MONTPELIER

An Historic Structure Report

STEVENS MORTON ROSE AND THOMPSON, INC.

in cooperation with
the Bureau of Parks and Recreation
and Division of Real Property Management
MAINE DEPARTMENT OF CONSERVATION

MONTPELIER

AN HISTORIC STRUCTURE REPORT

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March 1987

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(Unless otherwise noted, these are from the Montpelier files, Bureau of Parks and Recreation, Department of Conservation.)

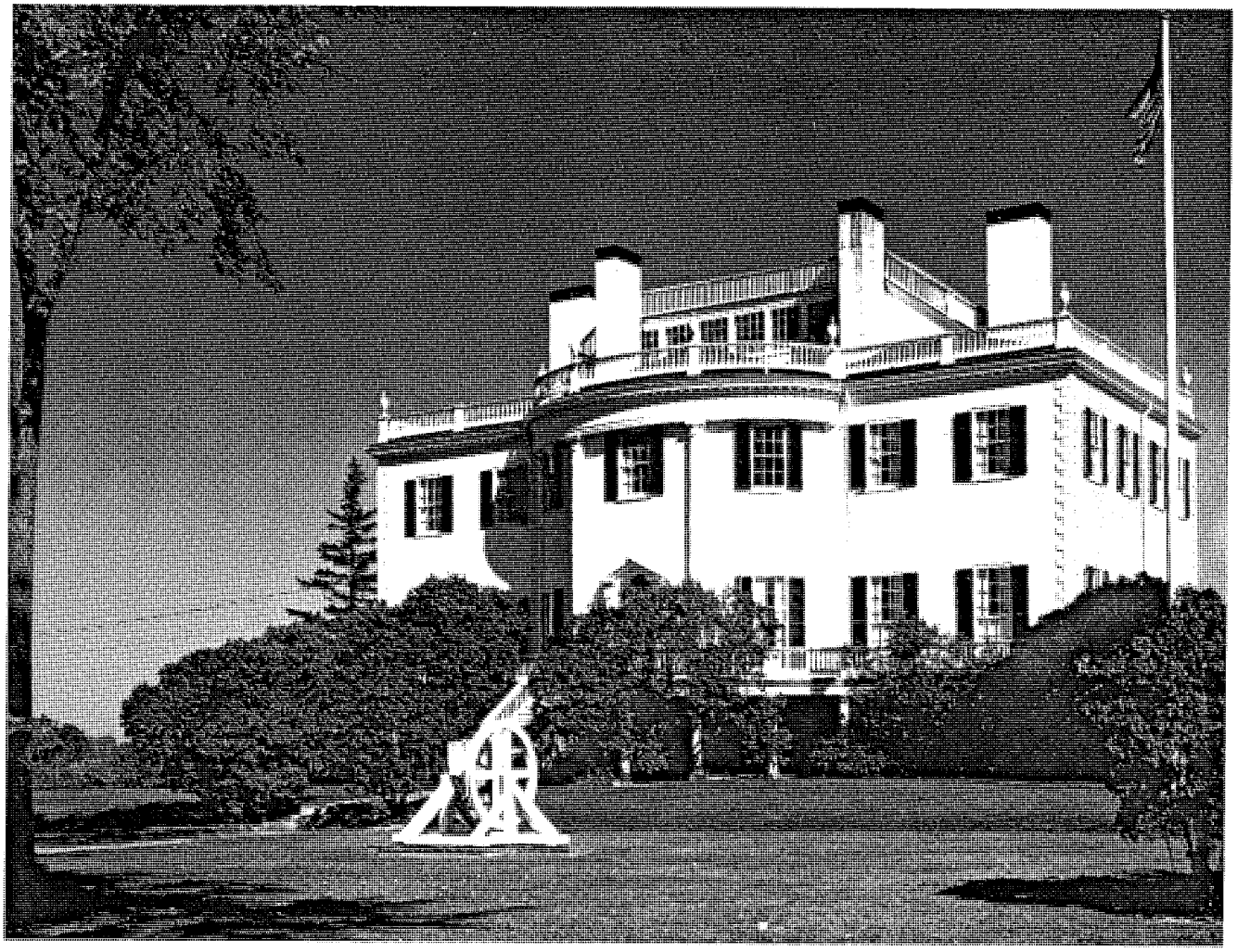


Figure 1 - Montpelier, the replica of Major General Henry Knox's home in Thomaston, Maine. This replica, built in 1929-1930, is presently owned and operated as an historic house open to the public by the Bureau of Parks and Recreation, Maine Department of Conservation.

INTRODUCTION

The replica of Major General Henry Knox's home, Montpelier (a building listed on the National Register of Historic Places) has been the focus of considerable attention not only presently, but even before it was built during 1929-1930.

Fifteen years of fund-raising efforts, initiated in 1914, finally led to its construction on a small hill overlooking U.S. Route 1 in Thomaston, Maine. Following Montpelier's completion and opening to the public in 1931, attentions were drawn to its furnishings and the story of the Knox family. Later, its owners tried to draw more attention to it in order to seek an endowment which would secure the building's future and allay the financial difficulties of maintaining it. They were unsuccessful. In 1965, concern for Montpelier was focused on the State and the Bureau of Parks and Recreation assumed ownership of the building, opening it to the public as a State historic site and spending public monies in its operation and maintenance.

State ownership of Montpelier, while continuing to be oriented to public programs, tours, and access, has concentrated on the building's physical structure, as an understanding of the complexity of its problems and needs has grown over the past 21 years of State ownership.

To help document Montpelier's structural and monetary needs and focus attentions once again, Earle Shettleworth, Jr. and Roger Reed of the Maine Historic Preservation Commission suggested that an Historic Structure Report be written. Such a report was conceived as a means of providing a comprehensive technical and historical treatment of this very complex building, so that the Bureau of Parks and Recreation, the Bureau of Public Improvements, the Maine Legislature, and the general public could have the benefits of current analysis in plotting Montpelier's future.

In September 1986, the Portland firm of Stevens Morton Rose and Thompson was hired to combine its technical expertise with that of Fred Bartlett and Jan Saleeby of the Division of Real Property Management, Maine Department of Conservation, and historical research from the Bureau of Parks and Recreation, in order to produce the report that follows.

I Montpelier - The Original and The Replica

I. MONTPELIER - THE ORIGINAL AND THE REPLICA

A. THE ORIGINAL - DESIGN AND CONSTRUCTION

When Henry Knox moved to Thomaston with his wife Lucy Flucker Knox and his four children (in what was then the District of Maine) in 1796, he was 46 years old, a distinguished Revolutionary War General, a former Secretary of War (the nation's first), and a man of means.

Knox's arrival in Thomaston brought fame and distinction to the area. His wife Lucy was the main reason the Knox family made their home in Thomaston. She had inherited a large tract of land, the Waldo Patent, which she and the General supplemented with additional purchases. The land, lying on the colonial frontier, was ripe with opportunities for development and the Knox family moved there to oversee it and shepherd numerous business ventures concerning lumbering, shipping, and lime-burning.

In addition to undertaking the challenge of business enterprises in his new home, Henry Knox was also anxious to pursue the role of a gentleman farmer in the best enlightenment tradition of the times. Nothing better represented his dreams and images of such a role than the mansion he had built along the St. Georges River overlooking the harbor in Thomaston.

The original Montpelier, sited majestically atop a small hill at the river's bend, presided over the main approach to Thomaston. The suitability of this site as a dominant, focal point of the area was well-founded even before Montpelier was built. From 1719-1762 blockhouses had been strategically located there as a nucleus for the settlement of what is now Thomaston. These blockhouses, a palisade, and trading post had formed Fort St. George, the province's most easterly outpost in the 1730's that had weathered several attacks during the colonial wars.

In his early planning for Montpelier, Knox had intended to make the site selection himself. As he wrote to his agent Thomas Vose in Maine:

> As the house cannot possibly be built so as for me to occupy it this season, I would prefer that the digging of the cellars should be deferred until my arrival, as I would wish to pitch upon the precise spot myself.[1]

Knox however, did not actually journey to Thomaston for this purpose, leaving the site selection finally to Thomas Vose and the specifics of the plans on site to his builder, Ebenezer Dunton.[2]

Credit for the design of Montpelier has long been debated. Many scholars have thought it to be the work of Charles Bulfinch, the young nation's finest neoclassical architect. Harold Kirker, confidently attributed Montpelier's design to Bulfinch in his definitive 1969 work, The Architecture of Charles Bulfinch, citing numerous stylistic analogues between Montpelier and contemporary Bulfinch buildings.[3] Yet, among the extensive collection of Knox papers in both the Maine and Massachusetts Historical Societies, no documentation for Bulfinch as Montpelier's architect has surfaced. And even Kirker seemed to back away from his initial attribution and did not list Montpelier as a Bulfinch design in a 1985 paper on Bulfinch's works in Maine.[4]

Bulfinch's direct connections to Montpelier, in the absence of good documentation, have become shadowy. Instead, Henry Knox himself (probably influenced by Bulfinch's work) and his builder Ebenezer Dunton have emerged more clearly in the historical record as collaborators in Montpelier's design.

According to one scholar, an involvement of the owner with the specifics of construction was consistent with building practices of the late eighteenth century.[5] Knox, however also had his hands in his home's design, providing design concepts to his housewright, Ebenezer Dunton and then relying on Dunton to translate them first into drawings and finally into a structure. In August of 1793, for example, Knox mailed a plan to Dunton that was a series of specifications. It called for:

> "The house to be well finished but entirely plain ... with everything in true proportion using that mode which will be most durable and at the same time cheapest." (Knox goes on to describe), "an oval room with wing rooms ... staircases in the rear of the oval room to be lighted from the top of the house by a sky light or rather by two skylights, or one pretty large. There will be a basement, parlor, chamber and garret stories, and a cellar beneath 1/4 of the basement 30 feet square and 8 feet high." All of this was to be done, "according to the rules of work laid down in Ye Town and Country Builders Assistant engraved and printed in Boston."[6]

Even after the site was selected and drawings were well along, Knox continued to make basic design decisions. But Knox, who was still serving as Secretary of War, lived in Philadelphia. Ebenezer Dunton worked in Boston. So Knox relied on General Henry Jackson, his friend and attorney who lived in Boston, to be his liaison with Dunton and the overall business manager for the project. Letters from Jackson to Knox indicate the extent of Knox's involvement with Montpelier's design. Jackson wrote to Knox on October 26, 1793:

> The alteration you propose of an oval room instead of a square can be easily effected - Mr. Dunton has been with me this morning and I have furnished him with a copy of that part of your letter, from which he will draft a plan and I will forward it to you.[7]

Knox continued to collaborate with his builder to refine the oval-on-axis design (an oval room flanked by corresponding wing rooms). Jackson wrote to Knox on November 3, 1793:

> The plan of the house agreeably to your last letter is inclosed (sic), but I expect you will make some alteration, as it certainly appears out of proportion and disagreeable to the eye, to have the whole of the oval outside the square front.[8]

These letters, indicating Knox's concerns with the design of the oval room, are significant for a number of reasons. First, it is interesting that Knox had to reiterate his desire for an oval room in October of 1783 when he

had specified, "an oval with wing rooms... staircases in the rear of the oval room", in earlier instructions to Dunton. Either Dunton did not receive these instructions or he was unclear regarding their meaning (a possibility reinforced by his first apparent lack of success in designing one). Indeed, the concept of an oval-on-axis was a very novel one in 1793. (Figure 2) Bulfinch had designed one for Joseph Barrell's house in 1792 and James Hoban had incorporated one into the design of the White House at about the same time.[9]

Knox's desires for an oval room and his collaboration with Dunton in designing it also almost certainly eliminate any possibility of Bulfinch as Montpelier's architect. For, if Bulfinch had provided plans for the building, the oval room would certainly have been better detailed than Jackson's letters imply. Bulfinch had, after all, successfully worked out a prototype in the Barrell House.

The letters concerning the oval room's design, while indicating the novelty of such a house plan and eliminating Bulfinch's direct involvement with Montpelier, also indicate a great deal about Knox and his aspirations for his home. In his probable scheme to model Montpelier after the Barrell House, Knox echoed the design of what was then the architectural wonder of New England and aspired to create in Thomaston what Boston's elite had accomplished - the utilization of their properties as focal points of fine architecture, landscape design, and agricultural reform. As one scholar writes:

> Henry Knox followed the lead of Joseph Barrell by taking advantage of the natural topography of Thomaston. He focused on the preferred entry into Thomaston, the water route, and built a mansion, quite similar to Barrell's, above the banks of the St. George, overlooking the harbor. In so doing, Knox emphasized his association with Boston's "new nobility" - people that were utilizing site and structure to create environments to reflect post-Revolutionary social and economic status.[10]
>
> ...There he expected not only to make his estate a center of fine architecture, landscape design, and agriculture, but also to engage in extractive industries and mercantile ventures. He expected that the raw harbor would quickly grow into a bustling community, visually commanded by his home.[11]

In essence, Montpelier was a two story frame structure with a brick basement and approximatgely 22 rooms. Knox, in directions to the builder dated March 10, 1794 specified that: the foundation be dug at least four feet; the cellar 7 or 8 feet deep and equal to 30 feet square under the front part of the house; the basement story be 9 feet high with 3 feet underground and 6 feet above ground; the parlor floor be 13 feet high; the chamber story be 11 feet high; and the steps of the stairs (presumably on the interior) be exactly 6 inches high, 1 foot wide, and 3 feet 8 inches long.[12] The sheathing for the front of the house was specified to be single or matched board with the rest of the house covered in clapboards.[13] It is this combination of matched boarding and clapboards that perhaps led to the use of corner quoins on the building - a particular novel feature of Montpelier.[14]

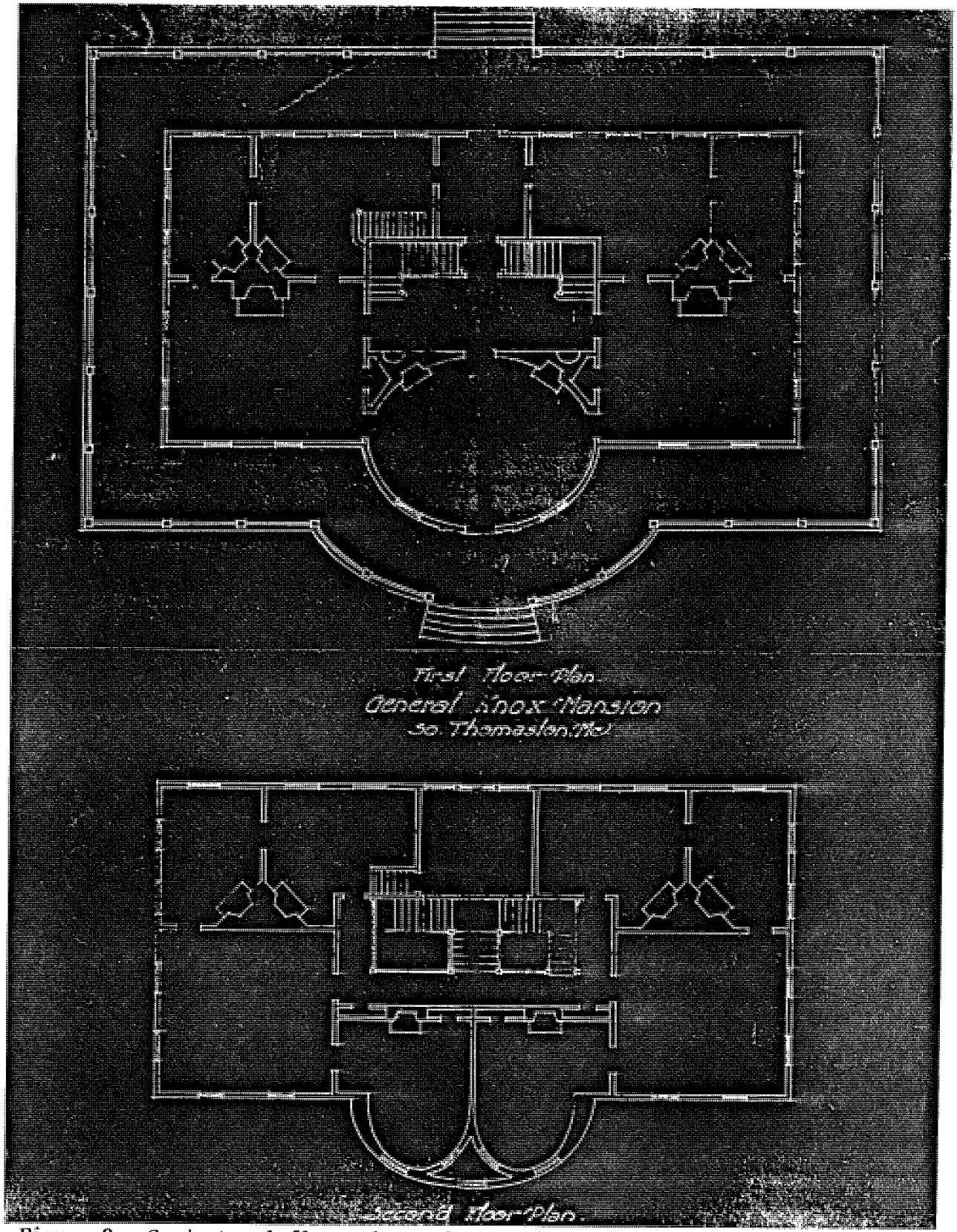


Figure 2 - Conjectural floor plans of the original Montpelier by Ogden Codman. The original Montpelier was razed by the time the well-known Boston architect Ogden Codman made these drawings ca. 1900. It is unknown what Codman used as his source of information. Nonetheless, he did a reasonable job depicting the probable floor plan and its oval-on-axis design. (Collection of Society for the Preservation of New England Antiquities, Boston.)

Although later photographs (Figure 3) picture a simple stairway leading to Montpelier's front door, contemporary records indicate that a porch or piazza existed originally across the front, back, and possibly around the sides of the building. Knox specifically wrote about a front porch in instructions to Dunton:

> In the oval room there will be only two windows, and in the front of each of the Wing rooms two windows, make in the whole front of the parlour story six windows - all of these must be four squares wide, and 7 high - the glass to be of the size you mention to wit - 11 by 16 -. I should hope the sashes which you have already made could be easily enlarged to this size - but the six front windows must be of the size I now mention - these windows are to be divided into three parts that a person may shove the two lower parts up, and walk out upon the piazza.[15]

A few weeks later, a letter from Dunton to Knox concerning the windows reported "Front to run to floor. Three sashes of two lites each. Two slide up. Gives height to walk out of piazza. Six square high," assuring that Knox's instructions were being carried out.[16]

To corroborate the existence of the front porch, there is a suggestion that Knox, in his continuing design dialogue with Dunton, had asked if the front of the basement could project as far as the piazza or porch. Dunton replied: "Brick work must not be carried out for to receive the walk if it is; it will always leak, but must be supported with square Tuscan pillars and the same as is above in front."[17] In a 1796 letter to Dunton, Knox also made reference to a roof over the upper piazza: "You will please to have the rooms on the low piazza heretofore directed done....the roof of the upper piazza made tight and the front stairs finished."[18] Piazzas were also mentioned in a bill submitted by Henry Simpson to Knox in 1795 when he asked payment for the following:

> Larthing and plastering, 2566 yards, laying 17 harthes, whitewashing enters, stairways, closets garrets, cellars, piazzas, 5 rumes, and 17 ceilings.[19]

Finally, Reverend Paul Coffin did not fail to mention the piazzas or porches after his visit to Montpelier; "The General's house with double piazzas round the whole of it, etc., exceeded all I had seen."[20]

The foregoing references, specifically terms such as upper piazza, lower piazza, and double piazzas are somewhat confusing and leave doubts regarding the actual design of Montpelier's front and back porches. A ca. 1860 daguerreotype of the building (Figure 4), while picturing only the stairway and a small porch on the front, sheds some light on the elements of the back porch. It shows a stairway leading from the back end of the building to a porch across the back. Presumably, a similar stairway was located on the opposite end.

Figure 3 - Montpelier, ca. 1870. This photograph, which was originally a stereo view, was taken immediately prior to the original Montpelier's demolition. The simple stairway leading to the front door was likely a small vestige of the larger front porch structure. This view also shows the Montpelier estate's farm house, which later became the town's railroad station. Today, it is the only remaining building from Knox's original estate and serves as the home of the Thomaston Historical Society.

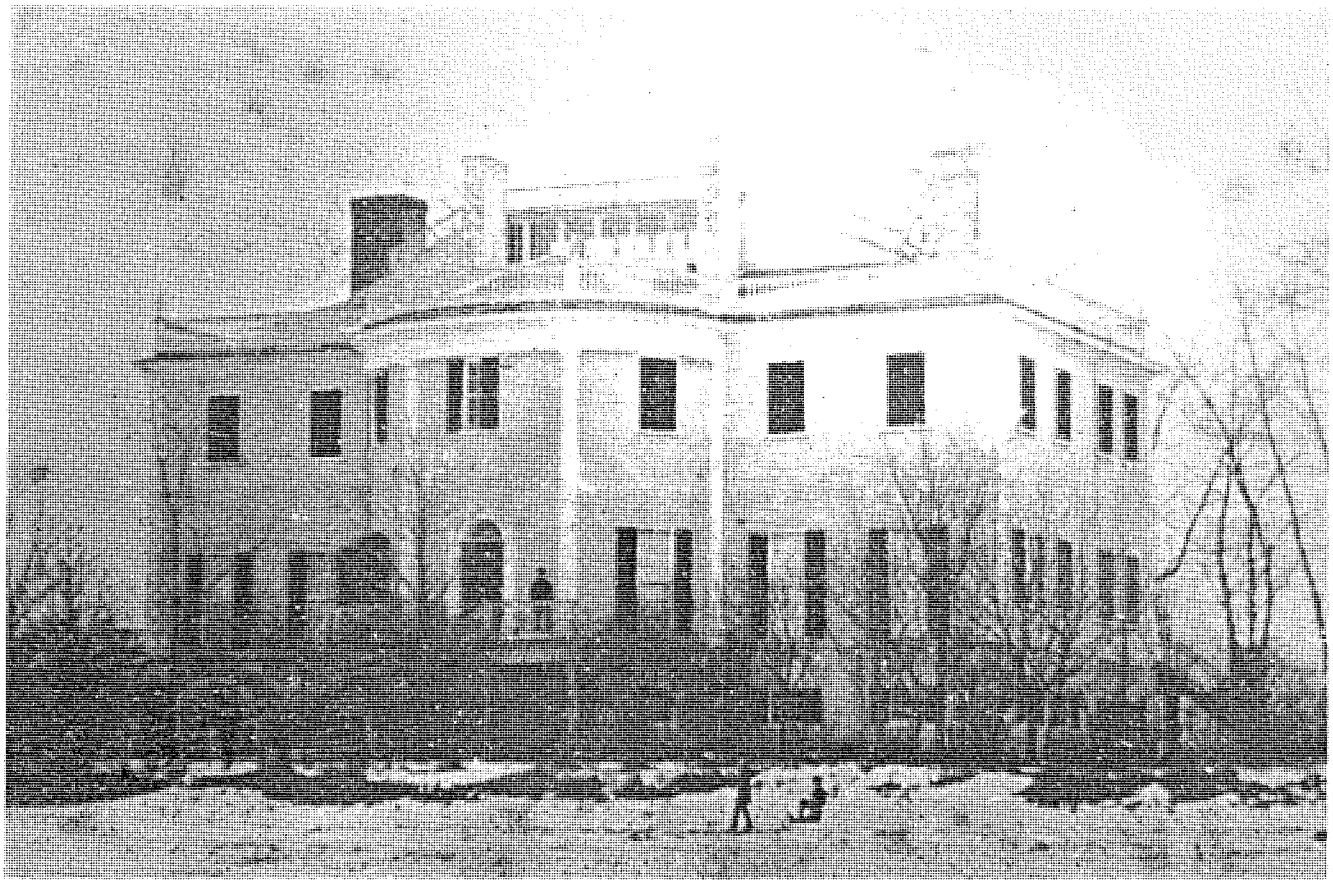


Figure 4 - Montpelier, ca. 1860. The back stairway can be seen on the right back side of the building. This photograph, because it is a daguerrotype, is a reverse image. So the back stairway pictured was actually on the left side of the building. This photograph is extremely important as the earliest known image of the original Montpelier and was probably taken shortly after Montpelier was sold by the Knox family.

With so many references to the front piazza or porch, questions remain regarding its fate and complete absence in later photographs. The answer likely lies in the fact that following Knox's untimely death in 1806, the family's wealth declined and Montpelier saw a rather rapid fall itself. According to the Honorable E.B. Neally in his Fourth of July oration delivered in Thomaston in 1877:

> His [Knox's] estate after eight years of litigation was proven insolvent. The stately mansion rapidly fell to decay. In 1823 the fences, gates and outbuildings were dilapidated wrecks, and the piazzas, colonnades and balconies so ruinous as to force their removal.[21]

Knox specified that the outside of Montpelier should be a cream color, the roof a slate color, and the inside primed a light stone color.[22] A later document specified that the roof be shingled.[23] Knox and his builder also agreed that: "chimnies in the three front rooms of the basement story be 7 feet wide and 5 feet 6 inches high; the others be corner chimnies and small; and the chimnies of the first and second story be 4 feet 6 inches wide in front and 3 in back and 3 feet high."[24]

Although Knox began supplying details for his home in the fall of 1793, the foundation was not laid until the spring of 1794. Instead Ebenezer Dunton and his workers stayed in their Boston workshop fabricating door and window frames, cornices, pilasters, balusters, and sheathing. As Dunton reported to Knox:

> The window frames, sashes and shutters are finished, the sashes primed and glazed, the doors of all the house are made. The Venetian front door is made, the Tuscan back door, the balustrade to go on top, the cornice that goes round and all the casings for windows and doors and the chief of the sheathing for the front...As I have a great deal of work fitted, we will go immediately down and go to framing and enclosing the house as quick as possible.[25]

One scholar suggests that the builders working off-site perhaps makes Montpelier the first "pre-fab" building in architectural history.[26] In any case, while Dunton and his brother William were hard at work fabricating elements of Montpelier in Boston, Knox continued making design suggestions and alterations in earnest, relying on General Jackson to communicate them to Dunton for inclusion in Montpelier's evolving design plans. Finally, after noting no less than 24 fireplaces in one version of Knox's altered plans, General Jackson sternly warned:

> from the first to this moment have I protested and that in the most serious manner against the magnitude and expense of the house you propose building--it will be much larger than a Country meeting house, and with all the economy and attention possible it will cost more money than you have an Idea of-or ought to expend on a house in that country.[27]

Knox apparently heeded Jackson's admonitions. Yet, Knox continued to be deeply involved in Montpelier's construction and interior design. Two receipts

dating from 1794, for example, show Knox purchasing two circular polished marble chimney mantles and several composition moldings, all presumably for his new home.[28] (Figure 5)

The fabrication of the house in Dunton's Boston workshop continued from the fall of 1793 until the early months of 1794. In April of that year, Ebenezer Dunton and Tileston Cushing formed a partnership to "build [for Henry Knox], he furnishing the materials, a dwelling house at Thomas Town agreeably to the plan furnished...and complete the same as soon as conveniently may be with eight men constantly employed therein."[29] Accordingly, William Dunton and nine carpenters, along with Henry Simpson and seven masons journeyed to Thomaston to begin constructing Montpelier.[30]

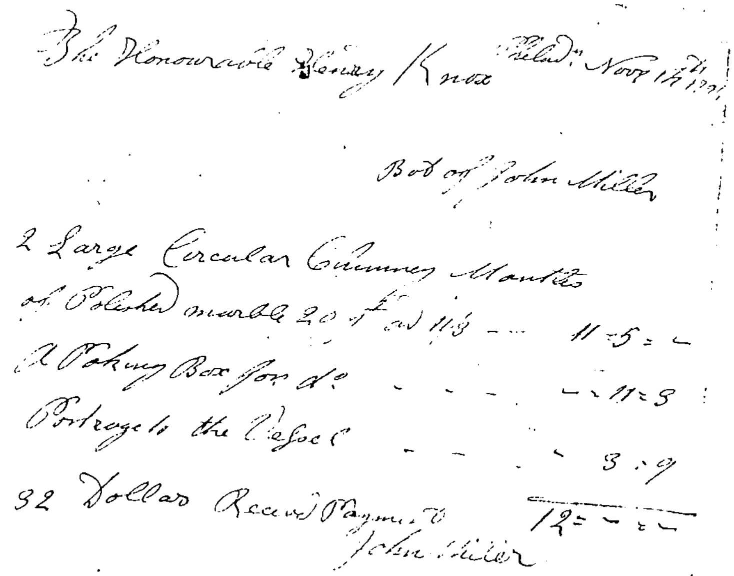
Work on the mansion progressed slowly. The remoteness of Maine and the consequent inability to obtain necessary materials meant delays. Knox himself did not visit the site until late summer or early fall.[31] Dunton likely spent a great deal of his time in his Boston shop and continued, with the help of General Jackson, to collaborate with Knox in refining plans.[32]

Montpelier was completed, at least enough to be habitable, by May of 1795. Thomas Vose, Knox's agent, wrote on May 28, 1795, "the House will be probably completed by the general's arrival, excepting the painting thereof which is as forward as could be expected."[33] By June of 1795 the house was nearly ready as evidenced by a bill from Henry Simpson for plastering, laying 17 hearths, whitewashing, and "putin on 25 rolles of paper."[34] By July of 1795, Dunton's work on the mansion must have been completed and Knox wrote him a letter of reference, endorsing his work as "equal to the best workmanship in America."[35]

Knox's correspondence, instructions to his builder, and surviving photographs provide insight into Montpelier's design, design process, and exterior appearance. Little documentation survives, however, that hints at design specifics of the interior architectural elements. Knox did specify to Dunton: "You must understand clearly that although I am desirous of having a well-built house, yet I am also desirous of having it plain without carving or other expensive ornaments." Knox went on to detail that, "the doors of the basement and garret stories shall be strong and plain, of the parlor and chamber stories pannelled (sic) - that the rooms of the parlour and chamber stories shall have mopboards surbase or dados and a light cornice around them," but gave no further instructions about wainscoting, fireplaces, mantels, and moldings around doors and windows.[36]

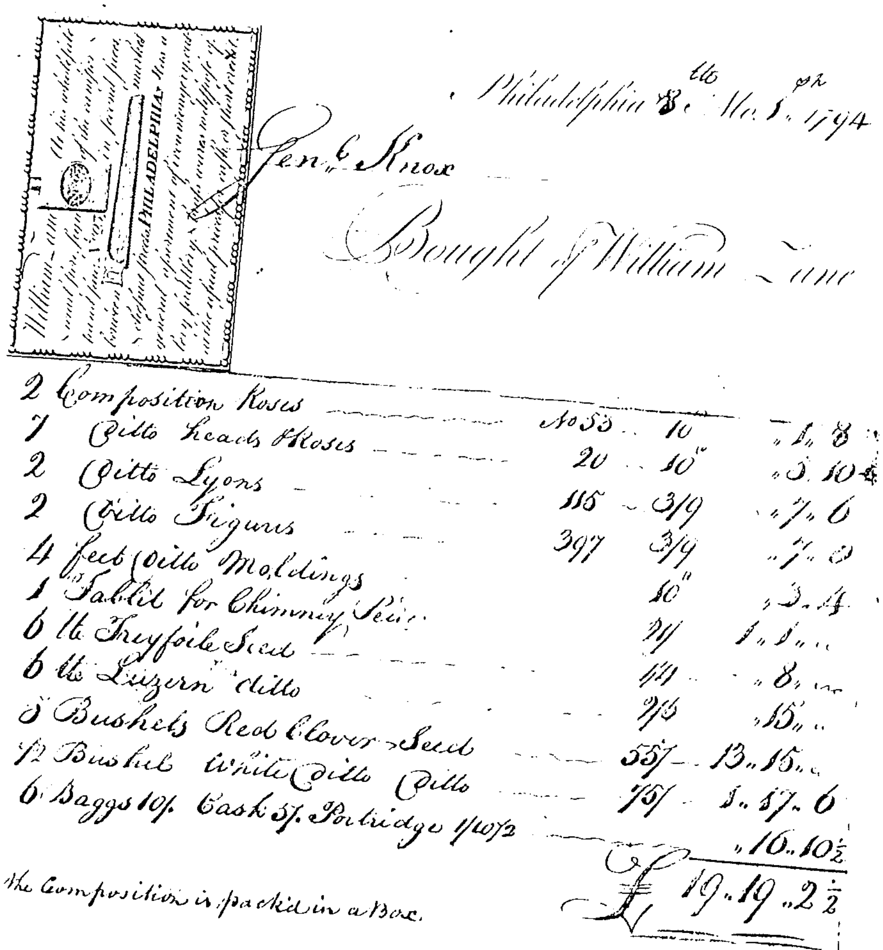
Surviving bills and receipts indicate that Knox's directions to avoid expensive ornament were heeded because there in no reference of payment for a wood-carvers work.[37] One bill (Figure 5) shows that Knox purchased composition ornaments identified as:

2 Composition Roses
7 Composition Heads and Roses
2 Composition Lyons
2 Composition Figures
4 Feet Composition Moldings.[38]


The Honourable Henry Knox Philad.a Novr 17th 1791

Bot of John Miller

2 Large Circular Chimney Mantels
of Polished marble 20 ft at 11/3 -- 11=5=–
A Packing Box for do - - - –=11=3
Portrage to the Vessel - - - 3=9
32 Dollars Recd Payment 12=–=–
John Miller


Philadelphia 8th Mo. 1st 1794

Genl Knox

Bought of William Lane

2 Composition Roses	No 53	10	1.8
7 Ditto heads & Roses	20	10"	5.10
2 Ditto Lyons	115	3/9	7.6
2 Ditto Figures	397	3/9	7.6
4 feet Ditto Moldings			
1 Tablet for Chimney Piece		10"	3.4
6 lb Treyfoile Seed		4/	1.4..
6 lb Luzern ditto		4/	8..
3 Bushels Red Clover Seed		55/	13.15..
1/2 Bushel White Ditto Ditto		75/	1.17.6
6 Baggs 10/. Cask 5/. Portridge 1/10 1/2			16.10 1/2
			£ 19.19.2 1/2

NB the Composition is packed in a Box.

Figure 5 - Receipts for Knox's purchase of two circular chimney mantles and composition moldings for Montpelier (Knox Papers, Maine Historical Society).

These patterns, along with an undated sketch of Montpelier's oval room by Mrs. C.A. Weston (Figure 6) imply that the mansion's interior appointments, like its exterior facade, were in the forefront of the Federal style. Four samples of Montpelier's wallpapers survive to the present day and they too indicate that Knox was committed to including the finest Federal style interior decoration in his new Thomaston home.[39]

In the Thomaston of 1796, described as "still a woody region, interspersed with straggling clearings, dotted here and there with small, low unpainted houses," Montpelier and its surrounding buildings must have made a dramatic impression as visitors approached it from the river.[40] One such visitor writes:

> His house is admirably situated, looking south, almost directly down George's River, which makes a kind of bay and salt water here.... The general has a garden fenced ovally. Indeed, circles and semicircles in his fences etc., seem to be all the mode here.[41]

And another visitor describes the house:

> ...the house he has built is a very fine one and the whole of his style rather bordering or magnificence.... It attracts very much the attention of every part of the country. His house is talked of everywhere and is certainly equalled by nothing out of the larger towns.[42]

A local historian, Cyrus Eaton, adds more color to Montpelier's presence in the community with the following account:

> When the mansion was completed, it was thrown open, and a general invitation given to the people of this town and all neighboring settlement, to assemble on the Fourth of July, to inspect the building and partake of its hospitalities. Tables were set in the long piazzas which extended on all sides around the lower and second stories; and the mansion and grounds were vocal with music and conversation. The ordinary style of living adopted was not less magnificent that the building, resembling more that of the old baronial castles than that of a private dwelling.[43]

Following its auspicious beginnings, Montpelier began to show signs of deterioration at a fairly early stage. After General Knox died in 1806, Lucy and then the children Caroline and Lucy continued to inhabit it. Reference has already been made to the mansion's condition in 1823. Nathaniel Hawthorne saw Montpelier in 1837 and was left with the impression of "a large rusty-looking edifice of wood, with some grandeur in the architecture."[44] Some refurbishing was attempted by Caroline and her husband Senator John Holmes when they lived there in 1838. Finally, in 1853 when the last of the Knox children, Lucy Knox Thatcher died, her children sold Montpelier. In 1871, the Knox and Lincoln Railroad purchased the property, razing all the buildings but two. Only one, the brick farm house, remains today and is the home of the Thomaston Historical Society. (Figures 3 and 7)

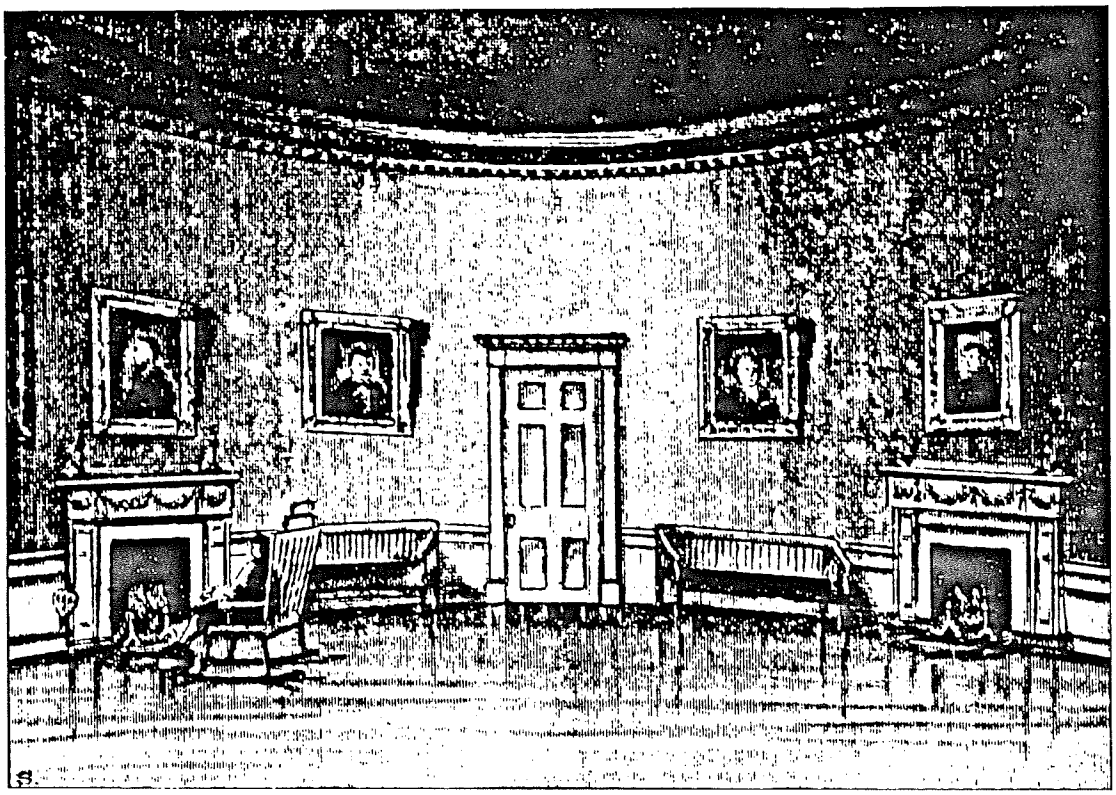


Figure 6 - Undated sketch of Montplier's oval room by Mrs. C.A. Weston.

Figure 7 - Montpelier, ca. 1871. This photograph was taken immediately prior to Montpelier's demolition.

B. THE REPLICA

The Replica's Beginnings

The social position, fame, and prestige that the Knox family brought to Thomaston lost its material manifestations with the razing of Montpelier in the early 1870's. As the end became inevitable, local people had not sat idly by. They apparently tried to raise private funds and then attempted to persuade the legislature to appropriate money to purchase the deteriorated structure. As one writer describes the lack of success in these ventures:

> It was a commercial age with little or no sentiment. When citizens were asked to purchase the house for $7,000., the reply inevitably was "What's in it for Me?" When the state Legislature was asked to buy it, the Legislators argued that they had no right to burden their constituents with the tax or repair and upkeep, and before another legislature convened, the house was no more. An economical excuse often was, the naming of the new County for Knox was of more permanent value than a statue of marble.[45]

Finally, some 43 years later, the General Knox Chapter of the Daughters of the American Revolution took the reins and spearheaded a movement to replicate Montpelier. Their inspiration came from a number of sources. First, motivated by the successful restoration of George Washington's Mount Vernon home and the potential for similar sites to install patriotic values and memorialize the American Revolution in other areas, the DAR was undertaking historic preservation projects throughout the country.[46] Secondly, the General Knox Chapter had noted that, "in nearly every home (in Thomaston) there was something that came from the original Mansion - a chair, table, dishes, pilaster, door, or wallpaper."[47] Finally, and perhaps most importantly, a Knox descendant, Dr. Henry Thatcher Fowler, offered to donate his Knox family pieces to the DAR if they could provide a fireproof home for them. The General Knox Chapter of the DAR eagerly grasped at these incentives and moved resolutely toward the goal of erecting a Montpelier replica in Thomaston.

The DAR sought public monies to fund the replication, going to the Maine legislature for appropriations.[48] With the large expenditures for World War I, the state government was sympathetic but unwilling to fund the project.

Despite unsuccessful attempts to raise large sums of money, the DAR accomplished an important task during the years from 1914 - 1924. One member, Mary Jane Watts, donated $7,000. to pay Boston architects William Putnam and Allen Cox to draw up plans for the replica.[49] Mary Jane Watts also collected and coordinated information for them about the original Montpelier. Several personal accounts were gathered from people who remembered the building from their childhoods. Mary Jane Watts wrote her remembrances and Henry Thatcher Fowler presented a floor plan of the original Montpelier according to sketches from his grandmother who was the last Knox descendant to live there.[50]

After presenting the plans formally on July 25, 1924, Putnam and Cox concluded their preliminary work and faded from the Montpelier scene until the replica was under construction in 1929 - 1930.

The Knox Memorial Association

During the five year period between Putnam and Cox's presentation of the plans for the replica and their return to Thomaston to supervise construction, energies centered on raising the necessary funds (an estimated $125,000) for the replication project. The group in charge was the Knox Memorial Association, an organization which had grown out of the General Knox Chapter of the DAR in order that more people could become involved in accomplishing the ambitious tasks necessary to finance the replica's construction. The General Knox Chapter of the DAR had paid for the Putnam and Cox plans (through the donation Mary Jane Watts), acquired land on Main Street in Thomaston, and raised $10,000. The ladies contributed the results of these efforts to the new group. After numerous organizational meetings and endorsements from well-known state and national figures, the Knox Memorial Association was on its way and certified an organization on October 27, 1924.

Its organization and purposes intact, the Knox Memorial Association moved into a period of intense fund-raising beginning in 1926. The Association was led at this time by its first president, Ann Waldo Lord, who in fact stayed at the organization's helm until the replica opened in 1931. Mrs. Lord was a Thomaston native. But, except for a few weeks during the summer when she was in Maine, she ran the organization from her residence in Washington, D.C.. There, her husband General Herbert Lord, a Rockland native, served as the director of the budget under President Warren G. Harding. Mrs. Lord's stature as a local person traveling in nationally prominent circles exemplified the dual local and national interest the Knox Memorial Association necessarily cultivated in order to achieve its ambitious goal.

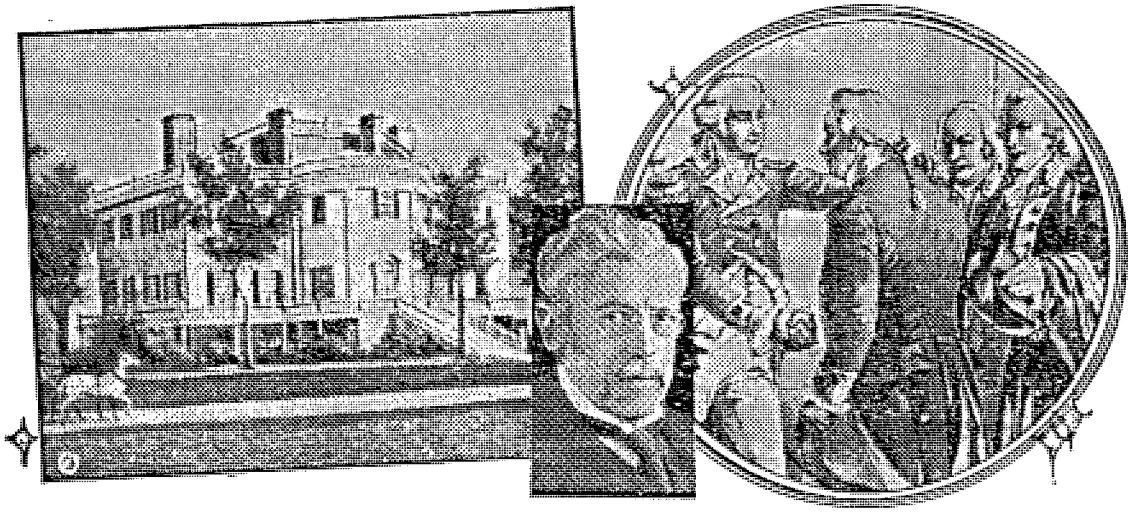
Mrs. Lord's position indeed brought national connections to the Knox Memorial Association's efforts. She solidified these connections by establishing a Knox Memorial Association standing committee of nationally prominent people and courted the interests of people who, like herself, were Maine or Thomaston area natives with money and power on the national scene.

One such person was Cyrus Curtis, a Portland native who had founded the Ladies Home Journal, Saturday Evening Post, and Curtis-Martin Newspapers.[51] After meeting with Mrs. Lord in October, 1926, Curtis decided to donate $50,000 to the efforts of the Knox Memorial Association.[52]

The Knox Memorial Association, under the leadership of another Thomaston native who had hit the national scene, Charles Flint, decided to initiate a national campaign to follow Curtis's donation and raise an additional $250,000 necessary for the replica's construction and maintenance. (Figure 8) Articles were sent to newspapers all over the country, appeals were made to 150 people Flint called the "ultra rich," and a nationwide fund-raising scheme with a representative in each state responsible for raising money was organized. Records are incomplete regarding the tangible accomplishments of this effort. However, it must have been somewhat disappointing. Minutes from a Knox Memorial Association meeting on August 28, 1928 indicated that the treasury had $56,000 presently on hand and that $51,000 of that amount had come from Cyrus Curtis.

TO HONOR HERO

Restored Home to be Maine's National Memorial to Henry Knox, Soldier and Statesman



"Montpelier," Charles R. Flint, and a scene at Fraunces's Tavern, New York, as Washington, bidding farewell to his comrades-at-arms, shakes hands with Major General Henry Knox.

By NEA Service

THOMASTON, Me.,—To the honorable and lengthening list of national patriotic memorials this village is shortly to add a new shrine. It will honor Major General Henry Knox, revolutionary hero and one of America's greatest soldiers.

Of all the names rich with courage and conquest for the colonies during their emergence into a republic, that of General Knox has been perhaps the least sung.

As chief of artillery in the American Army, General Knox bore the complete reliance and affection of Washington. He fought through Bunker Hill, Trenton, Princeton and Brandywine, to Yorktown. In the first cabinet he held the then dual portfolio of Secretary of War and Navy.

Upon his retirement, General Knox moved to Thomaston. Here he built a stately home, "Montpelier," in which to spend his declining years. Here, in 1806, he died. Here he lies buried.

Now a large scale project already is under way—with an initial gift of $50,000—to erect a memorial to General Knox commensurate with his efficient and patriotic services.

Cyrus H. K. Curtis, the Philadelphia publisher and a native son of Maine, has just made this contribution and has accepted the chairmanship of the General Knox Memorial Association. Charles R. Flint, New York financier and industrial organizer, who himself was born in Thomaston, will direct the national campaign to complete the fund.

It is planned to raise a total of $250,000 for the Knox Memorial. The original Knox mansion, "Montpelier," will be reproduced from plans already prepared, and it will become not only a fireproof monument but a museum for the preservation of historical relics. The remainder of the fund will constitute an endowment for perpetual maintenance.

The site for the Knox Memorial has been given by Mr. and Mrs. H. C. Moody of Thomaston. It is expected the money will be obtained this coming winter and the building erected next summer.

Attention to the services and historical importance of General Knox has been pointed out faithfully by the General Knox Chapter of the Daughters of the American Revolution. To their efforts was due the first movement for a memorial, which is being carried on now by big business men. It is intended, however, to make the campaign national. Each state of the Union to be represented in the organization.

Brig. Gen. H. M. Lord, director of the budget, and another son of Maine, and Mrs. Lord, President of the Knox Association are associated with Flint and Curtis in forming the plan for the memorial drive. Mrs. Alfred J. Brosseau, president general of the Daughters of the American Revolution, has pledged the support of that organization. And there have been indorsements from President Coolidge, General Pershing, cabinet members and other national leaders.

Figure 8 - News release that served as a major fund-raising mechanism for the Knox Memorial Association in 1926-1927.

At that same meeting on August 28, 1928, the Knox Memorial Association board of directors was making plans to secure bids for the replica's construction even though the treasury was low in funds. In making these preparations, the precise site of the replica had to be determined. The DAR had donated a site on Main Street in Thomaston but this was apparently not suitable. The Association also had the opportunity for additional donated land at the foot of Main Street not too far from the town's cement plant. The influence of Cyrus Curtis was prominent in discussions concerning the pros and cons of the two sites:

> One member counselled delay in deciding on a location until the full amount could be collected, and also until the effect of the proximity of the cement plant with its blasting and deposit could be determined. This was overruled on the ground of Mr. Curtis's undeniable right to have his wishes considered and his desire for the hill site and immediate action.[53]

The site near the cement plant was also desirable because Thomaston's "Old Church on the Hill" was located nearby. This building, owned by the Knox Memorial Association was built in 1796 and was the home church of the Knox family. By the 1920's, the church had fallen into serious disrepair. Throughout the project to build and operate the replica, the Association planned to restore the church and transform the entire area into Thomaston's patriotic and historical center.[54]

To draw attention to the church and follow Curtis's wishes, the board decided to locate the replica on a lot between the Hills and Keene properties on land to be donated by Harry Moody. A building committee was also authorized to buy the Keene property for $2,500 and in September of 1928, Putnam and Cox sent plans and specifications for the replica to five contractors.

In November, 1928, two bids were received for the building's construction. The low bid was $88,000, (from C.S. Henry of Thomaston and Boston) with additional architectural services (to cover some alterations in the original plan) of $4,000. The Knox Memorial Association had only $60,000, on hand in addition to a donation of cement for the building's construction by Lawrence Cement Company.[55]

Mrs. Lord, in a fairly transparent effort to gain more money from Cyrus Curtis wrote him to explain the Association's financial plight. Curtis, however, was not forthcoming and offered the Association nothing more than a pair of andirons he had which were given to Alexander Hamilton by Henry Knox.[56]

By this time, Mrs. Lord was doubtless feeling desperate. The first national fund-raising campaign had not been successful and Cyrus Curtis was apparently not making another donation. So, she turned to a professional fund-raising firm, the H.M. Spaulding organization based in New York. The goal for the Spaulding effort was to raise $150,000, over a ten week period with $7,500 going to the Spaulding organization for fees. While the Knox Memorial Association decided whether or not to risk participating in this

plan, two significant windfalls spurred the building plan on in April, 1929. First, the Maine Legislature appropriated $5,000 for the replica to be spent over a two year period. Then, after receiving news of the legislative appropriation, Cyrus Curtis came forward with $25,000 and issued the charge "Now why not go ahead."[57]

And go ahead they did. Plans hastened toward breaking ground for the replica on July 25, 1929, and the Knox Memorial Association agreed to the terms of the Spaulding organization's fund-raising work. With enough money from the state and Cyrus Curtis to nearly finance the actual construction, Spaulding was to raise money for an endowment for the building's maintenance. The Spaulding campaign began with a bang in May, 1929. A standing committee of notables was named, letters and telegrams were sent to 10,000 wealthy prospects, and the Paul Revere bell, formerly in Thomaston's Old Church (and now displayed on Montpelier's front lawn) was taken on a tour around New England to publicize the plans for the replica.

But after twelve weeks of work, the Spaulding organization raised only $10,000 falling well short of their $150,000 goal and just barely meeting the campaign's expenses. As Spaulding wrote to Mrs. Lord:

> In spite of the prominence of our Committee and the thoroughness of our publicity, we have been unable to sell General Knox and his achievements to a large part of the American people. I am now convinced that it would be impossible to do very much for even General Washington himself, were he in need of a memorial.[58]

In their failed efforts, Spaulding and the Knox Memorial Association, along with other preservation groups across the country, had indeed arrived at a painful truth. It was nearly impossible to generate nationwide interest in their projects. Granted, in saving George Washington's home, Mount Vernon, the Mount Vernon Ladies Association had orchestrated a prototypical and very successful national organization to raise money and support. But such ideas cannot always be imitated. Nearly every other preservation organization like the Knox Memorial Association who followed the Mount Vernon model met with disappointment and the inevitable conclusion that most preservation work had to be done on the state and local level.[59]

What the Knox Memorial Association lacked in national, and even state and local support was more than adequately made up in the generosity of Cyrus Curtis. He followed the unsuccessful Spaulding campaign with yet another $25,000 donation, bringing his total contribution to $100,000.[60] He in fact, announced that particular gift in December of 1929--a month after the stock market crash. With this donation, the actual completion of the replica's construction was for all practical purposes guaranteed.

Still, not all problems with the proposed site of the replica were yet resolved. The donated Moody property and the additional purchase of the Keene property had still not yielded a spacious enough site and the Association sought to purchase the adjacent land owned by Frank Hills. One solution was for Hills to donate half his property in exchange for the Association building him a small bungalow on the other half. This idea was greeted with disapproval by William Putnam who wrote:

> From our point of view this is not a solution as Mr. Hill's new house would be within 50-60 feet of the corner of the Knox Memorial....A building of this character should not have any building, however small, anywhere near it. A certain spaciousness of surroundings and liberal planting is absolutely essential.[61]

Putman's suggestions were followed. The Association agreed to pay Mr. Hills $10,000 for his property and demolish another "wreck of a building down over the hill in front of the proposed memorial site."[62] These necessities added $10,300 in unexpected expenses to the project. But finally the site was cleared and excavation for the replica began on August 16, 1929. (Figure 9)

Montpelier's actual construction lasted slightly more than a year, with the final payments to the contractor, C.S. Henry and the architects Putnam and Cox issued on October 6, 1930 (more details on the construction are related in a following section). Plans were, in fact, to dedicate the building on July 25 (Knox's birthday), 1930. However, there was the small matter of furnishings for the house. Henry Thatcher Fowler had promised the Knox family pieces and local people had offered some items reportedly from the original Montpelier. But there were hardly enough objects to furnish the replica's 18 rooms. No doubt because Montpelier would have presented a rather spartan appearance at its grand dedication, Cyrus Curtis, who was apparently becoming increasingly involved in the project, expressed his desire that the dedication be postponed a year. He also provided another $50,000 to be spent on acquiring furnishings.[63]

Finally, on July 25, 1931, the building was dedicated after fifteen years of work in bringing the project from ideal to reality. The dedication must have been a grand event with Governor Gardner of Maine, Cyrus Curtis, and other dignitaries in attendance. Two people dressed as General and Mrs. Knox came up the river in a rowboat and joined a procession through the streets of Thomaston to the replica.[64]

The Replica's Design

From an architectural standpoint, the building that those first visitors saw on the day of the grand dedication was as fair a representation of the original Montpelier as could be expected. (Figure 10) The original building, located on a different site had, after all, been razed 60 years previous. Working with only photographs, personal reminiscences and a limited number of Knox's accounts and correspondence, the replica's architects had faced a formidable challenge in converting vague details of the original Montpelier's size, exterior appearance, room size and arrangement, and interior architectural elements into the replica's tangible realities.[65]

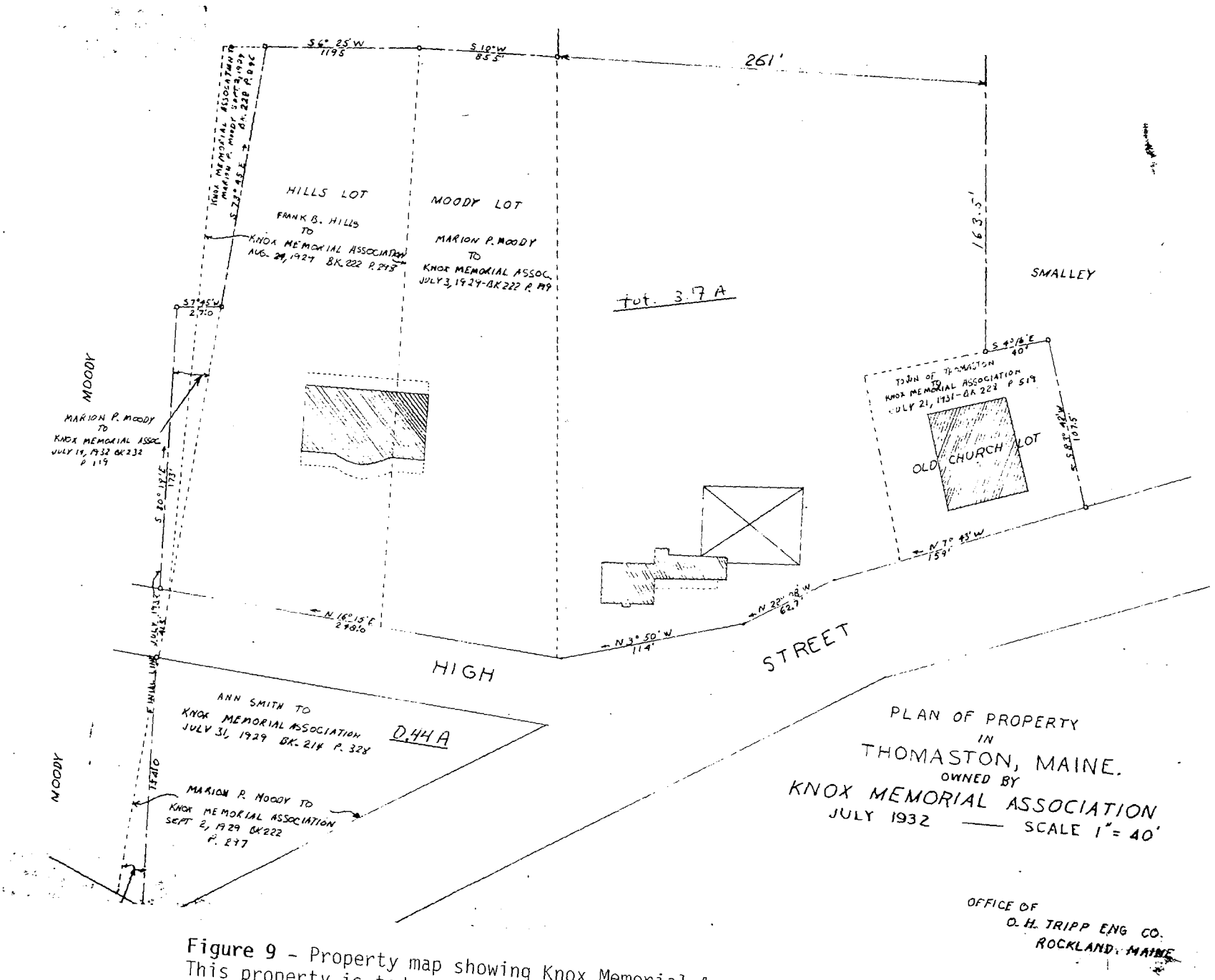


Figure 9 - Property map showing Knox Memorial Association holdings in 1933. This property is today owned by the State of Maine.

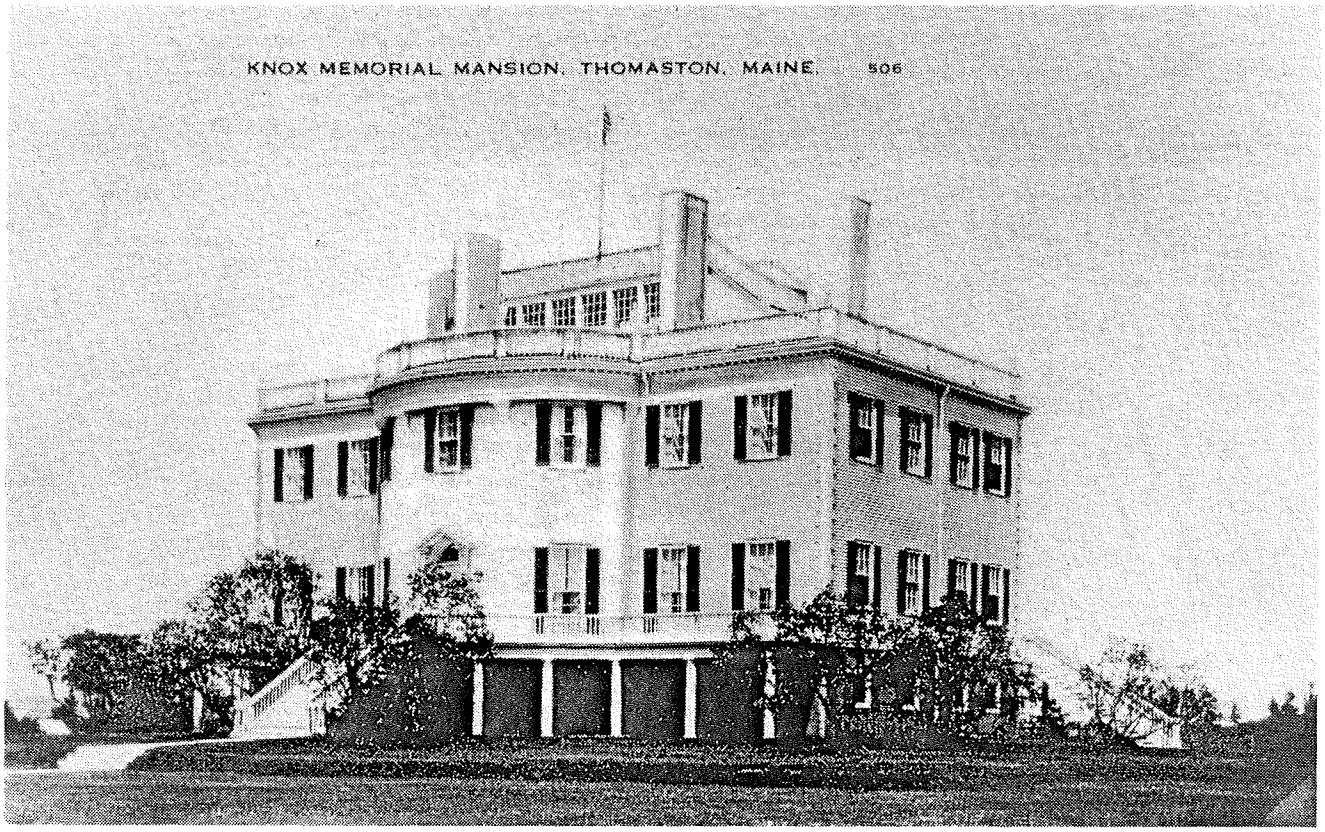


Figure 10 - Postcard picture of the Montpelier replica, ca. 1935. This view shows the back stairway (now removed) which, like the original, was matched by a stairway from the other side.

Putnam and Cox had determined that the original Montpelier measured 76 feet long and 40 feet wide and the replica was constructed accordingly. Neither these dimensions nor the replica's layout were arrived at easily. Correspondence indicates, in fact, that they were the subject of considerable controversy among Putnam and Cox, Mary Jane Watts, who had her own memories of the building (and who also paid Putnam and Cox to draw up the plans), and other local people. Putnam expressed the frustration of synthesizing such diverse and contradictory information:

> The evidence, even of eye witnesses, as to the probable plans of the Knox house are so at variance that we have to consider it carefully and test each bit by things that we are sure of from a practical standpoint and also from the photograph.[66]

Finally, however, they settled on the 76 feet by 40 feet overall dimensions, as Putnam reported to Mary Jane Watts in 1924:

> We have had the smaller photograph enlarged and reproduced by perspective methods the plan, using the scale of the window glass which is given in a number of places and so is probably correct. We find that the plan from this picture corresponds exactly with the plan from the daguerrotype and these strangely enough again correspond to the Gerry plan a tracing of which you gave us.[67]

The Gerry plan refers to a floor plan, now lost, apparently drawn by Seth Gerry, an owner of the Montpelier property after it was sold by the Knox family. The scale of the window glass mentioned by Putnam may have been a measurement cited in the Knox papers (and made available to Putnam by Henry Thatcher Fowler in 1921) of "sashes made 16 x 11."[68] Certainly, Putnam's technique of using such a measurement as a scale for the entire building is not unreasonable, yet is fraught with some uncertainties and unreliabilities.[69] Still, Putnam did the best he could with very limited information and established a size for the replica that appears close to that of the original while melding with the original's probable floorplan. As Putnam wrote to Mary Jane Watts:

> (the 76' x 40' plan) solves "the problem of the row of rooms at the back making them large enough to really be habitable, and the proportions make the house correspond to the general descriptions as being one of the group of fine houses in America built about that time. It also makes it possible to make the stairs of the dimensions spoken of in a number of places and will do away with that crowded and pinched look we would have if we adhered to the shorter dimensions for the front of the house....We feel so sure that the photograph cannot lie and also so sure that an architect with Bulfinch's work familiar to him would have designed a house about like this, that we hope you will be willing to have us work up the plans on these dimension."[70]

In determining the room size and layout, Putnam and Cox doubtless relied on other prototypes by Bulfinch (such as the Barrell House previously

mentioned) which incorporated an oval-on-axis design. In addition, Mary Jane Watts and other local people were at least unified in describing four large rooms flanking the oval room on the first floor (the functions of these rooms i.e. dining room, library, sitting room, bedroom changed over the years) with bedrooms on the second floor and the kitchen on the ground floor. Putnam's design of a hallway bisecting the oval room on the second floor is the only feature of the replica's layout that appears somewhat anomalous and out of character with the original's probable treatment of the same space.[71] Putnam and Cox also adhered very closely to the floor to ceiling heights of each story as specified by Knox to his builder.[72]

What Putnam and Cox lacked in precise overall design information was at least partially made up for by photos of the original's exterior. From these, Putnam and Cox successfully replicated the original's fenestration, the combination of matched board and clapboard siding, corner quoins, cornice molding, doorway, chimneys, balustrade, balusters, and columns at the juncture of the oval with the main walls of the house. In addition, they replicated pieces of roof balusters and urns that local people had salvaged from the original building.

A major design problem was the front porch, which was mentioned in Knox's records and correspondence, but had no pictorial or physical record when Putnam and Cox began working on the replica in 1919. As discussed previously, Knox's records suggested that the original porch had a roof and ran completely around the building. Putnam and Cox had access to this information (it was relayed to them in a letter from Henry Thatcher Fowler, dated November 10, 1921) but for unknown reasons (perhaps because a roofed porch around the entire building would have been prohibitively expensive), they chose to design a porch across the front with a center stairway and a porch across the back with a stairway on each end. The porches in their details were not unreasonable. In them, Putnam and Cox incorporated the same balustrade and balusters as on the roof, thereby logically using known elements of the original building as a basis for the design of unknown elements. Although the Knox records (in correspondence from Ebenezer Dunton to Knox) clearly indicated that the porch should be supported with "square Tuscan pillars," Putnam and Cox chose to use round pillars. Such pillars were pictured on photographs of the original building just before it was razed and also echoed the appearance of the two-story round columns on the exterior of the original Montpelier's oval.

An even stickier problem for Putnam and Cox was the design of interior architectural elements such as the staircase, moldings, wainscoting, and fireplaces. No photographs of Montpelier's interior survived. Personal reminiscences were varied and unreliable and Knox's own records and correspondence (or at least the records and correspondence likely made available to Putnam and Cox) did not reflect interior details.[73]

The best source of information was the interior elements themselves which local people had salvaged from the original building. Mary Jane Watts wrote in 1917, for example that:

> Many relics of the house are promised to us, including some of the urns that ornamented the balustrade...We have balusters from the stairs, samples of the cornice in the front rooms.[74]

As late as December of 1929, even after the replica was under construction, Putnam and Cox continued to search for remnants from the original building. A newspaper article in the Courier-Gazette (dated December 17, 1929) headlined, "Knox Memorial Desires to Have Details from Original Structure" reported that William Putnam last week saw at the Rockland home of W.O. Fuller:

> a number of such pieces incorporated in the house which he found of high value in supplying details that otherwise might have been wanting for exact reproduction in the new building. These included inner wooden shutters, a mahogany ballister from the front hall staircase and two weatherworn ballisters from the railing that surmounted the ancient roof. Mr. Putnam's delight at the discovery was unbounded and he took measurements for reproduction.[75]

In the same article, anyone with similar information was asked to give same to the architects including, "bits of wood however small, hardware, etc."

Even with some remnants of the original, Putnam and Cox faced an enormous challenge in detailing the unknown architectural elements of the replica's hallways, staircase, and 18 rooms open to the public. The replica's interior as it appears today indicates that Putnam and Cox decided to design its architectural elements in a Federal style, adhering to a precise, academic copying of a Federal interior.[76] The interior of the Montpelier replica thereby fulfills the promise of the building's exterior facade and presents a high synthesis of exterior and interior elements which each reflect the best style of the Federal period.

With little direct information to go on, Putnam and Cox faced many choices on which to base their Federal motifs. They may have consulted with published material, such as the work by Fisk Kimball documenting the designs of Samuel MacIntire, the Federal style Salem architect.[77] They may also have relied heavily on interior photographs and drawings of the Barrell House. This presumed Montpelier prototype in Charlestown, Masschusetts no longer existed by the early 1920's, but had been carefully documented and photographed. Indeed, the replica's "flying stairway," which is among the most successful of its interior features, is very similar to photographs of the Barrell House stairway that Putnam and Cox may well have seen and studied. (Figure 11)

Putnam and Cox, then, did an admirable job replicating the original Montpelier with the very limited amount of information available to them. They used the information as fully as possible. They seemed to have a feeling for Bulfinch's work specifically and for the Federal style in general. The many choices that they had to make in terms of design motifs, size, and proportion were reasonably well-founded and well-conceived based on what they knew to be true about the original. Of course, Putnam and Cox's ultimate success in replicating the original Montpelier may never by known. Indeed, new research and new interpretations will always be drawing new comparisons. In order to render some final judgment, however, the Knox papers (in both the Massachusetts and Maine Historical Societies) must be examined in fuller detail than they have been heretofore.

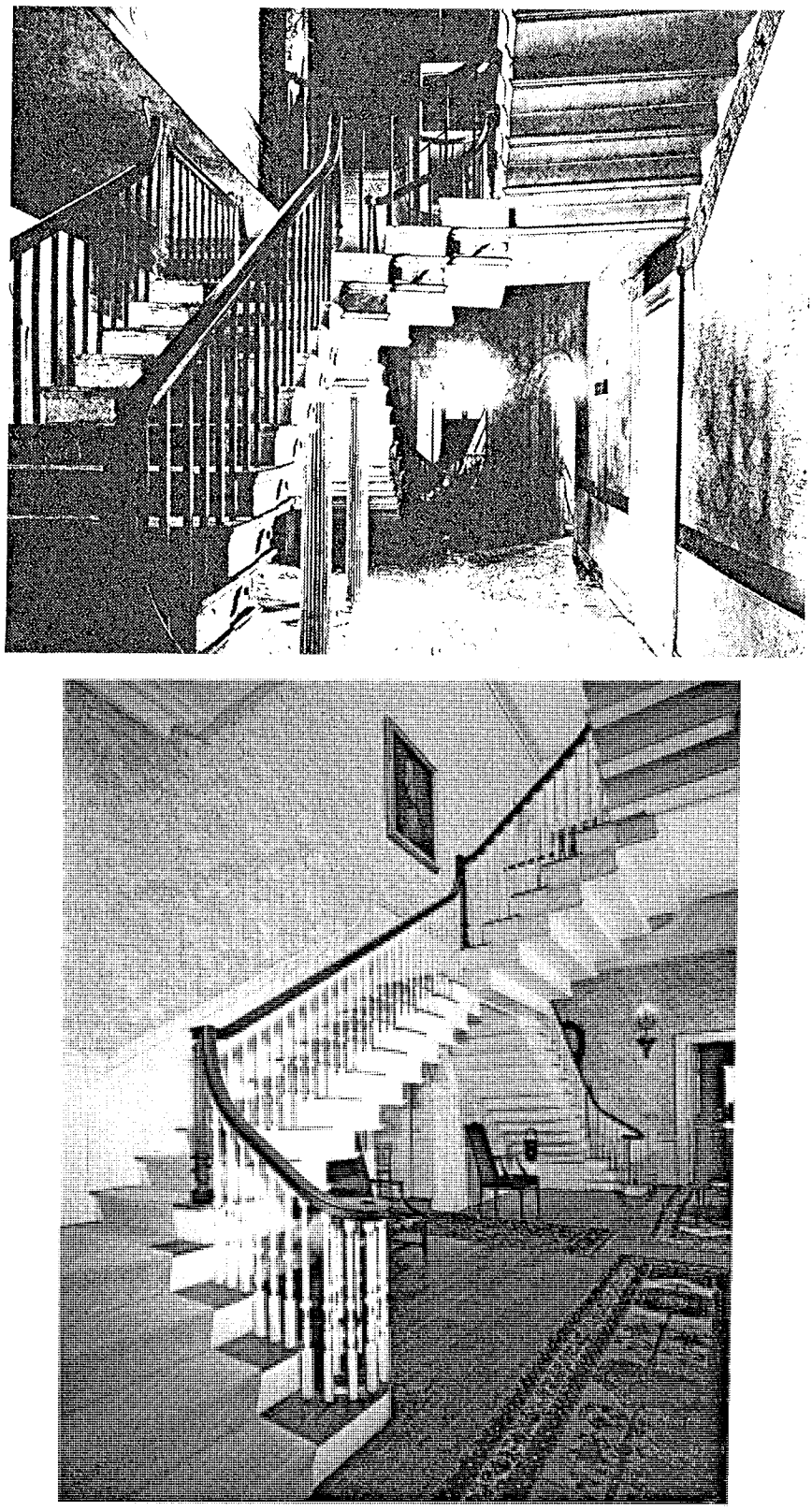


Figure 11 - Top - Flying stairway in the Barrell House, designed by Charles Bulfinch (Pictured in Harold Kirker, The Architecture of Charles Bulfinch, p. 52). Bottom - Flying Stairway in the Montplier replica, designed by Putnam and Cox (Pictured in Tacy French, Montpelier, p. 23).

THE REPLICA'S CONSTRUCTION

Excavations for the Montpelier replica began in August of 1929, beginning a year-long construction project that had been well over ten years in the making.

The principal continuing influence throughout the decade of the building's gestation was its architect, William Putnam of the Boston firm Putnam and Cox, who first began working on the replica in 1919 and continued refining the plans, visiting the site, and working with the contractor until the building was completed in October 1930.

The replica's contractor was the person who provided the lowest bid ($88,000) for the work, Clarence S. Henry. Henry was apparently a Thomaston native who had established a contracting business first in Portland, and then in Boston. By all accounts, Henry was not on the construction site full time but, along with Putnam, traveled to Thomaston periodically to inspect the work.

With both contractor and architect a good distance from Thomaston, the major responsibility for day-to-day operations lay with the building superintendent, Fred Trenholm. Little is known about Trenholm. He apparently was not a local person, having moved to Thomaston for the job. He also did not seem inclined to mince words concerning the job and the difficulties of working with plans drawn by an absentee architect and orchestrated and interpreted by an absentee contractor. At one point, for example, he told the members of the Association who were consulting with him about restoring the old church, "If you couldn't have plans more correct than the ones you have for Montpelier, it is a foolish waste of money."[78]

The construction activities were monitored and administered by the building committee of the Knox Memorial Association. Harry C. Moody, who donated one parcel of land for the replica, was the general chairman of this group. But because he, like so many Association officers, was not a year-round resident of Thomaston, much of the responsibility for overseeing the construction fell to Thomaston resident Arthur Elliot. Elliot kept a careful eye out for the Association, forwarding bills and reports to Mrs. Lord in Washington, D.C., and apparently inspecting the work with a seriousness befitting the size and complexity of the project:

> Arthur Elliot says there is little fault to find with the construction. He made them take off 3 or 4 sheathing boards that had sap in them and that's about all.[79]

As construction progressed through the winter of 1929 and 1930, the Knox Memorial Association continued to be involved in refining the replica's design details. One refinement concerned extending the porches areound both ends of the replica. As the Courier-Gazette reported on April 3, 1930:

> Harry C. Moody of Belmont, Massachusetts has been in the city and vicinity for a few days on business connected with the new Montpelier at Thomaston. It was decided during his stay to amend the architect's plans so that the building will be

completely encircled by a piazza, as was the case with the original building.

Such a change would have most certainly added a large sum to construction costs. Accordingly, the Association sought advice, approval, and probably an additional donation from its benefactor, Cyrus Curtis. As the minutes of the Association reported, one member:

> intended to take Mr. Curtis on a tour of inspection of Montpelier, at which time we would make known to him the desire to have the piazza.[80]

Curtis obviously did not take the bait offered him, and the larger porches, undoubtedly for lack of funds, did not materialize.

Specific details concerning the replica's construction are elusive in the minutes of the Knox Memorial Association. And, since all bills were paid to C.S. Henry as the general contractor, bills and receipts to subcontractors for items such as woodwork, moldings, and decorative work on the fireplaces are not in the Knox Memorial Association files. A reasonably good source of information, although not as detailed as desirable, is the Rockland Courier-Gazette which kept a watchful eye on the construction process. Excerpts from this paper, arranged in chronological order and combined with other details in correspondence and Knox Memorial Association records, are related on the following pages. Interestingly, the Courier-Gazette printed no photographs of the building in progress and, to date, no photos have been found in other files or records. Doubtless, some pictorial records exist somewhere since the whole project was carried on only 57 years ago. Future research work on this question might well include a published inquiry in local papers asking the general mid-coast populace if anyone has photos of Montpelier under construction.

Construction Chronology

(CG denotes the Courier-Gazette newspaper published in Rockland; other citations as indicated.)

August 16, 1929 — Excavation for the site of the replica commenced.

September 3, 1929 — "J.O. Creighton & Co. will shut down work in their lime quarries today. It is understood their employees will seek work on the new 'Montpelier'." CG.

September 7, 1929 — "Bricks in large quantities for the new Montpelier are being landed on the grounds and carefully sorted. The cement foundations for the walls are in. The plans show a building of 76 foot front, 40 foot depth, a basement of 10 feet. First story measured top floor to top floor 14 feet; second story 11 feet and the third story, which is called the outlook, is the top. There will be 28 rooms." CG.

September 17, 1987 — Cornerstone laid in which was deposited a 12" x 15" copper box hermetically sealed and containing:

*Constitution of the KMA as amended on July 25, 1929;
*Name of architect;
*Name of contractor and builder;
*Names of building committee;
*Names of contributors to the Knox Memorial Fund;
*Pictures of Knox, Ann Lord, Cyrus Curtis, Mr. & Mrs. Harry E. Moody;
*Account of the pilgrimage of New England's Liberty Bell;
*Copies of the Courier-Gazette of July 27, 1926; July 26, 1927; July 26, 1928; July 27, 1929 giving an account of the birthday celebrations;
*An account of the laying of the cornerstone;
*Names of officers of the Lodge.

September 28, 1929 — "There is a large company of workmen busy at the foundations, which have already risen to the point of completion and afford suggestions of the noble proportions that the structure is to present in its finished form." CG.

October 12, 1929 — "The reporter visited Friday the place where the Knox Memorial Building is to be erected. Rapid progress is being made in the work under the direction of Mr. Trenholm, who is proving himself to be an efficient superintendent. The outer walls of the basement are up and carpenters have the flooring of the first story well along. An elevator 50 feet high has been erected and will soon be in use. With favorable weather, the expectation of the contractors will be realized and the roof will be on by Christmas. Twenty-five men are now at work on the job." CG.

October 17, 1929 "Mr. & Mrs. William F. Burnham and nephew Richard Morse of Pine Point are making their home for a few months with Mrs. Harriet Morse. Mr. Burnham has employment as a mason at 'Montpelier'." CG.

October 23, 1929 "The structure is progressing very rapidly. The inside walls are laid up to the first floor and the outside walls are about halfway up... As the work proceeds, the wisdom of the location impresses everyone." Ann Lord to Cyrus Curtis, KMA Papers, BPR.

October 31, 1929 "The Knox Memorial is being pushed skyward. The steel members are being put in on the second story and the walls and partitions are keeping ahead. With good weather the roof should be reached in three weeks." CG.

November 16, 1929 "The brick work on the front of the Knox Memorial has been covered with boarding and all parts are being pushed along to cover in before snow falls." CG.

December 16, 1929 "North and south walls are clapboarded; front and back are ready for siding when it arrives; ceilings are being put in ready to plaster; and the heating system is being installed so that radiators can be set for temporary heat." Ann Lord to Cyrus Curtis, KMA Papers, BPR.

December 19, 1929 "John Mitchell and his family have moved from Friendship to this town and are housekeeping in the McQuarrie house on Dunn Street... Mr. Mitchell and son Robert have employment on the Knox Memorial." CG.

December 24, 1929 "Part of the crew on the Knox Memorial have been laid off to await the installation of heaters so that plastering may be done, the extreme cold making risk of freezing." CG.

January 4, 1930 "Steam was turned on in Montpelier Thursday. This makes possible putting on the plaster which will require 2 weeks in which to dry." CG.

January 25, 1930 "The outside covering of sheathing is being laid on the Knox Memorial." CG.

February 13, 1930 "The work has slowed up of late on account of plastering. This is now well along, although the cornice and fancy work, grape vine and leaves around the top of some of the rooms is taking considerable time." A. Elliott to Ann Lord, KMA Papers, BPR.

February 13, 1930 "I have been anxious to send you pictures and will as soon as the staging is taken down. The veranda is on the back, columns and front veranda will be in place in a week or so." A. Elliott to Ann Lord, KMA Papers, BPR.

February 20, 1930 "On a recent visit, I found that the walls were nearly all plastered and the ornamental cornices well underway. The heating system works out admirably. The exterior too, is well nigh completed except the veranda. The grand mansion stands out beautifully on the crest of the hill." Jarvis Perry to Ann Lord, KMA Papers, BPR.

March 4, 1930 "A visit to the Knox Memorial building showed plasterers and bricklayers busy at work on the interior. The steamfitters are up to the carpenters on the job. The piazza on the front of the house is completed with the exception of some of the pillars; that at the rear has the platform laid and the railing is being constructed. The receipt of finish for the interior of the building is expected soon." CG.

March 22, 1930 "A truckload of interior finish for Montpelier has been received and is being put in place." CG.

April 26, 1930 "The second coat of paint, white, is being applied to the exterior of Montpelier." CG.

April 29, 1930 "Montpelier is receiving its first coat of paint and not the second, as reported. The work is being done by Herbert Prescott and crew." CG.

May 1, 1930 "The water was turned on at Montpelier on Wednesday. For an estimate, the work to be done on the building is 25 percent. The finish is pine and birch of first quality. Superintendent Trenholm is leading his crew in pushing this work along. The cellar walls of the Hills House are being demolished and the material used to fill the cellar. The dream of General Knox Chapter D.A.R. appears about to be realized and the new Montpelier will soon stand forth "a thing of beauty and a joy forever." CG.

May 22, 1930 "A number of carpenters have been laid off from the Knox memorial recently. The supply of finishing materials does not arrive in sufficient quantities to keep the full crew at work." CG.

May 23, 1930 "KMA building committee voted that Walter Clark of Camden representing Olmstead and Company of New York submit blueprints for the grading and driveway with the idea of making the main approach to the memorial through the rear entrance." Ann Lord to William Putnam, KMA Papers, BPR.

June 7, 1930 "Montpelier nears completion. Beautiful memorial structure at Thomaston to receive its dedication on July 25. completion of work by architects and contractors not yet reached." CG.

June 21, 1930 "Walter F. Clark, landscape architect for Olmstead Bros. of Brookline, Mass. is in town looking after the landscape work of Montpelier." CG.

June 27, 1930 "It was the desire of Mr. Curtis that the dedication be postponed until 1931, and he also stated that Mrs. Fuller should have the sum of $50,000 which she estimated for furnishing the Memorial, and that he was going to see the thing through." KMA meeting minutes, KMA Papers, Thomaston Historical Society.

June 28, 1930 "Montpelier is wonderful, even without furniture." Katherine C. Derry to Ann Lord, KMA Papers, BPR.

July 5, 1930 "A large amount of work has been done in the preliminary grading of the grounds around Montpelier." CG.

July 26, 1930 "Mrs. W.O. Fuller, Mrs. A.J. Elliott and Mrs. Emilie Gould of the committee on furnishings for the Knox Memorial made a brief trip to Boston this week and made preliminary examination with reference to wallpapers for the new Montpelier." CG.

September 20, 1930 "The contract is completed on Montpelier." A.J. Elliott to Ann Lord, KMA Papers, BPR.

October 6, 1930 "Final payment - C.S. Henry ($11,739.34);
Final payment - Putnam & Cox ($683.08)."
A.J. Elliott to Ann Lord, KMA Papers, BPR.

October 6, 1930 "I am enclosing an order for $300 to complete the grading... We have the front all graded and laid down to grass seed and want to continue it on each side of the house." Harry Moody to Ann Lord, KMA Papers, BPR.

October 6, 1930 "We have partially filled in the roads as you suggested and taken off the high square terrace." Harry Moody to Ann Lord, KMA Papers, BPR.

October 28, 1930 "Weather-stripping was something that had to be done and was not included in the contract of C.S. Henry & Co." A.J. Elliott to Ann Lord, KMA Papers, BPR.

March 9, 1931 "... no more coal will be needed this year, and there will doubtless be some left after the fire is let out. It was put in at this time so as to save future possibility of cutting up the grounds." Nan Higgs to Ann Lord, KMA Papers, BPR.

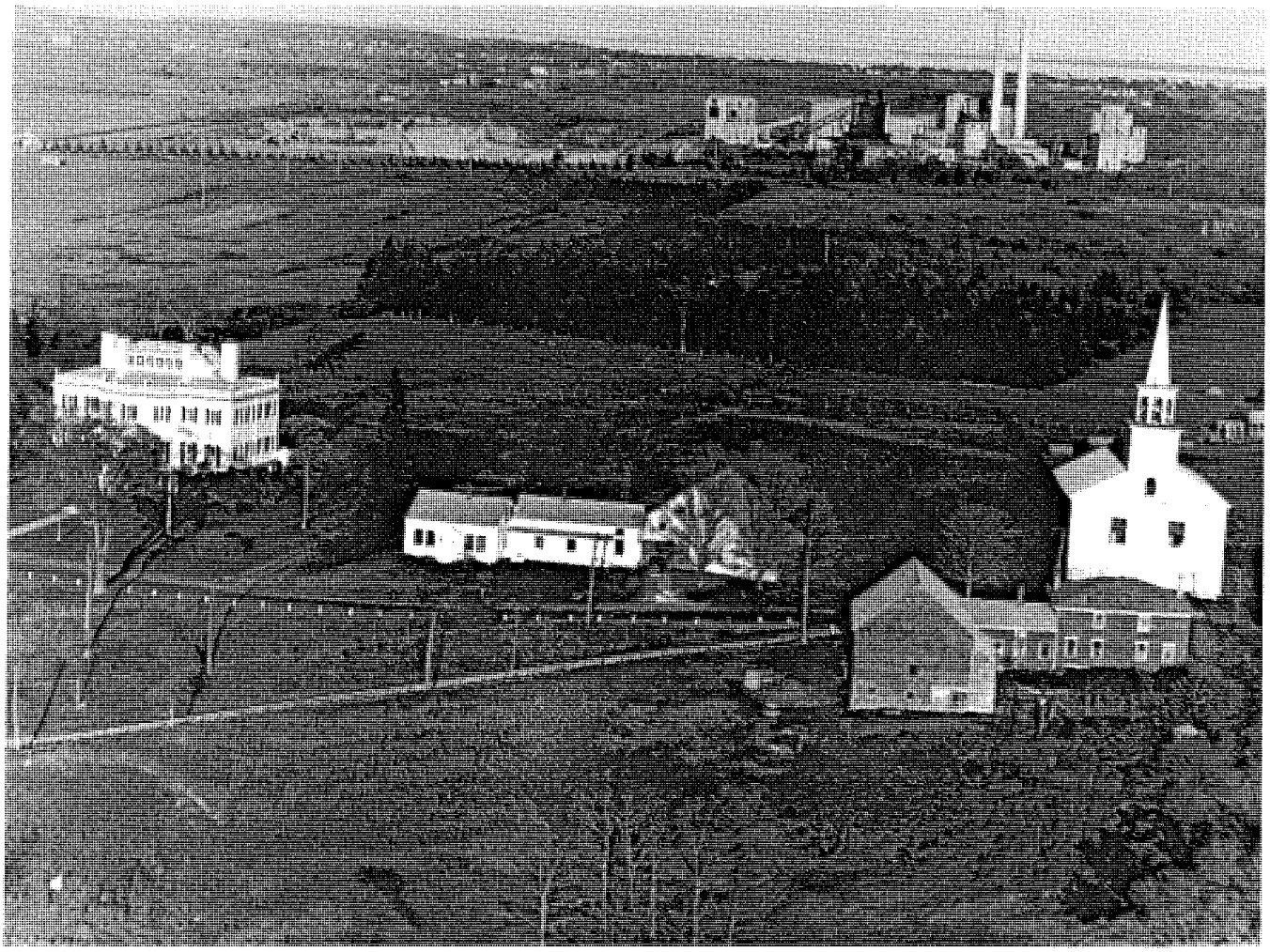


Figure 12 - View of the Montpelier replica and the "Old Church on the Hill", ca. 1940.

C. NOTES

1. General Henry Knox to Captain Thomas Vose, Philadelphia, April 25, 1793, Knox Papers, Massachusetts Historical Society (hereafter MaHS).

2. General Henry Knox to Captain Thomas Vose, Boston, October 18, 1793, Knox Papers, MaHS.

3. Harold Kirker, The Architecture of Charles Bulfinch (Cambridge, Mass.: Harvard University Press, 1969), p. 96. Kirker cites The Barrell House in Charlestown, Mass., the James Swan House in Dorchester, Mass., and the Perez Morton House in Roxbury Mass. as exhibiting design elements similar to Montpelier's.

4. Harold Kirker, "Charles Bulfinch," A Biographical Dictionary of Architects in Maine. (Published by the Maine Historic Preservation Commission), Vol. II, Number 7, 1985.

5. Carolyn Parsons, "Bordering on Magnificence: Urban Domestic Planning in the Maine Woods," unpublished manuscript, p. 9.

6. General Henry Knox to General Henry Jackson, Philadelphia, August 22, 1793, Knox Papers, MaHS.

7. General Henry Jackson to General Henry Knox, Boston, October 26, 1793, Knox Papers, MaHS.

8. General Henry Jackson to General Henry Knox, Boston, November 3, 1793, Knox Papers, MaHS.

9. Kirker, Bulfinch, p. 46.

10. Parsons, "Bordering on Magnificence", p. 7. Parsons presents a thorough discussion of Knox's visions for Montpelier, particularly as they are conceptualized in the late eighteenth century ferme ornee estate.

11. Ibid, p. 5.

12. General Henry Knox, Instructions to the House Builder, Philadelphia, March 10, 1794, Knox Papers, MaHS.

13. General Henry Knox to Ebenezer Dunton and Tileston Cushing, Indenture, Boston, April 7, 1794, Knox Papers, Maine Historical Society (hereafter MeHS).

14. Kirker, Bulfinch p. 96.

15. General Henry Knox, Instructions to the House Builder, March 10, 1794, Knox Papers, MaHS.

16. Ebenezer Dunton to General Henry Knox, Boston, April 3, 1794, Knox Papers, MaHS.

17. Ebenezer Dunton to General Henry Knox, Boston, Undated letter, Knox Papers, MaHS.

18. General Henry Knox to Ebenezer Dunton, March 4, 1796, Knox Paper, MaHS.

19. Henry Simpson to General Henry Knox, June 30, 1795 as cited in Tacy French, Montpelier, Home of General Henry Knox Southborough, Mass.: Yankee Colour Corporation, 1979), p. 11.

20. Paul Coffin, "Memoir and Journals of Rev. Paul Coffin, D.D." Collections of Maine Historical Society, 1st ser., 4 (1856): 326-27 as cited in Parsons, "Bordering on Magnificence," pp.10-11.

21. "Oration by Hon. E.B. Neally of Bangor on July 4 in Thomaston," Rockland Gazette, July 12, 1877, p. 1.

22. General Henry Knox, Instructions to the House Builder, March 10, 1794, Knox Papers, MaHS.

23. General Henry Knox to Ebenezer Dunton and Tileston Cushing, Indenture, April 7, 1794, Knox Papers, MeHS.

24. General Henry Knox, Instructions to the House Builder, March 10, 1794, Knox Papers, MaHS.

25. Ebenezer Dunton to General Henry Knox, Boston, April 3, 1794, Knox Papers, MaHS.

26. Kirker, Bulfinch, p. 94.

27. General Henry Jackson to General Henry Knox, Boston, March 27, 1794, Knox Papers, MaHS.

28. William Zane to General Henry Knox, Philadelphia, 1794 and John Miller to General henry Knox, Philadelphia, Nov., 1794, Knox Papers, MeHS.

29. General Henry Knox to Ebenezer Dunton and Tileston Cushing, Indenture, April 7, 1794, Knox Papers, MaHS. In his information kindly shared with the author, Roger Reed has written that Tileston Cushing later settled in Bath and designed the Lincoln County court House in Wiscasset in 1824.

30. Kirker, Bulfinch, p. 95.

31. Ibid.

32. Roger Reed, in information kindly shared with the author, reasoned that with so much work being done in Boston, continual alterations from Knox, and the necessity of keeping close touch with General Jackson, Dunton may have best served Knox in his Boston shop.

33. Capt. Thomas Vose to Joseph Pierce, Thomaston, May 28, 1795, Knox Papers, MeHS.

34. Henry Simpson to General Henry Knox, June 30, 1795 as cited in French, Montpelier, p. 11.

35. General Henry Knox, Thomaston, July 25, 1795, Knox Papers, MeHS.

36. General Henry Knox, Instructions to the House Builder, March 10, 1794, Knox Papers., MaHS.

37. Parsons, "Bordering on Magnificence," p. 13. Local tradition has maintained that Ebenezer Alden, a well-known Union, Maine carver, first came to the Thomaston area to produce carvings for Montpelier. No documentation has proven this, however.

38. William Zane to General Henry Knox, 1794, Knox Papers, MeHS.

39. Parsons, "Bordering on Magnificence," pp. 13-15.

40. Cyrus Eaton, History of Thomaston, Rockland, and South Thomaston, Maine, 2 vols. (Hallowell, Maine: Masters, Smith, & Co. Printers, 1865), 1:231.

41. Paul Coffin, "Memoirs and Journals of Rev. Paul Coffin, D.D." Collections of the Maine Historical Society, 1st ser. 4 (1856): 326-27 as cited in Parsons, "Bordering on Magnificence," p. 10. In addition to Montpelier itself, the estate also had numerous outbuildings. Reports differ concerning whether there were nine or eighteen buildings. Cyrus Eaton (Vol. I, p. 209) described "a range or wing of out-houses extending east and west from a crescent or segment of a circle - nine buildings in each wing." By 1886, only two survived; the servants house (now headquarters of the Thomaston Historical Society) was used as the town's railroad station and the stable (now razed) as a gravestone manufactury, as cited in Martha J. Lamb, ed. "Montpelier, " Magazine of American History, Vol. XVI, Aug. 1886, p. 132.

42. Frederick Allis, Jr. William Bingham's Maine Lands 1790-1820, 2 vols (Boston: Colonial Society of Massachusetts, 1954), 2: 770 as cited in Parsons, "Bordering on Magnificence," p. 10.

43. Eaton, History of Thomaston, pp. 210-211.

44. Nathaniel Hawthorne, The American Notebooks (New Haven: Yale University Press, 1932), p. 32.

45. Dudley Holman, An Appeal to Make Montpelier a National Shrine, (Granite City Print, Quincy, MA, 1949), p. 34.

46. Charles B. Hosmer, Jr., Presence of the Past: A History of the Preservation Movement in the United States before Williamsburg (New York: G.P. Putnam's Sons, 1965) pp. 131-138.

47. Holman, An Appeal, p. 34.

48. Guilford B. Butler to Mary Jane Watts, Rockland, April 11, 1917, Knox Memorial Association (hereafter KMA) Papers, Bureau of Parks and Recreation (hereafter BPR).

49. William E. Putnam (died c. 1947) and Allen H. Cox (1873-1944) formed a partnership in Boston in 1904 and maintained an active practice for more than 30 years thereafter. Among their best known buildings were nine fraternity houses at Amherst College; the Skinner Citation and Clapp Science Buildings and Dormitories at Mount Holyoke College; and the American Unitarian Association Building, additions to the Belleview Hotel, and the Copley Theatre in Boston. Putnam and Cox also designed the Watts Block in Thomaston in 1915.

50. Mary Jane Watts, "Recollections of Montpelier", unpublished manuscript and Henry Thatcher Fowler to William Putnam, Providence, November 10, 1921. KMA Papers, BPR, represent some of the information sent to Putnam and Cox about the original Montpelier as the architects began their design work. Such information, however, proved largely unreliable and contradictory. Although Putnam suggested that some archaeology be done to find Montpelier's foundations, such a project was never undertaken.

51. Cyrus H.K. Curtis was born in Portland in 1850. In 1883, he founded the Ladies Home Journal and in 1897, as president of the Curtis Publishing Company, he purchased the Saturday Evening Post. His publishing concerns later turned to newspapers and he acquired the New York Evening Post and the Philadelphia Inquirer. Curtis was a noted philanthropist, donating money to several colleges and hospitals. Curtis died on June 7, 1933.

52. J. Walter Strout to Ann Waldo Lord, Thomaston, November 5, 1926, KMA Papers, BPR confirms that $50,000 from Curtis was placed in the Association account.

53. Knox Memorial Association Meeting Minutes, August 28, 1928, Vol. I, p. 27, KMA Papers, Thomaston Historical Society.

54. Holman, An Appeal, pp. 31-32.

55. Ann Waldo Lord to Cyrus Curtis, November 14, 1928, KMA Papers, BPR.

56. Cyrus Curtis to Ann Waldo Lord, New York, November 16, 1926, KMA Papers, BPR.

57. Ann Waldo Lord to Cyrus Curtis, April 22, 1929; Cyrus Curtis to Ann Waldo Lord, Philadelphia, April 25, 1929; KMA Papers, BPR.

58. H. M. Spaulding to Ann Waldo Lord, Boston, July 12, 1929, KMA Papers, BPR.

59. Hosmer, Presence of the Past, p. 152.

60. Courier-Gazette, December 17, 1929, p. 2.

61. William Putnam to Harry Moody, Boston, July 13, 1929, KMA Papers, BPR.

62. Ann Waldo Lord to Cyrus Curtis, Tenants Harbor, Maine, August 23, 1929, KMA Papers, BPR.

63. Knox Memorial Association Meeting Minutes, June 27, 1930, KMA Papers, Thomaston Historical Society.

64. Courier-Gazette, July 26, 1931.

65. The best documentary source for this information is the collection of Knox Papers in the Massachusetts Historical Society. Putnam and Cox did not likely undertake a systematic investigation of these papers. Henry Thatcher Fowler, however, did send the architects important and relevant extracts from the papers concerning the details of the original Montpelier. (See Henry Thatcher Fowler to William Putnam, Providence, November 10, 1921, KMA Papers, BPR.)

66. William Putnam to Mary Jane Watts, Boston, November 22, 1921, KMA Papers, BPR.

67. William Putnam to Mary Jane Watts, Boston, May 17, 1924, KMA Papers, BPR.

68. Ebenezer Dunton to Gen. Henry Knox, Boston, April 3, 1794, Knox Papers, MaHS.

69. Author's conversation with Thomas C. Hubka.

70. William Putnam to Mary Jane Watts, Boston, May 17, 1924, KMA Papers, BPR.

71. Author's conversation with Thomas C. Hubka.

72. General Henry Knox, Instructions to the House Builder, Phildelphia, March 10, 1794, Knox Papers, MaHS.

73. The only depiction of Montpelier's interior comes from Martha Lamb, ed., Magazine of American History, August, 1886, Vol XVI, No. 2, which published a drawing of Montpelier's oval room by Mrs. C. A. Weston. Mrs. Weston's sources or connections with Montpelier are unknown.

74. Watts, "Recollections of Montpelier," p. 6.

75. Courier-Gazette, December 17, 1929, p. 1.

76. Author's conversation with Earle G. Shettleworth, Jr.

77. Ibid.

78. Lavinia Elliot to Ann Lord, Thomaston, April 22, 1930, KMA Papers, BPR.

79. Jarvis Perry to Ann Lord, Thomaston, February 20, 1930, KMA Papers, BPR.

80. Knox Memorial Association Meeting Minutes, June 26, 1930, KMA Papers, Thomaston Historical Society.

II Alterations and Repairs

II. ALTERATIONS AND REPAIRS

From the time Montpelier was constructed to the present, its owners have been faced with the challenge of keeping it in good repair. Such repairs have ranged from painting to installation of an underdrain. Whatever their scope, the repairs almost always amounted to changes in the building and its fabric. The repairs, while signifying remedies to structural problems, have also accumulated to influence the response of the building's structural elements to weather, the inside environment, and public use over the past fifty-seven years.

Repairs, alterations, and changes have also spanned Montpelier's maintenance and operation by two owners. The first, the Knox Memorial Association, operated the building for 34 years from July, 1931, when Montpelier was opened to the public to January, 1965, when the Knox Memorial Association deeded Montpelier to the State of Maine. The State's ownership, under the direct jurisdiction of the Bureau of Parks and Recreation, Maine Department of Conservation has spanned 23 years from January, 1965, to the present.

A. THE KNOX MEMORIAL ASSICIATION

Even before Montpelier opened in July, 1931, the Knox Memorial Association tried to raise money for an endowment to provide for the future maintenance and repair needs of the building. The major fund drive headed by the H. M. Spaulding Company in 1929 was in fact designed specifically to establish a maintenance endowment. But funds did not equal expectations and money was simply not forthcoming. By 1942, a small endowment of $10,200 had accrued. Finally, by 1964, the interest from approximately $17,000 was available for use on maintenance projects.

The shortage of endowment monies (and corresponding lack of repair funds) was the principal reason that the Knox Memorial Association offered to donate Montpelier to the State. As John Edgerton, the president of the Association wrote to the membership after the transfer of property:

> In January of this year we achieved an objective toward which we had been working for a long time, the acceptance by the State of Maine of our mansion "Montpelier", its contents and grounds. It will be maintained and operated by the Historic Sites Division of the Park Department.
>
> With our small endowment funds and limited income from dues and admittance fees, it had been apparent for some years that we could not afford the heavy cost of building repairs and maintenance. In fact, in order to secure acceptance by the State, it was necessary to spend a large amount of our capital funds for repairs to the porches, clapboarding, window trim, blinds, chimneys and roof. As in the case of any house, more such repairs will be necessary in the future and there was simply no source in sight for such large expenditures. So we are very happy that the State now has the responsibility for maintaining "Montpelier" forever as an historic shrine to the memory of Major General Knox.[1]

A portion of the "heavy cost of building repairs and maintenance" referred to by Edgerton was undoubtedly routine work necessary for the maintenance of any building. An even larger portion of this cost, in fact, probably more than the Knox Memorial Association realized, was probably due to major structural problems with the replica itself. These problems, such as the incompatibility of the replica's building materials (i.e. masonry and wood and plaster walls), the impracticalities of some aspects of the design (i.e. the roof), and the particular characteristics of the site's soils, have provided the major impetus for this report and are described in fuller detail in the following section.

Even though the Knox Memorial Association may not have fully understood the replica's inherent structural problems, early Association records give some evidence that the membership was coping with the effects of these problems from the replica's earliest years. For example, the high moisture content in the building's brick core (caused by incompatible materials and lack of adequate foundation drainage) may have been a reason that the Association had problems with paint on the building's exterior. For example, Montpelier was painted in 1930 and again in 1933. Yet, in 1935, Knox Memorial Association minutes reported that the interior was in excellent condition, but the exterior was very much in need of paint although it had been painted two years before.[2] In 1938, Knox Memorial Association President Ann Snow further corroborated the moisture problems in a report that stated:

> The damp and humid conditions existing in the Mansion, during every summer season, are a menace to the building and its contents. I recommend that a committee be appointed to consult with experts with a view to the installation of some inexpensive but effective type of ventilation or air conditioning if and when monies become available.[3]

At the time of this historic structure report's writing, it has not been possible to gain access to Knox Memorial Association records so that a detailed repair and alterations chronology during the years 1931 - 1964 could be given.[4] Such a chronology is important to the understanding of Montpelier, and it is hoped that one can be completed and appended to this report by August, 1987.

B. THE BUREAU OF PARKS AND RECREATION

Since the Knox Memorial Association deeded Montpelier to the State in 1965, the Bureau of Parks and Recreation has spent $57,000 in state funds and $23,300 in federal funds to remedy the structure's problems.

The sequence and nature of this work is detailed in the following repair history. The figures and explanations delineated therein cover major projects such as exterior painting, heating, and roof work. They do not include routine maintenance and small interior painting or papering that, for example, repaired winter damage to inside walls.

Further details about this work are contained in project files for the Real Property Management Division, Maine Department of Conservation and the Operations and Maintenance files and Interpretation/Historical files for the Bureau of Parks and Recreation, Maine Department of Conservation.

Repair History *

1964-present

1964 State accepts gift of Montpelier

Council Order - Statement of Fact $17,000
"Building excellent shape--
result expenditure of
$17,000 repairs"

Assume repairs to front porch and
east wall:
East wall resheathed with foil-
faced paper sandwiched to cut
down on wind infiltrations

1965 Deed to State

1967 Paint porches and new radiators $ 1,200

1968 Repoint brick and paint exterior $ 2,000

1970 Inspection and Report

Roof leaks and moisture problems
need attention
Division of Acquisition and
Development
*Moisture from leaks, not just
condensation
*Leaking roof at edge, and windows
from ice buildup
*Leak where porches join building

Recommend: Install louvers for
venting and not heat building

*Severe dry rot in servant's kitchen

Recommend: Stone/tile drain around
outside

1971 Bid to reshingle roof and repair
balustrade $ 3,400

1974 (August) Inspection - Maine State Museum Staff

*Grounds wet around building, incr. by roof gutter leaders
*Foundation: brick absorbs moisture
*Exterior sheathing: leaks with horizontal joints
*Porches: wood decks absorb water into structure
*Front steps to porch in bad shape
*Chimney flues capped with concrete, cracked and leaking

1974 (December) Museum Inspection of furnishings collection

*Serious damage from high humidity - 65%

1975 (February) Reference to roof still leaking - Lafayette French

1975 Inspection and Report

Operations and Maintenance determine cause of moisture problem

Briggs and Dickens
Recommend: New gutter system and porch floor
Repair gutter and downspout to get water water away from building
Drain holes in porch floor - 3/4" diameter
Chimneys capped - need vents

1975 Paint contract - interior (Barker) $ 4,800 + mats

1976 Inspection and Report
BPI, Mechanical Eng.

*Moisture permeating up thru brick floor
*Richard Hill, UMO concur

Recommend: Cover entire floor with poly and sand

*Seepage thru walls under porches

Recommend: Flashing and vapor dams

1978 Interior paint & paper
Labor and Materials $ 9,860

1978	Paint contract - Exterior (K&B)	$ 9,960
1978	(79-80) Budget request - $10,000 for new boiler to heat and reduce humidity	
1979	(May)Interior painting, 6 rooms & halls	$ 3,850
1979	Exterior paint and flashing: flagpole, chimney and roof	$ 900
1982	Inspection and Report BPI Mechanical Eng. Steve Petley	
	*Deterioration problem, no heat; condensation and freezing	
1983	(April) Energy Audit preliminary inspection	$ 600
	BPI have Chris Glass make energy recommendations with consideration for architecture integrity.	
	Glass emphasized moisture problem and corrective action	
1983	SBA Jobs Bill Grants	
	*Underdrain & foundation insulation	$ 6,350
	*Exterior painting contract	$ 9,700
1983-1984	New boiler, BPI	$12,000
1984	Historic Preservation Jobs Bill 50/50	
	*Carpentry repair, walls, vent east wall and rear porch	$ 8,100
	*Chimneys: rebuild one, repair and repoint others	$ 6,400
1985	Cap attic insulation, BPI	$ 2,500

* Chronology compiled by Jan Saleeby

C. NOTES

1. John Edgerton to Knox Memorial Association Membership, 1965, KMA Papers, BPR.

2. Knox Memorial Association Meeting Minutes, Vol. II, 1965, KMA Papers, Thomaston Historical Society.

3. Knox Memorial Association Meeting Minutes, 1938, KMA Papers, Thomaston Historical Society.

4. These records are located in the Thomaston Historical Society archives, Thomaston, Maine.

III Existing Conditions and Analysis

III. EXISTING CONDITIONS AND ANALYSIS - EXTERIOR & STRUCTURE

A. GENERAL STATEMENT

Montpelier was reconstructed in 1930-31 by the Knox Memorial Association with major funding from Cyrus Curtis. Between 1914 and 1930 designs were prepared by Putnam and Cox Architects of Boston. Extensive efforts were made to construct the building with fireproof materials which have partially contributed to the present deterioration problems. Generally, however, the restoration architects must be credited with a sensitive effort to reconstruct the original exterior of Knox Mansion from the historical sources available to them. Although concessions were made to special client and twentieth century demands, we were repeatedly impressed by the dedicated effort that Putnam and Cox made to replicate the original Knox Mansion.

The basic structure is masonry and steel to assure fire resistance. The exterior and interior bearing walls and chimneys are supported on concrete walls and footings. The basement floor level is approximately 18" to 24" below the outside finish grade. The basement floor is brick set in mortar and laid on a sand and cinder drainage course, without an underdrain. Succeeding floors are steel joists with a concrete deck, overlaid with hardwood flooring. Interior finished walls are plaster with wire mesh lath secured to brick (exterior) and block-tile (interior) walls. The complex roof and clerestory/monitor supports are structural steel. The roof decking is 1 1/2 - 2" gypsum plank with wire reinforcement (seldom used in Maine) applied at Montpelier for fire protection. The sloped roof areas are covered with asphalt shingles (replacing original slates) and the flat clerestory/monitor roof is built-up tar and gravel.

Four massive brick chimneys dominate the roof elevation extending 10' to 12' above the roof and serve fireplaces on all floors. These brick masses extend from below the basement grade to above the roof.

The building exterior is exposed brick from below grade to the first floor. Above the watertable band, painted clapboard and horizontal shiplap boards duplicate the original Knox house siding. The exterior sheathing is nailed to 3/4" vertical furring strips secured to the brick walls with nails and fasteners. The furring strips run the full height of the building creating a small air space, unvented at top or bottom.

B. EXTERIOR ENVIRONMENT

Montpelier stands atop a small hill overlooking the town of Thomaston. Although its ground floor is located an average of

two feet below grade, a mixed sandy soil slopes away from the building. A perimeter drain was recently installed around the building and the full effect of this project has not been fully evaluated at the present time (see evaluation section).

Shrubs, primarily lilac, and small trees surround the building's south, west and north walls. It could be argued that moisture retention in these shrubs has contributed to the deterioration of the front porch and stairs but these problems would have been far advanced with or without shrubbery. We recommend the trimming of all shrubs in close proximity to, or in contact with, any portion of the building. When considering the colonial revival inspiration for these grounds, removal of this vegetation seems highly inappropriate. The brick walkway to the main west entrance is well maintained but could be leveled in some areas should a more formal, ceremonial entrance be desired.

C. ROOF

Montpelier's complex roofing system requires careful description and analysis (Fig. 12). Major roof beams and rafters are steel "I" beams with smaller rafters made of steel channels. The sloped roof decking is composed of 1 1/2" to 2" gypsum board panels with asphalt shingles nailed into the gypsum. A flat tar and gravel roof caps the center clerestory tower. All shingles are presently covered by a tar-like substance probably recently applied as a protective sealant. Built-up layers of roofing and tar surround the wooden baluster post connections to the roof and present an obvious area for rot and water penetration (Fig. 10A). There are numerous crickets and complex valley intersections that need special roofing attention. The unique eliptical shaped roof above the eliptical rooms on the west facade drains water back toward the house but the resultant valley appears to be in good condition.

The two western chimneys stand two feet from the line of clerestory windows and created an awkward internal valley between wall and chimney (Fig. 10D). In defense of the restoration architects, however, this detail appears in photographs of the original Knox mansion and therefore was maintained in the replica.

D. WALLS

Montpelier's finely crafted exterior wooden finishes conceal brick structural walls which are exposed on the ground floor level. The finely crafted west and east walls are clad with smooth jointed, horizontal ship-lap boards while the north and south walls are clad with clapboard. The siding, detailed

casing, cornices and pilasters closely follow the original details as they appear in early photographs. All four corners are capped with delicate wooden quoins. The wooden siding is secured to the brick sub-structure by means of 3/4" furring strips which run the full height of the building, creating a vertical air space which was not vented at the top or bottom. Many of these strips are rotten and need replacement.

The elaborate balustrade circling the roof and clerestory appears to have undergone many repairs and may not be the original 1930 balustrade as drawn by Putnam and Cox. One half the balusters on the clerestory have been removed and the remaining portions are in various states of disrepair although not completely without hope of repair. Wooden urns which once rested atop the major balustrade posts have been removed and stored by the state. Although a seemingly minor detail, their presence had a substantial impact on the overall formal qualities of the house and should be replaced. The most serious balustrade problem is the roof-post connection points which have been become buried by layers of roofing materials so that the bottom pieces of railing and posts are connected to the roof and are deteriorating and causing roofing damage.

E. FOUNDATION

The masonry bearing walls both interior and exterior appear to be in good condition with only a few signs of cracks or aging. Chimney settlement was observed, particularly the southern chimney, but did not appear to warrant corrective repair. Foundation supports for the porches would have to be re-examined should porch replacement be found necessary.

F. WINDOWS AND DOORS

Most windows and doors were in fair to good general repair although needing the normal maintenance of painting and caulking in certain areas. Interior shutters serve as a minimum line of insulation in a house without significant insulation (some rock-wool has been stuffed into the air space between the wood-sheathing and the brick wall). Storm windows are a consideration but must be carefully evaluated as to the overall effectiveness with regard to continued cold penetration through the masonry walls.

G. CHIMNEYS

Recently installed metal chimney caps have undoubtedly reduced moisture penetration through the large surface area at the

chimney top. Generally the vertical brick surfaces were in fair condition with some attention needed for repointing and reflashing at the base.

H. PORCHES

There is a mixture of evidence through early prints, photographs and historical sources concerning the nature and extent of the porches surrounding the original Montpelier. Because significant neglect to the structure was reported only thirty years following construction, the original porch layout will probably never be known with certainty. The present porches following the designs of Putnam and Cox interpret a substantial porch system which can be supported by existing evidence. Whatever the extent of the original porches, however, it is important to recognize that the present porches are also a significant component to the colonial revival interpretation of Montpelier and any new reinterpretation diminishing these porches would severely compromise Montpelier's significance as a colonial revival structure, and as a focal point of historic house interest in the Thomaston area.

The eastern porch is in better condition than the western porch and could possibly be repaired without replacement although significant deterioration is evident. In either case, it should be extended along the entire length of the eastern facade as shown in the original Putnam and Cox drawings (Fig. 6). The western porch needs complete replacement and cannot even be used at the present time. Rain water penetration at the porch-.pa exterior wall connection is extremely possible although accurate evaluation can only be determined when the porch is removed.

EXISTING CONDITIONS AND ANALYSIS - INTERIORS

A. GENERAL STATEMENT

Moisture penetration and accumulation from various sources and at various times have combined to damage the interior of Montpelier. Many of these problems can be traced to the unique construction techniques employed in the outer wood-clad and inner-plastered, masonry and steel structure. The interior exhibits a history of water penetration damage, the most severe being the deterioration of the western wall of the stairhall-clerestory tower and deterioration of plaster cornices through the building. Years of heatless winters have undoubtedly accelerated these problems.

B. FLOORS

Wide plank wood floors have been laid atop furring strips secured

to 2" concrete slab floors. Interior floor joists are steel channels with wire bridging at 1/3 of the span. The floors are generally in good condition with acceptable levels of wear and sun bleaching as would be expected in a historic tour house of its age. Water staining on wood floors is evident in some areas, especially near the first floor fireplaces (Fig. 14). We recommend no immediate action based upon current levels of usage but suggest that a goal of floor refinishing in the major public rooms by including in a long range maintenance scheduling.

The basement floor is brick laid in sand and cinder exhibiting previous signs of moisture penetration near windows in the kitchen area but is in generally good condition (Figs. 13A & 13B). We feel that the effect of the recently installed perimeter drains needs to be examined over a few years before recommending any moisture preventive strategies for the basement.

C. WALLS

Wall finishes are a combination of wooden panel and moldings and plaster with wire mesh secured to (exterior) brick and (interior) block tile walls. All interior wood finishes including door and window casings, fireplace surrounds and mantels, wainscots and paneling, stair balusters and cornices (wood and plaster) are of an extremely refined colonial revival craftsmanship, not often found after 1930 (Fig. 15A). Most of this woodwork and plaster molding is in good condition except where stained and deteriorated from water penetration, as for example, many of the cornices on the second floors show signs of roof leaks (Figs. 16 & 17). Unlike other historical houses, this replication house does not present the typical problems of historical dating from various styles and periods. Except where noted, most of Montpelier's architecture can be dated to the original 1930 construction date.

D. MECHANICAL SYSTEMS

The steam boiler was a Weil McLein (1500 sq ft, 4.25 gph, No. 2 oil BL776-SW). Condensate return pump is a Hoffman Type 2VCH20D, 20 psi, 1/3 hp motor. Both systems are in good condition and should be expected to give 15-20 years of service assuming normal upkeep. Condensate pipes extend around the perimeter of the upper basement walls. Insulation is recommended on both steam mains and condensate return piping. Rust spots on the steam mains may have resulted from previous periods when the building was unheated in winter. All terminal units are radiators with adjustable valves. Traps do not appear to have been serviced recently. The main entry hall is heated with a hot air unit with

ducts located on the basement ceiling. It appears to be a steam coil and gravity feed.

Based on existing patterns of usage, the minimum plumbing system and fixtures do not need replacement although they are not handicapped acessible and if expanded public usage is desired expanded restroom facilities would become a major consideration and a costly item. Although no particular problems were noted, the electrical system has been exposed to moisture accumulation with corroded electrical boxes and wiring presenting a long range replacement problem. We recommend scheduling replacement of electrical wiring as a long term maintenance goal.

IV Conclusion: Evaluation and Recommendations

IV. CONCLUSION: EVALUATION AND RECOMMENDATIONS

Montpelier is a challenging project for architectural evaluation because it presents various problems which have accummulated over a fifty-year period. Consequently it is often difficult to identify the precise cause or causes of a specific problem, and more significantly for this project, whether it is a continuing problem or one previously solved. Although this evaluation outlines specific strategies for stabilization, preservation and repair, it is the overall recommendation that careful monitoring of the structure continue to be conducted on a long-term basis to determine the nature and severity of current problems so that repairs might address precisely identified problems. We consider this to be a prudent strategy in a complex and elaborate building where vast sums could easily be exhausted "chasing down" a problem.

A. ROOF

It is our general impression that many of the problems, past and present, can be attributed to water penetration from the roof and chimneys areas. We do not mean to minimize the long-term problems of moisture penetration from the walls and basement areas, as this evaluation will emphasized, but the bulk of renovation efforts should be concentrated in the roof area for both the short and long term.

The most severe and highly visible problem is the deterioration of the concrete plaster walls in the interior, upper stair-hall (Fig. 15). This problem can most likely be traced to roofing/chimney/clerestory water penetration problems, past and present. (This damage may be compounded by moisture/humidity entrance from other areas of the house). A major rain and snow entrance point probably occurs along the base of the clerestory (Figs. 10A & 9, Marker A). This alone would account for a significant amount of moisture damage along the most seriously deteriorated portions of the stair-hall, west wall. Because various cricket and valley flashing connections in this and other areas are so complex and the interior wall deterioration so severe, this report strongly recommends a completely new roofing system be installed at Montpelier. Several strategies are possible: A) Re-roofing on top of gypsum using asphalt shingles (Fig. 19), B) removal of the existing roofing, application of wooden sleepers and plywood on top of the gypsum decking and re-roofing with asphalt shingles and rubber membrane roofing at clerestory flat roof (Fig. 20), C) removal of existing roofing and removal of gypsum board decking to expose the original steel frame and the application of a wood substructure, new plywood decking and roofing as in option B, (Fig. 21), D) application of a new steel roofing system on top of the existing roof. (See

Appendix for cost estimated.) Each strategy has positive and negative aspects although for the purposes of comparison, Option "A" is the least expensive while Options "C" and "D" are the most expensive. We recommend either Options "B" or "D" depending on the money available for this project and the results of tests for securing nailing strips into the gypsum decking. Both options "B" and "D" require the application of some form of nailing strips (for either plywood or metal roofing) secured to the gypsum. At best, this nailer could be "gunned" into the gypsum, at worst, time consuming bolting would have to be drilled connecting the new nailing strips with the steel rafters underneath the gypsum - a costly process. Another problem in making a definitive recommendation stems from the inability to predict the condition of the gypsum decking after the roofing material is removed. During removal, the gypsum could become so damaged that complete removal is the only choice (Option "C").

When all factors are considered together, especially the need for 20-year replacement of asphalt shingles, we recommend the application of standing seam, steel roofing (on top of the existing gypsum, if possible). Although the most expensive option, it will require the least long term maintenance and allow the best possible conditions for balustrade connection, maintenance and repair - an important criteria for Montpelier.

The second major point of moisture entry in the roof, past and present, is probably along structural connection points of the roof balustrade. Although considerable care was taken in the construction of the present balusters and their flashing, built-up layers of roofing and general deterioration have undoubtably made these entry points for water (Fig. 10A). Leaks from these balustrade connections appear to have resulted in previous damage to interior room cornices and will undoubtedly continue to do so. We recommend that the entire balustrade structure (totalling 350 lin. ft.) be replaced, although, as mentioned previously, some portions may be repaired. We recommend that these balustrades be made of moisture resistant hardwood such as mahogany with moisture resistant glues and fasteners, but if a low-cost balustrade is desired perhaps less expensive wood or even metal alternatives should be investigated (this is not recommended). In either case, the single most important detail in roof balustrade construction is the post connector which penetrates the roofing plain (Fig. 18). This connector should be a primed steel or stainless steel flange bolted through the roofing membrane (asphalt shingles or metal roofing) and attached to the either major structural members (steel channels or specially made seats attached to the structure) with roofing tar applied to the bolts. We recommend that this detail be strictly specified and integrated with the specifications for the proposed new roofing system. Wooden balustrade posts would then be internally bolted to the projecting steel flanges. It is vitally important that

the base of the wooden posts and their railing be elevated so that rain, ice, and snow may pass underneath the entire balustrade structure. (6" min. to 9" max. would be the recommended separation between roof surface and wood.) This is a particularly important detail with wooden structures. Since the ornate roof balustrade is such an important visual component to the facade of Montpelier, we recommend that the most careful attention be focused on this problem. As mentioned previously, we recommend that the urns be replaced atop their alternating balustrade posts. They are highly important crowning elements to Montpelier's dominant facade.

The third major point of moisture penetration in the roof area is the chimneys. The recently installed metal chimney caps, although visually awkward, have undoubtedly prevented a huge amount of moisture entry. We recommend that these should be checked regularly to ascertain their effectiveness. Because the volumn of brick surface area exposed on the four chimneys is so great, we recommend that every effort should be made to limit moisture penetration including, repointing all mortar joints, cleaning brick of flaking paint and resurfacing with several coats of masonry sealer paint, and reflashing at chimney bases (as part of the re-roofing project).

A minor point of roof moisture entry (snow) was recorded through the numerous aluminum roof vents. Since this was a severe snow winter and the vents are highly desirable for eliminating moisture build-up, it is not recommended that any action be taken. If this would continue to be a problem, the vents could be sealed for a few months in the winter. The repair of the roof should be Montpelier's highest priority item. It should be emphasized that a secure roof will allow the state of Maine many creative options as to possible uses and users of this historic replication house. A leaky roof, however, or even a potentially leaky roof, will severely limit these options.

B. EXTERIOR WALLS

Montpelier's exterior walls need repair but do not appear to be the major contributors to Montpelier's interior moisture problems. The 1984 project for venting the eastern wall does not appear to have prevented the peeling of its paint and the wall is certainly in no better condition than other walls without such treatment. We recommend maintaining the existing siding with annual examination and above average upkeep for all exterior painted wall surfaces, especially the horizontal joints of the shiplapped boarding which are subject to moisture penetration. While Montpelier's unique combination of wooden exterior siding and masonry walls tends to trap moisture, the cost of replacing the entire exterior wall to gain superior air ventilation can

probably never be justified because of the vast expenses involved in replacement. It should be emphasized that what is most expensive about this project is not the cost of siding but the cost of integrating the new siding with the elaborate cornices, pilasters and casings which in many cases would need replacement or extension to match the new wall depth. Beyond the problem of cost are the almost unsolvable problems of historic interpretation which would arise during the replication of this replica facade. Our recommendation is to carefully monitor the condition of the exterior walls over the next several years to determine if other phases of repair (past and present) are, or have been, successful and to consider major replacement of the exterior wall only as a last resort.

The problem of the disintegration of the furring strips underneath the exterior walls, identified in the 1984 project, is serious and must be addressed. We suggest a method of bolting the siding to the brick wall with a combination toggle bolt and anchor bolt or a more traditional method of inserting new furring strips by removing selected bands of clapboard. (A combination of both methods could be worked out on-site by a knowledgeable contractor after preliminary tests have been conducted).

To accurately assess the long-term damage to the exterior wall because of moisture accumulation in the small air space we recommend careful monitoring. This could be done by removing exterior siding in key test areas to survey levels of deterioration but more practically, surveying the exterior walls regularly would be most appropriate. Where possible, moisture trapping rock wool insulation should be removed.

One area of the exterior walls that needs immediate attention is the watertable molding at the foundation/siding connection around the entire house (Figs. 11A & 11B). There is a visible gap between brick and watertable board which should be covered immediately by an extension to the watertable board and flashing.

We were generally impressed by the condition of the exterior walls inspite of the close proximity between the brick wall and the wood sheathing. If the problem was more severe, we would have expected to see far more warping and splitting of the clapboards and horizontal ship-lap boarding. Inspite of the disintegration of the furring strips the siding appears to be in fair condition. The exterior siding certainly does not justify replacement at this time.

C. PORCHES

The restoration of the porches should be seen as part of a larger problem of historic interpretation. The existing historical

evidence as well as Montpelier's Colonial Revival inspiration, suggest that both porches should be kept and repaired as specified in the 1930 drawings. We are most concerned with the possibility of water entering the foundation wall along the first floor line of the west porch. Except for the well preserved decking (originally protected by canvas) the entire porch structure is rotting and needs replacement. We do not see a way of temporarily flashing this connection point without first removing the existing porch. The eastern porch should be extended the full length of the facade as originally specified in the Putnam and Cox drawings. The entire porch could be considered for elimination (we do not recommend this action) for cost savings because only a portion remains and it is located along the back of the house facing the concrete plant. (In the event of removal, an exterior staircase would have to be built to connect the exterior to the first floor.) Any consideration such as this must be considered in a larger interpretive context. We recommend completion of the original 1930's eastern porch because the porches are such an important focal point in the colonial revival interpretation of Montpelier. We recommend the west porch be removed immediately because it is a public hazard and removal would allow repair of the exterior wall at the porch-wall connection. It is also recommended that maximum care be exercised in the detailing, supervision, and construction of these important elements.

D. INTERIORS

The extent of ongoing moisture penetration in the basement because of leaks and the rising of moisture in the walls (rising damp) is difficult to ascertain. The new perimeter drain and winter heating may have substantially reduced this problem. It is our strong recommendation that moisture penetration in the basement can best be addressed through a system of de-humidifiers installed in several rooms especially the basement. Our preliminary analysis has shown that a dessicant type de-humidifier system would be ideal for a house like Montpelier where mild fluctuations of temperature and humidity can normally be expected. Since Montpelier will probably never be totally climate controlled, state-of-the-art museum air-conditioning and de-humidifying systems are not appropriate. Likewise, high-tech, high-cost moisture preventative solutions for the foundation such as the insertion of a continuous vapor barrier dam through the existing masonry wall or removal of the brick floor to insert a vapor barrier are not warranted. These are expensive fail-safe type solutions but their excessive costs do not seem justified based upon the observed severity of the problem. We recommend zoned mechanical de-humidification and careful monitoring of humidity levels in all rooms of the house, particularly the basement. We recommend a consulting engineering firm such as

Barstow Engineering of Boston (although there are undoubtedly other firms in Maine) to make final recommendations as to the type of de-humidifiers, room locations, and maintenance procedures to maximize their efficiency. Such a strategy would reveal whether or not moisture penetration at the basement level justifies an expensive remedial solutions such as inserting a vapor barrier in basement walls or floor. The reasons for wood paneling deterioration in the basement, particularly the kitchen area, is extremely difficult to pinpoint (Fig. 13D). Hopefully it is a problem already solved by the new perimeter drain and present year-round heating or will be solved by the usage of dehumidifiers. To accurately determine whether the deterioration of the kitchen paneling is a continuing problem we strongly recommend both the installation of dehumidifiers and a careful monitoring of humidity content in all rooms. Only after moisture penetration and moisture control has been solved do we recommend repair of areas like the kitchen paneling in the basement. Because furniture preservation and building preservation concerns might differ, establishing humidity zones should be considered, i.e. one for the basement and one for the rest of the house.

Repair of interior walls must be withheld until it is certain that the roof is repaired and the de-humidification strategies outlined for the basement have been successful. Because the deterioration of the west wall in the stairhall is so serious and such a distraction to visitors, it could be repaired temporarily with a plaster skim coat that was intended to be removed later (Fig. 15). This is, however, only a stop-gap strategy which recognizes the current usage of Montpelier.

E. SUMMARY

This evaluation has been divided into four areas - roof, exterior walls, porches and interiors with specific corrective strategies outlined in each area. The following is a list of overall strategies and recommendations be applied to all areas.

We recommend the assemblage of an active record-keeping file for Montpelier, perhaps a "notebook" or ledger to facilitate long-range maintenance and restoration. Much of this information already exists or was brought together for this report. We would like to emphasize the importance of a good filing system and a mechanism to insure the currency of that file.

Topic areas would include: 1) original Montpelier history, 2) replication or post-1900 history, 3) a record of past maintenance and repairs and a actively updated schedule for future work, 4) humidity control record (as outlined by consultant), 5) guideline for staff procedure (daily, weekly, seasonally), 6) photographic record of the house with particular

attention to recording areas of past or present damage and repair.

1 & 2: The historical sections of this notebook need not rewrite the well documented history of Montpelier, but should be organized to facilitate filing of new information, reports, photographs, etc., which shed light on the replica or original history of the Knox house.

3 & 4: A ledger listing previous repairs and scope of those repairs would assist future renovation planning. A continually evolving schedule of repairs would guide long-range planning; this document provides the beginning of such a schedule.

4: Humidity records should be carefully recorded based upon procedures specified by a humidity consultant.

5: Staff guidelines should be outlined to emphasize simple and clear instructions and precise scheduling. Complex, evaluative instructions should be avoided to insure long-range suitability to a variety of individuals with varying degrees of skill and commitment.

6: A useful photographic record is difficult to obtain and needs careful planning. It is important that a good-to-excellent photographer be employed to photograph problem areas, such as kitchen panel deterioration, at both short and long range (an amatuer will miss both the forest for the trees and the trees for the forest). Good photography is, however, only the first step, each photograph must be carefully labeled with date, location/room area and general description of what is being photographed. Photographs must then be mounted in some logical order to insure meaningful usage (for example by room or type of damage). A failure to take each step will result in a pile of useless photographs.

An appendix contains: an outline estimate for the projects we have recommended, reduced copies of the original Putnam and Cox drawings for Montpelier keyed to the text (Figs. 1-9), photographs of various problem areas (Figs. 10-17), and sketches for critical construction areas (Figs. 18-22). As required by our contract, we are including full size reproducible copies of the Putnam and Cox drawings.

STEVENS MORTON ROSE & THOMPSON, INC.
Thomas C. Hubka
March 31, 1987

V Appendix

COST ESTIMATES: MONTPELIER, THOMASTON, MAINE

A. Roof:

1. Roofing (estimates for various roofing alternatives not including flashing, chimneys, gutters and balustrades)
   a. Reroofing existing roof (Fig. 19) (not recommended) — $ 10,000.00
   b. Removing existing roofing, save gypsum decking, add plywood (Fig. 20) — $ 30,000.00
   c. Removing existing roofing and gypsum decking, add substructure and plywood (Fig. 21) — $ 60,000.00
   d. Apply steel roofing (Fig. 22) — $ 70,000.00

B. Additions to Roofing Budget to Complete Roof:

1. Balustrade (approx. 350 lin ft following Putnam and Cox details)
   a. Repair existing balustrade and replace missing balustrade (not recommended) — $ 10,000.00
   b. Complete replacement with first quality materials following Putnam and Cox details (recommend) — $ 35,000.00
   c. Complete replacement with good/average materials and simplified details — $ 20,000.00

2. Chimneys: Repointing, sealant and painting, flashing — $ 5,000.00

3. Gutter:
   a. Repair existing — $ 10,000.00
   b. Install new (not able to specify without onsite measurements of existing gutter and architectural cornice) — $ 15,000.00+ Est.

4. Flashing: Chimney and miscellaneous — $ 10,000.00

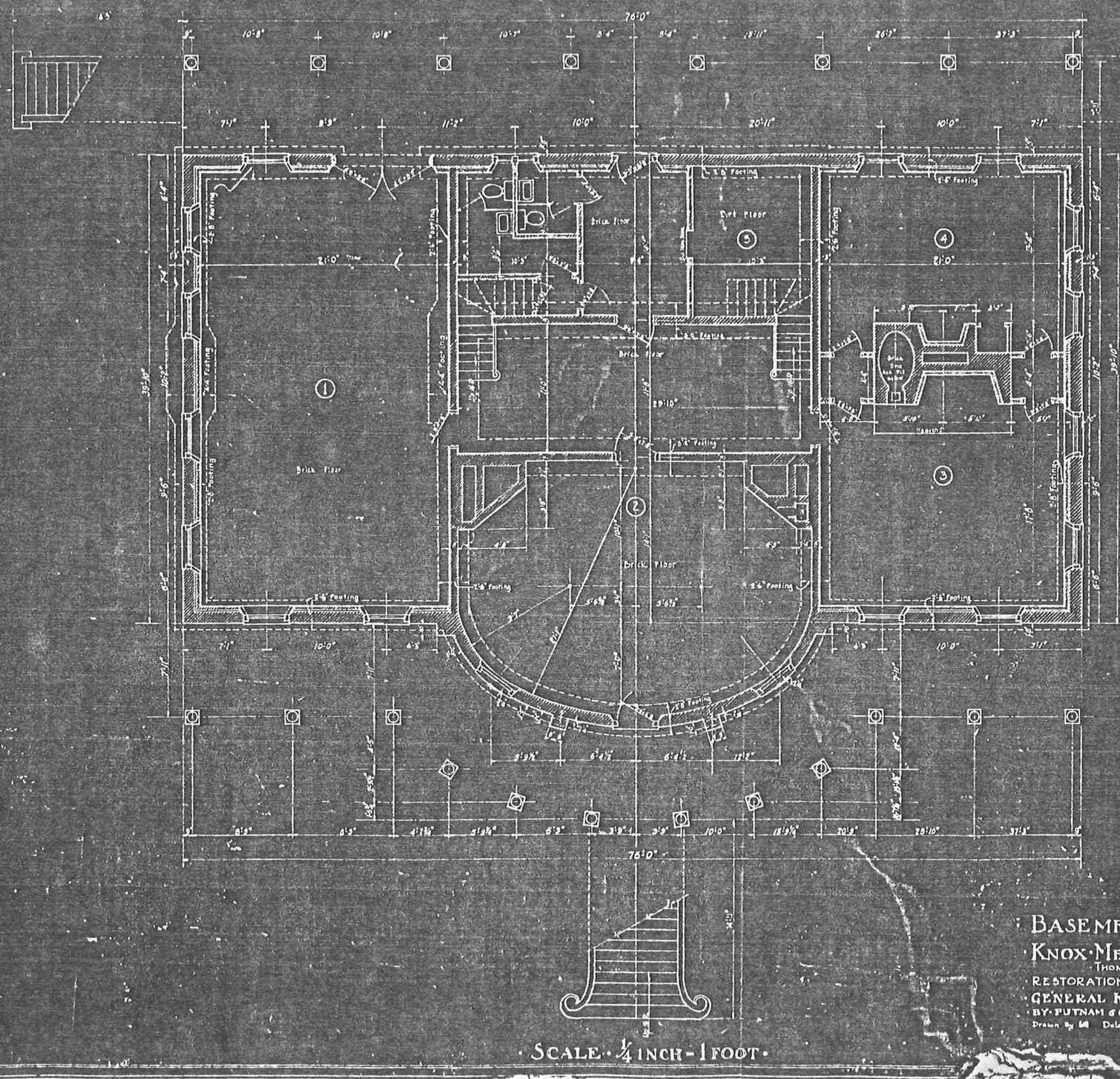
* Temporary repair of existing roof if major repairs are delayed — $ 2,000.00

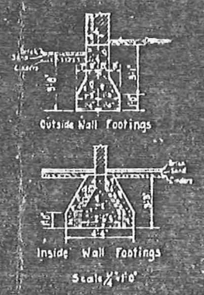
C. Exterior Walls:

1. Complete exterior scraping, caulking and painting (to be conducted when needed) — $ 10,000.00

2.	Furring strip repair - combination toggle bolt-anchor bolt and furring strip replacement	$ 5,000.00 - 10,000.00
3.	Watertable repair	$ 1,000.00
D.	Porches:	
1.	New west porch	$ 50,000.00 - 95,000.00
2.	New east porch (extend length to full facade).	$ 50,000.00 - 95,000.00
	Repair east porch (not recommended)	$ 5,000.00
E.	Interiors:	
1.	De-humidification (humidifiers) - Consultant	($ 5,000.00)
2.	Repair of all interior surfaces -	beyond scope of this report

FIG #1
BASEMENT
PLAN





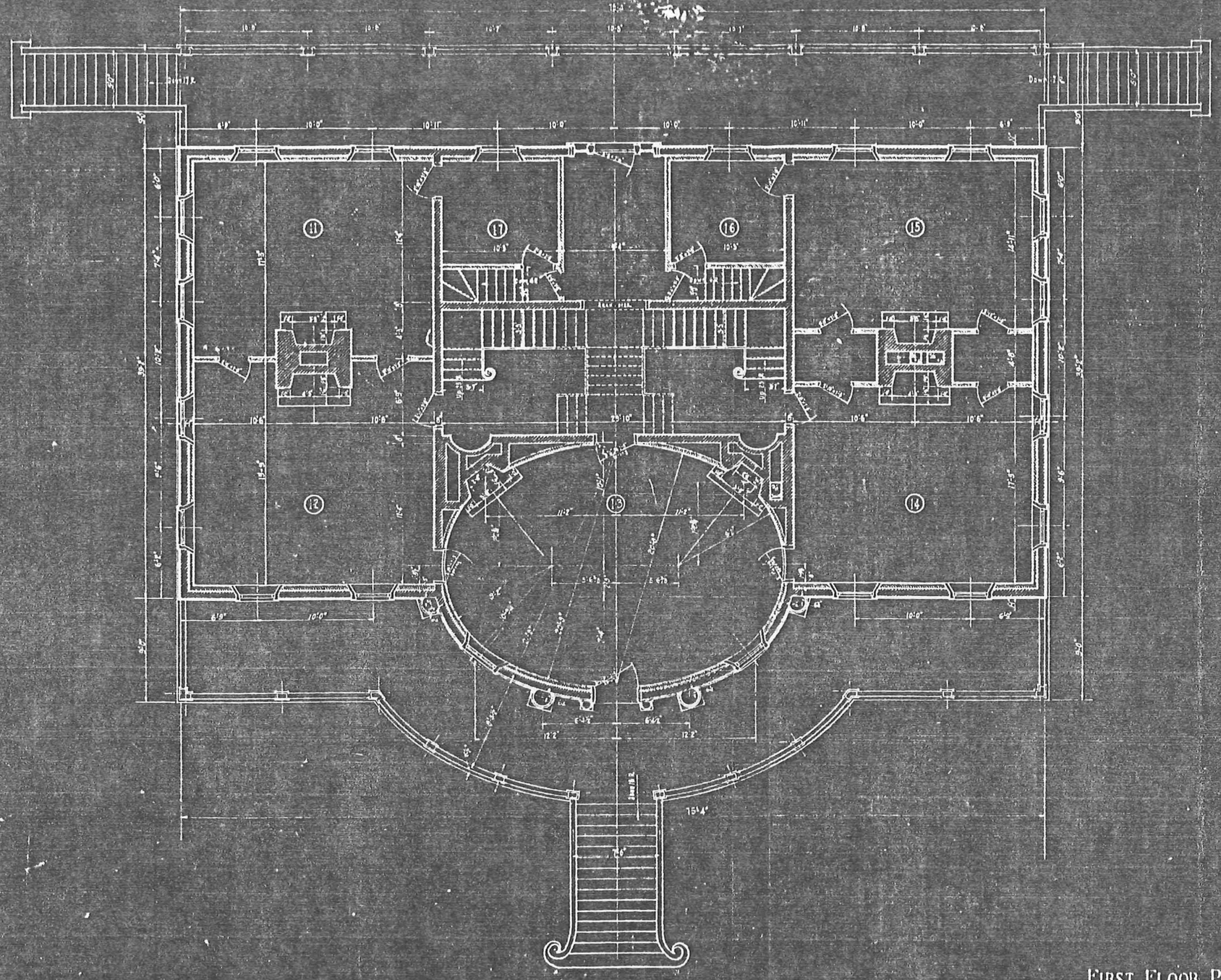
SCALE · ¼ INCH - 1 FOOT ·

· BASEMENT · PLAN ·
· KNOX · MEMORIAL · BUILDING ·
· THOMASTON · MAINE ·
RESTORATION · OF · MONTPELIER ·
· GENERAL KNOX · MANSION · 1794 ·
· BY · PUTNAM & COX ARCHITECTS BOSTON · MASS ·
Drawn by GC Dated · July 15, 1935

DRAWG NO. 1236-1

FIG. 2

FIRST FLOOR PLAN



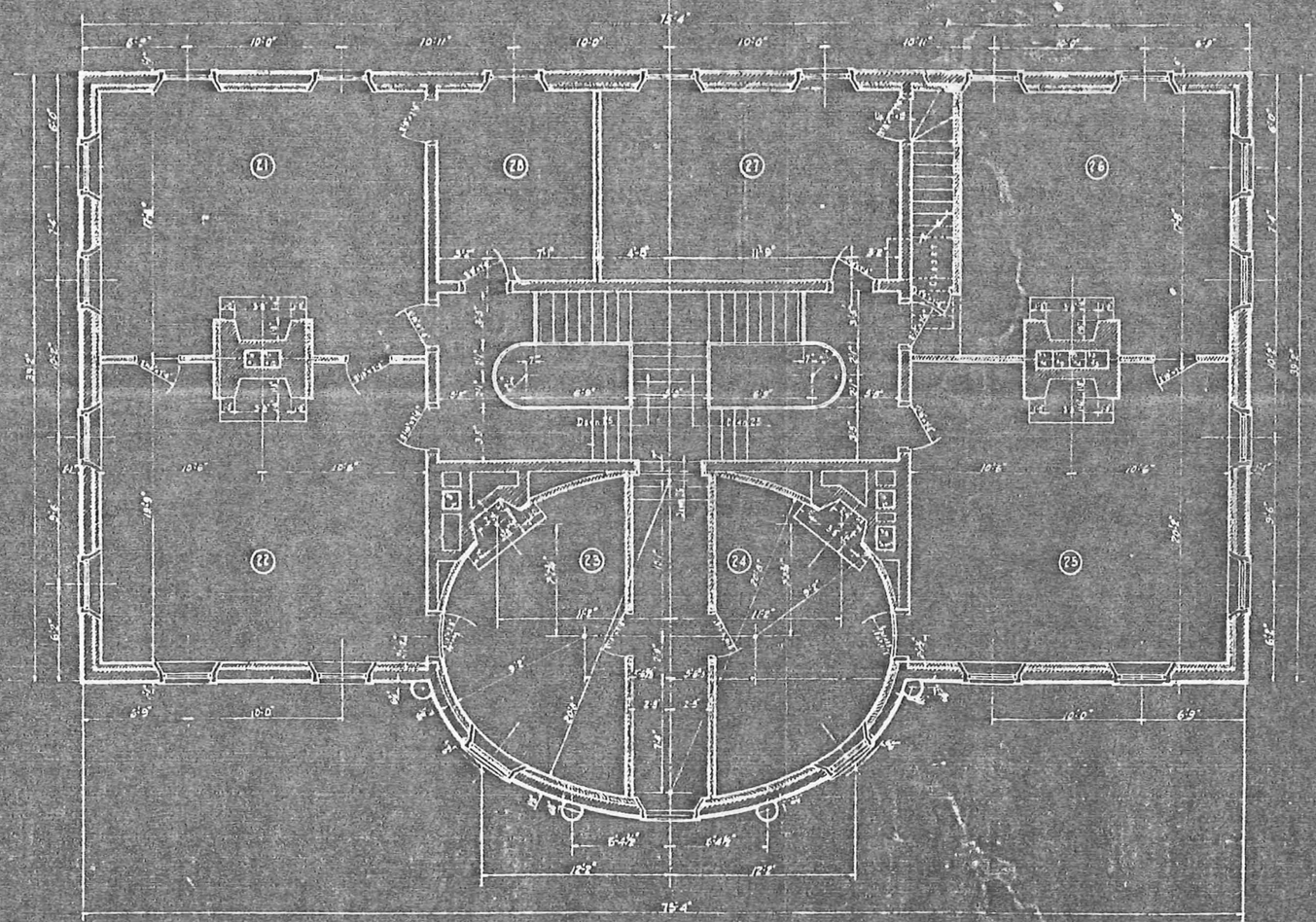
FIRST FLOOR PLAN
KNOX MEMORIAL BUILDING
THOMASTON MAINE
RESTORATION of MONTPELIER
GENERAL KNOX MANSION - 1794-
BY PUTNAM & COX - ARCHITECTS - BOSTON MASS.
Drawn By GAR Date July 25 1928

SCALE 1/8"-1'0"

DRAWG NO. 1236-2

FIG 3

SECOND FL. PLAN



SCALE ¼ INCH - 1 FOOT

·SECOND·FLOOR·PLAN·
·KNOX·MEMORIAL·BUILDING·
THOMASTON·MAINE·
RESTORATION of MONTPELIER
GENERAL KNOX MANSION - 1794 -
BY PUTNAM & COX ARCHITECTS BOSTON MASS.
Drawn By EWK Dated July 23 1925

DRAW'G NO 1230-3

FIG 4

THIRD FLOOR &
ROOF PLAN

HALF ROOF PLAN

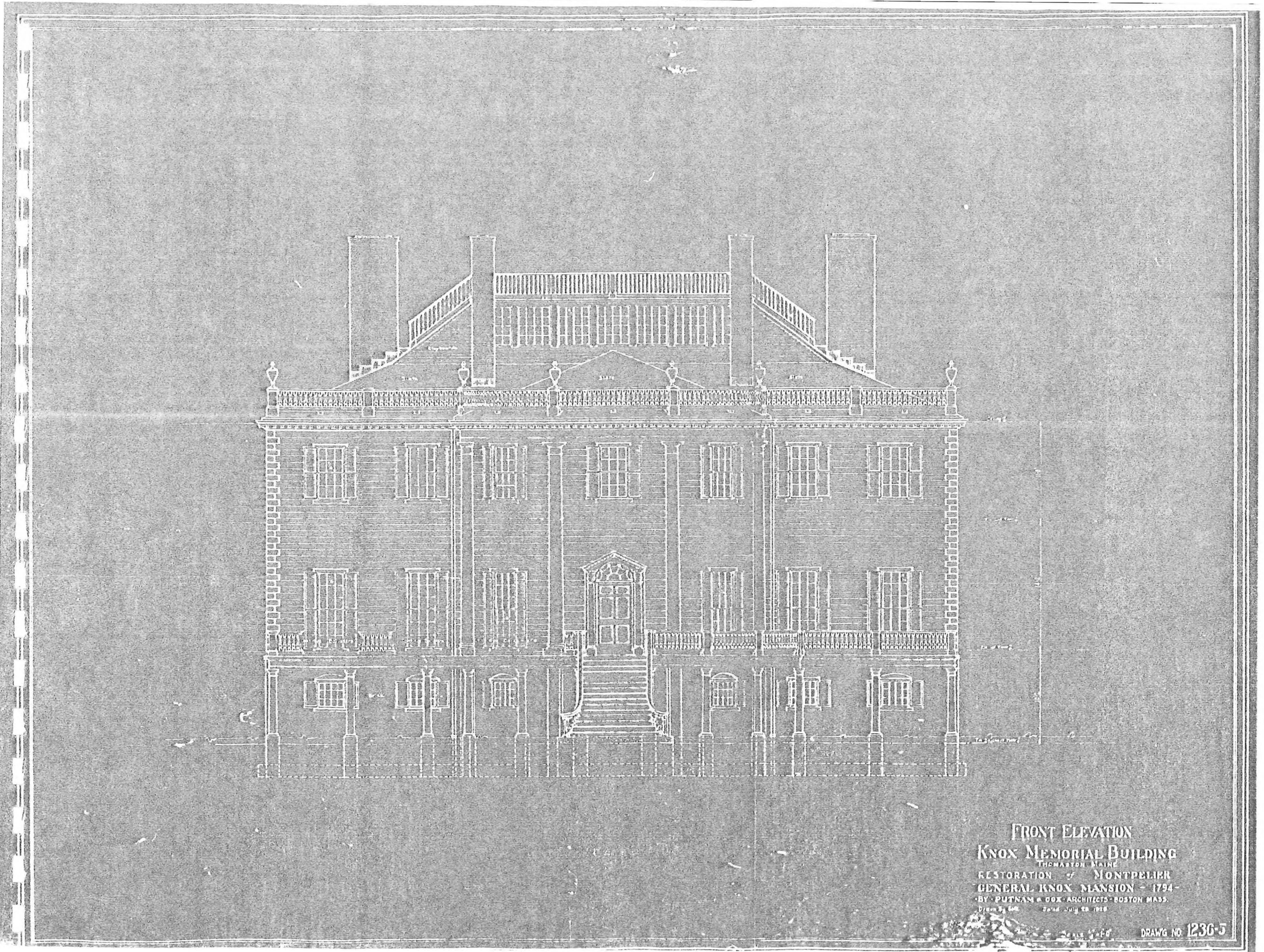
HALF THIRD FLOOR PLAN

ROOF AND THIRD FLOOR PLANS
KNOX MEMORIAL BUILDING
THOMASTON MAINE
RESTORATION of MONTPELIER
—GENERAL KNOX MANSION - 1794—
BY PUTNAM & COX · ARCHITECTS - BOSTON MASS

DRAWG NO 1236-1

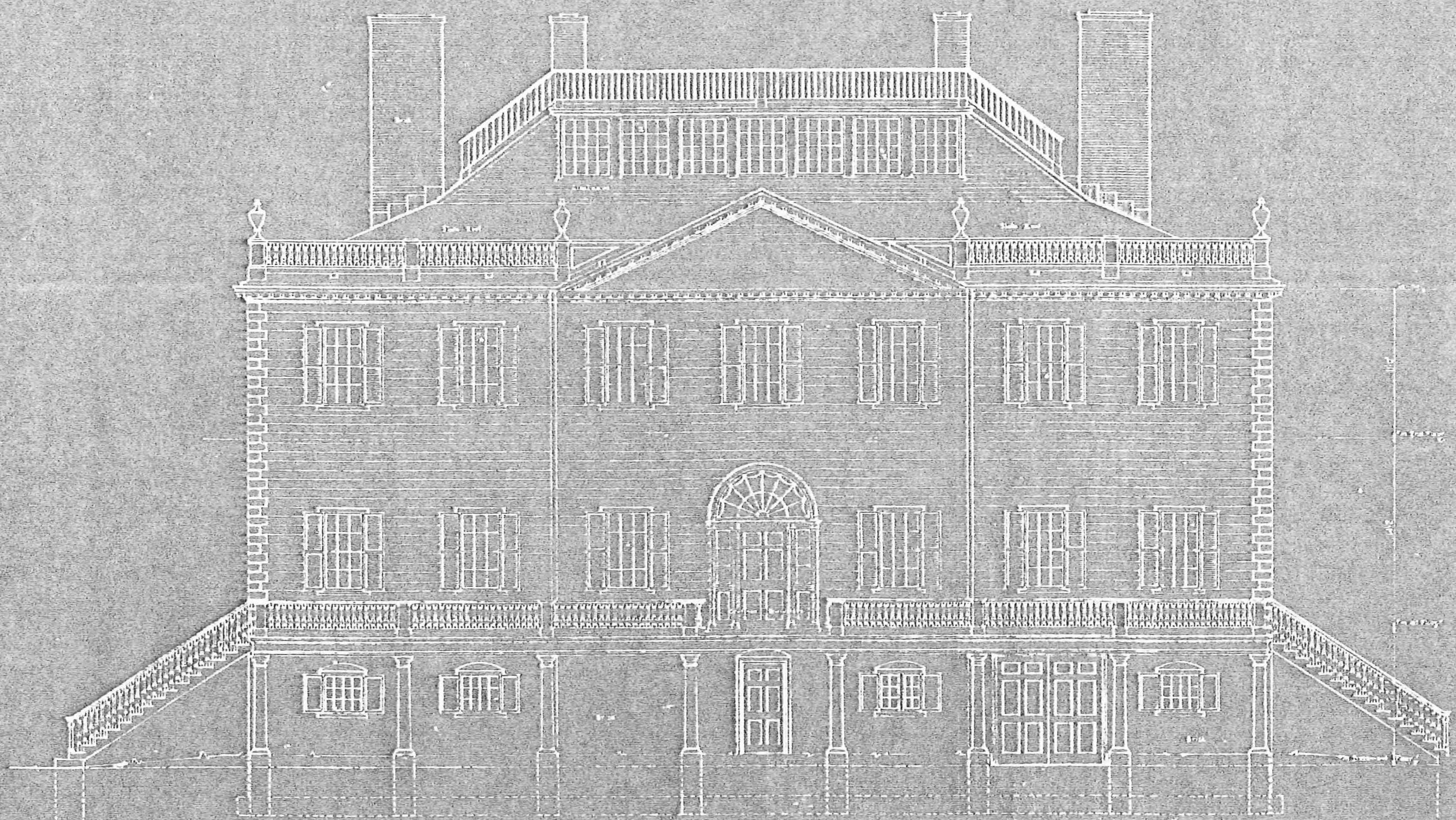
FIG 5

FRONT (WEST) ELEV.



FRONT ELEVATION
KNOX MEMORIAL BUILDING
THOMASTON MAINE
RESTORATION of MONTPELIER
GENERAL KNOX MANSION - 1794 -
BY PUTNAM & COX ARCHITECTS BOSTON MASS.
Drawn by GHK Dated July 28 1926
1/4" = 1'-0" DRAWG NO. 1236-5

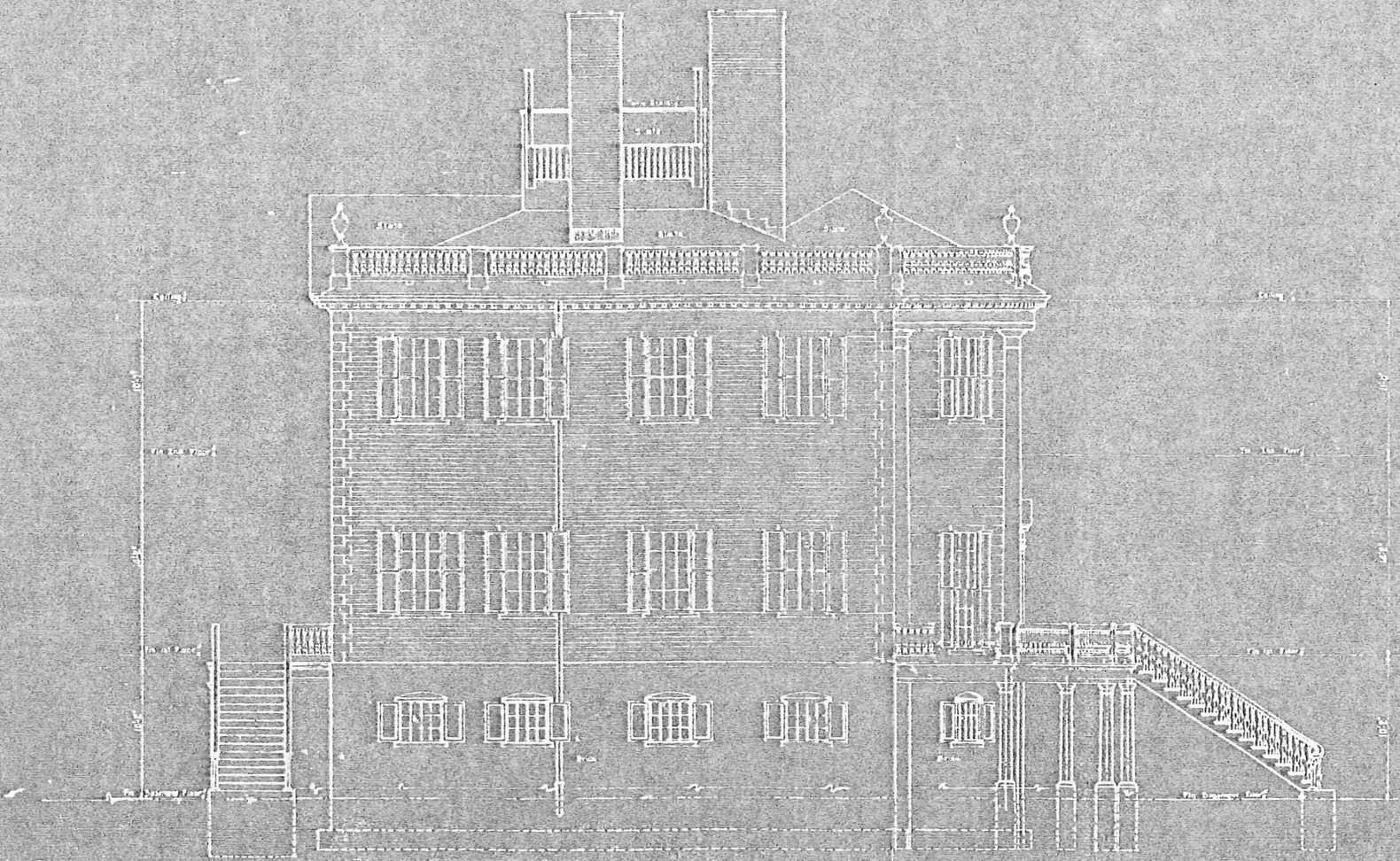
FIG. 6
REAR (EAST) ELEV.



REAR ELEVATION
KNOX MEMORIAL BUILDING
THOMASTON MAINE
RESTORATION of MONTPELIER
GENERAL KNOX MANSION - 1794
BY PUTNAM & COX ARCHITECTS BOSTON MASS
DRAWN BY [illegible] DATED JULY [illegible]

SCALE [illegible] DRAWING NO 1236-7

FIG. 7
SIDE (NORTH)
ELEV.

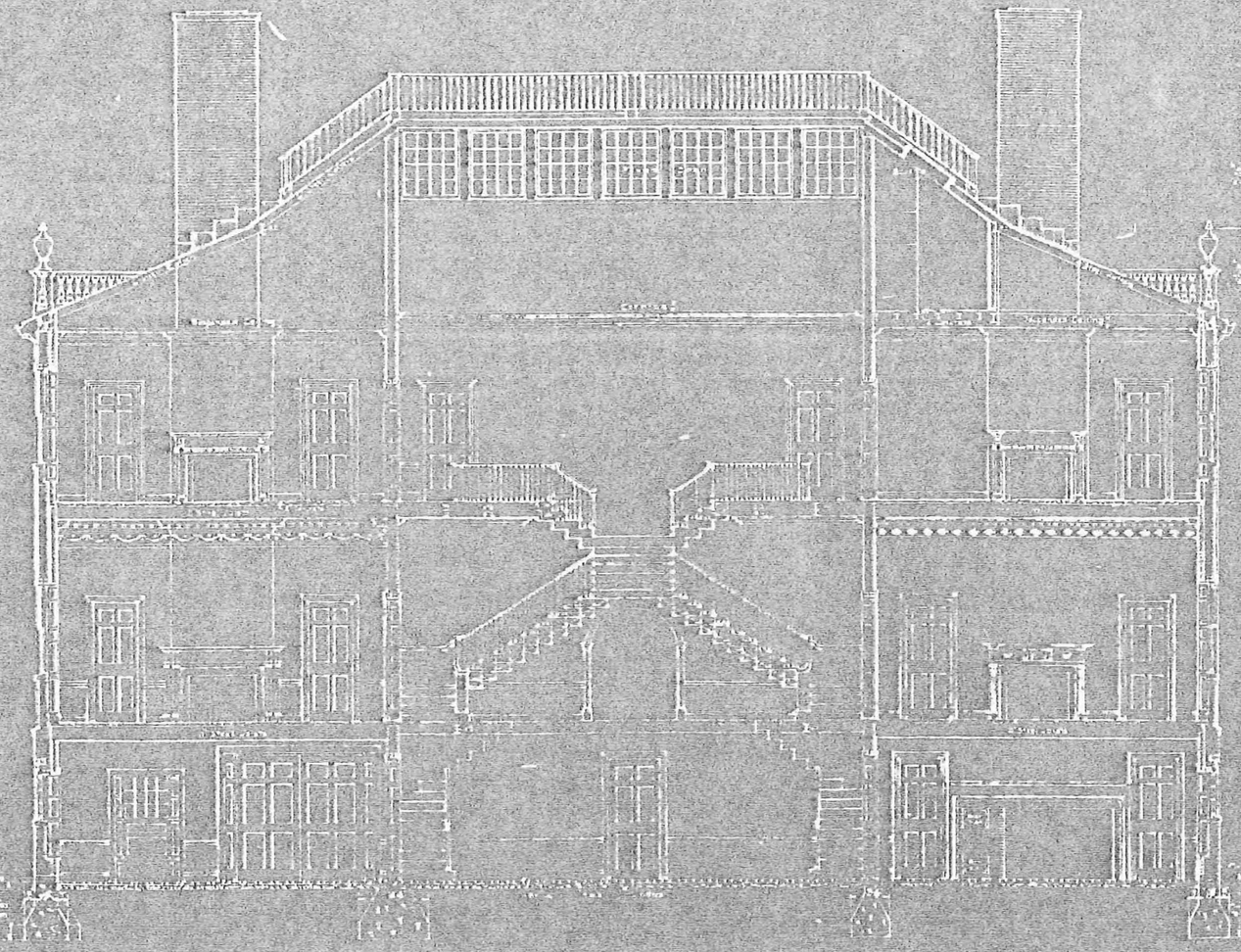


Side Elevation
Knox Memorial Building
Thomaston Maine
Restoration of Montpelier
General Knox Mansion - 1795 -
By - Putnam & Cox - Architects - Boston Mass.
Drawn By: [illegible] Dated: July 20 1926
Scale 1/4"=1'-0" Drawg No. 1236-6

Note - Opposite Side Elevation same reversed

FIG. 8

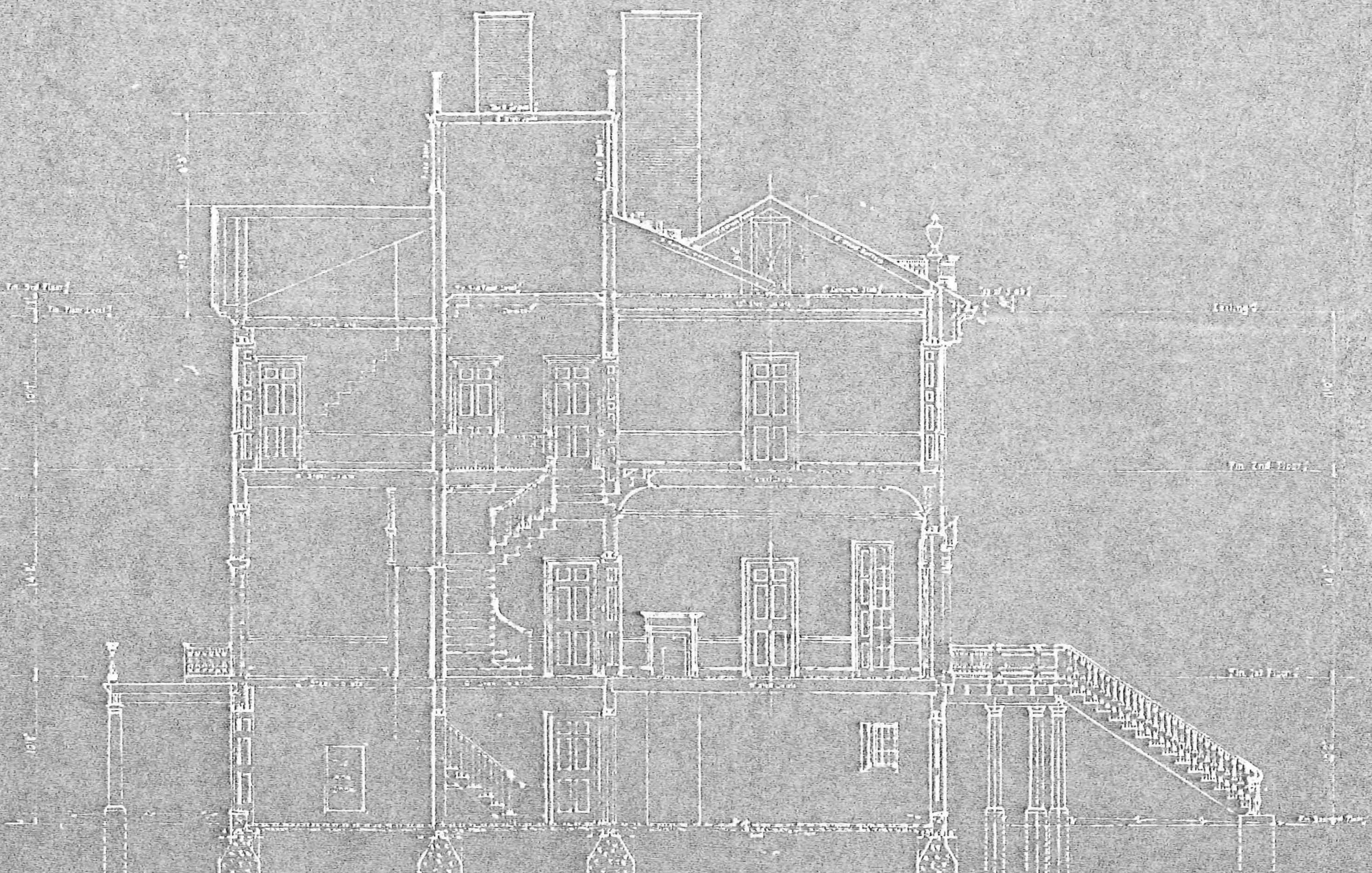
LONGITUDINAL SECTION



LONGITUDINAL SECTION
KNOX MEMORIAL BUILDING
MONTPELIER
GENERAL KNOX MANSION - 1794-
BY PUTNAM & COX

236-8

FIG 9
TRANSVERSE
SECTION



SECTION ON CENTRE LINE OF BLDG
KNOX MEMORIAL BUILDING
THOMASTON MAINE
RESTORATION of MONTPELIER
GENERAL KNOX MANSION - 1794 -
BY PUTNAM & COX ARCHITECTS BOSTON MASS

DRAWG NO 1236-9

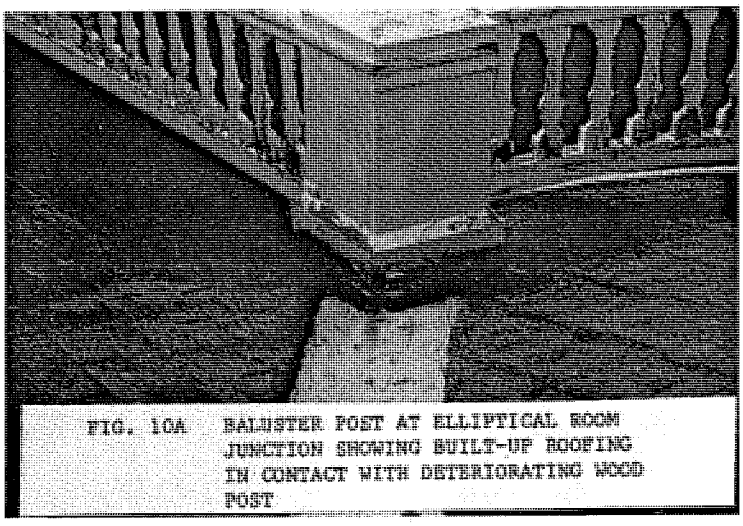


FIG. 10A BALUSTER POST AT ELLIPTICAL ROOM JUNCTION SHOWING BUILT-UP ROOFING IN CONTACT WITH DETERIORATING WOOD POST

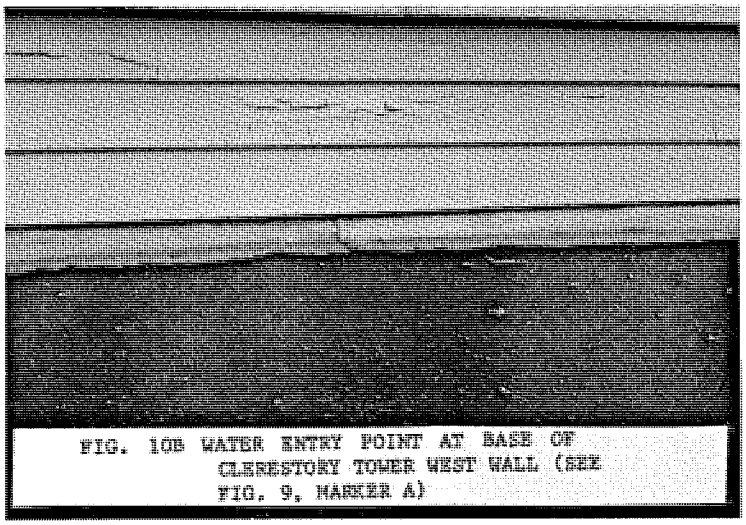


FIG. 10B WATER ENTRY POINT AT BASE OF CLERESTORY TOWER WEST WALL (SEE FIG. 9, MARKER A)

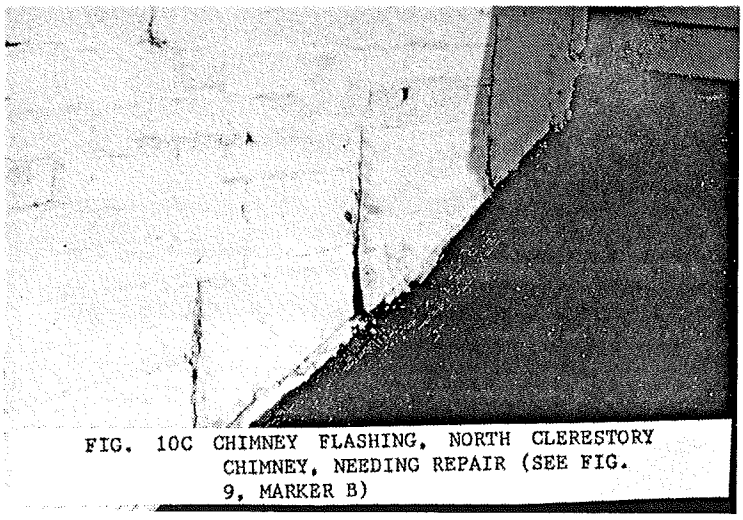


FIG. 10C CHIMNEY FLASHING, NORTH CLERESTORY CHIMNEY, NEEDING REPAIR (SEE FIG. 9, MARKER B)

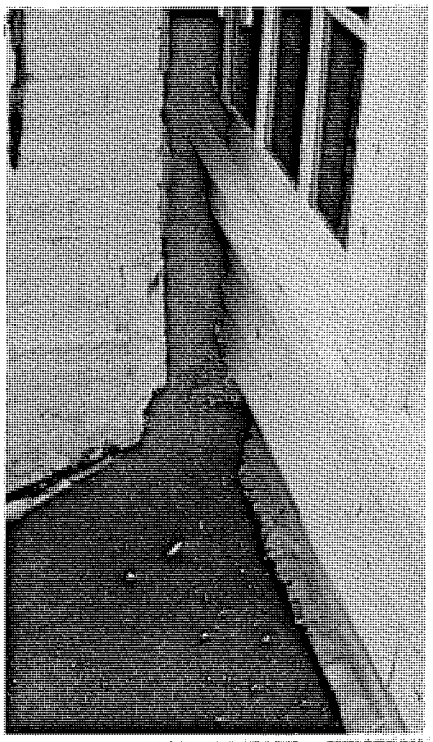


FIG. 10D CHIMNEY/CLERESTORY JUNCTION SHOWING DIFFICULT FLASHING CONNECTION (SEE FIG. 9, MARKER A)

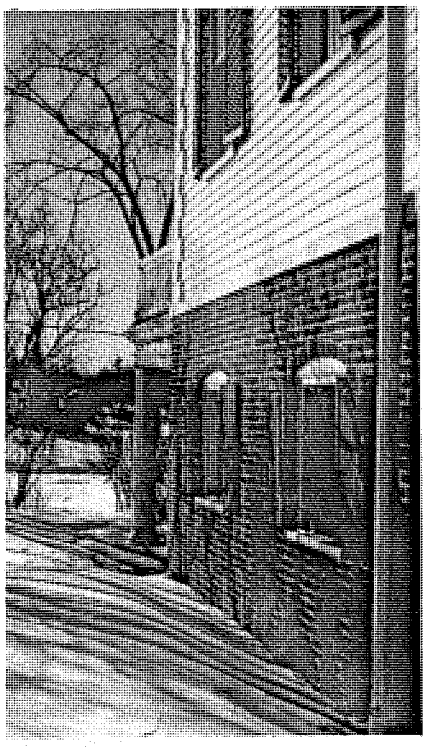


FIG. 11A SOUTH FACADE SHOWING GAP BETWEEN WATER TABLE BOARD AND BRICK

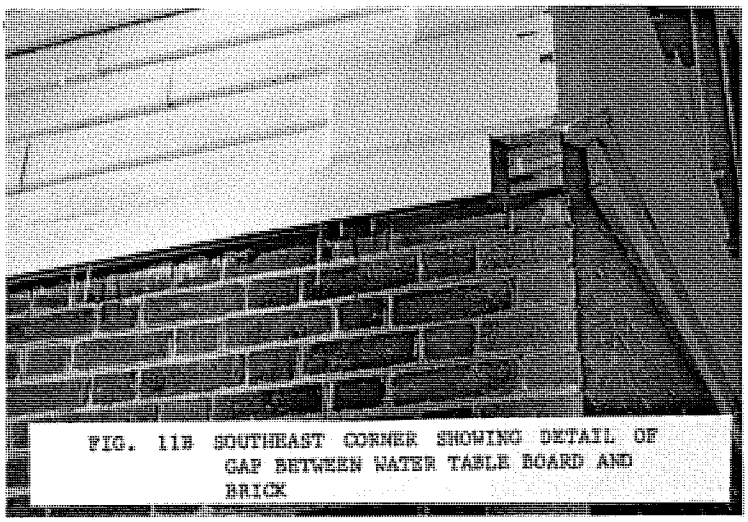


FIG. 11B SOUTHEAST CORNER SHOWING DETAIL OF GAP BETWEEN WATER TABLE BOARD AND BRICK

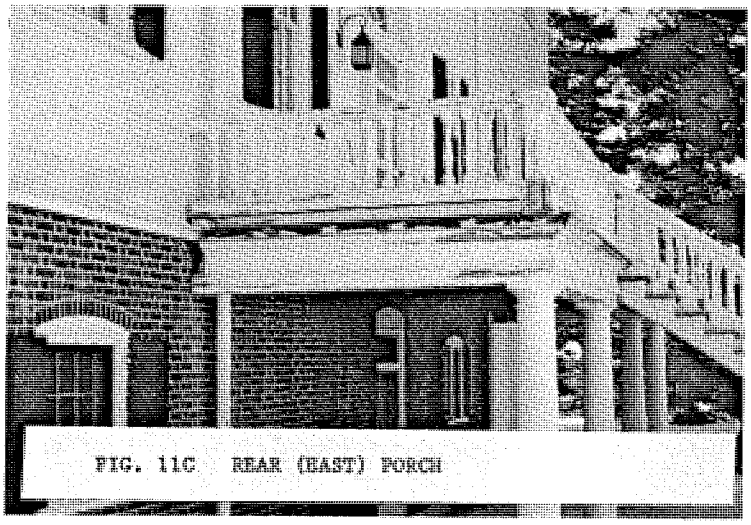


FIG. 11C REAR (EAST) PORCH

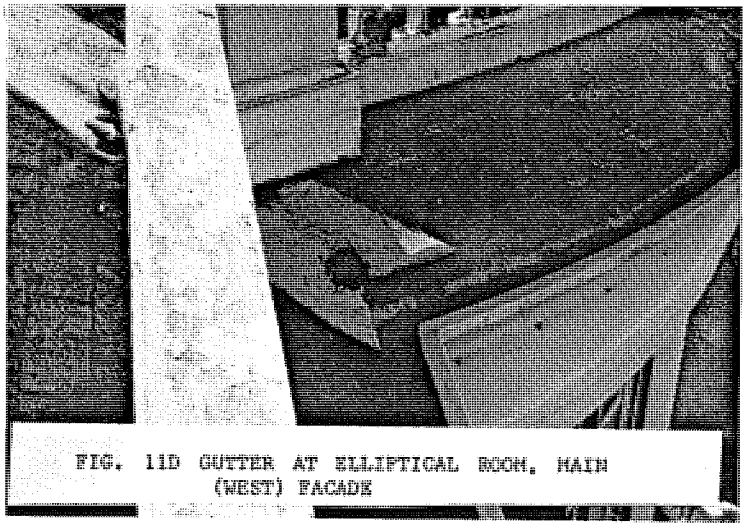
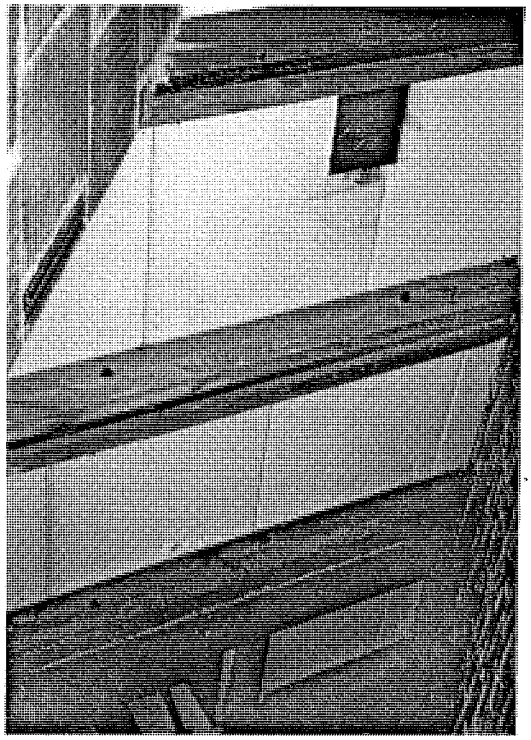
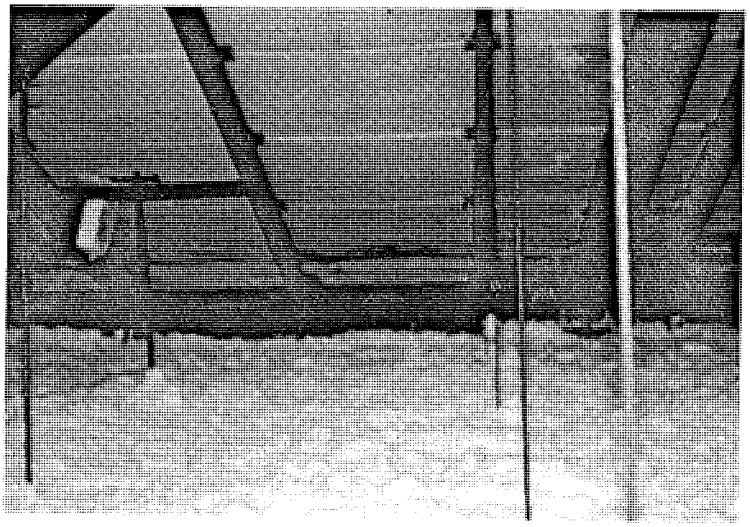
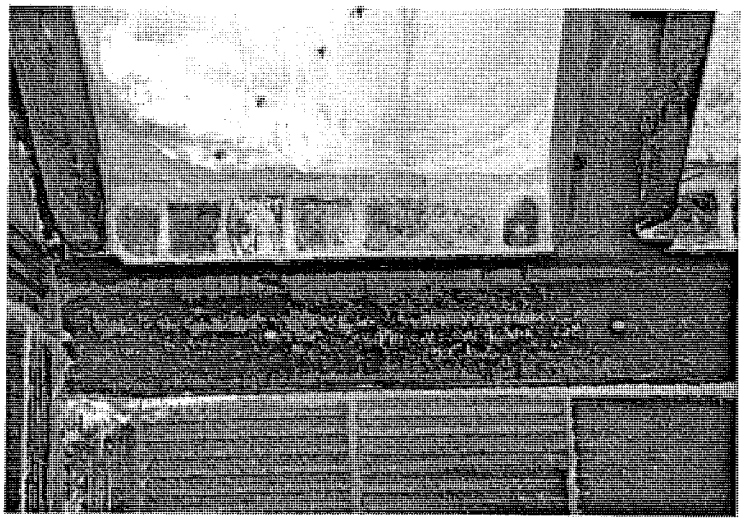


FIG. 11D GUTTER AT ELLIPTICAL ROOM, MAIN (WEST) FACADE

FIG. 12A STEEL ROOF RAFTER SYSTEM SHOWING
FIG. 12B GYPSUM PANELS, BRICK AND TILE
FIG. 12C WALK. IN 12D NOTE NAILS FROM
FIG. 12D ROOFING EXTENDING THROUGH GYPSUM







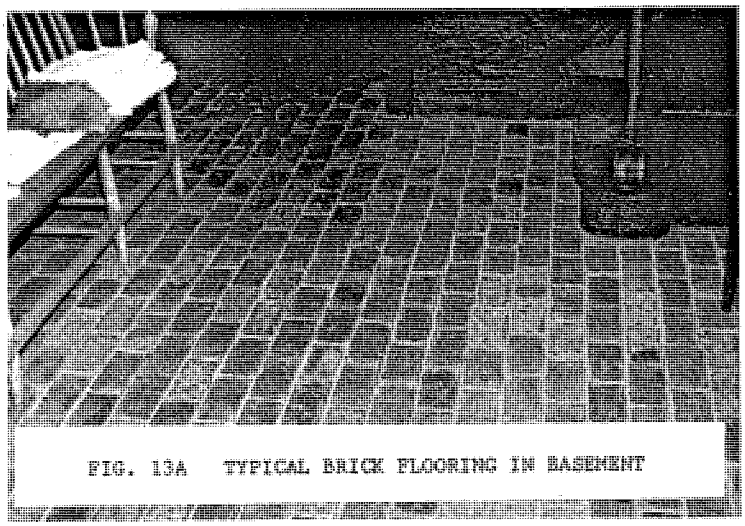


FIG. 13A TYPICAL BRICK FLOORING IN BASEMENT

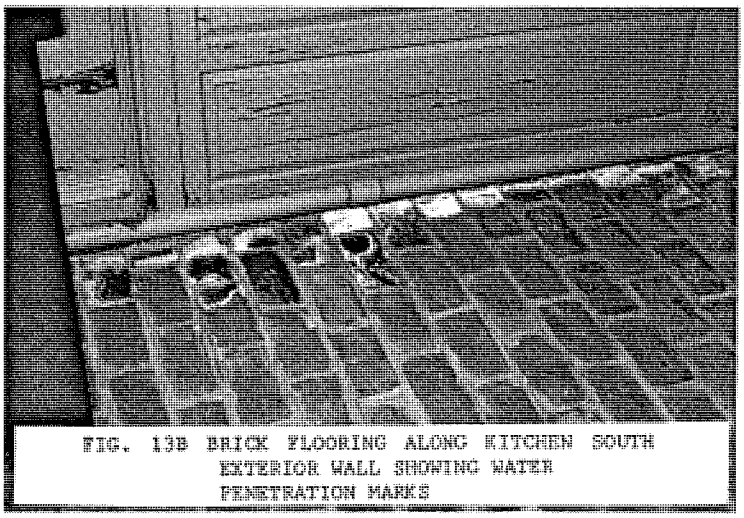
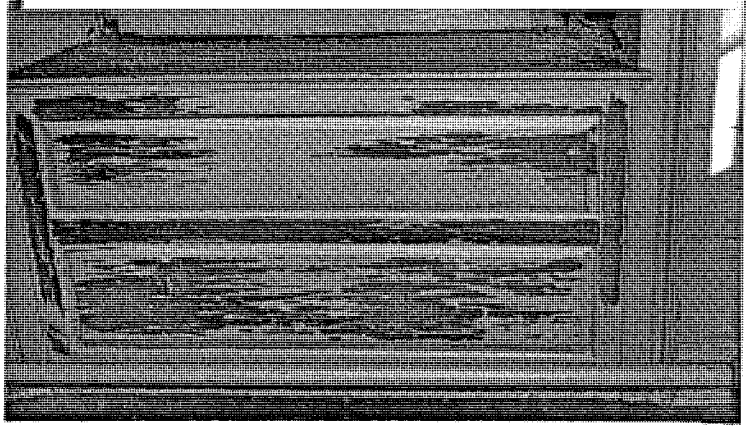


FIG. 13B BRICK FLOORING ALONG KITCHEN SOUTH EXTERIOR WALL SHOWING WATER PENETRATION MARKS

FIG. 13C BASEMENT LECTURE ROOM SHOWING PEELING PAINT ON PANELS

FIG. 13D BASEMENT KITCHEN PANELING SHOWING PEELING PAINT



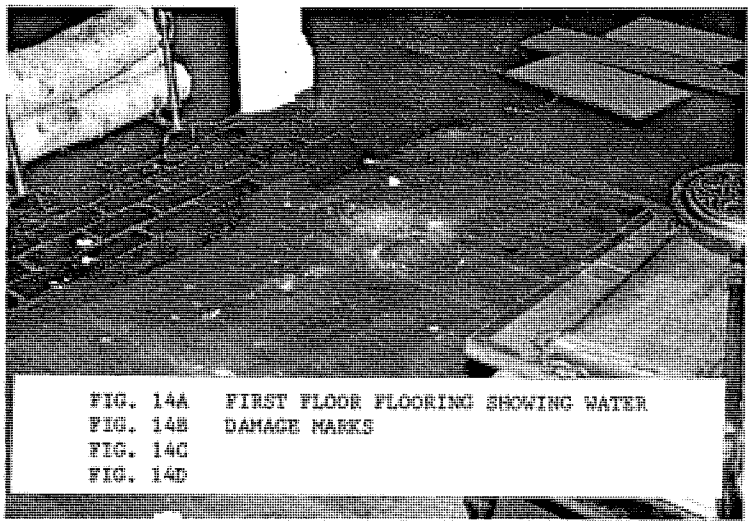
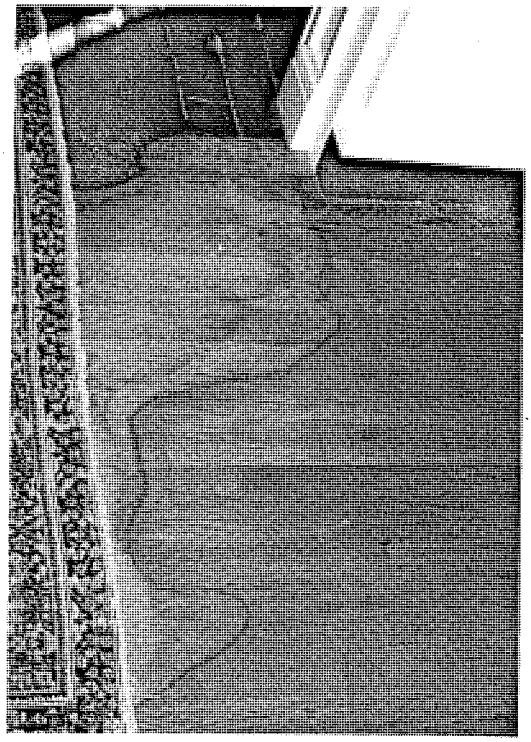
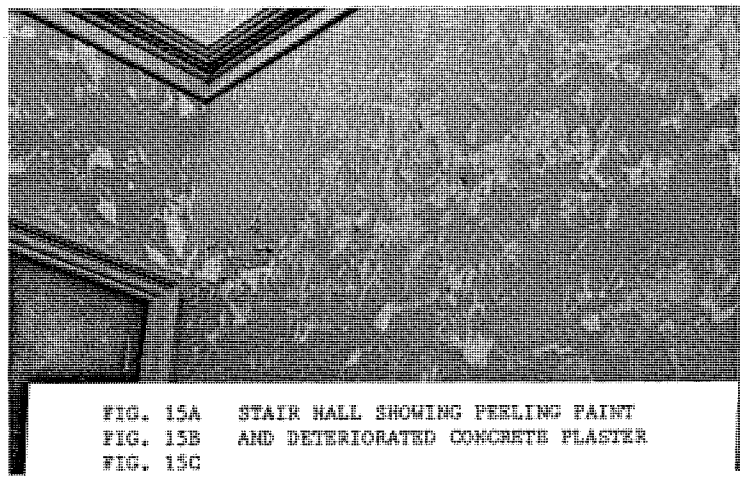


FIG. 14A FIRST FLOOR FLOORING SHOWING WATER
FIG. 14B DAMAGE MARKS
FIG. 14C
FIG. 14D





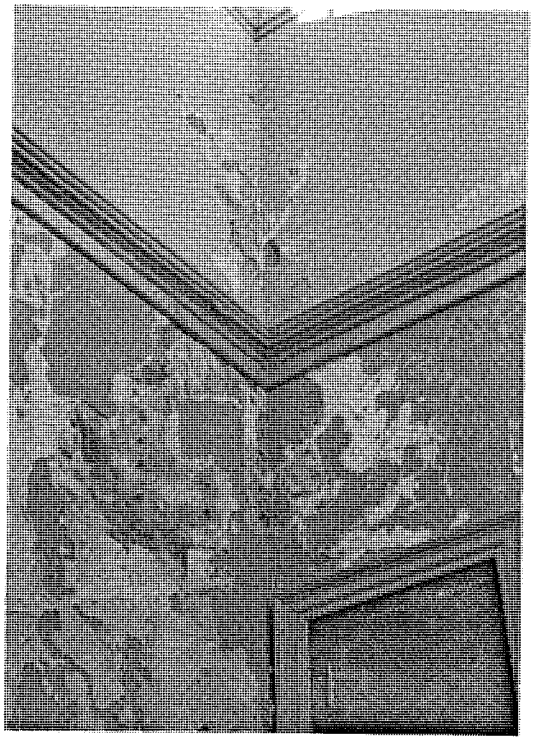


FIG. 15A STAIR HALL SHOWING PEELING PAINT
FIG. 15B AND DETERIORATED CONCRETE PLASTER
FIG. 15C

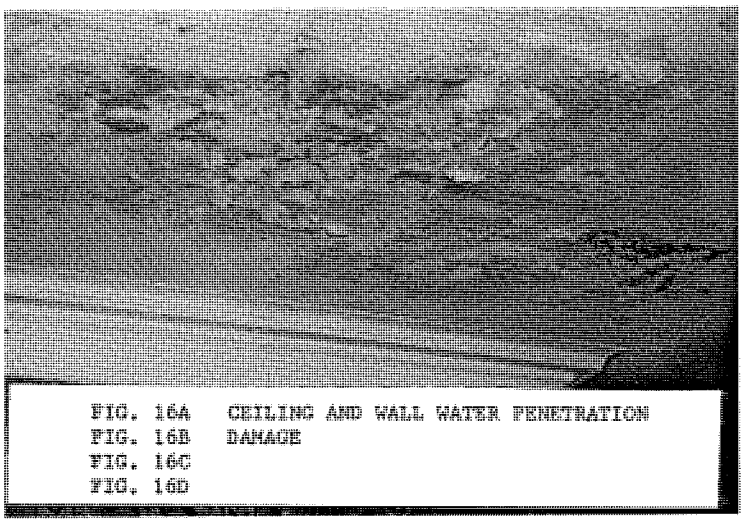
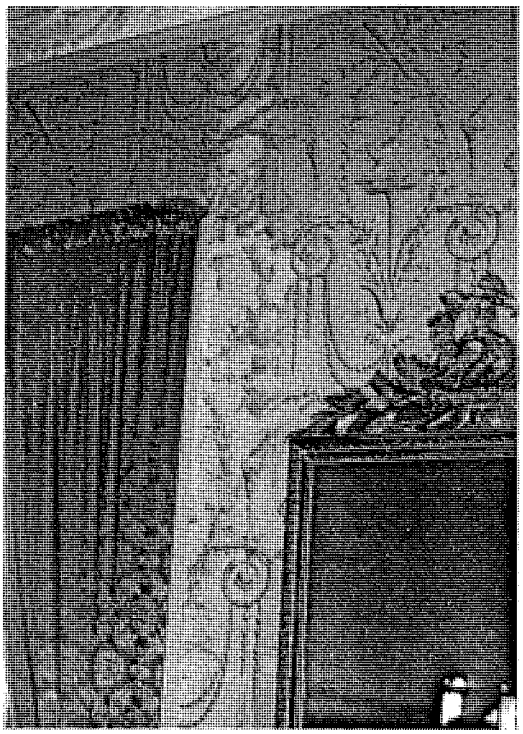
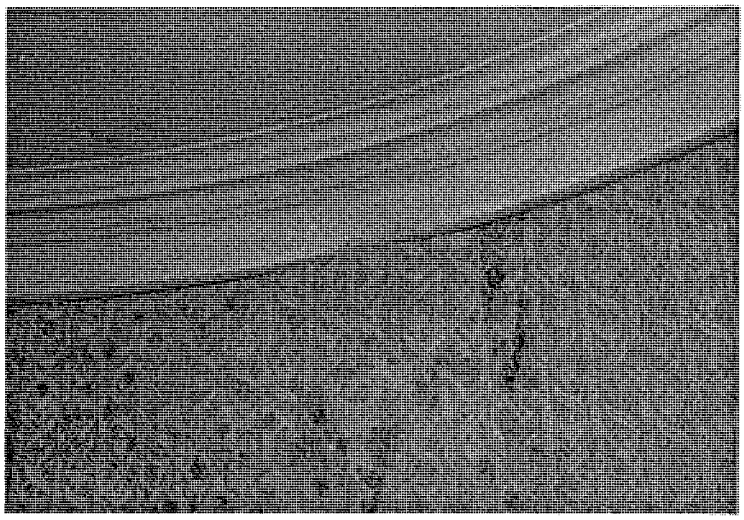


FIG. 16A CEILING AND WALL WATER PENETRATION
FIG. 16B DAMAGE
FIG. 16C
FIG. 16D





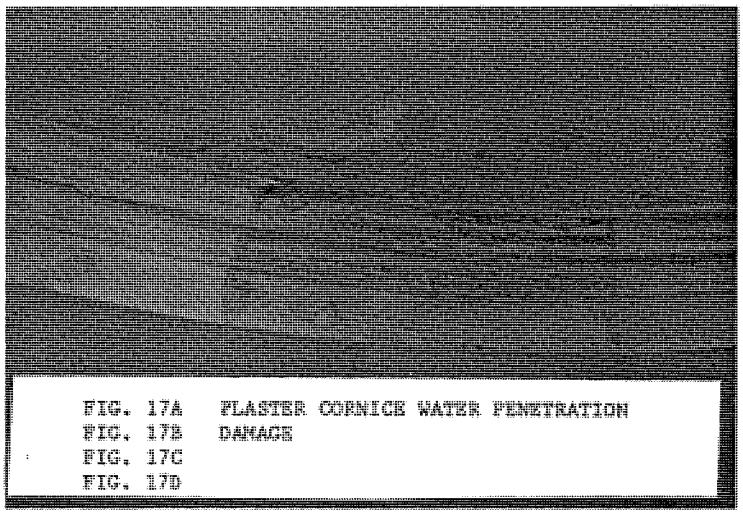
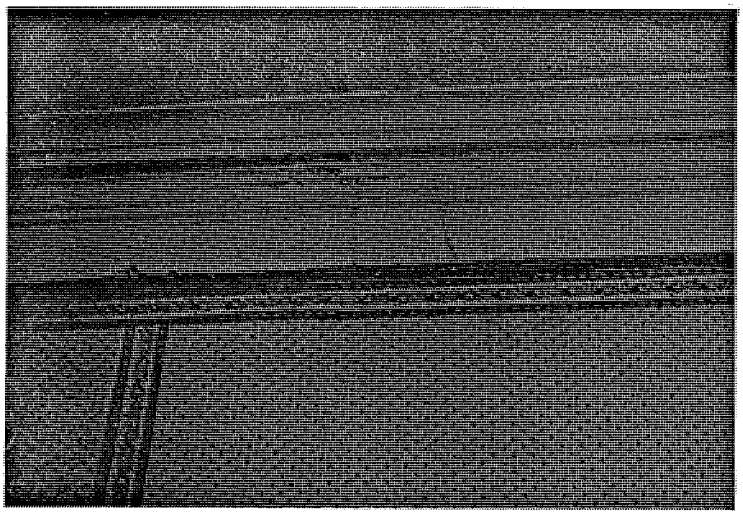


FIG. 17A PLASTER CORNICE WATER PENETRATION
FIG. 17B DAMAGE
FIG. 17C
FIG. 17D



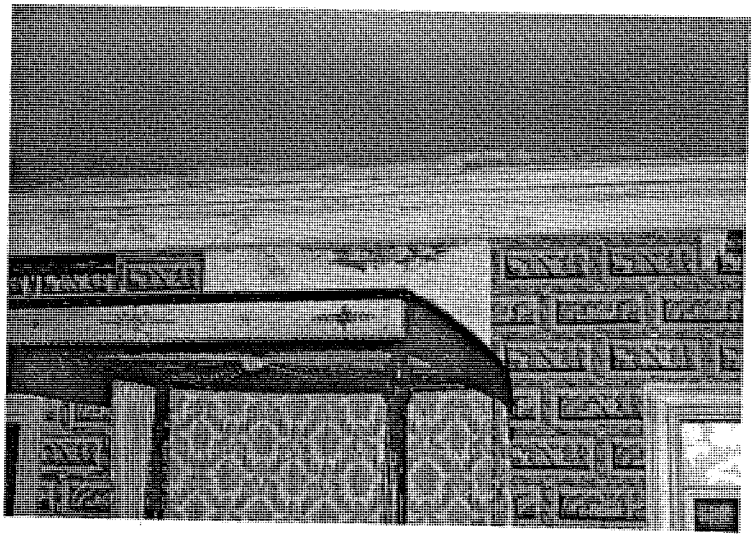


FIGURE 18

BALUSTRADE/ROOF CONNECTION

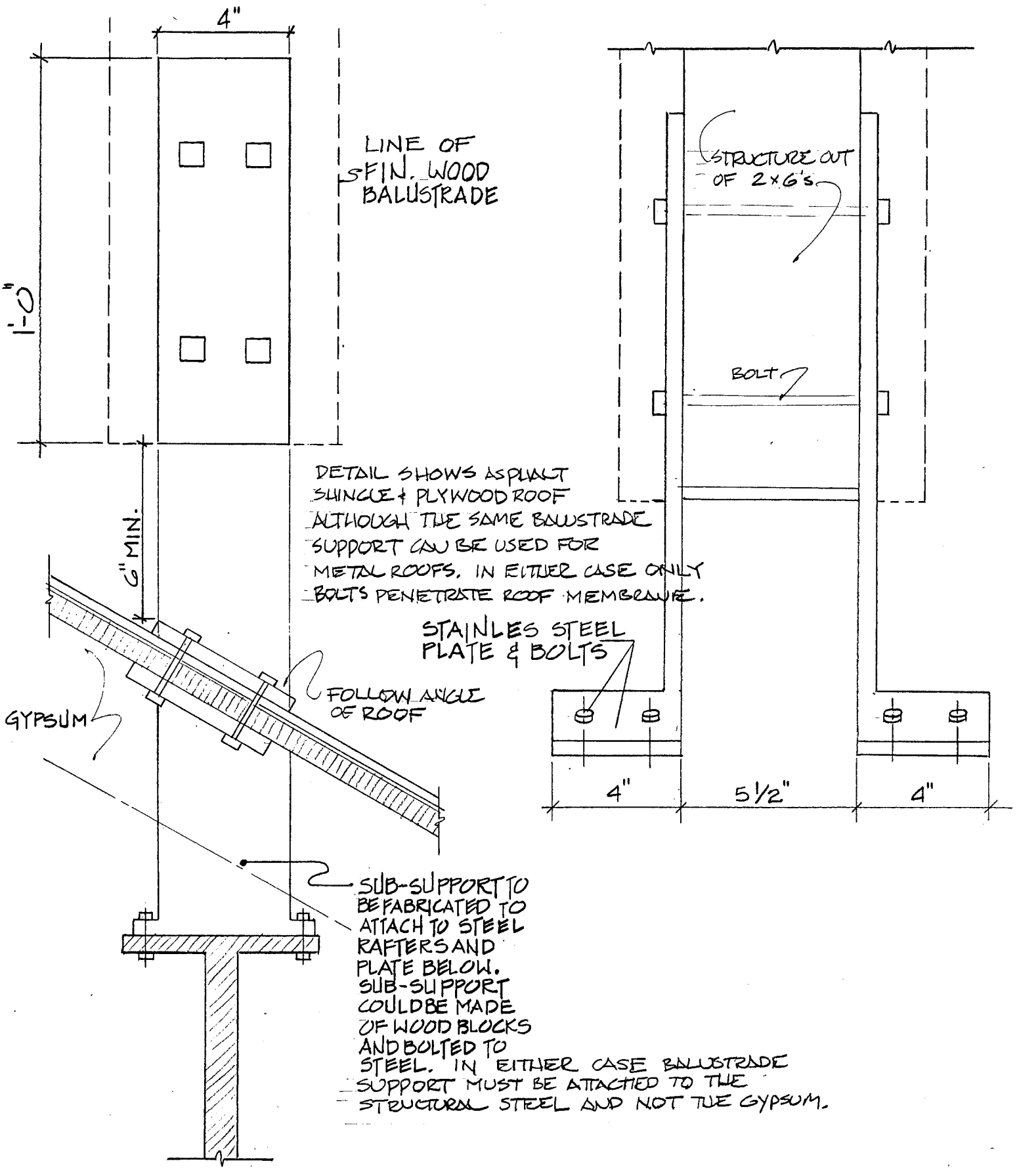


FIGURE 19

ROOF REPAIR

OPTION "A": NEW ASPHALT SHINGLES ONLY.

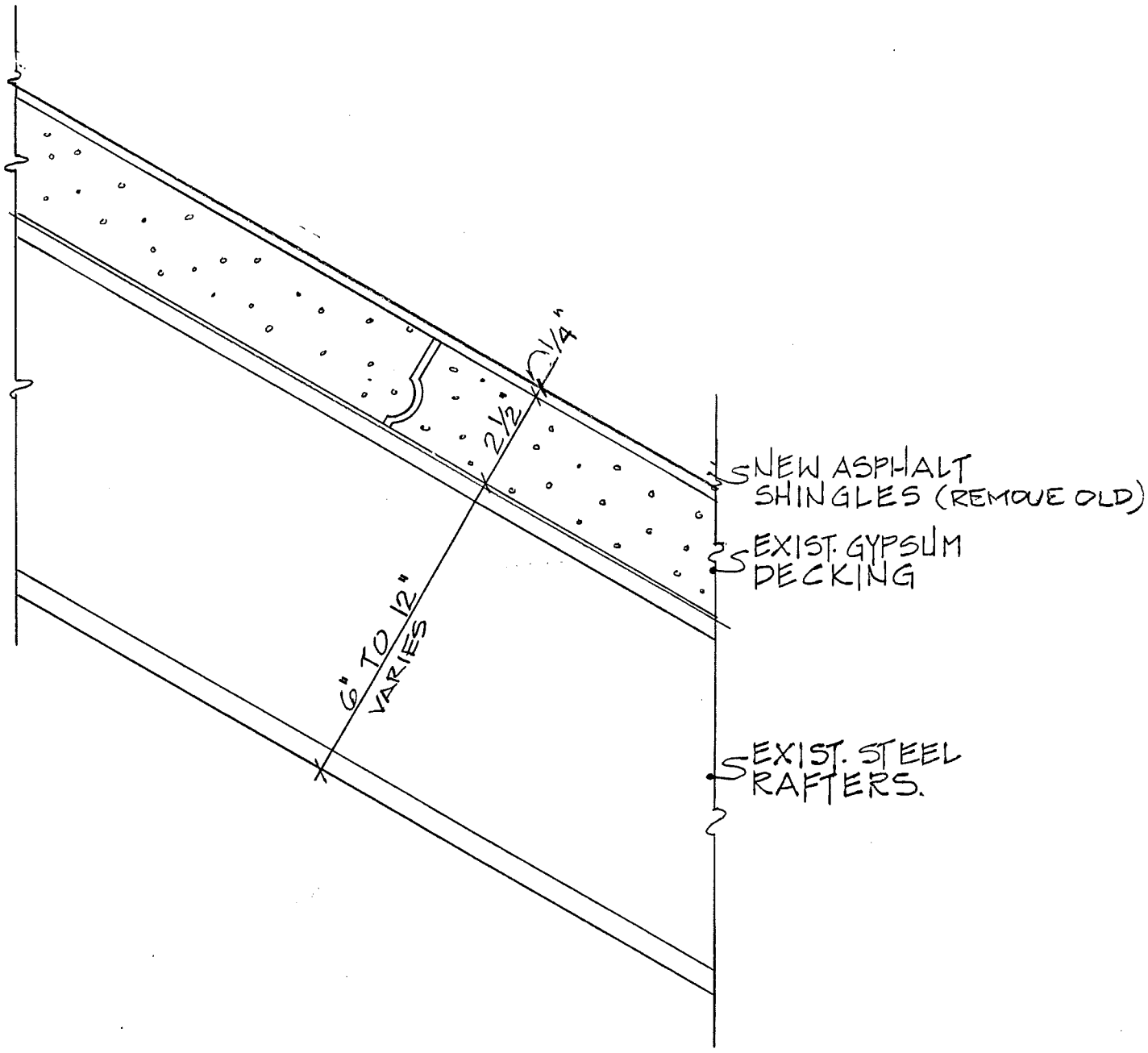


FIGURE 20

ROOF REPAIR

OPTION "B": PLYWOOD ON GYPSUM, APPLY ASPHALT SHINGLES

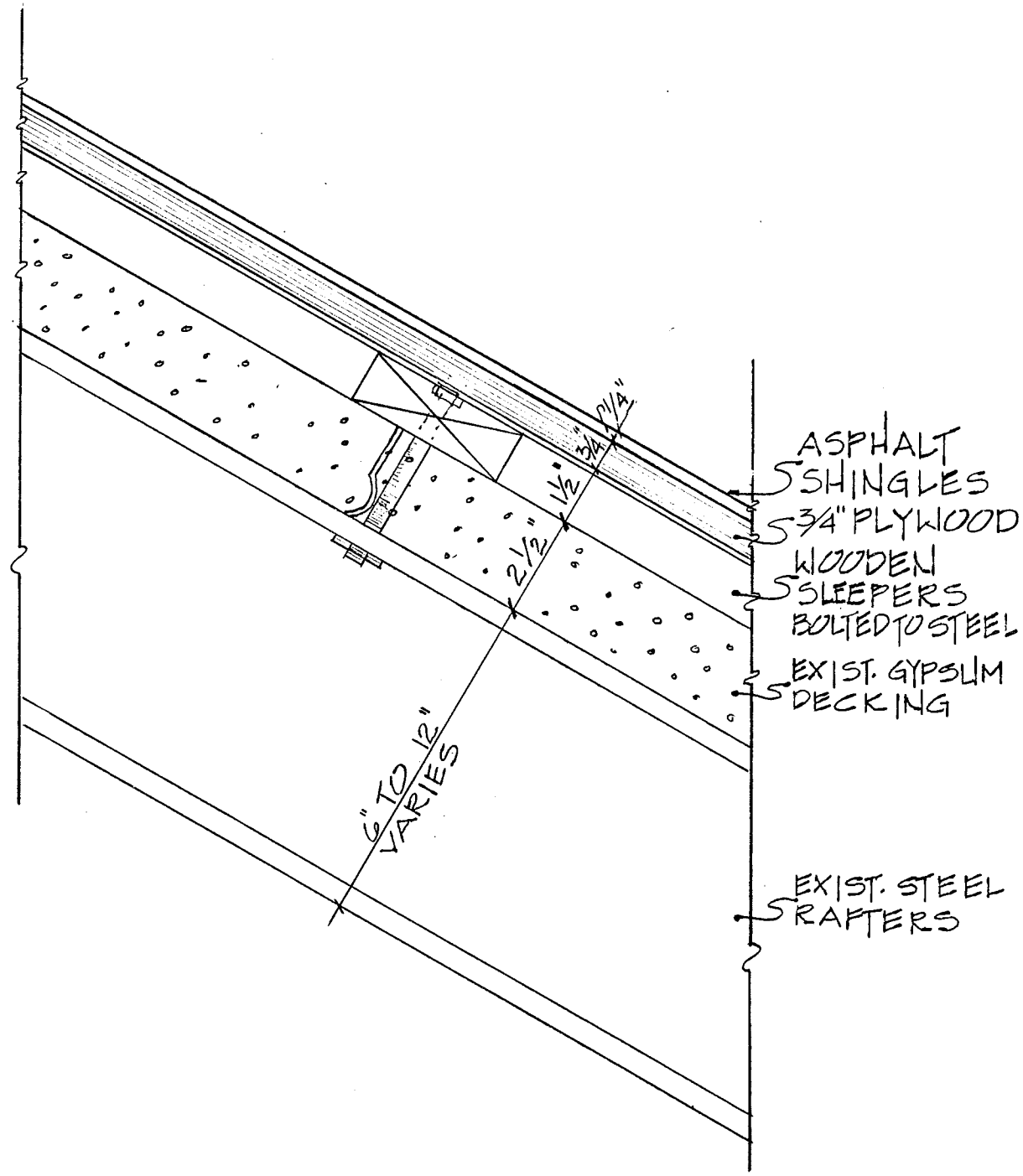


FIGURE 21

ROOF REPAIR

OPTION "C" REMOVE GYPSUM, APPLY WOOD SUB-STRUCTURE, PLYWOOD AND ASPHALT SHINGLES.

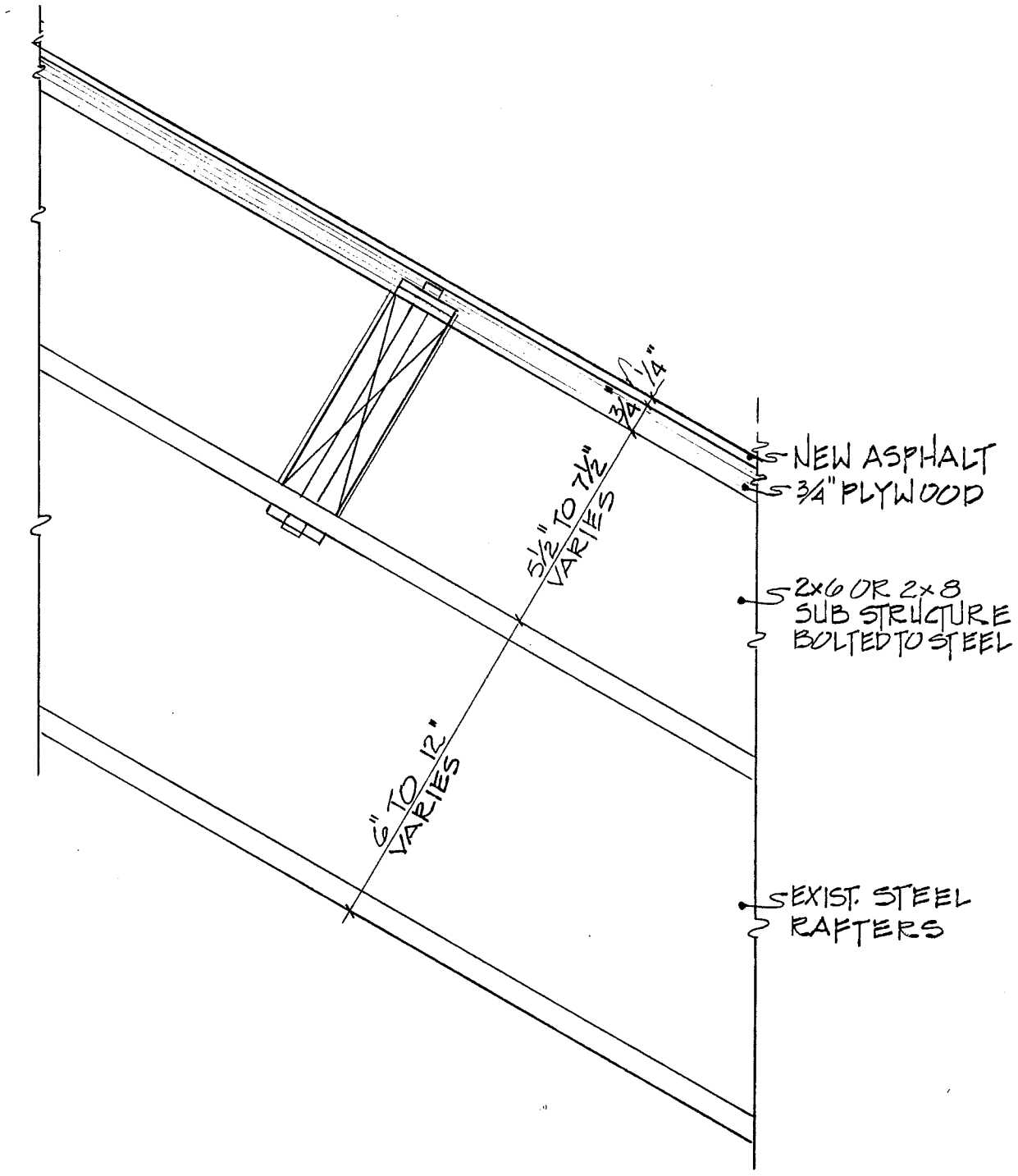


FIGURE 22

ROOF REPAIR

OPTION "D": APPLY SLEEPERS AND METAL ROOF ON GYPSUM