



# Liberty Street School

Reuse and Rehabilitation Feasibility Report

Community Partner: Town of Warren, RI Fall 2012



# The Roger Williams University Community Partnerships Center

The Roger Williams University (RWU)
Community Partnerships Center (CPC)
provides project-based assistance to non-profit
organizations, government agencies and low- and
moderate-income communities in Rhode Island
and southeastern Massachusetts. Our mission
is to undertake and complete projects that will
benefit the local community while providing
RWU students with experience in real-world
projects that deepen their academic experiences.

CPC projects draw upon the skills and experience of students and faculty from RWU programs in areas such as:

- Architecture and Urban Design
- Historic Preservation
- Law
- Justice Studies
- Business
- Education
- Engineering and Construction Management
- Environmental Science and Sustainability
- Community Development
- Visual Arts and Digital Media
- Marketing and Communications
- Graphic Design
- Political Science
- Psychology
- History
- American Studies
- Finance
- Public Administration
- Public Relations
- Writing Studies
- Sustainable Studies

Community partnerships broaden and deepen the academic experiences of RWU students by allowing them to work on real-world projects, through curriculum-based and service-learning opportunities collaborating with non-profit and community leaders as they seek to achieve their missions. The services provided by the CPC would normally not be available to these organizations due to their cost and/or diverse needs.

CPC Project Disclaimer: The reader shall understand the following in regards to this project report:

- 1. The Project is being undertaken in the public interest;
- 2. The deliverables generated hereunder are intended to provide conceptual information only to assist design and planning and such are not intended, nor should they be used, for construction or other project implementation. Furthermore, professional and/or other services may be needed to ultimately implement the desired goals of the public in ownership of the project served.
- 3. The parties understand, agree and acknowledge that the deliverables being provided hereunder are being performed by students who are not licensed and/or otherwise certified as professionals. Neither RWU nor the CPC makes any warranties or guarantees expressed or implied, regarding the deliverables provided pursuant to this Agreement and the quality thereof, and

Sponsor should not rely on the assistance as constituting professional advice. RWU, the CPC, the faculty mentor, and the students involved are not covered by professional liability insurance.

4. Neither RWU, the CPC, the faculty mentor, nor the students involved assume responsibility or liability for the deliverables provided hereunder or for any subsequent use by sponsor or other party and Sponsor agrees to indemnify and hold harmless RWU, the Center, the Faculty Mentor, and the Center's student against any and all claims arising out of Sponsor's utilization, sale, or transfer of deliverables provided under this Agreement.

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# Acknowledgments

Throughout the period of work on the project (September 2012 to December 2012), there are numerous individuals that have helped to make the completion of this report possible. The team would like to thank the following people:

- Arnold Robinson, Professor, Roger Williams University
- Caroline Wells, Department of Planning & Community Development, Warren, RI
- Jorge Saenz, Community Partnership Center Work-Study Student
- John Chaney, Massasoit Historical Association
- Philip Marshall, Professor, Roger Williams University
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- Roberta Randall, State of Rhode Island Historical Preservation & Heritage Commission
- George Simmons, Department Machinery Manager, Bristol-Warren Regional School District
- The staff of the George Hail Library, Warren, RI

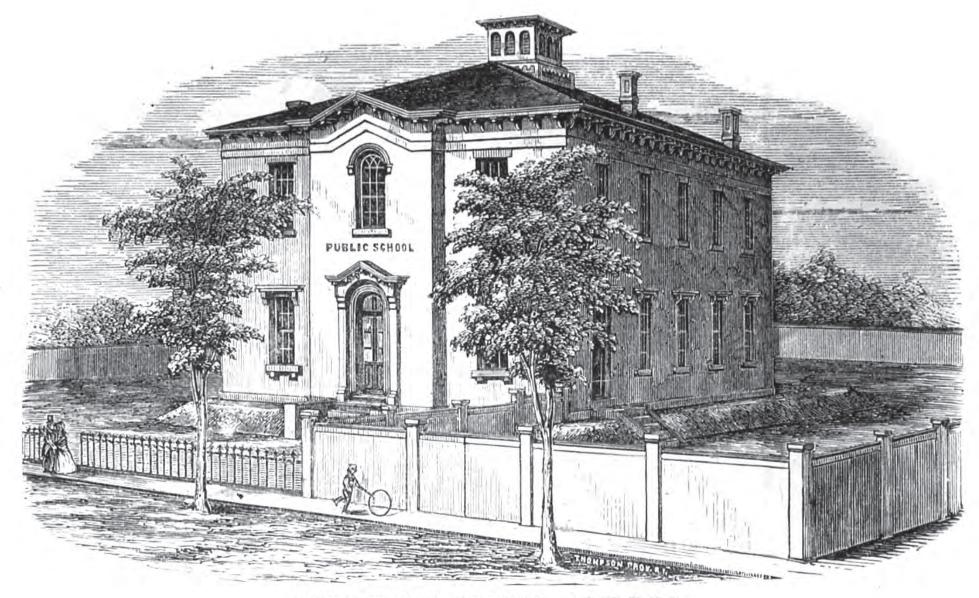
#### **Student Team**

• Eric Deitz, Matt Spears and Nedith Wikina



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WANTED HIGH SOMEOF.



## Introduction

The work for the Liberty Street School project began by meeting with Warren (Rhode Island) Town Planner, Caroline Wells. At the meeting, we discussed the building and the site, as well as the potential uses that she, as well as the Town of Warren, would like to see in the building. Ms. Wells made it clear that the Town of Warren had no set use in mind, but were looking for a new, mixed use program for the rehabilitated school, which has been empty since 2007.

The building is located at 10 Liberty Street, Warren, Rhode Island 02885.

The first site visit took place on September 24, 2012. During this site visit, the team took photographs and notes of the existing conditions of the site, exterior, and interior of the building. Photographs range from elevations to details for both the exterior and the interior. This site visit allowed the team to look at the current wall, floor, and ceiling finishes, understand and interpret the floor plan, and look at the current conditions of the site, exterior, and interior of the building.

After the initial site visit, the team visited the building numerous other times to measure the exterior of the building, to measure the interior of the building (first and second floor only), and to take additional exterior and interior photographs.

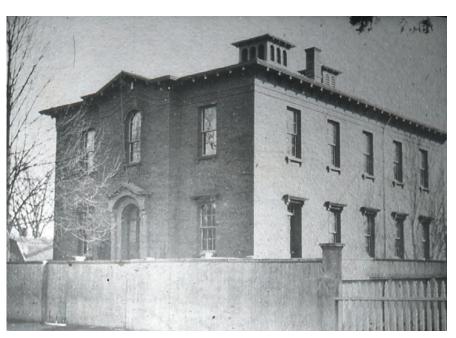
It should be noted that no floor plans of the building were discovered during historic research and after consultation with the Town of Warren, it was determined that the first and second floors would be measured. The floor plans that are located at the end of this assessment were generated by project team member Matt Spears, a student in Professor Arnold Robinson's Historic Rehabilitation Workshop.

\*All photos taken by Eric Deitz or Matt Spears, if not otherwise noted.













# Methodology

The team's work on the Liberty Street School was organized around a sequence of course assignments that approximated the standard approach used by design and preservation professionals planning for the rehabilitation of an historic structure. Under the guidance of course instructor Arnold Robinson, the student team of Eric Deitz, Matt Spears and Nedith Wikina completed the full assessment and rehabilitation plan. Specific steps included:

Site Investigation and Existing Conditions **Documentation:** Members of the team visited the site on several occasions to sketch and measure the floor plans and elevations and to thoroughly document the interior and exterior conditions in digital photographs and notes. The results of the investigation and the visible conditions of the site were used to create scaled floor plans and elevations in Auto-CAD. An existing conditions report was then completed.

**Historical Research:** Some team members were assigned the task of researching the history of the structure through available public records, primarily at the Massasoit Historical Association and the Warren Town Hall. The results of this research informed the rehabilitation design. A statement of significance and an architectural description were then completed.

**Program Development:** The Town of Warren participated in site visits and discussion about the future use of the building. For the purposes of the project, the rehabilitation plan accommodates a reuse of the building as offices and a bed and breakfast facility.

Rehabilitation Plan: Based on the observed conditions and the results of the historical research, the team identified the characterdefining features of the building, applicable regulations such as the RI Historical Preservation and Heritage Commission and building/fire codes. Then the team created a prioritized list of the rehabilitation work items and formulated the overall scope of work that would result in a rehabilitated Liberty Street School. The project included the entire exterior and the basement, first and second floors of the interior of the building, as well as the surrounding parking and grounds. The final version of the plan was edited by CPC Director Arnold Robinson.

Key elements of the Rehabilitation Plan include:

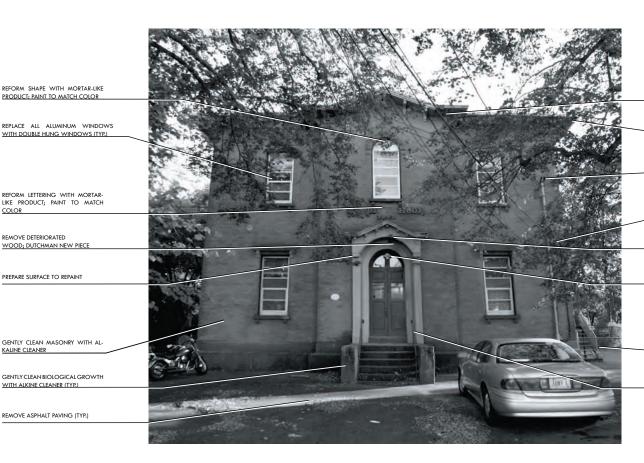
REMOVE DETERIORATED

WOOD; DUTCHMAN NEW PIECE

WITH ALKINE CLEANER (TYP.

REMOVE ASPHALT PAVING (TYP.)

- Written description of all rehabilitation work items, organized using the Construction Specifications Institute's (CSI) MasterFormat system,
- Final rehabilitation drawings with annotations for rehabilitation work items,
- Specifications for the most important rehabilitation work items, formatted in accordance with the CSI MasterFormat protocols,
- Draft application for Federal Historic Preservation Tax Credit,
- Final Rehabilitation Plan document.



REATTACH ALUMINUM GUTTER

REMOVE EXTERIOR LIGHTING

PREPARE SURFACE TO REPAIN

REMOVE CHAINLINK FENCE

REPLACE METAL RAILING TO



# History and Significance: Architectural Description

The Liberty Street School is a symmetrical, two-story, low-pitched hip roof, pressed-brick building. The building is three bays wide and twelve irregular bays deep with a brownstone foundation. The principal round-arch-doorway is framed by pilasters and a bracketed raking cornice within the facade's central projecting end gable roof pavilion. There was an addition to the south elevation (ca. 1910). Most of windows on the north, east, and west elevations have bracketed brownstone window sills, with a majority of the first floor windows on these elevations also having sandstone or wood window hoods. There are two projecting brick courses above the second floor windows that wrap most of the building. The entry stairs are made of either brownstone or concrete. There are aluminum windows in all window openings. There is a brownstone inscription of "Public School. 1847." above the north elevation door. There are two metal fire escapes attached to the north end of the east and west elevations. There is a cupola located approximately in the center of the original roof structure.

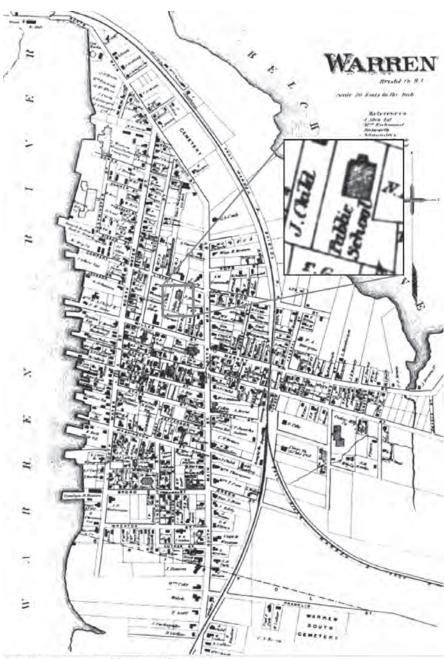
The basement is currently subdivided into multiple rooms with approximately eight-foot ceilings. The interior of the building (north section) includes drop ceilings in the two classrooms on both the first and second floors, with the ceilings of the first floor being about 13 feet and the second floor being about 14 feet tall. The drop ceilings cover decorative tin ceilings

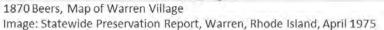
on the first floor. There are decorative metal heating registers found throughout the first and second floors. There is a double-sided staircase that leads to the second floor. The south section of the building has two rooms on both the first and second floors. From the main staircase there is a set of stairs that lead to the third floor area, formerly a book storage room, which also gives access to the attic.

The building is built in the Italianate style and appears to fit into the vernacular architectural design. There are elements, such as the cupola and the scale of the building, as well as the sandstone window hoods and the brownstone window sills, which might indicate the building to be "highstyle" architecture. The other Italianate details on the building are the bracketed soffit, door surround, and use of brownstone. There is not an excessive amount of Italianate details, as well as the excessive use of brick and not stone, which makes it seem like the building is more vernacular than "high-style."

In regards to the integrity of the building, the structure is relatively unchanged since the last major alterations, which took place in 1927. The significant impact to the integrity of the building is the change of the windows to the current aluminum windows.

This significantly alters the historic character of the building.













### Historical Timeline

Study recommended building high school

#### 1846

Second study to investigate ways to build another school in the West District

#### 1847

April 27: town meeting voted to approve \$10,000 to acquire land and build a new school house; construction begins later on in 1847

#### 1848

September 11; dedicated

Appears on Walling Map of Warren Village

New teachers hired due to large amount of students

#### 1862

Appears on Walling Map of Warren

Students from surrounding towns (including Massachusetts towns) sent students to Liberty Street School (prior to 1867 as well)

Appears on Beers Map of Warren Village (Map Plate A)

#### 1871

New furnace

New fence on west side of property

#### 1892

Appears on Sanborn map, sheet 4

Appears on Everts & Richards map of Warren

Extensive repairs "from roof to cellar"; original roof was reshingled (1896)

#### 1898

Appears on Sanborn map, sheet 4

#### 1903

Appears on Sanborn map, sheet 5

#### Ca. 1910

Addition put on south side of building

#### 1911

Appears on Sanborn map, sheet 6

#### 1916

Alterations (during summer) including: laboratory facilities added and the commercial department given more space; removing partitions; first floor separated into floor classrooms; second floor changed into a school hall; converted strictly to a high school; south Main Street Grammar School opens: lower grades move to new school; Liberty Street School dedicated to just high school

Appears on Sanborn map, sheet 6

#### 1925

Basement renovated to accommodate a cafeteria

#### 1927

Extensively remodeled to elementary school after a new high school was built; May 31st: work contracted out to general contractor, electrical contractor, heating contractor, and plumbing contractor; the building now was turned into a six-room building with a principal's office, teachers' lounge, and an office for the nurse; the building also obtained electricity and plumbing

#### 1930s

Roof reshingled; new skylight; exterior painted; glass reset

#### 1931

Appears on Sanborn map, sheet 6

Plumbing repair; doors and fire escape repair

#### 1942

Boiler installed

#### 1944

Hot water added; ceiling in two rooms replaced after the roof leaked during a hurricane

#### 1946

Fences repaired and a room was painted (addition of kindergarten to the school)

#### 1954

Fences replaced



#### 1957

Extensive repairs

#### 1966

Major interior reconstruction

June 25: building removed from education service; changed use: Self Help program

#### Ca. 1998

The building was used as a day care center

#### Ca. 2007

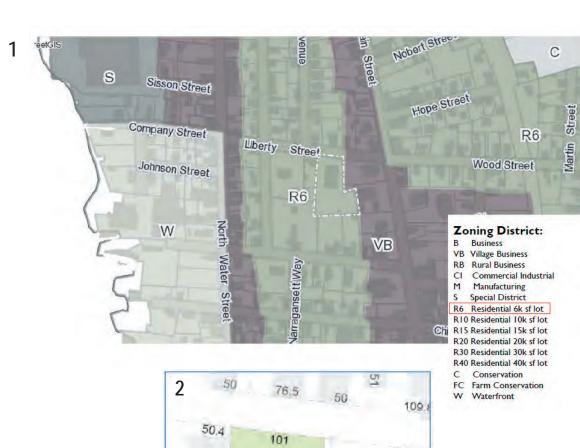
New hot water heater and new furnace installed



# **Existing Conditions**

### **Site Conditions**

The Liberty Street School is located within the R-6 Residential district and is part of the Warren Historic Waterfront District. (1) Found right off of Main Street or Rt. 114, Liberty Street is in a dense yet small scale residential neighborhood. The site is a 27,000 sq. ft. property surrounded by trees with 30' front and rear setbacks and 20' side setbacks. (2) The positioning of the building on the site only allows for a buildable area on the south side which is currently a completely open space. (3 and 4) The lot is fully paved with asphalt up to the building except for a portion on the southeast corner of the site, and a small section adjacent to the south elevation of the building. The amount and use of asphalt is resulting in water damage to the building, such as biological growth on the exterior and water penetration into basement. The asphalt itself is also in bad condition with many cracks and weeds growing through. Chain-link fences divide up the site and restrict vehicular movement, but are in poor condition and detract from the building's historical character. Currently the front of the lot is used by residents of Liberty Street for parking, while the back of the lot is left unused – a shame given the ample amount of southern exposure it receives. The site shows great opportunities for a quiet yet active public use that could revitalize the disused property into a commemorative place to Warren's history.







45.60

61.5



### Site

Nearly the entire site is covered with layers of asphalt that have been built up over time. The asphalt is in good to fair condition, with areas of cracking and missing patches (Photo 1). The asphalt is pushed up to the foundation of the building, allowing little room for water to travel away from the building (this has led to water damage in the basement) (Photo 2). The water also has difficultly seeping into the ground because of the non-porous asphalt that covers most of the site.

There are two trees that are located along the street on the site, which block a direct and clear view of the north elevation. There is plant growth throughout the site in areas where the asphalt has cracked, small spaces between the asphalt and the foundation, and in areas where there is no asphalt (Photo 1).

There are chain-link fences and gates that border the east, west, and south sides of the site, as well as a few small areas of fence in the actual site (Photo 3). Much of these chain-link fences are rusted beyond the point of repair.

There are sewer leaders located below most of the downspouts on site. These leaders have been capped off with cement (Photo 4).











### **Exterior**

\* This section will follow the division headings of the Construction Specifications Institute's MasterFormat.

There is lead paint on the door surround on the north elevations. The paint is currently failing in many places (Photo 5). The wood window hoods have lead paint on them. The lead paint is failing and some of it has weathered off (Photo 6).

All of the exterior walls are brick masonry walls with a brownstone foundation. In areas where there is poor drainage from the roof, biological growth and environmental staining have covered areas of the brick masonry and brownstone foundation (Photos 2 and 3). There is a brownstone inscription of "Public School. 1847." above the north elevation door. There are areas of lettering as well as some of the brownstone window sills and sandstone window hoods that have spalled (Photos 7 and 8).

There is one iron fire escape located on both the east elevation and west elevation (Photo 9). These iron fire escapes are beginning to rust. In addition, the fire escapes do not meet current fire codes as proper means of egress from the building. There are metal railings for each of the three sets of steps leading to the first floor (Photo 10). These railings are also beginning to rust and do not meet building code as a proper railing height.

The windows on the east and west elevations that were added circa 1910 received window hoods that matched the sandstone hoods of the original ones. These wood window hoods are in good to fair condition. There are areas of rot and paint failure on some of the hoods (Photo 6). The wood door surround on the north elevation is in good condition, only having paint failure (Photo 5).















The soffit is another architectural detail made of wood. The soffit is in fair to poor condition. Much of the wood has rotted or is in danger of rotting, seemingly because of poor roof drainage (there is currently no safe access to the roof to examine the condition of the soffit and the drainage system) (Photo 11). The wood cupola is also in fair to poor condition. Much of the wood appears to be rotting (Photo 12). It is difficult to determine the exact condition of the cupola because the only way to see the cupola is walking west down Liberty Street or while walking along Main Street (perpendicular to Liberty Street), and there is currently no safe access to the cupola to examine the condition.

The roof is currently covered in asphalt shingles. There is currently no safe access to the roof to examine the condition of the shingles, but there are multiple shingles that have become detached from the roof boards and fallen to the ground. The current drainage system is in poor condition. There are many areas where the aluminum gutter has detached from the wood soffit, leaving a space for water to pour down off the roof (Photo 13). Many of the aluminum downspouts are disconnected from the aluminum gutters (Photo 14). Many of the aluminum downspouts also were connected to the sewer leaders, which are now capped with cement (Photo 4).

The result of this is that the water cannot be properly drained, and its path from the roof away from the site is interrupted by either pouring down to the ground directly from the roof or pouring out of the bottom of the downspout and onto the capped sewer leaders.

There are currently seven entry door openings into the building. The bulkhead doors, leading to the basement, are located on the east and west elevations. They are wooden doors of approximately five feet in height (Photo 9). These doors are in good to fair condition and are in working order. The doors have some areas of paint failure. There are three sets of doors to enter to the first floor, one on each the north, east, and west elevations (Photos 10 and 15). Each of these sets of double doors is wood doors with glass openings in sections of the top half. These doors are in good to fair condition and are in working order. The doors have some areas of paint failure. There are two metal doors leading to the second floor from the iron fire escapes on the east and west elevations (Photo 16). These doors are in good condition and are likely in working order. All of the windows on each elevation are aluminum windows that were likely added to the building circa 1950 (Photo 16). The windows appear to be in overall good condition and are likely in working order.

There are currently electrical wires (for the electricity of the building) attached to the north elevation, which detract from the historic character of the building (Photo 16). There are also exterior spot lights and electrical conduit located in multiple places throughout the building. The lights and conduit detract from the historic character of the building as well (Photos 15 and 16).













#### **Interior**

\*This section will follow the division headings of the Construction Specifications Institute's MasterFormat.

There is asbestos located in multiple places throughout the interior of the building. In the basement, there is a furnace/boiler that is covered in asbestos as fire protection (Photo 17). In addition, there are asbestos-covered pipes in the basement. There are 9" x 9" asbestos floor tiles, covering most of the floor area on the first and second floors (Photo 18). There is an asbestos panel covering one side of the door of the third floor/book storage space. There is lead paint on most of the interior surfaces. The paint ranges from good to fair condition, depending on the room. There is mold in small areas on some of the basement walls. There is guano in the attic.

The only masonry that serves as interior structure is located in the basement. The exterior walls are rough stone walls that are currently covered with a plaster-like material to cover the stone. The plaster-like material is failing in some places (Photo 19).

There are decorative metal heating registers located throughout the building, from the basement to the second floor (Photo 20). The heating registers are in working order, likely fueled by the steam-producing furnace/boiler in the basement. The finish coat on some of the registers is failing and it appears that there are some areas of rust.

There is finish carpentry located throughout the building, from the first floor to the third floor. The finish carpentry appears in good condition. There are some walls finished with faux wood paneling and/or paint (Photo 21). Some of the paneling is failing and falling off of the wall. There is historic molding around the windows that have been painted (Photo 22).

The attic currently has water damage, likely due to the lack of insulation on the roof boards (Photo 23). This is possibly the cause of some of the water damage on the first and second floors. The water damage in the basement comes from water not being able to drain away from the building since the asphalt is pushed right up to the foundation.

There are doors in most door openings, but there are a few without doors. The doors and door frames seem to be in good condition. There are transom windows in the wall between the two classroom spaces in the north section of the building. The top halves of the windows are covered because of the drop ceilings that are located in the two rooms. There are currently seven entry doors openings leading to the outside. The bulkhead doors, leading from the basement, are located on the east and west elevations. They are wooden doors of approximately five feet in height (Photo 9). These doors are in good to fair condition and are in working order. There are three sets of doors to exit from the first floor, one on each the north, east, and west elevations (Photos 10 and 15). Each of these sets of















double doors is wood doors with glass openings in sections of the top half. These doors are in good to fair condition and are in working order. There are two metal doors leading from the second floor to the iron fire escapes on the east and west elevations (Photo 16). These doors are in good condition and are likely in working order.

All of the exterior windows on each elevation are aluminum windows that were likely added to the building circa 1950 (Photo 16). The windows appear to be in overall good condition and are likely in working order. The pyramidal window/ skylight appears to be in good condition, but there is water entering from the roof into the third floor/book storage space.

The building has numerous interior finishes. First, there are plaster finishes in the basement and in the third floor/book storage space. These areas have plaster failure. In the basement, the plasterlike material on the walls has likely failed because the water that has entered into the basement, due to the asphalt site, which is directly up against the building (Photo 19). It is difficult to determine the reason for the plaster failure in the third floor/ book storage space because the plaster failure is on the ceiling and there is currently no safe access to the attic to examine the condition of the plaster finish system from behind (Photo 24).

It is possible that water entering in through the lack of moisture protection in the attic has caused the plaster to fail. Another finish in the building is the tin ceiling tiles in the large classroom spaces in the northern section of the first floor of the building (Photo 25). The tin ceiling tiles are in good to fair condition with some areas that appear to have rusted from water damage from the floor above. There are other ceiling finishes (plaster, other ceiling tiles) in other rooms on the first floor as well as throughout the second floor. There are drop ceilings in the large classroom spaces on both the first and second floors (in the northern section of the building) (Photos 25 and 26). These drop ceilings were likely installed to retain more heat. The drop ceiling has insulated ceiling tiles that are about three inches thick. The drop ceilings and the ceiling tiles are in overall good condition. As previously mentioned, the most of the flooring finishes are asbestos tiles (Photo 18). The remainder of the floor finishes in the building are wood floor boards, which are mostly found on the main staircase (Photo 27). As previously mentioned, there is finish carpentry, faux wood panels, paint on the walls, and wood moldings around the windows (Photos 21 and 22). These different finishes were installed at different times throughout the building's history.













In the former kitchen (southern section of the first floor) there are kitchen appliances such as a range, oven, and sinks, as well as food preparation tables/ surfaces (Photo 28). The kitchen appliances are in fair to poor condition, and are currently not functioning.

In regards to furnishings, there are roll-down blinds for most of the aluminum exterior windows in the building. These blinds are in good condition and working order.

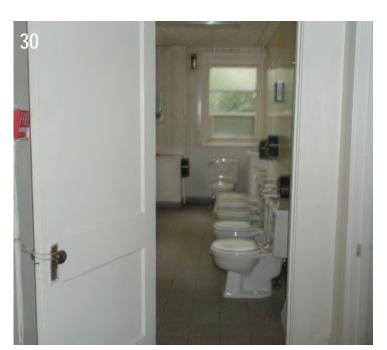
There are toilets and sinks located in various places in the basement and on the first floor. Many of these fixtures are small because the last use of the building was a daycare (Photos 29 and 30). The plumbing is not currently in working order. The toilets and sinks likely do not meet current building code.

There are multiple parts to the current heating, ventilating, and air conditioning system. First, there is a boiler/furnace, as well as oil tanks, in the basement (Photo 17). These appliances are

used for heating the building through the metal heating registers. There is a window air conditioning unit in one window along the east elevation. It is unknown if this unit is in working order.

Interior lighting is located in the basement, as well as on the first and second floors. The lights are in working order, but need to be assessed to determine if the safety and system meets current building codes. There are emergency lights and exit signs above all exits in the building (basement, first floor, second floor), as well as in a few other locations (Photo 31). It is unknown if the emergency lights and exit signs are in working order. The emergency lights and exit signs need to be inspected to determine if they meet current building code.











# **Character-Defining Features**

### **Exterior**

- Window Openings (number and size)
- Window Hoods (detailed hoods made of sandstone or wood)
- Brick Masonry Walls
- Italianate Details
  - Soffit
  - Cupola
  - Front Door Surround

### **Interior**

- Tin Ceiling (first floor)
- Heating Registers (first and second floors)
- Window Moldings (first and second floors)



**Brick Masonry Walls** 







**Window Molding** 



Window Hoods





Tin Ceiling







# Applicable Regulations

### **Local Town of Warren**

The Liberty Street School is a contributing building to the Warren Waterfront Historic District.

Property ID: 3-12 Neighborhood: A Owner: Town of Warren Building Value: \$825,300 Land Value: \$129,600 Other Value: \$37,000 Total Value: \$991,900

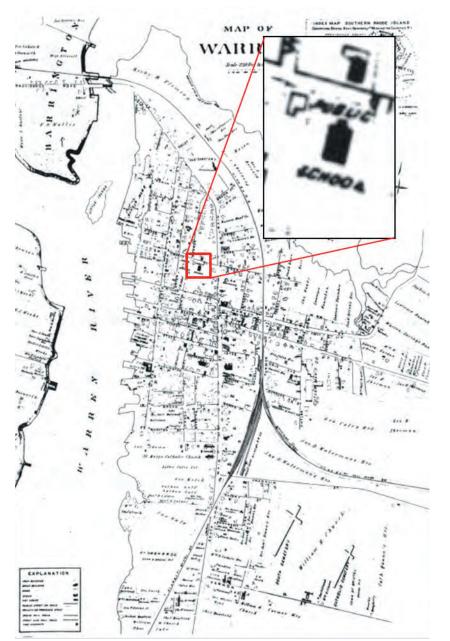
Parcel Area SF: 26592.07227 Parcel Area Acres: 0.61047

Building Area Finished: 7784 Building Area Adjusted: 7784 Building Area Gross: 15568

According to the Article VII: Zoning Districts and Zoning Map of the Zoning Ordinances, a bed and breakfast, a residential use, is a permitted use only by special use permit granted by the zoning board of review under Article III and Article V and elsewhere in the ordinance. A professional or business office building-office useis only permitted by special use permit. Public education institution is permitted public and semi-public use.

According to the Article XVIII: Off Street Parking requirements of the Zoning Ordinances, the rule of the thumb for estimating the required parking spaces base building use:

- Lodging or boarding house: Two (2) spaces, plus one (1) space for each rented room
- Hotel or motel: Five (5) spaces, plus one (1) space for each unit, room or suite
- Places of public assembly, including schools, churches, theaters, museums, restaurants, etc:
- One (1) space for each four (4) seats or for each four (4) persons of capacity



1895 Everts & Richards Map of Warren Image: Statewide Preservation Report, Warren, Rhode Island, April 1975



### State Rehabilitation Building Code

All rehabilitation code work shall be classified into six categories: repair, renovation, alteration, reconstruction, addition, and change of occupancy. Our project must comply as a complex rehabilitation project involving multiple codes: A rehabilitation project or portion thereof that involves two or more construction codes enumerated in Section 105.2 and (1) is in one of the following categories of work: addition, change of occupancy or reconstruction or (2) is in any category of work and involves the installation of sprinklers. The rehabilitation building and fire code permits the rehabilitation without requiring full compliance, but the work is still subjected to the administrative, maintenance, operational and health requirements. Repair, renovations, alterations, reconstruction, additions and change of occupancy to child daycare centers and educational occupancies must comply with the

applicable provisions – mechanical, plumbing, fire safety, fire prevention, electrical, boiler safety code, energy, elevator and accessibility code.

102.0 Compliance – dimensional modification may only be granted by the certified official in fire safety and prevention, only when the total existing egress width can accommodate the maximum occupancy load.

For all general state building code requirements we referenced the SBC-3 RI State Plumbing, SBC-3 RI State Mechanical, SBC-5 State Electrical, SBC-6 Property Maintenance, SBC-8-State Energy Conservation, SBC-17 RI Public Meeting Accessibility, RI Fire Safety and Elevator Safety, Rules and Regulation for Boiler and Pressure Vessel.

http://www.rbfc.state.ri.us/rehab/

http://sos.ri.gov/documents/archives/regdocs/released/pdf/3b493e49b0a2a162589891f1e4b0f9c3/4721.pdf

Repair: The patching, restoration, painting and/or minor replacement of materials, elements, components, equipment and/or fixtures for the purposes of maintaining such materials, elements, components, equipment and/or fixtures in good or sound condition.

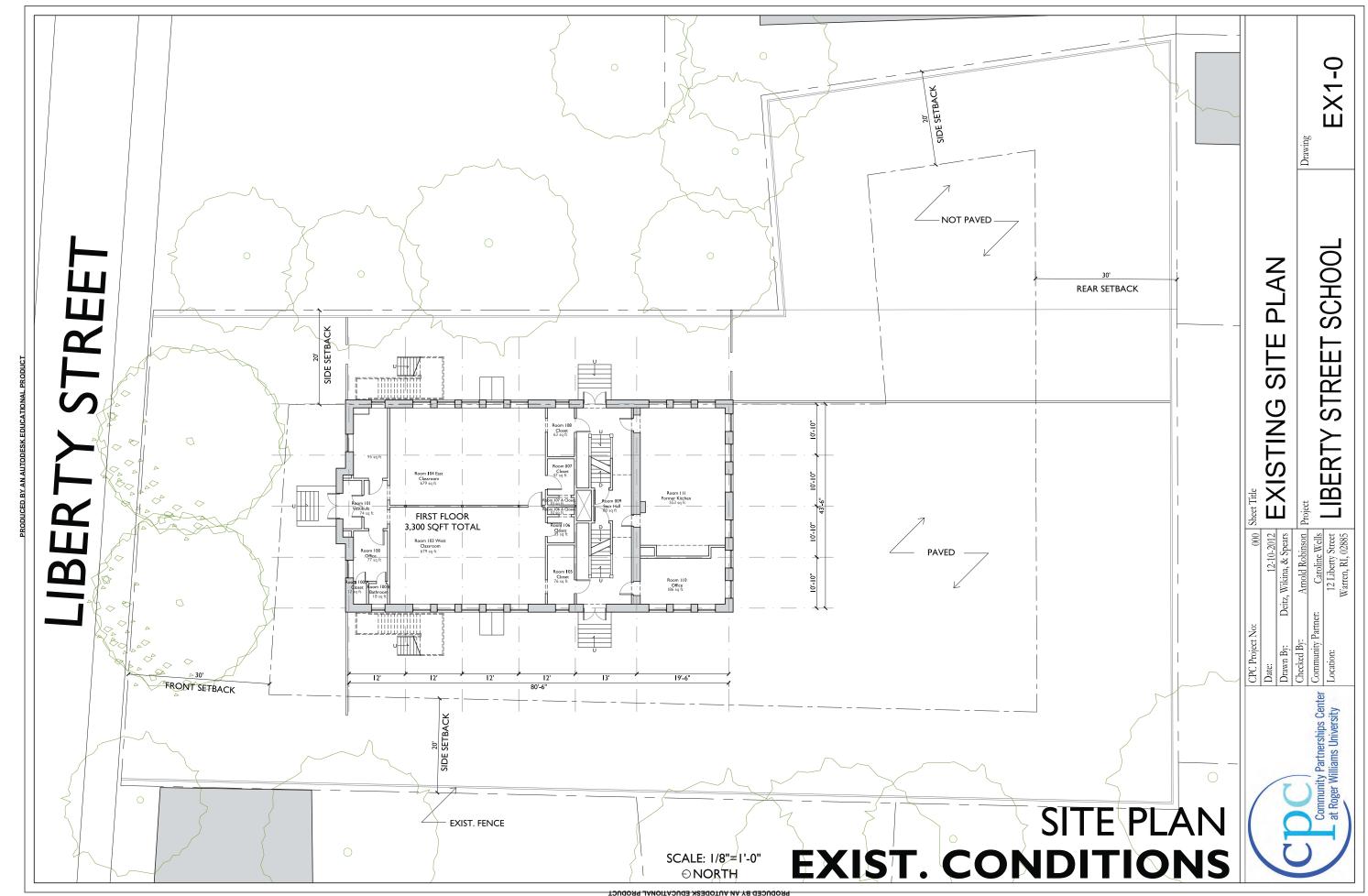
Renovation: The change, strengthening or addition of load bearing elements, the refinishing, replacement, bracing, strengthening, upgrading or extensive repair of existing materials, elements, components, equipment and/or fixtures. Renovation involves no reconfiguration of spaces.

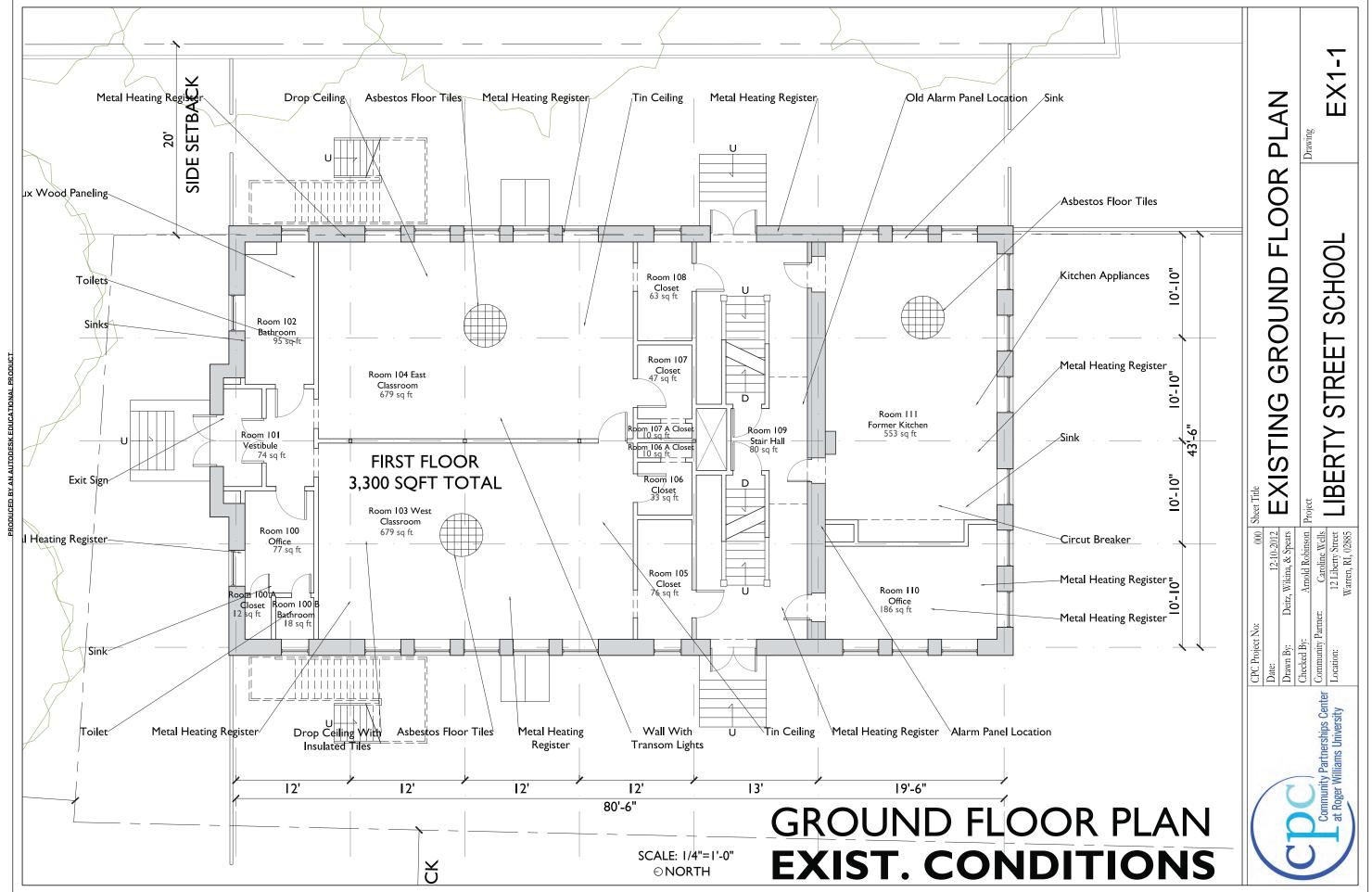
Alteration: The reconfiguration of any space, the addition or elimination of any door or window, the reconfiguration or extension of any system, or the installation of any additional equipment.

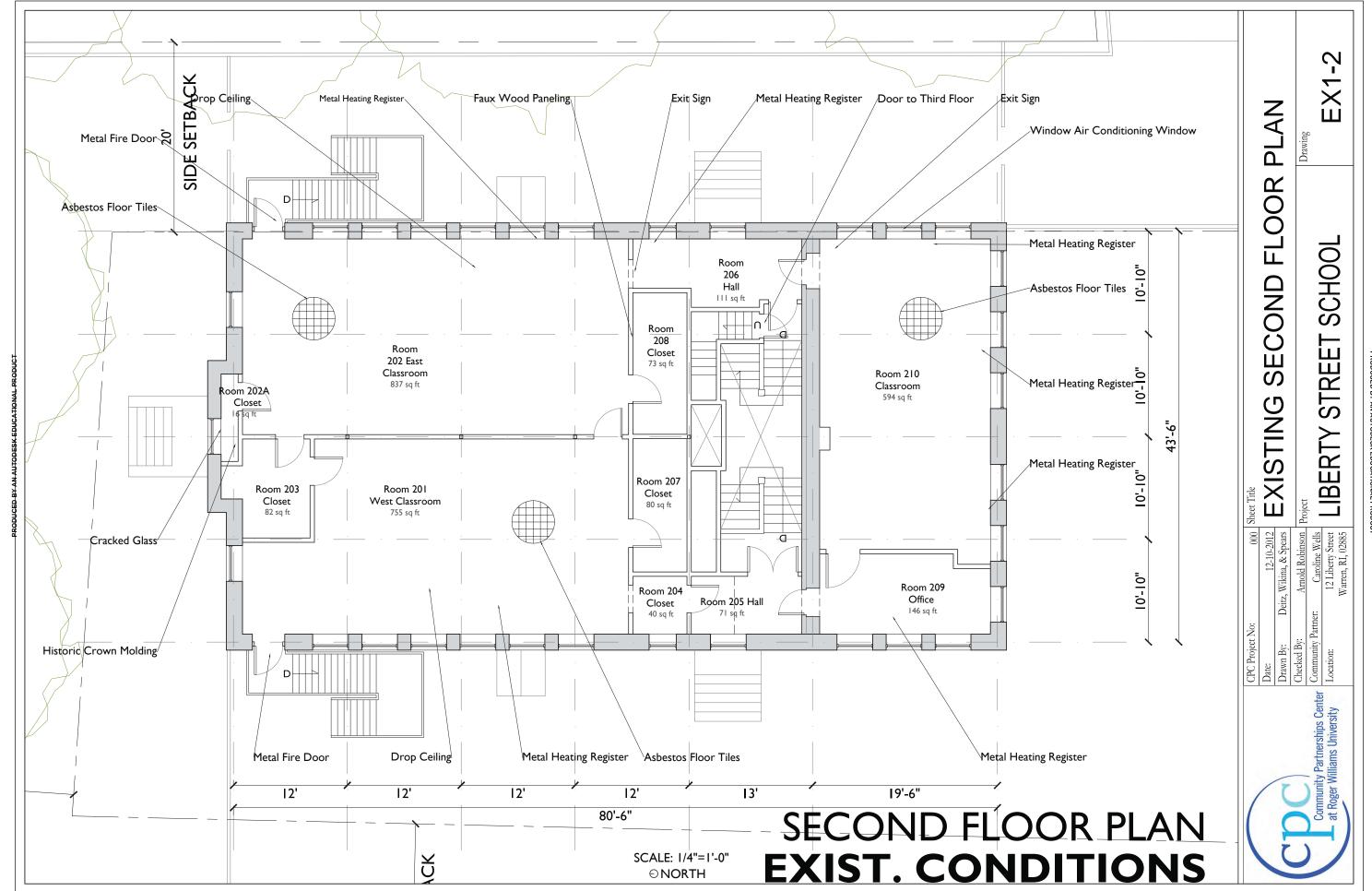
Reconstruction: The reconfiguration of a space which affects an exit, or a corridor shared by more than a single tenant; and/or reconfiguration of space such that the rehabilitation work area is not permitted to be occupied because existing means of egress and fire protection systems, or their equivalent, are not in place or continuously maintained; and/or extensive alterations as defined in Chapter 5 of this code.

Change of occupancy: A change in the purpose for which a building or portion thereof is used or intended to be used as defined in the Building Code.

An increase in building area, aggregate floor area, height or number of stories of a structure.









### Rehabilitation Plan

### **Program**

In an effort to respect the residential zone, we opted not to choose a program that would create high activity in the evening, which might possibly disrupt the residents. A mixed-use, flexible space has been chosen to be on the first level of the Liberty Street School building. This multiuse program only occupies the original 1847 portion of the historic building, accommodating administrative office use and gallery exhibition that can hold the collections of one of the historical societies in Warren, RI. The closet areas for the current first floor classroom will be expanded to accommodate two bathrooms. The current kitchen and office area, occupying the 1910 addition, will be used as dining and kitchen areas, servicing the bed and breakfast that operates on the second level of the building. A bed and breakfast on the second level would provide temporary living spaces and attract travelers to the historical school, which would increase public awareness of the Liberty Street School. Much of the existing asphalt is unsightly and a large percentage will be removed. The exterior landscape design of the site will service a handicapped ramp, parking for all occupants of the Liberty Street School, and a leisure garden space for the residences of the historical district. Site drainage will be achieved through the presence of vegetation, underground water storage tanks, and pervious surface conditions.

### Recreation

#### Community Garden

Provides an aesthetically pleasing landscape for the residential block and a community outdoor space.

- Exterior (solar?) lighting
- Exterior seating
- Hard and soft landscape
- Exterior storage
- Parking
- Waste disposal
- Water source and site drainage

#### Cultural

#### Museum

A collection of historic photos, publications and artifacts made accessible to a range of visitors provides opportunities for learning and engagement. Comprised of both temporary and permanent collection for display.

Movable partitions will allow for flexibility of space and location of exhibition (vertical displays).

Adequate space that can be transformed into a casual meeting space or viewing of short informational films.

- Archival storage
- Reception desk
- Curator's office
- One to three office spaces for Town Hall officials and manager
- Museum occupant lavatory

### Hospitality

#### **Bed and Breakfast**

Offers unique lodging that provides a "quaint, charming, ambient atmosphere", a personal alternative to the typical hotel experience.

Offers overnight accommodation and full and continental breakfast.

Typically of a historic private establishment consisting of ten bedrooms or less.

Potentially operated as secondary source of income.

- Six bedrooms
- Private bedrooms with private bathrooms
- Dining room
- Host's kitchen
- Host/innkeeper's private unit
- Concierge/reception lounge



### **Precedents**

The Shelly School apartment in West York, Pennsylvania is an example of an historic school building that has undergone rehabilitation. Its use of both Historic Rehabilitation Tax and Low-Income Housing Tax Credit retained its historic floor plan and was able to comply with fire and ADA code.

Many rehabilitated historic establishments are looking to improve business. The Holladay House in Orange, Virginia is a 1930s Federal-style brick building and historically one of the last few standing antebellum structures. It was originally a mercantile store, doctor's office, residences and private schoolhouse that has been converted into a bed and breakfast establishment.



**Shelly School** 



**Holladay House** 



Museums are not limited to just experiencing artifacts; there are notable museums that contain very few artifacts "but strong, memorable stories are told or information is interpreted." The Massachusetts Museum of Contemporary Art in North Adams, Massachusetts is a 19th century "Italianate" factory building complex "tracing the trajectory of industrialism in New England."



The buildings were built between 1870 and 1900 by the Arnold Print Work Company – the site prior to the complex has seen smaller-scale industries. It is listed in the National Historic Register. The project visually retains its historic character and rents a portion of its square footage to commercial tenants.



# Recommendations and Scope of Work

#### Site

It is recommended that the asphalt be removed from the site. The asphalt detracts from the historic character of the site, which was historically a play area for the schoolchildren. The removal of the asphalt will also help with site drainage. There is currently a problem with water draining away from the building. One proposal to help the site drainage problem is to have a permeable surface, such as small stone pavers, to allow easier access for water to dissipate into the ground. In addition, underground water tanks can be installed which have a permeable surface on the bottom. This would also allow the water to slowly dissipate into the ground.

The two trees that are located along the north edge of the lot should be checked to determine the condition and health of the trees. It is possible that the excessive amounts of asphalt paving have caused the trees to become sick. If it is determined that the trees need to be removed, a plan should be developed to figure out if new trees should be planted. Through evidence in historic photographs and drawings of the building, it is clear that there have been trees along the street in a similar position to where the current trees are. The current trees block most of the view of the historic elevation when they are in full bloom. If new trees are installed, they should be trimmed in order to maintain the image of the north elevation. It is also recommended that more plants and shrubbery are added throughout the site to make the appearance of the site more aesthetically pleasing.

It is recommended that the chain-link fences that are currently on and border the site should be removed and replaced with a fence that helps

to retain the historic character of the site. From looking at historic photographs, it appears that there was historically a stone or concrete fence surrounding some of the site. A new fence for the site should look to match what was there historically, or attempt to match fences that were typical of surrounding properties (of the same period of the building).

The sewer leaders that are capped with cement should be removed. The downspouts and drainage system should be tied into the underground tanks, to improve the performance of the drainage system.

#### **Exterior**

\*This section will follow the division headings of the Construction Specifications Institute's MasterFormat.

The lead paint, on the door surround on the north elevation and the wood window hoods on the east and west elevations, should be removed using the gentlest means possible to hand-scrape the lead paint off of the wood to a sound layer. At that point, the wood can be repainted.

The brownstone foundation needs to be cleaned and repainted. The proper method of cleaning would be water washing with a non-ionic detergent. The combination of a soaking with a low-pressure or medium pressure water source and the scrubbing of the non-ionic detergent on the affected area, with a soft-bristled brush, will clean the brownstone. The brownstone foundation should have the paint removed (where there is paint). The areas of spalled brownstone on the foundation, as well as the window sills and the letters above the main entrance, should be reformed with a mortar-like product and then repainted to create the appearance that the brownstone is still in one piece. The newly formed mortar-like product should match the intact brownstone in color and texture. The brick needs to be cleaned on all elevations. The discolored and dirty brick can be cleaned through a combination of a soaking with low-pressure or medium-pressure water and scrubbing of a nonionic detergent (alkaline cleaner) on the affected area with a soft-bristled brush. The stained brick (from "runoff" of the metal from the main brace attaching the fire escape to the building) can be cleaned with a poultice (consisting of an absorbent material/clay powder mixed with a liquid solvent to form a paste) which can be put on the stain. To repoint the bricks, particularly on the west elevation where water damage has caused a loss of mortar in a vertical line down the elevation, the mortar in the areas surrounding where there is mortar missing should be analyzed to determine the content. Then old mortar should be removed to a minimum depth of 2 to 2.5 times the width of the joint. A new mix of the mortar should be made and installed by filling in the joints where the mortar was missing or removed.

It is recommended that the iron fire escapes on the east and west elevations be removed because they do not meet current fire codes as a proper means of egress from the building. The metal railings should also be removed and replaced with railings that meet current building code with a proper height.

The hoods above the windows on the east and west elevations need to be fully evaluated by a woodworker to see if the level of deterioration is repairable. If the hoods are past the level of repair, the shape, size, and turnings can be replicated with wood. Any of the wood window hoods, old or new, will need to be repainted, as some of the paint on the older hoods has failed. The wood door surround is at risk of deterioration, but does not seem to be rotted and is currently in good condition. The lead paint has failed and should be removed and repainted. The soffit is at risk of deterioration because of poor drainage. There has been no observation and access to the roof to determine if there are leaves blocking the openings for the gutters, but detached downspouts have caused poor drainage and likely buildup of water on the roof. The soffit is one of the character-defining features of the Italianate building and should be restored, if the architectural feature is not too far deteriorated. If there is too much deterioration, the new wood should be constructed to fill in where deteriorated wood was removed. When completed the wood should match the removed wood in size, shape, and appearance.

The cupola is at risk of deterioration because of lack of care. The only access is in the attic (there is currently no safe access to the cupola to examine the condition.) The cupola is one of the characterdefining features of the building and should be restored, if the architectural feature is not too far deteriorated.



#### **Interior**

All of the asbestos will need to be removed from the building. The asbestos-covered furnace/boiler in the basement will need to be removed from the site, likely by disassembly. The asbestos-covered pipes in the basement will also need to be removed. The asbestos floor tiles, which are in most rooms on the first floor and second floor, should also be removed and replaced with new flooring material. The following process is the proper way to remove the tiles: use plastic sheeting to cover wall surfaces and openings, wet the tiles during removal, use a wide putty knife to pry up the tiles, place the tiles in a leak-tight container, and transport the asbestos tiles to a landfill that accepts asbestos waste (http://www. deq.state.or.us/aq/asbestos/docs/Asbflr.pdf). The asbestos door panel on the door to enter the third floor/book storage space (top of the stairs before one enters the space) should be removed. The use/ reuse of the door should be assessed depending on the use of the space, as well as if it is financially feasible to replace the door when doing any work to the building. Most of the interior wall surfaces have been painted with lead paint. To remove the lead paint, one must wet the wall surface to reduce dust, scrape the paint off with a hand-held scraper, and once the paint is removed to the smoothest possible surface, repaint the wall surfaces. There was mold discovered in the basement. The mold should be removed by the following process: determine the cause of the problem and addressing it, isolate the contaminated area by closing all doors and windows in the affected areas, suppress dust by misting the contaminated areas, remove all wet and mold-damaged porous materials (in this case would be the plaster-like material on some of the basement walls), place the material in plastic bags, clean the moldy areas using a detergent solution

with a damp cloth, dry the areas that are cleaned, and replace the materials that were removed (http://www.housingzone.com/awards-giants/ five-steps-proper-mold-remediation). The attic needs to be cleaned to remove the guano. The following process is the proper way to remove the guano: the person removing the guano must wear a disposable Tyvek suit, safety goggle, rubber gloves, and a respirator; the person should use a branded ornithological disinfectant to clean the affected areas; the guano should then be removed from the site in secure sacks; the affected area should be decontaminated to prevent returning organisms.

The masonry in the basement should be cleaned and the masonry should be repaired. The proper method of cleaning would be water washing with a non-ionic detergent. The combination of a soaking with a low-pressure or medium pressure water source and the scrubbing of the non-ionic detergent on the affected area, with a soft-bristled brush, will clean the masonry. The mixture of the plaster-like material must be established and remade to refinish the areas of the masonry in the basement where the plaster-like finish has failed. The areas intact can be cleaned with a damp sponge and left to dry.

It is recommended that the metal heating registers are cleaned and repainted if necessary. The current heating system (furnace/boiler and oil tanks) should be removed from the basement and replaced with electric heaters. This will mean that the heating registers will need to be refitted to produce heat through the electric heaters in the basement. If this is not possible, the heaters should be left in place to maintain the historic character of the property.

It is recommended that much of the historic walls and finish carpentry remain. The walls and finish carpentry appear to be in good condition. The paint on the walls and finish carpentry should be removed and then they should be repainted. It is recommended that the faux wood paneling is removed because it does not fit the historic character of the building. The historic molding around the windows should have the lead paint hand-scraped and then the moldings should be repainted.

Insulation should be installed in the attic to help retain heat, as well as help with water in the attic. The roof boards should be inspected to see if water has damaged them beyond repair. If that is the case, the roof boards should be replaced.

It is recommended that the interior doors should be repainted and have regular maintenance done to the doors, to ensure continued use. The transom windows in the wall on the first floor should be left as they are. They are in good condition and the only work that needs to be completed is to have the paint removed from the mullions and the frame, and then repaint the mullions and the frame. The doors leading to the exterior are in good condition and should have regular maintenance done to them (except the metal fire doors on the second floor). It is recommended that the metal fire door openings be partially closed up, and window openings be installed because there were windows in those locations historically. The exterior pyramidal window/skylight should be assessed to install and/ or fix flashing surrounding the opening to prevent more water damage to the third floor/book storage space.





The building has numerous interior finishes. The plaster finishes in the basement and in the third floor/books storage space should be restored to match existing plaster in color, texture, and appearance. Despite visible rust damage, the tin ceilings should be restored. The restoration process for restoring the tin ceilings would be to clean the rust and remove the paint using a wire brush, assess the structural connections of the tin ceiling tiles, and then, if the ceiling is structurally sound, repaint. The other ceiling finishes should be assessed to determine the condition and material used. If possible, historic materials should be restored and maintained. If the material is a non-historic material, the condition should be assessed to see if it should remain or be removed from the building. It is recommended that the drop ceilings be removed to help retain the historic character of the spaces because of the tall thirteen or fourteen foot ceilings. All of the asbestos floor finishes should be removed. The wood floor boards should be restored and continue to be used as flooring. It is recommended that much of the historic walls and finish carpentry remain. The walls and finish carpentry appear to be in good condition. The paint on the walls and finish carpentry should be removed and then they should be repainted. It is recommended that the faux wood paneling be removed because it does not fit the historic character of the building. The historic molding around the windows should have the lead paint hand-scraped and then the moldings should be repainted.

It is recommended that the kitchen appliances and food preparation tables/surfaces be removed. The appliances are not functioning and,

depending on the new use, new appliances should be installed.

It is recommended that the roll-down blinds be removed when the windows are replaced, and a new curtain or blind that is more aesthetically pleasing be installed.

It is recommended that a fire suppression system be added to the building. The system should be installed in a discrete way to lessen the detraction from the historic building.

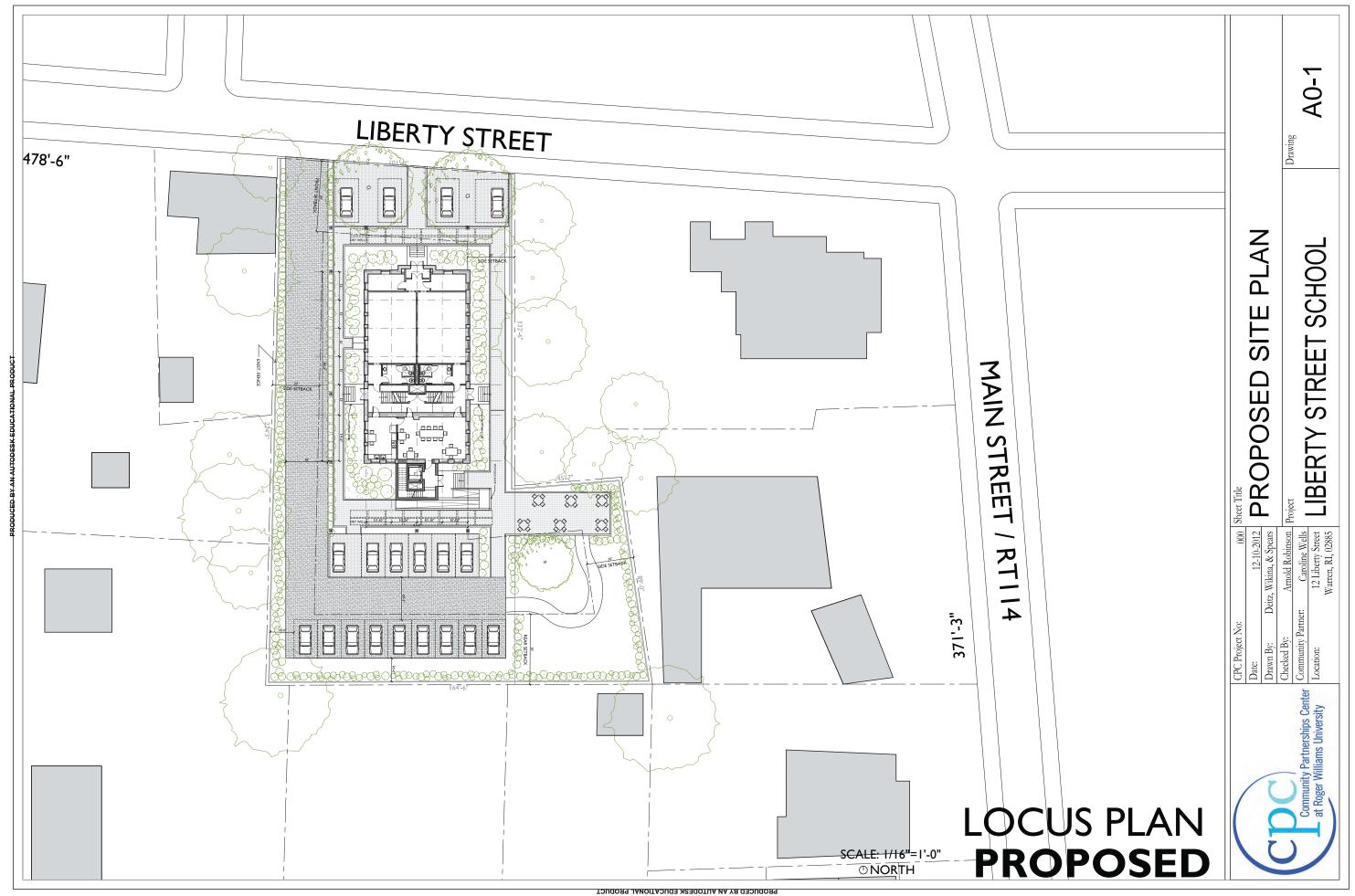
It is recommended that the current toilets and sinks be removed and replaced with more modern appliances. Many of the toilets and sinks were installed for children because the last use of the building was a daycare. The plumbing should also be investigated by a plumber to determine the condition of the pipes and plumbing system for the building as a whole.

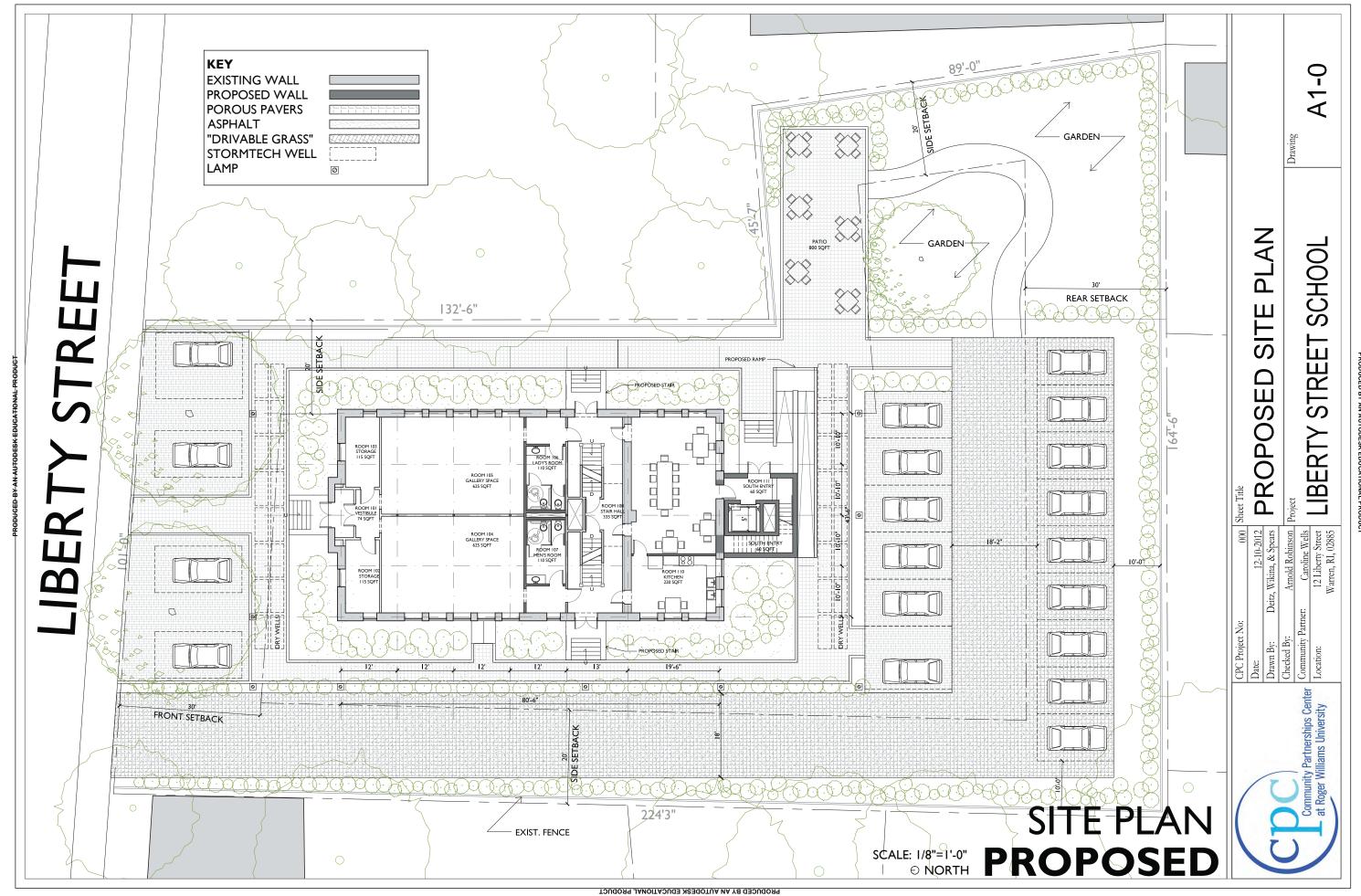
A new heating, ventilating, and air conditioning system should be installed, working with the refitted metal heating registers. The size and need from a new system depends on the need from the potential use.

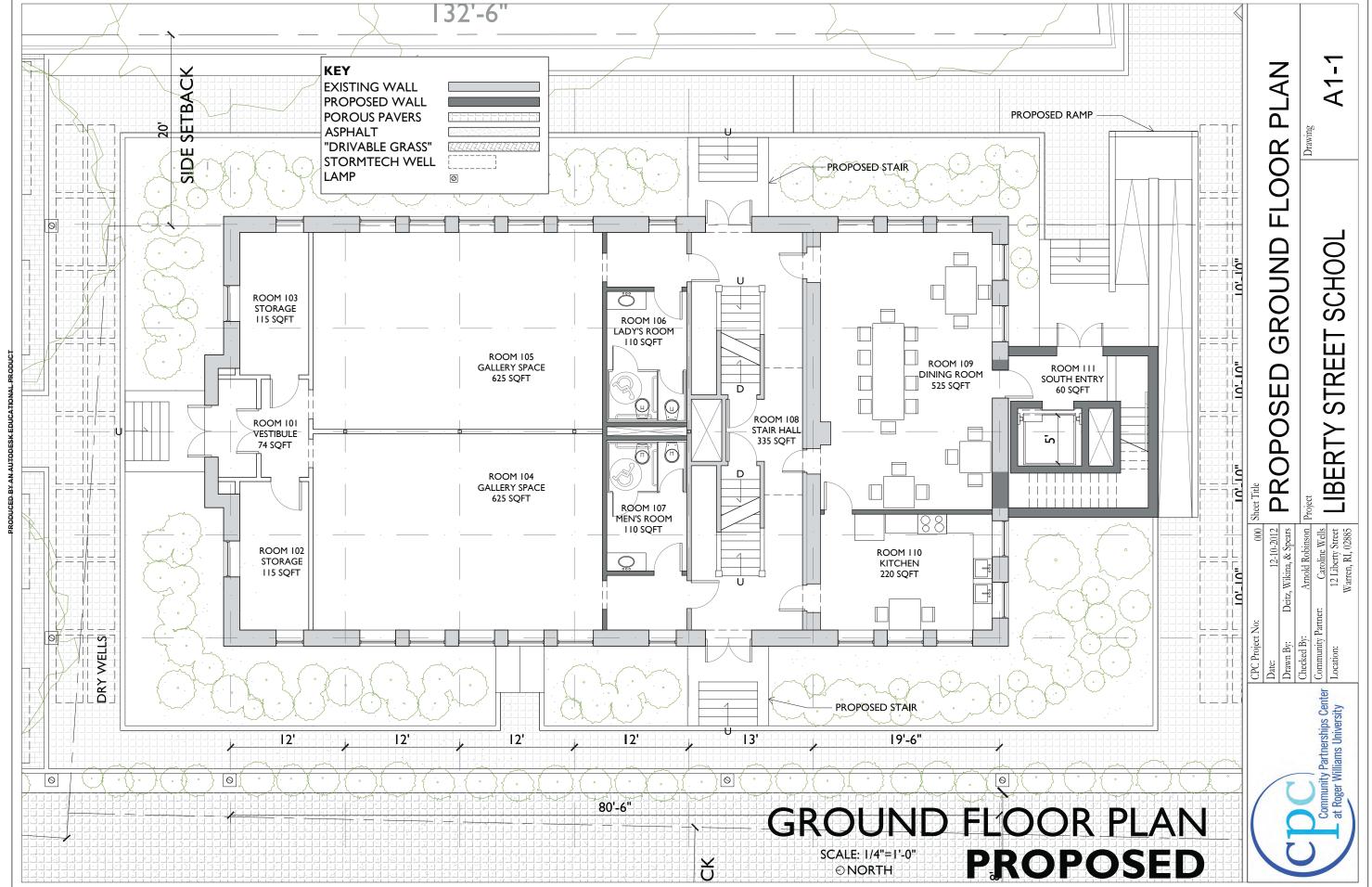
The lighting system and fixtures, emergency lights, and exit signs should be assessed by an electrician to determine if everything is up to code. The fixtures will likely need to be updated. The number and location of the fixtures will depend on the new use of the building.

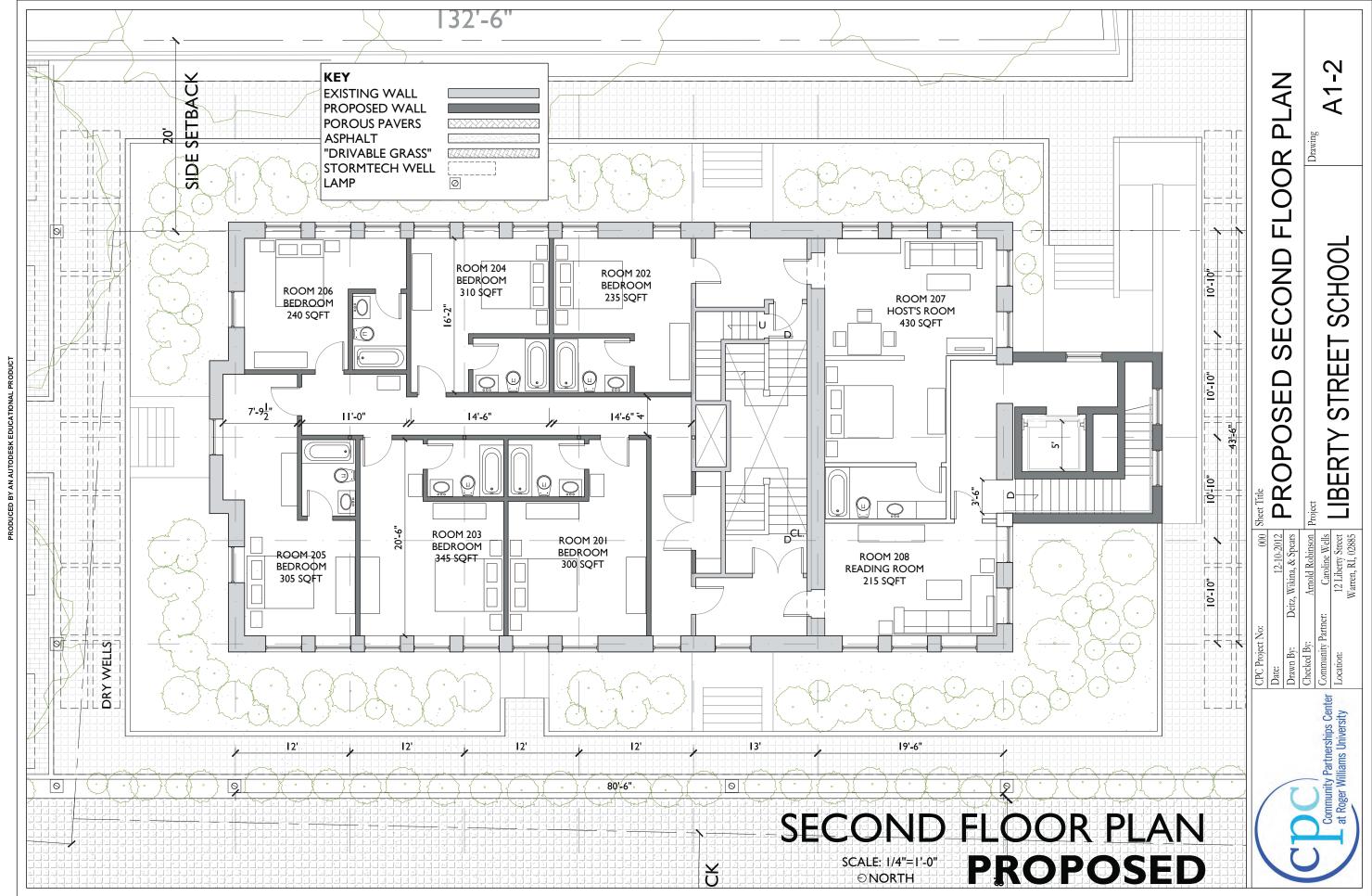
It is recommended that cable and communication services be added to the building.













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