PLAINFIELD HIGH SCHOOL ANNEX

PLAINFIELD, CONNECTICUT

CONDITIONS ASSESSMENT AND FEASIBILTY STUDY

Prepared for the Town of Plainfield

July 2019

Contents

Acknowledgments

The authors wish to extend our thanks to Town of Plainfield officials and citizens who generously gave of their time, knowledge and support in the interest of finding a reuse for the beloved Plainfield High School Annex building.

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Executive Summary

At this time, residents of the Town of Plainfield have an opportunity to determine the fate of the 1924 Plainfield High School building, known as the Annex. The building has not been occupied since 2005 when the newest Plainfield High School was completed and the old school demolished. Foresight at that time was to retain and reuse the Annex either through town ownership or private sale. The property was sold to a business enterprise but the terms of the contract were not honored and ownership reverted to the town in 2009. The Annex is listed on the National Register of Historic Places as contributing to the Central Village Historic District, and is also listed individually on the State Register of Historic Places.

There are many reasons why the Plainfield High School Annex building should be repurposed.

- The building is 96 years old and has seen generations of Plainfield residents educated within its walls. It is a public building that is part of the fabric of the community.
- The building is sited on a main state road, Route 12, with access to public utilities, local villages, and interstate highway 395.
- The building embodies energy that was expended in the course of preparing the site, mining materials, producing materials and installing materials. Demolition of the building will expend additional energy and impact landfills.
- The structural bones and exterior envelop are in good condition. Vacant for 14 years, the interior finishes and systems have taken a toll, but new systems and finishes can be integrated into the existing shell.

Recognizing that, after sitting vacant without heat for fourteen years, an assessment of the buildings condition was warranted, the Town sought and was awarded a Survey and Planning Grant from the State Historic Preservation Office. In addition to the conditions assessment, the scope of work included a feasibility study of potential reuse options. The conditions assessment and feasibility study work were carried out by Evelyn Cole Smith Architects, LLC and Cirrus Structural Engineering during the Spring of 2019.

The conditions assessment found that the structure is generally in good condition but that the exterior building envelop requires substantial investment in order to curtail further damage caused primarily by water infiltration. The extent of this work includes installing new shingle and membrane roofs, flashings and drainage systems, as well as mothballing the building. The breakdown of the cost of this work is outlined on page 34. This work is critical to preventing further damage to the building and should be undertaken in the immediate future.

Community engagement meetings identified multiple uses that were analyzed to determine if the uses were compatible with the building. It was determined through the feasibility portion of the study that it is possible to reuse the building for many functions including as an educational facility, community center, and Town Hall. The best fit is as an educational facility with Town Hall as the runner up. The likelihood of partially funding an educational facility through the CT Office of School Construction Grants is high, while the cost of reuse as a Town Hall could be offset in part by USDA Rural Development grants and loans.

Developing a series of future benchmarks with measurable results will ensure that the reuse of the building moves forward in a timely and cost-effective manner. Understanding that it will take several years to develop a plan for reuse of the building, the following targets should be considered as action items to follow this report.

- Engage a roofing contractor to either temporarily repair roof leaks and reroute roof drainage, or to replace the roofs and drainage systems. Seek out grants for design and to offset the cost of construction.
- Engage a hazardous material testing firm to survey and test suspect materials within the building and prepare an abatement plan and cost estimate for abatement. Seek out grants to assist with the abatement, which could be integrated with the next step.
- Hire a contractor to remove existing debris within the building and mothball the building.
- Create a task force to further study the options for reuse in detail.
    - Educational Use: Engage with the Eastern Advanced Manufacturing Alliance (EAMA) and other business and educational organizations to determine the gaps in job skills training that could be filled by technical programs housed within the old High School.
    - Town Hall or Community Center Use: Perform a space needs analysis of all town departments and services to determine the compatibility of programs with existing space, and the potential for new or expanded space within the Annex building.
- Determine funding requirements for the chosen reuse and identify funding options.

Continuing forward momentum will be required to save the building from certain demolition if it is left open to the elements as it is today. Time is of the essence and water is a building's enemy! The good news is that the community appears to be passionate about saving the Annex for future generations.

Historical Context

Constructed in 1923 at a cost of $175,000, the new Plainfield High School building reflected the early 20th century standardization of school architecture. Designed by New York architect Thomas T. Towner of the firm School Plan Service Bureau, Inc., the building housed state-of-the-art educational facilities including a vocational department. According to the 1924 Hermiad, the Plainfield High School yearbook, in addition to traditional language and arts studies, there was a home economics department with a laboratory for cooking, an agricultural studies suite, fully furnished scientific laboratories and a "commercial department" consisting of typewriting, stenography and bookkeeping rooms.

Photo 1: Central Village Grammar School. Courtesy of Plainfield Historical Society.

These facilities were a far cry from the two-story, wood-framed, one room Plainfield High School which shared space in the Central Village Grammar School after the disbanding of Plainfield Academy and the state statute requiring towns to provide a public high school education to residents. While initially some students traveled to Norwich and Killingly for high school education beyond the first year, the school grew to accommodate a four-year program with more than fifty students in 1907.

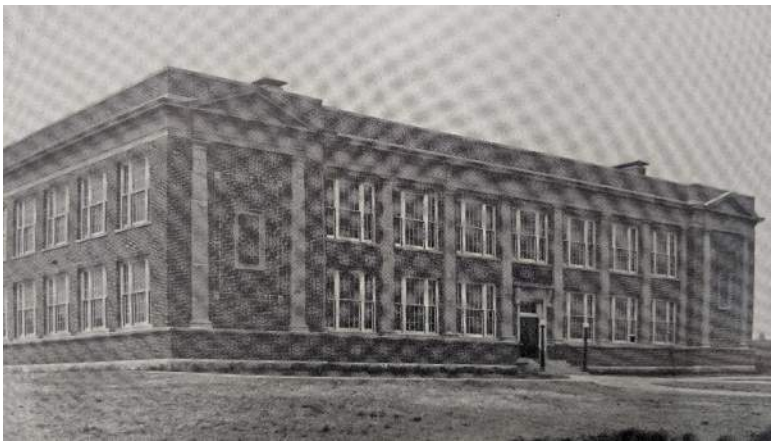


Photo 2: Plainfield High School circa 1925. Courtesy of Plainfield Historical Society.

By 1915, the need for a new school was evident not only to alleviate overcrowding, but to provide for modern "agricultural instruction, scientific experiments, art, music and vocational education"[1]. In 1921, the school committee retained an architect and appropriated funding for the new building. The doors of the new High School opened on March 3, 1924 and the first class of forty students graduated in 1925.

[1] Plainfield Superintendent of Schools, Annual Report, 1916-1924

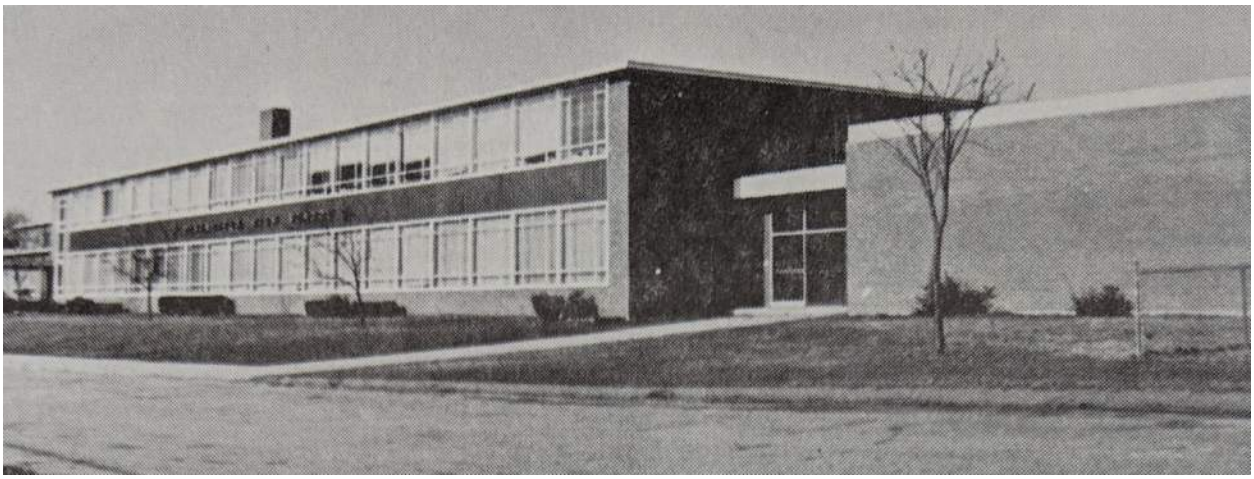


Photo 3: The new Plainfield High School opened in 1961. Courtesy of Plainfield Historical Society.

As the population of Plainfield grew, so did the need for additional space to meet innovations in educational programming arising from post-World War II technological advances. As recommended by the Board of Education, funding for a new 600 pupil high school was approved by voters in 1959. The new Plainfield High School opened in 1961. The 1924 high school then served as the Plainfield Central School, providing facilities for junior high school students. During the 1970's, an expansion program connected the new high school to the 1924 building which then served as the Superintendent's office and overflow programming, becoming known as the Plainfield High School Annex.

By the turn of the Twenty-first century, a new high school was required to serve the community. By 2005, the new school, sited on a hill adjacent to the former high school, was opened and the 1961 school was demolished leaving the original 1924 building intact.

Photo 4: The 2005 Plainfield High School. Wikipedia photo by John Phelan - Own work, CC BY-SA 4.0, https://commons.wikimedia.org/w/index.php?curid=58043201

A Feasibility Study was conducted in 2005 by Jeter, Cook and Jepson Architects, Inc. outlining multiple reuse options including reuse as a school, as a town facility, and as a leased facility to a private organization. None of these ideas gained traction and the building remained vacant for the next two years until it was sold to a Norwich private entity which was unable to meet the development guidelines. Subsequently, in 2009, building ownership reverted to the Town and the conversation about the potential for reuse began anew.

Building Description

The three-story, brick Plainfield High School building reflects the progressive educational ideals of the early Twentieth Century by emphasizing classical elements and monumental forms. As high school education became mandated by state statute, school building architecture became more standardized. Improvements over the former wood-framed school houses included large expanses of glass providing daylight for the classrooms, central heating, mechanical ventilation, and fire-proof construction.

Photo 5: The east facing front façade in 2018.

The main building block is symmetrically oriented around a central entrance. Seven bays of windows are delineated by two-story cast concrete pilasters bearing on a raised, concrete-capped brick plinth. The window bays are flanked on either end by shallow pavilions featuring decorative flush brick panels accented with cast concrete details. The entrance door and transom window are topped by a cast concrete modillioned cornice. The main building mass is capped by a cast concrete frieze with triglyph elements centered on the pilasters. Decorative cast iron railings flank the granite entrance steps and engage cast iron lamp posts on either side of the base of the stair.

Photo 6: A view of the rear of the building looking northeast at the former gymnasium block on the left.

Recessed from the front of the building, the third-floor classrooms are clearly visible at the rear. The third floor extends over the two-story auditorium and abuts the gymnasium mass to the west. The brick work on the rear is common bond, differentiated from the Flemish bond of the front and sides of the main block, and cast concrete detailing is limited to window sills. Stepped window patterns define stair towers within the building, while bricked up openings allude to past fenestration and areas of connection to the 1961 building and subsequent additions.

Alterations to the exterior of the building since 1924 include the removal of the brick parapet above the frieze, including the pediments over the end pavilions on the front of the building. Modern aluminum awning windows have been installed in place of the original wood double-hung units, and a hipped roof has been added over the third floor flat roof.

Fireproof construction is a significant character defining feature of the building. As described more fully in the Structural Assessment section of this report, the structure is composed of a poured concrete foundation, exterior bearing walls, ribbed and composite concrete and terra cotta tile floor framing, and terra cotta tile infill between interior concrete post and beam framing. Egress staircases are steel, and plaster originally provided the finished surface of the walls and ceilings, further protecting the structure.

The interior plan configuration remains much as it was designed. Some rooms have been subdivided and a passenger elevator has been added to access the upper floors, but the central hall connecting north and south stair towers and linking classrooms and gathering spaces remains. The installation of lay-in tile ceilings at one time reduced the height of most rooms to 8 feet from 12 feet, and interrupted the height of the window arrays. Modern interior vinyl composition floor tile and modular wood wall paneling were added over original finishes in some areas. The following floor plans illustrate the existing plan configurations. These plans are excerpted from the Jeter, Cook & Jepson Architects, Inc. report of 2005.

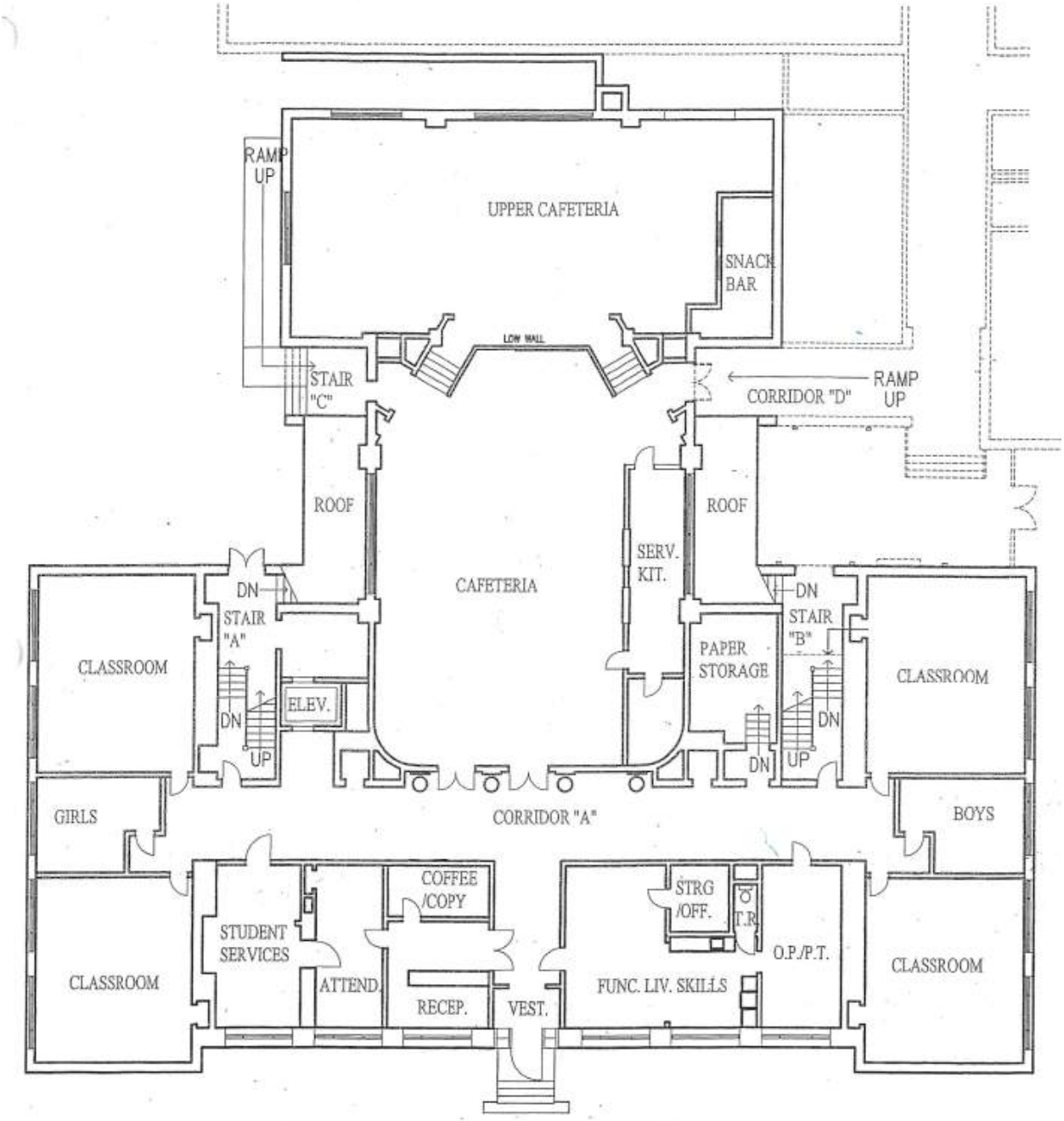


Figure 1: The existing First Floor Plan reflects the original configuration with minor modifications. Note the dashed lines at the rear of the building which indicate prior connections to the 1961 building and its additions.

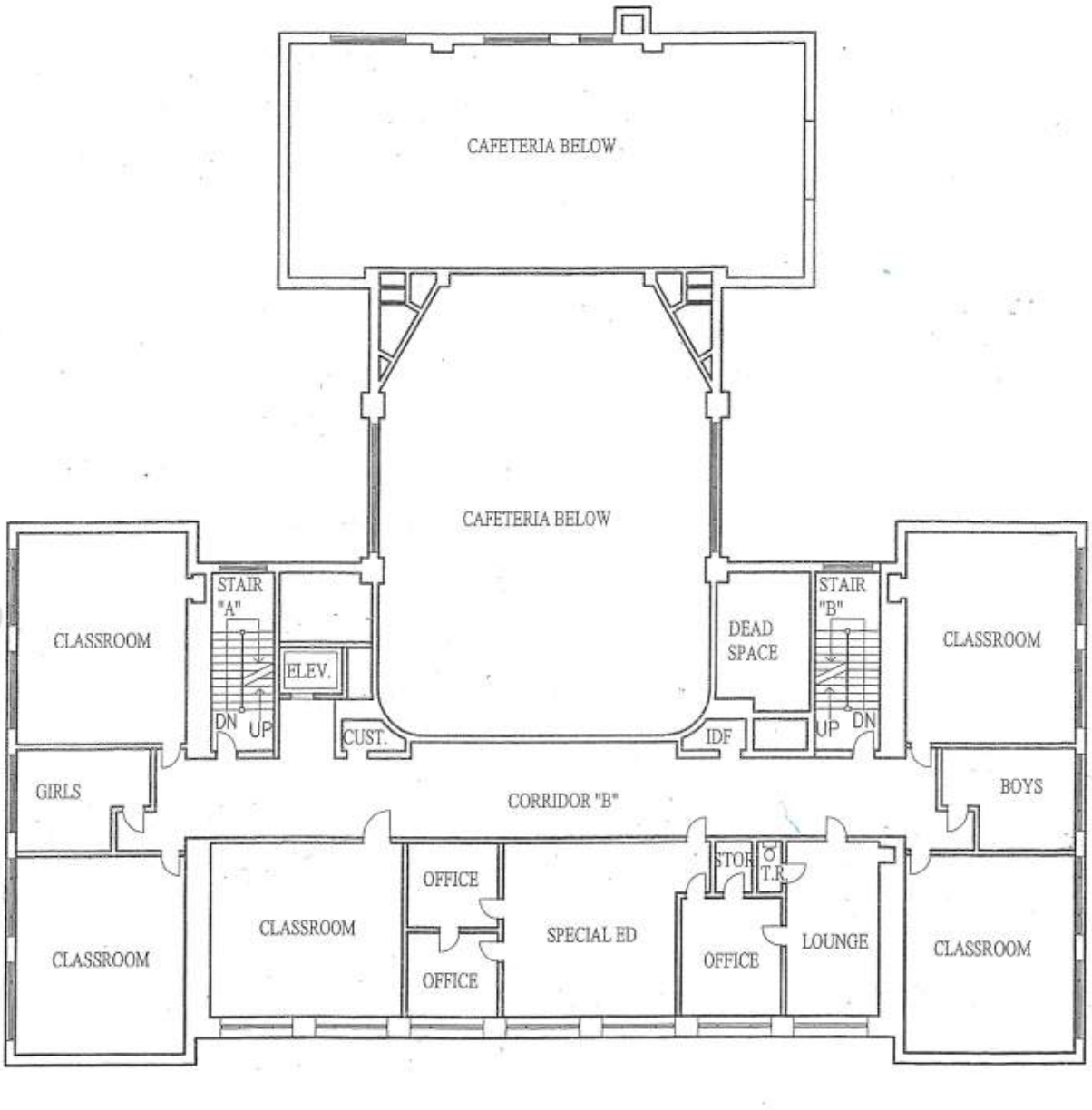


Figure 2: The existing Second Floor Plan. The Corridor once overlooked the present Cafeteria area. Fire rating requirements for the Corridor probably provided the impetus for infilling these window openings.

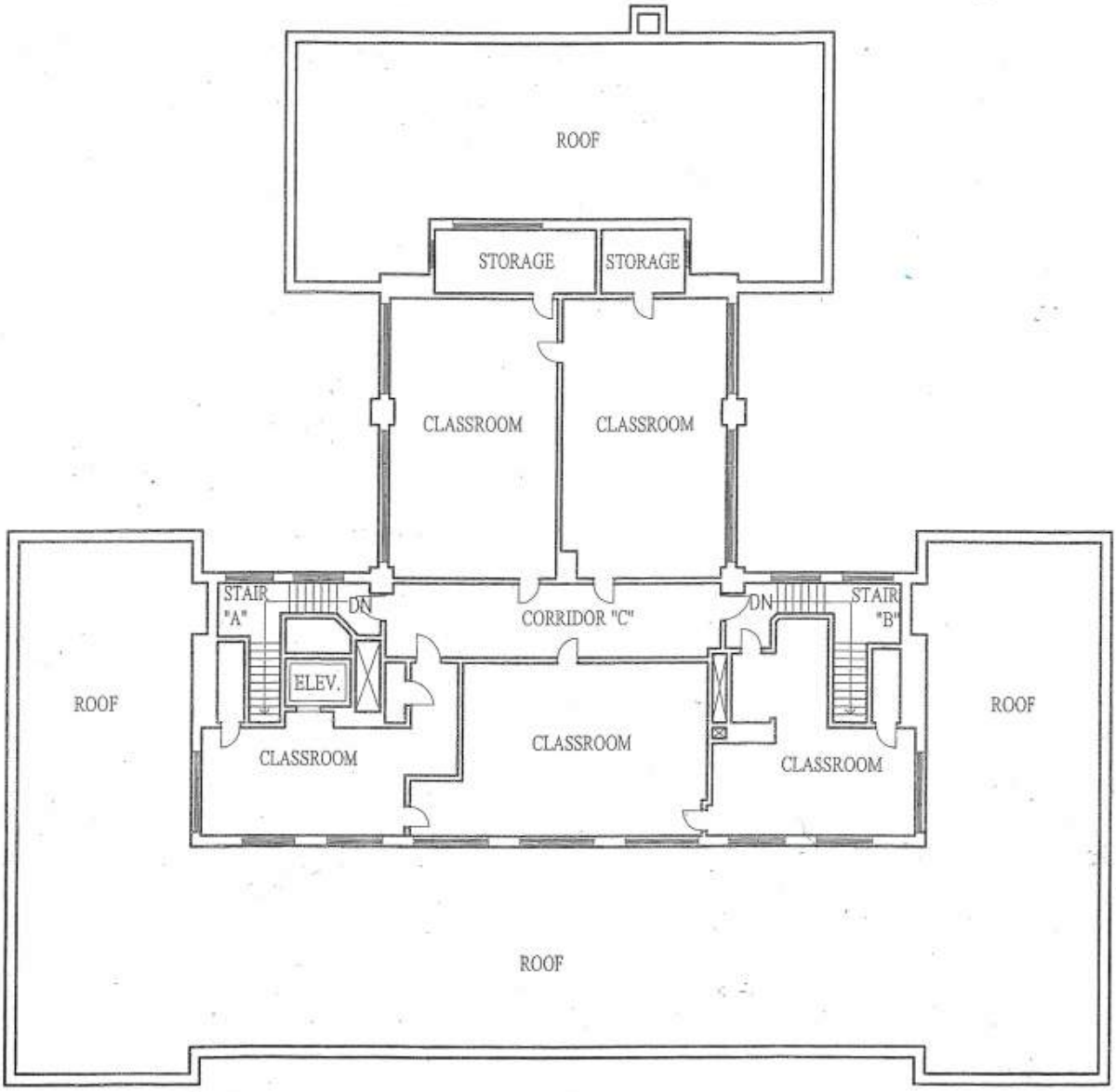


Figure 3: Third Floor Plan. Possibly due to failure of the flat roof drainage over the classroom areas, a wood framed hipped roof system was added over the existing concrete slab roof.

Character Defining Features

"The Secretary of the Interior's 'Standards for Historic Preservation Projects' embody two important goals: 1) the preservation of historic materials and, 2) the preservation of a building's distinguishing character. Every old building is unique, with its own identity and its own distinctive character. Character refers to all those visual aspects and physical features that comprise the appearance of every historic building. Character-defining elements include the overall shape of the building, its materials, craftsmanship, decorative details, interior spaces and features, as well as the various aspects of its site and environment."[2]

It is the intent of this section to identify those features which are essential to the overall character of the building. If these features are not recognized and preserved during the course of rehabilitation, loss of the unique character of the building may ensue.

Overall Visual Aspects

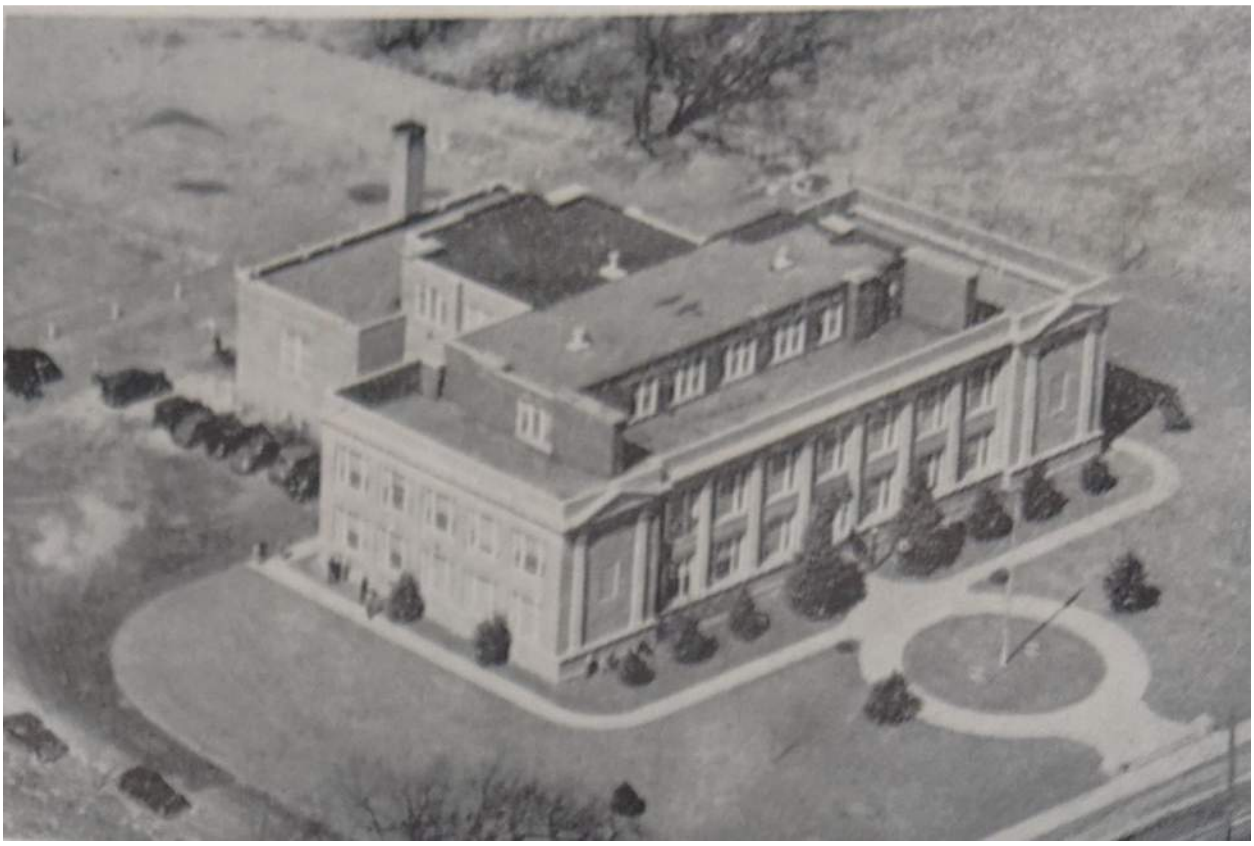


Photo 7: The building is sited on a knoll facing Route 12 with open space surrounding the building. A formal lawn with a circular walk surrounding the flag pole is still in place. The building is symmetrical about an east/west axis. Original flat roofs of the third floor have been built over with hipped roof structure. The character defining parapet and pediments on the end pavilions have been removed.

[2] Nelson, Lee H. "Preservation Brief 17: Architectural Character: Identifying the Visual Aspects of Historic Buildings as an Aid to Preserving Their Character". National Park Service.

Photo 8: Character defining features of the façade include the red brick laid in Flemish Bond, decorative brick panels in the end pavilions, cast concrete two-story pilasters, cast concrete frieze and plinth base, granite foundation blocks and large window openings.

Photo 9: The main entrance approach, steps, railings, lamps, door surround, bracketed canopy with cast iron railing, and Plainfield High School bronze signage are all character defining features that should be retained.

Photo 10: The two-story Auditorium features a coffered ceiling with rows of electric lights around each coffer. Transom windows above the first-floor windows retain the original stained wood finish. The height of the space, the special ceiling treatment and the windows should be retained as they provide unique character to this space. Partitioned spaces within the room should be removed.

Photo 11: The staved wood columns outside of the Auditorium in the main corridor should be salvaged and refinished. Originally three double door openings provided entrance to the Auditorium. The entrance between the columns in this photograph has been blocked off, interrupting the symmetry.

Photo 12: The detailed entrance vestibule once provided a grander sense of entry into the building.

Photo 13: The height of the window openings has been obscured by a lowered ceiling, changing the proportions of the classroom and office spaces, and limiting natural lighting. The original ceiling height should be maintained. Original cabinetry should be retained to the greatest extent possible.

Photo 14: Several murals should be retained either within the school or at the Historical Society. The mural pictured above celebrates the 300-year anniversary of the Town of Plainfield.

Photo 15: Picture rail molding has been concealed above the dropped ceiling. The height of the original ceiling in the hallway once provided a sense of the monumental building. This wood trim is one of few interior details in the old school.

Existing Conditions / Assessment / Treatment Recommendations

ASSESSMENT OF CONDITIONS

During the conditions assessments, the various systems of the building were examined for present condition and performance. Each was evaluated in context relative to its importance as an element of the building, assessed based on known, acceptable standards, and described according to subjective terminology. Loosely defined, these terms are:

Excellent	the brief moment that a system is brand new or completely restored; this condition descriptor is symbolic only
Very good	the next moment, after the new or restored system is completed; regular inspections will suffice until maintenance is required
Good	a system that is functioning properly and routine maintenance is needed; painting, replacing shingles and repointing masonry are maintenance tasks
Fair	a system that is functioning adequately but work is needed, beyond routine maintenance, to improve system performance
Poor	a system that is not functioning adequately; significant work will be needed to restore the system to an acceptable condition
Very Poor	a system that is not functioning or absent; wholesale replacement of some or all of the components of the system are necessary

Using the above-described criteria for evaluating conditions, the various tasks to bring all systems to a 'good' or better condition are then described in detail in the *Recommendations* section. The recommendations are for historically appropriate treatments. The criticality of fully restoring each as a functioning element of a building system is also prioritized accordingly. The descriptors assigned to each should be viewed independently and are not assigned relative to importance.

OVERVIEW OF APPROACHES TO TREATMENT

The Secretary of the Interior provides four distinct but interrelated approaches to the treatment of historic properties. Each is defined, below, so that the recommendations of this Conditions Assessment can be weighed and considered in context:

> *Preservation* focuses on the maintenance and repair of existing historic materials and retention of a property's form as it has evolved over time;
>
> *Rehabilitation* acknowledges the need to alter or add to a historic property to meet continuing or changing uses while retaining the property's historic character;
>
> *Restoration* is undertaken to depict a property at a particular period of time in its history, while removing evidence of other periods; and,
>
> *Reconstruction* re-creates vanished or non-surviving portions of a property for interpretive purposes.

The general recommendation of this report is to maintain the building as it appears today. This means replacement of elements of the various systems that have outlived their useful life. For example, if the brickwork is failing and allowing water infiltration then it must be replaced in kind, with the same material and installed in the same form and dimension as the details and assemblies being replaced.

Inappropriate replacement materials such as the aluminum windows should be replaced with historically accurate windows as may be discerned from historic photographs.

Missing materials such as the parapet and pavilion pediments could be replaced to restore the façade to its original state, but this would likely be extremely expensive and not add value to the use of the building at this time.

All recommendations are in accordance with guidelines set forth by the National Park Service of the U.S. Department of the Interior for the Rehabilitation of Historic Structures as follows.

Secretary of the Interior Standards for Rehabilitation of Historic Buildings[3]

Standards for Rehabilitation

1. A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces and spatial relationships.
2. The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces and spatial relationships that characterize a property will be avoided.
3. Each property will be recognized as a physical record of its time, place and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historic properties, will not be undertaken.
4. Changes to a property that have acquired historic significance in their own right will be retained and preserved.
5. Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.
6. Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.
7. Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.
8. Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.
9. New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work will be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.
10. New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

[3] US Department of the Interior National Park Service. The Secretary of the Interior's Standards for the Treatment of Historic Properties.

Structural Assessment - Cirrus Structural Engineering

Summary

The authors found the building to be suffering from significant water intrusion due to roof breaches and leaks caused by holes in the roof and clogged internal roof drains. Many of the main-wing ceilings have collapsed, leaving large areas of the building inaccessible. The floor framing appears to be intact; however, some localized damage to the rebar or structural steel may be found after the structure can be more thoroughly evaluated. It is believed that the frame is in relatively good condition and the building is generally re-usable.

A few deferred maintenance structural issues on the exterior of the building were observed including corroded steel lintels over windows, detachment of cast stone ornamentation on the front façade and a structural crack in the brick masonry.

During space planning for renovation or adaptive reuse, live load limitations and wall layout to retain vertical structure should be considered for most economical structural costs, as discussed in the body of the report.

Structural Description

For the purposes of this section, Putnam Road is considered to run in the north-south direction, with the front elevation of the school facing east.

The building was completed in 1924 and included the main wing to the east, backed by an auditorium wing connecting to a gymnasium/stage wing to the west. The building is two full stories, topped by a partial third floor. The building has a sub-grade crawlspace to the east, which extends to a full basement below the gymnasium/stage wing. Originally constructed with low-slope (flat roofs), a wood framed hipped-roof structure was added over the partial third floor along with new aluminum gutters and vinyl siding over the exterior brick walls of the same. The author suspects that the hipped roof and vinyl siding were contemporaneous with the last time the building was re-roofed in 1998, but could have been as early as the 1970's.

The building is constructed of fire-resistive floor, roof and wall construction, which appears to be a mix of concrete, structural steel, terra cotta and brick masonry.

- *Main Wing* - two full stories, with a partial third floor set back from the front façade. The first floor appears to be constructed using two different systems: a) reinforced concrete one-way slab construction supported on reinforced concrete beams (perhaps limited to corridor areas); and b) one-way clay tile and concrete rib "combination" floor system supported on brick, reinforced concrete and terra cotta bearing walls. Due to limited accessibility and visibility, the framing should be documented more closely to determine extent and depth of systems before moving forward with adaptive re-use.

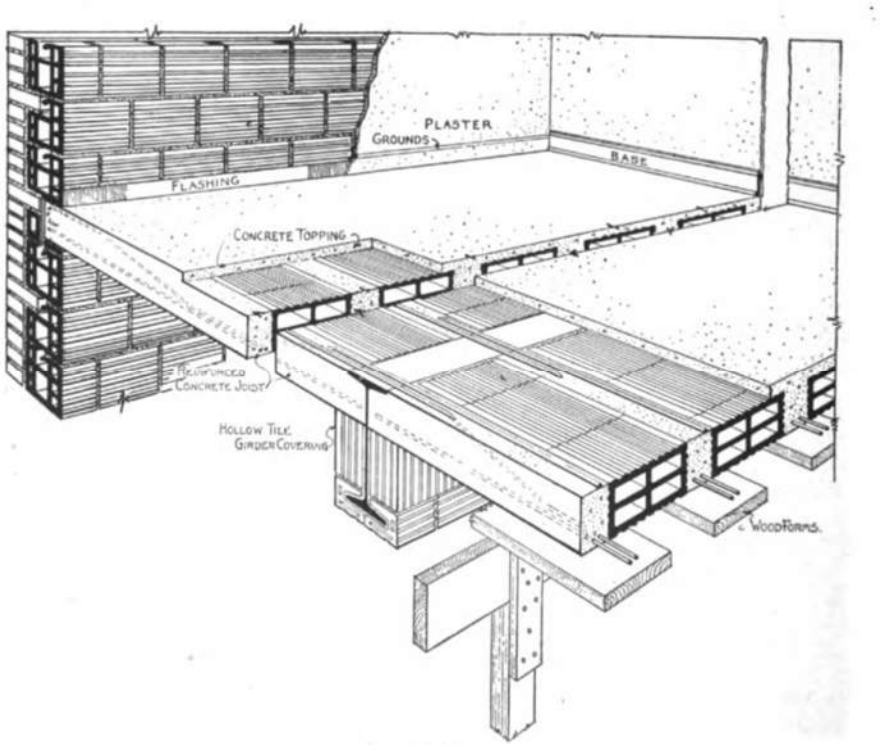


Figure 4. Isometric View of One-Way Clay Tile and Concrete Rib "Combination" Floor System from "Principles of Tile Engineering, Handbook of Design", 1947

Photo 16: First Floor One-Way Clay Tile Framing in Main Wing

The second, third and original roof levels in the classroom areas appear to be constructed of ribbed concrete slabs supported by concrete encased steel beams. Without closer inspection, it is unclear if the system was poured in place or precast; however, the author suspects that the system may be a proprietary precast concrete T-beam system such as the Watson Floor System

as shown below. If cast-in-place, another system called Truscon Floretyle Construction is likely. The joists span in the east-west direction in the east classrooms, and in the north-south direction in the north and south classrooms. The beams are most likely located along the classroom/corridor walls with intermittent concrete column or wall supports within the walls.

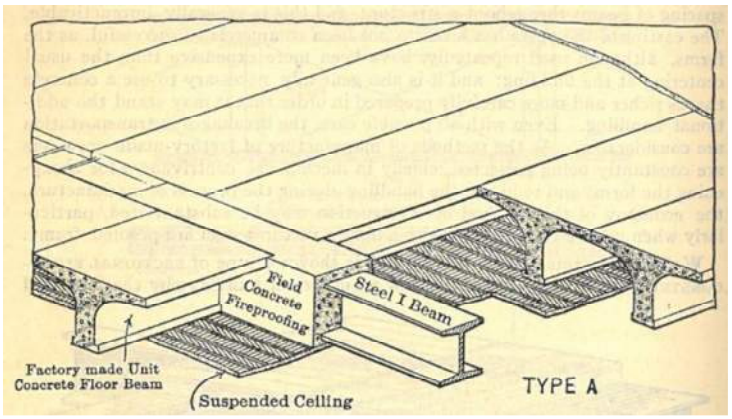


Figure 5: Watson Floor System from "Kidder-Nolan, Sixteenth Edition", 1915

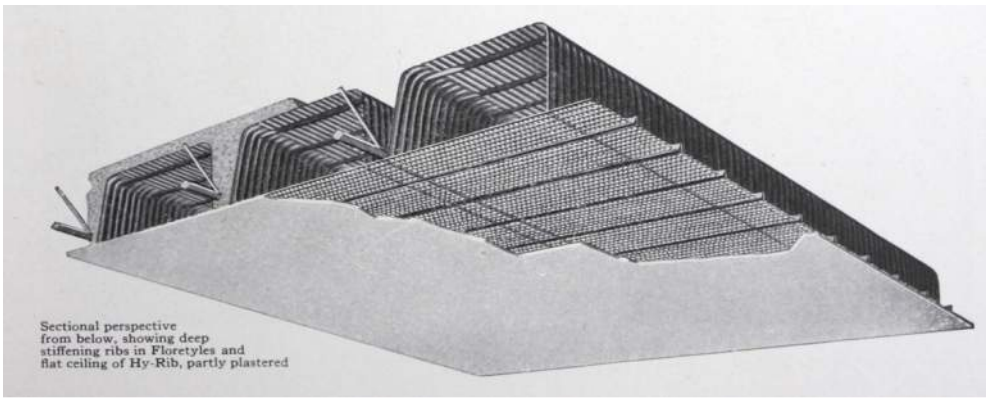


Figure 16: Truscon Floretyle Floor System from product literature dated 1925

Photo 17: Second Floor Ribbed Slab Construction

The second and third floor corridor framing is most likely reinforced concrete one-way slab construction which allowed for a higher ceiling in these locations.

Photo 18: Second Floor Concrete One-Way Slab Construction in Corridor

- *Auditorium Wing* - includes the main auditorium/cafeteria level with a clerestory "second floor" and classrooms / former office space connecting to the third floor of the main wing. The third floor and roof framing appear to be the same ribbed concrete construction as the main wing, with ribs running each the east-west direction between large concrete encased clear-span beams running in the north-west direction supported on concrete encased steel columns along the walls. The first floor framing is likely similar to the main wing.
- *Gymnasium/Stage Wing* - single story with a clerestory level to match the auditorium. The roof framing is similar to the auditorium wing but with the ribs running in the north-south direction, and beams in the east-west. The first floor framing appears to be similar to the roof framing in this area due to the presence of a full basement.

Photo 19: First Floor Ribbed Slab and Beam Construction with Finishes below Gym/Stage

Note that due to existence of finishes, as well as poor access due to debris, standing water in areas and accessibility of the crawlspace, the description and noted conditions need to be more fully investigated.

Considerations for Renovation.

Without a more precise understanding of the floor systems, the load capacity of the framing can only be estimated by comparing to local building code live loads of the time. These values are compared to current code prescribed live loads to highlight deficiencies when considering future uses. Current live loads for the existing use are listed in the table. Other live loads considered are libraries (reading rooms is 60 psf, stack rooms is 150 psf) and office spaces (40 psf). Note that the code allows for lower than prescribed capacities of framing if occupancy load limits are posted.

	Historic Live Loads	Current Code Live Loads	Discussion
Classroom Areas	75 psf (NY 1927), 50 psf (Boston 1926)	40 psf	Reuse as classroom or office space, reinforcement may be needed for library, assembly use or corridor/lobby space.
Corridors and Lobby	As classrooms	100 psf (first), 80 psf (upper)	Reuse as classroom or office space, reinforcement may be needed for library, assembly use or corridor/lobby space.
Assembly Areas (Auditorium and Gym/Stage)	100 psf (NY 1927 and Boston 1926)	100 psf	Reuse as classroom, office space, library reading areas or assembly use. Reinforcement may be needed for library stack rooms.

Table 1: Live Load Comparison Table

FLOORS AND ROOFS

Minimum Live Loads, Pounds per Square Foot

By Building Laws of Various Cities

Description of Building	New York, 1917	Chicago, 1919	Philadelphia, 1919	St. Louis, 1917	Boston, 1919	Cleveland, 1920	Baltimore, 1908	Pittsburgh, 1914	Cincinnati, 1917
Floors for Rooms									
Apartments and Dwellings.	40	40	70	50	50	70a	60	50	40
Asylums, Hospitals, etc..	100	50	70	50	50c			70	40
Detention Buildings, etc..	100	50			50c	80			60
Factories:									
Light manufacture.....	120d	100d	120d	100d	125d		125d	125d	100d
Heavier manufacture...			150d	150d	250d		175d		150d
Hotels, Lodging Houses..	40	50	70	50	50c	70	60	70	40b
Office Buildings, etc.....	60	50	100	60b	75b	70b	75b	70	50b
Public Buildings:									
Municipal Buildings....	100				75c	100			100
Churches.....	100	100	120	75	100	80	75	125	100
Libraries, Museums....	100				100	125		200	
Theaters.....	100	100	120	100	100	80	75	125	100
Schools, Colleges, etc.....	75	75		75	50	70	75	70	60
Stores, light goods.....	120	100	120	100	125	100b	125	125	100
" heavier goods.....			150	150	250		175		150
Warehouses.....			150	150	250		250	200	150
Floors for Assembly Halls, etc.									
Auditoriums, fixed seats..	100	100	120	100	100	80	75	125	100
" movable seats	100	100	120	100	100	125	125	125	100
Armories, Dance Halls, etc.	100	100			100	150		150	150

Figure 7: Live Loads by City and Use from "Carnegie Pocket Companion", 1923

The floor framing appears to be supported on the corridor/classroom walls along the north, east and south sides of the main wing. The east corridor wall appears to be a non-bearing terra cotta block partition wall with a concrete encased steel beam above. There are likely concrete encased steel columns within the wall, possibly aligning with the auditorium columns in the wing to the west. There was too much debris and water present near the north and south corridor walls to evaluate whether they are load-bearing or partition with a beam above. The walls between classrooms appear to be non-bearing partition walls. Further investigation will need to be done if layouts for future uses require removal of corridor walls or open spaces. Columns and vertical support not otherwise mentioned appears to be located along exterior walls.

Noted Conditions and Recommendations

The following conditions were observed during the site investigation and subsequent analysis, and are accompanied by *recommendations for repair or treatment.*

1. Roof Leaks Causing Water Infiltration into the Building. A substantial amount of rainwater is entering the building through multiple points of entry including:

    a. Roof above third floor: the asphalt shingle wood-framed hipped roof has lost a number of shingles at the north-east ends. Water appears to be infiltrating the "attic" and discharging out former interior flat roof drains, which have corroded and are thus discharging onto the third floor.

    b. Roof above the second floor (third floor deck): it appears that the internal roof drains at the north and south ends of the main wing are clogged allowing ponding on the roof. The ponding water is leaking into the building below by failures in either the roofing or roof drains in these areas. In addition, the roof drains were not originally intended to drain the third floor roof, whose newer aluminum exterior leaders discharge onto the second floor roof, and may not be sized to effectively drain the additional water.

    c. Roof above west wing: ponding is evident on the west roof, and a significant amount of water is present in the basement. It is likely the roof drain is clogged and/or leaking allowing water to flood the basement rather than being effectively drained away.

    Carbon steel is the building material most vulnerable to damage from interior roof leaking. It is found in the reinforcement inside reinforced concrete, the steel inside concrete encasements, and the expanded metal lathe supporting ceilings. Damage to the metal lathe is apparent in most parts of the main wing in the form of collapsed ceilings and corroded lathe. *All damaged ceilings will need to be replaced.* Concrete surrounding rebar and encasing structural steel helps to protect the embedded steel from the corrosive effects of water. Due to accessibility, it is unclear if the rebar or concrete encased steel has been damaged due to corrosion. Some localized damage is anticipated, *and repairs would likely include exposure and reinforcement of the steel, followed by patching of the concrete. Further investigation is needed to determine extent of damage.*

2. Unsupported Brick Bearing Wall. A portion of the brick bearing wall located in front of the elevator shaft was removed during construction of the newer elevator for access and currently remains unsupported. *New appropriately sized steel lintels should be added to safely carry the loads over the openings to the rest of the wall.*

Photo 20: Unsupported Brick over Newer Elevator Opening

3. Corrosion of Exterior Steel Lintels. In at least one location, steel window lintels corroded, and the expansive forces have caused the lintel to bend. *Typically, the most effective treatment for corroded and warped lintels is to replace them. Care should be taken to add flashing to the new lintels, as well as weep holes in the masonry, to allow water to drain out.*

Photo 21: Corroded Steel Lintel over Window

4. Cast Stone in Front becoming Detached. The ornamental cast stone adorning the front façade appears to be attached to the main brick masonry wall using masonry anchors to surface mount the stone. In at least one location, the cast stone appears to be jacking away from the building. *We recommend that the displaced cast stone be removed and rest using stainless steel anchors.*

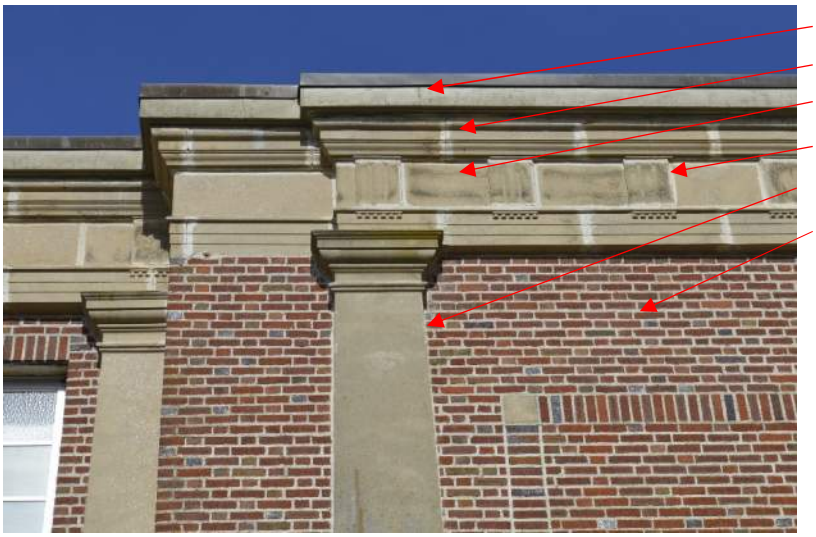
Photo 22: Cast Stone Ornamentation Shifting, Front Facade

5. Brick Crack. A crack is apparent in the south-west corner brick masonry, in the west addition. *The root cause of the crack should be evaluated and addressed, then the crack repaired with either cutting and pointing or resetting brick along the crack.*

Photo 23: Stress Crack in the Masonry Wall, Rear Facade.

Architectural Assessment - Evelyn Cole Smith Architects, LLC

Brick & Concrete

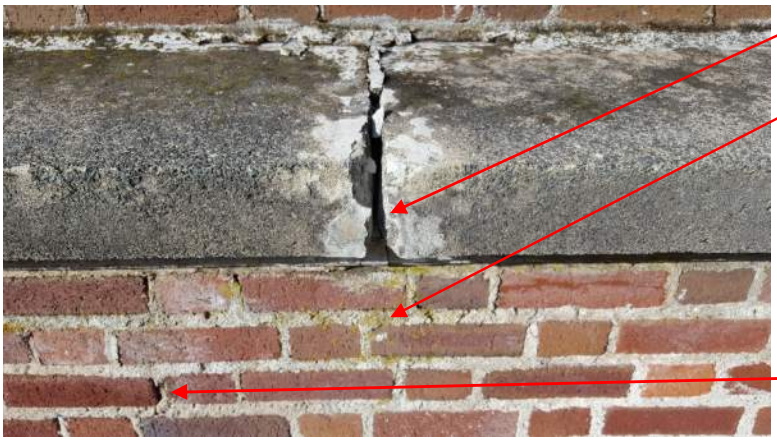


- Hairline fractures
- Previously repointed joints
- Frieze
- Triglyph
- Pilaster
- Flemish bond brickwork

Photo 24: A close up view of the top of the north pavilion.

In general, the brick veneer is in good condition. The wire-cut brick of the front and side facades has not spalled as some of the smooth-faced brick of the rear elevation has. Mortar joints are for the most part in serviceable condition with localized exceptions. The cast concrete detailing is in fair condition. Past repointing of the frieze was poorly done and is quite visible. There are minor hairline cracks visible at the cap below the metal flashing.

Photo 25: Horizontal joints at the pilasters need repointing as do the vertical joints in the hood over the front door.



- Failed mortar joint allows water into the cavity wall.
- Algae can withhold moisture and contribute to spalling of masonry materials during the freeze/thaw cycle.
- Selective brick repointing is required.

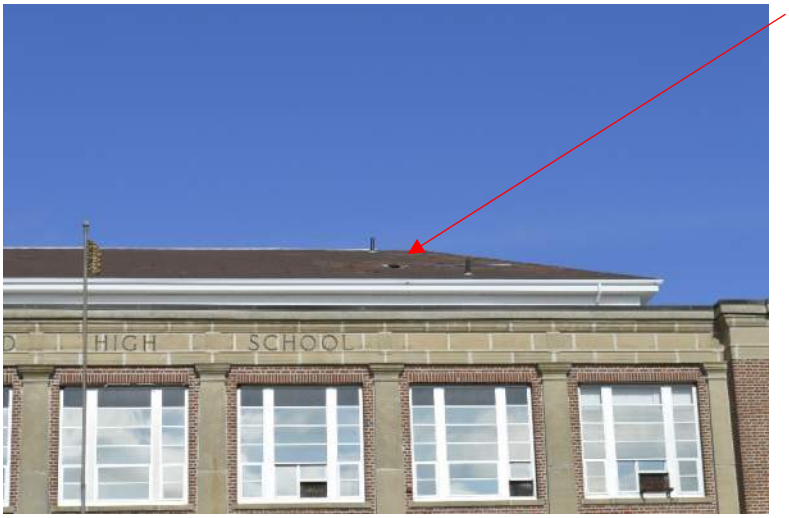
Photo 26: Mortar joints between the cast concrete bands that cap the plinth have failed and may be allowing water to infiltrate into the wall structure. A joint sealant rather than mortar laid in a horizontal plane will weather better.

- Spalling concrete will require repair.
- One of the pilasters is pulling away from the wall and will need to be removed and reinstalled.

Photo 27: Inappropriate and failing aluminum windows should be replaced with energy efficient units that match the historic double-hung window style and dimensions.

- Cast iron features including the railing above the entrance, the handrails and the lamp posts should be restored.
- A historically appropriate door should replace the existing door.
- The granite steps should be cleaned of moss and algae that will contribute to spalling of the stone.
- Efflorescence (leaching salts) should be removed from the face of the brick and the cause of moisture within the wall alleviated.

Photo 28: Originally the front entrance consisted of a pair of French doors filling the entire opening below the transom. Given building code requirements, a single wider door was added, flanked by side panels.



A large hole in the roof sheathing allows water to pond on the original concrete roof deck, and drain into the upper floors through the old interior roof drains which are no longer functionally connected. The shingle roof requires replacement, the sheathing will need some replacement as may some of the rafter framing.

Photo 29: The asphalt shingles on the hipped roof third floor have served beyond their useful life.

Water transported from the third-floor roof via the leader is directed to the flat, original second floor roof. Since the interior roof drains are either clogged or disconnected, the water ponds in certain areas and was observed to be infiltrating the building through damaged roof flashing along the brick portion of the building.

The membrane roof will need to be replaced and roof drainage systems redesigned.

Photo 30: Ponding water exerts unintended forces on the roof structure, promotes growth of algae and plant materials which harm the integrity of the membrane, and infiltrates compromised flashing joints.

An abandoned roof drain at the original third-floor roof level is now directing water from the hole in the hipped roof into the classroom, damaging finishes and making its way to the first floor of the building.

Photo 31: Third floor interior roof drain.

Water infiltration has caused the plaster ceiling to collapse onto the suspended ceiling below. Most plaster wall finishes are compromised by moisture as are wood and tile floor finishes.

Photo 32: Floor, wall and ceiling finishes will need to be replaced.

New heating and cooling systems will need to be designed for the new use. The heating plant that served this building was removed during the demolition of the 1961 high school building in 2005. The building has been unheated since then which has contributed to the failure of the finish materials.

Photo 33: Heating system will need upgrading.

Multiple generations of wiring are present and most likely not trustworthy. Once the debris is removed, the systems should be evaluated for reuse.

Photo 34: All power, life safety and lighting systems should be removed and replaced.

Prioritized Treatment Plan and Estimate of Costs

Plainfield High School Annex				
Item	Assessment	Treatment Recommendations	Rehabilitation Schedule (years)	Cost Estimate
Site Drainage	Good	Evaluate when new use determined.	NA	-
Foundation	Fair	Repoint.	1-2	10,000
Framing	Fair	Replace roof framing where deteriorated.	Immediate	15,000
Brick exterior	Fair	Selective Repointing	1-2	40,000
Trim	Fair	Repair and repoint cast stone trim.	1-2	20,000
Windows	Very Poor	Board -up and eventually remove and replace.	Immediate	50,000
Doors	Poor	Board -up glazed doors.	Immediate	2,000
Roofing	Very Poor	Tear off and replace shingle roof and membrane roof.	Immediate	250,000
Chimneys	Unknown	Evaluate if needed for future use.	NA	-
Gutters and Downspouts	Very Poor	Remove and replace in conjunction with reroofing.	Immediate	15,000
Flooring	Very Poor	Remove all flooring	Immediate	50,000
Ceilings	Very Poor	Remove all debris.	Immediate	50,000
Walls	Very Poor	Remove all debris.	Immediate	150,000
Plumbing	Unknown	Evaluate when new use determined.	NA	-
Electrical	Unknown	Evaluate when new use determined.	NA	-
Mechanical	Very Poor	Install ventilation system for mothballed building.	Immediate	15,000
ADA accessibility	Unknown	Evaluate when new use determined.	NA	-
Total Cost of All Work				$667,000

Priorities and Cost

Immediate

Roof and roof drainage	$280,000
Debris removal	$250,000
Mothballing	$ 67,000
	$597,000

1-2 Years

Envelope repointing	$ 70,000

Note that design fees are not included in the construction cost estimate above.

Potential Funding Sources

Roof Repair

CT State Historic Preservation Office

Survey and Planning Grant, matching grant up to $20,000 for preparation of Construction Documents.

https://portal.ct.gov/DECD/Content/Historic-Preservation/02_Review_Funding_Opportunities/Grant-Opportunities/Survey-and-Planning-Grants

Historic Restoration Fund matching grants up to $100,000 for bricks and mortar work.

https://portal.ct.gov/DECD/Content/Historic-Preservation/02_Review_Funding_Opportunities/Grant-Opportunities/Historic-Restoration-Fund-Grants

Debris Removal

CT Department of Economic Development

Brownfields Development Grant, up to $4 million for removal of hazardous materials and other infrastructure remediation issues.

https://portal.ct.gov/DECD/Content/Community-Development/03_Funding_Opportunities/Brownfields-Remediation/Brownfield-Municipal-Grant-Program

Development

USDA Rural Development grants and loans for development of community facilities.

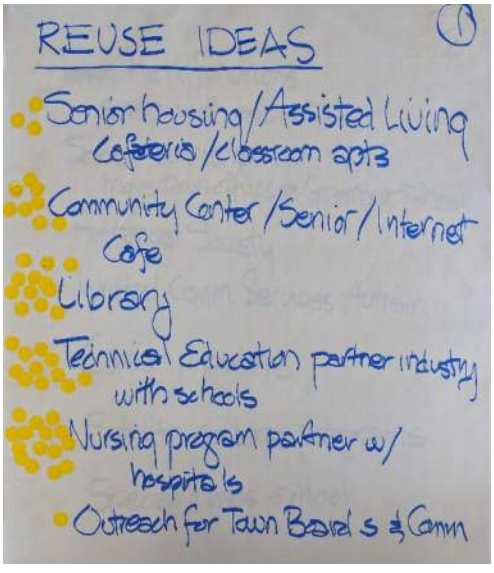
https://www.rd.usda.gov/programs-services/community-facilities-direct-loan-grant-program

Feasibility Study

The main goal of the Town of Plainfield is to determine a viable re-use for the old Plainfield High School building. Having served at least three generations of students, and as residents recognize the building's symbolic place within the community, there is a genuine desire to save the structure. As noted earlier, a Feasibility Study was performed in 2005 but the timing, just prior to an economic recession, did not bode well for investment in the renovation of this building for public or private use. Subsequently, in 2011, the building was sold to a private developer for use as a multifaceted innovation complex. Unfortunately, the project failed and the building ownership reverted to the Town.

In the Spring of 2019, the Town of Plainfield hosted a public informational meeting with the intent of updating the community on the condition of the building and soliciting public input as to potential future uses. Evelyn Cole Smith, architect, facilitated the meeting by first presenting the history of the property and its current condition, and then inviting public comment on appropriate use of the building.

Photo 35: April 25, 2019 Informational Meeting. Mary Ann Chinatti, photograph.



About twenty residents expressed their vision of how the building might be reused to meet community needs. After documenting the suggestions on paper, an informal tally of preferences was taken as participants affixed stickers to their top five reuse favorites.

Photo 36: One of the preference boards.

Plainfield High School Annex
Reuse Preferences

Educational		**58**
	Career Pipeline	11
	Technical Education Partner Programs	11
	Satellite College Programs	7
	United Community Services	3
	Special Needs School	4
	School Administration	6
	Day Care	1
	Nursing Program	15
Civic		**9**
	Town Hall	8
	Outreach space for Town Boards/Commissions	1
Business		**6**
	Business Incubator	5
	Registered Kitchen	1
Community		**35**
	Arts and Culture Center	7
	Community Center/Senior Center/Internet Café	8
	Farmer's Market	3
	Historical Society	5
	Library	12
Housing		**3**
	Senior Housing/Assisted Living	3
		111

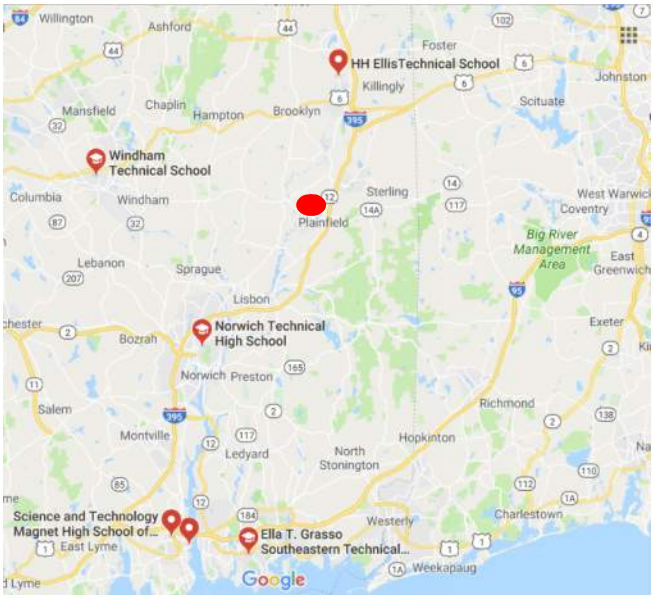
Figure 8: The tally of respondent's preferences for building re-use.

The concepts were grouped into general categories representing educational, civic, business, community and housing uses. Educational uses were identified most often, followed by community and civic functions. These three preferences are the focus of the feasibility study that follows.

Educational Use

During the Public Information Meeting, it became clear through comments from citizens, educators, town officials and local business enterprises that alternative educational experiences, for both traditional students and adults, would enhance the quality and quantity of the local workforce. A skilled workforce would attract businesses which would in turn provide jobs that would support the retention of community members and improve the quality of life for multiple generations of residents. A lack of job opportunities for residents in conjunction with a lack of skilled labor for local businesses is hindering economic development and the maintenance of a stable community.

The mission of the Plainfield Public Schools is "To prepare ALL students to lead safe and healthy lives with the skills to become productive members of the community and the workforce". As a means to this end, the school system offers a variety of learning options to students. Traditionally, Plainfield high school age students have the option to apply for enrollment at other local schools with specialized areas of instruction. The several options include H.H. Ellis Technical High School, The Killingly High School Regional Vocational Agriculture Center, The Quinebaug Valley Middle College, Three Rivers Middle College (grades 11-12) or EASTCONN's Arts Magnet High School. The movement of these students out of the Plainfield school system is a financial drain. Reversing this trend and encouraging students to embrace alternative education opportunities through a specialized curriculum could be a win/win situation.



Consistent with the mission of the school system, a small technical high school focused on manufacturing could strengthen the existing network of Technical High Schools. The mission of the Connecticut Technical High School System is to provide a unique and rigorous high school learning environment that:

- ensures both student academic success, and trade/technology mastery and instills a zest for lifelong learning;
- prepares students for post-secondary education, including apprenticeships, and immediate productive employment;
- and responds to employers' and industries' current and emerging and changing global workforce needs and expectations through business/school partnerships.

Figure 9: Google Map showing location of Technical High Schools in relation to the Annex site.

These goals dovetail with those of local manufacturers. The Plainfield School System has fostered a partnership with local manufacturer, Westminster Tool, LLC. "The goal of this partnership is to promote awareness and education of local advanced manufacturing career opportunities for all students."[4] From the development of Makerspace labs in the elementary schools to manufacturing coursework and

[4] Plainfield High School website: https://phs.plainfieldschools.org/news/westminster_tool_llc_partnership
Westminster Tool website: https://www.westminstertool.com/2017/06/06/manufacturing-education- outreach/

college credit at the high school level, this collaboration not only stimulates interest in science, technology, engineering and math (STEM) education, but serves to provide job skills and opportunities for work within the local community. A specialized curriculum focused on manufacturing careers could provide the opportunity to retain Plainfield high school students and potentially engage other interested students in the region.

More of this type of partnership with local and regional manufacturing businesses could support reuse of the old Plainfield High School as a learning space for work skill development programs that are beyond the scope of a traditional high school education, and that include adult education and retraining programs. Existing classroom spaces are available as flexible teaching spaces, and scientific or computer laboratories, while larger areas could be used as simulated manufacturing facilities, collaboration spaces and media resource rooms.

Similar partnership programs with local hospitals and community colleges could reinforce the healthcare workforce and augment health care curriculums by making programming accessible locally and affordably. Again, the building configuration supports a variety of learning environments and public gathering and support space for this type of educational facility.

Multiple other positive and creative ideas, generated in the community discussion, reinforce the reuse of the building as an educational facility to which it is well suited. The following concept sketches illustrate the possibilities for this type of use.

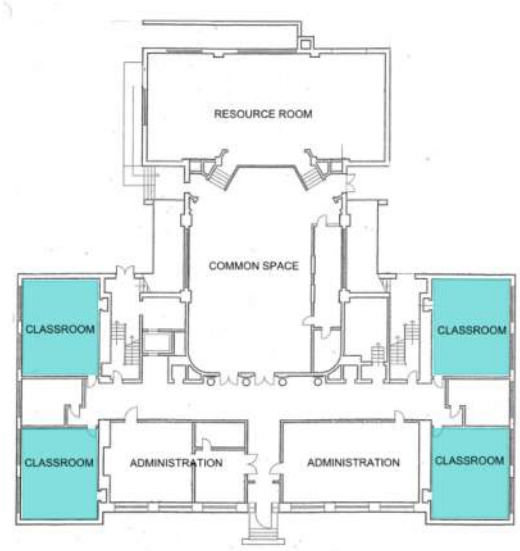


Figure 10: First Floor Plan

The first floor provides suitable space for administrative and public functions as well as classrooms. Common Space could be collaboration areas associated with the Resource Room or Library.

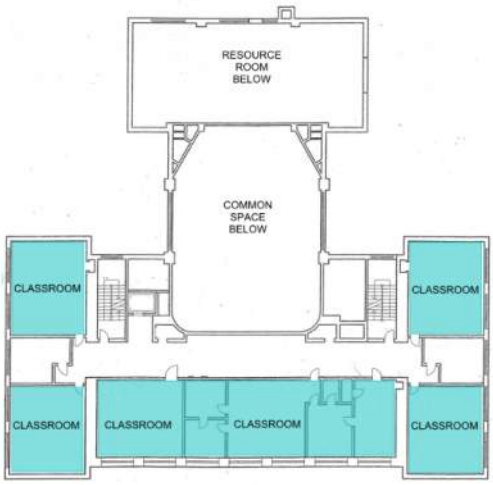


Figure 11: Second Floor Plan

The second floor could house Classrooms and potentially faculty office space.

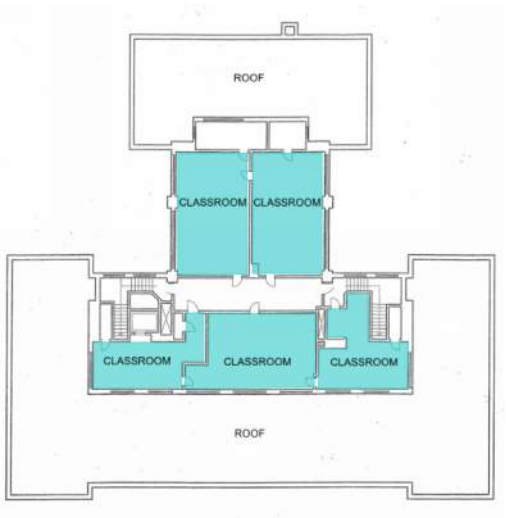


Figure 12: Third Floor Plan

The third floor has the potential to host both classrooms, collaborative spaces and offices.

Community Use

The informational meeting generated discussion about non-governmental community uses being viable occupants of the building. While many of the suggested programs already exist in other buildings in Plainfield, the sense was that these facilities are undersized, have limited program growth potential, and are sometimes not functionally appropriate for the intended use.

Community spaces that were identified as needs, in order of their popularity, included the following:

- Library
- Community Center / Senior Center / Internet Café
- Arts and Culture Center
- Historical Society
- Farmer's Market

A town library that provides facilities beyond those possible in the historic Aldrich Free Public Library was envisioned as a prominent community need. As a past cost saving measure, all of Plainfield's village libraries were consolidated into the Aldrich Library, constructed in 1896, in the village of Moosup. While the library building has served the community for over 120 years in varying expanded capacities, the small spaces are not well suited to contemporary library functions.

Photo 37: Aldrich Free Public Library[5]

The old Plainfield High School building could potentially house the library on the first floor of the building. As noted in the structural portion of this report, floor systems would need to be reinforced to carry the code required stack loading, but the building structure allows for barrier free open spaces. Non-stack uses could be accommodated on the second floor without the need for structural reinforcement. A formal needs assessment documenting existing collections and future visions is required to determine a more precise building program than what is illustrated in the concept plan prepared by Jeter, Cook & Jepson Architects in the 2005 feasibility study. A potential reuse of the Aldrich Free Library building could be for use by the Plainfield Historical Society, thereby freeing up space in the Senior Center for expanded programming.

The vision of a community center that could incorporate a variety of functions including an expanded Senior Citizens Center, and public gathering spaces, was noted as being a potential reuse option for the Annex building. Other identified town needs might also be included in the building creating a vibrant center that would attract residents of all ages. In lieu of the library on the first floor, the former auditorium and gymnasium areas could support arts and culture uses such as meeting and presentation space for several hundred people, gallery and exhibit spaces, stage, and internet café type gathering rooms. Senior Citizen activities, wellness rooms and offices could easily be integrated into the numerous classrooms on the first, second and third floors. Dining associated with senior programming could be

[5] http://www.waymarking.com/gallery/image.aspx?f=1&guid=c3a66fc1-1970-4dbc-a501-e96d2ca726a2

held in the larger multipurpose rooms on the first floor. The historical society could potentially be housed within the building as well. A year-round farmer's market might be housed on the first floor in one of the classroom areas, while an outdoor program could be developed for a larger summer and fall marketplace. Exterior grounds and parking areas, adjacent to high school playing fields offer a wide range of programming opportunities that might not be possible at other town owned properties.

Programming the needs of each potential user is beyond the scope of this study, but assessing the space requirements for each group may be a useful planning tool as the Town determines the highest and best use for all of its properties as discussed further in the section on Civic Uses of the building.

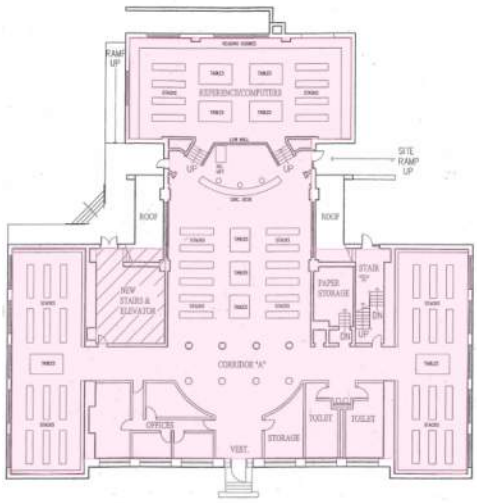


Figure 13: First Floor Plan

As illustrated in the JCJ plan of 2005, there is an opportunity to develop a central library on the first floor of the building as the building structure lends itself to larger, interconnected rooms.

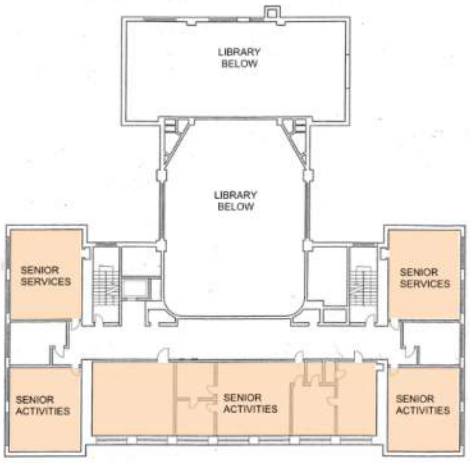


Figure 14: Second Floor Plan

The existing classroom configuration could accommodate many senior services and activities, but dining programs are not provided if the multipurpose spaces on the first floor are slated for library functions.

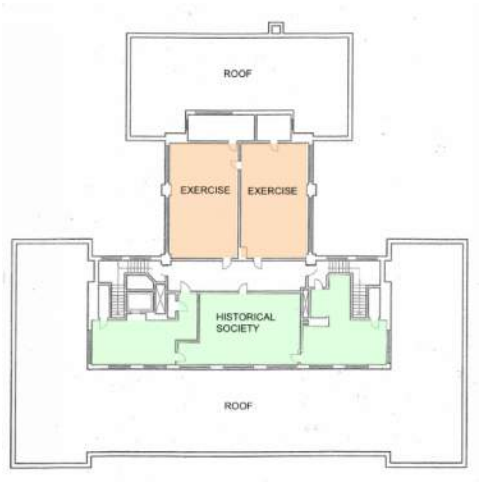


Figure 15: Third Floor Plan

The Plainfield Historical Society could be housed within the building in combination with the Library scenario, or on the more accessible first floor level in the Community Center concept. Space needs for collections and exhibits will need to be assessed to determine the actual square footage attributed to this function.

Civic Use

The Town of Plainfield owns multiple buildings for which they are responsible. Most are older and many town functions have been incorporated into structures that were not intended for the current purpose. Even so, the Town has creatively used and created space to meet most needs of Plainfield citizens. Given the discussion about the potential reuse of the Plainfield High School Annex building it is fitting to assess the potential to incorporate municipal uses into the old school facility.

Town Hall

The town offices are housed in the former recreation center which was constructed for the workers of the Lawton Mill complex. Built in 1920 it housed a "swimming pool, bowling alleys, pool tables, a card room, and a library[6]. Since 1942 it has housed most municipal offices as well as an auditorium and the pool. The first floor footprint is approximately 13,800 SF including the auditorium. This is close to the 13,500 SF first floor of the Annex building which also includes an Auditorium.

Photo 38: Town Hall circa 1920. Norwich Bulletin photo.

Senior Center and Recreation Department

Converted for use as the Senior Center in 1987, the building is also the home to the Recreation Department which oversees the swimming pool at the Town Hall complex. A one room addition was constructed recently to house the Plainfield Historical Society.

Photo 39: Senior Center. Assessor's photo.

If the Town offices were relocated to three floors of the Annex, it might be possible to relocate the Historical Society, Senior Center and Recreation Department to the 8 Community Avenue property (Town Hall) where functionally, the programs might be a good fit with the previous Community Center use of the building, and with the pool which is already under the jurisdiction of the Recreation Department and a useful asset to senior programming. The Senior Center building might then join the tax rolls or serve another town function.

Floor plans reflecting potential Town Hall space use in the Annex building follow.

[6] Lawton Mills National Register Historic District Nomination

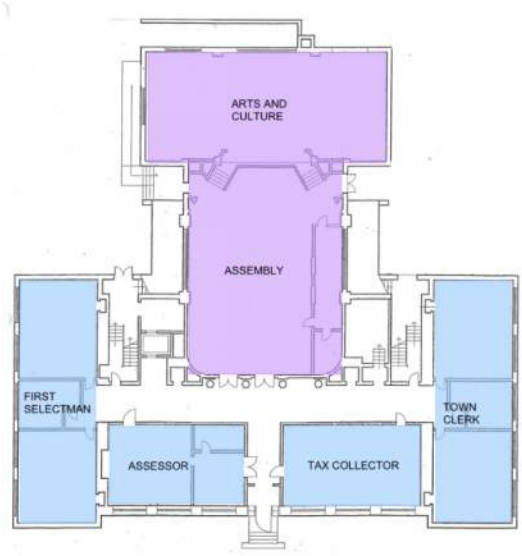


Figure 16: First Floor Plan

Offices that constitute the front line of Town Hall functions could be located on the first floor along with a Town Hall Meeting Room and perhaps and Arts and Culture space.

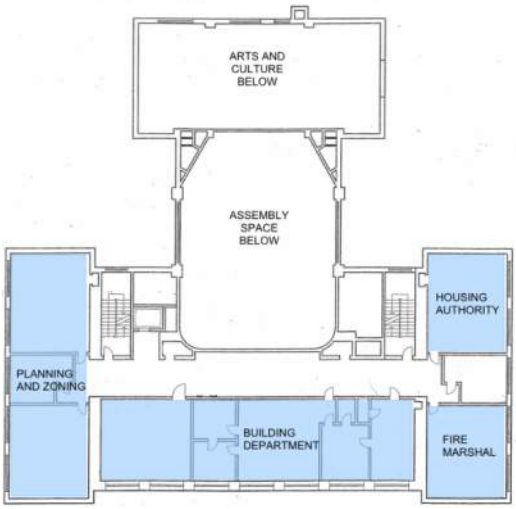


Figure 17: Second Floor Plan

Land Use officials and associated offices might reside on the second floor.

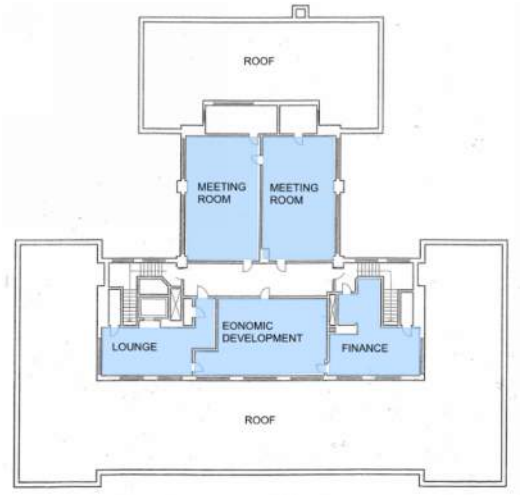


Figure 18: Third Floor Plan

Offices with less need for a public presence could be located on the third floor with the potential to have smaller committee meeting rooms as well.

Planning and Zoning Considerations

The Planning and Zoning Regulations of the Town of Plainfield are intended to ensure the safety, security and well-being of residents by providing guidance as to land use and quality of development. The old Plainfield High School property at 87 Putnam Road is a distinct parcel of 1.5 acres or about 65,340 square feet, consistent with the designated R-60 district in which residential properties must have a minimum lot size of 60,000 square feet. Permitted uses within R-60 district, that relate specifically to the identified reuse options of the High School Annex building are the following:

- SCHOOLS, PUBLIC OR PRIVATE
- HOSPITALS
- CHURCHES

Permissible uses within the district include the following with the approval of a Special Permit.

- MUNICIPAL BUILDINGS
- ELDERLY HOUSING
- ACCESSORY APARTMENTS
- CHILD CARE CENTER

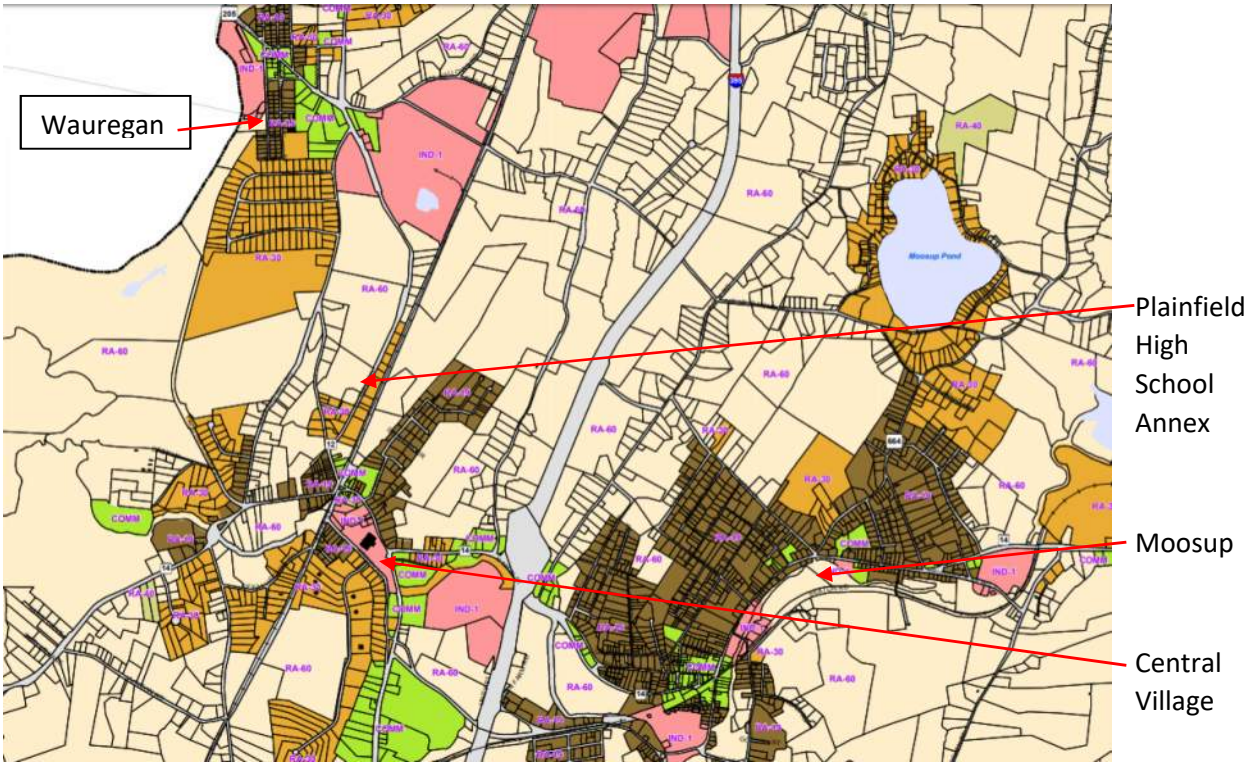


Figure 19: Partial view of the Town of Plainfield Zoning Map.

It should be noted that the parcel is within Flood Hazard Zone "C", an area of minimal flooding. There are no wetlands on the site. Existing paved parking areas adjacent to the building accommodate approximately 31 vehicles. Depending on the future use of the building, the parking area may need to be expanded based on the Zoning Enforcement Official's interpretation of the Regulations and parking requirements.

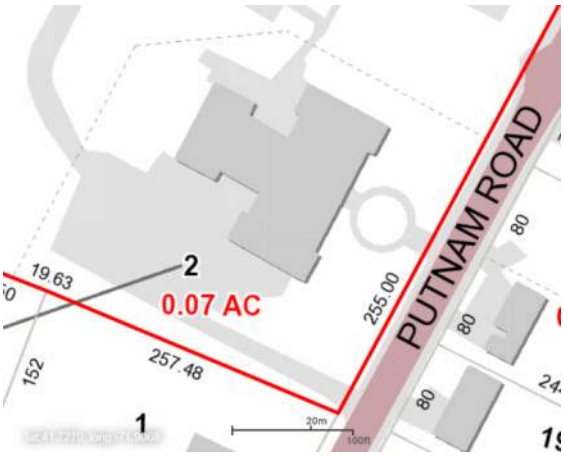


Figure 20: The parcel map taken from on-line accessors mapping.

The site is 1.5 acres, fronting on Putnam Road, adjacent to the new Plainfield High School and abutting playing fields and residential properties. Note that the 0.07 AC note relates to an adjacent property.

Building Code Considerations

Based on the current CT State Building Code (2015 International Building Code with CT Supplements), the three use options discussed earlier fall within the allowable height and area limits for the Type II A, non-combustible construction as follows:

Occupancy Classification	Allowable Height	Actual Height	Allowable # Stories	Actual # Stories	Allowable Area	Actual Area
E (Educational)	65	45	3	3	79,500	25,700
A-3 (Community Center)	65	45	3	3	46,500	25,700
B (Municipal Use)	65	45	5	3	112,500	25,700

Fire protection systems, such as an automatic sprinkler system, may need to be installed based on the intended use group. This would include Educational areas with a fire area greater than 12,000 square feet; the first floor is 13,000 square feet. All floors of the Community Center need to have an automatic sprinkler system, while the Municipal use is not required to have an automatic fire suppression system.

The layout of the building is such that there are two stair towers that serve each of the three floors. This should be enough egress capacity, but all code compliance issues should be critically studied based on the intended use group.

Due to the level of renovation necessary, including all utility systems and finishes, the entire building will need to be brought up to current code. There may be some exceptions to this if the use remains Educational, and if the Existing Building Code is used as the basis of code interpretation. The fact that the building is listed on the State Register of Historic Places may allow for alternative code compliance options. The building will need to be brought into compliance with the American's with Disabilities Act (ADA) given any of the suggested reuse options.

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Appendices

Preservation Brief #31 – Mothballing Historic Buildings

31 PRESERVATION BRIEFS

Mothballing Historic Buildings

Sharon C. Park, AIA

U.S. Department of the Interior
National Park Service
Cultural Resources
Heritage Preservation Services

When all means of finding a productive use for a historic building have been exhausted or when funds are not currently available to put a deteriorating structure into a useable condition, it may be necessary to close up the building temporarily to protect it from the weather as well as to secure it from vandalism. This process, known as mothballing, can be a necessary and effective means of protecting the building while planning the property's future, or raising money for a preservation, rehabilitation or restoration project. If a vacant property has been declared unsafe by building officials, stabilization and mothballing may be the only way to protect it from demolition.

This Preservation Brief focuses on the steps needed to "de-activate" a property for an extended period of time. The project team will usually consist of an architect, historian, preservation specialist, sometimes a structural engineer, and a contractor. Mothballing should not be done without careful planning to ensure that needed physical repairs are made prior to securing the building. The steps discussed in this Brief can protect buildings for periods of up to ten years; long-term success will also depend on continued, although somewhat limited, monitoring and maintenance. For all but the simplest projects, hiring a team of preservation specialists is recommended to assess the specific needs of the structure and to develop an effective mothballing program.

A vacant historic building cannot survive indefinitely in a boarded-up condition, and so even marginal interim uses where there is regular activity and monitoring, such as a caretaker residence or non-flammable storage, are generally preferable to mothballing. In a few limited cases when the vacant building is in good condition and in a location where it can be watched and checked regularly, closing and locking the door, setting heat levels at just above freezing, and securing the windows may provide sufficient protection for a period of a few years. But if long-term mothballing is the only remaining option, it must be done properly (see fig. 1 & 2). This will require stabilization of the exterior, properly designed security protection, generally some form of interior ventilation - either through mechanical or natural air exchange systems - and continued maintenance and surveillance monitoring.

Figure 1. Proper mothballing treatment: This building has been successfully mothballed for 10 years because the roof and walls were repaired and structurally stabilized, ventilation louvers were added, and the property is maintained. Photo: Charles E. Fisher, NPS.

Comprehensive mothballing programs are generally expensive and may cost 10% or more of a modest rehabilitation budget. However, the money spent on well-planned protective measures will seem small when amortized over the life of the resource. Regardless of the location and condition of the property or the funding available, the following 9 steps are involved in properly mothballing a building:

Figure 2. Improper treatment: Boarding up without adequate ventilation, lack of maintenance, and neglect of this property have accelerated deterioration. Photo; NPS file.

Documentation

1. Document the architectural and historical significance of the building.

2. Prepare a condition assessment of the building.

Stabilization

3. Structurally stabilize the building, based on a professional condition assessment.

4. Exterminate or control pests, including termites and rodents.

5. Protect the exterior from moisture penetration.

Mothballing

6. Secure the building and its component features to reduce vandalism or break-ins.

7. Provide adequate ventilation to the interior.

8. Secure or modify utilities and mechanical systems.

9. Develop and implement a maintenance and monitoring plan for protection.

These steps will be discussed in sequence below. Documentation and stabilization are critical components of the process and should not be skipped over. Mothballing measures should not result in permanent damage, and so each treatment should be weighed in terms of its reversibility and its overall benefit.

Documentation

Documenting the historical significance and physical condition of the property will provide information necessary for setting priorities and allocating funds. The project team should be cautious when first entering the structure if it has been vacant or is deteriorated. It may be advisable to shore temporarily areas appearing to be structurally unsound until the condition of the structure can be fully assessed (see fig. 3). If pigeon or bat droppings, friable asbestos or other health hazards are present, precautions must be taken to wear the appropriate safety equipment when first inspecting the building. Consideration should be given to hiring a firm specializing in hazardous waste removal if these highly toxic elements are found in the building.

Documenting and recording the building. Documenting a building's history is important because evidence of its true age and architectural significance may not be readily evident. The owner should check with the State Historic Preservation Office or local preservation commission for assistance in researching the building. If the building has never been researched for listing in the National Register of Historic Places or other historic registers, then, at a minimum, the following should be determined:

- The overall historical significance of the property and dates of construction;
- the chronology of alterations or additions and their approximate dates; and,
- types of building materials, construction techniques, and any unusual detailing or regional variations of craftsmanship.

Old photographs can be helpful in identifying early or original features that might be hidden under modern materials. On a walk-through, the architect, historian, or preservation specialist should identify the architecturally significant elements of the building, both inside and out (see fig.4).

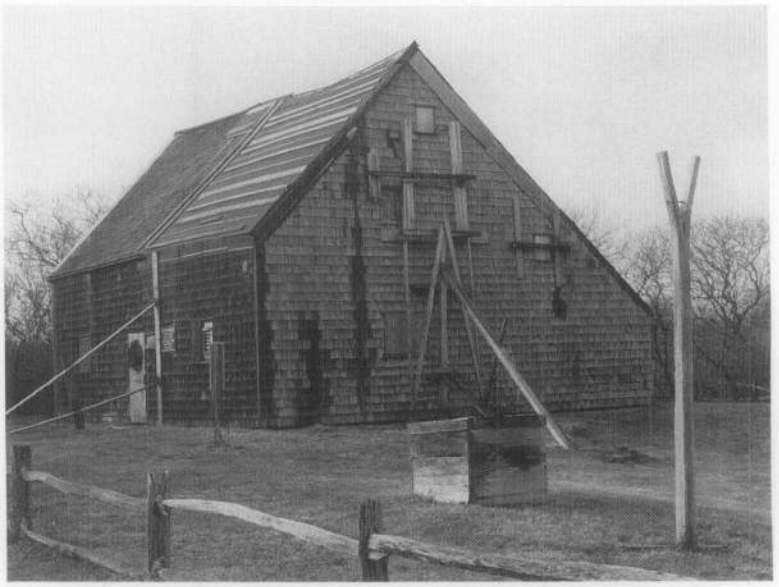

Figure 3. Buildings seriously damaged by storms or deterioration may need to be braced before architectural evaluations can be made. Jethro Coffin House. Photo: John Milner Architects.

Figure 4. Documenting the building's history, preparing schematic plans, and assessing the condition of the building will provide necessary information on which to set priorities for stabilization and repair prior to securing the building. Photo: Frederick Lindstrom, HABS.

By understanding the history of the resource, significant elements, even though deteriorated, may be spared the trash pile. For that reason alone, any materials removed from the building or site as part of the stabilization effort should be carefully scrutinized and, if appearing historic, should be photographed, tagged with a number, inventioried, and safely stored, preferably in the building, for later retrieval (see fig. 5).

A site plan and schematic building floor plans can be used to note important information for use when the building is eventually preserved, restored, or rehabilitated. Each room should be given a number and notations added to the plans regarding the removal of important features to storage or recording physical treatments undertaken as part of the stabilization or repair.

Because a mothballing project may extend over a long period of time, with many different people involved, clear records should be kept and a building file established. Copies of all important data, plans, photographs, and lists of consultants or contractors who have worked on the property should be added to the file as the job progresses.

Figure 5. Loose or detached elements should be identified, tagged and stored, preferably on site. Photo: NPS files.

Recording all actions taken on the building will be helpful in the future.

The project coordinator should keep the building file updated and give duplicate copies to the owner. A list of emergency numbers, including the number of the key holder, should be kept at the entrance to the building or on a security gate, in a transparent vinyl sleeve.

Preparing a condition assessment of the building. A condition assessment can provide the owner with an accurate overview of the current condition of the property. If the building is deteriorated or if there are significant interior architectural elements that will need special protection during the mothballing years, undertaking a condition assessment is highly recommended, but it need not be exhaustive.

A modified condition assessment, prepared by an architect or preservation specialist, and in some case a structural engineer, will help set priorities for repairs necessary to stabilize the property for both the short and long-term. It will evaluate the age and condition of the following major elements: foundations; structural systems; exterior materials; roofs and gutters; exterior porches and steps; interior finishes; staircases; plumbing, electrical, mechanical systems; special features such as chimneys; and site drainage.

To record existing conditions of the building and site, it will be necessary to clean debris from the building and to remove unwanted or overgrown vegetation to expose foundations. The interior should be emptied of its furnishing (unless provisions are made for mothballing these as well), all debris removed, and the interior swept with a broom. Building materials too deteriorated to repair, or which have come detached, such as moldings, balusters, and decorative plaster, and which can be used to guide later preservation work, should be tagged, labeled and saved.

Photographs or a videotape of the exterior and all interior spaces of the resource will provide an invaluable record of "as is" conditions. If a videotape is made, oral commentary can be provided on the significance of each space and architectural feature. If 35mm photographic prints or slides are made, they should be numbered, dated, and appropriately identified. Photographs should be cross-referenced with the room numbers on the schematic plans. A systematic method for photographing should be developed; for example, photograph each wall in a room and then take a corner shot to get floor and ceiling portions in the picture. Photograph any unusual details as well as examples of each window and door type.

For historic buildings, the great advantage of a condition assessment is that architectural features, both on the exterior as well as the interior, can be rated on a scale of their importance to the integrity and significance of the building. Those features of the highest priority should receive preference when repairs or protection measures are outlined as part of the mothballing process. Potential problems with protecting these features should be identified so that appropriate interim solutions can be selected. For example, if a building has always been heated and if murals, decorative plaster walls, or examples of patterned wall paper are identified as highly significant, then special care should be taken to regulate the interior climate and to monitor it adequately during the

mothballing years. This might require retaining electrical service to provide minimal heat in winter, fan exhaust in summer, and humidity controls for the interior.

Stabilization

Stabilization as part of a mothballing project involves correcting deficiencies to slow down the deterioration of the building while it is vacant. Weakened structural members that might fail altogether in the forthcoming years must be braced or reinforced; insects and other pests removed and discouraged from returning; and the building protected from moisture damage both by weatherizing the exterior envelope and by handling water run-off on the site. Even if a modified use or caretaker services can eventually be found for the building, the following steps should be addressed.

Structurally stabilizing the building. While bracing may have been required to make the building temporarily safe for inspection, the condition assessment may reveal areas of hidden structural damage. Roofs, foundations, walls, interior framing, porches and dormers all have structural components that may need added reinforcement. Structural stabilization by a qualified contractor should be done under the direction of a structural engineer or a preservation specialist to ensure that the added weight of the reinforcement can be sustained by the building and that the new members do not harm historic finishes (see fig. 6). Any major vertical post added during the stabilization should be properly supported and, if necessary, taken to the ground and underpinned.

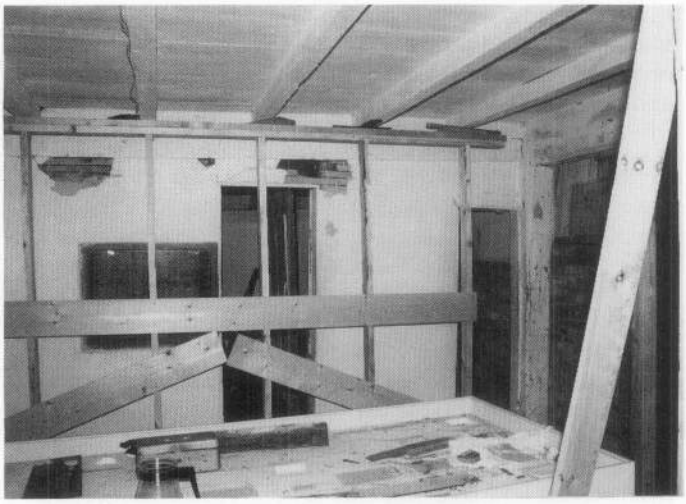

Figure 6. Interior bracing which will last the duration of the mothballing will protect weakened structural members. Jethro Coffin House. Photo: John Milner Architects.

If the building is in a northern climate, then the roof framing must be able to hold substantial snow loads. Bracing the roof at the ridge and mid-points should be considered if sagging is apparent. Likewise, interior framing around stair openings or under long ceiling spans should be investigated. Underpinning or bracing structural piers weakened by poor drainage patterns may be a good precaution as well. Damage caused by insects, moisture, or from other causes should be repaired or reinforced and, if possible, the source of the damage removed. If features such as porches and dormers are so severely deteriorated that they must be removed, they should be documented, photographed, and portions salvaged for storage prior to removal.

If the building is in a southern or humid climate and termites or other insects are a particular problem, the foundation and floor framing should be inspected to ensure that there are no major structural weaknesses. This can usually be done by observation from the crawl space or basement. For those structures where this is not possible, it may be advisable to lift selective floor boards to expose the floor framing. If there is evidence of pest damage, particularly termites, active colonies should be treated and the structural members reinforced or replaced, if necessary.

Controlling pests. Pests can be numerous and include squirrels, raccoons, bats, mice, rats, snakes, termites, moths, beetles, ants, bees and wasps, pigeons, and other birds. Termites, beetles, and carpenter ants destroy wood. Mice, too, gnaw wood as well as plaster, insulation, and electrical wires. Pigeon and bat droppings not only damage wood finishes but create a serious and sometimes deadly health hazard.

If the property is infested with animals or insects, it is important to get them out and to seal off their access to the building. If necessary, exterminate and remove any nests or hatching colonies. Chimney flues may be closed off with exterior grade plywood caps, properly ventilated, or protected with framed wire screens. Existing vents, grills, and louvers in attics and crawl spaces should be screened with bug mesh or heavy duty wire, depending on the type of pest being controlled. It may be advantageous to have damp or infected wood treated with insecticides (as permitted by each state) or preservatives, such as borate, to slow the rate of deterioration during the time that the building is not in use.

Securing the exterior envelope from moisture penetration. It is important to protect the exterior envelope from moisture penetration before securing the building. Leaks from deteriorated or damaged roofing, from around windows and doors, or through deteriorated materials, as well as ground moisture from improper site run-off or rising damp at foundations, can cause long-term damage to interior finishes and structural systems. Any serious deficiencies on the exterior, identified in the condition assessment, should be addressed.

To the greatest extent possible, these weatherization efforts should not harm historic materials. The project budget may not allow deteriorated features to be fully repaired or replaced in-kind. Non-historic or modern materials may be used to cover historic surfaces temporarily, but these treatments should not destroy valuable evidence necessary for future preservation work. Temporary modifications should be as visually compatible as possible with the historic building.

Roofs are often the most vulnerable elements on the building exterior and yet in some ways they are the easiest element to stabilize for the long term, if done correctly. "Quick fix" solutions, such as tar patches on slate roofs, should be avoided as they will generally fail within a year or so and may accelerate damage by trapping moisture. They are difficult to undo later when more permanent repairs are undertaken. Use of a tarpaulin over a leaking roof should be thought of only as a very temporary

Figure 7. Non-historic materials are appropriate for mothballing projects when they are used to protect historic evidence remaining for future preservation. This lightweight aluminum channel frame and roofing covers the historic wooden shingle roof. Galvanized mesh panels secure the window openings from intrusion by raccoons and other unwanted guests. Photo: Williamsport Preservation Training Center, NPS.

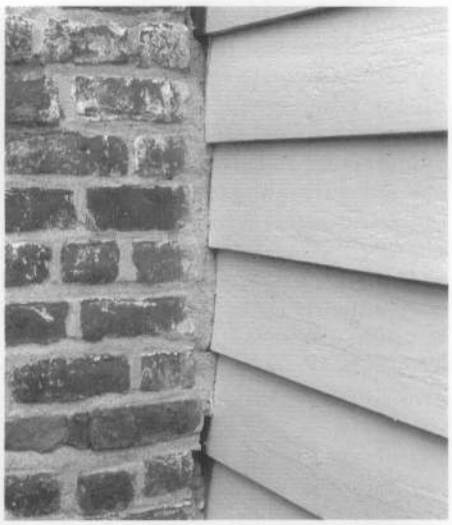

Figure 8. Appropriate mortar mixes should be used when masonry repairs are undertaken. In this case, a soft lime based mortar is used as an infill between the brick and wooden elements. When full repairs are made during the restoration phase, this soft mortar can easily be removed and missing bricks replaced.

emergency repair because it is often blown off by the wind in a subsequent storm.

If the existing historic roof needs moderate repairs to make it last an additional ten years, then these repairs should be undertaken as a first priority. Replacing cracked or missing shingles and tiles, securing loose flashing, and reanchoring gutters and downspouts can often be done by a local roofing contractor. If the roof is in poor condition, but the historic materials and configuration are important, a new temporary roof, such as a lightweight aluminum channel system over the existing, might be considered (see fig. 7). If the roofing is so deteriorated that it must be replaced and a lightweight aluminum system is not affordable, various inexpensive options might be considered. These include covering the existing deteriorated roof with galvanized corrugated metal roofing panels, or 90 lb. rolled roofing, or a rubberized membrane (refer back to cover photo). These alternatives should leave as much of the historic sheathing and roofing in place as evidence for later preservation treatments.

For masonry repairs, appropriate preservation approaches are essential. For example, if repointing deteriorated brick chimneys or walls is necessary to prevent serious moisture penetration while the building is mothballed, the mortar should match the historic mortar in composition, color, and tooling. The use of hard portland cement mortars or vapor-impermeable waterproof coatings are not appropriate solutions as they can cause extensive damage and are not reversible treatments (see fig. 8).

For wood siding that is deteriorated, repairs necessary to keep out moisture should be made; repainting is generally warranted. Cracks around windows and doors can be beneficial in providing ventilation to the interior and so should only be caulked if needed to keep out bugs and moisture. For very deteriorated wall surfaces on wooden frame structures, it may be necessary to sheathe in plywood panels, but care should be taken to minimize installation damage by planning the location of the nailing or screw patterns or by installing panels over a frame of battens (see fig. 9). Generally, however, it is better to repair deteriorated features than to cover them over.

Foundation damage may occur if water does not drain away from the building. Run-off from gutters and downspouts should be directed far away from the foundation wall by using long flexible extender pipes equal in length to twice the depth of the basement or crawl space. If underground drains are susceptible to clogging, it is recommended that the downspouts be disconnected from the drain boot and attached to flexible piping. If gutters and downspouts are in bad condition, replace them with inexpensive aluminum units.

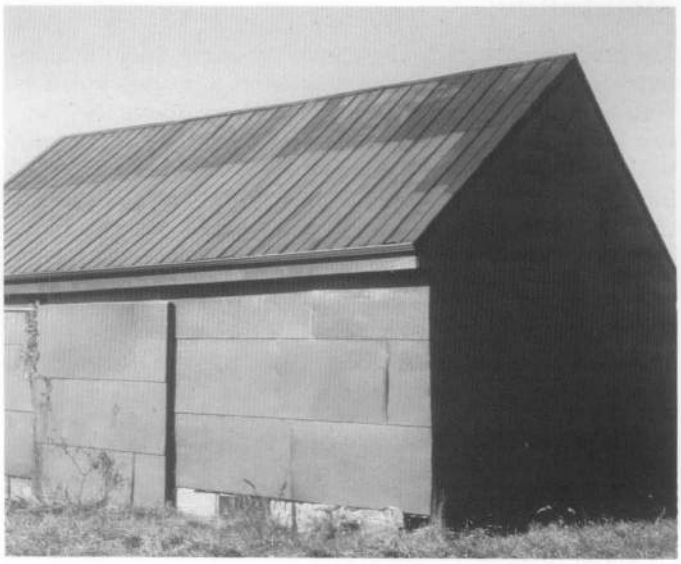

Figure 9. Severely deteriorated wooden siding on a farm building has been covered over with painted plywood panels as a temporary measure to eliminate moisture penetration to the interior. Foundation vents and loose floor boards allow air to circulate inside.

If there are no significant landscape or exposed archeological elements around the foundation, consideration should be given to regrading the site if there is a documented drainage problem (see fig. 10). If building up the grade, use a fiber mesh membrane to separate the new soil from the old and slope the new soil 6 to 8 feet (200 cm-266 cm) away from the foundation making sure not to cover up the dampcourse layer or come into contact with skirting boards. To keep vegetation under control, put down a layer of 6 mil black polyethylene sheeting or fiber mesh matting covered with a 2"-4" (5-10 cm.) of washed gravel. If the building suffers a serious rising damp problem, it may be advisable to eliminate the plastic sheeting to avoid trapping ground moisture against foundations.

Figure 10. Regrading around the Booker Tenement at Colonial Williamsburg has protected the masonary foundation wall from excessive damp. This building has been successfully mothballed for over 10 years. Note the attic and basement vents, the temporary stairs, and the informative sign interpreting the history of this building.

Mothballing

The actual mothballing effort involves controlling the long-term deterioration of the building while it is unoccupied as well as finding methods to protect it from sudden loss by fire or vandalism. This requires securing the building from unwanted entry, providing adequate ventilation to the interior, and shutting down or modifying existing utilities. Once the building is de-activated or secured, the long-term success will depend on periodic maintenance and surveillance monitoring.

Securing the building from vandals, break-ins, and natural disasters. Securing the building from sudden loss is a critical aspect of mothballing. Because historic buildings are irreplaceable, it is vital that vulnerable entry points are sealed. If the building is located where fire and security service is available then it is highly recommeded that some form of monitoring or alarm devices be used.

To protect decorative features, such as mantels, lighting fixtures, copper downspouts, iron roof cresting, or stained glass windows from theft or vandalism, it may be advisable to temporarily remove them to a more secure location if they cannot be adequately protected within the structure.

Mothballed buildings are usually boarded up, particularly on the first floor and basement, to protect fragile glass windows from breaking and to reinforce entry points (see fig. 11). Infill materials for closing door and window openings include plywood, corrugated panels, metal grates, chain fencing, metal grills, and cinder or cement blocks (see fig. 12). The method of installation should not result in the destruction of the opening and all associated sash, doors, and frames should be protected or stored for future reuse.

Figure 11. Urban buildings often need additional protection from unwanted entry and graffiti. This commercial building uses painted plywood panels to cover expansive glass storefronts and chain link fencing is applied on top of the panels. The upper windows on the street sides have been covered and painted to resemble 19th century sash. Photo: Thomas Jester, NPS.

Generally exterior doors are reinforced and provided with strong locks, but if weak historic doors would be damaged or disfigured by adding reinforcement or new locks, they may be removed temporarily and replaced with secure modern doors (see fig. 13). Alternatively, security gates in a new metal frame can be installed within existing door openings, much like a storm door, leaving the historic door in place. If plywood panels are installed over door openings, they should be screwed in place, as opposed to nailed, to avoid crowbar damage each time the panel is removed. This also reduces pounding vibrations from hammers and eliminates new nail holes each time the panel is replaced.

For windows, the most common security feature is the closure of the openings; this may be achieved with wooden or pre-formed panels or, as needed, with metal sheets or concrete blocks. Plywood panels, properly installed to protect wooden frames and properly ventilated, are the preferred treatment from a preservation standpoint.

There are a number of ways to set insert plywood panels into windows openings to avoid damage to frame and sash (see fig. 14). One common method is to bring the upper and lower sash of a double hung unit to the mid-point of the opening and then to install pre-cut plywood panels using long carriage bolts anchored into horizontal wooden bracing, or strong backs, on the inside face of the window. Another means is to build new wooden blocking frames set into deeply recessed openings, for example in an industrial mill or warehouse, and then to affix the plywood panel to

the blocking frame. If sash must be removed prior to installing panels, they should be labeled and stored safely within the building.

Plywood panels are usually 1/2"-3/4" (1.25-1.875 cm.) thick and made of exterior grade stock, such as CDX, or marine grade plywood. They should be painted to protect them from delamination and to provide a neater appearance. These panels may be painted to resemble operable windows or treated decoratively (see fig. 15). With extra attention to detail, the plywood panels can be

Figure 12. First floor openings have been filled with cinderblocks and doors, window sash and frames have been removed for safe keeping. Note the security light over the windows and the use of a security metal door with heavy duty locks. Photo: H. Ward Jandl, NPS.

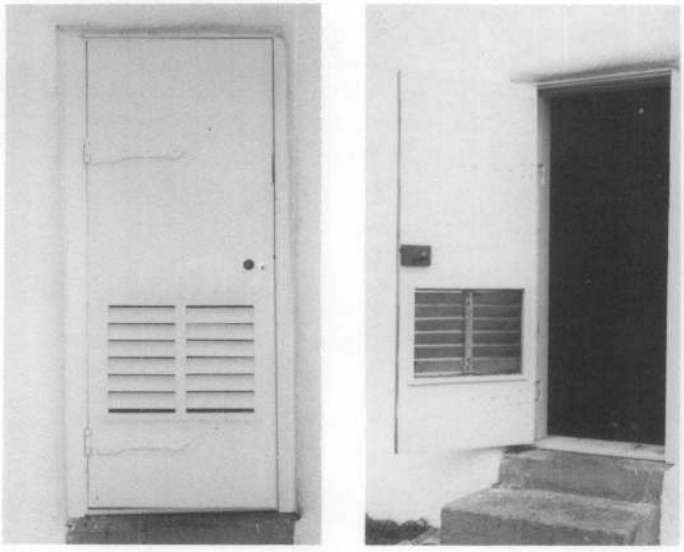

Figure 13. If historic doors would be damaged by adding extra locks, they should be removed and stored and new security doors added. At this lighthouse, the historic door has been replaced with a new door (seen both inside and outside) with an inset vent and new deadbolt locks. The heavy historic hinges have not been damaged. Photo: Williamsport Preservation Training Center, NPS.

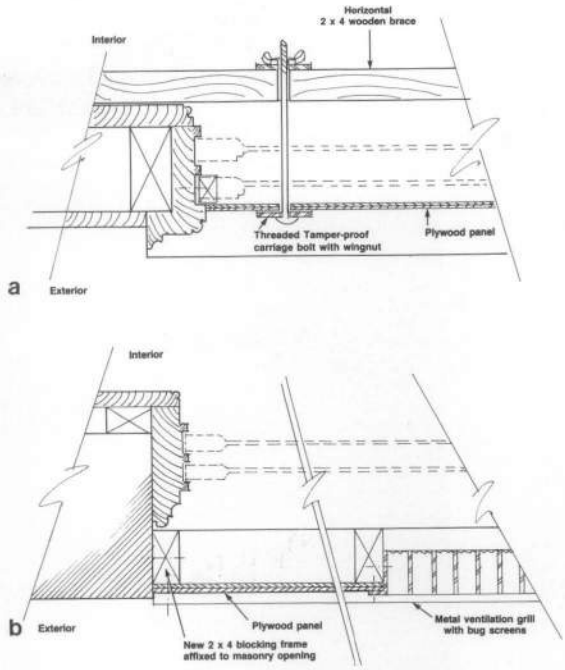

Figure 14. A: Plan detail showing plywood security panel anchored with carriage bolts through to the inside horizontal bracing, or strong backs. B: Plan detail showing section of plywood window panel attached to a new pressure treated wood frame set within the masonry opening. Ventilation should be included whenever possible or necessary.

Figure 15. Painting trompe l'oeil scenes on plywood panels is a neighborhood friendly device. In addition, the small sign at the bottom left corner gives information for contacting the organization responsible for the care of the mothballed building. Photo: Lee H. Nelson, FAIA.

trimmed out with muntin strips to give a shadow line simulating multi-lite windows. This level of detail is a good indication that the building is protected and valued by the owner and the community.

If the building has shutters, simply close the shutters and secure them from the interior (see fig. 16). If the building had shutters historically, but they are missing, it may be appropriate to install new shutters, even in a modern material, and secure them in the closed position. Louvered shutters will help with interior ventilation if the sash are propped open behind the shutters.

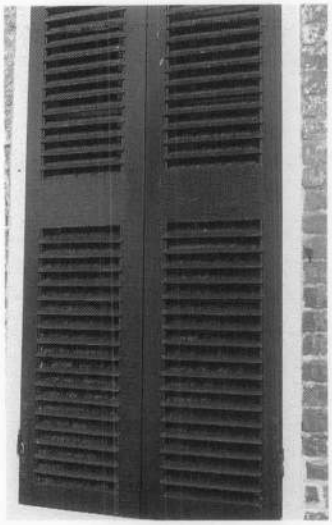

Figure 16. Historic louvered shutters make excellent security closures with passive ventilation.

There is some benefit from keeping windows unboarded if security is not a problem. The building will appear to be occupied, and the natural air leakage around the windows will assist in ventilating the interior. The presence of natural light will also help when periodic inspections are made. Rigid polycarbonate clear storm glazing panels may be placed on the window exterior to protect against glass breakage. Because the sun's ultraviolet rays can cause fading of floor finishes and wall surfaces, filtering pull shades or inexpensive curtains may be options for reducing this type of deterioration for significant interiors. Some acrylic sheeting comes with built-in ultraviolet filters.

Securing the building from catastrophic destruction from fire, lightning, or arson will require additional security devices. Lightning rods properly grounded should be a first consideration if the building is in an area susceptible to lightning storms. A high security fence should also be installed if the property cannot be monitored closely. These interventions do not require a power source for operation. Since many buildings will not maintain electrical power, there are some devices available using battery packs, such as intrusion alarms, security lighting, and smoke detectors which through audible horn alarms can alert nearby neighbors. These battery packs must be replaced every 3 months to 2 years, depending on type and usage. In combination with a cellular phone, they can also provide some level of direct communication with police and fire departments.

If at all possible, new temporary electric service should be provided to the building (see fig. 17). Generally a telephone

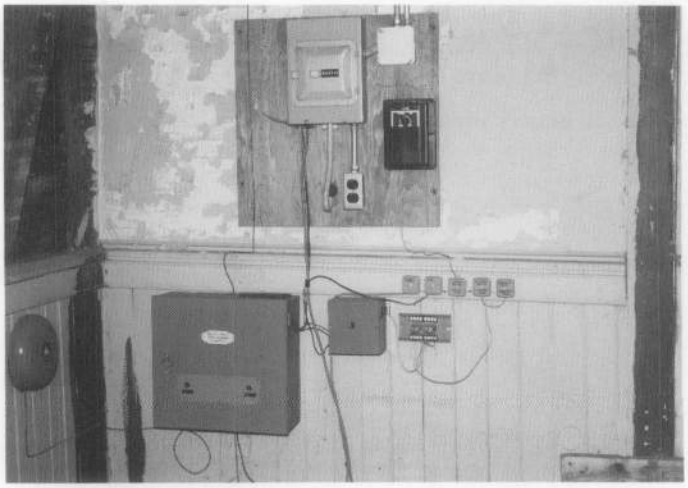

Figure 17. Security systems are very important for mothballed buildings if they are located where fire and security services are available. A temporary electric service with battery back-up has been installed in this building. Intrusion alarms and ionization smoke/fire detectors are wired directly to the nearby security service.

line is needed as well. A hard wired security system for intrusion and a combination rate-of-rise and smoke detector can send an immediate signal for help directly to the fire department and security service. Depending on whether or not heat will be maintained in the building, the security system should be designed accordingly. Some systems cannot work below 32°F (0°C). Exterior lighting set on a timer, photo electric sensor, or a motion/infra-red detection device provides additional security.

Providing adequate ventilation to the interior. Once the exterior has been made weathertight and secure, it is essential to provide adequate air exchange throughout the building. Without adequate air exchange, humidity may rise to unsafe levels, and mold, rot, and insect infestation are likely to thrive (see fig. 18). The needs of each historic resource must be individually evaluated because there are so many variables that affect the performance of each interior space once the building has been secured. A

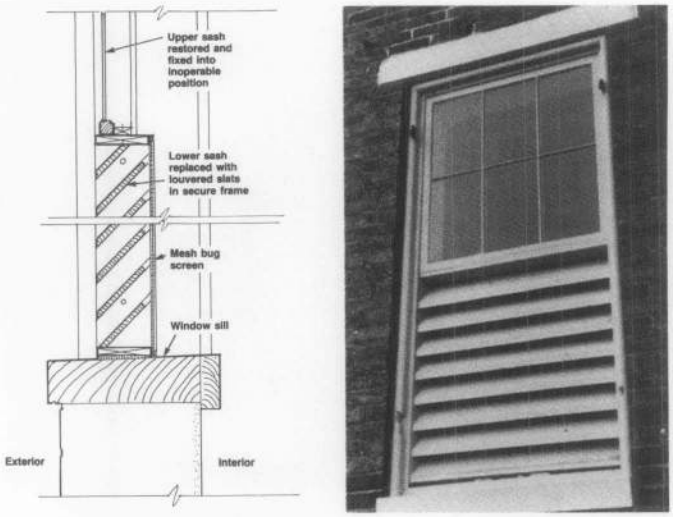

Figure 18. Heavy duty wooden slated louvers were custom fabricated to replace the deteriorated lower sash. The upper sash were rebuilt to retain the historic appearance and to allow light into this vacant historic building. Refer back to Fig. 1 for a view of the building. Photo: Charles E. Fisher, NPS. Drawing by Thomas Vitanza.

mechanical engineer or a specialist in interior climates should be consulted, particularly for buildings with intact and significant interiors. In some circumstances, providing heat during the winter, even at a minimal 45° F (7°C), and utilizing forced-fan ventilation in summer will be recommended and will require retaining electrical service. For masonry buildings it is often helpful to keep the interior temperature above the spring dew point to avoid damaging condensation. In most buildings it is the need for summer ventilation that outweighs the winter requirements.

Many old buildings are inherently leaky due to loose-fitting windows and floorboards and the lack of insulation. The level of air exchange needed for each building, however, will vary according to geographic location, the building's construction, and its general size and configuration.

There are four critical climate zones when looking at the type and amount of interior ventilation needed for a closed up building: hot and dry (southwestern states); cold and damp (Pacific northwest and northeastern states); temperate and humid (Mid-Atlantic states, coastal areas); and hot and humid (southern states and the tropics). (See fig. 19 for a chart outlining guidance on ventilation.)

Once closed up, a building interior will still be affected by the temperature and humidity of the exterior. Without proper ventilation, moisture from condensation may occur and cause damage by wetting plaster, peeling paint, staining woodwork, warping floors, and in some cases even causing freeze thaw damage to plaster. If moist conditions persist in a property, structural damage can result from rot or returning insects attracted to moist conditions. Poorly mothballed masonry buildings, particularly in damp and humid zones have been so damaged on the interior with just one year of unventilated closure that none of the interior finishes were salvageable when the buildings were rehabilitated.

The absolute minimum air exchange for most mothballed buildings consists of one to four air exchanges every hour; one or two air exchanges per hour in winter and often twice that amount in summer. Even this minimal exchange may foster mold and mildew in damp climates, and so monitoring the property during the stabilization period and after the building has been secured will provide useful information on the effectiveness of the ventilation solution.

There is no exact science for how much ventilation should be provided for each building. There are, however, some general rules of thumb. Buildings, such as adobe structures, located in hot and arid climates may need no additional ventilation if they have been well weatherized and no moisture is penetrating the interior. Also frame buildings with natural cracks and fissures for air infiltration may have a natural air exchange rate of 3 or 4 per hour, and so in arid as well as temperate climates may need no additional ventilation once secured. The most difficult

VENTILATION GUIDANCE CHART

CLIMATE	AIR EXCHANGES		VENTILATION				
Temperature and Humidity	Winter air exchange per hour	Summer air exchange per hour	Frame Buildings passive louvering % of openings louvered		Masonry Buildings passive louvering % of openings louvered		Masonry Buildings fan combination one fan + % louvered
			winter	summer	winter	summer	summer
hot and dry Southwestern areas	less than 1	less than 1	N/A	N/A	N/A	N/A	N/A
cold and damp Northeastern & Pacific northwestern areas	1	2-3	5%	10%	10%	30%	20%
temperate/humid Mid-Atlantic & coastal areas	2	3-4	10%	20%	20%	40%	30%
hot and humid Southern states & tropical areas	3	4 or more	20%	30%	40% or more	80%	40% or more

Figure 19. This is a general guide for the amount of louvering which might be expected for a medium size residential structure with an average amount of windows, attic, and crawl space ventilation. There is currently research being done on effective air exchanges, but each project should be evaluated individually. It will be noticed from the chart that summer louvering requirements can be reduced with the use of an exhaust fan. Masonry buildings need more ventilation than frame buidings. Chart prepared by Sharon C. Park, AIA and Ernest A. Conrad, PE.

buildings to adequately ventilate without resorting to extensive louvering and/or mechanical exhaust fan systems are masonry buildings in humid climates. Even with basement and attic vent grills, a masonry building many not have more than one air exchange an hour. This is generally unacceptable for summer conditions. For these buildings, almost every window opening will need to be fitted out with some type of passive, louvered ventilation.

Depending on the size, plan configuration, and ceiling heights of a building, it is often necessary to have louvered opening equivalent to 5%-10% of the square footage of each floor. For example, in a humid climate, a typical 20'x30' (6.1m x 9.1m) brick residence with 600 sq. ft.(55.5 sq.m) of floor space and a typical number of windows, may need 30-60 sq. ft.(2.75sq.m-5.5 sq. m) of louvered openings per floor. With each window measuring 3'x5'(.9m x 1.5 m) or 15 sq. ft. (1.3 sq.m), the equivalent of 2 to 4 windows per floor may need full window louvers.

Small pre-formed louvers set into a plywood panel or small slit-type registers at the base of inset panels generally cannot provide enough ventilation in most moist climates to offset condensation, but this approach is certainly better than no louvers at all. Louvers should be located to give cross ventilation, interior doors should be fixed ajar at least 4" (10cm) to allow air to circulate, and hatches to the attic should be left open.

Monitoring devices which can record internal temperature and humidity levels can be invaluable in determining if the internal climate is remaining stable. These units can be powered by portable battery packs or can be wired into electric service with data downloaded into laptop computers periodically (see fig. 20). This can also give long-term information throughout the mothballing years. If it is determined that there are inadequate air exchanges to keep interior moisture levels under control, additional passive ventilation can be increased, or, if there is electric service, mechanical exhaust fans can be installed. One fan in a small to medium sized building can reduce the amount of louvering substantially.

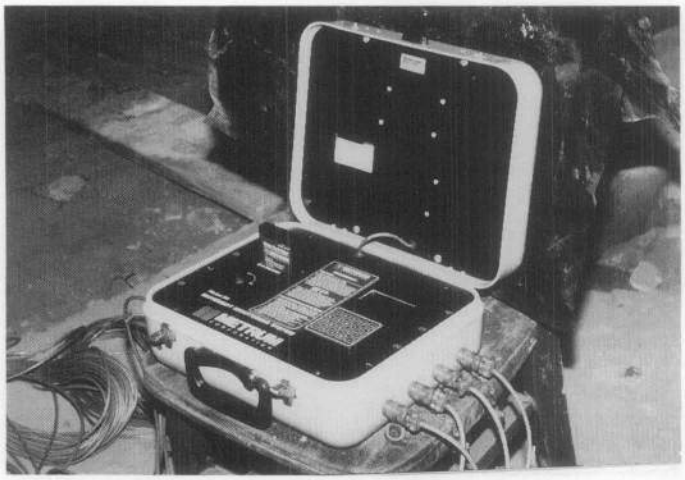

Figure 20. Portable monitors used to record temperature and humidity conditions in historic buildings during mothballing can help identify ventilation needs. This data can be downloaded directly into a lap top computer on site. These monitors are especially helpful over the long term for buildings with significant historic interiors or which are remaining furnished. If interiors are remaining damp or humid, additional ventilation should be added or the source of moisture controlled.

If electric fans are used, study the environmental conditions of each property and determine if the fans should be controlled by thermostats or automatic timers. Humidistats, designed for enclosed climate control systems, generally are difficult to adapt for open mothballing conditions. How the system will draw in or exhaust air is also important. It may be determined that it is best to bring dry air in from the attic or upper levels and force it out through lower basement windows (see fig. 21). If the basement is damp, it may be best to zone it from the rest of the building and exhaust its air separately. Additionally, less humid day air is preferred over damper night air, and this can be controlled with a timer switch mounted to the fan.

The type of ventilation should not undermine the security of the building. The most secure installations use custom-made grills well anchored to the window frame, often set in plywood security panels. Some vents are formed using heavy millwork louvers set into existing window openings (refer back to fig.18). For buildings where security is not a primary issue, where the interior is modest, and where there has been no heat for a long time, it may be possible to use lightweight galvanized metal grills in the window openings (refer back to fig.7). A cost effective grill can be made from the expanded metal mesh lath used by plasterers and installed so that the mesh fins shed rainwater to the exterior.

Securing mechanical systems and utilities. At the outset, it is important to determine which utilities and services, such as electrical or telephone lines, are kept and which are cut off. As long as these services will not constitute a fire

Figure 21. This electric thermostat/humidistat mounted in the attic vent controls a modified ducted air/fan system. The unit uses temporary exposed sheet metal ducts to pull air through the building and exhaust it out of the basement. For over ten years this fan system in combination with 18" x 18" preformed louvers in selective windows has kept the interior dry and with good air exchanges.

hazard, it is advisable to retain those which will help protect the property. Since the electrical needs will be limited in a vacant building, it is best to install a new temporary electric line and panel (100 amp) so that all the wiring is new and exposed. This will be much safer for the building, and allows easy access for reading the meter (see fig. 22).

Most heating systems are shut down in long term mothballing. For furnaces fueled by oil, there are two choices for dealing with the tank. Either it must be filled to the top with oil to eliminate condensation or it should be drained. If it remains empty for more than a year, it will likely rust and not be reusable. Most tanks are drained if a newer type of system is envisioned when the building is put back into service. Gas systems with open flames should be turned off unless there is regular maintenance and frequent surveillance of the property. Gas lines are shut off by the utility company.

If a hot water radiator system is retained for low levels of heat, it generally must be modified to be a self-contained system and the water supply is capped at the meter. This recirculating system protects the property from extensive damage from burst pipes. Water is replaced with a water/glycol mix and the reserve tank must also be filled with this mixture. This keeps the modified system from freezing, if there is a power failure. If water service is cut off, pipes should be drained. Sewerage systems will require special care as sewer gas is explosive. Either the traps must be filled with glycol or the sewer line should be capped off at the building line.

Figure 22. All systems except temporary electric have been shut off at this residence which has been mothballed over 20 years. An electric meter and 100 amp panel box have been set on a plywood panel at the front of the building. It is used for interior lighting and various alarm systems. The building, however, is showing signs of moisture problems with efflourescent stains on the masonry indicating the need for gutter maintenance and additional ventilation for the interior. The vegetation on the walls, although picturesque, traps moisture and is damaging to the masonry. Photo: H. Ward Jandl, NPS.

Developing a maintenance and monitoring plan. While every effort may have been made to stabilize the property and to slow the deterioration of materials, natural disasters, storms, undetected leaks, and unwanted intrusion can still occur. A regular schedule for surveillance, maintenance, and monitoring should be established: (See fig. 23 for maintenance chart).

MAINTENANCE CHART

periodic
- ❑ regular drive by surveillance
- ❑ check attic during storms if possible

monthly walk arounds
- ❑ check entrances
- ❑ check window panes for breakage
- ❑ mowing as required
- ❑ check for graffiti or vandalism

enter every 3 months to air out
- ❑ check for musty air
- ❑ check for moisture damage
- ❑ check battery packs and monitoring equipment
- ❑ check light bulbs
- ❑ check for evidence of pest intrusion

every 6 months; spring and fall
- ❑ site clean-up; pruning and trimming
- ❑ gutter and downspout check
- ❑ check crawlspace for pests
- ❑ clean out storm drains

every 12 months
- ❑ maintenance contract inspections for equipment/utilities
- ❑ check roof for loose or missing shingles
- ❑ termite and pest inspection/treatment
- ❑ exterior materials spot repair and touch up painting
- ❑ remove bird droppings or other stains from exterior
- ❑ check and update building file

Figure 23. Maintenance Chart. Many of the tasks on the maintenance chart can be done by volunteer help or service contracts. Regular visits to the site will help detect intrusion, storm damage, or poor water drainage.

The fire and police departments should be notified that the property will be vacant. A walk-through visit to familiarize these officials with the building's location, construction materials, and overall plan may be invaluable if they are called on in the future.

The optimum schedule for surveillance visits to the property will depend on the location of the property and the number of people who can assist with these activities. The more frequent the visits to check the property, the sooner that water leaks or break-ins will be noticed. Also, the more frequently the building is entered, the better the air exchange. By keeping the site clear and the building in good repair, the community will know that the building has not been abandoned (see fig. 24). The involvement of neighbors and community groups in caring for the property can ensure its protection from a variety of catastrophic circumstances.

The owner may utilize volunteers and service companies to undertake the work outlined in the maintenance chart.

Service companies on a maintenance contract can provide yard, maintenance, and inspection services, and their reports or itemized bills reflecting work undertaken should be added to update the building file.

Figure 24. Once mothballed, a property must still be monitored and maintained. The openings in this historic barn has been modified with a combination of wood louvers and metal mesh panels which require little maintenance. The grounds are regularly mowed, even inside the chain link security fence. Photo: Williamsport Preservation Training Center, NPS.

Components of a Mothballing Project

Document: Brearley House, New Jersey; 2½ story center hall plan house contains a high degree of integrity of circa 1761 materials and significant early 19th century additions. Deterioration was attributable to leaking roof, unstable masonry at gables and chimneys, deteriorating attic windows, poor site drainage, and partially detached gutters. Mothballing efforts are required for approximately 7-10 years.

Stabilize: Remove bat droppings from attic using great caution. Secure historic chimneys and gable ends with plywood panels. Do not take historic chimneys down. Reroof with asphalt shingles and reattach or add new gutters and downspouts. Add extenders to downspouts. Add bug screens to any ventilation areas. Add soil around foundation and slope to gain positive drain; do not excavate as this will disturb archeological evidence.

Mothball: Install security fence around the property. Secure doors and windows with plywood panels (½" exterior grade). Install preformed metal grills in basement and attic openings. Add surface mounted wiring for ionization smoke and fire detection with direct wire to police and fire departments. Shut off heat and drain pipes. Add window exhaust fan set on a thermostatic control. Provide for periodic monitoring and maintenance of the property.

Figure 25. Above is a summary of the tasks that were necessary in order to protect this significant property while restoration funds are raised. Photographs: Michael Mills; Ford Farewell Mills Gatsch Architects.

a. A view showing the exterior of the house in its mothballed condition.

b. Plywood panels stabilize the chimneys. Note the gable vents.

c. The exhaust fan has tamper-proof housing.

MOTHBALLING CHECKLIST

Mothballing Checklist In reviewing mothballing plans, the following checklist may help to ensure that work items are not inadvertently omitted.	Yes	No	Date of action or comment.
Moisture • Is the roof watertight? • Do the gutters retain their proper pitch and are they clean? • Are downspout joints intact? • Are drains unobstructed? • Are windows and doors and their frames in good condition? • Are masonry walls in good condition to seal out moisture? • Is wood siding in good condition? • Is site properly graded for water run-off? • Is vegetation cleared from around the building foundation to avoid trapping moisture?			
Pests • Have nests/pests been removed from the building's interior and eaves? • Are adequate screens in place to guard against pests? • Has the building been inspected and treated for termites, carpenter ants, and rodents? • If toxic droppings from bats and pigeons are present, has a special company been brought in for its disposal?			
Housekeeping • Have the following been removed from the interior: trash, hazardous materials such as inflammable liquids, poisons, and paints and canned goods that could freeze and burst? • Is the interior broom-clean? • Have furnishings been removed to a safe location? • If furnishings are remaining in the building, are they properly protected from dust, pests, ultraviolet light, and other potentially harmful problems? • Have significant architectural elements that have become detached from the building been labeled and stored in a safe place? • Is there a building file?			
Security • Have fire and police departments been notified that the building will be mothballed? • Are smoke and fire detectors in working order? • Are the exterior doors and windows securely fastened? • Are plans in place to monitor the building on a regular basis? • Are the keys to the building in a secure but accessible location? • Are the grounds being kept from becoming overgrown?			
Utilities • Have utility companies disconnected/shut off or fully inspected water, gas, and electric lines? • If the building will not remain heated, have water pipes been drained and glycol added? • If the electricity is to be left on, is the wiring in safe condition?			
Ventilation • Have steps been taken to ensure proper ventilation of the building? • Have interior doors been left open for ventilation purposes? • Has the secured building been checked within the last 3 months for interior dampness or excessive humidity?			

Figure 26.. MOTHBALL CHECKLIST. This checklist will give the building owner or manager a handy reference guide to items that should be addressed when mothballing a historic building. Prepared by H. Ward Jandl, NPS.

Conclusion

Providing temporary protection and stabilization for vacant historic buildings can arrest deterioration and buy the owner valuable time to raise money for preservation or to find a compatible use for the property. A well planned mothballing project involves documenting the history and condition of the building, stabilizing the structure to slow down its deterioration, and finally mothballing the structure to secure it (See fig. 25). The three highest priorities for the building while it is mothballed are 1) to protect the building from sudden loss, 2) to weatherize and maintain the property to stop moisture penetration, and 3) to control the humidity levels inside once the building has been secured. See Mothballing Checklist Figure 26.

While issues regarding mothballing may seem simple, the variables and intricacies of possible solutions make the decision-making process very important. Each building must be individually evaluated prior to mothballing. In addition, a variety of professional services as well as volunteer assistance are needed for careful planning and repair, sensitively designed protection measures, follow-up security surveillance, and cyclical maintenance (see fig. 27).

In planning for the future of the building, complete and systematic records must be kept and generous funds allocated for mothballing. This will ensure that the historic property will be in stable condition for its eventual preservation, rehabilitation, or restoration.

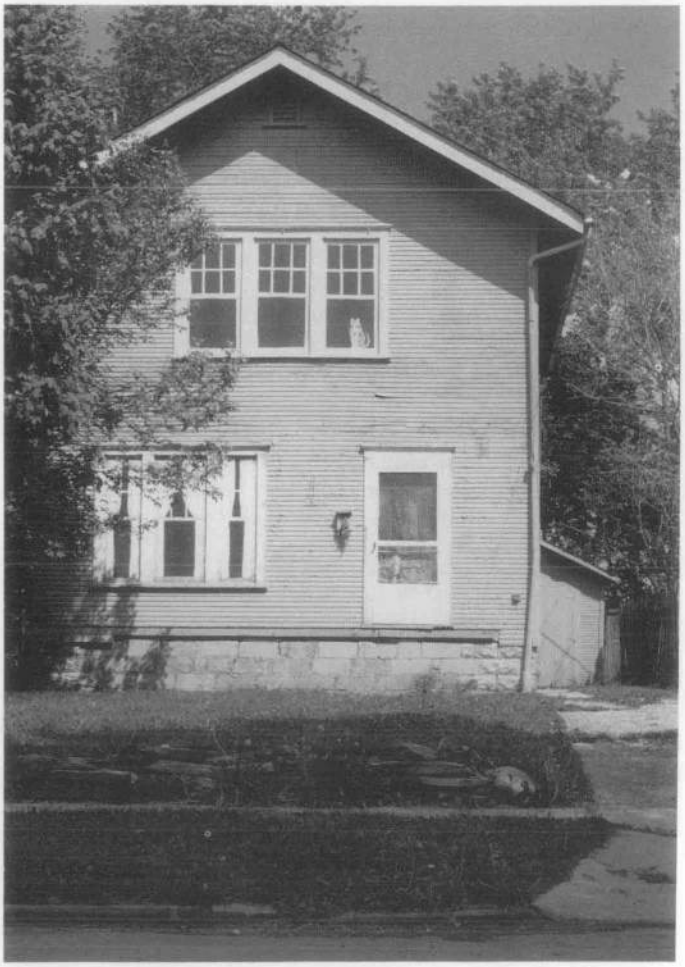

Figure 27. This residential building blends into its neighborhood even though all the windows have been covered over and the front steps are missing. The grounds are maintained and the special attention to decoratively painting the window panels shows that the property is being well cared for until it can be rehabilitated. Photo: Ohio Historical Society.

Acknowledgements

This publication has been prepared pursuant to the National Historic Preservation Act of 1966, as amended, which directs the Secretary of the Interior to develop and make available information concerning historic properties. Comments on the usefulness of this publication may be directed to H. Ward Jandl, Deputy Chief, Preservation Assistance Division, National Park Service, P.O. Box 37127, Washington, D.C. 20013-7127. This publication is not copyrighted and can be reproduced without penalty. Normal procedures for credit to the author and the National Park Service are appreciated.

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All photographs and drawings are by the author unless otherwise noted.

Cover photograph: Mothballing of this historic house involved a new membrane roof covering over the historic roof and slatted window covers for security and ventilation. Photo: Williamsport Preservation Training Center, NPS.

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Further Reading

Cotton, J. Randall. "Mothballing Buildings." *The Old House Journal*. July/August, 1993.

Fisher, Charles E. and Thomas A. Vitanza. "Temporary Window Vents in Unoccupied Historic Buildings." Preservation Tech Note (Windows, No. 10). Washington, DC: National Park Service, 1985.

Frazier Associates. "Mothballing Historic Buildings." Preserving Prince William, 2. County of Prince William, VA, 1990.

Michell, Eleanor. *Emergency Repairs for Historic Buildings*. London: Butterworth Architecture, 1988.

"Mothballing Vacant Buildings," *An Anti-Arson Kit for Preservation and Neighborhood Action*. Washington, DC: Federal Emergency Management Agency, 1982.

Nelson, Lee H. *Preservation Briefs 17. Architectural character-Identifying the Visual Aspects of Historic Buildings as an Aid to Preserving Their Character*. Washington, DC: Government Printing Office, 1988.

Solon, Thomas E. "Security Panels for the Foster-Armstrong House." *Association for Preservation Technology Bulletin*. Vol XVI no. 3 & 4, 1984. (note the design of the panels, but be aware that additional louvering may be needed on other projects).

National Register of Historic Places - Central Village Historic District

Note: The entire listing may be viewed here: https://catalog.archives.gov/id/132356093. Photographs of properties within the district have not been included except for the Plainfield High School.

NPS Form 10-900
(Rev. 8-86)

OMB No. 1024-0018

United States Department of the Interior
National Park Service

NATIONAL REGISTER OF HISTORIC PLACES
REGISTRATION FORM

==========

1. Name of Property

==========

historic name: **CENTRAL VILLAGE HISTORIC DISTRICT**

other name/site number: N/A

==========

2. Location

==========

street & number: Main St., School St., East Main St., Putnam Road
(see Item 7 for complete street list)
not for publication: N/A

city/town: Plainfield vicinity: N/A

state: CT county: Windham code: 015 zip code: 06332

==========

3. Classification

==========

Ownership of Property: private, public-local

Category of Property: district

Number of Resources within Property:

Contributing	Noncontributing	
150	80	buildings
2	0	sites
4	2	structures
0	0	objects
156	82	Total

Number of contributing resources previously listed in the National Register: 1

Name of related multiple property listing: N/A

4. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act of 1986, as amended, I hereby certify that this __X__ nomination ____ request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property __X__ meets ____ does not meet the National Register Criteria. ____ See cont. sheet.

Signature of certifying official — Date: 6/20/91

Director, Connecticut Historical Commission
State or Federal agency and bureau

In my opinion, the property ____ meets ____ does not meet the National Register criteria. ___ See continuation sheet.

Signature of commenting or other official — Date

State or Federal agency and bureau

5. National Park Service Certification

I, hereby certify that this property is:

✓	entered in the National Register ___ See continuation sheet.	Beth G. Savage — 8/9/91
____	determined eligible for the National Register ___ See continuation sheet.	
____	determined not eligible for the National Register	
____	removed from the National Register	
____	other (explain): _____	

Signature of Keeper — Date of Action

6. Function or Use

Historic:	DOMESTIC	Sub:	single dwelling
	DOMESTIC		multiple dwelling
	COMMERCE/TRADE		specialty store
	INDUSTRY		manufacturing facility
Current:	DOMESTIC	Sub:	single dwelling
	DOMESTIC		multiple dwelling
	COMMERCE/TRADE		specialty store

7. Description

Architectural Classification:

Greek Revival
Italianate
Bungalow/Craftsman

Other Description: N/A

Materials: foundation STONE roof ASPHALT
walls WOOD other BRICK
BRICK

Describe present and historic physical appearance. X See continuation sheet.

8. Statement of Significance

Certifying official has considered the significance of this property in relation to other properties: state.

Applicable National Register Criteria: A,C

Criteria Considerations (Exceptions) :

Areas of Significance: ARCHITECTURE
INDUSTRY
COMMERCE
POLITICS/GOVERNMENT

Period(s) of Significance: c.1750-c.1930

Significant Dates: See inventory, Item 7

Significant Person(s): N/A

Cultural Affiliation: N/A

Architect/Builder:

State significance of property, and justify criteria, criteria considerations, and areas and periods of significance noted above.
X See continuation sheet.

INVENTORY OF BUILDINGS:

STREET #	DATE	STORIES	STYLE	EXTERIOR MATERIALS	OUTBUILDINGS	C	NC
BLACK HILL ROAD							
1	c.1910	2	Victorian	clapboards		1	0
4	c.1845	1 1/2	no style	siding	garage	1	1
7	1970	1	Ranch	composition shingles		0	1
10-12	c.1750	2 1/2	Colonial	clapboards		1	0
11-13	c.1980	1	no style	steel siding (truck garage)		0	1
21	c.1920	2	Col. Revival	clapboards, shingles	2 garages, 1 modern	2	1
CAREY AVENUE							
1	c.1800	1 1/2	no style	asphalt siding	garage	1	1
EAST MAIN STREET							
1-17	c.1980	1	no style (shopping plaza)			0	1
2-6	c.1830	2 1/2	Federal	siding		1	0
8	1925	1 1/2	Bungalow	wood shingles		1	0
19	c.1901	2 1/2	Mill Housing	siding	garage	1	1
21-23	c.1901	2 1/2	Mill Housing	composition shingles		1	0
26	c.1955	1	Ranch	siding	garage	0	2
25-27	c.1901	2 1/2	Mill Housing	siding		1	0
29-31	c.1901	2 1/2	Mill Housing	siding		1	0
30	c.1900	1 1/2	Victorian	clapboards		1	0
32	c.1900	1 1/2	Victorian	clapboards		1	0
33-35	c.1901	2 1/2	Mill Housing	siding		1	0
34	c.1850	1 1/2	Gothic Revival	clapboards		1	0
37-41	c.1901	2 1/2	Mill Housing	composition shingles	garage	1	1
43-45	c.1901	2	Mill Housing	composition shingles	garage	1	1
47-49	c.1901	2	Mill Housing	siding		1	0

STREET #	DATE	STORIES	STYLE	EXTERIOR MATERIALS	OUTBUILDINGS	C	NC
EAST SHEPARD HILL ROAD							
10-12	c.1800	2 1/2	Federal	siding	barn	2	0
11	c.1920	1 1/2	Bungalow	clapboards/shingles	garage	2	0
23	c.1924	2	Foursquare	siding	contemp. garage	2	0
26	1848	2	no style	clapboards	small barn	2	0
FRY HILL ROAD							
25	c.1907	2	Col. Revival	clapboards/shingles		1	0
29	c.1907	2 1/2	Victorian	clapboards/shingles	barn	2	0
MAIN STREET							
1	c.1950	1	no style	concrete block, brick	(former fire house)	0	1
3-7	c.1920	2	no style	asphalt siding	garage	1	1
4	1856	2 1/2	no style	brick	garage	1	1
8-10	1854	2 1/2	no style	siding	garage	1	1
14	c.1920	2 1/2	Foursquare	clapboards/shingles	garage	2	0
16	c.1880	1	Italianate	clapboards (barn)		1	0
17	c.1850	1 1/2	no style	asphalt siding		1	0
18-20	c.1900	2 1/2	Queen Anne	composition shingles	garage	1	1
19	c.1842	1 1/2	no style	siding		1	0
25	1821	1 1/2	Italianate	clapboards	garage	1	0
26	1901	2 1/2	Queen Anne	clapboards/shingles	barn, garage	2	1
29	1872	1 1/2	Italianate	clapboards (Old Town Hall)		1	0
30	c.1870	2 1/2	Second Empire	clapboards	garage	1	1
32-36	c.1830	2 1/2	Federal	clapboards		1	0
33	1845	1 1/2	Gr.Rev./Ital.	clapboards, flush boards	(Cong. Church)	1	0
38	c.1850	1 1/2	Gothic Revival	siding		1	0
40	c.1855	2 1/2	Italian Villa	board siding	carriagehouse	2	0
45	1901	3	no style	brick (Plainfield Woolen Co. Mill)		1	1
48	1837	2 1/2	Greek Revival	clapboards		1	0
54	c.1920	2	no style	wood shingles (altered)		0	1
MORTON LANE							
8	c.1930	2 1/2	no style	wood shingle (bottling wks)	garage	2	0

STREET #	DATE	STORIES	STYLE	EXTERIOR MATERIALS	OUTBUILDINGS	C	NC
NORWICH ROAD							
10	c.1830	1 1/2	Mill Housing	vertical boards	garage	1	1
PALMER AVENUE/COURT							
8	1968	1	Ranch	siding	barn, c.1890	1	1
9	c.1900	1 1/2	no style	siding (altered)	garage	0	2
10	c.1900	1 1/2	no style	composition shingles		1	0
11	c.1895	1 1/2	Victorian	clapboards		1	0
13	c.1900	1 1/2	Victorian	siding	garage	1	1
14	c.1925	1 1/2	Bungalow	clapboards,shingles	garage	1	1
15	c.1900	1 1/2	Victorian	clapboards	garage	1	1
17	c.1900	1 1/2	Victorian	siding		1	0
19	c.1900	1 1/2	Victorian	clapboards		1	0
20-22	c.1900	1 1/2	Victorian	composition shingles	small house in rear	1	1
21	c.1900	1 1/2	Victorian	siding	garage	1	1
24	c.1900	1 1/2	Victorian	clapboards		1	0
25	c.1900	1 1/2	Victorian	composition shingles		1	0
PICKETT ROAD							
4	c.1850	1 1/2	no style	clapboards		1	0
PUTNAM ROAD							
1-3	c.1860	2 1/2	no style	clapboards, siding		1	0
4	c.1845	2 1/2	no style	siding (Central Hotel)		1	0
5	c.1790	2 1/2	Colonial	wood shingles		1	0
9	c.1900	1 1/2	Victorian	clapboards		1	0
11-13	1860	2 1/2	Victorian	clapboards		1	0
15	c.1900	1 1/2	Victorian	siding	garage	1	1
17	c.1900	1 1/2	Victorian	composition shingles		1	0
19	c.1900	1 1/2	Victorian	clapboards		1	0
21	c.1900	1 1/2	Victorian	composition shingles		1	0
23	c.1900	1 1/2	Victorian	siding		1	0
25	c.1900	1 1/2	Victorian	clapboards		1	0
27	c.1900	1 1/2	Victorian	clapboards		1	0

STREET #	DATE	STORIES	STYLE	EXTERIOR MATERIALS	OUTBUILDINGS	C	NC
PUTNAM ROAD (CONTINUED)							
50-52	c.1880	2 1/2	Victorian	siding		1	0
55	c.1875	2 1/2	Italianate	clapboards	barn	2	0
61	1866	2	Gothic Revival	clapboards	barn	2	0
67	c.1925	1 1/2	Bungalow	siding	garage	2	0
87	1924	3	Neo-Classical	brick (Plainfield High School)		1	2
RIVER STREET							
3	c.1865	2	no style	siding		1	0
5	c.1850	1 1/2	no style	composition shingles	garage	1	1
7-9	c.1865	2	Victorian	composition shingles	garage	1	1
13	1850	1 1/2	Greek Revival	clapboards		1	0
15	c.1855	1 1/2	no style	siding	garage	1	1
19	c.1890	1 1/2	Victorian	siding		1	0
21-23	c.1830	1 1/2	no style	brick	small barn	2	0
27	1860	1 1/2	Victorian	clapboards	small barn	2	0
SCHOOL STREET							
1-5	c.1850	2	Italianate	clapboards		1	0
7-11	1853	1	no style	siding		1	0
15	c.1890	2	Italianate	siding		1	0
16-18	c.1849	2 1/2	Greek Revival	clapboards	garage, barn	2	1
17	c.1870	1 1/2	no style	clapboards	garage	1	1
19	c.1875	2	Italianate	clapboards	barn	2	0
23	c.1850	1 1/2	no style	siding (altered)		0	1
24	c.1890	1 1/2	Victorian	siding		1	0
29	1964	1	no style	brick (post office)		0	1
30	c.1885	1 1/2	Victorian	wood shingle	carriagehouse	2	0
34	c.1880	1 1/2	no style	wood shingle	carriagehouse	2	0
35	c.1880	2 1/2	Italianate	clapboards	garage	1	1
38	c.1846	2 1/2	Greek Revival	clapboards	barn, small house	2	1
42	c.1844	2 1/2	Greek Revival	siding	2 garages	1	2
42	c.1840	1 1/2	no style	clapboards		1	0
52	c.1875	2 1/2	Second Empire	clapboards	garage, barn	1	1
53	1917	1 1/2	Victorian	clapboards	2 garages	1	2
54-56	c.1850	1 1/2	no style	clapboards	garage	1	1

STREET #	DATE	STORIES	STYLE	EXTERIOR MATERIALS	OUTBUILDINGS	C	NC
SCHOOL STREET (CONTINUED)							
58	c.1920	1 1/2	Bungalow	clapboards		1	0
60	c.1845	1 1/2	no style	clapboards	garage	1	1
62	c.1890	1 1/2	no style	siding	garage	1	1
66	c.1845	1 1/2	no style	clapboards	garage	1	1
68	c.1845	1 1/2	Greek Revival	composition shingles	garage	1	1
69	c.1840	1 1/2	no style	clapboards	barn, garage	2	1
70	c.1850	1 1/2	no style	composition shingles		1	0
72	c.1850	1 1/2	no style	siding		1	0
74	1889	1 1/2	no style	composition shingles	garage	1	1
76	c.1845	1 1/2	Greek Revival	siding		1	0
SCHOOL STREET EXTENSION							
2	c.1952	1 1/2	Cape	siding	garage	0	2
6	c.1900	2 1/2	no style	shingles		1	0
12	c.1780	2 1/2	Colonial	composition shingles	garage	2	1
SHEPARD HILL ROAD							
3	1843	1 1/2	Greek Revival	brick (former school)	garage	1	1
7	1848	1 1/2	no style	clapboards	small barn	2	0
8	c.1850	1 1/2	no style	clapboards, comp. shgls.		1	0
13	1848	1 1/2	no style	clapboards	garage, playhouse	1	2
16-18	c.1850	1 1/2	no style	siding	mobile home	1	1
19	c.1960	1	Ranch	composition shingles		0	1
22	c.1890	1 1/2	Victorian	composition shingles		1	0
23	c.1960	1	Ranch	siding		0	1
24	c.1872	1 1/2	Mill House	clapboards	2 garages	1	2
27	c.1850	1 1/2	no style	clapboards	2 garages	1	2
32	c.1973	1 1/2	log cabin	logs	garage	0	2
36	c.1855	1 1/2	no style	clapboards		1	0
40	c.1850	1 1/2	no style	siding		1	0

STREET #	DATE	STORIES	STYLE	EXTERIOR MATERIALS	OUTBUILDINGS	C	NC
TEXAS ROAD							
2	?	1 1/2	no style	composition shingles	(greatly altered)	0	1
7	c.1970	1	Ranch	siding		+	01
4	c.1900	2	Victorian	composition shingles	garage	1	1
8-10	c.1870	1 1/2	no style	composition siding		1	0
12	c.1800	2 1/2	Colonial	siding	garage	1	1
13-15	c.1850	1 1/2	no style	composition shingles		1	0
TORREY LANE							
25	c.1911	2 1/2	Victorian	siding		1	0
WATER STREET							
8	c.1900	1 1/2	no style	composition shingles		1	0
12-20	c.1985	1	no style	steel (storage facility)		0	5
36	c.1860	1 1/2	no style	siding	garage	1	1
42	c.1908	2 1/2	Victorian	clapboards	garage	1	1
46	c.1900	2	no style	clapboards	garage	1	1

STRUCTURES:

BLACK HILL ROAD	
Bridge No. 685 over Moosup River, 1962 steel beam bridge	noncontributing
NORWICH ROAD	
Bridge No. 2122 over mill canal, 1915 concrete slab	contributing
Bridge No. 670 over Moosup River, 1926 concrete arched rigid frame	contributing
PUTNAM ROAD	
Bridge No. 2123 over Angell Brook, c.1940 stone culvert	noncontributing
WATER STREET	
Bridge No. 4405 over Moosup River, 1916 plate-girder	contributing
Railroad bridge over Moosup River, 1903 plate-girder	contributing

SITES:

NORWICH ROAD	
Unidentified stone remains, including walls, remnants of bridge abutments, possible dam	contributing
TORREY LANE	
Remains of Torrey Brothers/Greene woodworking factory, 1866-c.1960, includes stone foundations, tailrace, turbine in place	contributing

Central Village is a distinct settlement located within the Town of Plainfield, Connecticut, along the banks of the Moosup River. Two state roads, Routes 12 and 14, converge at this location, and the Providence and Worcester Railroad bisects the village in a north-south direction. The core of the village, where School Street, Water Street, Main Street, and Putnam Road converge, is a small 19th-century commercial area with four store buildings (Photograph 20) and the Central Hotel, a tavern and hotel built c.1845 alongside the railroad tracks (Photograph 15). Radiating from the center are a series of predominantly residential streets. The houses of Central Village are closely spaced, 1 to 2 1/2 stories high, and most are wood-framed, although there are two brick houses as well. The houses are predominantly 19th-century in origin and fall into two stylistic categories. The first group are elaborate, large houses of particular architectural styles; they are clustered along Main Street, with a secondary grouping on School Street. The second major group of houses in the district are plainly detailed, vernacular dwellings that are mostly located on the streets leading to the outskirts of the village.

There is a broad range of styles among the larger houses in the district, though most styles are represented by only a few examples. In addition to Greek Revival-style dwellings from the 1830s and 1840s (Photograph 21), there are well-preserved Gothic Revival-style "cottages," (Photograph 4), mansard-roofed Second Empire-style houses (Photograph 23), and irregularly massed Queen Anne-style residences (Photograph 9). The most numerous of all the 19th-century styles is the Italianate, which includes the elaborately detailed c.1855 villa at 40 Main Street (Photograph 11); an 1821 dwelling to which were added cornice brackets, round-arched windows, and an entry hood on large scrolls (Photograph 10); and a c.1880 house with similar details and a bay window and open veranda (Photograph 22). The Italianate influence is also evident in the bracketed cornices found on the district's 19th-century commercial buildings (Photograph 20).

Among the plainer houses which make up the majority in the district, architectural ornament is generally limited to porch detail, such as turned posts, jigsawn brackets, spindled friezes, and applied lattices and sawtooth boards (Photographs 16, 19, and 24). There are two distinct subclasses of vernacular dwellings: a row of multi-family houses formerly associated with a textile mill on Moosup Road (Photograph 5), and a cluster of simple 1 1/2-story houses erected as a rental housing venture by a turn-of-the-century entrepreneur (Photographs 14 and 16).

The district includes among its contributing buildings four 18th-century houses, of which the Kennedy House on Black Hill Road (but facing School Street Extension; Photograph 1) is in the best state of preservation. In addition, there are two Colonial Revival houses and a number of well-preserved Bungalow and Foursquare houses from the 1920s (Photographs 2 and 6).

The boundaries were drawn so as to include the concentration of old buildings in the center of Central Village, as well as along the radiating streets so far as old houses, and not modern construction, predominated. Property lines were used for the boundary except in cases where large amounts of back acreage made it inappropriate. Within these boundaries, which excluded some commercial development on the east side of Putnam Road and the athletic field on the south side of School Street, the relatively few noncontributing buildings include the interconnected high school additions (counted as one noncontributing building), a small number of houses built within the last 50 years, a truck garage, a shopping plaza (Photograph 3), and a storage complex.

Although vinyl siding and aluminum siding are common on houses in the district, most sided houses retain their characteristic form, fenestration, and some historic material, such as historic sash or entry treatment; an example is the sided house at 2-6 East Main Street (Photograph 13). In a few cases, however, modernization and additions were so extensive that the house was classified as noncontributing.

Most of the district is residential, but the village includes other kinds of buildings as well. Among the institutional structures are the Central Village Congregational Church, built in 1845; the old town hall, built in 1872 (Photograph 10); a former brick schoolhouse, dating from 1843 (Photograph 25); and the 1924 Plainfield High School (Photograph 18).

The district's largest industrial building is the 1901 Plainfield Woolen Company mill, previously listed on the National Register and now rehabilitated into residential condominiums (Photograph 12); the mill complex includes a headrace, waste-gates, and remnant of a small pond. On Morton Lane is a c.1930 former bottling plant, consisting of a 2 1/2 story shingled building and a long garage. At one time there were other factories in Central Village. The former Bragg woolen mill on Water Street burned and what remained after the fire was incorporated into a modern industrial and storage complex. The woodworking factory which operated from 1866 to the 1960s on Torrey Lane is today marked

only by stone foundations, races, and a half-buried turbine. Although the theme of this nomination is not archeological, the factory site is counted as a contributing resource. Another set of stone remains along the Moosup River may be artifacts of other industrial activity. Two buildings which are now used as houses were formerly a printing shop and a jewelry store.

Many of the houses in the district have small barns or carriagehouses at the rear (Photographs 17 and 19); these have been counted as contributing buildings, as have garages that are contemporary with early 20th-century houses. In a few cases, historic barns remain without an associated house (Photograph 8).

The six structures in the district include four early 20th-century bridges (contributing) and two that lie outside the district's period of significance, which is c.1750 to c.1930.

In the inventory which follows, "siding" refers to either aluminum or vinyl siding, and "composition shingles" refers to textured rigid shingles commonly made from asbestos, wood pulp, and other materials. The dates are taken from the historic resource surveys cited in the Bibliography.

Summary

Central Village Historic District is historically significant because its buildings recall the village's role as a small-scale industrial, commercial, and institutional center (Criterion A). These three threads together form the fabric of Central Village's heritage, which is made full by the continued existence of the village's historic buildings. Central Village's mill-town heritage, for example, is sustained by the large textile mill at the center of town, the tracts of mill housing associated with that mill and other enterprises, and several large, elaborate houses once occupied by millowners. Its former commercial importance is attested to by the cluster of stores and the c.1845 hotel at its center, as well as by the large Victorian houses which were the residences of prominent local businessmen and their families. Finally, the district contains two buildings associated with important townwide institutions, the original Plainfield Town Hall, built in 1872, and Plainfield High School, built in 1924. As its name suggests, Central Village is the most centrally located of the several villages within the Town of Plainfield, and as a result of its location (and the influence of its manufacturers and other prominent residents), it was chosen as the site of these community facilities.

The district also has architectural significance. The houses clustered on Main Street and others scattered throughout the village are among the largest and most elaborate examples of Victorian architecture in Plainfield, embodying the characteristic form and details of several distinct architectural styles (Criterion C). One house in the district, the Fenner-Matthewson mansion at 40 East Main Street (Photograph 11), ranks among the most outstanding and best-preserved examples of the Italian Villa mode in the state. Many of the plainer houses also have architectural interest as well-preserved specimens of vernacular building practices, and even those which have been altered retain some features which help establish the village's historical origins in the 19th century.

Historic Background

The waterpower of the Moosup River was a major factor in the development of Central Village. Prior to the early 19th century, the area was but a nameless locality within the Town of Plainfield, sharing in the agrarian economy which characterized 18th-century eastern Connecticut. The few 18th-century houses in Central Village were originally homes of farming families, although, significantly, at

least one family, the Kennedys, were also involved in the small-scale industries, such as grist milling and fulling, that were vital to the agricultural economy. In 1814 a group of landowners formed the Central Manufacturing Company, which built a cotton-spinning mill on the site of the present brick mill on Main Street. In 1827 a major interest in the mill was purchased by Arnold Fenner of Rhode Island, who proceeded to add another factory and worker houses to the complex. In 1845, at which time the first mill was rebuilt in brick, the Central Manufacturing Company was the village's largest employer, lending its name to the settlement, then called "Centreville."

At the western end of the village, the Kennedy mills were also turned to textile manufacturing starting about 1835, with cotton, flannel, wicking, and twine all produced at one time or another. The Kennedy mills also built houses for workers, but rather than the standard tenements associated with the larger mills of the area, they built a series of small single-family houses on their tract at the western end of School Street (Photograph 24; 1st, 3rd, 4th, and 6th from right are all houses formerly associated with the Kennedy mills). This part of the village was known as Kennedy City.

The second factor in the development of Central Village was the completion of the Norwich and Worcester Railroad (now the Providence and Worcester) in 1839. The railroad, which passed midway between the two tiny clusters at the manufacturing sites, established a center for the village and gave it a commercial function to supplement its industrial base. Within a few years of the railroad's completion, the village's central square boasted a hotel and tavern (Photograph 15), a dry goods store, a jewelry store (Photograph 7, right), an apothecary (Photograph 20), a stove shop, and a combined paint store and grocery (Photograph 16, right), all of which remain today.

For the remainder of the 19th century and the beginning of the 20th century, Central Village's fortunes followed the ups and downs of the textile industry, but in general prosperity prevailed. A Congregational Church was established in 1845 through the generosity of Arnold Fenner and other leading citizens, and in 1871, when the Town of Plainfield decided to build a town hall rather than continue meeting in the Plainfield Congregational meetinghouse, Central Village was chosen, both because of its location and because of the influence of prominent Central Village residents such as Fenner and lawyer J. J. Penrose. Economic development continued as well. In 1866 a factory was started by George and Henry Torrey to make carriages, wagons, ox yokes, and other products, and new stores and other businesses were

continually added to Central Village's attractions. Between 1890 and 1903, Plainfield merchant Walter Palmer built a series of 14 single-family houses on Putnam Road and Palmer Court to rent to the village's growing number of working-class families.

In the 20th century, the village was rescued from oblivion when the Plainfield Woolen Company bought the by-then moribund cotton mills and built a large new woolen mill, along with several multifamily mill tenements. A second woolen mill followed in 1907. By this time the village's population included a sizeable number of French-Canadian families, and at least one of their number joined the village's entrepreneurs; Urgele LaFrance started a beverage company in 1900 whose bottling and distribution plant still survives on Morton Lane. When the town built a large modern high school building in 1924, it again chose Central Village as the best location.

With the onset of the Great Depression, Central Village entered a period of decline. One by one the village's mills and factories went out of business, with fires and floods taking a toll on their buildings. The town hall was relocated to the village of Plainfield in 1942. The Torrey Brothers woodworking factory lasted through the 1960s, by which time it was making sticks for the National Hockey League under the ownership of the Greenes, a local African-American family. By the 1970s only the Plainfield Woolen Company mill remained of all the village's historic industries, and it too soon closed, to be rehabilitated into residential units. Although most of the old stores are at least partly occupied by businesses, Central Village has become a largely residential area, with most of its inhabitants working elsewhere.

Today the buildings of Central Village reflect the entire breadth of its historical development, from the 18th-century houses of the area's first families, such as the Kennedy House on Black Hill Road (Photograph 1), to the 19th-century stores and tavern at the center (Photographs 16, 16, and 20), to the large early 20th-century mill and mill housing at the intersection of Main Street and Norwich Road (Photographs 5 and 12). Many of the houses are associated with people who played a prominent part in the villages's history, such as leading lawyer J. J. Penrose (Photograph 17); millowners Arnold Fenner, Allen Harris, and Henry Cutler (Photographs 11, 13, and 23); and merchants E. H. Lillibridge and Frank H. Tillinghast (Photograph 9). Together with the church, old town hall, and high school, these buildings testify to the longstanding existence of Central Village as an important center for the surrounding locale.

Architectural Significance

The buildings in Central Village embody the distinctive characteristics of several types and periods of architecture. Several of the early 19th-century houses illustrate the transition from Federal-period architecture, with its emphasis on slender proportions and geometric shapes such as the ellipse (Photograph 13, entry), to the bolder, more rectilinear forms of the Greek Revival style (Photograph 21); most of these houses have the characteristic street-facing-gable orientation, suggestive of the temple form, that was popular in the 1830s and 1840s. Other houses are significant as representative examples of the Gothic Revival, characterized by steeply pitched gables, pointed-arched forms, and "medieval" details such as polygonal columns and dripmolds over the windows and entries (Photograph 4).

The Fenner-Matthewson mansion (Photograph 11), built c.1855 by millowner Arnold Fenner and later occupied by his daughter and son-in-law, has long been recognized as one of Connecticut's outstanding Victorian houses.[1] The house is a well-preserved example of the Italian Villa style, with the characteristic box-like form, flat roof, veranda, belvedere, arched shapes, and bay windows; the plethora of brackets, quoins, canopies, balustrades, and jigsawn scalloped decoration epitomizes the Victorian taste for abundant architectural detail.

Later well-preserved Victorian houses exemplify the Second Empire style with their mansard roofs and scroll-ornamented dormers (Photographs 9 and 23); the Italianate, embodied in their bracketed cornices, arched windows, bay windows, and verandas (Photographs 17 and 22); and the Queen Anne style, characterized by asymmetric plans and complex rooflines (Photograph 9). Taken together, these individually distinguished examples represent one of the most concentrated groupings of Victorian houses in Plainfield.

Although less numerous, some well-preserved and representative examples of 20th-century styles are also found in the district. Several Bungalows and Foursquare houses embody such distinctive characteristics as roof braces and exposed rafter ends, large dormers and porches, and combined shingle and clapboard siding (Photograph 6),

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[1]Edmund V. Gillon and Clay Lancaster, Victorian Houses: A Treasury of Lesser-Known Examples (New York, 1973), 46-47.

all of which treatments were intended to reflect the period's goal of a practical house that used natural materials and honestly expressed its structure. Some of these features also appear in the district's two nearly identical gambrel-roofed Colonial Revival houses (Photograph 2). The district's one 20th-century institutional building exhibits the Neo-Classical pilasters and entablatures which were favored in that period for their connotations of monumentality and serious purpose (Photograph 18).

Complementing the more elaborate houses in the district are those which illustrate vernacular building traditions. Although not of any particular historical style, these houses draw upon more formal architecture for some of their details, while also incorporating the varied sawn, turned, and planed millwork available in the second half of the 19th century. The former store at 11-13 Putnam Road (Photograph 16, center) is a well-preserved example: although plain in form, it is embellished by the typically Victorian details--turned and sawn balusters and vine-pattern post brackets--of its two-story porch. Similar details originally adorned all the small houses built by Walter Palmer in his c.1900 development (Photograph 16, left). Central Village had a local source for such material: Willis Rouse, who lived in and probably built the house at 35 School Street (Photograph 22), was a contractor and dealer in sash and architectural millwork. Together with the stores, brick schoolhouse, mill tenements, and former shops, these plainer buildings in the Central Village Historic District enhance its architectural significance by providing a broad range of buildings that reflect the entire historical socioeconomic spectrum.

9. Major Bibliographical References

X See continuation sheet.

Previous documentation on file (NPS):

_ preliminary determination of individual listing (36 CFR 67) has been requested.
X previously listed in the National Register Plainfield Woolen Mill
_ previously determined eligible by the National Register
_ designated a National Historic Landmark
_ recorded by Historic American Buildings Survey # _____
_ recorded by Historic American Engineering Record # _____

Primary Location of Additional Data:

X State historic preservation office, 59 South Prospect Street, Hartford, CT 06106
_ Other state agency
_ Federal agency
_ Local government
_ University
_ Other -- Specify Repository: _____

10. Geographical Data

Acreage of Property: approx. 130 acres

UTM References:

	Zone	Easting	Northing		Zone	Easting	Northing
A	__	_____	_____	B	__	_____	_____
C	__	_____	_____	D	__	_____	_____

X See continuation sheet.

Verbal Boundary Description: ___ See continuation sheet.
The boundary is shown on the accompanying map, scale 1"=200', traced and from Plainfield Assessor Map 14.

Boundary Justification: ___ See continuation sheet.
The boundary includes the densely settled area at the center of Central Village, continuing along the radiating streets so as to include contiguous historic structures; the boundary stops at the edge of settlement or when modern construction predominates.

11. Form Prepared By

Reviewed by John Herzan, National Register Coordinator

Name/Title: Bruce Clouette and Matthew Roth

Organization: Historic Resource Consultants Date: January 15, 1991

Street & Number: 55 Van Dyke Avenue Telephone: 203-547-0268

City or Town: Hartford State: CT ZIP: 06106

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A: 19/258700/4622460
B: 19/258700/4622380
C: 19/258660/4622360
D: 19/258400/4622380
E: 19/258440/4622250
F: 19/258370/4622260
G: 19/258200/4622490
H: 19/258150/4622450
I: 19/258050/4622560
J: 19/257970/4622460
K: 19/257920/4622480
L: 19/257880/4622390
M: 19/257840/4622400
N: 19/257860/4622450
O: 19/257830/4622470
P: 19/257790/4622430
Q: 19/257770/4622470
R: 19/257810/4622500
S: 19/257780/4622550
T: 19/257890/4622600
U: 19/257890/4622810
V: 19/257660/4622780
W: 19/257660/4622740
X: 19/257580/4622560
Y: 19/257380/4622470
Z: 19/257310/4622450

AA: 19/257290/4622500
BB: 19/257300/4622660
CC: 19/257340/4622630
DD: 19/257380/4622680
EE: 19/257360/4622710
FF: 19/257500/4622820
GG: 19/257500/4622990
HH: 19/257520/4623030
II: 19/257580/4623060
JJ: 19/257640/4623090
KK: 19/257740/4623070
LL: 19/257700/4622900
MM: 19/257880/4622940
NN: 19/257000/4623140
OO: 19/257980/4623310

PP: 19/258120/4623380
QQ: 19/258080/4623420
RR: 19/258220/4623640
SS: 19/258350/4623530
TT: 19/258220/4623200
UU: 19/258170/4623160
VV: 19/258070/4623080
WW: 19/258160/4622920
XX: 19/258200/4622920
YY: 19/258330/4622850
ZZ: 19/258480/4622880

AAA: 19/258500/4622850
BBB: 19/258360/4622750
CCC: 19/258440/4622550
DDD: 19/258680/4622530

NPS Form 10-900-a
(8-86)

OMB Approval No. 1024-0018

United States Department of the Interior
National Park Service

NATIONAL REGISTER OF HISTORIC PLACES
CONTINUATION SHEET

Photographs

Central Village Historic District Photos-1
Plainfield, Windham County, CT

All photographs:

1. Central Village Historic District
2. Plainfield, Windham County, CT
3. Photo Credit: HRC, Hartford, CT
4. December, 1990
5. Negative filed with Connecticut Historical Commission
   Hartford, CT

Captions:

Kennedy House, 10-12 Black Hill Road, camera facing southwest
Photograph 1 of 25

House at 21 Black Hill Road, camera facing south
Photograph 2 of 25

Shopping plaza (noncontributing), 1-17 East Main Street, camera facing southeast
Photograph 3 of 25

House at 34 East Main Street, camera facing northwest
Photograph 4 of 25

Former mill tenements, 47-49 through 19 East Main Street, camera facing west
Photograph 5 of 25

House at 11 East Shepard Hill Road, camera facing northwest
Photograph 6 of 25

Brick house at 4 Main Street, camera facing northeast
Photograph 7 of 25

Barn at 16 Main Street, camera facing northeast
Photograph 8 of 25

Houses (l.-r.) at 18-20, 26, and 30 Main Street, camera facing southeast
Photograph 9 of 25

Congregational Church (on left), 33 Main Street, Old Town Hall, 29 Main Street, and house at 25 Main Street, camera facing south
Photograph 10 of 25

Fenner-Matthewson Mansion, 40 Main Street, camera facing northeast
Photograph 11 of 25

Plainfield Woolen Mill, 45 Main Street, camera facing northwest
Photograph 12 of 25

Houses at 54 Main Street (on left) and 2-6 East Main Street, camera facing north
Photograph 13 of 25

Houses at 17, 19, and 21 Palmer Court, camera facing northeast
Photograph 14 of 25

Central Hotel (historic Collins Hotel), 4 Putnam Road, camera facing east
Photograph 15 of 25

Houses (l.-r.) at 9 and 11-13 Putnam Road, camera facing northwest
Photograph 16 of 25

House at 55 Putnam Road, camera facing west
Photograph 17 of 25

Plainfield High School, 87 Putnam Road, camera facing northwest
Photograph 18 of 25

House at 27 River Street, camera facing south
Photograph 19 of 25

Commercial blocks, 1-5 (left) and 7-11 School Street, camera facing southwest
Photograph 20 of 25

House at 16-18 School Street, camera facing northeast
Photograph 21 of 25

House at 35 School Street, camera facing southwest
Photograph 22 of 25

NPS Form 10-900-a
(8-86)

OMB Approval No. 1024-0018

United States Department of the Interior
National Park Service

NATIONAL REGISTER OF HISTORIC PLACES
CONTINUATION SHEET

Photographs

Central Village Historic District Photos-3
Plainfield, Windham County, CT

House at 52 School Street, camera facing northwest
Photograph 23 of 25

Houses at west end of School Street, 66 School Street on right, camera facing northwest
Photograph 24 of 25

Former Kennedy District School, 3 Shepard Hill Road, camera facing northwest
Photograph 25 of 25

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES
EVALUATION/RETURN SHEET

REQUESTED ACTION: NOMINATION

PROPERTY NAME: Central Village Historic District

MULTIPLE NAME:

STATE & COUNTY: CONNECTICUT, Windham

DATE RECEIVED: 6/25/91 DATE OF PENDING LIST: 7/08/91
DATE OF 16TH DAY: 7/24/91 DATE OF 45TH DAY: 8/09/91
DATE OF WEEKLY LIST:

REFERENCE NUMBER: 91000949

NOMINATOR: STATE

REASONS FOR REVIEW:

APPEAL:	N	DATA PROBLEM:	N	LANDSCAPE:	N	LESS THAN 50 YEARS:	N
OTHER:	N	PDIL:	N	PERIOD:	N	PROGRAM UNAPPROVED:	N
REQUEST:	N	SAMPLE:	N	SLR DRAFT:	Y	NATIONAL:	N

COMMENT WAIVER: N

✓ ACCEPT ___ RETURN ___ REJECT 8/9/91 DATE

ABSTRACT/SUMMARY COMMENTS:

Architecturally and historically significant mill town district with central textile mill, workers' housing, millowners' residences, commercial establishments, and other community facilities.

RECOM./CRITERIA Accept A+C
REVIEWER Jaworski
DISCIPLINE Architectural History
DATE 8/9/91

DOCUMENTATION see attached comments Y/N see attached SLR Y/N

CLASSIFICATION

___count ___resource type

STATE/FEDERAL AGENCY CERTIFICATION

FUNCTION

___historic ___current

DESCRIPTION

___architectural classification
___materials
___descriptive text

SIGNIFICANCE

Period Areas of Significance--Check and justify below

Specific dates Builder/Architect
Statement of Significance (in one paragraph)

___summary paragraph
___completeness
___clarity
___applicable criteria
___justification of areas checked
___relating significance to the resource
___context
___relationship of integrity to significance
___justification of exception
___other

BIBLIOGRAPHY

GEOGRAPHICAL DATA

___acreage ___verbal boundary description
___UTMs ___boundary justification

ACCOMPANYING DOCUMENTATION/PRESENTATION

___sketch maps ___USGS maps ___photographs ___presentation

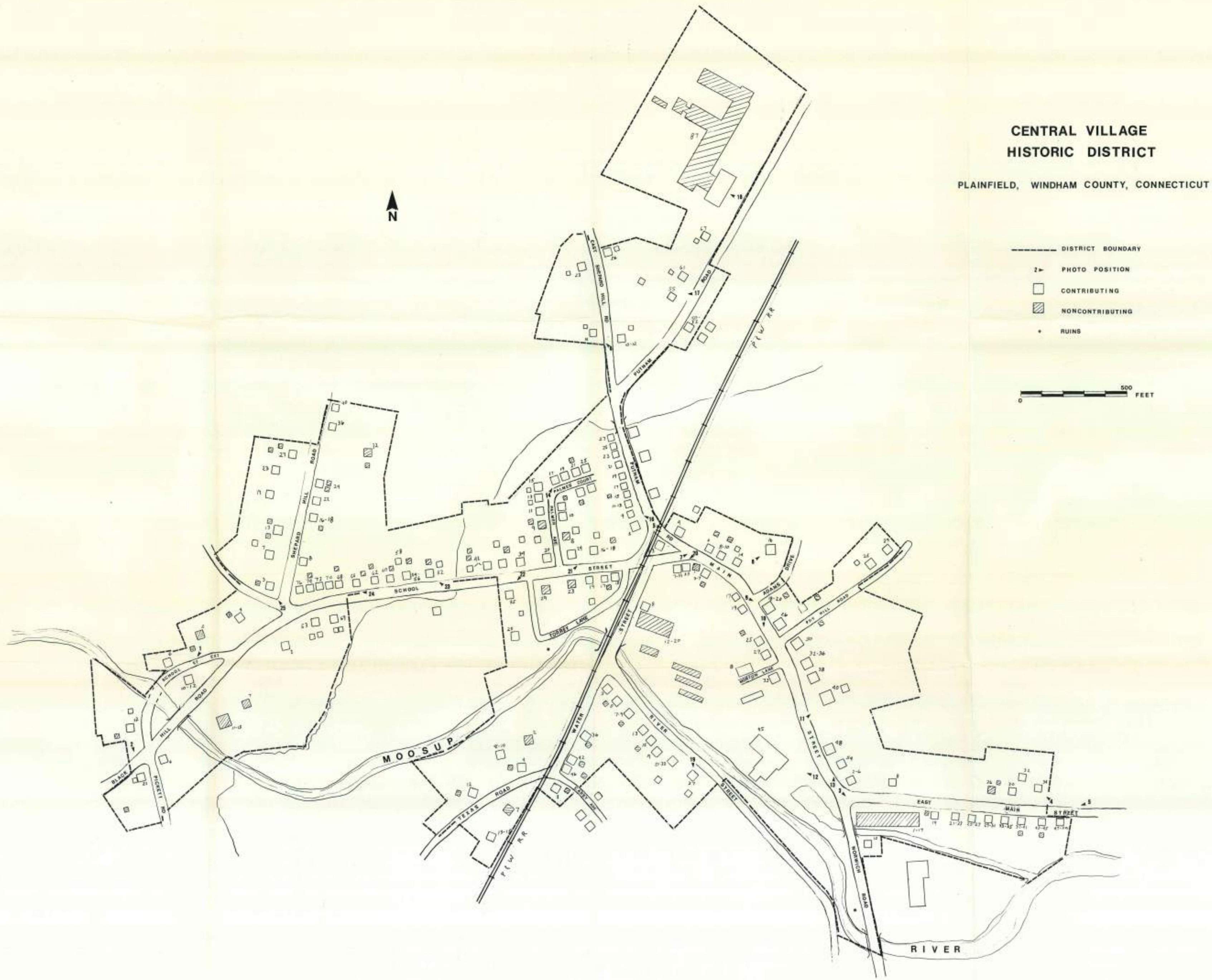
OTHER COMMENTS

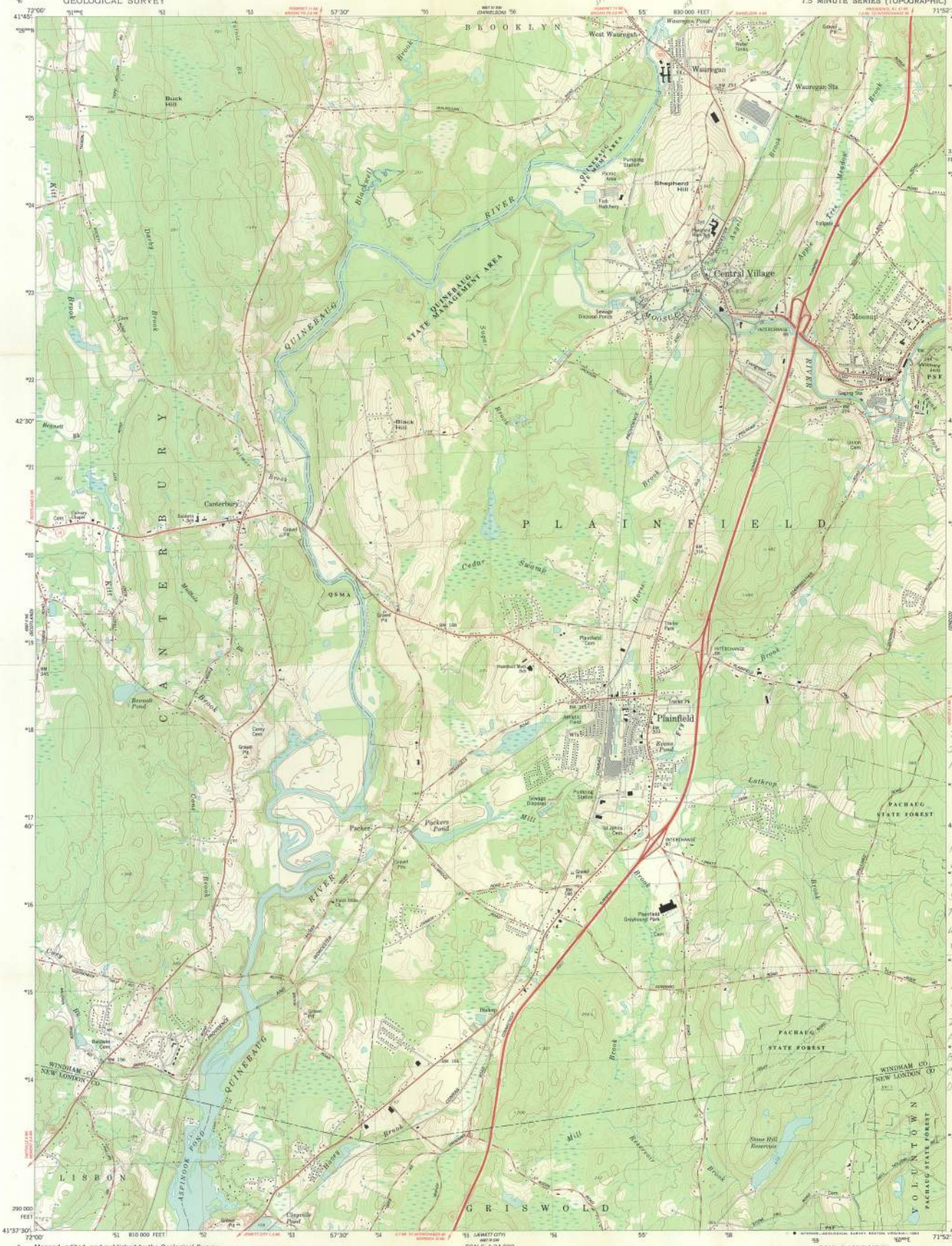
Questions concerning this nomination may be directed to

_____ Phone _____

Signed _____ Date _____


PLAINFIELD HIGH SCHOOL


CENTRAL VILLAGE
HISTORIC DISTRICT
PLAINFIELD, WINDHAM COUNTY, CONNECTICUT
DISTRICT BOUNDARY
PHOTO POSITION
CONTRIBUTING
NONCONTRIBUTING
RUINS
0
500
FEET
N
EAST SHEPARD HILL RD
PUTNAM ROAD
PUTNAM RD
P & W RR
SHEPARD HILL ROAD
PALMER COURT
PALMER AVE
SCHOOL STREET
TORREY LANE
MAIN STREET
ADAMS DRIVE
FOX HILL ROAD
NORTON LANE
WATER STREET
RIVER STREET
EASY AVE
TEXAS ROAD
EAST MAIN STREET
NORWICH ROAD
MOOSUP RIVER
SCHOOL ST EXT
HILL ROAD
BLACK HILL
PICKETT RD



CENTRAL VILLAGE
HISTORIC DISTRICT
PLAINFIELD
WINDHAM CO., CT

UTM References:

A: 19/258900/4622460
B: 19/258760/4622360
C: 19/258660/4622360
D: 19/258440/4622450
E: 19/258440/4622260
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DDD: 19/258620/4622530

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