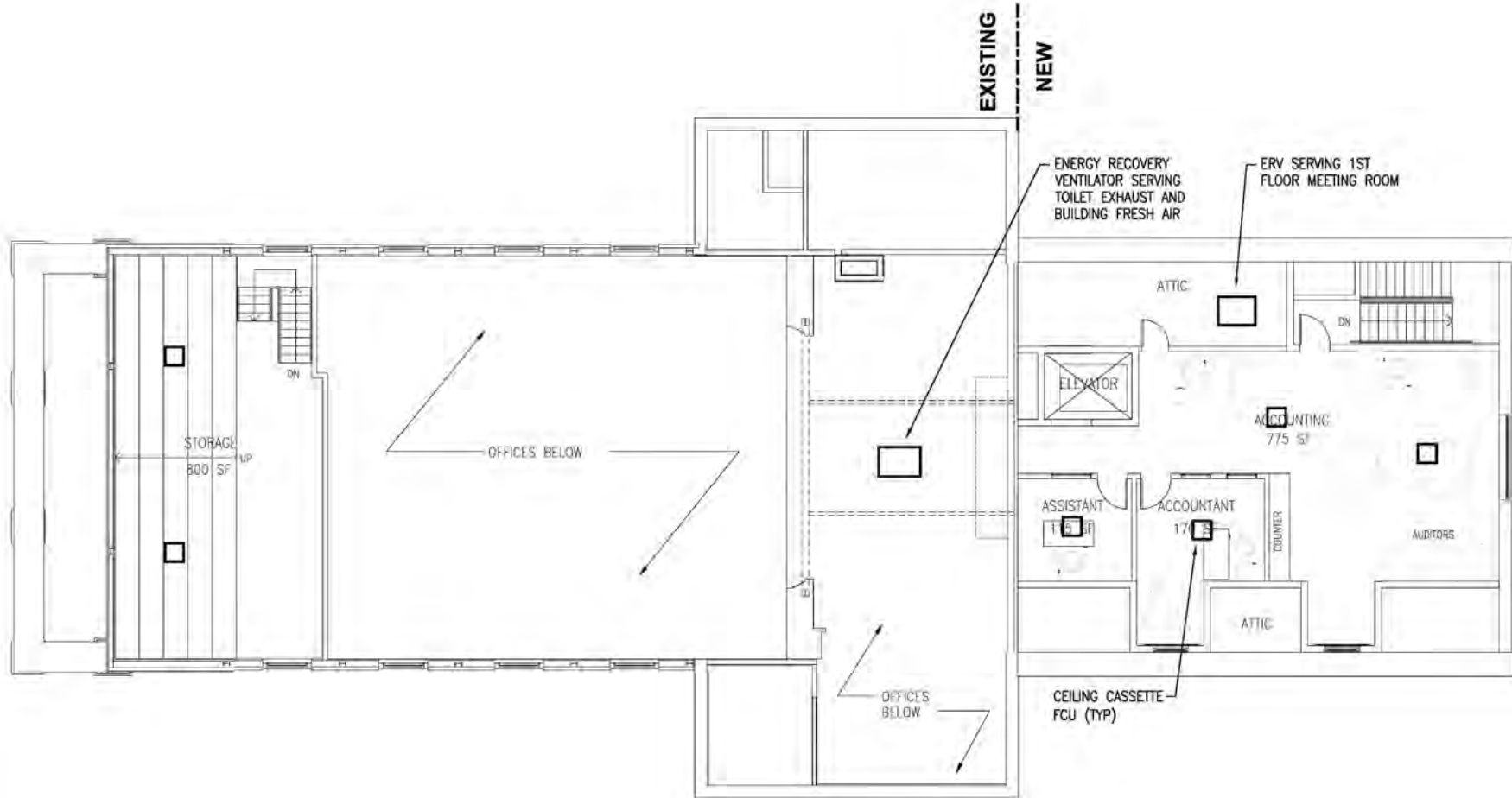
SCHEMATIC DESIGN 09/09/13

HVAC SECOND
FLOOR PLAN

H-102

1 HVAC SECOND FLOOR PLAN
 $\frac{3}{32}'' = 1'-0''$

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SUDBURY TOWN HALL RENOVATION

SCHEMATIC DESIGN 09/09/13

HVAC THIRD
FLOOR PLAN

H-103

1 HVAC THIRD FLOOR PLAN
3/32"=1'-0"

Civil Report – Samiotes Consultants

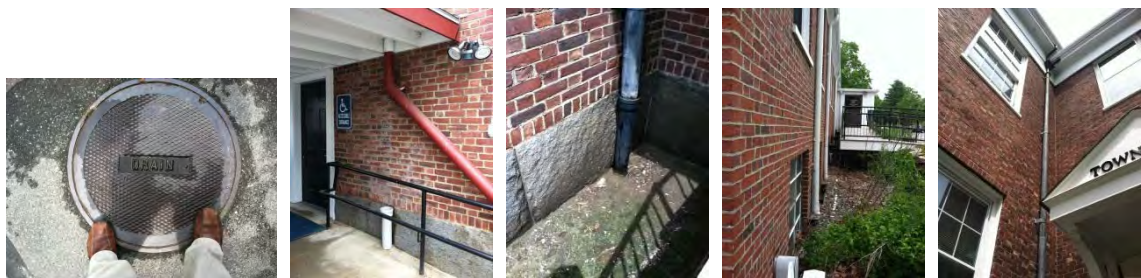
Sudbury Town Hall is serviced by both public and private utilities. The Town Hall building is serviced by electricity, cable, telephone, storm drainage, domestic water, a septic system, and natural gas. The septic system is a key component as it will be important to not exceed its design capacity for this proposed development. Adding flow to the septic system would require a new system be designed and constructed, which may require adjacent properties controlled by the same entity to be taken into effect when sizing a new system. This should be discussed further with the Board of Health once the extent of the proposed program has been determined.

The existing septic system was designed and installed by the Town in 1976-77 and serves the Town Hall, the Loring Parsonage Building and Grange Hall. The system consists of a series of septic tanks for each building that then transmits the sewerage via gravity lines to the soil absorption system (five 3'-wide x 75'-long x 18"-deep leaching trenches) in the playfield on the Peter Noyes Elementary School ball field. This system is maintained and operated by the Town, including replacing existing lines along the edge of Rt 27 with Schedule 40 PVC recently. The system has a capacity (based upon the Title 5 regulations at the time of design) of approximately 1,745 gallons per day.



The water system loops around the building into the parking lot to the back of Town Hall and the main it is fed off of is perhaps the "oldest pipe in town" per the Water Department. The main water line comes off the main in Concord Road and consists of a 2" galvanized line that that services the Town Hall. There is not currently a fire protection line (or a sprinkler system) that services the building. The cost of the addition / renovation very well could require the Town Hall to have to be brought up to the current fire code. Fire flow tests may have should be conducted in the next plan development phase in order to determine the viability of the existing main from a flow and volume perspective to accommodate a fire protection system without a fire pump.

The storm drainage system for the building consists of a series of roof leaders that continue below grade to a collection system. It appears that this system that outlets to a storm drainage system (either to the drywell to the south of the garage entrance or to the drainage system(s) in Concord and Old Sudbury Roads. It appears that the roof leader under the covered entrance to the north was clogged at one point as it was re-routed at an angle to the west.



Other than the re-routing of the roof leader mentioned above, it appears that the storm drainage system for the Town Hall is working adequately. This existing roof leader system should be investigated further as the design is advanced – possibly via dye testing or via a video camera of the lines. The goal would be to tie any new roof leaders into the existing system

Electrical, cable and telephone are also underground in the roadways on the southwest side of the Town Hall. The cable service is provided to the Town Hall by Comcast Cable according to record plans and as-builts. The cable

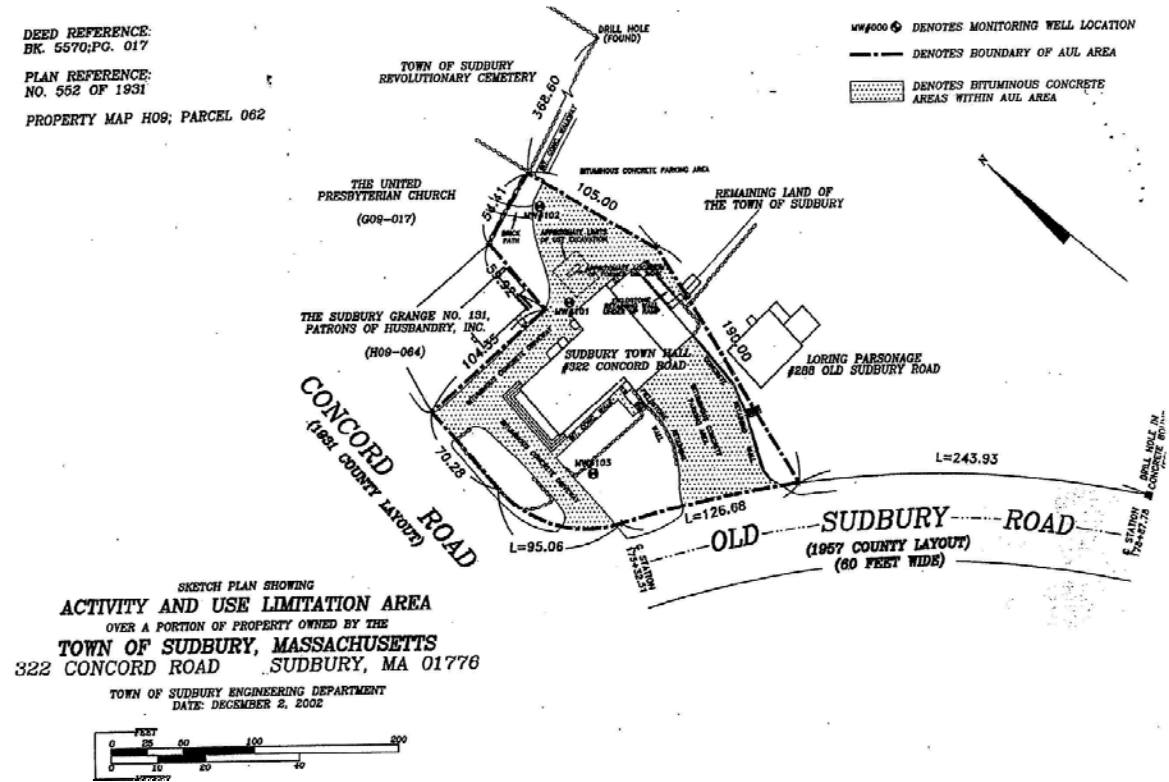
Sudbury Town Hall Renovation Project Town of Sudbury, Massachusetts

September 2013

service runs within and along Old Sudbury Road. The electric service is provided by NStar electric with in-ground electric services running onto the property on the south side coming from Old Sudbury Road. There are also in-ground electric lines running back to the traffic lights for the intersection of Old Sudbury Road (Rt. 27) and Concord Road. The phone service is provided by Verizon and there are no records of any in-ground conduits in the area of the Town Hall. Given that the existing High Town Hall building is provided electrical, cable, and telephone service in its current use, we do not anticipate any issue with these services, but this should be confirmed by the MEP engineer.

The natural gas service for the property is supplied by National Grid and is provided of the main in Old Sudbury Road and enters the Town Hall building from the back / south. The MEP engineer should confirm is the gas service is sufficient to handle any additional loads that the addition / renovation may add to the existing demand.

The Town Hall site is almost entirely encompassed by a recorded Activity & Use Limitation (AUL) area for the Town Hall building and its immediate surrounding area (delineation illustrated below) of approximately 0.75 acres in size. This AUL was established in March of 1997 as part of a Class A-3 Response Action Outcome (RAO) presented to Mass DEP by Woodard & Curran on behalf of the Sudbury Board of Health as a result of a leaking 10,000-gallon oil tank (events in 1980 and 1996). A condition of "no significant risk" has been demonstrated for the site; however, the soils on site have concentrations exceeding S-1 standards for oil and hazardous materials identified within the RAO that requires the presence of the AUL. The AUL is necessary to restrict the potential for contact with subsurface soils identified on the premises with concentrations as identified above. "Activities and uses including, but not limited, to retail, commercial, municipal office use, or industrial use or development and activities which do not disturb or relocate the contaminated subsurface soil located within the Portion of the Property." This limitation may be overcome "in the Opinion of a Licensed Site Professional (LSP)" would "present no greater risk of harm to health, safety, public welfare, or the environment". Thus after the new program is decided upon, this AUL should be investigated by a LSP in the next plan development phase to determine how it will affect the ability to develop the site going forward.





MEMORANDUM

To: Adrienne Cali, Bargmann Hendrie + Archetype, Inc.
From: Sara Lavado, P.E., Project Manager, Code Advisory Group
Date: August 7, 2013
Re: Sudbury Town Hall, Sudbury, MA: Proposed Offices on Mezzanine Level

The following memo addresses the accessible route for the proposed office space on the mezzanine level in lieu of the storage space shown on the proposed schemes.

Required Codes

There are two accessibility regulations that apply to buildings in Massachusetts. The Regulations of the Massachusetts Architectural Access Board (MAAB) (521 CMR) are enforced by the local building official as part of the building permit process. The Americans with Disabilities Act (ADA) is self-enforced; violations are subject to civil lawsuit or a complaint filed with the US Department of Justice.

Each regulation consists of two distinct set of provisions; the “scoping” provisions, which outline compliance requirements for construction and renovations projects; and “technical” provisions, which outline dimensional and technical requirements for the actual construction. The scoping provisions differ between the two regulations, while in general the dimensional and technical requirements of the ADA Architectural Guidelines are equivalent or similar to those contained within the MAAB. In any case of conflict between the two regulations, the more restrictive applies.

Scoping Provisions

ADA The ADA Title II guidelines, for local and state governments, contain accessibility requirements, which are applicable to all buildings and cover employees in addition to the public. Under the provisions of the ADA, an alteration to a “primary function” area must provide a path of travel that is usable by individuals with disabilities, unless the cost and scope of such alteration is disproportionate to the cost of the overall alteration. The disproportionately is a subjective term but is considered to be where the cost of the alteration exceeds 20% of the proposed cost of construction.

Analysis: Alterations are required to comply with the ADA but if the cost of construction of an altered element can be shown to be disproportionate to the total cost of construction, the altered element is not required to be compliant. Since the proposed cost of construction is \$6,000,000, the cost of the alteration would be required to exceed \$1,200,000 in order to be considered disproportionate. Adding a lift to the mezzanine to access the office space would not be considered disproportionate. Additionally, if an employee is disabled and needs to access the mezzanine level as a regular part of their job, having no accessible route to the mezzanine may be considered discriminatory.

MAAB In accordance with 521 CMR, only buildings that are open to the public must meet the requirements of it. Areas that are open to the public are buildings that are either privately or publicly financed but that are open to and used by the public. Examples of areas that are open to the public are lobbies, restrooms, meeting rooms, and offices that allow visitors. Storage and mechanical spaces are not considered open to the public.



Areas within existing buildings that are open to the public and are undergoing renovation which meet the following dollar thresholds based on the assessed value of the building must provide access.

1. Work amounting to greater than 30% of the full and fair cash value (100% equalized assessed value) of the building. The building is required to comply with the requirements of 521 CMR in full (521 CMR 3.3.2).
2. Work amounting to less than 30% of the full and fair cash value but greater than \$100,000. All new work must comply and, in addition, an accessible public entrance and accessible toilet room, telephone and drinking fountain (if public toilets, telephones and drinking fountains are provided) are required (521 CMR 3.3.1(b)).
3. Work amounting to less than \$100,000. Only the work being performed is required to comply (521 CMR 3.3.1(a)).

Additionally, any work performed in the public accommodations of the buildings must meet the accessibility requirements.

If items are considered technically infeasible or excessive cost without benefit to the disabled, a variance can be submitted to the MAAB for relief.

Analysis: The assessed value of the building could not be located but is likely to be much less than the construction cost of the building. Since the cost of construction is likely greater than 30% of the assessed value of the building, the entire building must comply with the requirements of the AAB. A government office on any level must have a compliant accessible route. If no lift is installed, there will be no compliant accessible route.

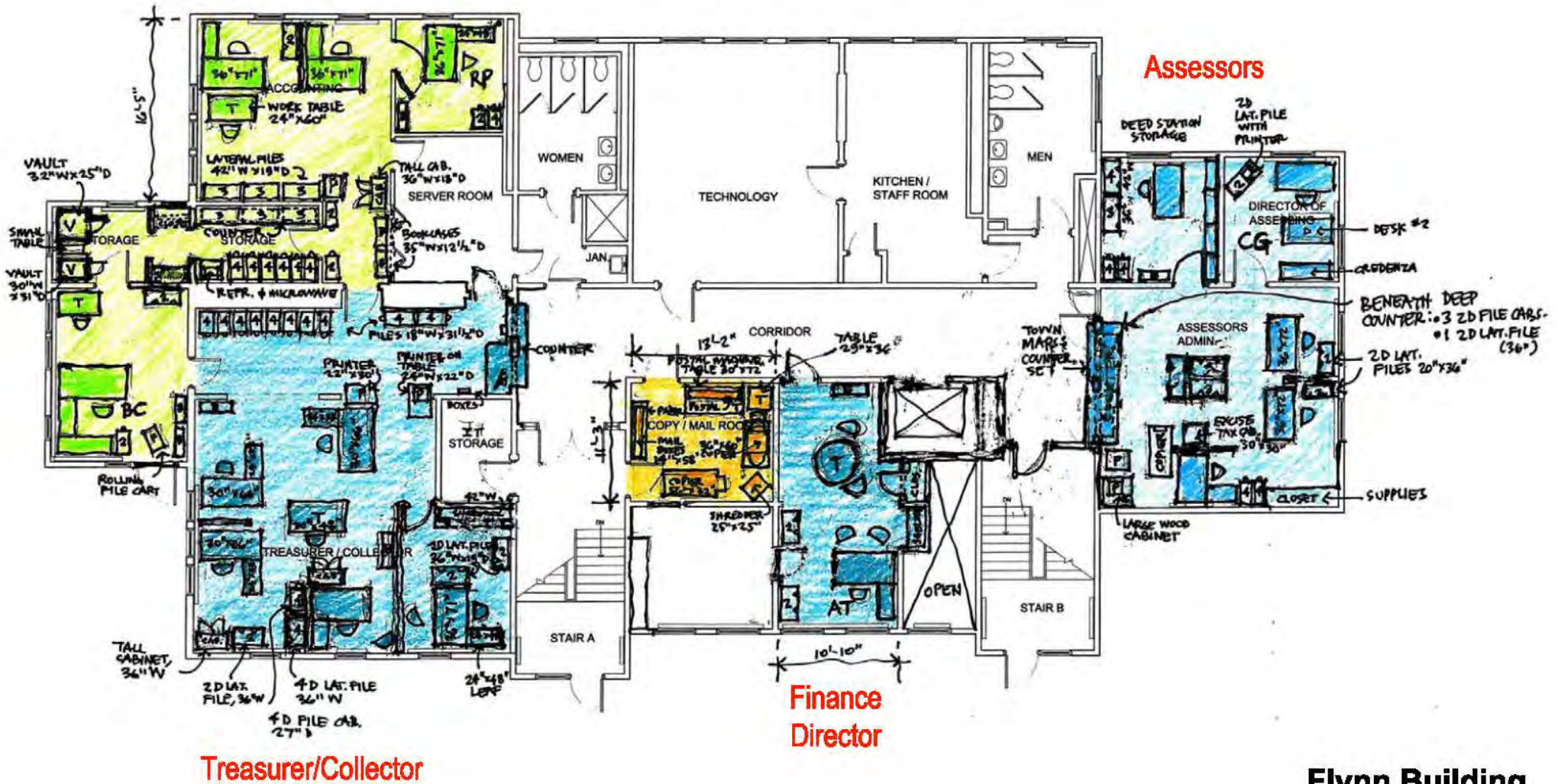
A variance could be sought for relief from having the accessible route to the mezzanine office area comply. The variance would involve providing a meeting area on the lower, accessible level that would be used should a disabled person need to meet with the employees in the office on the upper level. However, our experience with the AAB in similar situations is that this will not be considered technically infeasible or a hardship and a variance would not be granted.

The ADAAG does not provide a means to seek relief from technically infeasible items. Since the ADAAG is a federal law, whether an item is technically infeasible is subjective and is only determined in court when a lawsuit is filed.

2. PROGRAMMING INFORMATION

- a. Existing Town Department and School Administration Plans
- b. Town Department and School Administration Programming Spreadsheet
- c. Town Department and School Administration Surveys

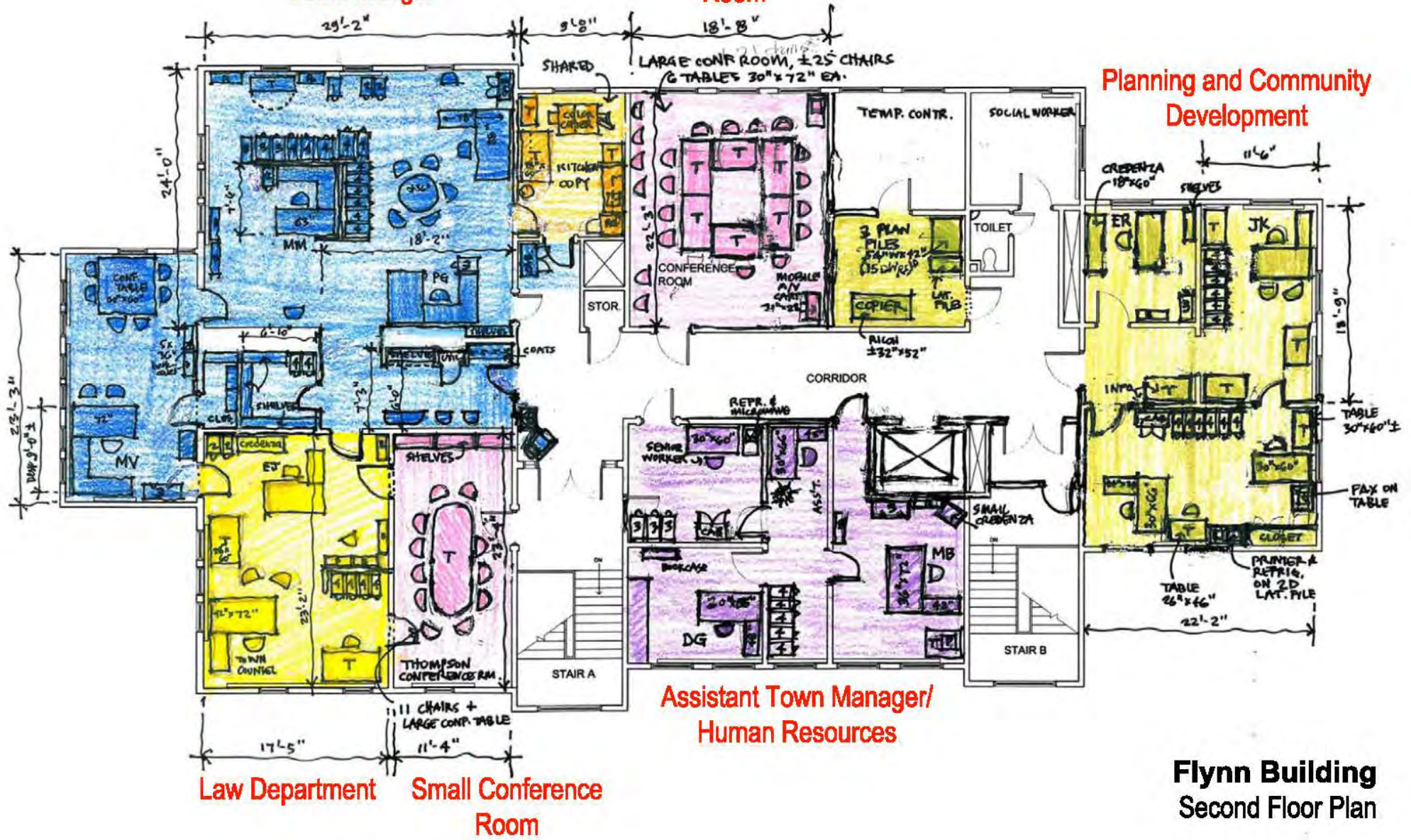
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Selectmen's Office/
Town Manger

Large Conference
Room

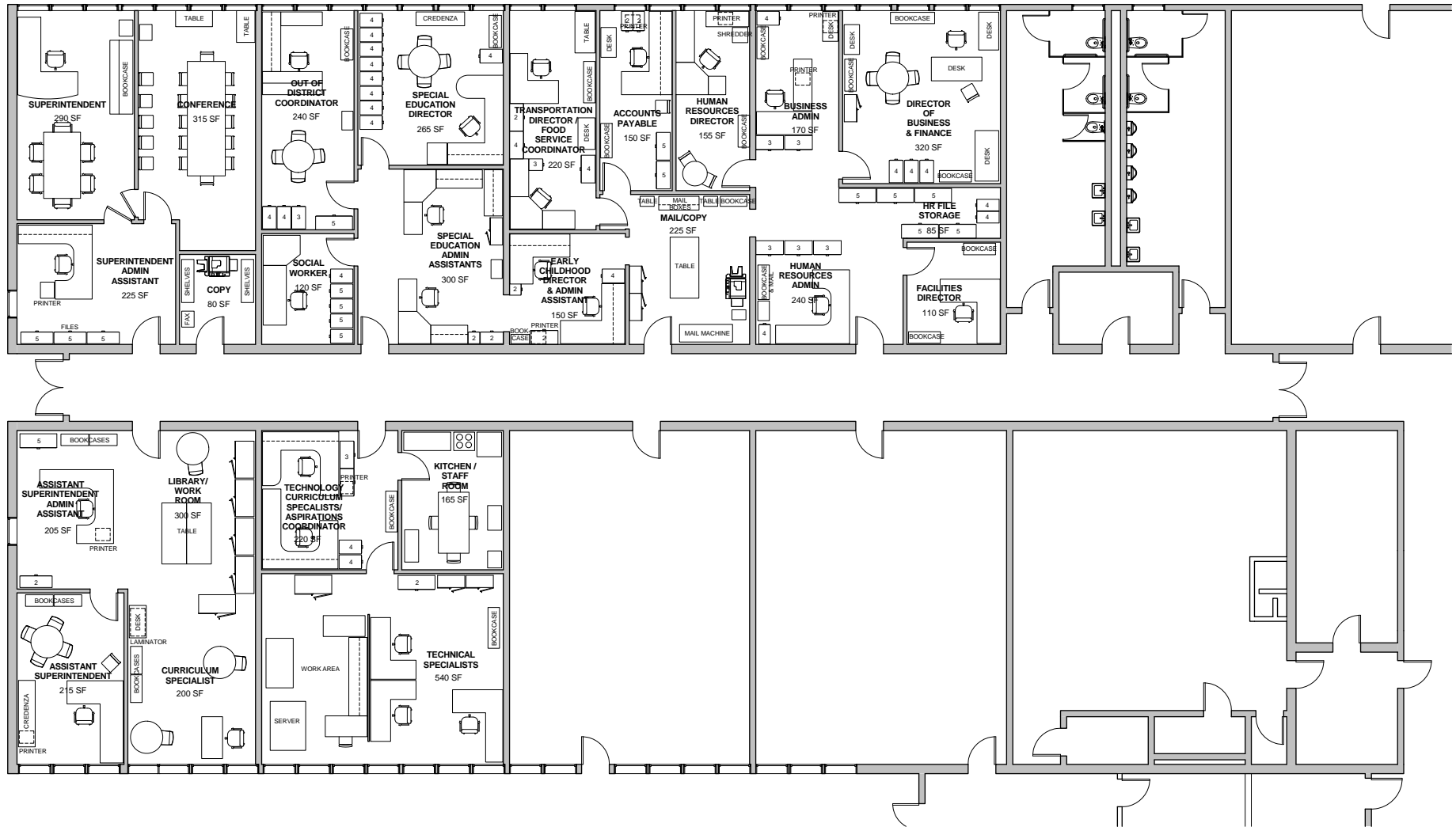
Planning and Community
Development



Flynn Building
Second Floor Plan

FAIRBANK COMMUNITY CENTER

Town of Sudbury
278 Old Sudbury Road, Sudbury MA



EXISTING PARTIAL FIRST FLOOR

**QUESTIONNAIRE SUMMARIES for TOWN DEPARTMENTS
TOWN OF SUDBURY, MASSACHUSETTS**

This chart indicates the Town departments included in this Study and how much space is required by each, taking into consideration current demands and projected growth.

| Bldg. | Departments | Job Description | # of Employees | | Offices, Workstations, Work Areas | | | | Meetings/Conferences | Storage Requirements | Service Counter | Adjacencies | Additional Comments | Parking | Existing area | Req'd area |
|---------------------|---|--|--|--------|-----------------------------------|-------------------|-------------|--|--|--|--|--|---|------------|---------------|------------|
| | | | FTE | PTE | Private Offices | Open Workstations | Work Tables | Comments | | | | | | | | |
| Alan Flynn Building | Selectmen's Office/ Town Manager | Accepts articles for Town Meeting, prepares TM Warrants and produces annual Town Report. Handles telephone calls, visitors and correspondence, maintains website and all records of Board of Selectmen's meeting. | 3 FTE | 1 PTE | 1 | 3 | 2 | 1 private office with meeting table. 2 common work tables. | Weekly meetings: use small conf. room for 2-10 participants (e.g. HR, Town Counsel, Finance, Dept. Heads). Use large conf. room for 20-25 participants. | 2 tall and 3 short bookcases. Office supplies in 6-ft tall storage cabinet and storage closet. Remote storage in Flynn Bldg. basement accessed monthly: OK. | Serve avg. 4 visitors/day. Currently have visitor waiting area. Would like a service counter. | Should be next to Assistant Town Manger. Shared printer/scanner/copier/fax (now in kitchen/copy room). Interact with other departments re HR issues. | Would like a kitchen/break room. Don't anticipate additional employees. | 5 spaces | 1,270 SF | 800 SF |
| | Assistant Town Manager/ Human Resources | Responsible for job postings, hiring, and employee orientation. Manages employee issues, workers comp, retiree issues. Collective bargaining and contracts. Custodian of all employee records. | 2 FTE | 2 PTE | 2 | 2 | | 1 private office for ATM/HR director: need a meeting table w/ 4 chairs. 1 office for Benefits Coordinator. 2 open workstations near Benefits Coordinator (incl. Senior Worker), with access to files. | Regular training sessions and meetings (currently held in Flynn conf. room, Goodnow Library conf. room, Town Hall or Grange), with 50+ participants from Town departments. Could support a large conference room for 100-200 participants. | 9 tall cabinets in open office. Lateral file and closed cabinet in Benefits Coordinator office. Tall open shelf and lateral file in ATM office. 4-5 metal cabinets and open bookcase. Office supplies in tall cabinet outside office. Approx. 15' x 20' remote storage in Flynn building basement OK (though old cabinets w/o locks); also seek dedicated (confidential) file room within department for ATM and Benefits Coordinator. | Serve 8-12 employees / visitors per day. Visitor waiting area outside office. No need for service counter. | Should be next to Town Manager. Interacts with Selectmen's Office and Accounting. Would like printer/scanner/copier/fax in office. | Need very private office for ATM/HR Director. Could use more space for storage. Would like a kitchen/break room. Don't anticipate additional employees. | 3 spaces | 670 SF | 580 SF |
| | Law Office | Legal Department consists of Town Counsel and an assistant providing legal services for Town officials, boards and committees. | 2 FTE | 0 PTE | 0 | 2 | 2 | 2 open workstations. 2 6-ft work tables: much work on tables (and in temp files) is ongoing for long periods of time. Want 2-3 extra seats near Town Counsel desk and seat near Assistant. | Most meetings in office, 1 or 2 participants: only occasionally in small or large conference rooms. Office can be closed off for privacy, or adjacent meeting room used for confidential meetings. Retain ability to close off area for privacy. Possible conference table for meetings in office. | 4 vertical 4-drawer files, 2 vertical 2-drawer files, 3 under desk files, and 3 bookcases. Closed case files need not be stored in office. Remote storage in Flynn Bldg. basement. Office supplies currently stored in Selectmen's closet and cabinet. | No need for a service counter; limited interaction with public. | Uses printer/scanner/copier/fax in Selectmen/Town Manager admin. office frequently and daily. Daily interface and weekly meetings w/ TM: shared work involvement w/ Selectmen's Office. Also consults w/ ATM and interacts with Planning/Housing, Bldg. Inspector, Facilities Director, Health Director, DPW Director, Assessing and Finance Director. | Do not anticipate more employees. Storage is adequate for future. | 2 spaces | 420 SF | 450 SF |
| | Planning and Community Development | Responsible for land use permits for Planning, Zoning, & Design Review Boards, and Selectmen, Administration for Community and Regional Housing. | 2 FTE | 3 PTE | 2 | 2 | 2 | 2 private offices, one needs small meeting table. 2 open workstations shared by 3 PTE; 1 station should be near entrance. Seeking space in office for map table. Info table located outside of office. Department is a big copier/user: large print runs (e.g. 400 sets), multiple copies. Use Engineering Dept. for large-format. | Conference room for 3-10 participants. | Storage room for plan files and printer/copier. No "dead" storage now: could relocate approx. 10 additional boxes to Flynn basement storage (currently shared with Law Dept.). 6 filing cabinets in main office, 6 in dept. head office and dedicated room for plan drawers and copier. Office supplies stored in cabinet. Have small refrigerator. | Serve 5-10 visitors per day. No need for service counter, but seek "receptionist's" desk. Visitors pick up and drop off applications and inquire about property/applications. 2x4' table in vestibule for outgoing mail & public information flyers. Waiting area in hallway: OK to bring public into private office. | Uses common printer/scanner/copier/fax (in "Annex"). Interaction w/ DPW, Town Manager and Law Office. | Privacy for workstations could be improved. Department Head office door should not be visible to the public. Storage adequate for future. Prefer better waiting and information display areas. | 5-6 spaces | 840 SF | 780 SF |
| | Accounting Department | Maintains all financial records for the Town. Process accounts payable and payroll for town and school. | 4 FTE | 1 PTE | 2 | 2 | 2 | 2 private offices near each other. 1 5-ft table next to A/P clerk's desk, for p/t Senior Worker and daily personnel. 1 common work table or counter. Frequent use of 10'+ long work-surface atop 3 lateral files. Need work area for Auditors (approx. 3), for 3 weeks, twice/year currently use Thompson Room (larger than needed). | Infrequent meetings in private offices or meeting room. | (2) 2-drawer lateral, (9) 2-drawer tall, (7) 4-drawer tall, (3) 3-drawer lateral, (3) 4-drawer lateral, (3) 4 open shelves, (2) 5 open shelves. Vaults in space used primarily by Treasurer. Office supplies stored in tall file cabinet. Remote storage of microfilm in Town Hall and 2 storage areas in Flynn basement. | Do not deal with the public. Problematic now with distractions: visitors to Treasurer/Collector don't use bell and try to summon Accountant. | Currently use fax machine in Treasurer's office. Interaction w/ Treasurer, Assessors, Personnel and School Admin. | Would prefer fax machine and work area for auditors. Storage is adequate for future. Current space feels small and congested; seek bright, accessible, spacious areas. Seek additional privacy and additional space for open workspace. | 4 spaces | 840 SF | 920 SF |
| | Treasurer/Collector/Finance Director | Responsible for collection of money due to the Town. Houses and accesses many permanent records. | 5 FTE | 1 PTE | 2 | 4 | 2 | 2 private offices, 1 with small meeting table. Finance Dir. seeks work table. 3 workstations, 2 near service counter. Work table, file cabinets can act as acoustical buffers. 1 workstation/table for PTE. 1 common table for work sharing. 1 common table for auditors 2 times per year. 1 workstation/counter for passport/land taxpayer discussions. Need improved privacy for workstations. | Meetings are rare. | Files required for 2 years of data. 8 deep fireproof file cabinets, lateral files. 2 fireproof safes for money and passport info located in Accounting Department due to lack of room in office: may need only 1 larger safe in new facility. Must lock up passport applications, etc. before bring to Post Office. May need more safes in the future. Office supplies in tall cabinet. Remote storage in Flynn basement. | Deals with public on constant basis, 10-20 visitors/day: crowded on tax due days! Need clear visibility to/from counter: seek larger counter area/window, but improved security; 2 spaces at counter (incl. terminal), area for passport photos, table/chairs for residents to write checks, separate from hallway and office traffic. Need cash drawer and shelves for two embossers (time stamp, check endorser) under counter. | Should be located next to Assessors. Uses common printer/scanner, large capacity shredder, and postage machine, all in Mail Room. Interacts with Accounting, Assessors, IT, Selectmen, Town Manager, and ATM. | Secure service counter with glass, better view, locked access to office from hallway. Need larger space. Would prefer coat closet. Passport business area should be alcove distinct from counter: often serve families. Payment drop box outside. | 5 spaces | 1,160 SF | 1,030 SF |
| | Assessors Office | Property assessments, abatements, exemptions, mapping, motor vehicle excise, property transfers, property inspections and associated data entry | 3 FTE: Staffing currently in transition. | 2 PTE | 1 | 3 | 2 | Prefer 1 office with meeting table. 3 workstations, 2 near counter. 1 shared PTE workstation. Preferable to have private office adjacent to central workstation area. 1 common work table. Deed storage with work table needed. Public mapping counter at transaction and separate table in suite for maps. | 1 conference room for 4-6 participants in the suite or close to department. | (5) 5'x3' file cabinets and book cases. Office supplies stored in closet and mapping room but should be in location. Need wall shelving: need more storage space in suite. Extensive storage in Flynn building basement, not considered ideal (dampness, etc.). | Serve 5-15 visitors/day. Service counter has roll-down window and feels secure. T 2 on-line access terminals; also getting new desk set of paper maps. Good visibility: seek longer counter area (depth OK). Want waiting area: could be shared. Need directory. | Should be located next to Tax Collector. Uses large printer/copier in Mail Room. Interacts with Finance Department and Tax Collector. | Could use a coat closet. Lobby/reception for all departments located in the building. | 6 spaces | 770 SF | 930 SF |
| Town Hall | Town Clerk | Central "go-to" office: unseen facilitators for the Town. Responsible for Town records and official documents. Issues permits and copies of records. Absentee voting at counter. Voter registration and marriage licenses. | 3 FTE | 2 PTE | 1 | 4 | 2 | 1 private office. 4 open workstations (should be near counter, but one money-handling area should be more private, i.e. screened); current layout good. Common work tables: work table (in kitchen) is well-used. | 1 small conference room for weekly staff meetings. Large conference room (Selectmen's Meeting Room) for public meetings and employee training (approx. twice/year w/ 60+ participants). | Open shelves, fire-resistant file cabinets, card cabinets, and vaults. Large storage room (currently 237 sf) needed for election ballots and voting lists, 22 months. Prefer a file room: could use high-density storage for permanent records. Use 2 vaults in Town Hall: "upstairs" vault stores ballots secured after elections, vital records and voting machines; "downstairs" vault stores older permanent records. Office supplies stored in back storage room and copier room. | Serve 10-60 visitors/day: average 20 at 2 service counters. Short visits, but also filings 10 minutes and research up to one hour. Prefer computer access at service counter. No security or safety: would like barrier and panic button. Waiting area is crowded; need more space. Two different directions works well: dog licenses require typing during visit. Notices for ZBA, etc. Need additional space for printed materials. Bulletin board at top of ramp available 7 days/week, by law. | Other departments (Accounting, School Admin.) occasionally use microfilm reader. Interacts with Selectmen's Office, Technology, and Planning Board. | Could use area for typewriter. Scanner used for old records and for service to seniors. 3 State computers and 1 State printer in back room for voter registration, printing voter lists and forms. Town Clerk is Veteran's Agent; position will be 5 days/week. | 5 spaces | 1,340 SF | 1,150 SF |
| | Selectmen's Meeting Room | Meetings and Town voting room | | | | | | | | | | | Voting with wheeled machines moved to Selectmen's Meeting Room: one-way pedestrian flow important! | | 1,740 SF | 1,000 SF |
| | Cable Studio | Tapes and broadcasts Selectmen's Meeting | | | | | | | | | | Next to Meeting Room | | 70 SF | 90 SF | |
| | Totals | | 25 FTE | 12 PTE | | | | | | | | | | 37 spaces | | |

**QUESTIONNAIRE SUMMARIES for SCHOOL ADMINISTRATION AND TOWN DEPARTMENTS
TOWN OF SUDBURY, MASSACHUSETTS**

This chart indicates the School Administration departments included in this Study and how much space is required by each, taking into consideration current demands and projected growth.

| Bldg. | Departments | Job Description | # of Employees | | Offices, Workstations, Work Areas | | | | Meetings/Conferences | Storage Requirements | Visitors | Adjacencies | Additional Comments | Parking | Exiting area | Req'd area |
|---------------------------|----------------------------|---|---------------------|-------|-----------------------------------|-------------------|-------------|---|---|---|--|---|--|---------|--------------|------------|
| | | | FTE | PTE | Private Offices | Open Workstations | Work Tables | Comments | | | | | | | | |
| Fairbank Community Center | Superintendent's Office | Oversees the Sudbury School district. Department includes: Superintendent and Superintendent's Administrative Assistant. | 2 FTE | 0 PTE | 1 | 1 | 1 | Superintendent's office should be out of the main traffic area and very private. Frequent communication between Admin and Superintendent. 1 shared work table. | Department holds meetings daily. Meeting table in Superintendent's office should accommodate 6-8 ppl. Need a meeting room for 20-25 ppl for the Admin team meetings. Conference room should have a coffee/food bar and water cooler area. | One more bookshelf in the Admin area. All files should be secure and easily accessible. No remote storage. Need more storage areas at workstation. | Counter in front of Admin workstation would be helpful for privacy. | Interacts with the other departments but adjacency is not necessary. | Counter/table for district materials for the public. Uses shared copier, fax, and mail machine. | 2 | 830 SF | 650 SF |
| | Teaching & Learning | Oversees and coordinates all teaching and learning activities in the Sudbury Public Schools. Daily tasks include communication activities, acquisition, storage, organization, and dissemination of materials. Department includes: Assistant Superintendent, Assistant Superintendent Administrative Assistant, 5 Curriculum Specialists - English Language Arts & Mathematics in building now. Sciences & Engineering Technology, Wellness, and Technology Integration should be included. 1 part-time Technology Integration might be included. | 7 FTE (currently 4) | 1 PTE | 1 | 6 | 2 | 1 work table in open area not used because of privacy issues. Would like a shared work table. Verbal communication among the department is useful but not required. Visual supervision is not required. 5 workstation for Curriculum Specialists. | Department holds meetings daily. Private meetings held in Assistant Superintendent's office, at open workstations, in kitchen, and in conference room. The meetings are about 2-15 people. They should be located in a dedicated Technology & Learning shared meeting/work space. Another conference room should be provided for up to 20 people with a projector and whiteboard. | The office stores curriculum material, district professional development records, & office supplies. Remote storage in school buildings (Nixon, Haynes, ECMS) because there is not enough room in offices and they need to be near the people that use them. | Visitation varies from 5-20 people per day for student registration, material delivery, interactions with other departments. Need better area for student registration information and work area. Counter in front of Admin workstation would be helpful for privacy. | Technology Department because they operate under Teaching and Learning. Superintendent's office for close collaboration between all aspects of learning. | Used shared copier, printer, and fax machine. Designated document production area to assemble teaching materials for Curriculum Specialists and staff to assemble mass mailings. | 7 | 920 SF | 1,100 SF |
| | Technology Department | Department supports a full range of technology services used in a modern school. Maintain over 1,200 computers and 24 servers for all teachers and students, and online systems. Most of the state reports come out of the office. Involved in a full range of planning, deployment and support from network infrastructure to classroom presentation tools to emerging technologies. Department includes: Director of Technology, Data Specialist, Technician, Technology Curriculum Specialist and 1 part-time Technology Curriculum Specialist. If Middle school goes to 1:1 ratio students to computers, a 2nd Technician and 2nd Technology Curriculum Specialist would be needed. | 6 FTE (currently 4) | 1 PTE | 3 | 2 | 4 min | A part-time Aspirations Coordinator shares the part-time desk but is not included in the department. Private office for Director, 1 Data Specialist, and 1 (possibly 2) Curriculum specialist. Private offices would provide focus and quiet conditions rather than the loud work area. Data Manager works daily with confidential student and teacher information. The technician area (2 workstations) should be at the entrance to the department. Work area with min 4 work tables to set up laptops. Usually have 12 laptops and 6 desktops on work tables, + 100 laptops in summer. | Holds 2 meetings per week in the lunchroom. Ideally should have a meeting table in the technology area. Need meeting area for 8-12 for meetings and small group trainings. | Uses 1 bookcase to store printed backup for state reports. This should be located in the Data manager's office. Office supplies stored in the Assistant Superintendents area. Need storage for cables, keyboards, mice, laptops, repair parts. Remote storage is located in the schools and Fairbank for servers. | The department receives about 6 visitors per day, but most people are serviced through emails, video conferencing and remote work. Visitors wait in lunch room now. Would like a better waiting area. | Communication among department is continual. Operate under Assistant Superintendent's direction and oversight. Curriculum specialists provide focused feedback where technology is needed. Librarians provide curriculum/research direction. Secretaries provide front line in terms of making sure the data in the system is collected and accurate. | 8 servers are located in the work space. These servers are on racks and tables and should all be on an open table area in a designated Server room. The department maintains district central services for 1,000s of accounts on the servers. Service 100 computers in the work area now, but if the district adopts the 1:1 computing at the middle school, it would require space for 400 computers. | 8 | 760 SF | 820 SF |
| | Special Education | Oversees and administers all aspects of special education, 504 accommodation plans, guidance and counseling, nursing services, homeless education, and early childhood. Department includes: Social Worker, Out of District Coordinator, Special Education Director, Special Education Administrative Assistants, Early Childhood Director, & Early Childhood Director Administrative Assistant. | 6 FTE | 1 PTE | 4 | 3 | 2 | Workstations serve as service counter. 1 work table in each Admin area. Early Childhood Director Administrative Assistant is part time. | Private offices should have small meeting tables. Meetings are held 2-3 times a week with small and large groups. Would like 2 meeting spaces to accommodate 20-30 people. | Special Education: 400+ student files and inactive student files must be kept for 7 years. Files are also financial information for departments. 8 filing cabinets are stored in Special Ed private office due to lack of space. 9 file cabinets for active students should be in Admin office for easy access and 5 file cabinets for inactive files should be in separate storage room. Early Childhood Development: stores registration materials for kindergarten & preschool. Should store files in locked office. | The department receives about 10 visitors per day. Visitors are parents dropping off paperwork and meetings and conferences. Would like a lobby with waiting area for visitors. | Ongoing and constant communication and supervision throughout department. Should be adjacent to Dept of Education. | Would like more shared workspaces. | 7 | 1,075 SF | 1,070 SF |
| | Business & Human Resources | This department runs the business, operations and human resources for the district. Department includes: Director of Business & Finance, Business Executive Administrator, Human Resources Director, Human Resources Executive Administrator, Transportation Director/Food Service Coordinator, Accounts Payable, Facilities Director. | 7 (currently 6) | 1 PTE | 5 | 4 | 2 | Would like offices clustered by function. High privacy for HR & Payroll. 1-2 new positions to be administrative. Business Admin is part-time. 1 work table in each Admin area. | Meetings are held weekly in private offices and Superintendent's conference room. 5-10 people including the public, school staff & other employees. At least 4 offices should have meeting tables. A shared conference room for 15-20 people would be helpful. | The department stores staff files, accounting paperwork, financial paperwork, student finances and paperwork, HR paperwork. These filing cabinets should be in a designated file storage room and at workstations. 10 large file cabinets for HR. 5 large file cabinets for Business. Remote storage is located at the schools that should be stored at the department. Director of Facilities does not have adequate storage. | The department receives 25 visitors per day. Interactions occur at workstations and in private offices. A counter or barrier to separate the public from the staff would be helpful, especially at the Business Admin and Transportation director's desk. These departments handle money and should have some privacy. | Use a color copier a few times a week. Should be adjacent to other staff. Work with Town Departments, parents, the public, and vendors. | Shared workspace is desirable. Would like real storage closets. | 10 | 1,450 SF | 1,220 SF |
| Town Hall | Town Clerk | Central "go-to" office; unseen facilitators for the Town. Responsible for Town records and official documents. Issues permits and copies of records. Absentee voting at counter. Voter registration and marriage licenses. | 3 FTE | 2 PTE | 1 | 4 | 2 | 1 private office. 4 open workstations (should be near counter, but one money-handling area should be more private, i.e. screened); current layout good. Common work tables: work table (in kitchen) is well-used. | 1 small conference room for weekly staff meetings. Large conference room (Selectmen's Meeting Room) for public meetings and employee training (approx. twice/year w/ 60+ participants). | Open shelves, fire-resistant file cabinets, card cabinets, and vaults. Large storage room (currently 237 sf) needed for election ballots and voting lists, 22 months. Prefer a file room: could use high-density storage for permanent records. Use 2 vaults in Town Hall: "upstairs" vault stores ballots secured after elections, vital records and voting machines; "downstairs" vault stores older permanent records. Office supplies stored in back storage room and copier room. | Serve 10-60 visitors/day: average 20 at 2 service counters. Short visits, but also filings 10 minutes and research up to one hour. Prefer computer access at service counter. No security or safety: would like barrier and panic button. Waiting area is crowded; need more space. Two different directions works well: dog licenses require typing during visit. Notices for ZBA, etc. Need additional space for printed materials. Bulletin board at top of ramp available 7 days/week, by law. | Other departments (Accounting, School Admin.) occasionally use microfilm reader. Interacts with Selectmen's Office, Technology, and Planning Board. | Could use area for typewriter. Scanner used for old records and for service to seniors. 3 State computers and 1 State printer in back room for voter registration, printing voter lists and forms. Town Clerk is Veteran's Agent; position will be 5 days/week. | 5 | 1,990 SF | 1,710 SF |
| | Selectmen's Meeting Room | Meetings and Town voting room | | | | | | | | | | | Voting with wheeled machines moved to Selectmen's Meeting Room: one-way pedestrian flow important! | | 1,740 SF | 1,000 SF |
| | Cable Studio | Tapes and broadcasts Selectmen's Meeting | | | | | | | | | | Next to Meeting Room | | 70 SF | 90 SF | |
| | Totals | | 32 FTE | 6 PTE | | | | | | | | | | 39 | | |



SUDBURY TOWN OFFICES SPACE PLANNING QUESTIONNAIRE FOR DEPARTMENT LEADERS

In evaluating and planning possible renovations and additions to Sudbury Town Hall, this space planning (or "programming") questionnaire is designed to help our design team learn about how you work: *what* you do, *how* you do it, and whether new space could be designed to help you work better. The questionnaire is a critical component of good facilities planning and it initiates an interactive process that will benefit greatly from your careful thought and participation. Thank you in advance for your time and effort.

Your Name and Department: Mary McCormack Selectmen/Town Manager
 Telephone and fax numbers: 978-639-3382 978-443-0756 (fax)
 Email address: mccormackm@sudbury.ma.us

A. SPACE IMPRESSIONS

What adjectives describe your *current* space? spacious, bright, airy, large windows, carpeted

What adjectives should describe your *new* space? reasonably spacious, windowed, carpeted

B. DEPARTMENT OVERVIEW

Briefly describe what your department does:

[Provides administrative support to Town Manager, Board of Selectmen, correspondence, meeting material, town report, *and* town meeting warrant, website]

How many full-time employees (FTE's) currently work within your office space?

How many FTE's do you anticipate having within your office space in the new location?

How many part-time employees (PTE's) currently work within your office space?

Do they have their own workstation, or share with other part-time employees (e.g., staggered work schedules)?

have own workstations

How many PTE's do you anticipate having within your office space after the renovation?

Will these PTE's require their own workstation? If so, how many and what type of workstations will be required for them?

Handwritten notes:
 3 + 1
 ↑
 1 private + 2 wks
 ↑
 1 wks



C. ORGANIZATIONAL DATA: PRIVATE OFFICES

Currently, how many private offices are there within your department?

1

Is there a logic to how they are currently placed within your office (e.g. adjacent to an outside wall, conference room, or open workspace)?
yes, away from foot traffic; outside wall

What tasks take place in these private offices? (Please include both private offices that currently exist and private offices anticipated in the new location.)

phone calls, planning sessions

How many private offices are desired in the new location?

Is there an ideal placement or arrangement for these private offices? same as above ←

Is it required that any of the private offices in the department be large enough to accommodate a small meeting table or a work table (in addition to a desk)?
yes

What level of privacy is required for each of these offices, and do the tasks completed in any of them involve HIPAA (Health Insurance Portability and Accountability Act) considerations?

high level of privacy

D. ORGANIZATIONAL DATA: OPEN WORKSPACE

How many open space workstations are there currently within your department?

3

3 open

What level of privacy is currently provided for the typical open space workstation? good fair poor

Is this level of privacy appropriate (neither too much nor too little) for the workstations?
reasonably so

Would you say that there is a logic that dictates the placement of the employees within the office, or has it simply evolved over time, as the department grew and changed?
none

How many of the workstations need to be near a service counter?

n/a

If applicable, what are the pros and cons of how the workstations currently relate to the service counter?

n/a

How often are verbal communication and/or visual supervision required between open space workstations and private offices?

frequently

How effective has this been in your current office arrangement?

okay

Is the size of the workstations appropriate? If not, please provide information on specific workstations.

yes

Is there are any common workspace (e.g. work or layout table) within the office? yes

If so, where is it located and how large is it? 4 ft round table and one 5 ft drop-leaf table

How often is it used, and by whom? round table - daily; other ~~as~~ as needed

If there is not currently a shared workspace within the office, would one be desired in a renovated office?

n/a



E. ORGANIZATIONAL DATA: SERVICE COUNTER

Please estimate the approximate number of visitors you serve each workday.

avg. 4

4 / day

What types of interactions commonly occur at the service counter? If there is a wide variety, please describe:
1) the shortest typical interactions, 2) the most common type of interaction, and 3) interactions that take longer.

One minute - inquiries/materials receipt; 15 minute (i.e. license explanation)

How long do these various interactions usually last, and how often do they occur? n/a

How comfortable is the level of security and safety provided by the service counter? none

If the service counter is not safe, what suggestions do you have for how it can be improved?

n/a

What technology is used by employees during these interactions (e.g., on-line data on a flat-screen monitor)?

n/a

Where is that technology placed within the office currently?

n/a

Has this placement been effective? yes

Is printed material (e.g., ledgers, paper maps, schedules, brochures or handouts) available for dissemination or viewing at the service counter?

n/a

If so, is the amount of space currently provided for this adequate? yes

Is there currently a visitor waiting or queuing area? yes

waiting area

If so, do you feel that it can be improved? ok as is

How often are visitors brought to the employee side of the service counter? n/a

If and when this occurs, where are they currently brought? Is the path taken to the destination problematic?

Ideally, where and how would such interactions occur? Might the service counter area be configured to allow this type of interaction to remain at the counter, or might visitors be brought to a conference room rather than somebody's private office or workstation?

we could use a service counter in new location; could help with safe





F. ORGANIZATIONAL DATA: TECHNOLOGY

How many printers (including plotters if applicable), copiers and fax machines are there within your department?

| Quantity | Device | Where placed now? | Ideally placed where? |
|----------|---|-------------------|-----------------------|
| 1 | printer | desktop | desktop |
| 1 | printer | desktop | desktop |
| 1 | printer | desktop | desktop |
| 1 | multi-function printer/scanner/copier/fax | kitchen/copy room | copy room |

← shared ↑

Is there any technology that your office uses that is not mentioned in the Technology or Service Counter sections above (e.g. microfiche readers)?

| Quantity | Device | Where placed now? | Ideally placed where? |
|----------|--------|-------------------|-----------------------|
| | N/A | | |
| | | | |
| | | | |

Does your department anticipate acquiring any additional technology in the future? no

If so, where would be the ideal placement for them?

n/a

Do other departments currently use any of the technology in your workspace? yes

← shared

If so, what technology, how often, and by whom?

use of color copier/printer/fax

Does your department currently use any of the technology housed by other departments? rarely

If so, what technology, how often, and in which departments? n/a



G. ORGANIZATIONAL DATA: STORAGE

What published or printed materials are currently stored within your departmental office? Please include storage both within private offices and in open workspace, as applicable.

Town Reports/Warrants/ATM Proceedings/BOS Minutes

In what format is the majority of this information stored (e.g., hard-copy letter/legal size, 24" x 36" sheets, microfiche)?

hardcopy in binders/printouts


For each type of material listed above, in what type(s) of closets or cabinetry (e.g. open shelving, tall cabinet, lateral files) is this material currently stored?

open shelves

For each item listed above, is the type and design of storage unit appropriate for the material stored within it?

yes

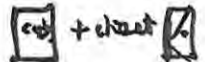
Currently, how many of each type of storage unit mentioned above are there in the department, and do you consider this number adequate for your needs now and in the future?

2 tall and 3 short book cases; 

Ideally, where would these various storage units be placed (e.g., near the service counter, outside a particular office, in a dedicated file room)?

file room preferred

Where are ordinary office supplies currently stored? 6ft tall storage cabinet and storage closet



Are the size and location of this area adequate? If not, how much room would be ideal for this purpose, and where should it be located?

yes

Does your department use remote storage areas within the Flynn Building, Town Hall or elsewhere? yes

Flynn 1/month

If so, where are these areas currently located, and how large are they?

basement of Flynn building

How often do you require access to these areas? once/month

Is there a specific reason why these items are not stored within your office? not used often enough

Has gaining access to these areas been problematic for any reason, and would it be advantageous to have the items stored within your office, if possible? If so, please explain.

no

Are there any items currently stored within your office confines that should not be?

no

In cold weather, where are coats stored? If there is a closet for such purpose, in the size and location needed?

coats are hung on rod just inside office door; TMgr uses personal closet for items

Are there any other storage needs that have not been referenced above, whether needed now or in the future?

n/a



H. MEETINGS

How often do members of your department hold meetings, whether with other staff members or with the public?
weekly

Where are these meetings currently held? Please include meetings held within private offices, open workspaces and elsewhere in the Sudbury Town offices complex (e.g., Loring Personage).

small or large conf room or private office

How many people participate in each of these meetings, and what departments do they most-frequently represent?

2-10 people; HR, Town Counsel, Finance, Dept. Heads

Ideally, where would such meetings occur?

small/large conf rooms

If some or all of these meetings are held outside of your departmental offices, is it due to insufficient meeting space? yes

If so, what are the ideal sizes and number of meeting spaces that your department could support?

one room for 10; another room for 20-25 people

I. DEPARTMENT ADJACENCIES

If your department interacts frequently with other departments or agencies, please list why and level of importance. (1= most important, etc.). Note that we are referring only to in-person meetings rather than phone calls and email.

| <u>Imp.</u> | <u>Agency/Department</u> | <u>Type or reason for interaction</u> |
|-------------|--------------------------|---------------------------------------|
| 1 | HR issues | |
| 2 | | |
| 3 | | |
| 4 | | |

J. PARKING

Please estimate the number of parking spaces needed for department employees and municipal vehicles.

5

K. OTHER THOUGHTS

Are there any entirely new types of spaces that you would like to see in the new location, that don't exist now?

file room, kitchen/break room, service counter

Are there any items that were not mentioned in this questionnaire that you feel should be taken into consideration in the placement and design of your new / renovated space?

THANK YOU! We appreciate your cooperation and assistance.



SUDBURY TOWN OFFICES SPACE PLANNING QUESTIONNAIRE FOR DEPARTMENT LEADERS

In evaluating and planning possible renovations and additions to Sudbury Town Hall, this space planning (or "programming") questionnaire is designed to help our design team learn about how you work: *what* you do, *how* you do it, and whether new space could be designed to help you work better. The questionnaire is a critical component of good facilities planning and it initiates an interactive process that will benefit greatly from your careful thought and participation. Thank you in advance for your time and effort.

Your Name and Department: Maryanne Bilodeau Asst. Town Mgr/ Human Resources Director
 Telephone and fax numbers: (978) 639-336
 Email address: Bilodeaum@Sudbury.ma.us

A. SPACE IMPRESSIONS

What adjectives describe your current space?
 mostly adequate - but need more space w/ a table w/ 4 chairs.

What adjectives should describe your new space?
 more storage space; a meeting area in office w/ table + chairs

B. DEPARTMENT OVERVIEW

Briefly describe what your department does:
 manages: all benefits, employee issues, workers comp; retiree issues
 meet w/ dept heads regularly, collective bargaining
 Custodian of all employee records
 manages capital process -

How many full-time employees (FTE's) currently work within your office space? 2

How many FTE's do you anticipate having within your office space in the new location? 2

How many part-time employees (PTE's) currently work within your office space? 2

Do they have their own workstation, or share with other part-time employees (e.g., staggered work schedules)?

Each have their own work area -
 no staggered schedule

How many PTE's do you anticipate having within your office space after the renovation? 2

Will these PTE's require their own workstation? If so, how many and what type of workstations will be required for them? 2

desk + file cabinet -
 at least one should also have a phone

C. ORGANIZATIONAL DATA: PRIVATE OFFICES

Currently, how many private offices are there within your department?

2

Is there a logic to how they are currently placed within your office (e.g. adjacent to an outside wall, conference room, or open workspace)?

yes - They each need access to files
ATM/HR Director needs private space in office to meet w/ various people privately
What tasks take place in these private offices? (Please include both private offices that currently exist and private offices anticipated in the new location.)

How many private offices are desired in the new location?

1) Asst Town Mgr/HR Director 2) Benefits Coordinator 2

Is there an ideal placement or arrangement for these private offices?
Away from main stream of activity - quiet atmosphere

Is it required that any of the private offices in the department be large enough to accommodate a small meeting table or a work table (in addition to a desk)?

yes - table w 4-6 chairs in ATM/HR Div. Office
it would also be helpful to have a storage closet in this office

What level of privacy is required for each of these offices, and do the tasks completed in any of them involve HIPAA (Health Insurance Portability and Accountability Act) considerations?

Asst Town Mgr/HR Director office needs to be very private.
Entire office deals w/ HIPAA related issues.

D. ORGANIZATIONAL DATA: OPEN WORKSPACE

How many open space workstations are there currently within your department?

2

What level of privacy is currently provided for the typical open space workstation? ___ good fair ___ poor

Is this level of privacy appropriate (neither too much nor too little) for the workstations? yes

Would you say that there is a logic that dictates the placement of the employees within the office, or has it simply evolved over time, as the department grew and changed?

NO - As long as these 2 workstations are near the Benefits Coordinator's Office

How many of the workstations need to be near a service counter?

0

If applicable, what are the pros and cons of how the workstations currently relate to the service counter?

N/A

How often are verbal communication and/or visual supervision required between open space workstations and private offices?

Between Benefits Coordinator + 2 workstations often for verbal communication
Not often between ATM/HR Dir + 2 workstations

How effective has this been in your current office arrangement?

has worked fine -

Is the size of the workstations appropriate? If not, please provide information on specific workstations.

yes - both workstations should have a file cabinet

Is there are any common workspace (e.g. work or layout table) within the office?

NO

If so, where is it located and how large is it?

How often is it used, and by whom?

If there is not currently a shared workspace within the office, would one be desired in a renovated office?

N/A

E. ORGANIZATIONAL DATA: SERVICE COUNTER

we don't have a counter perse.

Please estimate the approximate number of visitors you serve each workday.

8-12
varies

What types of interactions commonly occur at the service counter? If there is a wide variety, please describe:

1) the shortest typical interactions, 2) the most common type of interaction, and 3) interactions that take longer.

Benefits Coordinator

- 1) Explaining Tasks to staff from other depts.
- 2) Explaining Benefits to Retirees + Employees.
- 3) Orientation meetings.

ATM/HR Dir

Employees w/ problems; Dept heads w/ emp. issues; Alkot. Bargaining + Grievance issues.

How long do these various interactions usually last, and how often do they occur?
5 minutes to one hr.

How comfortable is the level of security and safety provided by the service counter? *sufficient*

If the service counter is not safe, what suggestions do you have for how it can be improved?

What technology is used by employees during these interactions (e.g., on-line data on a flat-screen monitor)?
on-line

Where is that technology placed within the office currently?

- Benefits Coordinator
- ATM/HR Dir.

Has this placement been effective?
yes

Is printed material (e.g., ledgers, paper maps, schedules, brochures or handouts) available for dissemination or viewing at the service counter? *yes in office*

If so, is the amount of space currently provided for this adequate? *yes*

Is there currently a visitor waiting or queuing area? *yes, outside of office - *very important!*

If so, do you feel that it can be improved? *sufficient*

How often are visitors brought to the employee side of the service counter? *every time as there is no counter*

If and when this occurs, where are they currently brought? Is the path taken to the destination problematic? *NO*
Asst TM/HR Dir. + Benefit Coordinator's offices

Ideally, where and how would such interactions occur? Might the service counter area be configured to allow this type of interaction to remain at the counter, or might visitors be brought to a conference room rather than somebody's private office or workstation? *No to service counter.*

meetings occur w/ each office.
(Benefits Coordinator uses the general conference room from time to time.)

F. ORGANIZATIONAL DATA: TECHNOLOGY

How many printers (including plotters if applicable), copiers and fax machines are there within your department?

| Quantity | Device | Where placed now? | Ideally placed where? |
|----------|----------------|------------------------------|-----------------------|
| 2 | Printers | ATM/HR DIR Benefits Coord | Same |
| 0 | FAX | — | open office space |
| 0 | copier/scanner | — | open office space |
| | | | |

Is there any technology that your office uses that is not mentioned in the Technology or Service Counter sections above (e.g. microfiche readers)? **NO**

| Quantity | Device | Where placed now? | Ideally placed where? |
|----------|--------|-------------------|-----------------------|
| | | | |
| | | | |

Does your department anticipate acquiring any additional technology in the future? **No, however**
 If so, where would be the ideal placement for them? **small fax-copier-scanner would be beneficial.**

Do other departments currently use any of the technology in your workspace? **no**
 If so, what technology, how often, and by whom?

Does your department currently use any of the technology housed by other departments? **yes**
 If so, what technology, how often, and in which departments?
private Fax machine } used often
copier/scanner - }

G. ORGANIZATIONAL DATA: STORAGE

What published or printed materials are currently stored within your departmental office? Please include storage both within private offices and in open workspace, as applicable.

Health related, dental info, and other
employee benefits related material

In what format is the majority of this information stored (e.g., hard-copy letter/legal size, 24" x 36" sheets, microfiche)?

hard copy, letter size 8 1/2 x 11 and smaller

For each type of material listed above, in what type(s) of closets or cabinetry (e.g. open shelving, tall cabinet, lateral files) is this material currently stored?

Some open shelving, mostly tall cabinets and lateral files.

For each item listed above, is the type and design of storage unit appropriate for the material stored within it?

In most cases

Currently, how many of each type of storage unit mentioned above are there in the department, and do you consider this number adequate for your needs now and in the future?

9 Tall cabinets in open space area
lateral file in Ben. Coord. office plus a closed cabinets
Tall open shelf + lateral in Asst Town Mgr office plus 4-5 metal cabinets

Ideally, where would these various storage units be placed (e.g., near the service counter, outside a particular office, in a dedicated file room)?

dedicated file room in office since many of these files are confidential, some would need to be in Ben. Coord. and Asst Town Mgr office. metal cabinets and on open metal base

Where are ordinary office supplies currently stored?

in a tall closed cabinet outside the HR office

Are the size and location of this area adequate? If not, how much room would be ideal for this purpose, and where should it be located?

Yes,

Does your department use remote storage areas within the Flynn Building, Town Hall or elsewhere? Flynn Bldg. Basement

If so, where are these areas currently located, and how large are they? Flynn Bldg Basement - approx 15 x 20 space with 4 shelves,

How often do you require access to these areas? occasionally

Is there a specific reason why these items are not stored within your office? NO ROOM.

Has gaining access to these areas been problematic for any reason, and would it be advantageous to have the items stored within your office, if possible? If so, please explain.

Problematic at times, boxes are stored on top of each other - not easily accessible. File cabinets are quite old - no locks.

Are there any items currently stored within your office confines that should not be? No

In cold weather, where are coats stored? If there is a closet for such purpose, in the size and location needed?

in each person's office;

Are there any other storage needs that have not been referenced above, whether needed now or in the future?

Can always use more space for storage.

H. MEETINGS

How often do members of your department hold meetings, whether with other staff members or with the public?

Assistant Town manager - often, Beautz coordinator occasional

Where are these meetings currently held? Please include meetings held within private offices, open workspaces and elsewhere in the Sudbury Town offices complex (e.g., Loring Parsonage).
meetings are held in our offices, occasionally in a conf. room (Flynn Bldg) Sometimes Kirby Conf. room, Town Hall, Grange

How many people participate in each of these meetings, and what departments do they most-frequently represent?

anywhere from 1-50 or more w/ Town Departments

Ideally, where would such meetings occur?

If some or all of these meetings are held outside of your departmental offices, is it due to insufficient meeting space? *yes*

If so, what are the ideal sizes and number of meeting spaces that your department could support?

Large Conference room to accommodate ~ 100-200 people similar to Goodnow Kirby Conf. Room

I. DEPARTMENT ADJACENCIES

If your department interacts frequently with other departments or agencies, please list why and level of importance. (1= most important, etc.). Note that we are referring only to in-person meetings rather than phone calls and email.

| Imp. | Agency/Department | Type or reason for interaction |
|------|-------------------|---|
| 1 | Selectmen | Town Mgr. ? asst Town Mgr. work closely w/ each other |
| 2 | Accounting | Personal questions, calculations, reports |
| 3 | | |
| 4 | | |

J. PARKING

Please estimate the number of parking spaces needed for department employees and municipal vehicles.

3

K. OTHER THOUGHTS

Are there any entirely new types of spaces that you would like to see in the new location, that don't exist now?

Kitchen area for all to use

Are there any items that were not mentioned in this questionnaire that you feel should be taken into consideration in the placement and design of your new / renovated space? *NO*

THANK YOU! We appreciate your cooperation and assistance.



SUDBURY TOWN OFFICES SPACE PLANNING QUESTIONNAIRE FOR DEPARTMENT LEADERS

In evaluating and planning possible renovations and additions to Sudbury Town Hall, this space planning (or "programming") questionnaire is designed to help our design team learn about how you work: *what* you do, *how* you do it, and whether new space could be designed to help you work better. The questionnaire is a critical component of good facilities planning and it initiates an interactive process that will benefit greatly from your careful thought and participation. Thank you in advance for your time and effort.

Your Name and Department: Elaine Jones Law

Telephone and fax numbers: 978-639-3384 978-443-0756

Email address: jonese@sudbury.ma.us

A. SPACE IMPRESSIONS

What adjectives describe your *current* space? bright, comfortable, convenient (placement and adjacencies), functional

What adjectives should describe your *new* space? same

B. DEPARTMENT OVERVIEW

Briefly describe what your department does: Legal Dept. consists of Town Counsel and an assistant providing legal services for Town officials, boards and committees. Interaction with public is limited.

How many full-time employees (FTE's) currently work within your office space?

How many FTE's do you anticipate having within your office space in the new location?

How many part-time employees (PTE's) currently work within your office space?

Do they have their own workstation, or share with other part-time employees (e.g., staggered work schedules)?

How many PTE's do you anticipate having within your office space after the renovation?

Will these PTE's require their own workstation? If so, how many and what type of workstations will be required for them?

SUDBURY TOWN OFFICES
SPACE PLANNING QUESTIONNAIRE



C. ORGANIZATIONAL DATA: PRIVATE OFFICES (See attachment)

Currently, how many private offices are there within your department?

1

Is there a logic to how they are currently placed within your office (e.g. adjacent to an outside wall, conference room, or open workspace)?

What tasks take place in these private offices? (Please include both private offices that currently exist and private offices anticipated in the new location.)

How many private offices are desired in the new location?

1

Is there an ideal placement or arrangement for these private offices?

Is it required that any of the private offices in the department be large enough to accommodate a small meeting table or a work table (in addition to a desk)?

What level of privacy is required for each of these offices, and do the tasks completed in any of them involve HIPAA (Health Insurance Portability and Accountability Act) considerations?

D. ORGANIZATIONAL DATA: OPEN WORKSPACE

How many open space workstations are there currently within your department?

2

What level of privacy is currently provided for the typical open space workstation? ___ good x fair ___ poor

Is this level of privacy appropriate (neither too much nor too little) for the workstations? yes

Would you say that there is a logic that dictates the placement of the employees within the office, or has it simply evolved over time, as the department grew and changed? logic

How many of the workstations need to be near a service counter?

0

If applicable, what are the pros and cons of how the workstations currently relate to the service counter?

How often are verbal communication and/or visual supervision required between open space workstations and private offices? n/a

How effective has this been in your current office arrangement?

Is the size of the workstations appropriate? If not, please provide information on specific workstations.

The workstation for the assistant should be larger.

Is there are any common workspace (e.g. work or layout table) within the office?

If so, where is it located and how large is it? Office contains 2 6ft work tables

How often is it used, and by whom? Daily by both occupants

If there is not currently a shared workspace within the office, would one be desired in a renovated office?



E. ORGANIZATIONAL DATA: SERVICE COUNTER n/a

Please estimate the approximate number of visitors you serve each workday.

What types of interactions commonly occur at the service counter? If there is a wide variety, please describe:
1) the shortest typical interactions, 2) the most common type of interaction, and 3) interactions that take longer.

How long do these various interactions usually last, and how often do they occur?

How comfortable is the level of security and safety provided by the service counter?

If the service counter is not safe, what suggestions do you have for how it can be improved?

What technology is used by employees during these interactions (e.g., on-line data on a flat-screen monitor)?

Where is that technology placed within the office currently?

Has this placement been effective?

Is printed material (e.g., ledgers, paper maps, schedules, brochures or handouts) available for dissemination or viewing at the service counter?

If so, is the amount of space currently provided for this adequate?

Is there currently a visitor waiting or queuing area?

If so, do you feel that it can be improved?

How often are visitors brought to the employee side of the service counter?

If and when this occurs, where are they currently brought? Is the path taken to the destination problematic?

Ideally, where and how would such interactions occur? Might the service counter area be configured to allow this type of interaction to remain at the counter, or might visitors be brought to a conference room rather than somebody's private office or workstation?



F. ORGANIZATIONAL DATA: TECHNOLOGY

How many printers (including plotters if applicable), copiers and fax machines are there within your department?

| <u>Quantity</u> | <u>Device</u> | <u>Where placed now?</u> | <u>Ideally placed where?</u> |
|-----------------|------------------|--------------------------|------------------------------|
| 1 | printer (shared) | adjacent to | same |
| | | assistant's | |
| | | desk | |
| | | | |

Is there any technology that your office uses that is not mentioned in the Technology or Service Counter sections above (e.g. microfiche readers)? no

| <u>Quantity</u> | <u>Device</u> | <u>Where placed now?</u> | <u>Ideally placed where?</u> |
|-----------------|---------------|--------------------------|------------------------------|
| | | | |
| | | | |

Does your department anticipate acquiring any additional technology in the future? no

If so, where would be the ideal placement for them?

Do other departments currently use any of the technology in your workspace? no

If so, what technology, how often, and by whom?

Does your department currently use any of the technology housed by other departments?

If so, what technology, how often, and in which departments? printer/scanner off Selectmen's Office used frequently and daily.



G. ORGANIZATIONAL DATA: STORAGE

What published or printed materials are currently stored within your departmental office? Please include storage both within private offices and in open workspace, as applicable.

legal references, notebooks containing reference material, temporary working files, case files,

In what format is the majority of this information stored (e.g., hard-copy letter/legal size, 24" x 36" sheets, microfiche)?

hard copy letter size

For each type of material listed above, in what type(s) of closets or cabinetry (e.g. open shelving, tall cabinet, lateral files)

is this material currently stored? bookcases, vertical files, open shelving, file boxes, tables

For each item listed above, is the type and design of storage unit appropriate for the material stored within it?

yes

Currently, how many of each type of storage unit mentioned above are there in the department, and do you consider this number adequate for your needs now and in the future?

4 vertical 4-drawer files, 2 vertical 2-drawer files, 3 under desk files, 3 bookcases All adequate for future.

Ideally, where would these various storage units be placed (e.g., near the service counter, outside a particular office, in a dedicated file room)?

Accessible to both occupants.

Where are ordinary office supplies currently stored? Selectmen's Office closet and cabinets

Are the size and location of this area adequate? If not, how much room would be ideal for this purpose, and where should it be located? Yes if adjacency remains in renovation.

Does your department use remote storage areas within the Flynn Building, Town Hall or elsewhere? Yes

If so, where are these areas currently located, and how large are they? Flynn Building basement closed shelved cubicle shared with Permanent building Committee

How often do you require access to these areas? once/month, reference only

Is there a specific reason why these items are not stored within your office? not needed for daily work

Has gaining access to these areas been problematic for any reason, and would it be advantageous to have the items stored within your office, if possible? If so, please explain. Access not problematic. No need for storage within office.

Are there any items currently stored *within* your office confines that should *not* be? Yes (closed case files requiring condensing before storage)

In cold weather, where are coats stored? If there is a closet for such purpose, in the size and location needed?

Coats are stored in Selectmen's Office entrance foyer adjacent.

Are there any other storage needs that have not been referenced above, whether needed now or in the future? No



H. MEETINGS See attachment.

How often do members of your department hold meetings, whether with other staff members or with the public?

Where are these meetings currently held? Please include meetings held within private offices, open workspaces and elsewhere in the Sudbury Town offices complex (e.g., Loring Parsonage).

How many people participate in each of these meetings, and what departments do they most-frequently represent?

Ideally, where would such meetings occur?

If some or all of these meetings are held outside of your departmental offices, is it due to insufficient meeting space?

If so, what are the ideal sizes and number of meeting spaces that your department could support?

I. DEPARTMENT ADJACENCIES

If your department interacts frequently with other departments or agencies, please list why and level of importance. (1= most important, etc.). Note that we are referring only to in-person meetings rather than phone calls and email.

| <u>Imp.</u> | <u>Agency/Department</u> | <u>Type or reason for interaction</u> |
|-------------|--------------------------|---------------------------------------|
| 1 | Town Manager | Daily interface; weekly meetings |
| 2 | Selectmen's Office | shared work involvement |
| 3 | Planning/Housing | consultation |
| 4 | Assistant Town Manager | consultation |

J. PARKING

Please estimate the number of parking spaces needed for department employees and municipal vehicles.

2

K. OTHER THOUGHTS

Are there any entirely new types of spaces that you would like to see in the new location, that don't exist now? No

Are there any items that were not mentioned in this questionnaire that you feel should be taken into consideration in the placement and design of your new / renovated space?

the responses to this questionnaire assume that the law dept/
personnel will function as it does at present

THANK YOU! We appreciate your cooperation and assistance.

ATTACHMENT TO SPACE PLANNING QUESTIONNAIRE – LAW DEPARTMENT

C. ORGANIZATIONAL DATA: PRIVATE OFFICES

Currently, how many private offices are there within your department?

The office itself, while shared, can be closed off for privacy. The adjacent meeting room, if available, may also be used for privacy purposes.

Is there a logic to how they are currently placed within your office? *n/a*

What tasks take place in these private offices?

Legal work of a confidential nature including discussions with staff either in person or by telephone.

How many private offices are desired in the new location?

Same configuration which can be closed off for privacy. Office should accommodate Town Counsel and assistant who work together, share files, references, worktables, and printer.

Is it required that any of the private offices be large enough to accommodate a small meeting table or work table in addition to a desk?

Extra seating near Town Counsel desk for 2 or 3 persons and extra seating for 1 near assistant's desk would be sufficient.

What level of privacy is required for these offices, and do the tasks completed involve HIPAA?

Ability to close off from adjacent offices would be required. No HIPAA considerations.

H. MEETINGS

How often do members of your department hold meetings, whether with other staff members or with the public?

Infrequently. Any such meetings would be for the purposes of depositions, property closings, or meeting with a combination of Town officials/staff too large to be accommodated in the Law Office.

Where are these meetings currently held?

These infrequent meetings are usually held in the adjacent conference room or larger conference room in the Flynn Building. Most meetings are meetings within the office space.

How many people participate in each of these meetings, and what departments do they most frequently represent?

Mostly one or two at a time in the office: Planning, Housing Office, Building Inspector, Facilities Director, Health Director, DPW Director, Assistant Town Manager, Assessing Office personnel, Finance Director

Ideally, where would such meetings occur?

In office.

Is some or all of these meetings are held outside of your departmental offices, is it due to insufficient space.

Location of these meetings would be dependent upon intent of meeting rather than lack of space.

IN GENERAL: It should be noted that much of the work of this office is ongoing for long periods of time requiring accessible work tables and temporary files.



SUDBURY TOWN OFFICES SPACE PLANNING QUESTIONNAIRE FOR DEPARTMENT LEADERS

In evaluating and planning possible renovations and additions to Sudbury Town Hall, this space planning (or "programming") questionnaire is designed to help our design team learn about how you work: *what* you do, *how* you do it, and whether new space could be designed to help you work better. The questionnaire is a critical component of good facilities planning and it initiates an interactive process that will benefit greatly from your careful thought and participation. Thank you in advance for your time and effort.

Your Name and Department: Jody Kablack Planning + Community Development
 Telephone and fax numbers: 978-639-3387 978-443-0756
 Email address: Kablackja@sudbury.ma.us

A. SPACE IMPRESSIONS

What adjectives describe your *current* space? 4 separate offices + copier room + vestibule

What adjectives should describe your *new* space? 3-4 separate offices + storage/copier/plan storage

B. DEPARTMENT OVERVIEW

Briefly describe what your department does:
land use permits for Plan Bd, Zoning Board, Design Review Bd, selective
 Community Housing
 Regional Housing

How many full-time employees (FTE's) currently work within your office space? 2

How many FTE's do you anticipate having within your office space in the new location? 2

How many part-time employees (PTE's) currently work within your office space? 5

Do they have their own workstation, or share with other part-time employees (e.g., staggered work schedules)?

4 have own work station
 1 is shared

How many PTE's do you anticipate having within your office space after the renovation? 2-3

Will these PTE's require their own workstation? If so, how many and what type of workstations will be required for them? 2-3

desks

C. ORGANIZATIONAL DATA: PRIVATE OFFICES

Currently, how many private offices are there within your department?

2

Is there a logic to how they are currently placed within your office (e.g. adjacent to an outside wall, conference room, or open workspace)? *All empty into the vestibule*

What tasks take place in these private offices? (Please include both private offices that currently exist and private offices anticipated in the new location.) *Meetings, quiet work*

How many private offices are desired in the new location?

2

Is there an ideal placement or arrangement for these private offices? *not really*

Is it required that any of the private offices in the department be large enough to accommodate a small meeting table or a work table (in addition to a desk)? *Yes (1)*

What level of privacy is required for each of these offices, and do the tasks completed in any of them involve HIPAA (Health Insurance Portability and Accountability Act) considerations? *Private door for privacy*

D. ORGANIZATIONAL DATA: OPEN WORKSPACE

How many open space workstations are there currently within your department?

4

What level of privacy is currently provided for the typical open space workstation? good fair poor *(none)*

Is this level of privacy appropriate (neither too much nor too little) for the workstations? *could be improved*

Would you say that there is a logic that dictates the placement of the employees within the office, or has it simply evolved over time, as the department grew and changed? *simply evolved*

How many of the workstations need to be near a service counter?

1-2

If applicable, what are the pros and cons of how the workstations currently relate to the service counter?

front desk reception needs to be clearly visible. Dept. Head office door should not be easily visible to the public

How often are verbal communication and/or visual supervision required between open space workstations and private offices?

Several times each day.

How effective has this been in your current office arrangement? *Effective*

Is the size of the workstations appropriate? If not, please provide information on specific workstations. *Yes*

Is there are any common workspace (e.g. work or layout table) within the office?

If so, where is it located and how large is it? *Yes. 2x4' table in vestibule*

How often is it used, and by whom? *Outgoing mail, public information flyers*

If there is not currently a shared workspace within the office, would one be desired in a renovated office?

E. ORGANIZATIONAL DATA: SERVICE COUNTER

- I don't think we need a counter.

Please estimate the approximate number of visitors you serve each workday.

5-10

What types of interactions commonly occur at the service counter? If there is a wide variety, please describe:

1) the shortest typical interactions, 2) the most common type of interaction, and 3) interactions that take longer.

*Most common - picking up/dropping off applications
- public inquiries about property/applications*

~~Other~~

How long do these various interactions usually last, and how often do they occur? *2-8 min. typically*

How comfortable is the level of security and safety provided by the service counter? *There is no counter - only desks*

If the service counter is not safe, what suggestions do you have for how it can be improved?

What technology is used by employees during these interactions (e.g., on-line data on a flat-screen monitor)?

computer (on line data on a flat screen monitor)

Where is that technology placed within the office currently? *on each desk*

Has this placement been effective? *Yes for work, but may not be as effective on a counter*

Is printed material (e.g., ledgers, paper maps, schedules, brochures or handouts) available for dissemination or viewing at the service counter?

Yes

If so, is the amount of space currently provided for this adequate? *Yes (2x4' table)*

Is there currently a visitor waiting or queuing area? *In hallway outside office*

If so, do you feel that it can be improved?

How often are visitors brought to the employee side of the service counter? *The public regularly enters the office*

If and when this occurs, where are they currently brought? Is the path taken to the destination problematic?

No

Ideally, where and how would such interactions occur? Might the service counter area be configured to allow this type of interaction to remain at the counter, or might visitors be brought to a conference room rather than somebody's private office or workstation? *No, OK to bring public into private office.*

F. ORGANIZATIONAL DATA: TECHNOLOGY

How many printers (including plotters if applicable), copiers and fax machines are there within your department?

| <u>Quantity</u> | <u>Device</u> | <u>Where placed now?</u> | <u>Ideally placed where?</u> |
|-----------------|-----------------------------------|----------------------------|------------------------------|
| 2 | Printers ^{1 color} 1 B+W | in ^{front} office | same |
| 1 | copier | in separate office | same |
| | | | |
| | | | |

Is there any technology that your office uses that is not mentioned in the Technology or Service Counter sections above (e.g. microfiche readers)?

No

| <u>Quantity</u> | <u>Device</u> | <u>Where placed now?</u> | <u>Ideally placed where?</u> |
|-----------------|---------------|--------------------------|------------------------------|
| | | | |
| | | | |

Does your department anticipate acquiring any additional technology in the future? No

If so, where would be the ideal placement for them?

Do other departments currently use any of the technology in your workspace? Yes

If so, what technology, how often, and by whom? The copier can be used by multiple depts.

Does your department currently use any of the technology housed by other departments? Yes

If so, what technology, how often, and in which departments? large copiers are shared

G. ORGANIZATIONAL DATA: STORAGE

What published or printed materials are currently stored within your departmental office? Please include storage both within private offices and in open workspace, as applicable.

Application files (> 10 file cabinets full) plans
Reference materials

In what format is the majority of this information stored (e.g., hard-copy letter/legal size, 24" x 36" sheets, microfiche)?

hard copy letter paper plans (24" x 36")

For each type of material listed above, in what type(s) of closets or cabinetry (e.g. open shelving, tall cabinet, lateral files) is this material currently stored?

file cabinets
plan drawers

For each item listed above, is the type and design of storage unit appropriate for the material stored within it?

yes

Currently, how many of each type of storage unit mentioned above are there in the department, and do you consider this number adequate for your needs now and in the future?

12 file cabinets yes, adequate

Ideally, where would these various storage units be placed (e.g., near the service counter, outside a particular office, in a dedicated file room)?

6 file cabinets in main front office
6 file cabinets in Dept Head office
Plan drawers in dedicated file/copier room

Where are ordinary office supplies currently stored? cabinet

Are the size and location of this area adequate? If not, how much room would be ideal for this purpose, and where should it be located? yes

Does your department use remote storage areas within the Flynn Building, Town Hall or elsewhere? yes

If so, where are these areas currently located, and how large are they? basement. We share a storage space w/ Law Dept.

How often do you require access to these areas? Weekly

Is there a specific reason why these items are not stored within your office? Not enough room

Has gaining access to these areas been problematic for any reason, and would it be advantageous to have the items stored within your office, if possible? If so, please explain. No, we like them in the basement but they need to be easily accessible

Are there any items currently stored within your office confines that should not be? Yes, approx. 10 file boxes

In cold weather, where are coats stored? If there is a closet for such purpose, in the size and location needed? Coat rack

Are there any other storage needs that have not been referenced above, whether needed now or in the future?

Small refrigerator



H. MEETINGS

How often do members of your department hold meetings, whether with other staff members or with the public? *2-3 times/week*

Where are these meetings currently held? Please include meetings held within private offices, open workspaces and elsewhere in the Sudbury Town offices complex (e.g., Loring Parsonage). *Mostly in Flynn Bldg conference rooms.*

How many people participate in each of these meetings, and what departments do they most-frequently represent? *3-10*
Mostly Planning Dept reps + public. Other times they are multiple dept. meetings

Ideally, where would such meetings occur? *Meeting/conference room*

If some or all of these meetings are held outside of your departmental offices, is it due to insufficient meeting space?

If so, what are the ideal sizes and number of meeting spaces that your department could support?

I. DEPARTMENT ADJACENCIES

If your department interacts frequently with other departments or agencies, please list why and level of importance. (1= most important, etc.). Note that we are referring only to in-person meetings rather than phone calls and email.

| <u>Imp.</u> | <u>Agency/Department</u> | <u>Type or reason for interaction</u> |
|-------------|--------------------------|---------------------------------------|
| 1 | DPW | Application review |
| 2 | Town Manager | Process / projects |
| 3 | Law | " |
| 4 | | |

J. PARKING

Please estimate the number of parking spaces needed for department employees and municipal vehicles.

5-6

K. OTHER THOUGHTS

Are there any entirely new types of spaces that you would like to see in the new location, that don't exist now?

→ *Better, more usable vestibules - for the public to sit while waiting or for display of information on Town projects*

Are there any items that were not mentioned in this questionnaire that you feel should be taken into consideration in the placement and design of your new / renovated space?

THANK YOU! We appreciate your cooperation and assistance.



**SUDBURY TOWN OFFICES
SPACE PLANNING QUESTIONNAIRE FOR DEPARTMENT LEADERS**

In evaluating and planning possible renovations and additions to Sudbury Town Hall, this space planning (or "programming") questionnaire is designed to help our design team learn about how you work: *what* you do, *how* you do it, and whether new space could be designed to help you work better. The questionnaire is a critical component of good facilities planning and it initiates an interactive process that will benefit greatly from your careful thought and participation. Thank you in advance for your time and effort.

Your Name and Department: Barbara Christolm Accounting
 Telephone and fax numbers: (978) 639-3319 (978) 443-8450
 Email address: chistolmb@sudbury.ma.us

A. SPACE IMPRESSIONS

What adjectives describe your *current* space? too small, congested

What adjectives should describe your *new* space? larger (some areas), bright, more accessible,

B. DEPARTMENT OVERVIEW

Briefly describe what your department does: maintain all Financial records for the town. we process all accounts payable and payroll for town and school. we do not deal with the public.

How many full-time employees (FTE's) currently work within your office space?

How many FTE's do you anticipate having within your office space in the new location?

How many part-time employees (PTE's) currently work within your office space? (senior worker)

Do they have their own workstation, or share with other part-time employees (e.g., staggered work schedules)? no, they work on a table.

How many PTE's do you anticipate having within your office space after the renovation? Do not

Will these PTE's require their own workstation? If so, how many and what type of workstations will be required for them? no

C. ORGANIZATIONAL DATA: PRIVATE OFFICES

Currently, how many private offices are there within your department?

Is there a logic to how they are currently placed within your office (e.g. adjacent to an outside wall, conference room, or open workspace)? *NO.*

What tasks take place in these private offices? (Please include both private offices that currently exist and private offices anticipated in the new location.) *Town Accountant + Asst. Town Accountant.*

How many private offices are desired in the new location? *CONFIDENTIAL and performing complex financial analysis.*

Is there an ideal placement or arrangement for these private offices? *close to each other.*

Is it required that any of the private offices in the department be large enough to accommodate a small meeting table or a work table (in addition to a desk)? *NO*

What level of privacy is required for each of these offices, and do the tasks completed in any of them involve HIPAA (Health Insurance Portability and Accountability Act) considerations? *yes*

D. ORGANIZATIONAL DATA: OPEN WORKSPACE

How many open space workstations are there currently within your department?

What level of privacy is currently provided for the typical open space workstation? ___ good fair ___ poor

Is this level of privacy appropriate (neither too much nor too little) for the workstations? *NO*

Would you say that there is a logic that dictates the placement of the employees within the office, or has it simply evolved over time, as the department grew and changed? *yes*

How many of the workstations need to be near a service counter?

If applicable, what are the pros and cons of how the workstations currently relate to the service counter?

How often are verbal communication and/or visual supervision required between open space workstations and private offices?

lot of interaction.

How effective has this been in your current office arrangement? *we have made it work*

Is the size of the workstations appropriate? If not, please provide information on specific workstations.

yes

Is there are any common workspace (e.g. work or layout table) within the office? *yes*

If so, where is it located and how large is it? *4-5 ft table, next to A/P clerk's desk*

How often is it used, and by whom? *Daily. office personnel + senior worker*

If there is not currently a shared workspace within the office, would one be desired in a renovated office?

E. ORGANIZATIONAL DATA: SERVICE COUNTER

N/A

Please estimate the approximate number of visitors you serve each workday.

What types of interactions commonly occur at the service counter? If there is a wide variety, please describe:
1) the shortest typical interactions, 2) the most common type of interaction, and 3) interactions that take longer.

How long do these various interactions usually last, and how often do they occur?

How comfortable is the level of security and safety provided by the service counter?

If the service counter is not safe, what suggestions do you have for how it can be improved?

What technology is used by employees during these interactions (e.g., on-line data on a flat-screen monitor)?

Where is that technology placed within the office currently?

Has this placement been effective?

Is printed material (e.g., ledgers, paper maps, schedules, brochures or handouts) available for dissemination or viewing at the service counter?

If so, is the amount of space currently provided for this adequate?

Is there currently a visitor waiting or queuing area?

If so, do you feel that it can be improved?

How often are visitors brought to the employee side of the service counter?

If and when this occurs, where are they currently brought? Is the path taken to the destination problematic?

Ideally, where and how would such interactions occur? Might the service counter area be configured to allow this type of interaction to remain at the counter, or might visitors be brought to a conference room rather than somebody's private office or workstation?

F. ORGANIZATIONAL DATA: TECHNOLOGY

How many printers (including plotters if applicable), copiers and fax machines are there within your department?

| Quantity | Device | Where placed now? | Ideally placed where? |
|----------|------------------|---------------------|-----------------------|
| 1 | printer (checks) | server room | Accounting dept. |
| 1 | copier | " | " |
| 1 | printer (munis) | office | " |
| 1 | printer | Accountant's office | Accountant's office |

Is there any technology that your office uses that is not mentioned in the Technology or Service Counter sections above (e.g. microfiche readers)?

| Quantity | Device | Where placed now? | Ideally placed where? |
|----------|--------|-------------------|-----------------------|
| | | | |
| | | | |

Does your department anticipate acquiring any additional technology in the future? *Fax machine*
If so, where would be the ideal placement for them? *Accounting dept.*

Do other departments currently use any of the technology in your workspace? *NO*
If so, what technology, how often, and by whom?

Does your department currently use any of the technology housed by other departments? *yes.*
If so, what technology, how often, and in which departments? *Fax machine in Treasurer's office*
Muni's computer in server room.

G. ORGANIZATIONAL DATA: STORAGE

What published or printed materials are currently stored within your departmental office? Please include storage both within private offices and in open workspace, as applicable. All Financial records.

In what format is the majority of this information stored (e.g., hard-copy letter/legal size, 24" x 36" sheets, microfiche)?

hard-copy letter

For each type of material listed above, in what type(s) of closets or cabinetry (e.g. open shelving, tall cabinet, lateral files) is this material currently stored?

shelves, tall + lateral file cabinets

For each item listed above, is the type and design of storage unit appropriate for the material stored within it? yes

Currently, how many of each type of storage unit mentioned above are there in the department, and do you consider this number adequate for your needs now and in the future? (2) 2 draw lateral (9) 2 draw tall, (7) 4 draw tall, (3) 3 draw lateral, (3) 4 draw lateral, (3) 4 open shelves, (2) 5 open shelves. YES.

Ideally, where would these various storage units be placed (e.g., near the service counter, outside a particular office, in a dedicated file room)? Broken down by office.

Where are ordinary office supplies currently stored? tall file cabinet

Are the size and location of this area adequate? If not, how much room would be ideal for this purpose, and where should it be located? yes

Does your department use remote storage areas within the Flynn Building, Town Hall or elsewhere? yes

If so, where are these areas currently located, and how large are they? Town Hall for microfilm. Flynn Building basement 2 storage areas.

How often do you require access to these areas? we are required to maintain this information.

Is there a specific reason why these items are not stored within your office? not enough room, older information, MGL requirement

Has gaining access to these areas been problematic for any reason, and would it be advantageous to have the items stored within your office, if possible? If so, please explain. NO

Are there any items currently stored within your office confines that should not be? NO

In cold weather, where are coats stored? If there is a closet for such purpose, in the size and location needed? coat closet yes

Are there any other storage needs that have not been referenced above, whether needed now or in the future? NO

H. MEETINGS

How often do members of your department hold meetings, whether with other staff members or with the public? *not often.*

Where are these meetings currently held? Please include meetings held within private offices, open workspaces and elsewhere in the Sudbury Town offices complex (e.g., Loring Parsonage). *private offices OR meeting room.*

How many people participate in each of these meetings, and what departments do they most-frequently represent? *2 OR 3. Schools, DPW*

Ideally, where would such meetings occur?

If some or all of these meetings are held outside of your departmental offices, is it due to insufficient meeting space? *NO*

If so, what are the ideal sizes and number of meeting spaces that your department could support?

I. DEPARTMENT ADJACENCIES

If your department interacts frequently with other departments or agencies, please list why and level of importance. (1= most important, etc.). Note that we are referring only to in-person meetings rather than phone calls and email.

| <u>Imp.</u> | <u>Agency/Department</u> | <u>Type or reason for interaction</u> |
|-------------|--------------------------|---------------------------------------|
| 1 | TREASURER | part of Finance dept |
| 2 | Personnel | Payroll + personnel issues |
| 3 | Assessors | Part of Finance dept |
| 4 | School | A/P + payroll issues |

J. PARKING

Please estimate the number of parking spaces needed for department employees and municipal vehicles.

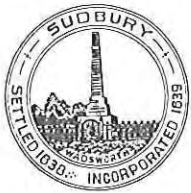
4

K. OTHER THOUGHTS

Are there any entirely new types of spaces that you would like to see in the new location, that don't exist now?

Are there any items that were not mentioned in this questionnaire that you feel should be taken into consideration in the placement and design of your new / renovated space? *Place FOR WORK area FOR Auditors.*

THANK YOU! We appreciate your cooperation and assistance.



SUDBURY TOWN OFFICES SPACE PLANNING QUESTIONNAIRE FOR DEPARTMENT LEADERS

In evaluating and planning possible renovations and additions to Sudbury Town Hall, this space planning (or "programming") questionnaire is designed to help our design team learn about how you work: *what* you do, *how* you do it, and whether new space could be designed to help you work better. The questionnaire is a critical component of good facilities planning and it initiates an interactive process that will benefit greatly from your careful thought and participation. Thank you in advance for your time and effort.

Your Name and Department: Andrea Tencelsen Treasurer/collector/Finance Director

Telephone and fax numbers: 978-639-3377 978-443-8450

Email address: Tencelsma@Sudbury, MA, US

A. SPACE IMPRESSIONS

What adjectives describe your *current* space? cluttered/full. worn looking. Mix & match appearance

What adjectives should describe your *new* space? Fresh, clean, orderly, "open" ideally larger but safer public window

B. DEPARTMENT OVERVIEW

Briefly describe what your department does:

Handles large sums of money. Deals with public on constant basis. Houses, access to many permanent records

How many full-time employees (FTE's) currently work within your office space?

How many FTE's do you anticipate having within your office space in the new location?

How many part-time employees (PTE's) currently work within your office space?

Do they have their own workstation, or share with other part-time employees (e.g., staggered work schedules)?

We will need space for passports and collating area

How many PTE's do you anticipate having within your office space after the renovation?

Will these PTE's require their own workstation? If so, how many and what type of workstations will be required for them?

No but a workspace of some kind. no phone or computer

C. ORGANIZATIONAL DATA: PRIVATE OFFICES

Currently, how many private offices are there within your department?

2

Is there a logic to how they are currently placed within your office (e.g. adjacent to an outside wall, conference room, or open workspace)? No

What tasks take place in these private offices? (Please include both private offices that currently exist and private offices anticipated in the new location.)

How many private offices are desired in the new location?

2

Is there an ideal placement or arrangement for these private offices? Away from public counter

Is it required that any of the private offices in the department be large enough to accommodate a small meeting table or a work table (in addition to a desk)? 1 if possible (Finance Director)

What level of privacy is required for each of these offices, and do the tasks completed in any of them involve HIPAA (Health Insurance Portability and Accountability Act) considerations? Just locking Doors

D. ORGANIZATIONAL DATA: OPEN WORKSPACE

How many open space workstations are there currently within your department?

3

What level of privacy is currently provided for the typical open space workstation? ___ good ___ fair poor

Is this level of privacy appropriate (neither too much nor too little) for the workstations? Not really

Would you say that there is a logic that dictates the placement of the employees within the office, or has it simply evolved over time, as the department grew and changed? Evolved, limited space

How many of the workstations need to be near a service counter?

2

If applicable, what are the pros and cons of how the workstations currently relate to the service counter? need clear line of site

How often are verbal communication and/or visual supervision required between open space workstations and private offices?

constant with Assistant Treasurer. more sight but less sound would be good.

How effective has this been in your current office arrangement? Decent

Is the size of the workstations appropriate? If not, please provide information on specific workstations.

yes

Is there are any common workspace (e.g. work or layout table) within the office?

yes

If so, where is it located and how large is it?

center, table sized only

How often is it used, and by whom?

constant, work share area

If there is not currently a shared workspace within the office, would one be desired in a renovated office?

For passports and tax payer discussions. cubicle

E. ORGANIZATIONAL DATA: SERVICE COUNTER

Please estimate the approximate number of visitors you serve each workday.

10-20

What types of interactions commonly occur at the service counter? If there is a wide variety, please describe:
1) the shortest typical interactions, 2) the most common type of interaction, and 3) interactions that take longer.

- ① - tax payment & inquiry
- ② - passport processing
- ③ - Internal traffic (ie deliveries, mail, drop offs)

How long do these various interactions usually last, and how often do they occur?

- ① & ③ 1-5 minutes
- ② 15 minutes

How comfortable is the level of security and safety provided by the service counter? Not adequate

If the service counter is not safe, what suggestions do you have for how it can be improved?

better view, locked access to suite from Hallway some glass

What technology is used by employees during these interactions (e.g., on-line data on a flat-screen monitor)?

workstation computer, Date & time stamp, check endorser

Where is that technology placed within the office currently?

counter. Hand scanners at desks also.

Has this placement been effective?

yes

Is printed material (e.g., ledgers, paper maps, schedules, brochures or handouts) available for dissemination or viewing at the service counter?

yes

If so, is the amount of space currently provided for this adequate?

small amount of counter Notice board outside wall

Is there currently a visitor waiting or queuing area?

No

If so, do you feel that it can be improved?

yes. Two spaces at counter free of suite/Hallway traffic would be good. counter table for residents to write out checks

How often are visitors brought to the employee side of the service counter?

only for passport

If and when this occurs, where are they currently brought? Is the path taken to the destination problematic?

yes, into suite. security & flow problem

Ideally, where and how would such interactions occur? Might the service counter area be configured to allow this type of interaction to remain at the counter, or might visitors be brought to a conference room rather than somebody's private office or workstation?

would help. If we had 2 ample spots at counter of suite it would be better not to bring public into suite.

Do have loop camera

F. ORGANIZATIONAL DATA: TECHNOLOGY

How many printers (including plotters if applicable), copiers and fax machines are there within your department?

| Quantity | Device | Where placed now? | Ideally placed where? |
|----------|----------------|-------------------|-----------------------|
| 1 | Printer | Near counter | Near counter |
| 1 | copy/scan | " " | " " |
| 1 | fax machine | " " | " " |
| 2 | small printers | private offices | private offices |

Is there any technology that your office uses that is not mentioned in the Technology or Service Counter sections above (e.g. microfiche readers)?

| Quantity | Device | Where placed now? | Ideally placed where? |
|----------|-----------|-------------------|-----------------------|
| 2 | embassers | counter | counter |

Does your department anticipate acquiring any additional technology in the future? **No**

If so, where would be the ideal placement for them?

Do other departments currently use any of the technology in your workspace? **No**

If so, what technology, how often, and by whom?

Does your department currently use any of the technology housed by other departments?

If so, what technology, how often, and in which departments?

large capacity shredder (Frequently)
large capacity copier/scanner (frequently)
postage machine (weekly)

G. ORGANIZATIONAL DATA: STORAGE

What published or printed materials are currently stored within your departmental office? Please include storage both within private offices and in open workspace, as applicable.

several File cabinets & lateral files required for 2 years of data

In what format is the majority of this information stored (e.g., hard-copy letter/legal size, 24" x 36" sheets, microfiche)?

letter/legal size, hard-copy

For each type of material listed above, in what type(s) of closets or cabinetry (e.g. open shelving, tall cabinet, lateral files) is this material currently stored?

Fire proof safes requiring reinforced flooring. 1 or 2 large, heavy safes.

For each item listed above, is the type and design of storage unit appropriate for the material stored within it?

perm. Property records? safe materials required

Currently, how many of each type of storage unit mentioned above are there in the department, and do you consider this number adequate for your needs now and in the future?

May need a couple more fire proof for property records

Ideally, where would these various storage units be placed (e.g., near the service counter, outside a particular office, in a dedicated file room)?

Central to main office area. Away from counter

Where are ordinary office supplies currently stored?

In tall cabinet, centrally

Are the size and location of this area adequate? If not, how much room would be ideal for this purpose, and where should it be located?

yes, adequate

Does your department use remote storage areas within the Flynn Building, Town Hall or elsewhere?

yes
Basement of Flynn. one closet

How often do you require access to these areas?

weekly

Is there a specific reason why these items are not stored within your office?

older than 2 years and perm in nature. No room in site.

Has gaining access to these areas been problematic for any reason, and would it be advantageous to have the items stored within your office, if possible? If so, please explain.

No need to keep more than 2 years in site.

Are there any items currently stored within your office confines that should not be?

No

In cold weather, where are coats stored? If there is a closet for such purpose, in the size and location needed?

hooks by doorways mostly. closet area would be nice

Are there any other storage needs that have not been referenced above, whether needed now or in the future?

uniform process & storage would be good. Better catalogs. scanning of some materials.

H. MEETINGS

How often do members of your department hold meetings, whether with other staff members or with the public? *rarely.*

Where are these meetings currently held? Please include meetings held within private offices, open workspaces and elsewhere in the Sudbury Town offices complex (e.g., Loring Parsonage).

How many people participate in each of these meetings, and what departments do they most-frequently represent? *N/A*

Ideally, where would such meetings occur?

If some or all of these meetings are held outside of your departmental offices, is it due to insufficient meeting space?

If so, what are the ideal sizes and number of meeting spaces that your department could support? *N/A*

we need a space for Auditors near us 2x year

I. DEPARTMENT ADJACENCIES

If your department interacts frequently with other departments or agencies, please list why and level of importance. (1= most important, etc.). Note that we are referring only to in-person meetings rather than phone calls and email.

| <u>Imp.</u> | <u>Agency/Department</u> | <u>Type or reason for interaction</u> |
|-------------|--------------------------|---|
| 1 | Accounting | constant related work |
| 2 | Assessors | constant related work |
| 3 | IT | system issues issues |
| 4 | Selectmen's | TM & ATM access for Finance Director & Financial Analyst. |

J. PARKING

Please estimate the number of parking spaces needed for department employees and municipal vehicles. 5

K. OTHER THOUGHTS

Are there any entirely new types of spaces that you would like to see in the new location, that don't exist now?

Are there any items that were not mentioned in this questionnaire that you feel should be taken into consideration in the placement and design of your new / renovated space?

*→ Payment Drop box for tax office can be moved to Town Hall.
→ video connect at Library w/ drop box might be help for
→ convenience for all departments to visit with deposit information.*



SUDBURY TOWN OFFICES SPACE PLANNING QUESTIONNAIRE FOR DEPARTMENT LEADERS

In evaluating and planning possible renovations and additions to Sudbury Town Hall, this space planning (or "programming") questionnaire is designed to help our design team learn about how you work: *what* you do, *how* you do it, and whether new space could be designed to help you work better. The questionnaire is a critical component of good facilities planning and it initiates an interactive process that will benefit greatly from your careful thought and participation. Thank you in advance for your time and effort.

Your Name and Department: Cynthia Gerry Assessors
 Telephone and fax numbers: (phone) 978-639-3395 (fax) 978-639-3314
 Email address: geryc@sudbury.ma.us

A. SPACE IMPRESSIONS

What adjectives describe your *current* space? **Bustling, busy, somewhat cramped.**

What adjectives should describe your *new* space? **Accessible, functional, workable, spacious.**

B. DEPARTMENT OVERVIEW

Briefly describe what your department does: **Property assessments, abatements, exemptions, mapping, motor vehicle excise, property transfers, property inspections and associated data entry**

How many full-time employees (FTE's) currently work within your office space?

How many FTE's do you anticipate having within your office space in the new location?

How many part-time employees (PTE's) currently work within your office space?

Do they have their own workstation, or share with other part-time employees (e.g., staggered work schedules)?

How many PTE's do you anticipate having within your office space after the renovation?

Will these PTE's require their own workstation? If so, how many and what type of workstations will be required for them?

* Our staffing level is currently in transition.



C. ORGANIZATIONAL DATA: PRIVATE OFFICES

Currently, how many private offices are there within your department?

2 private

Is there a logic to how they are currently placed within your office (e.g. adjacent to an outside wall, conference room, or open workspace)? The 2 private offices pre-dated the Flynn Building Renovation.

What tasks take place in these private offices? (Please include both private offices that currently exist and private offices anticipated in the new location.) Department head office, private discussions with taxpayers.

How many private offices are desired in the new location? 1 private office.

Is there an ideal placement or arrangement for these private offices? within the department area adjacent to conference room area.

Is it required that any of the private offices in the department be large enough to accommodate a small meeting table or a work table (in addition to a desk)? Yes.

What level of privacy is required for each of these offices, and do the tasks completed in any of them involve HIPAA (Health Insurance Portability and Accountability Act) considerations? Semi private/somewhat separate from the open workspace area. The tasks involved do not involve HIPPA issues.

D. ORGANIZATIONAL DATA: OPEN WORKSPACE

How many open space workstations are there currently within your department?

3

What level of privacy is currently provided for the typical open space workstation? ___ good fair ___ poor

Is this level of privacy appropriate (neither too much nor too little) for the workstations? generally yes, although more space would be very helpful

Would you say that there is a logic that dictates the placement of the employees within the office, or has it simply evolved over time, as the department grew and changed? The current configuration of the desk placement is intentional based on available space.

How many of the workstations need to be near a service counter?

2

If applicable, what are the pros and cons of how the workstations currently relate to the service counter?

We currently have 3 workstations in the counter area. At times it is distracting to have the workstations in such close proximity to the counter. It does however, ensure ample counter service.

How often are verbal communication and/or visual supervision required between open space workstations and private offices?

Frequent, it is important to have a private office area adjacent to the central workstation area.

How effective has this been in your current office arrangement? It has been workable.

Is the size of the workstations appropriate? If not, please provide information on specific workstations.

The workstation areas of the central office are congested and are lacking sufficient storage areas.

Is there any common workspace (e.g. work or layout table) within the office? Not currently, but there really needs to be.

If so, where is it located and how large is it?

How often is it used, and by whom?

If there is not currently a shared workspace within the office, would one be desired in a renovated office?

Definitely.

E. ORGANIZATIONAL DATA: SERVICE COUNTER

Please estimate the approximate number of visitors you serve each workday.

What types of interactions commonly occur at the service counter? If there is a wide variety, please describe:

1) the shortest typical interactions, 2) the most common type of interaction, and 3) interactions that take longer.

5 to 15 on average .

1. Counter terminal use by appraiser and realtors (from 10 min to 15 min per visit. 2. Mapping (10 to 15 min. per visit). 3. Motor Vehicle excise, (5 to 10 minutes on average), 4. Property value inquiries (length of visit varies), 5. statutory exemption inquiries (length of visit varies).

How long do these various interactions usually last, and how often do they occur?

They vary. Some interactions are cyclical, based on issuance of excise and property taxes, others are ongoing and routine. See answer to above question.

How comfortable is the level of security and safety provided by the service counter?

We have a roll down window which closes off the terminal area during off hours, seems to provide sufficient security.

If the service counter is not safe, what suggestions do you have for how it can be improved?

What technology is used by employees during these interactions (e.g., on-line data on a flat-screen monitor)?

On-line data with a flat screen monitor hard copy maps, on-line mapping with a flat screen monitor.

Where is that technology placed within the office currently?

On the counter.

Has this placement been effective?

Yes, however the counter space is quite limited, i.e. we could use a larger counter area.

Is printed material (e.g., ledgers, paper maps, schedules, brochures or handouts) available for dissemination or viewing at the service counter?

Yes, but once again space is limited

If so, is the amount of space currently provided for this adequate?

A larger counter area would be a welcome improvement.

Is there currently a visitor waiting or queuing area? No.

If so, do you feel that it can be improved? By having one.

How often are visitors brought to the employee side of the service counter? If they require private consultation, or they feel inclined to walk in.

If and when this occurs, where are they currently brought? Is the path taken to the destination problematic?

The path to the private office area is not problematic.

Ideally, where and how would such interactions occur? Might the service counter area be configured to allow this type of interaction to remain at the counter, or might visitors be brought to a conference room rather than somebody's private office or workstation?

An accessible conference room would be welcome.



F. ORGANIZATIONAL DATA: TECHNOLOGY

How many printers (including plotters if applicable), copiers and fax machines are there within your department?

| <u>Quantity</u> | <u>Device</u> | <u>Where placed now?</u> | <u>Ideally placed where?</u> |
|-----------------|------------------------|---------------------------------|------------------------------|
| 1 | printer/fax | Assistant Assessor Office | Same |
| 2 | color printers | Central office area | Same |
| 1 | black and white pinter | Central office area | Same |
| 1 | photo copier | Central office area | Same |
| 1 | Pinter/fax | Mapping Room aka Private Office | Central office area |

Is there any technology that your office uses that is not mentioned in the Technology or Service Counter sections above (e.g. microfiche readers)?

| <u>Quantity</u> | <u>Device</u> | <u>Where placed now?</u> | <u>Ideally placed where?</u> |
|-----------------|-------------------------------------|--------------------------|------------------------------|
| 1 | counter terminal/Assessing software | counter | Same |
| 1 | Counter terminal/mapping software | out of service | Counter |

Does your department anticipate acquiring any additional technology in the future?

If so, where would be the ideal placement for them? Not necessarily adding, but replacing.

Do *other departments* currently use any of the technology in your workspace? Infrequently.

If so, what technology, how often, and by whom? Color printer/other departments in the building.

Does your department currently use any of the technology housed by *other departments*? Printer/Copiers in the Central Mail Room.

If so, what technology, how often, and in which departments? For large print jobs, 2nd floor high speed printer.

G. ORGANIZATIONAL DATA: STORAGE

What published or printed materials are currently stored within your departmental office? Please include storage both within private offices and in open workspace, as applicable. Deed books, property commitment books, informational brochures, blank applications, forms, transfer binders, confidential filed applications, 6,000+ property record files.

In what format is the majority of this information stored (e.g., hard-copy letter/legal size, 24" x 36" sheets, microfiche)?

Hard copy printed application forms and informational materials, majority of which are 8.5x 11", with some legal sized. Tax commitment lists in oversized bound books, and real estate transaction files in binders. Our large volume (6,000+ file jackets) historical records for which we require daily access are currently housed in lateral files and vertical file cabinets. Our file volume is expanding because of new parcels and additional file notes.

For each type of material listed above, in what type(s) of closets or cabinetry (e.g. open shelving, tall cabinet, lateral files) is this material currently stored?

File cabinets and book cases.

For each item listed above, is the type and design of storage unit appropriate for the material stored within it?

We are running out of lateral file space, book shelf space, and vertical file space. Our current office configuration does not have space for additional storage units.

Currently, how many of each type of storage unit mentioned above are there in the department, and do you consider this number adequate for your needs now and in the future?

We need additional lateral file storage. We currently are utilizing 3 Units 5x3' each currently house the bulk of the 6,000+ file jackets. We need at a minimum 2 more, although at this time we do not have the physical space for the additional files.

Ideally, where would these various storage units be placed (e.g., near the service counter, outside a particular office, in a dedicated file room)?

near the service/counter area

Where are ordinary office supplies currently stored? Supply closet, and in the mapping room.

Are the size and location of this area adequate? If not, how much room would be ideal for this purpose, and where should it be located? It would be ideal to have our office supplies stored in one location, (including computer consumables, envelopes, and miscellaneous supplies).

Does your department use remote storage areas within the Flynn Building, Town Hall or elsewhere? Extensive storage in the Flynn Basement.

If so, where are these areas currently located, and how large are they?

How often do you require access to these areas?

Is there a specific reason why these items are not stored within your office? Not enough space, and although we are required by law to keep for a specified period of time they are materials we do not need to access daily.

Has gaining access to these areas been problematic for any reason, and would it be advantageous to have the items stored within your office, if possible? If so, please explain.

The only problem is the long term suitability of the space for storage. The basement may be damp, and not deal for idocumentation preservation.

Are there any items currently stored *within* your office confines that should *not* be?

In cold weather, where are coats stored? If there is a closet for such purpose, in the size and location needed?

We need a coat closet.

Are there any other storage needs that have not been referenced above, whether needed now or in the future?



H. MEETINGS

How often do members of your department hold meetings, whether with other staff members or with the public?
The Board of Assessors meets on an as needed basis.

Where are these meetings currently held? Please include meetings held within private offices, open workspaces and elsewhere in the Sudbury Town offices complex (e.g., Loring Parsonage).

Prior to September of 2012, the Board of Assessors held their meetings in an office/meeting room which is no longer available for their use. They are currently holding their meetings in one of the shared conference rooms, which is much less convenient for their needs. How many people participate in each of these meetings, and what departments do they most-frequently represent?

Ideally, where would such meetings occur? Office meeting/room within the Assessor's Office. Access to the appraisal software and mapping has proven necessary in the course of their meeting deliberations.

If some or all of these meetings are held outside of your departmental offices, is it due to insufficient meeting space?
Yes!

If so, what are the ideal sizes and number of meeting spaces that your department could support?

A meeting area with a conference table which can sit up to 6 people.

up to 6

I. DEPARTMENT ADJACENCIES

If your department interacts frequently with other departments or agencies, please list why and level of importance. (1= most important, etc.). Note that we are referring only to in-person meetings rather than phone calls and email.

| Imp. | Agency/Department | Type or reason for interaction |
|------|---|--|
| 1 | All Finance Department (Divisions) | should be together for reasons of: consulting on tax rate/tax billing and reconciliation issues as well as motor vehicle tax abatements then payments. |
| 2 | Assessor//Collector-Treasurer/Technology/Accountant | comprise the Finance Department's Divisions. |
| 3 | 2. | At the very least the Assessing (Division) and Tax Collector's (Division) need to be adjacent to one another. |
| 4 | | |

*

*

J. PARKING

Please estimate the number of parking spaces needed for department employees and municipal vehicles.

K. OTHER THOUGHTS

Are there any entirely new types of spaces that you would like to see in the new location, that don't exist now?

A lobby/reception area for all departments located in the building.

Are there any items that were not mentioned in this questionnaire that you feel should be taken into consideration in the placement and design of your new / renovated space?

THANK YOU! We appreciate your cooperation and assistance.



**SUDBURY TOWN OFFICES
SPACE PLANNING QUESTIONNAIRE FOR DEPARTMENT LEADERS**

In evaluating and planning possible renovations and additions to Sudbury Town Hall, this space planning (or "programming") questionnaire is designed to help our design team learn about how you work: *what* you do, *how* you do it, and whether new space could be designed to help you work better. The questionnaire is a critical component of good facilities planning and it initiates an interactive process that will benefit greatly from your careful thought and participation. Thank you in advance for your time and effort.

Your Name and Department: Rosemary B. Harvell Town Clerk
 Telephone and fax numbers: 978-639-3359 978-443-0264
 Email address: harvell@sudbury.ma.us
clerk@sudbury.ma.us

A. SPACE IMPRESSIONS

What adjectives describe your *current* space?

adequate area - better use of areas.

What adjectives should describe your *new* space?

B. DEPARTMENT OVERVIEW

Briefly describe what your department does:

- files + stone records -
- issues permits + copies of records.
- voters vote at counter
- voter registration - marriage licenses etc

How many full-time employees (FTE's) currently work within your office space?

How many FTE's do you anticipate having within your office space in the new location?

How many part-time employees (PTE's) currently work within your office space?


Do they have their own workstation, or share with other part-time employees (e.g., staggered work schedules)?

They have their own workstations and will require their own.

How many PTE's do you anticipate having within your office space after the renovation?

Will these PTE's require their own workstation? If so, how many and what type of workstations will be required for them?

yes desk with work area and computer



C. ORGANIZATIONAL DATA: PRIVATE OFFICES

Currently, how many **private offices** are there within your department?

1

Is there a logic to how they are currently placed within your office (e.g. adjacent to an outside wall, conference room, or open workspace)?

What tasks take place in these private offices? (Please include both private offices that currently exist and private offices anticipated in the new location.)

How many private offices are desired in the new location?

1

Is there an ideal placement or arrangement for these private offices?

Is it required that any of the private offices in the department be large enough to accommodate a small meeting table or a work table (in addition to a desk)?

What level of privacy is required for each of these offices, and do the tasks completed in any of them involve HIPAA (Health Insurance Portability and Accountability Act) considerations?

accessible to other stations

D. ORGANIZATIONAL DATA: OPEN WORKSPACE

How many **open space workstations** are there currently within your department?

4

What level of privacy is currently provided for the typical open space workstation? ___ good ___ fair poor

Is this level of privacy appropriate (neither too much nor too little) for the workstations? *yes*

Would you say that there is a logic that dictates the placement of the employees within the office, or has it simply evolved over time, as the department grew and changed?

logic

How many of the workstations need to be near a service counter?

4

If applicable, what are the pros and cons of how the workstations currently relate to the service counter?

They are very well placed

How often are verbal communication and/or visual supervision required between open space workstations and private offices?

Communication - frequent visual supervision - infrequent

How effective has this been in your current office arrangement?

very effective

Is the size of the workstations appropriate? If not, please provide information on specific workstations.

yes

Is there are any common workspace (e.g. work or layout table) within the office?

If so, where is it located and how large is it? *tables & files*

*1 - in kitchen/file area
2 - in private office*

How often is it used, and by whom?

If there is not currently a shared workspace within the office, would one be desired in a renovated office?

E. ORGANIZATIONAL DATA: SERVICE COUNTER

Please estimate the approximate number of visitors you serve each workday. *10-60 range*

Depends on weather
What types of interactions commonly occur at the service counter? If there is a wide variety, please describe:
Average would be 20-25

1) the shortest typical interactions, 2) the most common type of interaction, and 3) interactions that take longer.

- 1. *Directions - shortest*
- 2. *Dog licensing, voter registration, Voting at counter, Filing Applications, research* } *5 to 10 min*
- 3. *Filing, Voting, Notary, research* } *10 min or longer up to 1 hour*

How long do these various interactions usually last, and how often do they occur?

all occur often

How comfortable is the level of security and safety provided by the service counter?

no security or safety
If the service counter is not safe, what suggestions do you have for how it can be improved?

barrier and panic button

What technology is used by employees during these interactions (e.g., on-line data on a flat-screen monitor)?

Computer access - often must leave counter to complete

Where is that technology placed within the office currently?

We have 2 counters one with computer access at workstation

Has this placement been effective?

yes, but a computer at counter would be more effective

Is printed material (e.g., ledgers, paper maps, schedules, brochures or handouts) available for dissemination or viewing at the service counter?

yes

If so, is the amount of space currently provided for this adequate?

no

Is there currently a visitor waiting or queuing area?

insufficient area - crowded at times

If so, do you feel that it can be improved?

yes

How often are visitors brought to the employee side of the service counter?

never

If and when this occurs, where are they currently brought? Is the path taken to the destination problematic?

Ideally, where and how would such interactions occur? Might the service counter area be configured to allow this type of interaction to remain at the counter, or might visitors be brought to a conference room rather than somebody's private office or workstation?

we try to prevent that access

F. ORGANIZATIONAL DATA: TECHNOLOGY

How many printers (including plotters if applicable), copiers and fax machines are there within your department?

| Quantity | Device | Where placed now? | Ideally placed where? |
|----------|-------------------------------|--|-----------------------|
| 1 | Scanner Copier/Fox/printer | Back room with State Computer Station | This works |
| 4 | printers | one at station with counter when dog unloading occurs one at Assistant T.C. desk one for vital record printing one in private office | |
| 1 | microfilm reader | in back room | |

Is there any technology that your office uses that is not mentioned in the Technology or Service Counter sections above (e.g. microfiche readers)?

| Quantity | Device | Where placed now? | Ideally placed where? |
|----------|--|-------------------|-----------------------|
| 3 | State Computers and 1 State printer | | |
| | for voter registration & printing voter lists and forms | | |

not
owned
by town

Does your department anticipate acquiring any additional technology in the future?

If so, where would be the ideal placement for them?

unknown

Do other departments currently use any of the technology in your workspace?

If so, what technology, how often, and by whom?

microfilm reader

Does your department currently use any of the technology housed by other departments?

If so, what technology, how often, and in which departments?

no

G. ORGANIZATIONAL DATA: STORAGE

What **published or printed materials** are currently stored within your departmental office? Please include storage both within private offices and in open workspace, as applicable.

~~files in cabinets, cards~~ Records such as volumes of books,
files in cabinets, cards,
In what format is the majority of this information stored (e.g., hard-copy letter/legal size, 24" x 36" sheets, microfiche)?

For each type of material listed above, in what **type(s) of closets or cabinetry** (e.g. open shelving, tall cabinet, lateral files) is this material currently stored?

open shelves, fire resistant file cabinets
card cabinets, vaults,
For each item listed above, is the type and design of storage unit appropriate for the material stored within it?

yes

Currently, how many of each type of storage unit mentioned above are there in the department, and do you consider this number adequate for your needs now and in the future?

We add as need for permanent records.

Ideally, where would these various storage units be placed (e.g., near the service counter, outside a particular office, in a dedicated file room)?

all

Where are ordinary **office supplies** currently stored? in back storage room + copier room.

Are the size and location of this area adequate? If not, how much room would be ideal for this purpose, and where should it be located?

~~all of the above~~ never large enough

Does your department use **remote storage areas** within the Flynn Building, Town Hall or elsewhere?

If so, where are these areas currently located, and how large are they?

we use 2 vaults
in Town Hall

How often do you require access to these areas?

upper vault many times each day.

Is there a specific reason why these items are not stored within your office?

space.

Has gaining access to these areas been problematic for any reason, and would it be advantageous to have the items stored within your office, if possible? If so, please explain.

no

Are there any items currently stored *within* your office confines that should *not* be?

some volumes of books could be
store elsewhere.

In cold weather, where are **coats** stored? If there is a closet for such purpose, in the size and location needed?

back of door. no closet

Are there any **other storage needs** that have not been referenced above, whether needed now or in the future?

we have a large room for storage that is necessary.

H. MEETINGS

How often do members of your department hold meetings, whether with other staff members or with the public?

every week with staff. public meeting we use meeting rooms.

Where are these meetings currently held? Please include meetings held within private offices, open workspaces and elsewhere in the Sudbury Town offices complex (e.g., Loring Parsonage).

How many people participate in each of these meetings, and what departments do they most-frequently represent?

we have trainings x 2/year with 60+ people in lower town hall

If some or all of these meetings are held outside of your departmental offices, is it due to insufficient meeting space?

If so, what are the ideal sizes and number of meeting spaces that your department could support?

I. DEPARTMENT ADJACENCIES

If your department interacts frequently with other departments or agencies, please list why and level of importance. (1= most important, etc.). Note that we are referring only to in-person meetings rather than phone calls and email.

| <u>Imp.</u> | <u>Agency/Department</u> | <u>Type or reason for interaction</u> |
|-------------|--------------------------|--|
| 1 | Selectmen's office | work closely on many issues |
| 2 | Technology | " " |
| 3 | Planning | applications are filed in T.C. office part |
| 4 | | |

J. PARKING

Please estimate the number of parking spaces needed for department employees and municipal vehicles.

5

K. OTHER THOUGHTS

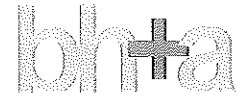
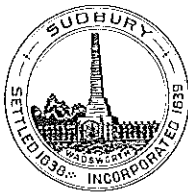
Are there any entirely new types of spaces that you would like to see in the new location, that don't exist now?

Area for typewriter

Are there any items that were not mentioned in this questionnaire that you feel should be taken into consideration in the placement and design of your new / renovated space?

no

THANK YOU! We appreciate your cooperation and assistance.



SUDBURY TOWN OFFICES SPACE PLANNING QUESTIONNAIRE FOR DEPARTMENT LEADERS

In evaluating and planning possible renovations and additions to Sudbury Town Hall, this space planning (or "programming") questionnaire is designed to help our design team learn about how you work: *what* you do, *how* you do it, and whether new space could be designed to help you work better. The questionnaire is a critical component of good facilities planning and it initiates an interactive process that will benefit greatly from your careful thought and participation. Thank you in advance for your time and effort.

Your Name and Department: Lee Ford Swanson Sudbury Historical Society, Inc.
Telephone and fax numbers: 978-443-3747 same-Call ahead
Email address: sudburyhist01776@verizon.net

A. SPACE IMPRESSIONS

What adjectives describe your *current* space? Wide open, Large, 1932 era, not accessible

What adjectives should describe your *new* space? Accessible, expandable spaces, climate controlled

B. DEPARTMENT OVERVIEW

Briefly describe what your department does: Collects the History of Sudbury, and makes it available.
Works with the School System to bring Local History
into the system. Publishes books on Sudbury History.
Presents public programs on Sudbury History.

How many full-time employees (FTE's) currently work within your office space?

How many FTE's do you anticipate having within your office space in the new location?

How many part-time employees (PTE's) currently work within your office space?

Do they have their own workstation, or share with other part-time employees (e.g., staggered work schedules)?
Own workstation, and shared with volunteers

How many PTE's do you anticipate having within your office space after the renovation?

Will these PTE's require their own workstation? If so, how many and what type of workstations will be required for them?

We are a Non-Profit and utilize Volunteers that you might call PTE's.
We would be doing Preservation, Conservation work on the Collection,
along with Accessioning, Research, Preparing Exhibits, + Administrative.



C. ORGANIZATIONAL DATA: PRIVATE OFFICES

Currently, how many private offices are there within your department?

1

Is there a logic to how they are currently placed within your office (e.g. adjacent to an outside wall, conference room, or open workspace)? No

What tasks take place in these private offices? (Please include both private offices that currently exist and private offices anticipated in the new location.) Computer Programing, New space would require a separate room
Preservation/Conservation

How many private offices are desired in the new location?

2

Is there an ideal placement or arrangement for these private offices? No

Is it required that any of the private offices in the department be large enough to accommodate a small meeting table or a work table (in addition to a desk)? Yes

What level of privacy is required for each of these offices, and do the tasks completed in any of them involve HIPAA (Health Insurance Portability and Accountability Act) considerations? Low

D. ORGANIZATIONAL DATA: OPEN WORKSPACE

How many open space workstations are there currently within your department?

6

What level of privacy is currently provided for the typical open space workstation? ___ good ___ fair x poor

Is this level of privacy appropriate (neither too much nor too little) for the workstations? Just right

Would you say that there is a logic that dictates the placement of the employees within the office, or has it simply evolved over time, as the department grew and changed? Evolved

How many of the workstations need to be near a service counter?

n/a

If applicable, what are the pros and cons of how the workstations currently relate to the service counter?

How often are verbal communication and/or visual supervision required between open space workstations and private offices? rare

How effective has this been in your current office arrangement? OK

Is the size of the workstations appropriate? If not, please provide information on specific workstations. Yes

Is there are any common workspace (e.g. work or layout table) within the office? Yes

If so, where is it located and how large is it? Middle of room and sides

How often is it used, and by whom? By need, to lay out work

If there is not currently a shared workspace within the office, would one be desired in a renovated office? n/a

E. ORGANIZATIONAL DATA: SERVICE COUNTER

Please estimate the approximate number of visitors you serve each workday.

2

What types of interactions commonly occur at the service counter? If there is a wide variety, please describe:

1) the shortest typical interactions, 2) the most common type of interaction, and 3) interactions that take longer.

Requests for Genealogy Information.
" for Historic House Research

How long do these various interactions usually last, and how often do they occur? 10 minutes to an hour & half

How comfortable is the level of security and safety provided by the service counter? n/a

If the service counter is not safe, what suggestions do you have for how it can be improved? n/a

What technology is used by employees during these interactions (e.g., on-line data on a flat-screen monitor)?

Computer monitor
Reference Books

Where is that technology placed within the office currently? Bookshelves

Has this placement been effective? Yes

Is printed material (e.g., ledgers, paper maps, schedules, brochures or handouts) available for dissemination or viewing at the service counter? Yes in the work area

If so, is the amount of space currently provided for this adequate? n/a

Is there currently a visitor waiting or queuing area? Yes

If so, do you feel that it can be improved? Yes

How often are visitors brought to the employee side of the service counter? n/a

If and when this occurs, where are they currently brought? Is the path taken to the destination problematic? n/a

Ideally, where and how would such interactions occur? Might the service counter area be configured to allow this type of interaction to remain at the counter, or might visitors be brought to a conference room rather than somebody's private office or workstation? n/a



F. ORGANIZATIONAL DATA: TECHNOLOGY

How many printers (including plotters if applicable), copiers and fax machines are there within your department?

| <u>Quantity</u> | <u>Device</u> | <u>Where placed now?</u> | <u>Ideally placed where?</u> |
|-----------------|--------------------|--------------------------|------------------------------|
| 1 | Copier/Fax/Scanner | Work Station 4 | same |
| 4 | Printers | Spread around | same |
| | | | |
| | | | |

Is there any technology that your office uses that is not mentioned in the Technology or Service Counter sections above (e.g. microfiche readers)? NO

| <u>Quantity</u> | <u>Device</u> | <u>Where placed now?</u> | <u>Ideally placed where?</u> |
|-----------------|---------------|--------------------------|------------------------------|
| | | | |
| | | | |

Does your department anticipate acquiring any additional technology in the future? No

If so, where would be the ideal placement for them?

Do other departments currently use any of the technology in your workspace? No

If so, what technology, how often, and by whom?

Does your department currently use any of the technology housed by other departments? No

If so, what technology, how often, and in which departments?

G. ORGANIZATIONAL DATA: STORAGE

What published or printed materials are currently stored within your departmental office? Please include storage both within private offices and in open workspace, as applicable.

On shelves in our Storage Cube

On Book shelves on Stage

In what format is the majority of this information stored (e.g., hard-copy letter/legal size, 24" x 36" sheets, microfiche)?
Books, Flat Files with maps, & large Photos. Newspapers in boxes

For each type of material listed above, in what type(s) of closets or cabinetry (e.g. open shelving, tall cabinet, lateral files) is this material currently stored? Open Shelving, Lateral Files, Tall files, Flat Files

For each item listed above, is the type and design of storage unit appropriate for the material stored within it? Yes

Currently, how many of each type of storage unit mentioned above are there in the department, and do you consider this number adequate for your needs now and in the future? Adequate with 8 files, lateral & tall, 2 flat files

Ideally, where would these various storage units be placed (e.g., near the service counter, outside a particular office, in a dedicated file room)? Work space that is Climate controlled

Where are ordinary office supplies currently stored? Same

Are the size and location of this area adequate? If not, how much room would be ideal for this purpose, and where should it be located? Adequate

Does your department use remote storage areas within the Flynn Building, Town Hall or elsewhere? No

If so, where are these areas currently located, and how large are they?

How often do you require access to these areas?

Is there a specific reason why these items are not stored within your office?

Has gaining access to these areas been problematic for any reason, and would it be advantageous to have the items stored within your office, if possible? If so, please explain. n/a

Are there any items currently stored *within* your office confines that should *not* be? No

In cold weather, where are coats stored? If there is a closet for such purpose, in the size and location needed? By desks or tables because No consistent heat

Are there any other storage needs that have not been referenced above, whether needed now or in the future?
Storage of our Collection of Sudbury Artifacts, and Museum Space for Exhibits.



H. MEETINGS

How often do members of your department hold meetings, whether with other staff members or with the public?
Once a month for Public Programs, Several times a month for Board & Committee Meetings

Where are these meetings currently held? Please include meetings held within private offices, open workspaces and elsewhere in the Sudbury Town offices complex (e.g., Loring Parsonage). Town Hall for Public Programs, Upper Town Hall for Board & Committee Meetings

How many people participate in each of these meetings, and what departments do they most-frequently represent?
Programs 70 to 100, 15 for Board, 6 for Committee Meetings.

Ideally, where would such meetings occur? Large Meeting Space for Programs, & Small Meeting Room for Board & Committees

If some or all of these meetings are held outside of your departmental offices, is it due to insufficient meeting space? Yes

If so, what are the ideal sizes and number of meeting spaces that your department could support?

I. DEPARTMENT ADJACENCIES

If your department interacts frequently with other departments or agencies, please list why and level of importance. (1= most important, etc.). Note that we are referring only to in-person meetings rather than phone calls and email. n/a

| <u>Imp.</u> | <u>Agency/Department</u> | <u>Type or reason for interaction</u> |
|-------------|--------------------------|---------------------------------------|
| 1 | | |
| 2 | | |
| 3 | | |
| 4 | | |

J. PARKING

Please estimate the number of parking spaces needed for department employees and municipal vehicles.

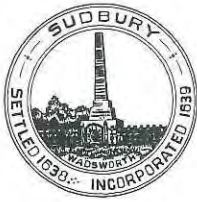
| |
|----|
| 10 |
|----|

K. OTHER THOUGHTS

Are there any entirely new types of spaces that you would like to see in the new location, that don't exist now? Museum Exhibit Space. Accessible Storage for the Collection. Handicapped Accessible, Rest Rooms, Small Kitchen, Up to date electrical needs for internet & displays. Complete Climate Controlled space.

Are there any items that were not mentioned in this questionnaire that you feel should be taken into consideration in the placement and design of your new / renovated space?
To have a Sudbury Town Museum in the reconfigured Town Hall/Loring Parsonage Expansion.

THANK YOU! We appreciate your cooperation and assistance.



SUDBURY TOWN OFFICES SPACE PLANNING QUESTIONNAIRE FOR DEPARTMENT LEADERS

In evaluating and planning possible renovations and additions to Sudbury Town Hall, this space planning (or "programming") questionnaire is designed to help our design team learn about how you work: *what* you do, *how* you do it, and whether new space could be designed to help you work better. The questionnaire is a critical component of good facilities planning and it initiates an interactive process that will benefit greatly from your careful thought and participation. Thank you in advance for your time and effort.

Your Name and Department: Deborah Dixon, Special Education, SPS

Telephone and fax numbers: 978-639-3202 978-443-9001

Email address: debbie-dixon@sudbury.k12.ma.us

A. SPACE IMPRESSIONS

What adjectives describe your *current* space? uninviting, unprofessional, inefficient, not functional, small
What adjectives should describe your *new* space? professional

B. DEPARTMENT OVERVIEW

Briefly describe what your department does: Our department oversees and administers all aspects of special education, 504 Accommodation Plans, guidance and counseling, nursing services, and homeless education, and Early Childhood.

How many full-time employees (FTE's) currently work within your office space?

How many FTE's do you anticipate having within your office space in the new location?

How many part-time employees (PTE's) currently work within your office space?

Do they have their own workstation, or share with other part-time employees (e.g., staggered work schedules)? yes

How many PTE's do you anticipate having within your office space after the renovation?

Will these PTE's require their own workstation? If so, how many and what type of workstations will be required for them? yes
workstation needs to be equipped with a computer, desk, filing space

C. ORGANIZATIONAL DATA: PRIVATE OFFICES

one "private" office is in a closet

Currently, how many private offices are there within your department?

Is there a logic to how they are currently placed within your office (e.g. adjacent to an outside wall, conference room, or open workspace)?

What tasks take place in these private offices? (Please include both private offices that currently exist and private offices anticipated in the new location.)

meetings, private calls, conferences

How many private offices are desired in the new location?

4

Is there an ideal placement or arrangement for these private offices?

ideally, an accessible conference room would be available to all in dept.

Is it required that any of the private offices in the department be large enough to accommodate a small meeting table or a work table (in addition to a desk)?

ideally, yes

What level of privacy is required for each of these offices, and do the tasks completed in any of them involve HIPAA (Health Insurance Portability and Accountability Act) considerations?

much of the business conducted in student services requires complete care with respect to confidentiality.

D. ORGANIZATIONAL DATA: OPEN WORKSPACE

How many open space workstations are there currently within your department?

What level of privacy is currently provided for the typical open space workstation? ___ good ___ fair X poor

Is this level of privacy appropriate (neither too much nor too little) for the workstations?

too little for the Early Childhood Director

Would you say that there is a logic that dictates the placement of the employees within the office, or has it simply evolved over time, as the department grew and changed?

no, space was used and/or converted to make space for staff

How many of the workstations need to be near a service counter?

If applicable, what are the pros and cons of how the workstations currently relate to the service counter?

workstations serve as service counter

How often are verbal communication and/or visual supervision required between open space workstations and private offices?

ongoing and constant

How effective has this been in your current office arrangement?

adequate

Is the size of the workstations appropriate? If not, please provide information on specific workstations.

size is not appropriate; many items are stored underneath desks

Is there are any common workspace (e.g. work or layout table) within the office?

none

If so, where is it located and how large is it?

na

How often is it used, and by whom?

If there is not currently a shared workspace within the office, would one be desired in a renovated office?

absolutely

E. ORGANIZATIONAL DATA: SERVICE COUNTER

Please estimate the approximate number of visitors you serve each workday.

10

What types of interactions commonly occur at the service counter? If there is a wide variety, please describe: 1) the shortest typical interactions, 2) the most common type of interaction, and 3) interactions that take longer.

- 1) parents dropping off paperwork
- 2) " " " " " "
- 3) meetings & conferences

How long do these various interactions usually last, and how often do they occur?

How comfortable is the level of security and safety provided by the service counter?

If the service counter is not safe, what suggestions do you have for how it can be improved?

What technology is used by employees during these interactions (e.g., on-line data on a flat-screen monitor)?

Flat screen monitors, printers

Where is that technology placed within the office currently?

on desks/at work stations

Has this placement been effective?

yes

Is printed material (e.g., ledgers, paper maps, schedules, brochures or handouts) available for dissemination or viewing at the service counter?

no

If so, is the amount of space currently provided for this adequate?

no

Is there currently a visitor waiting or queuing area?

in the hall

If so, do you feel that it can be improved?

a small lobby with chairs would be a positive step

How often are visitors brought to the employee side of the service counter?

If and when this occurs, where are they currently brought? Is the path taken to the destination problematic?

no

Ideally, where and how would such interactions occur? Might the service counter area be configured to allow this type of interaction to remain at the counter, or might visitors be brought to a conference room rather than somebody's private office or workstation?

F. ORGANIZATIONAL DATA: TECHNOLOGY

How many printers (including plotters if applicable), copiers and fax machines are there within your department?

| Quantity | Device | Where placed now? | Ideally placed where? |
|----------|-------------------|-------------------|-----------------------|
| 2 | desktop computers | desk | desks |
| 5 | laptops | portable | |
| 5 | printers | workstations | workstations |
| 0 | fax | na | workstation |

Is there any technology that your office uses that is not mentioned in the Technology or Service Counter sections above (e.g. microfiche readers)?

| Quantity | Device | Where placed now? | Ideally placed where? |
|----------|--------|-------------------|-----------------------|
| na | | | |

Does your department anticipate acquiring any additional technology in the future? **no**

If so, where would be the ideal placement for them? **na**

Do other departments currently use any of the technology in your workspace? **no**

If so, what technology, how often, and by whom?
na

Does your department currently use any of the technology housed by other departments? **yes**

If so, what technology, how often, and in which departments?
lcd projector + screen in conference room adjacent to supt. office

G. ORGANIZATIONAL DATA: STORAGE

What published or printed materials are currently stored within your departmental office? Please include storage both within private offices and in open workspace, as applicable.

400+ student files, inactive student files must be maintained for 7 yrs. financial information for department

In what format is the majority of this information stored (e.g., hard-copy letter/legal size, 24" x 36" sheets, microfiche)?

hard copy

For each type of material listed above, in what type(s) of closets or cabinetry (e.g. open shelving, tall cabinet, lateral files) is this material currently stored?

most files are maintained in tall fire-proof filing cabinets

For each item listed above, is the type and design of storage unit appropriate for the material stored within it?

no - all student files are kept in filing cabinets in private offices due to lack of space

Currently, how many of each type of storage unit mentioned above are there in the department, and do you consider this number adequate for your needs now and in the future?

9 special ed file cabinets for active files
5 file cabinets for inactive files; 1 storage cabinet

Ideally, where would these various storage units be placed (e.g., near the service counter, outside a particular office, in a dedicated file room)?

a room for inactive files would be desirable; active files should be in outer office for easy access

Where are ordinary office supplies currently stored?

in outer office & in desks

Are the size and location of this area adequate? If not, how much room would be ideal for this purpose, and where should it be located?

yes

Does your department use remote storage areas within the Flynn Building, Town Hall or elsewhere?

no

If so, where are these areas currently located, and how large are they?

How often do you require access to these areas?

Is there a specific reason why these items are not stored within your office?

Has gaining access to these areas been problematic for any reason, and would it be advantageous to have the items stored within your office, if possible? If so, please explain.

Are there any items currently stored within your office confines that should not be?

at times student equipment, white boards, and other large items are stored in the office space

In cold weather, where are coats stored? If there is a closet for such purpose, in the size and location needed?

no closet available; coats stored on coat rack in outer office or on the back of doors

Are there any other storage needs that have not been referenced above, whether needed now or in the future?

The # of file cabinets is currently not sufficient to store all files

H. MEETINGS

How often do members of your department hold meetings, whether with other staff members or with the public?

2-3 times/wk - small & large group

Where are these meetings currently held? Please include meetings held within private offices, open workspaces and elsewhere in the Sudbury Town offices complex (e.g., Loring Parsonage).

if available, the Supt.'s conference room

How many people participate in each of these meetings, and what departments do they most-frequently represent?

ranges from 1:1 mtgs to larger groups - team chairs

Ideally, where would such meetings occur?

in house office / mtg / special ed staff, guidance staff / psychologists.

If some or all of these meetings are held outside of your departmental offices, is it due to insufficient meeting space?

yes

If so, what are the ideal sizes and number of meeting spaces that your department could support?

ideally 2 mtg spaces to accommodate up to 20/30

I. DEPARTMENT ADJACENCIES

If your department interacts frequently with other departments or agencies, please list why and level of importance. (1= most important, etc.). Note that we are referring only to in-person meetings rather than phone calls and email.

| <u>Imp.</u> | <u>Agency/Department</u> | <u>Type or reason for interaction</u> |
|-------------|--------------------------|---------------------------------------|
| 1 | Dept of Ed | legal/procedural mtgs |
| 2 | various outside groups | trainings/presentations |
| 3 | | |
| 4 | | |

J. PARKING

Please estimate the number of parking spaces needed for department employees and municipal vehicles.

7

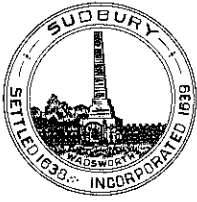
K. OTHER THOUGHTS

Are there any entirely new types of spaces that you would like to see in the new location, that don't exist now?

bathroom facilities

Are there any items that were not mentioned in this questionnaire that you feel should be taken into consideration in the placement and design of your new / renovated space?

THANK YOU! We appreciate your cooperation and assistance.



SUDBURY TOWN OFFICES SPACE PLANNING QUESTIONNAIRE FOR DEPARTMENT LEADERS

In evaluating and planning possible renovations and additions to Sudbury Town Hall, this space planning (or "programming") questionnaire is designed to help our design team learn about how you work: *what* you do, *how* you do it, and whether new space could be designed to help you work better. The questionnaire is a critical component of good facilities planning and it initiates an interactive process that will benefit greatly from your careful thought and participation. Thank you in advance for your time and effort.

Your Name and Department: Anne Wilson Superintendent's Office

Telephone and fax numbers: _____

Email address: Anne-wilson@Sudbury.k12.ma.us

A. SPACE IMPRESSIONS

What adjectives describe your *current* space? Dreamy / ramshackle

What adjectives should describe your *new* space? welcoming for visitors and spacious enough for staff to work effectively. need to accommodate 22 ppl in mtg. space.

21st century

B. DEPARTMENT OVERVIEW

Briefly describe what your department does:
oversight of school district

How many full-time employees (FTE's) currently work within your office space?

How many FTE's do you anticipate having within your office space in the new location?

How many part-time employees (PTE's) currently work within your office space?

Do they have their own workstation, or share with other part-time employees (e.g., staggered work schedules)?
Yes

How many PTE's do you anticipate having within your office space after the renovation?

Will these PTE's require their own workstation? If so, how many and what type of workstations will be required for them?

C. ORGANIZATIONAL DATA: PRIVATE OFFICES

Currently, how many private offices are there within your department?

Is there a logic to how they are currently placed within your office (e.g. adjacent to an outside wall, conference room, or open workspace)? *adjacent to conference room*

What tasks take place in these private offices? (Please include both private offices that currently exist and private offices anticipated in the new location.)

How many private offices are desired in the new location?

Is there an ideal placement or arrangement for these private offices? *yes - out of the main traffic area*

Is it required that any of the private offices in the department be large enough to accommodate a small meeting table or a work table (in addition to a desk)? *yes to seat 6-8 ppl*

What level of privacy is required for each of these offices, and do the tasks completed in any of them involve HIPAA (Health Insurance Portability and Accountability Act) considerations? *↑ level of privacy due to confidential matters*
Walls are too thin - not good for privacy.

D. ORGANIZATIONAL DATA: OPEN WORKSPACE

How many open space workstations are there currently within your department?

What level of privacy is currently provided for the typical open space workstation? ___ good ___ fair poor

Is this level of privacy appropriate (neither too much nor too little) for the workstations? *not enough*

Would you say that there is a logic that dictates the placement of the employees within the office, or has it simply evolved over time, as the department grew and changed? *space constrained*

How many of the workstations need to be near a service counter?

If applicable, what are the pros and cons of how the workstations currently relate to the service counter? *n/a*

How often are verbal communication and/or visual supervision required between open space workstations and private offices? *frequent*

How effective has this been in your current office arrangement?

Is the size of the workstations appropriate? If not, please provide information on specific workstations. *need more work space + storage space*

Is there are any common workspace (e.g. work or layout table) within the office? *no*

If so, where is it located and how large is it?

How often is it used, and by whom?

If there is not currently a shared workspace within the office, would one be desired in a renovated office? *yes*

Always has been inappropriate

E. ORGANIZATIONAL DATA: SERVICE COUNTER

Please estimate the approximate number of visitors you serve each workday.

n/a

What types of interactions commonly occur at the service counter? If there is a wide variety, please describe:

1) the shortest typical interactions, 2) the most common type of interaction, and 3) interactions that take longer.

We do not have a service counter, however it would be helpful to have some sort of counter in front of exec assistants work station. People need to access but security of confidential material is also important + not

How long do these various interactions usually last, and how often do they occur?

How comfortable is the level of security and safety provided by the service counter?

so secure as of now.

If the service counter is not safe, what suggestions do you have for how it can be improved?

What technology is used by employees during these interactions (e.g., on-line data on a flat-screen monitor)?

Where is that technology placed within the office currently?

Has this placement been effective?

Is printed material (e.g., ledgers, paper maps, schedules, brochures or handouts) available for dissemination or viewing at the service counter?

→ It would be helpful to have a counter where district materials are available.

If so, is the amount of space currently provided for this adequate?

Is there currently a visitor waiting or queuing area?

If so, do you feel that it can be improved?

How often are visitors brought to the employee side of the service counter?

If and when this occurs, where are they currently brought? Is the path taken to the destination problematic?

Ideally, where and how would such interactions occur? Might the service counter area be configured to allow this type of interaction to remain at the counter, or might visitors be brought to a conference room rather than somebody's private office or workstation?

F. ORGANIZATIONAL DATA: TECHNOLOGY

How many **printers** (including plotters if applicable), **copiers** and **fax machines** are there within your department?

| Quantity | Device | Where placed now? | Ideally placed where? |
|----------|---------|---|---------------------------|
| 1 | Printer | at Admin desk ↳ takes up work space. | same but need more space. |
| | | | |
| | | | |

Is there any technology that your office uses that is not mentioned in the Technology or Service Counter sections above (e.g. microfiche readers)?

| Quantity | Device | Where placed now? | Ideally placed where? |
|----------|----------------|-------------------|-----------------------|
| 1 | laptop/monitor | Supt desk | yes |
| 1 | monitor | admin desk | yes |

Does your department anticipate acquiring any **additional technology** in the future?

If so, where would be the ideal placement for them?

Do *other departments* currently use any of the technology in your workspace?

no

If so, what technology, how often, and by whom?

Does your department currently use any of the technology housed by *other departments*?

If so, what technology, how often, and in which departments?

yes 1 copier, fax
mail machine

G. ORGANIZATIONAL DATA: STORAGE

What published or printed materials are currently stored within your departmental office? Please include storage both within private offices and in open workspace, as applicable.

A lot of hard copy archived
Records of School District Functions

In what format is the majority of this information stored (e.g., hard-copy letter/legal size, 24" x 36" sheets, microfiche)?

binders, files (hard copies); electronic

For each type of material listed above, in what type(s) of closets or cabinetry (e.g. open shelving, tall cabinet, lateral files) is this material currently stored?

Tall file cabinets, tall bookshelves, on any surface available

For each item listed above, is the type and design of storage unit appropriate for the material stored within it?

Yes YES -> for current hard copy
No -> for archived b/c they will increase.

Currently, how many of each type of storage unit mentioned above are there in the department, and do you consider this number adequate for your needs now and in the future?

3 bookshelves*, 3 file cabinets
* Two bookshelves are in the private office - we need a second bookshelf in the Exec Ass't area.

Ideally, where would these various storage units be placed (e.g., near the service counter, outside a particular office, in a dedicated file room)?

in office area, secure + easily accessed

Where are ordinary office supplies currently stored? They are haphazardly stashed every where.

Are the size and location of this area adequate? If not, how much room would be ideal for this purpose, and where should it be located?

in adjacent copy room, or floor in office space
a dedicated supply room is desirable

Does your department use remote storage areas within the Flynn Building, Town Hall or elsewhere?

no

If so, where are these areas currently located, and how large are they?

How often do you require access to these areas?

Is there a specific reason why these items are not stored within your office?

Has gaining access to these areas been problematic for any reason, and would it be advantageous to have the items stored within your office, if possible? If so, please explain.

Are there any items currently stored within your office confines that should not be?

older files that should be moved out of put office but no space (secure + accessible)

In cold weather, where are coats stored? If there is a closet for such purpose, in the size and location needed?

coat rack in outer office, hook on door in put. office

Are there any other storage needs that have not been referenced above, whether needed now or in the future?

The Exec Ass't stores coat on back of chair b/c coat rack is next to front door of building. Also, no place to secure purse or briefcase.

H. MEETINGS

How often do members of your department hold meetings, whether with other staff members or with the public?

daily, weekly or reg basis

Where are these meetings currently held? Please include meetings held within private offices, open workspaces and elsewhere in the Sudbury Town offices complex (e.g., Loring Parsonage).

Admin team mtgs held at Grange b/c conf rm not large enough for 21 ppl.

How many people participate in each of these meetings, and what departments do they most-frequently represent?

Weekly mtg w/ C.O. ldrshp team 6 ppl, indiv mtgs daily

Ideally, where would such meetings occur? *6 ppl in Supt office, 21 ppl in adjacent conf room*

If some or all of these meetings are held outside of your departmental offices, is it due to insufficient meeting space?

If so, what are the ideal sizes and number of meeting spaces that your department could support?

Room for 20-25 ppl w/ tier capacity. Also need space for water cooler and buffet for coffee/ food station for day-long mtgs or for parent events.

I. DEPARTMENT ADJACENCIES

If your department interacts frequently with other departments or agencies, please list why and level of importance. (1= most important, etc.). Note that we are referring only to in-person meetings rather than phone calls and email.

| <u>Imp.</u> | <u>Agency/Department</u> | <u>Type or reason for interaction</u> |
|-------------|--------------------------|---------------------------------------|
|-------------|--------------------------|---------------------------------------|

- 1
- 2
- 3
- 4

SPS interacts w/ Town depts frequently but adjacency is not necessary.

J. PARKING

Please estimate the number of parking spaces needed for department employees and municipal vehicles.

35

K. OTHER THOUGHTS

BETTER BATHROOM → No kiddie sinks!!

Does not include guests.

Are there any entirely new types of spaces that you would like to see in the new location, that don't exist now?

- 2 large conference rooms*
- space for all teaching + learning staff*
- private office for Early Childhood Director*

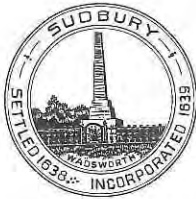
Are there any items that were not mentioned in this questionnaire that you feel should be taken into consideration in the placement and design of your new / renovated space?

Designated document production area for Curriculum Specialists to assemble teaching materials and staff to coordinate mass mailings (sometimes 1-2 thousand pieces).

THANK YOU! We appreciate your cooperation and assistance.

ALSO: Kitchen and staff break area is VERY needed. No place to

"retreat" at the moment.



SUDBURY TOWN OFFICES SPACE PLANNING QUESTIONNAIRE FOR DEPARTMENT LEADERS

In evaluating and planning possible renovations and additions to Sudbury Town Hall, this space planning (or "programming") questionnaire is designed to help our design team learn about how you work: *what* you do, *how* you do it, and whether new space could be designed to help you work better. The questionnaire is a critical component of good facilities planning and it initiates an interactive process that will benefit greatly from your careful thought and participation. Thank you in advance for your time and effort.

Your Name and Department: Todd Curtis Teaching & Learning
Telephone and fax numbers: (978) 639-3216
Email address: todd_curtis@sudbury.k12.ma.us

A. SPACE IMPRESSIONS

What adjectives describe your *current* space?

Makeshift, cold

What adjectives should describe your *new* space?

Professional, flexible, welcoming

B. DEPARTMENT OVERVIEW

Briefly describe what your department does:

The Teaching and Learning office oversees and coordinates all teaching and learning activities – the core of our mission – in the Sudbury Public Schools. On a day-to-day basis, this requires a great deal of communication activities, both in-person and electronically. It requires acquisition, storage, organization, and dissemination of materials. We hold regular meetings of many working groups that require physical space and effective technology tools.

How many full-time employees (FTE's) currently work within your office space? 4

How many FTE's do you anticipate having within your office space in the new location? 7

How many part-time employees (PTE's) currently work within your office space? 0

Do they have their own workstation, or share with other part-time employees (e.g., staggered work schedules)?

How many PTE's do you anticipate having within your office space after the renovation? n/a

Will these PTE's require their own workstation? If so, how many and what type of workstations will be required for them n/a

C. ORGANIZATIONAL DATA: PRIVATE OFFICES

Currently, how many private offices are there within your department?

1

Is there a logic to how they are currently placed within your office (e.g. adjacent to an outside wall, conference room, or open workspace)?

On outside wall adjacent to other work spaces in department

What tasks take place in these private offices? (Please include both private offices that currently exist and private offices anticipated in the new location.)

Supervisory meetings, work of assistant superintendent

How many private offices are desired in the new location?

1(?)

Is there an ideal placement or arrangement for these private offices?

Unsure

Is it required that any of the private offices in the department be large enough to accommodate a small meeting table or a work table (in addition to a desk)?

Yes

What level of privacy is required for each of these offices, and do the tasks completed in any of them involve HIPAA (Health Insurance Portability and Accountability Act) considerations?

Full privacy. Supervisory meetings and discussion of confidential student and employment issues

D. ORGANIZATIONAL DATA: OPEN WORKSPACE

How many open space workstations are there currently within your department?

3

What level of privacy is currently provided for the typical open space workstation? ___ good ___ fair poor

Is this level of privacy appropriate (neither too much nor too little) for the workstations?

Too little

Would you say that there is a logic that dictates the placement of the employees within the office, or has it simply evolved over time, as the department grew and changed?

Some logic (i.e. admin assistant at front)

How many of the workstations need to be near a service counter?

0

If applicable, what are the pros and cons of how the workstations currently relate to the service counter?

How often are verbal communication and/or visual supervision required between open space workstations and private offices?

Verbal is useful but not required. Visual not required.

How effective has this been in your current office arrangement?

Depends on situation. Being in verbal "range" can be useful

Is the size of the workstations appropriate? If not, please provide information on specific workstations.

They would be if storage issues didn't impede - see that section

Is there are any common workspace (e.g. work or layout table) within the office?

There is one table

If so, where is it located and how large is it?

Approx 4' x 6'

How often is it used, and by whom?

Not often used because there is no privacy for those at it, and

If there is not currently a shared workspace within the office, would one be desired in a renovated office?

Definitely.

worse of any meeting could so
into other work spaces

E. ORGANIZATIONAL DATA: SERVICE COUNTER

Please estimate the approximate number of visitors you serve each workday.

What types of interactions commonly occur at the service counter? If there is a wide variety, please describe:
1) the shortest typical interactions, 2) the most common type of interaction, and 3) interactions that take longer.

Student registration, materials delivery, interactions with other departments

↓
varies significantly from a handful to dozens.

How long do these various interactions usually last, and how often do they occur?

brief (1-2 minutes) to 15-20 minutes

How comfortable is the level of security and safety provided by the service counter?

None - it is feet from an unlocked exterior door.

If the service counter is not safe, what suggestions do you have for how it can be improved?

What technology is used by employees during these interactions (e.g., on-line data on a flat-screen monitor)?

Desktop PC

Where is that technology placed within the office currently?

On admin assistant's desk

Has this placement been effective?

Largely, yes.

Is printed material (e.g., ledgers, paper maps, schedules, brochures or handouts) available for dissemination or viewing at the service counter?

Yes - student registration materials in particular

If so, is the amount of space currently provided for this adequate?

No (they are kept on a nearby bookshelf with no space to work)

Is there currently a visitor waiting or queuing area?

No

If so, do you feel that it can be improved?

How often are visitors brought to the employee side of the service counter?

Never

If and when this occurs, where are they currently brought? Is the path taken to the destination problematic?

Ideally, where and how would such interactions occur? Might the service counter area be configured to allow this type of interaction to remain at the counter, or might visitors be brought to a conference room rather than somebody's private office or workstation?

F. ORGANIZATIONAL DATA: TECHNOLOGY

How many **printers** (including plotters if applicable), **copiers** and **fax machines** are there within your department?

| Quantity | Device | Where placed now? | Ideally placed where? |
|--|----------|---|--|
| 2 | Printers | 1 in private office 1 at admin assist. space | 2 would remain there, plus add a 3rd for current staff. |
| We use a shared copier/printer and fax machine across the hallway. | | | |

Is there any technology that your office uses that is not mentioned in the Technology or Service Counter sections above (e.g. microfiche readers)?

| Quantity | Device | Where placed now? | Ideally placed where? |
|----------|-------------------------|--------------------|-----------------------|
| 1 | projector & SMART Board | Sup't's conference | Shared T&L workspace |

Does your department anticipate acquiring any **additional technology** in the future?

If so, where would be the ideal placement for them?

A projector in a shared meeting / workspace is needed. (We access one in another department)

Do *other departments* currently use any of the technology in your workspace?

If so, what technology, how often, and by whom?

Does your department currently use any of the technology housed by *other departments*?

If so, what technology, how often, and in which departments?

Yes. We regularly use the projector & whiteboard in the superintendent's conference room.

G. ORGANIZATIONAL DATA: STORAGE

What **published or printed materials** are currently stored within your departmental office? Please include storage both within private offices and in open workspace, as applicable.

Curriculum materials, District professional development records, office supplies

In what format is the majority of this information stored (e.g., hard-copy letter/legal size, 24" x 36" sheets, microfiche)?

Hard copy books and other print materials

For each type of material listed above, in what **type(s)** of closets or cabinetry (e.g. open shelving, tall cabinet, lateral files) is this material currently stored?

Open shelving, file cabinets, tall storage cabinets

For each item listed above, is the type and design of storage unit appropriate for the material stored within it?

No - it is very "mix-and-match"

Currently, how many of each type of storage unit mentioned above are there in the department, and do you consider this number adequate for your needs now and in the future?

5 storage cabinets, 3 bookshelves, 2 file cabinets.

No - more is required

Ideally, where would these various storage units be placed (e.g., near the service counter, outside a particular office, in a dedicated file room)?

In a dedicated storage area (cabinets) and near the workspace (file cabinets)

Where are ordinary **office supplies** currently stored?

Are the size and location of this area adequate? If not, how much room would be ideal for this purpose, and where should it be located?

In a tall storage cabinet in an open area

Does your department use **remote storage areas** within the Flynn Building, Town Hall or elsewhere? Yes - in school buildings (esp. Nixon, Haynes, ECMS)

If so, where are these areas currently located, and how large are they?

School buildings

How often do you require access to these areas?

Nearly daily for science materials

Is there a specific reason why these items are not stored within your office?

Space is not sufficient.

Has gaining access to these areas been problematic for any reason, and would it be advantageous to have the items stored within your office, if possible? If so, please explain.

Access, per se, is not the issue. It is that some storage of materials doesn't place near those who use them.

Are there any items currently stored *within* your office confines that should *not* be?

Unsure

In cold weather, where are **coats** stored? If there is a closet for such purpose, in the size and location needed?

On chairs, for the most part. One stand-up coat rack.

Are there any **other storage needs** that have not been referenced above, whether needed now or in the future?

H. MEETINGS

How often do members of your department hold **meetings**, whether with other staff members or with the public?

Daily.

Where are these meetings currently held? Please include meetings held within private offices, open workspaces and elsewhere in the Sudbury Town offices complex (e.g., Loring Parsonage).

Inside private office, in open workspaces, in kitchen area, in superintendent's conference room.

How many people participate in each of these meetings, and what departments do they most-frequently represent?

Varies from 2 - 15+

Ideally, where would such meetings occur?

In a dedicated Teaching & Learning shared meeting / work space

If some or all of these meetings are held outside of your departmental offices, is it due to insufficient meeting space?

Yes

If so, what are the ideal sizes and number of meeting spaces that your department could support?

One space w/ technology & for up to 20 people.

I. DEPARTMENT ADJACENCIES

If your department interacts frequently with other departments or agencies, please list why and level of importance. (1= most important, etc.). Note that we are referring only to in-person meetings rather than phone calls and email.

| Imp. | Agency/Department | Type or reason for interaction |
|------|-------------------|---|
| 1 | Technology | Tech operates under Teaching & Learning |
| 2 | Sup't. | Close collaboration on all aspects |
| 3 | | |
| 4 | | |

J. PARKING

Please estimate the number of parking spaces needed for department employees and municipal vehicles.

7

K. OTHER THOUGHTS

Are there any entirely new types of spaces that you would like to see in the new location, that don't exist now?

Are there any items that were not mentioned in this questionnaire that you feel should be taken into consideration in the placement and design of your new / renovated space?

We run 3 space heaters throughout the winter in order to keep the area comfortable

THANK YOU! We appreciate your cooperation and assistance.



SUDBURY TOWN OFFICES SPACE PLANNING QUESTIONNAIRE FOR DEPARTMENT LEADERS

In evaluating and planning possible renovations and additions to Sudbury Town Hall, this space planning (or "programming") questionnaire is designed to help our design team learn about how you work: *what* you do, *how* you do it, and whether new space could be designed to help you work better. The questionnaire is a critical component of good facilities planning and it initiates an interactive process that will benefit greatly from your careful thought and participation. Thank you in advance for your time and effort.

Your Name and Department: Linda Karpeichik Early Childhood Dept
Telephone and fax numbers: 978 639-3204
Email address: Linda-Karpeichik@sudbury.k12.ma.us

A. SPACE IMPRESSIONS

What adjectives describe your *current* space?

*Cramped - 10'x10' 2 people
No privacy - for phone calls/parent meetings*

Dark - no windows

What adjectives should describe your *new* space?

Professional with privacy

B. DEPARTMENT OVERVIEW

Briefly describe what your department does:

*District-wide registration
Preschool Special Education Process
Kindergarten*

How many full-time employees (FTE's) currently work within your office space?

How many FTE's do you anticipate having within your office space in the new location?

How many part-time employees (PTE's) currently work within your office space?

Do they have their own workstation, or share with other part-time employees (e.g., staggered work schedules)?

Have their own work stations

How many PTE's do you anticipate having within your office space after the renovation?

Will these PTE's require their own workstation? If so, how many and what type of workstations will be required for them?

Yes - one workstation (computer + printers) + file cabinets

C. ORGANIZATIONAL DATA: PRIVATE OFFICES

Currently, how many private offices are there within your department? *EC office in hallway between Spec Ed + Work Room*

Is there a logic to how they are currently placed within your office (e.g. adjacent to an outside wall, conference room, or open workspace)? *N/A - no closed office*

What tasks take place in these private offices? (Please include both private offices that currently exist and private offices anticipated in the new location.) *Parent phone calls. Special Education process clerical activities, etc*

How many private offices are desired in the new location?

Is there an ideal placement or arrangement for these private offices? *Natural light Respectful of privacy + Confidentiality*

Is it required that any of the private offices in the department be large enough to accommodate a small meeting table or a work table (in addition to a desk)? *Yes*

What level of privacy is required for each of these offices, and do the tasks completed in any of them involve HIPAA (Health Insurance Portability and Accountability Act) considerations? *Registration + Special Educ. business requires Confidentiality*

D. ORGANIZATIONAL DATA: OPEN WORKSPACE

How many open space workstations are there currently within your department?

What level of privacy is currently provided for the typical open space workstation? ___ good ___ fair poor

Is this level of privacy appropriate (neither too much nor too little) for the workstations? *No*

Would you say that there is a logic that dictates the placement of the employees within the office, or has it simply evolved over time, as the department grew and changed? *No Space is non-existent*

How many of the workstations need to be near a service counter? *No service counter*

If applicable, what are the pros and cons of how the workstations currently relate to the service counter?
—

How often are verbal communication and/or visual supervision required between open space workstations and private offices? *ongoing throughout the day*

How effective has this been in your current office arrangement? *Not effective*

Is the size of the workstations appropriate? If not, please provide information on specific workstations. *No storage Small space cluttered above + below work stations*

Is there are any common workspace (e.g. work or layout table) within the office? *No*

If so, where is it located and how large is it? *NA*

How often is it used, and by whom?

If there is not currently a shared workspace within the office, would one be desired in a renovated office?

Most Needed!

E. ORGANIZATIONAL DATA: SERVICE COUNTER

Please estimate the approximate number of visitors you serve each workday.

15-20

What types of interactions commonly occur at the service counter? If there is a wide variety, please describe:
1) the shortest typical interactions, 2) the most common type of interaction, and 3) interactions that take longer.

Folks walking to other offices
Folks dropping off paperwork

How long do these various interactions usually last, and how often do they occur?

How comfortable is the level of security and safety provided by the service counter?

N/A

If the service counter is not safe, what suggestions do you have for how it can be improved?

What technology is used by employees during these interactions (e.g., on-line data on a flat-screen monitor)?

computers, printers, paperwork
(flat screen)

Where is that technology placed within the office currently?

opposite corners of 10'x10' space

Has this placement been effective?

NO

Is printed material (e.g., ledgers, paper maps, schedules, brochures or handouts) available for dissemination or viewing at the service counter?

N/A

If so, is the amount of space currently provided for this adequate?

Is there currently a visitor waiting or queuing area?

out in hallway

If so, do you feel that it can be improved?

How often are visitors brought to the employee side of the service counter?

N/A

If and when this occurs, where are they currently brought? Is the path taken to the destination problematic?

Ideally, where and how would such interactions occur? Might the service counter area be configured to allow this type of interaction to remain at the counter, or might visitors be brought to a conference room rather than somebody's private office or workstation?

F. ORGANIZATIONAL DATA: TECHNOLOGY

How many **printers** (including plotters if applicable), **copiers** and **fax machines** are there within your department?

| <u>Quantity</u> | <u>Device</u> | <u>Where placed now?</u> | <u>Ideally placed where?</u> |
|-----------------|------------------|--------------------------|------------------------------|
| 1 | Desktop Computer | desk | desk |
| 1 | laptop | desk | desk |
| 1 | Printer | by desk | nearby |
| 0 | Fax | in another room | nearby |

Is there any technology that your office uses that is not mentioned in the Technology or Service Counter sections above (e.g. microfiche readers)?

| <u>Quantity</u> | <u>Device</u> | <u>Where placed now?</u> | <u>Ideally placed where?</u> |
|-----------------|---------------|--------------------------|------------------------------|
| | | | |
| | | | |

Does your department anticipate acquiring any **additional technology** in the future? **No**

If so, where would be the ideal placement for them?

Do *other departments* currently use any of the technology in your workspace? **Sometimes use**

If so, what technology, how often, and by whom? **our color laser printer**

Does your department currently use any of the technology housed by *other departments*? **No**

If so, what technology, how often, and in which departments?

G. ORGANIZATIONAL DATA: STORAGE

What **published or printed materials** are currently stored within your departmental office? Please include storage both within private offices and in open workspace, as applicable.

*Registration materials for 270 K students
85 preschoolers + upcoming registration year.*

In what format is the majority of this information stored (e.g., hard-copy letter/legal size, 24" x 36" sheets, microfiche)?

file folders, small file cabinets

For each type of material listed above, in what **type(s) of closets or cabinetry** (e.g. open shelving, tall cabinet, lateral files) is this material currently stored?

file cabinets under desks

For each item listed above, is the type and design of storage unit appropriate for the material stored within it?

*No
should be in privately locked space*

Currently, how many of each type of storage unit mentioned above are there in the department, and do you consider this number adequate for your needs now and in the future?

*3 2 drawer cabinets
Not Adequate*

Ideally, where would these various storage units be placed (e.g., near the service counter, outside a particular office, in a dedicated file room)?

In the SC office

Where are ordinary **office supplies** currently stored?

In another office

Are the size and location of this area adequate? If not, how much room would be ideal for this purpose, and where should it be located?

Yes

Does your department use **remote storage areas** within the Flynn Building, Town Hall or elsewhere?

No

If so, where are these areas currently located, and how large are they?

How often do you require access to these areas?

Is there a specific reason why these items are not stored within your office?

Has gaining access to these areas been problematic for any reason, and would it be advantageous to have the items stored within your office, if possible? If so, please explain.

Are there any items currently stored *within* your office confines that should *not* be?

*Yes PO supplies that
need to go to buildings + teachers*

In cold weather, where are **coats** stored? If there is a closet for such purpose, in the size and location needed?

on my chair

Are there any **other storage needs** that have not been referenced above, whether needed now or in the future?

Need for wall space - workboard, organizational charts

H. MEETINGS

How often do members of your department hold meetings, whether with other staff members or with the public?

Frequently 2-3x/wk

Where are these meetings currently held? Please include meetings held within private offices, open workspaces and elsewhere in the Sudbury Town offices complex (e.g., Loring Parsonage).

Need to find another empty office (not easy) or use large conference room if available (superintendent)

How many people participate in each of these meetings, and what departments do they most-frequently represent?

Ideally, where would such meetings occur? *In the EC office*

If some or all of these meetings are held outside of your departmental offices, is it due to insufficient meeting space? *Yes*

If so, what are the ideal sizes and number of meeting spaces that your department could support? *ideally 1 meeting space for 4 people*

I. DEPARTMENT ADJACENCIES

If your department interacts frequently with other departments or agencies, please list why and level of importance. (1= most important, etc.). Note that we are referring only to in-person meetings rather than phone calls and email.

| <u>Imp.</u> | <u>Agency/Department</u> | <u>Type or reason for interaction</u> |
|-------------|--------------------------|---------------------------------------|
| 1 | <i>Special Education</i> | <i>overlap of services</i> |
| 2 | <i>Student Services</i> | <i>Registration process</i> |
| 3 | | |
| 4 | | |

J. PARKING

Please estimate the number of parking spaces needed for department employees and municipal vehicles.

2

K. OTHER THOUGHTS

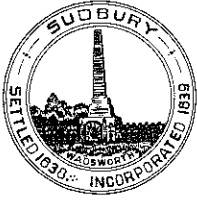
Are there any entirely new types of spaces that you would like to see in the new location, that don't exist now?

Clean restrooms not shared with students

Are there any items that were not mentioned in this questionnaire that you feel should be taken into consideration in the placement and design of your new / renovated space?

*Privacy
Natural Light for all offices
Inviting Professional space*

THANK YOU! We appreciate your cooperation and assistance.



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Your Name and Department: Mary Will Business & Human Resources
Telephone and fax numbers: 978-639-3203 978-443-6707
Email address: mary.will@sudbury.k12.ma.us

A. SPACE IMPRESSIONS

What adjectives describe your *current* space? Too public; too small; too cold; too stagnant; old; unattractive

What adjectives should describe your *new* space? User friendly, airy, comfortable, fresh, attractive, proper spaces for all staff needed

B. DEPARTMENT OVERVIEW

Briefly describe what your department does:
Runs the business, operations and human resources for the District. Business - Finance, Payroll, operations - Facilities, Transportation, Food Service Human Resources

How many full-time employees (FTE's) currently work within your office space?

How many FTE's do you anticipate having within your office space in the new location?

How many part-time employees (PTE's) currently work within your office space?

Do they have their own workstation, or share with other part-time employees (e.g., staggered work schedules)?
Have own work stations

How many PTE's do you anticipate having within your office space after the renovation?

Will these PTE's require their own workstation? If so, how many and what type of workstations will be required for them? Yes

C. ORGANIZATIONAL DATA: PRIVATE OFFICES

Currently, how many private offices are there within your department?

5

Is there a logic to how they are currently placed within your office (e.g. adjacent to an outside wall, conference room, or open workspace)? *No*

What tasks take place in these private offices? (Please include both private offices that currently exist and private offices anticipated in the new location.) *Perform Duties of Job -*

How many private offices are desired in the new location?

6

Is there an ideal placement or arrangement for these private offices?

*Yes - Clustered by
by function -*

Is it required that any of the private offices in the department be large enough to accommodate a small meeting table or a work table (in addition to a desk)? *Yes - at least 4*

What level of privacy is required for each of these offices, and do the tasks completed in any of them involve HIPAA (Health Insurance Portability and Accountability Act) considerations?

*High - HR; Payroll; Student
Scholarships all require a
great deal of privacy*

D. ORGANIZATIONAL DATA: OPEN WORKSPACE

How many open space workstations are there currently within your department?

2

What level of privacy is currently provided for the typical open space workstation? ___ good ___ fair poor

Is this level of privacy appropriate (neither too much nor too little) for the workstations?

too little

Would you say that there is a logic that dictates the placement of the employees within the office, or has it simply evolved over time, as the department grew and changed?

*Some logic but mostly evolved over
time*

How many of the workstations need to be near a service counter?

2

If applicable, what are the pros and cons of how the workstations currently relate to the service counter?

Right now too open & too much access by public

How often are verbal communication and/or visual supervision required between open space workstations and private offices?

Throughout the day

How effective has this been in your current office arrangement?

No very

Is the size of the workstations appropriate? If not, please provide information on specific workstations.

Size OK

Is there are any common workspace (e.g. work or layout table) within the office?

Yes

If so, where is it located and how large is it?

Mail Room just a table

How often is it used, and by whom?

*- really only for mail and which
using the copier - space is not comfortable*

If there is not currently a shared workspace within the office, would one be desired in a renovated office?

It would be desirable

E. ORGANIZATIONAL DATA: SERVICE COUNTER - *We do not have real service counters*
Please estimate the approximate number of visitors you serve each workday. 25

What types of interactions commonly occur at the service counter? If there is a wide variety, please describe:
1) the shortest typical interactions, 2) the most common type of interaction, and 3) interactions that take longer.
interactions occur at the service counters and within the private offices. Public just walks in.

How long do these various interactions usually last, and how often do they occur?
5-15 minutes and at least every 15 minutes

How comfortable is the level of security and safety provided by the service counter? - *Non-existent*

If the service counter is not safe, what suggestions do you have for how it can be improved?
Areal barrier to separate the public from the staff

What technology is used by employees during these interactions (e.g., on-line data on a flat-screen monitor)?
On-line data - monitor computer

Where is that technology placed within the office currently?
Everyone has their own work station

Has this placement been effective?
Yes OK

Is printed material (e.g., ledgers, paper maps, schedules, brochures or handouts) available for dissemination or viewing at the service counter?
Yes & everywhere else

If so, is the amount of space currently provided for this adequate?

There is no real counter
Is there currently a visitor waiting or queuing area? *not in the hall*

If so, do you feel that it can be improved? - *Yes*

How often are visitors brought to the employee side of the service counter? *All the time - the public just walks in*

If and when this occurs, where are they currently brought? Is the path taken to the destination problematic?
Sometimes

Ideally, where and how would such interactions occur? Might the service counter area be configured to allow this type of interaction to remain at the counter, or might visitors be brought to a conference room rather than somebody's private office or workstation?

all of the above a conference room would be great

F. ORGANIZATIONAL DATA: TECHNOLOGY

How many printers (including plotters if applicable), copiers and fax machines are there within your department?

| Quantity | Device | Where placed now? | Ideally placed where? |
|----------|----------|-------------------------------------|-----------------------|
| 6 | Printers | individual workstations - plus some | |
| 1 | Copier | In mail room | Yes |
| 1 | Fax | In mail room | Yes |

Is there any technology that your office uses that is not mentioned in the Technology or Service Counter sections above (e.g. microfiche readers)?

| Quantity | Device | Where placed now? | Ideally placed where? |
|----------|-----------------|-----------------------|-----------------------|
| 1 | Mail Machine | Mail Room | Yes |
| 1 | Folding Machine | Behind a work station | No |

Does your department anticipate acquiring any additional technology in the future?

If so, where would be the ideal placement for them? No

Do other departments currently use any of the technology in your workspace?

If so, what technology, how often, and by whom? Yes the copier all the time by the Special Education Dept.

Does your department currently use any of the technology housed by other departments? -

If so, what technology, how often, and in which departments? A color copier - a couple times a week

G. ORGANIZATIONAL DATA: STORAGE

What published or printed materials are currently stored within your departmental office? Please include storage both within private offices and in open workspace, as applicable.

*Staff files, Accounting paperwork, Financial paperwork;
Student financial and paperwork HR paperwork*

In what format is the majority of this information stored (e.g., hard-copy letter/legal size, 24" x 36" sheets, microfiche)?

*Hard copy filing cabinets
letter legal size*

For each type of material listed above, in what type(s) of closets or cabinetry (e.g. open shelving, tall cabinet, lateral files) is this material currently stored?

Lateral files, filing cabinets

For each item listed above, is the type and design of storage unit appropriate for the material stored within it?

No - Not optimal enough -

Currently, how many of each type of storage unit mentioned above are there in the department, and do you consider this number adequate for your needs now and in the future?

*4 pre-post filing cabinet 10 - 2 drawers
8 Tall laterals, 4 short lateral Various - Shelving*

Ideally, where would these various storage units be placed (e.g., near the service counter, outside a particular office, in a dedicated file room)?

In a dedicated file room and at workstations

Where are ordinary office supplies currently stored? - *file cabinets, floor under hanging*

Are the size and location of this area adequate? If not, how much room would be ideal for this purpose, and where should it be located? *10 desks - all gone
centrally and contained*

Does your department use remote storage areas within the Flynn Building, Town Hall or elsewhere? - *a couple of*

trailers located at the schools

How often do you require access to these areas? - *A couple times a year for deposit + more*
Is there a specific reason why these items are not stored within your office? - *No room*

Has gaining access to these areas been problematic for any reason, and would it be advantageous to have the items stored within your office, if possible? If so, please explain.

Access almost impossible - contents are all jumbled together

Are there any items currently stored within your office confines that should not be? - *No*

In cold weather, where are coats stored? If there is a closet for such purpose, in the size and location needed?

In our office - backs of doors, chairs, clock trees

Are there any other storage needs that have not been referenced above, whether needed now or in the future?

Facility dept has no storage -

H. MEETINGS

How often do members of your department hold meetings, whether with other staff members or with the public?

Weekly

Where are these meetings currently held? Please include meetings held within private offices, open workspaces and elsewhere in the Sudbury Town offices complex (e.g., Loring Parsonage).

Private offices; superintendent's conference room (if available)

How many people participate in each of these meetings, and what departments do they most-frequently represent?

5-10; Public; school staff; other employees; vendors
Ideally, where would such meetings occur? - *In conference room and our space and private offices*

If some or all of these meetings are held outside of your departmental offices, is it due to insufficient meeting space?

Absolutely

If so, what are the ideal sizes and number of meeting spaces that your department could support?

Hold 15-20; 1 one per depart ment

I. DEPARTMENT ADJACENCIES

If your department interacts frequently with other departments or agencies, please list why and level of importance. (1= most important, etc.). Note that we are referring only to in-person meetings rather than phone calls and email.

| <u>Imp.</u> | <u>Agency/Department</u> | <u>Type or reason for interaction</u> |
|-------------|-------------------------------|---------------------------------------|
| 1 | <i>Staff</i> | |
| 2 | <i>Other Town Department-</i> | |
| 3 | <i>Parents</i> | |
| 4 | <i>Public</i> | |
| 5 | <i>Vendors</i> | |

J. PARKING

Please estimate the number of parking spaces needed for department employees and municipal vehicles.

10

K. OTHER THOUGHTS

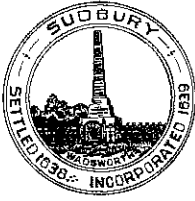
Are there any entirely new types of spaces that you would like to see in the new location, that don't exist now?

*A lunch room Real Storage Closets
Staff Ballrooms*

Are there any items that were not mentioned in this questionnaire that you feel should be taken into consideration in the placement and design of your new / renovated space?

*Like punchers - HR Together
Business - accounting, clerk
trans/food services and building
together*

THANK YOU! We appreciate your cooperation and assistance.



SUDBURY TOWN OFFICES SPACE PLANNING QUESTIONNAIRE FOR DEPARTMENT LEADERS

In evaluating and planning possible renovations and additions to Sudbury Town Hall, this space planning (or "programming") questionnaire is designed to help our design team learn about how you work: *what* you do, *how* you do it, and whether new space could be designed to help you work better. The questionnaire is a critical component of good facilities planning and it initiates an interactive process that will benefit greatly from your careful thought and participation. Thank you in advance for your time and effort.

Your Name and Department: Michael R. O'Brien Technology Department
 Telephone and fax numbers: 978-639-3252 n/a
 Email address: michael_obrien@sudbury.k12.ma.us

A. SPACE IMPRESSIONS

What adjectives describe your *current* space? cluttered, utilitarian

What adjectives should describe your *new* space? open, elegant

B. DEPARTMENT OVERVIEW

Briefly describe what your department does:

Our department supports the full range of technology services used in a modern school environment. We maintain over 1200 computers and 2 dozen servers, accounts for all teachers and students, and dozens of online systems. Most of the state reports also come out of our office. We are involved in the full range of planning, deployment and support for everything from network infrastructure to classroom presentation tools to a broad range of emerging technologies.

How many full-time employees (FTE's) currently work within your office space?

How many FTE's do you anticipate having within your office space in the new location?

How many part-time employees (PTE's) currently work within your office space?

Do they have their own workstation, or share with other part-time employees (e.g., staggered work schedules)?

They presently share space with an autism consultant who works different hours.

How many PTE's do you anticipate having within your office space after the renovation?

Will these PTE's require their own workstation? If so, how many and what type of workstations will be required for them?

They will require a desk.



C. ORGANIZATIONAL DATA: PRIVATE OFFICES

Currently, how many private offices are there within your department?

Is there a logic to how they are currently placed within your office (e.g. adjacent to an outside wall, conference room, or open workspace)? no

What tasks take place in these private offices? (Please include both private offices that currently exist and private offices anticipated in the new location.) If private offices were available, business that is now conducted in a loud work area could be conducted in a quieter, more professional environment.

How many private offices are desired in the new location?

Is there an ideal placement or arrangement for these private offices? People walking in for assistance should initially encounter the technician area.

Is it required that any of the private offices in the department be large enough to accommodate a small meeting table or a work table (in addition to a desk)? yes

What level of privacy is required for each of these offices, and do the tasks completed in any of them involve HIPAA (Health Insurance Portability and Accountability Act) considerations?

Privacy is primarily to provide focus; the data manager also works daily with confidential student and teacher data.

D. ORGANIZATIONAL DATA: OPEN WORKSPACE

How many open space workstations are there currently within your department?

What level of privacy is currently provided for the typical open space workstation? ___ good ___ fair X poor

Is this level of privacy appropriate (neither too much nor too little) for the workstations? no

Would you say that there is a logic that dictates the placement of the employees within the office, or has it simply evolved over time, as the department grew and changed?

Placement of employees has been organic and needs revision to promote better workflow.

How many of the workstations need to be near a service counter?

If applicable, what are the pros and cons of how the workstations currently relate to the service counter? n/a

How often are verbal communication and/or visual supervision required between open space workstations and private offices?

We have no private offices currently, but communication between department members is continual.

How effective has this been in your current office arrangement? It has been fine. I turn my head and have verbal access to everyone.

Is the size of the workstations appropriate? If not, please provide information on specific workstations.

yes

Is there are any common workspace (e.g. work or layout table) within the office? yes

If so, where is it located and how large is it? We are all currently sitting in two mostly open rooms.

How often is it used, and by whom? The technician makes heaviest use of the work space in our area.

If there is not currently a shared workspace within the office, would one be desired in a renovated office?

We would need additional space in the new area. Presently we use our space to set up several 100 computers each year. If the district adopts 1:1 computing at the middle school, this would require space to prepare and deploy roughly 400 computers.

E. ORGANIZATIONAL DATA: SERVICE COUNTER

Please estimate the approximate number of visitors you serve each workday.

6

What types of interactions commonly occur at the service counter? If there is a wide variety, please describe:
1) the shortest typical interactions, 2) the most common type of interaction, and 3) interactions that take longer.

The service counter model does not reflect the way we operate in 2013. Only a small number of staff can actually travel to and access the district technology office. Each day, we deal with roughly a half dozen visitors and a dozen phone calls, but we could easily have over 100 emails and we do remote work/visits out to the school buildings continually.

How long do these various interactions usually last, and how often do they occur?

n/a

How comfortable is the level of security and safety provided by the service counter? n/a

If the service counter is not safe, what suggestions do you have for how it can be improved? n/a

What technology is used by employees during these interactions (e.g., on-line data on a flat-screen monitor)?

Department members all have laptops.

Where is that technology placed within the office currently?

Laptops are on our desks. District servers are mounted on racks or on tables on one side of the room.

Has this placement been effective?

yes

Is printed material (e.g., ledgers, paper maps, schedules, brochures or handouts) available for dissemination or viewing at the service counter?

The data manager keeps paper backups of important state reports. Otherwise, everything else is electronic.

If so, is the amount of space currently provided for this adequate?

yes

Is there currently a visitor waiting or queuing area? Yes, we make them wait in the shared lunchroom area.

If so, do you feel that it can be improved? yes

How often are visitors brought to the employee side of the service counter? n/a

If and when this occurs, where are they currently brought? Is the path taken to the destination problematic? n/a

Ideally, where and how would such interactions occur? Might the service counter area be configured to allow this type of interaction to remain at the counter, or might visitors be brought to a conference room rather than somebody's private office or workstation?

Email, video conferencing and remote work are how we service most teacher and student support needs. Having a service counter would promote a model of "customer support" that is not used by our department in 2013.

F. ORGANIZATIONAL DATA: TECHNOLOGY

How many printers (including plotters if applicable), copiers and fax machines are there within your department?

| <u>Quantity</u> | <u>Device</u> | <u>Where placed now?</u> | <u>Ideally placed where?</u> |
|-----------------|----------------|--------------------------|------------------------------|
| 2 | printers | near curriculum people | centrally |
| 1 | copier/scanner | shared across the hall | centrally |
| | | | |
| | | | |

Is there any technology that your office uses that is not mentioned in the Technology or Service Counter sections above (e.g. microfiche readers)?

| <u>Quantity</u> | <u>Device</u> | <u>Where placed now?</u> | <u>Ideally placed where?</u> |
|-----------------|-----------------------------------|--------------------------|------------------------------|
| 8 | servers accessed by 5 SPS schools | racks and tables | open table area |
| | | | |
| | | | |

Does your department anticipate acquiring any additional technology in the future? yes

If so, where would be the ideal placement for them? n/a

Do other departments currently use any of the technology in your workspace? yes

If so, what technology, how often, and by whom? Several district servers are located in our area, specifically: the authentication server for 4000 accounts, the food services server for the cafeteria cash registers, the purchase orders database, the standardized testing database, the wireless security solution for the district and several other less critical services.

Does your department currently use any of the technology housed by other departments? yes

If so, what technology, how often, and in which departments?

We manage roughly 2 dozen servers and 1200 computers out in the school buildings around the district remotely from our present location.

G. ORGANIZATIONAL DATA: STORAGE

What **published or printed materials** are currently stored within your departmental office? Please include storage both within private offices and in open workspace, as applicable.

In what format is the majority of this information stored (e.g., hard-copy letter/legal size, 24" x 36" sheets, microfiche)?

electronic

For each type of material listed above, in what **type(s) of closets or cabinetry** (e.g. open shelving, tall cabinet, lateral files) is this material currently stored?

We have one book case that holds the printed backups for state reports. All other information is stored electronically.

For each item listed above, is the type and design of storage unit appropriate for the material stored within it?

yes

Currently, how many of each type of storage unit mentioned above are there in the department, and do you consider this number adequate for your needs now and in the future?

One large book case is adequate.

Ideally, where would these various storage units be placed (e.g., near the service counter, outside a particular office, in a dedicated file room)?

Ideally, the data manger would have a private office and would have the book case in that area.

Where are ordinary **office supplies** currently stored? These are stored in the assistant superintendent's office area.

Are the size and location of this area adequate? If not, how much room would be ideal for this purpose, and where should it be located?

We do not use many traditional office supplies.

Does your department use **remote storage areas** within the Flynn Building, Town Hall or elsewhere? Our department provides remote storage for the schools.

If so, where are these areas currently located, and how large are they?

We manage storage for the schools, both at Fairbank, at the buildings and online.

How often do you require access to these areas?

We access our own areas at Fairbank and around the district daily.

Is there a specific reason why these items are not stored within your office? File servers for most teachers and students are located at the school building to promote efficient use of WAN bandwidth

Has gaining access to these areas been problematic for any reason, and would it be advantageous to have the items stored within your office, if possible? If so, please explain. n/a

Are there any items currently stored *within* your office confines that should *not* be?

Yes. There are broken chairs, abandoned tables, old junk cluttering our office area.

In cold weather, where are coats stored? If there is a closet for such purpose, in the size and location needed?

Coats are hung wherever we can find a hook. A closet for such purpose would be eminently civilized.

Are there any **other storage needs** that have not been referenced above, whether needed now or in the future?

Yes. We need room to store 100s of cables, spare keyboards and mice, decommissioned laptops, repair parts, etc.

H. MEETINGS

How often do members of your department hold meetings, whether with other staff members or with the public?

We probably hold two meetings per week.

Where are these meetings currently held? Please include meetings held within private offices, open workspaces and elsewhere in the Sudbury Town offices complex (e.g., Loring Parsonage).

These are usually held in the lunch room/microwave area nearby.

How many people participate in each of these meetings, and what departments do they most-frequently represent?

These are usually 3-5 people, and involve curriculum specialists, vendors, administrators, etc.

Ideally, where would such meetings occur? These would ideally be at a meeting table in the technology area.

If some or all of these meetings are held outside of your departmental offices, is it due to insufficient meeting space? yes

If so, what are the ideal sizes and number of meeting spaces that your department could support?

It would be ideal if we could hold meetings and small group trainings for groups of 8-12.

I. DEPARTMENT ADJACENCIES

If your department interacts frequently with other departments or agencies, please list why and level of importance. (1= most important, etc.). Note that we are referring only to in-person meetings rather than phone calls and email.

| <u>Imp.</u> | <u>Agency/Department</u> | <u>Type or reason for interaction</u> |
|-------------|--|---|
| 1 | Assistant Superintendent of Curriculum | We operate under his direction and oversight. |
| 2 | Curriculum Specialists | This small group provides some nice focused feedback for where technology is needed. |
| 3 | Librarians | The librarians provide much of the curriculum/research direction for technology resource |
| 4 | Secretaries | Front office secretaries provide the front line in terms of making sure data in our system is collected and accurate. |

J. PARKING

Please estimate the number of parking spaces needed for department employees and municipal vehicles.

8

K. OTHER THOUGHTS

Are there any entirely new types of spaces that you would like to see in the new location, that don't exist now?

no

Are there any items that were not mentioned in this questionnaire that you feel should be taken into consideration in the placement and design of your new / renovated space?

This has been mentioned, but it is no small issue that: 1. many district central services for 1000s of accounts are currently on servers in our area at Fairbank and 2. we already set up 100s of computers per year on site and that will be increasing substantially if we adopt a 1:1 computing model at the middle school.

THANK YOU! We appreciate your cooperation and assistance.

3. DRAWINGS

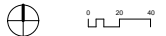
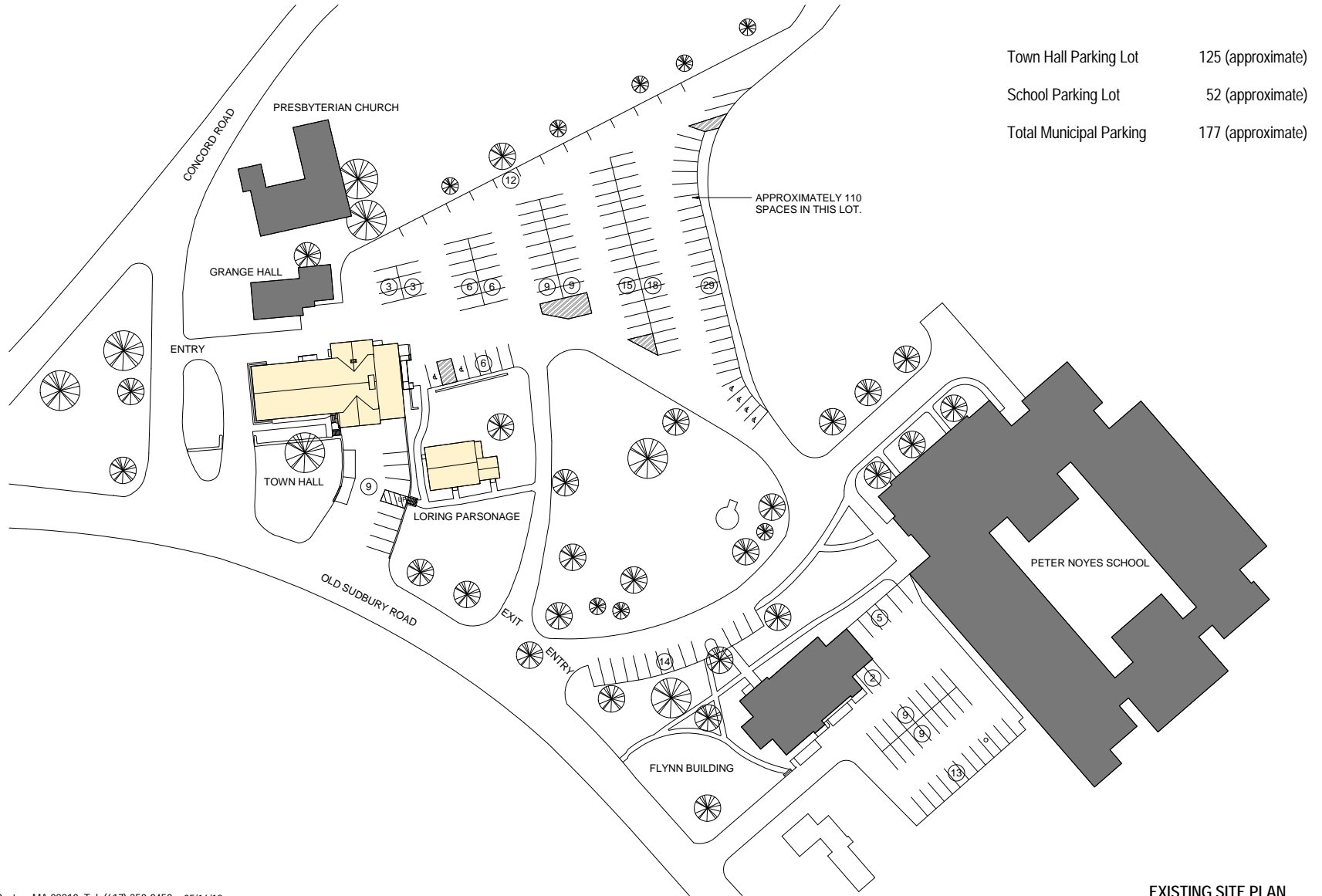
- a. Existing Condition Drawings
- b. Other Concept Schemes and Drawings

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Sudbury Town Hall Study

Town of Sudbury Permanent Building Committee

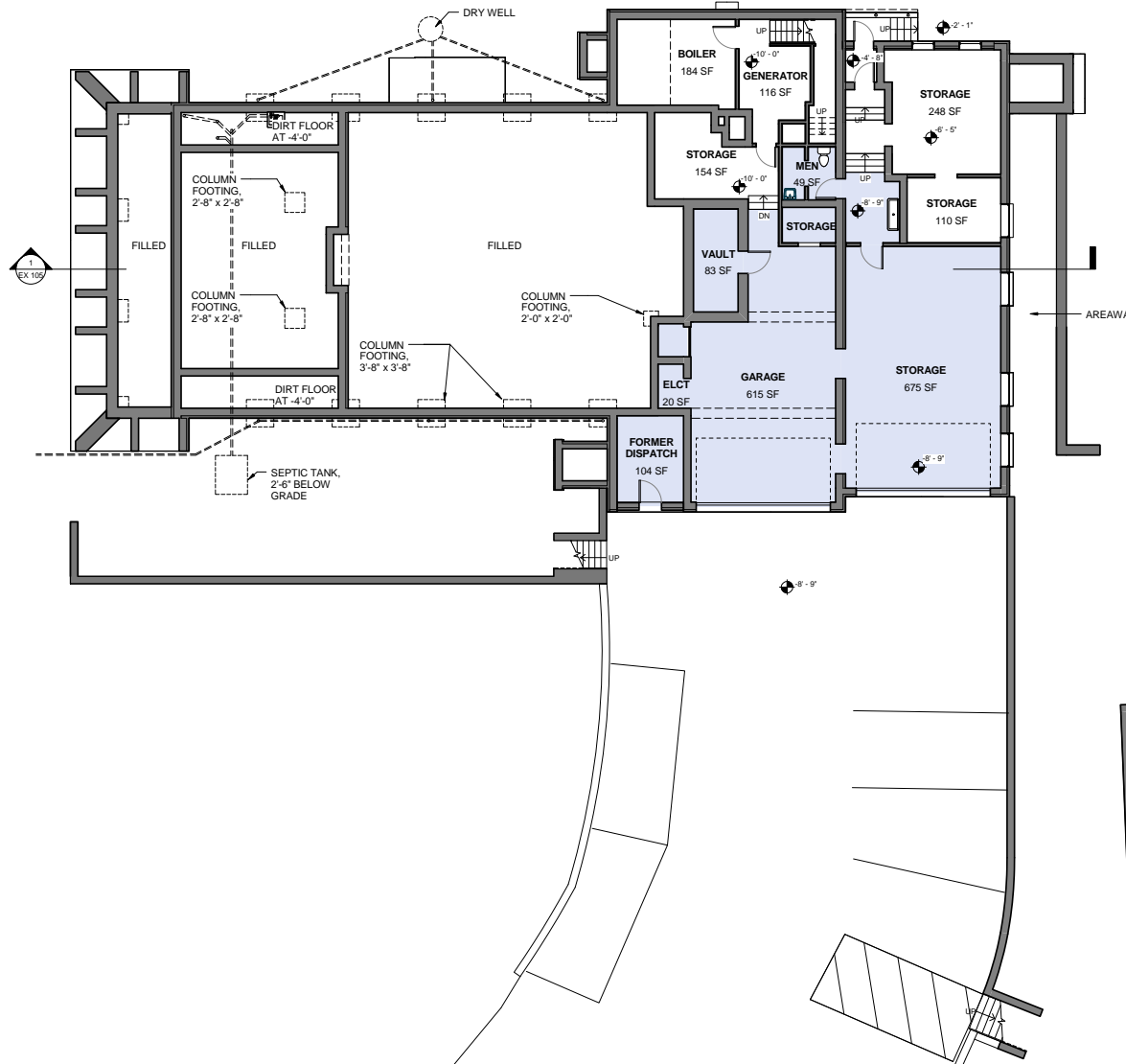
278 Old Sudbury Road, Sudbury MA



Sudbury Town Hall Study

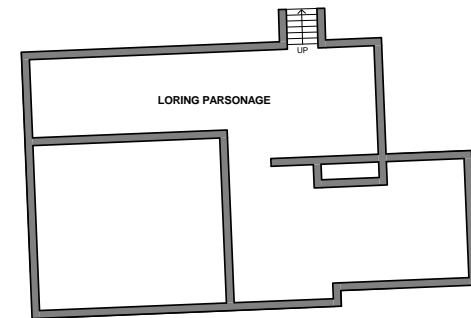
Town of Sudbury Permanent Building Committee

278 Old Sudbury Road, Sudbury MA



TOTAL BUILDING SF: 14,700 SF

BASEMENT FLOOR SF: 3,270 SF



EXISTING BASEMENT PLAN

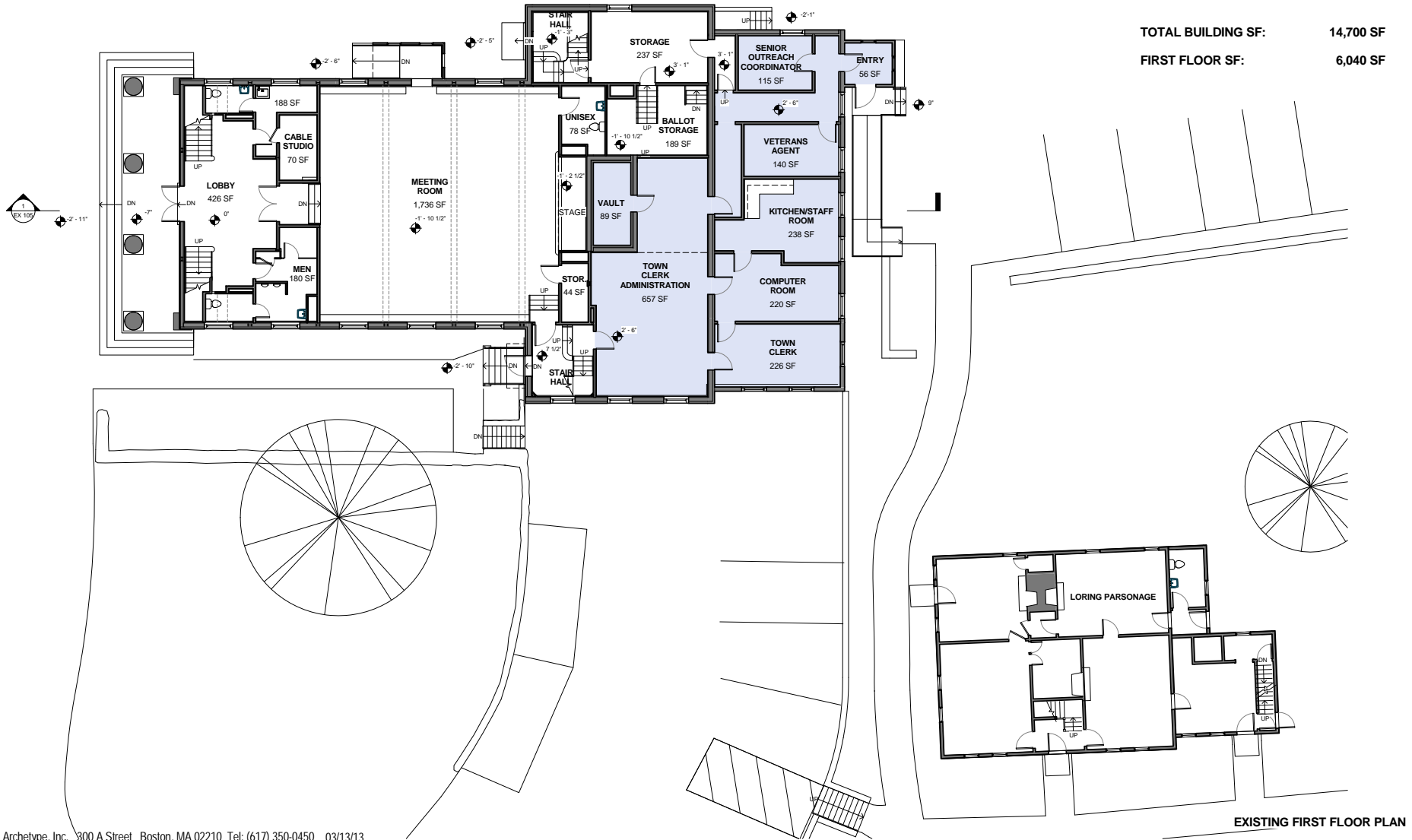


Sudbury Town Hall Study

Town of Sudbury Permanent Building Committee

278 Old Sudbury Road, Sudbury MA

TOTAL BUILDING SF: 14,700 SF
FIRST FLOOR SF: 6,040 SF



EXISTING FIRST FLOOR PLAN



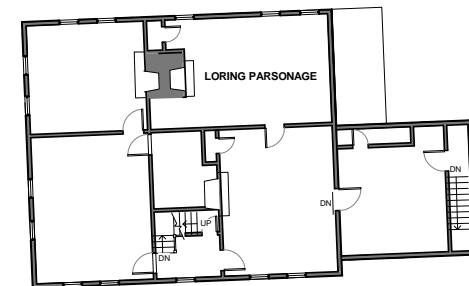
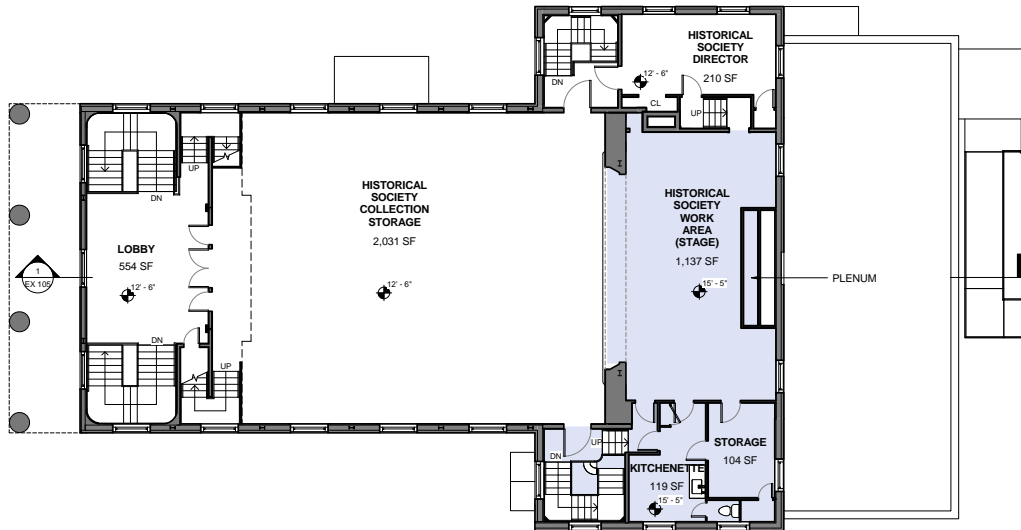
Sudbury Town Hall Study

Town of Sudbury Permanent Building Committee

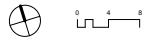
278 Old Sudbury Road, Sudbury MA

TOTAL BUILDING SF: 14,700 SF

SECOND FLOOR SF: 4,640 SF



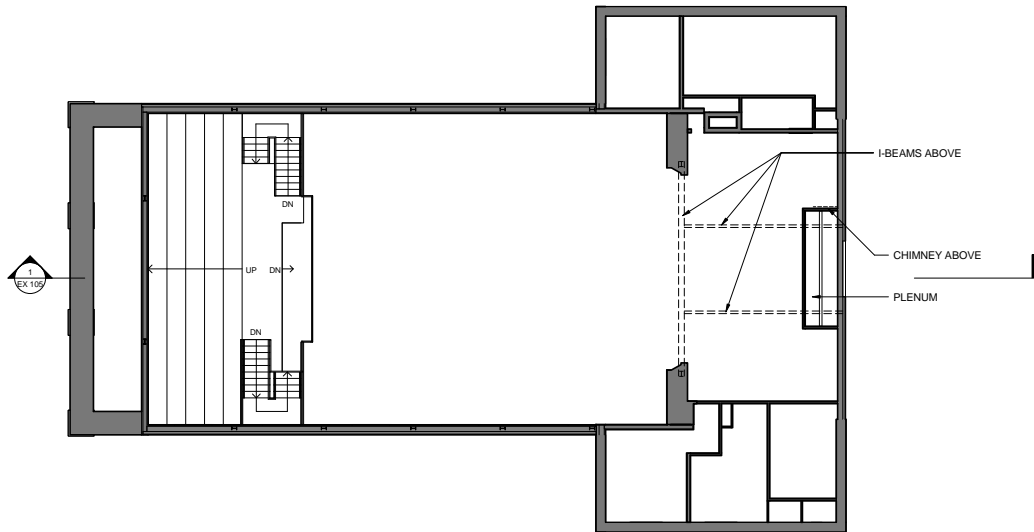
EXISTING SECOND FLOOR



Sudbury Town Hall Study

Town of Sudbury Permanent Building Committee

278 Old Sudbury Road, Sudbury MA



TOTAL BUILDING SF: 14,700 SF

MEZZANINE FLOOR SF: 850 SF



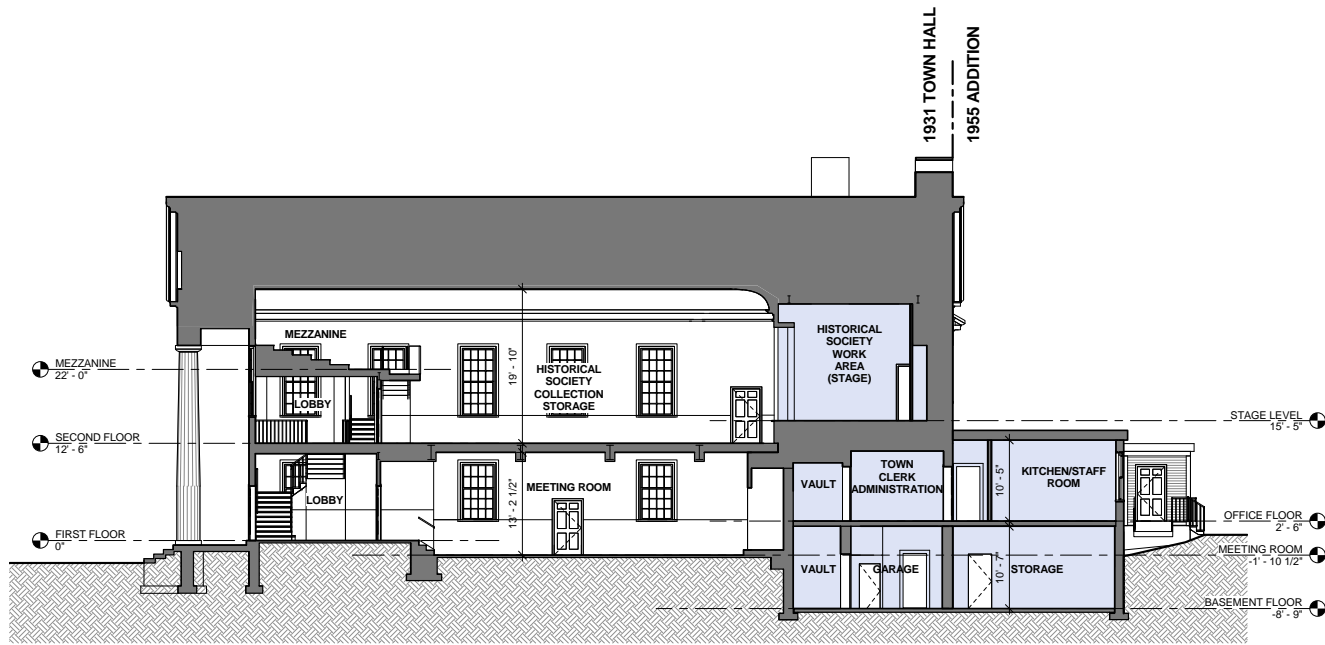
EXISTING MEZZANINE LEVEL



Sudbury Town Hall Study

Town of Sudbury Permanent Building Committee

278 Old Sudbury Road, Sudbury MA



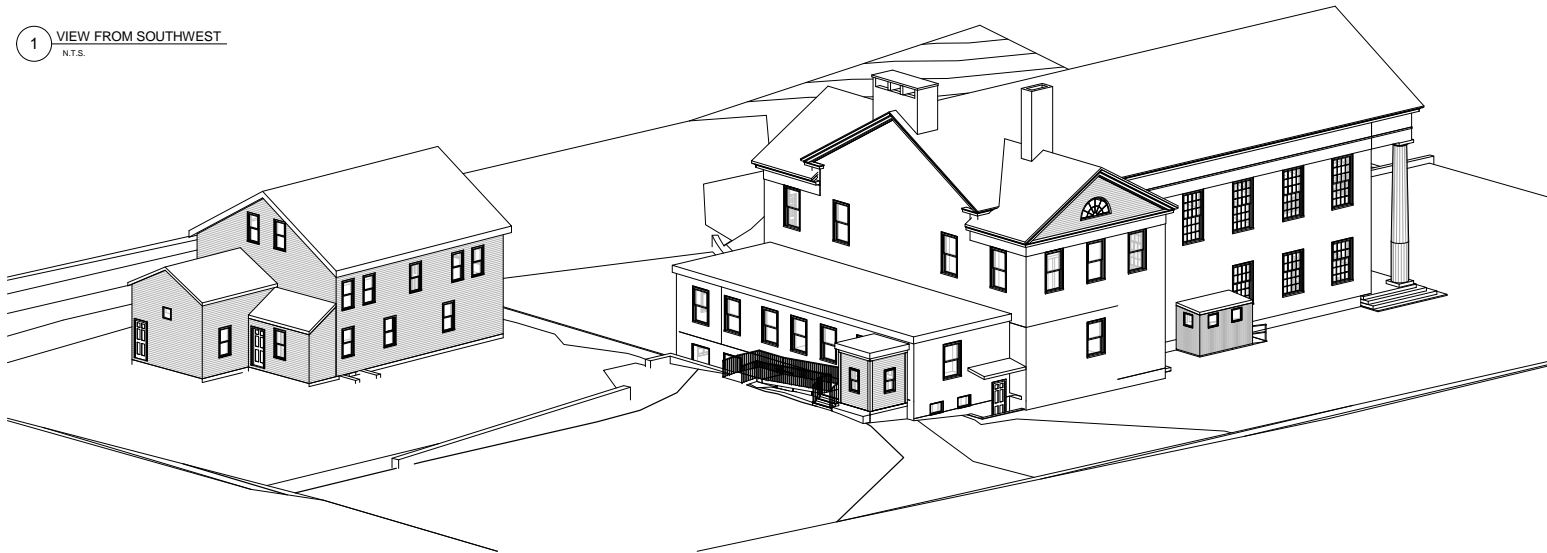
Sudbury Town Hall Study

Town of Sudbury Permanent Building Committee

278 Old Sudbury Road, Sudbury MA



1 VIEW FROM SOUTHWEST
N.T.S.



2 VIEW FROM NORTHEAST
N.T.S.

Sudbury Town Hall Study

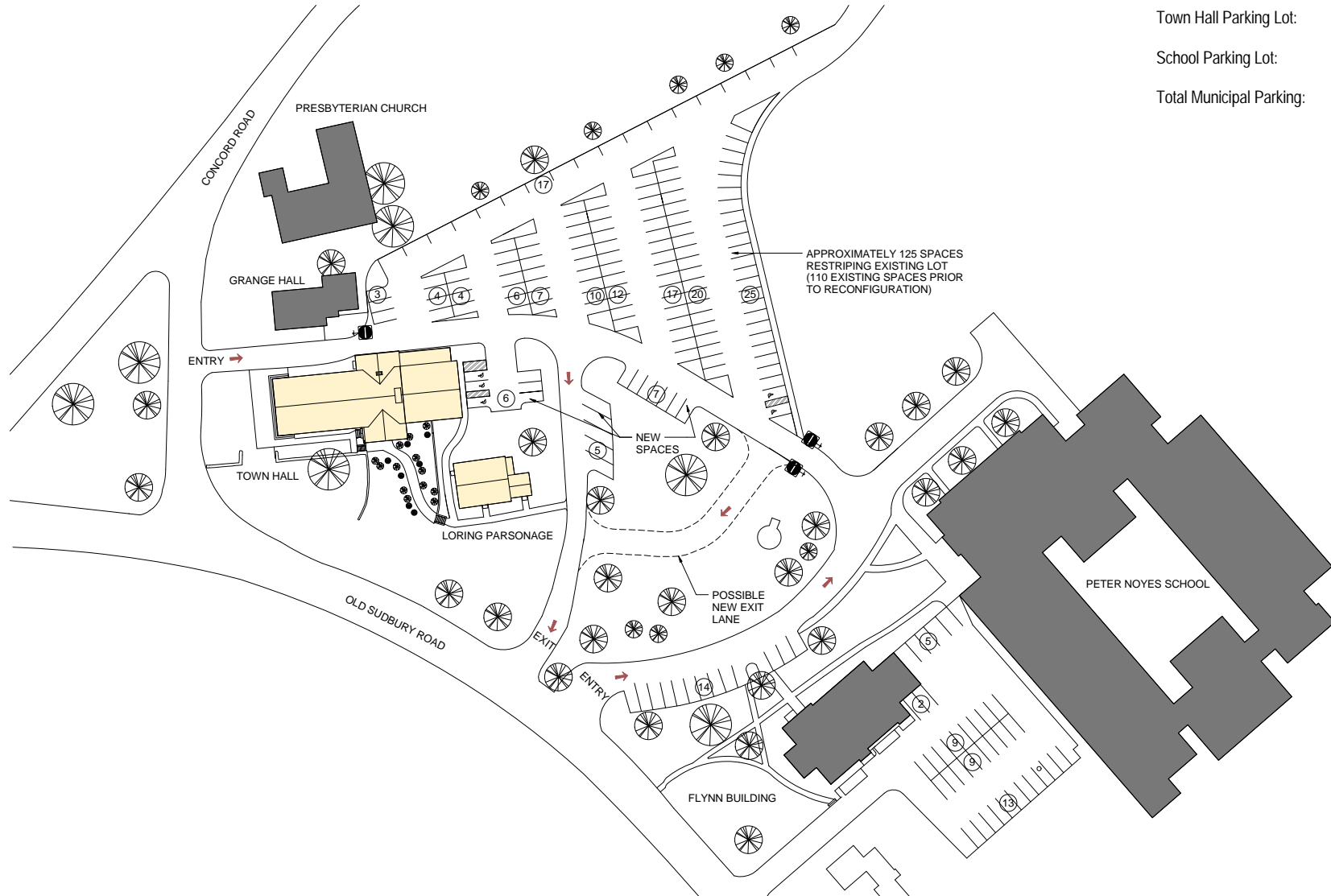
Town of Sudbury Permanent Building Committee

278 Old Sudbury Road, Sudbury MA

Town Hall Parking Lot: 143 (approximate)

School Parking Lot: 52 (approximate)

Total Municipal Parking: 195 (approximate)



Sudbury Town Hall Study

Town of Sudbury Permanent Building Committee

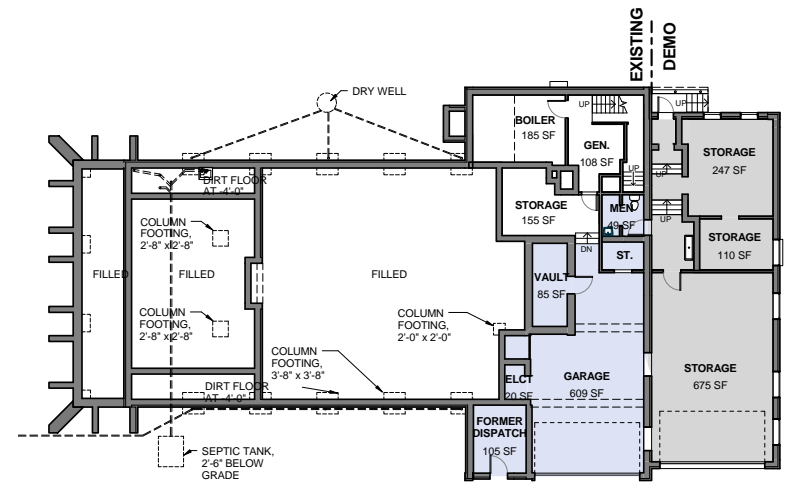
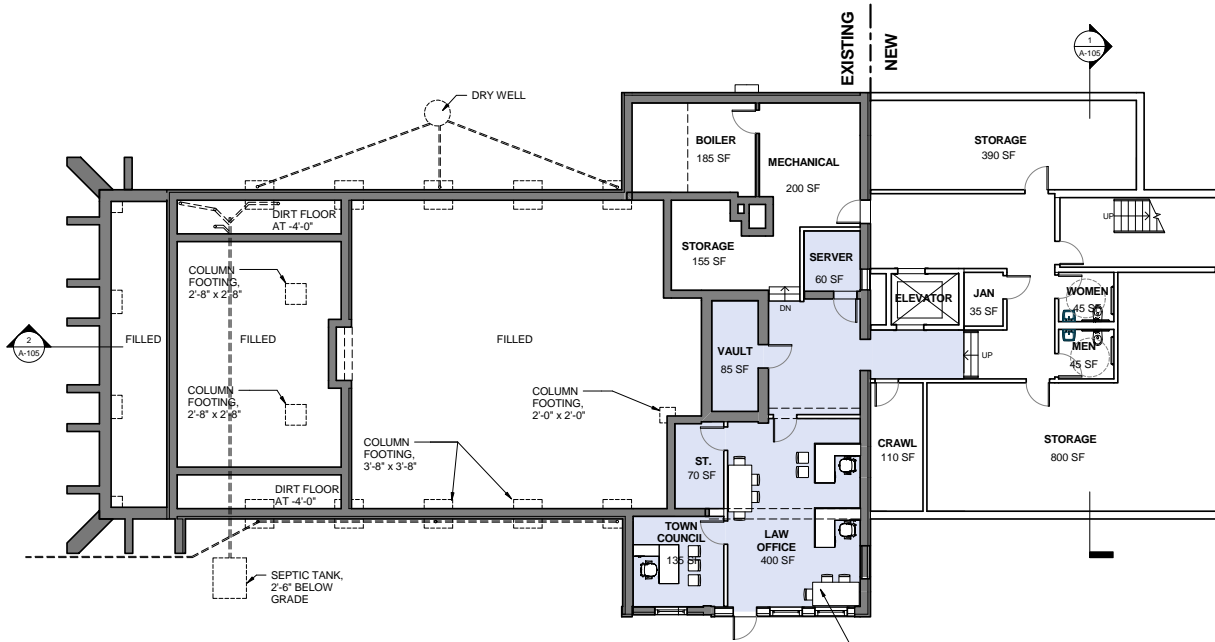
278 Old Sudbury Road, Sudbury MA

Total Building Area: 19,920 SF

Basement Floor Area: 4,240 SF

Basement Floor Occupants: 20

| Required Fixture Count Basement Floor | | |
|---------------------------------------|-----------------|------|
| | Toilets/Urinals | Lavs |
| Female | 1 | 1 |
| Male | 1 | 1 |



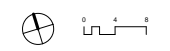
1 BASEMENT FLOOR PLAN

Elevation -10'-0" from First Floor
Elevation -8'-9" in blue area

COLOR INDICATES EXISTING RAISED FLOOR LEVEL

2 EXISTING BASEMENT FLOOR PLAN

1.1 SCHEME 1 BASEMENT FLOOR PLAN

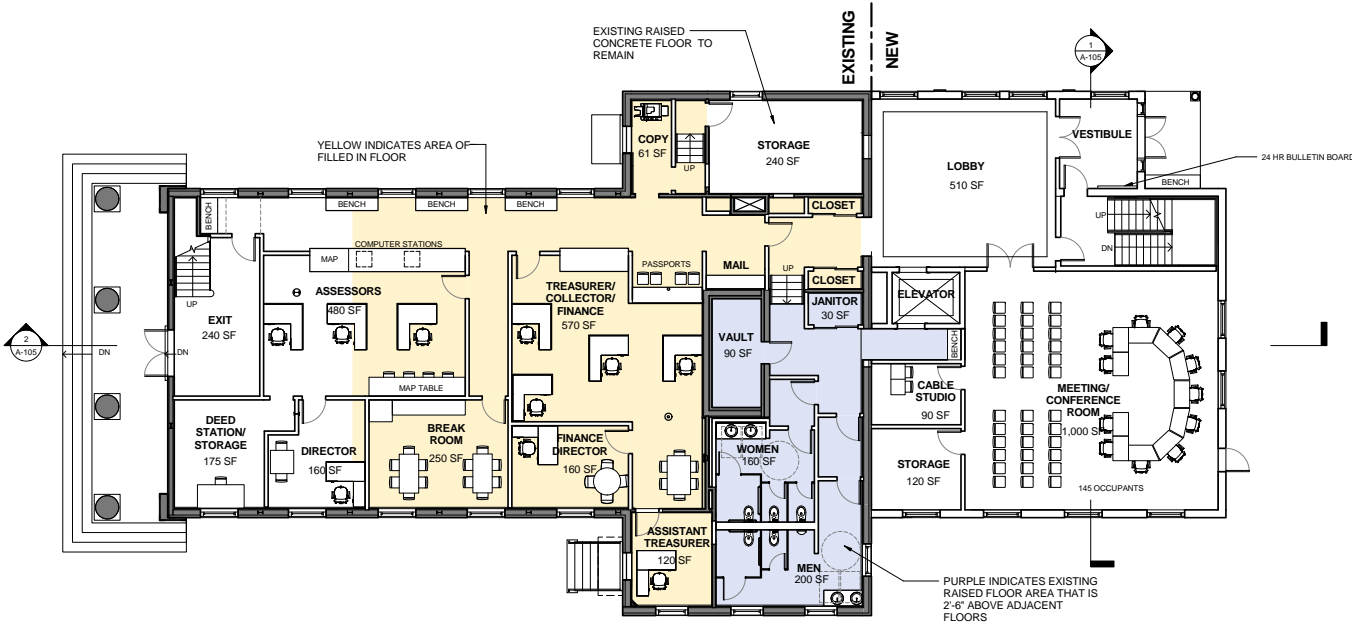


Sudbury Town Hall Study

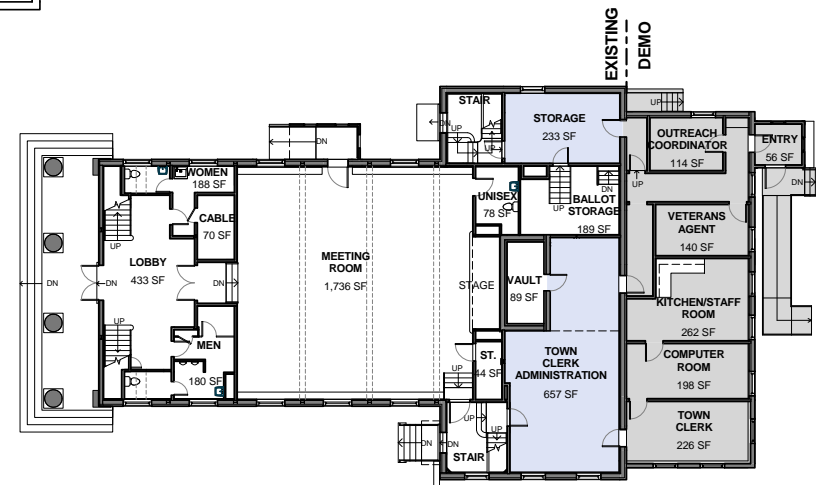
Town of Sudbury Permanent Building Committee
278 Old Sudbury Road, Sudbury MA

Total Building Area: 19,920 SF
First Floor Area: 7,010 SF
First Floor Occupants: 185

| Required Fixture Count First Floor | | |
|------------------------------------|-----------------|------|
| | Toilets/Urinals | Lavs |
| Female | 3 | 2 |
| Male | 1/1 | 2 |



1 FIRST FLOOR PLAN



2 EXISTING FIRST FLOOR

1.2

SCHEME 1
FIRST FLOOR PLAN



Sudbury Town Hall Study

Town of Sudbury Permanent Building Committee

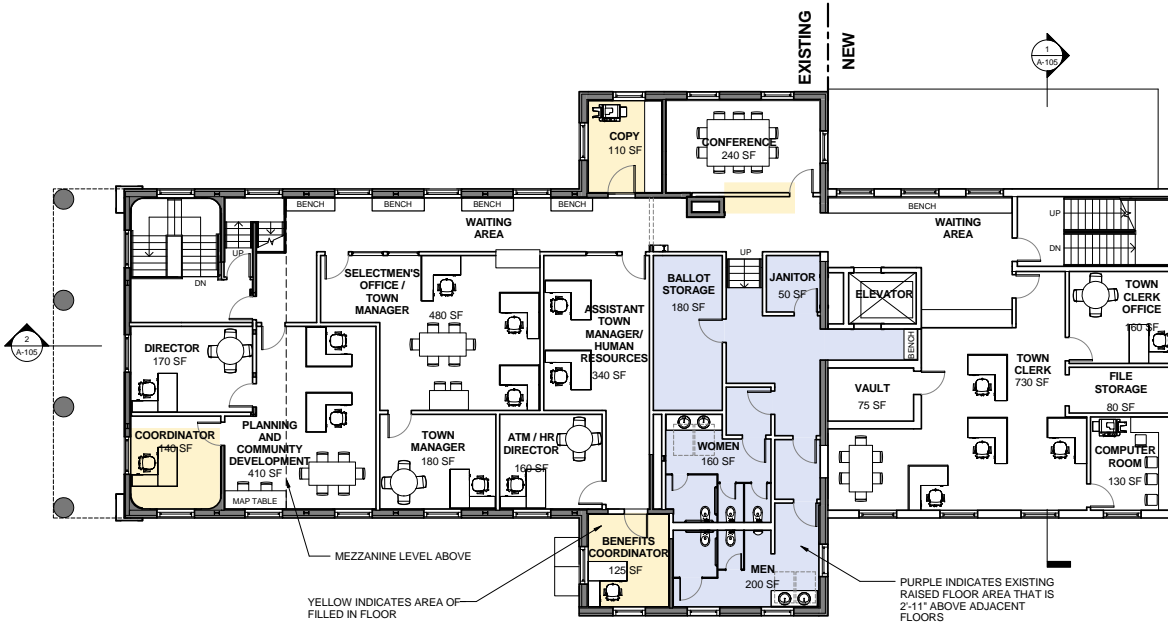
278 Old Sudbury Road, Sudbury MA

Total Building Area: 19,920 SF

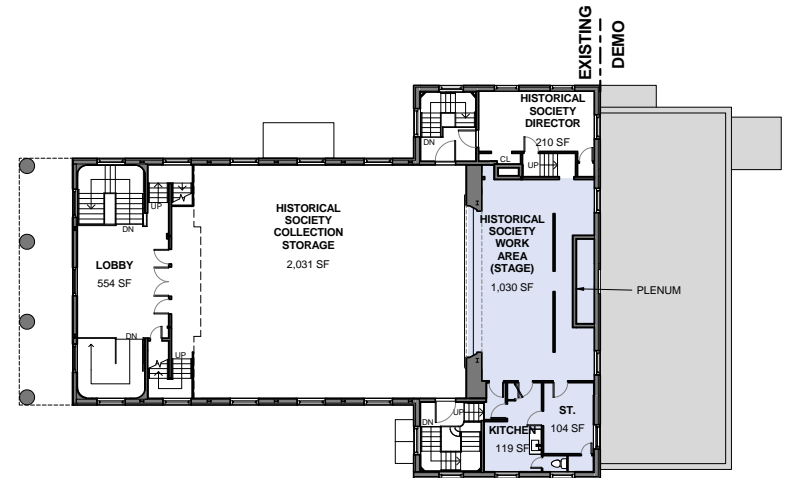
Second Floor Area: 6,580 SF

Second Floor Occupants: 55

| Required Fixture Count Second & Third Floor | | |
|---|-----------------|------|
| | Toilets/Urinals | Lavs |
| Female | 2 | 1 |
| Male | 1/1 | 1 |



1 SECOND FLOOR PLAN



2 EXISTING SECOND FLOOR

1.3

SCHEME 1
SECOND FLOOR PLAN



Sudbury Town Hall Study

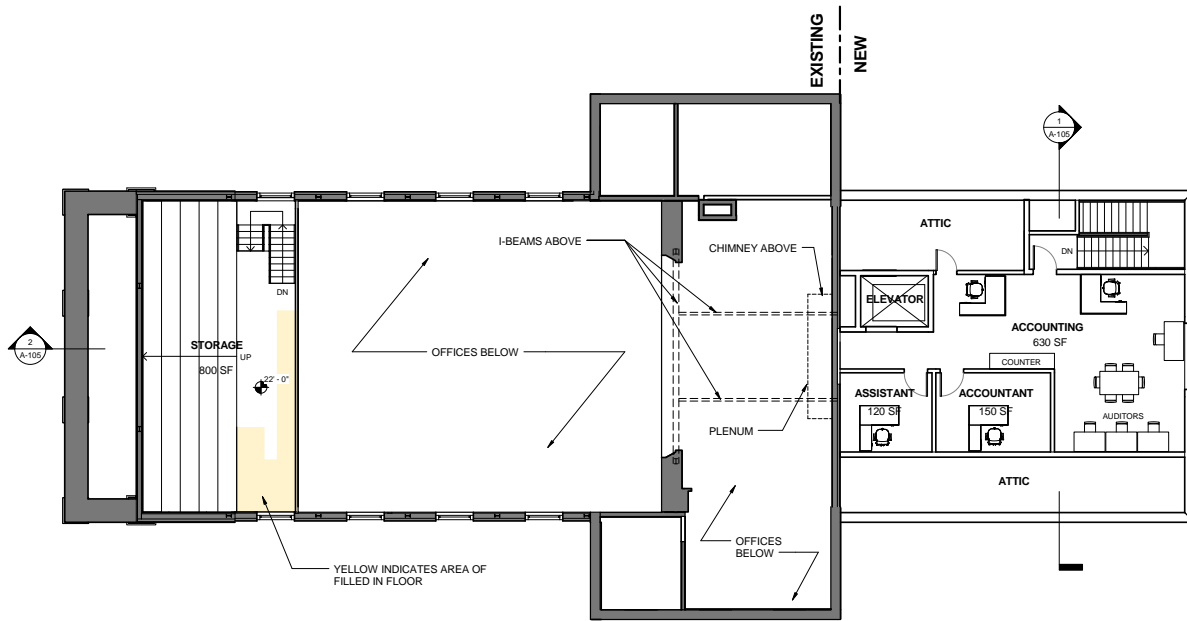
Town of Sudbury Permanent Building Committee

278 Old Sudbury Road, Sudbury MA

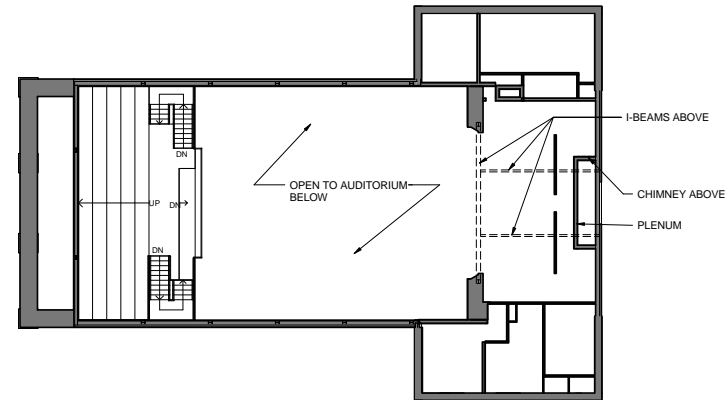
Total Building Area: 19,920 SF

Third Floor Area: 2,090 SF

Third Floor Occupants: 13



1 THIRD FLOOR PLAN



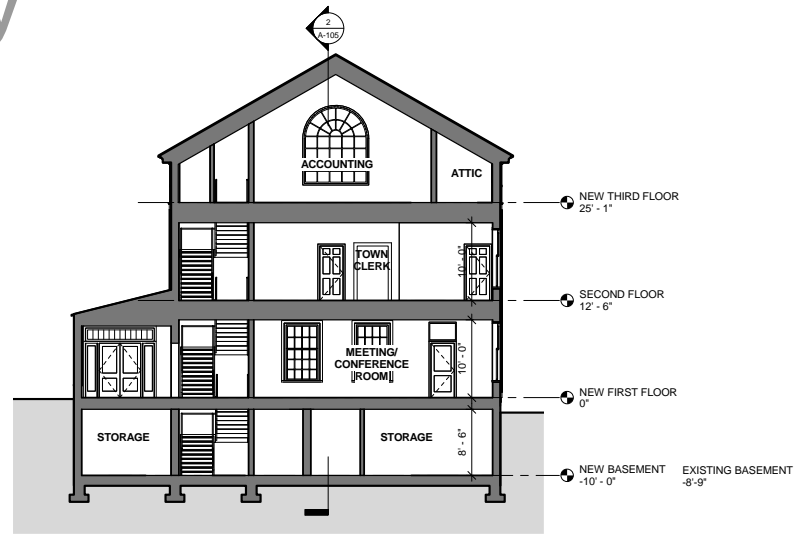
2 EXISTING MEZZANINE LEVEL



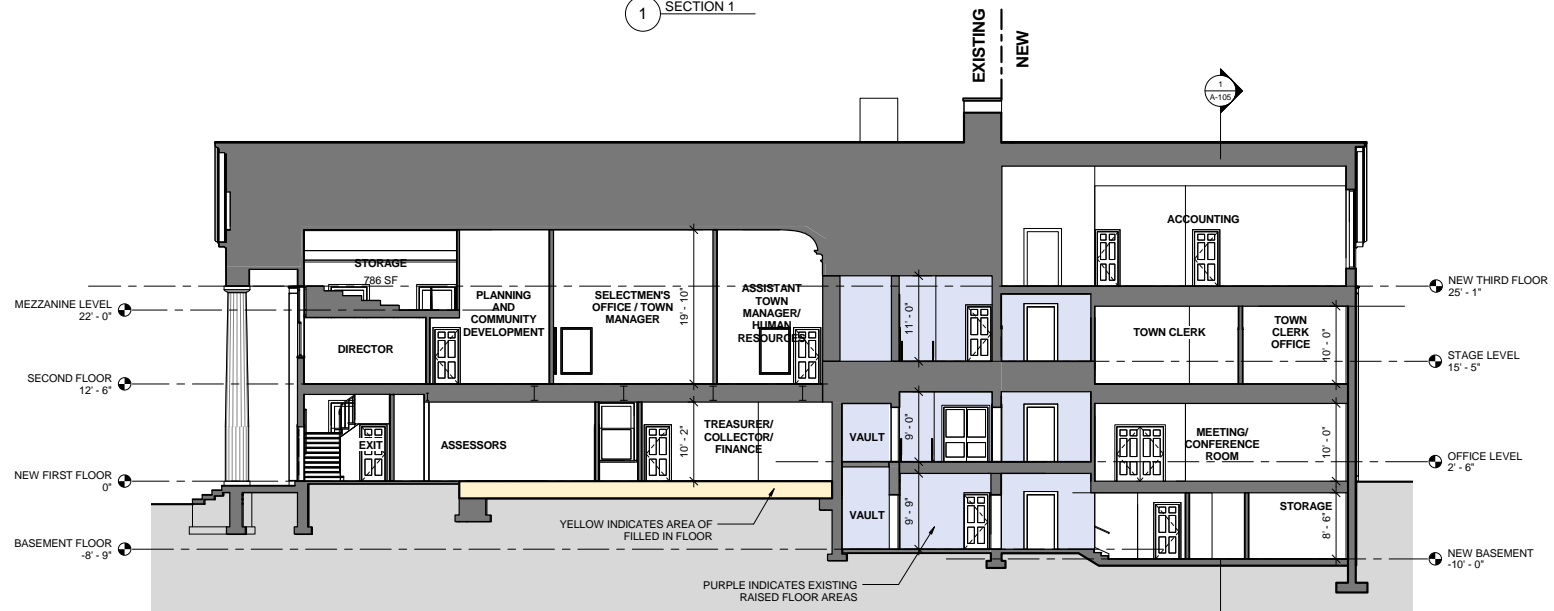
Sudbury Town Hall Study

Town of Sudbury Permanent Building Committee

278 Old Sudbury Road, Sudbury MA



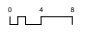
1 SECTION 1



2 SECTION

1.

SCHEME 1 SECTIONS



Sudbury Town Hall Study

Town of Sudbury Permanent Building Committee

278 Old Sudbury Road, Sudbury MA



Sudbury Town Hall Study

Town of Sudbury Permanent Building Committee

278 Old Sudbury Road, Sudbury MA



1.

SCHEME 1
BIRD'S EYE VIEW

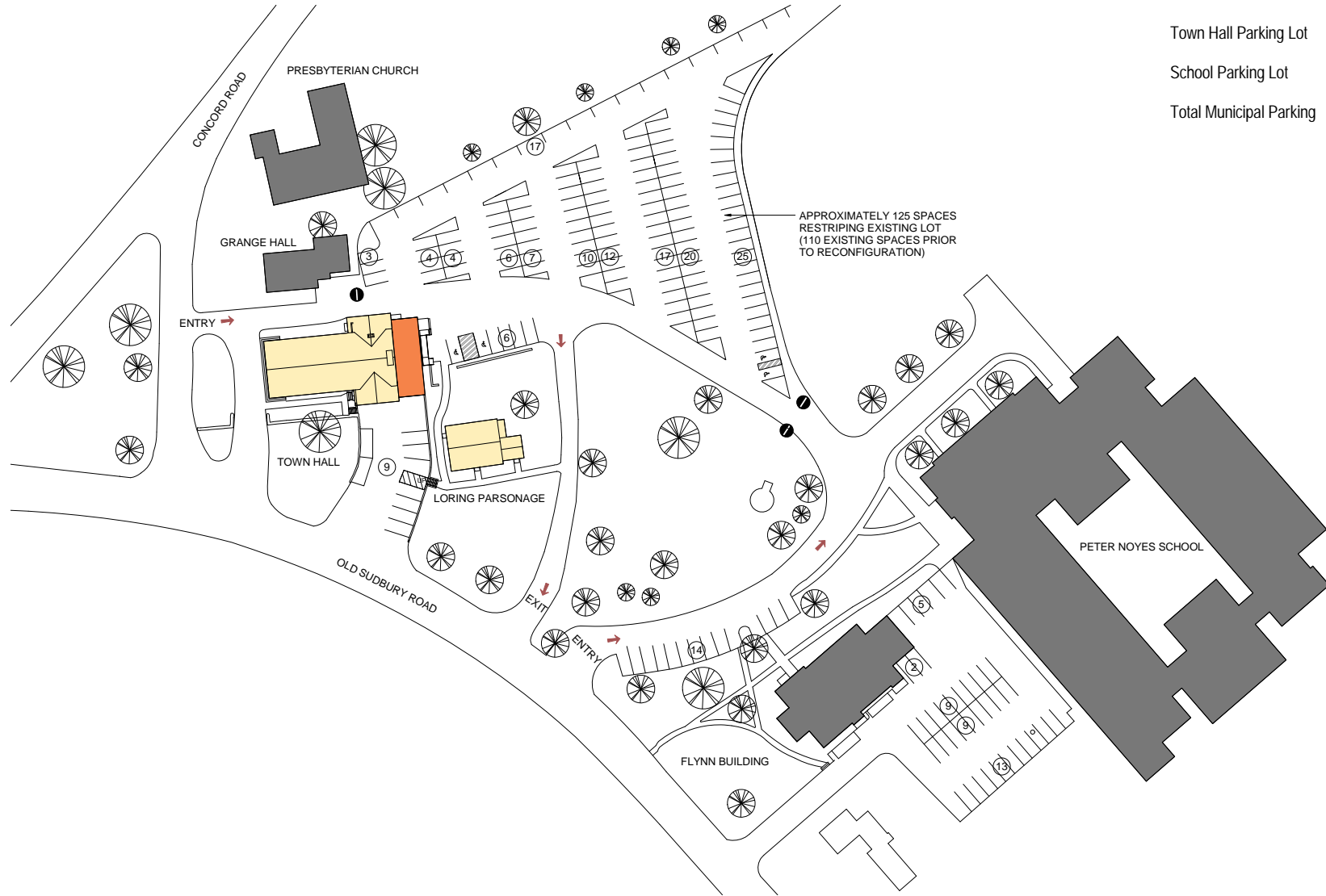
Sudbury Town Hall Study

1. School Administration with 2nd floor Addition

Town of Sudbury Permanent Building Committee

278 Old Sudbury Road, Sudbury MA

| | |
|-------------------------|-------------------|
| Town Hall Parking Lot | 140 (approximate) |
| School Parking Lot | 52 (approximate) |
| Total Municipal Parking | 192 (approximate) |



1.
SITE PLAN



Sudbury Town Hall Study

1. School Administration with 2nd floor Addition

Town of Sudbury Permanent Building Committee

278 Old Sudbury Road, Sudbury MA

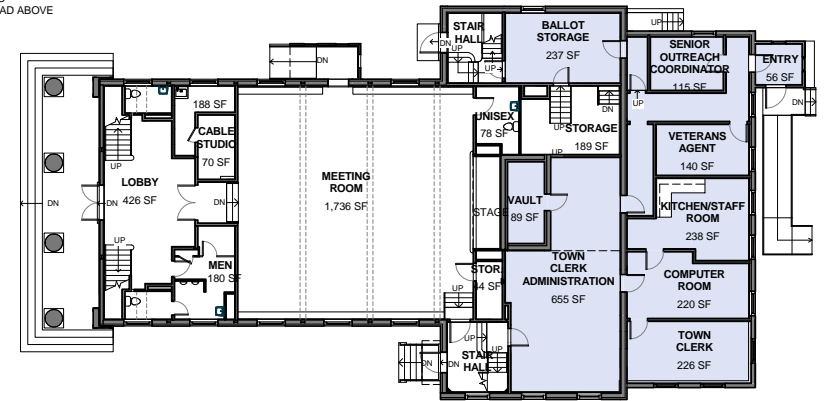
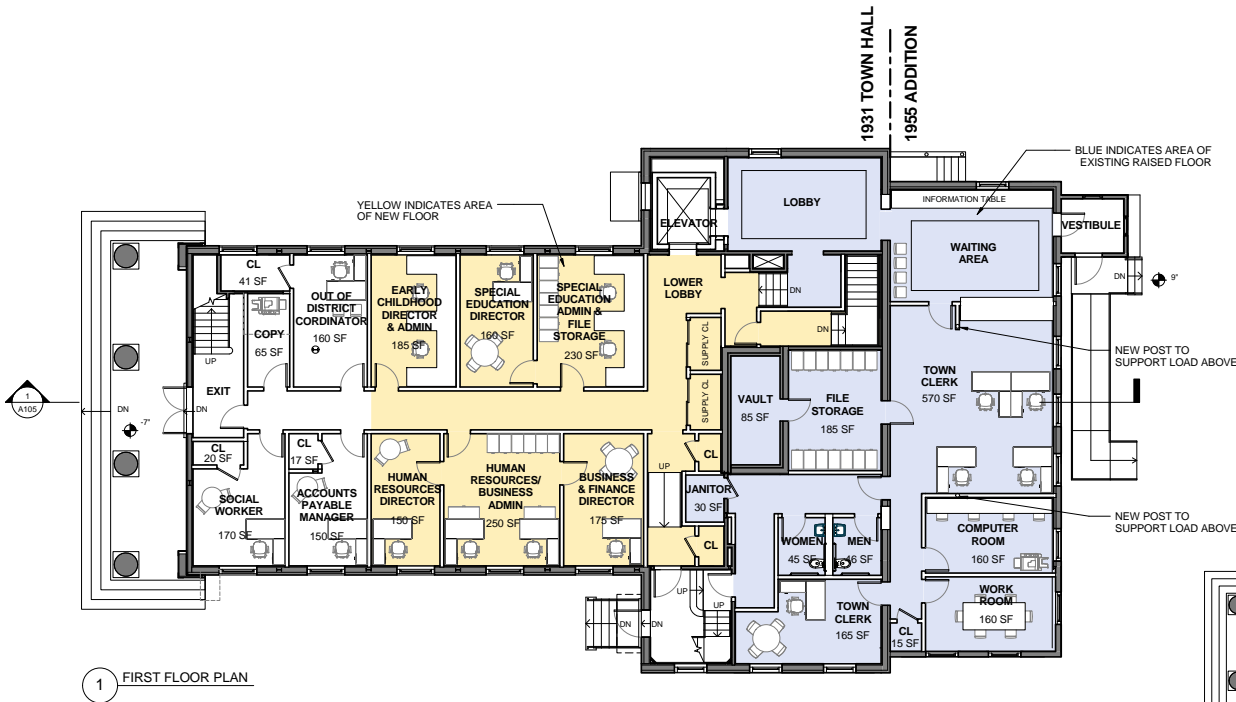
Total Building Area: 16,100 GSF

First Floor Area: 6,040 GSF

First Floor Occupant Load per IBC: 35

Actual Occupant Load for Fixtures: 16

| Required Fixture Count First Floor | | |
|------------------------------------|-----------------|------|
| | Toilets/Urinals | Lavs |
| Female | 1 | 1 |
| Male | 1 | 1 |



2 EXISTING FIRST FLOOR

1.1

FIRST FLOOR PLAN



Sudbury Town Hall Study

1. School Administration with 2nd floor Addition

Town of Sudbury Permanent Building Committee

278 Old Sudbury Road, Sudbury MA

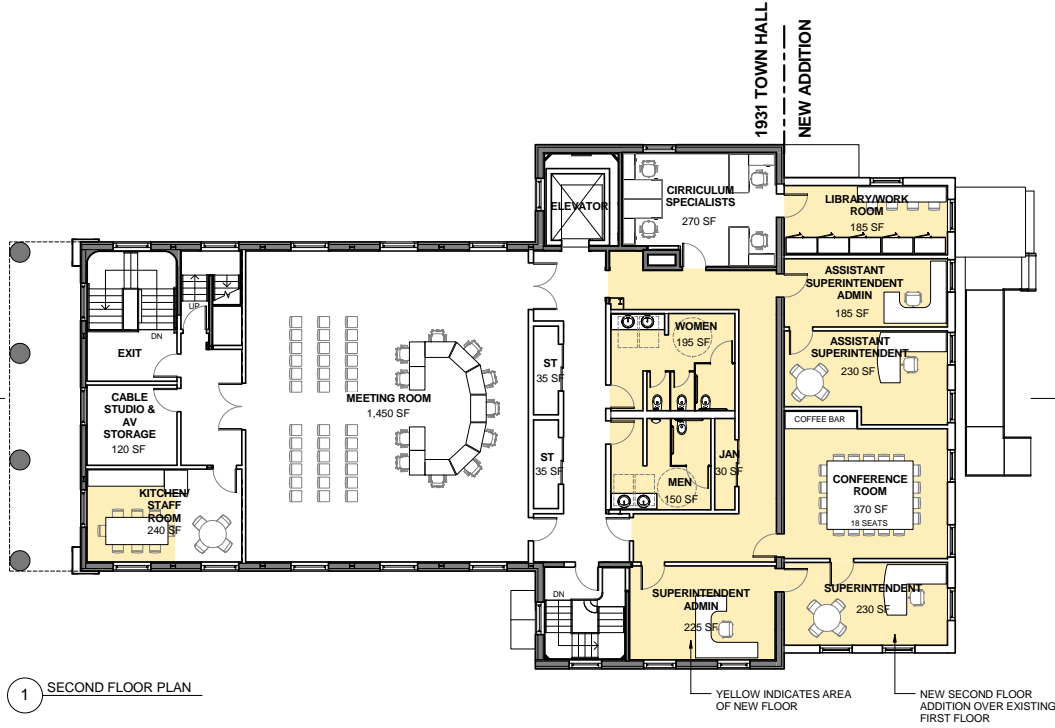
Total Building Area: 16,100 GSF

Second Floor Area: 5,980 GSF

Second Floor Occupant Load per IBC: 255

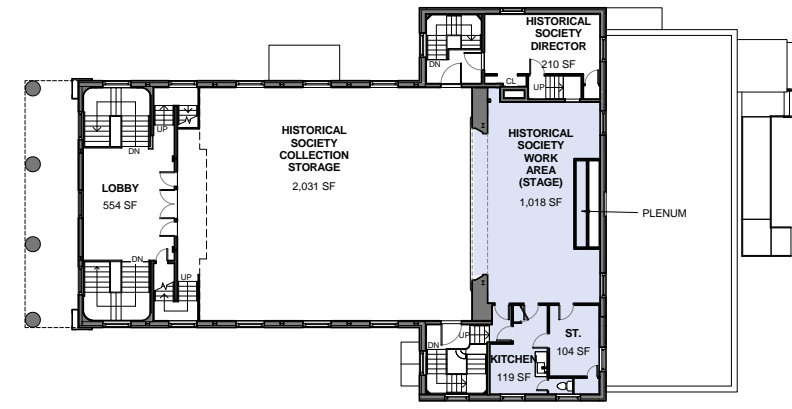
Actual Occupant Load for Fixtures: 152

| Required Fixture Count Second Floor | | |
|-------------------------------------|-----------------|------|
| | Toilets/Urinals | Lavs |
| Female | 3 | 2 |
| Male | 1/1 | 1 |



1 SECOND FLOOR PLAN

YELLOW INDICATES AREA OF NEW FLOOR
NEW SECOND FLOOR ADDITION OVER EXISTING FIRST FLOOR



2 EXISTING SECOND FLOOR

1.
SECOND FLOOR PLAN



Sudbury Town Hall Study

1. School Administration with 2nd floor Addition

Town of Sudbury Permanent Building Committee

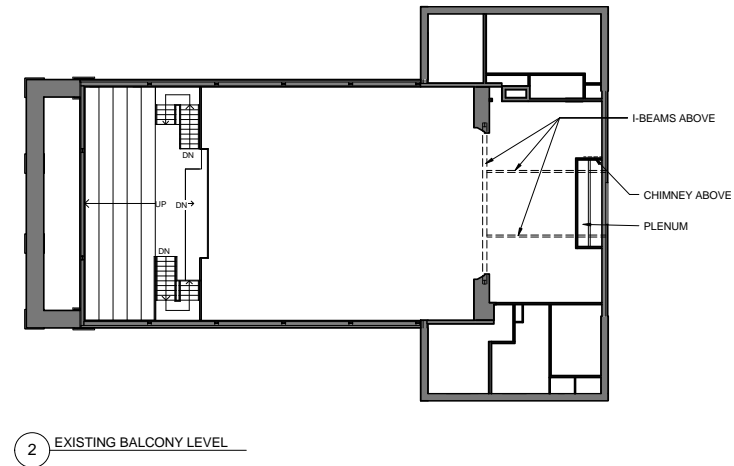
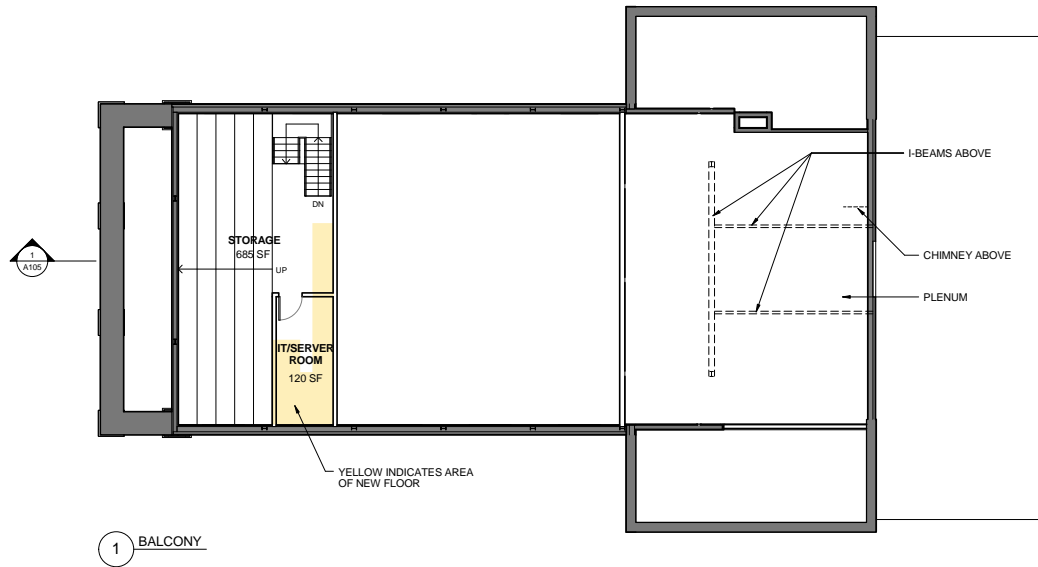
278 Old Sudbury Road, Sudbury MA

Total Building Area: 16,100 GSF

Balcony Floor Area: 850 GSF

Balcony Floor Occupant Load per IBC: 4

Actual Occupant Load for Fixtures: 0



1.3

BALCONY FLOOR PLAN



Sudbury Town Hall Study

1. School Administration with 2nd floor Addition

Town of Sudbury Permanent Building Committee

278 Old Sudbury Road, Sudbury MA

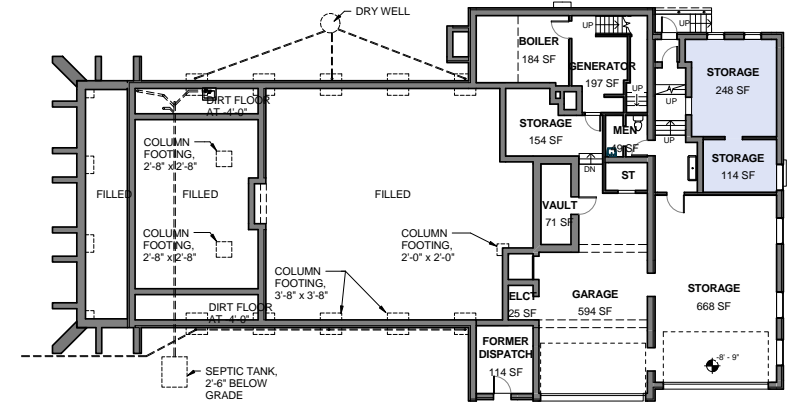
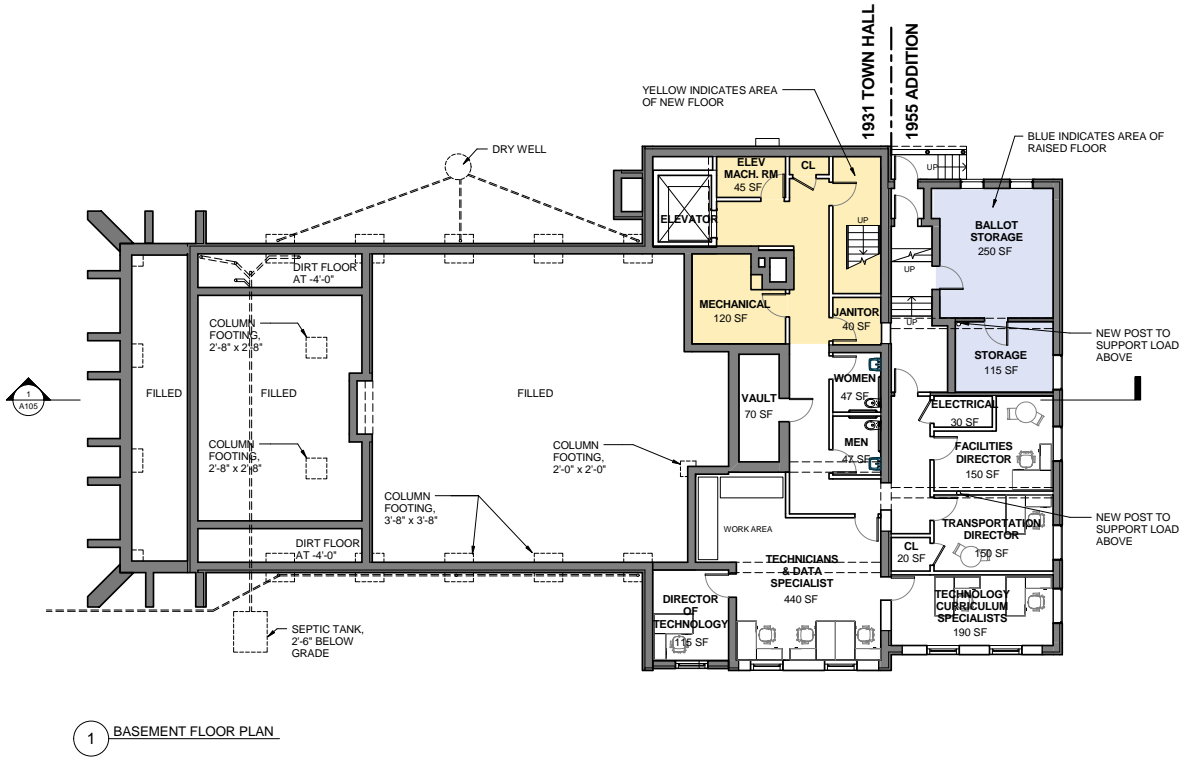
Total Building Area: 16,100 GSF

Basement Floor Area: 3,200 GSF

Basement Floor Occupant Load per IBC: 30

Actual Occupant Load for Fixtures: 18

| Required Fixture Count Basement Floor | | |
|---------------------------------------|-----------------|------|
| | Toilets/Urinals | Lavs |
| Female | 1 | 1 |
| Male | 1 | 1 |



2 EXISTING BASEMENT FLOOR

1.

BASEMENT FLOOR PLAN



Sudbury Town Hall Study

1. School Administration with 2nd floor Addition

Town of Sudbury Permanent Building Committee

278 Old Sudbury Road, Sudbury MA



1.

SECTION

Sudbury Town Hall Study

1. School Administration with 2nd floor Addition

Town of Sudbury Permanent Building Committee

278 Old Sudbury Road, Sudbury MA



1.
PERSPECTIVE

Sudbury Town Hall Study

Town Offices

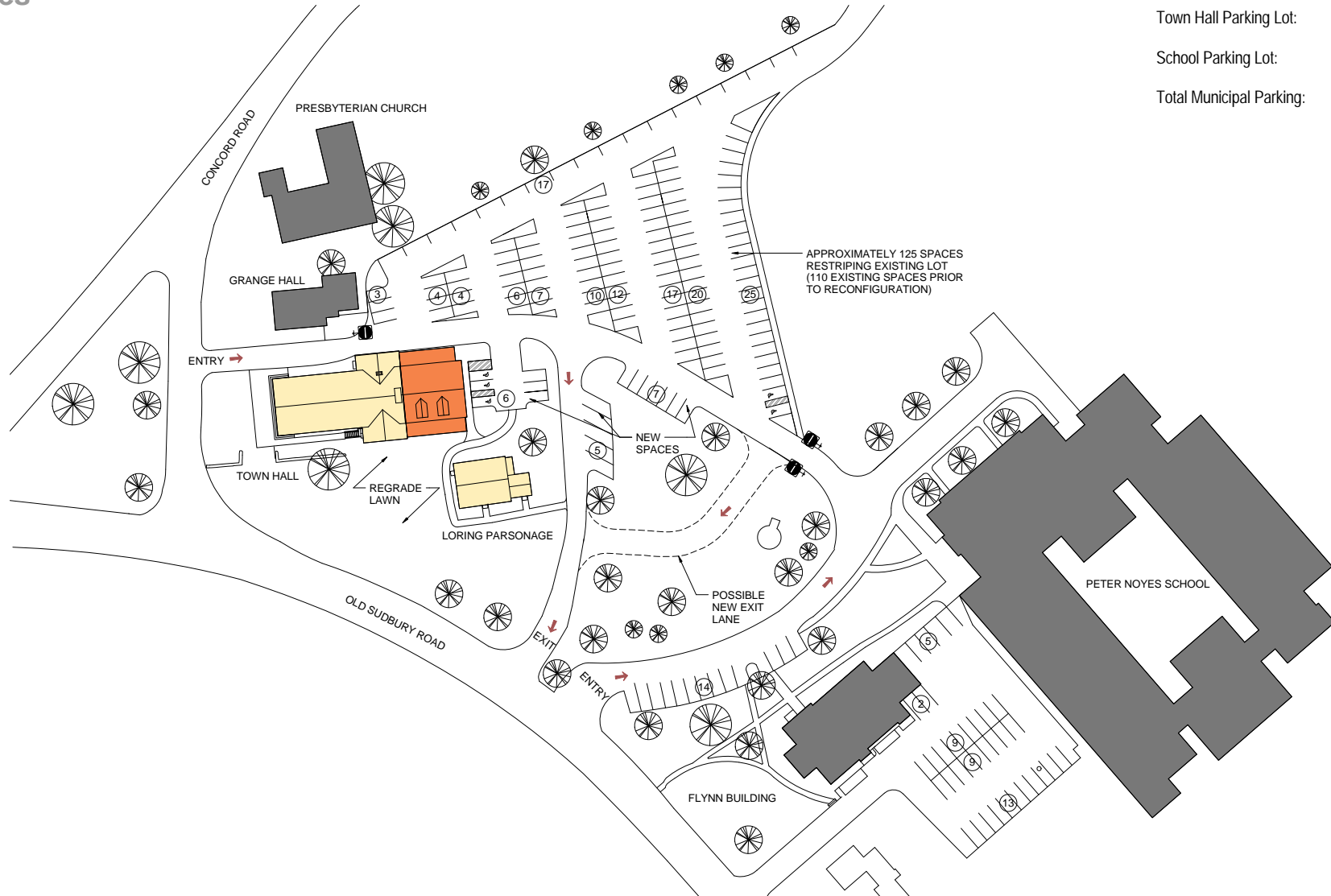
Town of Sudbury Permanent Building Committee

278 Old Sudbury Road, Sudbury MA

Town Hall Parking Lot: 143 (approximate)

School Parking Lot: 52 (approximate)

Total Municipal Parking: 195 (approximate)



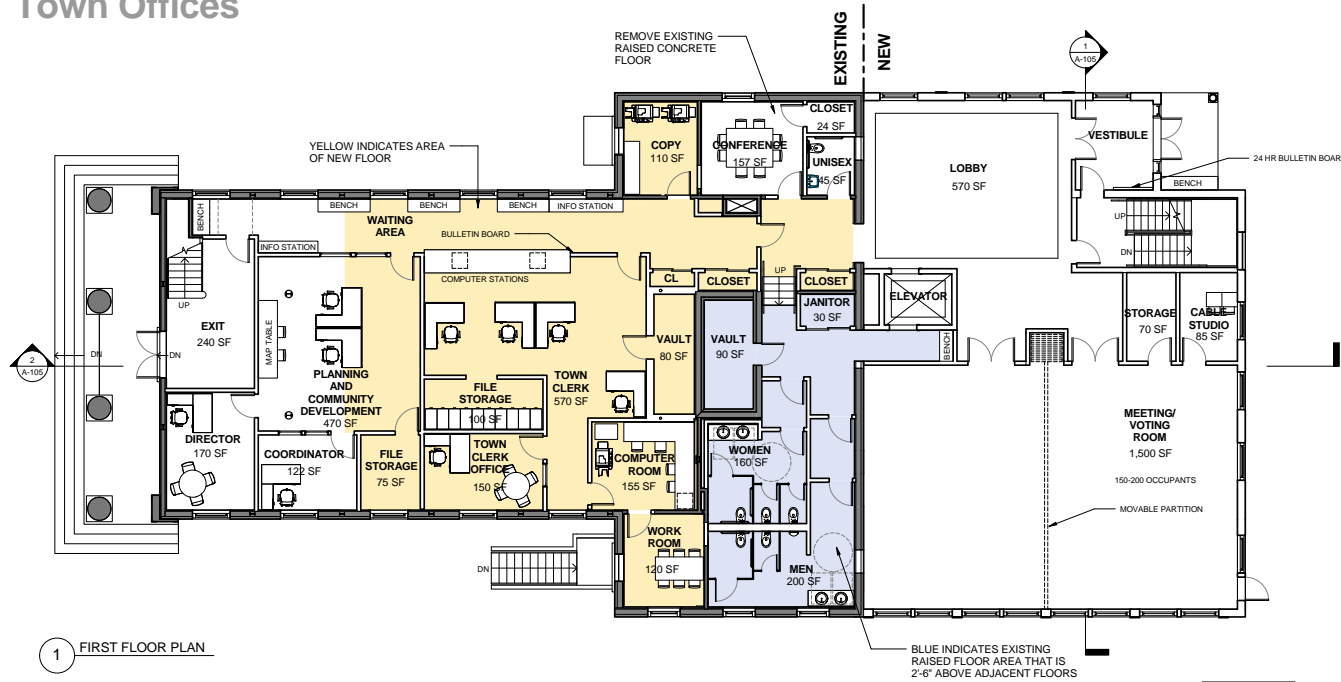
Sudbury Town Hall Study

Town Offices

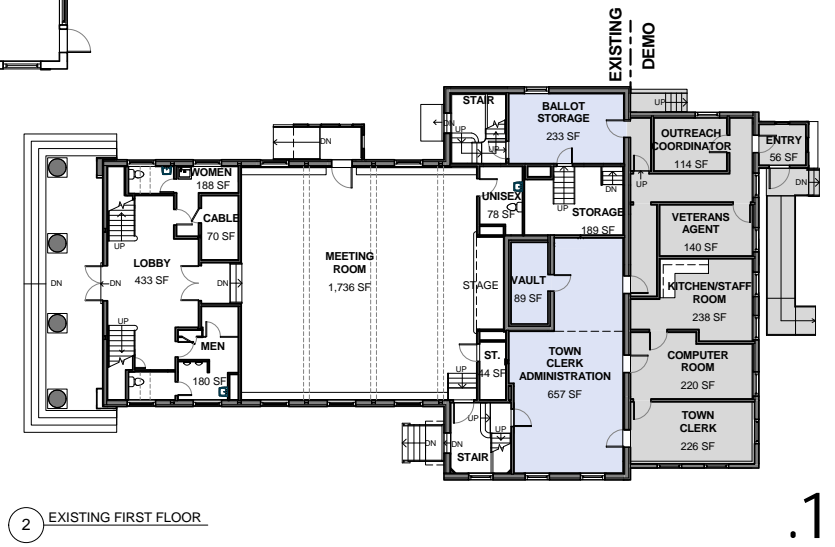
Town of Sudbury Permanent Building Committee
278 Old Sudbury Road, Sudbury MA

Total Building Area: 21,940 GSF
 First Floor Area: 7,810 GSF
 First Floor Occupant Load per IBC: 185
 Actual Occupant Load for Fixtures: 167

| Required Fixture Count First Floor | | |
|------------------------------------|-----------------|------|
| | Toilets/Urinals | Lavs |
| Female | 4 | 2 |
| Male | 2/1 | 2 |



1 FIRST FLOOR PLAN

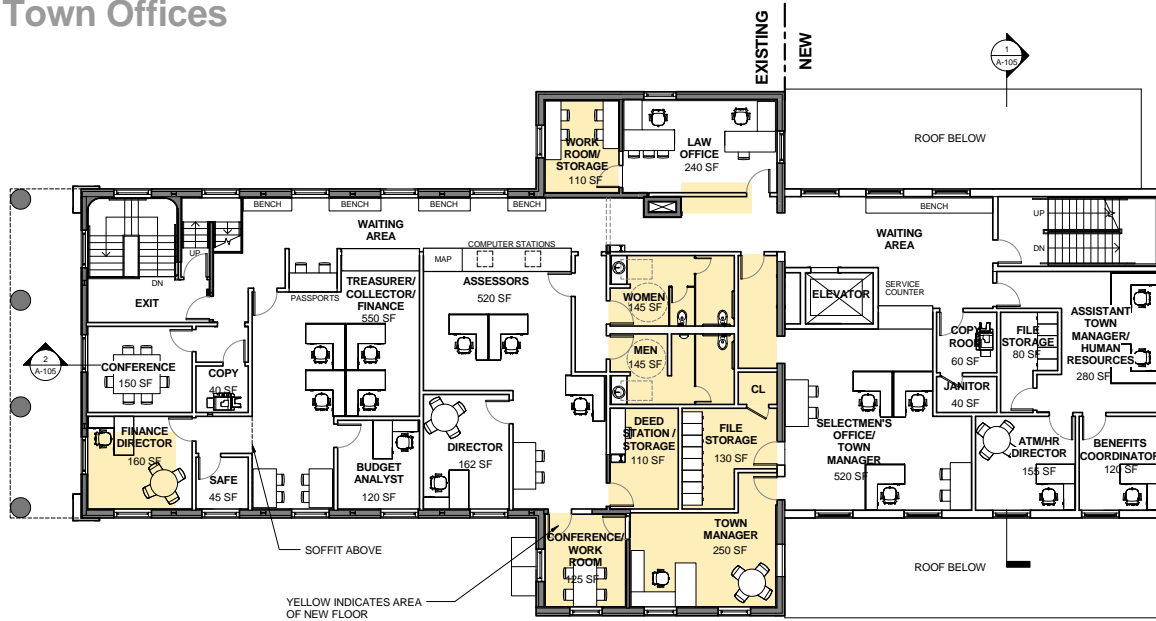


2 EXISTING FIRST FLOOR

.1
SCHEME 2
FIRST FLOOR PLAN

Sudbury Town Hall Study

Town Offices

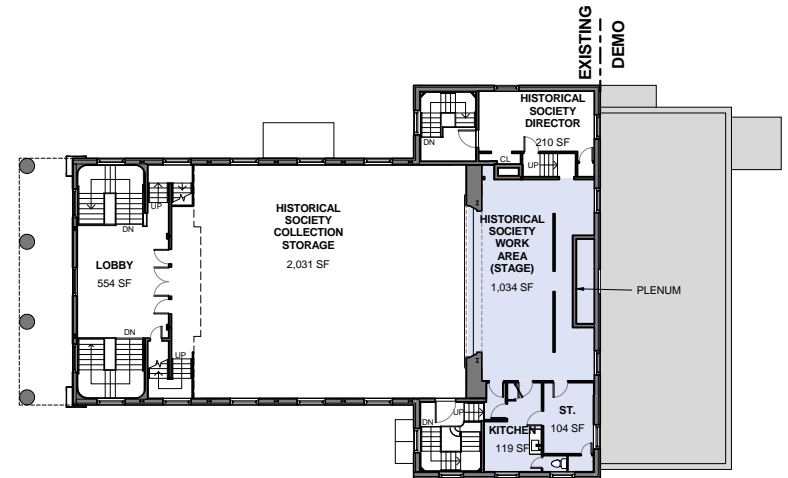


1 SECOND FLOOR PLAN

Town of Sudbury Permanent Building Committee
278 Old Sudbury Road, Sudbury MA

Total Building Area: 21,940 GSF
Second Floor Area: 6,710 GSF
Second Floor Occupant Load per IBC: 75
Actual Occupant Load for Fixtures: 28

| Required Fixture Count Second Floor | | |
|-------------------------------------|-----------------|------|
| | Toilets/Urinals | Lavs |
| Female | 1 | 1 |
| Male | 1 | 1 |



2 EXISTING SECOND FLOOR



Sudbury Town Hall Study

Town Offices

Town of Sudbury Permanent Building Committee

278 Old Sudbury Road, Sudbury MA

Total Building Area: 21,940 GSF

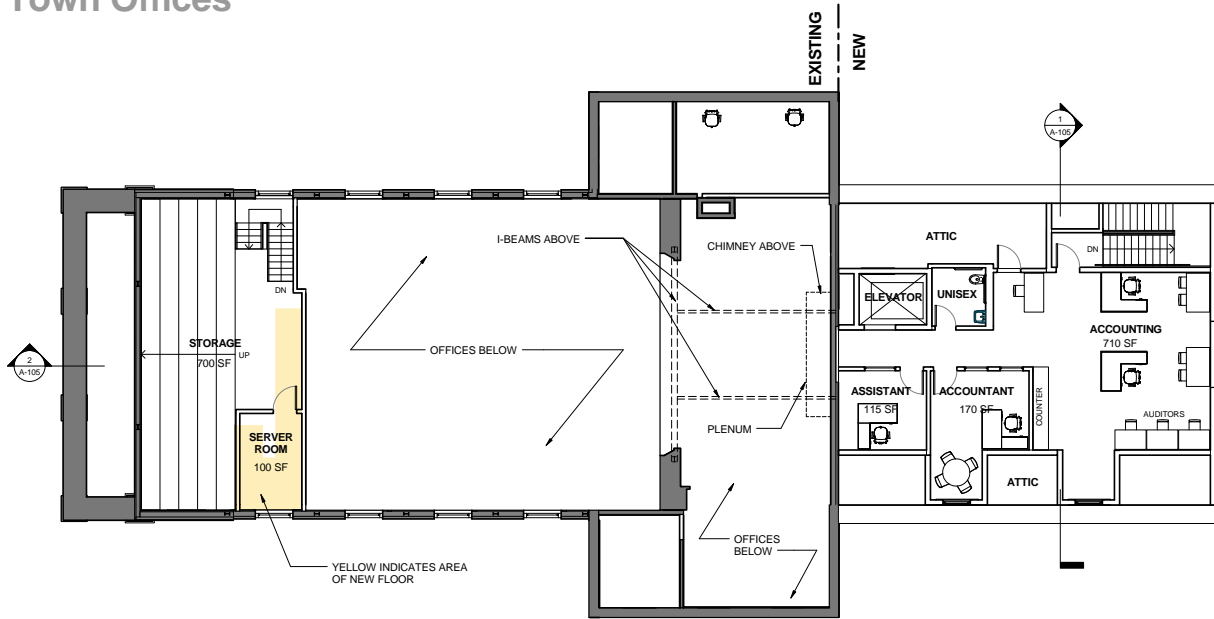
Third Floor Area: 2,360 GSF

Third Floor Occupant Load per IBC 14

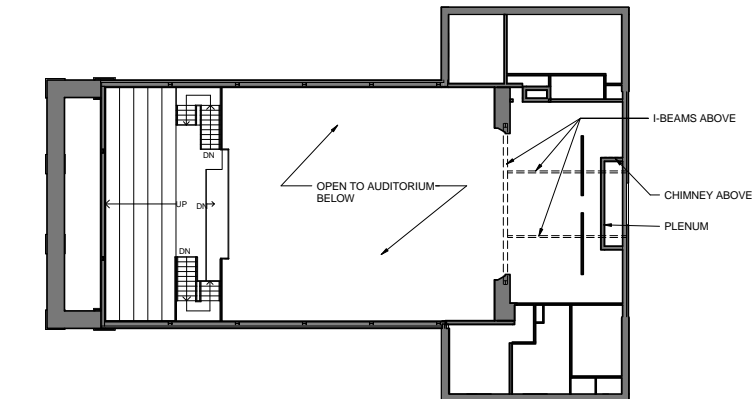
Actual Occupant Load for Fixtures: 5

| Required Fixture Count Third Floor | | |
|------------------------------------|-----------------|------|
| | Toilets/Urinals | Lavs |
| Unisex | 1 | 1 |

Floor area is under 1,200sf and not required to have separate restrooms



1 THIRD FLOOR PLAN



2 EXISTING BALCONY LEVEL

.3
SCHEME 2
THIRD FLOOR PLAN



Sudbury Town Hall Study

Town Offices

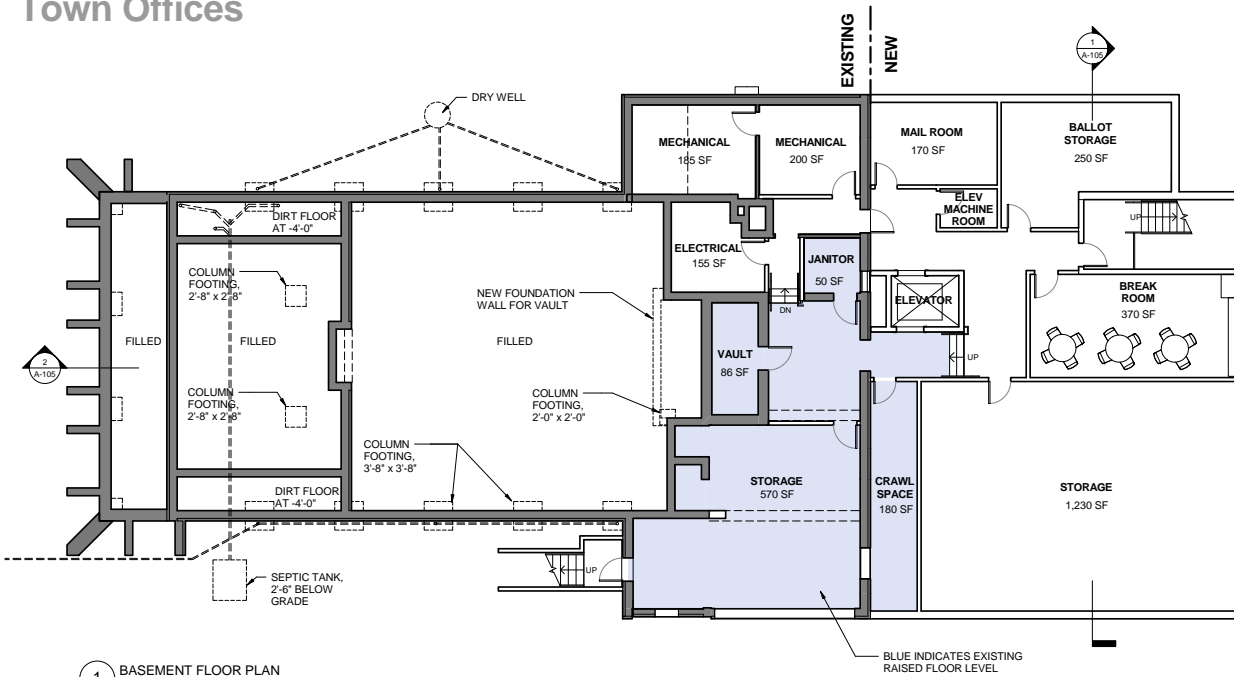
Town of Sudbury Permanent Building Committee

278 Old Sudbury Road, Sudbury MA

Total Building Area: 21,940 GSF

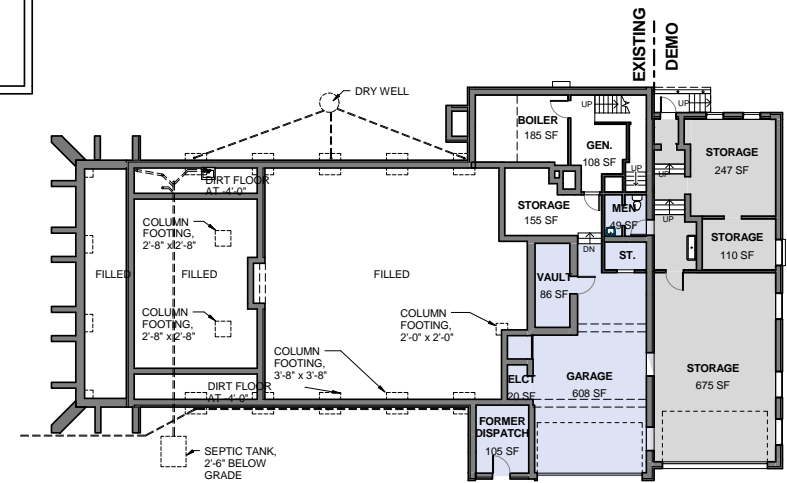
Basement Floor Area: 5,060 GSF

Basement Floor Occupants: 36



1 BASEMENT FLOOR PLAN

Elevation -10'-0" from First Floor
Elevation -8'-9" in blue area



2 EXISTING BASEMENT FLOOR PLAN

SCHEME 2
BASEMENT FLOOR PLAN

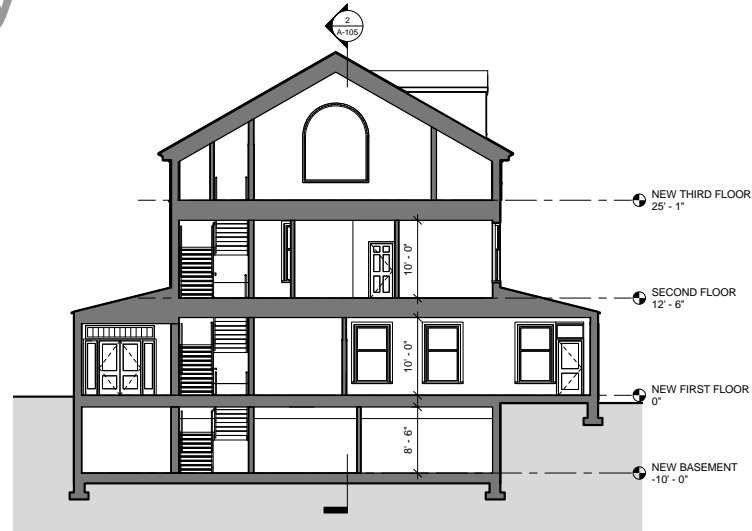


Sudbury Town Hall Study

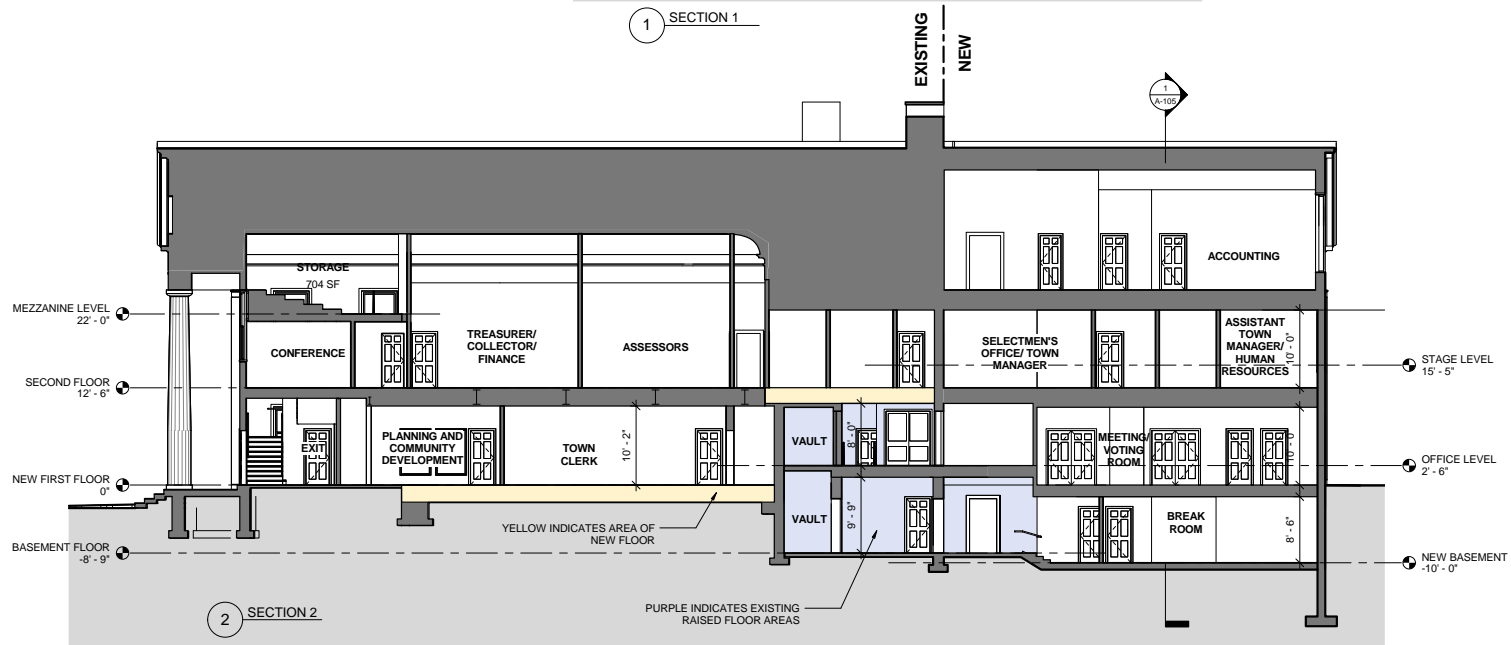
Town Offices

Town of Sudbury Permanent Building Committee

278 Old Sudbury Road, Sudbury MA



1 SECTION 1



2 SECTION 2

SCHEME 1
SECTIONS



Sudbury Town Hall Study

Town of Sudbury Permanent Building Committee

278 Old Sudbury Road, Sudbury MA

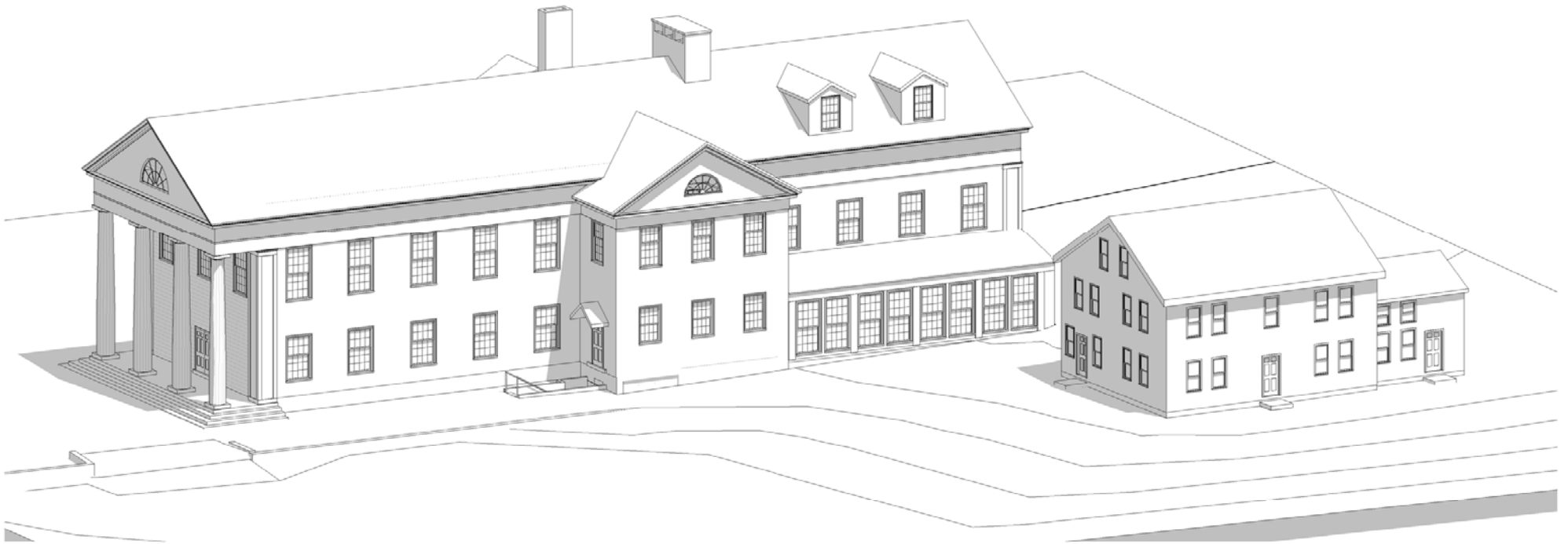


Sudbury Town Hall Study

Town Offices

Town of Sudbury Permanent Building Committee

278 Old Sudbury Road, Sudbury MA

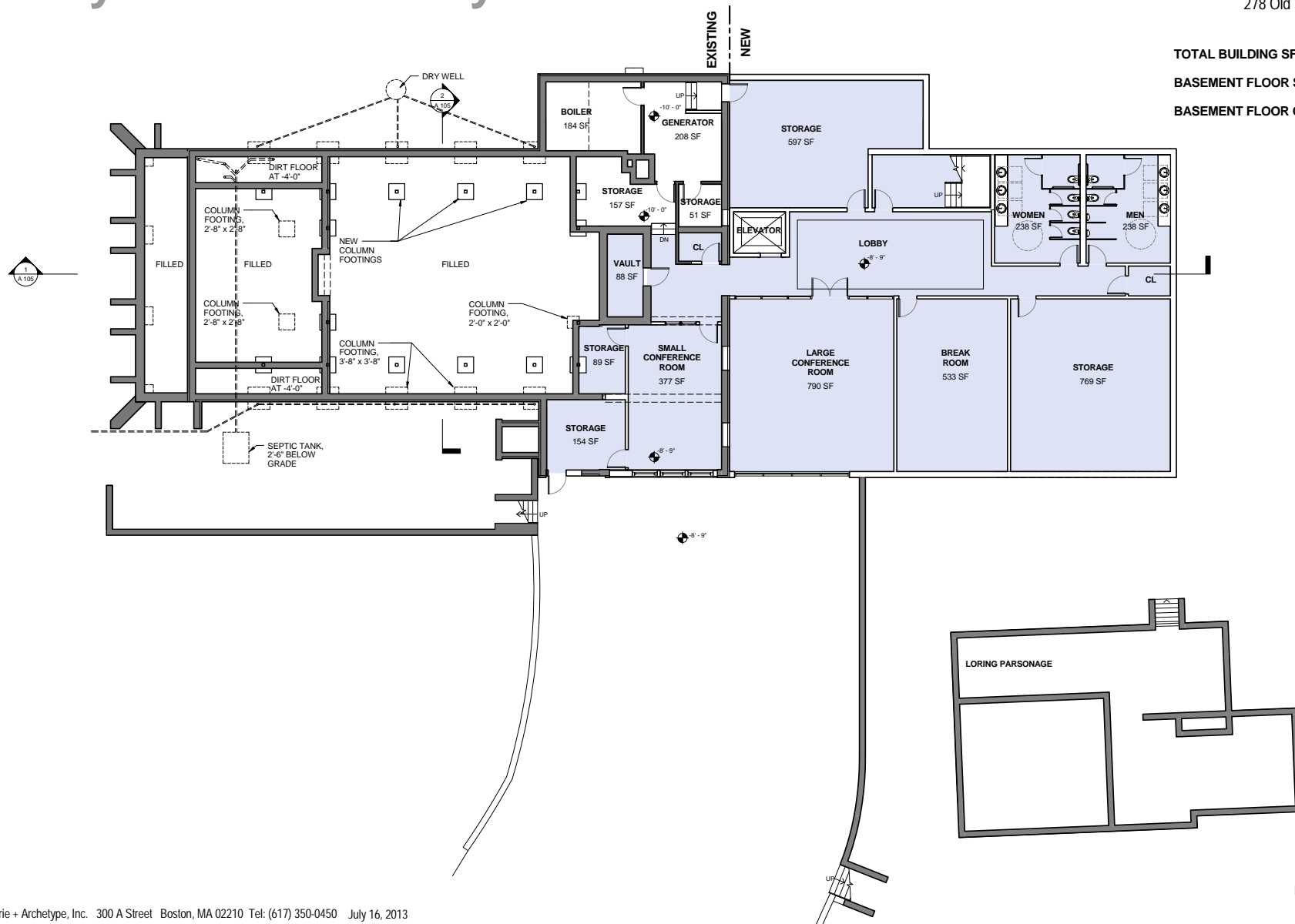


Sudbury Town Hall Study

Town of Sudbury Permanent Building Committee

278 Old Sudbury Road, Sudbury MA

TOTAL BUILDING SF: 27,540 SF
BASEMENT FLOOR SF: 6,380 SF
BASEMENT FLOOR OCCUPANTS: 125



SCHEME 1
BASEMENT FLOOR PLAN

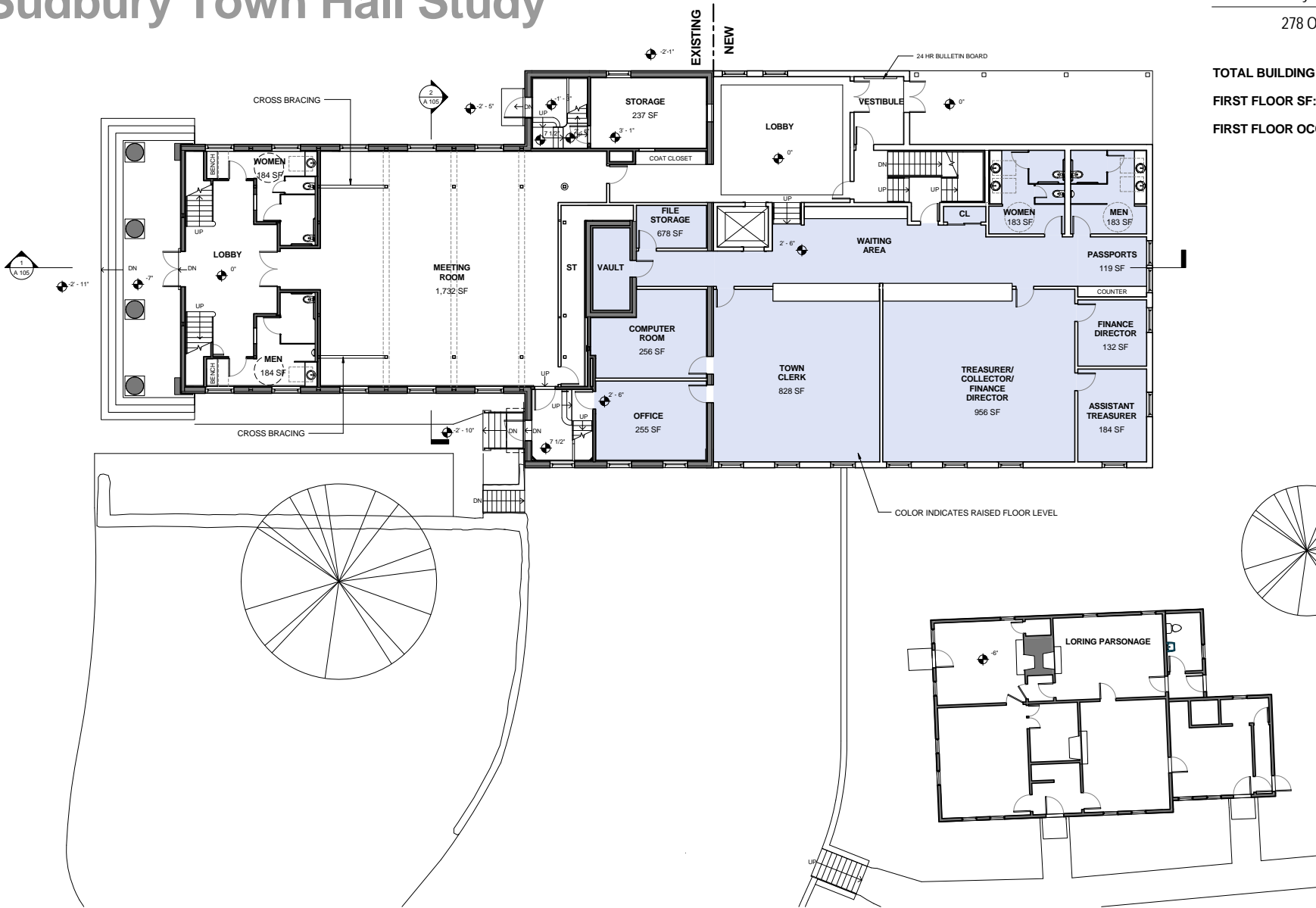


Sudbury Town Hall Study

Town of Sudbury Permanent Building Committee

278 Old Sudbury Road, Sudbury MA

TOTAL BUILDING SF: 27,540 SF
FIRST FLOOR SF: 9,150 SF
FIRST FLOOR OCCUPANTS: 300



SCHEME 1
FIRST FLOOR PLAN

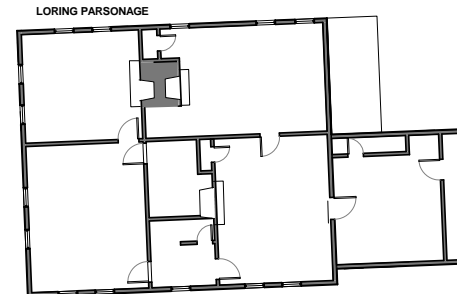
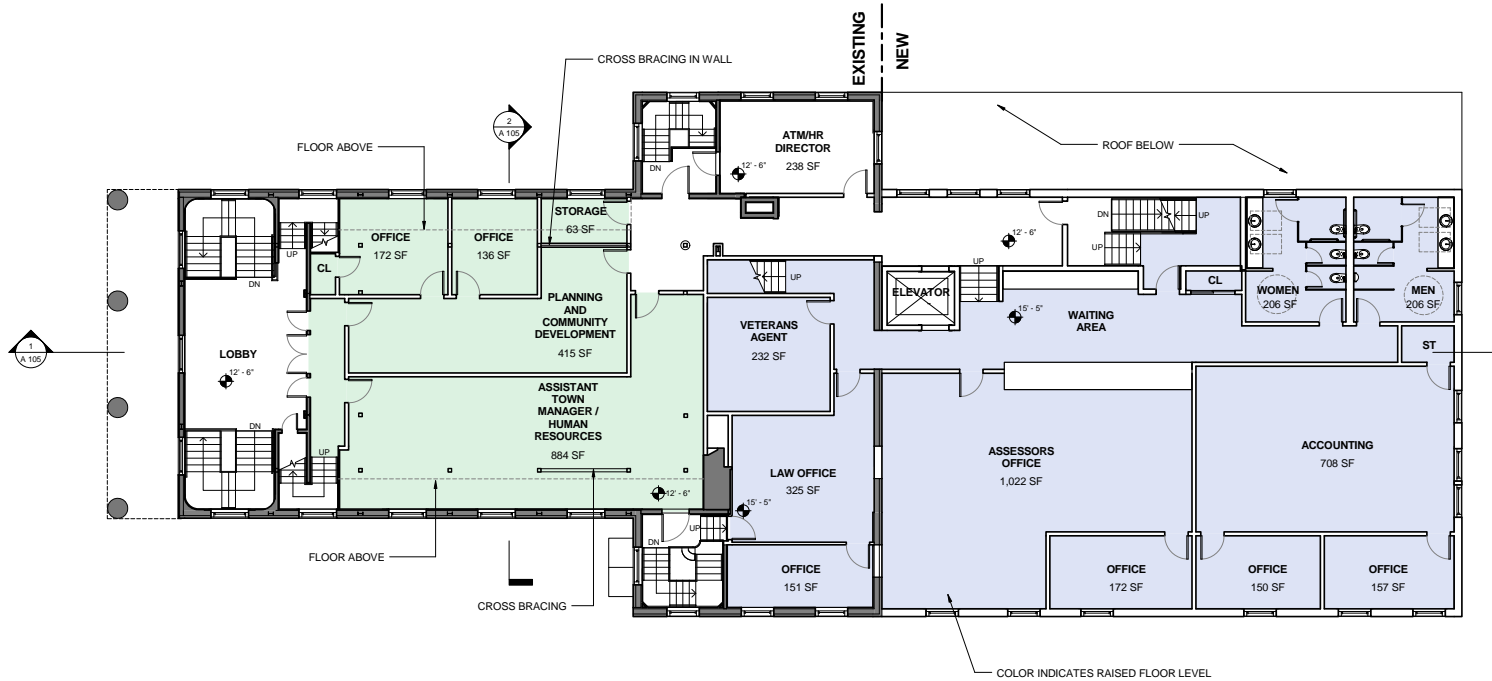


Sudbury Town Hall Study

Town of Sudbury Permanent Building Committee

278 Old Sudbury Road, Sudbury MA

TOTAL BUILDING SF: 27,540 SF
SECOND FLOOR SF: 8,740 SF
SECOND FLOOR OCCUPANTS: 60



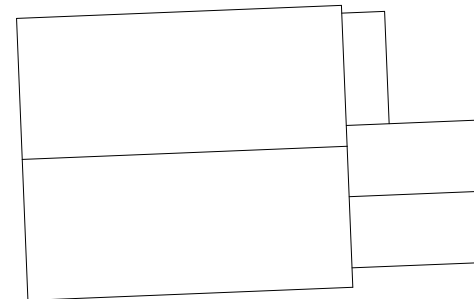
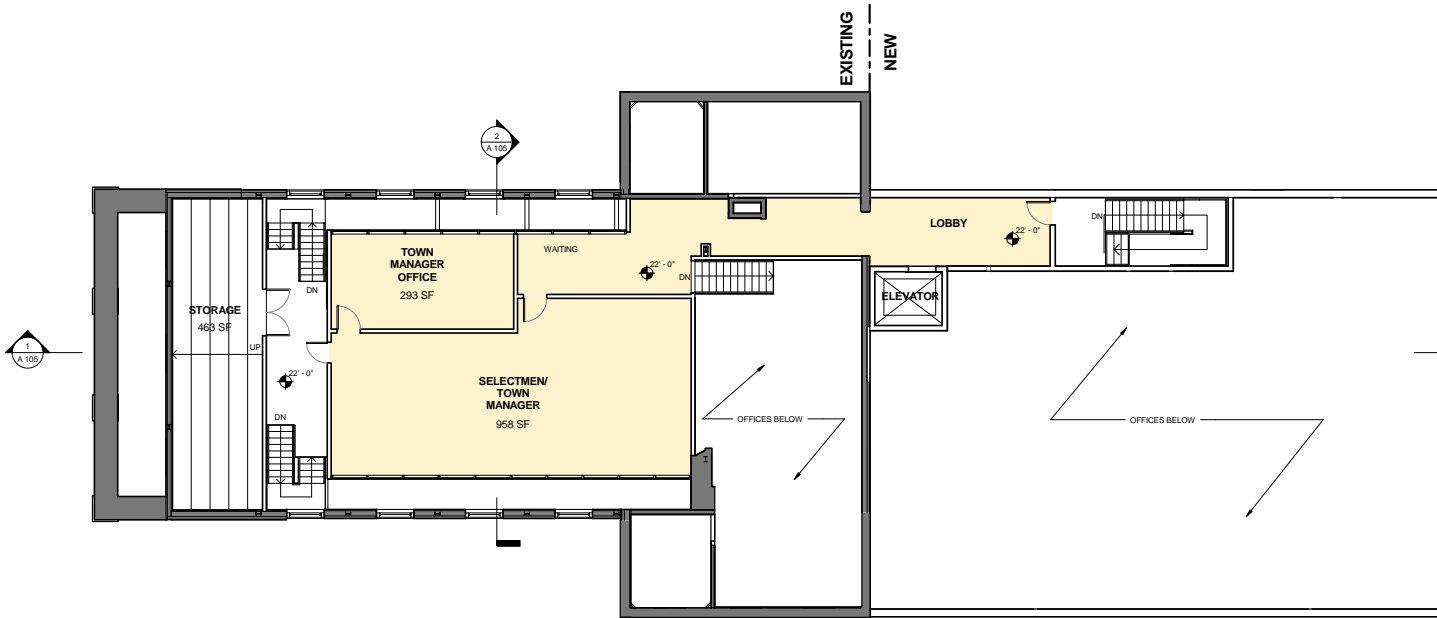
SCHEME 1
SECOND FLOOR PLAN

Sudbury Town Hall Study

Town of Sudbury Permanent Building Committee

278 Old Sudbury Road, Sudbury MA

TOTAL BUILDING SF: 27,540 SF
THIRD FLOOR SF: 3,270 SF
THIRD FLOOR OCCUPANTS: 16



SCHEME 1
MEZZANINE FLOOR PLAN

Sudbury Town Hall Study

Town of Sudbury Permanent Building Committee

278 Old Sudbury Road, Sudbury MA

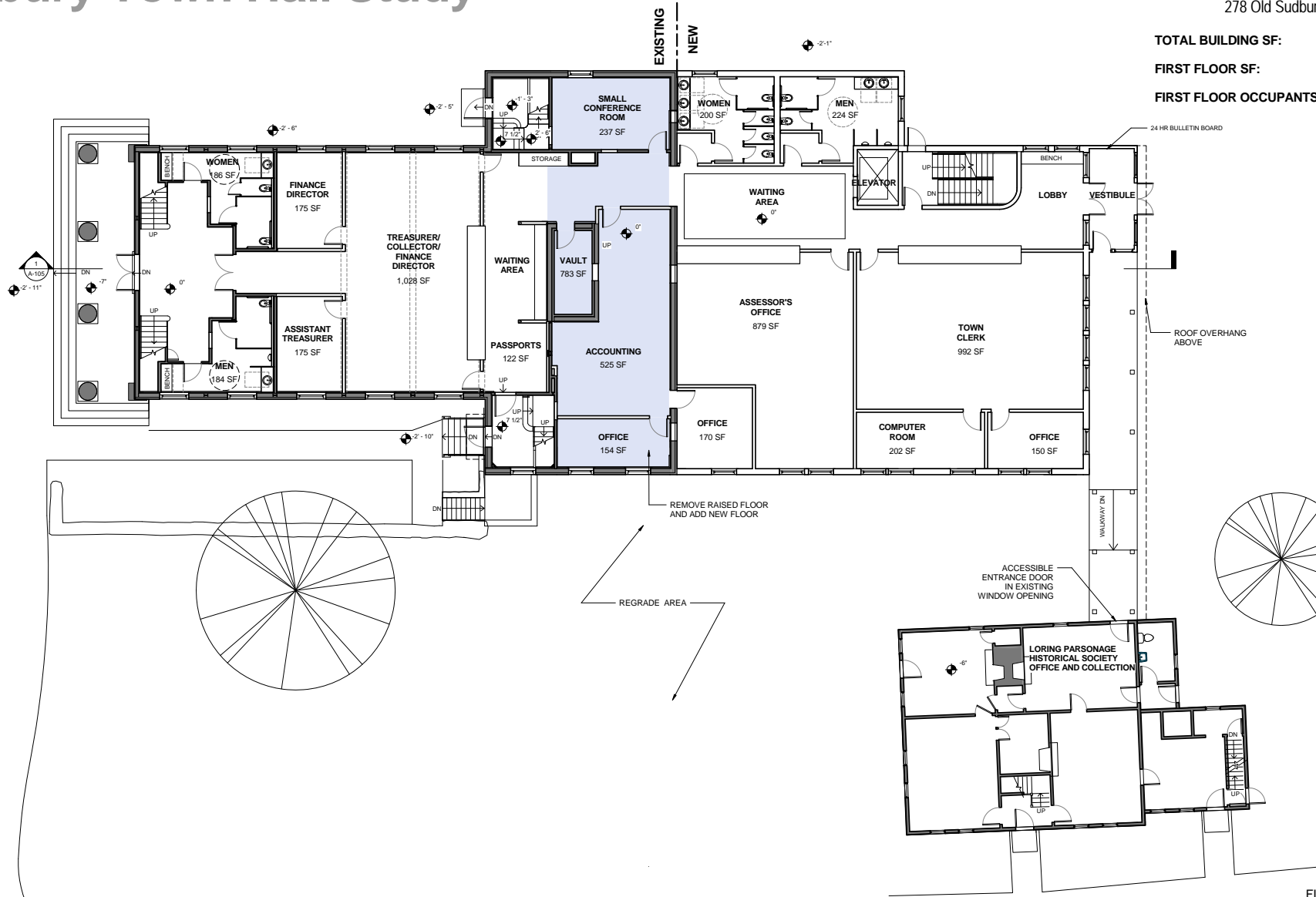


Sudbury Town Hall Study

Town of Sudbury Permanent Building Committee

278 Old Sudbury Road, Sudbury MA

TOTAL BUILDING SF: 24,890 SF
FIRST FLOOR SF: 9,030 SF
FIRST FLOOR OCCUPANTS: 63



SCHEME 3
FIRST FLOOR PLAN



4. COST ESTIMATES

a. D.G. Jones Cost Estimating

[Note: this page deliberately left blank.]



Town Hall Study Town Offices Sudbury, MA Update #3

Cost Estimate

Prepared for:
bh+a
Boston, MA

Prepared by:
D G Jones International, Inc.
3 Baldwin Green Common, #202
Woburn, MA 01801
email : boston@dgjonesboston.com
Tel: 781-932-3131
Fax: 781-932-3199

November 20, 2013

Notes

1. Brief project description:-
 - Renovate and add to existing Town Hall with associated site work and site utilities.
2. The estimate is based on the following:-
 - Prevailing wage.
 - General Contractor type project.
 - Receipt of 4# bona fide bids.
 - Building will be unoccupied during construction work.
 - Bid date - 3Q2015 for all Schemes.
 - Construction period - 18 months for all Schemes.
3. The gross floor areas are based on the following:-
 - Measurement is taken to the outside face of the exterior wall, measured through all stair wells, elevator shafts and ducts.
4. Story heights:-
 - Varies.
5. General Requirements/Conditions are itemized and priced later in this document.
6. Special Conditions for this project are included with General Requirements.
7. Escalation to mid point of construction (2Q2016) is compounded per annum at the following:-
 - All years at 4%
 - Note: Escalation is taken on the sum of Sub Total Construction cost, General Requirements/Special Conditions.
8. Estimating Contingency is an allowance for future design modifications/additions, which alter the cost of the building as the design progresses, this percentage reduces as the design develops. It is based on a percentage of the sum of Sub-Total Construction, General Requirements/Special Conditions and Escalation. For this level of estimate the following has been included:-
 - 15.00%
9. Construction Contingency is an allowance for scope/design modifications made by the owner during construction and also for any unforeseen circumstances. It is based on a percentage of the sum of Sub-Total Construction, General Requirements/Special Conditions, Escalation and Design Contingency. The following has been included:-
 - 0.00%

Notes (Cont'd)

10. This estimate has been prepared from the following design information:-
 - Drawings dated 09/05/2013
 - Consultants report dated September 2013.
 - Emails from bh+a.
 - Telecons with bh+a.
11. The estimate includes the following:-
 - Hazardous material abatement and removal.
 - Security (conduit & cabling).
 - Telephone/data (conduit & cabling)..

The estimate excludes the following:-

- Utility company backcharges.
 - Sales tax.
 - Building permit fees.
 - Design consultants fees.
 - Excavation in rock.
 - Removal of water during excavation work.
 - Loose furniture, fittings and equipment.
 - Fixed furniture, fittings and equipment except work normally included in GC work.
 - Fire pump.
 - Third-party building Commissioning.
13. Allowances:-
 - Estimate is based on allowances at this stage of the design.
 14. Assumptions:-
 - To arrive at a \$/sf cost reasonable assumptions have been made.
 15. Estimates by other firms:-
 - None.

Sudbury Town Offices

| Gross Floor Area (sf) = | <u>Consolidated</u> | | <u>Addition</u> | | <u>Renovation</u> | |
|--|---------------------|---------------|---------------------|---------------|---------------------|---------------|
| | 20,660 | | 8,660 | | 12,000 | |
| | <u>Element (\$)</u> | <u>\$/sf</u> | <u>Element (\$)</u> | <u>\$/sf</u> | <u>Element (\$)</u> | <u>\$/sf</u> |
| <u>A Substructure</u> | 269,962 | 13.07 | 214,611 | 24.78 | 55,351 | 4.61 |
| A10 Foundations | 269,962 | 13.07 | 214,611 | 24.78 | 55,351 | 4.61 |
| A20 Basement Construction | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| <u>B Shell</u> | 1,462,035 | 70.77 | 818,480 | 94.51 | 643,556 | 53.63 |
| B10 Superstructure | 712,581 | 34.49 | 399,793 | 46.17 | 312,788 | 26.07 |
| B20 Exterior Enclosure | 471,128 | 22.80 | 321,183 | 37.09 | 149,946 | 12.50 |
| B30 Roofing | 278,326 | 13.47 | 97,504 | 11.26 | 180,822 | 15.07 |
| <u>C Interiors</u> | 1,071,144 | 51.85 | 510,117 | 58.90 | 561,026 | 46.75 |
| C10 Interior Construction | 545,141 | 26.39 | 255,223 | 29.47 | 289,918 | 24.16 |
| C20 Stairs | 59,609 | 2.89 | 48,859 | 5.64 | 10,750 | 0.90 |
| C30 Interior Finishes | 466,394 | 22.57 | 206,036 | 23.79 | 260,358 | 21.70 |
| <u>D Services</u> | 1,593,455 | 77.13 | 748,180 | 86.39 | 845,275 | 70.44 |
| D10 Conveying Systems | 155,358 | 7.52 | 155,358 | 17.94 | 0 | 0.00 |
| D20 Plumbing | 140,051 | 6.78 | 48,723 | 5.63 | 91,328 | 7.61 |
| D30 HVAC | 658,172 | 31.86 | 275,884 | 31.86 | 382,288 | 31.86 |
| D40 Fire Protection Systems | 154,950 | 7.50 | 64,950 | 7.50 | 90,000 | 7.50 |
| D 50 Electrical Systems | 484,924 | 23.47 | 203,264 | 23.47 | 281,660 | 23.47 |
| <u>E Equipment and Furnishings</u> | 151,530 | 7.33 | 66,020 | 7.62 | 85,510 | 7.13 |
| E10 Equipment | 13,700 | 0.66 | 6,850 | 0.79 | 6,850 | 0.57 |
| E 20 Furnishings | 137,830 | 6.67 | 59,170 | 6.83 | 78,660 | 6.56 |
| <u>F Special Construction and Demolition</u> | 335,853 | 16.26 | 5,940 | 0.69 | 329,913 | 27.49 |
| F10 Special Construction (Canopy) | 5,940 | 0.29 | 5,940 | 0.69 | 0 | 0.00 |
| F20 Selective/Building Demolition | 257,913 | 12.48 | 0 | 0.00 | 257,913 | 21.49 |
| F20 Asbestos Abatement | 72,000 | 3.48 | 0 | 0.00 | 72,000 | 6.00 |
| Sub Total Building Cost | 4,883,979 | 236.40 | 2,363,348 | 272.90 | 2,520,631 | 210.05 |
| <u>G Building Sitework</u> | 376,941 | 18.24 | | | | |
| G10 Site Preparation | 37,625 | 1.82 | | | | |
| G20 Site Improvements | 186,072 | 9.01 | | | | |
| G30 Site Civil/Mechanical Utilities | 109,919 | 5.32 | | | | |
| G40 Site Electrical Utilities | 33,325 | 1.61 | | | | |
| G90 Other Site Construction | 10,000 | 0.48 | | | | |
| Sub Total Construction | 5,260,919 | 254.64 | | | | |
| General Conditions/Requirements | 853,199 | 41.30 | | | | |
| Escalation to mid point of construction 2Q2016 | 10.32% | 630,977 | 30.54 | | | |
| Estimating Contingency | 15.00% | 1,011,764 | 48.97 | | | |
| Building Permit Fee | | Excluded | | | | |
| Sub Total Cost | 7,756,859 | 375.45 | | | | |
| Soft Costs | 1,316,500 | 63.72 | | | | |
| Contingency (Hard and Soft Cost) | 904,000 | 43.76 | | | | |
| Total Project Cost | 9,977,359 | 482.93 | | | | |

| Description | Qty | % of Time Allocated | Unit | Rate | Amount | |
|---|-------|---------------------|------|-----------|---------------------|----------------|
| <u>General Conditions/Requirements</u> | | | | | | |
| <i>Field personnel</i> | | | | | | |
| Field personnel:- | | | | | | |
| - project manager | 7.80 | 10% | week | 3,350.00 | 26,130 | |
| - project superintendent | 78.00 | 100% | week | 2,950.00 | 230,100 | |
| - field engineer | 11.70 | 15% | week | 2,750.00 | 32,175 | |
| - MEP coordinator | 7.80 | 10% | week | 2,700.00 | 21,060 | |
| - laborer | 39.00 | 50% | week | 2,550.00 | 99,450 | |
| Main office staff | 20.00 | 25% | week | 2,650.00 | 53,000 | |
| <i>Insurance & Bond Cost</i> | | | | | | |
| Insurances (includes):- | | | | | 142,300 | |
| - builders risk | | | | | | |
| - general liability | | | | | | |
| - vehicle liability | | | | | | |
| - pollution liability | | | | | | |
| - workers compensation | | | | | Included in Labor | |
| - umbrella coverage | | | | | | |
| Performance bond. | | | | | 71,150 | |
| <i>Temporary Utilities & Services</i> | | | | | | |
| Temporary utilities & services:- | | | | | | |
| - temporary water & sewer service & distribution | 78.00 | | week | 25.00 | 1,950 | |
| - temporary water consumed | 78.00 | | week | 25.00 | 1,950 | |
| - temporary toilet rental & service | 78.00 | | week | 25.00 | 1,950 | |
| - temporary electricity consumed | 78.00 | | week | 25.00 | 1,950 | |
| - temporary heating system | 78.00 | | week | 25.00 | 1,950 | |
| - temporary heating fuel consumed | 78.00 | | week | 25.00 | 1,950 | |
| - emergency diesel generator fuel consumed | 78.00 | | week | 25.00 | 1,950 | |
| <i>Additional Categories</i> | | | | | | |
| Preparation of progress schedules. | 18.00 | | mth | 175.00 | 3,150 | |
| Compilation/preparation of site survey data. | 1.00 | | ls | 2,750.00 | 2,750 | |
| Preparation of shop drawings. | 1.00 | | ls | 3,500.00 | 3,500 | |
| Construction photographs. | 18.00 | | mth | 50.00 | 900 | |
| Temporary construction. | 78.00 | | week | 850.00 | 66,300 | |
| Construction aids (safety nets, personnel protection equipment, partial scaffolding, etc) | 78.00 | | week | 35.00 | 2,730 | |
| Barriers and enclosures. | 78.00 | | week | 35.00 | 2,730 | |
| Security. | 18.00 | | mth | 750.00 | 13,500 | |
| Access roads. | 78.00 | | week | 30.00 | 2,340 | |
| Temporary controls. | 78.00 | | week | 25.00 | 1,950 | |
| Project signs. | 18.00 | | mth | 35.00 | 630 | |
| Field offices and sheds | 18.00 | | mth | 650.00 | 11,700 | |
| Field office expenses. | 78.00 | | week | 150.00 | 11,700 | |
| Equipment rental | 1.00 | | ls | 2,500.00 | 2,500 | |
| Snow removal | 10.00 | | ea | 225.00 | 2,250 | |
| Winter protection | 1.00 | | ls | 4,500.00 | 4,500 | |
| Interim cleaning | 78.00 | | week | 219.15 | 17,094 | |
| Final cleaning | 1.00 | | ls | 12,209.95 | 12,210 | |
| Mockup, allow | 1.00 | | ls | 1,750.00 | 1,750 | |
| Overtime/weekend working to facilitate phasing and the daily operations of the building | | | | | Not Required | |
| <u>General Conditions/Requirements</u> | | | | | <u>Total</u> | 853,199 |

Gross Floor Areas

| | <u>Reno GFA</u> | <u>New GFA</u> | <u>Total GFA</u> |
|----------------------|------------------------|-----------------------|-------------------------|
| Basement Floor | 1,870 | 2,560 | 4,430 |
| First Floor | 4,640 | 2,560 | 7,200 |
| Second Floor | 4,640 | 2,080 | 6,720 |
| Mezzanine | 850 | 1,460 | 2,310 |
| <u>Totals</u> | 12,000 | 8,660 | 20,660 |

Sudbury Town Hall Study : Town Offices Pro Forma Budget

Through Period Ending: November 20, 2013

| | Pro Forma Budget |
|--|----------------------------|
| HARD COST | |
| HazMat | \$ - |
| Below | |
| General Contractor | 7,756,859 |
| GC \$ 349.93 per SF 20,660 SF | 7,756,859 |
| Furniture, Fixtures & Equipment | - |
| | - |
| Hard Cost Subtotal | \$ 7,756,859 |
| SOFT COST | |
| Permits & Approvals | 20,000 |
| Planning Board | 5,000 |
| Zoning Board of Appeals | 5,000 |
| Conservation Commission | 5,000 |
| Other | 5,000 |
| Architecture & Engineering | 920,000 |
| Architect | |
| 10.0% | 776,000 |
| LEED Included above | |
| Geotechnical Engineer | 10,000 |
| Site Survey | 5,000 |
| Cost Estimator | 10,000 |
| Envelope Commissioning | 30,000 |
| MEP Commissioning | 30,000 |
| Constructability Review | 15,000 |
| Reimbursables 5% | 44,000 |
| Testing & Inspections | 22,500 |
| Abatement Monitoring 10% | 7,500 |
| Testing | 15,000 |
| Project Management | 289,000 |
| Project Manager | |
| OPM 2.5% | 217,000 |
| On-Site Representative 12 6,000 /Month | 72,000 |
| Reimbursables | |
| Moving | 50,000 |
| Moving Expenses | 50,000 |
| Marketing & Advertising | 10,000 |
| Printing Bid Documents | 10,000 |
| Legal | 5,000 |
| Legal | 5,000 |
| Other | - |
| Soft Cost Subtotal | \$ 1,316,500 |
| CONTINGENCY | |
| Contingency | 904,000 |
| Hard Cost Contingency 10.0% | 774,000 |
| Soft Cost Contingency 10.0% | 130,000 |
| Project Total | <u>\$ 9,977,359</u> |



Sudbury School Admin Study Sudbury, MA Update #3

Cost Estimate

Prepared for:

bh+a

Boston, MA

Prepared by:

D G Jones International, Inc.

3 Baldwin Green Common, #202

Woburn, MA 01801

email : boston@dgjonesboston.com

Tel: 781-932-3131

Fax: 781-932-3199

November 20, 2013

Notes

1. Brief project description:-
 - Two Schemes to renovate and add to existing building with associated site work and site utilities.
2. The estimate is based on the following:-
 - Prevailing wage.
 - General Contractor type project.
 - Receipt of 4# bona fide bids.
 - Building will be unoccupied during construction work.
 - Bid date - 3Q2015 for all Schemes.
 - Construction period - 16 months for both schemes.
3. The gross floor areas are based on the following:-
 - Measurement is taken to the outside face of the exterior wall, measured through all stair wells, elevator shafts and ducts.
4. Story heights:-
 - Varies.
5. General Requirements/Conditions are itemized and priced later in this document.
6. Special Conditions for this project are included with General Requirements.
7. Escalation to mid point of construction (2Q2016) is compounded per annum at the following:-
 - All years at 4%
 - Note: Escalation is taken on the sum of Sub Total Construction cost, General Requirements/Special Conditions.
8. Estimating Contingency is an allowance for future design modifications/additions, which alter the cost of the building as the design progresses, this percentage reduces as the design develops. It is based on a percentage of the sum of Sub-Total Construction, General Requirements/Special Conditions and Escalation. For this level of estimate the following has been included:-
 - 15.00%
9. Construction Contingency is an allowance for scope/design modifications made by the owner during construction and also for any unforeseen circumstances. It is based on a percentage of the sum of Sub-Total Construction, General Requirements/Special Conditions, Escalation and Design Contingency. The following has been included:-
 - 0.00%

Notes (Cont'd)

10. This estimate has been prepared from the following design information:-
 - Drawings dated 10/04/2013
 - Consultants report dated September 2013.
 - Emails from bh+a.
 - Telecons with bh+a.
11. The estimate includes the following:-
 - Hazardous material abatement and removal.
 - Security (conduit & cabling).
 - Telephone/data (conduit & cabling)..

The estimate excludes the following:-

- Utility company backcharges.
 - Sales tax.
 - Building permit fees.
 - Design consultants fees.
 - Excavation in rock.
 - Removal of water during excavation work.
 - Loose furniture, fittings and equipment.
 - Fixed furniture, fittings and equipment except work normally included in GC work.
 - Fire pump.
 - Third-party building Commissioning.
13. Allowances:-
 - Estimate is based on allowances at this stage of the design.
 14. Assumptions:-
 - To arrive at a \$/sf cost reasonable assumptions have been made.
 15. Estimates by other firms:-
 - None.

Sudbury School Administration

| Gross Floor Area (sf) = | <u>SCHEME 1</u> | | <u>SCHEME 2</u> | | |
|---|----------------------------|---------------------|----------------------------|---------------------|-------|
| | 16,100 | | 18,550 | | |
| | <u>Element (\$)</u> | <u>\$/sf</u> | <u>Element (\$)</u> | <u>\$/sf</u> | |
| <u>A Substructure</u> | 69,487 | 4.32 | 162,097 | 8.74 | |
| A10 Foundations | 69,487 | 4.32 | 162,097 | 8.74 | |
| A20 Basement Construction | 0 | 0.00 | 0 | 0.00 | |
| <u>B Shell</u> | 853,117 | 52.99 | 1,225,144 | 66.05 | |
| B10 Superstructure | 382,663 | 23.77 | 573,101 | 30.89 | |
| B20 Exterior Enclosure | 263,826 | 16.39 | 396,146 | 21.36 | |
| B30 Roofing | 206,628 | 12.83 | 255,897 | 13.79 | |
| <u>C Interiors</u> | 681,818 | 42.35 | 790,742 | 42.63 | |
| C10 Interior Construction | 352,713 | 21.91 | 421,422 | 22.72 | |
| C20 Stairs | 16,125 | 1.00 | 16,125 | 0.87 | |
| C30 Interior Finishes | 312,980 | 19.44 | 353,195 | 19.04 | |
| <u>D Services</u> | 1,279,710 | 79.49 | 1,422,517 | 76.69 | |
| D10 Conveying Systems | 144,882 | 9.00 | 144,882 | 7.81 | |
| D20 Plumbing | 123,282 | 7.66 | 112,158 | 6.05 | |
| D30 HVAC | 512,903 | 31.86 | 590,953 | 31.86 | |
| D40 Fire Protection Systems | 120,750 | 7.50 | 139,125 | 7.50 | |
| D 50 Electrical Systems | 377,893 | 23.47 | 435,399 | 23.47 | |
| <u>E Equipment and Furnishings</u> | 41,373 | 2.57 | 58,870 | 3.17 | |
| E10 Equipment | 8,450 | 0.52 | 10,850 | 0.58 | |
| E 20 Furnishings | 32,923 | 2.04 | 48,020 | 2.59 | |
| <u>F Special Construction and Demolition</u> | 305,037 | 18.95 | 311,356 | 16.78 | |
| F10 Special Construction (Canopy) | 0 | 0.00 | 6,319 | 0.34 | |
| F20 Selective/Building Demolition | 216,837 | 13.47 | 216,837 | 11.69 | |
| F20 Asbestos Abatement | 88,200 | 5.48 | 88,200 | 4.75 | |
| <u>Sub Total Building Cost</u> | 3,230,541 | 200.65 | 3,970,726 | 214.06 | |
| <u>G Building Sitework</u> | 181,397 | 11.27 | 363,331 | 19.59 | |
| G10 Site Preparation | 7,525 | 0.47 | 16,125 | 0.87 | |
| G20 Site Improvements | 25,628 | 1.59 | 193,962 | 10.46 | |
| G30 Site Civil/Mechanical Utilities | 109,919 | 6.83 | 109,919 | 5.93 | |
| G40 Site Electrical Utilities | 33,325 | 2.07 | 33,325 | 1.80 | |
| G90 Other Site Construction | 5,000 | 0.31 | 10,000 | 0.54 | |
| <u>Sub Total Construction</u> | 3,411,938 | 211.92 | 4,334,057 | 233.64 | |
| General Conditions/Requirements | 698,545 | 43.39 | 704,030 | 37.95 | |
| Escalation to mid point of construction 2Q2016 | 10.32% | 424,202 | 26.35 | 519,931 | 28.03 |
| Estimating Contingency | 15.00% | 680,203 | 42.25 | 833,703 | 44.94 |
| Building Permit Fee | | Excluded | | Excluded | |
| <u>Sub Total Cost</u> | 5,214,887 | 323.91 | 6,391,720 | 344.57 | |
| Soft Cost | 998,900 | 62.04 | 1,161,900 | 62.64 | |
| Contingency (Hard and Soft Cost) | 617,000 | 38.32 | 751,000 | 40.49 | |
| <u>Total Project Cost</u> | 6,830,787 | 424.27 | 8,304,620 | 447.69 | |

Sudbury School Administration Scheme 1

| Gross Floor Area (sf) = | <u>Consolidated</u> | | <u>Addition</u> | | <u>Renovation</u> | |
|--|---------------------|---------------|---------------------|---------------|---------------------|---------------|
| | 16,100 | | 1,400 | | 14,700 | |
| | <u>Element (\$)</u> | <u>\$/sf</u> | <u>Element (\$)</u> | <u>\$/sf</u> | <u>Element (\$)</u> | <u>\$/sf</u> |
| A Substructure | 69,487 | 4.32 | 0 | 0.00 | 69,487 | 4.73 |
| A10 Foundations | 69,487 | 4.32 | 0 | 0.00 | 69,487 | 4.73 |
| A20 Basement Construction | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| B Shell | 853,117 | 52.99 | 169,580 | 121.13 | 683,537 | 46.50 |
| B10 Superstructure | 382,663 | 23.77 | 47,114 | 33.65 | 335,549 | 22.83 |
| B20 Exterior Enclosure | 263,826 | 16.39 | 96,660 | 69.04 | 167,166 | 11.37 |
| B30 Roofing | 206,628 | 12.83 | 25,806 | 18.43 | 180,822 | 12.30 |
| C Interiors | 681,818 | 42.35 | 64,737 | 46.24 | 617,081 | 41.98 |
| C10 Interior Construction | 352,713 | 21.91 | 32,642 | 23.32 | 320,071 | 21.77 |
| C20 Stairs | 16,125 | 1.00 | 0 | 0.00 | 16,125 | 1.10 |
| C30 Interior Finishes | 312,980 | 19.44 | 32,095 | 22.93 | 280,885 | 19.11 |
| D Services | 1,279,710 | 79.49 | 101,142 | 72.24 | 1,178,567 | 80.17 |
| D10 Conveying Systems | 144,882 | 9.00 | 0 | 0.00 | 144,882 | 9.86 |
| D20 Plumbing | 123,282 | 7.66 | 13,182 | 9.42 | 110,100 | 7.49 |
| D30 HVAC | 512,903 | 31.86 | 44,600 | 31.86 | 468,302 | 31.86 |
| D40 Fire Protection Systems | 120,750 | 7.50 | 10,500 | 7.50 | 110,250 | 7.50 |
| D 50 Electrical Systems | 377,893 | 23.47 | 32,860 | 23.47 | 345,033 | 23.47 |
| E Equipment and Furnishings | 41,373 | 2.57 | 6,453 | 4.61 | 34,920 | 2.38 |
| E10 Equipment | 8,450 | 0.52 | 1,600 | 1.14 | 6,850 | 0.47 |
| E 20 Furnishings | 32,923 | 2.04 | 4,853 | 3.47 | 28,070 | 1.91 |
| F Special Construction and Demolition | 305,037 | 18.95 | 0 | 0.00 | 305,037 | 20.75 |
| F10 Special Construction (Canopy) | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| F20 Selective/Building Demolition | 216,837 | 13.47 | 0 | 0.00 | 216,837 | 14.75 |
| F20 Asbestos Abatement | 88,200 | 5.48 | 0 | 0.00 | 88,200 | 6.00 |
| Sub Total Building Cost | 3,230,541 | 200.65 | 341,912 | 244.22 | 2,888,629 | 196.51 |
| G Building Sitework | 181,397 | 11.27 | | | | |
| G10 Site Preparation | 7,525 | 0.47 | | | | |
| G20 Site Improvements | 25,628 | 1.59 | | | | |
| G30 Site Civil/Mechanical Utilities | 109,919 | 6.83 | | | | |
| G40 Site Electrical Utilities | 33,325 | 2.07 | | | | |
| G90 Other Site Construction | 5,000 | 0.31 | | | | |
| Sub Total Construction | 3,411,938 | 211.92 | | | | |
| General Conditions/Requirements | 698,545 | 43.39 | | | | |
| Escalation to mid point of construction 2Q2016 | 10.32% | 424,202 | 26.35 | | | |
| Estimating Contingency | 15.00% | 680,203 | 42.25 | | | |
| Building Permit Fee | | Excluded | | | | |
| Sub Total Cost | 5,214,887 | 323.91 | | | | |
| Soft Cost | 998,900 | 62.04 | | | | |
| Contingency (Hard and Soft Cost) | 617,000 | 38.32 | | | | |
| Total Project Cost | 6,830,787 | 424.27 | | | | |

Sudbury School Administration Scheme 2

| Gross Floor Area (sf) = | <u>Consolidated</u> | | <u>Addition</u> | | <u>Renovation</u> | |
|--|---------------------|---------------|---------------------|---------------|---------------------|---------------|
| | 18,550 | | 3,850 | | 14,700 | |
| | <u>Element (\$)</u> | <u>\$/sf</u> | <u>Element (\$)</u> | <u>\$/sf</u> | <u>Element (\$)</u> | <u>\$/sf</u> |
| A Substructure | 162,097 | 8.74 | 92,610 | 24.05 | 69,487 | 4.73 |
| A10 Foundations | 162,097 | 8.74 | 92,610 | 24.05 | 69,487 | 4.73 |
| A20 Basement Construction | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 |
| B Shell | 1,225,144 | 66.05 | 541,607 | 140.68 | 683,537 | 46.50 |
| B10 Superstructure | 573,101 | 30.89 | 237,552 | 61.70 | 335,549 | 22.83 |
| B20 Exterior Enclosure | 396,146 | 21.36 | 228,980 | 59.48 | 167,166 | 11.37 |
| B30 Roofing | 255,897 | 13.79 | 75,075 | 19.50 | 180,822 | 12.30 |
| C Interiors | 790,742 | 42.63 | 186,511 | 48.44 | 604,230 | 41.10 |
| C10 Interior Construction | 421,422 | 22.72 | 115,761 | 30.07 | 305,660 | 20.79 |
| C20 Stairs | 16,125 | 0.87 | 0 | 0.00 | 16,125 | 1.10 |
| C30 Interior Finishes | 353,195 | 19.04 | 70,750 | 18.38 | 282,445 | 19.21 |
| D Services | 1,422,517 | 76.69 | 303,991 | 78.96 | 1,118,525 | 76.09 |
| D10 Conveying Systems | 144,882 | 7.81 | 0 | 0.00 | 144,882 | 9.86 |
| D20 Plumbing | 112,158 | 6.05 | 62,100 | 16.13 | 50,058 | 3.41 |
| D30 HVAC | 590,953 | 31.86 | 122,651 | 31.86 | 468,302 | 31.86 |
| D40 Fire Protection Systems | 139,125 | 7.50 | 28,875 | 7.50 | 110,250 | 7.50 |
| D 50 Electrical Systems | 435,399 | 23.47 | 90,366 | 23.47 | 345,033 | 23.47 |
| E Equipment and Furnishings | 58,870 | 3.17 | 23,950 | 6.22 | 34,920 | 2.38 |
| E10 Equipment | 10,850 | 0.58 | 4,000 | 1.04 | 6,850 | 0.47 |
| E 20 Furnishings | 48,020 | 2.59 | 19,950 | 5.18 | 28,070 | 1.91 |
| F Special Construction and Demolition | 311,356 | 16.78 | 6,319 | 1.64 | 305,037 | 20.75 |
| F10 Special Construction (Canopy) | 6,319 | 0.34 | 6,319 | 1.64 | 0 | 0.00 |
| F20 Selective/Building Demolition | 216,837 | 11.69 | 0 | 0.00 | 216,837 | 14.75 |
| F20 Asbestos Abatement | 88,200 | 4.75 | 0 | 0.00 | 88,200 | 6.00 |
| Sub Total Building Cost | 3,970,726 | 214.06 | 1,154,989 | 300.00 | 2,815,737 | 191.55 |
| G Building Sitework | 363,331 | 19.59 | | | | |
| G10 Site Preparation | 16,125 | 0.87 | | | | |
| G20 Site Improvements | 193,962 | 10.46 | | | | |
| G30 Site Civil/Mechanical Utilities | 109,919 | 5.93 | | | | |
| G40 Site Electrical Utilities | 33,325 | 1.80 | | | | |
| G90 Other Site Construction | 10,000 | 0.54 | | | | |
| Sub Total Construction | 4,334,057 | 233.64 | | | | |
| General Conditions/Requirements | 704,030 | 37.95 | | | | |
| Escalation to mid point of construction 2Q2016 | 10.32% | 519,931 | 28.03 | | | |
| Estimating Contingency | 15.00% | 833,703 | 44.94 | | | |
| Building Permit Fee | | Excluded | | | | |
| Sub Total Cost | 6,391,720 | 344.57 | | | | |
| Soft Cost | 1,161,900 | 62.64 | | | | |
| Contingency | 751,000 | 40.49 | | | | |
| Total Project Cost | 8,304,620 | 447.69 | | | | |

| Description | Qty | % of Time Allocated | Unit | Rate | Amount | |
|---|-------|---------------------|------|----------|---------------------|----------------|
| <u>General Conditions/Requirements</u> | | | | | | |
| <i>Field personnel</i> | | | | | | |
| Field personnel:- | | | | | | |
| - project manager | 6.93 | 10% | week | 3,350.00 | 23,226 | |
| - project superintendent | 69.33 | 100% | week | 2,950.00 | 204,524 | |
| - field engineer | 10.40 | 15% | week | 2,750.00 | 28,599 | |
| - MEP coordinator | 6.93 | 10% | week | 2,700.00 | 18,719 | |
| - laborer | 34.67 | 50% | week | 2,550.00 | 88,396 | |
| Main office staff | 17.00 | 25% | week | 2,650.00 | 45,050 | |
| <i>Insurance & Bond Cost</i> | | | | | | |
| Insurances (includes):- | | | | | | |
| - builders risk | | | | | 91,140 | |
| - general liability | | | | | | |
| - vehicle liability | | | | | | |
| - pollution liability | | | | | | |
| - workers compensation | | | | | Included in Labor | |
| - umbrella coverage | | | | | | |
| Performance bond. | | | | | 45,570 | |
| <i>Temporary Utilities & Services</i> | | | | | | |
| Temporary utilities & services:- | | | | | | |
| - temporary water & sewer service & distribution | 69.33 | | week | 25.00 | 1,733 | |
| - temporary water consumed | 69.33 | | week | 25.00 | 1,733 | |
| - temporary toilet rental & service | 69.33 | | week | 25.00 | 1,733 | |
| - temporary electricity consumed | 69.33 | | week | 25.00 | 1,733 | |
| - temporary heating system | 69.33 | | week | 25.00 | 1,733 | |
| - temporary heating fuel consumed | 69.33 | | week | 25.00 | 1,733 | |
| - emergency diesel generator fuel consumed | 69.33 | | week | 25.00 | 1,733 | |
| <i>Additional Categories</i> | | | | | | |
| Preparation of progress schedules. | 16.00 | | mth | 175.00 | 2,800 | |
| Compilation/preparation of site survey data. | 1.00 | | ls | 2,750.00 | 2,750 | |
| Preparation of shop drawings. | 1.00 | | ls | 3,500.00 | 3,500 | |
| Construction photographs. | 16.00 | | mth | 50.00 | 800 | |
| Temporary construction. | 69.33 | | week | 850.00 | 58,931 | |
| Construction aids (safety nets, personnel protection equipment, partial scaffolding, etc) | 69.33 | | week | 35.00 | 2,427 | |
| Barriers and enclosures. | 69.33 | | week | 35.00 | 2,427 | |
| Security. | 16.00 | | mth | 750.00 | 12,000 | |
| Access roads. | 69.33 | | week | 30.00 | 2,080 | |
| Temporary controls. | 69.33 | | week | 25.00 | 1,733 | |
| Project signs. | 16.00 | | mth | 35.00 | 560 | |
| Field offices and sheds | 16.00 | | mth | 650.00 | 10,400 | |
| Field office expenses. | 69.33 | | week | 150.00 | 10,400 | |
| Equipment rental | 1.00 | | ls | 2,500.00 | 2,500 | |
| Snow removal | 10.00 | | ea | 225.00 | 2,250 | |
| Winter protection | 1.00 | | ls | 4,500.00 | 4,500 | |
| Interim cleaning | 69.33 | | week | 163.09 | 11,307 | |
| Final cleaning | 1.00 | | ls | 8,076.35 | 8,076 | |
| Mockup, allow | 1.00 | | ls | 1,750.00 | 1,750 | |
| Overtime/weekend working to facilitate phasing and the daily operations of the building | | | | | Not Required | |
| <u>General Conditions/Requirements</u> | | | | | <u>Total</u> | 698,545 |

Gross Floor Areas

| | <u>Scheme 1</u> | | | <u>Scheme 2</u> | | |
|----------------------|------------------------|-----------------------|-------------------------|------------------------|-----------------------|-------------------------|
| | <u>Reno GFA</u> | <u>New GFA</u> | <u>Total GFA</u> | <u>Reno GFA</u> | <u>New GFA</u> | <u>Total GFA</u> |
| Basement Floor | 3,170 | 0 | 3,170 | 3,170 | 0 | 3,170 |
| First Floor | 6,040 | 0 | 6,040 | 6,040 | 2,450 | 8,490 |
| Second Floor | 4,640 | 1,400 | 6,040 | 4,640 | 1,400 | 6,040 |
| Mezzanine | 850 | 0 | 850 | 850 | 0 | 850 |
| <u>Totals</u> | 14,700 | 1,400 | 16,100 | 14,700 | 3,850 | 18,550 |

Sudbury Town Hall Study : School Administration Option 1
Pro Forma Budget
Through Period Ending: November 8, 2013

| | Proforma Budget |
|---------------------------------|------------------------|
| HARD COST | |
| HazMat | \$ - |
| Below | |
| General Contractor | 5,214,887 |
| GC \$ 323.91 per SF 16,100 SF | 5,214,887 |
| Furniture, Fixtures & Equipment | - |
| | - |
| Hard Cost Subtotal | \$ 5,214,887 |
| SOFT COST | |
| Permits & Approvals | 20,000 |
| Architecture & Engineering | 638,000 |
| Architect | 521,000 |
| LEED | 10.0% Included above |
| Geotechnical Engineer | - |
| Site Survey | 5,000 |
| Cost Estimator | 10,000 |
| Envelope Commissioning | 30,000 |
| MEP Commissioning | 30,000 |
| Constructability Review | 12,000 |
| Reimbursables | 5% 30,000 |
| Testing & Inspections | 23,900 |
| Abatement Monitoring | 10% 8,900 |
| Testing | 15,000 |
| Project Management | 252,000 |
| Project Manager | |
| OPM | 3.0% 180,000 |
| On-Site Representative | 12 6,000 /Month 72,000 |
| Reimbursables | |
| Moving | 50,000 |
| Moving Expenses | 50,000 |
| Marketing & Advertising | 10,000 |
| Printing Bid Documents | 10,000 |
| Legal | 5,000 |
| Legal | 5,000 |
| Other | - |
| Soft Cost Subtotal | \$ 998,900 |
| CONTINGENCY | |
| Contingency | 617,000 |
| Hard Cost Contingency | 10.0% 519,000 |
| Soft Cost Contingency | 10.0% 98,000 |
| | - |
| Project Total | <u>\$ 6,830,787</u> |

Sudbury Town Hall Study : School Administration Option 2
Pro Forma Budget
 Through Period Ending: November 20, 2013

| | Proforma Budget |
|---------------------------------|----------------------------|
| HARD COST | |
| HazMat | \$ - |
| Below | |
| General Contractor | 6,391,720 |
| GC \$ 434.81 per SF 18,550 SF | 6,391,720 |
| Furniture, Fixtures & Equipment | - |
| | - |
| Hard Cost Subtotal | \$ 6,391,720 |
| SOFT COST | |
| Permits & Approvals | 20,000 |
| Architecture & Engineering | 762,000 |
| Architect | |
| 10.0% | 639,000 |
| LEED | Included above |
| Geotechnical Engineer | - |
| Site Survey | 5,000 |
| Cost Estimator | 10,000 |
| Envelope Commissioning | 30,000 |
| MEP Commissioning | 30,000 |
| Constructability Review | 12,000 |
| Reimbursables | 36,000 |
| 5% | |
| Testing & Inspections | 23,900 |
| Abatement Monitoring | 8,900 |
| 10% | |
| Testing | 15,000 |
| Project Management | 291,000 |
| Project Manager | |
| OPM | 219,000 |
| 3.0% | |
| On-Site Representative | 72,000 |
| 12 6,000 /Month | |
| Reimbursables | |
| Moving | 50,000 |
| Moving Expenses | 50,000 |
| Marketing & Advertising | 10,000 |
| Printing Bid Documents | 10,000 |
| Legal | 5,000 |
| Legal | 5,000 |
| Other | - |
| Soft Cost Subtotal | \$ 1,161,900 |
| CONTINGENCY | |
| Contingency | 751,000 |
| Hard Cost Contingency | 637,000 |
| 10.0% | |
| Soft Cost Contingency | 114,000 |
| 10.0% | |
| | - |
| Project Total | <u>\$ 8,304,620</u> |

Sudbury Town Hall: CPA Renovation / No Addition

Description of work:

This cost estimate determines the price of a renovation to Town Hall without providing a set program and use for the building. The renovation would make the building accessible, meet current building codes, and upgrade the building systems. Similar to the proposed Town Offices and School Administration studies, a new first floor would be constructed at the level of the west lobby to reduce the number of levels in the building. The north wing steel stair would be removed to insert an elevator to access all floor levels. The auditorium stage would remain as well as the 1955 rear addition and excess stairs throughout the building. The meeting room floor level would be raised to the first floor level.

A Substructure

New footings for elevator walls
Excavate for elevator pit
Minor wall construction
Patch and level existing concrete floor
Structural improvements to walls

B Shell

Restore wood windows at second floor
Add storm windows
Remove plaster at exterior walls, add insulation and vapor barrier
Renovate existing doors and add accessible door hardware
Add new floors as required for accessibility
Structural upgrades/repairs to roof framing, lintels, and concrete block piers and walls
Rebuild portion of chimney, repoint chimneys, clean brick, replace flashing and vents
Replace slate roof, flashing, gutters, downspouts, and snow guards

C Interiors

Replace or add select doors
Select new partition walls
Elevator shaft walls
Toilet room accessories
Building signage
Refurbish auditorium wood floor
Finishes at walls, floors, ceilings, stairs

D Services

Elevator and conveying systems
Restroom fixtures for new accessible restrooms, including floor drains, hydrants, and clean-outs
Piping for plumbing fixtures
Water heaters
HVAC equipment for a Mitsubishi Variable Refrigerant Volume system.
Sprinkler system throughout building
Upgrades to electrical system, wiring, and fire alarm system

E Equipment and Furnishings

Lavatory Countertops

F Special Construction and Demolition

Demolish select floors, stairs, and roofing
Removal of demolished material
Asbestos Abatement and safe removal

G Building Sitework

Civil, Mechanical & Electrical Utilities
Add new railings at exterior entrances and ramps to meet building code

CPA Renovation/ No Addition

| Gross Floor Area (sf) = | <u>Renovation</u> | | |
|---|----------------------------|---------------------|-------|
| | <u>Element (\$)</u> | <u>\$/sf</u> | |
| <u>A Substructure</u> | 57,101 | 3.88 | |
| A10 Foundations | 57,101 | 3.88 | |
| A20 Basement Construction | 0 | 0.00 | |
| <u>B Shell</u> | 697,615 | 47.46 | |
| B10 Superstructure | 338,020 | 22.99 | |
| B20 Exterior Enclosure | 178,773 | 12.16 | |
| B30 Roofing | 180,822 | 12.30 | |
| <u>C Interiors</u> | 385,237 | 26.21 | |
| C10 Interior Construction | 90,348 | 6.15 | |
| C20 Stairs | 16,125 | 1.10 | |
| C30 Interior Finishes | 278,764 | 18.96 | |
| <u>D Services</u> | 1,171,114 | 79.67 | |
| D10 Conveying Systems | 144,882 | 9.86 | |
| D20 Plumbing | 102,647 | 6.98 | |
| D30 HVAC | 468,302 | 31.86 | |
| D40 Fire Protection Systems | 110,250 | 7.50 | |
| D 50 Electrical Systems | 345,033 | 23.47 | |
| <u>E Equipment and Furnishings</u> | 1,650 | 0.11 | |
| E10 Equipment | 0 | 0.00 | |
| E 20 Furnishings | 1,650 | 0.11 | |
| <u>F Special Construction and Demolition</u> | 243,590 | 16.57 | |
| F10 Special Construction (Canopy) | 0 | 0.00 | |
| F20 Selective/Building Demolition | 155,390 | 10.57 | |
| F20 Asbestos Abatement | 88,200 | 6.00 | |
| <u>Sub Total Building Cost</u> | 2,556,307 | 173.90 | |
| <u>G Building Sitework</u> | 151,134 | 10.28 | |
| G10 Site Preparation | 0 | 0.00 | |
| G20 Site Improvements | 7,891 | 0.54 | |
| G30 Site Civil/Mechanical Utilities | 109,919 | 7.48 | |
| G40 Site Electrical Utilities | 33,325 | 2.27 | |
| G90 Other Site Construction | 0 | 0.00 | |
| <u>Sub Total Construction</u> | 2,707,441 | 184.18 | |
| General Conditions/Requirements | 698,514 | 47.52 | |
| Escalation to mid point of construction 2Q2016 | 10.32% | 351,495 | 23.91 |
| Estimating Contingency | 15.00% | 563,617 | 38.34 |
| Building Permit Fee | | Excluded | |
| <u>Sub Total Cost</u> | 4,321,067 | 293.95 | |
| Soft Cost | 876,900 | 59.65 | |
| Contingency (Hard and Soft Cost) | 516,000 | 35.10 | |
| <u>Total Project Cost</u> | 5,713,967 | 388.71 | |

Sudbury Town Hall Study : CPA Renovation/ No Addition
Pro Forma Budget
 Through Period Ending: November 8, 2013

| | Proforma Budget |
|--|---------------------|
| HARD COST | |
| HazMat | \$ - |
| Below | |
| General Contractor | 4,321,067 |
| GC \$ 293.95 per SF 14,700 SF | 4,321,067 |
| Furniture, Fixtures & Equipment | - |
| | - |
| Hard Cost Subtotal | \$ 4,321,067 |
| SOFT COST | |
| Permits & Approvals | 20,000 |
| Architecture & Engineering | 545,000 |
| Architect | 432,000 |
| 10.0% | |
| LEED Included above | |
| Geotechnical Engineer | - |
| Site Survey | 5,000 |
| Cost Estimator | 10,000 |
| Envelope Commissioning | 30,000 |
| MEP Commissioning | 30,000 |
| Constructability Review | 12,000 |
| Reimbursables 5% | 26,000 |
| Testing & Inspections | 23,900 |
| Abatement Monitoring 10% | 8,900 |
| Testing | 15,000 |
| Project Management | 223,000 |
| Project Manager | |
| OPM 3.0% | 151,000 |
| On-Site Representative 12 6,000 /Month | 72,000 |
| Reimbursables | |
| Moving | 50,000 |
| Moving Expenses | 50,000 |
| Marketing & Advertising | 10,000 |
| Printing Bid Documents | 10,000 |
| Legal | 5,000 |
| Legal | 5,000 |
| Other | - |
| Soft Cost Subtotal | \$ 876,900 |
| CONTINGENCY | |
| Contingency | 516,000 |
| Hard Cost Contingency 10.0% | 430,000 |
| Soft Cost Contingency 10.0% | 86,000 |
| Project Total | \$ 5,713,967 |

Sudbury Town Hall Demo & Rebuild

| | | <u>Town Offices</u> | |
|--|--------|----------------------------|---------------------|
| Gross Floor Area Required(sf) = | | 16,700 | |
| | | <u>Element (\$)</u> | <u>\$/sf</u> |
| Town Hall Building Demolition | | 400,000 | 23.95 |
| Asbestos Abatement | | 150,000 | 8.98 |
| New Construction (includes site work) | | 4,175,000 | 250.00 |
| Sub Total Construction | | 4,725,000 | 282.93 |
| General Conditions/Requirements | | 854,355 | 51.16 |
| Escalation to mid point of construction 2Q2016 | 10.32% | 575,789 | 34.48 |
| Estimating Contingency | 15.00% | 923,272 | 55.29 |
| Building Permit Fee | | Excluded | |
| Sub Total Cost | | 7,078,416 | 423.86 |
| Soft Cost | | 1,225,500 | 73.38 |
| Contingency (Hard and Soft Cost) | | 827,000 | 49.52 |
| Total Project Cost | | 9,130,916 | 546.76 |

| | | <u>School Administration</u> | |
|--|--------|-------------------------------------|---------------------|
| Gross Floor Area Required(sf) = | | 14,800 | |
| | | <u>Element (\$)</u> | <u>\$/sf</u> |
| Town Hall Building Demolition | | 400,000 | 27.03 |
| Asbestos Abatement | | 150,000 | 10.14 |
| New Construction (includes site work) | | 3,700,000 | 250.00 |
| Sub Total Construction | | 4,250,000 | 287.16 |
| General Conditions/Requirements | | 854,355 | 57.73 |
| Escalation to mid point of construction 2Q2016 | 10.32% | 526,769 | 35.59 |
| Estimating Contingency | 15.00% | 844,669 | 57.07 |
| Building Permit Fee | | Excluded | |
| Sub Total Cost | | 6,475,793 | 437.55 |
| Soft Cost | | 1,146,500 | 68.65 |
| Contingency (Hard and Soft Cost) | | 759,000 | 45.45 |
| Total Project Cost | | 8,381,293 | 551.66 |

Sudbury Town Hall Study : Demo & Rebuild for School Admin
Pro Forma Budget
Through Period Ending: November 20, 2013

| | | Pro Forma Budget |
|---------------------------------|-----------------|----------------------------|
| HARD COST | | |
| HazMat | | \$ - |
| Below | | |
| General Contractor | | 6,475,793 |
| GC \$ 437.55 per SF 14,800 SF | | 6,475,793 |
| Furniture, Fixtures & Equipment | | - |
| | | - |
| Hard Cost Subtotal | | \$ 6,475,793 |
| SOFT COST | | |
| Permits & Approvals | | 20,000 |
| Planning Board | | 5,000 |
| Zoning Board of Appeals | | 5,000 |
| Conservation Commission | | 5,000 |
| Other | | 5,000 |
| Architecture & Engineering | | 785,000 |
| Architect | | 648,000 |
| 10.0% | | |
| LEED | Included above | |
| Geotechnical Engineer | | 10,000 |
| Site Survey | | 5,000 |
| Cost Estimator | | 10,000 |
| Envelope Commissioning | | 30,000 |
| MEP Commissioning | | 30,000 |
| Constructability Review | | 15,000 |
| Reimbursables | 5% | 37,000 |
| Testing & Inspections | | 22,500 |
| Abatement Monitoring | 10% | 7,500 |
| Testing | | 15,000 |
| Project Management | | 254,000 |
| Project Manager | | |
| OPM | 2.5% | 182,000 |
| On-Site Representative | 12 6,000 /Month | 72,000 |
| Reimbursables | | |
| Moving | | 50,000 |
| Moving Expenses | | 50,000 |
| Marketing & Advertising | | 10,000 |
| Printing Bid Documents | | 10,000 |
| Legal | | 5,000 |
| Legal | | 5,000 |
| Other | | - |
| Soft Cost Subtotal | | \$ 1,146,500 |
| CONTINGENCY | | |
| Contingency | | 759,000 |
| Hard Cost Contingency | 10.0% | 646,000 |
| Soft Cost Contingency | 10.0% | 113,000 |
| Project Total | | \$ <u>8,381,293</u> |

Sudbury Town Hall Study : Demo & Rebuild for Town Offices Pro Forma Budget

Through Period Ending: November 20, 2013

| | Pro Forma Budget |
|---|------------------------|
| HARD COST | |
| HazMat Below | \$ - |
| General Contractor GC \$ 423.86 per SF 16,700 SF | 7,078,416 7,078,416 |
| Furniture, Fixtures & Equipment | - |
| Hard Cost Subtotal | \$ 7,078,416 |
| SOFT COST | |
| Permits & Approvals | 20,000 |
| Planning Board | 5,000 |
| Zoning Board of Appeals | 5,000 |
| Conservation Commission | 5,000 |
| Other | 5,000 |
| Architecture & Engineering | 848,000 |
| Architect | 708,000 |
| 10.0% | |
| LEED Included above | |
| Geotechnical Engineer | 10,000 |
| Site Survey | 5,000 |
| Cost Estimator | 10,000 |
| Envelope Commissioning | 30,000 |
| MEP Commissioning | 30,000 |
| Constructability Review | 15,000 |
| Reimbursables 5% | 40,000 |
| Testing & Inspections | 22,500 |
| Abatement Monitoring 10% | 7,500 |
| Testing | 15,000 |
| Project Management | 270,000 |
| Project Manager | |
| OPM 2.5% | 198,000 |
| On-Site Representative 12 6,000 /Month | 72,000 |
| Reimbursables | |
| Moving | 50,000 |
| Moving Expenses | 50,000 |
| Marketing & Advertising | 10,000 |
| Printing Bid Documents | 10,000 |
| Legal | 5,000 |
| Legal | 5,000 |
| Other | - |
| Soft Cost Subtotal | \$ 1,225,500 |
| CONTINGENCY | |
| Contingency | 827,000 |
| Hard Cost Contingency 10.0% | 706,000 |
| Soft Cost Contingency 10.0% | 121,000 |
| Project Total | \$ 9,130,916 |

5. PREVIOUS REPORTS

- a. Russo Barr Associates Roof Condition Survey. February 13, 2012
- b. Rondeau Construction Roof Analysis Report. November 20, 2006

[Note: this page deliberately left blank.]

Rondeau Construction, Inc

P. O. Box 522, Dracut, MA 01826
(978) 815-3777, FAX (603) 635-8080
EMAIL: Rondeauinc@aol.com

459
2684



Roof Analysis Report

Property Owner: Town of Sudbury

Property Name: Sudbury Town Hall

Property Address: 322 Concord Road, Sudbury, MA

Inspection Date: November 20, 2006

December 4, 2006

Sudbury Town Hall

Page 2 of 20

General Information:

Overview: Roof is in good condition, but requires service.
Inspector: Donald Rondeau
Total Sq. ft.: 9,690 sq. ft.
Roof Sections: A - Main (slate)
 B - Rear flat (tar and gravel)
 C - Rear entry (roll roofing)
 D - Side entry (copper)
 E - Handicap entrance (roll roofing)

Roof A Description:

Roof material: Slate
Slate size: 12" wide x 19" high
Exposure: 8 ½" to the weather
Slate type: Semi weathering grey/green
Sq. Ft.: 6,500
Deck type: wood
Roof ventilation: none
Gutters: copper lined with tar
Chimneys: Qty. 2 with copper flashing
Valleys: Qty. 4 blind cut
Ridge cap: 20 oz. copper (patina)
Accessories: Snow rails, snow clips, skylight, platform and soil pipes (5" cast w/ copper flashing)

Roof A Analysis:

Slates:

The existing slates are grey/green and quite soft, which shows signs of extreme wear. There are approximately 150 slates throughout the roof which require service.

Solution: Maintenance is recommended semi-annually.

Gutters:

The gutters are copper with steel hangers and have been coated with tar on several different occasions.

Solution: Re-coating is a short term solution. Replacement is recommended.

Chimney #1 (left side chimney):

Copper flashing is in good condition and only requires minor resealing and attachment. There are a few loose bricks on the top course that require resetting. There is some spot pointing that should be addressed. An inoperable antenna is present.

Roof A Analysis (cont'd):

Chimney #2 (airshaft):

This chimney has a 5 ½" concrete cap with a siren air horn (wires exposed), antenna's and pipe framing much of it inoperable. There are several areas with moss growth which indicates the chimney is absorbing water and should be sealed.

Valleys:

The valleys are blind cuts. This means that the slates are cut and butt against each other with aluminum slip flashing. The valleys are in good condition and only require minor repairs.

Ridge Cap:

The cap is 20 oz. patina copper and in overall good condition and requiring minor re-securing.

Soil Pipes:

Pipes are 5" cast with copper flashing and are in good condition.

Accessories:

Platform – This roof is rotted and requires replacing of decking and roofing

Snow Rails – The rails and hangers are in tact but rusted. The left side rail has three bent pipes which need to be straightened.

Solution – Repaint rails and hangers

Stack – There is a 10" round stack made of copper which appears to have been crunched by snow.

Solution - Replacement should be considered.

* ← **Snow Clip** – There are several snow clips throughout the roof which are rusted, flattened and missing.

Solution - Replacement of clips should be considered.

Skylight – The glass lens is cracked and copper worn.

Solution - Replacement should be considered.

Summary:

The slate roof is well secured, but the conditions of the slate would suggest that within 5-8 years a total replacement would be necessary. Immediate concerns would

be to repair the damaged slates throughout and service on the above mentioned items. Initial service would be extensive, but periodical visits thereafter would be minimal.

Roof B Description:

Roof material: Tar and gravel
Sq. Ft.: 1,459
Deck type: wood
Roof ventilation: none
Edging: Copper
Gutter: Aluminum
Equipment: 1 HVAC, 1 soil pipe
Age: 20+ yrs.

Roof B Analysis:

The existing flat roof is a second layer tar and gravel with aluminum gutters and copper edging. There is a large area of moss which seems to be caused by a nearby tree. The copper edge flashing is showing signs of severe wear. The wall flashing is improper and seams to have been serviced on several occasions.

Solution – The rear flat roof is due for replacement and should be considered a top priority. Any services done to this roof will not prolong the lifespan.

Roof C Description:

Roof material: Granulated roll roofing
Sq. Ft.: 140
Deck type: wood
Edging: Aluminum
Age: 2+/- yrs.

Roof C Analysis:

This roof is in excellent condition and is only a couple of years old.

Solution – No service required.

Roof D Description:

Roof material: Copper
Sq. Ft.: 45
Deck type: wood
Flashing: Copper into brick
Age: 20/- yrs.

Roof D Analysis:

This roof is a flat seam copper roof system with soldered joints. Seams appear to be in tact, however, there are several holes in the roof at the wall and wall flashing is missing.

Solution – New wall flashing should be installed and holes patched. Also suggesting coating copper to preserve.

Roof E Description:

Roof material: Granulated roll roofing
Sq. Ft.: 81.25
Deck type: wood
Edging: Galv. steel
Flashing: Aluminum anchor bar
Age: 8 – 10 yrs.

Roof E Analysis:

This roof is a flat roof with granulated roll roof with a 3” lap seam. There are exposed fasteners on perimeter edge. Window sits low to roof and wall flashing is low as well.

Solution – Expose fasteners should be sealed as well as any seams at the wall.

Additional Information:

There are two window enclosures at the attic level which are rotted and would require repair or replacement.

Please note that this Roof Analysis Report is for informational purposes only. If you have any questions, please refer them to Donald Rondeau at (978) 815-3777.

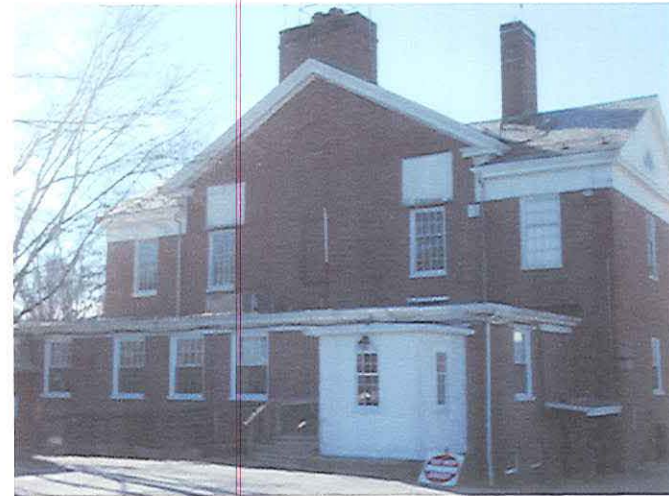
SUDBURY TOWN HALL

11/20/06

FRONT VEIW



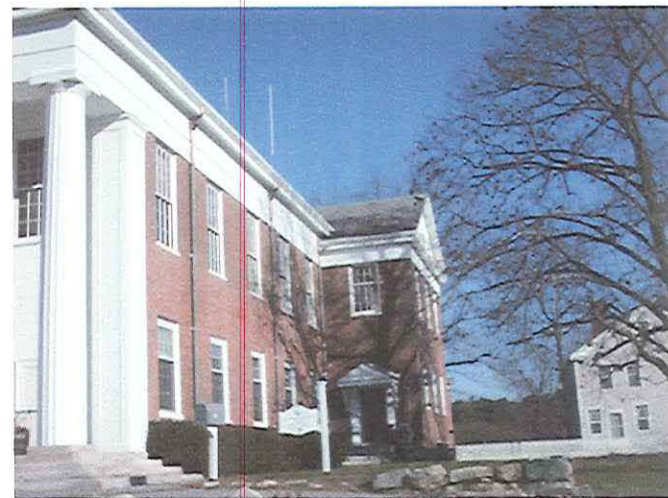
REAR VEIW



LEFT SIDE VEIW



RIGHT SIDE VEIW



SUDBURY TOWN HALL

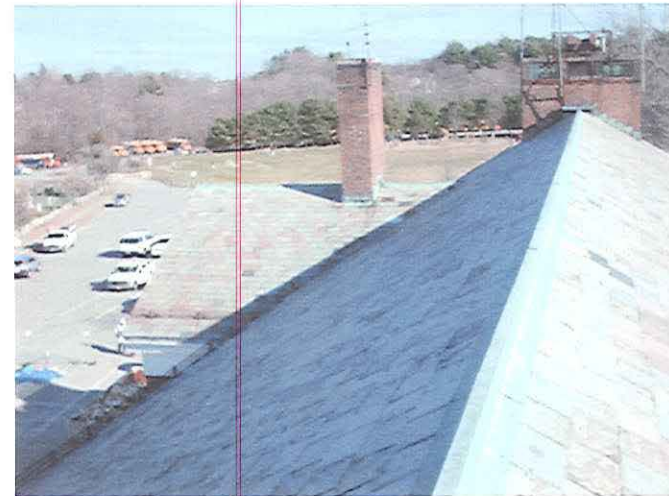
SLATE ROOF

11/20/06

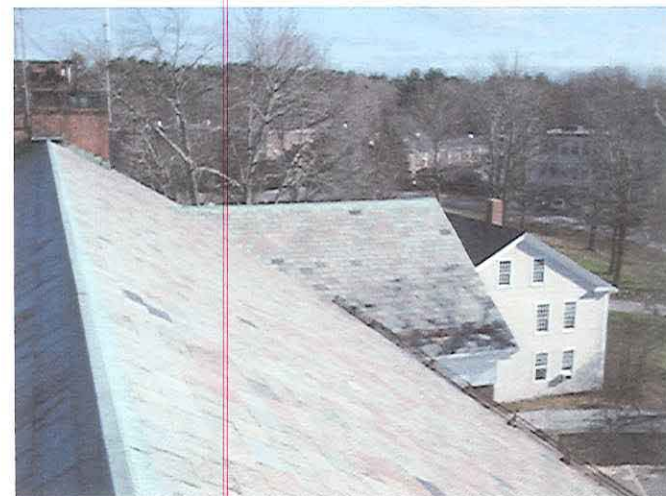
OVERVIEW LEFT SIDE, BACK TO FRONT



VIEW LEFT SIDE FRONT TO BACK



VIEW RIGHT SIDE FRONT TO BACK



SUDBURY TOWN HALL

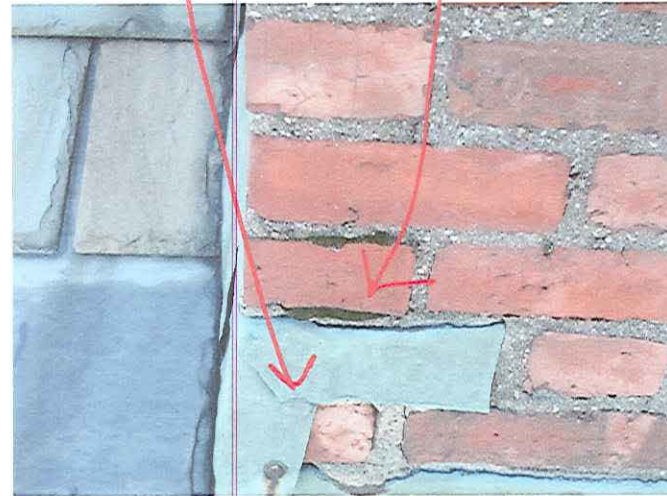
11/20/06

CHIMNEY'S

COPPER FLASHINGS @ LEFT SIDE CHIMNEY



COPPER FLASHING & MOSS, @
EQUIPMENT & AIR SHAFT CHIMNEY



COPPER FLASHING SEALED W/ TAR
LEFT SIDE CHIMNEY



11/20/06

SUDBURY TOWN HALL

SLATES

DAMAGED SLATE @ SNOW RAIL



CRACKED SLATE



DAMAGED SLATE



DAMAGED SLATES @ SNOW RAIL



SIZE: 12"W 19" H
SEMI WEATHERING
GREEN

11/20/06

SUDBURY TOWN HALL

SLATES

CRACKED SLATE



WORN SLATE, IMPROPER REPAIR



DAMAGED SLATES @ VALLEY



CRACKED SLATE

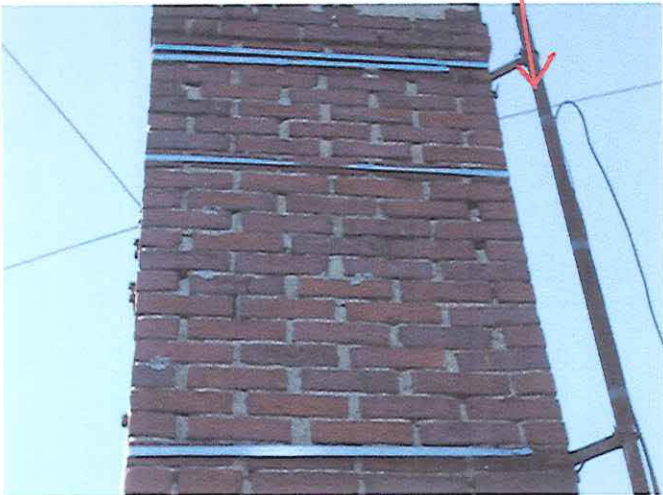
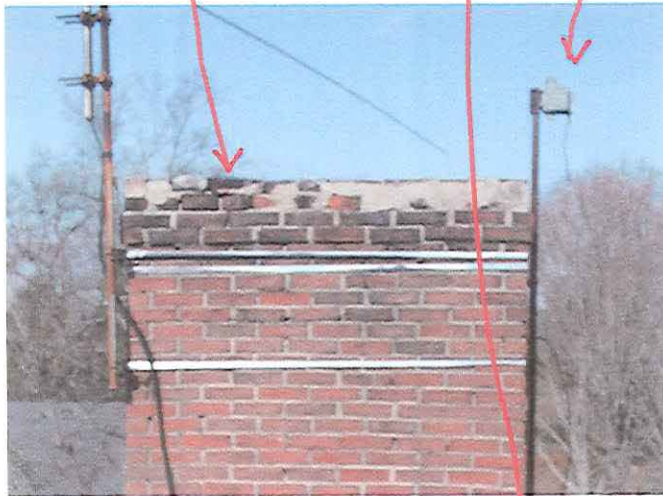


11/20/06

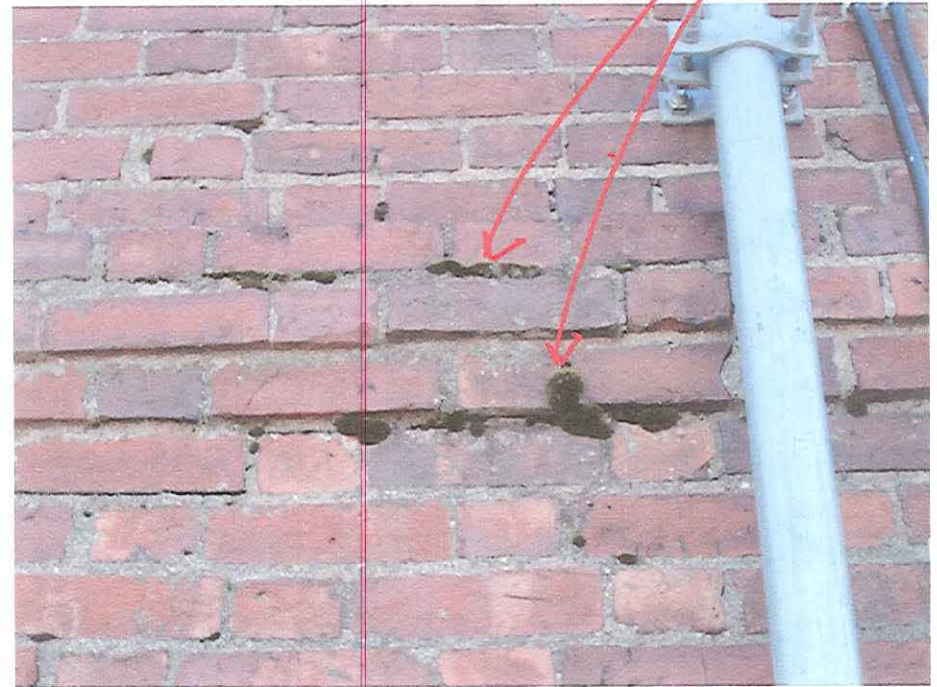
SUDBURY TOWN HALL

CHIMNEY'S

LOOSE BRICKS & OLD ANTENNA POLES
LEFT SIDE CHIMNEY



WATER PENETRATION CAUSING MOSS,
EQUIPMENT SHAFT CHIMNEY

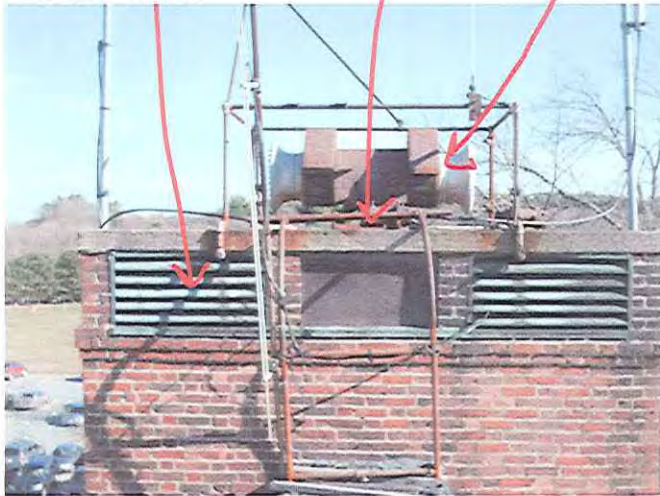


SUDBURY TOWN HALL

11/20/06

EQUIPMENT /AIR SHAFT CHIMNEY

VIEW OF CHIMNEY,FRAMING,EQUIPMENT
& AIR VENT



DISCONNECTED AIR PUMPS



SIREN HORN & PIPING ATOP
CHIMNEY



EXPOSED WIRES FOR SIREN



11/20/06

SUDBURY TOWN HALL

VALLIES

RIGHT REAR VALLEY



LEFT REAR VALLEY, SOIL PIPE



LEFT REAR VALLEY



LEFT FRONT VALLEY, ALUM. FLASH.



SUDBURY TOWN HALL

11/20/06

PLATFORM @ RIDGE NEAR
EQUIPMENT SHAFT



ROTTED DECKING & ROOF OF
PLATFORM @ RIGE



VEIW OF COPPER RIDGE VENT W/COMMON
ROOFING NAILS



11/20/06

SUDBURY TOWN HALL

VIEW OF LEFT REAR GUTTER; [COPPER]
LINED W/TAR, RUSTED STEEL HANGER



VIEW OF LEFT SIDE SNOW RAIL &
GUTTER



COPPER GUTER LINED W/ TAR

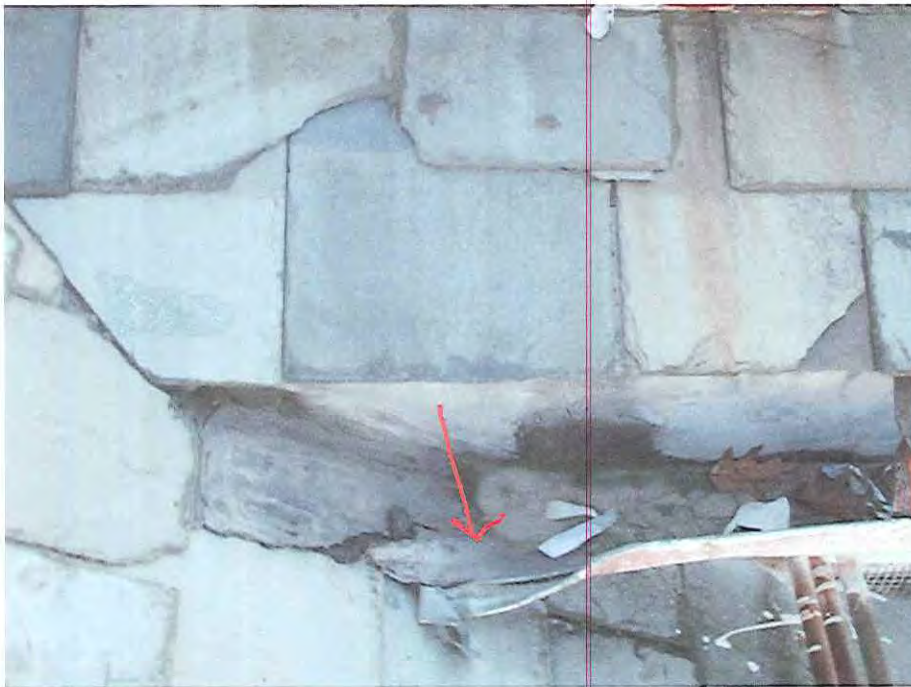


11/20/06

SUDBURY TOWN HALL

GUTTERS

LEFT SIDE;DAMAGED GUTTER @ BASE OF VALLEY RIGHT SIDE;DAMAGED GUTTER @ BASE OF VALLEY



11/20/06

SUDBURY TOWN HALL

SNOW RAILS

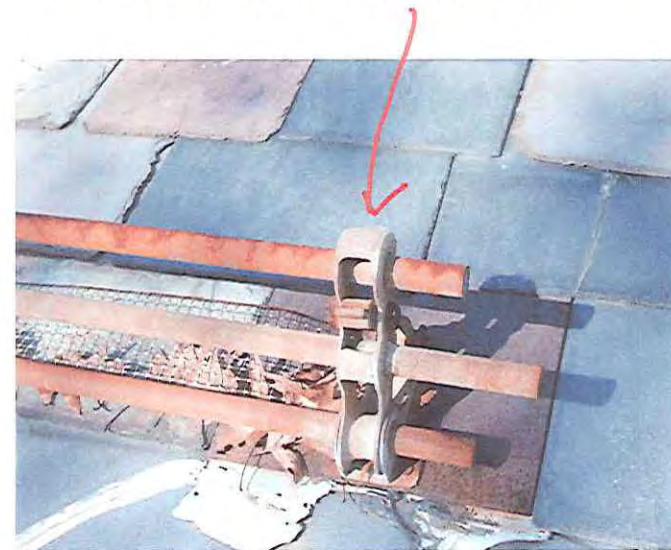
RIGHT SIDE SNOW RAIL



LEFT SIDE SNOW RAIL,
SEPERATION & DAMMAGED PIPE



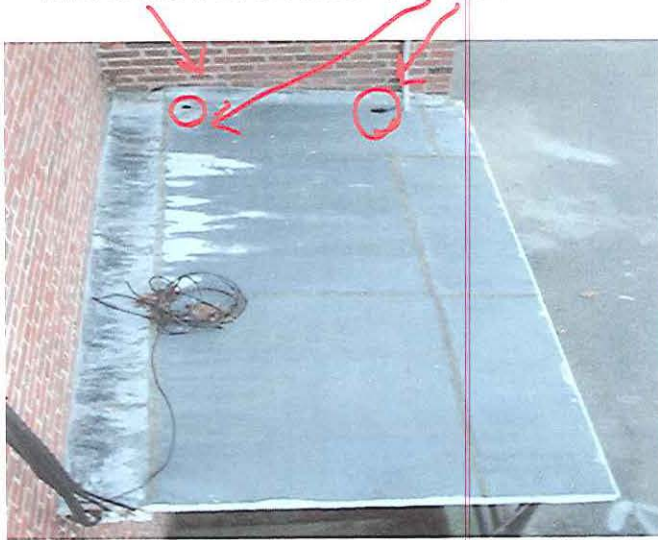
CLOSE UP OF RAIL SUPPORT



SUDBURY TOWN HALL

11/20/06

SIDE ENTRY COPPER ROOF,
MISSING FLASHING & HOLES



RUSTED SNOW CLIPS



10" STACK DAMAGED



SKYLIGHT; CRACKED LENSE, LOOSE
PENETRATIONS

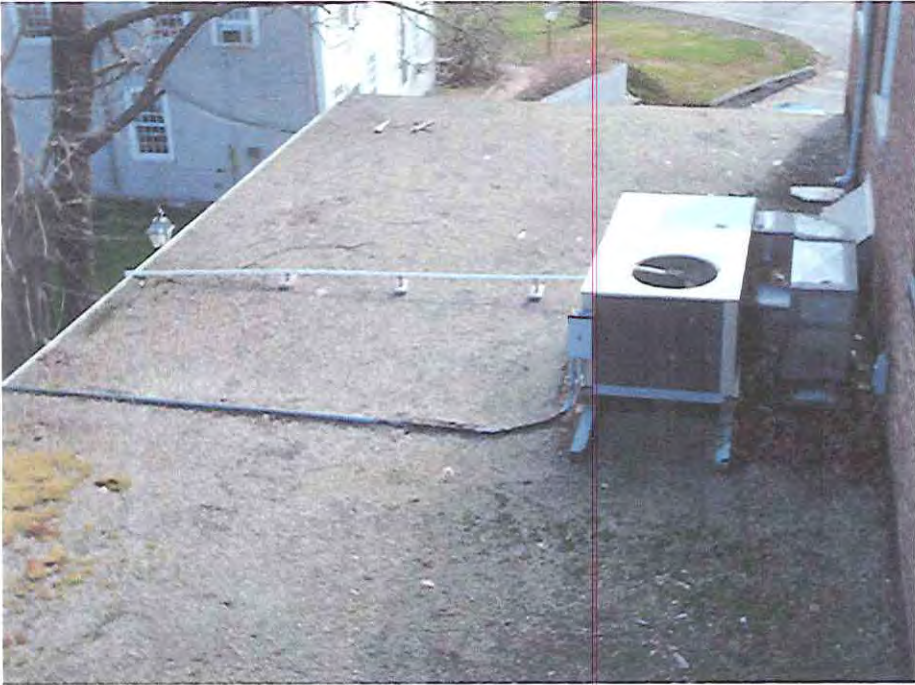


SUDBURY TOWN HALL

11/20/06

REAR FLAT ROOF

OVERVEIW OF FLAT [TAR & GRAVEL] ROOF



SUDBURY TOWN HALL

11/20/06

REAR FLAT ROOF

COPPER EDGE FLASHING WORN



HVAC UNIT W/NEW DUCT



COPPER FLASHED SOIL PIPE
W/ANTENNA POLE



THRU WALL VENT HOOD

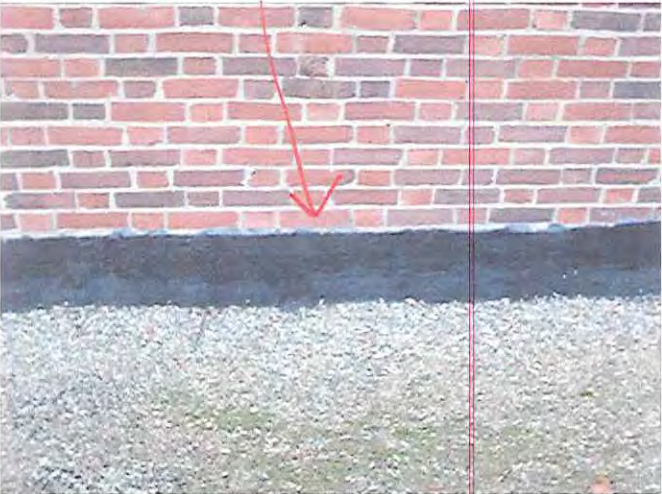


SUDBURY TOWN HALL

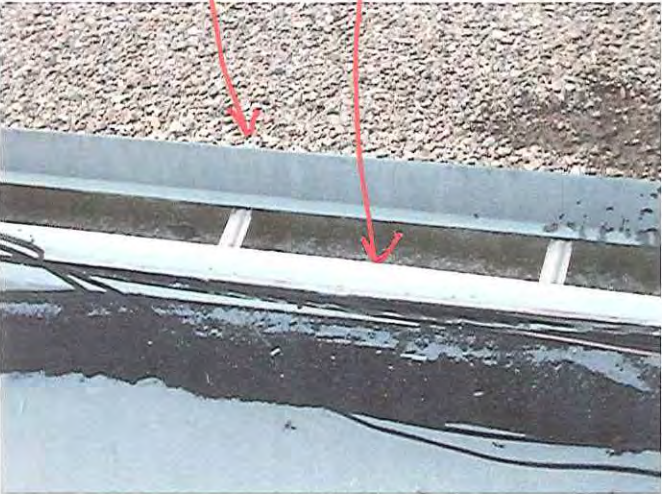
11/20/06

REAR FLAT ROOF

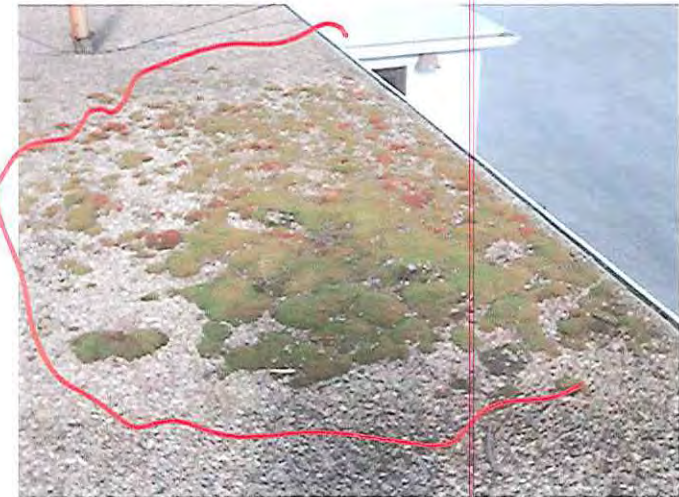
IMPROPER WALL FLASHING



EDGE FLASH & GUTTER @ REAR ENTRY



MOSS CAUSED BY NEARBY TREE



ROTTED SILL & WINDOW ENCLOSURE @ ATTIC



SUDBURY TOWN HALL

11/20/06

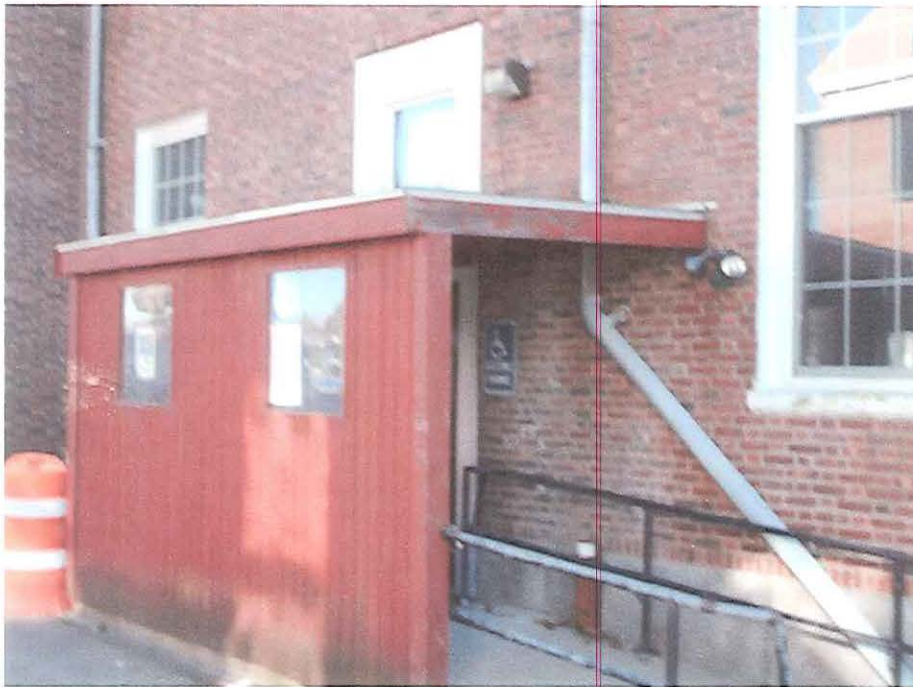
FASTENERS ON PERIMETER EDGE



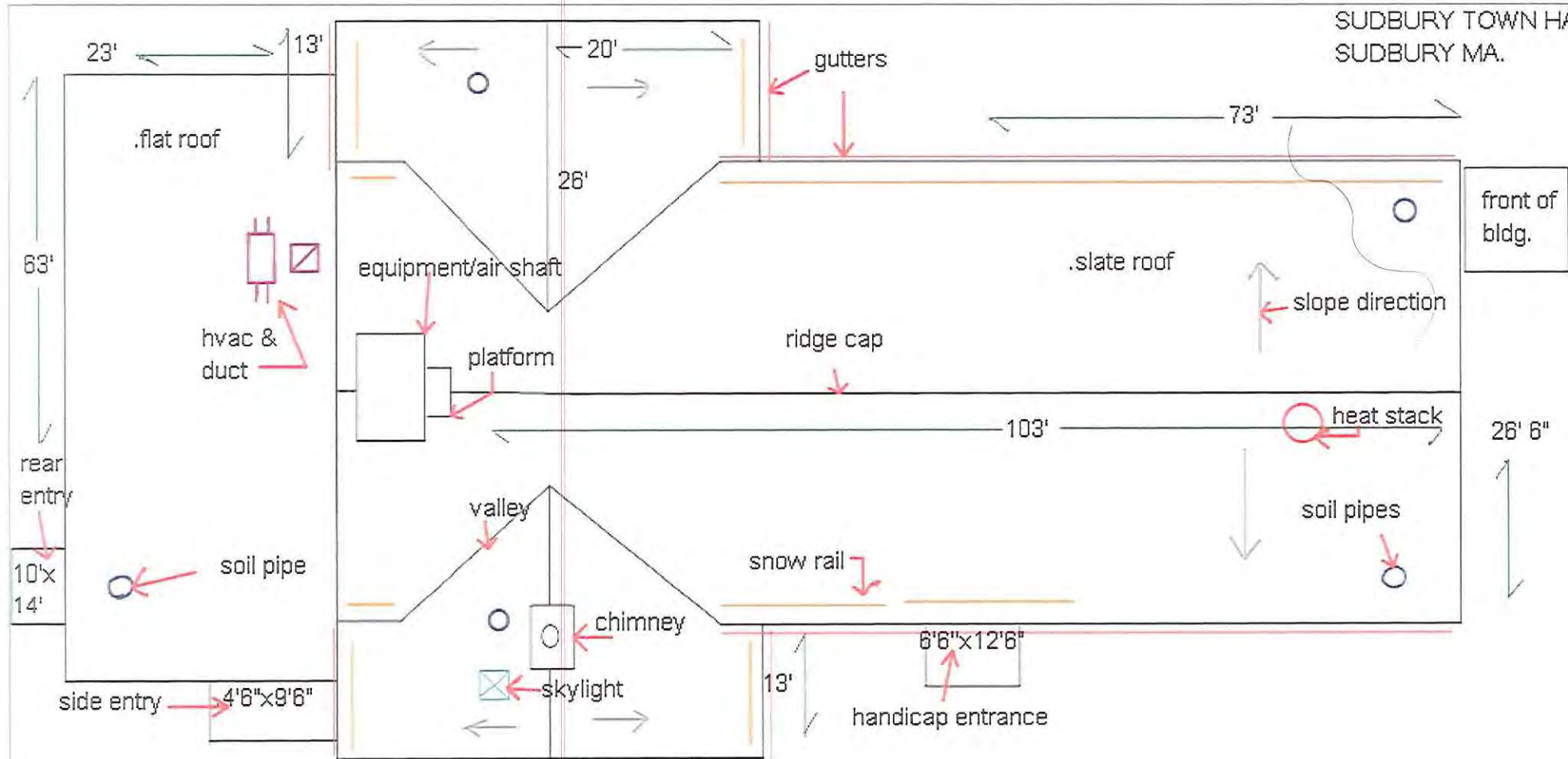
VIEW OF WALL FLASHINGS



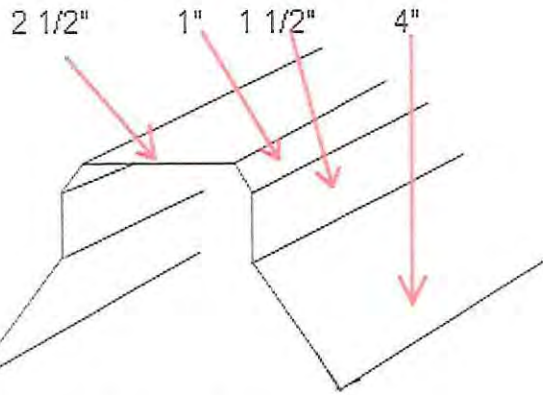
HANDICAP ENTRANCE LEFT SIDE



SUDBURY TOWN HALL
SUDBURY MA.

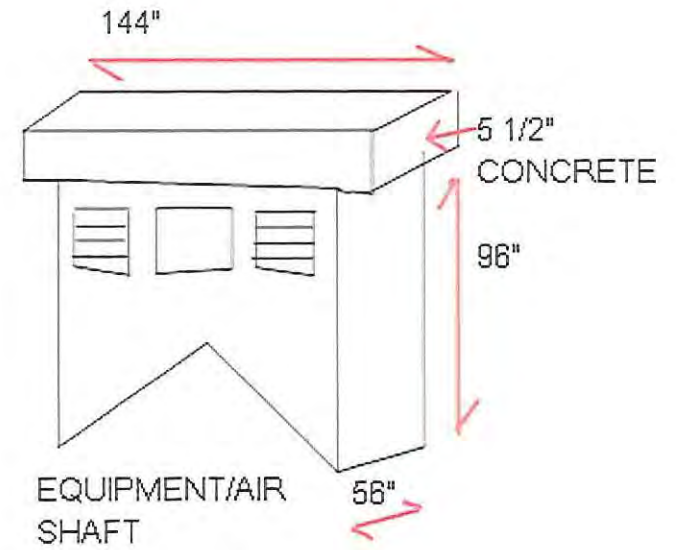
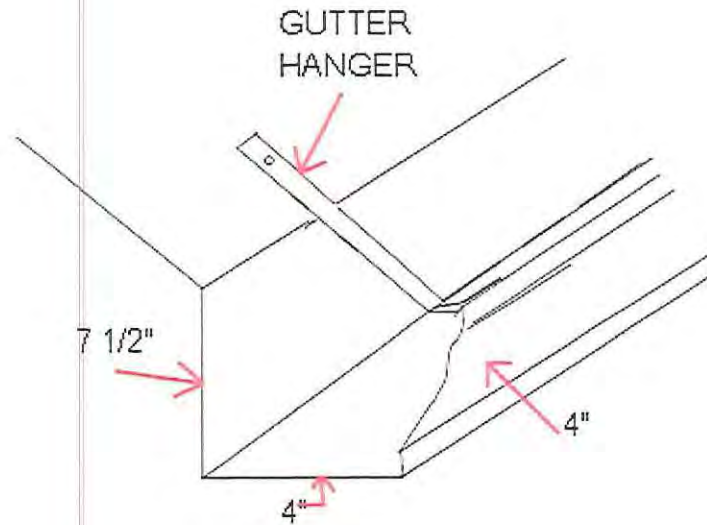


SUDBURY TOWN HALL
SUDBURY MA.



COPPER RIDGE CAP

COPPER GUTTER



EQUIPMENT/AIR
SHAFT

REPAIR/REPLACEMENT ESTIMATES

Roof A Repairs:

| | <u>Costs</u> | <u>Priority</u> |
|---|-------------------|-----------------|
| <i>SlateRoof:</i> | | |
| ➤ Replace approx. 150 slates throughout entire slate roof area. | \$2,655.00 | 2 |
| ➤ Re-coat gutters with a latex roof coating (during warmer weather) | \$1,725.00 | 8 |
| <i>Chimneys:</i> | | |
| ➤ Chimney #1; Re-secure chimney and top 2-3 rows to be reset in mortar with new cement cap and remainder to be spot pointed. | \$ 920.00 | 7 |
| ➤ Chimney #2; All inoperable equipment and framing will be removed. | | |
| ➤ Exposed wiring will be wrapped with electrical tape. | | |
| ➤ Copper flashings will be re-secured. | | |
| ➤ Mortar joints will be repaired and entire chimney to be sealed. | | |
| ➤ Valleys and ridge caps to be repaired. | \$1,225.00 | 4 |
| <i>Accessories:</i> | | |
| ➤ Platform; Rotted decking and trim will be removed and replaced with new decking and trim. Decking trimmed with 20 oz. copper. | \$ 885.00 | 1 |
| ➤ Snow Rails; Rails will be straightened and painted. Hangers painted. | \$ 775.00 | 13 |
| ➤ Stack; Replacement of stack and sealed. | \$ 240.00 | 11 |
| ➤ Snow Clips; Replacement of snow clips with new copper snow clips. | \$4,125.00 | 14 |
| ➤ Skylight; (Option A) Existing skylight will be rebuilt with new tempered glass and 20 oz. copper. | \$1,125.00 | 9 |
| (Option B) Replace skylight with newer style Velux skylight. | \$965.00 | |

Roof A Replacement:

Option A:

- Replace roof with new slate and accessories to match existing.
 - Included with roof; gutters, snow rails, chimney flashing and ridge caps.
- Total cost of labor and materials \$ 145,500.00**

Option B:

- Remove roof with a Slate Line style shingle.
 - Included with roof; gutters, snow rails, chimney flashing and ridge caps.
- Total cost of labor and materials \$ 76,000.00**



Photo No. 01
Location: Sudbury
Town Hall
Description: Aerial
View of Roof.



Photo No. 02
Location: Sudbury
Town Hall
Description:
Overview of slate
roof.

REPAIR/REPLACEMENT ESTIMATES-Cont'd

| <u>Roof B Repairs:</u> | <u>Costs</u> | <u>Priority</u> |
|--|--------------------|-----------------|
| ➤ Perimeter edges and wall flashings will be resealed. | \$1,680.00 | 5 |
| <u>Roof B Replacement (strongly recommended):</u> | | |
| ➤ Remove existing tar and gravel roof and replace with new .060 EPDM rubber roof system. | \$11,875.00 | |
| <u>Roof D Repairs:</u> | | |
| ➤ Install new wall flashing and patch hole. | \$ 395.00 | 3 |
| ➤ Coat roof with a latex roof coating. (warmer weather) | \$ 475.00 | 12 |
| <u>Roof D Replacement:</u> | | |
| ➤ Remove existing flat seam roof and replace with standing seam 20 oz. copper roof system. | \$2,425.00 | |
| <u>Roof E Repairs:</u> | | |
| ➤ Exposed fasters and seam at walls will be re-sealed | \$ 345.00 | 10 |
| ➤ Windows; repaired rotted wood and repaint window enclosures | \$ 615.00 | 6 |
| <u>Roof E Replacement (not necessary):</u> | | |
| ➤ Recover existing roof with new .060 EPDM rubber roof system. | \$1,225.00 | |

Note: Pricing is base on prevailing wages

ROOF CONDITION SURVEY

For
Town of Sudbury

**Town Hall
322 Concord Road
Sudbury, Massachusetts**

February 3, 2012

RBA Project No. 201056.00

Prepared by:



**33 Center Street, 2nd Floor
Burlington, MA
tel: 781-273-1537
fax: 781-273-1695**

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EXECUTIVE SUMMARY

Town Hall Roof
322 Concord Road
Sudbury, Massachusetts

General Roof Description

The roof area of the entire building is approximately 7,555 square feet (SF).

- One steep-sloped roof area contains approximately 6,000 SF of slate roofing, labeled Roof Area No. 1 on the roof plan.
- One low-sloped roof area contains approximately 1,375 SF of EPDM roofing, labeled Roof No. 2 on the roof plan.
- Two steep-sloped roof area contains approximately 110 SF of roll roofing, labeled Roof Area Nos. 3 & 5 on the roof plan.
- One steep-sloped roof area contains approximately 50 SF of copper roofing, labeled Roof Area No. 4 on the roof plan.
- One steep-sloped roof area contains approximately 20 SF of shingle roofing, labeled Roof Area No. 6 on the roof plan.

Roof Observations/Issues

The slate roofing system that exists on Roof No. 1 is estimated to be approximately 80-years old. Leakage is reported to occur at the skylight/hatch assembly (tarp collection system is in place). The slate shingles are in good to fair condition. Over the years random slates have been replaced. Many cracked/broken slates were observed. Water staining on the underside of the wood decking was observed. The copper sheetmetal has been resecured with fasteners that are now rusted. Deteriorated masonry was observed at the chimney. Gutter repairs with roofing cement were observed in the copper gutters.

The EPDM roofing system that exists on Roof No. 2 reportedly was installed in 2008 and appears in good condition. No warranties are currently in place.

The roofing systems on the remaining roof areas (Roof Nos. 3-6 at approx. 180 SF) are in good condition.

Corrective Recommendations

The recommended work Estimated Construction Costs are broken down as follows. Reference is made to the "Recommended Roof Repair and Replacement Spreadsheet" located in the in the Master Executive Summary Report, for the recommended work year Estimated Construction Costs.

1. In an effort to extend the useful service life of the 80-year old slate roofing system (Roof No. 1) the recommendation is to implement preventive maintenance repairs in years **2011, 2015, and 2019**. Recommended repairs include removing skylight/hatch assembly and roofing over, replacing cracked/broken slate, flashing repairs, masonry repairs to the chimney, gutter repairs/replacement as necessary.
2. No corrective repairs are recommended at this time for the EPDM roofing, roll roofing, copper roofing, and shingle roofing.

I. IDENTIFICATION

Subject: Town Hall Roof

Location: 322 Concord Road
Sudbury, Massachusetts

Observation Date: Inspected during the month of August 2010

Site Contact: James F. Kelly, Building Inspector
978-443-2209 ext 1361

Client: Town of Sudbury, Massachusetts

Reliance: This report is for exclusive use and may be relied upon by the Town of Sudbury, MA. No parties or persons other than those identified as authorized users may use or rely on the information or opinions in this report without the express written consent of Russo Barr Associates, Inc.

II. OBJECTIVE

Objective

This report has been prepared according to the accepted proposal between the Town of Sudbury, MA (Client) and Russo Barr Associates, Inc. (RBA).

The purpose of this report is to provide a description of roof conditions, consisting of the roof surfacing with associated flashing and roof drainage systems, and an evaluation of their general physical condition for the Town of Sudbury, MA. This report includes a schematic roof plan and photo documentation of existing conditions and observed deficiencies.

This report is based on observations made during a walk-through visual survey of the roof areas and accessible interior areas, readily available documents pertaining to roof conditions, information provided by interested parties, and interviews. Roof test cuts and an infrared moisture survey were not performed.

The report identifies physical deficiencies and for each, provides a corrective recommendation action and a corresponding estimate of probable construction cost. Any estimates of construction cost prepared by RBA are intended as an aid in budgeting. They are not quotations, or proposals to do the work for that price, and their accuracy is not guaranteed.

Interviews

James F. Kelley, Building Inspector
Art Richards, Electrical Inspector

Readily Available Documents

Roof plans were available for review.

III. DESCRIPTION

The subject of this report is the roof condition the Town Hall located in Sudbury, Massachusetts. The Town Hall contains slate, EPDM, shingle, copper and roll roofing systems. The roof area of the entire building is approximately 7,557 square feet (SF). There exist various typical penetrations throughout the roof area such as vent pipes, skylight, rooftop unit, skylight/roof hatch assembly, and chimneys.

Roofing System Details

| Identification | Area (SF) | Roofing System Type | Estimated Age | Condition |
|-----------------------------------|-----------|--|---------------|--------------|
| Roof Area No. 1 (Elev. 38' ±) | 6,000 | Slate with wood roof decking. Roof is sloped (approx. 9:12 pitch). Roof drains via gutters and downspouts. | 80+ years | Good to Fair |
| Roof Area No. 2 (Elev. 15' ±) | 1,375 | Adhered EPDM. Roof is low-sloped. | 2 years | Good |
| Roof Area Nos. 3 (Elev. 13' ±) | 80 | Roll roofing. Roof drains via gutters and downspouts | unknown | Good |
| Roof Area No. 4 (Elev. 7' ±) | 50 | Copper. Roof drains via free flow onto the ground. | unknown | Good |
| Roof Area No. 6 (Elev. 10' ±) | 20 | 3-tab Shingles with wood roof decking. Roof is sloped. Roof drains via free flow onto the ground. | unknown | Good |

IV. MAINTENANCE & WARRANTY INFORMATION

Roof Warranty:

No warranties are currently in place.

History of Repairs:

Not Known.

History of Roof Studies/Inspections:

There have been no previous roof studies performed.



Photo No. 01

Location: Sudbury
Town Hall

Description: Aerial
View of Roof.



Photo No. 02

Location: Sudbury
Town Hall

Description:
Overview of slate
roof.



Photo No. 03

Location: Sudbury Town Hall

Description: Overview of low slope roof. EPDM roof is in good condition.



Photo No. 04

Location: Sudbury Town Hall

Description: Slate roofing is aged but apparently intact.



Photo No. 05

Location: Sudbury Town Hall

Description: Copper ridge cap has been fastened with steel roofing nails rusting in corrosion of the steel fasteners.

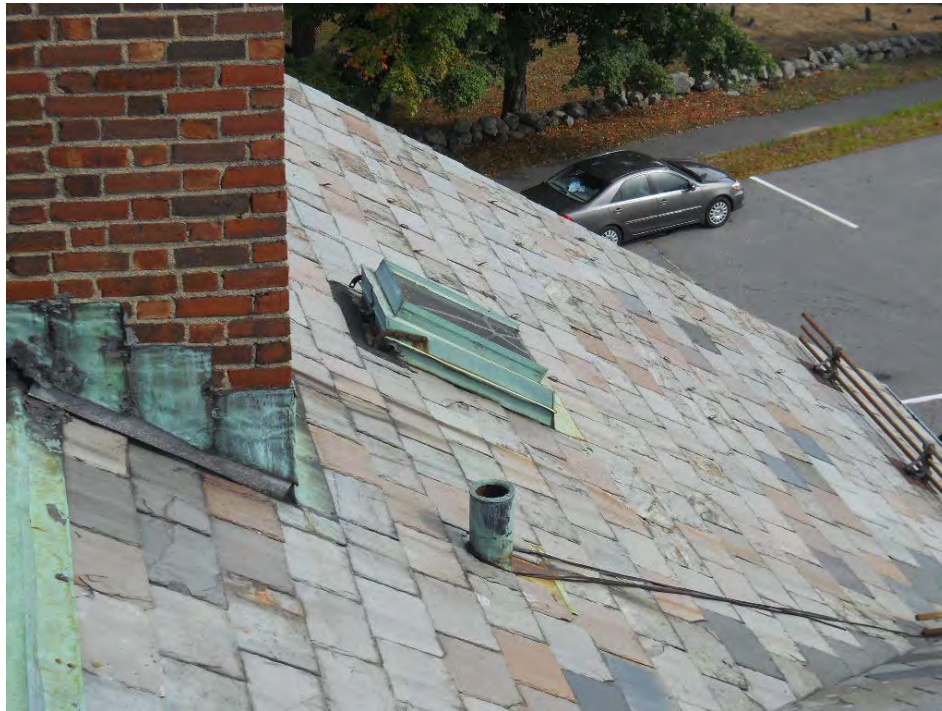


Photo No. 06

Location: Sudbury Town Hall

Description: Aged skylight/access hatch is the apparent source of leaks.



Photo No. 07

Location: Sudbury
Town Hall

Description: Blue
tarps installed
below the skylight
shown above direct
water to trash
barrels.



Photo No. 08

Location: Sudbury
Town Hall

Description:
Masonry chimney
requires repairs.



Photo No. 09

Location: Sudbury
Town Hall

Description: Roll
roofing is worn.



Photo No. 10

Location: DPW
Highway Office &
Garage

Description:
Soldered flat seam
copper roofing is in
fair condition.

