Historic Structures Report for
Symen Van Wickle House

1289 Easton Avenue, Franklin Township, New Jersey

Prepared for

The Meadows Foundation, Inc., Client

Prepared by

MCA

Michael Calafati
Architect, LLC

with

Dennis Bertland Associates, Historians
KSi Professional Engineers, LLC, Structural Engineers
KSi Consulting Engineers, LLC, Mechanical & Electrical Engineers
Keystone Preservation Group, Inc., Materials Conservators
Richard Veit, PhD, Archaeology and Dendrochronology
ICI International, Inc. Construction Cost Estimators

Project funding provided by a grant awarded in 2015 from the
Somerset County Historic Preservation Grant Program

This report also includes information prepared by

CME Associates
Richard Grubb & Associates, Inc.

for the
Township of Franklin, Owner

April 2019

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* = Documents contracted by the Township of Franklin Township independent of Somerset County, the Meadows Foundation and/or MCA (included only in the PDF version of this report).

MCA

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April 9, 2019

Sue Ann Derkach, President
The Meadows Foundation, Inc.
P.O. Box 6321
Somerset, NJ 08875

Re: *Historic Structures Report for the Symen Van Wickle House, Franklin Township, NJ*
Executive Summary

Dear Ms. Derkach and Board Members of the Meadows Foundation:

The opportunity to investigate this important building prior to any substantive intervention is of significant benefit to its historical record and that of the region; to its preservation, care and wellbeing; and to future generations as a physical reminder of our shared past.

The Van Wickle House is an important embodiment of Somerset County's early material culture. The property's listing on the New Jersey and National Registers of Historic Places recognizes its significance in the areas of architecture and settlement for the 18th century period. The Register nomination cites the dwelling as "an excellent example of early 18th century colonial architecture unique to the New Jersey–New York area, commonly called the *Dutch Style*" and attributes significance in the area of settlement to its purported association with the Van Wickle family, early Dutch-American landowners and settlers along the Raritan River.

Clarifying the Historical Record and the Building's Significance

The research undertaken as part of this Historic Structures Report (HSR) confirms that the house is indeed a good example of the region's early Dutch-American architecture and significant for its association with early Dutch-American settlement of the Raritan Valley. Research has also established that property was owned throughout the 18th century, not by Van Wickles, but by four generations of Van Duyns, another Dutch-American family (members of whom were carpenters, as well as farmers, and may well have built the dwelling). The house possesses additional architectural interest for the Colonial Revival renovations designed by architect George Howell in the 1930s, which were noted by contemporary architectural historian Rosalie Bailey for their success in preserving the historic character of the house while accommodating modern needs.

As the house nears the start of its 4th century, its origins have only recently become clearer. Like what Winston Churchill had to say about Russia in 1939, one could say that the house's history has been *a riddle, wrapped in a mystery, inside an enigma.* Much of what we thought we knew of the house grew from a recorded history that is rooted in the 1930s, like Churchill's famous quote. A great discovery and revelation of the house's re-examination is the identity of its first owners.

In her landmark book Pre-Revolutionary War Dutch House in New York and New Jersey, of 1936, Rosalie Fellows Bailey provided the first historical overview of the subject property. She identified it as the "House of Symen Van Wickle." Using information provided to her by Julia

Lawrence Wells, whose family had long owned the neighboring farm to the west through inheritance from its 18th century ancestor Evert Van Wickle, Bailey conflated the history of the two properties and erroneously concluded that both had been owned by the Van Wickle family and that Evert's father, Symen Van Wickle, had built the subject house in 1722 on land he had inherited from his father Evert, purchased in 1703.

Although Bailey suspected that the property had passed to the ownership of the Van Duyn family later in the 18th century, she was unable to document any such transfer. Bailey did accurately report the property's subsequent history beginning with its acquisition by Hendrick Suydam in 1797.

Bailey also provided the only known documentation of the transformation of the old farmhouse into a Colonial Revival country residence in the early 1930s as the work of the locally prominent architect George B. Howell, whose 24-year tenure as University Architect for Rutgers began in 1934. Howell's renovations created one large living room across the east front of the house (from two rooms and possibly a center passage), constructed an open flagstone porch also across the east front of the house, and transformed the opposite facade facing west into the entrance front. Bailey's book includes three photographs recording its appearance after that work had been done. It is curious to note that the datestone at the corner of the open porch bears the date of 1722 but is part of a 1930s-era feature presumably designed by George Howell for his clients.

Bailey's problematic account of the property's 18th century history is further repeated by:

- HABS, the Historical American Building Survey, whose measured drawings and photographs in 1938 record the dwelling's appearance at that time.
- The National Register of Historic Places nomination for the house in 1973. Although questioned by local historian Ursula Brecknell in her 1981 article on the history of the Raritan River lots, Bailey's account was long established as the correct historical narrative.
- The house was included in the Somerset County Historic Sites Survey in 1989, but the survey was limited in scope and relied on previous historical research.

Of particular importance in establishing the ownership of the property by the Van Duyn family throughout the 18th century were estate records for members of the Van Duyn and Van Wickle families (recorded in both Somerset County, New Jersey, and Kings County, New York), along with surviving tax records for the Eastern Precinct (later Franklin Township), Somerset County, and several recorded deeds, the earliest of which indicates that the property formed part of the so-called Raritan Lot 6. The James Alexander and Robert Hamilton Papers, New York Historical Society, proved critical to documenting that the Van Wickle family acquired the adjoining farm to the north in 1730s and that that property originally formed part of Raritan Lot 7. Genealogical sources, along with estate and census records, provided information about the families and individuals who owned and occupied the house, and (in the case of 1792 and 1838 estate inventories) something about how it was furnished.

The recent information discovered about the house's beginning must be considered for its implication regarding the house's name and – more to the point – its listing on the New Jersey and National Registers of Historic Places. Whatever modifications to the name are made, it must be accomplished in coordination with the New Jersey State Historic Preservation Office (NJ HPO). With new research of the HSR in the public realm, a re-evaluation by the NJ HPO will

occur in due course. Currently, there are two possibilities for consideration. In order to maintain some continuity, the property could have a hyphenated name - The Van Duyn - Van Wickle House. Doing so would also acknowledge a brief period of ownership by the Van Wickles after the Van Duyns. Alternately, the property could have a simpler name - The Van Duyn House. Whatever the outcome, the decision on how to re-name the house should be undertaken while rooted in facts, be collaborative (involving the Township, the County, the Meadows Foundation and the NJ HPO), and be regarded as a public relations opportunity. An investment in research to make a discovery of this degree (the mistaken attribution to a family that did not build the house) is exactly why the historical record is revisited from time to time. The need to reexamine the historical record is especially true of certain properties that were placed on the Register with fervor and some haste in the years leading up the Bicentennial of American Independence.

Summary of Conditions/Phasing of Efforts to Re-establish Occupancy and Improve the House

The condition of the building reflects a scenario somewhat typical of important historic houses that are in the public ownership and managed through a cooperative agreement with a non-profit history organization. The mantra that "maintenance is preservation" is well understood by the stewards of historic buildings but too frequently the available funds do not meet routine maintenance needs, let alone cyclical upkeep and periodic upgrades.

The phasing of projects recommended herein is organized so that competing needs are executed in an efficient sequence with the following objectives in mind:

Phase I	Urgent work that should be undertaken immediately, especially as it relates to structure, so that the building's first floor may re-open to the public. This phase also includes work that is part of essential but neglected maintenance practices.
Phase II	Near term work that should be undertaken as soon as possible to stem water ingress. It also addresses additional structural conditions and improves the exterior envelope.
Phase III	Mid term work that should be undertaken within the next several years to improve occupancy, as it largely relates to the building's mechanical and electrical systems.
Phase IV	Desirable work that may be executed at a future point when funds permit – largely related interior finishes.
Phase V	Optional long-term work that requires additional study prior to execution.

These phases are expanded below with a summary of conditions and include proposed specific interventions (described in *italics* for ease of identification).

Phase I: Structural Interventions and Moisture Control to Re-Establish First Floor Occupancy

In its report of November 2014, CME, Franklin Township's Municipal Engineers, advised that the building's first floor cease operation immediately as a place for public gatherings. This recommendation was likely the result of conditions caused by flooding earlier this decade. Closing of the building due to structural concerns was a prudent move, but an unused building is often a fatal blow to any building's fate, especially a historic one. We recommend, therefore, a project with the scope of work summarized below be undertaken to re-establish occupancy on the first floor as soon as possible.

1.1 Foundation and First Floor Structural Damage. Beyond normal aging and wear and tear, the negative impact that has already occurred to existing historic fabric is significant. Repairs to original masonry assemblies and wood framing would be accomplished through a combination of approaches, including reconstruction, reinforcement, and preservation with new infill. Wherever possible, existing historic fabric and assemblies would be abandoned in place while new replacement assemblies would be constructed alongside them.

A. The southwest corner of the exterior foundation wall (Build A1) is of specific concern. Years of unchecked drainage from a roof leader into a blocked underground conduit at this location resulted in the slow but steady disintegration of the mortar and deformation of the stone rubble foundation wall at this corner.

This corner location will require reconstruction. This effort would include the temporary shoring of the first floor framing above, cataloging of individual foundation stones as they are removed, excavation (including archaeological monitoring) to pour new reinforced concrete footings, rebuilding the foundation stones to replicate their original arrangement with the proper mortar and backfilling the exterior grade.

B. The deteriorated conditions of the original timbers and later joists of the first floor framing at Builds A1 and A2 and that span the east-west direction (especially at Build A2) are also an area of concern. The available headroom in Rooms 001, 002 and 003 facilitated their assessment from the cellar level. The most distressed conditions occur over Room 003 – an area that comprises a significant portion of the floor area of the Living Room (Room 103) above. As the largest room within the house (and, therefore, a highly utilized gathering place), even a partial collapse of the floor framing could have devastating consequences.

Builds A1 and A2 would be addressed by installing a new modern structural frame to assume the role of carrying the first floor's live loads. This would entail excavation (including archaeological monitoring) to place new individual reinforced concrete piers, and placement of new vertical posts to support a new horizontal framing to cradle the floor planks and relieve the existing framing of its current loading. While this approach does introduce new components into the setting, it has the benefit of allowing the historic fabric of the original construction to remain in place.

C. The condition of the first floor framing at Build B is difficult to assess, as access to this area is limited through a small floor hatch in the Dining Room or through an opening in the south wall of the cellar of Build C. The crawlspace area is shallow (less than 24" clearance in height) with a dirt floor. A combination of original or early stones and later CMU units support the first floor.

The original or early stones and remnants of a foundation wall should be left in place as an artifacts of the original construction. They should be augmented with new masonry or concrete support piers under the existing framing to remain and be reinforced and or shimmed as needed.

D. The first floor framing at Build C is comprised largely of 3 x 8 joists at approximately

24" on center spanning the east-west direction. Four beams running north-south on 4 x 4 posts support these joists. The beams and posts are not equally spaced or not aligned and rest on a concrete slab of unknown thickness. Unlike all other locations that are built of stone, the foundation walls of Build C are of brick masonry. The brick is porous and allows moisture to travel up as far as the lowest portion of the first floor wall where it meets Build B (where it causes the plaster to fail).

This framing will require replacement of the major beams and posts on new footings in order to support the kitchen above (while retaining the existing 3x8 joists in place). In addition, a damp proof course (DPC) should be installed at the south wall in the Cellar of Build C to prevent the rise of moisture in this wall.

1.2 Moisture Control. The particular structural scenario at the Van Wickle House is made worse by several factors all related to moisture. These include the proximity to the Raritan River and the Delaware and Raritan Canal and recurring flooding (taking place with increasing frequency in recent decades), the high water table (causing nearly constant water intrusion into the cellar levels that requires mechanical removal through pumping), and the lack of adequate ventilation into the cellar level at the building perimeter (serving to trap moisture within the house).

A. *Reopen the two original cellar level windows. Fabricate and install new wood replacement sash with screens.*
B. *Introduce new mechanical ventilation and mechanical dehumidification at the cellar level.*
C. *Properly re-grade the building's perimeter and extending roof leaders farther out from the building's perimeter.*
D. *Install adequate pumps at the cellar level with built-in redundancy, including back-up power and failure notification, that discharge far from the building's perimeter.*

1.3 Improve Barrier Free (ADA) Access to the First Floor. The building does not provide code-compliant access with respect to the Americans with Disabilities Act (ADA) and the New Jersey Uniform Construction Code (NJ UCC), as required of all buildings that welcome the public and where achieving compliance does not require extraordinary effort.

The main entrance door on the west elevation (Door A) should be the designated barrier-free entrance to the first floor of the house. A new wood ramp and platform should be constructed to this location to provide access. The new ramp/platform would be placed over the existing stone stoop that would remain in place (and would be reversible without difficulty).

1.4 Execute Readily Achievable Improvements and Prepare for Future Phases. Finally, as conditions are improved that would allow for the re-occupancy of the first floor, a limited set of specific items should be included as part of this phase. They range from cosmetic and helpful to essential and important to better understanding the roof's significant issues in order to set the stage for the work in the phase to follow.

A. *Repair the damaged plaster surfaces at the north walls in Rooms 106 and 107.*
B. *Substantially rebuild or replace in-kind the wood stairway leading from the Kitchen*

(Room 108) to the cellar in Build C (Room 007), as it presents a safety hazard.

C. *Conduct an invasive investigation inside (within) the uppermost attic of Build A (above the ceiling of the caretaker's apartment) to determine the cause for the slump of its ridgeline and the outward rotation of its south gable. Include the installation of a gauge to monitor the crack at the chimneystack inside the caretaker's second floor kitchen.*

Phase II: Building's Exterior Envelope and Superstructure

Shortly after or, preferably, immediately upon completion of the Phase I objectives outlined above, the roof, roof framing, superstructure, and exterior wall areas and its components (siding, doors and windows) should be addressed as the next campaign of work. In this context, 'superstructure' entails aspects of the building's structural system above, but not including, the foundations and first floor framing.

2.1 Roof, Accessories and Framing. The house's current roof asphalt shingles, flashings and system of gutters and leaders are well beyond their useful life and should be removed. The selection of roofing, especially, should be a material sympathetic to the house's period of significance.

A. *Demolish the existing asphalt shingles and lath.*
B. *Execute framing repairs at usual vulnerable locations - where dormer sidewalls meet rafters, where rafter heels meet wall plates, etc.*
C. *Install new cedar shingles on new wood lath.*
D. *Install flashings and a new system of half round gutters and leaders.*
E. *As the cost associated with stopping or correcting the slump in the ridgeline and the outward rotation of the south gable at Build A cannot be fully anticipated at this time, an allowance amount will be assigned until further investigations are conducted (see item 1.4.C above).*

2.2 Selective Demolition. Non-contributing architectural features, especially those not documented in the HABS drawings, should be removed.

In the order of importance, remove (and, with the exception of the hothouse, replace as funding permits):

1. *North covered porch to the Kitchen entrance.*
2. *Areaway enclosure to the cellar at the east elevation.*
3. *Brick and concrete stoop to the Dining Room at the east elevation.*
4. *Areaway enclosure to the cellar at the south elevation.*
5. *Hothouse (its removal depends upon the determination that it is not required to lend support to the south wall of Build A1).*

2.3 Exterior Carpentry Repairs, Reconstruct Lost Features, Doors, Windows and Painting.

A. *To the greatest degree possible, conserve in situ the existing hand split round-butt wood shingles on the east elevation of Builds A1-A2, as they are original to the building and among its most important surviving character-defining features. Remove and replace the bottom upside-down scalloped board with new shingles to replicate the appearance of the original shingles (but clearly label them on the*

reverse side as replacements).

B. *Elsewhere execute limited in-kind repairs to the existing weatherboard siding (beaded clapboard, clapboard of various exposures, German shiplap siding, and bevel cut shingles) by employing Dutchmen, epoxy consolidation and limited replacement of runs.*
C. *Reconstruct new platforms and steps at the north end of Build C and at the east elevation of Build B, in accordance with those shown on the HABS drawings.*
D. *Replace Door A (west entrance) with a new wood 6-panel unit and Door B (Kitchen) with a new wood 4 lites over 2 vertical panel unit, in accordance with those shown on the HABS drawings.*
E. *Replicate new wooden areaway doors into the cellars at Build A1 (south elevation) and Build C (east elevation) in accordance with those shown on the HABS drawings.*
F. *Existing windows should be retained and remain in place for continued use; clean and lubricate (re-puttying and limited re-glazing). Similarly, execute remedial repairs at all first and second existing aluminum triple track storm/screens units for continued use (remove, clean, lubricate, repair screens/glass panels, and reinstall).*
G. *Patch, prepare and paint all exterior wooden surfaces.*

Phase III: Improvement of Building Systems and Facilities

With its structure stable and envelope sufficiently resistant to the elements, improvements to enhance the quality of human occupancy should follow with the upgrading and/or replacement of mechanical, electrical and plumbing systems.

3.1 Electrical System and Fire Alarm. The house is served by an underground electrical service. While in good condition, key components are subject to damage from flooding and require mitigation.

A. *Raise the incoming service located on the north elevation of the house above the flood plain as part of such flood mitigation effort. The service connects to two (2) meters mounted at this location – meter #1 is dedicated to the main part of the house and meter #2 is for the second floor caretaker's apartment.*
B. *Similarly, raise meter #1's main and sub electric panels within the house, currently within the cellar, to the first floor, as part of flood mitigation efforts.*
C. *Complete exterior electrical upgrades – remove and replace the fixture attached to the house's southwest corner with a new fixture mounted on a freestanding post and replacement of all exterior outlets, especially those mounted on the south face of the terrace.*
D. *Replace the fire alarm system's corroded heat detectors located in the cellar with weather resistant units to withstand its moist environment.*

3.2 Plumbing System and Barrier-Free/ADA Upgrades. Piped services encompass a wide range of activities from exterior work to interior finishes as noted below.

A. *Relocate the natural gas service meter now at the southwest corner of Build D with exposed exterior surface mounted piping to a new location with concealed piping running within the house.*
B. *Insulate existing domestic hot water piping where exposed in order to prevent loss of energy, as required by the energy code.*

C. *Remove existing plumbing fixtures in the second floor lavatory off of Bedroom #5 (Room 204), the non-original closets in the first floor Bedroom #2 (Room #104) below and the plumbing exposed overhead in them.*
D. *Remove plumbing fixtures in the first floor Bathroom (Room 105) in conjunction with the item above and remodel this space to become the designated Barrier-Free/ADA Lavatory serving the first floor.*

3.3 Heating, Ventilation and Air Conditioning System Upgrades.

A. *Insulate existing heating system piping where exposed in order to prevent loss of energy, as required by the energy code.*
B. *Replace the heating system's air separator, located in the Basement (Room 002) and re-attach it the framing above to avoid undue stress on the piping.*
C. *Clean the heating system's baseboard fin tube radiation enclosures by removing the covers and vacuuming the piping and fin tube elements.*
D. *Provide mechanical ventilation in all toilet rooms and vent to the exterior, as none currently exist (Rooms 105 and 202).*
E. *Upgrade unit window air-conditioners.*

Phase IV: Interior Improvements

The development of an interpretive plan, including an approach to furnishings and finishes, lies outside the scope of this report. Still, while considerably less momentous than the three previous phases, there are aspects that are worth considering once the issues of structure, enclosure and building systems are under control.

4.1 Interior Finishes.

A. *Patch, prepare and paint all first floor interior wood and plaster surfaces.*
B. *Patch, prepare and paint all second floor interior wood and plaster surfaces.*

4.2 Reversal of Changes that Post-Date the Building's Period of Significance.

A. *Selective demolition of the built-in bookcase flanking the north fireplace in the Living Room (Room 103) to the east.*
B. *Replacement of all aspects of finishes, cabinets and equipment in the first floor Kitchen (Room 108) to serve the building's current needs.*
C. *Restoration of the upper leafs of Doors C and D, (Dutch doors on the east elevation into the Dining Room and Living Room, respectively) by removing inserted glass and patching solid panels.*

Phase V: Optional Long-Term Work

Ongoing study, research and discoveries yet to be unveiled will impact future activities.

5.1 Potential Scope of Work Items.

A. *Fabrication and installation of louvered shutters depicted in early period photographs.*
B. *Address the long term solution to cooling with air handlers located to zone the house*

via direct expansion (DX) coils located within the air handlers, with the condensing units located unobtrusively on the exterior of the house and the refrigerant lines routed in the ceiling and chases within the building. The first floor would be served by two air handlers located in the cellar where there is full head height (Builds A and C) and then supplying air to the various portions of the first floor via ductwork feeding up utilizing the crawl space (Build B). The second floor would be served by an air handler located in the Open Attic (Build B) with ductwork fed horizontally into the remaining portions of the second floor above the line of the finished ceiling. Due to flooding concerns on the property and aesthetic considerations, the condensing units/heat rejection equipment for the air handlers would be installed on a raised platform remotely from the building.

C. *Renovation of the second floor caretaker's apartment, including:*
   - *Selective demolition of added and altered partitions dividing Rooms 204 and 204A and Rooms 202 and 202A.*
   - *Originally renovated about 40 years ago, demolition and renovation of all aspects of finishes, cabinets and equipment in the Kitchen (Room 203) and Bathroom (Room 202).*

Preliminary Estimate of Costs

Phase	Year	Objective	Estimate
I	2019-2020 Urgent Work	Structural Repairs and Related Work: Re-open the first floor to the public.	$288,055
II	2020-2021 Near Term	New Roof and Exterior Envelope: Stop water ingress, address additional structural repairs.	$529,757
III	2021-2022 Mid Term	Mechanical and Electrical Systems: To improve occupancy.	$120,514
IV	2022-2023 Desirable Work	Interior Finishes.	$94,254
V	2023+ Optional Long Term	Additional Improvements: Yielding info. or requiring study prior to execution.	$143,794
Total Estimated Cost (*not escalated to reflect inflation*):			$1,176,375

Based on my correspondence with Robert Russo, PE, Principal of CME and the Township's Consulting Engineering Firm that has also worked on this project, I understand that Franklin Township has set aside approximately $300,000 to address the house's most urgent needs. However, the description of the project Mr. Russo provided in his email to me of March 9, 2017 is of a campaign of work dissimilar to what we describe herein as Phase I. This is also true of the project outlined in the Application for Project Authorization that was submitted to the New Jersey Historic Preservation Office dated December 6, 2017 on the Township's behalf by RGA and CME. In short, we advocate an initial (i.e. immediate) project that addresses the conditions of the foundation and first floor framing together with moisture control in the cellar and crawlspace and improved barrier-free/ADA access in order to permit the building to re-open.

How to coordinate the Township's efforts within the context of the recommendations in this report and how to follow up with the grant awarded by the Somerset County Historic Preservation Grant Program in 2017 for the Phase II Project is the next challenge.

We would welcome the opportunity to build upon the discoveries and recommendations in this report and help you meet this challenge.

Sincerely,

Michael Calafati, AIA, LEED AP
Principal, Michael Calafati Architect, LLC

cc: Thomas R. D'Amico, Historic Sites Coordinator, Somerset County Cultural & Heritage Commission
Robert G. Vornlocker, Jr., Township Manager, Township of Franklin
Andrew Burian, AIA, Chair, Franklin Township Historic Preservation Advisory Commission

I.
Introduction

1. Project Directory
2. Description of Methodology
3. Areas for Future Investigations
4. Acknowledgements

I. INTRODUCTION

1. Project Directory

Project Title

Historic Structures Report for the Symen Van Wickle House
1289 Easton Avenue
Franklin Township, New Jersey 08873
Block 259 / Lot 86

Client

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Project Funding

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Somerville, NJ 08876
Thomas R. D'Amico, Historic Sites Coordinator
Tel 908-231-7110
www.co.somerset.nj.us/government/public-works
As funded by a grant awarded in 2015 from the Somerset County Historic Preservation Program

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This report also includes documents as supplemental information that was contracted directly by Franklin Township – wholly independent involvement by Somerset County, the Meadows Foundation and/or MCA:

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Tel 732-727-8000

RGA, Inc. (Richard Grubb & Associates)
Building D, 259 Prospect Plains Road
Cranbury, NJ 08512
Tel 609-655-0692

2. Description of Methodology

The various disciplines necessary for this report - historical and architectural developmental research, analysis and recommendations as they pertain to archaeology, architectural fabric, structural components, mechanical and electrical systems, and construction cost estimates – were handled by their respective professional team members under the umbrella of Michael Calafati Architect, LLC (MCA) as preservation architect and project coordinator.

Originally the order of observation-discovery-documentation and assessment-recommendations was intended to proceed in a parallel fashion for all areas of investigation to help assure an efficient timeline, to allow for sharing of discoveries between team members and the delivery of a report in a reasonably short period of time.

While interim meetings were held with the client during the course of the project and discoveries were shared concerning research and the building's physical condition, progress overall was uneven. In the end, the most difficult issue to negotiate became the coordination of an initial campaign of capital improvements (Phase I) that will follow the acceptance of this report to address structural problems with a second campaign of capital improvements (Phase II) to address issues of the building's exterior envelope. Phase I would be undertaken by the Township and its consultant team. Phase II would be undertaken by the Meadows Foundation and its consultants team.

3. Areas for Future Study

- Additional Primary Research (beyond what is available from the expected sources such as the local libraries and historical societies and the New Jersey State Archives and Library).

- Archaeology Surveys - "Shovel" tests beyond the Phase IA Investigation already completed.
- Site and landscape evaluation (inventory of vegetation and landscape features).
- Interpretative Plan.
- Furnishings and Interior Design Recommendations.

Fortunately, many of the gaps identified above that were not addressed in this report (because they were beyond the scope of the project) will be the subject of an effort funded by the New Jersey Historic Trust (NJHT) - especially those dealing with conditions of the site external to the building's perimeter. The Meadows Foundation submitted a successful application in 2017 to the Preserve New Jersey Historic Preservation Fund for a Historic Site Management Grant administered by NJHT. At of the release of this report, the "landscape study" is about to get underway.

4. Acknowledgements

The Board Directors of the Meadows Foundation has been particularly supportive during the extended course of the preparation of this report, as the coordination of efforts between the property owner and property manager (and sponsor of this report) consumed more time than originally allotted. At the issuance of this report, the Board continues a lively discussion regarding its various options on how to best address the recent discovery that, if not for a series of errors in the recounting of its history, the house would be known today as the Van Duyn House.

During the way, Tom D'Amico, Historic Sites Coordinator and administrator for the Somerset County Historic Preservation Grant Program, allowed for the re-assignment of a portion of the grant so that Dr. Viet could do tree-ring dating (*dendrochronology*), cataloging and summarization of previous archaeological collection from previous digs, and documentation of those portions of the house that are not easily accessible (e.g. the crawlspace where the dig took place and the early foundations). In so doing, a duplication of the efforts to prepare the Phase IA Archeological Reports (already prepared by RGA) was avoided.

Moreover, the Somerset County Historic Preservation Grant Program deemed the property of such significance and demonstrated its support for it that an additional grant, this time to execute capital improvements, was awarded to the Meadows Foundation in 2017 in the amount of $223,995. Whereas the Township has already earmarked $300,000 for a Phase I project to address the building's structural needs. An incomplete HSR notwithstanding, the second grant was awarded for a Phase II project to address the building's exterior enclosure, including the windows, exterior doors, roofs, flashings, siding, painted finishes and non-original additions.

Lastly, the New Jersey Historic Preservation Office should be acknowledged for providing importance guidance at various intervals. Specifically, the meeting arranged by the HPO staff for the various stakeholders and held at the Van Wickle House on February 27, 2017 helped to clarify the role of responsibilities of the stewards of properties under public ownership that are listed on the New Jersey Register of Historic Places.

II.
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II. HISTORICAL DEVELOPMENT

1. Previous Studies and Treatment Efforts

In her landmark study *Pre-Revolutionary War Dutch House in New York and New Jersey*, published in 1936, Rosalie Fellows Bailey provided the first historical overview of the subject property, which she identified as the "House of Symen Van Wickle, later Suydan's" and which was named "The Meadows" by mid-20th-century owners. Evidently using information mostly provided to her by Julia Lawrence Wells, whose family had long owned the neighboring farm to the west through inheritance from its 18th-century ancestor Evert Van Wickle, Rosalie Bailey conflated the history of the two properties and erroneously concluded that both had been owned by the Van Wickle family and that Evert's father Symen Van Wickle had built the subject house in the 1720s on land he had inherited from his father Evert purchased in 1703. Although she suspected that the property had passed to the ownership of the Van Duyn family later in the 18th century, Bailey was unable to document any such transfer, but accurately reported on its subsequent history beginning with its acquisition by Hendrick Suydam in 1797. She also provided the only known documentation that the transformation of the old farmhouse into a Colonial Revival country residence in the early 1930s was the work of the locally prominent architect George B. Howell, a project that resulted in the creation of one large living room across the east front of the house, in lieu of two rooms (and possibly a center passage), and making the opposite facade the entrance front. Bailey's book included three photographs recording its appearance after that work had been done (Figures 6, 7 and 8).[1]

Rosalie Bailey's account of the property's 18th-century history was repeated by both the Historical American Building Survey (1939), whose measured drawings and photographs record the dwelling's appearance at that time, and the National Register of Historic Places nomination for the house (1973) and, although questioned by local historian Ursula Brecknell in her 1981 article on the history of the Raritan River lots, has been accepted as the correct historical narrative.[2] A transcription of the surviving gravestones in the family graveyard on the property was included in an article published in the *Somerset County Historical Quarterly* in 1914.[3] In 1989, the house was included in the Somerset County Historic Sites Survey (New Jersey Historic Sites Inventory 1806-17); however, the survey effort was limited in scope and relied on previous historical research.

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[1] Rosalie Fellows Bailey, *Pre-Revolutionary Dutch Houses and Families in Northern New Jersey and Southern New York*," pp. 43, 466 – 472 & 487. Bailey mistakenly concluded that an upriver tract acquired by Evert Van Wickle was the subject property [East Jersey Deeds Book I, page 425; Benedict/ Wells letter, Aug. 27, 1912, Rutgers Special Collections, MC 727, Box 8, Folder "Elm Farm."]. The date 1703 is carved on a stone set in the terrace added to the house in the 1930s. Bailey referenced a hall between the east front rooms, but no physical evidence of one was observed during this investigation [Bailey, page 39].

[2] HABS, NJ-479; Symen Van Wickle House, National Register of Historic Places Inventory –Nomination From, July 1973; Ursula C. Brecknell, 'The 'Rariton Lots' of Franklin Township: A Study of Land Sales and Settlements," *Somerset County Historical Quarterly, Commemorative Issue*, 1982, pp. 29 & 30.

[3] John J. De Mott, "Family Burying-Grounds on the Easton Turnpike," *Somerset County Historical Quarterly*, 1914, Vol. 3, pp. 301 and 302.

2. Methodology of Research

The investigative phase included both historical research and field survey of the subject property. The investigation began with a review of the materials identified in the previous section of this report, along with deeds, historic maps and related materials provided by the Client, as well as other standard sources for local and regional history. Research to establish the property's chain-of-title from the 17th century to the present followed next, conducted primarily at the New Jersey State Archives and the offices of the Somerset County Clerk and Surrogate. Additional research relating to owners and occupants was pursued at the New Jersey State Archives, Rutgers University Special Collections and the New York Historical Society, supplemented by an Internet search for relevant material. Of particular importance in establishing the ownership of the property by the Van Duyn family throughout the 18th century were estate records for members of the Van Duyn and Van Wickle families (recorded in both Somerset County, New Jersey, and Kings County, New York), along surviving tax records for the Eastern Precinct (later Franklin Township), Somerset County, and several recorded deeds, the earliest of which indicates that the property formed part of the so-called Raritan Lot 6. The James Alexander and Robert Hamilton Papers, New York Historical Society, proved critical to documenting that the Van Wickle family acquired the adjoining farm to the north in 1730s and that that property originally formed part of Raritan Lot 7. Genealogical sources, along with estate and census records, provided information about the families and individuals who owned and occupied the house, and in the case of 1792 and 1838 estate inventories something about how it was furnished.

The field survey of the house was conducted concurrently with the historic research and benefited from the materials analysis, dendrochronological (tree ring) testing and archaeological investigation undertaken for this study. At the end of the investigative phase the Consultant presented its findings to the project team. Report preparation began after the presentation of findings, and draft elements were submitted for review before the final draft was prepared.

3. Statement of Significance

The Van Wickle House is an important embodiment of Somerset County's early material culture, as recognized by its listing on the New Jersey and National Registers of Historic Places for its significance in the areas of architecture and settlement for the 18th century period. The Register nomination cited the dwelling as "an excellent example of [the] early 18th century colonial architecture unique to the New Jersey – New York area … [c]ommonly called the 'Dutch Style'" and attributed significance in the area of settlement to its purported association with the Van Wickle family, early Dutch-American landowners and settlers along the Raritan River.[4] While this report can confirm that the house is indeed a good example of the region's early Dutch-American architecture and significant for its association with early Dutch-American settlement of the Raritan Valley, research conducted for this investigation has established that property was owned throughout the 18th century, not by Van Wickles, but by four generations of Van Duyns, another Dutch-American family (members of whom were carpenters, as well as farmers, and may well have built the dwelling). The house possess additional architectural interest for the Colonial Revival renovations designed by architect George Howell in the 1930s, which were cited by contemporary architectural historian Rosalie Bailey for their success in preserving the historic character of the house while accommodating modern needs.[5]

Dutch-American Architectural Context

A substantial frame house of Dutch-American design, the Van Wickle House stands testament to the prosperity that could be achieved by industrious and prudent farmers cultivating the fertile agricultural lands of the Raritan Valley once the period of pioneer settlement had passed, as well as the regional imprint of Dutch-American material culture. Throughout the Raritan Valley and other areas that they settled, Dutch-Americans erected distinctive houses and farm buildings during the 18th and early 19th centuries, comprising a regional architecture that despite losses to demolition and neglect remains the most notable and visible expression of their material culture. Dutch-American architecture combined building traditions from the Netherlands and northern Europe with elements adopted from English vernacular practices and classically based styles.

While the Dutch-American stone houses of northeastern New Jersey are perhaps better known today, timber-frame houses were widely built by Dutch-Americans on Long Island and in central New Jersey throughout the 18th century, perhaps some years earlier, and until well into the first decades of the 19th-century.[6] Timber-framing traditions formed an important part of the material cultural heritage brought by Dutch settlers to New Netherlands in the 17th century, and the refinement of key elements [of those traditions]

[4] Lois Richman and Terry Karschner, Symen Van Wickle House National Register nomination, page 8-1. While the Van Wickle name has been retained for convenience in this report, the house would be more accurately named after the Van Duyn family.
[5] Bailey, pp. 38, 39 & 469.
[6] Clifford W. Zink, "Dutch Framed Houses in New York and New Jersey," *Winterthur Portfolio*, Vol. 22, No. 4, Winter, 1987, page 267.

over 200 years illustrates the transformation of a parent culture in a colonial setting: immigrant [Dutch] builders adopted their old world traditions to new environmental requirements, material sources and building ideas, and following the English conquest of 1664 merged their timber framing practices with those of Anglo-Americans. They eventually created hybrids that demonstrate a cross-cultural melding of European-based house building technologies in America.[7]

The region's relatively abundant supply of hardwood timber suitable for building, no doubt, encouraged experimentation by Dutch-American carpenters over several generations, as likely did their exposure to Anglo-American builders, particularly in areas like central New Jersey where the Dutch and English both had a strong presence. Dutch-American builders also responded to ideas of symmetry, finish and design associated with classical architecture, as disseminated by architectural pattern books over the course of the 18th century.

Traditional Dutch buildings utilized a distinctive timber-framing system, whose basic component is an H-shaped assemblage of two upright posts connecting a horizontal member termed an anchor beam. This building unit, known as an anchor bent or H-bent, most clearly distinguishes Dutch framing from traditional English methods such as the box frame.[8] The two-dimensional anchor bent, often incorporating stout wooden braces or corbels to stiffen the junction of anchor beam and posts, provides structural stability (counteracting dead, live and wind loads) and "begins to define the major space within the building."[9] Builders created three-dimensional space by erecting a number of anchor bents aligned with each other and spaced several feet apart, the posts forming the dwelling's front and rear walls (or side walls in urban settings) and the anchor beams serving as floor joists for the upper story. The bents were joined perpendicularly at the bottom and top of the posts by horizontal timbers: sills resting on the foundation and plates above supporting the roof rafters. Diagonal braces sometimes were used to stiffen the junction of post and rafter plate. H-bents lent themselves most readily to one-and-one-half-story houses with distinctive "knee walls" front and rear between the anchor beams and rafter plates.[10] Another bent-framing variant documented in the Netherlands featured the placement of the crossbeam on tops of the posts, "or by trenching [that]

[7] Ibid., page 265.

[8] While architectural historians have used the terms H-bent and anchor bent interchangeably, Jeroen van den Hurk has identified two versions of the Dutch H-bent reflecting differences in the method of joining the vertical and horizontal members: "The quicker solution was to simply mortise and tenon the girder into the principle posts – called a *tussenbalkgebint*. The more labor intensive method became known as an anchor-beam bent – called an *ankerbalkgebint*. There the girder was tenoned through the principle posts creating protruding tongues at either side." [Jeroen van den Hurk, "The Architecture of New Netherland Revisited," Kenneth A. Breisch and Alison K. Hoagland (eds.). *Building Environments: Perspectives in Vernacular Architecture Perspectives in Vernacular Architecture*, page 138]. As described by van den Hurk, anchor bents with protruding tongues typically were used in buildings with side aisles such as barns and some houses with double-pile plans.

[9] Zink, page 272.

[10] John R. Stevens, *Dutch Vernacular Architecture in North America, 1640-1830*, pp. 27 & 29-33; Zink, pp. 272 & 279.

girder into the tops of posts," creating an inverted U-shaped bent that was used for one-story houses or stacked to create buildings of two or more stories.[11]

Dutch-American builders employed anchor-bent framing to construct houses of varied size and plan.[12] The simplest product of this system was a one-room dwelling with attic. Larger houses easily could be built by increasing the number of bents to create a single-pile (one-room-deep) range of two or three rooms. A larger house also could be created by adding a shed appendage (or "outlet") to the rear or by modifying the design of the H-bents to accommodate a double-pile (two-room-deep) floor plan by either one of two methods: (1) using longer anchor beams supported by posts at the division between the front and back rooms (like the main block of the Van Wickle House) or (2) using taller rear posts which formed the division between the front rooms and integral rear range (or "side aisle") and helped support the roof, whose gable profile could be symmetrical or asymmetrical (creating a salt-box profile). Carpenters could expand a building vertically by increasing the height of the both the front and rear bent posts, creating lofty attics or half stories that could be partitioned into rooms, but posts extending more than about four feet above the anchor beams might well be deflected by the weight of the roof. To overcome this problem and erect houses with two full stories, Dutch-American builders developed anchor bents featuring tall posts connected by anchor beams at both the second and attic floor levels in a double-H configuration, in lieu of the stacking of bents employed in the Netherlands to erect houses with two and three stories.[13]

Architectural historian Clifford Zink has divided Dutch-American timber frame construction into three periods. During the first, which encompassed the Dutch colonial period from 1624 to 1664, traditional influences appear to have been the strongest and: "Settlers modeled their town houses and farmhouses on antecedents from the Lowlands, building simplified versions for expediency." [14] Framing members were typically heavy (not surprisingly given the vast stands of virgin timber in New Netherlands), and exposed to view, especially anchor beams, and fireplaces constructed without jambs in the traditional Dutch manner. Exterior walls –filled with brick or mud and straw packed on split wooden slats and plastered on the interior face between the posts– were covered by weatherboards, and roofs by thatch or pantiles. Exterior doors of batten construction, often were divided into upper and lower sections that could be opened separately, the type still known today as a Dutch door, and windows featured casements with leaded glass, sometimes in pairs separated by a mullion and surmounted by fixed transoms. Both exterior and interior doors often were hung on "Dutch" strap hinges with distinctive large round nailing pads.[15]

During the second period, which extended from the third quarter of the 17th century to around the middle of the 18th century, the Dutch-American building vocabulary evolved

[11] Van den Hurk, page 138; Zink, page 278; Stephens, pp. 180, 181, 246 & 247. Stevens recorded two examples in the Netherlands of one-story houses, dating to the 16th and 17th centuries with inverted U-bents, as well as a 16th-century three-story house with stacked U-bents.
[12] Zink, page 284.
[13] Zink, page 278; Stevens, pp. 29 -33.
[14] Zink, page 279.
[15] Ibid. pp. 278 & 280; Stevens, pp. 21-32 & 55-74 & 95.

as carpenters began to assimilate English practices, absorb classical influences and develop distinctive house types. While continuing to embrace traditional anchor-bent framing, carpenters increasing relied on smaller timbers, reduced the spacing between bents and concealed wall posts, although exposed anchor beams, smoothly finished and sometimes dressed with a bead molding along their lower edges, remained an important interior feature. However, some dwellings dating to this period like the Van Wickle House and the nearby Wyckoff-Garretson House, retained both exposed posts and anchor beams.[16] The insertion of additional floor joists between bents and increased use of diagonal braces to stiffen the connections between horizontal and vertical members represent borrowings from English tradition. Houses began to be built with wide overhanging eaves, often with a kick or curve, which in conjunction with gambrel roofs of distinctive profile (short, shallow upper slopes and wide, steeper lower slopes) that have become such an iconic feature of much Dutch-American architecture in the New York region.[17] Wide overhanging eaves, as survive at the Van Wickle House, are found in Dutch-settled areas around New York City (Bergen and Monmouth Counties, New Jersey, western Long Island and Staten Island, and the Raritan Valley), as well as in Connecticut, and while historians have identified possible Flemish and French prototypes, the origins of this Dutch-American design feature remain obscure.[18] Architectural historian John R. Stevens has posited that it may have been "an independent American development" and questioned its existence before the first quarter of the 18th century.[19]

Dutch-American builders sometimes adopted the symmetrical facades associated with classically based high-style architecture, but often retained vernacular floor plans. These rural dwellings typically had two or more rooms on the first story, full or partial cellars and large open attics. A popular floor plan for double-pile houses in the Raritan Valley and many other areas settled by Dutch-Americans consisted of one large front room and two small rear chambers or two front rooms and two or more rear chambers (the Van Wickle House the is a typical example).[20] This plan type was prominent on western Long Island, and Dutch-Americans from that area likely introduced it the Raritan Valley, as

[16] Mark Hewitt, *Historic Structures Report Wyckoff-Garretson House, Franklin Township, New Jersey*, Vol. 1, page 34. Located several miles southwest of the Van Wickle House, *the Wyckoff-Garretson House* has been dated c. 1730. The Cornelius Cowenhoven in Holmdel, Monmouth County, is another New Jersey examples [Ibid.].

[17] Stevens, pp. 58 & 59. While the "Dutch" gambrel roof is thought to have first evolved in the middle of the 18th century, it appears to have been uncommon, if not unknown, in the Raritan Valley, before the end of the 18th century, with the possible exception of the Ryerson-Quick House [Bailey, page 570]. Gambrel roofs were uncommon in the Raritan Valley during the mid 18th-century, and those houses that did had upper and lower roof slopes of equal size, common to English practice. The Everitt Van Wickle House, locate just north of the subject property, is an example [Bailey, page 488].

[18] Stevens, pp. 58 & 59; Zink, page 278; Bailey, pp. 95-113, 159-163, 245, 418, 421, 422, 487 & 570. Both Stevens and Zink referenced historians Thomas Waterman and Thomas J. Wertenbacker who posited that a feature of Flemish cottages in costal Belgium, termed a "flying gutter," may have been the source of the Dutch-American overhang. Houses in Quebec also have small overhang, called a "coyaus," which is thought to have come from Normandy. The c. 1730 Minnie Schenck House is a good Long Island example of wide overhanging eaves, as is the c. 1750 Hendrick Henderson House in Monmouth County, NJ [Stevens, pp. 220 - 223].

[19] Stevens, pp. 58 & 59.

[20] Zink, page 278. Historian Thomas J. Wertenbacker identified a "Flemish cottage" which he described as having two main front rooms and three small rear rooms [Thomas J. Wertenbaker, *The Founding of American Civilization: the Middle Colonies*, pp. 71, 73 & 74].

well as other portions of East Jersey.[21] Dwellings were enlarged laterally, and small service wings or shed appendages, sometimes both, typically were placed on one or both gable-end walls, as appears to be the case with the Van Wickle House.[22] Enclosed staircases usually were located in one of the rear rooms, which served as both stair and rear entry hall as at Van Wickle, or a front-room corner; in contrast to the newel-turned staircases placed next to the chimney associated with English practice. Fireplaces were built with jambs and in double-pile houses sometimes placed in corners, a practice probably borrowed from the English. On the exterior of gable-end chimneys the masonry behind the fireplace often was left exposed to view, like north main block chimney of the Van Wickle House, presumably as a safety measure to preclude framing members from catching fire.[23] Although Dutch doors remained popular, often with panels on the outer face applied to a batten-board backing, multi-pane sash windows with wooden muntins came into common use in lieu of casement windows, and the use of sash windows in the Raritan Valley, such as those surviving on the east facade of the Van Wickle House, can be documented as early as 1748 by a newspaper advertisement of that year.[24] Small entry stoops with benches were a common feature of Dutch-American houses, and travelling through New Brunswick, New Jersey, in 1748 Swedish naturalist Peter Kalm observed such stoops, "on which people sit in the evening to enjoy the fresh air and to watch the passers-by."[25] Wide overhanging eaves provided some shelter for stoop sitters, but on some Dutch-American houses eaves were extended further and supported by posts creating a porch.[26] A c. 1900 photograph (Figure 6), albeit indistinct, indicates that the Van Wickle House had a wooden porch deck extending across a portion of its east front with a wall at its north end providing some support for the eaves.

While thatch roofs continued to be employed for barns and other outbuildings, Dutch Americans embraced the use of wood shingles, apparently adopted from their Anglo-American neighbors, for roofing and siding. Houses were roofed with wood shingles, often made from cedar, and sided with shingles or beaded clapboards.[27] Wood shingles were widely used for both roofs and walls in central New Jersey. On his travels through the region, Kalm also commented on the ubiquity of wood shingles as a siding and roofing material, observing that shingles on walls in the vicinity of Woodbridge "were

[21] Stevens, pp. 20 & 21. The c. 1730 Minnie Schenk House is a good western longs Island example [Stevens, 220-221]. Raritan Valley examples include the Wyckoff-Garritson House, Van Wickle House, Cornelius Stoothoff House, all in Franklin Township and the Col. Abraham Staats Houses, South Bound Brook, all of which date to around the second quarter of the 18th century [Ford Farewell Mills and Gatsch, Architects, LLC, *Historic Structures Report for the Cornelius Stoothoff House, Franklin Township, Somerset County, New Jersey,* page 7; Mark Hewitt, *Historic Structures Report, Wyckoff-Garretson House, Franklin Township, New Jersey,* pp. 32-34; HABS, NJ57 &479]. The c. 1750 Hendrick Hendrickson House is a Monmouth Count, NJ example [Stevens, pp. 22 & 23].

[22] Ibid., pp. 21-32 & 55-74 & 95; Zink, pp. 286-291.

[23] Stevens, pp. 20-32 & 55-74 & 95; Zink, pp. 289-291.

[24] Stevens, pp. 67-73. That the newspaper advertisement for the sale of a house at Raritan Landing, a shipping and trading port on the river just downstream from the Van Wickle House, describes the dwelling as "sash windowed" in the short property description suggests that sash windows were worthy of special note, perhaps still something of a novelty in the region ["To Be Sold," *The New-York Gazette Revived in the Weekly Post Boy*, August 29, 1748].

[25] Adolph B. Benson, (ed.), *The American of 1750: Peter Kalm's Travels in North American*, page 121.

[26] Stevens, page 67.

[27] Ibid., pp. 34-36 & 63.

square cut and all in each row were of the same length."[28] According to John Stevens, Dutch-American use of wood shingles apparently was a borrowing from Anglo-Americans and was the predominate siding on Long Island where both ethnicities had settled. He noted that round-butt shingles were prevalent in both English and Dutch areas of Long Island, as well as in Connecticut, and he posited their transmission "to New Jersey by Long Island Dutch settlers who moved to Monmouth County, commencing at the end of the seventieth century," but the English may have been responsible as well.[29] Dutch-Americans from Long Island most likely played a role in the introduction of round-butt shingles to the Raritan Valley, where their use can be documented at the Van Wickle House, as well as the Col. Abraham Staats House, located a few miles upriver in South Bound Brook.[30]

During the third period extending from c. 1750 through the first several decades of the 19th century, Dutch-American carpenters developed hybrid frames by combining elements and techniques borrowed from traditional English box-frame construction, such as summer beams, with anchor-bent framing to build large houses. Widely disseminated by architectural pattern books, the Georgian and Federal styles exerted a strong influence on Dutch-American buildings, as manifested by the construction of both one-and-one-half and two-story houses with symmetrical fenestration patterns, center-hall and side-hall floor plans, smooth plaster interior finishes, and wooden trim incorporating classical moldings and other motifs. While Dutch-American building traditions waned during the early 19th century, certain elements persisted such as kicked eaves and gambrel roofs, Dutch doors and exposed ceiling beams in service rooms; more modest houses continued to be built with vernacular plans. Although anchor-bent framing eventually was abandoned in residential construction, it continued to be used for barns and other outbuildings well into second quarter of the 19th-century.[31]

The Van Wickle House embodies many characteristics of Dutch-American architecture, particularly those of the substantial frame farmhouses built by Dutch-Americans on western Long Island and Staten Island and in the Raritan Valley and Monmouth County, New Jersey. Erected during the second quarter of the 18th century, the house clearly belongs to second period of Dutch-American architecture, when the Dutch-American building vocabulary evolved, as carpenters began to assimilate English practices, absorb classical influences and develop distinctive house types. Features such as the massive exposed timbers of its anchor-bent framing and Dutch doors root the dwelling firmly in Dutch tradition. The fireplaces with jambs and sash windows reflect English practices, and the approximate symmetry of the front elevation, as well as the decorative moldings and paneling of its main room reveal influences of the Georgian style. The wide overhanging eaves, the double-pile plan with larger front and smaller rear rooms and the round-butt shingles speak to the transmission of material culture by the Dutch-Americans who moved from western Long Island to the Raritan Valley in the early 18th century.

[28] Benson, pp. 121 & 123. Kalm also noted that shingles were widely used for roofs and walls in Elizabeth, New Jersey, and an area settled predominately by New Englanders, as was Woodbridge.
[29] Stevens, pp. 35 & 36.
[30] *Colonel Abraham Staats House Historic Structures Report*, page 7-4; HABS NJ-479.
[31] Ibid.

Dutch-American Settlement Context

Like their neighbors the Van Wickles, the Van Duyns –owners and builders of the misnamed Van Wickle House– were a Dutch-American family, descendants of the predominately Protestant Dutch immigrants from northern Europe who settled in the Hudson Valley, western Long Island and northeastern New Jersey –the colony of New Netherlands– during the 1600s under the auspices of the Dutch West India Company. While Dutch rule ended with the capture of New Netherlands by the English in 1664 (except for a brief hiatus a few years later), and the subsequent arrival of new immigrants from England, Scotland, France, Germany and New England diversified the population, the Dutch remained a strong presence throughout the region and figured prominently in the settlement of New Jersey's Raritan Valley before and after 1700.

Dutch-American families, who had resided in New York for two or three generations, began to move into New Jersey in the late 17th century, and by the 1720s and 1730s significant numbers had settled in Bergen, Monmouth and Somerset Counties. Somerset County in particular received an influx of Dutch-Americans from western Long Island. While Somerset County's population also included Scots, English and Germans, the Dutch were predominant in both number and public life. In Somerset, the Dutch favored the good land of the Raritan Valley, and unlike Dutch holdings in Bergen County, which tended to be no larger than fifty acres, their farms along the Raritan were large, like the approximately 600 acres purchased by Denys Van Duyn and Guisbert Dehart, Dutch-American residents of Kings County, New York, in 1703.[32] This parcel (which the two purchasers divided between themselves within a few years) was one of the so-called Raritan lots, an approximately 6,000-acre tract of land stretching along the south side of the Raritan River between New Brunswick and Bound Brook, which was subdivided into lots ranging in size between 400 and 640 acres in the 1680s.[33] As created, these lots were narrow relative to their length in order to provide each one with river frontage.

Many of the large plantations along the Raritan were owned by Dutch-American families: Staats, Van Horn, Van Vecheten, Suydam, Frelinghuysen, and Ten Eycke, as well as Van Duyn and Van Wickle. An 18th century visitor to the area noted that when traveling up the Raritan from New Brunswick, one could see many fine farms along its banks, as well as the seats of gentlemen.[34] Dutch-American farms often remained in the

[32] As referenced in East Jersey Deeds, Book A2, page 265.

[33] Brecknell, *Somerset County Historical Quarterly Centennial Issues*, 1982, pp. 14 –19; John Reid, "A Mapp of Rariton River Millstone River South River Rahway River Bound brook Green brook & Cedar brook & Also the several plantations thereon...," 1685, New Jersey Historical Society. Brecknell referenced the twelve lots by number and the name of an early, if not original owner, while observing that that the numbering system used to identify the lots was inconsistent and changed over time. Brecknell's numbering system, adopted for this investigation, appears to have been used for Lots 7 and 8 as early as 1912 [William H. Benedict to Julia Lawrence Wells, August 27, 1912, Rutgers University Special Collections, Wells Papers, MC 727, Box 8, Folder labeled "Elm Farm"].

[34] Andrew Bunbury, *Travels through the Middle Settlements in North-America, in the Years 1759 and 1760,* page 104. The Georgian center-hall-plan house of Cornelius Low at Raritan Landing would have been an examples of a gentleman's residence found along the river amidst the farmhouses.

same family for several generations, through gift, sale or inheritance, and a father might give his adult son possession of a farm, but retain ownership of it until his death. Four generations of the Van Duyn family owned their riverfront farm over almost the entire 18th century, and the property passed three times by inheritance, before being sold out of the family in 1790s.[35]

Possession of large tracts of fertile land, coupled with an abundant labor supply from family members and enslaved or indentured servants, as well as easy access to the port town of New Brunswick, enabled early Raritan Valley farmers to flourish. Engaged in the diversified agriculture typical of 18th century New Jersey, they not only meet their own immediate needs but prospered by participating in the market economy, selling surplus crops and animal products, especially wheat and pork, for shipment to New York and abroad. Dutch-American farmers, in particular, were known to be hard working with a "keen instinct for profit," and often owning more horses and cattle than the English settlers from New England and larger farms. Tax and estate records indicate that the Van Duyns owned considerable livestock, as well as slaves, and document that they raised a variety of crops and owned a downriver meadow lot to provide additional hay.[36]

The Colonial Revival Context

In the years before 1900, American designers and homeowners increasingly embraced the Colonial Revival as an architectural and decorative arts style, one that became increasing important during the first half of the 20th century. Throughout portions of the Raritan Valley, and other select picturesque and historic regions of the nation with reasonable access to urban centers, older farmsteads were transformed into country residences by people of means and often refurnished in the Colonial Revival style. In her landmark study of Dutch-American architecture in the New York/New Jersey region, published in 1936, architectural historian Rosalie Fellows Bailey acknowledged the trend. While discussing how early Dutch houses could be modernized in a historically appropriate manner, she observed that while "a strict restoration with the preservation of the original layout" was the ideal, since "a large living room is the modern desideratum, and as the rooms in Dutch houses are comparatively small, two of them may be thrown together."[37] She singled out the Van Wickle House as a good example of how a large living room could be created in a Dutch-American house with small rooms and observed that it recently had "been restored very successfully by George Howell, architect, and the Highland Park Building Company."[38] The Col Abraham Staats House, located a few miles upstream from the Van Wickle House, underwent a Colonial Revival remodeling around the same time, work which also included the creation one large room from two smaller ones.[39]

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[35] William S. Pelletreau, *Abstracts of Wills on File in the Surrogate's Office, City of New York, Collections of the New York Historical Society, Unrecorded Wills*, Vol. XI, Prior to 1790, pp. 134 & 135; NJ Wills 430R & 907R; Somerset County Deeds, Book A, page 333.

[36] NJ Wills 430R & 907R; James P. Snell (ed.), *History of Hunterdon and Somerset*, II, page 815; NJ Tax Ratables, Eastern Precinct, Somerset County, 1784, 1786, 1788, 1789, 1790, 1791 & 1792.

[37] Bailey, pp. 38, & 39.

[38] Ibid., pp. 38, 39, 43 & 469.

[39] HABS NJ-479.

4. Historical Overview

Title to the subject property can be traced back to one of the original Raritan Lots created in the 1680s, shortly after the area along the south side of the Raritan River called "Ahandewamack" (encompassing some 10,000 acres between the Millstone River and Lawrence Brook) was acquired from its native American owners by a group of investors, lead by New York merchant John Inians.[40] In 1681, Inians and his associates secured a patent from the East Jersey Proprietors for a portion of the "Ahandewamack" tract fronting along the Raritan, assumed to be 6,000 acres, with the intention of subdividing it into twelve lots, each one "to contain 500 acres, with a half-mile of river frontage and a depth of two miles," although it was subsequently found the tract was larger than originally estimated.[41] In anticipation of receiving the patent, the associates are said to have solicited the East Jersey Surveyor General to survey and subdivided the property, and the resulting lots actually ranged from 400 to 640 acres in size, as indicated on a 1685 map made by John Reid recording the subdivision of land throughout the region (Figure 1), which gives each lot's acreage and owner's name.[42]

On June 20, 1685, the East Jersey Proprietors conveyed title to one of the Raritan lots to James Miller, "late of the Kingdom of Scotland, now of Amboy Perth [sic] ... merchant," a tract of 608 acres that included the Meadows Foundation property. The deed of transfer described the lot as bounded on the southeast by "Gershom Bown's land," on the northeast by the Raritan River, on the northwest by "Richard Jones land" and the southwest "by land not laid out." The abutting lots of "J Miller" and "R Jones" (subsequently known, respectively, as Lots 6 and 7) are depicted on John Reid's map (Figure 1).[43] Reid evidently acquired some interest in Lot 6, since on February 10, 1688 (1687 old style), he in his own right and as attorney for James Miller (who had by then returned to Scotland) conveyed the parcel to another Scotsman, the Honorable Robert Barclay, East Jersey's absentee governor, in exchange for 1,000 acres of land in Monmouth County, New Jersey, where Reid lived.[44]

Sometime later, possibly after Barclay's death in 1690, ownership of Lot 6 passed to five men (John Johnstone, John Harrison, George Willowby, Cornelius Longveilt and Richard

[40] Brecknell, *SCHQCI*, 1982, pp. 13, 14 & 16; Snell, *History of Hunterdon and Somerset*, II, page 803.
[41] Brecknell, *SCHQCI*, 1982, page 14; Snell, *History of Hunterdon and Somerset*, II, page 803.
[42] Brecknell, *SCHQCI*, 1982, pp. 14 –19; John Reid, "A Mapp of Rariton River Millstone River South River Rahway River Bound brook Green brook & Cedar brook & Also the several plantations thereon...," 1685, New Jersey Historical Society. Brecknell referenced the twelve lots by number and the name of an early, if not original owner, while observing that that the numbering system used to identify the lots was inconsistent and changed over time. Brecknell's numbering system, adopted for this investigation, appears to have been used for Lots 7 and 8 as early as 1912 [William H. Benedict to Julia Lawrence Wells, August 27, 1912, Rutgers University Special Collections, Wells Papers, MC 727, Box 8, Folder "Elm Farm."].
[43] East Jersey Deeds, Book A2, page 282. The instrument notes that the conveyance to James Miller was by right of his having acquired on August 20, 1682 from Robert Burnet of Lothian, Scotland, (one of the 24 East Jersey Proprietors) 2/30^{ths} of 1/24th of an East Jersey proprietary share (see also Brecknell, *SCHQCI*, 1982, page 18.). "Gershom Bown's land" (Lot 6) was named on Reid's map as the "R Bridgeman" lot.
[44] East Jersey Deeds, Book B, page 249.

Hawden), presumably also absentee investors, who on June 20, 1703, conveyed its title to Denys Van Duyn and Guisbert Dehart, Dutch-American residents of Kings County, New York.[45] A few months later, Dehart conveyed his undivided half interest in the tract to Geradus Beekman, of Flatbush, Kings County, who five years later, together with his son Adrian (to whom he previously had transferred a quarter interest) and Adrian's wife Lucretia sold their half interest to Charles Fountaine of Bushwick, Kings County, yeoman, for £450.[46] Sometime thereafter, Fountain and Denys Van Duyn, still owner of the other half of Lot 6, must have divided the tract, with Fountain receiving the eastern or downriver half and Van Duyn, the western or upriver half. Fountain, presumably settled on the property shortly after his purchase, as he reputedly "was a founding member of the Six-Mile-Run [Dutch Reformed] church in 1710."[47] Estate records provide evidence that Denys Van Duyn retained ownership of the western half of Lot 6 until his 1729 death and acquired other property along the Raritan, which he devised to his sons William and Denys, and he may have relocated there for some time, but returned to Kings County before he died.[48]

According to genealogists, Denys Van Duyn (c. 1666–1729) was the son of Gerrit Cornelise Van Duyn (? –1705/06), a Dutch immigrant who settled in Flatbush, New York, and his wife, Jacomina Helekers (Swarts ?). The elder Van Duyn reputedly first "emigrated in 1649 from Nieuwkerk in Zeeland" and, after living in Brooklyn, New York, for some years returned to Holland in the 1670s, but came back to America in 1679. Gerrit eventually settled on a Kings County farm straddling the line between Flatbush and New Utrecht, which he purchased from his brother-in-law Jacques Cortelyou and subsequently conveyed to his son Denys.[49] Gerrit's will (dated June 30, 1705 and proved June 14, 1706) names four children, Cornelius, Denyse, Abraham, and Ashe, among whom he divided his property, and provides evidence that he practiced, or at least owned tools for, the carpentry and wheelwright trades.[50]

Denys Van Duyn probably was born c. 1666, as he is said to have taken the oath of allegiance to the English Crown in 1687 (which he presumably would not have done before reaching the age of twenty-one), and his brother Cornelius reputedly was baptized on July 16, 1664 about nine months after their parents married. Denys married Marytie

[45] As referenced in East Jersey Deeds, Book A2, page 265. The acreage and boundary description given in this 1708 deed for the tract match that of those of the 1685 and 1688 deeds, establishing that Van Duyn and Beekman had acquired James Miller's lot.

[46] Ibid.

[47] Brecknell, *SCHQCI*, 1982, page 26.

[48] William S. Pelletreau, *Abstracts of Wills on File in the Surrogate's Office, City of New York, Collections of the New York Historical Society, Unrecorded Wills*, Vol. XI, Prior to 1790, pp. 134 & 135; NJ Wills 190R & 211R; Snell, *Somerset*, page 815; Teunis G. Bergen, *Register in Alphabetical Order, of the Early Settlers of Kings County, Long Island from its First Settlement by Europeans to 1700*, page 331.

[49] Bergen, *Early Settlers of Kings County*, pp. 331 & 332. According to Bergen, Gerrit received permission on August 10, 1670 "to return to Holland, and with his wife kept house in Zwolle in Overyssel, but not prospering, he returned [to America] in 1679."

[50] New York Surrogate Records, Book 7, page 250, as referenced in Bergen, *Early Settlers of Kings County*, page 331. Gerit devised "the farm where I now live at New Utrecht" to his oldest son Cornelius, subject to the payment of "£150 by Cornelius to his three named siblings, and his land in Dutchess County to all four children. Gerrit also bequeathed "all my working tools for the carpenters and wheel wrights work" to Cornelius.

Huycken in 1691, and the couple most likely settled on the Flatbush farm conveyed to him by his father. There is evidence that Denys Van Duyn resided in Kings County during most of the first decade of the 18th century; his name reputedly appears in a 1698 census and on a 1706 tax role, and he was listed as a deacon of the Flatbush Dutch Reformed Church in 1707.[51] According to 19th-century historian Teunis Bergen, Denys Van Duyn moved from Flatbush "to Three Mile Run, Somerset Co., N. J., where he resided as late as 1723" before returning to Flatbush and living "on the farm conveyed to him by his father."[52] If Bergen is correct, Denys Van Duyn probably moved to Somerset County sometime later in the first quarter of the 18th century to supervise or assist in improving his property there and establishing the plantations that he bequeathed to his two sons.

Denys Van Duyn's will, probated only a few months after it was executed on August 19, 1729, gives his residence as "Flatbush, Kings County, New York" and documents that his sons William and Denys, two of his eleven named children, were then living on the plantations along the Raritan that he devised to them. William (in addition to "£5 for his birthright" as the eldest son) inherited "all that tract of land or Plantation, whereon he now lives, at Raritan, in Somersett [sic] County, in Province of New Jersey, being 250 acres." Son Denys received "all that tract of land or Plantation where he now lives, at Raritan, aforesaid, being 200 acres," along with "another piece at Raritan, of 50 acres, which is the rear part of the wood land adjoining my son William."[53] The 250-acre plantation inherited by William and the 50-acre lot inherited by Denys clearly adjoined each other, and the combined 300 acres evidently represented the half portion of the 608-acre tract (Lot 6) acquired by the senior Denys in 1703. An 1873 article about the early Dutch settlers along the Raritan River had this to say about the Van Duyn family:

> In 1649 came Garret Van Duyn [to New Amsterdam], who was an elder of the church of New Utrecht, and who died in 1706. Two of his grandsons, William and Dennice (sons of his son Dennice), settled on adjoining farms along the Raritan, in Somerset County, three miles above New Brunswick.[54]

A portion of the land inherited by Denys Van Duyn, Jr., if not his plantation, did abut his brother William's farm, and the Meadows Foundation property is, in fact, approximately three miles from the center of New Brunswick, where the 1873 article placed the brothers' farms.

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[51] Ibid, pp. 331 & 332. The marriage bans for Denys Van Duyn and Marytie Huycken reportedly were issued on February 4, 1691.

[52] Bergen, *Early Settlers of Kings County*, page 331. According to Bergen, Denys Van Duyn: "left Flh [Flatbush] and removed to Three Mile Run, Somerset Co., N. J., where he resided as late as 1723. Returned to Flh [Flatbush] and resided on the farm conveyed to him by his father, as per p. 174 of Lib. 2 of Con., adjoining to and partly in N. U. [New Utrecht], now (1880) the heirs of George Martense, dec."

[53] Pelletreau, pp. 134 & 135. The two brother's' inheritances were subject to the payment by William of £400 and by Denys of £430 to be divided among the eleven named siblings (William, Denys, Gerritt, John, David, Jacomyntie, Anetje, Lydia, Keziah, Maria and Jacobus). The senior Denys devised his homestead farm "whereon I now live, in Flatbush," along with other property to his son Geritt, subject to the payment of £643 to be similarly divided.

[54] Ralph Voorhees, "The Raritan and its Early Holland Settlers (Third Part)," *Our Home A Monthly Magazine*," Vol. 1, no. 3 (March 1873), page 97.

While exactly when William Van Duyn (1695–1773) settled on or assumed management of his father's portion of Lot 6 is unknown, one might assume that he would not have done so until sometime after he had reached adulthood. According to several genealogical sources, he was baptized on May 4, 1695 at the Dutch Reformed Church, at New Utrecht in Kings County, and married Sybrech, daughter of Roelof and Caterina (Simmons) Verkerk (who was baptized on the same day and in the same place).[55] One source states that they were married c. 1720 in New York.[56] Historian Teunis Bergen claimed that William "settled in Middlebush, Somerset County, New Jersey" and that his sons Denys and William were baptized respectively on September 13, 1724 and October 3, 1733, and referenced both as "of N. J."[57] William most likely was established in New Jersey by the early 1720s base on the evidence of these genealogical sources, as well as his reputed signature and that of his brother Denys on an early 1720s remonstrance against the Rev. Theodore Frelinghuysen, the newly appointed minister of the Dutch Reformed congregations in the Raritan Valley.[58] While William's name was not found during this investigation in any other Raritan Valley church records dating before the 1750s, his brother Denys and brother's wife Antje can be documented as joining the newly established Dutch Reformed Church at Harlingen, New Jersey, on March 29, 1729.[59]

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[55] Wilson V Ledley, "The Van Kirk Family," *Genealogies of New Jersey Families for the Genealogical Magazine of New Jersey* (Joseph R. Klett, ed.) page 963; Bergen, *Early Settlers of Kings County*, pp. 333 & 369-371; Bergen, *The Bergen Family*, page 518.

[56] David Conover's Famous Cousins, Person Page 2730, conovergeneaology.com (accessed April 2016). This source does not cite any documentation for the date or place of the marriage.

[57] Bergen, *Early Settlers of Kings County*, page 333. Bergen unfortunately does not identify the church or churches where the baptisms occurred or give any source supporting the claims.

[58] Abraham Messler, D. D., *Eight Memorial Sermons with Notes for a History of the Dutch Reformed Churches in Somerset County, New Jersey*, pp. 178 & 179. According to Messler, a pamphlet complaining of the practices of the Rev. Theodore Frelinghuysen, the newly appointed minister of the Dutch Reformed congregations in the Raritan Valley, was signed by sixty-four "heads of families," including Wilem Van Duyn and Denys Van Duyn, evidence suggesting that Denys Van Dyun's two sons were residents of the area by this time, presumably living on his property. Messler also makes reference to a subscription list (described by him in 1873 as "recently uncovered by Ralf Voorhees, Esq., of Middlebush" and dating to 1703) of individuals subscribing the amount of £10.16.6 to pay for the costs of bringing Dutch Reformed minister from Holland to served the residents of what became Franklin Township and New Brunswick included the names of Simon Van Winkelen, William Van Duyn and Dennis Van Duyn [Messler, pp. 161 & 205; see also Snell, *History of Hunterdon and Somerset,* II, page 819]. Messler gave two versions of the list, of which only the second on page 205 includes the name of Denys Van Duyn; Snell's version of the list also omits Denys Van Duyn's name. The date given for the list may be incorrect, since Simon Van Winkelen and the brothers William and Deyns Van Duyn would have been children in 1703, their fathers were living in Kings County around that time, and there are no other adult men of Van Duyn or Van Wickle families known to have been living in the Raritan Valley at that date.

[59] Records of the Harlingen Dutch Reformed Church, Montgomery Township, Somerset County," *The Genealogical Magazine of New Jersey*, Vol. 15, January 1940, page 4. According to Teunis Bergen, Denys Van Duyn, son of Denys and Marytie Van Duyn, married Antje (?), and "settled in Middlebush, Somerset County, New Jersey." This source names following children: Adriantje, baptized February 27, 1733, died young; Maria, baptized June 22, 1735; "Jan of Fleming," baptized August 7, 1737, married Magdelena Van Nusye; and Adriantje, baptized January 29, 1740 [Bergen, *Early Settlers of Kings County*, page 333]. Another source gives Denys Van Duyn's birth date as c. 1697 and his wife's maiden name as Noorstrand [Denys Van Duyn, myheritage.com (accessed April 2016)].

A 1735 tax role for Somerset County's Eastern Precinct (as Franklin Township was then called) provides evidence that William Van Duyn and Symen Van Wickle occupied adjoining properties, as does a 1753 list of Eastern Precinct freeholders. The 1735 tax role, which includes listings for "Deyns" and "Willem" Van Duyn, as well as for "Symon Van Wikele," is not alphabetical, suggesting that the order of names reflects their geographic distribution. Denys Van Duyn was assessed for 200 acres of land, nine cattle and six sheep, and William for 250 acres, ten cattle and eleven sheep. While the brothers' names are separated by nine entries, William is followed immediately by Simon Molferd, assessed for 50 acres of land, and next by "Symon Van Wikele," assessed for 250 acres, sixteen cattle and sixteen sheep. William Van Duyn's 250 acres must be the 250-acre plantation that he had inherited from his father in 1729, and Simon Molferd's 50 acres most likely are the 50-acre tract adjoining his brother's plantation that Denys had inherited (and either was sold or rented by him to Molferd), the two parcels constituting their father's half of Raritan Lot 6.[60] The names of Simon Van Wicklen and William Vanduyn appear respectively as #s 38 & 39 on the 1753 Eastern Precinct freeholders list, further evidence that they lived in close proximity.[61]

Although no deed of conveyance has been located, other documents establish that Symen Van Wickle acquired a portion of Raritan Lot 7 (the former Richard Jones lot) in 1736, and this property evidently comprised the 250 acres of land for which he was assessed on the 1735 tax role. Upon the death of Richard Jones in 1693, his two daughters Hester and Dorcas inherited his 500-acre tract on the south side of the Raritan River. Both daughters subsequently died, and their half interests eventually passed respectively to Peter Schuyler, a member of a prominent New York family, and Robert Hunter, who served as royal governor of both New York and New Jersey between 1710 and 1720.[62] Hunter disputed Schuyler's claim to the tract. The dispute complicated management of the property, which evidently remained underdeveloped as late as 1730, and resulted in a court case. Having been appointed governor of Jamaica in 1727, Hunter died there in 1734. A 1734 memorandum regarding his New York and New Jersey property listed as item 10: "your 500-acre lot at Raritan not let," and two years later a newspaper advertisement for the sale of his real estate included lot "5. A five hundred acre lot of land on the south side of *Rariton [sic] River*, about three miles above *New-Brunswick*, formerly Richard Jones's lot."[63] Despite the disputed ownership, Thomas Orby Hunter

[60] Snell, *History of Hunterdon and Somerset,* II, page 815.

[61] Russell Bruce Rankin, contributor, "Eighteenth Century Freeholders in New Jersey," *The Genealogical Magazine of New Jersey*, Vol. 18, April 1943, pp. 47 & 49.

[62] Memorandum of an Agreement between Thomas Orsby Hunter and Peter Schulyler, Minutes of Special Verdict, New York Superior Court, 1739, Robert Hunter Papers, Box 1, File 14, NYHS; Paul A. Stellhorn and Michael J. Birkner (eds.), *The Governors of New Jersey 1666 –1974*, pp. 44-46; Pieter Schuyler, en.wikipedia.org (accessed April 2016). Another memorandum states that Schuyler claimed his half interest in the lot by his marriage to Hester Jones' heir and that Hunter claimed the whole tract by right of survivorship, since Hester predeceased Dorcas Jones [Abstract of the State of Thomas Orby Hunter [Richard Hunter's son] his affairs in New York and New Jersey since the abstract of his father's affairs of July 7, 1734 to July 1736, Robert Hunter Papers, Box 1, Folder 14, NYHS]. The memorandum does not state how Hunter acquired Dorcas Jones' interest in the property, but he probably did so sometime after he arrived in America in 1710.

[63] Abstract of April 1734, Robert Hunter Papers, Box 1, Folder 4, NYHS; *The New York Gazette*, December 23, 1735, as quoted in *New Jersey Archives*, First Series, XI, *Newspaper Extracts*, I, 1704-1739, page 440]. An attempt in 1730 by Hunter's agent James Alexander to rent sixty acres of the tract was unsuccessful due to Hunter's

(Hunter's heir) and Peter Schuyler soon agreed to sell the tract. A 1736 abstract of Thomas Orby Hunter's "affairs" in New York and New Jersey noted that the 500-acre Raritan lot had been sold (to unnamed purchaser or purchasers) and that Hunter's agent had "in hand £150.0.0," which constituted Hunter's share of the first payment. The payments were to be spread over four years, and Hunter's share was to total £575.0.0.[64] In his June 1737 accounts for Thomas Orby Hunter, agent James Alexander credited him on June 1: "by cash of Fountain [£]15.0.0[,] by do of Cowenhoven [£]75.0.0 [and] by do of Rapellae [£]30.0.0" and on June 11: "by do of Van Winkle & Sebrin [£]30.0.0," adding that "these last four articles make the second payment for half the Raritan lot sold."[65] That these five individuals contributed to the second payment for Hunter's half of Raritan Lot 7, does not mean that all five were buyers of the property, only that they made payment on behalf of one of the buyers, which the 1735 tax role and later estate records indicate was Symen Van Wickle.[66]

Symen Van Wickle retained ownership of his 250-acre half of Lot 7 until his death, whereupon title passed to his two sons Evert and Nicholas. In his 1753 will, probated on January 6, 1755, Symen divided his plantation into two equal portions, devising "the lower or South Easterly part" of the property, which evidently included his residence, to Evert and "the upper or North Westerly part" to Nicholas.[67] Upon Evert's death in 1757,

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unwillingness to give a long-term lease [Memorandum that James Alexander, Attorney for Brigadier Hunter, hath leased to Edward Atwood, Robert Hunter Papers, Box 1, Folder 9, NYHS]. In the following year, Alexander leased a small portion of the tract to "John Kelly a laboring man" who desired to build a small house for his family's use and establish a small garden "at the apple trees there already planted ... and [agreed to] preserve them and to preserve the timber on the land of General Hunter from being cut or carted away by any person." [Lease at will to John Kelly for a garden plot on General Hunters lot on Raritan River, Robert Hunter Papers, Box 1, Folder 9, NYHS].

[64] Abstract of the State of Thomas Orby Hunter [Richard Hunter's son] his affairs in New York and New Jersey since the abstract of his father's affairs of July 7, 1734 to July 1736, Robert Hunter Papers, Box 1, Folder 14, NYHS. Payment for the property was to be spread over four years. The first payment was made in June 1736. The second payment £150.0.0 was due on June 1, 1737, the third payment of £150.0.0 due on June 1, 1738, and the four payment of £125.0.0 due on June 1, 1739, making a total of £575.0.0 for Hunter's share of the property sale.

[65] James Alexander, Records and Accounts relating to his services on behalf of the children of Governor Hunter, James Alexander Papers, Bound Volumes, NYHS.

[66] Snell, *History of Hunterdon and Somerset,* II, page 815; NJ Wills 190R & 211R.

[67] NJ Wills 190R. The wording of Symen's will provides strong evidence that Evert's inherited half of his father's plantation, the southern or down-river half, included his father's residence, where he lived with his widowed mother until his death in 1757, while Nicholas lived on his inherited half at the time his father wrote his will. Symen specified that his "old negro man" and "old negro woman" were to remain on his plantation under the care of Evert "for and during the widowhood of my wife Dinah," and that Dinah was to receive "the whole use of my Parlor and the small room back of it in the house wherein I now live for and during her widowhood." In the division of Symen's livestock and farming equipment, Evert was to receive all "that is now on or about my said plantation" while Nicholas was allotted all the stock and farm equipment "now on that part of my Plantation whereon he lives and now in his possession."

Nicholas evidently moved to Middlesex County c.1761-64, as he recorded the birth of his son Evert on March 21, 1761 "at Raritans" in his family bible and he was described as a resident of Middlesex County, on July 24, 1764, when chosen to be the co-guardian (along with Jacob Suidam) of his nephews Simon and Matthias Mount, [Mather, *PNJHS*, Vol. 54, 1936, pp. 123 & 124]. Nicholas Van Wickle presumably disposed of his inherited half of his father's plantation around this time, if he had not already done so, and certainly by the late 1770s, when a map identified it as the property of "Francis Bacher" (Brasier) [Robert Erskine, "Road from Brunswick to Bound Brook," No. 70E, 1778-1779]. In his 1771 will, probated on July 27, 1773, William Van Duyn devised to his son Roelif "all that plantation which I purchased of Matthias Smock, and of late belonging to Nicholas Van Winkle situated in

his daughter Antje (Ann) inherited his half of the property. Evert's will, written shortly before his death identified William Van Duyn as the owner of an adjoining property, which given that his brother Nicholas bordered him on the upriver side must have been on the downriver side, the location of the Meadows Foundation property.[68] Ann married the Rev. Abraham Beach, and the farm remained in the hands of their descendants until well into the 20th century.[69]

Little is known about William Van Duyn, except that he had at least five children and, like his forebears, belonged to the Dutch Reformed Church; he may have been a carpenter and cooper as well as a farmer, or at least owned tools of those trades. His will names five children, sons Denys and Roelif and daughters Mary, Catherine and Sarah.[70] Historian Teunis Begen identified four of his children: Denys (baptized on September 13, 1724), Cornelius, William (baptized on October 3, 1733) and Jacobus (supposed), describing all as "of N. J." According to Bergen, William Van Duyn joined the Dutch Reformed church at New Brunswick in 1753.[71] During the next two years, he and his wife witnessed the baptism of two of their grandchildren, sons of Denys and Jacob, both named William, at the New Brunswick church, and four other grandchildren, sons of Denys, Jacob and Roelif, were baptized there in 1757–1759.[72] In his will (dated March 29, 1771, and probated July 27, 1773) William bequeathed to his son Denys "all my farm and plantation on which I now live Bounded on the Raritan River," along with the "horses, cattle and sheep" on the farm at the time of his death, his vehicles and farm equipment, "carpenters and coopers tools," household furnishings and Negro slaves, as well as "a lot of salt meadow on the north side of the Raritan opposite the Round about" in Middlesex County, subject to Denys paying £400 in specified legacies to his three sisters over a period of years. Roelif was to receive "all that plantation which I purchased of Matthias Smock, and of late belonging to Nicholas Van Wickle situated in Somerset County on Raritan River," subject to the payment of £500 to his sisters.[73]

Denys Van Duyn (1724–1792) evidently owned and occupied the "farm and plantation" that he inherited from his father until his death, upon which it devolved in accordance with his will to his son John.[74] While his farm is not depicted on the 1778–1779 Erskine map of the road along the south side of the Raritan between New Brunswick and Bound

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Somerset County on Raritan River," and it may be that this farm was the property that Nicholas Van Wickle had inherited from his father (the northern half of his father's plantation) [NJ Wills 430R and 190R].

[68] NJ Wills 211R. Evert ordered his executors "to have the care of my said plantation to see that is kept in good order, and sowed with winter grain but once in six years. Also that firewood and timber for the use of the Plantation be cut and taken out of that part of the Plantation fenced off next to the plantation of William Vanduyn as the fence now stands, and not from any other part, so that both the wood and Timber maybe as much preserved as possible."

[69] Bailey, pp. 466 – 472 & 487. See also Somerset County Deeds, Book E, pp. 219 & 220.

[70] NJ Wills 430R. He identified his daughters as Mary, wife of John Wyckoff, Catherine, wife of Cornelius Low (son of Albert) and Sarah, wife of Andries Emmons.

[71] Bergen, *Early Settlers of Kings County*, page 333. While this source identifies the new member as William Van Duyn (1695-1773), it might have been his son William. The venue in New Jersey for the baptisms was not given.

[72] "New Brunswick First Reformed Church Baptisms, 1717–1820," *Proceedings of the New Jersey Historical Society*, XI, #4, October 1926, page 553, 554 & 558–560.

[73] NJ Wills 430R. Rolief's inherited farm perhaps was the one Nicholas Van Wickle inherited in 1755; if so, he must have quickly sold the property as in 1778/1779 it had another owner (see footnotes 65 & 73).

[74] NJ Wills 907R.

Brook (Figure 2), late 18th-century tax assessment records for the Eastern Precinct indicate that his farm adjoined the property of the Rev. Abraham Beach, formerly the homestead of Symen Van Wickle, and thus was the riverside farm that had belonged to his father and grandfather.[75] The tax records, which survive for the years 1784, 1786, 1788, and 1789–1797, also provide information about the Van Duyn farm during the late 18th century. In 1784 Denys Van Duyn was assessed 244 acres of land, valued at £20 per acre, six horses, seven cattle and one single man (presumably one of his sons), evidence that the size of the farm and its operation had changed relatively little since his father's 1735 assessment.[76] For the six assessments taken during his lifetime that survive, Denys Van Duyn's livestock averaged about 4.1 horses and 9.3 head of cattle. His assessed landholdings dropped to 225 acres in 1786 and to 119 acres in 1788. In that year his name was followed immediately by that of John Van Duyn, presumably his son, assessed for 100 acres, and this change can be explained by Denys relinquishing a portion of his farm to John. For the next three years, father and son were assessed respectively for 119 and 100 acres of land, but on the August 1792 tax role only John Van Duyn's name appears, assessed for 219 acres, reflecting his inheritance from his father who had died some weeks earlier.[77]

By his will, dated June 28, 1792 and probated on the last day of the following month, Denys Van Duyn devised the bulk of his estate to his son John, but also made provisions for his unnamed wife and five other children (sons William, Abraham, Cornelius and Jacobus and daughter Lena). He bequeathed all of his "real estate consisting of the remainder of the Farm unsold whereon I now live [and] the lot of salt meadow" to John, along with his "young Negro wench Peg and a sorrel Horse." His widow was to live with and be supported by John, but should she choose not to live with him, he was to pay her £10 per year. Sons Abraham, Cornelius and Jacobus and daughter Lena "now the wife of Gershom Caywood," were each to receive £15 to be paid by John within a specific period of years; Abraham was to have £50 for discharging a debt. The remainder of his personal estate was to be divided among his six named children.[78]

Denys Van Duyn's estate inventory, taken on July 27, 1792, totaled £276.14.8, an amount indicative of middling economic status. It reveals that he practiced the diversified farming typical of the region and era, owned slaves and, except for a tall case clock, had no possessions suggestive of elite social status. The inventory mentions corn and wheat barracks and lists 30 bushels of wheat worth £8.5.0, 76 bushels of rye worth £8.5.0, six tons of hay valued at £15, five bushels of buckwheat, and four bushels of corn, along

[75] Robert Erskine, "Road from Brunswick to Bound Brook," No. 70E, 1778-1779, NYHS; NJ Tax Ratables, Eastern Precinct, Somerset County, 1784. Erskine's map indicates the location of the residences of "Abr. Beach" (the former Evert Van Wickle farm) and some distance upriver that of "Francis Bacher" [Brasier] (the former Nicholas Van Wickle farm), but not the properties of the Van Duyns. In nearly all of the extant Eastern Precinct tax records (1784, 1786, 1788, and 1789–1797) the name of Abraham Beach appears next to or near the names of Denys and John Van Duyn.

[76] NJ Tax Ratables, Eastern Precinct, Somerset County, August 1784, page 2. In 1735 William Van Duyn was assessed for 250 acres, ten cattle and eleven sheep [Snell, *History of Hunterdon and Somerset,* II, page 815].

[77] NJ Tax Ratables, Eastern Precinct, Somerset County, August 1786, page 9, August 1788, page 3, August 1789, page 9, August 1790, page 8, August 1791, page 10 & August 1792, page 7.

[78] NJ Wills 907R.

with "parcel of green oats" and a "parcel of flax on the grounds. He owned three unnamed slaves (one young male, valued at £25 and two females: a "gal," valued at £15, and a "wench" valued at £60). His livestock included two horses, one yoke of oxen, three heifers, one bull, seven sheep, five swine and five pigs, along with two "hives of beas." A wagon worth £13 was one of his most valuable possessions, he also owned a "sled" and a "slay," one presumably used for farm work and the other for winter transportation.[79]

The relatively short list of his household goods does not identify any rooms, thus providing little insight into his dwelling's interior arrangements. An eight-day clock valued at £14 was his most valuable household item; only a few other modest furnishings were mentioned including a trunk, chest, "small cupboard," table, six chairs, a looking glass and "hand irons, shovel and tongs," along with crockery, kitchen utensils, and several items relating to wool and flax processing (spinning, woolen and rope wheels, ketches and a reel) but surprisingly no beds or bedding. It may be that the list was only partial and that bedding and other goods were deemed the property of his widow or other family members. No carpentry tools were mentioned.[80]

Within a year of his father's death, John Van Duyn evidently conveyed a large portion of his inherited acreage to Peter Antonides, who owned and occupied the farm for only two years, and the property changed hands twice more before the end of the 18th century. While John Van Duyn's name does not appear on the 1793 tax role, Peter Antonides is listed next to Abraham Beach, assessed for 118 acres of land, valued at £20 per acre, along with three horses, three cattle, one slave and one "pleasure sleigh," and again next to Beach on the 1794 role, with the same assessment excepting the sleigh.[81] On November 22, 1795, Peter Antonides, Jr., and his wife Ida of the Eastern Precinct, Somerset County, sold the property to Robert Tuile (?) Kemble of New York City for £1,500.[82] Described in the deed of conveyance as "the plantation whereon the said Peter Antonides Jr now lives," the property consisted of two separate lots: the first containing 95.2 acres, but excluding "two tenths of an acre for Burying Ground where the Burying Ground now is and for no other use" (and providing the first known documentary reference to the graveyard), and the second containing 22.6 acres. The boundary description makes clear that the first lot, a long rectangular parcel that encompassed what is now the Meadows Foundation property, was bordered on the northeast by the Raritan River and on its much longer northwest side by the land of Rev. Abraham Beach. The second nearby lot was "Bounded northwesterly part by the land of the Jeromus Rappleys & part by land of the said Abraham Beach, northeasterly and southwesterly by land formerly the property of Dennis [Denys] Van Duyn, deceased, and southeasterly by land now in the possession of the widow Rappleyea." The two lots evidently were separated by the remaining acreage of the Van Dunyn farm that John Van Duyn had inherited from

[79] Ibid.
[80] Ibid.
[81] NJ Tax Ratables, Eastern Precinct, Somerset County, August 1786, page 8, & August 1794, page 7.
[82] Somerset County Deeds, Book A, page 333. A Robert T. Kemble was one of the commissioners appointed by the New Jersey legislature to erect bridges over the Hackensack and Passaic Rivers and who advertised for contractors to build the bridges in 1793 [*Wood's Newark Gazette*, February 7, 1793, as referenced in *Notices From New Jersey Newspapers, 1791-1795,* page 203].

his father Denys. Robert T. Kemble, appears not to have occupied the property but to have rented it to Peter Kemble, presumably a relative. Peter Kemble is listed on the August 1795 Eastern Precinct tax role, immediately preceding Abraham Beach, assessed for 118 acres of land, valued at £20 per acre, three horses and eight cattle, and again on the 1796 tax role, assessed for the same acreage, as well as four horses, four cattle, one slave and one dog.[83] On the 1796 tax role, John Van Duyn appears between Kemble and Beach, assessed for 100 acres, presumably his remaining inherited acreage.[84] Robert Kemble owned the two lots that he had acquired from Peter Antonides for less than two years, selling them on May 11, 1797 to Hendrick Suydam, an Eastern Precinct resident, for $3,500.[85]

In 1802 Hendrick Suydam reassembled much of the old Van Duyn farm by acquiring a 55.75-acre parcel located between his two lots, described in the deed of conveyance as "Part of a farm or plantation formerly occupied by William Van Duyn deceased," for which he paid John Vanderveer $925.62.[86] In his 1873 article about early settlement along the Raritan River, Ralph Voorhees recounted that the adjoining Van Duyn farms

> were afterwards, for a long time in possession of Capt. Henry Suydam, of Revolutionary Memory, and he converted both farms into one. I remember, sixty-five years ago, when a boy, seeing the old house standing on the rear farm. It was then deserted, and was shortly afterwards taken down. The captain lived in the old house now to be seen on the banks of the River.[87]

The "old house standing on the rear farm" may well have been located on the tract that Suydam purchased from Vanderveer, and the "old house" on the riverbank occupied by Suydam must have been the subject property.

In the early 1800s new roads were opened across and adjoining Hendrick Suydam's farm. The road now called Demott Lane was laid out along the boundary between the properties of Suydam and Rev. Abraham Beach in 1803, and the New Jersey Turnpike, present-day Easton Avenue, was surveyed across them in 1807.[88] The turnpike survey map (Figure 3) depicts the dwellings of "Henry Suydam" and the Rev. Abraham Beach, as well as the "new lane" (Demott Lane) and the old road along the river. The old river

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[83] NJ Tax Ratables, Eastern Precinct, Somerset County, 1795, page 12, and 1796, page 11.

[84] Ibid, 1796, page 11.

[85] Somerset County Deeds, Book E, page 109. Two October 1799 deeds confirm the ownership of the adjoining upriver farm by the Reverend Abraham Beach' and his wife Ann, the first of which describes the property as the three tracts of land which "were devised to the said Anne by her father" [Somerset County Deeds, Books E, pp. 219 & 220].

[86] Ibid., Book C, page 32; deed dated May 9, 1802, but not recorded until Nov. 24, 1804. The lot, which the deed description makes clear connected Henry Suydam's two parcels, had been inherited by John Van Duyn from his father Denys and was sold by him to John Vanderveer earlier in 1802 [Bailey, page 468].

[87] Voorhees, "The Raritan and its Early Holland Settlers (Third Part)," *Our Home A Monthly Magazine*," Vol. 1, no. 3 (March 1873), page 97. Hendrick Suydam's 1838 obituary also identified him as a captain in the Somerset County militia ["Died," *Evening Post*, (New York), February 1, 1838].

[88] Somerset County Road Returns, Book A2, page 184; Map of the New Jersey Turnpike surveyed by Henry Plume May 1807, New Jersey Archives.

road was abandoned sometime thereafter and certainly upon the construction of the Delaware and Raritan Canal in the 1830s.

Hendrick Suydam probably descended from the Dutch immigrant Henrick Reyke who arrived in New Netherlands in 1663, eventually settling in Flatbush, and whose sons assumed the name of Suydam. Some of Hendrick's descendants moved to the Raritan Valley in the early 18th century and had connections with other Dutch families settled along the Raritan River, as well as their Kings County forebears.[89] A Cornelius Suydam, husband of Maritje, the daughter of Charles Fonteyn, was mentioned in the latter's 1733 will.[90] Charles Fonteyn had acquired part of Raritan Lot 6 in 1708 and subsequently settled there, and both he and "Cornelius Sedam" appear on the 1735 tax list of Eastern Precinct property owners.[91] Cornelius Suydam, the son-in-law and neighbor of Charles Fonteyn, possibly was the Cornelius Suydam who by his will (executed in 1768 and proved in 1771) devised £50 to his son Hendrick, among other bequests to his eleven children (including Charles, who was to receive "that land in Piscataway, Middles County, opposite his door," and Cornelius, who was to inherit "the plantation on Raritan River, in Somerset County, on which I live, except 100 acres on the south side which is to be sold").[92] In 1792 and 1793, a large merchant mill "situated on the south side of the Raritan River two miles above New Brunswick" described as "lately the property of Charles and Hendrick Sudam" was advertised for sale; followed some months later by advertisements for the materials from the milldam.[93] The former mill owners may well have been the above-mentioned brothers, and this Hendrick Suydam is the most likely candidate for the individual of that name who purchased the former Van Duyn farm from Robert T. Kemble in 1797.

An 1833 deed from "Henry Sudam" [Hendrick Suydam] and wife to the Delaware and Raritan Canal Company for land along the river gives his wife's first name as "Alletta," and a 1796 deed for the downriver property adjoining his farm indicates that she was the former Aeltje Rappalyea, one of four children of George Rappaljee, the son of Dirrik Rappaljee, whose farm adjoined the Van Duyn property.[94] One secondary source also

[89] "Bible Records: Suydam," *New York Genealogical & Biographical Record*, Vol. 54, October 1923, page 332, as quoted in Pat Wardell, compiler, "Early Bergen County Families," http://njgsbc.org/files/BCFamilies/BCFam-Suydam.pdf (accessed April 2016); Bailey, page 468. A Hen-drick Suydam married Geertie Van Wickle, daughter of Evert and sister of Symon, in Flatbush in 1719.

[90] NJ Wills 39R.

[91] East Jersey Deeds, Book A2, page 265; Snell, *History of Hunterdon and Somerset,* II, page 815.

[92] NJ Wills 415R.

[93] *The Guardian; or New Brunswick Advertiser*, November 28, 1792 and February 6, May 1, and October 8, 1793, as referenced in *Notices From New Jersey Newspapers, 1791-1795,* page 203.

[94] Somerset County Deeds, Book Q, page 123 and Book D, page 85; NJ Wills 577R. In 1796, Cornelius Sudam and wife Ann, Hendrick Sudam and wife Aeltje and Henry Brokaw and wife conveyed to George Rappleyea for £750 their interest in the 150-acre tract on the south side of the Raritan and bordering the former farm of Denis Van Duyn, which the three wives and George had inherited from their grandfather Dirrik Rappaljee, the father of their father George. The deed describes the property as their grandfather's former residence and "part of the lands which he bought of Richard Carmen and to be measured and taken of the side adjoining the farm belonging to Denias Van Duyn and extending from Raritan to the rear of said tract" [Somerset County Deeds, Book D, page 85]. Township tax ratables confirm that the Rappleyea property bordered the Van Duyn farm and that the Rappleyea farm had been in the possession of George Rappellyea, Jr., for some years prior to 1796 [NJ Tax Ratables, Eastern Precinct, Somerset County, 1794, page 7, 1795, page 12, and 1796, page 11]. By his 1777 will (probated in 1778) Dirrik

names Suydam's wife as Aule or Alletta Rappleyea.[95] The 1830 census suggests that Hendrick [Henry] Suydam was born sometime between 1751 and 1760.[96] He and his wife might have been the Hendrick Suydam and wife "Allehe," whose daughter Adrayanche was baptized on November 18, 1784 at the Dutch Reformed Church at Hillsborough (Millstone).[97] While the marriage date of Hendrick Suydam and Aeltje Rappalyea is unknown, her sister Antje married Cornelius Suydam (possibly Hendrick's brother) on October 31, 1784, according to the records of the First Reformed Church, Raritan.[98] Hendrick and Aeltje Suydam had at least three children, who survived to adulthood, daughters Ann, who married Stephen Mundy, Arriette, who married Michael Garish, and Ida who married Nicholas Van Wickle, great-grandson of Symen Van Wickle.[99]

Tax roles and other public records provide some information about Hendrick Suydam and his farm. He appears on the 1797 Eastern Precinct tax role assessed for 117 acres of land, valued at £20 per acre, four horses and three cattle, followed by "Said Seydam" (presumably a relative to whom he had rented a portion of his property), 30 acres, valued at £17.5 per acre.[100] The Eastern Precinct was reorganized as Franklin Township in 1798, and two tax roles survive from the early 19th century. In 1806, Suydam was assessed for 170 acres, valued at $54 per acre, five horses, ten cattle, two slaves and one dog, and in 1815 his assessed acreage was the same, but his taxable personal property had been reduced to three horses, eight cattle and one slave.[101] The reduction in his number of slaves may reflect the manumission of his slave Phebe on June 12, 1815.[102] Besides his service as a militia captain, he held local municipal office, serving as one of one of the four municipal "pound keepers" chosen upon the establishment of Franklin Township in 1798.[103] Henry Suydam's household, as listed in the 1830 Federal Census, had six members: one white male aged between 70 and 79 who must have been Henry; one white female aged between 60 and 69, presumably his wife Alletta; three "free Colored Persons (one male under 10 years old, one male aged between 10 and 23, and one female aged between 10 and 23); and one enslaved female (aged between 24 and 35).[104] In 1833, Suydam and his wife Alletta sold for $150 a 7-acre tract of land along the river to the

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Rappaljee devised to his granddaughter Aeltje and her three siblings (the children of his deceased son George) his 150-acre homestead farm "on the west side of the Raritan, which I live on, and being part of the lands I bought of Richard Carmen, etc. when they come of age" but allowing their mother Styntje Rappeljee "to have the use of said land to bring them up." [NJ Wills 577R]. Stinte Rappaelyea appears on the 1790 Eastern Precinct tax role, assessed for 150 acres, immediately preceding Denys Van Duyn [NJ Tax Ratables, Eastern Precinct, Somerset County, 1790, page 8].

[95] Bailey, page 468.

[96] United States Census, Franklin Township, 1830. He is listed as Henry Suydam in the census.

[97] *Somerset County Marriages*, page 179.

[98] *Somerset County Marriages*, page 87.

[99] Bailey, page 458, Somerset County Deeds, Book V, p. 50; NJ Wills 2662R. According to Bailey, Ann was baptized in 1788 and Ida in 1796.

[100] NJ Tax Ratables, Eastern Precinct, Somerset County, 1797, page 13.

[101] NJ Tax Ratables, Franklin Township, Somerset County, 1806 and 1815.

[102] William B. Brahams, *Franklin Township, Somerset County, NJ: A History*, page 103.

[103] Ibid., page 286.

[104] United States Census, Franklin Township, 1830. The one other Henry Suydam listed in the 1830 census for Franklin Township, aged between 30 and 39, would have been too young to be the Henry Suydam in question.

Delaware & Raritan Canal Company for the construction of the canal, whose route roughly followed the old river road.[105]

As reported by a New York newspaper, Hendrick Suydam died on January 29, 1838: "Suddenly ... at his residence, near New Brunswick, N. J. .... whilst sitting in his chair."[106] Since his death was intestate, his sons-in-law Michael Garish and Nicholas Van Wickle were appointed to administer the estate nine days later.[107] The inventory of Suydam's personal estate, dated February 7, 1838, totaled $1,273.71, indicating that he had achieved the modest prosperity of a substantial, middling farmer, and provides some information about the character and furnishing of his house, as well as his farm operation and outbuildings. Identified features of the house included the "closet in the north front room," the "pantry," two closets, the "garret," the "south front cellar," the "gangway in cellar," and the "west cellar." Three outbuildings were named: smoke house, barn and corncrib (although it is not clear if the later was a free standing structure or part of another building). The inventory mentioned several lots of harvested crops: rye, buckwheat, oats, corn, potatoes and hay, but not wheat. Suydam's livestock included seven horses, seven milk cows, four "3-year-olds," four "2 years," and five "yearling calves." Clearly milk and beef cattle were central to his farm operation. His purse totaled $13.26; notes and interest due amounted to something over $80.00. Other assets were "two years and 7 months of a colored women," worth $40 and the "time and service of a colored boy under 25 years of age" worth $100, along with "a pew in the Dutch Church in New Brunswick" valued at $150.[108]

Hendrick Suydam's house was comfortably, but modestly furnished. A clock (presumably a tall case clock) valued at $30 was his most valuable household item, followed by his "wearing apparel and watch" also worth $30, three "beds, bedsteads and bedding" valued at $25 each; another bedstead with bedding and curtains worth $20, a half dozen "silver table spoons" valued at $15, a ten-plate stove and shovel, tongs & poker worth $10, two carpets worth $10 and $5, two other beds valued at $8 and $5, eight "rush bottom chairs" worth $6, a dining table worth $5, a cupboard worth $5 and two looking glasses valued at $5. Other household goods, all valued at $5 or less, included Windsor and "common" chairs, a tea table, tea and dinnerware, a pair of "plated" candlesticks and snuffer, five brass candlesticks, six pictures and "a lot of books," along with items associated with kitchen and cooking such as several iron pots, kettles, tubs and pails, a "lot of tin ware" and a "pan Grid Iron & Sundries."[109]

While the inventory does not give the contents of the house room by room, its takers appear to have done the first story of the main block first, beginning with the north front room, followed by the garret, kitchen and cellars. The tenth line in the inventory, "Lot Queens ware Glass etc. in the closet in the North front room,"" is evidence that this room (the northern half of Room 103) served as a dining room/parlor, not surprisingly given its

[105] Somerset County Deeds, Book Q, page 128.
[106] "Died," *Evening Post*, (New York), February 1, 1838.
[107] NJ Wills 2662R; Somerset County Surrogate, Letters of Administration, Book AG, page 438; Bailey, page 458.
[108] NJ Wills 2662R.
[109] Ibid.

proximity to the kitchen, and likely contained many of the furnishing in the previous nine lines including a clock, carpet, dining table, tea table, and one or more of the three sets of chairs, along with pictures, a looking glass, fireplace equipment, candlesticks and tableware. The next thirteen lines, which include five beds, bedsteads and bedding, several tables (tea, "round" and a "stand," presumably a candle stand as it was listed after a pair of brass candlesticks), three carpets, two looking glasses, cupboard trunk, chest, and a pair of andirons, as well as the contents of two closets and the pantry, probably represent the contents of the other three main block rooms, which must have served as bedrooms, and the entry hall. However, one of the beds might have been in the north front room. The next entries evidently addressed items in the attic including a "bed, bestead & bedding in garret" and a "lot of Rye in Garret" along several spinning wheels, various tools and two barrels of "cyder spirits." The kitchen with "ten-plate stove" and various cooking items was next, followed by the cellars with casks of pork, beef and whiskey, along with vinegar, a "soap tub & keg and empty barrels.[110]

Four months after the death of Hendrick Suydam, Nicholas Van Wickle (then living in Monmouth County, New Jersey) acquired his father-in-law's farm from the other heirs, paying his wife's sisters and their husbands $5,541.67 for their interest in "all that certain farm or plantation" containing 166.25 acres, and the property remained in his ownership and occupancy until 1862 (Figure 4).[111] Census records indicate that the Nicholas Van Wickle who acquired the Suydam farm was born c. 1796 in New Jersey.[112] He undoubtedly was the Nicholas Van Wickle buried in the cemetery at Bound Brook, NJ, whose grave marker gives a birth date of January 14, 1796 and death date of October 21, 1865. Historians have postulated that he was a grandson of Nicholas Van Wickle, son of Symen Van Wickle, and there is evidence indicating that this was the case.[113] In 1801, Symen's son Nicholas, then a resident of Middlesex County, made his will in which he mentioned his sons John, Simon, Evert and Jacob, as well as two daughters, but no grandchildren.[114] One genealogical source has identified three grandsons named Nicholas (sons of John, Simon and Jacob), of which Nicholas, son of Jacob, is the likely candidate for Henry Suydam's son-in-law (John's son Nicholas was born in 1769 and Simon's son Nicholas married Ida Morgan).[115]

According to another genealogical source, Nicholas Van Wickle, son of Jacob, was born on January 7, 1796, in Old Bridge, New Jersey and there married Ida Suydam (born c. 1796, died October 21, 1857) on October 17, 1821. The source gives them nine children: Albinia (born 1822, died in childhood); Georgianna (born July 23,1824 in NJ); Jacob (born December 31, 1826, Manasquan, Monmouth Co., NJ); Henry (born December 5, 1828 in NJ); Ida Stephen (born August 7, 1830, NJ, but possibly a conflation of a son and daughter, who died in childhood); Sarah Letitia (born September 5, 1832, NJ); Charles Remsen (born November 9, 1834, NJ); Arrietta (born September 28, 1836, NJ); and

[110] Ibid.
[111] Somerset County Deeds, Book V, page 50 & Book P3, page 242.
[112] United States Census, Franklin Township, 1850.
[113] Bailey, page 468.
[114] NJ Wills 9891L.
[115] Mather, *PNJHS*, Vol. 54, April 1936, pp. 122-129.

William H. Harrison (born September 20, 1838, died in infancy).[116] The names and ages of Ida and Nicholas Van Wickle and of the children living with them as recorded in the 1850 census as Franklin Township, Somerset County, residents corresponds with the data given by this source.[117]

Something is known of Nicholas Van Wickle's life before he acquired the Suydam farm. In 1818, he and his father Jacob (a Middlesex County Judge and former county freeholder) achieved wide notoriety through their involvement in the interstate slave trade, both as active participants in the purchase of New Jersey slaves and their transportation to developing states of the Deep South where better resale prices could be realized, in which endeavor they appear to have evaded state laws regulating the activity or at least exploited loopholes in the applicable statues, and in Jacob's case as a judge whose "certificates of removal for black mothers stating that they freely consented to leave New Jersey with their children" as required under state statute were called into question. While the judge, whose Middlesex County farm was used as a collection point for slaves being shipped south, was never charged, a Middlesex County grand jury "found nine indictments against Nicholas Van Wickle for disposing of black children to Charles Morgan [his mother's brother, a Louisiana planter who had come north to purchase slaves], not then a resident of New Jersey, 'with the intent of changing their place of residence'." Nicholas apparently escaped prosecution; at least there is no record in Middlesex County Court papers of his "posting security or appearing in court."[118]

Early in the second quarter of the 19th century, Nicholas Van Wickle apparently moved to Monmouth County where he acquired property and established a pottery, living there until 1838 and perhaps operating the business until that year when he purchased his father-in-law's farm. According family genealogists:

> Between 1824 and 1838, Nicholas Van Wickle purchased 400 acres of land on both sides of the road to Squan Village [Monmouth County] and along the west shore of the Manasquan River to establish his pottery factory. Van Wickle supplied the local population and general stores with gray and blue jugs, crocks, bowls, mugs, etc. In addition to the pottery business, Mr. Van Wickle served as Monmouth County Freeholder and as a New Jersey Assemblyman.[119]

Census data documents that Nicholas Van Wickle did move to Franklin Township shortly after acquiring the Suydam farm, and that he farmed the property. As listed in the 1840 Federal Census, his household had fifteen members (eleven white persons and four "free colored persons"). There were six white males: one aged between 40 and 49, one between 20 and 29, one between 10 and 14, one between 5 and 9, and two under the age of five. There were five white females: one aged between 40 and 49, one between 30 and

[116] Home Page for John Van Wicklin (Family of Nicholas^6 Van Wickle), share.houghton.edu (accessed June 2016)].
[117] United States Census, Franklin Township, 1850.
[118] James J. Gigantino II, "Trading in Souls: New Jersey and the Interstate Slave Trade," *Pennsylvania History: A Journal of Mid-Atlantic Studies*, Vol. 77, No. 3, (2010), pp. 281–302; Frances Pingeon, "An Abominable Business: the New Jersey Slave Trade in 1818," *New Jersey History*, Vol. 109, No. 3–4 (1991), pp. 15–20, 27 & 34.
[119] Home Page for John Van Wicklin (Family of Nicholas^6 Van Wickle), share.houghton.edu (accessed June 2016).

39, one between 10 and 14, one between 5 and 9, and one under the age of five. The four "free colored persons" include three males (one aged between 36 and 54, one between 24 and 35 and one between 10 and 23) and one female (aged between 36 and 54).[120] Comparing the 1840 and 1850 census listings helps identify some of the Nicholas' household members in 1840. The white male and female aged between 40 and 49 in his 1840 household must have been Nicholas and his wife Ida. The three youngest white female girls presumably were their daughters Georgiana, Sarah and Arietta. The two other white adults must have been relatives or employees; and the three white boys would have either Van Wickle children or relatives, alternatively the oldest boy might have been an employee, as undoubtedly were the four free persons of color. The free blacks may have included the male and female mentioned in Hendrick Sudam's estate inventory.[121]

The 1850 and 1860 Federal censuses reveal that the Van Wickle household decreased in size during the period, as the children presumably moved away or died, and fewer non-related individuals were employed, none of whom were black in 1860. In 1850, Nicholas Van Wickle's household included six family members and three non-related males, presumably employees. The family consisted of Nicholas, age 54, farmer; his wife Ida Van Wickle, age 54, no occupation given; their three daughters, Georgianne, aged 24, Sarah, age 18, and Arietta, age 14; and their son Charles Remsen age 16, farmer. The household had two other white males: John George Sedell, age 53, and Augustus Storck, age 50; both were farmers. The household had one black member, George Meyers, age 50, no occupation given. Except for Sedell and Storck, who were natives of Germany, all of the household members were born in New Jersey. Nicholas reported owning real estate worth $37,000.[122] In 1860, his household had five members: Nicholas, age 64, farmer; his wife Jane A. Van Wickle, age 52, no occupation given; (his wife Ida having died); and daughter Sarah L., age 26. He had two employees: George Rappleyea, male age 30, "farm laborer," and Mary Thorma [?], age 18, "servant." Jane was born in New York and Mary in Ireland; the other household members were New Jersey natives. Nicholas reported owning real estate worth $15,000 and personal worth $1,000.[123]

Something of the character of the Nicholas Van Wickle's farm can be learned from the agricultural schedules of the 1850 and 1860 censuses. The 1850 agricultural schedule census lists Nicholas Van Wickle as the proprietor of a farm with 135 acres of "improved land" and 25 acres of "unimproved land" (presumably woodland). Van Wickle's farm was valued at $12,000, and the farm equipment, $300. His livestock, worth $680, included two horses, five milk cows, ten other "head of cattle," two "working oxen," and ten swine. Farm production encompassed 200 bushels of wheat, 50 bushels of rye, 300 bushels of corn, 400 bushels of oats, 100 bushels of buckwheat, 200 bushels of Irish potatoes, 500 tons of hay and 600 pounds of butter. The value of "slaughtered animals" was $150. Its acreage and production made it a medium-size farm in Franklin Township.[124] In 1860, Van Wickle's farm was described as having 170 acres of

[120] United States Census, Franklin Township, 1840.
[121] United States Census, Franklin Township, 1840 and 1850; NJ Wills 9891L.
[122] United States Census, Franklin Township, 1850.
[123] United States Census, Franklin Township, 1850.
[124] US Census, Agricultural Census, Franklin Township, 1850.

"improved land." It was valued at $15,000; no value was given for farm equipment. His livestock, worth $420, included three horses, four milk cows, two "head of oxen" and five swine. Farm production encompassed 200 bushels of wheat, 50 bushels of rye, 700 bushels of corn, 500 bushels of oats, 20 bushels of beans and peas, 50 bushels of barley, and 70 pounds of cheese. The value of the "produce of market gardens" was $600; the value of "slaughtered animals" was $100. While its acreage made it one a mid-sized township farm, its production reflected smaller operations. He had less livestock than in 1850 (and no cattle except for his four milk cows). He had switched from making butter to cheese, and the new importance of market garden production many reflect better access to urban markets and proximity to the growing town of New Brunswick.[125]

On August 25, 1862, Nicholas and Jane Ann Van Wickle sold their Franklin Township farm to Brooklyn resident John W. Brooks for $13,300, and over the next ten years the 168-acre property (always excluding the graveyard) changed hands four more times, acquired in each case by non-residents, perhaps either as an investment or country place.[126] Brooks and his wife Sarah evidently moved to Franklin Township for a time, as they were described as township residents when, within little more than a year of buying the property, they sold it to her brother James A. Munsell, a New York businessman, for $6,000, subject to $8,000 with interest due on a mortgage given by Books to Van Wickle.[127] In May 1866, Munsell and his wife Elizabeth, residents of New York City, conveyed the farm to Julia F Barnes, wife of Daniel V. Barnes of Brooklyn, for $20,500, subject to the Van Wickle mortgage, which the purchasers agreed "to pay off and discharge."[128] Julia Barnes also may have moved to the farm, as she was described as "of Franklin Township," when in October 1867 she and her husband Daniel V. Barnes conveyed it to Theodosia M. Kitching, wife of Robert N. Kitching of Westchester, New York, for $21,500, subject to a $4,000 mortgage. The 1870 United States Census recorded Robert N. Kitchings, a "wool broker," his wife Theodosia, their five children and four servants as residents of New York City, and they were still living there on January 15, 1872, when they sold the Franklin Township property to Rush Van Dyke of New Brunswick for $35,000, subject two mortgages, one of $4,000 and the other of $11,500.[129]

In his 1873 article about the early Raritan valley settlers, Ralph Voorhees observed that the adjoining Van Duyn farms, once in the "possession of Capt. Henry Suydam," were

[125] Ibid., 1860.

[126] Somerset County Deeds, Book P3, page 242, Book S3, page 549, Book B4, page 287 & Book J2, page 342.

[127] Ibid., Book P3, page 242. A family genealogy identified Sarah Munsell Brooks and James Andrew Munsell as two of the nine children of Timothy Munsell (1778-1745) and Sarah Wayne (1784-?). Born in Lyme, Connecticut, of old New England stock, Timothy moved to New Scotland, Albany County, New York, about 1800; he was a carpenter and may have lived in New York City for a time. Daughter Sarah was born in 1823 in New Scotland, and married John W. Brooks, with whom she had four children (in 1885 she was living in San Francisco). James Andrew Munsell was born on "October 1st or 6th, 1810, married –and removed to Albany about 1841. In 1848 he moved to New York and engaged in the stove business. He died June 6th 1876 without issue." [Frank Munsell, *Genealogy of the Munsell Family (Munsill, Monsell, Maunsell) In America*, entries #s 440, 812 & 817; see also Sarah Munsell, Timothy Munsell and James Andrew Munsell, ancestry.com. (accessed June 2016].

[128] Ibid., Book S3, page 549.

[129] United States Census, New York Ward 17, District 9, New York, New York, 1870; Somerset County Deeds, Book J4, page 342.

"at present owned by Dr. Rush Van Dyke, formerly of Philadelphia, who has now made his residence thereon" presumably in the "old house now to be seen on the banks of the River."[130] Rush Van Dyke evidently was the son of Dr. Frederick Augustus Van Dyke (1788-1867), a physician who after graduating from Rutgers lived and practiced near Philadelphia, and the grandson of Frederick Van Dyke (1751-1811), a New Brunswick merchant.[131]

Rush Van Dike's ownership and occupancy of the property was of short duration. He sold the 168-acre farm in March 1873 for $35,000, subject to a $4,000 mortgage, to Jacob Elmer Stout of New Brunswick, who some weeks later conveyed it to Asher D. Atkinson of the same city for only $30,000 but still subject to the $4,000 mortgage.[132] The 1873 county atlas identified the house on the property as belonging to "Dr. Atkinson," but he evidently acquired it as an investment and never lived there (Figure 5).[133] Asher D. Atkinson (1821–1908), the son of a New York druggist who trained in his father's business and studied medicine as a young man, had pursued a successful career in the developing petroleum industry of western Pennsylvania during the 1860s. In 1868 he acquired property in New Brunswick as a summer retreat from Brooklyn, building a large and expensive dwelling, which he appears eventually to have made his fulltime residence.[134]

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[130] Ralph Voorhees, "The Raritan and its Early Holland Settlers (Third Part)," *Our Home A Monthly Magazine*," Vol. 1, no. 3 (March 1873), pp. 97 & 98. Voorhees added that "It would be interesting at this day to know the date of the erection of this old house, with similar ones throughout the County, whose occupants have long since past away; but as no historical information about them exists, we are compelled to remain in ignorance. "

[131] Lucia McMahon and Deborah Schriver (eds.), *To Read My Heart The Journal of Rachel Van Dyke, 1810 –1811*, pp. 3, 4 & 382. Rush Van Dyke's father Dr. Frederick Van Dyke graduated from Rutgers in 1807 and entered the medical department of the University of Pennsylvania in the following year; he studied under Dr. Benjamin Rush, after whom he named his eldest son. Dr. Frederick Van Dyke's sister Rachel (born 1793) kept a journal as a New Brunswick schoolgirl in 1801-811 [ibid].

[132] Somerset County Deeds, Book O4, page 194 & Book P4, page 15.

[133] F. W. Beers, *Atlas of Somerset County*, 1873.

[134] J. T. Henry, *Early History of Petroleum: With Authentic Facts in Regards to its Development in Western Pennsylvania*, pp. 497-500. According to his biographical sketch in this work, Asher D. Atkinson was born in Philadelphia on September 30, 1821, but at age seven moved with his family to New York, where his father "engaged in the retail drug and medicine business." Atkinson trained in his father's business and studied medicine as a young man, and while he did not receive a degree, acquired "proficiency in surgery" and was known by the title of doctor. He continued in his father's business until 1861, when he moved to western Pennsylvania oil region, where his father-in-law John Barnsdall had acquired property and commenced drilling for oil, and embarked on a successful career in the developing petroleum industry. In 1868-69, thirty wells on Atkinson's property reportedly produced 2,500 barrels of oil per day from which he realized considerable profit. In 1864 Atkinson moved with his family to Brooklyn, New York, and "in 1868 Dr. Atkinson purchased a summer residence at New Brunswick, N. J. and here free from the turmoil of a great city, his summers have since been past. This purchase included a tract of land lying within the city limits, and contained ninety-four acres. For the property he paid $25,000." He sold all but 10 acres, realizing funds sufficient to recoup his investment and finance the construction of "one of the finest private residences in the city" on the remaining lot, reputedly worth $50,000. Both the 1870 and 1880 censuses list him as a New Brunswick resident [United States Census, New Brunswick, Middlesex County, NJ, 1870 and 1880]. Atkinson died in 1909 at the age of eighty-eight. According to his obituary in the state medical society journal, "He graduated in medicine in 1840, but has not practiced for many years. He was one of the founders of the American Numismatic Society." ["Obituaries," *Journal of the Medical Society of New Jersey*, Sept., 1909, page 192].

According to Rosalie Fellows Bailey in 1936, "Asher Atkinson leased the [former Van Wickle –Suydam] farm to the Smalley family, who later purchased it from him, and lived there until recent years."[135] While when the Smalley family first occupied the farm is unknown, they did acquire the property in 1900, but not from Atkinson. Atkinson lost the farm at a court-ordered sheriff sale to recover the sum of $7,336.57, principal and interest due on an 1880 mortgage given by him and his wife to the New Brunswick Savings Institution, and $79.04 court costs. The county sheriff conveyed the property in January 1897 to the New Brunswick Savings Institute, high bidder at the auction, and the Savings Institute, in turn, sold it to Charles W. Smalley of South Orange, New Jersey, for $4,000 three years later.[136] On July 11, 1905, Charles Smalley conveyed the farm to Edward E. Smalley, who presumably was his relative although the exact relationship has not been determined.[137] A c. 1900 photograph of the house on the property likely records its appearance during the Smalley's tenure (Figure 6).

Edward E. Smalley lived on the farm until his death in 1919, and he may have resided there as early as 1900, as he is listed as a Franklin Township resident in the 1900 United States Census, which was take on June 7th of that year, several months after Charles W. Smalley's purchase of the property. In 1900 Edward E. Smalley's family had five members: Edward E., age 50, farmer; his wife Mary E., age 49, no occupation given; and their three children, daughter Lulu A., age 24, and sons Harold, age 12, and Russell C., age 9, both of whom were "at school." Three male employees were part of the household: Louis Carr, age 12, Leander Beermore, age 25, and Howards Lilton, age 25; all three were "farm laborers." Louis Carr was born in Ireland; all of the other householder members were New Jersey natives. Edward Smalley reportedly owned his farm, on which there was a mortgage, but this may reflect that he had a purchase agreement and mortgage for the property. In 1910, the Smalley household had seven members: Edward E., age 62, farmer; his wife Mary E., age 60, no occupation given; their son Russell C., age 19' and Estelle, age 9, who was described as a boarder, but must have been a relative. There were two other young boarders: William Smith, age 13, and Herman Trick, age 10. The occupation of the three young boarders was given as "none." Edward had one male employee: William Johnson, age 30, whose occupation was "herd man." Johnson was a native of Maryland; all of the other household members were New Jersey natives, as were their parents, except Trick's parent, who were born in Germany, and those of Smith whose birthplace was unknown. Edward owned his farm, which was mortgage free.[138]

By his 1917 will, which was probated on March 12, 1919, Edward E. Smalley devised all of his property, both real and personal, to his wife Mary E. Smalley "for her natural life," and after her death to his seven children Voorhees, Harold, Lulu Cheston, Bertha Cedar, Arthur, Edward and Russell, share and share alike.[139] His estate inventory was made three days after the will was probated and presumably shortly after his death. His

[135] Bailey, page 469.
[136] Somerset County Deeds, Book J8, page 341 & Book D9, page 279.
[137] Ibid., Book N10, page 2.
[138] United States Census, Franklin Township, 1900 and 1910.
[139] Somerset County Wills, Book V, page 432.

personal estate totaled $3,817.73, of which $2,318,00 was "cash on deposit." The remainder included farm equipment (a thresher, plow, corn planter, milk wagon and milk cans), livestock (horses, cattle and swine) and a lot of hay. No household goods were inventoried, and the only building mentioned was a "shed." The farm evidently was a dairy operation.[140] The Smalleys retained ownership of the farm until January 12, 1926, when Edward's executors and widow by separate deeds sold the property (excepting the graveyard and several previously subdivided small lots) to Michael Hechtman of Monticello, New York, for $19,000.00. The Smalleys were then living in the nearby town of Highland Park, and the conveyance was also "made subject to the rights of tenants."[141]

Hechtman apparently acquired the Smalley farm with the intention of developing the property, and within one month of its purchase, he and his wife, then residents of Brooklyn, conveyed the portion between the canal and the old turnpike road, described as "being known and designated as plot (A) on a certain map of Raritan Heights" to the Ellen B. Welsh, Inc., a New Jersey corporation for $1.00.[142] The Ellen B. Welsh, Inc., lost "plot (A)" five years later at a court-ordered sheriff sale to recover principal and interest due on defaulted mortgages, and in June 1931 the county sheriff conveyed its title to the Middlesex County Building and Loan Association, high bidder at the auction, for $100.[143] The property changed hand three times on February 4, 1932, when conveyed by Middlesex County Building and Loan Assn. to Maurice H. Winfield, of Highland Park, New Jersey, by Winfield and his wife to New Brunswick resident John Kreh, Jr., and by Kreh to Catherine R. Calamoneri[144] A few weeks later Calamoneri deeded "plot (A)" back to Freh, who several months later conveyed the property to sisters Katharine M. Donaldson and Margaret M. Donaldson of New Brunswick, who along with their mother, Mrs. Malcolm Montgomery Donaldson, made it their home and most likely were responsible for the dwelling's Colonial Revival remodeling.[145]

In her discussion of what she named the Van Wickle–Suydam House in her landmark study of New Jersey's early Dutch houses Rosalie Fellow Bailey, stated "The house has been restored very successfully by George Howell, architect, and the Highland Park Building Company," and photographs included in her 1936 publication document his work (Figures 7 and 8).[146] The Highland Park Building Company, organized in 1914, was involved in the residential development in the Livingston Manor neighborhood of nearly Highland Park, New Jersey, building "single-family houses from plans produced by a select group of architects," and George B. Howell, a young New Brunswick architect, did

[140] Somerset County Inventories, Book U, page 442.
[141] Somerset County Deeds, Book F20, pp. 341 & 343.
[142] Ibid., Book F20, page 393. The conveyance was subject to an easement for barn's roof eaves overhanging the property line).
[143] Ibid., Book J22, page 412.
[144] Ibid., Book P22, pp. 1, 2 & 24.
[145] Ibid., Book P23, 412 (see also Somerset Mortgages, Book F13, page 332). The conveyance to the McDonalds was "subject to any easement that may have been acquired by the public in a road or lane running along the northerly side of the above property." Bailey, page 469.
[146] Bailey, pp. 43, 469 & 487.

have a connection to Livingston Manor, designing a house for his brother that was built there in the early 1920s.[147]

George B. Howell (1895–1983), was the son of New Brunswick businessman Abram Suydam Howell and his wife Elizabeth Vroom Brokaw and grandson of Steven Howell, proprietor of a New Brunswick lumber company. After preparing for college at Blair Academy, he attended Rutgers for two years before transferring to Cornell University in 1916. Following a two-year hiatus for military service during World War I in 1917-18, he graduated from Cornell in 1922 with a bachelor's degree in architecture. He worked for the firm of C. W. Oakley & Son, Elizabeth, New Jersey, in 1922-24 and for New Brunswick architects Alexander Merchant & Son in 1924-31. For the latter firm, his projects included several public buildings (New Brunswick City Hall, and two public schools in Cranbury, New Jersey), two religious buildings (Anshe Emeth Synagogue and Selton Baptist Church in New Brunswick), an addition to the Wessells Memorial Library at the New Brunswick Theological Seminary and the Delta Upsilon Fraternity House at Rutgers, as well as a World War I monument in New Brunswick, in which sculptor F. Luis Mora also participated. Three years after leaving the firm of Merchant and Son (his departure from which may have been related to Depression-era downsizing), Howell secured employment with Rutgers University in 1934 to design the 20,000 seat Rutgers stadium, whose construction was funded mostly by the Federal Works Progress Administration. He served as Rutgers University architect for twenty-four years, retiring in 1958; other projects for the university included the Music House at Douglas College and Lipman Hall at the College of Agriculture. He married Esther Hasbrouck Borcherding, a descendant of former Rutgers University president A. Bruyn Hasbrouck, in 1930. He and his wife lived in a house on River Road, New Brunswick, which he designed in 1930. The couple was childless. Howell died at the age of eighty-eight on July 26, 1983, survived by his wife.[148]

In discussing the historically appropriate modernization of Dutch houses, Rosalie Fellow Bailey observed that while "a strict restoration with the preservation of the original layout" was the ideal, since "a large living room is the modern desideratum, and as the rooms in Dutch house are comparatively small, two of them may be thrown together."[149] She cited the Van Wickle–Suydam House as a good example of how a large living room could be created in a Dutch house with a center hall:

> This has been done very well in the Van Wickle–Suydam house (plates 2 and 140) [Figures 7 and 8]. The large number of windows and the two fireplaces give a feeling of space, a wealth of light, and great warmth and comfort. The fireplace wall of the best room is often completely paneled, as in this case, and

[147] The Livingston Manor Historic District, hphistory.org (accessed May 2016)]; *Rutgers Alumni Monthly*, (1919 alumni notes), vol. I, No. 4, January 1922, page 110.

[148] *Rutgers Alumni Monthly*, January 1922, page110; Rutgers University Archives, General Catalogue, George B. Howell file; "Howell-Borchering Wedding at Gardiner Reformed Church, *New Brunswick Sunday Times*, September 28, 1930; "Howell Retiring," Newark News, December 31, 1958; George B. Howell obituary, The Daily Home News, July 27, 1983; Sarah Beetham. Ph.D., "When Memory Fails, Part 2: Answers," June 6, 2016, Sarahbeetham@worldpress.com (accessed June 2016)

[149] Bailey, page 38.

> usually has wall or corner cupboards. The second main room is generally treated in a simpler manner; originally it may have been the combined kitchen and living room, and a mantel piece added when the kitchen was moved into a wing, or it may always have been a living room. In the Van Wickle–Suydam house, one fireplace wall has a paneled chimney breast, a simple mantel with no shelf, and on either side cupboards of different sizes with paneled doors (plate 2); the wall of the opposite end of the living room was a wide, low fireplace, a mantel piece of simple proportions with a high lintel and a narrow shelf, a plastered chimney breast, on one side a set of bookshelves with cupboards below, and on the side a door into the dining and kitchen wing.[150]

In discussing the design limitations presented by house with dark narrow hallways, she concluded that "In these cases, an attractive and successful treatment is the one which has been used in the Van Wickle–Suydam house. The rear has been changed to the front of the house, the former front portion of the hall has been included in the new, large living room, leaving the former rear portion as an entrance hall with the box stairs going up one side."[151] Interest in the historic character of the house led to its recording by the Historical American Building Survey a few years later [Figures 9 – 12; Appendix G].[152]

On September 16, 1937, Katherine M. Donaldson, her sister Margaret D. and Margart's husband Richard B. Joiner, her husband, conveyed the property to business executive Robert T. Bogan (1905–1971) and his wife and Virginia D. Bogan (1907–1972), who lived there until there deaths in the early 1970s and who called it "The Meadows." [153] The Bogan household, as listed in the 1940 Federal census, had five members: Robert, age 35, executive; his wife Virginia D., age 33, no occupation given; and their three children, daughters Virginia A. age 13, and Deborah H. age 4, and son, Robert T., Jr., age 7. Bogan, his son and younger daughter were New Jersey natives; his wife was born in New York and his elder daughter in Manila, Philippines. Bogan owned his own home, which was valued at $10,000. His salary was $5,000 per year, and he had other sources of income; he had completed four years of college. At the time of the 1930s census, Bogan and his family had previously lived with his wife's family in Woodbridge, New Jersey. His occupation at the time was "foreign salesman" for a "Drug Co." [154]

Robert T. Bogan died on September 24, 1971, bequeathing all of his property, by his will dated two months earlier, to his three children, Robert T. Bogan, Jr., Deborah Holmes Errickson and Virginia B. Dykes. Several months after his wife's death on February 20th of the following year, the estate administrator deeded the property to the three children in accordance with his will.[155] Continued interest in the historic importance of the house at this time resulted in its listing of the New Jersey and National Registers of Historic Places in 1973. In 1977 Township of Franklin acquired "The Meadows" from the Bogan

[150] Ibid.
[151] Ibid., pp. 38, 39 & 43.
[152] HABS NJ-479.
[153] Somerset County Deeds, Book 23, page 412.
[154] United States Census, Franklin Township, Somerset County, 1940; United States Census, Woodbridge, Middlesex County, NJ, 1930.
[155] Somerset County Wills, file #71-905 & file #72-274; Somerset County Deeds, Book 1298, p. 584.

heirs and subsequently leased the house to a newly formed non-profit organization, The Meadows Foundation, which was founded to preserve the property from which it took its name.[156] Since then, The Meadows Foundation –a pioneer in the field of historic preservation in Somerset County during the Bicentennial era– has been actively engaged in the restoration and interpretation of the house, along with several other early Franklin Township dwellings.

[156] Lois Richman and Terry Karschner, Symen Van Wickle House National Register Nomination, July 1973; "NJ DEP - Historic Preservation Office New Jersey and National Registers of Historic Place," www.nj.gov/dep/hpo; Somerset County Deeds, Book 1350, page 139.

5. Historical Chronology

1681 John Inians and associates acquired from Native Americans a 10,000-acre tract named "Ahandewamack" the stretch along the south side of the Raritan River between the Millstone River on the west and Lawrence Brook on the east [Ursula C. Brecknell, 'The 'Rariton Lots' of Franklin Township: A Study of Land Sales and Settlements," *Somerset County Historical Quarterly, Commemorative Issue,* 1982, pp. 13, 14 & 16; see also James P. Snell (ed.), *History of Hunterdon and Somerset Counties, New Jersey*, II, page 803].

1683 **May 1.** John Inians, John Bainbridge and associates petitioned the East Jersey governor and council for a patent for a portion of the "Ahandewamack" tract, thought to contain 6,000 acres "with the intention of dividing it among themselves into 12 lots. Each lot was to contain 500 acres, with a half-mile of river frontage and a depth of two miles. The surveyor general had already surveyed and laid out the lots for them, beginning approximately at Albany Street, New Brunswick (it is thought), and extending to a point more or less opposite the mouth of the Bound Brook" [Brecknell, *SCHQ*, 1982, page 14; see also Snell, page 803].

According Brecknell, it was found that the tract contained more acreage that was originally thought (7,680 acres, resulting in twelve lots of 640 acres each) and that no land had been reserved for the proprietors, as required. "to rectify this, it was ordered that each of the petitioners should have his patent –Inians, 1,000 acres (two lots), and the other 500 acres each– at one half-pence per acre, but the overplus would be reserved for the proprietors. This adjustment perhaps provides one of several reasons why the subsequent disposal of the 12 numbered lots cannot be followed in a clear-cut manner."

Brecknell referenced the twelve lots by number and name of an early, if not original owner, while observing that that the numbering system used to identify the lots was inconsistent and changed over time (see the following entries for her identification of the lots, which is used for this investigation). However, this number system appears to have been used for Lots 7 and 8 as early as 1912 [William H. Benedict to Julia Lawrence Wells, August 27, 1912, Rutgers University Special Collections, Wells Papers, MC 727, Box 8, Folder "Elm Farm"].

The lots actually ranged from 400 to 640 acres in size, as indicated on the 1685 Reid map [John Reid, "A Mapp of Rariton River Millstone River South River Rahway River Bound brook Green brook & Cedar brook & Also the several plantation thereon...,'' 1685, New Jersey Historical Society].

1685 **June 20.** East Jersey Proprietors "granted released & confirmed" to James

Miller, "late of the Kingdom of Scotland, now of Amboy Perth [sic] … merchant,"

"all that tract of land … on the south side of the Raritan River in the county of Middlesex [Somerset]" …. bounded on the southeast by "Gershom Bown's land," on the northeast by the Raritan River, on the northwest by "Richard Jones land" and the southwest "by land not laid out" and containing 608 acres [East Jersey Deeds, Book A2, page 282].

The instrument notes that the conveyance to James Miller was by right of his having acquired on August 20, 1682 from Robert Burnet of Lothian, Scotland, (one of the 24 East Jersey Proprietors) 2/30^{ths} of 1/24th of a proprietary share. [Brecknell, *SCHQ*, 1982, page 18].

The Miller lot was referenced by Brecknell as "Lot 6 Miller's Lot;" the land bordering it on the southeast ("Gershom Bown's land") as "Lot 5 Bridgeman's Lot;" and the land bordering it on the northwest ("Richard Jones land") as "Lot 7 Jones's Lot" [Ibid., pp. 17 & 18]

The Miller lot evidently encompassed The Meadows Foundation property and the site of the "Symon Van Winkle House."

1685 A map of surveyed lands along the Raritan River and its tributaries in eastern New Jersey, includes the lots patented by Inians and his associates, including "R[obert] Bridgeman 500 [acres]," (Brecknell Lot 5); "I Miller [James Miller] 600 [acres]," (Brecknell Lot 6); "R Ioans [Richard Jones] 500 [acres]," (Brecknell Lot 7); and "Cap^{t} Clemants" (Brecknell Lot 8); [John Reid, "A Mapp of Rariton River Millstone River South River Rahway River Bound brook Green brook & Cedar brook & Also the several plantations thereon…,'' 1685, New Jersey Historical Society].

1687/88 **February 10.** John Reid, of Monmouth County, East Jersey, gentleman and James Miller of Scotland, merchant, by his attorney John Reid, conveyed to the Honorable Robert Barclay of Scotland in exchange for 1,000 acres of land in Monmouth County the 608-acre tract on the Raritan River in Middlesex [Somerset] County [East Jersey Deeds, Book B, page 249].

The deed description of the tract matches that of the 1685 deed from the East Jersey Proprietors to James Miller [East Jersey Deeds, Book A2, page 282, Brecknell's "Lot 6 Miller's Lot"].

1688 Lot 7 of the Raritan River lots is purportedly patented to Richard Jones, although recorded deeds and other sources (see 1685 entries) identify it as his lot several years earlier [Brecknell, *SCHQ*, 1982, page 18].

This lot evidently encompassed the site of the Van Wickle-Beach House

(Rutgers Preparatory School, just north of the subject property)

1693 **July 19.** By his will of this date, Richard Jones of New York devised "To my two, daughters, Dorcas and Hester Jones, all my land and meadows within the Province of New York and East New Jersey, except as hereafter disposed of, and two thirds of my personal estate." The will is probated on September 13, 1693, and Jones's widow Dorcas is granted letters of administration on October 3, 1693 [Abstract of Wills on File in the Surrogates Office, City of New York, 1665 -1667, Vol.1. *Collections of the New York Historical Society for the Year 1892*, Vol. 25, pp. 222 & 223]

A 1739 memorandum documents that Richard Jones' 500-acre lot on the Raritan River (Lot 7) was part of his two daughters' inheritance and indicates that the property was to be divided equally between them [Memorandum of an Agreement between Thomas Orby Hunter and Peter Schuyler, Minutes of Special Verdict, New York Superior Court, 1739, Robert Hunter Papers, Box 1, File 14, New York Historical Society]

c. 1693– 1730 Upon the death of Richard Jones in 1693, the 500-acres tract (Lot 7) is inherited by his two daughters in accordance with his will. Both daughters subsequently died, and their half interests eventually passed respectively to Peter Schuyler and Robert Hunter [Memorandum of an Agreement between Thomas Orsby Hunter and Peter Schulyler, Minutes of Special Verdict, New York Superior Court, 1739, Robert Hunter Papers, Box 1, File 14, NYHS].

A 1735 memorandum states that Schuyler claimed his half interest in the lot by his marriage to Hester Jones' heir and that Hunter claimed the whole tract by right of survivorship, since Hester predeceased Dorcas Jones. [Abstract of the State of Thomas Orby Hunter [Richard Hunter's son] his affairs in New York and New Jersey since the abstract of his father's affairs of July 7, 1734 to July 1736, Robert Hunter Papers, Box 1, Folder 14, NYHS]. The memorandum does not state how Hunter acquired Dorcas Jones' interest in the property, but he probably did so sometime after he arrived in America in 1710.

This dispute complicated the management of the property (the abovementioned Abstract noted that "without [Schulyer's] title it would not sell"), and was the subject of a court case (see 1739 entry).

Robert Hunter (1666 –1734), the son of a Scottish lawyer and the grandson of the Scottish laird of Hunterston, probably acquired title to the Jones tract (lot 7) sometime after he arrived in New York in June 1710, having recently been appointed governor of both New York and New Jersey, and before he returned to England in 1719. In 1720, he exchanged the office of governor for that of comptroller of the customs, held by William Burnet. Hunter was

appointed governor of Jamaica in 1727 and died there in 1734 [Paul A. Stellhorn and Michael J. Birkner (eds.), *The Governors of New Jersey 1666 –1974*, pp. 44-46].

According to the above-referenced biographical source: "Hunter did not limit his interests to politics in New Jersey. He owned extensive property: more than one house in Perth Amboy, 500 acres along the Raritan and on Burlington Island." [Ibid., page 45]

The Peter Schuyler who inherited an interest in the Jones tract presumably was a member of the prominent New York Dutch family of that name settled principally at Albany, New York. There are at least three candidates. Two are Pieter Schuyler (1757 – 1724) and his son Pieter (born 1698), the latter perhaps more likely the one in question given that documents referencing Peter Schuyler in the 1730s do not describe him as deceased. The elder Peter Schuyler played a prominent role in New York governmental affairs and served on the executive council, the appointed upper chamber of the New York's colonial legislature. As the senior member of the council, the elder Schuyler served as acting governor of New York for a short time after the death of Lord Lovelace in 1709 and again between Governors Hunter and Burnet in 1719/20; thus he and Robert Hunter would have been acquainted [Pieter Schuyler, en.wikipedia.org (accessed April 2016)]

The third possibility is Pieter Schuyler (1710 – 1762), a wealthy landowner, mine owner and militia officer residing in northeastern New Jersey, who also was a descendant of Schuyler family of Albany [Pieter Schuyler (New Jersey), en.wikipedia.org (accessed April 2016].

Additional research will be necessary to determine which Peter Schuyler married Hester Jones' heir and how Robert Hunter acquired his interest in the Jones' lot on the Raritan.

1703 **May 29:** Thomas Cardale of Jamaica conveyed to Evert Van Wicklen, Gerardus Beekman and Leffert Pieterse of Kings Co, Long Island, for £200 a 450-acre tract adjoined Richard Jones' lot (Lot 7), its boundary description beginning at the northwest corner of Richard Jones deceased. This was Lot 8 of the Raritan River lots (Brecknell's Lot 8 Clement's Lot) [East Jersey Deeds Book I, page 425; see also William H. Benedict to Julia Lawrence Wells, August 27, 1912, Rutgers University Special Collections, Wells Papers, MC 727, Box 8, Folder "Elm Farm;" Bailey, p. 466; HABS, NJ 479, p. 2; and Brecknell, *SCHQ*, 1982, page 23].

The erroneous interpretation that Lot 8 encompassed the site of the subject property (the Meadow's Foundation's "Symen Van Wickle House") and the adjoining Van Wickle/Beach house (the Rutgers Preparatory School

property) can be traced back as early as a 1912 letter from William H. Benedict, New Brunswick resident and prolific local historian, to Miss Julia Lawrence Wells, whose family owned the Van Wickle-Beach House. In response to a request for information about her family property, Benedict informed Miss Wells of his discovery of the 1703 deed, noting that "this land was in Lot 8 of the Raritan Lots, –Richard Jones owning Lot 7 & was therefore about 3 ½ miles from the Albany St. Bridge there seems to be quite some similarity between this deed & your property" [William H. Benedict to Julia Lawrence Wells, August 27, 1912, Rutgers University Special Collections, Wells Papers, MC 727, Box 8, Folder "Elm Farm"]. This observation, along with genealogical data on the Van Wickle family, evidently was provided by Miss Wells to Rosalie Fellows Bailey, who included it in her discussion of the adjoining dwellings in her 1936 book on early Dutch houses, concluding erroneously that "It is probable that Evert bought out the interest of his two partners [Beekman and Pieterse]" and that "his son Symen Van Wickelen of Van Wickle settled on his father's property along the Raritan River about 1722, building a house still standing [the subject property, the 'Symen Van Wickle House'] (plate 140)" [Rosalie Fellows Bailey, *Pre-Revolutionary Dutch Houses and Families in Northern New Jersey and Southern New York*," pp. 466 & 470].

Benedict also informed Miss Wells that Evert Van Wicklen (the father of Symon Van Winkle) and his partners had acquired extensive lands originally owned by William Dockwra located northwest of the site of her family property, which information also was noted by Bailey [William H. Benedict to Julia Lawrence Wells, August 27, 1912, Rutgers University Special Collections, Wells Papers, MC 727, Box 8, Folder "Elm Farm;" Bailey, page 466].

According to local historian Ursula Brecknell, Evert Van Wickls's landholdings included: "1,800 acres assembled by [William] Dockwra in the northwest corner of [Franklin] Township seemingly incorporating [Raritan River] Lot 12, with two miles of river frontage," as well as 400 acres in Dockwra's 2000-acre parcel;" and "Beekman and Van Wicklen together purchased [Raritan River] Lot 10 from Dockwra in 1700s, although a deed has not been located." [Brecknell, *SCHQ*, 1982, page 23]

According to a family genealogy published in 1960, which sought to clarify information provided in earlier genealogies, Evert Janse Van Wickelen (c. 166– ?), son of Jan, "came to America ca. 1664, presumably as a small child in the company of his parent … possibly from the village of Wykel in Friesland." Evert "of Fllackland" (in Kings county, New York) took the oath of allegiance in September 1687, claiming he had been in America for twenty-three years. He and Mettye Symonsen, both of N. Amersfort, were betrothed on February 27, 1690, and subsequent documents reference him as a resident of Kings County (the localities of Midwout, Flatbush and New

Lotts), including member of the county militia in 1715. While he acquired considerable land in the Raritan Valley, there is no evidence that he moved there.

He and his wife had seven known children, including Symon or Simon, probably born c. 1700, died in 1753/54, who married Gerradina Kouwnhoven, and Geertie, probably born c. 1702, who married Hendrick Suydam in 1719. Metje Van Wikkele joined the Dutch Reformed church at Harlingen on October 14, 1730; perhaps she relocated in New Jersey to live with her children after her husband's death [Richard W. Cook, "The Van Wickelen Family," *The Genealogical Magazine of New Jersey*, Vol. 35, May 1960, pp. 49 & 50; see also Teunis G. Bergen, *Register in Alphabetical Order, of the Early Settlers of Kings County, Long Island from its First Settlement by Europeans to 1700*, pp. 366-367; and Edith H. Mather, "Van Wickle of Somerset and Middlesex Counties, New Jersey, *Proceedings of the New Jersey Historical Society*, Vol. 54, April 1936, pp. 118 & 119].

1703 **June 16**. John Johnstone, John Harrison, George Willowby, Cornelius Longveilt and Richard Hawden conveyed to Denis [Denys] Vanduyn and Guisbert Dehart the tract of land constituting Raritan River Lot 6:

"all that tract of land on ye south side of the Raritan River in ye county of Middlesex" .... bounded on the south by Gersom Bown's land, on the northeast by Raritan River, on the northwest by Richard Jones land and the southwest "by land not laid out" and containing 608 acres [as referenced in East Jersey Deeds, Book A2, page 265].

The deed description of lot boundaries and adjoining properties matches that of the 1685 deed from the East Jersey Proprietors to James Miller [East Jersey Deeds, Book A2, page 282] and the 1687/88 deed from James Miller and John Reid to Robert Barclay [East Jersey Deeds, Book B, page 249]; it is Brecknell's "Lot 6 Miller's Lot."

The grantors likely acquired title to the tract (Lot 6) sometime after the death of Governor Robert Barclay in 1690 [Brecknell, *SCHQ*, 1982, page 18].

Later deeds and estate records indicate that sometime after 1708 the tract (lot 6) was subdivided and provide evidence that Denys Van Duyn, a resident of Kings County (Brooklyn), New York, retained ownership of western half of the property until his 1729 death, but none that he ever resided on the property (see 1708, 1729, 1755, 1757, 1797 & 1799 entries).

However, an 1880 account of the early settlers of Kings County maintains that Denys Van Duyn did move to Somerset County for a time, without giving any sources for the assertion, stating that he:

"left Fl^{h} [Flatbush] and removed to Three Mile Run, Somerset Co., N. J., where he resided as late as 1723. Returned to Fl^{h} [Flatbush] and resided on the farm conveyed to him by his father, as per p. 174 of Lib. 2 of Con., adjoining to and partly in N. U. [New Utrecht], now (1880) the heirs of George Martense, dec. Took oath of allegiance in Fl^{h} [Flatbush] in 1687 as a native. On cen. [census] of 1698 and in 1707 a deacon in Fl^{h} ch. [Flatbush Church]. Assessed in 1706 in N. U. [New Utrecht] for 35 A. [acres]." [Teunis G. Bergen, *Register in Alphabetical Order, of the Early Settlers of Kings County, Long Island from its First Settlement by Europeans to 1700*, page 331].

According to genealogists, Denys Van Duyn (c. 1666 – 1729) was the son of Gerrit Cornelise Van Duyn (? – 1705/06), a Dutch immigrant who settled in Flatbush (Brooklyn), New York, and his wife, Jacomina Helekers (aka Swarts). Denys Van Duyn probably was born c. 1666, as the bans for his marriage to Marytie Huycken reputedly were dated February 4, 1691 (his parents reputedly married in October 1663, his brother Cornelius reputedly was baptized on July 16, 1664, and his marriage bans occurred on January 4, 1691) [Bergen, *Early Settlers of Kings County,* pp. 331 & 332]. According to one source the marriage bans read: "Deonys Gerrets van Duijn, young man at New Utrecht, with Marytie Buycsie [sic; misreading of handwritten Huycken], young lady at Brooklyn." [Pat Wardell, compiler, "Early Bergen County Families," http://njgsbc.org/files/BCFamilies/BCFam-VanDuyn.pdf (accessed April 2016)].

Denys Van Duyns and wife had at least eleven children, as named in his 1729 will, including William the eldest, who reputedly was baptized March 4, 1795, and Denys [Bergen, *Register*, page 331]. Denys Van Duyn's 1729 will, dated only a few month before it was probated, gives his residence as "Flatbush, Kings County, New York" and documents that his sons William and Denys were already living on the plantations on the Raritan in Somerset County that he devised to them, (see 1729 entry) [William S. Pelletreau, *Abstracts of Wills on File in the Surrogate's Office, City of New York, Collections of the New York Historical Society, Unrecorded Wills*, Vol. XI, Prior to 1790, pp. 134 & 135].

Perhaps, Denys Van Duyn the elder did relocate to Somerset County for some time to supervise or assist in improving his property there and establishing the plantations that his sons occupied and inherited.

According to the above referenced 1880 genealogical account, Gerrit Cornelise Van Duyn (Denys' father) first "emigrated in 1649 from Nieuwkerk in Zeeland" and, after living in Brooklyn, Kings County, for a time, received permission on August 10, 1670 "to return to Holland, and

with his wife kept house in Zwolle in Overyssel, but not prospering, he returned in 1679." Gerrit eventually settled on a farm straddling the line between Flatbush and New Utrecht, Kings County, New York, which he purchased from his brother-in-law, Jacques Cortelyou, and subsequently conveyed to his son Denys [Bergen, page 331]. According to another source he acquired the farm on February 6, 1684/85 and conveyed to Denys on June 6, 1698 [Pat Wardell, compiler, "Early Bergen County Families"].

Gerrit's will (dated June 30, 1705 and proved June 14, 1706) names four children: Cornelius, Denyse, Abraham, and Ashe. To his son Cornelius Gerit devised "the farm where I now live at New Utrecht" subject to the payment of "£150 by Cornelius to his three named siblings, and his land in Dutchess County to all four children. Gerrit also bequeathed "all my working tools for the carpenters and wheel wrights work" to Cornelius [New York Surrogate Records, Book 7, page 250, as referenced in Bergen, *Register*, page 331].

1703 **September 9**. Guisbert Dehart conveyed to Geradus Beekman the undivided half part of the 608-acre lot on the Raritan River (lot 6) that he acquired on June 16, 1703 [as referenced in East Jersey Deeds, Book A2, page 265]; Brecknell's "Lot 6 Miller's Lot."

1703 A reputed subscription list (described in 1873 as "recently uncovered by Ralf Voorhees, Esq., of Middlebush" and reputedly dating to 1703) of individuals subscribing the amount of £10.16.6 to pay for the costs of bringing Dutch Reformed minister from Holland to served the residents of what became Franklin Township and New Brunswick included the names of Simon Van Winkelen, William Van Duyn and Dennis Van Duyn [Abraham Messler, D. D., *Eight Memorial Sermons with Notes for a History of the Dutch Reformed Churches in Somerset County, New Jersey*, pp. 161 & 205; see also Snell, *History of Hunterdon and Somerset,* II, page 819].

Messler gave two versions of the list, of which only the second on page 205 includes the name of Denys Van Duyn; Snell's version of the list omits Denys Van Duyn's name. The date given for the list would appear to be incorrect, since Simon Van Winkelen and the brothers William and Deyns Van Duyn would have been children in 1703, their fathers were living in Kings County around that time, and there are no other adult men of Van Duyn or Van Winkle families known to have been living in the Raritan Valley at the time (see previous 1703 entries).

1708 **July 22.** Geradus Beekman and wife Magdelene conveyed to their son Adrian Beekman one "half part of ye said land and premises" of the undivided half of the 608-acre tract (lot 6) acquired by Geradus from Gusibert Dehart in 1703 [as referenced in East Jersey Deeds, Book A2, page 265]; Brecknell's "Lot 6 Miller's Lot."

1708 **October 28.** Col. Geradus Beekman of Flatbush and his son Adrian Beekman and his wife Lucretia conveyed to Charles Fountaine of Bushwick, yeoman, for £450 paid to Adrian Beekman the one undivided "half part of ye said land and premises" of the 608-acre tract (lot 6) acquired by Geradus from Gusibert Dehart in 1703 [East Jersey Deeds, Book A2, page 265]; Brecknell's "Lot 6 Miller's Lot."

Sometime thereafter, Fountain and Denys Van Duyn, owner of the other undivided half in the property, must have divided the property, with Fountain receiving the eastern or downriver half and Van Duyn, the western or upriver half. Fountain, presumably settled on the property shortly after his purchase, as he "was a founding member of the Six-Mile-Run church in 1710" [Brecknell, *SCHQ*, 1982, page 26]

Early 1720s A pamphlet complaining of the practices of the Rev. Theodore Frelinghuysen, the newly appointed minister of the Dutch Reformed congregations in the Raritan Valley, was reputedly signed by sixty-four "heads of families," including Wilem Van Duyn and Denys Van Duyn, evidence suggesting that Denys Van Dyun's two sons were residents of the area by this time, presumably established on his property [Messler, pp. 178 & 179]

1722 **November 25:** Symon Van Wickelen and his wife Dinah are listed as sponsors at a baptism of Antje, daughter of Aeltje and Henderick Blauw in the records of the Dutch Reformed church in New Brunswick. ["New Brunswick First Reformed Church Baptisms, 1717– 1820," *Proceedings of the New Jersey Historical Society*, XI, #2, April 1926, page 209]

According to family genealogists, Simon Van Wickle, son of Evert Jansen Van Wickelen and Metje Simonson, probably was born c. 1700, died in 1753/54, and married Gerradina Kouwnhoven of New Lotts. Their daughter Elsie was baptized on June 9, 1723 in the Dutch Reformed Church in Flatbush, Kings County [Cook, page 51Bergen, *Register*, page 367].

It may be that Symon [Simon] Van Winkle either did not moved to Somerset until after the baptism of his daughter, or that he or wife had perhaps returned to Kings County for a time.

1726 **January 1.** According to family genealogy, Evert, son of Simon Van Twickle (presumed a mistake for Van Winkle) and his wife Dina was baptized at the Dutch Reformed Church of Raritan [*Somerset County Historical Quarterly*, Vol. 2, page 213].

This suggests Symon [Simon] Van Winkle moved to Somerset between 1722 and 1726, at which time he would have been in his early twenties and

presumably newly married.

1729 **August 19.** Denys Van Duyn, of Flatbush, Kings County, New York, "being very sick," executed his will in which he devised his real and personal property to eleven named children: William, Denys, Gerritt, John, David, Jacomyntie, Anetje, Lydia, Keziah, Maria and Jacobus. He appointed as executors his sons William and Denys and son-in-law, George Anderson. Proved, November 3, 1729 [William S. Pelletreau, *Abstracts of Wills on File in the Surrogate's Office, City of New York, Collections of the New York Historical Society, Unrecorded Wills*, Vol. 11, Prior to 1790, pp. 134 & 135].

His three, apparently eldest sons were to receive property, subject to payment of substantial sums to his executors to be divided equally among all of the named children. The other sons and their sisters also received monetary bequests to be paid on their marriage day or thirtieth birthday.

His eldest son **William** was to receive (in addition to "£5 for his birthright") **"all that tract of land or Plantation, whereon he now lives, at Raritan, in Somersett [sic] County, in Province of New Jersey, being 250 acres,"** subject to the payment of £400 to be divided among all his children.

Son **Denys** was to receive, "**all that tract of land or Plantation where he now lives, at Raritan, aforesaid, being 200 acres**," along with "**another piece at Raritan, of 50 acres, which is the rear part of the wood land adjoining my son William**," subject to the payment of £430 to be divided among all his children.

Son Gerritt was to receive his homestead farm "whereon I now live, in Flatbush," along with other property, subject to the payment of £643 like his brothers.

The 250-acre plantation inherited by William and the 50-acre lot inherited Denys clearly adjoined each other, and the combined 300 acres evidently represent the half portion of the 608-acre tract (lot 6) acquired by the senior Denys in 1703 (see 1703, 1755, 1757, 1797 & 1799 entries).

In an 1873 article about the many early Dutch settlers along the Raritan River and their origins, Ralph Voorhees had this to say about the Van Duyn family: "In 1649 came Garret Van Duyn [to New Amsterdam], who was an elder of the church of New Utrecht, and who died in 1706. Two of his grandsons, William and Dennice (sons of his son Dennice), settled on adjoining farms along the Raritan, in Somerset County, three miles above New Brunswick" ["The Raritan and its Early Holland Settlers (Third Part)," *Our Home A Monthly Magazine*," Vol. 1, no. 3 (March 1873), page 97].

According to family genealogists, William Van Duyn (1695 – 1773), son of Denys Van Duyn and his wife Marytie (Huycken) was baptized on May 4, 1695 at the Dutch Reformed Church, New Utrecht, Kings County, New York, and married Sybrech Verkerk, daughter of Roelof Verkerk and his wife Catarina (Simmons), who was baptized on May 4, 1695 (Dutch Reformed Church, New Utrecht, Kings County, New York), and "settled in Middlebush, Somerset County, New Jersey." [Wilson V Ledley, "The Van Kirk Family," *Genealogies of New Jersey Families for the Genealogical Magazine of New Jersey* (Joseph R. Klett, ed.) page 963; Bergen, *Early Settlers of Kings County*, pp. 333 & 369-371; Teunis G. Bergen, *The Bergen Family*, page 518]. According to one source they were married in 1720 in New York [David Conover's Famous Cousins, Person Page 2730, conovergeneaology.com (accessed April 2016)].

William Van Duyn's 1773 will named five children, sons Roelif and Denys and daughters Mary, Catherine and Sarah [NJ Wills 430R]. One early genealogical source states that his son Denys was baptized on September 13, 1724 and son William on October 3, 1733, and references both as "of N. J." [Bergen, *Early Settlers of Kings County,* page 333]. This source does not mention Roelif or the three daughters, but lists Cornelius and "Jacobus (supposed)" as his children, both described as "of N. J."

According to 19th century historian Teunis Bergen, Denys Van Duyn, son of Denys Van Duyn and his wife Marytie (Huycken), married Antje (?), and "settled in Middlebush, Somerset County, New Jersey." This source names the following children as Adriantje, baptized February 27, 1733, died young; Maria, baptized June 22, 1735; "Jan of Fleming," baptized August 7, 1737, married Magdelena Van Nusye; and Adriantje, baptized January 29, 1740 [Bergen, *Early Settlers of Kings County,* page 333]. One source gives his birth date as c. 1697 and his wife's maiden name as Noorstrand [Denys Van Duyn, myheritage.com (accessed April 2016)].

While when William Van Duyn settled on his father's portion of Lot 6 is unknown, he probably would not have done so until after he had reached adulthood (based on the date of his baptism, he reached the age of twenty-one c. 1716). He likely was established there by the early 1720s, based on the available evidence (the abovementioned genealogical sources and the reputed signatures of William and his brother Denys on the early 1720s remonstrance against the Revered Frelinghuysen; see early 1720s entry).

1730 **October 10.** A memorandum of a failed attempt by Robert Hunter's agents to lease a 60-acre river-front portion of his 500-acre lot on the Raritan to one Edward Atwood provides information about property improvements, as well as crops and farming practices at that time, including the planting of apple trees, fencing to protect the trees from cattle, and the rotation of crops:

"sixty acres of Brigadier Hunters lott on Rariton to be taken off in a square fronting the River the breath of the lott and in consideration thereof he [Edward Atwood] is the first year to plant fifty apple trees good trees about four inches round and kindly [?] not slanted and to be planted at thirty three feet distance in Straight rows. If Brigadier Hunter permits [Atwood] to stay a second quarter to take a second crop there to plant as a second crop one hundred such trees as afore in the like manner ranging with the former and if a third year there to plant for one hundred fifty of such trees in the like manner. That is he [Atwood] takes a crop of winter wheat first he shall only the next years take a crop of Peas Buckwheat and Indian corn of the same land. That after the expiration of three years he is to make a new bargain which he is to have the refusal of the three years to begin March next. He is to fence the apple trees with a very good fence to preserve them from being hurt with cattle and after three years, he is to leave all the cleared land in sufficient fence." [Memorandum that James Alexander, Attorney for Brigadier Hunter, hath leased to Edward Atwood, Robert Hunter Papers, Box 1, Folder 9, NYHS]

The memorandum also noted "payments for Letting some of General Hunters lot on Raritan to Edward Atwood, but he would not accept the terms October 10, 1730" [ibid.] However, while unclear which party to the lease would not accept the terms, it most likely was Hunter (see next entry).

1731 **March 3.** A memorandum by Hunter's agents regarding the leasing and/or selling of his Raritan lot noted that since Hunter was unwilling to enter into a long term lease for the property, the agent leased a small portion of the same to "John Kelly a laboring man" who desired to build a small house for his family's use and establish a small garden "at the apple trees there already planted, in exchange for caring for the apple trees, fencing the orchard and protecting the timber on the property from thieves, his tenure to be at Hunter's pleasure:

"Whereas I have sundry times wrote to Major General Hunter concerning the letting and selling of his lott [sic] on the Raritan and he is not inclined to sell nor to let for so long a term as those who had offered to lease....and whereas John Kelly a laboring man who has a family has now desired leave to built a little house to cover himself and family at the apple trees there already planted and to improved about a quarter acre of land for a garden plot and to remain in it at the discretion and will of Major General Hunter ... in consideration thereof [Kelly] has promised to fence the apple trees about and to prune and preserve them and to preserve the timber on the land of General Hunter from being cut or carted away by any person and has promised not to cut or cart any away himself for use but such small underwood there now for in the house he shall build." Kelly also was to cut the apple tree "suckers" and plant them "in a little nursery in the garden" and, if he stayed the following year, to transplant them in an orchard. He

also was to fence what he planted [Lease at will to John Kelly for a garden plot on General Hunters lot on Raritan River, Robert Hunter Papers, Box 1, Folder 9, NYHS].

1732 **March 29.** Simon Van Wickelen joined the Dutch Reformed Church at Harlingen, Somerset County, NJ by confession; Dina Kouwenhove, (his wife?) had joined the church, received by certificate, on August 11, 1729. The church was organized in 1727 ["Records of the Harlingen Dutch Reformed Church, Montgomery Township, Somerset County," *The Genealogical Magazine of New Jersey*, Vol. 15, January 1940, pp. 1 – 5].

March 29. Denys Van Deuijn and Antje his wife joined the church, received by certificate [Ibid., page 4].

1734 **April.** A memorandum regarding the property of Robert Hunter in New York and New Jersey, presumably prepared by his agents Archibald Kennedy and James Alexander (see 1735 entry) included as item 10: **"your 500-acre lot at Raritan not let"** [Abstract of April 1734, Robert Hunter Papers, Box 1, Folder 4, NYHS].

1734 Robert Hunter died in Jamaica, where he was serving as governor [Stellhorn and Birkner, page 45].

1735 **February 14.** Thomas Orby Hunter of Lincolnshire, England [son and heir of Robert Hunter] gave his power-of-attorney to James Alexander and Archibald Kennedy of New York [Thomas Orby Hunter power-of-attorney to James Alexander and Archibald Kennedy, Robert Hunter Papers, Box 1, Folder 14, NYHS].

1735 The reputed 1735 tax list of what became Franklin Township (but then was known as the Eastern Precinct) included listings for Deyns and Willem Van Duyn, along with Symon Van Wikele (sic) and Charles Fontine [Snell, page 815]

The list is not alphabetical, suggesting that the order of names reflects a geographic distribution. An abstract of portion includes the following:

Folkert Folkeres, 150 acres
Charles Fontyn, Sr., 150 acres, 15 cattle and 10 sheep; tax £2.3.3
John Fontyn, 6 cattle; tax £1.10.1
Denys Van Duyn, 200 acres, 9 cattle and 6 sheep; tax £0.7.2
Isack Yanse, 154 acres
Corneles Pieterse, 100 acres
Abraham Ouke, 60 acres
Cornelius Sedam, 250 acres
George Anderse, 250 acres

Charles Fontyn, 10 acres
Jacus Fontyn, 350 acres
Abraham Fontyn, 200 acres
John Smack, 140 acres
William Van Duyn, 250 acres, 10 cattle and 11 sheep; tax £1.6.3
Simon Molferd, 50 acres, 13 sheep; tax £2.2.3
Symon Van Wikele, 250 acres; 16 cattle and 16 sheep; tax £2.11.0.
Roeloff Sebrunt, 330 acres
Philip Folkers, 400 acres

William Van Duyn's 250 acres presumably represents the land that he inherited from his father in 1729, and Simon Molferd's 50 acres likely represents the 50 acres that Denys inherited, which he sold or rented to Molferd; both on the Miller tract (Raritan Lot 6). Symon Van Wikele's 250 acres presumably was located on the Jones/Hunter tract (Raritan lot 7), although he evidently did not acquire title to it until a few years later (see 1736 and 1737 entries), and presumably was renting it from the Hunter estate and/or Peter Schuyler (see c. 1693 -1730 entry). The 1733 record of Hunter's 500-acre lot (Raritan lot 7) as "not let" suggests the Van Wickle did not move to the property until after that date (see 1733 entry).

1735 **December 23.** The real estate of "Major General [Robert] Hunter" in New York and New Jersey was offered for sale by "*Archibald Kennedy* and *James Alexander* of *New York* who are inpowered [sic] to sell," including lot:

"5. A **five hundred acre lot of land on the south side of *Rariton [sic] River***, about three miles above *New-Brunswick*, **formerly Richard Jones's lot**, lying between Governor *Barclay's* and Clements lot." [*The New York Gazette*, December 23, 1735, as quoted in *New Jersey Archives*, First Series, XI, *Newspaper Extracts*, I, 1704-1739, page 440].

1736 **June.** The 1736 abstract of Thomas Orby Hunter's "affairs" in New York and New Jersey noted that the 500-acre Raritan lot had been sold, an agreement between Peter Schuyler and Thomas Orby Hunter having been reached. Item 10 of the abstract explained that having "agreed with him [Peter Schuyler] as per copy of the agreement sent [to] … Albany June last and sold it [the 500-acre lot] pursuant to the agreement [Hunter's agents had] for your half in hand £150.0.0." Payment for the property was to be spread over four years, with the second payment £150.0.0 due on June 1, 1737, the third payment of £150.0.0 due on June 1, 1738, and the fourth payment of £125.0.0 due on June 1, 1739, totaling £575.0.0 for Hunter's share of the property sale. [Abstract of the State of Thomas Orby Hunter [Richard Hunter's son] his affairs in New York and New Jersey since the abstract of his father's affairs of July 7, 1734 to July 1736, Robert Hunter Papers, Box 1, Folder 14, NYHS].

1737 **June.** In his accounts for Thomas Orby Hunter, James Alexander credited Hunter on June 1:

"by cash of Fountain 15.0.0
by do of Cowenhoven 75.0.0
by do of Rapellae 30.0.0"

and on June 11

"by do of Van Winkle & Sebrin 30.0.0"

adding that "these last four articles make the second payment for half the Raritan lot sold"

[James Alexander, Records and Accounts relating to his services on behalf of the children of Governor Hunter, James Alexander Papers, Bound Volumes, NYHS].

That these five individuals contributed to the second payment for Hunter's half of lot 7, does not mean that all five were the buyers of the property, only that they made payment on behalf of the buyer, which the 1735 tax role suggests was Symon Van Winkle.

1739 A memorandum of the minutes of the court case instituted to resolve the differences between Peter Schuyler and the heirs of Robert Hunter noted that Peter Schuyler had received £575. "part of the profit of the said five hundred acres" and that if the court decided that Dorcas Jones was entitled to the entire tract after the death of her sister "then the jury finds Peter Schuyler did abuse" and would have to pay £575 in damages. However, if the court determined that Dorcas was not entitled to the entire property the jury found "that he defendant did not abuse." [Memorandum of an Agreement between Thomas Orsby Hunter and Peter Schulyler, Minutes of Special Verdict, New York Superior Court, 1739, Robert Hunter Papers, Box 1, File 14, NYHS].

Additional research would be necessary to locate the Court's final determination.

1749 **May 27.** Nicholas Van Wickle (Symon's son) and Catherine, daughter of John Boice received a license to marry [Mather, *PNJHS*, 1936, page 122].

1752 **December 9.** Evert Van Wickle and Cornelia, daughter of Christianus Lupardus received a license to marry [Mather, *PNJHS*, 1936, page 121].

1753 **August 14.** Symen Van Wicklen of Somerset Co, yeoman executed his

will, in which he devised his real and personal estate to his wife Dinah, sons Evert and Nicholas, and six daughters, Anne, Mary, Dinah, Elsee, Marjje and Seytje. His sons were appointed jointed executors, and the will, signed "Symen van Wickle," was probated on January 3, 1755 [NJ Wills 190R].

He **divided his plantation** on the Raritan River into two equal portions, devising the **lower southeasterly portion** to his **son Evert**, along with a 12-acre meadow lot and a 31-acre house lot, both on the north side of the river, and one half of a 5-acre "salt marsh or meadow." He bequeathed the **upper or northwesterly portion** of the plantation to his **son Nicholas**, who also received the other half of the salt marsh. The 'division fence on said plantation" was to be moved to the new boundary [NJ Wills 190R].

Evert was to receive all of the "**horses, cattle, sheep and farming utensalls [sic] that is now on or about my said plantation"** not otherwise disposed of, along with "my negro boy Jack," while Nicholas was devised all the stock and farm equipment "now on that part of my Plantation whereon he lives and now in his possession." His ""Guns Pistells [sic] and Swords" were to be divided equally between them.

In lieu of her dower, **wife Dinah** was to receive "the whole **use of my Parlor and the small room back of it in the house wherein I now live** for and during her widowhood/" also £20 per year paid out of his personal estate by his sons, a yearly supply of "wheat or flour" and firewood each year, and the use of two milk cows that were "to be pastured by ... Evert and wintered by" both sons, as well as the "use of all and singular my household goods, plate and furniture and all other of my household furniture whatsoever that is now in and about the house wherein I now live. She also was to receive outright his "negro girl Cato."

Symen bequeathed £200 each to each of his six daughters to be paid over a period of time in accordance with a detailed formula. Female slaves to the value of £41 were to be purchased for three daughters (Anne, Mary & Dinah) and Mary and Dinah also were to receive "outsets" upon their marriage comparable to what their other sisters had received, along with three cows each.

He also specified that **his "old negro man" and "old negro woman" were to remain on his plantation under the care of Evert "for and during the widowhood of my wife Dinah**." After the death or remarriage of Dinah, the household goods and two cows provided for her use, along with the abovementioned two slaves were devised to his eight children "share and share alike."

The will's language regarding the division is as follows: "the **plantation whereon I now live to be divided** in the manner and form following (that is

to say). Beginning at the Raritan River at the mouth of a Gully back of my Barn where it now stands and to run from hence up the Gully aforesaid to the head thereof and from thence to run Such courses as will divided the said Plantation in two Equal parts, and when so divided I Give Devise and Bequeath into my **son Evert Van Wicklen** his heirs and assigns all that **lower or South Easterly part of my said Plantation** So as aforesaid Divided with all and Singular the appurtenances there into belonging..., **also** I give Devise and Bequeath unto the said Evert his heirs and assigns the **meadow on the Northerly side of** the Said **Raritan** River containing about twelve acres... **Also** ... Evert... the **house and lot** of Ground Over the River and on the Northerly side of the Raritan road which I lately purchased from my son-in-law Joseph Mount Containing about thirty-one acres I Give Devise and Bequeath into my **son Nicholas Van Wicklen** his heirs and assigns all that **upper or North Westerly part of my said Plantation** So as aforesaid Divided with all and Singular the appurtenances there into belonging."

The wording of Symen's will provides strong evidence that Evert's inherited half of his father's plantation, the southern or down-river half, included his father's residence, where he lived with his widowed mother until his death in 1757, while Nicholas lived on his inherited half at the time his father wrote his will. Symen specified that his "old negro man" and "old negro woman" were to remain on his plantation under the care of Evert "for and during the widowhood of my wife Dinah," and that Dinah was to receive "the whole use of my Parlor and the small room back of it in the house wherein I now live for and during her widowhood." In the division of Symen's livestock and farming equipment, Evert was to receive all "that is now on or about my said plantation" while Nicholas was devised all the stock and farm equipment "now on that part of my Plantation whereon he lives and now in his possession" [NJ Wills 190R].

1753 A list of freeholders of the Eastern Precinct, Somerset County for this year included #29, Jacobus Van Duyn; #38, Simon Van Wicklen; #39, William Vanduyn; and #52, Denice Vandine; as appearing on "A list of the Eastern Precinct of the Free holders there in the County of Somerset." [Russel Bruce Rankin, contributor, "Eighteenth Century Freeholders in New Jersey," *The Genealogical Magazine of New Jersey*, Vol. 18, April 1943, pp. 47 & 49]

Although presented alphabetically by the contributor, the list evidently was assembled numerically by the location of the freeholders as per many 18th century tax roles; that Simon Van Wicklen and William Vanduyn were listed respectively as #s 38 and 39 is evidence that they lived in close proximity to each other.

1753 According to a 19th century genealogical source William Van Duyn joined the Dutch Reformed church at New Brunswick in this year [Bergen, *Early*

Settlers of Kings County, page 333]. While the source identifies this Williams as William Van Duyn (1695-1773), it might also have been his son William (see 1755 entry).

1754 **June 30.** Gerredina, daughter of "Necows V. Wicklen" and his wife Catrina was baptized at the Dutch Reformed church in New Brunswick ["New Brunswick First Reformed Church Baptisms, 1717–1820," *PNJHS*, XI, #4, October 1926, page 553].

September 15. Willim V. Duyn and his wife Sibrag witnessed the baptism of Willim, son of Jacobus and Anatje V. Duyn at the Dutch Reformed church in New Brunswick [Ibid.]

September 27. Antje, daughter of Evert V. Wicklen and his wife Cnelie was baptized at the Dutch Reformed church in New Brunswick [Ibid., page 554].

1754/55 Symen Van Wicklen died sometime before January 6, 1755, as his will was probated on that date [NJ Wills 190R].

1755 **May 11.** "Willim V. Duyn" and his wife Sibregh [Sybrech] witnessed the baptism of "Willim," son of Lena and "De Meis" [Denys] Van Duyn at the Dutch Reformed church in New Brunswick ["New Brunswick First Reformed Church Baptisms, 1717–1820," *PNJHS*, XI, #4, October 1926, page 554].

The father of baptized infant presumably is the son of William and Sybrech Van Duyn.

1756 **October 3.** Petrus, son of Jacobus Van Duyn and his wife Anatje was baptized at the Dutch Reformed church in New Brunswick [Ibid., page 557].

1757 **March 2.** Evert Van Wicklen of Somerset Co, yeoman executed his will, in which he devised his real and person estate to his wife Cornelia and after her death or remarriage to his daughter Antje. Should his daughter die without heirs, his real and personal estate was to go to his brother Nicholas, subject to Nicholas paying legacies of £100 each to their four sisters (Matja, wife of George Anderson, Jr.; Setje, wife of John Boyce; Dinah wife of John Probasco;and Antje, wife of Jacob Suydam) and the children of their deceased sister Elsee, wife of Joseph Mount. His executors were his brother Nicholas and brother-in-law Ram Lupardus; the executors were bequeathed £50. A codicil was executed on March 3, 1757; the will was probated on March 17, 1757 [NJ Wills 211R].

The will identifies William Vanduyn as the owner of an adjoining

property, which given that his brother Nicholas bordered him on the upriver side (provided Nicholas had not already sold his inherited half) must have been on the downriver side.

Evert ordered his executors "to have the care of my said plantation to see that is kept in good order, and sowed with winter grain but once in six years. **Also that firewood and timber for the use of the Plantation be cut and taken out of that part of the Plantation fenced off next to the plantation of William Vanduyn as the fence now stands**, and not from any other part, so that both the wood and Timber maybe as much preserved as possible.

The will's codicil directed that if Evert's daughter were to die without issue that the his wife's Cornelia's "outset" [or dowry] received from his father-in-law would go to his wife's sister "Anatje Duryea of Long Island," along with his wife's wearing apparel. The "outset' included three milk cows and household goods.

1757 **March 3.** Evert and his wife Cornelia, the daughter of Christianus Lupardus, died on the same day and were buried together on their farm in a small family graveyard subsequently known as "The Wells' Farm Burying Ground,' (the Rutgers Preparatory School Property) located on the north side of the Easton Turnpike about one third of a mile west of the road to Middlebush (Demott Lane). Their tombstone, subsequently installed by their daughter, was described in 1914 as a "flat brick tomb, brown stone slab" with the following inscription:

"On the 3rd day of March 1757 Evert Van Wickle and Cornelia his wife accompanied each other to the Land of the Spirits. One grave contains their ashes & this Stone is erected over it by their only child Ann, then an infant, but now the wife of Abraham Beach D. D." [John J. De Mott, "Family Burying-Grounds on the Easton Turnpike," *Somerset County Historical Quarterly*, 1914, Vol. 3, pp. 301 and 302].

The Wells' Farm graveyard was described in 1914 as a well-kept "fenced enclosure in a field" and contained nine other gravestones, all for members of the Conover family, with death dates ranging from 1791 to 1837, except that of Allice Rappleyea, who died in 1842.

The De Mott article also described another small family graveyard, "The Smalley Farm Burying Ground," located "on the Smalley farm, directly opposite the intersection of the road leading to Middlebush village … on the north side of the Easton turnpike," a location indicating that it must be the graveyard mentioned in deeds for the subject property beginning in the 1790s [Somerset County Deeds, Book A, page 333 and Book E, page 109].

De Mott described the Smalley graveyard as "covered with trees and

undergrowth and has had no care for many years." He inventoried the gravestone inscriptions of fourteen individuals with eight different surnames and dates ranging from 1797 to 1840. The earliest were those of Ellen Boorom, an infant who died in 1797, and Eley Voorhees, wife of Abraham, who died in 1799. The listed surnames were Auten (1), Boorom (1), Bowman (2), Lowe (1), Rappleyea (3), Smock (2), Van Horne (2), and Vorrhees (2). The relationship, if any, of the individuals buried in the Smalley graveyard to the owners of the subject property during the period of the burials is unknown, other than that of neighbors like the Rappleyea and Smock families.

1757 **March 24**. Inventory of personal estate of Evert Van Wicklen, deceased, taken by Cornelius Sebrings and Denices Van Duyen, Jur. The inventory, which totaled £720.11.8, includes three slaves (an old negro wench and a boy and a man, both named Jack), along with livestock, "wheat in the house and barn," and 52 bushels of wheat, along with notes and bonds valued at £197.6.18 and the items inventoried as per the codicil worth £88.9 [NJ Wills 9907R].

1757 **June 26.** Abraham, son of "De Nis" [Denys] Van Duyn and his wife Lena was baptized at the Dutch Reformed church in New Brunswick; Abraham Van Voorhees and Cristana Voorhees are witnesses ["New Brunswick First Reformed Church Baptisms, 1717–1820," *Proceedings of the New Jersey Historical Society*, Vol. 11, October 1926, page 558].

1757-68 According to Rosalie Fellows Bailey, who presumably received her information Julia Lawrence Wells, "Family tradition states that the uncles of Ann, infant daughter of Evert Van Wickle deceased lived here." [Bailey page 467]. While she included this in her discussion of the "Symen Van Wickle House" on The Meadows Foundation property, it would have related to the adjoining farm inherited by Evert Van Wickle from his father Symen (the Rutgers Prep School property).

1758 **April 23.** Denis Van Duyn and his wife Lena witnessed the baptism of Denis, son of Rolf Van Duyn and wife Susanna [Ibid., page 559].

The elder Denis and Rolf must be brothers and the sons of William and Seybrech Van Duyn.

1759 **August 5.** Deneis, son of Denis Van Duyn and his wife Lena was baptized at the Dutch Reformed church in New Brunswick [Ibid., page 560].

The father and son Dennis presumably are the son and grandson of William and Seybrech Van Duyn.

1761-64 Nicholas evidently moved to Middlesex County sometime during this

period, as he recorded the birth of his son Evert on March 21, 1761 "at Raritans" in his family bible, and he was described as a resident of Middlesex County on July 24, 1764, on which date he was chosen to be the co-guardian (along with Jacob Suidam) of his nephews Simon and Matthias Mount, [Mather, *PNJHS*, Vol. 54, 1936, pp. 123 & 124].

Nicholas Van Wickle presumably disposed of his inherited half of his father's plantation around this time, if he had not already done so, and certainly by the late 1770s, when a map identifies the farm as the property of "Francis Bacher" [Brasier] (see 1778/1779 entry). In his 1771 will, William Van Duyn devised to his son Roelif "all that plantation which I purchased of Matthias Smock, and of late belonging to Nicholas Van Winkle situated in Somerset County on Raritan River," and it may be that this farm was the property that Nicholas Van Wickle had inherited from his father (the northern half of his father's plantation) [NJ Wills 430R and 190R].

Nicholas had five children, John, born August 23, 1749 "at Raritans," and married Ann Rue; Simon, born February 22, 1754 "at Raritans," and married Catherine Johnstone; Geradina, born June 6,, 1752 "at Raritans," and married Henry Dillentash; Siche, born August 10, 1757 "at Raritans," and married Archibald Gordon, April 12, 1779; Evert, March 21, 1761 "at Raritans" and married Ann Johnstone; and Jacob, born May 10, 1770 at Matcheponix and married Sarah Morgan. [Mather, *PNJHS*, Vol. 54, 1936, pp. 123 & 124].

Nicolas remarried in 1790 (Margaret) and died in Middlesex County in 1801 [New Jersey Wills 9891L].

1768 **May 26.** Ann (Antje) Van Winkle, the young daughter of the late Evert Van Winkle, married the Rev. Abraham Beach, according to the announcement in Philadelphia newspaper:

"On Thursday the 26th of May, the reverend Mr. Beach of New Brunswick was married to the amiable and accomplished Miss Nancy [sic] Van Winkle, a lady whose shining virtues and sweet disposition must render the marriage state truly happy." [*The Pennsylvania Journal*, June 9, 1768, as quoted in *New Jersey Archives*, 1st Series, XXVI, *Newspaper Extracts*, VII, 1768-69, page 185].

A footnote to the announcement in the Newspaper Extracts give a brief biography of the Rev. Abraham Beach, noting that he was born in Connecticut in 1740, graduated from Yale in 1757, travelled to England in 1767 for ordination and was appointed Church of England missionary for New Brunswick and Piscataway, NJ, and returned in America in September 1767 to assume his duties. Declining to omit prayers for the royal family in

1776, he was forced to close his churches but remained in New Brunswick "dispensing spiritual consolation alike to Whigs and Tories." In 1784 he was appointed assistant minister of Trinity Church in New York, remaining there until his resignation in 1813, whereupon he received a pension and retired to his New Jersey farm (the one inherited by his wife) where he died in 1828. "His wife, Ann, was the daughter of Evert Van Winkle, one of the early Dutch settlers on the Raritan."

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1771 **March 29.** William Van Duyn of Somerset Co, executed his will, in which he devised his real estate to his sons Roelif and Denys, (along with personal property to the latter) and £900 to his three daughters Mary, wife of John Wyckoff, Catherine, wife of Cornelius Low (son of Albert) and Sarah, wife of Andries Emmons, to be divided equally among them. His two sons were appointed jointed executors, along with son-in-law Cornelius Low. A codicil was executed on April 4, 1771, and the will was probated on July 27, 1773 [NJ Wills 430R].

William devised to his son **Roelif** "all that **plantation which I purchased of Matthias Smock, and of late belonging to Nicholas Van Winkle** situated in Somerset County **on Raritan River**," subject to his son paying £500 of specified legacies to his daughters over a period of years.

He bequeathed to **Denys** "**all my farm and plantation on which I now live Bounded on the Raritan River**," along with the "horses, cattle and sheep" on the farm at the time of his death, "carriages" and farm equipment, **"carpenters and coopers tools**," household furnishings, any "swords," his Negro slaves (men women and children), "and **a lot of salt meadow** on the north side of the Raritan opposite the Round about" in Middlesex County, subject to his son paying £400 of specified legacies to his daughters over a period of years.

1778-1779 Erskine's map of the road along the south side of the Raritan between New Brunswick and Bound Brook indicates the location of the residences of "Abr. Beach" (the former Evert Van Wickle farm) and some distance upriver that of "Francis Bacher" [Brasier] (the former Nicholas Van Wickle farm), but not the properties of the Van Duyns [Robert Erskine, "Road from Brunswick to Bound Brook," No. 70E, 1778-1779].

1784 **August.** The Eastern Precinct tax ratables list includes

Abraham Beach: 270 acres, valued at £20 per acre, 5 horses, 10 cattle & 2 slaves
Fred Natidels [sp?]: single man
Denise Vanduin: 244 acres, valued at £20 per acre, 6 horses, 7 cattle, 1 single man
Stinte Rappaelyea: 150 acres, valued at £20 per acre, 3 horses, 6 cattle

Jeromies Rappaelyea: 400 acres, valued at £22 per acre, 12 horses, 20 cattle & 3 slaves

[NJ Tax Ratables, Eastern Precinct, Somerset County, 1784, page 2].

1786 **August.** The Eastern Precinct tax ratables list includes

Stinte Rappaelyea: 150 acres, valued at £20 per acre, 4 horses, 8 cattle & 1 slave
Denise Vanduin: 225 acres, valued at £20 per acre, 4 horses, 10 cattle & 1 single man
Rev. Abraham Beach: 270 acres, valued at £20 per acre, 3 horses, 9 cattle & 1 slave

[NJ Tax Ratables, Eastern Precinct, Somerset County, 1786, page 9].

1787 Denise Van Duin on list of individuals who did not pay tax [NJ Tax Ratables, Eastern Precinct, Somerset County, 1788,].

1788 **August.** The Eastern Precinct tax ratables list includes

Rev. Abraham Beach: 270 acres, valued at £20 per acre, 3 horses, 10 cattle & 1 slave
Fred Natidels [sp?]: single man
Denise Vanduin: 119 acres, valued at £20 per acre, 6 horses, 7 cattle, 1 single man
John Vanduin: 100 acres, valued at £20 per acre, 7 cattle
Stinte Rappaelyea: 150 acres, valued at £20 per acre, 4 horses, 8 cattle

[NJ Tax Ratables, Eastern Precinct, Somerset County, 1788, page 3].

1789 **August.** The Eastern Precinct tax ratables list includes

Stinte Rappaelyea: 150 acres, valued at £20 per acre
Denise Vanduin: 119 acres, valued at £20 per acre, 6 horses, 16 cattle
John Vanduin: 100 acres, valued at £20 per acre
Rev. Abraham Beach: 270 acres, valued at £20 per acre, 3 horses, 8 cattle

[NJ Tax Ratables, Eastern Precinct, Somerset County, 1789, page 9].

1790 **January.** The Eastern Precinct tax ratables list includes

Stinte Rappaelyea: 150 acres, valued at £20 per acre
Denise Vanduin: 119 acres, valued at £20 per acre, 2 horses, 7 cattle
John Vanduin: 100 acres, valued at £20 per acre, 2 horses, 6 cattle
James Vanduin: single man

Richard Fulkerson: 300, valued at £20 per acre
Rev. Abraham Beach: 270 acres, valued at £20 per acre,

[NJ Tax Ratables, Eastern Precinct, Somerset County, 1790, page 8].

1791 **August.** The Eastern Precinct tax ratables list includes

George Rappaelyea: 50 acres, valued at £20 per acre
Denise Vanduin: 119 acres, valued at £20 per acre, 2 horses, 6 cattle & 1 pleasure sleigh
John Vanduin: 100 acres, valued at £20 per acre, 2 horses, 5 cattle
Abraham Beach: 270 acres, valued at £20 per acre, 4 horses, 8 cattle & 1 pleasure sleigh

[NJ Tax Ratables, Eastern Precinct, Somerset County, 1791, page 10].

1792 **June 28.** Denias Van Duyne of Somerset Co., executes his will, in which he made provision for his unnamed wife and his children John, William, Abraham, Cornelius, Jacobus and daughter Lena. His sons Abraham, John and Cornelius were appointed jointed executors, and the will was probated on July 31, 1792 [NJ Wills 907R].

To son **John** he devised all of his **"real estate consisting of the remainder of the Farm unsold whereon I now live [and] the lot of salt meadow** also my young Negro wench Peg and a sorrel Horse."

His widow was to live with and be supported by son John, but should she choose not to live with him, he was to pay her £10 per year. Sons Abraham, Cornelius and Jacobus and daughter Lena "now the wife of Gershom Caywood," were each to receive £15 to be paid by John within a specific period of years; Abraham was to have £50 for discharging a debt. The remainder of his personal estate was to be divided among his six named children.

His widow may have been Lena, his wife and mother of three children baptized in the 1750s (see 1755, 1757, 1758 &1759 entries).

1792 **July 27**. Inventory of personal estate of Denis Vanduyne, deceased, taken by John A. Voorhees and Hendrick Suydam, totaled £276.14.8, an amount indicative of a middling economic status. It reveals that he practiced the diversified farming typical of the region and era, owned slaves and, except for a tall case clock, no possession suggestive of elite status [NJ Wills 9907R].

The inventory mentions corn and wheat barracks and includes 30 bushels of wheat worth £8.5.0, 76 bushels of rye worth £8.5.0, six tons of hay valued at

£15, five bushels of buckwheat, and four bushels of corn, along with "parcel of green oats" and a "parcel of flax on the grounds. He owned three unnamed slaves (one young male, valued at £25 and two females a "gal," valued at £15, and a "wench" valued at £60). His livestock included two horses, one yoke of oxen, three heifers, one bull, seven sheep, five swine and five pigs, along with two "hives of beas." A wagon worth £13 was one of his most valuable possessions, he also owned a "sled" and a "slay," one presumably used for farm work and the other for winter transportation.

The list of his household goods and furnishings is relatively short and names no rooms, providing little idea about the dwelling's interior arrangements. An eight-day clock valued at £14 was his most valuable household item; only a few other modest furnishings were mentioned including a trunk, chest, "small cupboard," table, six chairs, a looking glass and "hand irons, shovel and tongs," along with crockery, kitchen utensils, and several items relating to wool and flax processing (spinning, woolen and rope wheels, ketches and a reel) but surprisingly no bed or bedding. It may be that the list was only partial and that bedding and other goods were the property of his widow or other family members. No carpentry tools were mentioned.

1792 **August.** The Eastern Precinct tax ratables list includes

Jeromies Rappaelyea: 200 acres, valued at £22 per acre,
Cornelius Rappaelyea: 100 acres, valued at £20 per acre
Derrick Rappaelyea: 100 acres, valued at £20 per acre
George Rappaelyea: 150 acres, valued at £20 per acre
John Vanduin: 219 acres, valued at £20 per acre, 4 horses, 7 cattle & 1 pleasure sleigh
William Lepardes: 270 acres, valued at £20 per acre, 4 horses, 8 cattle,

[NJ Tax Ratables, Eastern Precinct, Somerset County, 1792, page 7].

1792/93 Sometime between August of both years John Vanduin conveys some portion of the land inherited from his father to Peter Antonides.

1793 **August.** The Eastern Precinct tax ratables list includes

Jeromies Rappaelyea: 200 acres, valued at £22 per acre, 8 horses, 12 cattle
Cornelius Rappaelyea: 100 acres, valued at £20 per acre
Derrick Rappaelyea: 100 acres, valued at £20 per acre
Peter Antonides: 120 acres, valued at £20 per acre, 3 horses, 3 cattle, 1 slave & 1 pleasure sleigh
William Lepardes: 270 acres, valued at £20 per acre, 4 horses, 5 cattle, 1 slave & 1 [riding] chair

[NJ Tax Ratables, Eastern Precinct, Somerset County, 1793, page 8].

1794 **August.** The Eastern Precinct tax ratables list includes

Cornelius Rappaelyea: 100 acres, valued at £20 per acre
Derrick Rappaelyea: 100 acres, valued at £20 per acre
George Rappaelyea, Jr.: 150 acres, valued at £20 per acre, 3 horses, 8 cattle, 1 slave, 1 chair & 1 dog
Peter Antonides: 118 acres, valued at £20 per acre, 3 horses, 3 cattle & 1 slave
Abraham Beach: 270 acres, valued at £20 per acre, 4 horses, 5 cattle, 1 slave & 1 chair

[NJ Tax Ratables, Eastern Precinct, Somerset County, 1794, page 7].

1795 **August.** The Eastern Precinct tax ratables list includes

Derrick Rappaelyea: 100 acres, valued at £20 per acre
George Rappaelyea, Jr.: 150 acres, valued at £20 per acre, 3 horses, 9 cattle, 1 slave & 1 dog
Peter Kemble: 118 acres, valued at £20 per acre, 3 horses, 8 cattle,
Abraham Beach: 270 acres, valued at £20 per acre, 4 horses, 8 cattle, 1 slave & 1 dog

[NJ Tax Ratables, Eastern Precinct, Somerset County, 1795, page 12].

1795 **November 22.** Peter Antonides Jr. and Ida his wife of the Eastern Precinct, Somerset County, convey to Robert Tuile (?) Kemble of New York City for £1,500 **two lots** in the Eastern Precinct, "being the **plantation whereon the said Peter Antonides Jr now lives," the first containing 95.2 acres but excluding** "two tenths of an acre for Burying Ground where **the Burying Ground** now is and for no other use;" and **the second containing 22.6 acres** [Somerset County Deeds, Book A, page 333].

The boundary description make clear that the first lot, a long rectangular parcel, was bordered on the northeast by the Raritan river, on its long northwest side by the land of Rev. Abraham Beach:

"Being the plantation whereon the said Peter Antonides Jr now lives on bounded as follows, one of the said lots begins at Raritan River at the lower corner of the Rev. Abraham Beach's land from thence running as the ... south 40 degrees three quarters of a degree west along the said Beache's land 53 chains & 85 links to a take standing in the said Abraham Beache's line, thence south 49 degrees east, 18 chains and 93 links to a stake standing 5 links distant on a south east course from an ash tree marker. Thence 41 degrees east 46 chains 15 links to the said Raritan River thence up said River the courses and binding on the same to the place of beginning

containing 95.2 acres."

The second lot began at a stone standing in the line of Jeromus Rappleye's land, 39 links southwest from the southerly corner of the said Abraham Beache's land from thence running north 40.75 degrees east along the said Beaches land 10 chains to a hickory sapling Marked, thence south 40 degrees East 10 chains, thence south 50.5 degrees east 4 chains 54 links to a black oak tree marked on two sides, thence south 35 degrees and a half east 4 chains & 58 links to a stake for a corner, thence south 41 degrees west 14 chains to a stake, thence north 32.5 degrees west, 10 chains & 82 links to a red oak tree marked, thence north 49.5 degrees west 8 chains 27 links to the place of beginning containing 22.6 acres."

It was "Bounded northwesterly part by the land of the Jeromus Rappleys & part by land of the said Abraham Beach, Northeasterly and south-westerly by land formerly the property of Dennis Van Duyn, deceased, and southeasterly by land now in the possession of the widow Rappleyea."

Robert Kemble, appears not to have occupied the property but to have rented it to Peter Kemble, his presumed relative, relationship unknown (see 1795 and 1796 entries). A Robert T. Kemble was one of the commissioners appointed by the New Jersey legislature to erect bridges over the Hackensack and Passaic Rivers and who advertised for contractors to build the bridges in 1793 [*Wood's Newark Gazette*, February 7, 1793, as referenced in *Notices From New Jersey Newspapers, 1791-1795,* page 203].

1796 **May 8.** Cornelius Sudam and wife Ann, Hendrick Sudam and wife Aeltje and Henry Brokaw and wife convey to George Rappleyea for £750 their interest in the 150-acre tract on the south side of the Raritan and bordering the former farm of Denis Van Duyn, which the three wives and George had inherited from their grandfather Dirrik Rappaljee, the father of their father George [SC Deeds, Book D, page 85; NJ Wills 577R].

The deed describes the property as their grandfather's former residence and "part of the lands which he bought of Richard Carmen and to be measured and taken of the side adjoining the farm belonging to Denias Van Duyn and extending from Raritan to the rear of said tract." While the deed does not reflect the fact that the Van Dueyn farm had changed hands twice since Denis Van Duyn's death in 1792, township tax ratables confirm that the Rappleyea property bordered the Van Duyn farm and that the Rappleyea farm had been in the possession of George Rappellyea, Jr., for some years previous (see 1792, 1794 and 1795 entries).

Dirrik Rappaljee bequeath the other of the land that he had purchased from Carmen, comprising 150 acres, to his son Jeromus [NJ Wills 577R].

According to Brecknell, Direck Rappelyea appears on the 1745 Eastern Precinct tax ratables list, assessed for 320 acres of land; she thought that Rappelyea had "replaced" Charles Fontine, whose property apparently was sold after his death, but also noted that Rappelyea had noted in his will that he had acquired is farm (a tract of 250 acres) "from Richard Carmen, etc." [Brecknell, SCHQ, 1982, page 27]. Additional research will be necessary to ascertain the early history of this portion of Raritan lot 6.

1796 **August.** The Eastern Precinct tax ratables list includes

Derrick Rappaelyea: 100 acres, valued at £20 per acre
George Rappaelyea, Jr.: 150 acres, valued at £20 per acre, 3 horses, 9 cattle, 1 slave & 1 dog
Peter Kemble: 118 acres, valued at £20 per acre, 4 horses, 4 cattle, 1 slave & 1 dog
John Vanduin: 100 acres, valued at £17.5 per acre
Abraham Beach: 170 acres, valued at £20 per acre, 3 horses, 7 cattle, 1 slave & 1 dog

[NJ Tax Ratables, Eastern Precinct, Somerset County, 1796, page 11].

1797 **May 11.** Robert Kemble of New York City conveys to Hendrick Suydam of Eastern Precinct for $3,500 the same two lots (the first containing 95.2 acres but excepting the graveyard and the second containing 22.6 acres) that he had acquired from Peter Antonides in 1795 [SC Deeds, Book E, page 109].

In an 1873 article about the many early Dutch settlers along the Raritan River and their origins, Ralph Voorhees recounted that the adjoining Van Duyn farms, located on the Raritan three miles form New Brunswick "were afterwards, for a long time in possession of Capt. Henry Suydam, of Revolutionary Memory, and he converted both farms into one. I remember, sixty-five years ago, when a boy, seeing the old house standing on the rear farm. It was then deserted, and was shortly afterwards taken down. The captain lived in the old house now to be seen on the banks of the River. The property is at present owned by Dr. Rush Van Dyke, formerly of Philadelphia, who has now made his residence thereon [see 1872 entry]. It would be interesting at this day to know the date of the erection of this old house, with similar ones throughout the County, whose occupants have long since past away; but as no historical information about them exists, we are compelled to remain in ignorance. " [Ralph Voorhees, "The Raritan and its Early Holland Settlers (Third Part)," *Our Home A Monthly Magazine*," Vol. 1, no. 3 (March 1873), pp. 97 & 98].

An 1833 deed from Henry Sudam [Hendrick Suydam] and wife to the Delaware and Raritan Canal Company for land along the river gives his wife's first name as Alletta, and a 1796 deed for the adjoining downriver

property indicates that she was the former Aeltje Rappalyea, one of the four grandchildren of Dirrik Rappaljee (the children of his deceased son George) to whom in his 1777 will (probated in 1778) he bequeath 150 acres of land, his homestead farm "on the west side of the Raritan, which I live on, and being part of the lands I bought of Richard Carmen, etc. when they come of age" but allowing their mother Styntje Rappeljee "to have the use of said land to bring them up" [SC Deeds, Book Q, page 123 and Book D, page 85; NJ Wills 577R; see also May 1796 entry]. One secondary source names Suyam's wife as Aule or Alletta Rappleyea [Bailey, page 468].

The 1830 census suggests that Henry Suydam was born sometime between 1751 and 1760 [United States Census, Franklin Township, 1830]. He and his wife might have been the Henry Suydam and wife Allehe, whose daughter Adrayanche was baptized on November 18, 1784 at the Dutch Reformed Church at Hillsborough (Millstone) [*Somerset County Marriages*, page 179]. While the marriage date of Henry Suydam and Aeltje Rappalyea is unknown, her sister Antje married Cornelius Suydam (possibly Henry's brother; see following paragraphs) on October 31, 1784, according to the records of the First Reformed Church, Raritan [*Somerset County Marriages*, page 87].

Henry Suydam had at least three children, who survived to adulthood, daughters Ann, who married Stephen Mundy, Arriette, who married Michael Garish, and Ida who married Nicholas Van Wickle. [Bailey, page 458, SC Deeds, Book V, p. 50; NJ Wills 2662R]. According to Bailey, Ann was baptized in 1788 and Ida in 1796 [ibid.]. He served as a captain is the Somerset County militia ["Died," *Evening Post*, (New York), February 1, 1838]

Hendrick Suydam presumably descended from the Dutch immigrant Henrick Reyke who arrived in New Netherlands in 1663, eventually settling in Flatbush, and whose sons assumed the name of Suydam. Some of Hendrick's descendants moved to the Raritan Valley in the early 18th century and had connections with the Dutch families settled along the Raritan River, as well as their Kings County forebears. A Hendrick Suydam married Geertie Van Wickle, daughter of Evert and sister of Symon, in Flatbush in 1719, but he is unlikely to have been the direct ancestor of the subject Henrdrick Suydam who acquired the former Van Duyn farm from Kemble in 1797 ["Bible Records: Suydam," *New York Genealogical & Biographical Record*, Vol. 54, October 1923, page 332, as quoted in Pat Wardell, compiler, "Early Bergen County Families," http://njgsbc.org/files/BCFamilies/BCFam-Suydam.pdf (accessed April 2016); Bailey, page 468]. A Cornelius Suydam, husband of Maritje, the daughter of Charles Fonteyn, was mentioned in the latter's 1733 will [NJ Wills 39R]. Charles Fonteyn acquired part of Raritan lot 6 in 1708 and subsequently settled there, and both he and "Cornelius Sedam" appear on

the 1735 tax list of Eastern Precinct property owners [East Jersey Deeds, Book A2, page 265; Snell, page 815] (see also October 1708 and 1735 entries).

Cornelius Suydam, the son-in-law and neighbor of Charles Fonteyn, possibly was the Cornelius Suydam who by his will (executed in 1768 and proved in 1771) devised to his son Charles "that land in Piscataway, Middles County, opposite his door" and to son Cornelius "the plantation on Raritan River, in Somerset County, on which I live, except 100 acres on the south side which is to be sold," as well as £50 to his son Hendrick, among other bequests to his eleven children [NJ Wills 415R]. In 1792 and 1793, a large merchant mill "situated on the south side of the Raritan River two miles above New Brunswick" that was "lately the property of Charles and Hendrick Sudam" was advertised for sale; followed by advertisements for the materials from the mill dam [*The Guardian; or New Brunswick Advertiser*, November 28, 1792 and February 6, May 1, and October 8, 1793, as referenced in *Notices From New Jersey Newspapers, 1791-1795,* page 203]. The former mill owners may well have been the above-mentioned brothers.

This Hendrick Suydam is a likely candidate for the individual of that name who purchased the former Van Duyn farm from Kemble in 1797.

1797 **August.** The Eastern Precinct tax ratables list includes

Derrick Rappaelyea: 100 acres, valued at £20 per acre
George Rappaelyea: 150 acres, valued at £20 per acre, 3 horses, 9 cattle, 1 slave & 1 dog
Hendrick Sedam: 117 acres, valued at £20 per acre, 4 horses, 3 cattle
Said Seydam: 30 acres, valued at £17.5 per acre
Abraham Beach: 170 acres, valued at £20 per acre, 3 horses, 7 cattle, 1 slave & 1 dog
Evert Beach: 170 acres, valued at £20 per acre

[NJ Tax Ratables, Eastern Precinct, Somerset County, 1797, page 13].

1798 **April 9.** At the first town meeting of Township of Franklin (the former Eastern Precinct), Hendrick Suydam was chosen as one of the four municipal "pound keepers," officials in charge of securing animals that had strayed from their owners [William B. Brahams, *Franklin Township, Somerset County, NJ: A History*, page 286].

1799 **October 13.** Rev. Abraham Beach and wife Anne of New York City convey to Robert Boggs, Esquire, of New Brunswick for £3,000 **three tracts of land which "were devised to the said Anne by her father"** [SC Deeds, Book E, page 219, not recorded until March 29, 1808].

1799 **October 31.** Robert Boggs, Esquire, of New Brunswick conveys to Rev. Abraham Beach and wife Anne of New York City for £3,000 the three tracts of land which Abraham Beach and wife Anne had conveyed to Robert Boggs [SC Deeds, Book E, page 220, not recorded until March 31, 1808].

1802 **May 9.** John Vanderveer and Jane his wife of Franklin Township convey to Hendrick Sydam of Franklin Township for $925.62 a 55.75 acre parcel that was "Part of a farm or plantation formerly occupied by William Van Duyn deceased." [SC Deeds, Book C, page 32; not recorded until Nov. 24, 1804]. This lot, which connected Henry Suydam's two parcels, had been inherited by John Van Duyn from his father Denis and was sold by him to John Vanderveer earlier in 1802 [Bailey, page 468].

Boundary description as follows: "Beginning at a stake standing in the line of the Revd Abraham Beach land at the westerly corner of the said Hendrick Suydam's land from thence running south 40.5 degrees west along the said Beach's land 30 chains & 91 links to a hickory sapling marked standing at the northerly corner of a wood lot belong to the said Hendrick Suydam thence along the same first south 60 degrees east 10 chains then south 50.5 degrees east 4 chains & 54 links to a black oak tree marked then south 36.5 degrees east 4 chains & 48 links to George Rappleyea's land thence along his line north 40.75 degrees east 29 chains & 92 links to a stake standing at the southerly corner of the said Hendrick Suydam's land thence along said Suydam's land north 49 degrees west 18 chains & 93 links to the place of beginning."

1802 Franklin Township tax ratables role, listed in alphabetical order, includes

Henry Sedam: 150 acres, valued at $45 per acre, 4 horses, 3 cattle,
Henry Sedam: 172 acres, valued at $54 per acre, 4 horses, 7 cattle

[NJ Tax Ratables, Franklin Township, Somerset County, 1802].

1803 **February 19.** The road now called Demotts Lane was laid out by township surveyors of highways along the boundary between the properties of Henry Suydam and Rev. Abraham Beach.

The new road was laid out as follow: "Beginning at the River Raritan on the line between said Henry Suydam and the Rev^{d} Abraham Beach from thence running south forty one degrees west four chains & fifty links to the middle of the road leading from Bound Book to New Brunswick from thence running the same course south forty one degrees west eight chains & twenty five links to near a burying ground thence" along various courses northwest and southwest to the road to Middlebush. Survey recorded on February 23, 1803 [Somerset County Road Returns, Book A2, page 184].

1806 Franklin Township tax ratables role, listed in alphabetical order, includes

Henry Sedam: 170 acres, valued at $54 per acre, 5 horses, 10 cattle, 2 slaves & 1 dog

[NJ Tax Ratables, Franklin Township, Somerset County, 1806].

1807 **May.** New Jersey Turnpike (Easton Avenue) was surveyed, after which the old road along the river was eventually abandoned [Map of the New Jersey Turnpike surveyed by Henry Plume May 1807, New Jersey Archives]

1808 **June-August.** Franklin Township tax ratables role, listed in alphabetical order, includes

Henry Sedam: 170 acres, valued at $54 per acre, 5 horses, 10 cattle, 2 slaves & 1 dog

[NJ Tax Ratables, Franklin Township, Somerset County, 1808].

1815 **August.** Franklin Township tax ratables role, listed in alphabetical order, includes

Henry M. Sedam: 170 acres, valued at $54 per acre, 3 horses, 8 cattle & 1 slave

[NJ Tax Ratables, Franklin Township, Somerset County, 1815].

1815 **June 12.** Phebe, slave of Henry Suyam was manumitted [Brahams, *Franklin Township*, page 103].

1830 Household of Henry Suydam, as listed in the 1830 Federal Census, had six members: one white male aged between 70 & 79 who must be Henry; one white female aged between 60 & 69, presumably his wife Alletta; three "free Colored Persons (one male under 10 years old, one male aged between 10 and 23, and one female aged between 10 and 23); and one enslaved female aged between 24 and 35) [United States Census, Franklin Township, 1830].

The other Henry Suydam listed in the 1830 census for Franklin Township, aged between 30 and 39, would have been too young to be the Henry Suydam in question.

1833 **Feb. 26.** Hendrick Suydam and Alletta his wife, of Franklin Township, conveyed to Delaware & Raritan Canal Company for $150.00 a tract of 7+ acres along river to build canal [SC Deeds, Book Q, p. 128].

1838 **January 29.** Hendrick Suydam died, as noticed in a New York paper: "Suddenly, on the 29th ult., at his residence, near New Brunswick, N. J., Capt. Hendrick Suydam, whilst sitting in his chair" ["Died," *Evening Post*, (New York), February 1, 1838].

1838 **February 7.** Hendrick Suydam's estate administrators were appointed, and his estate inventory was taken. His heirs were three married daughters: Ann, wife of Stephen Mundy, Arriette, wife of Michael Garish, and Ida, wife of Nicholas Van Wickle. Garish and Van Wick served as the court-appointed administrators of his estate [NJ Wills 2662R; Somerset County Surrogate, Letters of Administration, Book AG, page 438; Bailey, page 458].

Inventory of Hendrick Suydam's personal estate totaled $1,273.71, indicating that he had achieved the modest prosperity of a substantial, middling farmer, and provides some information about the character and furnishing of his house and mentions as well several outbuildings. Named rooms and features include the "closet in the north front room," the "pantry," two closets, the "garret," the "south front cellar," the "gangway in cellar," and the "west cellar." Three outbuildings were mentioned: smoke house, barn and corncrib (although not clear if the later was a free standing structure or part of another building).

The house was comfortably, but modestly furnished. A clock (presumably a tall case clock) valued at $30 was his most valuable household item, followed by his "wearing apparel and watch" also worth $30, three "beds, bedsteads and bedding" valued at $25 each; another bedstead with bedding and curtains worth $20, a half dozen "silver table spoons" valued at $15, a ten-plate stove and shovel, tongs & poker worth $10, two carpets worth $10 and $5, two other beds valued at $8 and $5, eight "rush bottom chairs" worth $6, a dining table worth $5, a cupboard worth $5 and two looking glasses valued at $5. Other household goods, all valued at $5 or less, included Windsor and "common" chairs, a tea table, tea and dinnerware, a pair of "plated" candlesticks and snuffer, five brass candlesticks, six pictures and "a lot of books," along with items associated with kitchen and cooking such as several iron pots, kettles, tubs and pails, a "lot of tin ware" and a "pan Grid Iron & Sundries."

While the inventory does not give the contents of the house room by room, its takers appear to have done the first story of the main block first, beginning with the north front room, followed by the garret, kitchen and cellars. The tenth line in the inventory, "Lot Queens ware Glass etc. in the closet in the North front room,"" is evidence that this room (the northern half of Room 103) given its proximity to the kitchen served as a dining room/parlor and likely contained many of the furnishing in the previous nine

lines including a clock, carpet, dining table, tea table, and one or more of the three sets of chairs, along with pictures, a looking glass, fireplace equipment, candlesticks and tableware. The next thirteen lines, which include five beds, bedsteads and bedding, several tables (tea, "round" and a "stand," presumably a candle stand as it was listed after a pair of brass candlesticks), three carpets, two looking glasses, cupboard trunk, chest, and a pair of andirons, as well as the contents of two closets and the pantry, probably inventoried the contents of the other three main block rooms, which must have served as bedrooms, and the entry hall. The next entries evidently addressed items in the attic including a "bed, bestead & bedding in garret" and a "lot of Rye in Garret" along several spinning wheels, various tools and two barrels of "cyder spirits." The kitchen with "ten-plate stove" and various cooking items was next, followed by the cellars with casks of pork, beef and whiskey, along with vinegar, a "soap tub & keg and empty barrels.

The inventory mentioned several lots of harvested crops: rye, buckwheat, oats, corn, potatoes and hay, but not wheat. Suydam's livestock included seven horses, seven milk cows, four "3-year-olds," four "2 years," and five "yearling calves." Clearly milk and beef cattle were central to his farm operation.

His purse totaled $13.26; his notes and interest due totaled something over $80.00. Other assets included "two years and 7 months of a colored women," worth $40 and the "time and service of a colored boy under 25 years of age" worth $100, along with "a pew in the Dutch Church in New Brunswick" valued at $150 [NJ Wills 2662R].

1838 **June 1.** Michael Garish & wife Arriette of Middlesex Co., NJ, and Stephen Mundy & wife Ann of Allegheny Co., NY convey to Nicholas Van Wickle of Monmouth Co., NJ for $5,541.67 their interest in "all that certain farm or plantation" containing 166.25 acres, which comprised the former farm of Henry Suydam [SC Deeds, Book V, p. 50].

The boundary description noted that the tract was "bounded southwardly by George Rappleyea's farm, westwardly by David Mercereau's farm, northerly by the road leading from the Turnpike to Middlebush and eastwardly by the Delaware and Raritan Canal."

Census records indicate that the Nicholas Van Wickle who acquired the Suydam farm was born c. 1796 in New Jersey [United States Census, Franklin Township, 1850]. He undoubtedly is the Nicholas Van Wickle buried in the cemetery at Bound Brook, NJ, whose grave marker gives a birth date of January 14, 1796 and death date of October 21, 1865.

One historian thought that "he probably was a grandson of Symen's son

Nicholas" [Bailey, page 468], and there is evidence indicating that this was the case. In 1801, Symen's son Nicholas, then a resident of Middlesex County, made his will in which he mentioned his sons John, Simon, Evert and Jacob, as well as two daughters (Dineas, the wife of Henry Dillentash, and another married to Archibald Gordon), but no grandchildren [NJ Wills 9891L]. One genealogical source has identified three grandsons named Nicholas (sons of John, Simon and Jacob), of which Nicholas, son of Jacob, is the likely candidate for Henry Suydam's son-in-law (John's son Nicholas was born in 1769 and Simon's son Nicholas married Ida Morgan) [Mather, *PNJHS*, Vol. 54, April 1936, pp. 122-129].

According to another genealogical source, Nicholas Van Wickle, son of Jacob, was born on January 7, 1796, in Old Bridge, New Jersey and there married Ida Suydam (born c. 1796, died October 21, 1857) on October 17, 1821. The source gives them nine children: Albinia (born 1822, died in childhood); Georgianna (born July 23,1824 in NJ); Jacob (born December 31, 1826, Manasquan, Monmouth Co., NJ); Henry (born December 5, 1828 in NJ); Ida Stephen (born August 7, 1830, NJ, but possibly a conflation of a son and daughter, who died in childhood); Sarah Letitia (born September 5, 1832, NJ); Charles Remsen (born November 9, 1834, NJ); Arrietta (born September 28, 1836, NJ); and William H. Harrison (born September 20, 1838, died in infancy) [Home Page for John Van Wicklin (Family of Nicholas^6 Van Wickle), share.houghton.edu (accessed June 2016)]. The names and ages of Ida and Nicholas Van Wickle and of the children living with them as recorded in the 1850 census as Franklin Township, Somerset County residents corresponds with data given by this source (see 1850 entry).

Something is known of Nicholas Van Wickle's life before he acquire the Suydam farm. In 1818, he and his father Jacob (a Middlesex County Judge and former county freeholder) had achieved wide notoriety through their involvement in the interstate slave trade, both as active participants in the purchase of New Jersey slaves and their transportation to developing states of the Deep South where better resale prices could be realized, in which endeavor they appear to have evaded state laws regulating the activity or at least exploited loopholes in the applicable statues, and in Jacob's case as a judge whose "certificates of removal for black mothers stating that they freely consented to leave New Jersey with their children" as required under state statute were called into question. While the judge, whose Middlesex County farm was used as a collection point for slaves being shipped south, was never charged, a Middlesex County grand jury "found nine indictments against Nicholas Van Wickle for disposing of black children to Charles Morgan [his mother's brother, a Louisiana planter who had come north to purchase slaves], not then a resident of New Jersey, 'with the intent of changing their place of residence'." Nicholas apparently escaped prosecution; at least there is no record in Middlesex County Court papers of

his "posting security or appearing in court" [James J. Gigantino II, "Trading in Souls: New Jersey and the Interstate Slave Trade," *Pennsylvania History: A Journal of Mid-Atlantic Studies*, Vol. 77, No. 3, (2010), pp. 281–302; Frances Pingeon, "An Abominable Business: the New Jersey Slave Trade in 1818," *New Jersey History*, Vol. 109, No. 3–4 (1991), pp. 15–20, 27 & 34].

Early in the second quarter of the 19th century, Nicholas Van Wickle evidently moved to Monmouth County where he acquired property and established a pottery, living there until 1838 and perhaps operating the business until that year when he purchased his father-in-law's farm. According the family genealogists: "Between 1824 and 1838, Nicholas Van Wickle purchased 400 acres of land on both sides of the road to Squan Village [Monmouth County] and along the west shore of the Manasquan River to establish his pottery factory. Van Wickle supplied the local population and general stores with gray and blue jugs, crocks, bowls, mugs, etc. In addition to the pottery business, Mr. Van Wickle served as Monmouth County Freeholder and as a New Jersey Assemblyman" [Home Page for John Van Wicklin (Family of Nicholas^6 Van Wickle), share.houghton.edu (accessed June 2016)].

1838 **October.** Hendrick Suydam's estate administrators filled their final report stating that the balance due the estate was $2,356.64; report was allowed by the county orphans court [Somerset County Surrogate, Orphans Court, Book E, page 165].

1840 Household of Nicolas Van Wickle, as listed in the 1840 Federal Census, had fifteen members (eleven white persons and four "free colored persons"). There were six white males: one aged between 40 & 49, one between 20 & 29, one between 10 & 14, one between 5 & 9, and two under the age of five. There were five white females: one aged between 40 & 49, one between 30 & 39, one between 10 and 14, one between 5 & 9, and one under the age of five). The four "free colored persons" include three males (one aged between 36 & 54, one between 24 & 35 and one between 10 & 23) and one female (aged between 36 & 54) [United States Census, Franklin Township, 1840].

Comparing the 1840 and 1850 census listings helps identify some of the Nicholas' household members in 1840. The white male and female aged between 40 & 49 in his 1840 household must have been Nicholas and his wife Ida. The three white female girls presumably were their daughters Georgiana (the white female aged between 10 & 14); Sarah (the white female aged between 5 & 9); and Arietta (the white female under the age of five). The two other white adults must have been relatives or employees; and the three white boys would have either Van Wickle children or relatives, alternatively the oldest boy might have been an employee, as undoubtedly were the four free persons of color [United States Census,

Franklin Township, 1840 and 1850]. The free blacks may have included the male and female mentioned in Hendrick Sudam's estate inventory (see 1838 entry).

1850 Household of Nicholas Van Wickle, as listed in the 1850 Federal census, had nine members, including the immediate Van Wickle family: Nicholas, age 54, farmer; his wife Ida Van Wickle, age 54, no occupation given; and their three daughters, Georgianne, aged 24, Sarah, age 18, and Arietta, age 14. The household had three other white males members: John George Sedell, age 53; Augustus Storck, age 50; and Charles Remsen, age 16; their occupations were given as farmers. The household had one black member, George Meyers, age 50, no occupation given. Except for Sedell and Storck, who were natives of Germany, all of the household members were born in NJ. Nicholas reported owning real estate worth $37,000 [United States Census, Franklin Township, 1850]. Genealogical sources indicate that Charles Remsen was actually their son Charles Remsen Van Wickle (born November 9, 1834) [Home Page for John Van Wicklin (Family of Nicholas^6 Van Wickle), share.houghton.edu (accessed June 2016)].

1850 The agricultural schedule of the 1850 census lists Nicholas Van Wickle as the proprietor of a farm with 135 acres of "improved land" and 25 acres of "unimproved land" (presumably woodland). Van Wickle's farm was valued at $12,000, and the farm equipment, $300. His livestock, worth $680, included 2 horses, 5 milk cows, 10 other head of cattle, 2 "working oxen," and 10 swine. Farm production encompassed 200 bushels of wheat, 50 bushels of rye, 300 bushels of corn, 400 bushels of oats, 100 bushels of buckwheat, 200 bushels of Irish potatoes, 500 tons of hay and 600 pounds of butter. The value of "slaughtered animals" was $150. [US Census, Agricultural Census, Franklin Township, 1850]. Its acreage and production made it a medium-size farm in Franklin Township.

1850 The county map published this year located "Van Wickel" on the site of the subject house and a graveyard at the corner of the turnpike and Middlebush roads [J. W. Otley and J. Keily, *Map of Somerset County, New Jersey*, 1850].

1857 **October 21.** Ida Suydam Van Wickle died [Home Page for John Van Wicklin (Family of Nicholas^6 Van Wickle), share.houghton.edu (accessed June 2016)]

1860 Household of Nicholas Van Wickle, as listed in the 1860 Federal census, had five members: Nicholas, age 64, farmer; his wife Jane A. Van Wickle, age 52, no occupation given; (his wife Ida having died); and daughter Sarah L., age 26. He had two employees: George Rappleyea, male age 30, "farm laborer," and Mary Thorma [?], age 18, "servant." Jane was born in New York and Mary in Ireland; the other household members were New Jersey

natives. Nicholas reported owning real estate worth $15,000 and personal worth $1,000 [United States Census, Franklin Township, 1860].

1860 The agricultural schedule of the 1860 census lists Nicholas Van Wickle as the proprietor of a farm comprised of 170 acres of "improved land." Van Wickle's farm was valued at $15,000; no value was given for farm equipment. His livestock, worth $420, included 3 horses, 4 milk cows, 2 head of oxen and 5 swine. Farm production encompassed 200 bushels of wheat, 50 bushels of rye, 700 bushels of corn, 500 bushels of oats, 20 bushels of beans and peas, 50 bushels of barley, and 70 pounds of cheese. The value of the "produce of market gardens" was $600; the value of "slaughtered animals" was $100. [United States Census, Agricultural Schedule, Franklin Township, 1860].

While its acreage made it one of the larger township farms, its production reflected a smaller operation. He had less livestock than in 1850 (and no cattle except for his four milk cows). He had switched from making butter to cheese, and a new importance of market garden production many reflect better access to urban markets and proximity to the growing town of New Brunswick.

1862 **Aug. 25.** Nicholas Van Wickle and wife Jane Ann, Franklin Township, conveyed to John W. Brooks, Brooklyn, Kings County, NY, for $13,300 "all that certain farm or plantation" containing 168 acres, excepting the graveyard at the intersection of the Turnpike and Middlebush roads, the farm being the same tract conveyed to Van Wickle by the Garishes and Mundys in 1838 (see 1838 entry) [as referenced in SC Deeds, Book P3, p. 242]. Releases were obtained from the five children of Nicholas' first wife, Ida Suydam Van Wickle.

The graveyard exception was described as "the parcel of land occupied as Grave Yard situated on the northwesterly side of the said farm and at the intersection of the Easton Turnpike and the road leading to Middlebush church," which measured 56 along the turnpike front, 66 on the rear (opposite side), 89 feet on the Middlebush road front, and 102 feet 6 inches on the rear (opposite side), "as the fence now stands."

1863 **October 7.** John W. Brooks and wife Sarah of Franklin Township conveyed to James A. Munsell of NYC for $6,000 "all that certain farm or plantation ... in Franklin" containing 168 acres of land, excepting the graveyard, and being the same property "as conveyed to John W. Brooks by Nicholas Van Winkle & wife by deed dated August 25, 1862" [SC Deeds, Book P3, page 242].

The conveyance was subject to a mortgage given by John W. Brooks and wife to Nicholas Van Wickle on August 25, 1862 "to secure the payment of

.... $8,000 and interest therein, which mortgage the party of the second part agrees to pay off and discharge."

Sarah Brooks probably was the sister of James A. Munsell (1810-1876). A family genealogy identified Sarah Munsell Brooks and James Andrew Munsell as two of the nine children of Timothy Munsell (1778-1745) and Sarah Wayne (1784-?). Born in Lyme, Connecticut, of old New England stock, Timothy moved to New Scotland, Albany County, New York, about 1800; he was a carpenter and may have lived in New York City for a time. Daughter Sarah was born in 1823 in New Scotland, and married John W. Brooks, with whom she had four children (in 1885 she was living in San Francisco). James Andrew Munsell was born on "October 1st or 6th, 1810, married –and removed to Albany about 1841. In 1848 he moved to New York and engaged in the stove business. He died June 6th 1876 without issue." [Frank Munsell, *Genealogy of the Munsell Family (Munsill, Monsell, Maunsell) In America*, entries #s 440, 812 & 817; see also Sarah Munsell, Timothy Munsell and James Andrew Munsell, ancestry.com. (accessed June 2016].

1866 **May 2.** James A. Munsell and wife Elizabeth of NYC conveyed to Julia F Barnes, wife of Daniel V. Barnes of Brooklyn, Kings County, New York, for $20,500 "all that certain farm or plantation ... in Franklin" containing 168 acres of land, excepting the graveyard, and being the same property "as conveyed to John W. Brooks by Nicholas Van Winkle & wife by deed dated August 25, 1862" [SC Deeds, Book S3, page 549].

The conveyance was subject to a mortgage given by John W. Brooks and wife to Nicholas Van Wickle on August 25, 1862 "to secure the payment of .... $8,000 and interest therein, which mortgage the party of the second part agrees to pay off and discharge."

1867 **October 18.** Julia F. Barnes of Franklin Township and Daniel V. Barnes her husband conveyed to Theodosia M. Kitching, wife of Robert N. Kitching of Westchester, NY, for $21,500 "all that certain farm or plantation ... in Franklin" containing 168 acres of land, excepting the graveyard, and comprising the same property that was conveyed to Barnes by Munsell in 1866. [SC Deeds, Book B4, p. 287].

The conveyance was subject to a mortgage of $4,000 "which said mortgage together with the interest which mat accrue is hereby assumed by the said party of the second part [Kitching] in part of the consideration herein before named" for the property.

1870 Household of Robert Kitching, as recorded in New York City in the 1870 Federal census, had twelve members: Robert, age 39, "wool broker;" his wife Thoedosia, age 32, "keeping house;" and their five children (sons

Theodore, age 11, and Frank, age 9, both "attending school," and Robert, age 3, "at home," and daughters Helen, age 5, and Annie, age 2, both "at home") along with four female domestic servants and a governess. Kitching was a native of Massachusetts'; his wife and children were born in New York. Jane was born in New York and Mary in Ireland; the other household members were New Jersey natives. Three of the servants were born in Ireland; the fourth servant and the governess were New Jersey natives Kitching reported owning real estate worth $3,000 and personal worth $1,000 [United States Census, New York Ward 17, District 9, New York, New York, 1870].

Robert N. Kitching, later in his life served as New York Examiner of Wool Imports for sixteen years but was removed from the position by the US Secretary of the Treasury in 1907 a few weeks after "charges were filed" against him. "He was regarded as the foremost expert on wool matters connected with the Treasury Department." ["Shaw Removes Kitching," *New York Times*, January 31, 1906, page 5]

"On Sunday, December 9, 1917, at her late residence, Relay Place, Cos Cob, Conn. Theodosia M., widow of the late Robert N. Kitching, in the eighty-fourth year of her age. Funeral private." [Died, *New York Times*, December 10, 1917, page 15]

1872 **January 15.** Theodosia M. Kitching & Robert N. Kitching, her husband, of NYC conveyed to Rush Van Dyke of New Brunswick for $35,000 "all that certain farm or plantation ... in Franklin" containing 168 acres of land, excepting the graveyard, and comprising the same property that was conveyed to Kitching by Barnes in 1867 [SC Deeds, Book J4, p. 342].

The conveyance was subject to two mortgages, one of $4,000 and the other of $11,500, which with the interest which were assumed by the purchaser.

In an 1873 article about the early Dutch settlers along the Raritan River, Ralph Voorhees recounted that the adjoining Van Duyn farms, later in the "possession of Capt. Henry Suydam, of Revolutionary Memory," were "at present owned by Dr. Rush Van Dyke, formerly of Philadelphia, who has now made his residence thereon" presumably in the "old house now to be seen on the banks of the River" (see 1729 & 1797 entries) ["The Raritan and its Early Holland Settlers (Third Part)," *Our Home A Monthly Magazine*," Vol. 1, no. 3 (March 1873), page 98].

Rush Van Dyke presumably was the physician son of Dr. Frederick Augustus Van Dyke (1788-1867), a physician who lived and practiced near Philadelphia, and the grandson of Frederick Van Dyke (1751-1811), a New Brunswick merchant. His father graduated from Rutgers in 1807 and entered the medical department of the University of Pennsylvania in the

following year; he studied under Dr. Benjamin Rush, after whom he named his eldest son. Dr. Van Dyke's sister Rachel (born 1793) kept a journal as a New Brunswick schoolgirl in 1801-811. [Lucia McMahon and Deborah Schriver (eds.), *To Read My Heart The Journal of Rachel Van Dyke, 1810 – 1811*, pp. 3, 4 & 382]. Rush Van Dike's ownership and occupancy of the property was of short duration.

1873 **March 24.** Rush Van Dyke and wife Rebecca of Franklin conveyed to Jacob Elmer Stout of New Brunswick for $35,000 "all that certain farm or plantation ... in Franklin" containing 168 aces of land, excepting the graveyard, and comprising the same property that was conveyed to Van Dyke by Kitching in 1872 [SC Deeds, Book O4, page 194.

The conveyance was subject to a mortgage $4,000, which with the interest which were assumed by the purchaser.

May 14. Jacob Elmer Stout of New Brunswick conveyed to Asher D. Atkinson of New Brunswick for $30,000 "all that certain farm or plantation ... in Franklin" containing 168 aces of land, excepting the graveyard, and comprising the same property that was conveyed to Stout by Van Dyke earlier in the year. [SC Deeds, Book P4, p. 15].

The conveyance was subject to a mortgage "given by Julia F. Warner & husband to James A. Munsell to secure the sum of $4,000 & interest assigned to and now held by the New Brunswick Savings Institution, which with the interest due were assumed by the purchaser.

Asher D. Atkinson (1821–1908) was born in Philadelphia, but at age seven moved with his family to New York, where his father "engaged in the retail drug and medicine business." Atkinson trained in his father's business and studied medicine as a young man, and while he did not receive a degree, acquired "proficiency in surgery" and was known by the title of doctor. He continued in his father's business until 1861, when he moved to western Pennsylvania oil region, where his father-in-law John Barnsdall had acquired property and commenced drilling for oil, and embarked on a successful career in the developing petroleum industry. In 1868-69, thirty wells on Atkinson's property reportedly produced 2,500 barrels of oil per day from which he realized considerable profit. In 1864 Atkinson moved with his family to Brooklyn, New York, and "in 1868 Dr. Atkinson purchased a summer residence at New Brunswick, N. J. and here free from the turmoil of a great city, his summers have since been past. This purchase included a tract of land lying within the city limits, and contained ninety-four acres. For the property he paid $25,000." He sold all but 10 acres, realizing funds sufficient to recoup his investment and finance the construction of "one of the finest private residences in the city" on the remaining lot, reputedly worth $50,000 [J. T. Henry, *Early History of*

Petroleum: With Authentic Facts in Regards to its Development in Western Pennsylvania, pp. 497-500].

Atkinson evidently acquired the former Van Duyn-Suydam farm as an investment, presumably never occupying the premises. According to Bailey, "Asher Atkinson leased the farm to the Smalley family, who later purchased it from him, and lived there until recent years." [Bailey, page 469]. The Smalley family did acquire the farm in 1900, but not from Atkinson (see 1900 entry); how early they occupied the premises is unknown.

Atkinson died in 1909 at the age of eighty-eight. According to his obituary in the state medical society journal, He graduated in medicine in 1840, but has not practiced for many years. He was one of the founders of the American Numismatic Society." [Obituaries, *Journal of the Medical Society of New Jersey*, Sept., 1909, page 192].

1873 The 1873 county atlas depicts the house on the subject property as belonging to the "Dr. Atkinson" [F. W. Beers, *Atlas of Somerset County*, 1873].

1880 Household of Asher D. Atkinson, as listed in New Brunswick in the 1880 Federal census, had eleven members: Asher, age 59, no occupation given; his wife Emma D., age 47, "keeping house;" and their seven children (eldest daughter Mary, age 26, who was keeping school; her six sisters, Emma, age 24, Anny, age 22, Serah [Sarah], age 18, Florence, age 16, and Ethel age 6, all at home, and son Asher, age 12, at school) along with "mother" Emma Brundell, age 88, (presumably his mother-in-law), and servant Thomas McBurney, age 23. Asher and his wife were Philadelphia natives; their children were born variously in Brooklyn, Pennsylvania and New Jersey. Asher's parents were Pennsylvania natives, his wife' father was born in England and her mother on Long Island. McBurney was born in Brooklyn; his parents in England and Scotland [United States Census, New Brunswick, Middlesex County, NJ, 1880].

Asher D. Atkinson also was listed in 1870 as a resident of New Brunswick and with a occupation of farmer [United States Census, New Brunswick, Middlesex County, NJ, 1870].

1897 **January 19.** Somerset County Sheriff conveyed to the New Brunswick Savings Institution "all that certain farm or plantation … in Franklin" containing 168 aces of land, excepting the graveyard, and comprising the same property that was conveyed to Asher D. Atkinson by Elmer in 1873 [SC Deeds, Book J8, p. 341.

The conveyance was pursuant to a Court of Chancery decree on September

28, 1896 in the matter of New Brunswick Savings Institution, complainant, and Asher D. Atkinson and wife Emma J. Atkinson, defendants, ordering the Somerset County Sherriff to seize and sell the property in question to recover the sum of $7,336.57, principal and interest due on a mortgage dated September 29, 1880 given by Atkinson and wife to the New Brunswick Savings Institution, and $79.04 court costs.

1900 **February 27.** New Brunswick Savings Institution conveyed to Charles W. Smalley of South Orange, Essex County, NJ, for $4,000 "all that certain farm or plantation ... in Franklin" containing 168 aces of land, excepting the graveyard, and comprising the same property that was conveyed to New Brunswick Savings Institution by the Somerset County Sherriff in 1897 [SC Deeds, Book D9, p. 279].

1900 Household of Edward E. Smalley, as listed in the 1900 Federal census, had eight members: Edward, age 50, farmer; his wife Mary E., age 49, no occupation given; and their three children, daughter Lulu A., age 24, and sons Harold, age 12, and Russell C., age 9, both of whom were "at school." He had three male employees: Louis Carr, age 12, Leander Beermore, age 25, and Howards Lilton, age 25, all three were "farm laborers." Louis Carr was born in Ireland; all of the other householder members were New Jersey natives. Edward owned his farm, on which there was a mortgage; his agricultural schedule was #54 [United States Census, Franklin Township, 1900].

As the census was taken on June 7, 1900, it may be that Edward was occupying the farm that Charles W. Smalley, his presumed relative, had acquired earlier that year and which Edward acquired from Charles in 1905 (see 1900 and 1905 entries).

1905 **July 11.** Charles W. Smalley conveyed to Edward E. Smalley "all that certain farm or plantation ... in Franklin" containing 168 aces of land, excepting the graveyard, and comprising the same property that was conveyed to Charles Smalley by the New Brunswick Savings Institution in 1900 [SC Deeds, Book N10, p. 261].

1910 Household of Edward E. Smalley, as listed in the 1910 Federal census, had seven members: Edward, age 62, farmer; his wife Mary E., age 60, no occupation given; their son Russell C., age 19' and Estelle, age 9, who was described as a boarder, but must have been a relative. There were two other young boarders: William Smith, age 13, and Herman Trick, age 10. The occupation of the three young boarders was given as "none." Edward had one male employee: William Johnson, age 30, whose occupation was "herd man." Johnson was a native of Maryland; all of the other household members New Jersey natives, as were their parents, except for those of Trick were born in Germany and those of Smith whose birthplace was

unknown. Edward owned his farm, which was mortgage free; his agricultural schedule was #19 [United States Census, Franklin Township, 1910].

1917 **July 12.** Edward E. Smalley of Franklin Township, Somerset Co, executed his will, in which devised all of his property, both real and personal, to his wife Mary E. Smalley "for her natural life," and after her death to his seven children Voorhees, Harold, Lulu Cheston, Bertha Cedar, Arthur, Edward and Russell, share and share alike, His sons Voorhees and Edward were appointed jointed executors the will was probated on March 12, 1919 [Somerset County Wills, Book V, page 432].

1919 **March 15.** Edward E. Smalley's estate inventory was taken, three days after his will was probated (see previous entry), and presumably shortly after his death [Somerset County Inventories, Book U, page 442].

Inventory of Smalley's personal estate totaled $3,817.73, of which $2,318,00 was "cash on deposit." The remainder included farm equipment (none of which appears to have been gas powered) including a thresher, plow, corn planter, milk wagon and milk cans, livestock (horses, cattle and swine) and a lot of hay. No household goods were inventoried, and the only building mentioned was a "shed." The farm evidently was a dairy operation.

1926 **January 12.** Voorhees Smalley and Edward Smalley, executors of Edward E. Smalley, of Highland Park, conveyed to Michael Hechtman of Monticello, NY, for $19,000.00 "all that certain farm or plantation ... in Franklin" containing 168 aces of land, excepting the graveyard, comprising the same property that was acquired by Edward Smalley in 1905 and being same premises conveyed to Asher D. Atkinson by Jacob Elmer Stout May 14, 1873 (see 1873 entry: SC Deeds, Book P4, p. 15) with other exceptions [SC Deeds F20, page 341].

The other exceptions were " as was conveyed by the following deeds: Edward E. Smalley and wife to Marconi Wireless, Jan 6, 1913, recorded Book K13, p. 128; Edward E. Smalley and wife to Helen L. Smalley, Dec. 7. 1916, recorded Book N15, p. 441; Edward E. Smalley and wife to Ethel May Smalley, Oct. 24, 1917, recorded Book p.15, p. 4, Voorhees Smalley, et al, excrs. to Ethel May Smalley, April 10, 1919, **Book 17**, p. 393; Mary E. Smalley, et al, exrs. to Bertha E. Seider, April 10, 1919, Book V16, p. 119; and Voorhees Smalley, ux, exrs. to Helen L. Smalley, April 10, 1919, **Book 17**, p. 395.

The conveyance was also "made subject to the rights of tenants."

1926 **January 12.** Mary E. Smalley, widow of Edward E. Smalley, of Highland

Park, conveyed to Michael Hechtman of Monticello, NY, for $1.00 "all that right, title and interest in and to all that certain farm or plantation ... in Franklin" containing 168 aces of land, excepting the graveyard, comprising the same property that was acquired by Edward Smalley in 1905 and being same premises conveyed to Asher D. Atkinson by Jacob Elmer Stout May 14, 1873 (see 1873 entry: SC Deeds, Book P4, p. 15) with other exceptions [SC Deeds F20, page 343].

The other exceptions were " as was conveyed by the following deeds: Edward E. Smalley and wife to Marconi Wireless, Jan 6, 1913, recorded Book K13, p. 128; Edward E. Smalley and wife to Helen L. Smalley, Dec. 7. 1916, recorded Book N15, p. 441; Edward E. Smalley and wife to Ethel May Smalley, Oct. 24, 1917, recorded Book p.15, p. 4, Voorhees Smalley, et al, excrs. to Ethel May Smalley, April 10, 1919, Book ?7, p. 393; Mary E. Smalley, et al, exrs. to Bertha E. Seider, April 10, 1919, Book V16, p. 119; and Voorhees Smalley, ux, exrs. to Helen L. Smalley, April 10, 1919, Book ?7, p. 395.

The conveyance was also "made subject to the rights of tenants."

1926 **February 3.** Michael Hechtman and Bertha Hechtman, wife, of Brooklyn, conveyed to Ellen B. Welsh, Inc., corporation of NJ for $1.00 a portion of the 168-acre tract with exceptions being a portion of the property conveyed to Hechtman by Smalley earlier that year [SC Deeds, Book F20, page 393].

The property conveyed was further described "being known and designated as plot (A) on a certain map of Raritan Heights" and was subject an easement for overhang of roof eaves of the barn on the property ("It being understood and agreed that the party of the second part agrees to permit the said barn and its eaves to remain in their present location and condition.")

The boundary description of the property conveyed (plot A on the Raritan Heights map) is as follows: "Beginning at a point on the easterly side of the Easton Avenue Turnpike as now located in line with the southerly side of the base of the southerly gate post in front of the house on the Edward E. Smalley farm and running thence (1) easterly 218.01 feet more or less to the northwest corner of the barn as now standing; thence (2) along the northerly side of said barn 440.68 feet more or less to the westerly side of the property of the D&R Canal; thence (3) northerly along the division line of said D&R Canal Company's line and the Edward E. Smalley farm, 629.80 feet more or less to the northeast corner of said Smalley farm; thence (4) westerly along the northerly line of said farm 700 feet more or less, to the easterly side of the Easton Avenue Turnpike; thence (5) southerly along said easterly side of the Turnpike 28.5 feet, more or less, to the point of beginning."

1926 **November 30.** Ellen B. Welsh, Inc. a NJ corporation, of New Brunswick,

conveyed to Michael Hechtman, of Brooklyn, NY for $1.00 any interest it might have in the remainder of the Smalley farm that Hetcham had acquired on January 12, 1926 (SC Deeds, Book P20, pp. 341 & 343) "in order to release any interest the said Ellen B. Welsh, Inc., might have in the ... [former Smalley property] by reason of being the owner of a tract of land lying northerly of the premises above described between the easterly line of the Easton Ave. Turnpike and the Delaware and Raritan Canal" subdivided from the Smalley farm and conveyed by Hetchman to Walsh on February 3, 1926(SC Deeds, Book P20, page 393) [SC Deeds, Book ??, page 454].

The property was described as "Beginning at the northeast corner of the farm formerly Harriet C. Tremoulet's now or late S. Cova's on the southwest side of the D&R Canal; from thence running along the line of late said Harriet C. Tremoulet now or late Cova's, south 42 degrees 15 minutes west 86 chains and 80 links to a stone in the line of said Harriet Tremoulet's lately, and now or late, Cova's and is also a corner of this tract and of land formerly belonging to David Mercereau; thence along the line of said now or late David Mercereau north 32 degrees and 30 minutes 3st 3 chains and 43 links; thence north 30 degrees 15 minutes west 7 chains 26 links; thence north 47 degrees 15 minutes west 8 chains 56 links to the middle of the road leading rom the East Turnpike to Middlebush Church, and thence along the middle of said road north 42 degrees 15 minutes east 91 chains 90 links to the southwest side of the lands of the D&R Canal Co; thence along the southwest side of said lands of the #& R Canal Co south 24 degrees 45 minutes east 20 chains 95 links to the place of beginning. Containing ***168 acres*** more or less. Bounded southerly by land now or formerly of Harriet C. Tremoulet westerly by land now or former of David Mercereau, northerly by road leading from the Turnpike to Middlebush and easterly by lands of the D&R Canal Co.

Excepting and reserving thereout a parcel of land occupied as a grave yard situate on the northwest side of said farm and at the intersection of the Easton Ave Turnpike with the road to Middlebush, being 56 feet in front on the Turnpike and 61 feet in the fear and 89 feet in front on the Middlebush Road and 102.5 feet in the rear as the fence now stands. Being the same premises conveyed to Asher D. Atkinson by Jacob Elmer Stout May 14, 1873, Book P4, p. 15.

Also excepting so much as was conveyed by the following deeds: Edward E. Smalley and wife to Marconi Wireless, Jan 6, 1913, recorded Book K13, p. 128; Edward E. Smalley and wife to Helen L. Smalley, Dec. 7. 1916, recorded Book N15, p. 441; Edward E. Smalley and wife to Ethel May Smalley, Oct. 24, 1917, recorded Book p.15, p. 4, Voorhees Smalley, et al, excrs. To Ethel May Smalley, April 10, 1919, Book 17, p. 393; Mary E. Smalley, et al, exrs. To Bertha E. Seider, April 10, 1919, Book V16, p. 119; Voorhees Smalley 35 ux, exrs. To Helen L. Smalley, April 10, 1919, Book

17, p. 395.

Also excepting the property conveyed to Ellen B. Welsh, Inc., by Michal Hechtman, et ux, by deed dated Feb. 3, 1926 recorded in Book F20, p. 393.

1926 **December 1.** Middlesex County Building and Loan Association conveyed to Michael Hechtman of Brooklyn, NY, for $1.00. Parcel described in deed of Voorhees Smalley and Edward Smalley, exec. of Edward E. Smalley, deceased, to Michael Hechtman, dated Jan. 12, 1926, recorded in Book F20, p. 341 (excepting so much as was conveyed to said Ellen B. Welsh, Inc. by Michael Hechtman by deed dated Fe. 3, 1926 recorded in Book F20, p. 393. Mortgage from Ellen B. Welsh, Inc. to MCB & LA for $4,000 dated Feb. 3, 1926 recorded in Mortgage book _.

1931 **June 9.** Somerset County Sheriff conveyed to Middlesex County Building and Loan Association for $100.00 "Lot A on a certain map of Raritan Heights," excluding the graveyard and barn eaves overhang, and comprising the same property that was conveyed to Ellen B. Welsh Inc. by Michael and Bertha Hechtman on February 3, 1926 (as recorded in SC Deeds, Book F20, page 393). The grantee was the high bidder at the court-ordered sheriff sale held on May 18, 1931 to sell that tract, bidding $100.00 [SC Deeds, Book J22, page 412].

The conveyance was pursuant to a Court of Chancery decree on February 27, 1931 in the matter of Middlesex Co. Building and Loan Assoc. of New Brunswick, complainant, and Ellen B. Welsh, Inc., M. Ritchie, Bertha F. Winfield, Marbert Holding Co., Maurice H. Winfield, Walter Hutchinson and Stephen Raciti, defendants, to pay and satisfy unto Complainant the sum of $2,931.35, principal and interest secured by mortgage given by Ellen B. Welsh Inc. bearing date of Feb. 3, 1926.... And pay and satisfy in the second place unto defendant Marbert Holding Co., the sum of $1,335.76, principal and interest secured by two mortgages; first given by Ellen B. Welsh, Inc., to Franklin M. Ritchie, dated Feb. 5, 1927 and assigned by Ritchie to Bertha F. Winfield, and assigned by Winfield to the Marbert Holding Co; the second thereof given by Ellen B. Welsh, Inc. to Maurice H. Winfield, dated May 15, 1928, and assigned by Winfield to the Marbert Holding Co."

1932 **February 4** Middlesex County Building and Loan Assn. conveyed to Maurice H. Winfield, 18 So. 2nd Ave, Highland Park for $1.00 "Lot A on a certain map of Raritan Heights," excluding the graveyard and barn eaves overhang, and comprising the same property that was conveyed to Middlesex County Building and Loan Assn. by the county sheriff in 1931 in SC Deeds Book J22, page 412 [SC Deeds Book P22, page 1].

1932 **February 4.** Maurice H. Winfield and Josephine Y. Winfield, wife, of

Highland Park, conveyed to John Kreh, Jr., 49 Mine St., New Brunswick for $1.00 "that property known as Lot A on a certain map of Raritan Heights," excluding the graveyard and barn eaves overhang, and comprising the same property that was "conveyed to said Maurice H. Winfield by MCB&LA by deed bearing date Feb. 4, 1932 and about to be recorded" [SC Deeds Book P22, page 2].

1932 **February 4.** John E. Kreh, Jr., conveyed to Catherine R. Calamoneri "that property known as Lot A on a certain map of Raritan Heights," excluding the graveyard and barn eaves overhang, and comprising the same property that was "conveyed to Kreh by Maurice and Josephine Winfield by MCB&LA by deed bearing date Feb. 4, 1932 [SC Deeds Book P22, p. 24].

The property was further described as" Beginning at a point on the easterly side of the Easton Avenue Turnpike as now located in line with the southerly side of the base of the southerly gate post in front of the house on the Edward E. Smalley farm and running thence (1) easterly, 218.01 feet to the northwest corner of a barn as now standing; thence (2) along the northerly side of said barn, 440.68 feet, to the westerly side of the property of the Delaware and Raritan Canal Company's line and the Edward E. Smalley farm, 629.80 feet, more or less, to the northeast corner of said Smalley farm; thence (4) westerly, along the northerly line of said far, 700 feet more or less, to the easterly side of the Easton Avenue Turnpike; thence (5) southerly, along the said easterly side of the Easton Avenue Turnpike, 208.5 feet, more or less to the place of beginning. Excepting therefrom a certain grave yard beginning at a point on the easterly side of Easton Avenue, distant 133.5 [or 135.5] feet, more or less northerly from the beginning point in the description of the premises conveyed, being also the junction point of the southerly boundary of a certain graveyard excepted hereout and the easterly line of Easton Avenue; thence (1) northerly, 56 feet; thence (2) easterly, along Middlebush Road, 89 feet; thence (3) following the courses of said graveyard southerly 61 feet, more or less; and thence (4) westerly, 1-2.5 feet more or less to the place of beginning. Being known and designated as Lot A on a certain map of Raritan Heights. Excepting and reserving therefrom a right of easement along the second course for the overhand of eaves of said bar; said easement being conveyed to Michael Hechtman. And subject to any easement that may have been acquired by the public in a road or lane running along the northerly side of the above property. Excepting thereout and therefrom, any right which may have been acquired by the American Telegraph and Tel Co.

1932 **February 25.** Catherine R. Calamoneri single, of Twp of Raritan, conveyed to John E. Kreh, Jr. 347 Madison Ave, NY, for $1.00 "that property known as Lot A on a certain map of Raritan Heights," excluding the graveyard and barn eaves overhang, and comprising the same property that was conveyed to Catherine R. Calamoneri by deed of John Kreh, Jr., bearing date Feb. 4,

1932 and recorded in Book P22, p. 24. [SC Mortgages, Book F13, p. 332].

1932 **August 10.** John E. Kreh, Jr., widower, of New York City conveyed to Katharine M. Donaldson and Margaret M. Donaldson of 19 Comstock St., New Brunswick for $1.00 conveyed to said John E. Kreh, Jr. by deed of Catherine R. Calamoneri, single, dated Feb. 25, 1932, about to be recorded [SC Deeds, Book?, p. 85]

The conveyance also was 'subject to any easement that may have been acquired by the public in a road or lane running along the northerly side of the above property" and "to a $5,000 mortgage now a lien on said premises held by Lucy A. Ledwith" (SC Mortgages, Book F13, page 332).

Also excepted was "any right which may have been acquired by the American Telegraph and Tel Co."

1936 In her landmark study of New Jersey's early Dutch houses, published in 1936, author Rosalie Fellow Bailey, provided a history of the Van Wickle–Suydam House, based in part on "family tradition," evidently provided to her by Miss Julia L. Wells (see 1703 entry) in which she concluded that Symen Van Wickle and his wife Geradina "probably settled at this time [around 1722] on his father's tract along the Raritan and built the present house," apparently the first written account of this erroneous history. After stating that "It is not known who owned the house after the death of Symen Van Wickle," she offered several possibilities for the "gap in the history of the farm," before accurately picking in the chain-of-title in 1795, adding that Asher Atkinson, who acquired the property in 1873, "leased the farm to the Smalley family, who later purchased it from him, and lived on the farm until recent years" [Bailey, pp. 467-469].

As regards the more recent history of the house, which she described as the property of "Mrs. Malcolm Montgomery Donaldson and her two daughters," Miss Bailey had this to say: "The house has been restored very successfully by George Howell, architect, and the Highland Park Building Company" [Bailey, page 469].

The Highland Park Building Company, organized in 1914, was involved in the residential development in the Livingston Manor neighborhood of nearly Highland Park, New Jersey, building "single-family houses from plans produced by a select group of architects," and George B. Howell, a young New Brunswick architect, did have a connection to Livingston Manor, designing a house for his brother that was built there in the early 1920s [The Livingston Manor Historic District, hphistory.org (accessed May 2016)]; *Rutgers Alumni Monthly*, (1919 alumni notes), vol. I, No. 4, January 1922, page 110].

George B. Howell (1895-1983), was the son of New Brunswick

businessman Abram Suydam Howell and his wife Elizabeth Vroom Brokaw and grandson of Steven Howell, proprietor of New Brunswick lumber company. After preparing for college at Blair Academy, he attended Rutgers for two years before transferring to Cornell University in 1916. Following a two-year hiatus for military service during World War I in 1917-18, he graduated from Cornell in 1922 with a bachelor's degree in architecture. He worked for the firm of C. W. Oakley & Son, Elizabeth, New Jersey, in 1922-14 and for New Brunswick architects Alexander Merchant & Son in 1924-31. For the latter firm, his projects included several public buildings (New Brunswick City Hall, and two public schools in Cranbury, NJ), two religious buildings (Anshe Emeth Synagogue and Selton Baptist Church in New Brunswick), an addition to the Wessells Memorial Library at the New Brunswick theological Seminary and the Delta Upsilon Fraternity House at Rutgers, as well as a World War I monument in New Brunswick, in which sculptor F. Luis Mora also participated. Three years after leaving the firm of Merchant and Son (his departure from which may have been related to Depression-era downsizing), Howell secured employment with Rutgers University in 1934 to design the 20,000 seat Rutgers stadium, whose construction was funded mostly by the Federal Works Progress Administration. He served as Rutgers University architect for twenty-four years, retiring in 1958; other projects for the university included the Music House at Douglas College and Lipman Hall at the College of Agriculture. He married Esther Hasbrouck Borcherding, a descendant former Rutgers University president A. Bruyn Hasbrouck, in 1930. He and his wife lived in a house on River Road, New Brunswick, which he designed in 1930. The couple were childless. Howell died at the age of eighty-eight on July 26, 1983, survived by his wife [*Rutgers Alumni Monthly*, January 1922, page110; Rutgers University Archives, General Catalogue, George B. Howell file; "Howell-Borchering Wedding at Gardiner Reformed Church, *New Brunswick Sunday Times*, September 28, 1930; "Howell Retiring," Newark News, December 31, 1958; George B. Howell obituary, The Daily Home News, July 27, 1983; Sarah Beetham. Ph.D., "When Memory Fails, Part 2: Answers," June 6, 2016, Sarahbeetham@worldpress.com (accessed June 2016)].

In discussing the historically appropriate modernization of Dutch houses, Rosalie Fellow Bailey observed that while "a strict restoration with the preservation of the original layout" was the ideal, since "a large living room is the modern desideratum, and as the rooms in Dutch house are comparatively small, two of them may be thrown together." She cited the Van Wickle–Suydam House as a good example of how a large living room could be created in a Dutch house with a center hall:

"This has been done very well in the Van Wickle–Suydam house (plates 2 and 140). The large number of windows and the two fireplaces give a feeling of space, a wealth of light, and great warmth and comfort. The

fireplace wall of the best room is often completely paneled, as in this case, and usually has wall or corner cupboards. The second main room is generally treated in a simpler manner; originally it may have been the combined kitchen and living room, and a mantel piece added when the kitchen was moved into a wing, or it may always have been a living room. In the Van Wickle–Suydam house, one fireplace wall has a paneled chimney breast, a simple mantel with no shelf, and on either side cupboards of different sizes with paneled doors (plate 2); the wall of the opposite end of the living room was a wide, low fireplace, a mantel piece of simple proportions with high lintel and narrow, a plastered chimney breast, on one side a set of bookshelves with cupboards below, and on the side a door into the dining and kitchen wing (see vignette)." In discussing the design limitations presented by house with dark narrow hallways, she concluded "In these cases, an attractive and successful treatment is the one which has been used in the Van Wickle–Suydam house. The rear has been changed to the front of the house, the former front portion of the hall has been included in the new, large living room, leaving the former rear portion as an entrance hall with the box stairs going up one side" [Bailey, pp. 38, 39 & 43].

1936 **April.** In a genealogical account of the Raritan Valley Van Wickles, Edith H. Mather included an account of Evert Van Wickle and his only daughter Antje (Ann Beach) and described the gravestone that the latter erected over their graves "in the plot on their farm." Conflating Evert's farm with the subject property, she added: "This old Van Wickle farm is on the Easton turnpike between Bound Brook and New Brunswick, overlooking the Raritan River, –a most pleasing prospect. It was lately known as the Wells Farm [Evert's farm was subsequently owned by the Wells family], but now belongs to Miss K. M. Donaldson [see 1932 entry]. The original house has been added to, although at an early date, so that the whole building is an ancient and early example of very "early American". It has been repaired and restored in a most intelligent and sympathetic manner. [Mather, PNJHS, April 1936, pp. 121 & 122].

1937 **September 16.** Katherine M. Donaldson, single, Margaret D. Joiner and Richard B. Joiner, her husband, conveyed to Robert T. Bogan (d. 9/24/1971) and Virginia D. Bogan for $1.00 "that property known as Lot A on a certain map of Raritan Heights," excluding the graveyard and barn eaves overhang, and comprising the same property that was "conveyed to Donaldson by Kreh on August 10, 1932 [SC Deeds, Book 23, p. 412].

The 1940 census documents that Richard B. Joiner, age 30; his Margaret B. Joiner, age 32, and Marian B. Joiner, age 56, (presumably his mother) were living in Highland Park, NJ. Richard, who had completed four years of high school for employed as a clerk of a utility company with salary of $1,350. He rented his residence. [United States Census, Highland Park, Middlesex County, NJ, 1930].

Margaret Joiner presumably was the former Margaret Donaldson.

1938 The Symen Van Wickle House was recorded by for the Historical American Building Survey with twelve drawing sheets and four photographs by Nathaniel R. Ewan and "Photographer May" [HABS NJ-479].

1939 **June.** Historical data sheets for the Historical American building survey recording of the Symen Van Wickle House are received and approved. The history sites both Bailey and Mather as sources for the history of the property [HABS NJ-479].

1940 Household of Robert T. Bogan, as listed in the 1940 Federal census, had five members: robert, age 35, executive; his wife Virginia D., age 33, no occupation given; and their three children, daughters Virginia A. age 13, and Deborah H. age 4, and son, Robert T., Jr., age 7. All household members had lived previously in Highland Park, New Jersey. Bogan, his son and younger daughter were New Jersey natives; his wife was born in New York and his elder daughter in Manila, Philippines. Bogan owned his own home, which was valued at $10,000. His salary was $5,000 per year, and he had other sources of income; he had completed four years of college [United States Census, Franklin Township, 1940].

The 1930 census documents that Robert T. Bogan, age 30, his wife Virginia, age 23, and daughter Virginia, age 3, were then living with his wife's parents, Frederick and Minnie Adams on West Avenue, Woodbridge NJ. Robert occupation was "foreign salesman" for a "Drug Co." [United States Census, Woodbridge, Middlesex County, NJ, 1930].

1971 **September 24:** Robert T. Bogan died, bequeathing all of his property, by his will date July 28, 1971, to his three children, Virginia Boden Dykes, Robert Titus Dykes and Deborah B. Errickson inherited all of his property. He named his wife Virginia as his executor, and Frederick M. Adams as residual executor; Adam presumably was his brother-in-law or other relative of his wife (see 1940 entry) [Somerset County Wills, file #71-905].

1972 **Feb. 20.** Virginia D. Bogan died, leaving her executive duties uncompleted and with certain assets of her husband estate, amounting to leas than $25,000, "unadministered" [Somerset County Wills, file #72-274].

1973 **September 18.** Symen Van Wickle House was listed on the NJ Register of Historic Places.
December 4. Van Wickle House was listed on the National Register of Historic Places.

[Lois Richman and Terry Karschner, Symen Van Wickle House National

Register nomination, July 1973; "NJ DEP - Historic Preservation Office New Jersey and National Registers of Historic Place," www.nj.gov/dep/hpo]

1974 **June 3.** John DeNoia, Substituted Administrator for the Bogan estate, conveyed to Robert T. Bogan, Jr., Debora Holmes Errickson and Virginia B. Dykes all "that property known as Lot A on a certain map of Raritan Heights," excluding the graveyard and barn eaves overhang, and comprising the same property that was "conveyed to the Bogans by Donaldson and Joiner in 1937 [SC Deeds, Book 1298, p. 584].

1977 **Mar 16.** Robert T. Bogan, Jr., and wife Barbara J. Bogan; Deborah Homes Errickson, and husband Martin Alexander Errickson; and Virginia B. Dykes and husband James W. Dykes conveyed to Township of Franklin for $85,000 all "that property known as Lot A on a certain map of Raritan Heights, excluding the graveyard and barn eaves overhang, and comprising the same property that was "conveyed to the [SC Deeds, Book 1350, page 139].

6. Architectural Development

Summary Description of Property

The only major surviving element of a farmstead established in the early 18th century, the Van Wickle House is located in the fertile Piedmont lowlands along the Raritan River between the Delaware and Raritan Canal and Easton Avenue (the former New Jersey Turnpike) on an approximately six-acre tract of municipally owned parkland, the remainder of the land once associated with the property. Set well back from Easton Avenue facing east towards the river and accessed by a continuation of DeMott Lane, the frame, one-and-one-half-story, gable-roofed dwelling consists of an 18th-century main block and north wing, both of which retain considerable early fabric including anchor-bent framing and other elements of Dutch-American design, along with several small later additions and modest Colonial Revival modifications. An informally landscaped lawn with scattered trees and shrubs surrounds the house, and a gravel driveway providing access from DeMott Lane terminates in a gravel parking area adjoining the dwelling's west entry, currently its main entrance. A presumably early, stone-lined well with modern cover is located just east of the main block (a c.1900 photograph, Figure 6, documents it with a lattice-enclosed wooden curb); a mid 20th-century frame garage with public restrooms stands short distance northeast of the north wing. The property, which lies almost entirely within the Raritan River flood plain, features a wetlands meadow crossed by a small watercourse along its south side. The remainder of the property is mostly wooded. A small abandoned family graveyard, extant by the late 1700s, and perhaps earlier, abuts the northwest corner of the property at the intersection of Easton Avenue and DeMott Lane. Busy four-lane Easton Avenue borders the west side of the property, and the one-lane gravel continuation of DeMott Lane runs along its northern boundary, beyond which stretch the grounds and playing fields of Rutgers Preparatory School whose oldest building incorporates the 18th-century Van Wickle-Beach House.

Summary Description of the House

The main block of the Van Wickle House, which based on physical and historical evidence can be dated c. 1730-40, and may have been built in two sections, is framed with ten anchor bents above a rubble-stone foundation. It has a double-pile-plan with large front and small rear rooms, a chimney within both gable-end walls, partial cellar and a large attic story that was unfinished originally. The smaller, lower, 5-bay north wing, which evidently post-dates the main block by some years and incorporates earlier, recycled timbers, also has a double-pile plan but it may have begun as a one-room unit with gable-end chimney –framed with six anchor bents– and been enlarged to the west. The perimeter walls of both the main block and the southern 3-bay portion of the north wing are in-filled with brick nogging. The original portion of the wing, which has a stone foundation but no cellar, acquired a 2-bay north extension during the late 19th century, as documented by the c. 1900 photograph (Figure 6), and a bay window was added to the west side around the same time. Both the north extension and bay window have brick foundations, and the extension has a full cellar. Around the same time, or perhaps some years earlier the attic of the main block was renovated as finished rooms, as evidenced by

the dormers visible in the c. 1900 photograph (Figure 6). The house was remodeled in the 1930s, at which time the west or rear façade became the front entrance, a large living room created from the main block's two east rooms and a stone terrace constructed along the main block's east front. The terrace features a stone inscribed with the date 1703, a mistaken commemoration of the acquisition of the subject property by Evert Van Wickle in that year. A sun porch/green house was added on the south end of the main block during the 1950s, and sometime during the second half of the 20th century, the upper story of the main block was converted into an apartment.

The main block's five-bay east façade, its original front elevation, is distinguished by a wide overhang at the roof eaves, round-butt shingle siding attached with hand-wrought nails, central entry with heavy timber frame, Dutch door hung on strap hinges and transom, 12/12 sash windows with wide Roman ovolo-molded muntins, and architrave door and window trim with ogee outer molding –most of which appears to be original or early fabric. Both leafs of the Dutch door are constructed of vertical bead-edged tongue and groove boards with applied stiles and rails creating a recessed panel on the outside face; the strap hinges features the large nailing pads associated with Dutch-American architecture The batten window shutters, glass inset in the upper door leaf and the scalloped "baseboard" date to the 1930s renovations, and replaced the louvered shutters depicted in the c. 1900 photograph (Figures 6, 7, 8 & 9); the sashes of the south windows (W 116 and 117) are contemporary or subsequent replacements. Paint analysis indicates that the east façade originally was painted reddish brown (a typical 18th century color known as Spanish brown), accented by pale yellow window sashes and door transom.[157] Early clapboard siding with quirk-bead molded edge survives at the peak of the main block's south gable and on the north gable, exposed to view in the north wing's attic (Room 205), the earliest paint layer on the latter is a pale yellow color, suggesting that the house had a two-tone paint scheme.[158] The plain clapboard siding on the remainder of the main block's south wall dates to the 19th century (the c. 1900 photograph of the house, Figure 6, documents that it was extant by that time), presumably as was the similar siding on the north gable covering the early bead-edged siding. Novelty siding of early 20th-century date covers the main block's north façade and the small portion of the first-story north façade. The fenestration of the main block's 3-bay west façade and south gable also appears to original, and the off-center west entry retains an early transom, but the panel door is a 20th century replacement, probably dating to the 1930s renovations, as are the 6/6 sashes of the flanking windows, batten shutters and the plain door and window trim. The 4/4 sashes of the narrow south-gable windows probably are 19th century replacements. The main block has flush raking eaves, undoubtedly the original treatment, but the flush eaves on its west elevation may be an alteration, perhaps replacing a wide overhanging like that of the east front. The roofing is modern asphalt shingle (over earlier

[157] Keystone Preservation Group, *Paint Investigation and Mortar Analysis*, pp. 3, 14 & 20; paint samples EXT-10, 12, 14 , 15 & 16; Appendix D of this report.

[158] A paint sample taken from the beaded clapboards on the north gable had six layers of "greyish white" (described in text as "pale yellow"), of which the 6th was interpreted as the last year exposed to view before being concealed by roof of the north wing (build B), suggesting that the house had two-tone paint scheme [Ibid., page 3, paint sample EXT-205].

wood shingles); the gable dormers (two on each side) evidently date to the later 19th century (Figure 6).

The north wing is clad with clapboard siding of 19th and 20th century date, and its asphalt shingle roof, apparently contemporary with that of that main block, also was installed over wood-shingle roofing; the eaves are flush. The west bay window features bevel-cornered shingles on its gable and window spandrels. The wing's windows have 6/6 sashes and plain trim and probably are 20th-century replacements, although some may be 19th century. The wing's east entry retains an early Dutch door hung on strap hinges, the north entry door is a mid 20th-century replacement, as is its one-bay entry porch with stoop seats.

As do their exteriors, the interiors of the main block and wing exhibit a mix of early and modern fabric. Original, or at least early, features on the first story of the main block include exposed anchor beams and posts, partitions, pine flooring concealed by later finishes in the rear range of rooms (Rooms 101, 102 & 104), some wall plaster, the paneled fireplace wall at the south end of the Room 103, architrave and plain door and window trim, the enclosed staircase's bead-edged board partition, and several batten doors with hung on Dutch strap hinges. The original pine floorboards are grooved on both edges, and separate tongues were used to join then. The south fireplace has a simple flat surround with molded edges and a paneled over mantel (raised panel fields with ovolo-molded edges on the stiles and rails), but no shelf. It is flanked by a two-door closet to east and two-door cupboard to the west, whose paneled doors retain wrought-iron H-hinges. A wide ogee-molded cornice extends the full length of the south wall. The cellar and upper story stairs in Room 101 are enclosed hand-planned vertical tongue-and-groove boards with a quirk-bead molding on one edge. While the strap hinges of the batten door between Room 101 and 103 are mounted on spike-driven pintles, those of the staircase doors are mounted on spade-shaped nailing plates; the hinges are secure with hand-wrought nails and retain leather washers. The fireplace at the north end of the Room 103, which features pilasters and delicate moldings typical of the Federal style, dates to early 19th century (and possibly is associated with the rebuilding of an earlier cooking fireplace). Wooden trim in these rooms has one or two coats of reddish brown as the first paint layers, followed by a coat of greyish blue typical of the Federal period, which is the first paint layer on the north fireplace mantel.[159]

Fabric dating to the 20th century includes the wire-nailed random-width flooring, some of the wall plaster (judging by the presence of metal lath visible in one place on the Room 102/103 partition), the built-in bookshelves adjoining the north fireplace, the closets in Room 104 and perhaps the wainscot in Room 103. Both fireplaces appear to have been rebuilt in the 20th-century, presumably in association with the 1930s renovations, at which time the partition aligned with anchor bent E was removed to create Room 103 leaving mortises in the anchor beam. Mortises in anchor beams F and H in Rooms 101 and 104 similarly are evidence of altered partitions, work that also may have occurred in 1930s, or earlier. The Suffolk door latches are probably date to that time, or perhaps somewhat later. While the main block's upper story retains original random-width

[159] Ibid., paint samples 101-01, 02, 03, 04, 05, 06 & 13; 102-02; 103-01, 02 & 03.

flooring (covered by later flooring but exposed to view on the first story), the other finishes date to 19th and mid 20th-century renovations. Features dating to the 19th century conversion of the attic into living quarters include partitions, several batten doors and some bead-edged trim. Modifications dating to the 20th-century included wire-nailed flooring, added and altered partitions (Rooms 204/204a and 202/202A), drywall wall and ceiling finishes, closets, several doors, Suffolk door latches, and kitchen and bathroom fixtures and finishes.

The north wing has been subject to more alteration than the main block, but also retains considerable early fabric including the exposed bent posts in Room 107, pine flooring (concealed by later finishes on the first story but exposed to view on the upper story), several batten doors, bead-edged woodwork, the Room 107 wainscot and the original portion of the staircase enclosure in Room 107. Subsequent alterations including the removal of the Room 107 fireplace (presumably a cooking fireplace), and its replacement with a built-in cupboard, work which may have occurred in conjunction with construction of the 2-bay north extension during the late 19th century. The north extension provided a kitchen and pantry, as documented by the HABS first-floor plan, and retains some early woodwork and trim, but the dividing partition was removed in the mid 20th century and modern kitchen cabinets and fixtures were installed.[160] Finishes dating 20th-century include flooring, closets in Rooms 105, 106 and 107 (in the latter installed under the stairs), and some trim, as evidence by paint samples. The wing's upper story contains an attic (Room 205) with early flooring and a finished chamber (Room 206) in the north extension, which retains its original late 19th century finishes (plaster walls and ceiling, flooring, batten doors and trim).

Construction Chronology

Physical evidence strongly suggests that the main block of the Van Wickle House was built c. 1730 – 1740, and a construction date around that time during William Van Duyn's ownership of the property is supported by documentary evidence. Tree-ring samples taken from the main block's anchor bents yielded dates ranging from 1724 to 1740.[161] When William Van Duyn inherited the property from his father in 1729, he had been living there for some years.[162] Thus, upon gaining title, he would appear to have been well positioned to replace a pioneer dwelling with a larger, more substantial residence for his growing family. And it may be that the main block was constructed on the foundation of a smaller earlier dwelling, as there is some evidence of one foundation wall within another along the east side of the house; additional archaeological

[160] HABS NJ-479, sheet 2 [Appendix G of this report].

[161] Richard F. Veit, *Artifact Analysis, Tree-Ting Dating, and Mapping Van Wickle House*, pp. 3-2 – 3.6 [Appendix E of this report].

[162] Several sources place William Van Duyn as a Somerset County resident by the early 1720s, and his father's 1729 will described the subject property "all that tract of land or Plantation, whereon he [William] now lives, at Raritan, in Somersett [sic] County, in Province of New Jersey, being 250 acres," [see, page II-15, footnotes 54 – 58; Pelletreau, pp. 134 & 135]. A 1735 tax assessment role indicates that William's plantation was well established and improved [Snell, *History of Hunterdon and Somerset,* II, page 815].

investigation would be necessary to determine if the present foundation incorporates an earlier foundation.[163]

There also is inconclusive evidence suggesting that the main block might have been constructed in two sections (Builds A-1 and A-2). Mortises for studs and a diagonal brace in bottom of the anchor beam and east post of the anchor bent E (located immediately south of the east entry) survive from the removed partition that once divided Room 103 into two rooms, and since that anchor bent aligns with a stone foundation extending the full depth of the main block, the removed partition, especially as it incorporated a diagonal brace, conceivably could have been an end wall of a house with a double-pile-plan. If this is the case, the fact that tree rings samples taken from the southern half of the main block (Build A-1, bents A – E) date from 1724 to 1735 and samples taken from the north half (Build A-2, bents F – J) date from 1727 to 1740 suggests that southern half may have been built first & enlarged shortly thereafter. Furthermore, if the main block was one build there is no discernable reason for the awkward jog in east wall of Room 101 on either side of bent E. However, the fact that the west end of the anchor beam of bent E, visible in Room 101, does not have any mortises indicates that this portion of bent E did not incorporate a wall. Additional physical investigation of portions of the main block's frame currently hidden from view will be necessary to determine if the main block was built in one or two sections.

Whether or not the result of one or two builds, the main block appears to have originally had two first-story front rooms, each with a fireplace, and four small rooms to their rear, along with three cellar rooms and an open attic. The north front room was the larger of the two, and had exterior access directly from the east entry and indirectly from the west entry passage. It likely served as a kitchen provided with a large cooking fireplace, as is suggested by the survival of a hearth support on the massive north chimney base that is much wider than the firebox of the extant fireplace. This chimney appears to have been built with an exposed chimney back, judging by the large area of masonry in the wall behind it exposed to view in the Room 107 staircase. Hendrick Suydam's 1838 inventory mentions a "closet in the north front room," which presumably was located in the space now occupied by the bookshelves adjoining the north fireplace.[164] The closet may have been associated with the early 19th-century reworking of the north fireplace or possibly dated earlier. Upon the remodeling of the fireplace, the "north front room" evidently functioned as a dining/sitting room, judging by its furnishings in the 1838 inventory, conveniently located adjoining the north wing kitchen. The slightly smaller south front room with its paneled fireplace wall originally would have been the parlor/best bedroom; the cupboard and closet flanking the fireplace possibly were the two other closets mentioned in the 1838 inventory. Despite Rosalie Fellows Bailey's assertion that "the former front portion of the hall [was] included in the new, large living room" during the

[163] According to archaeologist Richard Veit "Room 002 [the southeast portion of the main block cellar] clearly shows three foundations, one inside the other along the eastern side of the structure." He further speculates that: "It is possible that the southernmost section of the structure [main block] was the first portion of the Van Wickle house constructed. It may have been a simple small one [room] structure." [Veit, pp. 5-1, 5-2 & 6-1, Appendix E of this report].

[164] NJ Wills 2662R.

1930s renovations designed by George Howell, which were apparently undertaken shortly after the property was acquired by the Donaldsons in 1932 and finished by 1936, there is no physical evidence that the front rooms were separated by a hallway; the anchor beam of bent F to the north of the east entry lacks both mortises for a stud partition like those of anchor beam of bent E and holes for nails that would have secure a partition constructed of vertical planks.[165] Mortises in the anchor beams of bent F in Room 101 and bent H in Room 104, are evidence of moved partitions in this area, indicating that the north entry hall (Room 101) originally was narrower and that Room 104 was divided into two small chambers, the southern of the two incorporating the northern portion of Room 101. Thus the rear range of rooms of the first story encompassed a narrow entry passage/stair hall, flanked by small unheated rooms (one on the south and two on the north) that presumably served as bed chambers, and one of the north rooms might have been the "pantry" mentioned in the 1838 inventory.[166] The two north rooms must have each had a door for access, but the doorway for the southern room of the two, opening either from the adjoining front room or the north entry hall, presumably was removed in conjunction with reworking the partitions. When these alterations occurred is unknown; the present configuration, excluding the two closets in Room 104, was extant by 1938, when recorded by HABS, and it may be that the work formed part of the 1930s remodeling, or perhaps occurred sometime earlier.[167] Additional physical investigation might shed light on this construction chronology.

The main block's cellar, as mentioned previously, is divided roughly in half by a stone wall aligned with anchor bent E, and another stone wall divides the area to the south of that wall into two rooms, the larger one (Room 002) to the east and the smaller one (Room 001) to the west. They presumably are the "south front cellar" and the "west cellar" mentioned in the 1838 inventory, which documents that they were used for cold storage. The west cellar has an early stone floor, and the walls of both rooms retain traces of whitewash. Bailey noted a "big batten door separat[ing] the compartments where the slaves were quartered," but no door survives.[168] These cellars had exterior access on the east and south sides of the house, respectively, by means of stone steps covered with a wooden bulkhead, as documented by the c. 1900 photograph (Figure 6) and the HABS survey.[169] One of entries may have been the "gangway in cellar" mentioned in the 1838 inventory. The east cellar entry was filled in during the construction of the east terrace in the 1930s, which replaced the wooden porch deck visible in the c. 1900 photograph, and its doorway closed up with concrete block. The south cellar entry was abandoned when the green house was added in the 1950s, but its stone steps presumably survive behind a later door that has been nailed shut. The ground under the north half of the main block was only partially excavated (presumably when the main block was built, but perhaps sometime later) creating one small cellar (Room 003), whose east and west walls, setback from the main block's east and west foundation walls, are not full-height, but instead are surmounted by sills and short posts which help support the floor framing above. Wire

[165] Bailey, pp. 38, 39, 43 & 469; Somerset County Deeds, Book 23, page 412.
[166] NJ Wills 2662R.
[167] HABS NJ-479, sheet 2; Bailey, The Room 104 closets were added sometime after 1939.
[168] Bailey, page 469
[169] HABS NJ-479, sheet 1.

nails in the heavy saw-cut planks forming the sills may be evidence that the extant support framing dates to the late 19th or early 20th centuries, or was reworked at that time. The north cellar, which is accessed only by a doorway from Room 002 appears to have had the same floor level as the south cellars, but the floor was lowered during mid/late 20th-century renovations, when the stone walls were underpinned with concrete and a concrete floor poured, perhaps to accommodate the installation of a new furnace.

Like most Dutch-American farmhouses, the main block evidently had an open attic that was used both for the storage of grain and other items, as well as for sleeping, as evidence by the 1838 inventory, which includes a "bed, bestead & bedding in garret" and a "lot of Rye in Garret," along several spinning wheels, various tools and two barrels of "cyder spirits."[170] Sometime thereafter during the mid/late 19th century, the attic was partitioned into three rooms arranged around a small hallway at the top of the extant stairs, and finished with plaster walls and ceilings, batten doors and simple trim. The dormers on the east and west sides of the main block presumably form part of this work. This configuration of the main block's attic story remained extant until 1938.[171] Sometime thereafter, the upper story was renovated to provide a separate apartment. The larger north room was divided into a living room and bedroom, a kitchen installed in the southeast room, and the partitions between the hallway and the southwest room altered to accommodate the creation of a bathroom. Exactly when this work was done is unknown; it may have occurred sometime after 1977 when the property was acquired by Franklin Township and leased to the Meadows Foundation to provide quarters for a caretaker.[172]

Although the early construction chronology of the north wing also is uncertain, physical evidence indicates its southern half (Build B) is an early addition to the main block built with recycled timbers, possibly beginning as a one-room unit with gable-end chimney (Room 107) that subsequently was enlarged by adding two small rooms on the west or alternately had a double-pile plan as first built with large front room and two smaller rooms to the west. The early clapboard siding on the main block's north gable exposed to view in the attic of the north wing provides evidence that the wing is an addition. Tree-ring samples taken from four west posts of the anchor bents framing Room 107 gave end dates of 1676, 1716, 1710 & 1725, and a sample taken from one of the Room 107 floor joists was described as "too short to date but suggests … a final ring date of 1737."[173] If these dates are correct, Build B could not be any earlier than 1737, and must have been erected with timber salvaged from an older building. While Room 107 is framed with anchor bents, and the foundation wall dividing the crawl space beneath Build B aligns with the west posts of the bents, additional probes would be necessary to determine if that section of the house was erected with a single-pile or double-pile plan. Unlike the main block, the north wing does not have a "knee wall" –the low upper-story wall formed by H-shaped anchor bents– and it is not clear if Build B was constructed with the uncommon inverted U-shaped anchor bent variant or if its recycled bent posts were shortened. Additional probes also might answer this question. A large stone chimney base

[170] NJ Wills 2662R.
[171] HABS NJ-479, sheet 3.
[172] Somerset County Deeds, Book 1350, page 139.
[173] Veit, pp. 3-2 to 3-4 & 3-6, Appendix E of this report.

remaining at the north end of the crawl space under Room 107 establishes that this room had a large fireplace, which most likely was a cooking fireplace. And it may be that the "ten plate stove" (a stove type that incorporated both a cooking surface and baking oven) listed in the Hendrick Suydam's 1838 estate inventory in conjunction with kitchenware, was associated with this fireplace. The Room 107 fireplace was removed sometime thereafter, probably when the cupboards now located there were installed, which judging by their fabric, occurred during the late 19th or early 20th centuries. The c. 1900 photograph (Figure 6) documents a brick chimney stack at that location, but it may have been the replacement flue depicted in the 1938 HABS drawings that began at the attic floor level and presumably vented a heating or cooking stove.[174] The pantry mention in the 1838 inventory might have occupied one of Build B's two west rooms (Rooms 105 and 106), in lieu of a main block location. Room 105 was converted into a bathroom sometime during the early 20th century, undoubtedly during the early 1930s renovations, if not before. The upper story of Build B remained an unfinished attic as late as 1938, as documented by HABS, and the hewn rafters above the existing ceiling exhibits traces of whitewash; the dormer window, extant by c. 1900 (Figure 6) resembles those of the main block and presumably is contemporary with them.[175] The c. 1900 photograph also documents that a shed-roofed porch with square post and wooden deck extended across the east front of the north wing, terminating at the cellar entrance of Build C. This porch presumably was removed in the early 1930s renovations, if not before, as it does not appear in the 1936 photograph (Figure 7).

Build C, the northern section of the north wing was extant by c. 1900 (Figure 6), and may have replaced a shed-roofed service appendage, a typical feature of many early Dutch-American farmhouses. It has a brick foundation, as does the bay window on the north side of Build B, and these additions probably are contemporary. The north extension had two rooms that were being used as a kitchen and pantry in the 1930s, if not before, as documented by the HABS first-floor plan, but the dividing partition was removed in the mid 20th century and modern kitchen cabinets and fixtures were installed.[176] The upper story of Build C features a finished room whose only access was from the attic of Build B. The construction of Build C, and the contemporary renovations of Build B, must have been undertaken by the Smalley family who owned the property between 1901 and 1926, and had been its tenants for some years beforehand.[177]

[174] HABS NJ-479, sheet 3.
[175] Ibid., Sheets 2 and 3. HABS drawings document both the installation of the bathroom and unfinished attic.
[176] HABS NJ-479, sheet 2.
[177] Somerset County Deeds, Book D9, page 279 and book F20, page 343.

7. Character Defining Features

Character Defining Features

The major character-defining exterior features that contribute to the property's significance include the foot print, gable-roofed form and fenestration pattern of both and main block and north wing; the overhanging eaves and wood shingle siding on the main block's east front; the clapboard siding elsewhere; fenestration pattern, window frames and sashes (most notably on the main block's east front); main block and north wing's east frames and doors.

Those on the interior include the stone foundations and timber frames of the main block and north wing, first-story floor plan and partitions, brick wall infill and plaster, flooring, fireplaces, fireplace mantels, enclosed staircases, and woodwork.

Non-Historic Elements

Major elements dating later than the property's period of significance include the greenhouse appendage (also referred to the Hothouse or Build D in the drawings in Section III of this report); asphalt shingle roofing; main block west entry door; north wing north door; closets in Room 104, most partitions, closets and finishes on the second story of the main block; and the kitchen and bathroom finishes on the first story of the wing; along with the utility systems throughout.

8. Recommendations for Additional Research

The scope of this investigation precluded an exhaustive search of a number of potential sources of additional research that might increase our knowledge of the history and architectural development of the Symen Van Wickle (Van Duyn) House. While 18th-century Trenton, New Brunswick and Philadelphia newspapers have been indexed and were searched for references to the property and its owners, the 19th-century Somerset County newspapers have not been indexed and were searched only cursorily. Some of these newspapers are available at various repositories and should be examined for reference the property and its owners, as well as contextual information about farmsteads and agriculture in the Raritan Valley. While few early records for the Eastern Precinct and Franklin Township have survived, Somerset County Court Records and Freeholder Minutes should be examined for references to the Van Duyn and other families who owned the property. Rutgers University has a rich collection of early materials such as account books and family papers and these items should be examined for any references to the Van Duyn family, particularly any information about any family members practicing the trade of carpentry. The collections of the New York and Brooklyn Historical Societies similar might prove to a fruitful source of information about the Van Duyn family and shed light on the Dutch-American migration from western Long Island to the Raritan Valley and the connections between the architecture of those two regions. Little is known about the later occupants and owners of the houses, and any genealogical sources and other materials relating to the Suydam, Van Wickle, Smalley, McDonald and Brogan families should be pursued.

As regards physical investigation, much more might be learned about the architectural development of the house by probes beneath surface finishes and additional materials analysis –including a more comprehensive finishes analysis of paint, plaster and mortar– in order to document any evidence of earlier features that might be uncovered, confirm the dwelling's construction chronology and help guide future preservation work and treatments. Additional archaeological investigation might also help document the chronology of construction, as well as outbuildings and other landscape features.

Specific questions that might be answered through additional physical investigation, especially during future restoration work when early features and finishes are exposed to view, include the following:

- Was the main block constructed in two phases? And if so, which section was constructed first?
- Did the main block have wide overhang eaves along its west side, mimicking those on its east front, as did many Dutch-American dwellings?
- Was the main block's north fireplace reworked when the Federal style mantel was installed, possibly converted from an earlier cooking fireplace?
- Was the older portion of the north wing (Build B) constructed as a one-room-plan unit and subsequently enlarged to the west or was it built as a double-pile plan unit? Were recycled framing members used in its construction, as is suggested by dedrochronological investigation? If Build B began as a single-pile building, was it

constructed with inverted U-bents, or were the posts cut down as recycled framing members?

- If originally a double-pile-plan unit, does Build B reflect the Dutch-American H-bent and side-aisle plan? Or is the rear range an added appendage (an "outlet" as this feature was called Dutch-Americans)?

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Somerset County Road Returns

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Population Schedules, Franklin Township, Somerset County
various years 1830 to 1930
Agriculture Schedules, Franklin Township, Somerset County
various years 1850 to 1880

10. Historic Maps and Photographs

Figure 1. The 1685 map made by John Reid records the subdivision of land throughout the Raritan River region, giving each lot's acreage and owner's name, as is evident in this detail of lots fronting along the river. The abutting lots of "J Miller" and "R Jones, " (subsequently known, respectively, as Lots 6 and 7), encompass the Van Duyn and Van Winkle farms. Present-day DeMott Lane approximately follows the boundary between the two.

John Reid, "A Mapp of Rariton River Millstone River South River Rahway River Bound brook Green brook & Cedar brook & Also the several plantations thereon...," 1685, New Jersey Historical Society.

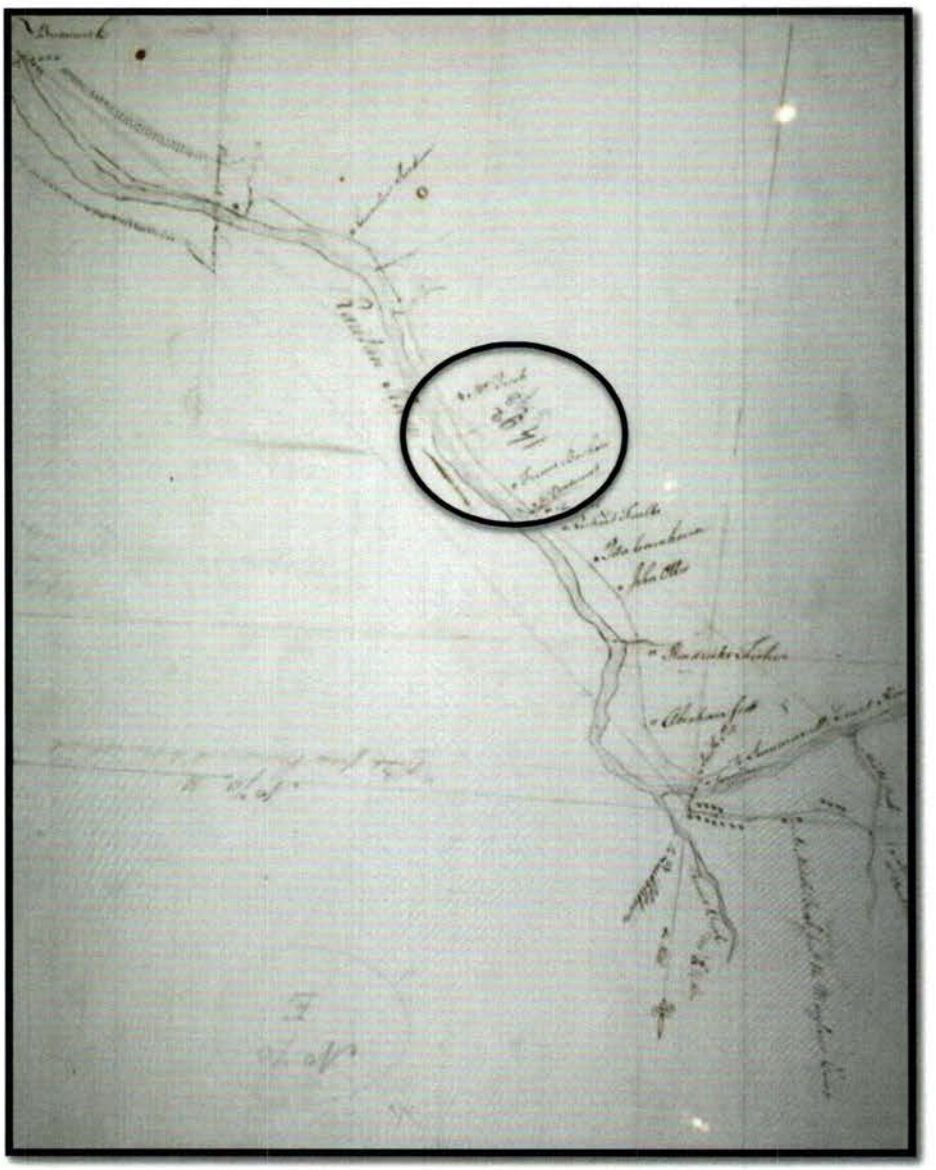


Figure 2. This detail of Robert Erskine's 1779 map indicates the location (to the right or "Raritan River" on either side of the number 1492) of the residences of "Abr. Beach" (the former Evert Van Wickle farm) and some distance upriver that of "Francis Bacher" [Brasier] (formerly the farm of Evert's brother Nicholas Van Wickle), but not the properties of the Van Duyns. North is to the bottom of the image.

Robert Erskine, "Road from Brunswick to Bound Brook," No. 70E, 1778-1779, New York Historical Society.

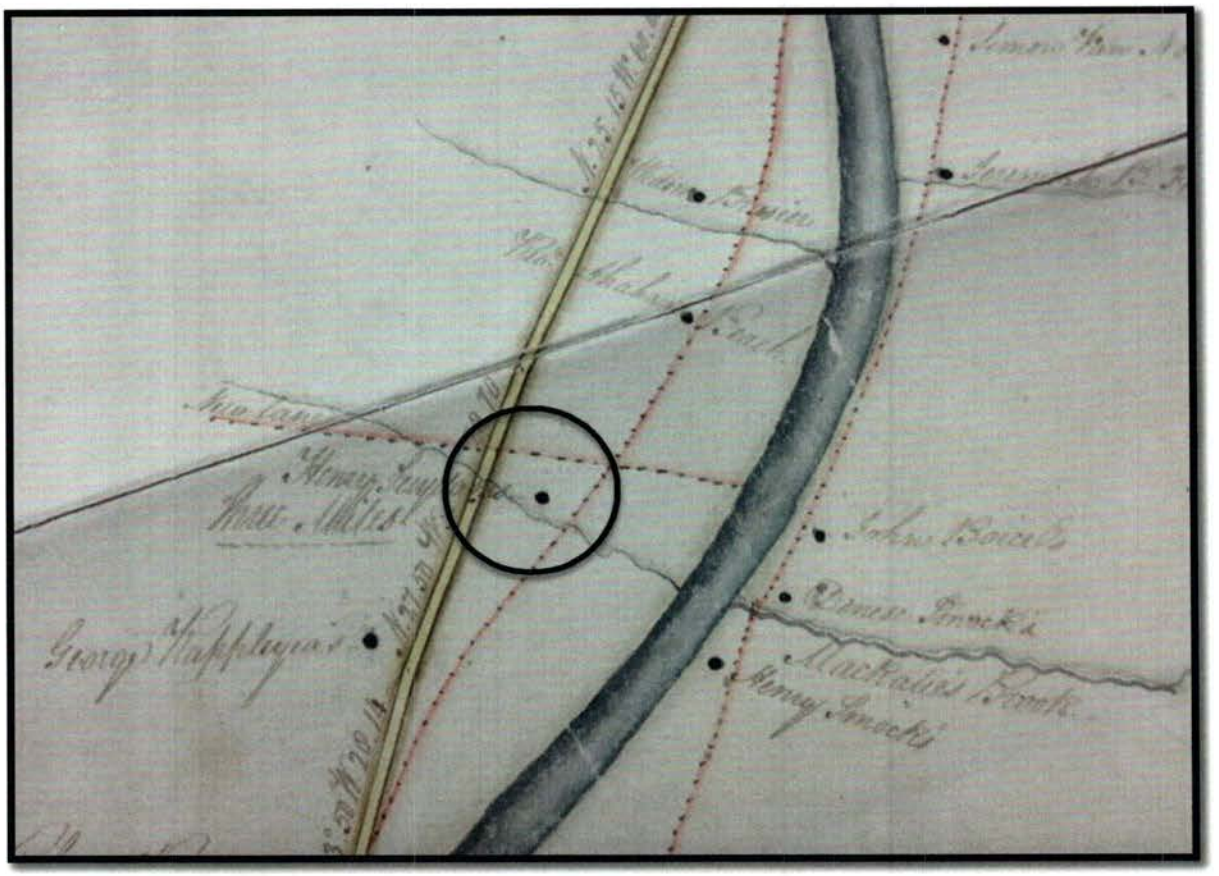


Figure 3. This detail of the 1807 survey map of the New Jersey (Easton) Turnpike depicts the dwellings of "Henry Suydam" and the "Rev. Abraham Beach", as well as the old road along the river, abandoned by the construction of the Delaware and Raritan Canal in the 1830s subsequently replaced by the canal, and the "new lane" (DeMott Lane) survey in 1803.

Map of the New Jersey Turnpike surveyed by Henry Plume May 1807, New Jersey State Archives.

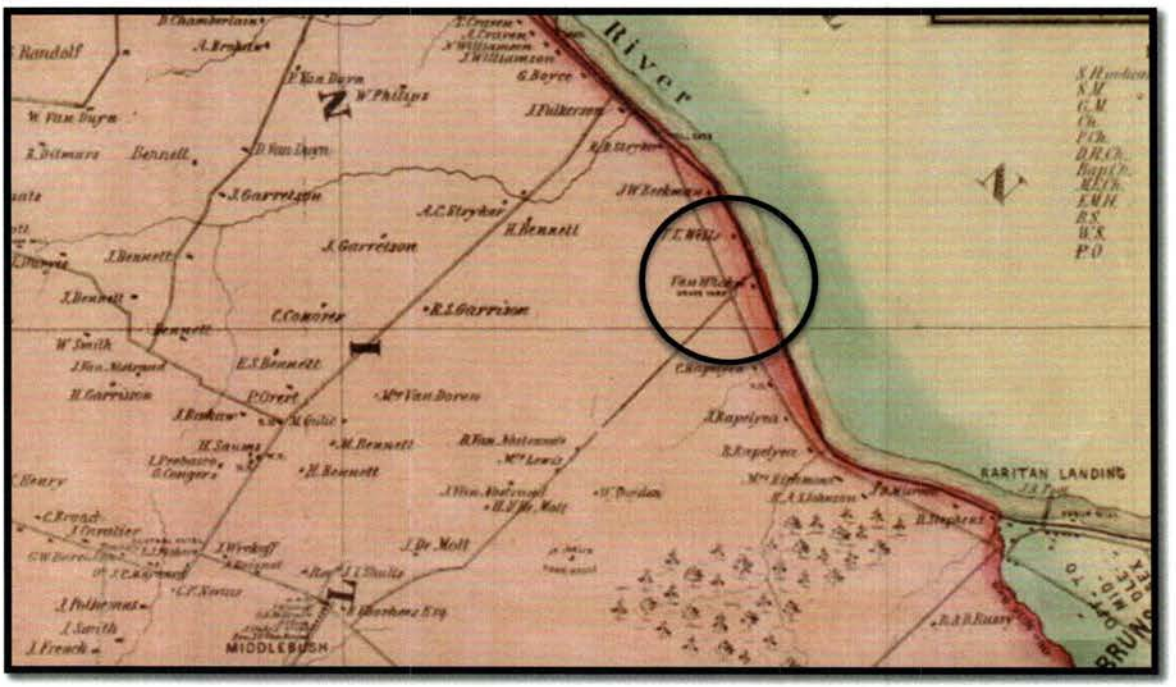


Figure 4. This detail from the 1850 map of Somerset County depicts the "Van Wickel" house on the site of the subject house, then the home of Nicolas Van Wickle (Symen Van Wickle's great-grandson), as well as the "graveyard" on the turnpike corner.

J. W. Otley and J. Keily, *Map of Somerset County, New Jersey*, 1850.

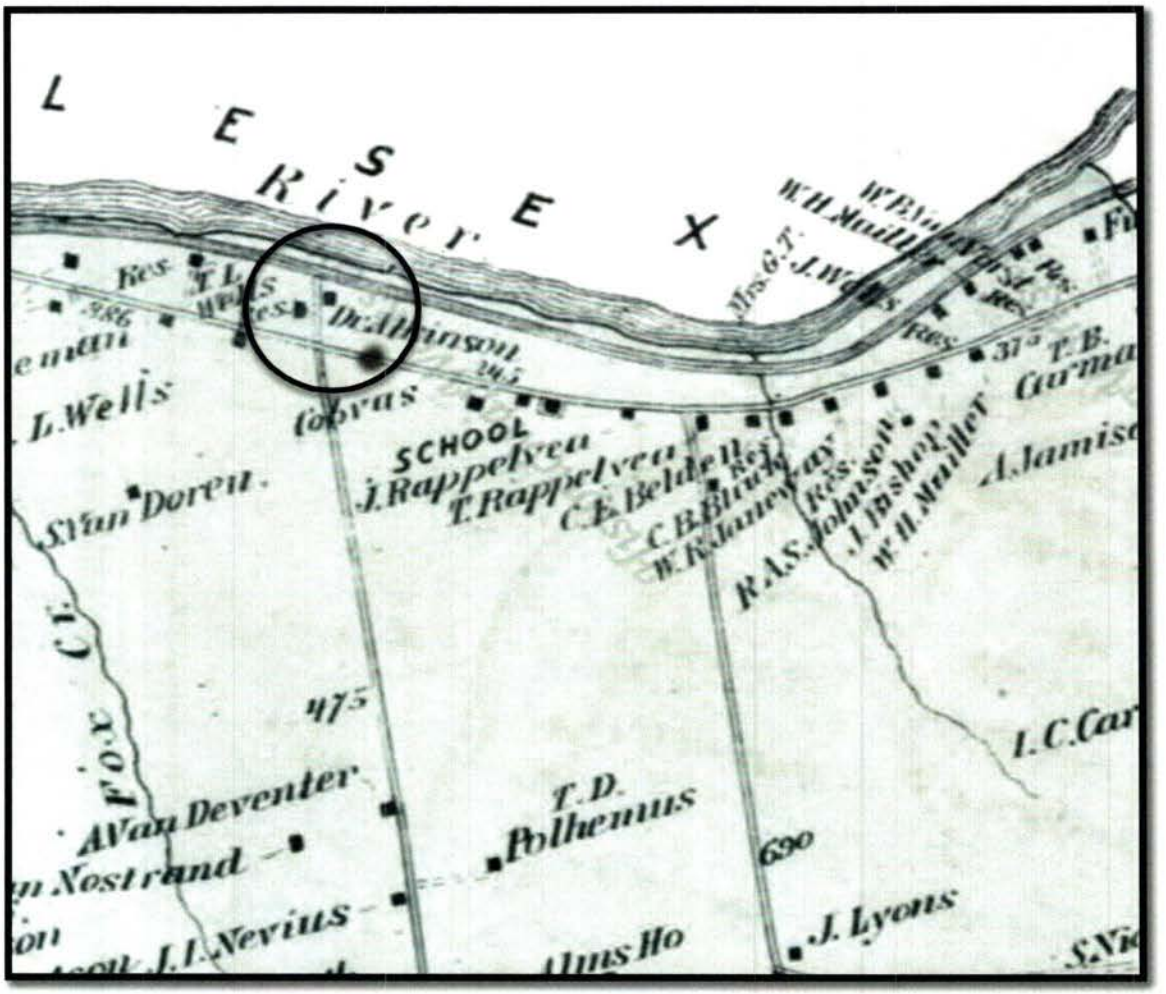


Figure 5. This detail of the map of Franklin Township in the 1873 Somerset County atlas identifies the house on the subject property as belonging to the "Dr. Atkinson."

F. W. Beers, *Atlas of Somerset County*, 1873.

Figure 6. Van Wickle (Van Duyn) House, northwest view. This undated, but presumably late 19th or early 20th century photograph records the dwelling's appearance before the Colonial Revival renovations undertaken in the 1930s. The "fish-scale" shingles are clearly visible on the east front under the wide overhang, and the roof appears to be covered with wood shingles. A picket fence delineates the south side of the dwelling's dooryard, which feature a well curb with lattice-work enclosure.

Meadows Foundation Collection.

Figure 7. Van Wickle (Van Duyn) House, northwest view. This early 1930s photograph documents the dwelling's appearance after the renovations designed by architect George B. Howell, as part of which a terrace was added across the east façade and former back door on the west facade became the main entry.

"Plate 140 House of Symen Van Wickle, later Suydam's," Rosalie Fellows Bailey, *Pre-Revolutionary Dutch Houses and Families in Northern New Jersey and Southern New York*," page 487.

Figure 8. Van Wickle (Van Duyn) House, living room (Room 103), southeast view. In the 1930s renovations, the partitions dividing the east rooms and central hall were removed, creating one large living room across the south front.

"Plate 2 Van Wickle–Suydam House Interior," Rosalie Fellows Bailey, *Pre-Revolutionary Dutch Houses and Families in Northern New Jersey and Southern New York*," page 43.

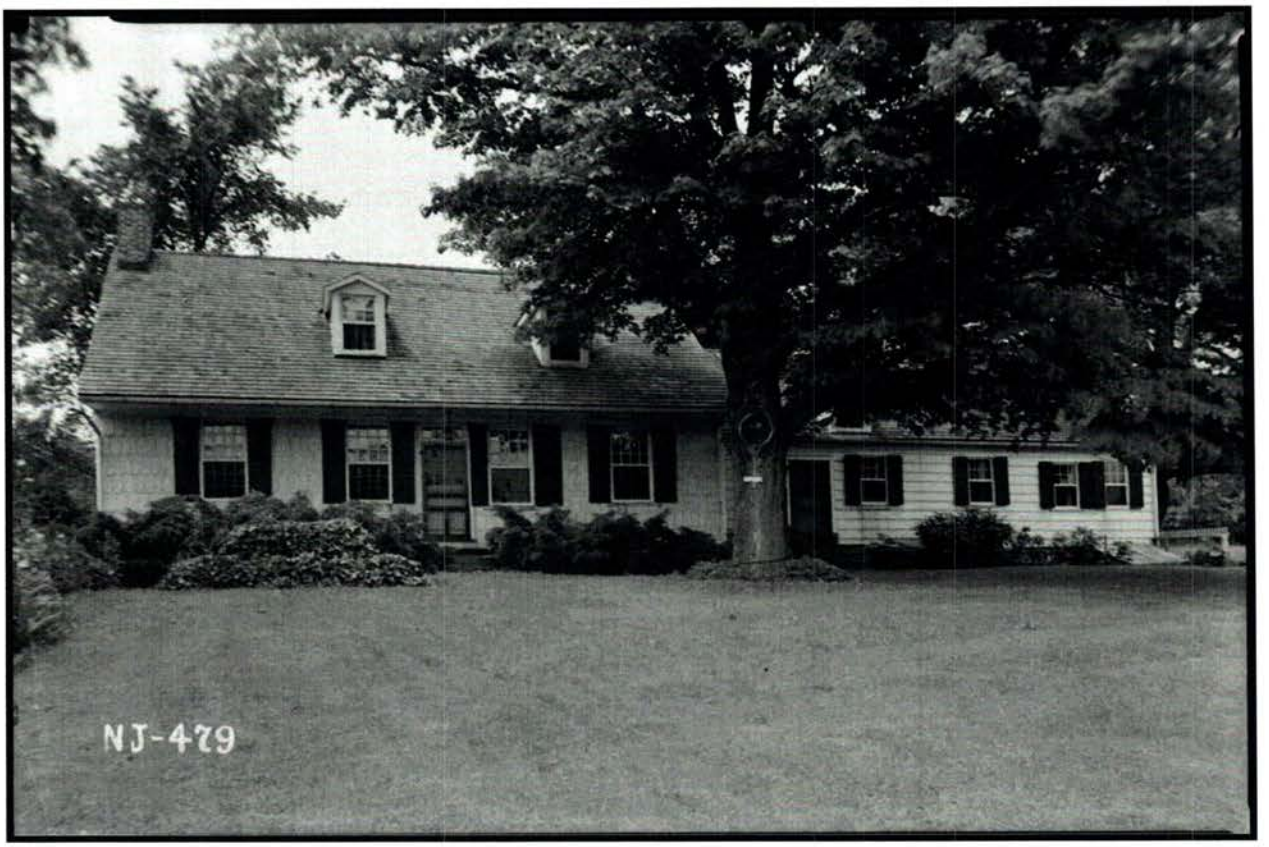


Figure 9. Van Wickle House, east facade, 1938 [HABS NJ-479]

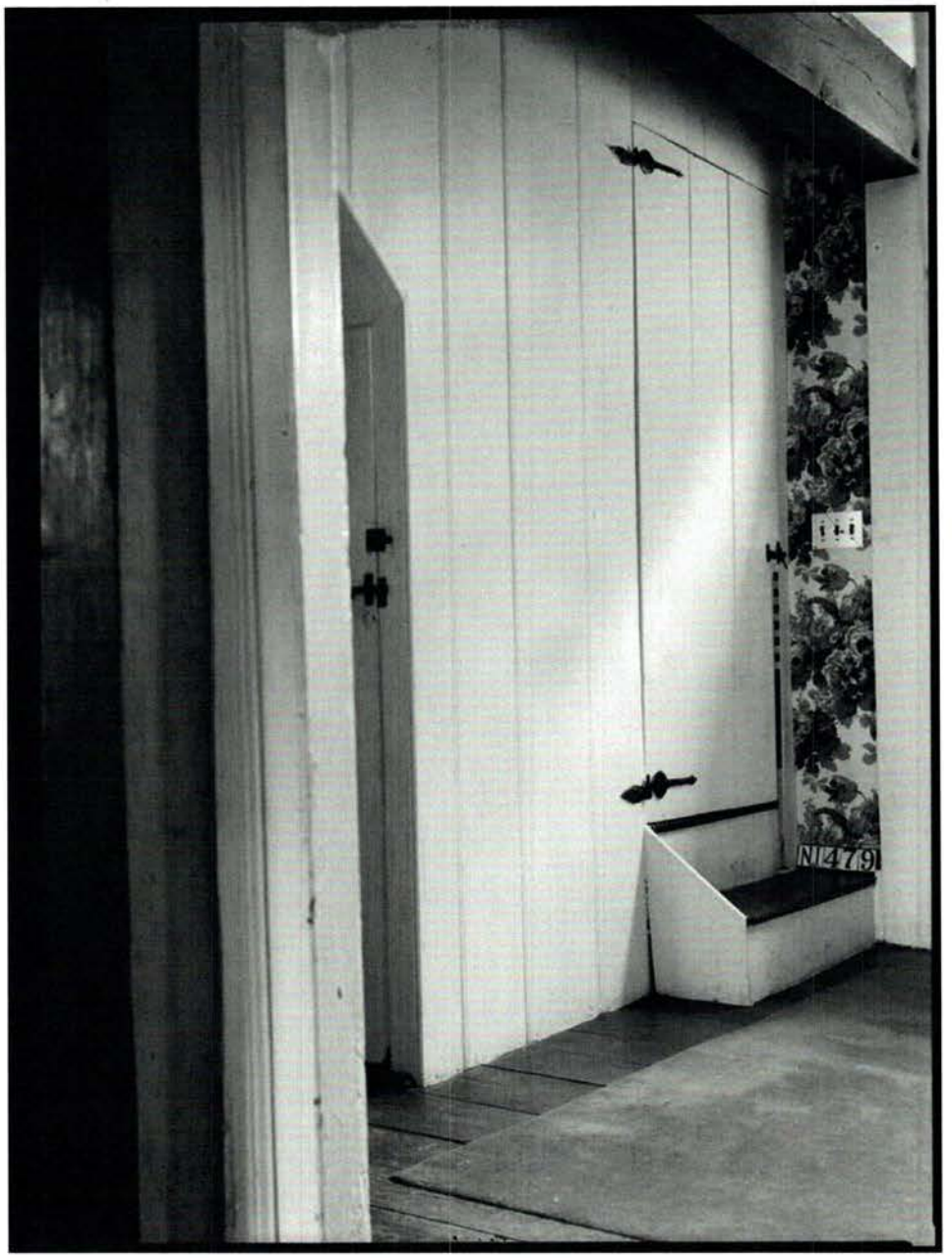


Figure 10. Van Wickle House, north entry hall (Room 101) and staircase, 1938 [HABS, NJ-479]

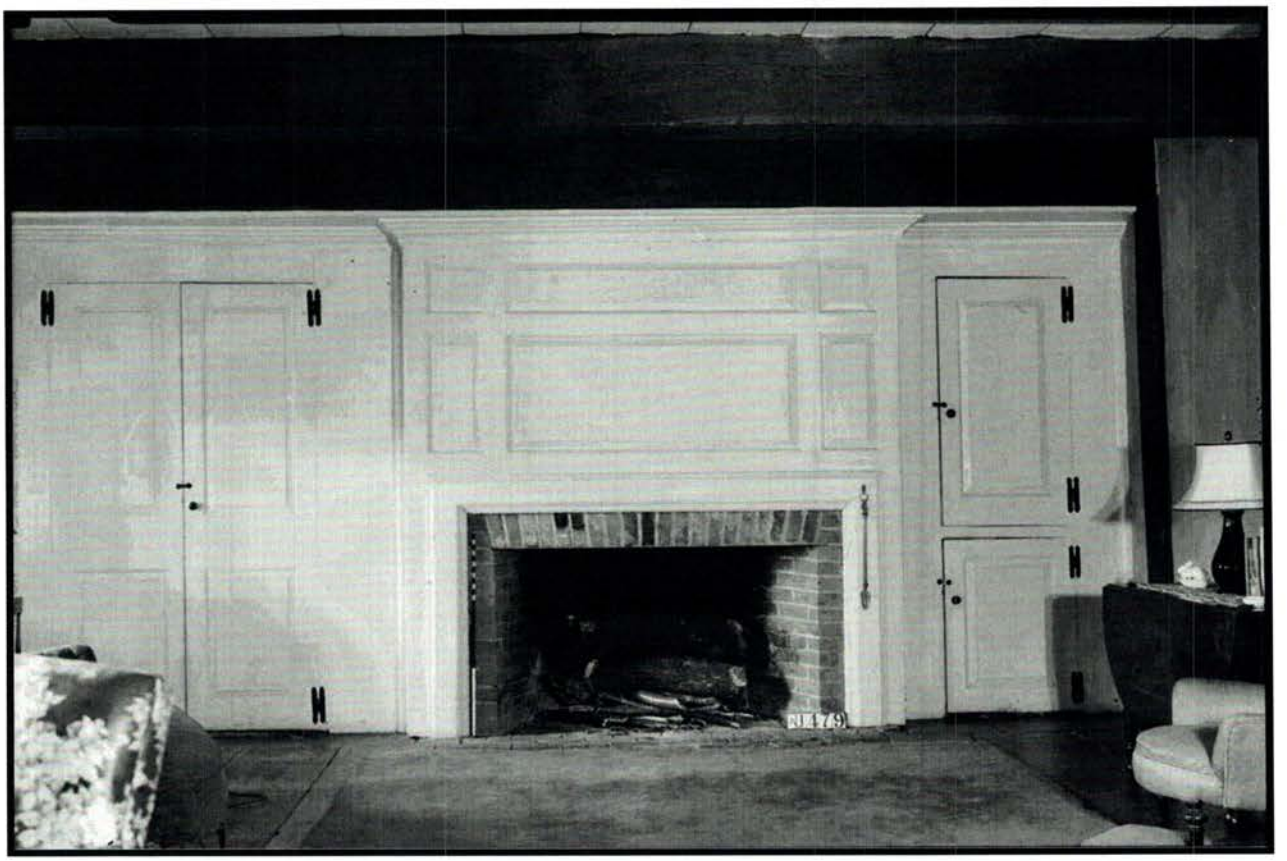


Figure 11. Van Wickle House, living room (Room 103), south fireplace wall, 1938 {HABS NJ-479]

Figure 12. Van Wickle House, living room (Room 103), north fireplace wall, 1939 [HABS, NJ-479]

III.
Architectural Analysis

1. Architectural Description
2. Summary of Existing Conditions
3. Building Code and Accessibility Requirements
4. Existing Conditions (Annotated Drawings)

III. ARCHITECTURAL ANALYSIS

1. Architectural Description

Current Presentation of the House

Like many other important Colonial Era and early houses, the current day setting and immediate vicinity belie the importance of Van Wickle House.[1] The reduction of its original parcel, the loss of earlier outbuildings, the addition of the nearby garage structure and other 20th century features (the roof structure over the well head, etc.), the overall transformation the vicinity since the end of World War II and the din of traffic from Easton Avenue have transformed the area and diminish the original context of the house in ways that make its importance less obvious to the casual observer. Lastly, arrival itself as an introduction to the building has also lost its importance and, with it, the visitor's first impression of it, as one typically arrives by car and enters the elevation facing west and away from the river that was the rear of the original house.

Sequencing of the House's Construction

For purposes of the describing the Van Wickle House herein and on the drawings at appear at the end of this section, the portions (or segments) of current building are given the following designations as *Builds*:

A1	Southern portion of the original house. It was likely the first portion constructed, c. 1730.
A2	Northern portion of the original house. It was likely built shortly after the first portion was constructed, c. 1740. Lacking irrefutable evidence, it is possible that A1 and A2 were built together at the same time as Build A.
B	Constructed immediately to the north of A2. It was likely constructed sometime shortly after 1740 and then later widened with rooms to the west to align with the width of Builds A1-A2.
C	Kitchen addition, c. 1900 (late 19th or early 20th century). This addition was improved over the course of the first decades of the 20th century to serve as a modern kitchen.
D	The Hothouse addition. This last portion is attached to and located to the south of Build A1. It was built sometime after 1938 and, therefore, was not documented by HABS.

[1] Many of the aspects described here are shared with the Abraham Staats House, another Dutch-influenced property with 18th century origins in nearby South Bound Brook – about 2-1/2 miles to the northwest. Aspects in common with the Staats property include a significant reduction in the original parcel size, the loss of many earlier outbuildings, the later construction of the nearby 20th century structures, and an increase nearby traffic all occurring largely since World War II that have had a significant impact on context. In addition, both houses were enlarged in stages over time to grow linearly and are located within close proximity to the Delaware and Raritan Canal and the Raritan River. Lastly, both houses are approached primarily by car and entered today from the façade that was not intended to be the entrance front of the original structure.

Historic Building Fabric

All original or early construction materials and assemblies associated with the *Builds* up to 1938 (Builds A1, A2, B and C) should given consideration for retention, preservation, repair and re-use in accordance with the Secretary of the Interior's *Standard for the Treatment of Historic Properties*.

The major character-defining exterior features that contribute to the property's significance include the foot print, gable-roofed form and fenestration pattern of both and main block and north wing; the overhanging eaves and wood shingle siding on the main block's east front; the clapboard siding elsewhere; fenestration pattern, window frames and sashes (most notably on the main block's east front); main block and north wing's east frames and doors. Those on the interior include the stone foundations and timber frames of the main block and north wing, first-story floor plan and partitions, brick wall infill and plaster, flooring, fireplaces, fireplace mantels, enclosed staircases, and woodwork.

Features that do not contribute to the property's significance would be materials and assemblies associated with Build D, as the Hothouse's construction postdates the building's period of significance. Similarly, consideration should be given to later alterations and modifications on a case-by-case basis through removal, replacement and/or limited reconstruction of what has been lost. Such aspects would include, but are not limited to, the use of asphalt shingle roofing, the main block's west entry door, the Kitchen's north entry door and covered porch, the Dining Room's east brick and concrete stoop, the insertion of glass into the upper Dutch door leafs at the Dining Room and Living Room, closets in Room 104 (constructed to conceal the introduction of plumbing on the floor above), most partitions, closets and finishes on the second story of the main block, the first floor kitchen, the first floor bathroom, and certain existing mechanical and electrical systems.

Characteristics of Builds A1 and A2

Plan Organization

The house's earliest and main block dates to c. 1730-40 and may have been built over two campaigns. Counting from south (at the current south exterior wall) to north, it is framed with ten (10) anchor-bents that are set on a masonry foundation wall of rubble or uncoursed stone. The two room deep plan has two large front rooms facing east towards the Raritan River with small rear rooms with a western exposure. A dividing wall between the large rooms (if built as one campaign or the northern wall of Build A1, if built in two campaigns) is apparent overhead at anchor bent E where pockets at the underside of beam that would have received vertical studs (as part of a dividing wall or exterior wall) are now plugged. Chimneys were constructed at each gable-end wall (south end of Build A1 and north end of Build A2), a partial cellar is located at the south end (beneath Build A1) and a large attic story, originally unfinished, spans the entire main block (Builds A1 and A2).

The cellar, sometimes mistakenly referred to as the basement, was originally limited to two rooms under Build A1 (aligning to the south of anchor bent E), Room 001 to the west and Room 002 to the east. According to the 1938 HABS drawings, both rooms had early stone floors but only Room 001 has a flat but irregular patterned stone floor today; today Room 002 has a concrete floor. The walls of both rooms retain traces of whitewash. The cellars rooms had exterior access via areaways on the east and south sides of the house, respectively. The east cellar entry was filled in with concrete masonry block units during the construction of the stone terrace in the 1930s. The south cellar entry was abandoned when the hothouse was added in the 1950s but its stone steps survive behind a later door that has been nailed shut.

The area beneath Build A2 was unexcavated as recently in 1938 when HABS recorded the building.[2] At a later point (perhaps shortly after 1938), a section of the stonewall between Builds A1-A2 was removed and an area was excavated by several feet to create a deep area (Room 003) beneath a portion of Build A2. Doing so allowed for the installation of a central heating system as boilers of the day required more headroom and the chimney at the north end of Build A2 provided a good location for the boiler's flue to vent. New construction below the stonework in this new room is stepped poured in place concrete. The area to the west (Room 004) remains unexcavated.

The attic or upper level of the main block was originally a large open area that would have been illuminated only by windows at the gable ends. Much later it was renovated to become living quarters (by the late 19th or early 20th century as shown on the HABS drawings), as dormers would not have been an original or early feature.

Exterior

The exterior perimeter walls of the main block are filled-in with brick nogging[3] between vertical wood studs and sandwiched between the exterior weatherboard (shingles or clapboard) and interior finish (usually plaster).

The main block's five-bay east elevation (original front elevation) retains significant original or early characteristics and elements (building fabric), including:

- A substantial overhang roof eave extends for the full width of the main block.[4]

[2] There is reason is question the accuracy of HABS documentation where foundation information is concerned. The corresponding plan prepared for the Abraham Staats House in South Bound Brook, NJ has similar inaccuracies.

[3] Bricks used for nogging were typically fired at a low temperature and would not be suitable for other masonry construction exposed to the exterior (such as chimneys). The mortar between the brick nogging often appears to have the consistency of mud. Nogging served two purposes, namely to give wall assemblies an impression of solidity and to deny a place for vermin to hide, live and travel.

[4] A strikingly similar overhanging eave is found at the Holmes-Hendrickson House, another Dutch influenced house, built in 1754 in Holmdel, NJ (about 25 miles to the southeast).

- Original hand split round-butt wood shingles with hand-wrought nails.
- Central entry and window placement in accordance the spacing of the heavy timber anchor-bents.
- Dutch door hung on strap hinges with transom (Door D). Both leafs are constructed of vertical bead-edged tongue and groove boards with applied stiles and rails creating a recessed panel on the outer face. Strap hinges feature large nailing pads associated with Dutch-American architecture.
- 12/12 sash windows with wide Roman ovolo-molded muntins, and architrave door and window trim with ogee outer molding.

However, changes, include:

- Two dormers have been added. They date to the late 19th century or early 20th century and are shown on the HABS drawings.
- Sashes in two window openings are contemporary or subsequent replacements (W116 and W117).
- Glass insets in the upper door leaf of the Dutch doors (Door D) into the living room appear to post date Howell's period.
- An upside down (or inverted) scalloped "baseboard" the runs where the bottom row of round-butt shingles would have been originally (running atop the terrace's walking surface).
- Existing batten shutters, here and elsewhere, appear to post date alterations by Howell, as no shutters are shown in the HABS drawings and louvered shutters are seen in earlier photographs.

The main block's south elevation (Build A1) retains significant resemblance to its original presentation, including:

- Fenestration remains unchanged with respect to the extent of the placement of its opening.
- Early clapboard siding with a beaded drip edges survive at the gable's peak; simpler clapboard siding boards, without a beaded edge, are found on the lower portion of the wall.

However, changes, include:

- The addition of Build D in the mid 20th century, referred to as the Hothouse, presents a significant detrimental aesthetic impact.
- The narrow 4/4 windows at the upper level are possibly 19th century replacements.
- The original or earlier wood access door to the cellar has been lost and replaced.
- The window to the cellar (one of only two for the entire cellar) has been blocked/sealed with plywood.
- A plethora of wires and pipes exit the building in the vicinity of the aforementioned window.

The main block's three-bay west elevation (original rear elevation) retains significant resemblance to its original presentation in terms of massing and fenestration to the extent that the placement of original openings remains consistent.

However, changes, include:

- Two dormers have been added. They date to the late 19th century or early 20th century and are shown on the HABS drawings.
- The wood panel entry door probably dates to the 1930s renovations or, possibly, even a later replacement.
- The 6/6 flanking windows and plain trim at the door and window openings are 19th century replacements.
- The flush eaves may have replacing an earlier wider overhanging one.
- The "novelty" siding, similar to German shiplap, is not the original siding material.

Observations regarding the exterior area of the main block's north elevation (Build A2) are relatively few as most of it is concealed by a later extension (Build B). However, observations include:

- Like the south facing elevation (Build A1), this elevation also has surviving early clapboard siding with a beaded drip edges at the north gable where it is exposed to view when viewed the attic of Build B (Room 205).
- Simpler clapboard siding (with no bead) is found on the remainder of the main block's north wall on the exterior and above the roof over Build B. This siding may covers the early beaded edged siding beneath it.

The simple gable roof over the main block has a slope of 7 in 12. As noted above, the four gable dormers of the main block (two on each slope) date to the late 19th century or early 20th century and occupy rafter bays that correspond from east to west. The roof's most interesting feature is the eave extension of approximately 5 feet to the east (facing the Raritan River) to create a sheltering overhang. It gives a distinctive asymmetrical appearance when viewed from a side elevation. The roof's slope changes at the point where the eave extends beyond the plane of the east elevation but the reduction is slight and not readily detectable.

The roof's original material was undoubtedly wooden shingles but the area is now concealed completely by (perhaps as many as two layers of) asphalt shingles that are at the end of their useful life.

The HABS drawings indicate that the house had an earlier system of 5" half round handing galvanized (presumably steel) gutters with 3" leaders that run along the full lengths of the east and west elevations. These have been since been replaced, likely within the last 40 years, by K-style aluminum gutters[5] with rectangular

[5] The outer face of a K-Style is intended to represent running trim of a traditional or classical inspired cornice, as opposed to a perfectly-rounded, half-circle-shaped gutter.

leaders in white in the same alignment. More recently, considerable extensions to the ends of the elbows have been added to the leaders in order to discharge collected storm water as far away from the building's perimeter as possible and the use of underground conduits to carry storm water way has been discontinued.

Interior

The interiors of the main block represent a combination of building fabric that extends over a 200-year period - one that ranges from its original construction as early as the 1730s to the Colonial Revival period of the 1930s.

Character-defining features of the first floor include:

- The exposed components of the original anchor-bents, namely the posts and beams.
- Certain partitions and plaster walls.
- Architraves and plain surrounds at door and window openings.
- Several batten doors hung on Dutch strap hinges (including the door between Rooms 101 and 103 mounted on spike-driven pintles).
- Pine plank flooring, later concealed in Rooms 101, 102 and 104.
- Original pine floorboards with grooved edges requiring splines to join them.
- The architectural millwork of entire south wall of the Living Room (Room 103).
    - The fireplace, located at center, is the focal point of this wall. Despite the lack of a shelf over it, the opening has a flat surround with molded edges and rectangular panels above (raised panel fields with ovolo-molded edges on the stiles and rails).
    - A wide ogee-molded cornice extends the full length of the south wall.
    - The fireplace is flanked to the east by a two-door closet and to the west by a one-door cupboard. All three doors are original paneled doors that retain their wrought-iron H-hinges.
- The fireplace at the north end of the Living Room (Room 103) features delicate detailing that is typical of the Federal period and, according to research prepared for this report, probably dates to early 19th century.
- The vertical board staircase partition enclosure in the Foyer (Room 101) features hand-planned vertical tongue-and-groove boards with a quirk-bead molding on one edge. Its doors are mounted on spade-shaped nailing plates; the hinges are secure with hand-wrought nails and retain leather washers.

However, changes include:

- The partition aligned with anchor bent E was removed in the 1930s leaving mortises in the anchor beam that later received wood plugs. This created the current open Living Room (Room 103). [Similarly, mortises in anchor bents F and H in Rooms 101 and 104 indicate altered partitions that also may have occurred at the same time or earlier.]
- The built-in bookcase flanking the north fireplace to the east in the Living Room (Room 103).

- The closets in Room 104 and (perhaps) the wainscot in Room 103.
- Wire nails[6] and areas random-width flooring. Their presence is suspected as part of a hasty repair and/or recovery from flooding.
- Later areas wall plaster, as indicated by the presence of metal lath visible at one location on the partition between Rooms 102 and 103.

The character-defining interior features of the main block's second floor are more difficult to discern because they have been covered by subsequent changes, including:

- Evidence of the upper story's original random-width flooring is visible only by viewing the ceiling from the first floor below. The HABS drawings (#7 of 12) indicate how wood sleepers were placed atop the beams of the anchor bents in order to level the upper floor (most at Build A2).
- Elsewhere, modern floor coverings conceal what earlier materials survive (Build A1).
- Features dating to the 19th century conversion of the attic into living quarters include partitions, several batten doors and some bead-edged trim.
- Modifications dating to the 20th century included wire-nailed flooring, added and altered partitions between Rooms 204 and 204A and 202 and 202A.
- Lavatory fixtures in the converted closet off of Bedroom #5 (Room 204) on the Second Floor.
- Based on the appearance of appliances and fixtures, the kitchen and bathroom appear to have been renovated about 40 years ago. At the time, the south end partitions that created a closet in a bedroom (Room 203) were removed to reveal and the corbeled brickwork of the chimney as it rises to the roof ridge and the end wall framing of the south gable (including its wood framing and brick nogging infill).

Characteristics of Build B

Plan Organization

The house's next addition was a narrower, lower one-room wing built to the north of Build A2 with a chimney at the far end and framed with six (6) anchor bents. It post-dates the main block (Builds A1-A2) by a brief but unknown number of and appears to incorporate earlier recycled timbers. It was widened at a later point with two additional rooms to the west. Build B has a stone foundation but no cellar (exposed earth). A projecting square bay with a brick foundation was added to the west elevation and is probably contemporary with Build C (dating to the late 19th or early 20th century at the earliest).

Like the earlier construction to the south, the exterior perimeter walls of this build are filled-in with brick nogging between vertical wood studs and sandwiched

[6] Wire nails came into common use by the second decade of the 20th century. They were mass-produced and less expensive than their forerunners such as cut nails (semi-automated production) and even earlier wrought nails (entirely produced by hand).

between the exterior and interior surfaces (except, most likely, for the projecting bay on the west elevation).

The upper level is an open attic consisting of one room that appears to have been unfinished and always used for storage, especially given the lack of a cellar in this portion of the house.

Exterior

Build B's exterior is exposed only as it faces the east and west, as the south and north adjoin Build A2 and Build C, respectively. Notable conditions include:

- The east and west elevations have been re-clad with later (non-original) clapboard siding dating from the late 19th or early 20th century.
- The projecting west square bay has bevel cut shingles on its west-facing gable and on its three sides below the window.[7]
- The east entry retains an early Dutch door (Door C) hung on strap hinges (similar to Door D at Build A2).
- Windows have 6/6 sashes and plain trim, likely 20th century replacements, although some may date to the 19th century.

Build B's roof has a simple gable form, including:

- A slope slightly less than that of the main block, 8 in 12.
- Asphalt shingles that are contemporary with that of the roof of the main block and are also installed over a wood shingle roof. Perhaps as many as two layers, they are beyond the end of their useful life.
- Although set lower, the flush eaves of the east and west elevations of Build B resemble the west eave condition Builds A1-A2.
- One east facing gable dormer provides the only source of natural light and falls with an existing rafter bay (nearly centered on this extension). Like the other dormers, it dates to the late 19th or early 20th century.

Interior

Like the main block (Builds A1-A2), the interior spaces of Build B represent a combination of original and early 20th century building fabric but have been subject to a greater degree of alterations. Notable conditions include:

- High retention of original and early building components, including the exposed bent posts in largest room, the Dining Room (Room 107).
- Pine plank flooring, concealed by later finishes on the first floor but exposed to view on the upper floor.
- Several batten doors.
- Bead-edged millwork.
- Wainscot in the Dining Room (Room 107).

[7] This projecting bay on the west elevation remains an enigma as of the issuance of this report. Its form, placement, use of bevel cut shingles (unlike any material found elsewhere in the house), HABS reference to it as a new addition, and the lack of any detail of it on HABS drawings seem to indicate that it may be of negligible value to the property as an historic component.

- Original portion of the staircase enclosure in Dining Room (Room 107).

Subsequent changes to the original features are also apparent in Build B, including:

- The removal of the fireplace in current Dining Room (Room 107), presumably a cooking fireplace, and its replacement with a built-in cupboard. This change may have coincided with construction of Build C, the northernmost extension during the late 19th century to become a kitchen and pantry, as shown on the HABS drawings.
- The tapering back of wall plaster at the vertical posts along the east and west walls of the Dining Room (Room 107). A curious treatment, this may have been an aesthetic way to expose the handsome original timberwork.
- The boxing-in of hand-hewn oak beams that span the Dining Room (Room 107) with thin layer of painted wood. As a treatment, this makes for cleaner appearance but runs counter to the exposing of posts described in the bullet immediately above, especially as the posts and beams function together as one assembly.
- The conversion of Room 105 into a Bathroom in the mid-20thh century. While indicated as a Bathroom on the HABS drawings, no layout is indicated and the appearance of the fixtures that currently exist are more modern and likely post date the World War II period.
- At the second floor level, the Open Attic (Room 205) appeared to have been finished with insulation and wallboard at a point after 1938. Selective removal of the finish material indicates the original construction to be rafters and lath (both whitewashed) and the underside of wood shingles.
- Evidence of a fire in the form of char that occurred where the brick chimneystack exited the roof overhead at the north end of Room 205 is still visible.

Characteristics of Build C

Plan Organization

A 2-bay extension to the north of Build B was appended by the late 19th or early 20th century with a brick foundations and a full cellar.

Exterior

Its overall presentation and placement of Build C's windows and doors do not appear to have changed over time. Notable aspects include:

- The east, north and west elevations have clapboard siding dating from the late 19th or early 20th century. Perhaps it was the material used on this newest addition at the time that influenced the choice of materials used to re-clad Build B.
- All 8 first and second floor windows have been outfitted with aluminum triple track storm/screen windows.
- First floor windows have 6/6 sashes and plain trim, likely 20th century replacements, although some may date to the 19th century.

- The window to the cellar facing north (one of only two for the entire cellar) has been blocked/sealed with plywood. The window is outfitted with security bars.
- Similarly, the two thru-wall foundation wall vents (one facing east and one facing west) are blocked.
- The current areaway access directly into the cellar from the east elevation is a metal Bilco-type door. The original was a wood access door as shown in the HABS drawings.
- The north entry door into the kitchen is a mid-20th century replacement. The current 9 lites over 2 vertical panels appears to have replaced an earlier door configuration of 4 lites over 2 vertical panels shown in the HABS drawings.
- The existing covered open porch with paired inglenook benches that flank the north door into the kitchen have replaced the simple wood platform and steps shown in the HABS drawings.

Interior

With the exception of the creation of one large kitchen space on the first floor, Build C's interior layout has not changed dramatically since its original construction. Notable aspects include:

- The partition that divided the kitchen from the pantry, as documented by the HABS drawings, was removed sometime after 1938.
- While remnants of early woodwork and trim remain, modern kitchen cabinets and fixtures were installed in the mid 20th century.
- The upper story contains a finished Storage Room (Room 206) that retains its original late 19th century finishes (plaster walls and ceiling, flooring, batten doors and trim).
- The cellar is accessed by mean of a wood staircase. The staircase assembly itself is poor condition and has been repaired several times.
- The cellar has a concrete floor of unknown depth and share its southern wall with Build C through which there is an opening large enough to gain access to crawl space beneath Build C.

Important Characteristics and Modifications During the Colonial Revival Period

As the previous section of this report explains in detail, the characteristics of the house that should be preserved and retained to the greatest degree possible are those which survive from its earliest period of its construction in the 18th century through and including modifications made in the 1930s as part of the Colonial Revival re-visioning of the house designed by architect George Howell. In several important ways, Howell's modifications facilitated the house's adaptation from a residence into an interpreted historic site and headquarters for a non-profit, namely:

- The west front was given more importance as the front entrance to acknowledging the role of the automobile.
- The current large living room was created from the main block's two rooms and in so doing provides the Meadows Foundation with its largest meeting/multipurpose space.

- The current stone terrace facing the river and canal was constructed along the main block's east front to provide an exterior area for socializing.

Later Changes

A Hothouse, so called because it is was originally set up for the propagation of plants and has continuous perimeter windows on its three exposed sides (but no skylights), was built on the south end of the main block during the 1950s and is referred to in this report as Build D.

Sometime during the second half of the 20th century, the upper level of the main block was converted into an apartment for a resident caretaker. Exactly when this work was done is unknown; it may have occurred sometime after 1977 when the property was acquired by Franklin Township and leased to the Meadows Foundation to provide quarters for a caretaker.

The conversion was facilitated by improvements already shown on the HABS drawings of 1938. Bedroom #5 was subdivided by a new partition into an eastern room and a western room (a living room and bedroom, respectively). The closet off the new bedroom became a half-bath. While a doorway still exists from the apartment to the upper level of Build B, it is sealed and generally not used for passage. Bedroom #6 was converted into a new kitchen. Bedroom #4 was converted into a new full bathroom with its westernmost portion becoming a walk-in closet.

2. Summary of Existing Conditions

Observations and discoveries were made and recorded by the professional team members over the course of multiple visits to the site between 2016 and 2018. In some cases, limited building probes were executed (and later patched) where hidden conditions were revealed. Photographs referenced below are located in Appendix A.

The conditions evaluated below entail aspects of existing construction organized according to the 50 Divisions developed by CSI, the Construction Specifications Institute.[8]

CSI Division/Description	Observations/Remarks/Action
02 Sitework/ Excavation/ Selective Demolition/ Related Work	▪ Landscaping. Overhanging limbs from nearby trees are problematic in numerous ways- they prevent wood surfaces from properly drying (thus promoting decay), falling limbs (and trunks) can cause significant structural damage, and they

[8] CSI, a national association of professional construction industry experts, created the MasterFormat's 50 Divisions. The association's focus areas include: 1). Standards and publications; 2). Construction industry professional certification; and 3). Continuing education for construction professionals. Divisions not listed or skipped in this summary do not apply (i.e., Division 14 entails Conveying Equipment and Divisions 15 through 19 have been reserved by CSI for future use).

	provide easy access for small animals (including raccoons, squirrels and other rodents) that would seek entry in the house. They should be trimmed routinely and as needed after (even moderate) storms. ▪ Excavation, Regrading and Archaeological Monitoring. At a minimum, all ground disturbance undertaken as part of future work, say for regrading or the placement of new footings or foundations, should include the participation of a qualified archaeologist. ▪ Dewatering. The site has a high water table resulting in the constant subgrade water intrusion. Currently sump pumps are required to remove excessive water from all cellar locations (Rooms 001, 002, 003 and 007). ▪ Selective Demolition entails non contributing features that post date the HABS drawings of 1938, such as: ◦ The Hothouse, or Build D, upon confirmation that it is not required to buttress or otherwise support the south wall of Build A1, as the gable end of this elevation leans outward at the top. ◦ Removal of the asphalt roofing shingles at Builds A1, A2, B and C. ◦ The open covered porch at the north end of Build C (Kitchen Door B). ◦ The brick and concrete stoop at the east elevation of Build B (Dining Room Door C).
03 Concrete	▪ Poured in place concrete is found at: ◦ Cellar floor slabs (presumably unreinforced) in certain locations, namely Rooms 002, 003 and 007. They appear in sound condition but are of unknown thickness. ◦ Concealed curbs installed to replace heavy timber sills that were located atop the stone foundation wall (at one location, at least). This was discovered when the upside down scalloped board at the east elevation of Builds A1-A2 was removed (where the bottom row of round-butt shingles would have been originally). The probe at this location indicated the use of concrete to replace a timber sill that was lost to deterioration. This intervention may have occurred sometime between the 1930s and the 1970s (between the time of the construction of the terrace and by the time when the property was purchased by the Township). ▪ New poured in place concrete would be required as footings where additional support is anticipated to support the floor framing above, such as in Rooms

	001, 002, 003 and 007 to support major portions of the first floor.
04 Masonry	▪ CMU (concrete masonry unit) block is used in limited ways, namely to block original openings such as the areaway access door on the east wall of Room 002) and to shore-up the flat relieving arch of the chimney in the same room. ▪ Brick is used in numerous locations: * Chimney construction, including hearths, at both ends of the Living Room (Room 103) and exposed to view in the Kitchen (Room 203) * The foundation walls of Build C. Excessive moisture in the deep basement of this Build has contributed to "rising damp" so much so that low areas of plaster finishes on the north walls in Rooms 106 and 107 are failing. To remedy this, the insertion of damp-proof courses in the existing south brick foundation wall (in combination with improved ventilation and drainage) should be undertaken. * The foundation walls of the west-projecting window bay at Build B. * Pavers, as pavement within the Hothouse, Build D. * Nogging, soft low-fired brick, concealed with vertical bays between studs at exterior walls. ▪ Stone is used primarily for the foundation walls where it is of uniform thickness but laid as uncoursed rubble. While in fair to good condition in most locations, the stone foundation requires substantial disassembly and rebuilding at the southwest corner of Build A1 where years of unchecked water infiltration[9] eroded the foundation in this area. Although the source of the problem was identified and correct, the problem remains unaddressed. ▪ Miscellaneous masonry would include flagstone. Its use is limited to the 1930s east terrace where it is laid flat in various colors of irregular shapes and well fitted together to create a pleasing appearance.
05 Metals	▪ Metals do not play a significant role in the existing building (ornamental or structural). However, structural components for reinforcement and cabling to restrain movement, for example, have the potential to play an important role in future interventions. [Metals are discussed elsewhere- for example, as

[9] A gutter fed a leader that discharged into an underground conduit in the immediate vicinity of this corner. The conduit became blocked. The roots of a tree that grew at the same location further aggravated the condition.

	part of carpentry and hardware.]
06 Carpentry	▪ Rough Carpentry, also referred to as framing carpentry, presents one of the largest challenges to the building's longevity. ◦ The 10 heavy anchor bents of Build A1-A2 are the building's most distinctive feature, as it gives the house its basic form and rationale for the placement of window and door openings. ◦ Similarly, the 6 timber bents in Build B are very distinctive for the same reasons. ◦ While the condition of the anchor bents are fair, the condition of the first floor framing is quite poor and, for this reason, the Township closed the building to public use in 2014.[10] ◦ Although in extremely poor condition and beyond the point of being repaired or reinforced to perform adequately, the framing of the first floor of the house (Builds A1, A2 and B) contains a significant amount of original building fabric that should be conserved and retained in place. For this reason, the existing framing should be abandoned in place and a new framing system should be designed and installed alongside the original framing while assuming its role. ◦ Elsewhere, specifically the first floor framing of Build C should be reinforced. ◦ The roof framing has particular areas of concern. The first of these is best indicated by the dip in the ridgeline of the main block's roof just to the left of the entry door (Door A) when looking at the west elevation. The dip is the result of rafters in this area spreading and lowering over the course of time, which, in turn, have caused to ridge to lower. The impact of the of such spreading was reveled by a probe on the west elevation that indicates the shiplap siding was installed apparently to camouflage the fact that the west elevation of the main block was out of plumb due to the spreading rafters (pushing the top plate of the wall outward while the bottom sill remain in position on top of the stone foundation wall). This condition requires ongoing monitoring to be certain that the movement is not progressive. ◦ The second area of concern regarding the roof framing is the south facing end gable of Build A1. It appears to lean outward to the south by a few degrees. This observation is further supported by telltale cracks in the exposed brick masonry of the chimneystack visible at the south

[10] See Section VII. Supplemental Information for CME's report dated 12/01/14.

	end in the Kitchen (Room 203). The cracks in the brick and movement of the gable end itself do seem to have increased over the course of the preparation of this report, however. This condition requires ongoing monitoring to be certain that the movement is not progressive. In addition, cabling of the south gable's frame to the north to engage one or more rafter pairs should be considered as a means of arresting its movement outward. At this point two aspects are certain: 1). More invasive probing is required (the type of which that would come as a normal part of roof shingle removal and replacement); and 2). Although its removal in the near term would be desirable, the Hothouse (Build D) should remain in place until it is determined whether or not it helps to buttress or otherwise support the south end of Build A1. ◦ A third area of concern regarding the roof framing is deterioration that would be expected in a building of this age and type but yet discovered. For example, locations where the rafters meet the plate often deteriorate faster than other location, especially when gutters are installed as an afterthought. When gutters become blocked and back up, they serve as a ready source of moisture that migrates to the points where the rafters and plates join where it is able to promote decay. The sidewalls of dormers where they meet the sloped surface of the roof usually trap moisture as well. The solution to these conditions would entail the repair and/or replacement of certain framing members and, accordingly, an allowance for such work should be incorporated into the project's budget. See also Appendix B of this report for the Structural Evaluation of the Van Wickle House prepared by KSi Professional Engineers, LLC. ▪ Millwork, also referred to as finished carpentry, such as trim work, the treatment of window and door opening and focal features like fireplaces, in general: ◦ Millwork is in good condition. The subject of study by the Materials Conservator (see Appendix D), further refinement would benefit an eventual interpretive plan that would follow the initial recommendations of this report. ◦ New platforms and steps should be constructed at the north end of Build C (Kitchen Door B) and at the east elevation of Build B (Dining Room Door C), as shown on the HABS drawings.
07 Thermal/Moisture Protection	▪ Wood roof singles. A new wood shingle roof (and

related flashings), likely eastern white cedar, as it would have been indigenous to the region, should be installed over new wooden lath at Builds A1, A2, B and C (after the existing roof is demolished and structural repairs are made). For the purpose of a cost estimate, a 30" length shingle could be considered. A final selection, however, would be dependent upon removal of the asphalt shingles and confirmation of surviving wood shingles, lath spacing and the nailing patterns from earlier roofs (if any). Given the age of the building, it is possible (even likely), for example, that two or three generations of wood shingles of varying dimensions came before two generations of asphalt shingles. It would be reasonable, and perhaps most economical, to install the size shingle that was use at the beginning of the 20th century (possibly a 24" length shingle with a 8" exposure).

- Exterior Wall Shingles. The original hand split round-butt wood shingles found only on the east elevation of Builds A1-A2 are the building's rarest siding materials. Whereas the original integrated relationship of framing members that had existed (between exterior wall, timber sill atop the foundation wall and the first floor framing beams) was altered long and ago and now compromised by severe and will be addressed by a new framing system to support the first floor, repairs, if any, in this region should be limited and executed with extreme care.
- Beaded edge clapboard, as noted earlier in the section, survives in limited locations at the south elevation of Build A1 (at the gable's peak) and at the north elevation of Build A2 where it is exposed to view when viewed in the attic of Build B (Room 205). Simpler clapboard siding (with no bead) is found on the remainder of the Build A2's north elevation (the exterior and above the roof over Build B) but it conceals the early beaded edged siding beneath it.
- Wood siding elsewhere is a combination of varying types, including clapboard of different exposures, German shiplap siding, and bevel cut shingles. These last types of siding are all in at least fair condition and would require no more than Dutchman or epoxy consolidation to keep then in service. Unless a compelling reason for their replacement is determined, their retention and continued use is recommended (over replacement or introduction of new materials) in order to stem unsupported and conjectural changes to the house.

	▪ Gutter and Leaders. Along the full lengths of the east and west elevations, the building has an arrangement of standard 4" K-style aluminum gutters in white with rectangular leaders. In recent years, the Meadows Foundation has added considerable extensions to the ends of the elbows where the leaders terminate in order to discharge collected storm water as far away from the building's perimeter as possible. The HABS drawings indicate that the house had an earlier system of 5" half round handing galvanized gutters with 3" leaders.
08 Doors, Windows, Shutter, and Hardware	▪ Doors. All existing doors (interior and exterior) would be retained and remain in use, except as noted below: ◦ Door A, the current west entrance door, should be replaced with a new 6-panel door, as shown on in the HABS drawings. ◦ Door B, the current Kitchen entrance door of 9 lites over 2 vertical panels should be replaced by a new door of an earlier configuration of 4 lites over 2 vertical panels, as shown in the HABS drawings. ◦ Doors C and D, the Dining Room and Living Room Dutch Doors, respectively, should be returned to having a solid panel in the upper leaf, as shown in the HABS drawings. ◦ The existing metal areaway doors into the cellars at Build A1 (south elevation) and Build C (east elevation) should be replaced with wood doors like those shown on the HABS drawings. ▪ Windows. All existing windows would be retained and remain in use, except as noted below: ◦ Cellar windows W001 and W002 (Rooms 002/Build A1 and 007/Build C, respectively) are currently blocked and, at 80 feet apart, are at the most remote locations possible from one another. The openings would receive new operable wooden sash and be outfitted with mechanical equipment to promote ventilation of the cellar and crawlspace areas. ◦ All other first and second floor windows would be repaired and retained for continued use. This would include the continued use of the aluminum triple track storm/screens units at most window openings that would be removed, cleaned, lubricated and reinstalled. ▪ Shutters. Surviving batten shutters post date the alterations designed by Howell, as no shutters are shown in the HABS drawings. Moreover, louvered shutters are seen in earlier period photographs. For

	these reasons, work on the shutters should be kept at a minimum or deferred until their proper importance is established. Note: The above does not apply to the components of the Hothouse, Build D, scheduled for demolition.
09 Finishes	▪ Many surfaces in the cellar rooms (exposed wood beams overhead and the underside of floorboards and the face stone foundation walls) were whitewashed as a means of promoting a clean and relatively sanitary environment. Significant traces of whitewash remain visible today and should not be disturbed. ▪ On the first floor, the evolution of a color scheme on painted wood and plaster surfaces is discussed in the previous section of this report (II). Together with an Interpretive Plan, a scheme would be developed for future implementation. ▪ The overall physical condition of finished materials on the first floor (wood and plaster) ranges from fair to good for the most part. Notable exceptions include damage to the low plaster finishes on the north walls in Rooms 106 and 107 that are failing (cracking, crumbling and falling off the wall). This damage is caused by excessive moisture originating in the cellar below. ▪ First and second floor finishes and features that post date the 1938 HABS drawings could be removed. These include: ◦ The built-in bookcase flanking the north fireplace to the east in the Living Room (Room 103). ◦ Closets added to Bedroom #2 (Room 104). These closets were constructed to conceal the dropped plumbing lines from the Lavatory off of Bedroom #5 (Room 204) on the Second Floor above. ◦ Bathroom fixtures and finishes (Room 105). ◦ All aspects of finishes, cabinets and equipment in the First Floor Kitchen (Room 108). ◦ Added and altered partitions on the Second Floor between Rooms 204 and 204A and 202 and 202A. ◦ Lavatory fixtures in the converted closet off of Bedroom #5 (Room 204) on the Second Floor. ◦ All aspects of finishes, cabinets and equipment in the Second Floor Kitchen (Room 203) and Bathroom (Room 202) that appear to have been renovated about 40 years ago. Note: The above list indicates candidates for removal. Aspects that remain serviceable could remain in place indefinitely. ▪ On the first floor, the evolution of a color scheme on painted wood and plaster surfaces is discussed in

	the previous section of this report (II). Together with an Interpretive Plan, a scheme would be developed for future implementation. See also Appendix D of this report for the Paint and Mortar Analysis for the Van Wickle House prepared by Keystone Preservation Group, LLC.
22 Plumbing	▪ Natural Gas Service. The house has a meter located on the west elevation at the south end of the Hothouse, Build D. Gas piping is installed on the exterior of the building. ▪ Domestic Hot Water. A new 20-gallon electric water heater is located in Mechanical Closet (Rooms 103A). The water heater was manufactured in 2011. ▪ Plumbing Fixtures. All existing fixtures post date the 1938 HABS drawings and could be removed. Plumbing fixtures are subject to replacement to meet programmatic needs. ▪ Water Supply and Sanitary Waste. The house is divided into two zones with respect to the treatment of wastewater: ◦ The fixtures in the Lavatory off of Bedroom #5 (Room 204) on the Second Floor, in the First Floor Bathroom (Room 105) and the Kitchen (Room 108) are served by a septic system located to the north of the house. While it is currently functioning, it does so at less than optimum volume.[11] ◦ The Second Floor fixtures of the caretaker's Kitchen (Room 203) and Bathroom (Room 202) are served by a separate septic system located to the south of the house that was functioning until two years ago.[12] While a caretaker still occupies the second floor residence, the quality of occupancy has been diminished, as the first floor kitchen and bathroom must be used. ▪ Sump Pumps. The current location of sumps at the cellar level should remain, namely Room 001 (Build A1), Room 003 (Build A2) and Room 007 (Build A3). The current pumps are of an unknown capacity and connected to a systems of hastily arranged PVC pipes. New pumps should be installed in terms of capacity, outfitted with auxiliary back-up power so that they may remain operational during power outages and connected to

[11] According to a telephone conversation with Sue Ann Derach on 02/01/19.

[12] At that time, the system was rendered useless by a truck that misguidedly drove over and damaged the system's holding tank. Since that time, the Township has deferred any repair work and has, instead, pursued a plan to connect the sewerage line with the main line under Easton Avenue, about 100 yards away. This connection presents, however, a challenging and costly engineering project, as wetlands are located along its path and must be crossed.

	a failsafe system of pipes. See also Appendix C of this report for the Building Systems Evaluation of the Van Wickle House prepared by KSi Consulting Engineers, LLC.
23 Heating, Ventilating, and Air Conditioning	▪ Heating/Boiler. Flooding has been a concern in recent decades, especially since Hurricane Floyd in 1999. Flooding caused by remnants of Hurricane Irene in 2011 required that the cellar be abandoned as a suitable location for a boiler and an alternate location be found to install a new natural gas fired boiler to provide heating. Thanks to the evolution in heating systems whereby boilers were becoming smaller and venting could occur horizontally directly through an exterior wall, Room 103A became a Mechanical Closet. No change is proposed. ▪ Air Conditioning. The building does not have a central air conditioning system. Ratter, window units provide localized cooling to certain rooms, including the Living Room (Room 103), First Floor Kitchen (Room 108), and Second Floor Living Room (Room 204A). They are unsightly, especially at the Living Room location. ▪ Mechanical Ventilation and Dehumidification. Expelling excessive moisture in the cellar cannot rely on sump pumps alone. Air changes and a means for dehumidification regulated according to exterior conditions are required. Air changes are especially difficult, as there are only two windows at the cellar/crawlspace level and the degree of infiltration between the cellar/crawlspace level and the first floor is relatively high given the openings, fissures and gaps in the existing floor surfaces. See also Appendix C of this report for the Building Systems Evaluation of the Van Wickle House prepared by KSi Consulting Engineers, LLC.
26 Electrical	▪ Electrical Service. The house is served by an underground electrical service that originates from a utility pole mounted transformer on Demott Lane. The service terminates in a wire trough mounted to the exterior of the building at the north elevation of Build C that connects to two (2) meters. One meter is dedicated to the main part of the house and the other meter is dedicated to the apartment located on the second floor. The main panel for the main house is located in the cellar of Build C (Room 007). The panel also feeds a subpanel is located in the old boiler room of Build A2 (Room 003). Another panel located within the Second Floor, within the storage closet, is dedicated to the loads

	of the caretaker's apartment and, presumably, feeds from the second meter. Although the incoming electrical service is in good condition, it is installed within the flood plain and could be damaged by a future flood. The service should be raised above the flood plain on the exterior of the building. Similarly, the distribution panels for the main house (now located in the basement) are susceptible to flooding and should be relocated to the first floor (or higher) to reduce the risk of future damage due to flooding. ▪ Fire Alarm System. The existing fire alarm panel is a Napco Magnum Fire Alert 6000 Series zonal system. Within the house are heat and smoke detectors as well as audible bells located throughout to alert occupants of an alarm. Rusted heat detectors located in the basement should be replaced with weather resistant models that will be able to withstand the moist environment that is present in the basement. See also Appendix C of this report for the Building Systems Evaluation of the Van Wickle House prepared by KSi Consulting Engineers, LLC.

3. Building Code and Accessibility Requirements

As summarized on Drawing A001 Building Data of the Existing Conditions following this page.

4. Existing Conditions (Annotated Drawings)

Following this page; formatted to 11 by 17 inches.

PROJECT:

Historic Structures Report for the Symen Van Wickle House

As funded by a 2015 Somerset County Historic Preservation Grant

ADDRESS: 1289 Easton Avenue, Franklin Township, New Jersey 08873
Block 259 / Lot 86

CLIENT: **The Meadows Foundation, Inc.**
P.O. Box 6321, Somerset, NJ 08875
Tel 908 507 0325 / www.TheMeadowsFoundation.org

PROJECT FUNDING: **Somerset County Historic Preservation Grant Program**
P.O. Box 3000, Somerville, NJ 08876
Tel 908 231 7110 / www.co.somerset.nj.us/government/public-works

OWNER: **Township of Franklin**
475 DeMott Lane, Somerset, NJ 08873
Tel 732 873 2500 x6274 /www.franklintwpnj.org

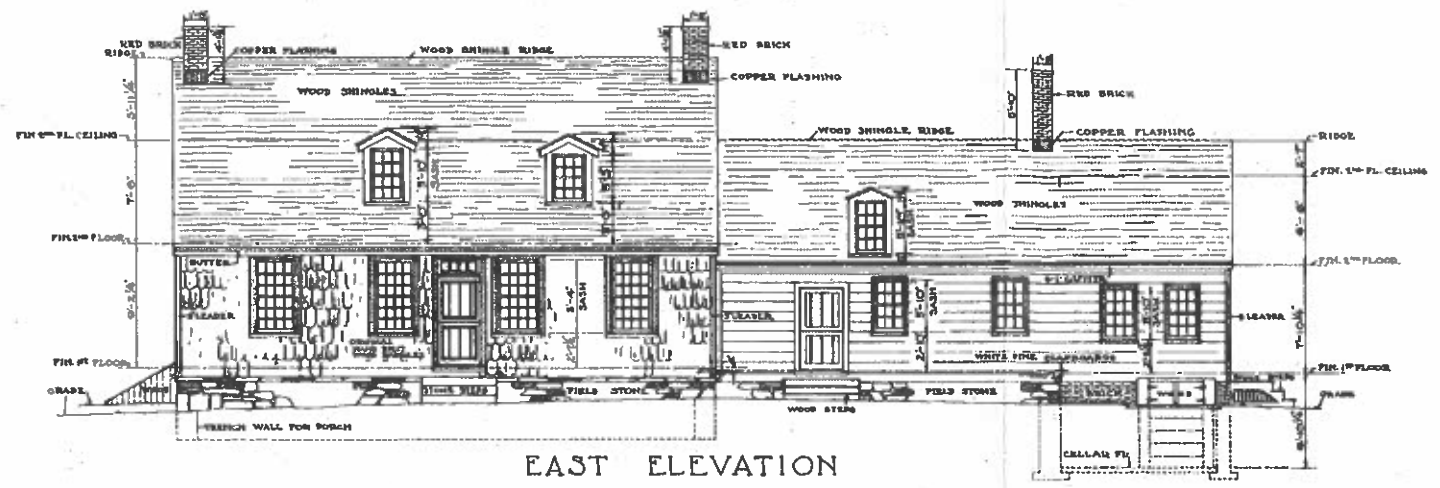
ARCHITECT: **Michael Calafati Architect, LLC**
510 Bank Street, P.O. Box 2363, Cape May, NJ 08204
Tel 609 884 4922 / www.calafati.com

ENGINEERS: **KSi Professional Engineers, LLC** (STRUCTURAL)
KSi Consulting Engineers, LLC (MECHANICAL & ELECTRICAL)
149 Yellowbrook Road, P.O. Box 628, Farmingdale, NJ 07727
Tel 732 938 2666 / www.ksi-pe.com

MATERIALS CONSERVATOR: **Keystone Preservation Group, Inc.**
P.O. Box 831, Doylestown, Pennsylvania 18901
Tel 215 348 4919 / www.keystonepreservation.com

HISTORIC RESEARCH: **Dennis Bertland Associates**
P.O. Box 315, Stockton, NJ 08559
Tel 609 397 3380 / dnbertland@verizon.net

ARCHAEOLOGY AND DENDROCHRONOLOGY: **Richard Veit, Ph.D., R.P.A.**
Professor and Chair, Department of History and Anthropology
Monmouth University
400 Cedar Avenue, West Long Branch, NJ 07764
Tel 732 263 5699 / rveit@monmouth.edu



The Symen Van Wickle House was recorded by HABS in 1938 and listed on the New Jersey and National Registers of Historic Places in 1973.

Drawing	Title
A000	Cover Sheet
A001	Building Data
A100	Cellar Level Plan
A100.1	Cellar Level Reflected Ceiling Plan
A101	First Floor Plan
A101.1	First Floor Reflected Ceiling Plan
A102	Second Floor Plan
A103	Roof Plan
A201	Existing East Elevation
A202	Existing North and South Elevations
A203	Existing West Elevation

HISTORIC STRUCTURES REPORT
Symen Van Wickle House

1289 EASTON AVE, FRANKLIN TOWNSHIP
SOMERSET COUNTY, NEW JERSEY

THE MEADOWS FOUNDATION, CLIENT

MICHAEL CALAFATI, RA NJ#21AI00902900
Certificate of Authorization
#21AC00084500 / Expires 01/2020

MCA

Michael Calafati Architect, LLC
510 Bank Street, PO Box 2363, Cape May, NJ 08204
609 884 4922 www.calafati.com

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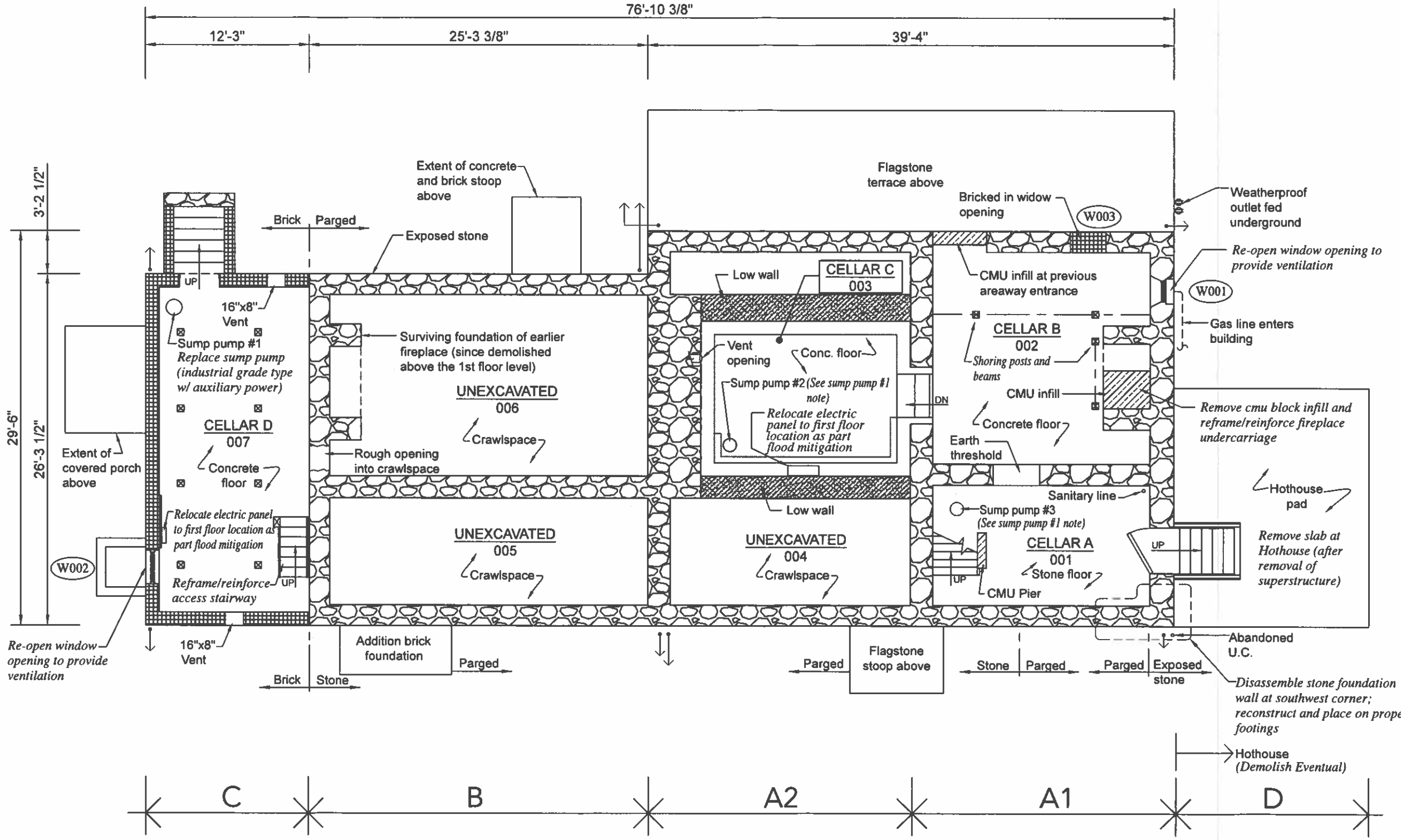
SCALE:	NA

COVER SHEET

A000



KEY:

STONE

CMU

BRICK

PARGED

DOWNSPOUTS

0' 5' 10' 15' 20'

N

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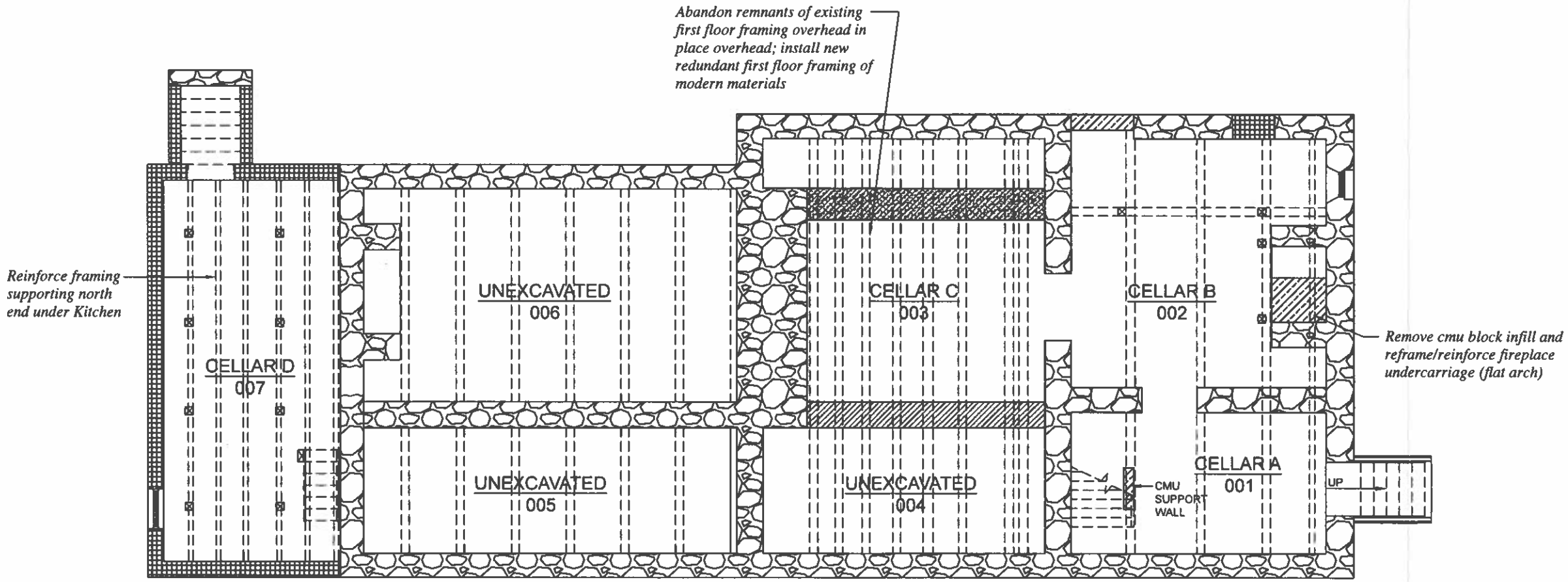
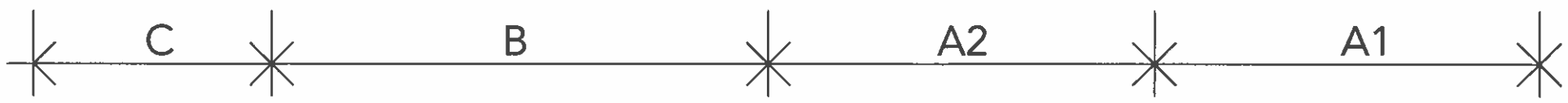
SCALE:	1/8" = 1'-0"

CELLAR LEVEL PLAN

A100





KEY:

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PARGED

DOWNSPOUTS

0' 5' 10' 15' 20'

N

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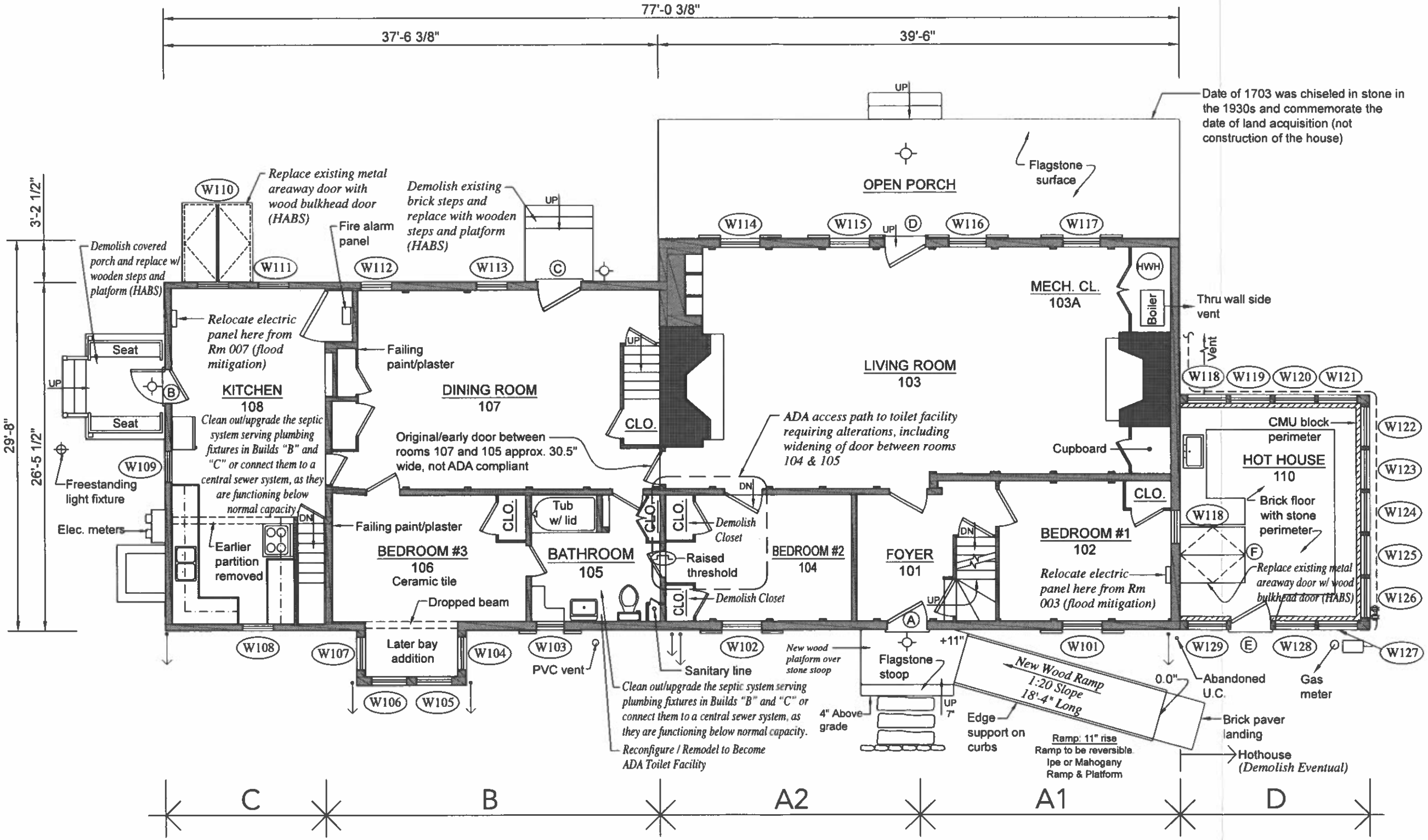
CELLAR LEVEL
REFLECTED CEILING PLAN

A100.1



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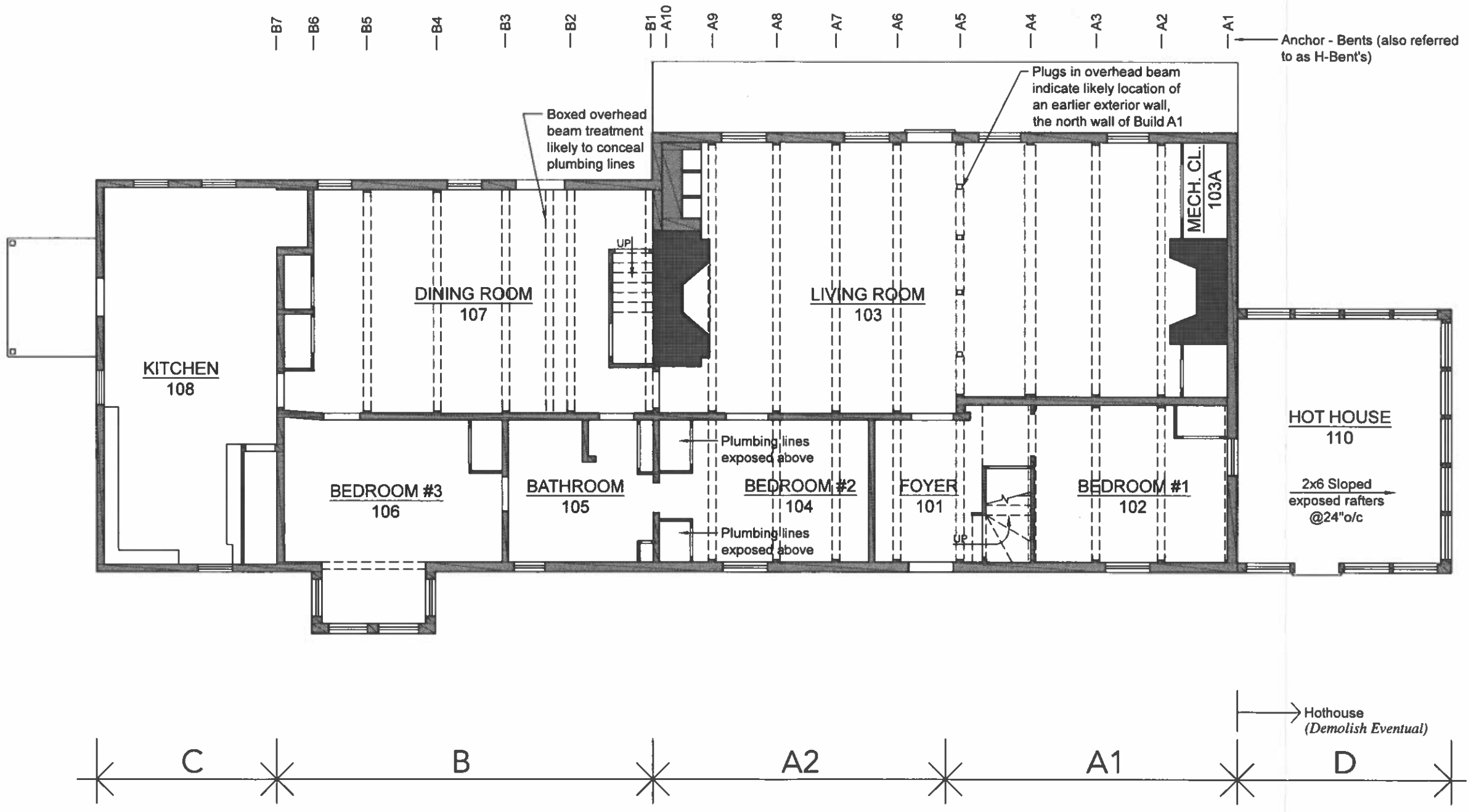
FIRST FLOOR PLAN

A101



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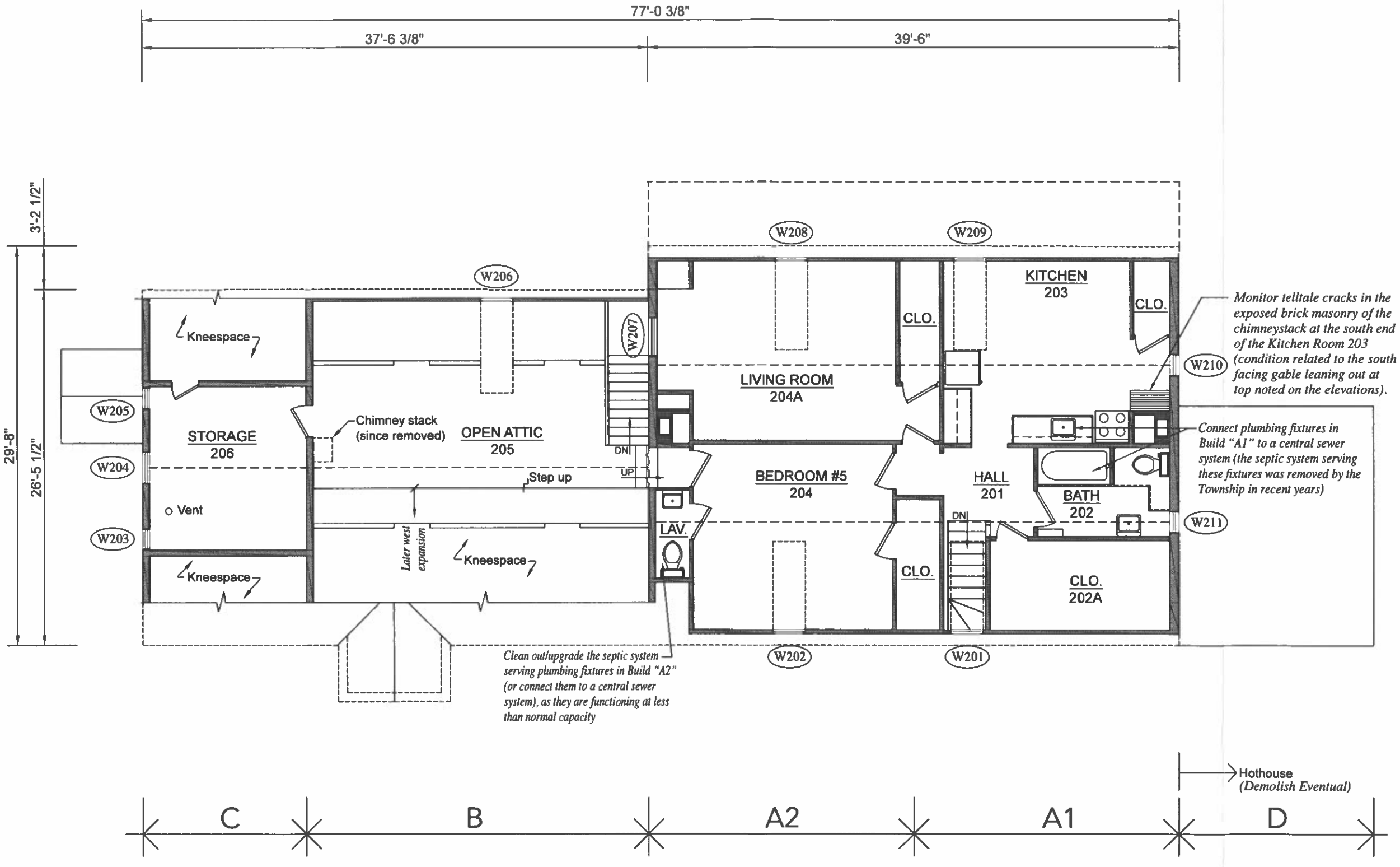
FIRST FLOOR REFLECTED CEILING PLAN

A101.1



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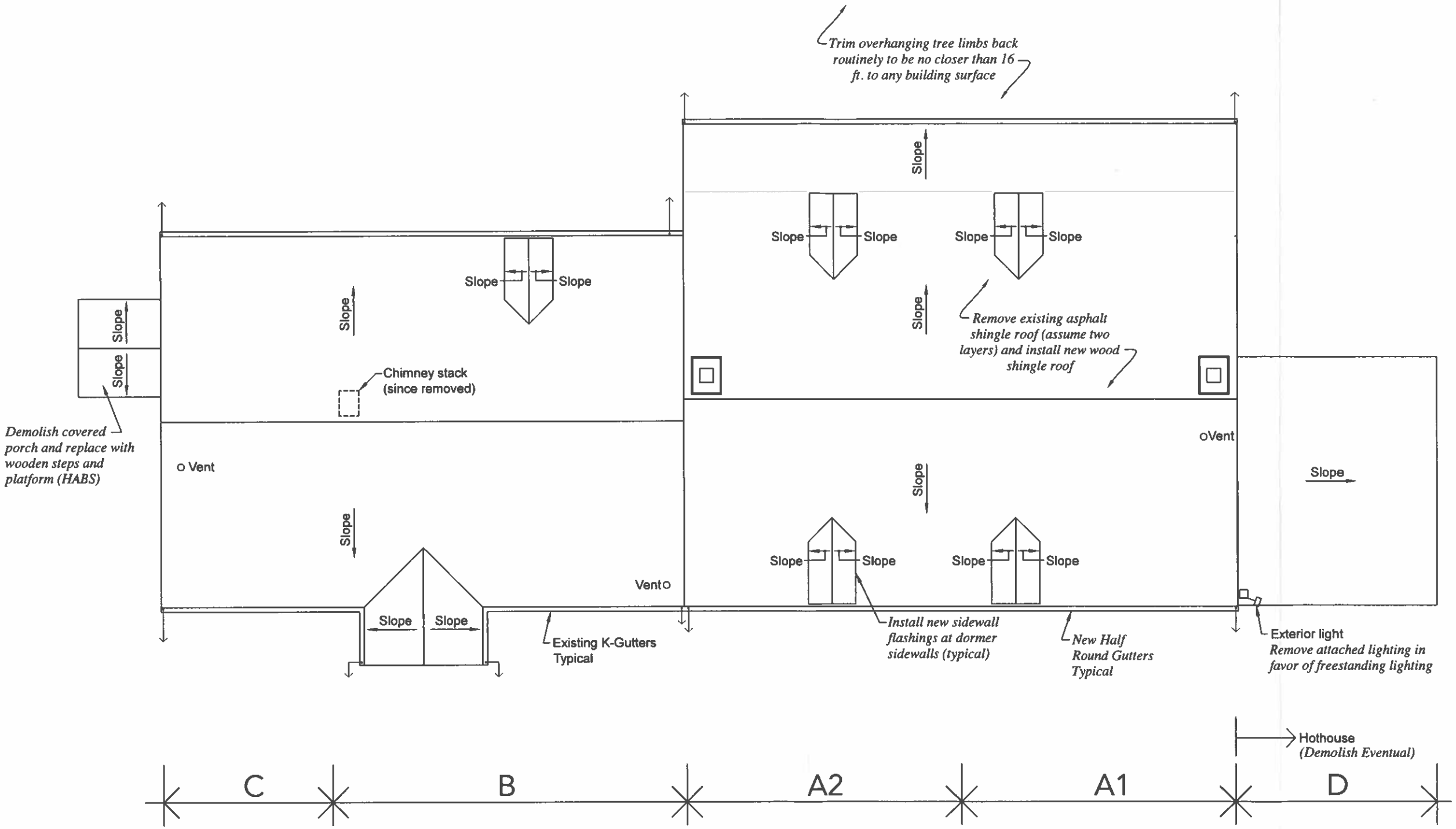
SECOND FLOOR

A102



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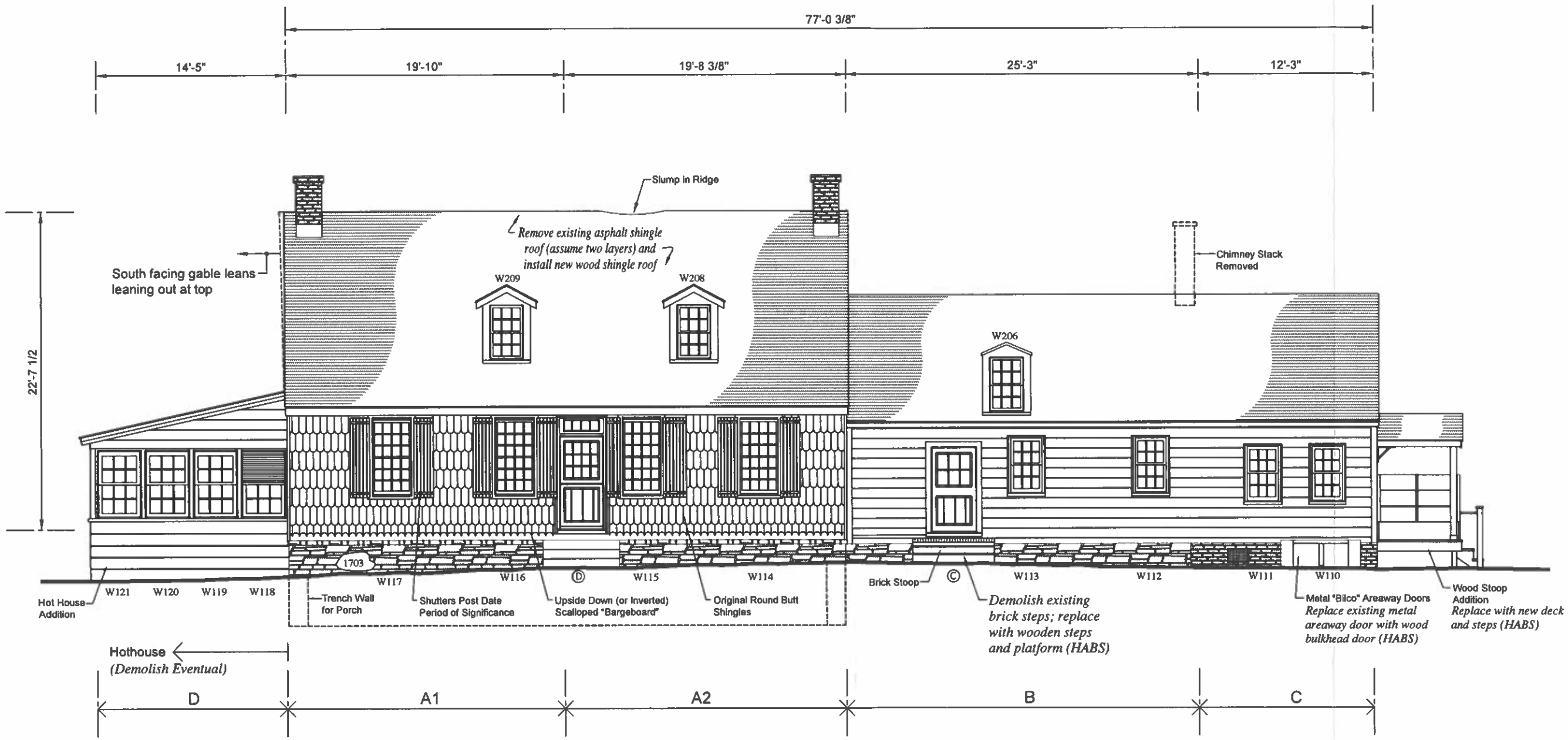
ROOF PLAN

A103



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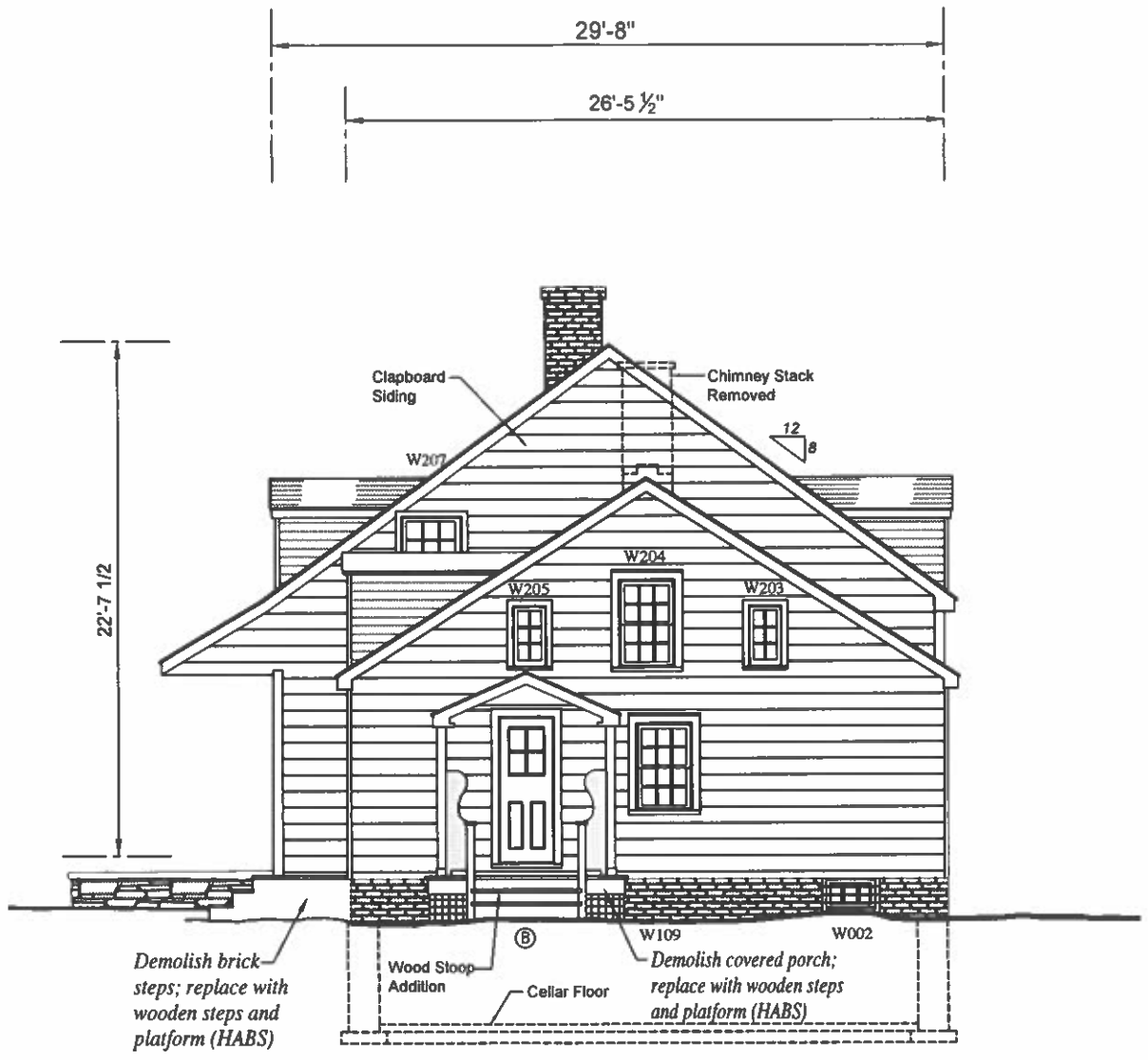
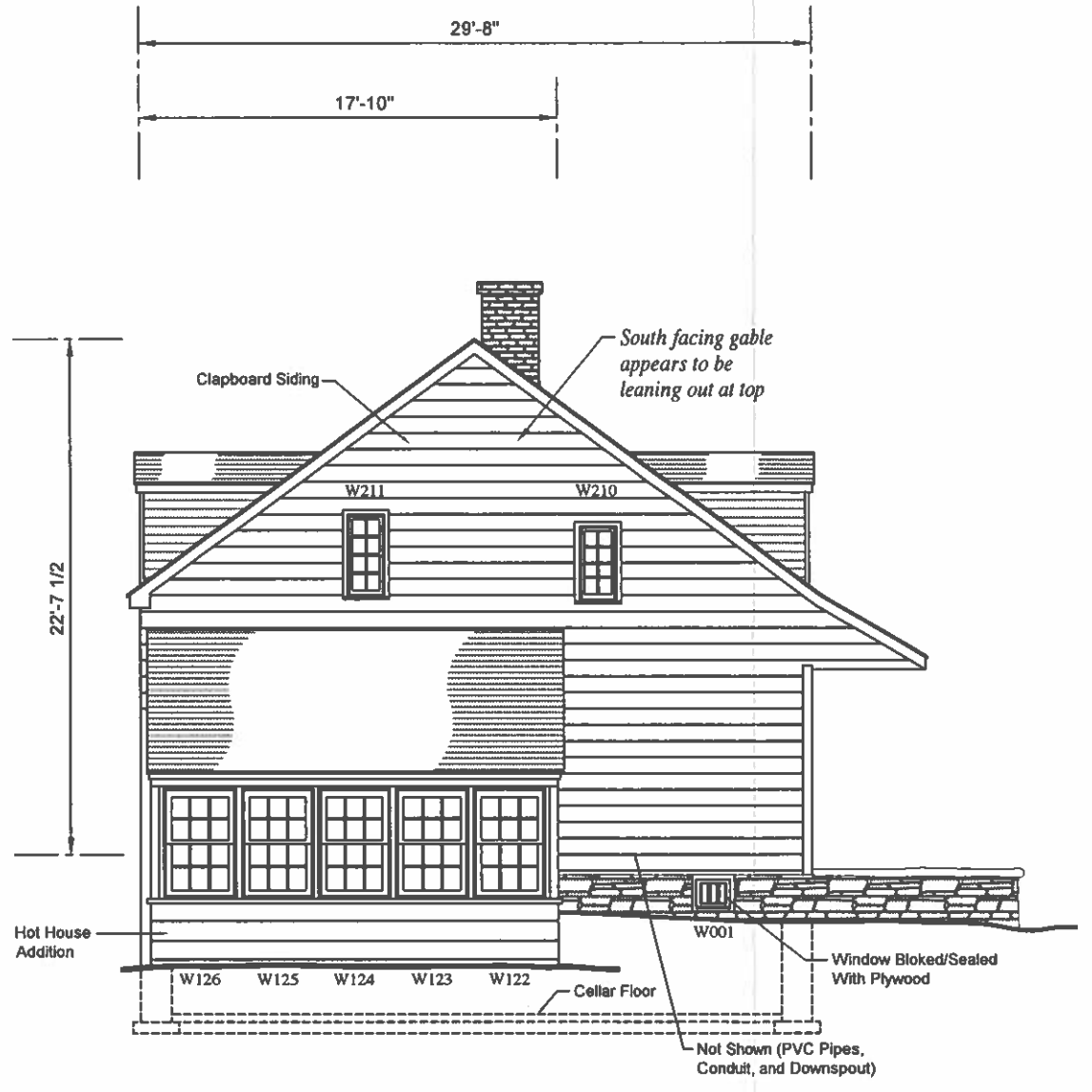
EXISTING EAST ELEVATION

A201



EXISTING NORTH ELEVATION



EXISTING SOUTH ELEVATION

0' 5' 10' 15' 20'

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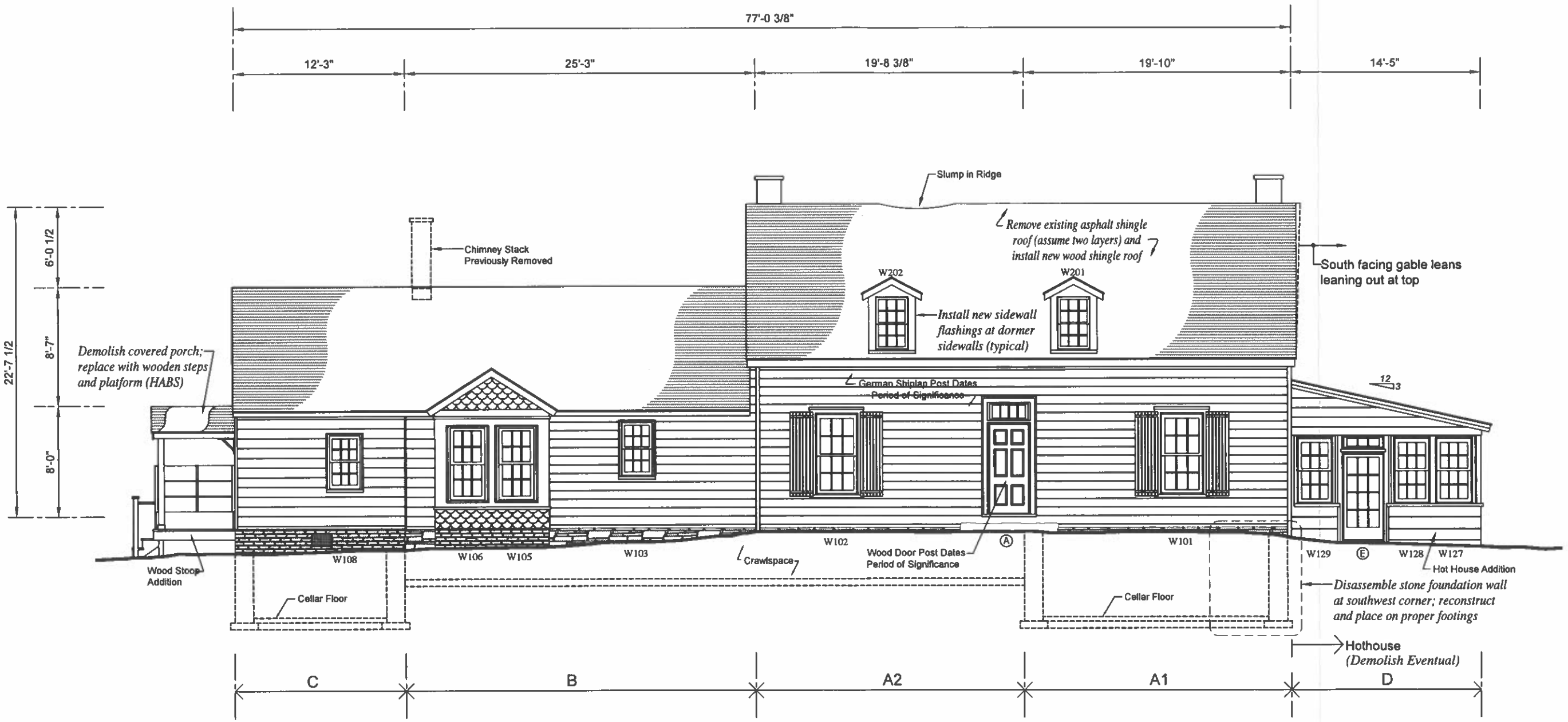
EXISTING NORTH AND SOUTH ELEVATIONS

A202



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EXISTING WEST ELEVATION

A203

IV.
Prioritization and Cost Estimate

1. Prioritized List of Recommended Work
2. Preliminary Cost Estimate

IV. PRIORITIZATION AND COST ESTIMATE

1. Prioritized List of Recommended Work

The phasing of projects listed below is organized in an effort to arrange competing needs in a logical order so that work executed in an efficient sequence.

Because new discoveries are possible, even likely, a re-ordering of individual work items should be anticipated. Similarly, certain work items may float or be deferred without significant impact to the objectives of a particular phase (reversing alterations that postdate the HABS drawings; for example, the Dutch doors facing east as noted in #08.03 and 08.04).

Key	Synopsis
Phase I	Urgent work that should be undertaken immediately so that the building's first floor may re-open to the public; work that is part of essential maintenance practices.
Phase II	Near term work that should be undertaken as soon as possible to stem water ingress, address additional structural conditions and improve the exterior envelope.
Phase III	Mid term work that should be undertaken within the next several years to improve occupancy – largely related to building systems.
Phase IV	Desirable work that may be executed at a future point when funds permit – largely related interior finishes.
Phase V	Optional long-term work that requires additional study prior to execution.

CSI Division	Item	Activity	Phase/ Urgency
Sitework	02.01	Trim overhanging limbs from nearby trees and remove excessive vegetation.[1]	I
	02.02	Archaeological monitoring wherever ground disturbances occur (such as the placement of new footings/foundations, etc.).	I & II
	02.03	Selective demolition of the hothouse, Build D.[2]	II
	02.04	Selective demolition of the asphalt roofing shingles at Builds A1, A2, B and C.	II
	02.05	Selective demolition of the open covered porch at	II

[1] A responsibility best executed by the Township, as this task requires appropriate staffing and equipment.
[2] Pending discoveries recommended as part of further investigations recommended in Phase I.

		the north end of Build C (Kitchen Door B).	
	02.06	Selective demolition of the brick and concrete stoop at the east elevation of Build B (Dining Room Door C).	II
	02.07	Selective demolition of the CMU block used to shore-up the flat relieving arch of the chimney in Room 002.	I
	02.08	Remove existing system of aluminum gutters and leaders.	II
	02.09	Remove existing metal areaway doors into the cellars at Build A1 (south elevation) and Build C (east elevation).	II
	02.10	Selective demolition of the built-in bookcase flanking the north fireplace in the Living Room (Room 103) to the east.	IV
	02.11	Selective demolition of closets added to the first floor Bedroom #2 (Room 104) to conceal the plumbing above from the lavatory on the second floor.	III
	02.12	Selective demolition of Bathroom fixtures and finishes (Room 105).	III
	02.13	Selective demolition of all aspects of finishes, cabinets and equipment in the First Floor Kitchen (Room 108).	IV
	02.14	Selective demolition of added and altered partitions on the Second Floor between Rooms 204 and 204A and 202 and 202A.	V
	02.15	Selective demolition of Lavatory fixtures in the converted closet off of Bedroom #5 (Room 204) on the Second Floor.	III
	02.16	Selective demolition of all aspects of finishes, cabinets and equipment in the Second Floor Kitchen (Room 203) and Bathroom (Room 202) renovated about 40 years ago.	V
Concrete	03.01	New poured in place concrete piers for additional point load supports anticipated in Cellar areas (Rooms 001, 002, 003 and 007) and in crawlspaces	I

		(004, 005, and 006) to support major portions of the first floor. [Include: Archaeological monitoring.]	
	03.02	New poured in place concrete footing at southwest corner of Cellar (Room 001) where stone foundation wall is to be rebuilt at Build A1. [Include: Archaeological monitoring.]	I
Masonry	04.01	Address excessive moisture in the foundation walls of Build C ("rising damp") by inserting a damp-proof course in the existing south brick foundation wall.	I
	04.02	Disassemble and rebuild the stone rubble foundation wall at the southwest corner of Build A1 reusing the materials from this location.	I
	04.03	Openings at the chimneystacks should be checked and flues should be sealed (capped) to prevent water entry to control moisture and un-tempered air from entering the building.[3]	I
	04.04	Restore all exposed exterior masonry (clean, rake, and repoint 100%), including stonewall foundation at Builds A1, A2 and B; brickwork at Build C, later bay at west elevation of Build B and chimneys above the roofline.	II
	04.05	Construct new brick piers to support new wood platforms at the north end of Build C (Kitchen Door B) and at the east elevation of Build B (Dining Room Door C), as shown on the HABS drawings.	II
Metals	05.01	Provide structural steel for the reinforcement of the south end gable of Build A1 to restrain movement, as it appears to lean outward to the south by a few degrees. Cable the south gable's frame to the north to engage multiple rafter pairs to arrest movement outward.	II (TBD)
Carpentry	06.01	Retain and conserve the first floor framing in place as an artifact of the house's original construction at	I

[3] The practice of burning wood in a fireplace presents an unacceptable risk to an 18th century house with a wood frame and a wood shingle roof without certain precautions already in place. These defenses include inspected chimneystacks (and relined, if required), a building with a fire suppression system, and maintaining an appropriate *fire-watch* for a minimum period of time (say 60 minutes) after a fire is extinguished.

		Builds A1-A2. In so doing, construct a new framing system should be and installed alongside the original framing to assume its role.	
	06.02	Reinforce the existing first floor framing of Builds B and C (at crawlspace and full cellar locations, respectively).	I
	06.03	Avert any further subsidence of the roof rafters over the main block (Builds A1-A2) and an increase of the drop in its ridgeline by rafters in this area spreading and lowering over the course of time with additional reinforcement of the rafters.	II
	06.04	Locations where the rafters meet the plate atop exterior walls and the sidewalls of dormers where they meet the sloped surface of the roof usually trap moisture requires repair and/or replacement. Provide an allowance for such work yet to be uncovered.	II
	06.05	Construct new platforms and steps at the north end of Build C (Kitchen Door B) and at the east elevation of Build B (Dining Room Door C), as shown on the HABS drawings.	II
	06.06	Construct new wood ramp and platform at west elevation leading to Door A to maximize ADA/Barrier-Free accessibility compliance (stone stoop would remain in place).	I
Thermal/ Moisture Protection	07.01	Install a new eastern white cedar shingle roof and related flashings over new wooden lath at Builds A1, A2, B and C, assume 30" lengths shingles. [Include 24" shingle lengths as an alternate.]	II
	07.02	Assume 5% in-kind repairs to existing weatherboard siding, including beaded clapboard, clapboard of different exposures, German shiplap siding, and bevel cut shingles (all areas other than the original hand split round-butt wood shingles found on the east elevation of Builds A1-A2). Acceptable repairs include Dutchmen, epoxy consolidation and replacement of limited runs.	II
	07.03	Install new 5" dia. half-round gutter and 4" dia. round leaders/downspouts along the full lengths of the east and west elevations in 20 ga. aluminum in	II

		white. [Provide lead coated copper as an add alternate.]	
Doors and Windows	08.01	Replace Door A (west entrance) with a new 6-panel entrance door, as shown on in the HABS drawings.	II
	08.02	Replace Door B (north Kitchen) with a new custom entrance door of 4 lites over 2 vertical panels, as shown in the HABS drawings.	II
	08.03	Doors C, (Dutch door, east Dining Room) should be restored by removing inserted glass and patching solid panel in the upper leaf, as shown in the HABS drawings.	IV
	08.04	Doors D, (Dutch door, east Living Room) should be restored by removing inserted glass and patching solid panel in the upper leaf, as shown in the HABS drawings.	IV
	08.05	Fabricate new wooden areaway doors into the cellars at Build A1 (south elevation) and Build C (east elevation) those shown on the HABS drawings.	II
	08.06	Existing windows should be retained and remain in place for continued use; clean and lubricate (assume re-puttying and limited re-glazing).	II
	08.07	Fabricate new wooden 3-lite sash and repair frame at cellar window W001 (Rooms 002/Build A1) – make operable with hinge at top and new outer screen.	I
	08.08	Fabricate new wooden 3-lite sash and repair frame at cellar window W002 (Room 007/Build C) – make operable with hinge at top and new outer screen.	I
	08.09	Remedial repairs at all first and second existing aluminum triple track storm/screens units for continued use - remove, clean, lubricate, repair screens and glass panels, and reinstall.	II

	08.10	Limited repairs at existing shutters to rehang existing units.[4]	II
	08.11	Fabricate louvered shutters as shown in early period photographs.	V
Finishes	09.01	Cellar whitewashed surfaces (Builds A1-A2) should remain as-is (untouched) as the finish is an important artifact of its past use.	I
	09.02	First floor (Builds A1, A2 and B) wood, plaster and painted surfaces should remain as-is until an Interpretive Plan is developed. In the interim, areas of deterioration should be repaired, such as the north walls in Rooms 106 and 107.	I
	09.03	Prepare and paint all exterior wooden surfaces.	II
	09.04	First floor (Build C) finishes should be maintained to remain serviceable.	IV
	09.05	Second floor (Builds A1-A2) finished surfaces should remain as-is until as long as this area remains in use as a caretaker's apartment.	IV
	09.06	Second floor (Builds B and C) finished surfaces should remain as-is until as long as these area remain in use as a storage areas.	IV
Plumbing	22.01	Natural Gas Service. Relocate the service meter (presently at the southwest corner of Build D with exposed exterior surface mounted piping) to a new location with concealed piping running within the house.	III
	22.02	Domestic Water Service: No action required for water piping other than existing exposed existing hot water piping shall be insulated.	III
	22.03	Domestic Hot Water. Maintain existing 20-gallon electric water heater is located in Mechanical Closet (Rooms 103A); it was manufactured in 2011.	N/A
	22.04	Plumbing Fixtures. Replace all existing fixtures, as	III

[4] Existing batten shutters post date the period of significance. Work on the shutters should be kept at a minimum or deferred until their proper importance is established.

		programmatic needs require. Room 105 should be renovated to become ADA/Barrier-Free complaint. All fixtures should be replaced to lower water consumption.	
	22.05	Sanitary Waste. The house is divided into two distinct zones with respect to the treatment of wastewater. Septic system #1 serves the second floor lavatory (Room 204A), the First Floor Bathroom (Room 105) and the Kitchen (Room 108). It is located to the north of the house and functions at less optimum capacity. Septic system #2 serves the second floor fixtures in the caretaker's Kitchen (Room 203) and Bathroom (Room 202) and was located to the south of the house but was removed in 2017.	NA[5]
	22.06	Sump Pumps. Replace the existing three (3) Simplex sump pumps with new Duplex pumps at the cellar levels, namely Room 001 (Build A1), Room 003 (Build A2) and Room 007 (Build A3). Include auxiliary back-up power so that they may remain operational during power outages, an alarm with an autodial feature in the event of pump failure, and connected to a failsafe system of pipes leading to the exterior.	I
HVAC	23.01	Heating System/Gas-Fired Boiler. Room 103A became a Mechanical Closet after Hurricane Irene in 2011. No change is proposed.	N/A
	23.02	Heating System/Hot Water Piping. Insulate the water piping where exposed to view and readily accomplished in order to prevent loss of energy, as required by the energy code.	III
	23.03	Heating System/Air Separator. Replace the heating system's air separator, located in the Basement (Room 002) and re-attach it the framing above to avoid undue stress on the piping.	III
	23.04	Heating System/Baseboard. Clean the baseboard fin tube radiation enclosures. Remove the covers and vacuum the piping and fin tube	III

[5] Sanitary waste beyond the building perimeter is not covered in this report. However, the second floor lavatory off of the bedroom (Room 204) should be removed at the start of Phase III, as its removal would free areas in Rooms 104 and 105 below for restoration and reconfiguration into a proper ADA compliant first floor toilet room.

		elements to maintain proper airflow and heat transfer.	
	23.05	Air Conditioning/Near Term. If relied upon in the near term, window units should be checked for their SEER ratings and replaced with newer, more energy efficient units to save energy.	III
	23.06	Air Conditioning/Long Term. Cooling would be provided by air handlers strategically located to zone the house via direct expansion (DX) coils located within the air handlers with the condensing units located unobtrusively on the exterior of the house with the refrigerant lines routed in the ceiling and wall spaces (or chases) within the building. The zoning would be based on use and hours of occupancy. The first floor would be served by two air handlers located within the cellar where there is full head height (Builds A and C) and then supplying air to the various portions of the first floor by feeding up and utilizing the crawl space (Build B) as a pathway for the ductwork. A return ductwork system would also be installed in the same manner. The second floor would be served by an air handler located in the Open Attic (Build B) with ductwork fed horizontally into the remaining portions of the second floor above the line of the finished ceiling. The first floor would require approximately 5 tons of cooling while the second floor would require approximately 2.5 tons of cooling. Due to flooding concerns on the property, it is proposed that the heat rejection equipment for the air handlers be installed on a raised platform near the south elevation of the building. Temperature control with the above type of system would be via a thermostat (one per air handler) to raise or lower the temperature. Installing an air conditioning system to operate in the spring, summer and fall would also permit humidity to be controlled. During unoccupied periods of time there would be the standard temperature setback but there would also be a humidity sensor for each zone and this would have priority over the temperature setting in order to maintain the required humidity levels in the facility.	III

		To accomplish this, proper load calculations must be completed and the cooling equipment sized properly so it is not oversized. To ensure proper humidity control, equipment with multiple stages of unloading/loading should be utilized with hot gas reheat installed.	
	23.07	Dehumidification/First Floor. The existing portable unit in Room 103 can remain. [The final determination on the temperature and humidity requirements of the facility should be confirmed and, if needed, additional units installed.]	N/A
	23.08	Dehumidification/Cellar. Additional portable units should be installed in the cellar (one each in Rooms 002, 003 and 007).	I
	23.09	Mechanical Ventilation/Toilet Rooms. As none currently exist, install new exhausts in each toilet room and vent to the exterior (Rooms 105 and 202).[6] The termination point for the second floor Bath (Room 202) could be the adjacent chimneystack (coordinate with item 04.03) provided it is traced out to ensure it exhausts to the exterior.	III
	23.10	Mechanical Ventilation/Cellar-Crawlspace. In addition to dehumidification and proper sump pump selection, the cellar and crawlspaces require mechanical ventilation to increase air changes (regulated according to exterior conditions) to help reduce levels of humidity.[7] Install an inline exhaust fan within an enclosure at window W001 (or W002) to draw fresh air through the cellar and crawlspace level.	I
Electrical	26.01	Electrical Service. The house is served by an underground electrical service. While in good condition, it is within the flood plain and subject to damage. The service should be raised above the flood plain on the exterior of the building as part of flood mitigation.	III

[6] Exhaust is required, even if the toilet room has a window in place.

[7] Achieving air changes is especially difficult, as there are only two windows at the cellar/crawlspace level and the degree of infiltration between the cellar/crawlspace level and the first floor is relatively high given the openings, fissures and gaps in the existing first floor assembly.

	26.02	Electric Panels. Service connects to two (2) meters. One meter is dedicated to the main part of the house with its main panel located in the cellar of Build C (Room 007) and a subpanel located in the cellar of Build A2 (Room 003). The other meter is dedicated to the second floor apartment with its panel in a second floor closet. The two panels in the cellar are susceptible to flooding and should be relocated to the first floor as part of flood mitigation.	III
	26.03	Exterior Devices: The exterior devices are in poor condition and should be replaced, especially those mounted on the south face of the terrace.	III
	26.04	Exterior Lighting. The exterior fixture attached to the building's southwest corner should be removed and replaced with a freestanding fixture mounted on a freestanding post.	III
	26.05	Fire Alarm System. The existing fire alarm panel is a Napco Magnum Fire Alert 6000 Series zonal system. Corroded heat detectors located in the cellar should be replaced with weather resistant units to withstand its moist environment.	III

2. Preliminary Cost Estimate

Refer to the estimate prepared by ICI following this page.

INTERNATIONAL CONSULTANTS, INC., PHILADELPHIA, PA 215 / 923.8888

MICHAEL CALAFATI ARCHITECT, LLC
THE MEADOWS FOUNDATION, INC
THE SYMEN VAN WICKLE HOUSE
FRANKLIN TOWNSHIP, NEW JERSEY

ICI #: 219951
Prep: jnp/mcf
Date: 4/5/19
Revised: 4/8/19

ORDER OF MAGNITUDE COST ESTIMATE

Line	DIV	Description		Cost/SF 3,998	Amount	Phase I	Phase II	Phase III	Phase IV	Phase V
1	01	General Requirements & Temporary Protection		$ 30.23	$ 120,840	$29,590	$54,418	$12,380	$9,682	$14,771
2	02	Existing Conditions		$ 13.64	54,544	$11,250	$29,470	$3,875	$4,089	$5,860
3	03	Concrete		$ 8.57	34,250	$30,250	$4,000	$0	$0	$0
4	04	Masonry		$ 12.93	51,680	$26,100	$25,580	$0	$0	$0
5	05	Metals		$ 1.50	6,000	$0	$6,000	$0	$0	$0
6	06	Carpentry		$ 18.68	74,680	$37,675	$37,005	$0	$0	$0
7	07	Thermal/Moisture Protection		$ 26.94	107,725	$0	$107,725	$0	$0	$0
8	08	Doors and Windows		$ 14.39	57,550	$2,100	$36,450	$0	$7,200	$11,800
9	09	Finishes		$ 26.22	104,811	$6,220	$56,091	$0	$42,500	$0
10	10	Specialties		$ 0.25	1,000	$0	$0	$1,000	$0	$0
11	22	Plumbing		$ 15.76	63,000	$26,000	$0	$37,000	$0	$0
12	23	Heating, Ventilation and Air Conditoning		$ 20.85	83,342	$11,042	$0	$7,900	$0	$64,400
13	26	Electrical		$ 4.75	19,000	$0	$0	$19,000	$0	$0
14	31	Earthwork		$ 3.44	$ 13,750	$13,750	$0	$0	$0	$0
15		Subtotal		$ 198.14	$ 792,172	$193,977	$356,739	$81,155	$63,471	$96,831
16										
17		Design Contingency	20%		158,434	$38,795	$71,348	$16,231	$12,694	$19,366
18		General Conditions, OH&P	10%		95,061	$23,277	$42,809	$9,739	$7,617	$11,620
19		Escalation	0%		-					
20										
21		**TOTAL ESTIMATED CONSTRUCTION COST (A)**		$ 261.55	**$ 1,045,667**	**$256,049**	**$470,895**	**$107,124**	**$83,782**	**$127,817**
22										
23		**PROFESSIONAL DESIGN FEES** @ 12% OF CONSTRUCTION COST **(B)**			**$ 130,708**	**$32,006**	**$58,862**	**$13,390**	**$10,473**	**$15,977**
24										
25		**TOTAL PROJECT COST (A+B=C)**			**$ 1,176,375**	**$288,055**	**$529,757**	**$120,514**	**$94,254**	**$143,794**
26										
27		**01 GENERAL REQUIREMENTS & TEMPORARY PROTECTION**								
28										
29		General Requirements - Including Management/Coordination,	18%		$ 120,840					
30		Quality Control, Temp. Utilities/Facilities, Clean Up, Etc.								
31		(% of Divisions 2.0 - 33.0)								
32										
33			-	-	-					
34		**TOTAL**			$ 120,840					
35										
36		**02 EXISTING CONDITIONS**								
37										
38		Trim overhanging trees & remove excessive vegetation	1 Allow	$ 5,000.00	$ 5,000	$5,000				
39		Archaeological Monitoring during ground disturbances	1 Allow	8,000.00	8,000	$4,000	$4,000			

Selective Demolition:	-			-	-						
- CMU block shoring-up chimney relieving arch - Room 002	45	CF		50.00	2,250	$2,250					
- Hothouse - Build D	2,500	CF		5.00	12,500		$12,500				
- Hothouse Concrete Pad	250	SF		7.50	1,875		$1,875				
- Asphalt roof shingles - Builds A1, A2, B and C (Assume 2 layers)	3,050	SF		2.00	6,100		$6,100				
- Open covered Porch, Pad north end Build C (Kit. Door B)	480	CF		4.50	2,160		$2,160				
- Brick & Conc. Stoop - East Elev. Build B (Dining Room. C)	60	CF		25.00	1,500		$1,500				
- Aluminum Gutters/RWCs	214	LF		2.50	535		$535				
- Metal Areaway Doors at Build A1 (south) & Build C (east)	2	EA		400.00	800		$800				
- Closets Room 104	11	LF		20.00	220			$220			
- Bathroom Fixtures Room 105	3	EA		375.00	1,125			$1,125			
- Bathroom Finishes Room 105	356	SF		5.00	1,780			$1,780			
- Bathroom Fixtures in closet in Room 204	2	EA		375.00	750			$750			
- Bookcase at Fireplace in Room 103	1	Allow		250.00	250				$250		
- Equipment in Kitchen Room 108	2	EA		200.00	400				$400		
- Cabinets in Kitchen Room 108	20	LF		40.00	800				$800		
- Finishes in Kitchen Room 108	754	SF		3.50	2,639				$2,639		
- Partitions between Rooms 204/204A and 202/202A	39	LF		30.00	1,170						$1,170
- Equip. in Kitchen & Bathroom Rooms 203/202	6	EA		200.00	1,200						$1,200
- Cabinets in Kitchen & Bathroom Rooms 203/202	12	LF		40.00	480						$480
- Finish's in Kitchen & Bathroom Rooms 203/202	860	SF		3.50	3,010						$3,010
Asbestos/Lead Abatement, Remediation					Not Included						
	-			-	-						
TOTAL					$ 54,544	$11,250	$29,470	$3,875	$4,089	$5,860	

03 CONCRETE

Concrete Piers in all Cellars and crawl spaces (001 to 007) assume w/Wood Posts in basement Areas	30	EA	$ 750.00	$ 22,500	$22,500					
Conc. Ftg. in SW corner of Cellar room 001 for Stone Fdn. Wall	5	CY	750.00	3,750	$3,750					
Conc. Curbs For Wood Ramp/Platform at west elevation to Door A	2	EA	2,000.00	4,000	$4,000					
Conc. Ftgs. For Wood Platforms;										
- at North end of Build C, Door B	4	EA	500.00	2,000		$2,000				
- at East elev. of Build B, Door C	4	EA	500.00	2,000		$2,000				
	-		-	-						
TOTAL				$ 34,250	$30,250	$4,000	$0	$0	$0	

04 MASONRY

Rebuild/Reuse Stone Rubble Fdn. at SW corner Build A1* *(See Excavate and Shore under 31.01 and 31.02)	50	CF	$ 250.00	$ 12,500	$12,500					
Check and Cap Cimneystacks and Seal Flues	2	EA	1,200.00	2,400	$2,400					
Insert a Damp-proof Course in Existing So. Brick Fdn. Wall Build C	24	LF	300.00	7,200	$7,200					
Restore all exposed exterior Masonry: (clean, rake and repoint 100%)										
- Stonewall Foundations at Builds A1, A2 and B	606	SF	20.00	12,120		$12,120				
- Brickwork at Build. C	200	SF	25.00	5,000		$5,000				
- Bay at west elevation of Build B	60	SF	25.00	1,500		$1,500				
- Chimneys above roofline Build B	72	SF	30.00	2,160		$2,160				
- 1'x1' Brick Piers (wood platform support) north end Build C	4	EA	600.00	2,400		$2,400				
- 1'x1' Brick Piers (wood platform support) east elev. Build B	4	EA	600.00	2,400		$2,400				
Reopen Window Opening for Cellar Ventilation	2	EA	2,000.00	4,000	$4,000					
	-		-	-						
TOTAL				$ 51,680	$26,100	$25,580	$0	$0	$0	

05 METALS

Structural Steel to Reinforce So. End of Gable Bldg A1	1	Allow	$ 2,500.00	$ 2,500		$2,500				
Steel Rods from So. Gable frame to multiple rafter pairs on No.	1	Allow	3,500.00	3,500		$3,500				

98	- See Alternate 1, to re-construct So. Gable	-			-	-					
99		-			-	-					
100	**TOTAL**				$ 6,000	$0	$6,000	$0	$0	$0	
101											
102	**06 CARPENTRY**										
103											
104	Retain and Conserve First Floor Framing in Place in Builds A1-A2;										
105	- Construct new Framing alongside to assume original's role	999	SF	$ 15.00	$ 14,985	$14,985					
106	Wood Ramp/Platform at West Elev. To Door A	1	Allow	8,000.00	8,000	$8,000					
107	Reinforce First Floors Framing at Builds B and C	846	SF	15.00	12,690	$12,690					
108	Reinforce Roof Rafters at Builds A1 and A2	1,617	SF	15.00	24,255		$24,255				
109	Allowance to repair undiscovered water damage at Rafter Plates										
110	and Dormer Sidewall Plates	1	Allow	8,000.00	8,000		$8,000				
111	Wood Platform w/Steps (See HABS) at:										
112	- North end Build C, Door B	19	SF	95.00	1,805		$1,805				
113	- East Elevation Build B, Door C	31	SF	95.00	2,945		$2,945				
114	Reframe, Reinforce Access Stairway to Basement 007	1	EA	2,000.00	2,000	$2,000					
115		-		-	-						
116	**TOTAL**				$ 74,680	$37,675	$37,005	$0	$0	$0	
117											
118	**07 THERMAL/MOISTURE PROTECTION**										
119											
120	Eastern White Cedar 30" Shingle Roof, New Lath, Flashing										
121	- at Builds A1, A2, B and C	31	SQ	$ 3,000.00	$ 93,000		$93,000				
122	Note: - See Alternate 2 for 24" Shingles										
123		-		-	-						
124	5% In-kind-Repair Existing Weatherboard Siding of Different Types:										
125	(all areas except round-butt wood shingles on East Builds A1-A2)	105	SF	35.00	3,675		$3,675				
126	Install New Copper Flashing at Dormer Cheeks	10	EA	600.00	6,000		$6,000				
127	5" - White Aluminum 20 ga. Half-round Gutter E. & W. Elevations	154	LF	25.00	3,850		$3,850				
128	4" dia. White Aluminum 20 ga. Round Leaders/Downspouts	60	LF	20.00	1,200		$1,200				
129	Note: - See Alternate 3 for Lead Coated Copper Gutters, Leaders/Downspouts										
130		-		-	-						
131	**TOTAL**				$ 107,725	$0	$107,725	$0	$0	$0	
132											
133	**08 DOORS AND WINDOWS**										
134											
135	Cellar Window W001:										
136	- Repair Frame	1	EA	$ 300.00	$ 300	$300					
137	- Wooden 3-Lite Operable Sash and Hardware	1	EA	550.00	550	$550					
138	- New Outer Screen	1	EA	200.00	200	$200					
139	Cellar Windows W002:										
140	- Repair Frame	1	EA	300.00	300	$300					
141	- Wooden 3-Lite Operable Sash and Hardware	1	EA	550.00	550	$550					
142	- New Outer Screen	1	EA	200.00	200	$200					
143	Replace Door A with 6-Panel Door, Hdwr to match HABS Dwg.	1	EA	3,400.00	3,400		$3,400				
144	Replace Door B with 4-Lite over 2-Panel Door to match HABS Dwg.	1	EA	3,650.00	3,650		$3,650				
145	Areaway Cellar Door, Build A1, match HABS Dwg. (all wood)	1	PR	4,200.00	4,200		$4,200				
146	Areaway Cellar Door, Build C, match HABS Dwg. (w/ brick cheeks)	1	PR	6,000.00	6,000		$6,000				
147	Clean/Lubricate Existing Windows:										
148	- Assume Re-puttying and Limited Re-Glazing:										
149	- 12 over 12	4	EA	800.00	3,200		$3,200				
150	- Large 6 over 6	6	EA	600.00	3,600		$3,600				
151	- 6 over 6	14	EA	500.00	7,000		$7,000				
152	- 8 lite single	3	EA	400.00	1,200		$1,200				
153	- 6 lite single	2	EA	300.00	600		$600				
154	Remedial Repairs Alum. Triple Track Storm/Screen Units:	24	EA	150.00	3,600		$3,600				
155	- Assume remove, clean, lubricate, repair and re-install	-		-	-						

156	Remove, Limited Repairs and Rehang Existing Shutters	6	PR	450.00	2,700				$2,700	
157	Restore Dutch Door C, Remove, Replace Glass w/Panel like HABS	1	PR	2,250.00	2,250				$2,250	
158	Restore Dutch Door D, Remove, Replace Glass w/Panel like HABS	1	PR	2,250.00	2,250				$2,250	
159	New Louvered Shutters to Match Early Photos:									
160	- Pair	10	PR	950.00	9,500					$9,500
161	- Single	4	EA	575.00	2,300					$2,300
162		-		-	-					
163	**TOTAL**				$ 57,550	$2,100	$36,450	$0	$7,200	$11,800
164										
165	**09 FINISHES**									
166										
167	Protect Cellar White Wash Surfaces in Builds A1 and A2	1	Allow	$ 1,000.00	$ 1,000	$1,000				
168	Protect Wood, Plaster and Painted surfaces in Builds A1, A2 and B	1	Allow	2,000.00	2,000	$2,000				
169	Repair Deteriorated Wall Surfaces in Rooms 106 and 107	322	SF	10.00	3,220	$3,220				
170	Prepare and Paint all Exterior Wood:									
171	- Windows and Frames	29	EA	550.00	15,950		$15,950			
172	- Shutters	36	EA	400.00	14,400		$14,400			
173	- Doors and Frames	4	EA	400.00	1,600		$1,600			
174	- Cellar Doors	2	EA	600.00	1,200		$1,200			
175	- Barge Board and Cornice	340	LF	15.00	5,100		$5,100			
176	- German Shiplap and Clapboard Siding	2,046	SF	3.50	7,161		$7,161			
177	Replace Finishes, Enlarge Door @ Rm. 105 to be ADA/Barrier-Free	356	SF	30.00	10,680		$10,680			
178	Painting: First Floor Maintained to Remain Serviceable	1	Allow	25,000.00	25,000				$25,000	
179	Painting: Second Floors of Builds A1 and A2 to Remain as Caretaker's Apt.	1	Allow	12,500.00	12,500				$12,500	
180	Painting: Second Floors of Builds B and C to Remain as Storage Areas	1	Allow	5,000.00	5,000				$5,000	
181		-		-	-					
182	**TOTAL**				$ 104,811	$6,220	$56,091	$0	$42,500	$0
183										
184	**10 SPECIALTIES**									
185										
186	Bathroom Accessories	1	LS	$ 1,000.00	$ 1,000			$1,000		
187		-		-	-					
188	**TOTAL**				$ 1,000	$0	$0	$1,000	$0	$0
189										
190	**22 PLUMBING**									
191										
192	Relocate NG Gas Meter and Piping (currently at SW corner Build D)	1	Allow	$ 3,000.00	$ 3,000			$3,000		
193	Insulate Exposed Domestic Hot Water Piping	1	Allow	1,000.00	1,000			$1,000		
194	Replace Existing Plumbing Fixtures, Piping	3	EA	5,500.00	16,500			$16,500		
195	Renovate Room 105 to be ADA/Barrier-Free Incl Piping	3	EA	5,500.00	16,500			$16,500		
196	Replace Simplex Sump Pumps w/Duplex Sump Pumps	3	EA	2,000.00	6,000	$6,000				
197	Connect Pumps to a Fail-safe Piping System to the Exterior	1	Allow	3,000.00	3,000	$3,000				
198	Auxiliary Back-up Power for Pumps	1	Allow	15,000.00	15,000	$15,000				
199	Alarm w/Auto-dial for Pump Failure	1	Allow	2,000.00	2,000	$2,000				
200		-		-	-					
201	**TOTAL**				$ 63,000	$26,000	$0	$37,000	$0	$0
202										
203	**23 HEATING, VENTILATION AND AIR CONDITIONING**									
204										
205	Gas-Fired Boiler and Heating System	*NIC*								
206	Insulate Exposed hot Water Heating Piping	1	Allow	2,000.00	2,000			$2,000		
207	Replace/re-attach heating System Air Separator	1	EA	600.00	600			$600		
208	Clean Baseboard Fin Tube Radiation Enclosures	1	Allow	2,500.00	2,500			$2,500		
209	Check SEER Ratings and Replace Window AC Units	2	EA	650.00	1,300			$1,300		
210	Long Term AC for all Spaces	3,220	SF	20.00	64,400					$64,400
211	First Floor Dehumidification to Remain	*NIC*								
212	Add Cellar Portable Dehumidification Units in Rms. 002, 003 and 007	3	EA	850.00	2,550	$2,550				
213	Fans and Ducts from Toilet Rooms 105 and 202 to Exterior	2	EA	750.00	1,500			$1,500		

214	Fan/Ducts to Force Ventilate all Basement/Crawlspaces		1,873	SF	4.00	7,492	$7,492					
215	Climate Control System for Basement Ventilation		1	Allow	1,000.00	1,000	$1,000					
216			-		-	-						
217		TOTAL				$ 83,342	$11,042	$0	$7,900	$0	$64,400	
218												
219	**26 ELECTRICAL**											
220												
221	Raise Electrical Service above Flood Level on Bldg. Exterior		1	Allow	$ 5,000.00	$ 5,000			$5,000			
222	Relocate two Electric Panels from Basement to First Floor		2	EA	2,000.00	4,000			$4,000			
223	Relocate one Meter/Panel from Basement to First Floor		1	EA	2,000.00	2,000			$2,000			
224	Replace All Exterior Devices		1	Allow	2,000.00	2,000			$2,000			
225	Remove Bldg. Mtd. Light and Replace w/Freestanding Post Fixture		1	EA	4,000.00	4,000			$4,000			
226	Replace Basement Alarm Components w/Weatherproof Detectors		1	Allow	2,000.00	2,000			$2,000			
227			-		-	-						
228		TOTAL				$ 19,000	$0	$0	$19,000	$0	$0	
229												
230	**31 EARTHWORK**											
231												
232	Excavate/backfill to Rebuild Stone Fdn. at SW corner Build A1		25	CY	$ 150.00	$ 3,750	$3,750					
233	Needle/Shore to Rebuild Stone Rubble Fdn. at SW corner Build A1		10	LF	1,000.00	10,000	$10,000					
234			-		-	-						
235		TOTAL				$ 13,750	$13,750	$0	$0	$0	$0	
236												
237	**33 UTILITIES**											
238												
239	Clean out/upgrade Septic Syst. or connect to Central Sewage Syst.:											
240	- In Builds B and C		*NIC*									
241	- In Builds A1 & A2		*NIC*									
242	Connect Plumbing Fixtures in Build A2 to Central Sewage Syst.		*NIC*									
243			-		-	-						
244		TOTAL				$ -						
245												
246	**ALTERNATES:**											
247												
248	1 Alternate: Demo. and Re-construct South Gable, Build A1:											
249	Remove South Gable Clapboard Siding and Reinstall		70	SF	$ 50.00	$ 3,500						
250	Demo South Gable Wall Structure		70	SF	10.00	700						
251	Rebuild South Gable wall and Tie Back to Existing Structure		70	SF	100.00	7,000						
252			-		-	-						
253		TOTAL				$ 11,200						
254												
255	2 Alternate for 24" Shingles:											
256	Eastern White Cedar 24" Shingle Roof, New Lath, Flashing											
257	- at Builds A1, A2, B and C		31	SQ	$ 2,600.00	$ 80,600						
258			-		-	-						
259		TOTAL				$ 80,600						
260												
261	3 Alternate for Lead Coated Copper Gutters, Leaders/Downspouts:											
262												
263	5" - Lead Coated Copper Half-round Gutter E. & W. Elevations		154	LF	$ 45.00	$ 6,930						
264	4" dia. Lead Coated Copper Round Leaders/Downspouts		60	LF	40.00	2,400						
265			-		-	-						
266		TOTAL				$ 9,330						
267												

V.
Appendices

A. Photographs

B. Structural Evaluation – KSi Professional Engineers, LLC

C. Building Systems Evaluation: Mechanical, Electrical, Plumbing & Fire Protection – KSi Consulting Engineers, LLC

D. Paint Investigation and Mortar Analysis – Keystone Preservation Group, LLC

E. Artifact Analysis, Tree-Ring Dating and Mapping Report – Richard Veit, PhD

F. National Register Nomination

G. Historic American Building Survey (HABS)

A.
Photographs

Images taken by MCA unless noted otherwise.

Photo #	Date
01	04/18/16
02	03/30/15
03	03/30/16
04	03/30/16
05	03/30/16
06	03/30/16
07	04/20/16
08	08/02/18
09	08/02/18
10	03/22/19
11	12/16/15
12	10/19/17
13	08/02/18
14	03/22/19
15	08/02/18
16	08/02/18
17	08/02/18
18	04/18/15
19	04/15/16
20	03/30/16
21	03/30/16
22	08/02/18
23	c. 1999?
24	04/20/16
25	04/18/16
26	01/05/16
27	04/20/16
28	04/20/16
29	03/22/19
30	08/02/18
31	04/20/16
32	08/02/18
33	08/02/18
34	08/02/18
35	04/18/16
36	12/16/15
37	05/24/18
38	12/16/15
39	05/08/18
40	02/28/17
41	01/20/16
42	03/23/17
43	03/30/16
44	03/22/19
45	01/25/16
46	12/16/16
47	12/16/16
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49	01/25/16
50	05/24/18
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144	05/24/18
145	05/31/18
146	01/20/16
147	12/16/15
148	12/16/15
149	01/20/16
150	05/24/18
151	05/24/18
152	05/24/18
153	05/24/18
154	05/24/18

APPENDIX A - PHOTOGRAPHS

Photo 01: Main elevation with Builds A1, A2, B and C shown from left to right, as viewed looking west (from the Delaware & Raritan Canal and the Raritan River).

Photo 02: East elevation of Build A1 and detail of southeast corner of house terrace with the date stone indicating 1703.

Photo 03: East elevation of the main bloch (Builds A1 and A2) with its distinctive round butt shingles and overhanging roof.

Photo 04: East elevation of Builds B and C. The shutters (here and above), the brick stoop and the metal areaway basement entrance door postdate the HABS drawings of the 1930s.

Photo 05: East elevation and detail of the 1703 date stone, part of the 1930s terrace.

Photo 06: Existing wellhead, a 20th century construction, to the east of the house.

Photo 07: Detail view of east elevation of Build A1 at terrace where the round butt shingles terminate. The scalloped board is not original and partially conceals the bottom row of original shingles.

Photo 08: A probe location at the elevation of Build A reveals repairs that likely date back many decades. The heavy timber sill that would have located here was replaced by poured-in place concrete.

Photo 09: Hand wrought nail used to secure original round butt shingles to the east elevation of Build A, approximately 2-1/2" long.

Photo 10: Brick and concrete stoop to the Dining Room door (Room 107), a change that postdates the HABS drawings, at the east elevation of Build B.

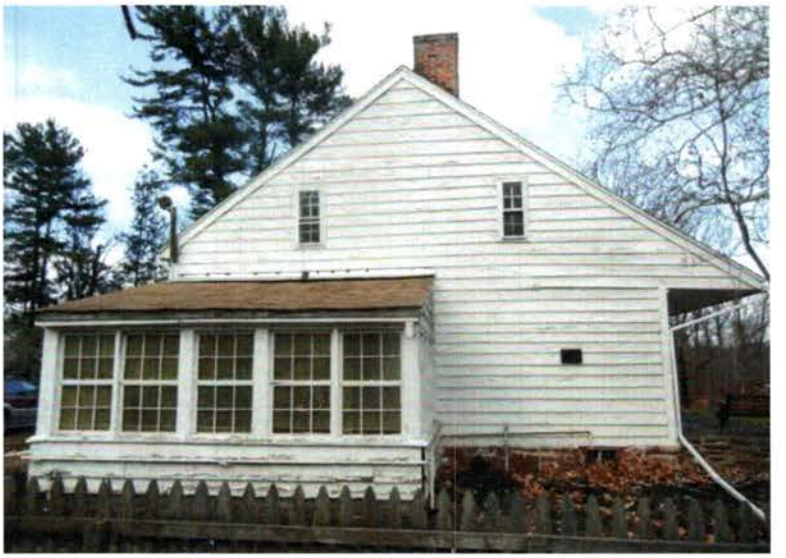

Photo 11: Overall view of the south elevation. The protruding "hothouse" addition was built in the mid-20th century.

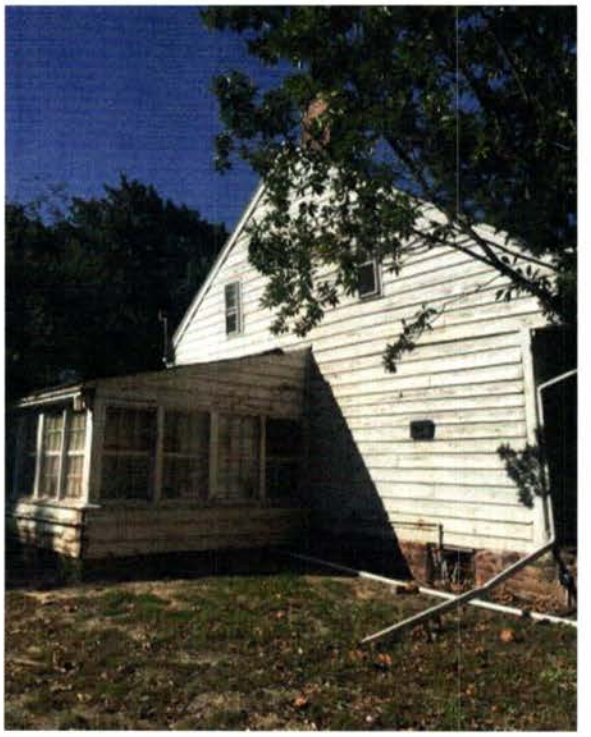

Photo 12: View of the south elevation looking northwest. The window in the stone foundation, currently blocked, is only one of two windows that provide the cellar and crawlspaces with natural ventilation.

Photo 13: A probe location at the lower right corner of the south elevation (near terrace).

Photo 14: Same location at the south elevation where it meets the flagstone terrace prior to the probe. The black rectangle mounted on the clapboard is the thru-wall side vent of the boiler in Mechanical Closet (Room 103A).

Photo 15: Like the location at the terrace, this probe at the south elevation reveals repairs that likely date back many decades. The heavy timber sill has been partially replaced with poured-in place concrete.

Photo 16: The intermediate stud at the left of the probe opening still has it Roman numeral markings.

Photo 17: The clapboard siding on the lower portion of the south elevation, like much of the building's exterior, is not original.

Photo 18: Overall view of the house's west elevation, looking east in the direction of the Delaware & Raritan Canal and Raritan River, with Builds C, B, A2, A1 and D shown from left to right. The current main entrance, Door A, is at the center of the main block and would be adapted to provide ADA/Barrier-Free access. Build D, the hothouse, would be demolished.

Photo 19: Overall view of the south and west elevations. The hothouse addition on the south elevation and the projecting bay window on the west elevation are later additions.

Photo 20: Partial west elevation with Build C (left), Build B (center with later projecting bay window) and (northern portion of) Build A2.

Photo 21: West elevation of the main block, Builds A1 and A2, is covered in German shiplap siding, likely a 20th century alteration. The main entrance shown here and its flagstone stoop would remain but be adapted to provide barrier-free access. The darkened roof area between the dormers is the region where reinforcement of the roof frame appears most needed.

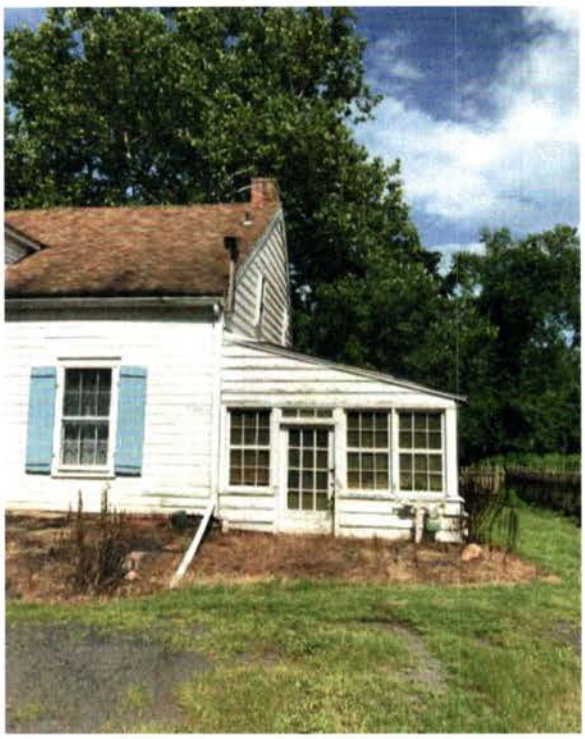

Photo 22: West elevations of Build A1 (left) and Hothouse or Build D (right). The exterior light fixture at the SW corner of the house and gas meter near the SW corner of the Hothouse should be relocated. The house's south gable (oblique plane above and to the rear of Build D) appears to lean out at the ridge.

Photo 23: West elevation with Build A1 (left) and Hothouse or Build D (right) during severe flooding conditions. [An undated image that may date to the aftermath of Hurricane Floyd in September of 1999.]

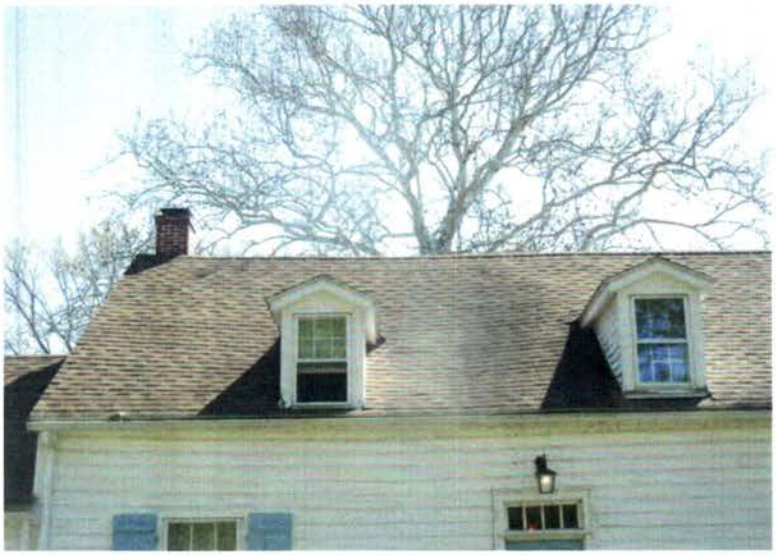

Photo 24: West elevation's Build A2 (left) and A1 (portion right). As noted in Photo #21, the darkened roof area between the dormers is the region where reinforcement of the roof frame appears most needed. Moreover, the problem appears to translate to the siding below (later selected for a probe).

Photo 25: West elevation and a closer view from previous image.

Photo 26: The simple board and batten shutters, shown here on the west elevation, appear to postdate the HABS drawings.

Photo 27: Rather than typical counter weighted swivel shutter dogs, they were held in the open position with a toggle hardware that engaged a hook attached to the clapboard.

Photo 28: All first and second floor windows have been outfitted with white aluminum triple track storm/ screen units. The shutters are, therefore, purely decorative.

Photo 29: West elevation's existing flagstone stoop at Door A. This main entrance would be adapted to provide barrier-free access in a reversible way. A wood platform would be constructed over much of the stoop and align with the 1st floor with a gentle ramp would be built to the right (slope not to exceed 1:20).

Photo 30: Existing leaf at Door A dates to the 20th century. The area probed to the left of the door revealed that the west elevation of Builds A1 and A2 were shimmed out at the bottom and given new siding to conceal the fact that the elevation in not plumb.

Photo 31: The south corner of Build A1's west elevation where it meets Build D. The rectangular section white aluminum downspout, elbow and extension are recent replaced the capped ground inlet. Significant damage to the SW corner of the stone foundation wall, however, was caused by prolonged and unchecked water seepage at the location.

Photo 32: Detail (west elevation) of Photo 30 showing the area to the left of Door A's transom. The rectangular opening in the wood is a mortise in the post and reveals the end of the tenon. The splits in the wood notwithstanding, the wood is in sound condition. A shim to make the wall plumb is visible to the left of the mortise.

Photo 33: Another probe was made immediately below on the west elevation. It reveals redundant framing to allow for the plumb exterior siding.

Photo 34: The same probe also revealed an upper new wood sill atop poured in place concrete curb (both ;ikely installed in the mid-20th century). As with other low probes, it appears that concrete was used to replace the original timber sill that was lost to deterioration.

Photo 35: Angled view of the north and west elevations. Trees located too close to the house's perimeter have since been removed.

Photo 36: North and (partial) west elevations after tree removal.

Photo 37: Detail view of west elevation at north face of projecting bay window. The stone is an indication of the north end of Build B foundation wall. To the left, the brickwork marks the beginning of Build C. The brickwork extending at a right angle is of the projecting bay window. The similarity of the brickwork indicates the two areas were constructed at the same time.

Photo 38: Overall view of the north elevation, the end of Build C. In addition to properly treating the biological growth, prepping and painting the siding, aspects of this elevation that require attention include removal of the covered porch (an addition that postdates the HABS drawings) in favor of a simple wood porch deck and steps, the reopening the cellar window to facilitate ventilation and mitigating the impact of flooding by raising the electrical meters.

Photo 39: Detail of the north elevation showing the biological growth on the clapboard siding, relatively low incoming electrical service, and sealed cellar window in the brick foundation (only one of two windows that provide the cellar and crawlspaces with natural ventilation - see Photo 12).

Photo 40: Oblique view of the north elevation looking SW. The covered porch's foundations appear to rely on CMU blocks. Moreover, the area is routinely undermined by groundhog activity (frequent burrowing).

Photo 41: Overall view of the east and north elevations looking SW.

Photo 42: Closer view of the long east and short north elevations looking SW. The metal areaway doors entrance into the cellar of Build C (often referred to as "Bilco" doors after a prominent company that manufactures them) is a relatively recent change and should be replaced in favor of a new wood areaway entrance shown in the HABS drawings.

Photo 43: Detail view of the east elevation where Build A2 meets Build B. The six panes in the door pictured (Door C to the Dining Room) were created by altering the vertical boards at the top half of the Dutch door which used to be solid.

Photo 44: Related close-up view of the previous image looking up to the exposed north wall of Build A2 as it meets the roof over Build B. Different siding is apparent in this image from the earliest round butt shingles (east elevation of Build A2) to straight clapboard (east elevation of Build B and upper north gable of Build A2) to a limited narrow section of German ship-lap siding (lower north end of Build A2). Overhanging branches are numerous and leaves are too close to exterior surfaces and promote wood decay.

Photo 45: Cellar A (Room 001) looking north. The CMU pier was constructed to provide additional support. It mostly conceals the stairs down from the first floor. One of three sump pumps (#3) is in the background to the right.

Photo 46: Cellar A (Room 001) looking NE. The room occurs under the western part of Build A1.

Photo 47: Cellar A (Room 001) looking SE. The wood door leads up the areaway to the hothouse. A sanitary line exits the south wall. Surviving whitewash on the underside of the 1st floor framing and stone foundation walls indicate an effort to make these below grade rooms more sanitary.

Photo 48: Cellar A (Room 001) looking south to area-way Door F.

Photo 49: Cellar A (Room 001) looking to its SW corner. Significant damage to this corner of the stone foundation wall was caused by prolonged and unchecked water seepage from a blocked inlet serving a downspout (as shown in Photo 31).

Photo 50: Cellar A (Room 001) looking west and overhead where a beam supporting the 1st floor frames into a heavy timber sill set on a wood plate which caps the stone foundation wall.

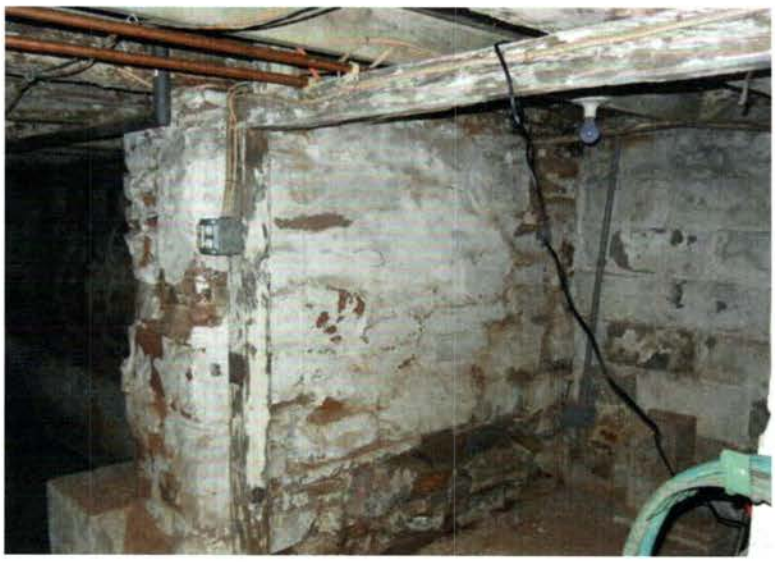

Photo 51: Cellar B (Room 002) looking NE. The room occurs under the eastern part of Build A1. An earlier opening to an areaway is sealed by CMU blocks to the right (closure made necessary when the flagstone terrace was built). An opening was created at an interior stone foundation wall to access Cellar C (Room 003).

Photo 52: Cellar B (Room 002) looking NW. Beyond to the left is Cellar A (Room 001) and to the right Cellar C (Room 003). Cellar A retained its stone slab flooring while (presumably) Cellar B's floor was replaced with concrete.

Photo 53: Cellar B (Room 002) looking generally east and overhead. Wooden strips (*nailers*) are face nailed to the beams to provide additional support to the plank flooring above.

Photo 54: Cellar B (Room 002) looking east. An intermediate beam and posts (all whitewashed) were installed to provide additional support to the 1st floor framing. Due to deterioration caused by persistent water, the posts' bases have been cut and replaced by masonry units.

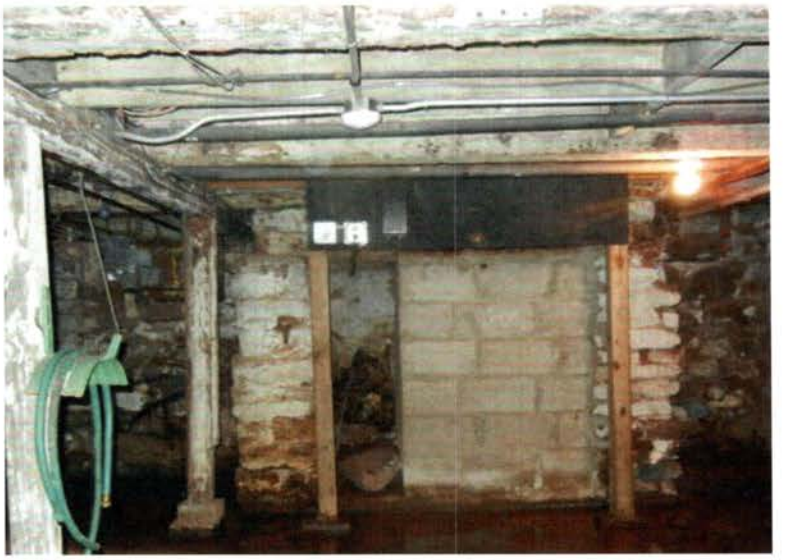

Photo 55: Cellar B (Room 002) looking south. Additional intermediate posts (not whitewashed) support the hearth of the south fireplace in Room 103 above. Further back the span of the south fireplace's flat arch is reduced by CMU infill (the reason why CMU does not fill in the entire opening under the span is not known).

Photo 56: Cellar B (Room 002) in the foreground looking into the deeper Cellar C (Room 003) beyond. Cellar C was further excavated to make it approx. 30 inches deeper to allow for the installation of a boiler to provide central heating. The original stone foundation walls were underpinned on all sides by poured in place concrete.

Photo 57: Cellar C (Room 003) looking NE. The previous boiler was located in this area and vented through the round opening on the north wall (north fireplace in Room 103).

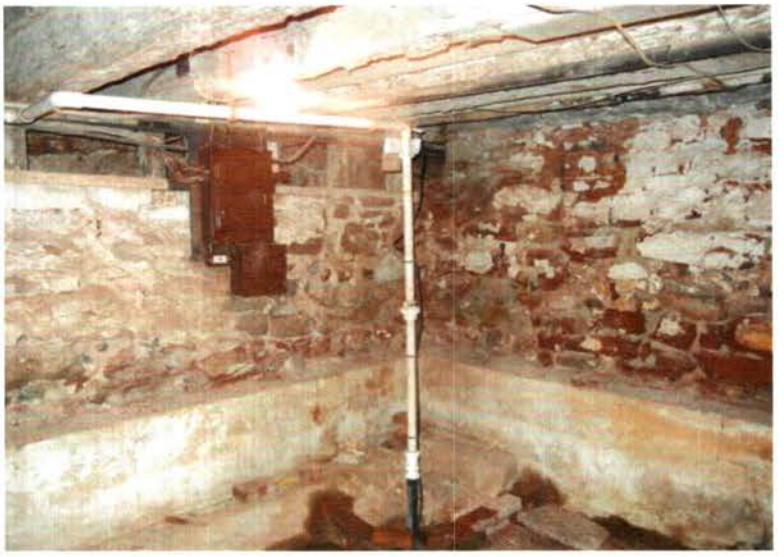

Photo 58: Cellar C (Room 003) looking NW. Sump pump #2 is located in this corner.

Photo 59: Cellar C (Room 003) looking west to the electrical sub-panel. Overhead original surviving heavy timber beams are flanked by 2x lumber to reinforce them and to help level the finished floor above.

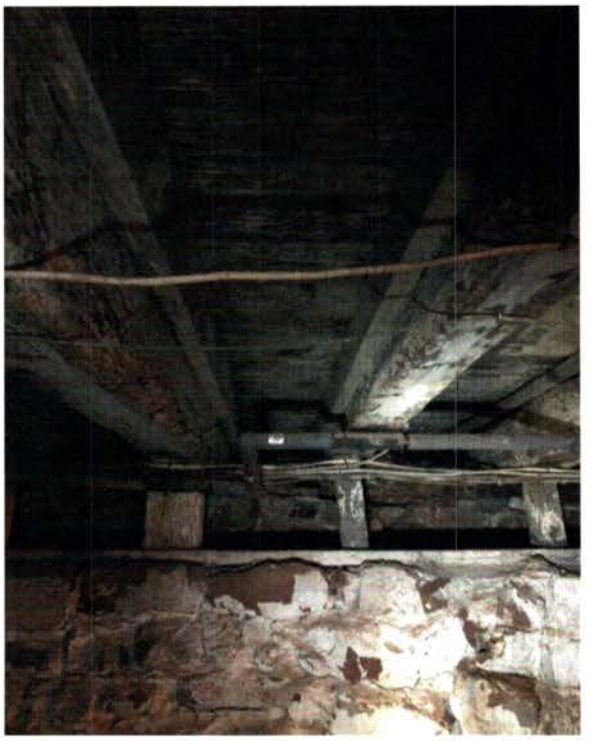

Photo 60: Cellar C (Room 003) looking west. As in the image above, overhead original surviving heavy timber beams are flanked by 2x lumber to reinforce them and to help level the finished floor above. Between the deep cellar and crawlspace beyond *stub posts* support the beams. They are atop on a wood plate which caps the inner stone foundation wall.

Photo 61: Cellar C (Room 003) looking west (near south corner) to a crawlspace or unexcavated area (Room 004) beyond. The collapsed framing is this area has been shored up in a temporary fashion which needs to be made more permanent.

Photo 62: Cellar C (Room 003) looking south into Cellar B beyond showing the concrete original stone foundation walls in the foreground underpinned by poured in place concrete (compare this image with Photo 56).

Photo 63: Crawlspace or unexcavated area (Room 006) showing improvised and irregular stone piers at 1st floor framing to provide support at mid span.

Photo 64: Crawlspace or unexcavated area (Room 006) showing remnants of an irregular stone foundation wall dividing the area from the adjacent unexcavated area (Room 005).

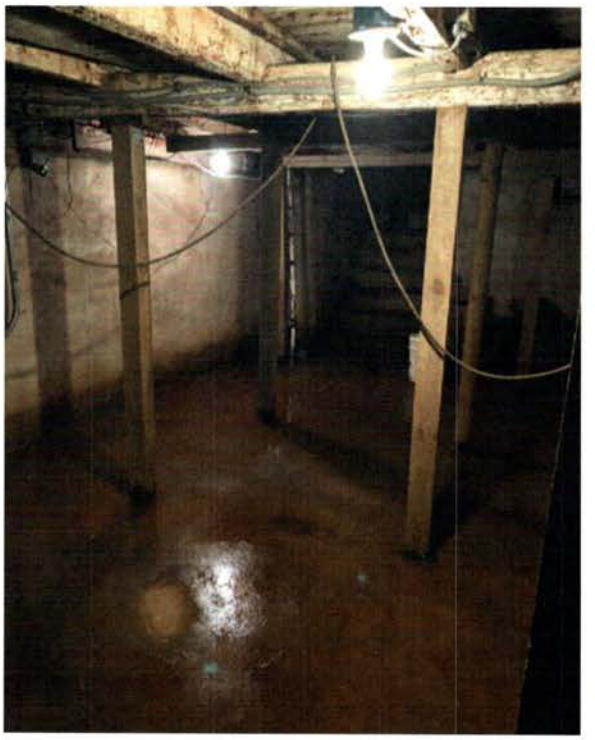

Photo 65: Cellar D (Room 007) at Build C below the Kitchen (Room 108). Two rows of intermediate beams and posts were installed to provide additional support to the original 1st floor framing. Persistent ground water is a problem particularly in this area. Sump pump #1 is in the background as well as steps leading up to an areaway.

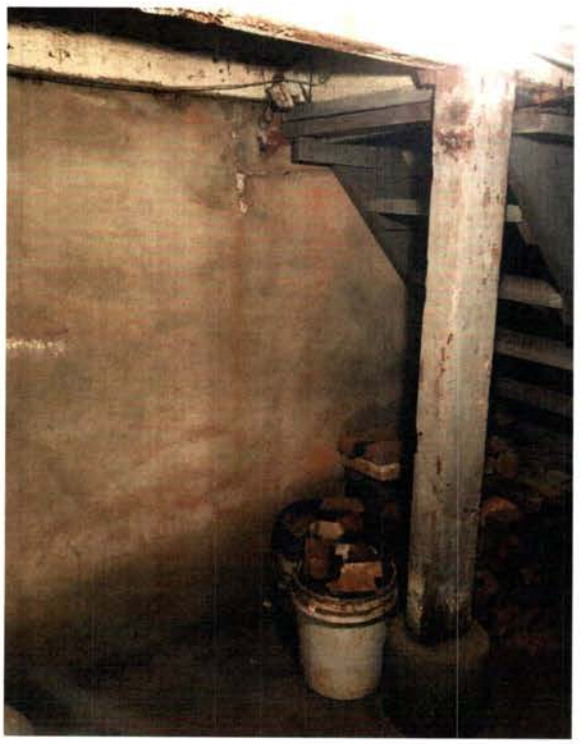

Photo 66: Cellar (Room 007) looking SW. Rising damp at this wall, the wall between Builds B and C, has caused damage above the 1st floor level. Due to deterioration caused by persistent water, the post base at the stairs leading up to the kitchen has been cut and replaced by a concrete base.

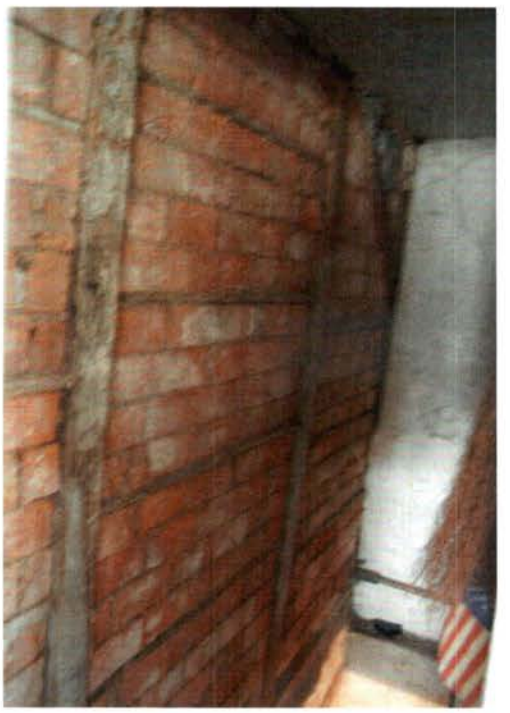

Photo 67: Looking west from the Kitchen (Room 108) down to Cellar C (Room 007) at the level of the 1st floor. This left wall area is common with the north wall of Bedroom #3 (Room 106). The areas between the studs are filled with non-structural handmade low-fired brick, mud mortar and horizontal wood nailers that serve to hold lath in order to plaster.

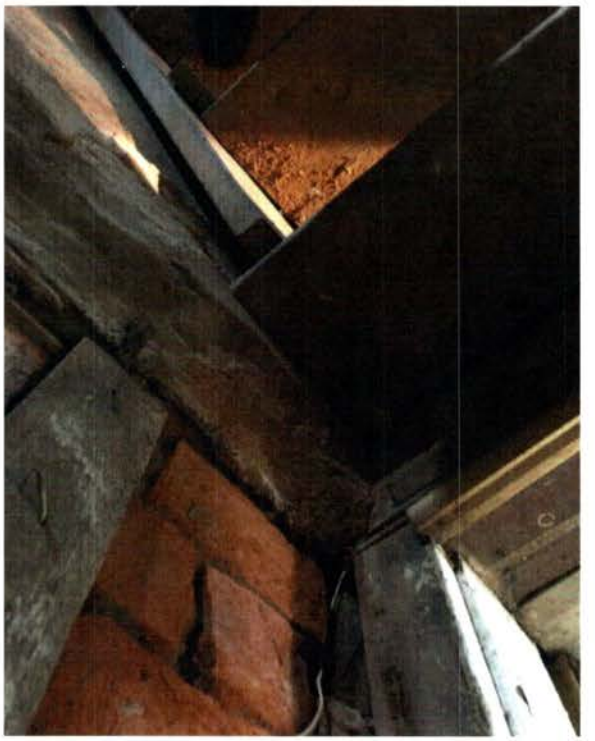

Photo 68: Looking down from the Kitchen (Room 108) to Cellar C (Room 007) at the level of the 1st floor. Excessive moisture from below, "rising damp," has caused the brick to disintegrate, powder and land on the stair treads.

Photo 69: Foyer (Room 101) looking west to Door A, the main entrance. A hallmark of Dutch framing, all windows and doors are located between the posts of the heavy timber anchor-bents. The noticeable slant of the ceiling above the door is a long-standing condition, as it is documented in the HABS drawings. The 2nd floor is level as sleepers were placed atop the right beam (and all beams of the anchor-bents to the north) so that the settlement is not detected on the upper floor.

Photo 70: Foyer (Room 101) looking NW. The upright post (painted white) is shouldered to allow the beam (dark stained) to sit. This location is the west end of Anchor-Bent A6 and its framing intersection was probed on the exterior (see Photos 30 & 32).

Photo 71: Foyer (Room 101) looking SW to the left of Door A. The stairway enclosure is made of beaded vertical boards. This view was also photographed by HABS (see Figure #10 on page II-112 of this report).

Photo 72: Foyer (Room 101) looking at the winder stairs up to the 2nd floor.

Photo 73: Foyer (Room 101) looking SW to the door and cellar stairs (the base of which is in Photos 45 & 46).

Photo 74: Office (Room 102) looking south and the paired casement window that opens into the Hothouse.

Photo 75: Office (Room 102) looking north into the Foyer (Room 101).

Photo 76: Office (Room 102) looking SW. Hot water baseboard provides heat. Unfortunately, its supply piping was installed by boring through the base of the posts of the anchor-bents.

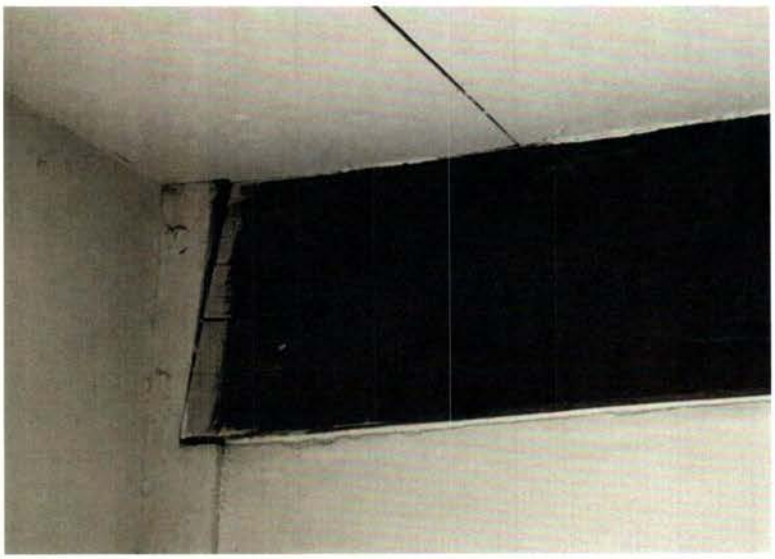

Photo 77: Office (Room 102) looking NW at a location where the upright post (painted white) is shouldered to allow the beam (dark stained) to sit. This view also shows the pegging of the tenon at the beam. This location is the west end of anchor-bent A4.

Photo 78: Living Room (Room 103) looking west to the Foyer (Room 101). The anchor-bent to the left of the door opening was likely the location of the original north exterior wall of Build A1.

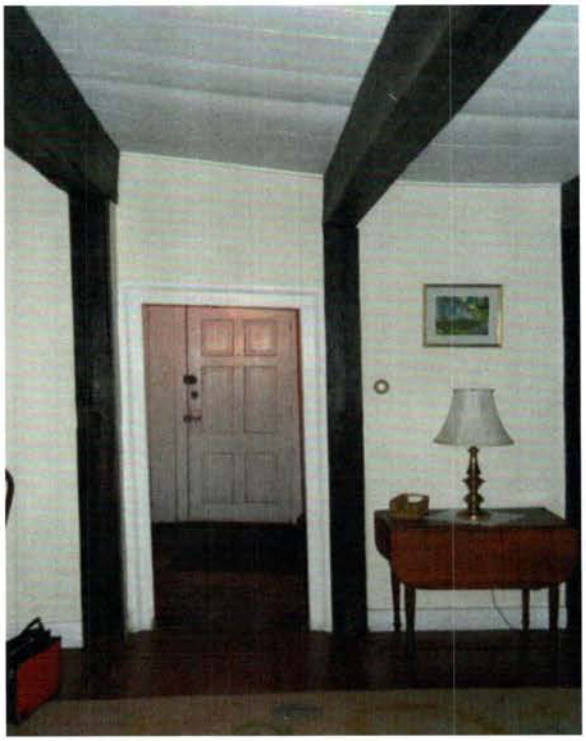

Photo 79: Living Room (Room 103) looking west. As noted in Photo 69, the noticeable slant of the ceiling above the door is a long-standing condition, as it is documented in the HABS drawings.

Photo 80: Living Room (Room 103) looking SW.

Photo 81: Living Room (Room 103) looking south to the south fireplace and the Mechanical Closet (Room 103A) to the east (left).

Photo 82: Living Room (Room 103) looking SW to the south fireplace and the cupboard to the west (right).

Photo 83: Living Room (Room 103) looking SE.

Photo 84: Room 103A, Mechanical Closet - Gas-fired side vent boiler installed in recent years for heating. This space is located immediately to the left (east) of the south fireplace.

Photo 85: Living Room (Room 103) looking north to the north fireplace. The bookcase to east (right) postdates the HABS drawings. It removal may provide additional information about the house's changes over time.

Photo 86: Living Room (Room 103) looking east.

Photo 87: Living Room (Room 103) looking down on the bottom portion of the Dutch door leaf (Door D) constructed of double tongue and double grooved vertical boards.

Photo 88: Living Room (Room 103) looking the interior face of Door D in situ. Like Door C in Photo 43, the panes in the door's upper leaf were created by altering (cutting into) the vertical boards, as it too used to be solid.

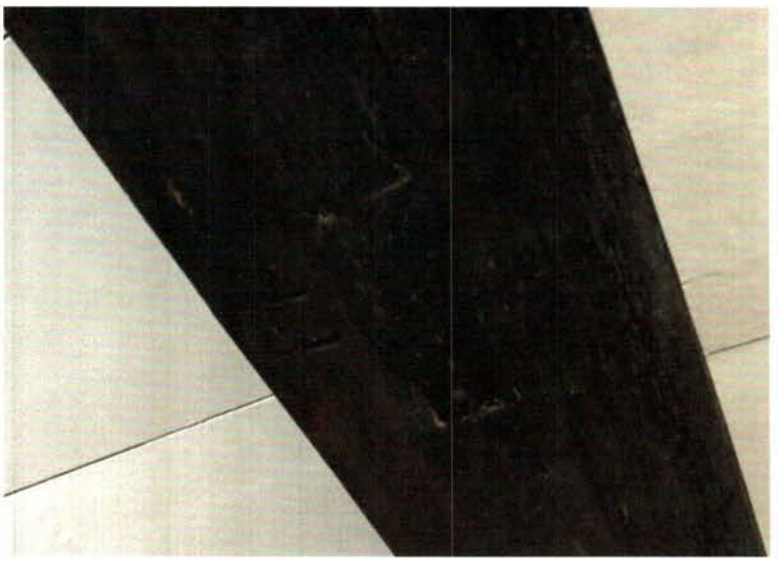

Photo 89: Living Room (Room 103) looking up at the underside of Anchor-Bent A4. Here the Roman numeral marks are next to the filled in mortise of an earlier stud location. This condition here and elsewhere on the underside of this beam indicate an original exterior north wall.

Photo 90: Bedroom #2 (Room 104) looking west.

Photo 91: Bedroom #2 (Room 104) looking north. The closets constructed here are not original. In part, they help to conceal the plumbing of the half-bath on the floor above. These closets would be removed and the opening into the Bathroom beyond would be widened to provide access to improved toilet facilities to meet ADA requirements

Photo 92: Bedroom #2 (Room 104) looking at the base of the west wall. As noted in Photo 76, hot water baseboard provides heat but, unfortunately, its supply piping was installed by boring through the base of the posts of the anchor-bents.

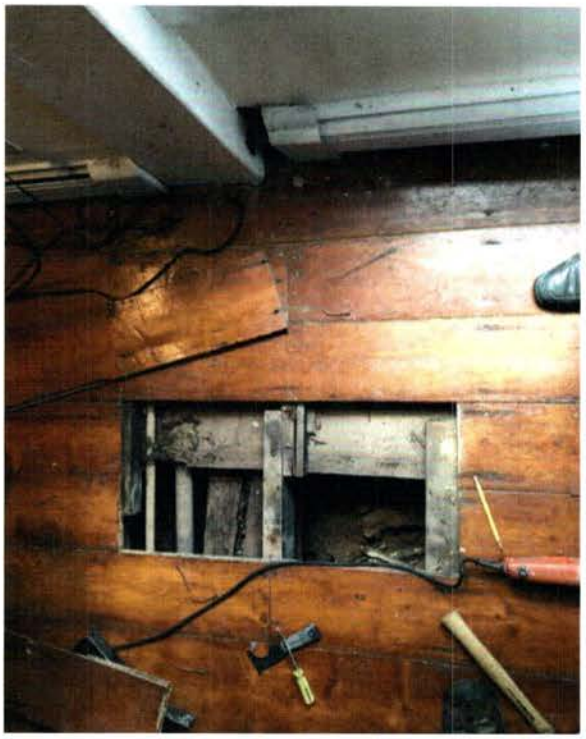

Photo 93: Bedroom #2 (Room 104) looking down at the shallow unexcavated area crawlspace below (004). Earlier floorboards were left in place and the current floorboards were installed over them.

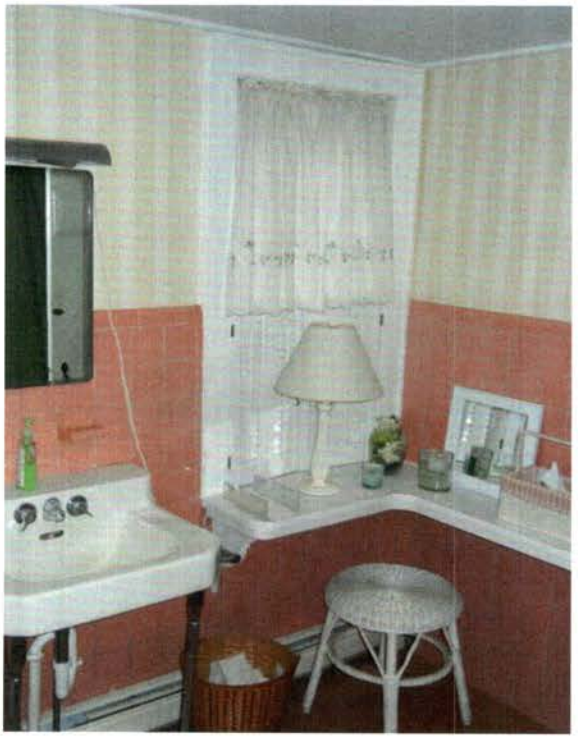

Photo 94: Bathroom (Room 105) looking NW. A bathroom is indicated in this location without fixtures on the HABS drawings. The current space appears to have been renovated in the decade or two that followed World War II. It would be updated again to serve as a barrier-free/ADA compliant lavatory.

Photo 95: Bathroom (Room 105) looking SW.

Photo 96: Bathroom (Room 105) looking west (adjacent to toilet).

Photo 97: Bathroom (Room 105) looking south to the door to Bedroom #2 (Room 104). This opening would be widened in order to serve the barrier-free/ADA compliant lavatory.

Photo 98: Bedroom #3 (Room 106) looking east into the Dining Room (Room 107).

Photo 99: Bedroom #3 (Room 106) looking north. This wall is common with (the opposite face of) the wall shown in Photo 67.

Photo 100: Bedroom #3 (Room 106) looking NW. A "window to the past" shows the non-structural handmade low-fired brick, mud mortar and diagonal wood strut that has been gouged in order to receive (key with) plaster.

Photo 101: Bedroom #3 (Room 106) looking north. This lower wall area is common with (the opposite face of) the wall area shown in Photo 68. Excessive moisture from below is the source of the plaster failure.

Photo 102: Bedroom #3 (Room 106) looking west to the projecting bay window. This area is labeled "new addition" on the HABS drawings.

Photo 103: Bedroom #3 (Room 106) looking up at the ceiling and the transition from earlier area (left) to the "new addition."

Photo 104: Dining Room (Room 107) looking south to the Living Room (Room 103) in the distance.

Photo 105: Dining Room (Room 107) looking south and the vertical board enclosure at the staircase leading to the upper level at Build B.

Photo 106: Dining Room (Room 107) looking east and Door C. Like the Dutch door in the Living Room (Room 103), the upper leaf has been altered to provide multiple panes. For reasons unclear, all beams overhead in this room have been boxed with wood boards. Two beams at the upper corners of the door show the locations of anchor-bents. The boxed "beam" between them is actually a plumbing line and is boxed in like the beams in order to camouflage it.

Photo107: Dining Room (Room 107) looking at probe made to reveal the condition of the boxed beams.

Photo 108: Dining Room (Room 107) looking SE.

Photo 109: Dining Room (Room 107) looking NE.

Photo 110: Dining Room (Room 107) looking north. Similar to the condition in Photo 101, this lower wall's deterioration is due to excessive moisture from below.

Photo 111: Dining Room (Room 107) looking north. The cupboards shown here replaced an earlier fireplace.

Photo 112: Dining Room (Room 107) looking west. Despite the out of plumb condition of certain posts, there is no sign of distress in the finishes adjacent to them.

Photo 113: Dining Room (Room 107) looking NE near the east wall. An existing opening in the floor allowed closer observations of the un-excavated crawlspace below (Room 006).

Photo 114: Dining Room (Room 107) looking into the existing access opening. A double layer of plank flooring is revealed as well as a previous stopgap intervention to support the first floor framing, namely snugging in CMUs on their side to support original framing.

Photo 115: Kitchen (Room 108) looking SW and the door leading to Cellar D. The wall in the background is also described in Photos 67 & 68.

Photo 116: Kitchen (Room 108) looking at the exterior door to the covered porch.

Photo 117: Kitchen (Room 108) looking east.

Photo 118: Kitchen (Room 108) looking west. A wall that once divided the area created a Pantry (in the area where the range/oven is shown) has been removed to create one larger room.

Photo 119: The NW corner of the Hothouse (Room 110) or Build D showing the brick paver floor and the metal areaway door leading to Cellar A (Room 001).

Photo 120: The NE corner of the Hothouse (Room 110) or Build D showing the interior frame and the translucent covers on the interior side of the double hung windows.

Photo 121: Hall (Room 201) as viewed ascending the stairs to the caretaker's apartment and also shown in Photo 72 from the Foyer (Room 101).

Photo 122: Hall (Room 201) looking NE with the opening to the Kitchen (Room 203) to the right and the Bedroom (Room 204) and Living Room (Room 204A) beyond to the left.

Photo 123: Hall (Room 201) looking south into the Bath (Room 202). The raised platform to the left allowed for the installation of plumbing without disturbing the ceiling of the room below, as this is part of Build A1.

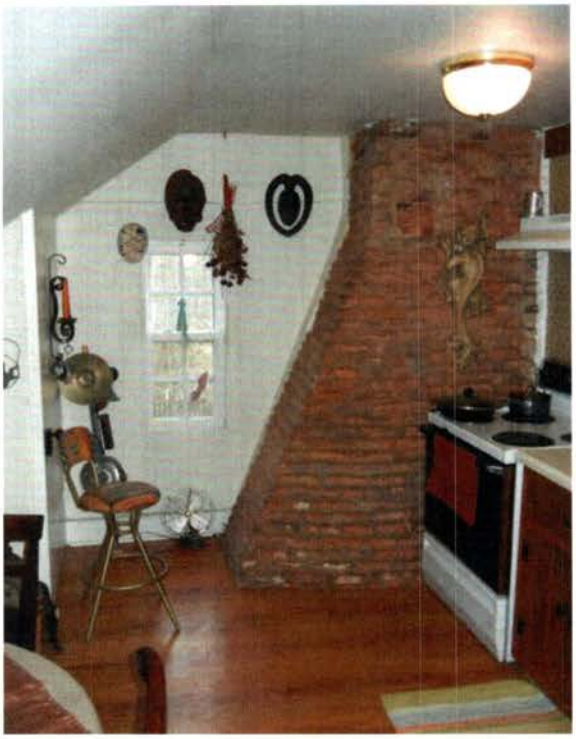

Photo 124: Kitchen (Room 203) looking south to the exposed brick chimneystack of the south fireplace in the Living Room (Room 103) below. The caretaker's Bath and Kitchen cannot be used for their intended purpose because the septic system that served the plumbing fixtures in these rooms was removed by the Township.

Photo 125: Closer view of the Kitchen (Room 203) looking south to the exposed brick chimneystack, window, wood framing and brick infill (or "nogging") at the south gable. Both the wood frame and nogging at this location have been painted white.

Photo 126: View of the Kitchen (Room 203) looking SW south to the exposed brick chimneystack and the crack that developed in recent years.

Photo 127: Kitchen (Room 203) looking SW south to the thru-unit crack at the exposed brick chimneystack. The freshness of the crack and the out of plumb condition of the south gable of Build A1 are part of the same mechanism of deterioration (see also Photo 22).

Photo 128: Kitchen (Room 203) looking north. The locations of the dormers in Builds A1, A2 and B (indicated in this room by the gap in the sloping ceiling) occur between existing roof rafters.

Photo 129: Bedroom #5 (Room 204) looking north. The installation of the half bath or Lavatory in the background necessitated the closets shown in Photo 91.

Photo 130: Living Room (Room 204A) looking south.

Photo 131: Living Room (Room 204A) looking SE.

Photo 132: Living Room (Room 204A) looking north. The window shown here is at the original gable end of Build A2.

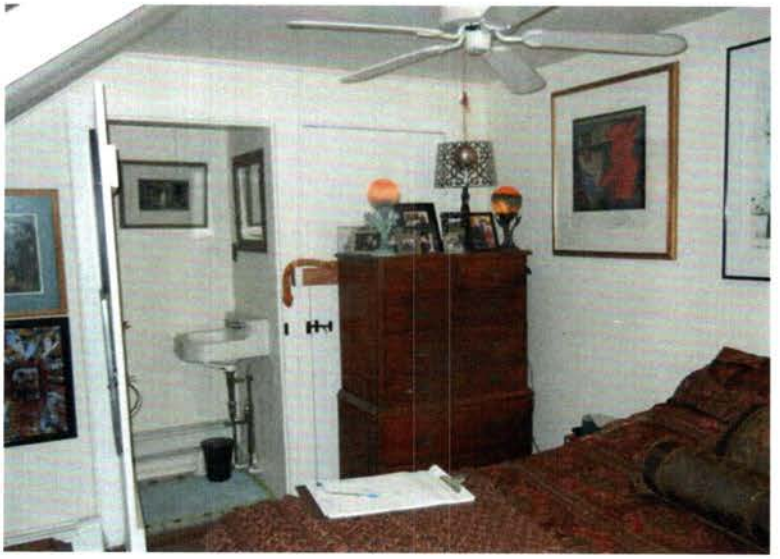

Photo 133: Bedroom #5 (Room 204) looking NE. Once a large open room, the partition to the right (head of bed) postdates the HABS drawings. It was constructed to create a separate Living Room (Room 2014A) for the caretaker's apartment.

Photo 134: Bedroom #5 (Room 204) looking SW.

Photo 135: Bedroom #5 (Room 204) looking SE.

Photo 136: Open Attic (Room 205) looking down the stairs to the Dining Room (Room 107).

Photo 137: Open Attic (Room 205) looking SE.

Photo 138: Open Attic (Room 205) looking SE, detail of previous view. The clapboard was originally exposed as the north wall of Build A2.

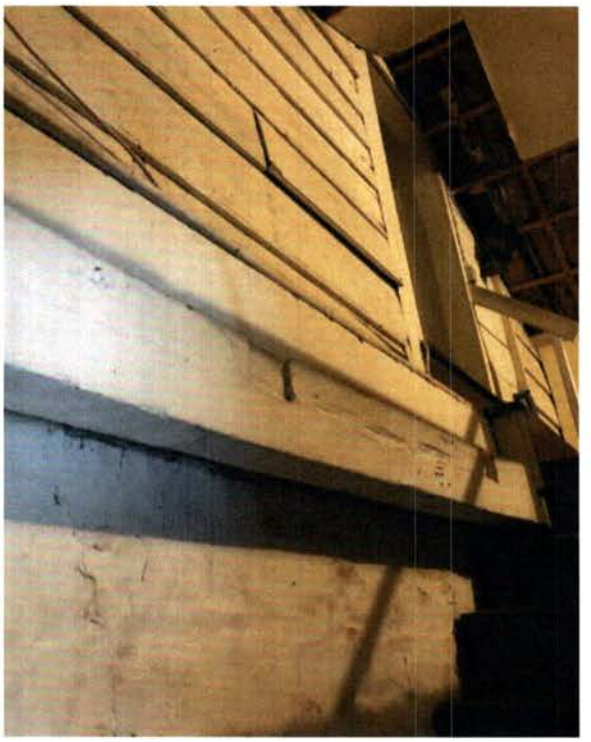

Photo 139: Open Attic (Room 205) looking up from the stairs from the Dining Room (Room 107). Notches in the beam of Anchor Bent B1 indicate that framing was removed in order to install the stairs.

Photo 140: Open Attic (Room 205) looking west. The steps lead up to the 2nd floor level of Build A.

Photo 141: Open Attic (Room 205) looking north prior to the removal of finishes.

Photo 142: Open Attic (Room 205) looking south after the removal of finishes. The door open into Bedroom #5 (Room 204) but is sealed. Early or original beaded clapboard covers the left and right areas of this wall. It was once exposed as the north elevation of Build A2.

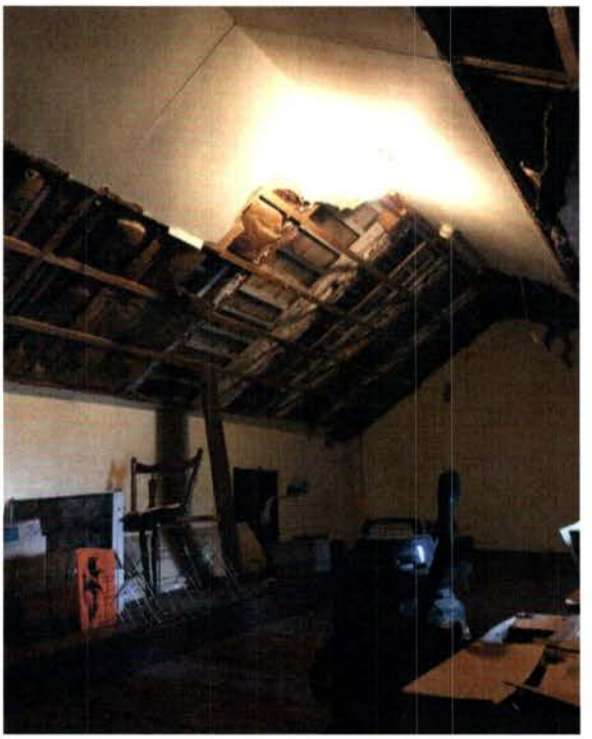

Photo 143: Open Attic (Room 205) looking north.

Photo 144: Open Attic (Room 205) detail. Partial removal of finishes in this room has revealed the whitewashed rafters and the underside of a wood shingle roof.

Photo 145: Open Attic (Room 205) looking at the top of posts that create a step. The posts are exposed as the west wall of the Dining Room (Room 107) shown in Photo 112. This is possible evidence that Build B expanded to the west.

Photo 146: Open Attic (Room 205) looking up at the north wall. The opening's size and charred wood indicate that a brick chimneystack was located here.

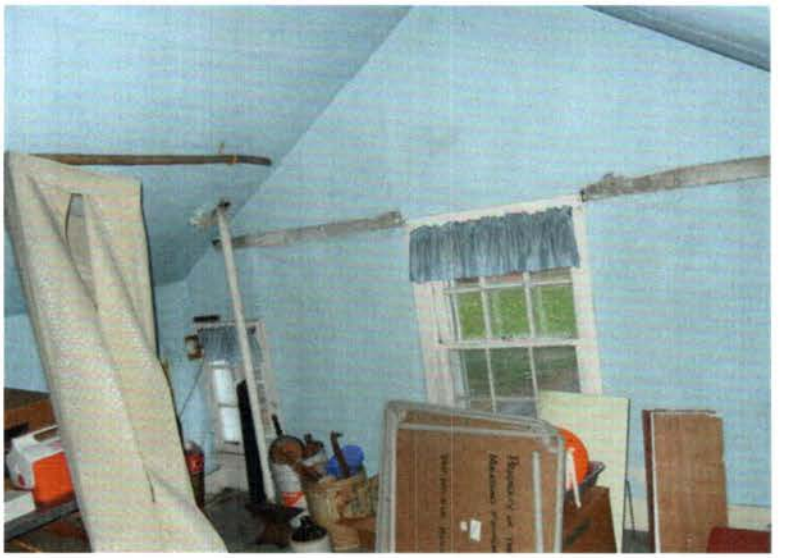

Photo 147: Storage (Room 206) looking NW.

Photo 148: Photo 147: Storage (Room 206) looking NE at an access door into kneespace storage.

Photo 149: Kneespace (Room 206) looking south shows the brick nogging infill between Builds B and C rises to the attic level. The louvered shutters stored here are likely the type depicted in an early photo (see Figure #6 on page II-108 of this report).

Photo 150: North end of the attic over Build A2 (Room 300). This chimneystack serves the north fireplace in the Living Room (Room 103).

Photo 151: Attic over Build A2 (Room 300) showing the rear face of clapboards that at one time were exposed as the north face of this build.

Photo 152: Attic over Build A2 (Room 300) looking south to the attic of Build A1. An the intermediate wall with the opening is possible further proof that Builds A1 and A2 were constructed at different periods.

Photo 153: Attic over Build A2 (Room 300) looking south to Build A1 showing how face nailed 2x lumber has been used to strengthen the roof frame in this area.

Photo 154: Attic over Build A2 (Room 300) reveals that 2x members have been surface mounted to the rafter in order to level out the roof plane.

B.
Structural Evaluation

November 16, 2018

THE VAN WICKLE HOUSE
STRUCTURAL REVIEW
KSI PROJECT No. 1570_02

STRUCTURAL ENGINEER'S REPORT

The Van Wickle House is a 1-1/2 story early 18th century Dutch framed structure. The building was comprised of four different sections labeled A, B, C and. Refer to Appendix B for the graphic representation of these different sections. The original portion (Build A) of the structure, around the middle of the 18th century, was approximately 26'x32' in size (see Photo A Front Elevation) with a partial basement. A late 19th to early 20th century center addition approximately 25'x25' in size with a full crawl space was located to the north of the original structure (Build B). A kitchen addition (Build C) was located on the north end of the house and measured approximately 25'x12' with a full basement dating from the 1930's and a hothouse addition (Build D) of unknown date was located at the south end of the house. The original construction consisted of heavy timber frames supported by stone perimeter walls and a main or center bearing element for the first floor framing. The roof of the original structure was a simple gable roof with two dormers on the east and west sides. The additions similarly had simple gable roofs with one dormer on the east side of the center addition.

Exterior Observations:

The roof of the structure consisted of asphalt shingles which were reportedly installed around 1977. We noted large areas of visible roof sagging between the dormers and adjacent to the north dormer on the west side of the original structure (Build A). The wood siding below this area was also observed to have shifted (see Photo B). A perceptible change in roof slope was observed between the dormers on the east side of the original structure, Build A. Some vegetative growth was observed on the dormers on the east side of Build A and small metal plates were added at the south dormer on this side due to animal intrusion at this location (see Photo C).

A large gap between the siding of the north end of the original structure, Build A, and the roof of the center addition, Build B, was observed (see Photo D). The clapboard wood siding at this location appeared to be newer than the other siding in the area but was poorly installed. A significant hump in the roof was observed at the intersection of the center addition and the kitchen addition (see Photo E). This location coincides with the damaged brick described further in the framing observations. Aside from this area, the ridge line of the structure appeared to be level to the naked eye.

The exterior of the building was comprised of two types of wood siding which had suffered some damage over time. The majority of the structure had clapboard siding while the east elevation had round butt siding which may not be original to the structure. The damage to the wood siding would be classified as cosmetic as of the writing of this report; however, if left unaddressed, this cosmetic damage can lead to structural issues.

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The south gable end wall of the original structure located above the hothouse addition (Build D) was visibly out of plumb, with the top of the wall at the ridge of the roof outboard of the lower wall at the hothouse roof/second floor elevation (see Photo F). The angle of this wall does not appear to have visibly shifted since the time of our original site visit. A crack in the brick of the chimney at this wall location was observed from inside the second floor of the structure and was measured to be approximately 3/16" wide at its widest point.

The portions of the foundation walls visible from the exterior of the structure consisted of CMU at the hothouse addition, exposed brick at the kitchen addition, and a combination of exposed stone and parged stone at the original and earliest portions of the structure. Minor deterioration of the stone foundation wall including loose and displaced stones was observed at the southwest corner of the original portion of the structure (see Photo G).

A small covered entry was located at the north end of the structure, at the door of the kitchen addition. The covered entry consisted of a small gable roof supported by two wood posts. The posts appeared to be supported by CMU blocks sitting on grade, with no visible foundation structure.

Both a large stone terrace and a concrete stair with brick treads were located on the east side of the structure. A metal areaway door with concrete stairs to the basement below the kitchen addition was located at the northeast corner of the structure. A stone landing was also located on the west side of the structure at the entry door.

Roof Framing Observations:

The roof framing of the original portion, Build A, of the structure was visible but inaccessible at the time of our visits. A small of the framing was visible from a ceiling hatch located at the north end of the original structure directly adjacent to the brick chimney. The framing appeared to be heavy timber rafters with collar ties added after the original construction (see Photo H). The framing appeared to be spaced at approximately 4' on center, similar to the heavy timber bents of the floor framing below. The lower portions of the roof framing, below the flat ceiling level, were concealed by a plaster ceiling at the time of our visit. One location of the plaster ceiling was observed to have a large downward "bulge" visible from the interior of the second level apartment.

Portions of the roof framing at the center addition, Build B, Open Attic (205), were exposed at the time of our visit. At the locations where the framing was visible there was a variety of wood rafters dating from various periods of construction and renovation (see Photo I). The original roof rafters were found to be approximately 3"x5-1/2". The spacing of these members was found to be approximately 3'-0" on center. Evidence of previous fire damage was observed at the roof framing visible at the north end of Open Attic (205). The framing at this area also indicated an opening for a previously removed chimney. This previous chimney was indicated in the HABS drawings from 1938.

A brick masonry wall was located at the north end of the center addition, Build B, which could be seen from the Kitchen (108). The areas of the wall visible at the attic level appeared to be in sound condition. The areas of this wall visible from the first floor stairwell to the basement were found to be in poor condition, including broken and loose bricks, deteriorated

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mortar joints and brick dust due to deteriorating bricks (see Photo J). The damage of the brick wall at this area had also caused damage to the finished plaster wall of the center addition side of the wall (see Photo K). This damage was likely caused by previous exposure of the wall to the elements prior to the kitchen addition and possible water infiltration at this location after the kitchen addition.

The roof framing at the kitchen addition, Build C, was visually reviewed through an access panel in the east knee wall and a small opening in the west knee wall of Storage Room (206). The roof framing was comprised of 3"x5" roof rafters spaced at approximately 22" on center (see Photo L). The roof framing was found to be in overall good structural condition. We did observe evidence of previous water staining on the sheathing and the ends of the roof rafters at the eaves in this area. It did not appear the water had caused structural damage to the rafters.

It should be noted the roofing lath appeared to be in good condition in all areas where they were visible. In addition, it was raining heavily at the time of one of our site visits and no active leaks were observed.

Second Floor Framing Observations:

The second floor framing of the original portion, Build A, of the structure was comprised of heavy timber bents spaced at approximately 4' on center as seen from Living Room (103) (see Photo M). The heavy timber beams were found to be approximately 8"x12" supported by heavy timber columns located within the walls. The heavy timber columns were shoulder cut at the beam locations to allow the beams to sit on the columns. Gaps were observed between the beam and column at several locations at the shoulder cut. It appeared the beam rad slightly rotated away from the column due to deflection of the beam. Flat plank flooring was observed to span between the timber beams. A visible slope to the second floor was noted adjacent to the door from Living Room (103) to Foyer (101). Similar framing continued through Build B as observed in Dining Room (107) and was measured as 5-1/2x9-3/4 heavy timber beams. The second floor framing appeared to be in good condition where visible at the time of our visits.

First Floor Framing Observations:

The first floor framing at the majority of the original structure and kitchen addition, Builds A and C, was visible from existing Basement rooms 001, 002, 003 and 007. The first floor framing of the center addition and the northwest portion of the original structure, unexcavated areas (004-006), were not accessible at the time of our visits.

Basement 001 was found to be approximately 16'-0"x9'-6" in size with a stair leading to the first floor, foyer 101. The first floor framing at Basement 001 was found to be (3) heavy timber beams spanning approximately 9'-6" between rubble foundation walls. A 12"x32" CMU pier was added directly adjacent to the stair opening to add additional support for the first timber beam in this area. The foundation wall in the southwest corner was in poor condition with loose stones and large gaps between stones (see Photo N). It should be noted exterior light was visible through the foundation wall at this location due to a downspout to an underground drainage system. The timber plate in the foundation wall at the bearing

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elevation of the beams in Basement A was found to have shifted over time with the rubble of the foundation wall.

Basement 002 was found to be approximately 15'-9"x16'-3" in size with a flat arch support for the fireplace above at the south end of the space. The first floor framing at Basement 002 was found to be a combination of heavy timber beams and nominal 2x framing spanning east to west through the space. An additional line of dropped support was located approximately 5' from the east wall of the space, with (3) non-pressure treated 4x4 posts. The posts were bearing on masonry blocks placed loosely on the concrete basement slab and had no positive connection to the slab. A nominal 4x6 beam supported by (2) non-pressure treated 4x4 posts was also located in front of the fireplace, with the posts sitting on loosely placed masonry blocks similar to those previously described. This framing may have been added to provide additional support for the hearth above. Miscellaneous CMU infill was also added to a portion of the space beneath the heavy timbers of the flat arch of the fireplace above.

Basement 003 was found to be approximately 15'-2"x11'-8" in size. Previous underpinning to deepen the space was noted in this basement (see Photo O). The rubble foundation walls on the east and west sides of Basement 003 both stopped approximately 16" below the first floor framing. Timber knee walls consisting of non-pressure treated 4x4 posts and 2x sill plates were built on top of the rubble walls to support the first floor framing (see Photo P). At the east side, the exterior building foundation wall was located approximately 26" east of the low wall. The sill plate at the west wall was found to be in very poor condition with several crushed beam bearing conditions.

The first floor framing in Basement 003 consisted of (8) heavy timber beams spanning east to west. These beams varied in size, but where accessible were found to be 5-1/2" to 9" in width and 7" to 8" in depth. The girders each had a nominal 2x scabbed onto one side or, in some cases, both sides. A 2" to 3" gap was also noted between the top of the girders and the wood floor planking above. The girders in Basement 003 were in poor condition. Several of the girders had experienced moderate to severe insect damage, section loss and rotation of the beam (see Photos Q, R, S).

The first floor framing in the crawl space adjacent to Basement 003, unexcavated 004, was not accessible. A very limited amount of this framing was visible from Basement C and was observed to be in poor condition, with several members appearing to have failed, possibly leaving girders unsupported in this area.

The first floor framing in Basement 007 was found to be (4) timber girders spanning north to south approximately 11'-0" with (5) timber beams notched at the girders running east to west (see Photo T). The girders were supported by (2) non-pressure treated 4x4 timber posts which appeared to be newer than the floor framing. The stair stringer at the stair from Basement 007 to kitchen 108 was observed to have no connection to the beam above.

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RECOMMENDATIONS:

The roof framing of the building was found to be in overall poor structural condition. The existing asphalt shingles have outlived their useful life and should be removed and replaced in their entirety. The gutters and associated fascia boards have also experienced significant damage and should be removed and replaced. We suspect the roofing lath and wood shingles will also need to be removed and replaced to some degree.

The cause of the roof sag as noted in the report was unclear and we suspect there may be concealed damage to the existing roof structure. Based on the visible roof sag we suspect the existing structure may require repair and strengthening of the existing timbers, removal and replacement of the existing timbers, or a combination of repair and replacement to stabilize the roof.

The movement of the south wall may be a result of settlement of the masonry chimney and/or wall at this location due to the saturated soil. We recommend the wall as well as the size of the crack in the chimney structure be monitored on a regular basis to determine if this settlement is an ongoing concern. The worst case scenario for this wall would be the complete demolition and reconstruction of this wall due to the out of plumb or 'leaning' condition of the wall.

The roof framing of the kitchen addition was found to be in good structural condition. The hothouse framing was not reviewed for the purposes of this report. The second floor framing was concealed throughout a significant portion of the structure. However, the visible framing appeared to be in good condition at the time of our visit.

The first floor framing was found to be in overall fair structural condition; however, the existing framing in Basement 003 as well as the visible framing in unexcavated area 004 was found to be in poor condition and will require structural repair and reinforcement. The framing at the poor conditions requires removal and replacement of the existing failed and severely damaged timbers. We recommend a method to provide safe access to the crawlspaces be provided in order to review the existing first floor framing for structural condition. We suspect the unexcavated areas will also require new masonry or concrete support piers under the existing framing to remain and under the new framing repairs. The existing piers appeared to be loose rubble that likely have no existing foundations and will need to be removed and replaced with new piers. The southwest corner of the basement wall in Basement A will also require repair.

Per ASCE 7-10 requirements, the required live load for first floor framing in areas to be used for public assembly shall be 100psf, while that at the office areas shall be 50psf. The required live load for the second floor framing shall be 40psf at the residential area and 30psf at the open attic storage area. We recommend a complete structural load evaluation of the framing in Basements 001, 002 and 007 be completed to determine the additional strengthening of the existing members is required. An initial review indicates the existing framing in Basement 001 is adequate for office loading. With the reinforcement/replacement of the north-south spanning girder and all nominal 2x framing, the existing heavy timber framing in Basement 002 is adequate for assembly loading. As noted above, the existing framing in Basement 003

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was found to be in poor condition and must be replaced in its entirety to provide a safe and structurally sufficient floor system.

The first floor framing above Basement area 007 (Build D) was comprised of a hodgepodge of framing members comprised of 3x8 joists at approximately 2' on center spanning in the east west direction. These joists were then supported by four north to south beams which were in turn supported by 4x4 posts. These beams were not equally spaced and the posts were not aligned. This framing will require some reworking in order to support the anticipated loads for the kitchen above. We anticipate keeping the existing 3x8 joists in place and supporting these joists properly with new beams, columns and footings. This area can be designed in accordance with the required floor loading to be determined.

An initial review finds the second floor heavy timber beams in the living room to be adequate for residential loading above. The second floor beams in the dining room were also found to be adequate to support light residential loading.

In addition to the above, various other repairs including the proper attachment of the stair stringers in basement 007 and the proper installation of the wood posts to the basement slab must also be addressed. We also recommend the repair of the rubble foundation wall in Basement 001 to prevent further deterioration of the wall and the associated structural issues.

Our observations and recommendations are based on our visual review of the exposed areas of the building and our experience reviewing this type of construction. We performed limited structural calculations concerning the framing as indicated above. If you have any questions or need clarification, please do not hesitate to contact us.

Sincerely,

Kevin C. Sommons, PE
Principal

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PHOTO APPENDIX A

Photo A: West elevation of the original portion of the Van Wickle house.

Photo B:West side of house in area of shifted siding and sagging roof

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Photo C: Metal plates at south dormer on east side of original structure

Photo D: East side of center addition roof adjacent to the original structure.

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Photo E: Roof at the intersection of the center addition and the kitchen addition.

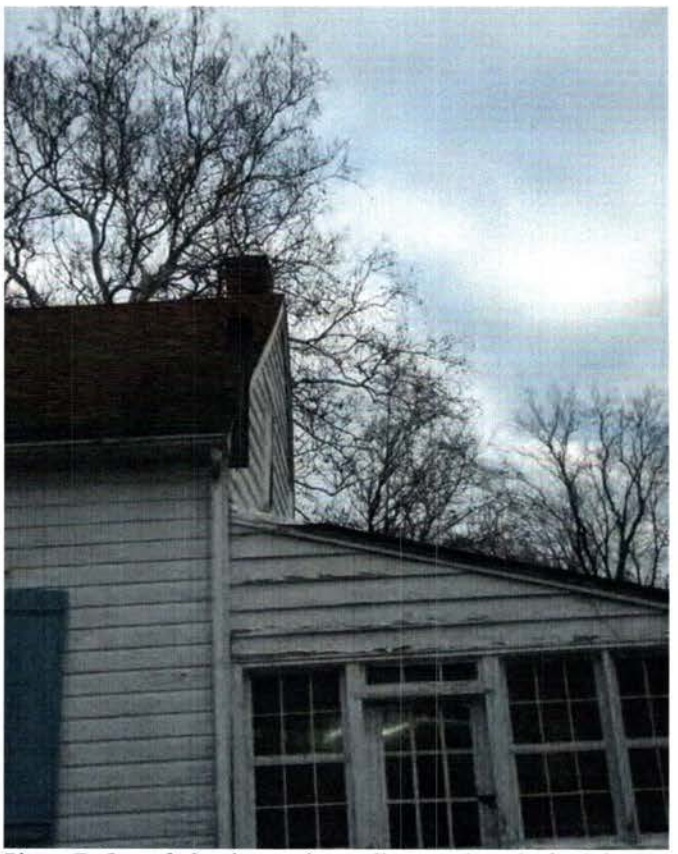

Photo F: Out of plumb exterior wall at south end of original structure

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Photo G: Foundation deterioration at SW corner of original structure

Photo H: Roof framing at original structure above Living Room (204A) and Bedroom #5 (204)

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Photo I: Exposed roof framing at center addition portion of structure

Photo J: Damaged brick at north wall of the center addition as seen from the kitchen stairwell to the basement.

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Photo K: Damage to the north wall of the center addition caused by water infiltration at the brick wall.

Photo L: Roof framing of the kitchen addition.

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Photo M: Second floor framing in Living Room (103)

Photo N:Southwest corner of Basement A foundation wall

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Photo O: Underpinning of Basement C

Photo P: Low wall at east side of Basement C

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Photo Q: Damaged first floor girder in Basement C

Photo R: Damaged first floor girder in Basement C

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Photo S: Damaged first floor girder in Basement C

Photo T: First floor framing in Basement D

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ROOF PLAN APPENDIX B

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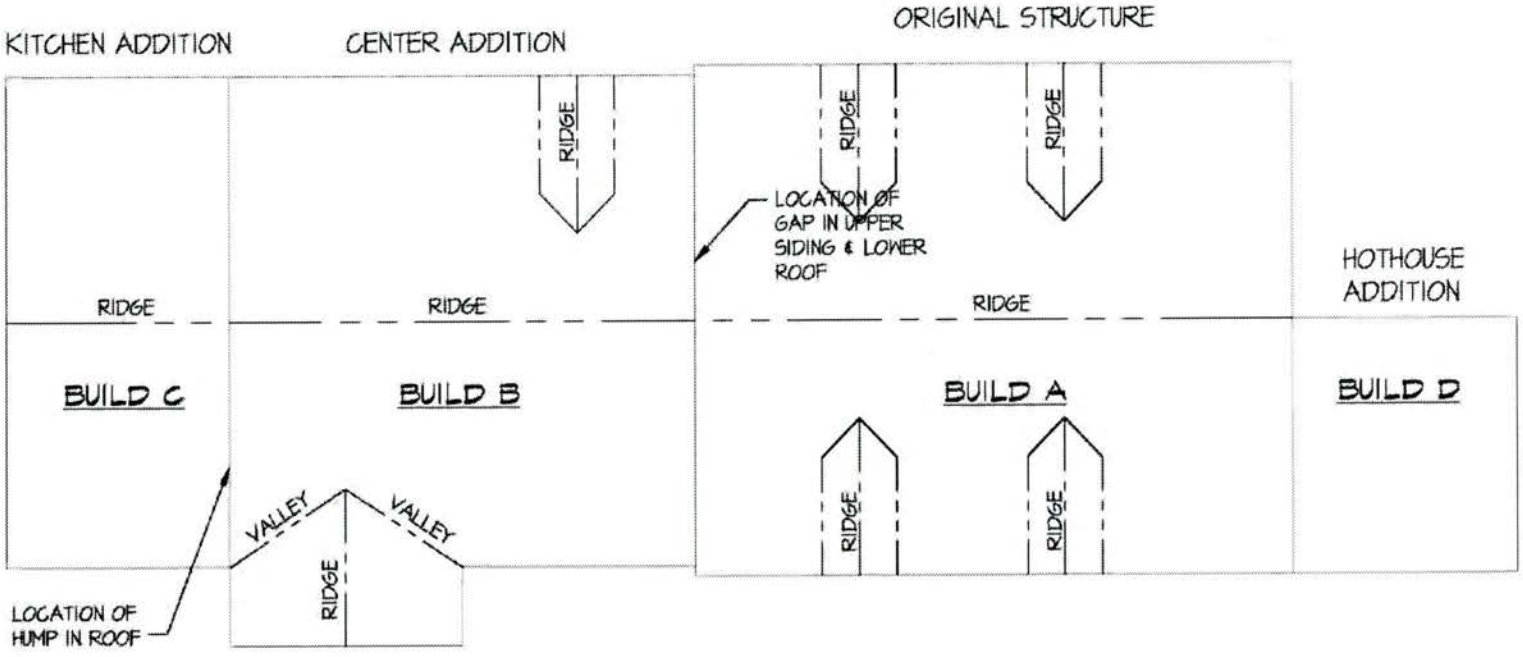

EXIST ROOF PLAN

N.T.S.

N

C.
Building Systems Evaluation

KSI CONSULTING ENGINEERS, LLC

HVAC

Van Wickle House

Existing System

Heating: A natural gas fired boiler is located in Mechanical Closet (103A) (See Figure H-1) off of the Living Room on the First Floor. The boiler is a Weil McLain Ultra condensing type boiler. We understand that it was installed in the aftermath of Superstorm Sandy in 2012. The boiler generates heating hot water and utilizes a primary boiler loop pump and then three zone pumps to circulate the heating hot water upon a call for heating. (See Figure H-2) No exterior nameplates were visible to confirm the natural gas input of the boiler.

It is likely that this boiler replaced and earlier one in the Basement (003), as evidenced by the depth of this room and the unused vent at the chimney stack.

A boiler shut off switch is located in the closet on the right-hand side and a relief valve is installed in the loop. A CO detector is installed within the Mechanical Closet. (See Figure H-3)

The heating hot water is distributed through the building via a heating hot water supply and return loop. There are three zones or loops in the building. They are identified by the thermostats located on the First Floor in the Dining Room (107) (See Figure H-5) Living Room (103) and on the Second Floor in the Living Room (204A).

The heating hot water is distributed to the rooms via baseboard fin tube radiation located on the First and Second Floors of the facility. The fin tube radiation is installed in sections below windows and between walls sections and is of the light commercial/residential style. The covers have some damage to them. (See Figure H-8)

A majority of the First Floor heating hot water piping is routed at the ceiling of the Basement. The insulation of this piping is not uniform and there are areas without insulation. (See Figures H-9 & H-10)

Corrosion was noted on the air separator for the system in the Basement (002). (See Figures H-10 & H-11) The visible pipe supports appear to be wire and, in some cases, plastic zip ties holding up the piping in sporadic locations. (See Figure H-12)

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There are two stone fireplaces located on the First Floor in the Living Room (103). It is not known if these fireplaces are active or if their dampers are in place and/or sealed off.

Ventilation: The boiler had in place a sealed combustion system that terminated on the exterior of the building outside of the Living Room (103) by the Hot House (110) via a sidewall direct vent termination. (See Figure H-7)

No means of mechanical exhaust is noted in the bathroom on the First Floor (105) nor the Lavatory (204C). The Second Floor bathroom (202) does have an exhaust fan. The termination point for this fan on the exterior of the building was not able to be identified.

Cooling: Two window air conditioner units were noted on the First Floor in the Kitchen (108) and the Living Room (103). (See Figure H-6) On the Second Floor a window air conditioner was noted in the Living Room (204A). Aside from these window air conditioners, there are no other air conditioning systems nor mechanical ventilation within the building.

A portable dehumidifier was noted in the Living Room (103) on the First Floor. (See Figure H-4)

Condition of System

The boiler appears to be in good condition as are the ancillary equipment installed in the Mechanical Closet (103A) including (but not limited to) the primary and secondary pumps, the condensate pump, and the zone controller.

Lacking a dedicated means for combustion air, it appears that the air is currently brought into the building for combustion via infiltration when the boiler operates.

Recommendations

While the boiler and its components are in good condition, the heating hot water piping should be insulated to prevent loss of energy. Insulation of heating hot water piping is an energy code mandated item and easily accomplished. While some of the piping is buried in the existing walls, at a minimum, the exposed piping should be insulated.

The air separator for the system in the Basement (002) should be replaced and proper support for the piping should be installed to ensure no undue stresses are placed on the piping.

The SEER ratings on the existing window air conditioning units should be checked and if they are older units, then newer, more energy efficient units should be installed to save energy.

The portable dehumidification unit on the First Floor can remain and the final determination on the temperature and humidity requirements of the facility should be confirmed and if needed, additional units installed. For the sake of the building, the Basement (002) should have a dehumidifier.

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The fireplaces should be checked and if they will not become operational, their flues should be sealed to control un-tempered air from entering the building.

Mechanical means of exhaust should be installed in each toilet room to control odors and vented out the roof or combined into a chimney that is not being utilized to permit the exhaust to be hidden. Exhaust is required, even if the toilet room has a window in place. The termination point of the Second Floor Toilet Fan for Bath (202) should be traced out to ensure that it exhausting to the exterior.

Install a dehumidifier to control humidity in the deep Basement Rooms (003 & 007).

The baseboard fin tube radiation enclosures are in good order and the removal of the covers with a vacuuming of the piping and fin tube elements is recommended to maintain proper airflow and heat transfer through the equipment.

Should it be determined that air conditioning is desired for the facility one option to install a system(s) in a somewhat unobtrusive manner. The heating system is functioning well and there is no reason to remove it and combine it with the proposed heating system. Rather the two systems would operate separately (meaning the heating would remain "piped" and cooling would be "ducted") with the heating being off in the summer and the air conditioning off in the winter.

Cooling can be provided by air handlers that are strategically located to zone the facility. Cooling would be provided via direct expansion (DX) coils located within the air handlers with the condensing units located unobtrusively on the exterior of the building with the refrigerant lines routed in the ceiling and wall spaces (or chases) within the facility.

Ultimately, the zoning of the building would be based on the proposed use and hours of occupancy. The First Floor would be served by two air handlers located within the Basement where there is full head height (Basement C and Basement D) and then supplying air to the various portions of the First Floor by feeding upward to the First Floor and utilizing the crawl space as a pathway for the ductwork. A return ductwork system would also be installed in the same manner.

The Second Floor would be served by an air handler located in the Open Attic with ductwork fed horizontally into the remaining Second Floor.

The First Floor would require approximately 5 tons of cooling while the Second Floor would require approximately 2.5 tons of cooling.

Due to flooding concerns on the property, it is proposed that the heat rejection equipment for the air handlers be installed on a raised platform near or at the south elevation of the building. The south elevation has only two windows and the hothouse/greenhouse addition will be demolished as it was built after the house's "period of significance."

Temperature control with the above type of system would be via a thermostat (one per air handler) to raise or lower the temperature.

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Installing an air conditioning system to operate in the spring, summer and fall would also permit humidity to be controlled. During unoccupied periods of time there would be the standard temperature setback but there would also be a humidity sensor for each zone and this would have priority over the temperature setting in order to maintain the required humidity levels in the facility. To accomplish this, proper load calculations must be completed and the cooling equipment sized properly so it is not oversized. To ensure proper humidity control, equipment with multiple stages of unloading/loading should be utilized with hot gas reheat installed.

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Fig. H-1
Boiler (103A)

Fig. H-2
Boiler, Piping & Pumps (103A)

Fig. H-3
Boiler Controller & Shut Off (103A)

Fig. H-4
Dehumidifier (103)

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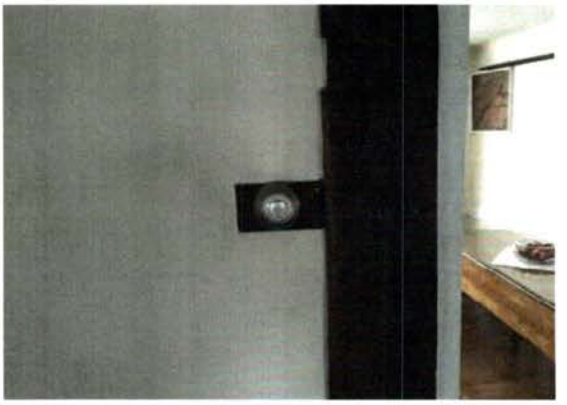

Fig. H-5
Thermosat (107)

Fig. H-6
Window Air Conditioner (103)

Fig. H-7
Boiler Sealed Combustion
Termination

Fig. H-8
Baseboard Fin Tube Radiation (106)

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Fig. H-9
Heating Hot Water
Uninsulated Piping (002)

Fig. H-10
Air Separator And
Uninsulated Zone Piping (002)

Fig. H-11
Close Up Of Air Separator (002)

Fig. H-12
Close Up Of Uninsulated Piping
And Wire Supports (002)

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Plumbing

Existing System

Natural Gas Service: The building has a gas service meter located on the west elevation of the exterior of the Hot House (110). The existing Boiler is gas fired. Gas piping is installed on the exterior of the building and the piping material appears to be black steel schedule 40. (See Figure-P-4)

Domestic Water Service: There is an existing 1-1/2" water main. The piping material is Polyethylene. The distribution piping is copper and PEX. The water main enters the building on the south wall of Basement D (007). The water meter is not located inside the building. Meter location could not be identified and its most likely located in a pit by the property curb. (See Figure-P-1)

Sanitary Sewer Service: The existing three (3) sewer mains exit the building thru the basement foundation wall located on the east (Basement D 007) and south (Basement A 001) side of the building to the sewer main located on site. The sanitary piping materials installed are Copper, PVC and Cast Iron.

Plumbing Fixtures and Equipment: The building has plumbing fixtures on each floor, except for the basement. Many of the fixtures appear to be from the 1950's or 1960's. Each toilet group has a bath tub, water closet and lavatory plus a half bath located in Bedroom #5 (204). There is a kitchen sink on each floor. (See Figures-9&10) The building has a new 20 gallon, electric water heater located in Mech Cl. (103A). The water heater was manufactured in 2011. (See Figure-P-3)

Storm Sewer: The storm sewer consists of roof gutters and leaders. Storm drainage spills on grade away from the building. (See Figure-E7) There are three (3) simplex sump pumps located in Basement D (007), Basement C (003) and Basement A (001). The piping material is PVC. (See Figure-P-2)

Fire Protection Water Service: Although it has a fire detection alarm system, the existing building does not have a fire sprinkler system.

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Conditions of System

Natural Gas Service: The distribution piping appears to be in good condition, but the piping is installed on the exterior of the building.

Domestic Water Service: The domestic water service was recently installed. The distribution piping, which is a combination of traditional copper and PEX (a flexible high-density polyethylene material that has come into widely use since 2000), is in good condition.

Sanitary Sewer Service: The sanitary piping which is copper, PVC and cast iron appears to be in good condition.

Plumbing Fixtures and Equipment: The building plumbing fixtures are acceptable and functioning. None of the fixtures are handicap accessible. The 20 gallon, electric water heater appears to be functioning properly as it was installed within the last five (5) years.

Storm Sewer: The existing three (3) simplex sump pumps located in the basement are newer and properly functioning. The piping discharge is piped outside the building to existing piping which appears to have be clogged. The location and alignment of discharge piping is crude. The existing interior PVC piping appears to be newer and properly functioning.

Recommendations

Natural Gas Service: Consideration should be given to removing the piping from the exterior wall and installing all of the new piping inside the building or piped underground to the boiler location. The existing piping is currently exposed on the building exterior and is exposed to weather and accidental damage.

Domestic Water Service: No action required for water piping. Existing exposed existing hot water piping shall be insulated.

Sanitary Sewer Service: No action required for the sanitary sewer piping.

Plumbing Fixtures and Equipment: Phased replacement of all building plumbing fixtures should be undertaken to meet Handicap Accessibility Code and lower water consumption.

Storm Sewer: The existing three (3) simplex sump pumps located in the basement should be replaced with two (2) new Duplex Installations. The sump pump located in Basement A (001) would be eliminated. French Drains should be installed in the basement and piped to the new duplex pump installations. The pump discharge shall be piped to an approved location as determined by a Civil Engineer. The new Duplex pump system will be provided with an alarm and with an option to auto phone dial in the event of pump failure.

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Fig. P-1- Domestic Water Main Entering Basement (007)

Fig. P-2-Simplex Sump Pump Located in Basement (007)

Fig. P-3- Electric Water Heater (103A)

Fig. P-4- Gas Meter with exposed piping on exterior wall.

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Fig. P-5- Full Bath (105)

Fig. P-6- Water Closet (202)

Fig. P-7- Kitchen Sink (108)

Fig. P-8- Bath Tub (202)

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Fig. P-9- Exterior Roof Leader – Roof Leaders were previously piped underground.

Fig. P-10- Exterior Roof Leader and Gas Piping

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Electrical

Existing System

Electrical Service: The building is served by an underground electrical service that originates from a utility pole mounted transformer on Demott Lane. The service terminates in a wire trough mounted to the exterior of the building at the north end which connects to (2) meters. One meter is dedicated to the main part of the house and the other meter is dedicated to the apartment located on the second floor (See Figure-E1). The main panel for the main house is located in the basement (007) below the kitchen (See Figure-E2). According to the panel schedule located within the panel, it provides circuits to most of the main house including the basement that it is located in and also the air conditioning receptacles located throughout the first floor. This panel also feeds a sub panel that is located in the old boiler room (003) under the living room of the house (See Figure-E3). According to the panel schedule this panel provides circuits for the pumps in this area of the basement as well as circuits for the boiler and exterior receptacles, including the stage. The panel located within the second floor, within the storage closet, is dedicated to the loads of the apartment (See Figure-E4).

Wiring: The building distribution wiring consists of a combination of non-metallic (NM), armored cabling (BX) and conductors in conduit (See Figure-E5&E6).

Devices: There is a combination of surface mounted and recessed devices located throughout the house. It appears that the devices there were recently added were mounted on the surface through the use of wire mold and surface mounted wire mold boxes (See Figure-E7). It shall be confirmed that the receptacle recessed in the mirror in the main floor bathroom is protected by a GFCI circuit breaker (See Figure-E8). There are exterior mounted receptacles installed around the building.

Lighting: Lighting fixtures throughout consisted of surface mounted porcelain bases within the basement with period style chandeliers and surface mounted fixtures and lamps located throughout the main house with incandescent lamps installed (See Figure-E9). The exterior lighting located at the exit doors consisted of period style chandeliers and wall mounted fixtures (See Figure-E10& E11). There is also landscaping lighting installed within the garden as well as a large HID fixture mounted to the front of the house to provide lighting for the parking area.

Control of most of the lighting consisted of either surface mounted switches, recessed switches or pull chains mounted to the lighting fixture base (See Figures- E12&E13).

Fire Alarm System: The existing fire alarm panel is a Napco Magnum Fire Alert 6000 Series zonal system. Within the house are heat and smoke detectors as well as audible bells located throughout to alert occupants of an alarm (See Figures E14&E15).

Condition of Systems

Electrical Service: The electrical service entrance is in good condition, as are all of the existing distribution panels located within both the main house and apartment.

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Wiring: The existing wiring in locations where visible was in good condition.

Devices: The switches and receptacles throughout the building were in good condition. However the devices mounted to the exterior are in poor condition (See Figure E16).

Lighting: The lighting fixtures throughout the interior of the house were in good shape. However the exterior lighting for the parking area appears to be old along with the wooden support. Also the landscaping lighting located in the garden are broken (See Figure E17&E18). In addition there is currently no exterior emergency lighting installed at the site.

Fire Alarm System: The fire alarm panel and annunciating devices were in good condition however there were several heat detectors located within the basement that were rusted (See Figure E19).

Recommendations

Electrical Service: Even though the incoming electrical service is in good condition, it is installed within the flood plain and could be damaged by a future flood. The service should be raised above the flood plain on the exterior of the building. In addition the distribution panels, for the main house are located in the basement, which is susceptible to flooding as well, and the panels should be relocated to the first floor or the second floor attic to reduce the risk of future damage due to flooding.

Devices: The exterior devices should be replaced. Also, if it is determined that the receptacle in the bathroom in the main house is not GFCI protected, a GFCI circuit breaker shall be installed in the panel per code to protect the users of this device.

Lighting: The exterior lighting fixture which is utilized for the parking area shall be provided with a new support as well as the landscaping lighting shall be replaced in the garden.

Fire Alarm System: The rusted heat detectors located in the basement shall be replaced in with weather resistant models that will be able to withstand the moist environment that is present in the basement.

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Figure E-1
Service Entrance (North Elevation)

Figure E-2
Main House Main Electrical Panel (007)

Figure E-3
Main House Sub Panel(003)

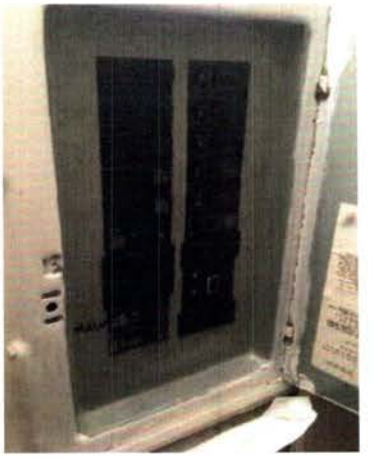

Figure E-4
Apartment Panel (202A)

Figure E-5
Main House Wiringn (007)

Figure E-6
Main House Wiring (003)

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Figure E-7
Surface Mounted Devices (106)

Figure E-8
Main Bathroom Mirror Receptacle (105)

Figure E-9
Main House Lighting (107)

Figure E-10
Exterior Lighitng (Over Door and at Corner)

Figure E-11
Exteiror Lighitng (Pendant Type)

Figure E-12
Light Switch (106)

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Figure E-13
Light Switch (001)

Figure E-14
Fire Alarm Panel (108A)

Figure E-15
Fire Alarm Bell (101)

Figure E-16
Exterior Receptacle

Figure E-17
Parking Area Lighting

Figure E-18
Landscape Lighting

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Figure E-19
Rusted Heat Detector (001)

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D.
Paint Investigation and Mortar Analysis

KEYSTONE
PRESERVATION
GROUP

HISTORIC PRESERVATION
ARCHITECTURAL CONSERVATION

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THE VAN WICKLE HOUSE:
SOMERSET, NJ
ANALYSIS OF HISTORIC BUILDING MATERIALS

KEYSTONE PRESERVATION PROJECT # 16-003

PREPARED FOR:
MICHAEL CALAFATI ARCHITECT

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Section A: Analysis of Historic Exterior Finishes

A.1. Summary of Findings

A.1.1 Introduction

This document constitutes an analysis of selected historic architectural finishes from the Van Wickle House in Somerset, NJ. The objectives of this work were to define the extent to which original finishes survive and to provide an understanding of how exterior elements were finished in different periods over time. As consultant to Michael Calafati Architect, Keystone Preservation Group has completed the following:

- One site visit on January 20, 2016, during which representative paint samples were removed from selected exterior elements on the building.
- Microscopic analysis of **46** paint samples which were deemed to contain the greatest amount of useful information. Analysis included cataloguing samples, cross-sectioning all samples manually, embedding most samples in polyester resin, evaluating samples microscopically at various magnifications in color-corrected reflected light and/or longwave ultraviolet light, and matching the shade of early finishes to standards within the Munsell System of Color and within the Benjamin Moore line of architectural paint finishes.
- Submission of a draft report on February 24, 2016.
- Submission of an updated report with recommendations for additional assessment/research.

A.1.2 Historical Considerations

History

Although the scope of work did not include an evaluation of primary research, a limited amount of information regarding the history and evolution of the building has been provided:

- **Ca. 1722**: General date of the original construction of the original Dutch house owned by Symen Van Wickle, of one of the earliest families to settle in the Somerset County area.
- **1755:** Symen Van Wickle dies; it is not known what changes may have taken place at the house during this time.
- **1795-1797:** The house is sold to Robert T. Kemble, and then to Hendrick Suydam.
- **1838:** Hendrick Suydam died, leaving the house to one of his daughters who married Nicholas Van Wickle, possibly a grandson of Symen Van Wickle.
- **1862:** The house is sold to John Brooks.
- **Late 19th century to early 20th century:** Kitchen wing addition is constructed.
- **1938:** Historic American Buildings survey was conducted.

A.1.3 Data, Observations and Conclusions

Objective, Scope and General Observations

This document constitutes an analysis of *selected* historic finishes, rather than a *comprehensive* analysis of historic finishes. Whereas *comprehensive* analyses are often intended to provide information on period(s) of significance/interpretation for every element within a given study area (e.g. an entire building, or specific spaces within a building), analyses of *selected* finishes are generally used either to develop a broad understanding of building evolution, to help interpret changes which may have taken place over time, or to provide basic color palettes for specific points in history. It is hoped that this analysis will provide broad insight into building chronology and has provided reference information on which questions can be based, and also broad information on finishes which are believed to date to certain historical periods.

Having reviewed the project scope and budget with the project team before investigations began, and recognizing that multiple building campaigns which resulted in the construction of different sections (exterior) and the creation/alteration of many individual spaces (interior), the project team decided to focus analysis and interpretation in locations which were deemed most likely to yield the greatest amount of useful information – namely the exterior east and west facades, and primary public spaces throughout the first floor interior. Having dedicated resources and sample allotment to the aforementioned areas and recognizing that significant alterations/renovations have occurred there, side facades (north and south) and the second floor interior could not be included in this study.

Working Chronology

Working chronology suggests that the two-story southern block (currently referred to as "Build A") constitutes the first phase of construction, potentially dating to ca. 1722; this section encloses interior spaces such as Room 101 (Foyer), Room 102 (Bedroom #1) and Room 103 (Living Room).

The second build (currently referred to as "Build B") is a one-and-a-half-story, two-bay section situated immediately to the north at what would currently be considered the center of the building; Room 107 (Dining Room) is located in this section. The date of construction has not been unequivocally identified, but paint evidence suggests that this section may have been built in the 18th century or perhaps early 19th century.

Preliminary research and documentation suggests that a third build was completed, with a preliminary construction date of some point in the 19th century. This construction phase (currently referred to as "Build C") consists of a one-and-a-half-story, wide single-bay section at the north end of the building; it houses Room 108 (Kitchen).

A double-bay window box extension was added on the west façade of "Build B;" this is a minor addition which was believed to have been constructed in the late 19th century.

A sun-room was added to the south side of the building, possibly in the early 20th century but was not included in this study.


West façade with "Build A" at right.


East façade, "Build A."

Interpretation of Data from Exterior Elements

Analysis of the east façade focused on elements which are protected by an overhanging roof – and particularly shingles, trim/frame elements and, where accessible, window sashes. In general terms and with respect to exterior features, samples taken from the aforementioned area the greatest amount of useful information, with many samples displaying evidence of finishes that may date to the original phase of construction ca. 1772; because they possess what are believed to be comprehensive or nearly-comprehensive chroma-chronologies, many samples display evidence of paint layers that are believed to have been installed during intermediate finish campaigns, some of which correspond to periods of addition and alteration. Subject to revision pending review of historic documentation and additional sampling, preliminary analysis generally suggests the following:

Original Construction ca. 1722

Evidence of finishes which may date to the earliest phase of construction, believed to be ca. 1722, were found on several elements on the building's east façade:

- Fish scale shingles display evidence of what are believed to be comprehensive chroma-chronologies, and were originally painted *reddish brown* (Munsell 2.5YR 3/2-3/4).
- Although minor alterations may have been made, much of the window trim displays evidence of comprehensive or near-comprehensive chroma-chronologies, and is either original or early. The earliest finishes are similar or identical in shade to those which have been noted for shingles, *reddish brown* (Munsell 2.5YR 3/4).
- The vintage of window sashes, including the transom window within the exterior door surround has yet to be conclusively determined, but they appear to be original or early. The earliest finish is a *pale yellow* (Munsell 2.5Y 7/2-8/2) paint layer.

Subsequent Periods after ca. 1722

Investigation on the east façade was intended primarily to obtain benchmark information on chronology; samples displayed a variable amount of information depending on whether elements had weathered substantially or had been installed during addition campaigns. In order to establish representative coverage, initial study included the analysis of at least one clapboard sample from each build. Evidence suggests the following:

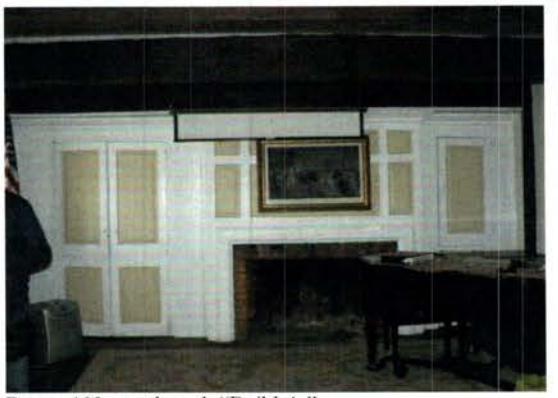
- There is no evidence of finishes that date to ca. 1772 original construction on exterior clapboard samples. Although analysis in "Build A" has focused only on a limited number of samples, clapboards possess abbreviated chroma-chronologies and do not display any evidence of original/early finishes that have been noted on the west façade. The presence of what appears to be a weathered wood substrate onto which the earliest *detectable* finish was applied suggests that earlier finishes may have been lost or removed. Additional analysis of window sashes in Build A may be warranted to compare to sashes from the west façade. Earliest clapboard finishes found were preserved on the interior of Room 205.

- Although limited, evidence generally confirms that "Build B" was constructed after "Build A." The earliest detectable window trim finish is a *light yellowish brown* (Munsell 10YR 6/4) paint layer, a shade which is similar or identical to a non-original, subsequently-applied finish on original trim from the west façade of "Build A." That this *light yellowish brown* paint layer is the fourth layer on "Build A" suggests that it may have been installed several decades after original construction. Paint evidence from a single window sash sample within "Build B" contained fragmentary information and has not been particularly useful in establishing chronology.
- Although archival research and construction details suggest that "Build C" occurred separately from "Build B," it has not been possible to confirm such with paint. For instance, the earliest detectable finishes from window sashes and trim in "Build C" are similar/identical to those found on trim from "Build B." It is at least possible, but not certain, that such elements could have been removed from "Build B" and re-used in "Build C." Evidence from clapboards was not clear, and could not be used to assist with chronology. Additional analysis, possibly of frame/trim elements in other locations on Build C might help clarify.
- Although placement and design suggests that "Build D," consisting of a window bay at the north end of "Build B" may have been installed in the late 19th century, the limited amount of analysis which has been completed to date (one shingle sample) has not aided in developing chronology.

Interpretation of Data from Interior Elements

Analysis of interior finishes generally reflects that which has been noted for exterior finishes – particularly that "Build A" pre-dates "Build B." To date, unequivocal, discernible chronological differences which might clearly distinguish "Build B" from "Build C."

The interior of "Build A" has been modified, most obviously by the removal of partition walls to create the large space that is currently Room 103 (Living Room); alterations have also taken place in secondary spaces such as Room 101 (Foyer) and Room 102 (Bedroom #1). In light of the fact that Room 103 presents more benchmark information than other spaces, evidence from Room 103 has been discussed first in the overview that follows. Preliminary analysis suggests the following:



Room 103, south end, "Build A."

Room 103, east wall, "Build A."

Room 103, north end, "Build A."

Room 103 (Living Room/ "Build A")

- Several features in the space that is currently Room 103 (Living Room, located in "Build A") display evidence of what appear to be finishes that date to the earliest phase of construction ca. 1722 – including the fireplace surround at the south end of the room, the door and trim surrounding the opening to the exterior in the center of the east wall, window trim in the north end of the room and door trim surrounding the opening in the center of the west wall. The earliest detectable finish on the aforementioned features is similar or identical to that which has been noted as an original ca. 1722 finish on certain exterior elements – a *reddish brown* (Munsell 2.5YR 3/2-3/4) paint layer.
- Also in Room 103, window sashes such as the transom above the door in the east wall, and a sash in the north end are either original or early, the earliest detectable finish being a *pale yellow* (Munsell 2.5Y 8/4) paint layer.
- Vintage has not been clearly established for the fireplace surround in the north end of Room 103. It should be noted, however, that the fact a sample taken from the surround does not contain the *reddish brown* paint layer found elsewhere in this space, but rather that the earliest layer is *grayish blue* (Munsell 10B 6/1), a shade which is more strongly associated with a later build, raises the possibility that the north fireplace surround dates to later than ca. 1722; the style suggests later Federal era as well, possibly as early as 1785.
- The shelved cabinet in the northeast corner displays evidence of an abbreviated chroma-chronology, one which suggests that it may have been installed in the 20th century.

- Analysis of wall surfaces in Room 103 did not provide data which was useful to the interpretation of chronology.

Room 101 (Foyer/ "Build A")

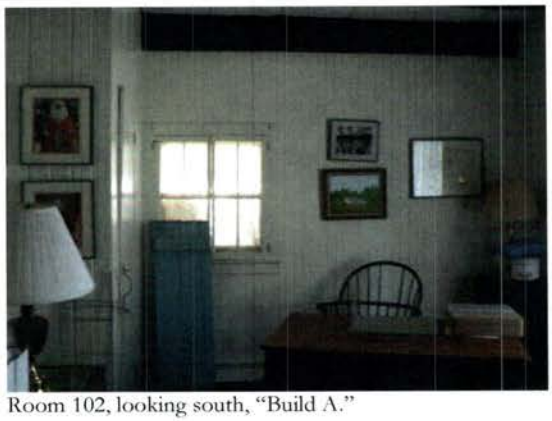
- The presence of a *reddish brown* (Munsell 2.5YR 3/2-3/4) paint layer which matches the earliest finish from elements that are believed to be original in Room 103 suggests that the beaded board stair wall enclosure in Room 101 dates to original construction ca. 1722.
- Elements such as the transom sash and front door surround possess an abbreviated chroma-chronology and may have been installed or modified as recently as the 20th century.
- Although the board ceiling may date to original construction ca. 1722, the earliest coating is a varnish, and the date at which the ceiling was first painted cannot yet be determined.


Room 101, looking west, "Build A."

Room 102 (Bedroom #1/ "Build A")

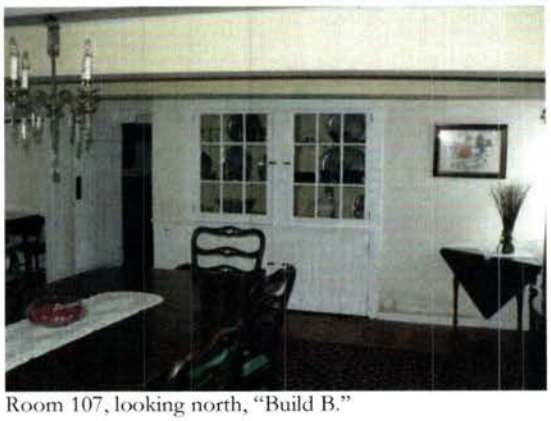
- Noting that sampling in this space was limited to one window sash in the north wall and door trim in the south wall, no original/early material has been identified. The aforementioned features display evidence of abbreviated chroma-chronologies, and vintage has not yet been resolved.

Evidence generally suggests that "Build B" was constructed after "Build A," although it has not been possible to determine a construction date based on paint analysis. Within this study, interpretation from "Build B" has been limited to samples from Room 107 (Dining Room).


Room 102, looking south, "Build A."

Room 107 (Dining Room/ "Build B")

- The characteristics of the earliest detectable finish on several elements in Room 107 is consistent with what could have been installed in the 18th century or perhaps early 19th century – a thin, *medium gray* (Munsell 10B 5/1) paint layer. That this finish is not contemporary with those noted as original in "Build A" is suggested by the fact that it is different in color. The aforementioned layer has been noted on wide board wainscoting surrounding the inset cabinet in the north wall (a location which previously housed a fireplace) as well as a door within the opening in the east wall and the trim surrounding it.
- Of particular interest are the earliest detectable finishes on the west-facing wide board wall which


Room 107, looking north, "Build B."

forms part of the stair enclosure at the south end of the room. Several layers of a *grayish yellow* finish are present on the wall. Not only do the color (*grayish yellow*) and characteristics (opacity, thickness and autofluorescence in UV) differ from those of the aforementioned *medium gray* paint layer, but they also match those of the earliest detectable finishes on a clapboard which was originally exposed at the north end of "Build A" but which is now enclosed in Room 205 (Attic). Those observations, combined with roughness of and previous damage to some of the boards suggest that some of the boards used to enclose the stair in Room 107 are, in fact former exterior clapboards which were salvaged and re-used in this space. Narrow boards which form the northern face of the stair enclosure appear to be newer but have not been analyzed.

Room 107, stair enclosure with wide boards at right "Build B."

- Analysis of wall surfaces in this space did not provide data which was useful to the interpretation of chronology.

Analysis also suggests also that some elements in Room 108/"Build C" (Kitchen) are contemporary with some in Room 107/"Build B;" whether certain features in both rooms were installed at the same time, or roughly at the same time, or whether some were relocated from "Build B" into "Build C" is not known.

Room 108 (Kitchen)

- Interpretation in Room 108 (Kitchen) is very preliminary and a work in progress.
- The earliest finish on a narrow wainscoting board on the east wall is similar or identical to the earliest finishes found in Room 107 ("Build B"/Dining Room) – a thin, *medium gray* (Munsell 10B 6/1) paint layer. The similarity suggests either that this portion of the wainscoting is contemporary/roughly contemporary with "Build B" or that this element was removed from "Build B," salvaged and reused when Room 108 (Kitchen) was completed during construction of "Build C."


Room 108, looking south, "Build C."

- Noting that painting campaigns in kitchen spaces do not always correspond to those in primary spaces or spaces that are more formal (such as halls, dining rooms and living rooms), it is difficult to directly correlate chroma-chronological information from many samples in Room 108 to those elsewhere in the building. It is reasonably clear, however, that trim elements surrounding or adjacent to the openings within the north and south walls are contemporary with one another, and that the number of layers present could suggest a 19th century vintage. It is also clear that wide board wainscoting which is below the window opening and adjacent to the aforementioned narrow board wainscoting on the east wall is comparatively modern, possibly dating to the 20th century.

Additional research/analysis would be recommended to target and provide colors for a specific historic period.

Archival photograph provided by Michael Calafati Architect, LLC, depicting east façade, apparently lacking kitchen addition associated with "Build C."

Section A.2: Analytical Methodology

A.2.1 Sampling

In order to produce findings that accurately portray the way a building looked at one point in time or to develop an understanding about how a building has evolved, it is essential to conduct proper site investigation and sampling. Sampling consists of cratering and examining selected elements to ensure that samples will be representative, and then removing small fragments of material for microscopic analysis. Samples were removed from the building during the site visit, and analyzed in Keystone Preservation's conservation laboratory shortly thereafter in accordance with the following methodology:

- Sample locations were selected by creating craters (small, circular incisions) in selected surfaces and examining them with a 10x loupe microscope – the objective being to identify locations where a sufficient quantity of historical information was present.
- Representative samples were removed using a combination of all-in-one Dremel tools and utility knives. Despite care taken during the sampling process, it is not always possible to procure samples without some finishes becoming detached.
- Samples were bagged, assigned numeric designations and tagged with information regarding feature and location.

A.2.2 Sample Preparation

As a component of finishes analysis, paint samples are cross-sectioned – either manually using a scalpel or embedded and then cut with a specialized saw. Both techniques were employed for this analysis.

Manual cross-sectioning without embedding was used primarily for color-matching.

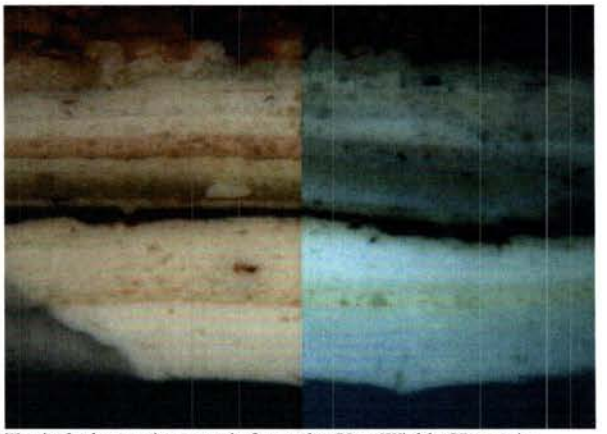
A portion of each sample was embedded in stable resin (either polyester or epoxy) in order to stabilize its microstructure. Once cured, cast samples were de-molded and cross-sectioned using a high-speed lapidary saw. Samples were then polished successively with 400-grit, 600-grit and 1000-grit sanding sheets and swabbed with mineral oil to saturate colors and enhance stratigraphic distinctions.

A.2.3 Optical Microscopy and Color Matching

Analysis, photomicrography and color was completed using the following instruments:

- Leica DMLM Microscope capable of evaluating specimens in reflected incident light and transmitted polarized light at magnifications of 50x, 100x, 200x and 500x – fitted with a Nikon Coolpix 995 digital camera attached to its photo port. Reflected, color-corrected incident light is produced at 3000 Kelvin by a quartz-halogen fiber optic illumination system. Incident fluorescent light is generated by an internal mercury vapor lamp and long-pass blue filter cube capable of passing longwave ultraviolet light at wavelengths of 320-400 nm, with peak excitation ~365 nm.
- Nikon SMZ-2T Stereo Zoom Microscope capable of evaluating specimens in reflected incident light at magnifications between 7-63x.

Colors are matched by visually comparing target layers with chips that conform to the Munsell System of Color in color-corrected incident light or natural daylight. Munsell Colors are organized into designations by "hue" (R: Red, YR: Yellow red, Y: Yellow, GY: Green yellow, G: Green, BG: Blue green, B: Blue, PB: Purple blue, P: Purple, RP: Red-purple, N: Neutral). The "hue" designation is followed by a value designation which corresponds to the relative lightness/darkness of the color on a scale of 0 to 10, whereby 0 is absolute black and 10 is absolute white. The final number is a "chroma" designation which indicates the intensity of the color on a scale of 0 to 12, with 0 being neutral and 12 being intense. For example, a finish matching 2.5Y 8/2 would be deemed to possess a yellow hue, light in shade and neutral in intensity. Comparatively, a 5YR 5/12 finish would be orange (yellow-red), moderately-shaded, with an intense, bright color.



Typical photomicrograph from the Van Wickle House in incident visible light (left half) and in incident long-wave ultraviolet light (right half).

Munsell Color Numbers were cross-referenced with ISCC-NBS (Inter-Society Color Council and the National Bureau of Standards) color names. Munsell colors were also matched to the closest available Benjamin Moore paint products.

Section A.3: Analytical Data
A.3.1 Sample Locations

Sample	*Location - Section Build*	*Element*
EXT-01	West Façade – C	Window sash (W108)
EXT-02	West Façade – C	Window trim (W108)
EXT-03	West Façade – C	Clapboard
EXT-04	West Façade – B	Clapboard
EXT-05	West Façade - Later Add.	Fish scale shingle (Window Addition)
EXT-06	West Façade – B	Window sash (W103)
EXT-07	West Façade – B	Window trim (W103)
EXT-08	West Façade – A	Upper clapboard, South end of section
EXT-09	West Façade – A	Upper clapboard, North end of section
EXT-10	East Façade – A	Fish scale shingle, North end of section
EXT-11	East Façade – A	Window trim (W117) note: unknown if modified
EXT-12	East Façade – A	Transom molding above doorframe (Door D)
EXT-13	East Façade – A	Transom window sash (Door D)
EXT-14	East Façade – A	Window trim (W114), South end of section
EXT-15	East Façade – A	Window sash (W114), South end of section
EXT-16	East Façade – A	Fish scale shingle, North end of section
101-01	Foyer (101) - A	Beaded board stair wall
101-02	Foyer (101) – A	Transom sash (Door A)
101-03	Foyer (101) – A	Doorframe (Door A)
101-04	Foyer (101) – A	Ceiling
102-01	Bedroom #1 (102) - A	Window sash (W1xx)
102-02	Bedroom #1 (102) - A	Doorframe (Doorway to Foyer)
103-01	Living Room (103) - A	South wall crown molding
103-02	Living Room (103) - A	South Fireplace surround rail
103-03	Living Room (103) - A	South Fireplace surround panel
103-04	Living Room (103) - A	Door trim (Door D)
103-05	Living Room (103) - A	Transom window sash (Door D)
103-06	Living Room (103) - A	Lower half of Dutch door (Door D)
103-07	Living Room (103) - A	Window frame (W114)
103-08	Living Room (103) - A	Window sash (W114)
103-09	Living Room (103) - A	North Fireplace surround
103-10	Living Room (103) - A	North cabinet door rail
103-11	Living Room (103) - A	Upper East wall, above window (W116)
103-12	Living Room (103) - A	Upper East wall, above window (W114)
103-13	Living Room (103) - A	Doorframe (Doorway to Foyer)
107-01	Dining Room (107) - B	North wall wainscoting (wider board width)
107-02	Dining Room (107) - B	North cabinet door wainscoting (narrow board width)
107-03	Dining Room (107) - B	West wall
107-04	Dining Room (107) - B	Stair wall board
107-05	Dining Room (107) - B	Upper doorframe (Door C)
107-06	Dining Room (107) - B	Upper door (Door C)
108-01	Kitchen (108) - C	Doorframe (Doorway to Dining Room)
108-02	Kitchen (108) - C	East wall wainscoting (wider board width)
108-03	Kitchen (108) - C	East wall wainscoting (narrow board width)
108-04	Kitchen (108) - C	Doorframe (Door B)
205-01	Open Attic (205) - A/B	Exposed clapboard from previous build (Section A)

A.2 Analytical Datasheets

The data sheets that follow present laboratory data in the form of stratigraphic analysis and photomicrographs. The left half of each photomicrograph features a microscopic view of each sample in color-corrected reflected light. The right half depicts the sample subjected to longwave fluorescent ultraviolet light, which enhances distinctions between different layers (paint campaigns) and materials (oil-based, latex, glaze, etc.). Notations within the data sheets include the following:

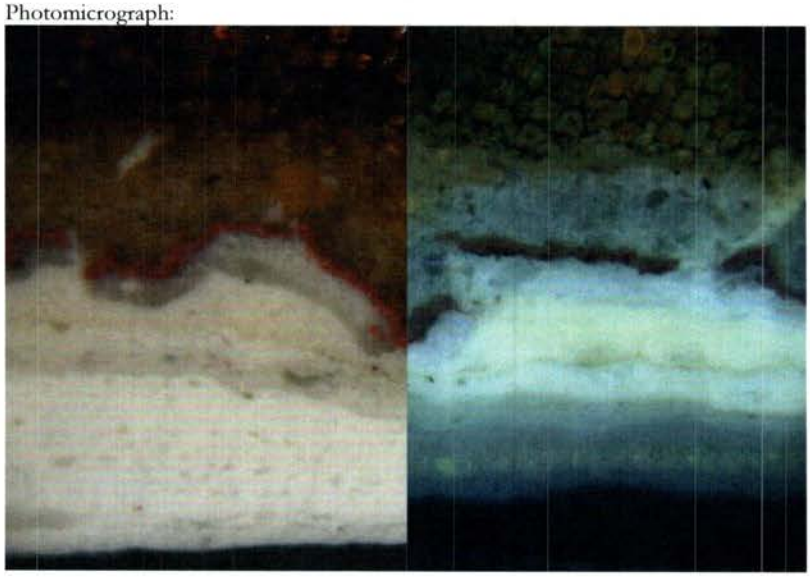
Substrate:	Base substrate material (wood, plaster, metal, etc.)
Finish 1:	Earliest detectable finish
Finish 2+/F:	Finishes which post-date original construction

Location:	West Façade	**Section Build:**	C
Sample:	EXT-01		
Element:	Window sash (W108)		

Analysis:	( ) Manual cross-section/RLM	(x)	Embedded cross-section/RLM	(x)	Ultraviolet fluorescence
	( ) Binder characterization	( )	Pigment analysis	( )	Exposure window

Sample Location:

Photomicrograph:



Chromachronology:

Campaign	Layer	Munsell Color	Color Name	Autofluorescence	Notes
	Substrate: Wood				
	Finish (fragment)		(Red)	Light grayish pink	Fragmentary evidence
Build C	Finish	10YR 6/4	Light yellowish brown	Yellowish white	
	Finish	10YR 4/4	Dark yellowish brown	Grayish white	
	Finish	7.5R 3/4	Reddish brown	Little/Dull yellow	
	Finish		Grayish white	Grayish bluish white	
	Finish		Pale yellow	Yellow	
	Finish		Yellowish white	Grayish white	
	Finish		Grayish white	Dull gray	
	Finish		Yellowish white	Yellow gray	
	Finish		Yellowish white	Dull	
	Finish		Yellowish white	None gray	
	Finish		Yellowish white	None	

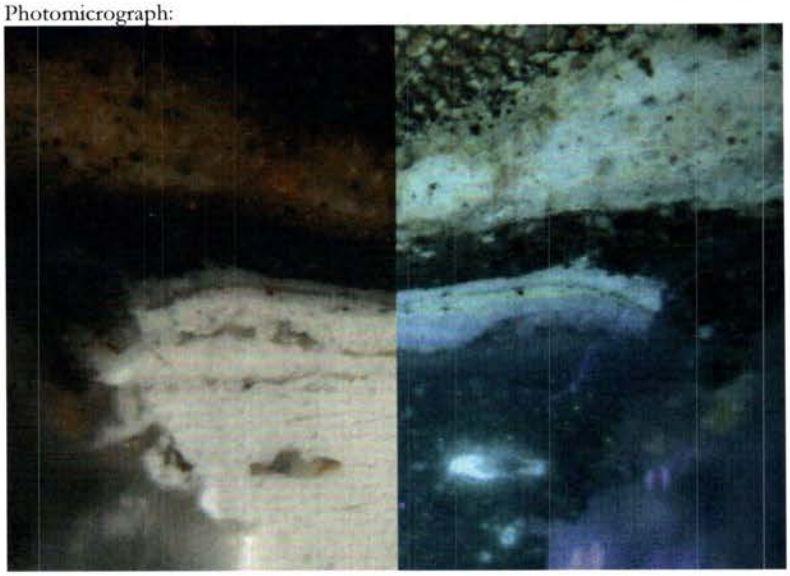
Observations:

Location:	West Façade	**Section Build:**	C
Sample:	EXT-02		
Element:	Window trim (W108)		

Analysis:	( )	Manual cross-section/RLM	(x)	Embedded cross-section/RLM	(x)	Ultraviolet fluorescence
	( )	Binder characterization	( )	Pigment analysis	( )	Exposure window

Sample Location:

Photomicrograph:



Chromachronology:

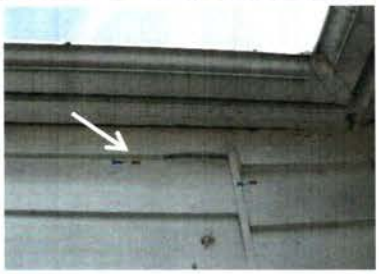
Campaign	Layer	Munsell Color	Color Name	Autofluorescence	Notes
	Substrate: Wood				
Build C	Finish	~10YR 6/4	Light yellowish brown	Grayish white	Possibly multiple layer
	Finish	~N2.25/-2.5Y 2/2	Blackish brown	Dull gray/Little	
	Finish		Grayish white	Grayish bluish white	
	Finish		Grayish white	Grayish bluish white	
	Finish		Grayish white	Dull gray	
	Finish		Yellowish white	Yellow gray	
	Finish		Yellowish white	Dull	
	Finish		Yellowish white	None gray	
	Finish		Yellowish white	None	

Observations:

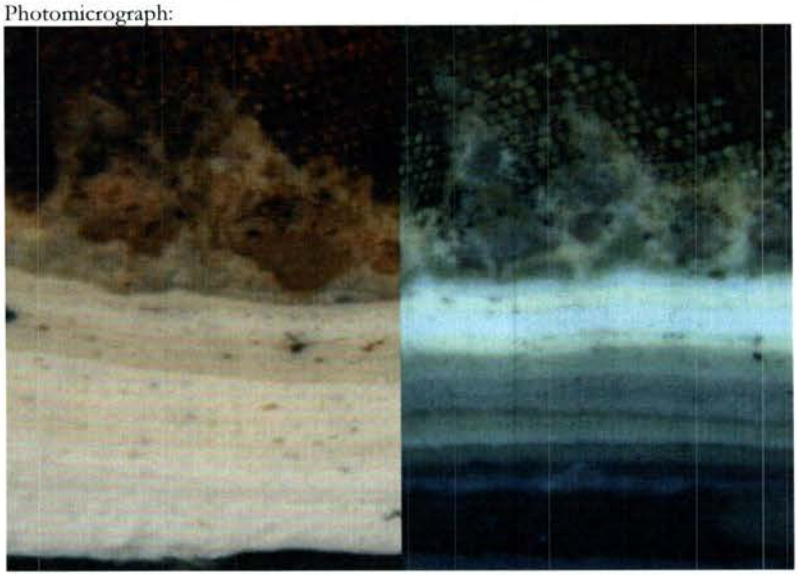
Location: West Façade **Section Build:** C
Sample: EXT-03
Element: Clapboard

Analysis: ( ) Manual cross-section/RLM (x) Embedded cross-section/RLM (x) Ultraviolet fluorescence
( ) Binder characterization ( ) Pigment analysis ( ) Exposure window

Sample Location:



Photomicrograph:



Chromachronology:

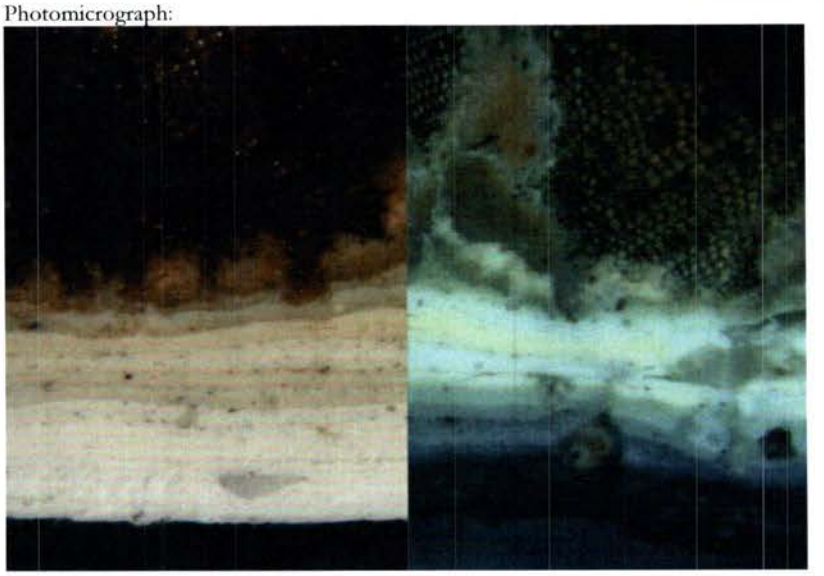
Campaign	Layer	Munsell Color	Color Name	Autofluorescence	Notes
	Substrate: Wood				
Build B/C	Finish	* Unable to obtain match	Gray	Bluish gray	Fragmentary finish
	Primer + Finish	~10YR 6/2	Light pinkish brown Light brown	Dull yellow Bluish gray	
	Finish		Pale yellow	Yellow	orange pigments
	Finish		Gray	Grayish yellow	
	Finish		Gray	Bluish white	
	Finish		Pale yellow	Yellow	
	Finish		Yellowish white	Bluish white	
	Finish		Pale yellow	Yellow	
	Finish		Pale yellow	Dull gray	
	Finish		Yellowish white	Dull gray	possibly 2 layers
	Finish		Yellowish white	Dull yellow gray	
	Finish		Yellowish white	Gray	
	Finish		Yellowish white	Dull gray	
	Finish		Yellowish white	Little/None	
	Finish		Yellowish white	Dull gray	
	Finish		Yellowish white	Little/None	
	Finish		Yellowish white	Little/None	

Observations:

Location:	West Façade	**Section Build:**	B			
Sample:	EXT-04					
Element:	Clapboard					
Analysis:	( ) Manual cross-section/RLM	(x)	Embedded cross-section/RLM	(x)	Ultraviolet fluorescence	
	( ) Binder characterization	( )	Pigment analysis	( )	Exposure window	

Sample Location:

Photomicrograph:



Chromachronology:

Campaign	Layer	Munsell Color	Color Name	Autofluorescence	Notes
	Substrate: Wood				
Build B/C	Finish	* Unable to obtain match	Gray	Bluish gray	Fragmentary finish
	Primer + Finish	~10YR 6/2	Light pinkish brown Light brown	Dull yellow Bluish gray	
	Finish		Pale yellow	Yellow	orange pigments
	Finish		Gray	Grayish yellow	
	Finish		Gray	Bluish white	
	Finish		Pale yellow	Yellow	
	Finish		Yellowish white	Bluish white	
	Finish		Pale yellow	Yellow	
	Finish		Pale yellow	Dull gray	
	Finish		Yellowish white	Dull gray	possibly 2 layers
	Finish		Yellowish white	Dull yellow gray	
	Finish		Yellowish white	Gray	
	Finish		Yellowish white	Dull gray	
	Finish		Yellowish white	Little/None	
	Finish		Yellowish white	Dull gray	
	Finish		Yellowish white	Little/None	
	Finish		Yellowish white	Little/None	

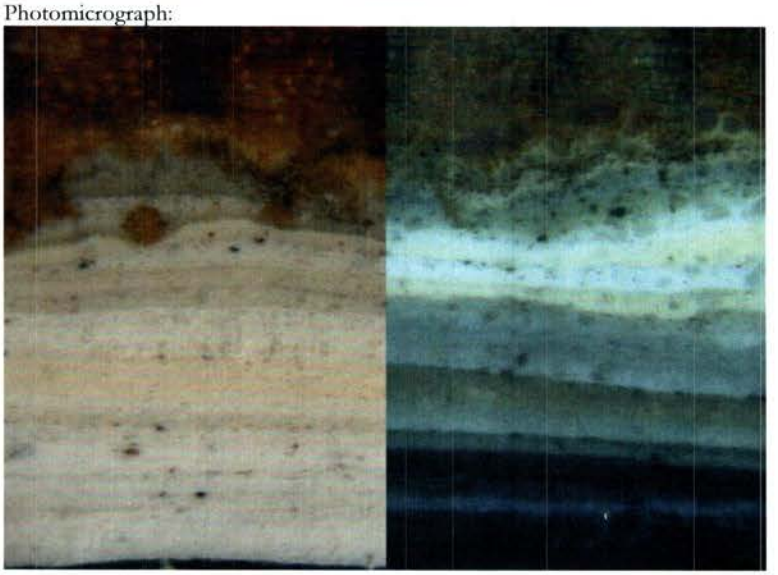
Observations:

Location: West Façade **Section Build:** (later addition)
Sample: EXT-05
Element: Fish scale shingle (window addition)

Analysis:
( ) Manual cross-section/RLM (x) Embedded cross-section/RLM (x) Ultraviolet fluorescence
( ) Binder characterization ( ) Pigment analysis ( ) Exposure window

Sample Location:

Photomicrograph:



Chromachronology:

Campaign	Layer	Munsell Color	Color Name	Autofluorescence	Notes
	Substrate: Wood				
	Primer + Finish	~5Y 7/4 ~2.5Y 5/2	Grayish yellow Grayish yellowish brown	Grayish yellow Brown	Likely painted intending to match the clapboards on the house
	Finish		Gray	Grayish yellow	
	Finish		Gray	Bluish white	
	Finish		Pale yellow	Yellow	
	Finish		Yellowish white	Bluish white	
	Finish		Pale yellow	Yellow	
	Finish		Pale yellow	Dull gray	
	Finish		Yellowish white	Dull gray	Two layers
	Finish		Pale yellow	Dull yellow gray	
	Finish		Yellowish white	Gray	
	Finish		Pale yellow	Dull gray	
	Finish		Yellowish white	Little/None	Two layers
	Finish		Yellowish white	Dull gray	
	Finish		Yellowish white	Little/None	
	Finish		Yellowish white	Little/None	

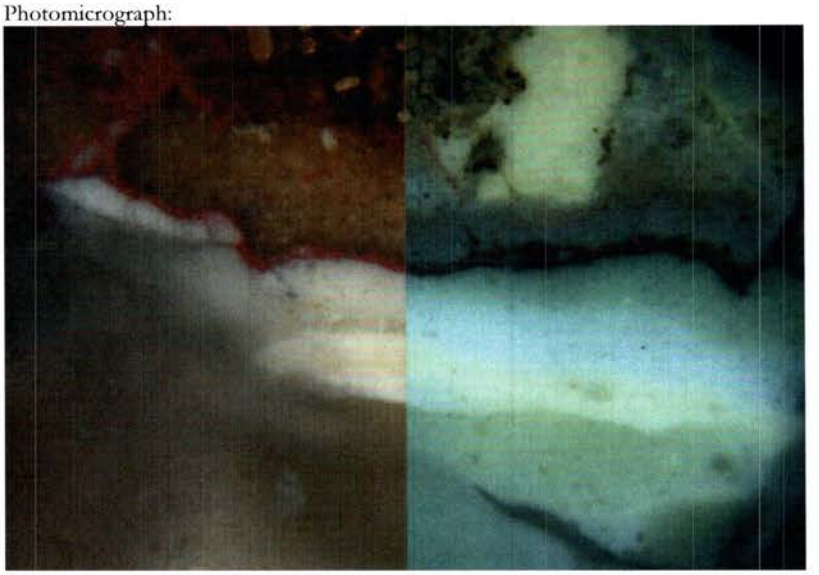
Observations:

Location: West Façade **Section Build:** B
Sample: EXT-06
Element: Window sash (W103)

Analysis: ( ) Manual cross-section/RLM (x) Embedded cross-section/RLM (x) Ultraviolet fluorescence
( ) Binder characterization ( ) Pigment analysis ( ) Exposure window

Sample Location:

Photomicrograph:



Chromachronology:

Campaign	Layer	Munsell Color	Color Name	Autofluorescence	Notes
	Substrate: Wood				
	Finish (fragment)		Yellowish white	Yellow	
	Finish		Grayish yellow	Dull yellow	
	Finish		Grayish yellow	Dull grayish yellow	
	Finish		Grayish yellow brown	Bluish gray	
	Finish		Reddish brown	Dull yellow brown	
	Finish		Grayish white	Grayish bluish white	Possibly phosphorescent?
	Finish		Pale yellow	Yellow	
	Finish		Yellowish white	Grayish white	
	Finish		Grayish white	Dull gray	
	Finish		Yellowish white	Yellow gray	
	Finish		Yellowish white	Dull	

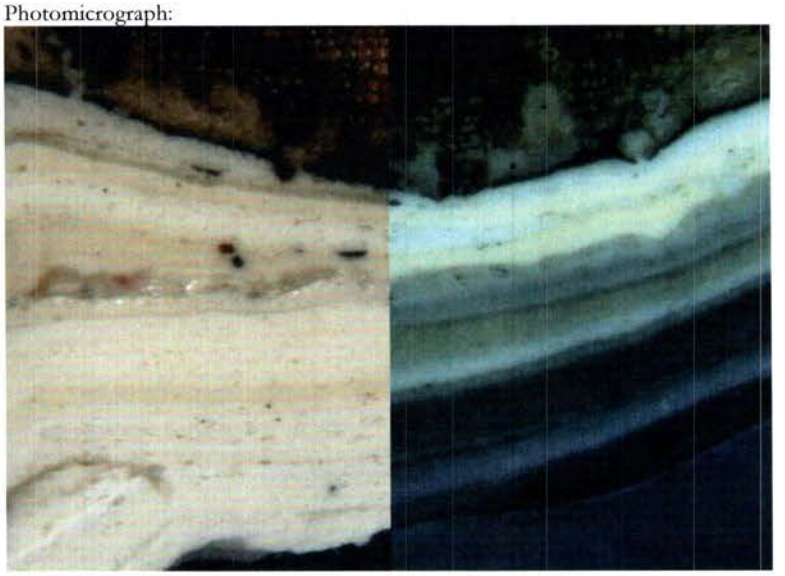
Observations:

Location: West Façade **Section Build:** B
Sample: EXT-07
Element: Window trim (W103)

Analysis: ( ) Manual cross-section/RLM (x) Embedded cross-section/RLM (x) Ultraviolet fluorescence
( ) Binder characterization ( ) Pigment analysis ( ) Exposure window

Sample Location:

Photomicrograph:



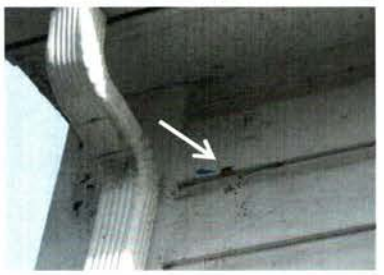
Chromachronology:

Campaign	Layer	Munsell Color	Color Name	Autofluorescence	Notes
	Substrate: Wood				
Build B/C	Finish	(~10YR 6/4)	Light yellowish brown	Grayish white	Possibly multiple layers
	Finish		Blackish brown	Dull gray/Little	
	Finish		Grayish white	Grayish bluish white	
	Finish		Grayish white	Grayish bluish white	
	Finish		Pale yellow	Yellow	
	Finish		Yellowish white	Bluish grayish white	
	Finish		Pale yellow	Yellow	
	Finish		Pale yellow	Dull yellow gray	
	Finish		Grayish white	Dull gray	
	Finish		Yellowish white	Yellow gray	
	Finish		Pale yellow	Grayish white	
	Finish		Yellowish white	Dull gray	
	Finish		Yellowish white	None	
	Finish		Yellowish white	None	
	Finish		Yellowish white	Dull gray	
	Finish		Yellowish white	None	

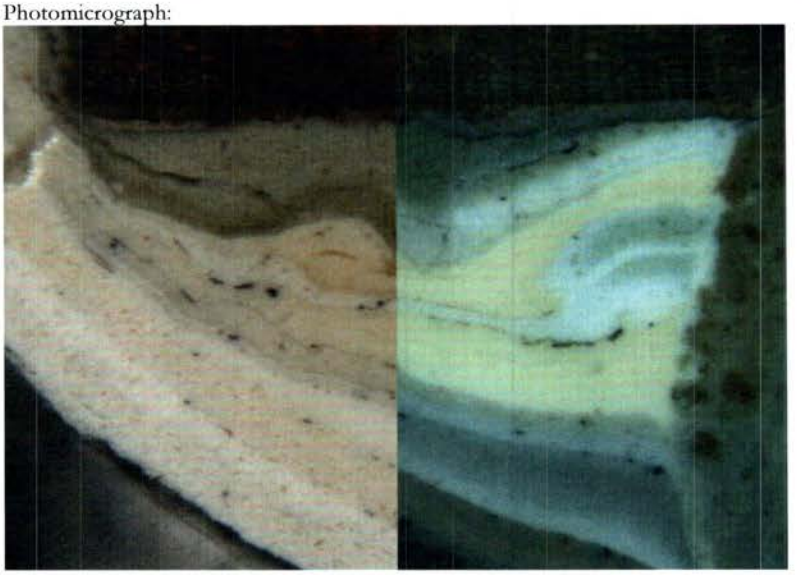
Observations:

Location:	West Façade	**Section Build:**	A				
Sample:	EXT-08						
Element:	Upper clapboard, North end of Section						
Analysis:	( )	Manual cross-section/RLM	(x)	Embedded cross-section/RLM	(x)	Ultraviolet fluorescence	
	( )	Binder characterization	( )	Pigment analysis	( )	Exposure window	

Sample Location:



Photomicrograph:



Chromachronology:

Campaign	Layer	Munsell Color	Color Name	Autofluorescence	Notes
	Substrate: Wood				
	Finish	* Unable to obtain match	-	Dull yellow Bluish gray	Fragmentary evidence of finish on weathered wood surface
	Finish		Gray	Grayish yellow	
	Finish		Gray	Grayish bluish white	
	Finish		Pale yellow	Yellow	
	Finish		Yellowish white	Bluish grayish white	
	Finish		Pale yellow	Yellow	
	Finish		Pale yellow	Dull yellow gray	
	Finish		Grayish white	Dull gray	
	Finish		Yellowish white	Yellow gray	
	Finish		Pale yellow	Grayish white	
	Finish		Yellowish white	Dull gray	
	Finish		Yellowish white	None	
	Finish		Yellowish white	None	
	Finish		Yellowish white	Dull gray	
	Finish		Yellowish white	None	

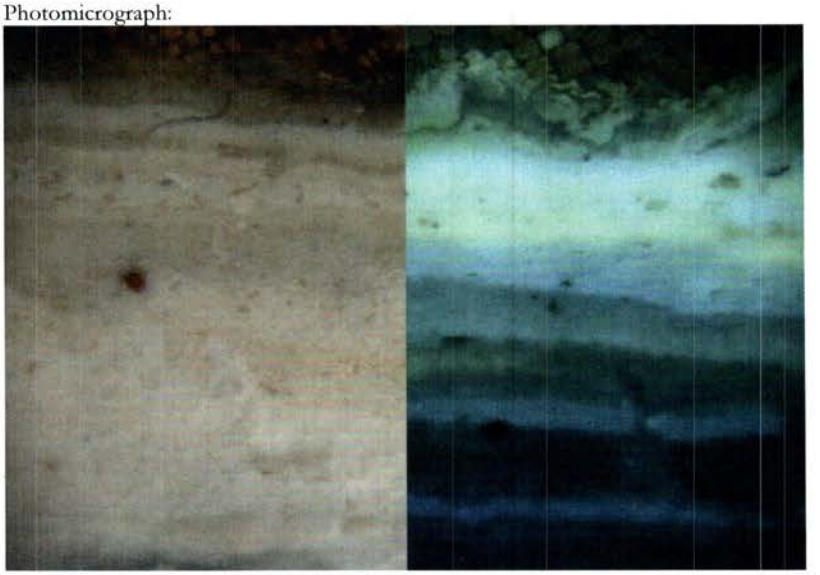
Observations:

Location: West Façade **Section Build:** A
Sample: EXT-09
Element: Upper clapboard, South end of Section

Analysis: ( ) Manual cross-section/RLM (x) Embedded cross-section/RLM (x) Ultraviolet fluorescence
( ) Binder characterization ( ) Pigment analysis ( ) Exposure window

Sample Location:

Photomicrograph:



Chromachronology:

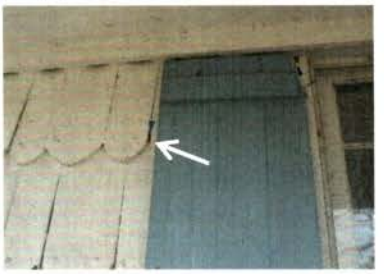
Campaign	Layer	Munsell Color	Color Name	Autofluorescence	Notes
	Substrate: Wood				
		-	-	-	* Missing at least 5 earlier finishes
	Finish		Gray	Grayish yellow	
	Finish		Gray	Grayish bluish white	
	Finish		Pale yellow	Yellow	
	Finish		Yellowish white	Bluish grayish white	
	Finish		Pale yellow	Yellow	
	Finish		Pale yellow	Dull yellow gray	
	Finish		Grayish white	Dull gray	
	Finish		Yellowish white	Yellow gray	
	Finish		Pale yellow	Grayish white	
	Finish		Yellowish white	Dull gray	
	Finish		Yellowish white	None	
	Finish		Yellowish white	None	
	Finish		Yellowish white	Dull gray	
	Finish		Yellowish white	None	

Observations:

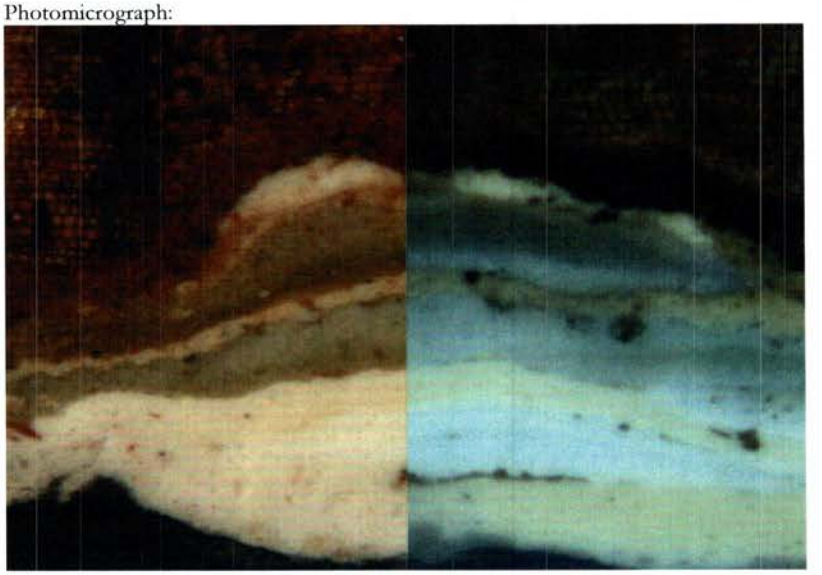
Location: East Façade **Section Build:** A
Sample: EXT-10
Element: Fish scale shingle, North end of Section

Analysis:
( ) Manual cross-section/RLM (x) Embedded cross-section/RLM (x) Ultraviolet fluorescence
( ) Binder characterization ( ) Pigment analysis ( ) Exposure window

Sample Location:



Photomicrograph:



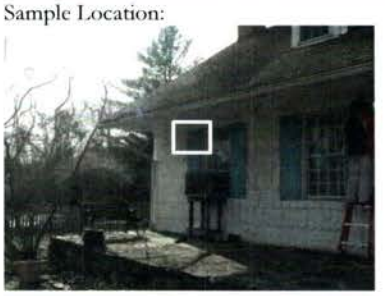
Chromachronology:

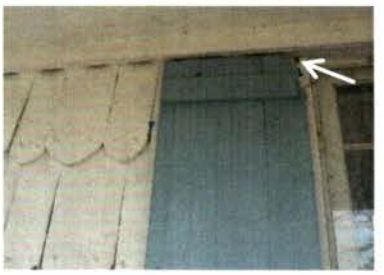
Campaign	Layer	Munsell Color	Color Name	Autofluorescence	Notes
	Substrate: Wood				
	Finish	2.5YR 3/2-3/4	Reddish brown	Little/None	
	Finish	~2.5Y 9/2	Yellowish white	Yellowish white	
	Finish	7.5-10YR 6/4	Light brown	Yellowish gray	
	Finish	10YR 5/2	Grayish pinkish brown	Dull yellow gray	
	Finish	10YR 4/4	Yellowish brown	Bluish white	
	Finish	2.5Y 7/4	Grayish yellow	Yellow	
	Finish		Gray	Bluish grayish white	
	Finish		Gray	Bluish grayish white	
	Finish		Pale yellow	Yellow	Smooth
	Finish		Yellowish white	Bluish white	
	Finish		Yellowish white	Bluish white	
	Finish		Yellowish white	Yellow	Missing the rest of the sample layers

Observations:

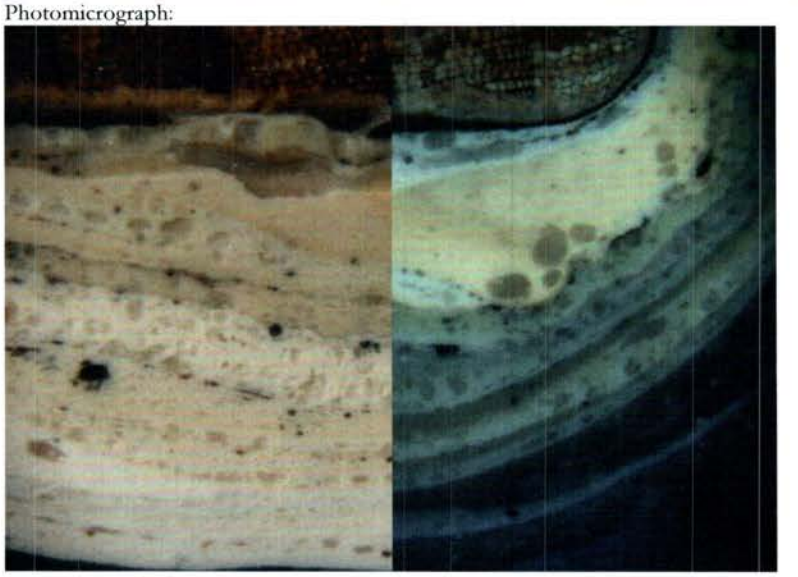
Location:	East Façade	**Section Build:**	A				
Sample:	EXT-11						
Element:	Window trim (W117), North end of Section						
Analysis:	( )	Manual cross-section/RLM	(x)	Embedded cross-section/RLM	(x)	Ultraviolet fluorescence	
	( )	Binder characterization	( )	Pigment analysis	( )	Exposure window	

Sample Location:





Photomicrograph:



Chromachronology:

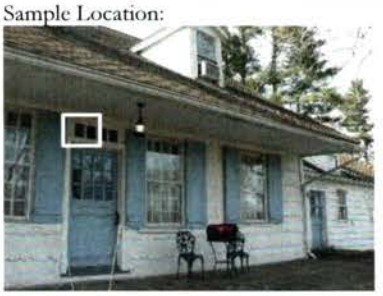
Campaign	Layer	Munsell Color	Color Name	Autofluorescence	Notes
	Substrate: Wood				
Build B/C	Finish	(~10YR 6/4)	Light yellowish brown	Grayish white	Possibly multiple layers
	Finish	(~2.5Y 2/2)	Blackish brown	Dull gray/Little	
	Finish		Grayish white	Grayish bluish white	
	Finish		Grayish white	Grayish bluish white	
	Finish		Pale yellow	Yellow	
	Finish		Yellowish white	Bluish grayish white	
	Finish		Pale yellow	Yellow	
	Finish		Pale yellow	Dull yellow gray	
	Finish		Grayish white	Dull gray	
	Finish		Yellowish white	Yellow gray	
	Finish		Pale yellow	Grayish white	
	Finish		Yellowish white	Dull gray	
	Finish		Yellowish white	None	
	Finish		Yellowish white	None	
	Finish		Yellowish white	Dull gray	
	Finish		Yellowish white	None	
	Finish		Yellowish white	None	

Observations:
This piece of window trim was later added for continuity likely.

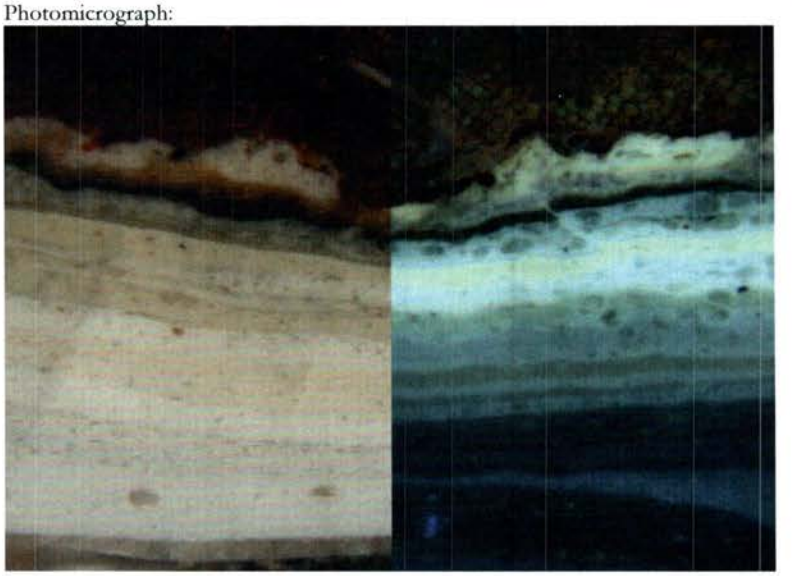
Location: East Façade **Section Build:** A
Sample: EXT-12
Element: Transom molding above doorframe (Door D)

Analysis: ( ) Manual cross-section/RLM (x) Embedded cross-section/RLM (x) Ultraviolet fluorescence
( ) Binder characterization ( ) Pigment analysis ( ) Exposure window

Sample Location:



Photomicrograph:



Chromachronology:

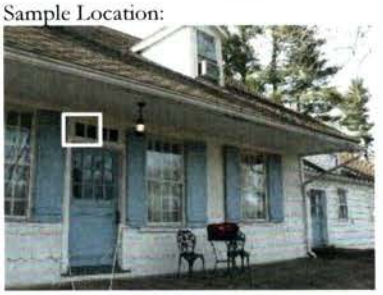
Campaign	Layer	Munsell Color	Color Name	Autofluorescence	Notes
	Substrate: Wood				
	Finish	2.5YR 3/4	Reddish brown	None	
	Finish	2.5Y 9/2	Pale yellowish white	Light yellowish white	
	Finish	2.5Y 8/2	Pale yellow	Yellowish white	
	Finish	10YR 6/4	Light yellowish brown	Dull yellowish gray	
	Finish	TBD	Dark brown	Dull gray/Little	
	Finish		Grayish white	Gray-yel to Bluish white	
	Finish		Grayish white	Gray-yel to Bluish white	
	Primer + Finish		Yellowish white Pale yellow	Yellowish white Yellow	Smooth layer
	Finish		Yellowish white	Bluish white	
	Finish		Pale yellow	Grayish white	
	Finish		Pale yellow	Dull yellow	
	Finish		Yellowish white	Dull gray	
	Finish		Pale yellow	Dull gray	
	Finish		Pale yellow	Dull gray	
	Finish		Pale yellow	Dull gray	
	Finish		Yellowish white	Little/None	
	Finish		Grayish white	Little/None	
	Finish		Grayish white	Dull gray	
	Finish		Yellowish white	Little/None	
	Finish		Yellowish white	Little/None	

Observations:

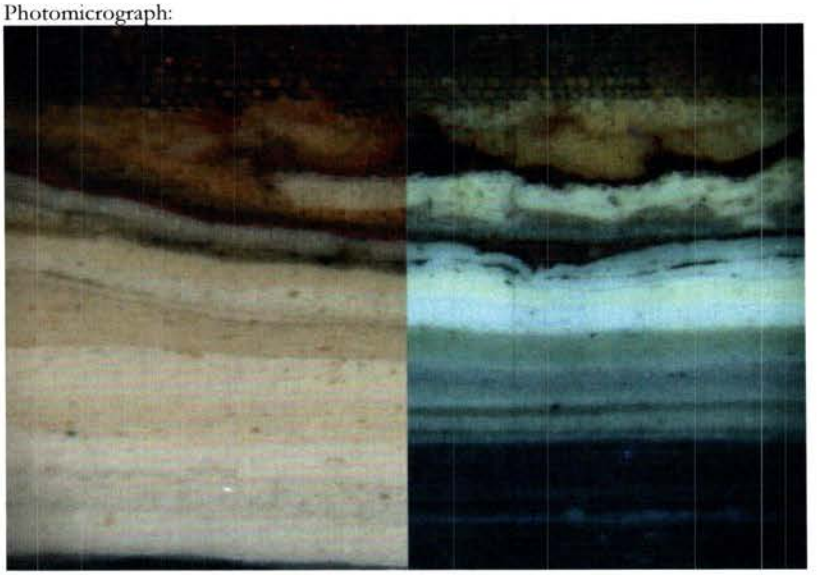
Location: East Façade **Section Build:** A
Sample: EXT-13
Element: Transom window sash (Door D)

Analysis: ( ) Manual cross-section/RLM (x) Embedded cross-section/RLM (x) Ultraviolet fluorescence
( ) Binder characterization ( ) Pigment analysis ( ) Exposure window

Sample Location:



Photomicrograph:



Chromachronology:

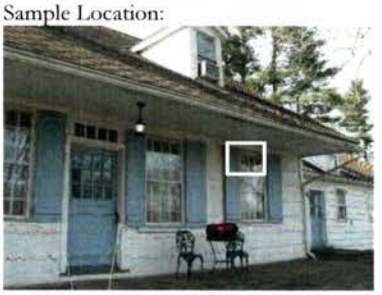
Campaign	Layer	Munsell Color	Color Name	Autofluorescence	Notes
	Substrate: Wood				
	Finish	~2.5Y 7/2-8/2	Pale yellow	Yellowish white	
	Finish	~2.5Y 7/2	Grayish yellow	Yellow	
	Finish	2.5YR 3/4	Reddish brown	Little/None	
	Finish	2.5Y 9/2	Pale yellowish white	Light yellowish white	
	Finish	2.5Y 8/2	Pale yellow	Yellowish white	
	Finish	10YR 6/4	Light yellowish brown	Dull yellowish gray	
	Finish	10YR 4/4	Mod. yellowish brown	Grayish white	
	Finish	7.5R 3/4	Mod. reddish brown	Dull yellow brown	
	Finish		Grayish white	Gray-yel to Bluish white	Some phosphorescence; dirt layer
	Finish		Grayish white	Gray-yel to Bluish white	
	Finish		Pale yellow	Yellow	
	Finish		Yellowish white	Bluish white	
	Finish		Pale yellow	Yellow	
	Finish		Pale yellow	Dull yellow gray	
	Finish		Yellowish white	Dull gray	
	Finish		Yellowish white	Dull yellow gray	
	Finish		Yellowish white	Dull yellow gray	
	Finish		Yellowish white	Little/None	
	Finish		Yellowish white	Dull gray	
	Finish		Yellowish white	Little/None	
	Finish		Yellowish white	Little/None	

Observations:

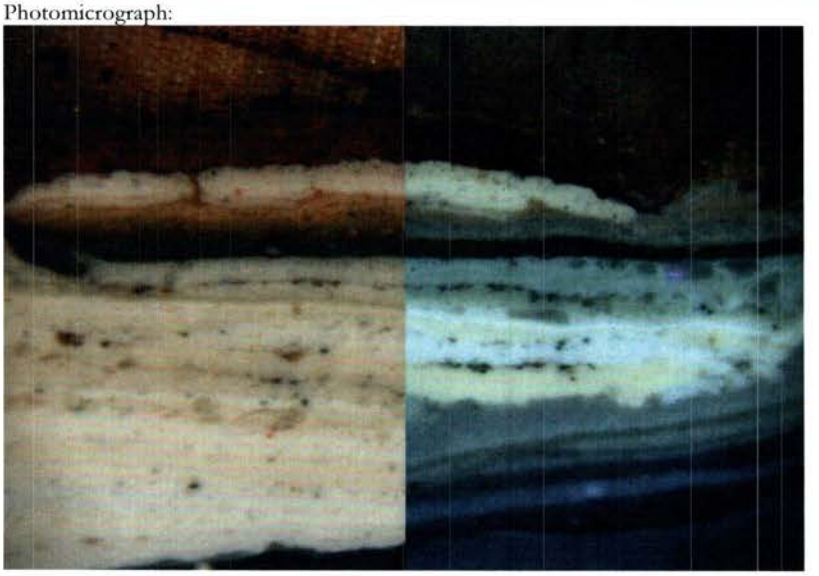
Location: East Façade **Section Build:** A
Sample: EXT-14
Element: Window trim (W114), North end of Section

Analysis:
( ) Manual cross-section/RLM (x) Embedded cross-section/RLM (x) Ultraviolet fluorescence
( ) Binder characterization ( ) Pigment analysis ( ) Exposure window

Sample Location:



Photomicrograph:



Chromachronology:

Campaign	Layer	Munsell Color	Color Name	Autofluorescence	Notes
	Substrate: Wood				
	Finish	~2.5YR 3/6	Strong reddish brown	Dull yellow brown	
	Finish	~2.5YR 3/4	Moderate reddish brown	Little/None	
	Finish	~2.5Y 8/2	Pale yellow	Yellowish white	
	Finish	~2.5Y 8/2	Pale yellow	Yellow	
	Finish	10YR 6/4	Light yellowish brown	Dull yellow	
	Finish	10YR 4/4	Mod. yellowish brown	Grayish yellow	
	Finish	~N2.25/-2.5Y 2/2	Dark blackish brown	None	
	Finish		Grayish white	Gray-yel to Bluish white	
	Finish		Grayish white	Gray-yel to Bluish white	
	Finish		Pale yellow	Yellow	
	Finish		Grayish white	Bluish white	
	Finish		Pale yellow	Yellow	
	Finish		Pale yellow	Dull gray	
	Finish		Yellowish white	Dull gray	
	Finish		Yellowish white	Dull yellow gray	
	Finish		Yellowish white	Dull yellow gray	
	Finish		Yellowish white	Little/None	
	Finish		Yellowish white	Dull gray	
	Finish		Yellowish white	Little/None	
	Finish		Yellowish white	Little/None	

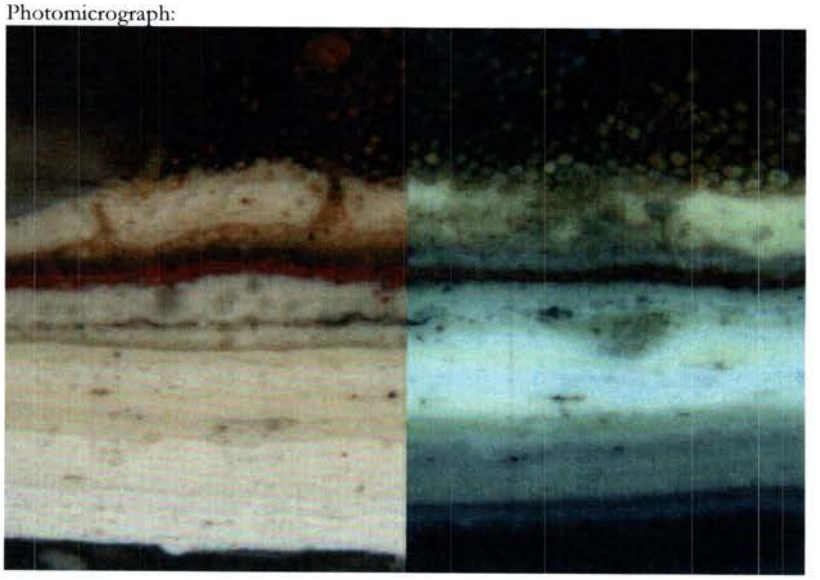
Observations:

Location: East Façade **Section Build:** A
Sample: EXT-15
Element: Window sash (W114), North end of Section

Analysis:
( ) Manual cross-section/RLM (x) Embedded cross-section/RLM (x) Ultraviolet fluorescence
( ) Binder characterization ( ) Pigment analysis ( ) Exposure window

Sample Location:

Photomicrograph:



Chromachronology:

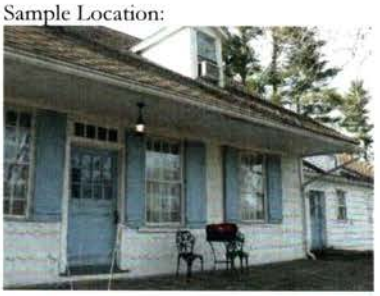
Campaign	Layer	Munsell Color	Color Name	Autofluorescence	Notes
	Substrate: Wood				
	Finish	~2.5Y 8/2	Pale yellow/ white	Light yellowish white	
	Finish	~2.5Y 9/2	Yellowish white	Yellowish white	
	Finish	10YR 6/4	Light yellowish brown	Dull yellowish gray	
	Finish	10YR 4/4	Moderate yellow brown	Grayish white	
	Finish	7.5R 3/4	Mod. reddish brown	Dull yellow brown	
	Finish		Grayish white	Gray-yel to Bluish white	Some phosphorescence; dirt layer
	Finish		Grayish white	Gray-yel to Bluish white	
	Finish		Pale yellow	Yellow	
	Finish		Yellowish white	Bluish white	
	Finish		Pale yellow	Yellow	
	Finish		Pale yellow	Dull yellow gray	
	Finish		Yellowish white	Dull gray	
	Finish		Yellowish white	Dull yellow gray	
	Finish		Yellowish white	Dull yellow gray	
	Finish		Yellowish white	Little/None	
	Finish		Yellowish white	Dull gray	
	Finish		Yellowish white	Little/None	
	Finish		Yellowish white	Little/None	

Observations:

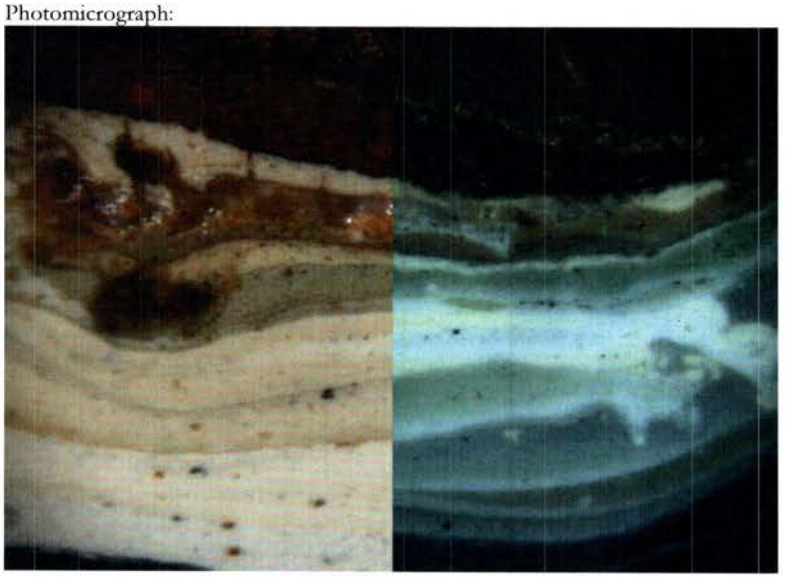
Location: East Façade **Section Build:** A
Sample: EXT-16
Element: Fish scale shingle, North end of Section

Analysis: ( ) Manual cross-section/RLM (x) Embedded cross-section/RLM (x) Ultraviolet fluorescence
( ) Binder characterization ( ) Pigment analysis ( ) Exposure window

Sample Location:



Photomicrograph:



Chromachronology:

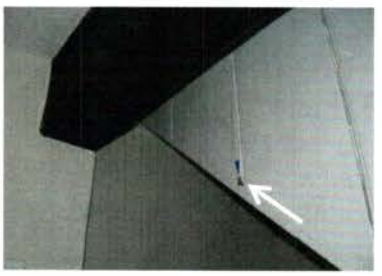
Campaign	Layer	Munsell Color	Color Name	Autofluorescence	Notes
	Substrate: Wood				
	Finish	2.5YR 3/2-3/4	Reddish brown	Little/None	
	Finish	~2.5Y 9/2	Yellowish white	Yellowish white	
	Finish	7.5-10YR 6/4	Light brown	Yellowish gray	
	Finish	10YR 5/2	Grayish pinkish brown	Dull yellow gray	
	Finish	10YR 4/4	Yellowish brown	Bluish white	
	Finish	2.5Y 7/4	Grayish yellow	Yellow	
	Finish		Gray	Bluish grayish white	
	Finish		Gray	Bluish grayish white	
	Finish		Pale yellow	Yellow	
	Finish		Yellowish white	Bluish white	
	Finish		Pale yellow	Yellow	
	Finish		Gray	Dull gray	
	Finish		Grayish yellow	Grayish yellow; white	
	Finish		Yellowish white	Dull gray	
	Finish		Yellowish white	Dull gray	
	Finish		Yellowish white	Dull gray	
	Finish		Yellowish white	Little/None	
	Finish		Yellowish white	Little/None	

Observations:

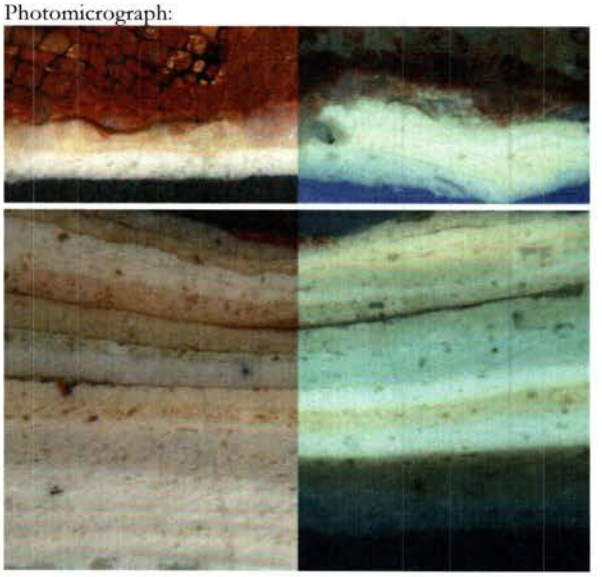
Room:	Foyer	**Section Build:**	A
Sample:	101-01		
Element:	Beaded board stair wall		

Analysis:	( )	Manual cross-section/RLM	(x)	Embedded cross-section/RLM	(x)	Ultraviolet fluorescence
	( )	Binder characterization	( )	Pigment analysis	( )	Exposure window

Sample Location:



Photomicrograph:



Chromachronology:

Campaign	Layer	Munsell Color	Color Name	Autofluorescence	Notes
	Substrate: Wood				
18th century	P/Finish	(2.5YR 3/2?)	Reddish brown	Little/None	Unable to distinguish layers in bulk sample
	Finish	~2.5YR 3/6	Reddish brown	Dull yellow gray	
	Finish		Gray	Grayish yellow	
	Finish		Grayish yellow	Yellowish white/yellow	
	Finish		Yellowish white	Grayish yellow	Minima phosphorescence
	Primer/Ground Grain + Finish		Pale yellow/yel-white Light yellowish brown Tan (translucent)	Grayish white Grayish yellow Dull/None	 Likely varnished
	Primer + Finish		Pale grayish green Pale grayish green	Grayish yellow Grayish yellow	
	Finish		Grayish green	Grayish yellow	Thin layer; bulky filler material
	P/Finish Finish		Light gray Light gray	Grayish yellow Grayish yellow	Phosphorescent Phosphorescent; dirt layer/soiling
* 20th c	Finish		Pale orange yellow	Yellowish white	
	Finish		Light orange yellow	Yellow	
	Finish		Pale yellow	Yellow	
	Finish		Light gray	Yellowish white	
	Finish		Grayish yellow	Little/None	
	Finish		Yellowish white	Little/None	
	Finish		Yellowish white	Little/None	
	Finish		Yellowish white	Little/None	
	Finish		Yellowish white	Little/None	
	Finish		Yellowish white	Little/None	
	Finish		Yellowish white	Little/None	

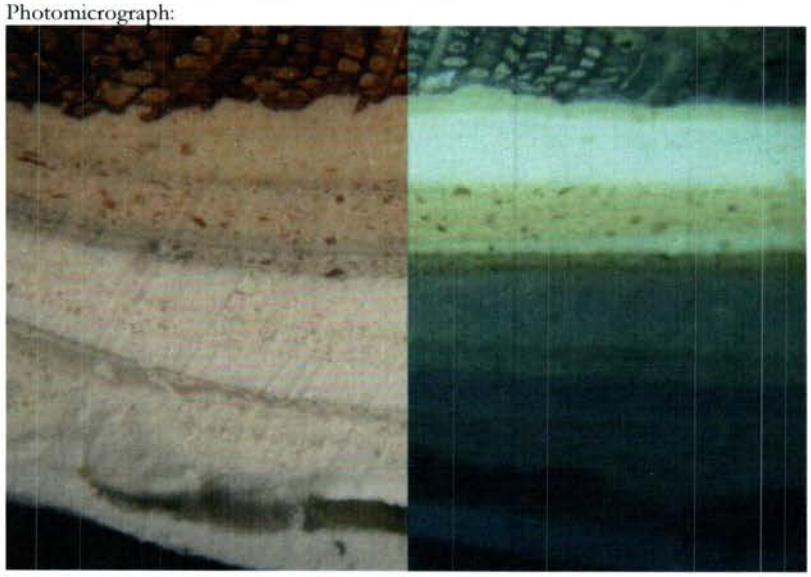
Observations:

Room:	Foyer	**Section Build:**	A
Sample:	101-02		
Element:	Transom sash (Door A)		

Analysis:	( )	Manual cross-section/RLM	(x)	Embedded cross-section/RLM	(x)	Ultraviolet fluorescence
	( )	Binder characterization	( )	Pigment analysis	( )	Exposure window

Sample Location:

Photomicrograph:



Chromachronology:

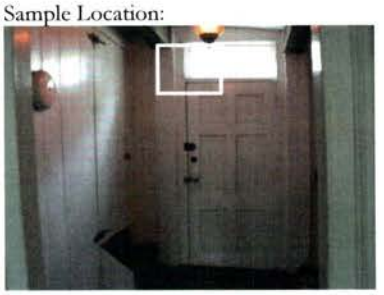
Campaign	Layer	Munsell Color	Color Name	Autofluorescence	Notes
	Substrate: Wood				
	Finish		Brown (translucent)	Bluish gray	Fragmentary evidence of varnish
* 20th c	Primer/Finish		Pale yellow	Yellow	*Missing earlier finishes
	Finish		Pale orange yellow	Yellowish white	
	Finish		Light orange yellow	Yellow	
	Finish		Pale yellow	Yellow	
	Finish		Light grayish yellow brown	Yellowish white	
	Finish		Grayish yellow	Little/None	
	Finish		Yellowish white	Little/None	
	Finish		Yellowish white	Little/None	
	Finish		Yellowish white	Little/None	
	Finish		Yellowish white	Little/None	
	Finish		Yellowish white	Little/None	
	Finish		Yellowish white	Little/None	

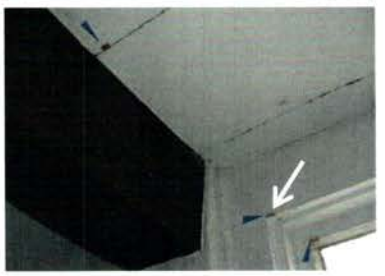
Observations:
It is believed that this opening has been modified since original construction; the doorframe and transom window appear to have been replaced in the first half of the 20th century.

Room:	Foyer	**Section Build:**	A
Sample:	101-03		
Element:	Doorframe (Door A)		

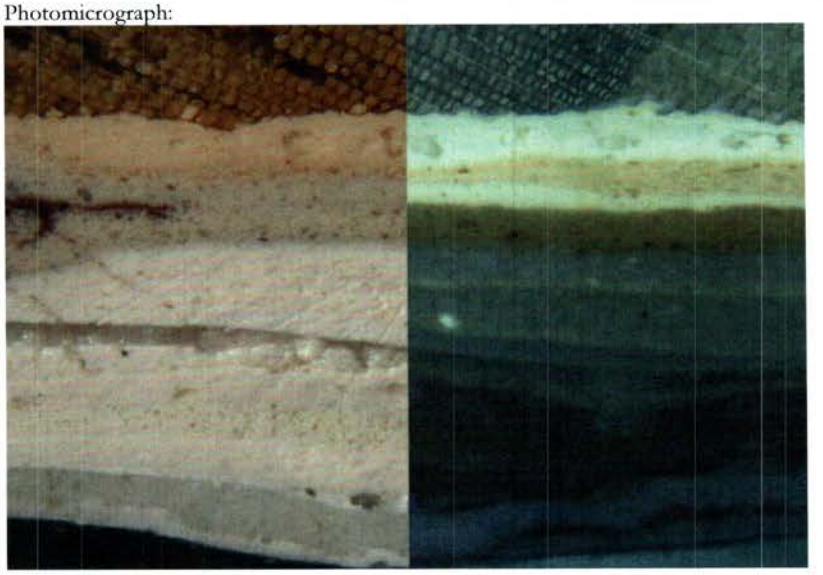
Analysis:	( )	Manual cross-section/RLM	(x)	Embedded cross-section/RLM	(x)	Ultraviolet fluorescence
	( )	Binder characterization	( )	Pigment analysis	( )	Exposure window

Sample Location:





Photomicrograph:



Chromachronology:

Campaign	Layer	Munsell Color	Color Name	Autofluorescence	Notes
	Substrate: Wood				
	Finish		Brown (translucent)	Bluish gray	Fragmentary evidence of varnish
* 20th c.	Primer/Finish		Pale yellow	Yellow	*Missing earlier finishes
	Finish		Pale orange yellow	Yellowish white	
	Finish		Light orange yellow	Yellow	
	Finish		Pale yellow	Yellow	
	Finish		Light grayish yellow brown	Yellowish white	
	Finish		Grayish yellow	Little/None	
	Finish		Grayish yellow	Little/None	
	Finish		Yellowish white	Little/None	
	Finish		Yellowish white	Little/None	
	Finish		Yellowish white	Little/None	
	Finish		Yellowish white	Little/None	
	Finish		Yellowish white	Little/None	
	Patch/repair	-	-	-	Patching compound/repair material
	Finish		Yellowish white	Little/None	

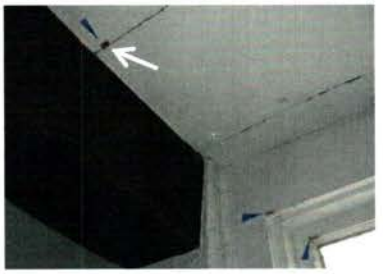
Observations:
It is believed that this opening has been modified since original construction; the doorframe and transom window appear to have been replaced in the first half of the 20th century.

Note: In this view of sample, the earlier fragments of varnish are easier to see.

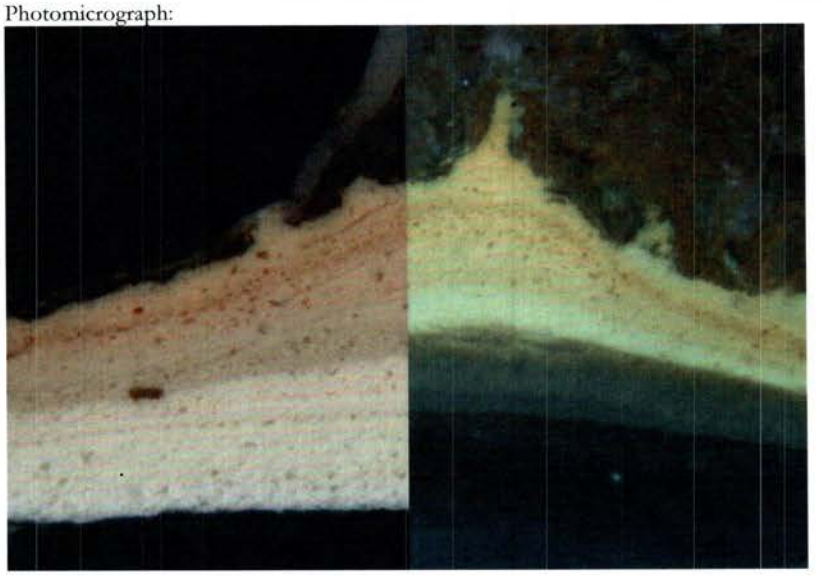
Room: Foyer **Section Build:** A
Sample: 101-04
Element: Ceiling (Door A)

Analysis: ( ) Manual cross-section/RLM (x) Embedded cross-section/RLM (x) Ultraviolet fluorescence
( ) Binder characterization ( ) Pigment analysis ( ) Exposure window

Sample Location:



Photomicrograph:



Chromachronology:

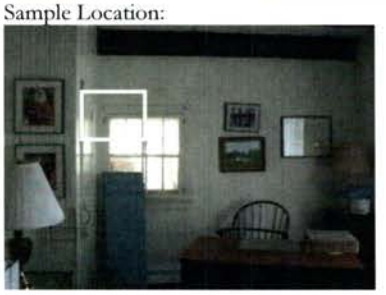
Campaign	Layer	Munsell Color	Color Name	Autofluorescence	Notes
	Substrate: Wood				
	Finish		Brown (translucent)	Bluish gray	Fragmentary evidence of varnish
*	Primer/Finish		Pale yellow	Yellow	*Missing earlier finishes
	Finish		Pale orange yellow	Yellowish white	
	Finish		Light orange yellow	Yellow	
	Finish		Pale yellow	Yellow	
	Finish		Light grayish yellow brown	Yellowish white	
	Finish		Grayish yellow brown	Little/None	
	Finish		Yellowish white	Little/None	
	Finish		Yellowish white	Little/None	
	Finish		Yellowish white	Little/None	
	Finish		Yellowish white	Little/None	
	Finish		Yellowish white	Little/None	

Observations:
The ceiling was not painted until the first half of the twentieth century.

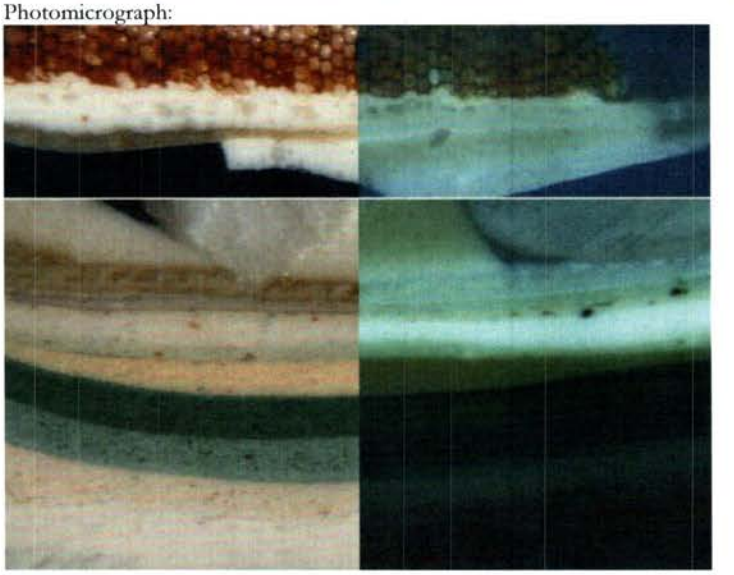
Room:	Bedroom #1 (102)	**Section Build:**	A
Sample:	102-01		
Element:	Window sash (W1 - -)		

Analysis:	( ) Manual cross-section/RLM	(x)	Embedded cross-section/RLM	(x)	Ultraviolet fluorescence
	( ) Binder characterization	( )	Pigment analysis	( )	Exposure window

Sample Location:



Photomicrograph:



Chromachronology:

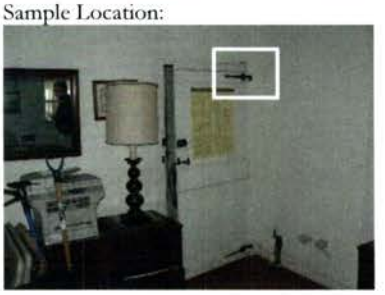
Campaign	Layer	Munsell Color	Color Name	Autofluorescence	Notes
	Substrate: Wood				
	Primer + Finish		Yellowish white Grayish yellow	Yellowish white Gray/grayish yellow	Semi-opaque finish
	Primer + Finish		Yellowish white Grayish yellow	Grayish yellow Gray	
	Finish		Light gray	Grayish yellow	Two layers
	Finish		Pale orange yellow	Yellow	Thin layer
	Finish		Yellowish white	Bright yellowish white	
	Finish		Pale green	Yellow	
	Finish		Light yellow	Little/None	
	Finish		Dark green	Little/None	
	Finish		Dark bluish gray	Little/None	
	Finish		Dark bluish gray	Little/None	
	Finish		Light yellow	Little/None	
	Finish		Yellowish white	Little/None	
	Finish		Yellowish white	Little/None	

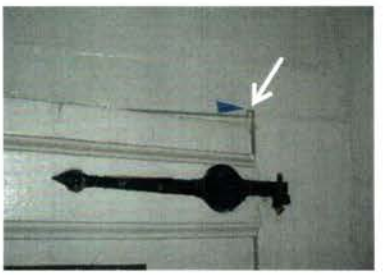
Observations:

Room: Bedroom #1 (102) **Section Build:** A
Sample: 102-02
Element: Doorframe (Doorway to Foyer)

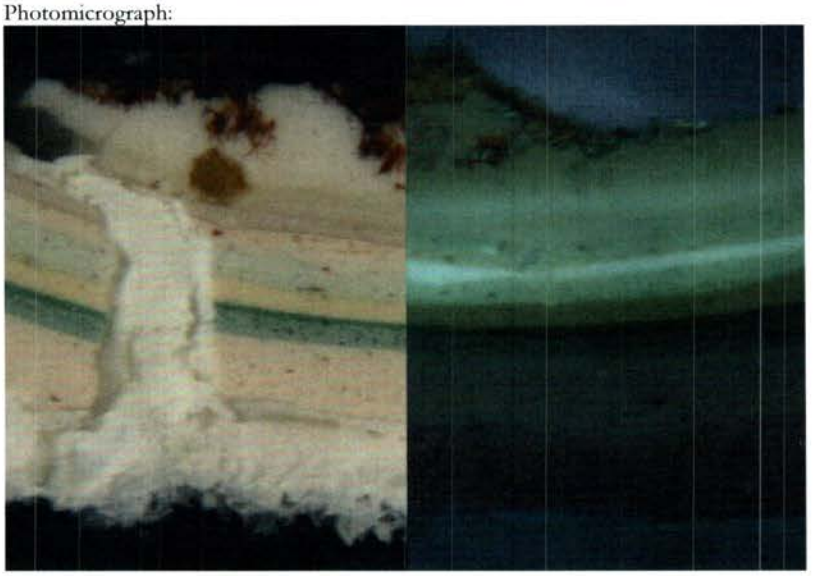
Analysis: ( ) Manual cross-section/RLM (x) Embedded cross-section/RLM (x) Ultraviolet fluorescence
( ) Binder characterization ( ) Pigment analysis ( ) Exposure window

Sample Location:





Photomicrograph:



Chromachronology:

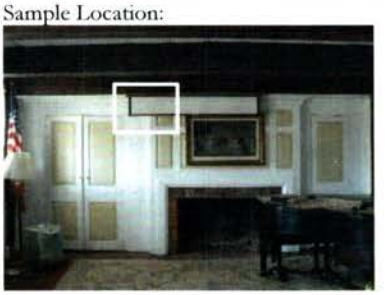
Campaign	Layer	Munsell Color	Color Name	Autofluorescence	Notes
	Substrate: Wood				
	Finish	~2.5YR 3/2-4	Reddish brown	Little/None	Fragmentary
	Finish(es)	-	-	-	Likely missing intermediate layers
	Primer + Finish		Yellowish white Grayish yellow	Grayish yellow Gray	Possibly 2 coats
	Finish		Grayish yellow	Dull yellow	
	Finish		Light gray	Grayish yellow	
	Finish		Pale orange yellow	Yellow	Thin layer
	Finish		Yellowish white	Bright yellowish white	
	Finish		Pale green	Yellow	
	Finish		Light yellow	Little/None	
	Finish		Dark green	Little/None	
	Finish		Dark bluish gray	Little/None	
	Finish		Dark bluish gray	Little/None	
	Finish		Light yellow	Little/None	
	Finish		Yellowish white	Little/None	
	Finish		Yellowish white	Little/None	

Observations:

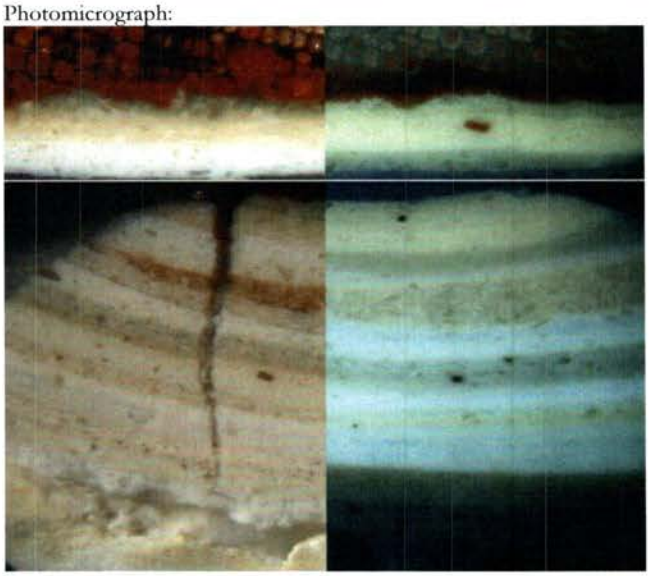
Room: Living Room (103) **Section Build:** A
Sample: 103-01
Element: South wall crown molding

Analysis: ( ) Manual cross-section/RLM (x) Embedded cross-section/RLM (x) Ultraviolet fluorescence
( ) Binder characterization ( ) Pigment analysis ( ) Exposure window

Sample Location:



Photomicrograph:



Chromachronology:

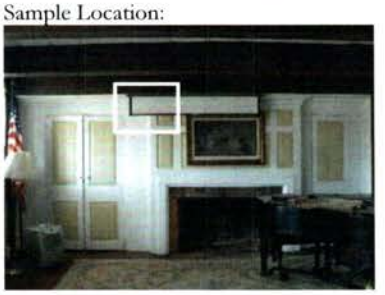
Campaign	Layer	Munsell Color	Color Name	Autofluorescence	Notes
	Substrate: Wood				
	Finish 1	~2.5YR 3/2	Reddish brown	Little/None	
	Finish 2		Grayish blue-green	Yellowish gray	
	Finish 3		Grayish yellow	Yellow	
	Finish 4		Yellowish white	Grayish yellow	
	Primer + Finish 5		Pale yellow Yellowish brown	Grayish white Dull brown	
	Finish		Grayish yellow	Grayish white	
	Finish		Yellowish white	Grayish white	
	Finish		Gray	Dull grayish white	
	Finish		Grayish yellow	Dull grayish white	Black pigments/
* 20th c?	Finish		Pale yellow	Grayish white	
	Finish		Grayish yellow	Yellow	
	Finish		Yellowish white	Grayish white	
	Finish		Light gray	Grayish white	
	Finish		Pale orange yellow	Little/None	
	Finish		Pale yellow	Little/None	
	Finish		Yellowish white	Little/None	
	Finish		Pale yellow	Little/None	
	Finish		Yellowish white	Little/None	

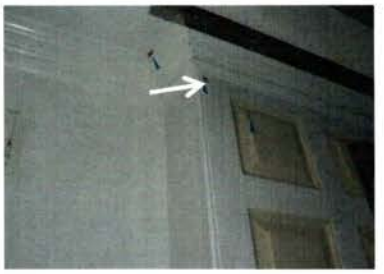
Observations:

Room:	Living Room (103)	**Section Build:**	A
Sample:	103-02		
Element:	South Fireplace surround, rail		

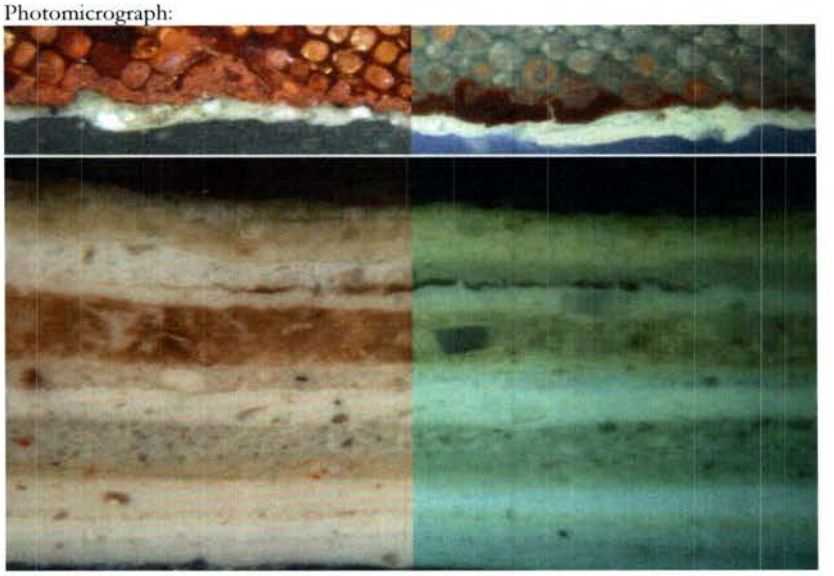
Analysis:	( ) Manual cross-section/RLM	(x)	Embedded cross-section/RLM	(x)	Ultraviolet fluorescence
	( ) Binder characterization	( )	Pigment analysis	( )	Exposure window

Sample Location:





Photomicrograph:



Chromachronology:

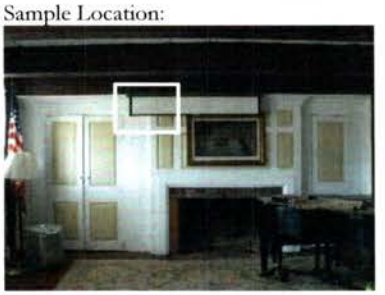
Campaign	Layer	Munsell Color	Color Name	Autofluorescence	Notes
	Substrate: Wood				
	Finish 1	~2.5YR 3/2	Reddish brown	Little/None	
	Finish 2		Grayish yellow	Yellow	
	Finish 3		Grayish yellow	Yellow	
	Primer/Ground Finish/Varnish		Yellowish white Brown	Grayish yellow	
	Primer + Finish 5		Pale yellow Yellowish brown	Dull yellow	
	Finish		Gray	Grayish white	
	Finish		Yellowish white	Grayish white	
	Finish		Gray	Dull yellow	
	Finish		Grayish yellow	Dull yellow	
	Finish		Yellowish white	Grayish white	
	Finish		Pale yellow	Yellow	
	Finish		Yellowish white	Grayish white	
	Finish		Yellowish white	Grayish white	
	Finishes	-	-	-	* Missing later finishes

Observations:

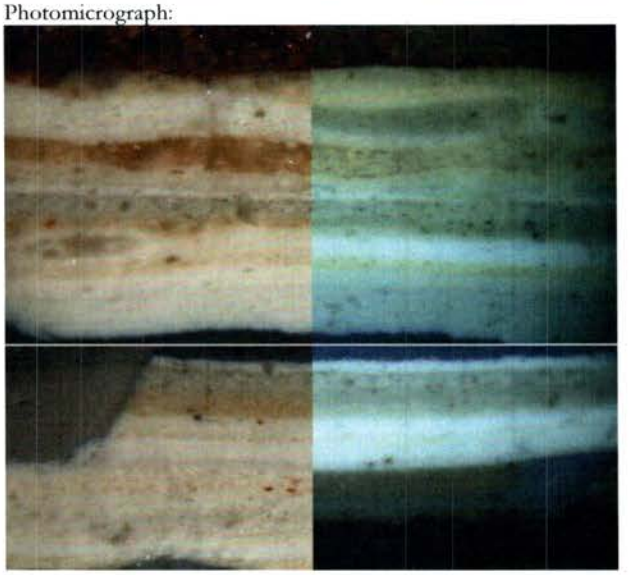
Room: Living Room (103) **Section Build:** A
Sample: 103-03
Element: South Fireplace surround, panel

Analysis: ( ) Manual cross-section/RLM (x) Embedded cross-section/RLM (x) Ultraviolet fluorescence
( ) Binder characterization ( ) Pigment analysis ( ) Exposure window

Sample Location:



Photomicrograph:



Chromachronology:

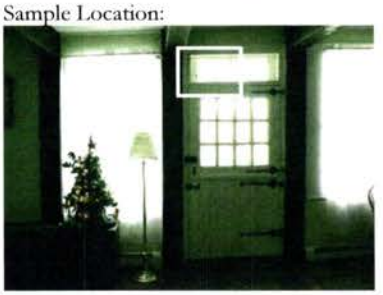
Campaign	Layer	Munsell Color	Color Name	Autofluorescence	Notes
	Substrate: Wood				
	Finish 1	~2.5YR 3/2	Reddish brown	Little/None	
	Finish 2		Grayish blue-green	Yellow	
	Finish 3		Grayish yellow	Yellow	
	Finish 4		Yellowish white	Grayish yellow	
	Primer + Finish 5		Pale yellow Light yellowish brown	Grayish white Dull yellow	
	Finish		Pale yellow	Yellow	
	Finish		Pale yellow	Gray	
	Finish		Yellowish white	Grayish white	
	Finish		Gray	Gray	
	Finish		Pale orange yellow	Gray	
	Finish		Yellowish white	Grayish white	
	Finish		Pale yellow	Yellow	
	Finish		Yellowish white	Grayish white	
	Finish		Light gray	Yellowish white	
	Finish		Pale yellow	Little/None	
	Finish		Pale orange yellow	Little/None	
	Finish		Yellowish white	Little/None	
	Finish		Grayish white	Little/None	
	Finish		Pale yellow	Little/None	
	Finish		Yellowish white	Little/None	
	Finish		Light yellow	Little/None	

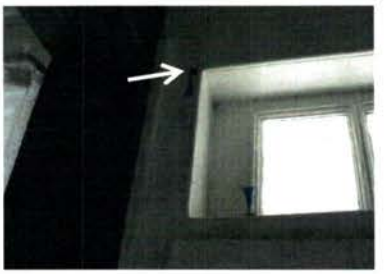
Observations:

Room: Living Room (103) **Section Build:** A
Sample: 103-04
Element: Door trim (Door D)

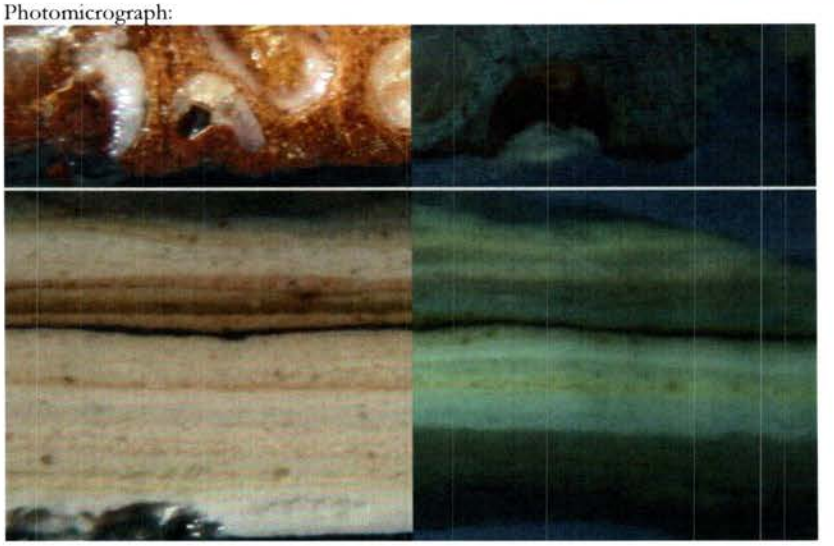
Analysis: ( ) Manual cross-section/RLM (x) Embedded cross-section/RLM (x) Ultraviolet fluorescence
( ) Binder characterization ( ) Pigment analysis ( ) Exposure window

Sample Location:





Photomicrograph:



Chromachronology:

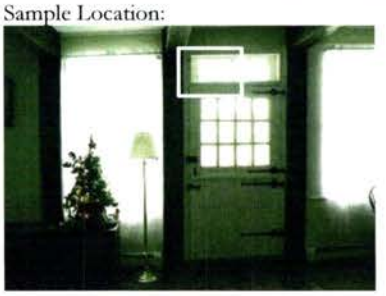
Campaign	Layer	Munsell Color	Color Name	Autofluorescence	Notes
	Substrate: Wood				
	Finish 1	~ 2.5YR 3/2	Reddish brown	Little/None	
	Finish 2		Grayish blue		
	Finish 3		Grayish yellow		
	Finish 4		Yellowish white		
	Primer + Grain/ Finish 5		Pale yellow Pale pink/orange yellow Varnish?		Fragmentary evidence
	Primer + Finish 6		Grayish yellow Brownish yellow	Grayish yellow Bluish gray	
Late 19th c.	P/Ground + Grain/Finish 7		Pale yellow Dark brown	Yellow None	
	Finish		Pale yellow	Yellow	
	Finish		Pale yellow	Grayish white	
	Finish		Pale yellow	Gray	
	Finish		Pale orange yellow	Yellow	
	Finish		Yellowish white	Gray	
	Finish		Grayish white	Gray	
	Finish		Yellowish white	Little/None	
	Finish		Pale yellow	Little/None	
	Finish		Grayish white	Little/None	
	Finish		Pale yellow	Little/None	
	Finish		Yellowish white	Little/None	
	Finish		Yellowish white	Little/None	

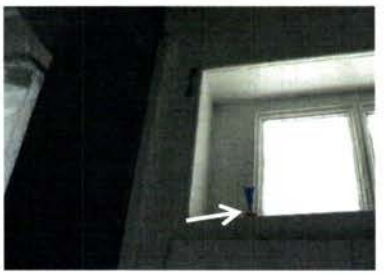
Observations:

Room: Living Room (103) **Section Build:** A
Sample: 103-05
Element: Transom window sash (Door D)

Analysis: ( ) Manual cross-section/RLM (x) Embedded cross-section/RLM (x) Ultraviolet fluorescence
( ) Binder characterization ( ) Pigment analysis ( ) Exposure window

Sample Location:





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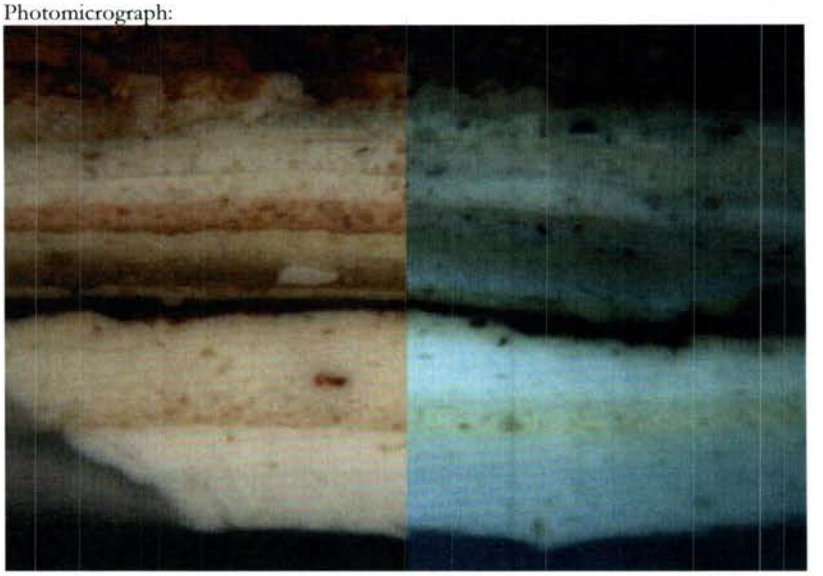


Chromachronology:

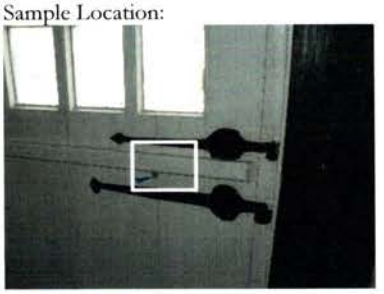
Campaign	Layer	Munsell Color	Color Name	Autofluorescence	Notes
	Substrate: Wood				
	Finish 1	2.5Y 8/4	Pale yellow		
	Finish 2		Grayish blue		
	Finish 3		Grayish yellow		Two coats possibly
	Finish 4		Yellowish white		
	P/Ground + Finish 5/Grain		Pale pink Brown		
	Primer + Finish 6		Grayish yellow Brownish yellow		
	P/Ground + Finish/Grain 7		Pale yellow Dark brown		
	Finish		Pale yellow		
	Finish				
	Finish				
	Finish				
	Finish				
	Finish				
	Finish				
	Finish				
	Finish				

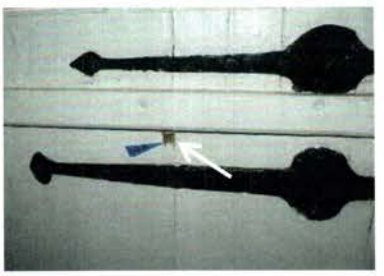
Observations:

Room: Living Room (103) **Section Build:** A
Sample: 103-06
Element: Lower half of Dutch Door (Door D)

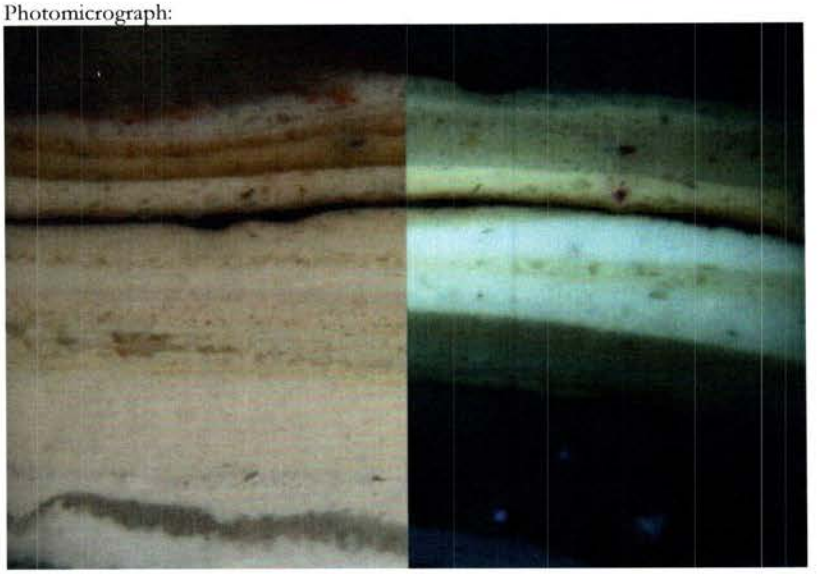
Analysis: ( ) Manual cross-section/RLM (x) Embedded cross-section/RLM (x) Ultraviolet fluorescence
( ) Binder characterization ( ) Pigment analysis ( ) Exposure window

Sample Location:





Photomicrograph:



Chromachronology:

Campaign	Layer	Munsell Color	Color Name	Autofluorescence	Notes
	Substrate: Wood				
	Finish 1	2.5YR 3/2	Reddish brown	Little/None	
	Finish 2		Pale grayish blue	Grayish yellow	
	Finish 3		Grayish yellow	Grayish white	
	Finish 4		Yellowish white	Grayish white	
	Finish 5		Pale pink	Grayish yellow	
	Finish 6		Grayish yellow	Grayish yellow	
	Primer + Finish 7		Pale yellow Dark brown	Yellow None	
	Finish		Pale yellow	Yellow	
	Finish		Pale yellow	Grayish white	
	Finish		Yellowish white	Yellow	
	Finish		Grayish white	Grayish white	
	Finish		Gray	Grayish white	
	Finish		Pale orange yellow	Little/None	
	Finish		Grayish white	Little/None	
	Finish		Grayish white	Little/None	
	Finish		Light yellow	Little/None	
	Finish		Yellowish white	Little/None	
	Finish		Yellowish white	Little/None	
	Finish		Yellowish white	Little/None	
	Finish		Yellowish white	Little/None	
	Finish		Yellowish white	Little/None	
	Finish		Yellowish white	Little/None	

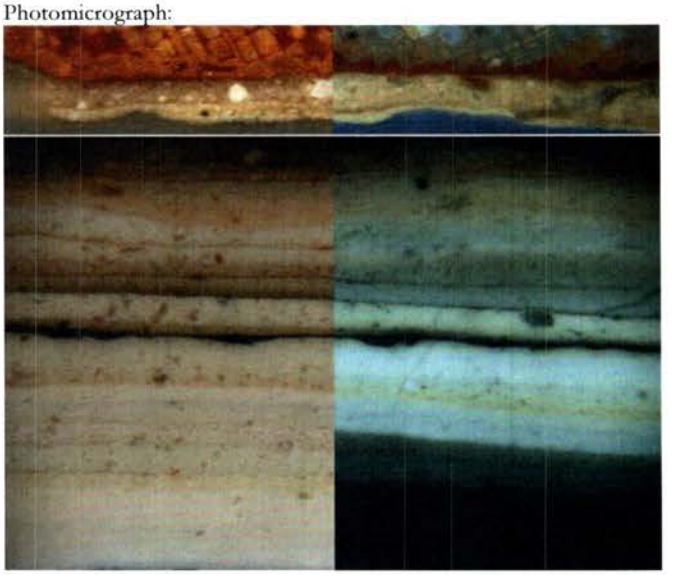
Observations:

Room:	Living Room (103)	**Section Build:**	A
Sample:	103-07		
Element:	Window frame (W114)		

Analysis:	( )	Manual cross-section/RLM	(x)	Embedded cross-section/RLM	(x)	Ultraviolet fluorescence
	( )	Binder characterization	( )	Pigment analysis	( )	Exposure window

Sample Location:

Photomicrograph:



Chromachronology:

Campaign	Layer	Munsell Color	Color Name	Autofluorescence	Notes
	Substrate: Wood				
	Finish 1	2.5YR 3/2	Reddish brown	None	
	Finish		Grayish greenish brown	Yellow	
	Finish		Grayish green	Yellow	
	Finish 2		Light grayish blue green?	Yellow	
	P/Finish		Pale yellow	Yellow	
	Finish 3		Pale yellow	Yellow	
	Finish 4		Yellowish white	Grayish white	
	Primer + Ground + Finish 5/Grain		Pale yellow Pale pinkish brown Brown	Yellow Grayish yellow Dull brown	
	Primer + Finish 6		Grayish yellow Grayish brown	Grayish yellow Grayish blue	
	Primer + Finish 7		Pale yellow Dark brown	Yellow None	
	Finish		Grayish white	Grayish white	
	Finish		Gray	Grayish white	
	Finish		Pale orange yellow	Little/None	
	Finish		Grayish white	Little/None	
	Finish		Light gray	Little/None	
	Finish		Pale yellow	Little/None	
	Finish		Light gray	Little/None	
	Finish		Light yellow	Little/None	
	Finish		Yellowish white	Little/None	
	Finish		Yellowish white	Little/None	
	Finish		Yellowish white	Little/None	

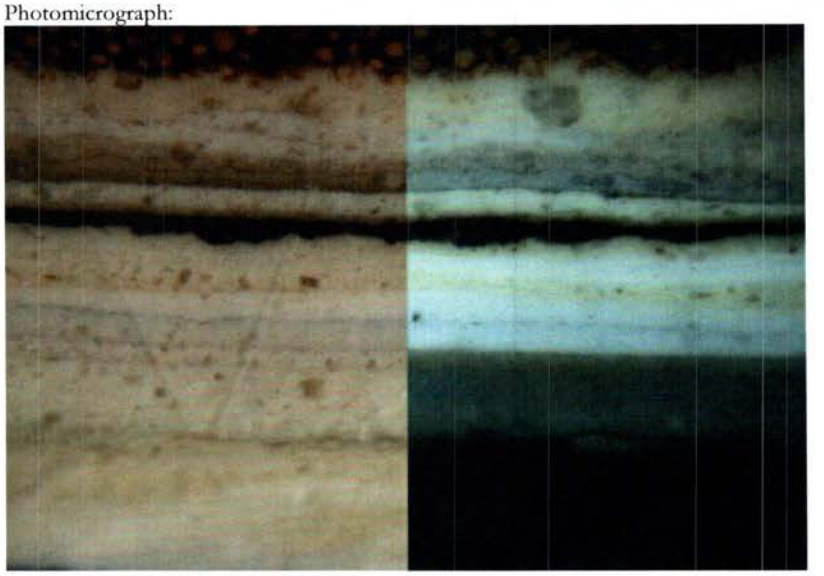
Observations:

Room: Living Room (103) **Section Build:** A
Sample: 103-08
Element: Window sash (W114)

Analysis: ( ) Manual cross-section/RLM (x) Embedded cross-section/RLM (x) Ultraviolet fluorescence
( ) Binder characterization ( ) Pigment analysis ( ) Exposure window

Sample Location:

Photomicrograph:



Chromachronology:

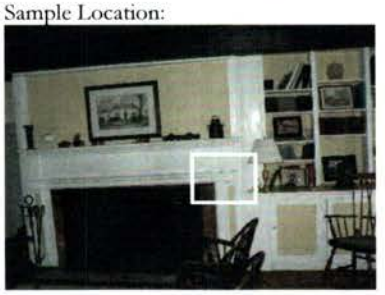
Campaign	Layer	Munsell Color	Color Name	Autofluorescence	Notes
	Substrate: Wood				
	Finish 1 ?	2.5Y 8/4	Pale yellow	Yellow	
	Fiinish(es)	-	-	-	Potentially missing a few finishes
	Finish		Grayish white	Grayish yellow white?	
	Finish		Pale yellow	Grayish white	
	Finish 5		Grayish yellow	Grayish yellow	
	Finish 6		Grayish yellow brown	Bluish gray	
	Primer? + Ground + Finish 7/Grain		Yellowish white Pinkish brown Dark brown	Grayish white Yellow None	
First half 20th c.	Primer + Finish		Pale yellow Pale yellow	Yellow Grayish white	
	Finish		Pale orange yellow	Yellow	
	Finish		Grayish white	Grayish white	
	Finish		Gray	Grayish white	
	Finish		Pale (orange) yellow	Little/None	
	Finish		Pale yellow	Little/None	
	Finish		Pale yellow	Little/None	
	Finish		Light gray	Little/None	
	Finish		Light yellow	Little/None	
	Finish		Yellowish white	Little/None	
	Finish		Yellowish white	Little/None	
	Finish		Yellowish white	Little/None	

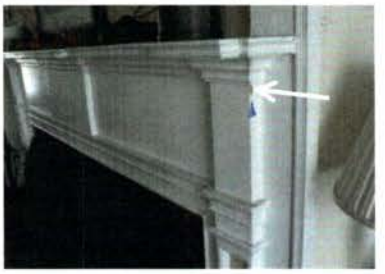
Observations:

Room:	Living Room (103)	**Section Build:**	A
Sample:	103-09		
Element:	North fireplace surround		

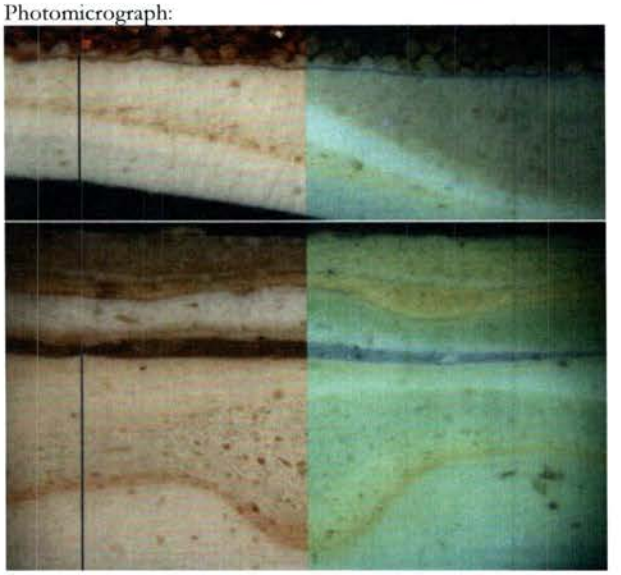
Analysis:	( ) Manual cross-section/RLM	(x)	Embedded cross-section/RLM	(x)	Ultraviolet fluorescence
	( ) Binder characterization	( )	Pigment analysis	( )	Exposure window

Sample Location:





Photomicrograph:



Chromachronology:

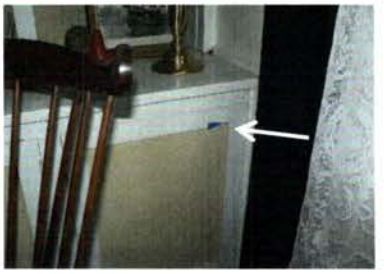
Campaign	Layer	Munsell Color	Color Name	Autofluorescence	Notes
	Substrate: Wood				
Ca. 1790-1810?	Finish 2	~10B 6/1	Grayish blue	Yellowish white	Based on Federal style?
	Finish		Grayish green		
	Finish		Grayish yellow		
	Finish		Yellowish white	Grayish green	Possibly also varnish?
	Primer + Ground + Finish/Grain		Pale yellow Pale pink Brown	Bluish gray	Varnish
	Primer + Finish		Pale yellow Pale yellow		
	Primer + Finish		Grayish yellow Pale orange yellow		
	Finish		Pale yellow		
	Finish		Pale yellow		
	Finish(es)	-	(Yellowish whites)	(Little/None)	Later layers detached from sample

Observations:

Room:	Living Room (103)	**Section Build:**	A
Sample:	103-10		
Element:	North cabinet door rail		

Analysis:	( )	Manual cross-section/RLM	(x)	Embedded cross-section/RLM	(x)	Ultraviolet fluorescence
	( )	Binder characterization	( )	Pigment analysis	( )	Exposure window

Sample Location:



Photomicrograph:

Chromachronology:

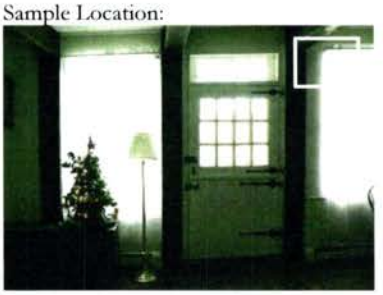
Campaign	Layer	Munsell Color	Color Name	Autofluorescence	Notes
	Substrate: Wood				
First half 20th c.	Primer + Finish		Pale yellow Pale yellow	Yellow Grayish white	
	Finish		Pale orange yellow	Yellow	
	Finish		Grayish white	Grayish white	
	Finish		Gray	Grayish white	
	Finish		Pale (orange) yellow	Little/None	
	Finish		Pale yellow	Little/None	
	Finish		Pale yellow	Little/None	
	Finish		Light gray	Little/None	
	Finish		Light yellow	Little/None	
	Finish		Yellowish white	Little/None	
	Finish		Yellowish white	Little/None	
	Finish		Yellowish white	Little/None	

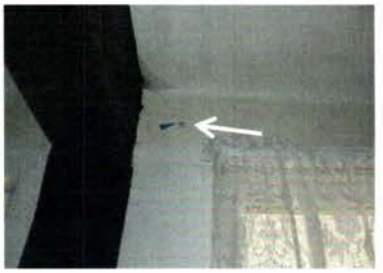
Observations:

Room: Living Room (103) **Section Build:** A
Sample: 103-11
Element: Upper East Wall, above window (W116)

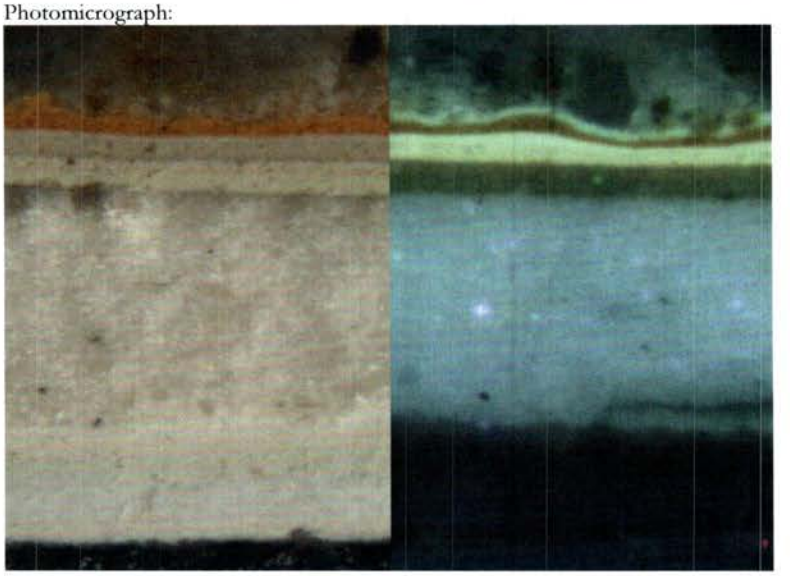
Analysis:
( ) Manual cross-section/RLM (x) Embedded cross-section/RLM (x) Ultraviolet fluorescence
( ) Binder characterization ( ) Pigment analysis ( ) Exposure window

Sample Location:





Photomicrograph:



Chromachronology:

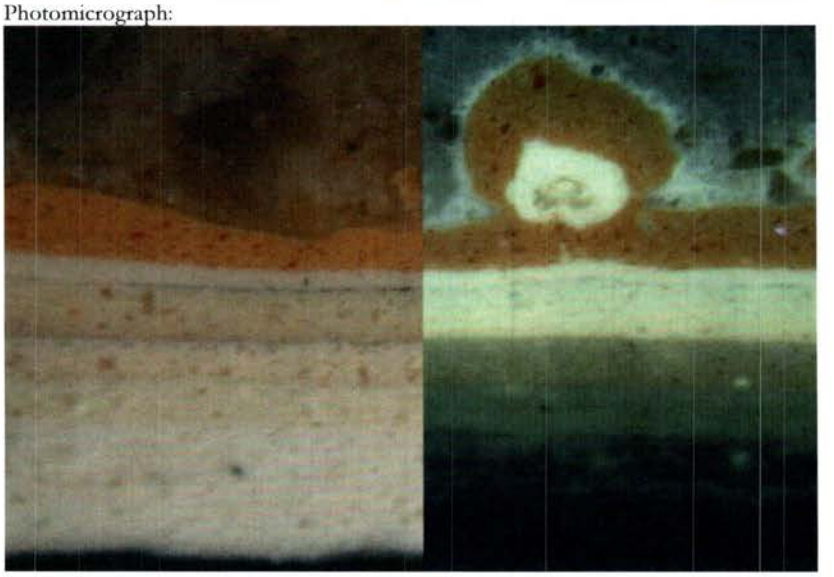
Campaign	Layer	Munsell Color	Color Name	Autofluorescence	Notes
	Plaster				
*	Finish		Moderate orange yellow	Yellow dull	Renovation campaign
	Finish		Grayish white	Yellow	
	P + Finish		Pale yellow	Yellow	
	Primer + Finish		Pale yellow Pale yellow	Little/None Little/None	
	Finish		Pale yellow	Little/None	
	Repair	-	-	-	Plaster/repair patch
	Primer + Finish		Yellowish white Pale yellow	Little/None Little/None	
	Finish		Pale yellow	Little/None	
	Finish		Yellowish white	Little/None	
	Finish		Pale yellow	Little/None	

Observations:

Room:	Living Room (103)	**Section Build:**	A		
Sample:	103-12				
Element:	Upper East Wall, above window (W114)				
Analysis:	( ) Manual cross-section/RLM	(x)	Embedded cross-section/RLM	(x)	Ultraviolet fluorescence
	( ) Binder characterization	( )	Pigment analysis	( )	Exposure window

Sample Location:

Photomicrograph:



Chromachronology:

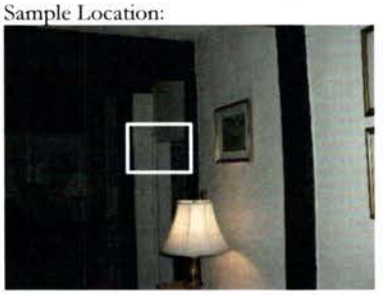
Campaign	Layer	Munsell Color	Color Name	Autofluorescence	Notes
	Plaster				
*	Finish		Moderate orange yellow	Yellow dull	Renovation campaign
	Finish		Grayish white	Yellow	
	P + Finish		Pale yellow	Yellow	
	Primer + Finish		Pale yellow Pale yellow	Little/None Little/None	
	Finish		Pale yellow	Little/None	
	Primer + Finish		Yellowish white Pale yellow	Little/None Little/None	
	Finish		Pale yellow	Little/None	
	Finish		Yellowish white	Little/None	
	Finish		Pale yellow	Little/None	

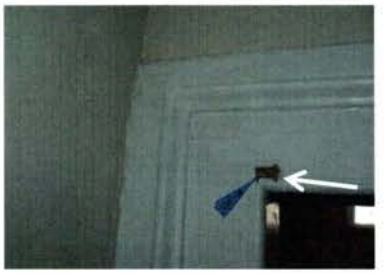
Observations:

Room: Living Room (103) **Section Build:** A
Sample: 103-13
Element: Doorframe (Doorway to Foyer)

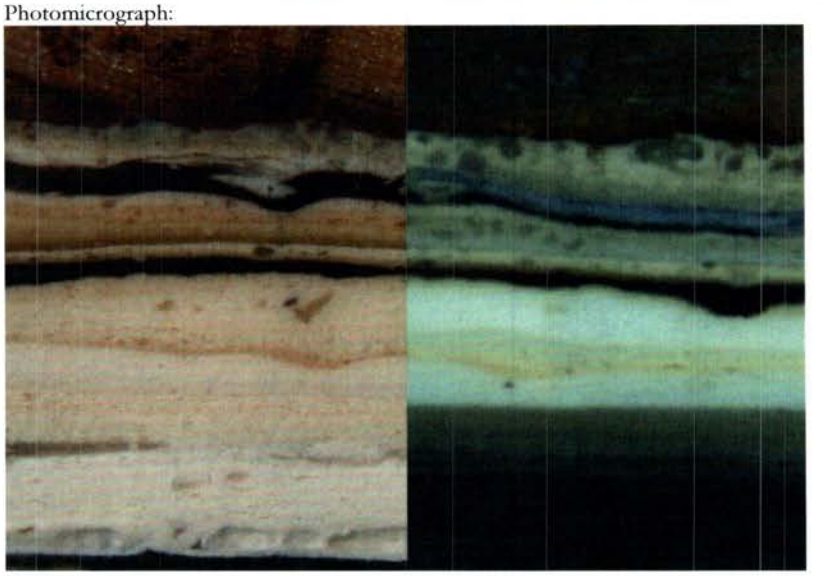
Analysis: ( ) Manual cross-section/RLM (x) Embedded cross-section/RLM (x) Ultraviolet fluorescence
( ) Binder characterization ( ) Pigment analysis ( ) Exposure window

Sample Location:





Photomicrograph:



Chromachronology:

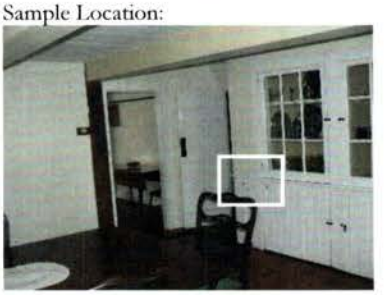
Campaign	Layer	Munsell Color	Color Name	Autofluorescence	Notes
	Substrate: Wood				
18th c.	Finish 1	2.5YR 3/2	Reddish brown	Little/None	
	Finish 2		Pale grayish blue	Yellow	
	Finish 3		Grayish yellow	Grayish yellow	
	Finish 4		Yellowish white (Bleed through dark brown)	Yellow	
	Primer + Finish 5		Yellowish white Pale pinkish yellow	Yellow Dull yellow	
	Finish 6		Grayish yellow	Grayish blue	
Late 19th c.	Primer + Ground + Finish 7/Grain		Pale yellowish white Pale pinkish brown Dark brown	Yellow Dull yellow None	
	Primer + Finish		Pale yellow Pale yellow	Yellow Grayish white	
	Primer + Finish		Pale orange yellow Moderate orange yellow	Grayish yellow Yellow	
	Primer/Finish		Grayish white	Grayish white	
	Finish		Gray	Grayish white	
	Finish		Pale (orange) yellow	Little/None	
	Finish		Pale yellow	Little/None	
	Finish		Pale yellow	Little/None	
	Finish		Light gray	Little/None	
	Finish		Yellowish white	Little/None	
	Finish		Yellowish white	Little/None	
	Finish		Yellowish white	Little/None	
	Finish		Yellowish white	Little/None	

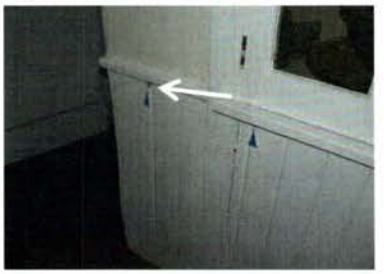
Observations:

Room:	Dining Room (107)	**Section Build:**	B
Sample:	107-01		
Element:	North wall wainscoting (wider width board)		

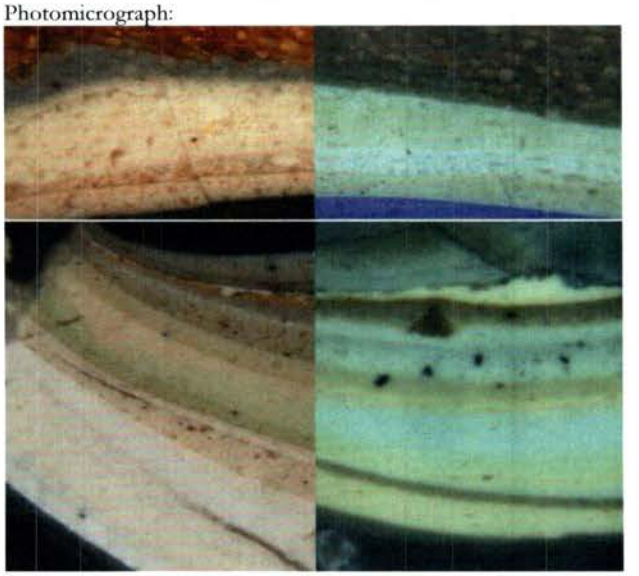
Analysis:	( )	Manual cross-section/RLM	(x)	Embedded cross-section/RLM	(x)	Ultraviolet fluorescence
	( )	Binder characterization	( )	Pigment analysis	( )	Exposure window

Sample Location:





Photomicrograph:



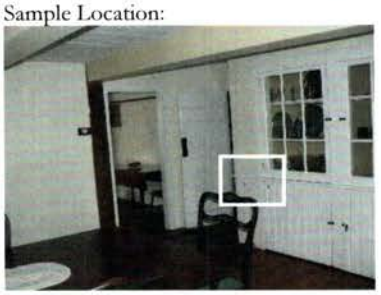
Chromachronology:

Campaign	Layer	Munsell Color	Color Name	Autofluorescence	Notes
	Substrate: Wood				
	Finish	~10B 5/1	Medium gray	Dull yellow brown	
	Finish		Pale yellow	Grayish white	Thin layer
(post-1850)	Finish		Pale yellow	Grayish yellow	Phosphorescent
	Finish		Grayish yellow	Grayish white	
	Finish		Grayish yellow	Grayish yellow	
	-	-	-	-	Split in sample
	Finish		Gray	Gray	
	Finish		Dark gray	Gray	
	Primer + Finish		White Pinkish br/orange yellow	Yellowish white Dull yellow brown	
	Finish		Medium gray	Light gray	
	Finish		Pinkish gray	Gray	
	Finish		Grayish yellow	Light gray	
	Finish		Gray to grayish yellow	Grayish yellow	
	Finish		Pale yellow	Gray	
	Finish		Pale pink	Gray	
	Finish		Pale green	Bluish whitish gray	<
	Primer + Finish		White Grayish green	Grayish white Grayish yellow	
	Finish		Pale greenish gray	Grayish yellow	
	Finish		Grayish white	Grayish white	Thin, smooth
	Finish		Yellowish pinkish white	None	
	Finish		Pale yellow	Yellow	
	Finish		Yellowish white	Little/None	
	Finish		White	Little/None	Thicker, smooth
	Finish		Yellowish white	Little/None	
	Finish		Yellowish white	Little/None	
	Finish		Yellowish white	Little/None	

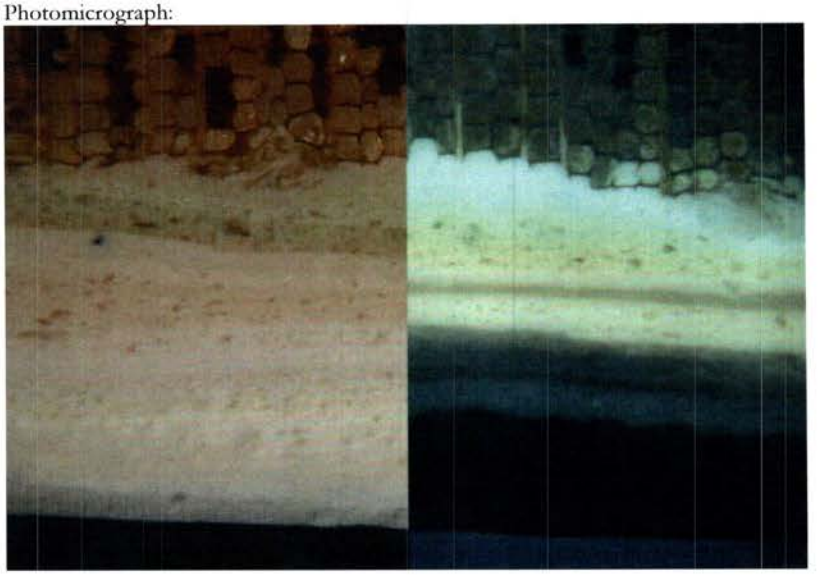
Observations:

Room:	Dining Room (107)	**Section Build:**	B				
Sample:	107-02						
Element:	North cabinet door wainscoting (narrow width)						
Analysis:	( )	Manual cross-section/RLM	(x)	Embedded cross-section/RLM	(x)	Ultraviolet fluorescence	
	( )	Binder characterization	( )	Pigment analysis	( )	Exposure window	

Sample Location:



Photomicrograph:



Chromachronology:

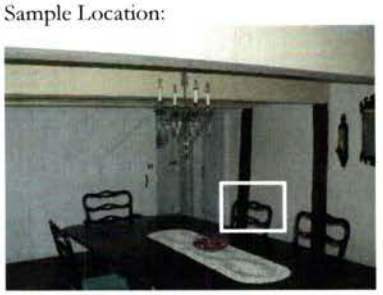
Campaign	Layer	Munsell Color	Color Name	Autofluorescence	Notes
	Substrate: Wood				
	P + Finish		Pale green	Bluish whitish gray	<
	Finish		Pale greenish white	Yellow	
	Finish		Grayish green	Yellow	
	Finish		Grayish white	Yellowish white	
	Finish		Pale yellow	Dull gray	
	Finish		Pale orange yellow	Yellowish white	
	Finish		Yellowish white	Little/None	
	Finish		Yellowish white	Little/None	
	Finish		Yellowish white	Little/None	
	Finish		Yellowish white	Little/None	
	Finish		Yellowish white	Little/None	
	Finish		Yellowish white	Little/None	
	Finish		Yellowish white	Little/None	
	Finish		Yellowish white	Little/None	

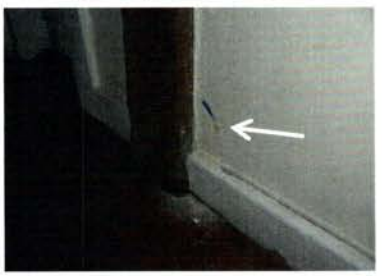
Observations:

Room: Dining Room (107) **Section Build:** B
Sample: 107-03
Element: West Wall

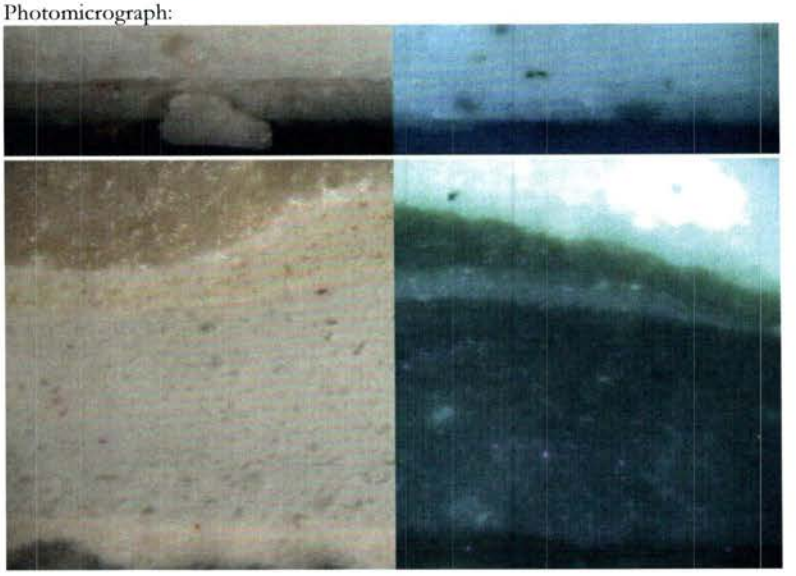
Analysis: ( ) Manual cross-section/RLM (x) Embedded cross-section/RLM (x) Ultraviolet fluorescence
( ) Binder characterization ( ) Pigment analysis ( ) Exposure window

Sample Location:





Photomicrograph:



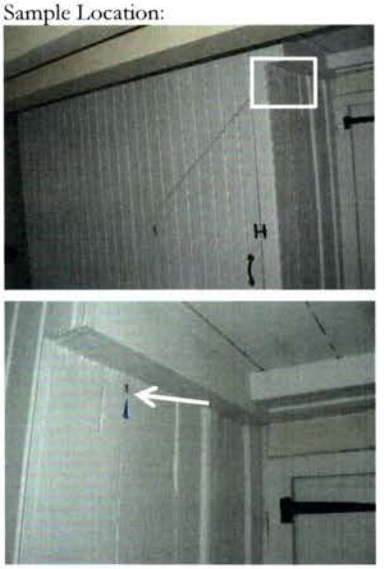
Chromachronology:

Campaign	Layer	Munsell Color	Color Name	Autofluorescence	Notes
	Substrate: Wood				
	Finish		Yellowish white/white	Grayish white	Whitewash
	Repair		-	-	Repair/Patch
	P + Finish		Pale/grayish yellow	Little/None	
	Finish		Pale yellow	Little/None	
	Finish		Grayish white	Little/None	
	Finish		Grayish white	Little/None	
	Finish		Yellowish white	Little/None	

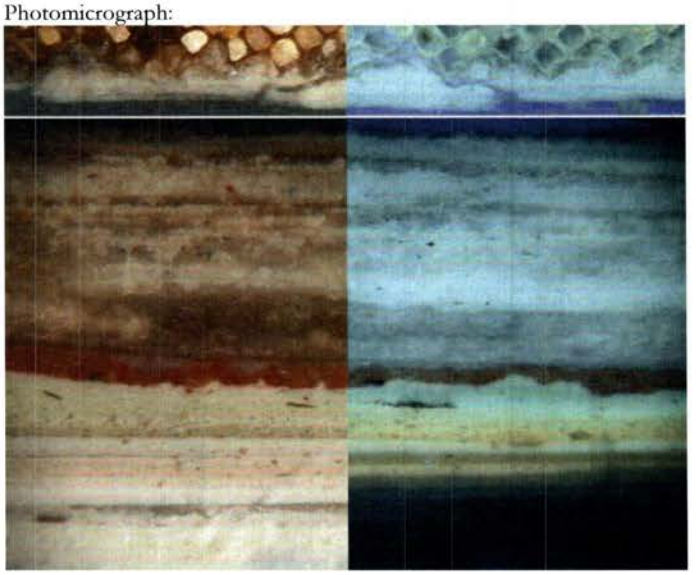
Observations:

Room:	Dining Room (107)	**Section Build:**	B				
Sample:	107-04						
Element:	Stair wall board						
Analysis:	( )	Manual cross-section/RLM	(x)	Embedded cross-section/RLM	(x)	Ultraviolet fluorescence	
	( )	Binder characterization	( )	Pigment analysis	( )	Exposure window	

Sample Location:



Photomicrograph:



Chromachronology:

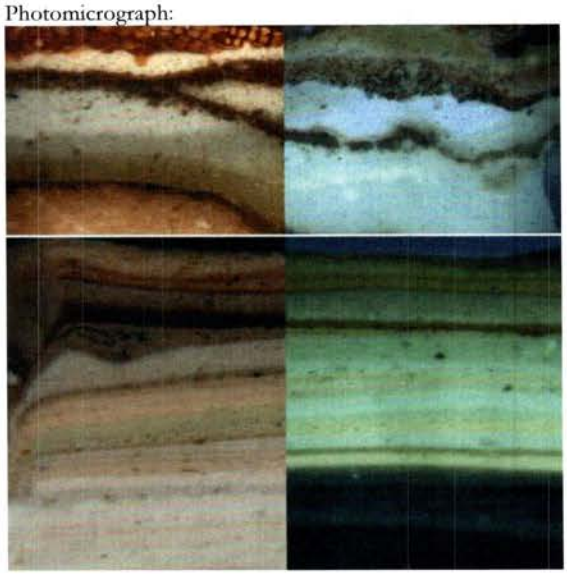
Campaign	Layer	Munsell Color	Color Name	Autofluorescence	Notes
	Substrate: Wood				
	Finish		Grayish yellow	Grayish white	
	Finish		Grayish yellow	Grayish white	
	Finish		Grayish yellow	Grayish white	
	Finish		Grayish yellow	Grayish white	
	Finish		Grayish yellow	Grayish white	
	Finish		Grayish yellow	Grayish white	
Build B?	Finish		Pinkish orange brown	Dull gray	Has some black pigments
	P + Finish		Pale green	Bluish whitish gray	<
	Finish		Pale greenish white	Yellow	
	Finish		Grayish green	Yellow	
	Finish		Grayish white	Yellowish white	
	Finish		Pale yellow	Dull gray	
	Finish		Pale orange yellow	Yellowish white	2 layers
	Finish		Yellowish white	Little/None	
	Finish		Yellowish white	Little/None	
	Finish		Yellowish white	Little/None	
	Finish		Yellowish white	Little/None	
	Finish		Yellowish white	Little/None	
	Finish		Yellowish white	Little/None	
	Finish		Yellowish white	Little/None	
	Finish		Yellowish white	Little/None	

Observations:
We believe it is possible that the stair wall boards were taken from the exterior clapboards and installed vertically in the dining room.

Room:	Dining Room (107)	**Section Build:**	B		
Sample:	107-05				
Element:	Upper doorframe (Door C)				
Analysis:	( ) Manual cross-section/RLM	(x)	Embedded cross-section/RLM	(x)	Ultraviolet fluorescence
	( ) Binder characterization	( )	Pigment analysis	( )	Exposure window

Sample Location:

Photomicrograph:



Chromachronology:

Campaign	Layer	Munsell Color	Color Name	Autofluorescence	Notes
	Substrate: Wood				
	Finish	~10B 5/1	Medium bluish gray	Dull yellow brown	
	Finish		Pale yellow	Grayish white	Thin layer
(post-1850)	Finish		Pale yellow	Grayish yellow	Some phosphorescence
	Finish		Grayish yellow	Grayish white	
	Finish		Grayish yellow	Grayish yellow	
	Finish		Gray	Gray	Soiling or varnish?
	Finish		Dark gray	Gray	
	Finish		Pale yellow	Yellow	
	Finish		Yellowish white	Grayish yellow	Phosphorescent
	Finish		Medium gray	Light gray	
	Finish		Pinkish gray	Yellow	
	Finish		Pale yellow	Light gray	
	Finish		Pale yellow	Grayish yellow	
	Finish		Pale green	Bluish whitish gray	<
	Primer + Finish		White Grayish green	Grayish white Grayish yellow	
	Finish		Pale greenish gray	Grayish yellow	
	Finish		Grayish white	Grayish white	Thin, smooth
	Finish		Yellowish pinkish white	None	
	Finish		Pale yellow	Yellow	
	Finish		Yellowish white	Little/None	
	Finish		White	Little/None	Thicker, smooth
	Finish		Yellowish white	Little/None	
	Finish		Yellowish white	Little/None	
	Finish		Yellowish white	Little/None	

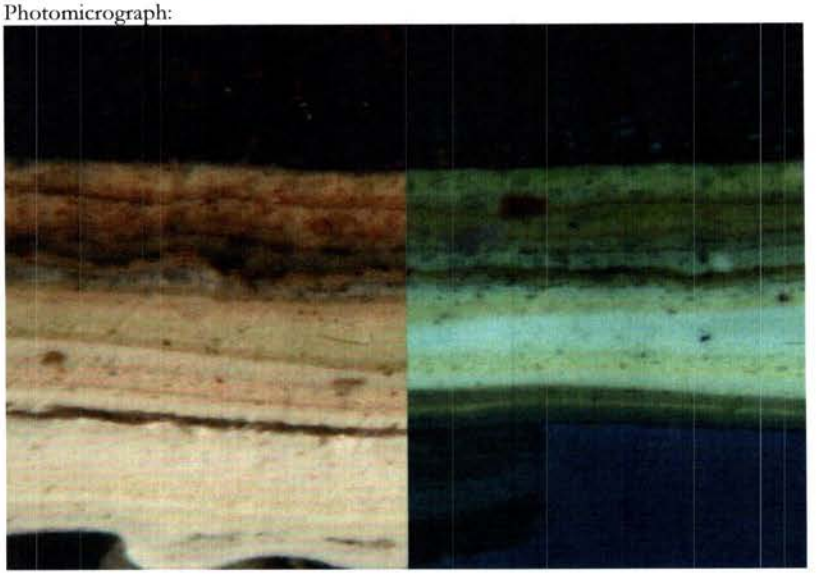
Observations:

Room: Dining Room (107) **Section Build:** B
Sample: 107-06
Element: Upper Door (Door C)

Analysis: ( ) Manual cross-section/RLM (x) Embedded cross-section/RLM (x) Ultraviolet fluorescence
( ) Binder characterization ( ) Pigment analysis ( ) Exposure window

Sample Location:

Photomicrograph:



Chromachronology:

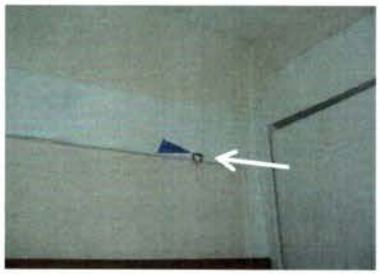
Campaign	Layer	Munsell Color	Color Name	Autofluorescence	Notes
	Substrate: Wood				
	Finish	~10B 5/1	Medium bluish gray	Dull yellow brown	
	Finish		Grayish yellow	Grayish yellow	
(Post-1850)	Finish		Grayish yellow	Dull yellow	
	Finish		Gray	Grayish white/yellow	
	Finish		Dark gray	Grayish white	
	Finish		Pinkish orange brown	Dull yellow	
	Finish		Light gray	Yellow	
	Finish		Bluish gray	Grayish white	
	Finish		Grayish yellow	Grayish white	
	Finish		Pale yellow	Yellow	
	Finish		Pale yellow	Grayish white	
	Finish		Pale green	Bluish whitish gray	<
	Finish		Pale greenish white	Yellow	
	Finish		Grayish green	Yellow	
	Finish		Grayish white	Grayish white	
	Finish		Pale yellow	Dull gray	
	Finish		Pale yellow	Yellow	
	Finish		Pale yellow	Dull gray	
	Finish		Yellowish white	Little/None	
	Finish		Yellowish white	Little/None	
	Finish		Yellowish white	Little/None	
	Finish		Yellowish white	Little/None	
	Finish		Yellowish white	Little/None	

Observations:

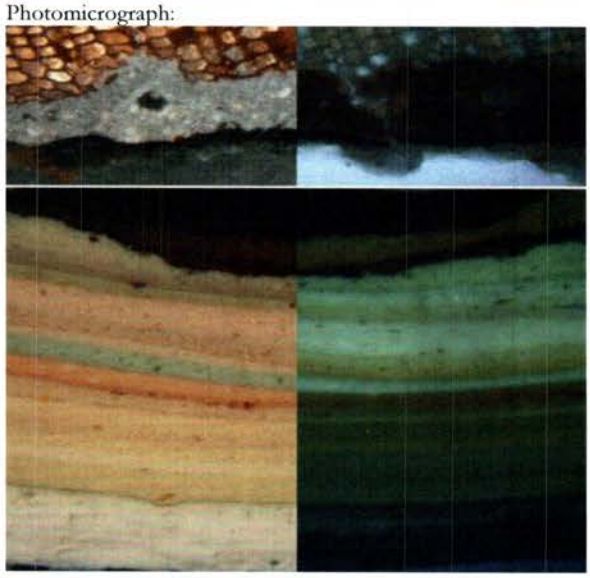
Room: Kitchen (108) **Section Build:** C
Sample: 108-01
Element: Doorframe top rail (Doorway to Dining Room)

Analysis:						
	( )	Manual cross-section/RLM	(x)	Embedded cross-section/RLM	(x)	Ultraviolet fluorescence
	( )	Binder characterization	( )	Pigment analysis	( )	Exposure window

Sample Location:



Photomicrograph:



Chromachronology:

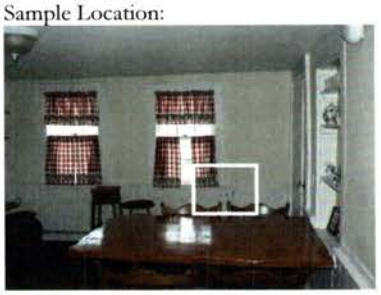
Campaign	Layer	Munsell Color	Color Name	Autofluorescence	Notes
	Substrate: Wood				
	Finish	N4.25/	Dark gray	Little/None	
	Finish		Blackish brown	None	
	Finish		Dark reddish brown	Little/None	
	Finish		Dark reddish brown	Little/None	
	Finish		Grayish reddish brown	Dull grayish yellow	
	Finish		Grayish reddish brown	Dull brown	
	Finish		Yellowish white	Grayish white	
	Finish		Grayish blue	Grayish white	
	Finish		Pale grayish green	Yellow	
	Finish		Pale yellow	Dull gray	
	Finish		Pale yellow	Grayish white	<
	Finish		Pale grayish yellow	Yellow	
	Finish		Pale yellow	Dull gray	
	Finish		Light blue	Grayish white	
	Finish		Orange yellow	Little/None	
	Finish		Orange yellow red	Little/None	
	Finish		Pale yellow	Little/None	
	Finish		Pale yellow	Little/None	
	Finish		Pale yellow	Little/None	
	Finish		Pale yellow	Little/None	
	Finish		Pale yellow	Little/None	
	Finish		Pale yellow	Little/None	
	Finish		Pale yellow	Little/None	
	Finish		Yellowish white	Little/None	
	Finish		Yellowish white	Little/None	
	Finish		Yellowish white	Little/None	
	Finish		Yellowish white	Little/None	

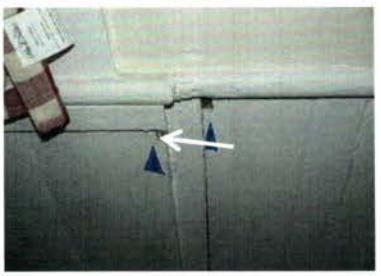
Observations:
19th century build, could be Victorian colors

Room: Kitchen (108) **Section Build:** C
Sample: 108-02
Element: East wall wainscoting (wider width board)

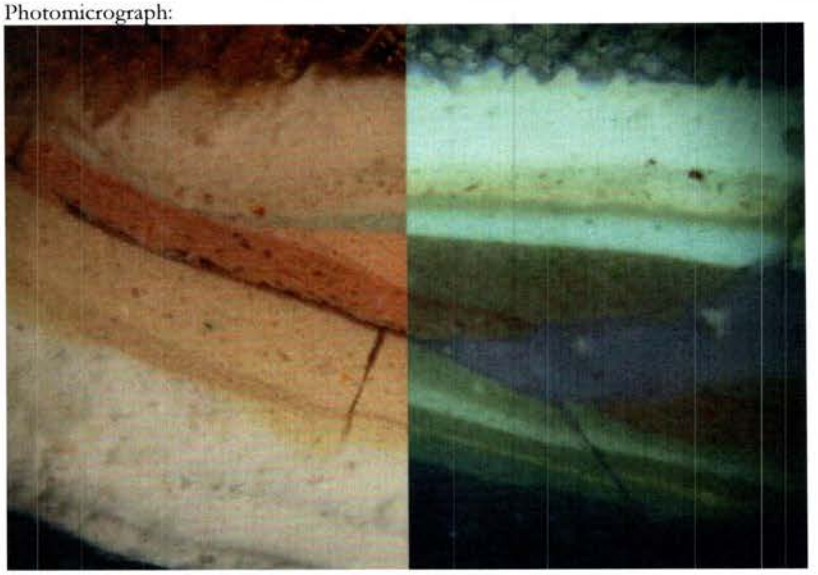
Analysis: ( ) Manual cross-section/RLM (x) Embedded cross-section/RLM (x) Ultraviolet fluorescence
( ) Binder characterization ( ) Pigment analysis ( ) Exposure window

Sample Location:





Photomicrograph:



Chromachronology:

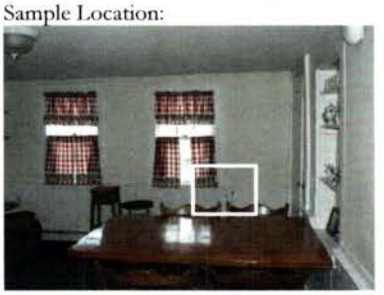
Campaign	Layer	Munsell Color	Color Name	Autofluorescence	Notes
	Substrate: Wood				
	Finish		Pale yellow	Yellowish white	<
	Finish		Pale grayish yellow	Yellow	
	Finish		Pale yellow	Dull gray	
	Finish		Light blue	Grayish white	
	Finish		Orange yellow	Little/None	
	Finish		Orange yellow red	Little/None	
	Finish		Pale yellow	Little/None	
	Finish		Pale yellow	Little/None	
	Finish		Pale yellow	Gray	
	Finish		Pale yellow	Little/None	
	Finish		Pale yellow	Little/None	
	Finish		Pale yellow	Little/None	
	Finish		Yellowish white	Little/None	
	Finish		Yellowish white	Little/None	
	Finish		Yellowish white	Little/None	
	Finish		Yellowish white	Little/None	

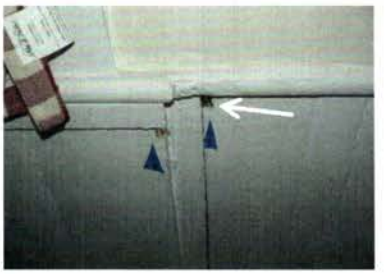
Observations:

Room: Kitchen (108) **Section Build:** C
Sample: 108-03
Element: East wall wainscoting (narrow width board)

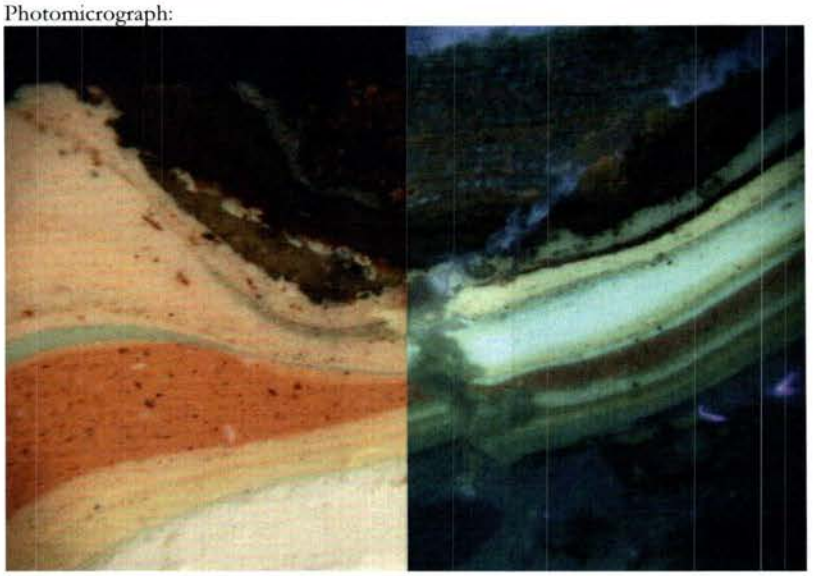
Analysis: ( ) Manual cross-section/RLM (x) Embedded cross-section/RLM (x) Ultraviolet fluorescence
( ) Binder characterization ( ) Pigment analysis ( ) Exposure window

Sample Location:





Photomicrograph:



Chromachronology:

Campaign	Layer	Munsell Color	Color Name	Autofluorescence	Notes
	Substrate: Wood				
	Finish	~10B 5/1	Dark bluish gray	Gray	
	Finish		Dark brown	Dull brown	
	Finish		Dark reddish brown	None	
	Finish		Dark reddish brown	None	
	Finish		Dark gray	Grayish white	
	Finish		Dark brown	Little/None	
	Primer + Finish		Pale yellow Pale yellow	Yellowish white Yellow	
	Finish		Gray	Grayish yellow	
	Finish		Gray	Bluish white	
	Finish		Pale green	Yellow	
	Finish		Pale yellow	Bluish white	<
	Finish		Pale grayish yellow	Yellow	
	Finish		Pale yellow	Dull gray	
	Finish		Light blue	Grayish white	
	Finish		Orange yellow	Little/None	
	Finish		Orange yellow red	Little/None	
	Finish		Pale yellow	Little/None	
	Finish		Pale yellow	Little/None	
	Finish		Pale yellow	Gray	
	Finish		Pale yellow	Little/None	
	Finish		Pale yellow	Little/None	
	Finish		Pale yellow	Little/None	
	Finish		Yellowish white	Little/None	
	Finish		Yellowish white	Little/None	
	Finish		Yellowish white	Little/None	
	Finish		Yellowish white	Little/None	

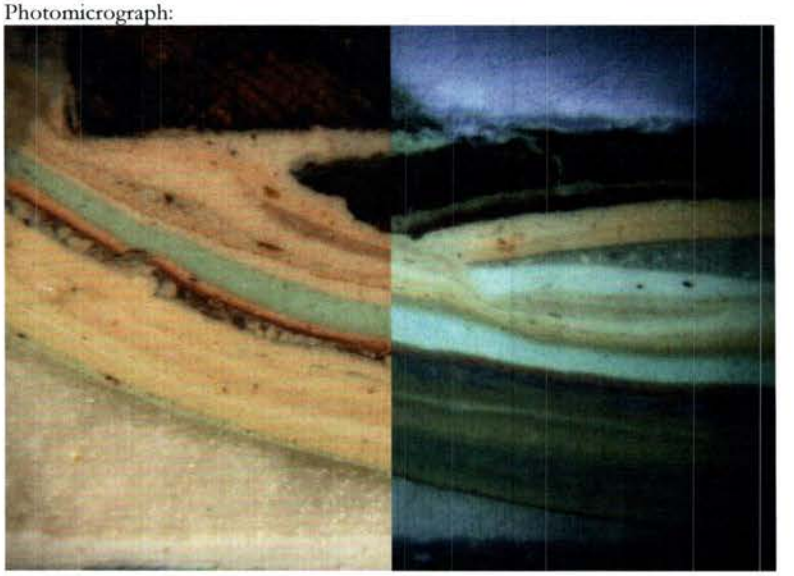
Observations:

Room: Kitchen (108) **Section Build:** C
Sample: 108-04
Element: Doorframe (Door B)

Analysis: ( ) Manual cross-section/RLM (x) Embedded cross-section/RLM (x) Ultraviolet fluorescence
( ) Binder characterization ( ) Pigment analysis ( ) Exposure window

Sample Location:

Photomicrograph:



Chromachronology:

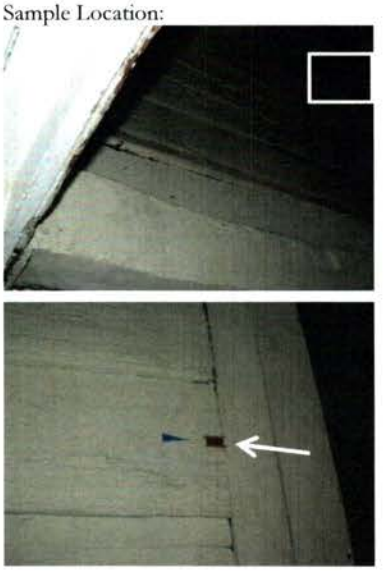
Campaign	Layer	Munsell Color	Color Name	Autofluorescence	Notes
	Substrate: Wood				
	Finish	N4.25/	Dark gray	Dull gray	
	Finish		Blackish brown	None	
	Finish		Dark reddish brown	Little/None	
	Finish		Dark reddish brown	Little/None	
	Finish		Grayish reddish brown	Dull grayish yellow	
	Finish		Grayish reddish brown	Dull brown	
	Finish		Yellowish white	Light yellow	
	Finish		Pale yellow	Yellow	
	Finish		Gray	Dull gray	
	Finish		Gray (tinted red)	Bluish white	
	Primer + Finish		Yellowish white Pale orange yellow	Light yellow Yellow	Light grayish yellow AF also?
	Finish		Pale yellow	Grayish white	
	Finish		Grayish yellow	Grayish yellow	
	Finish		Pale orange yellow	Yellow	
	Finish		Pale yellow	Dull gray	
	Finish		Light blue	Grayish white	
	Finish		Orange yellow	Little/None	
	Finish		Orange reddish brown	Bluish white	Graining/varnishing?
	Finish		Pale yellow	Little/None	
	Finish		Pale yellow	Little/None	
	Finish		Pale yellow	Gray	
	Finish		Pale yellow	Little/None	
	Finish		Pale yellow	Little/None	
	Finish		Pale yellow	Little/None	
	Finish		Pale yellowish green	Little/None	Repair patch following this layer
	Finish		Yellowish white	Little/None	
	Finish		Yellowish white	Little/None	

Observations:

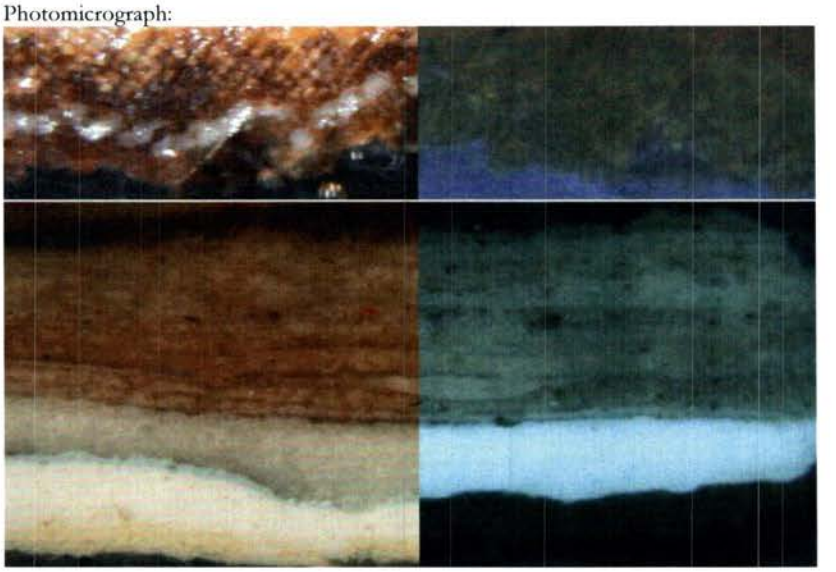
Room:	Open Attic (205)	**Section Build:**	A (Enclosed in B)
Sample:	205-01		
Element:	East wall wainscoting (narrow width board)		

Analysis:	( )	Manual cross-section/RLM	(x)	Embedded cross-section/RLM	(x)	Ultraviolet fluorescence
	( )	Binder characterization	( )	Pigment analysis	( )	Exposure window

Sample Location:



Photomicrograph:



Chromachronology:

Campaign	Layer	Munsell Color	Color Name	Autofluorescence	Notes
	Substrate: Wood				
Build A	Finish	~2.5Y 7/4	Grayish yellow	Grayish white	Influence of probable chalk filler likely affects the autofluorescence
	Finish		Grayish yellow	Grayish white	
	Finish		Grayish yellow	Grayish white	
	Finish		Grayish yellow	Grayish white	
	Finish		Grayish yellow	Grayish white	
	Finish		Grayish yellow	Grayish white	Last exposed finish before Build B
	Repair	-	-	-	Repair patch
	Finish		Light blue	Little/None	
	Finish		Yellowish white	Little/None	
	Finish		Pale yellow	Little/None	

Observations:

Section B: Characterization of Historic Mortars

B.1 Introduction

The intent of mortar characterization/analysis is to provide information that will be useful in understanding the history of a building or structure and also to provide insight into materials which could be appropriate for repair or restoration campaigns. As one component of a broader study of historic building materials, Keystone Preservation has characterized/analyzed the composition of two historic mortars, which were collected from the building and catalogued as follows:

- Sample A: Stone foundation pointing mortar, probably 18th century
- Sample B: Stone foundation pointing mortar, probably 19th century

The test protocol employed during this analysis is capable of distinguishing characteristics which are typically associated with binders such as lime or cement. The level of detail offered by this protocol, accompanied by direction from an architect, conservator or qualified contractor, is typically sufficient to form the basis for materials to replicate or match appearance. Interpretation relies not only on data produced during testing, but also on physical characteristics of the material, such as color, texture, hardness, cohesion and relative porosity.

Comparative analysis of historic mortars

In general terms, the mortars which have been characterized herein are *similar* but *not identical.* Both mortars are light reddish brown, a color which results from the combination of lime (white) and clayey sand (dark reddish brown). Compositionally, the sands which were extracted from both mortars are similar; each is based on a combination of quartz, feldspar, accessory minerals and stone fragments. In the 19th century mortar, however, the stone fragments are more pronounced (meaning that they could have been added intentionally), and the sand as a whole is more coarse. The source of the sand is most likely proximate to the site, possibly even deposited within or from the nearby Raritan River. Both mortars display characteristic evidence of large, unmixed nodules of lime ("blebs") which are visible to the naked eye; it should be noted, however, that those present in the 19th century mortar are slightly larger than those in the 18th century mortar. Each is moderately soft; in general terms, each can be broken with minimal impact from a mortar and pestle, and further pulverized with relative ease – characteristics which are commonly associated with lime-based binders. Reacting each mortar with hydrochloric acid (HCl) produced a vigorous, voluminous evolution of carbon dioxide – characteristics which are commonly associated with lime-based mortars.

For this project, three formulations were created when attempting to replicate the color and texture of one mortar type (variables being the types of binders, sands and pigment which were used); the best match was selected and has been referenced in this report. Replication discs were mixed and cured within a controlled laboratory environment. Noting that factors such as temperature, humidity, moisture content, tooling and conditions with the surrounding masonry can impact the final appearance of any material, we would strongly recommend that mock-ups be installed within the wall surface and allowed to cure in accordance with standard practice for a minimum of 7 days before being evaluated. Pursuant to project specifications or specific direction from the Architect/Engineer, standard repair practice includes the following:

- Properly raking out joints which are to be repointed, typically to a depth of 2–2½ times the width of the joint. Cleaning joints so that they are free of dirt, mold and debris. Joint-cutting should not damage the surrounding masonry.
- Stabilizing backup/bedding mortar.
- Combining pointing materials (cement, lime, sand, pigment – if required) in proper measures in dry form. Blending dry materials. Adding water in sufficient measure to achieve a plastic, trowelable consistency.
- Backpointing, if required.
- Pre-wetting joints and allowing to dry to a damp condition (no pooling water).
- Installing pointing mortar in lifts to avoid shrinkage (if specified).
- Tooling pointing mortar to match the profile of the surrounding joints.

- Brushing surface of the pointing mortar to expose aggregate, typically 12 to 24 hours after installation.
- Maintaining pointing mortar in a damp condition for a period of 72 to 96 hours after installation, the intent being to avoid rapid drying which can result in both shrinkage cracks and lower resistance to weathering.
- Brushing newly-pointed joints to expose aggregate. If the mix is pigmented, under no circumstances should acidic cleaners be used to remove laitance or excess mortar (in light of the fact that they may oxidize and change the color of the mortar).
- Final clean up.

In the summaries that follow, "Natural Hydraulic Lime" refers to St. Astier's Natural Hydraulic Lime, 3.5 Grade, available from Limeworks.us (www.limeworks.us). "Sand" refers to Schofield #219 sands, unwashed, but screened to remove coarse grains. Within this report, "pigment" refers to Solomon Colors pigment. Solomon produces several series of pigment ("X, S and H"); letter designations correspond to the weight of the package in which the pigment is sent and do not constitute compositional differentiation. Using different products or brands may affect the final color of the mortar; Keystone Preservation cannot accept responsibility for substitutions.

All replication sands used in this work were obtained from the George S. Schofield Company of Bridgewater, NJ (800-82-ROCKS). In standard terms, Schofield #219 would be considered a brown mason's sand, similar in origin, color and texture to those which were originally used. If this specific sand is used, it will require screening to remove coarse grains. Small sieve screens (3" and 8" diameter) can be obtained from companies such as Thomas Scientific (800-345-2100) and Hogentogler (800-638-8582). When screening large amounts of sand, it is typically recommended that masons build their own screen boxes; various screen sizes can be obtained from suppliers such as Belleville Wire Cloth Company (800-631-0490) and Hogentogler (800-638-8582).

Matching the mortar discussed herein will require that the masonry contractor carefully measure, weigh, mix and cure all of the component parts, or that a masonry supplier be engaged to create bagged mixes. When producing the above-referenced replication discs, the sands used by our laboratory were left unwashed, the intent being to have clay particles attached to those sands color the mix somewhat. Using unwashed sands is viewed as an alternative to using higher concentrations of pigment.

Accordingly, replication mixes produced by our laboratory have been based on the following materials:

- St. Astier's Natural Hydraulic Lime, 3.5 Grade
- Schofield #219 sand, passed through a #8 screen to remove coarse grains
- Solomon Colors pigment

B.2 Summary of Findings

Sample A: 18th century stone mortar

The physical properties and reactive characteristics of this mortar are consistent with what would be expected from a mix which has been based on 1 part lime and 2½ parts clayey sand:

- Color: The core color of this mortar is *light reddish brown*, a shade which can be attributed to the combination of lime (white) and clayey sand (reddish brown sand with a moderate amount of clay bound within).
- Hardness: Mortars which are based primarily or completely on lime tend to be soft and can be crushed easily (much softer than contemporary mortars which are based on a combination of lime and cement or cement alone). This mortar is soft and friable, requiring minimal impact from a mortar and pestle to break apart and minimal grinding to further pulverize.
- Reactivity: When reacted with hydrochloric acid, this mortar produced a vigorous and voluminous evolution of carbon dioxide, an observation which is consistent with what would be expected from a binder based on lime (as opposed to cement only or a combination of cement plus lime). A moderate amount of soluble, non-evolving material was also found to be present. In this particular mortar, the presence of "solubles" can likely be attributed to the presence of clayey material which was bound into the sand component.

Photomicrograph of 18th century mortar.

Photomicrograph of sands extracted from 18th century mortar.

In accordance with standard practice, a replication disc will be created to match the color and texture of the unweathered core color of the mortar before repointing takes place. Noting that mock-ups will be required and that minor adjustments may be necessary after review, the following mix may be considered a starting point to replicate the appearance of the historic mortar:

2 parts St. Astier's Natural Hydraulic Lime, 3.5 Grade
5 parts Schofield #219 sand – unwashed and passed through a #8 screen (0.0937 inch/2.36mm aperture)
2.0-4.0% Solomon Colors Pigment (shade and percentage to be determined based on completion of replication discs

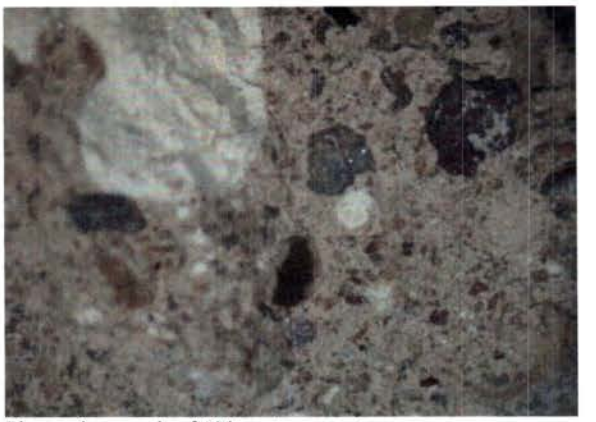
Alternately, a mix of blended stock St. Astier Mortars can be obtained by Keystone from Limeworks.us.

This mortar was tooled to have a "weathered" joint profile, roughly flush with the surrounding stone.

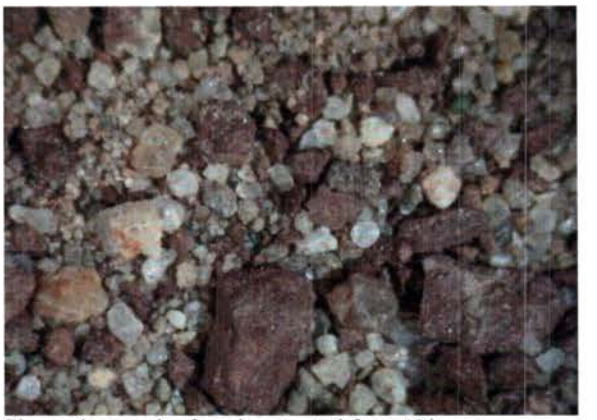
Sample B: 19th century stone mortar

The physical properties and reactive characteristics of this mortar are consistent with what would be expected from a mix which has been based on 1 part lime and 2½ parts clayey sand:

- Color: The core color of this mortar is *light reddish brown*, a shade which can be attributed to the combination of lime (white) and clayey sand (reddish brown sand with a moderate amount of clay bound within).
- Hardness: Mortars which are based primarily or completely on lime tend to be soft and can be crushed easily (much softer than contemporary mortars which are based on a combination of lime and cement or cement alone). This mortar is soft and friable, requiring minimal impact from a mortar and pestle to break apart and minimal grinding to further pulverize.
- Reactivity: When reacted with hydrochloric acid, this mortar produced a vigorous and voluminous evolution of carbon dioxide, an observation which is consistent with what would be expected from a binder based on lime (as opposed to cement only or a combination of cement plus lime). A moderate amount of soluble, non-evolving material was also found to be present. In this particular mortar, the presence of "solubles" can likely be attributed to the presence of clayey material which was bound into the sand component.
- Comparative analysis: Comparatively, the 19th century stone mortar displays evidence of nodules/blebs of lime which are larger and a sand which is more coarsely-textured than the 18th century stone mortar – characteristics which suggest the mortars may date to different campaigns.



Photomicrograph of 19th century mortar.



Photomicrograph of sands extracted from 19th century mortar.

In accordance with standard practice, a replication disc will be created to match the color and texture of the unweathered core color of the mortar before repointing takes place. Noting that mock-ups will be required and that minor adjustments may be necessary after review, the following mix may be considered a starting point to replicate the appearance of the historic mortar:

2 parts St. Astier's Natural Hydraulic Lime, 3.5 Grade
5 parts Schofield #219 sand – unwashed and passed through a #8 screen (0.0937 inch/2.36mm aperture)
2.0-4.0% Solomon Colors Pigment (shade and percentage to be determined based on completion of replication discs

Alternately, a mix of blended stock St. Astier Mortars can be obtained by Keystone from Limeworks.us.

This mortar was tooled to have a "weathered" joint profile, roughly flush with the surrounding stone.

B.3 Methodology

The primary objective of this document is to provide direction for repair and repointing; it should not be considered a comprehensive technical/compositional analysis of existing/historic material. With direction from an architectural conservator and supervision from an experienced preservation architect, the level of examination provided herein was deemed sufficient to provide basic information on the existing mortar and direction on how to match important characteristics such as color and texture.

Each specimen was examined according to properties of color, texture, hardness, homogeneity, stability and relative porosity. Samples were examined visually and microscopically with a Nikon SMZ-2T trinocular reflected light microscope and a Leica DMLM polarizing light microscope. Color evaluations were completed with Munsell Color Chips in color-balanced and/or natural light.

The approximate composition of the material was determined with a calcimeter conforming to the parameters of the Jedrzejewska analytical method.[1] This technique essentially breaks down a sample into constituent parts and provides data on the nature of the binder by gauging the extent of its reaction with hydrochloric acid (HCl). As HCl dissolves bicarbonates of calcium carbonate-based ($CaCO_3$) compounds found in lime and (to a lesser extent) cement binders, carbon dioxide (CO_2) is produced.[2] Data obtained during experimentation was compared with published experimental standards based on known mixes to arrive at conclusions about the composition of all samples.[3] Aggregate which forms the insoluble portion of the material was isolated, retained and washed, while extremely fine particulates were separated from solution, filtered and retained. The aggregate was dried and weighed, evaluated according to particulate size with a Standard U.S. Sieve Series Tyler Equivalent Sieve Stack, and examined microscopically for particle shape, color, opacity and mineralogy. Fine particulates, once filtered, were dried, weighed, and examined visually and microscopically.

Petrographic analysis including examination of thin sections in transmitted polarizing light and elemental analysis would be required to identify mineral phases which are specific to different types of cementing material and to unequivocally quantify the amount of lime and/or cement present. If analysis in accordance with testing procedures described in ASTM C1324 is desired, microchemical analysis may be expanded upon with elemental analysis using techniques such as X-Ray Diffraction (XRD), petrography and/or physical characterization of thin sections using transmitted and polarized light microscopy.

[1] Hanna Jedrzejewska, "Old Mortars in Poland: A New Method of Investigation," Studies in Conservation, Volume 5, Number 4, 132-138.

[2] Calcimeter analysis provides information beyond standard gravimetric/acid digestion. Although not unequivocal and subject to interpretation, it provides data on acid-soluble portions which do not evolve carbon dioxide when reacted with HCl. This is especially important to the analysis of cementitious mortars that naturally contain complex soluble silicates which dissolve in acid but do not evolve carbon dioxide. Limitations to this analytical method include the lack of published standards on common masonry mixes and mixes which incorporate natural and artificial pigments.

[3] John Stewart and James Moore, "Chemical Techniques of Historic Mortar Analysis," Bulletin of the Association for Preservation Technology, Volume 14, Number 1 (Washington: Association for Preservation Technology, 1982), 11-16.

Compositional Characteristics

Binders

Analyzing the nature of the binder provides information valuable in determining the composition of the original material. Binders are generally composed of calcium-carbonate based materials with impurities and additives incorporated to affect physical properties such as cure, hardness, color and durability. The data below represents the percentage weight within the sample that may be attributed to calcium carbonate, complex soluble silicates (solubles, including soluble material from cements and pigments) and aggregate.

Standards referenced below[4] have been culled from previously-completed research and experimentation to provide benchmark data regarding compositional percentages for standard mixes. Although imperfect, experimental data below exists for compositional proportions based on weight only; conclusions are based on the mathematical conversion of weight percentages to volumetric mixes.

	Mix	$CaCO_3$	Solubles	Sand
1:3	lime:sand (SM)[5]	10.0 ± 0.4%	2.4 ± 0.7%	87.6 ± 0.3%
1:3	lime:calcareous sand (SM)	26.2 ± 1.3%	3.0 ± 0.9%	70.9 ± 2.2%
1:3	lime:clayey sand (SM)	10.2 ± 0.2%	13.2 ± 0.6%	76.6 ± 0.9%
2:5	hydraulic lime:clayey sand (JCF)[6]	8.78± 0.06%	17.69 ± 3.01%	73.54 ± 2.95%
2:5	dolomitic lime:clayey sand (JCF)	6.57± 0.25%	10.10 ± 0.63%	83.33 ± 0.98%
2:5	high calcium lime putty: clayey sand (JCF)	13.49 ± 1.27%	5.78 ± 1.02%	80.72 ± 2.29%
1:1:5	Portland cement: high calcium lime:clayey sand (JCF)	10.60 ± 0.87%	21.76 ± 5.99%	67.65 ± 6.87%
2:1:5	lime:pozzolanic cement:sand (SM)	11.0 ± 0.1%	6.6 ± 0.4%	82.4 ± 0.3%
100%	Portland cement (SM)	7.2 ± 0.4%	92.1 ± 0.3%	0.6 ± 0.2%
1:3	Portland cement:clayey sand (SM)	7.9 ± 0.1%	29.6 ± 1.6%	62.6 ± 1.6%
1:3	Portland cement:sand (SM)	6.4 ± 0.4%	27.4 ± 3.0%	66.2 ± 3.4%
1:3	Roman cement: sand (SM)	8.5 ± 0.6%	16.1 ± 0.2%	75.3 ± 0.4%

[4] In the chart, "SM" refers to standards published in Stewart and Moore's article and "JCF" refers to data from Frey's thesis.

[5] Total calcium carbonate content includes soluble bicarbonates from calcareous (calcium-based) aggregate such as crushed limestone or marble dust.

[6] Analysis performed on replication mix evaluated (five years after cure) in J. Christopher Frey *Exterior Stuccoes as an Interpretive and Conservation Asset: The Aiken-Rhett House, Charleston, SC* (Masters' Thesis in Historic Preservation, University of Pennsylvania, 1997). Please note that data is provided for comparative purposes only; actual volumetric percentages will vary based on types of lime, types of sand, mix consistency, etc.

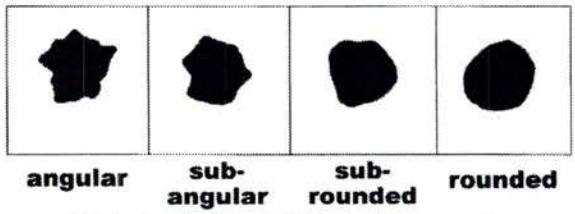
Aggregate

Because sand is so important in determining not only how a material performs but also in producing its color and texture, a careful examination of the aggregate was conducted. Laboratory examination included visual analysis and an evaluation of particle size.

All sands were passed through a U.S. Standard Sieve Series Sieve Stack to evaluate the average distribution.[7] The sieve screens used in this analysis possess the following dimensional equivalents:

Screen #	Tyler equivalent mesh	Opening (inches)	Opening (metric)
8	8	.0937	2.36 mm
16	14	.0469	1.18 mm
30	28	.0234	600 μ
50	48	.0117	300 μ
100	100	.0059	150μ
200	200	.0029	75μ

Materials with rough surface textures tend to be based on sands whose grains are retained on the lower-numbered screens. Smoother materials are often based on finer particulates. Well-graded materials are characterized by relatively even distribution of particulates across all screens. Data reported below provides a comparative analysis of particulate grain sizes for the materials analyzed.



Typical grain shapes within sand components.

[7] Sieves are graded in a series so that particles progressively pass through a series of screens (with screen #8 representing the largest mesh and screen #200 the smallest) until they are retained. The amount of material retained on each screen is recorded and then compared with the amounts retained on other screens to provide numerical averages for different particulate sizes.

B.4 Analytical Data

Sample A: 18th century stone pointing mortar

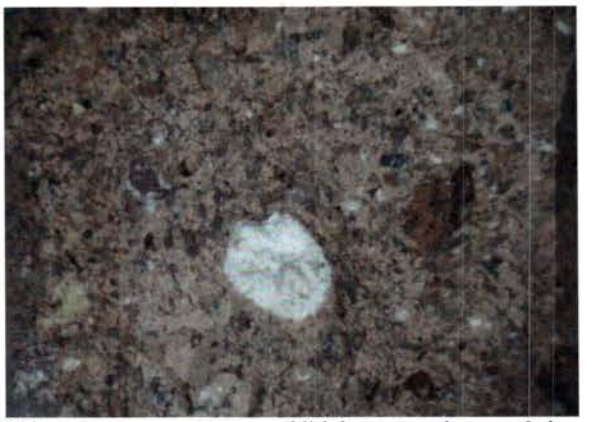
The physical properties and reactive characteristics of this mortar are consistent with what would be expected from a mix which has been based on 1 part lime and 2½ parts clayey sand.

Analytical Method

Calcimeter	✓
ASTM C1324	
Basic/acid digestion	✓

Binder

$CaCO_3$	~ 17.94%
Solubles	~ 13.21%
Sand	~ 68.85%



18th century stone mortar – reddish brown sand suspended within a light reddish brown matrix, with lime nodules/blebs visible to the naked eye. Photomicrograph, 10x magnification in color-balanced light.

Sands extracted from 18th century stone mortar. Photomicrograph, 10x magnification in color-balanced light.

Reacting this material with hydrochloric acid (HCl) produced results that are consistent with a binder based on lime (putty). A vigorous and voluminous evolution of carbon dioxide (CO_2), when exposed to hydrochloric acid (HCl) suggests the presence of carbonate ($CaCO_3$ or $Mg,CaCO_3$), which is the principal component in lime. In this mortar, the moderate percentage of non-evolving material can likely be attributed to acid-soluble silicate material which is present in clays that were bound into the original sand component. Elemental analysis and petrography would be required to confirm compositional quantities as well as to identify specific compounds and mineral phases.

Physical Properties

The light reddish brown core color of this mortar can be attributed to a combination of lime (white), sand (reddish brown) and clay which was bound into the sand component (brown). The weathering surface possesses a mottled, uneven appearance and displays evidence of exposed aggregate. This mortar is reasonably cohesive, meaning that it can be removed in fragments. It is moderately well-blended, but displays evidence of nodules/blebs of lime which are visible to the naked eye. Mortars with binders that are based on cement alone tend to be exceptionally hard, difficult to break into fragments, and require substantial impact to further pulverize. Mortars with binders that are based on lime alone tend to be much softer, can easily be broken into fragments, and require minimal to moderate impact to further pulverize. As would be expected from a mortar of this vintage, characteristics are consistent with a lime-based binder (soft and somewhat easy to break/pulverize). Biological growth and salts do not appear to be present; additional analysis would be required to confirm.

Aggregate

This is a reddish brown sand which is based primarily on a combination of quartz and feldspar, with some accessory minerals and stone fragments. Grain shape is predominantly rounded to subrounded, but some subangular grains are present as well. Clarity ranges from translucent to opaque.

		8	16	30	50	100	200	<200
Sands	%	1.44	2.24	8.43	45.33	34.41	6.63	0.24

Sample B: 19th century stone pointing mortar

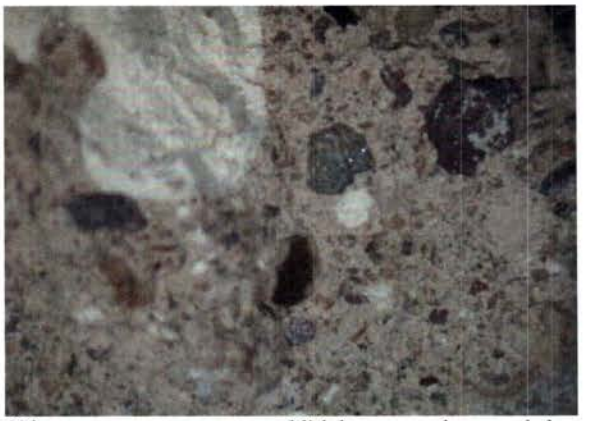
The physical properties and reactive characteristics of this mortar are consistent with what would be expected from a mix which has been based on 1 part lime and 2½ parts clayey sand.

Analytical Method

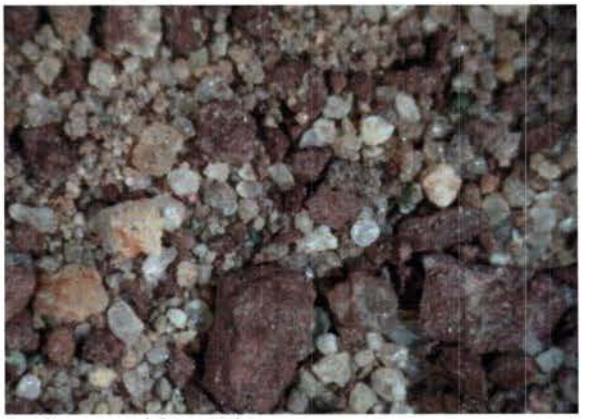
Calcimeter	✓
ASTM C1324	
Basic/acid digestion	✓

Binder

$CaCO_3$	~ 30.26%
Solubles	~ 8.33%
Sand	~ 67.41%



19th century stone mortar – reddish brown sand suspended within a light reddish brown matrix, with lime nodules/blebs visible to the naked eye (larger than 18th century mortar). Photomicrograph, 10x magnification in color-balanced light.



Sands extracted from 19th century stone mortar. Photomicrograph, 10x magnification in color-balanced light.

Reacting this material with hydrochloric acid (HCl) produced results that are consistent with a binder based on lime (putty). A vigorous and voluminous evolution of carbon dioxide (CO_2), when exposed to hydrochloric acid (HCl) suggests the presence of carbonate ($CaCO_3$ or $Mg,CaCO_3$), which is the principal component in lime. In this mortar, the moderate percentage of non-evolving material can likely be attributed to acid-soluble silicate material which is present in clays that were bound into the original sand component. Elemental analysis and petrography would be required to confirm compositional quantities as well as to identify specific compounds and mineral phases.

Physical Properties

The light reddish brown core color of this mortar can be attributed to a combination of lime (white), sand (reddish brown) and clay which was bound into the sand component (brown). The weathering surface possesses a mottled, uneven appearance and displays evidence of exposed aggregate. This mortar is reasonably cohesive, meaning that it can be removed in fragments. It is moderately well-blended, but displays evidence of nodules/blebs of lime which are visible to the naked eye. Mortars with binders that are based on cement alone tend to be exceptionally hard, difficult to break into fragments, and require substantial impact to further pulverize. Mortars with binders that are based on lime alone tend to be much softer, can easily be broken into fragments, and require minimal to moderate impact to further pulverize. As would be expected from a mortar of this vintage, characteristics are consistent with a lime-based binder (soft and somewhat easy to break/pulverize). Biological growth and salts do not appear to be present; additional analysis would be required to confirm.

Aggregate

This is a reddish brown sand which is based primarily on a combination of quartz and feldspar, with some accessory minerals and stone fragments (larger than present in the 18th century mortar). Grain shape is predominantly rounded to subrounded, but some subangular grains are present as well. Clarity ranges from translucent to opaque.

		8	16	30	50	100	200	<200
Sands	%	0.48	6.19	12.82	28.50	32.91	16.45	2.60

E.
Artifact Analysis, Tree-Ring Dating and Mapping Report

A.

Artifact Analysis, Tree-Ring Dating, and Mapping

Van Wickle House
1289 Easton Ave.
Franklin Township
Somerset County
New Jersey
Block 259, Lot 86

Prepared by:
Richard F. Veit, Ph.D., R.P.A.
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Prepared for:
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510 Bank Street
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Cape May, New Jersey 08204

and

The Meadows Foundation
1289 Easton Ave.,
Somerset, NJ 08873

July 31, 2016

MANAGEMENT SUMMARY

The following report presents the results of a three adjunct studies carried out as part of the Historic Structures Report on the Van Wickle House, a Meadows Foundation property, located at 1289 Easton Avenue, Franklin Township Somerset County, New Jersey. These reports were carried out under contract to Michael Calafati, Architect. The studies included a tree-ring dating study of the house, analysis of a collection of historic artifacts housed in the attic of the house, and select mapping of the foundations underneath the western additions to the house in an effort to better understand the construction sequence of the building. This report was written by Richard Veit, Ph.D., with assistance from Stephanie Codling. Select graphics were prepared by Sean McHugh, M.A., RPA.

The tree-ring dating study consisted of sampling fifteen oak timbers. Fourteen yielded dates. Samples 1-6 came from Room 107 and yielded dates ranging from 1676 to 1737. Samples 8-15 came from Room 101, 102, 103, and 104. They too yielded very early dates, ranging from 1724 to 1740. It appears that the main block of the house was constructed in two sections, the eastern section in the late 1720s or early 1730s and the western section in the early 19th century, though possibly using timbers cut reused from an earlier structure. However, all of these dates should be used judiciously as timber was commonly reused in 18th-century structures and not all of the timbers had waney edges. They indicate that the structure was constructed in the 18th century, and that the main block likely dates from the late 1720s.

A careful visual inspection of the cellars and crawl spaces beneath the house carried out as part of the effort to identify locations for tree-ring samples revealed that in the main (eastern) block of the house, the building shows not one but three foundations, one inside the other. This may indicate that the building was initially built on a simple fieldstone foundation, which was repeatedly improved, perhaps after the cellar was dug. Archaeology could help provide more information about the construction sequence of the structure. Similarly, the western section of the house shows what may be two different foundation construction episodes, likely representing repeated changes to that section of the structure.

Finally, a collection of 296 artifacts excavated in 2003 by caretaker John Lovel Smith and excavated from beneath the western wing of the house, was analyzed. The artifacts date primarily from the very late 18th century and the 19th century. Many are large ceramic fragments. They may indicate

that this area was an exposed ground surface that was subsequently covered over when the western wing was constructed.

The Symen Van Wickle House is a significant historical and archaeological sites, recorded by the Historic American Buildings Survey and listed on the State and National Registers (NR 12-14-73 and SR 9-18-73; NR Reference #: 73001134, ID 2504). Tree-ring dating indicates that it contains an exceptional amount of 18th century framing material, in both its eastern and western sections. A visual inspection of the building's foundations shows repeated attempts to rebuild and expand the structure, while archaeological evidence highlights the site's occupation from the 18th through 20th centuries. Any ground disturbing activities on the property should be preceded by professional archaeological investigation.

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CHAPTER 1 INTRODUCTION

1.1: Project Description

The following report presents the results of a three specialized studies carried out as part of historic structures report on the Symen Van Wickle House, a Meadows Foundation property, located at 1289 Easton Avenue, Franklin Township Somerset County, New Jersey (Figures 1.1, 1.2, 1.3 1.4).

These studies included a tree-ring dating study of the house, analysis of a collection of historic artifacts housed in the attic of the house associated with a 2003 archaeological dig by tenant/caretaker John Lovel Smith, and select mapping of the foundations underneath the house in an effort to better understand the construction sequence of the building. This report was written by Richard Veit, Ph.D., with assistance from Stephanie Codling. Select graphics were prepared by Sean McHugh, M.A., RPA.

The tree-ring dating study consisted of sampling fifteen oak timbers. Fourteen yielded dates. Samples 1-6 came from Room 107 and yielded dates ranging from 1676 to 1737. Samples 8-15 came from Rooms 101, 102, 103, and 104. They too yielded very early dates, ranging from 1724 to 1740. It appears that the main block of the house was constructed in two sections, the southern section in the late 1720s or early 1730s and the eastern section somewhat later, perhaps in the 1740. However, all of these dates should be used judiciously as timber was commonly reused in 18th-century structures and not all of the timbers had waney edges. They do indicate that the structure was constructed in the 18th century, and that the main block likely dates from the late 1720s. Indeed, a date of 1729, consistent with a transfer of the property within the Van Duyn family is supported by the tree-ring evidence.

A careful visual inspection of the cellars and crawl spaces beneath the house carried out as part of the effort to identify locations for tree-ring samples revealed that in the main (southern) block of the house, there is not one but three foundations, one inside the other. This may indicate that the building was initially built on a simple fieldstone foundation, which was repeatedly improved, perhaps after the cellar was dug. Archaeology could help provide more information about the construction sequence of the cellars. Similarly, the northern section of the house shows what may be two different foundation construction episodes, likely representing repeated changes to the northern section of the structure.

Finally, a collection of 296 artifacts excavated in the early 2003 by John Lovel Smith and excavated from beneath the northern wing of the house, was analyzed. The artifacts date primarily from the very late 18th century and first half of the 19th century. Many are substantial ceramic fragments. They may indicate that his area was an exposed ground surface that was subsequently covered over when the north wing was constructed.

The Symen Van Wickle House is a significant historical and archaeological site, recorded by the Historic American Buildings Survey (HABS NJ,18-BOUB.V,1-) and listed on the State and National Registers (SR: 9/18/1973 NR: 12/4/1973; NR Reference #: 73001134, ID 2504). Tree-ring dating indicates that it contains an exceptional amount of 18th century framing material, in both its eastern and western sections. A visual inspection of the building's foundations shows repeated attempts to rebuild and expand the structure, while archaeological evidence highlights the site's occupation from the 18th through 20th centuries.

This study was conducted in accordance with the *Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation* and the New Jersey Historic Preservation Office (HPO) Guidelines for archaeological reporting and surveys (1996, 2003). However, it is not a complete Phase I survey. Richard Grubb and Associates is preparing such a survey. Inquiries concerning the availability of this report should be directed to the HPO in Trenton, New Jersey; Richard Veit, Archaeologist; or the Bridgewater Township. All field notes and photographs for this project are on file at the office of Richard Veit, Archaeologist, South Plainfield, New Jersey. This report was prepared by Richard Veit and Stephanie Codling with assistance from Sean McHugh. The artifacts were returned to the Meadows Foundation for curation.

1.2: Acknowledgements

Fieldwork was conducted during the months of March, April, and May 2016. Richard Veit, Ph.D. carried out the dendrochronological study and the mapping. Stephanie Codling carried out the artifact analysis. Sean McHugh, M.A., R.P.A. produced select graphics. Michael Calafati Architect and Dennis Bertland of Dennis Bertland Associates provided useful guidance over the course of this project. SueAnn Vought provided access to the building and assisted with the tree-ring dating and mapping of the structure.

Funding for this project was provided by the Somerset County Historic Preservation Grant Program.

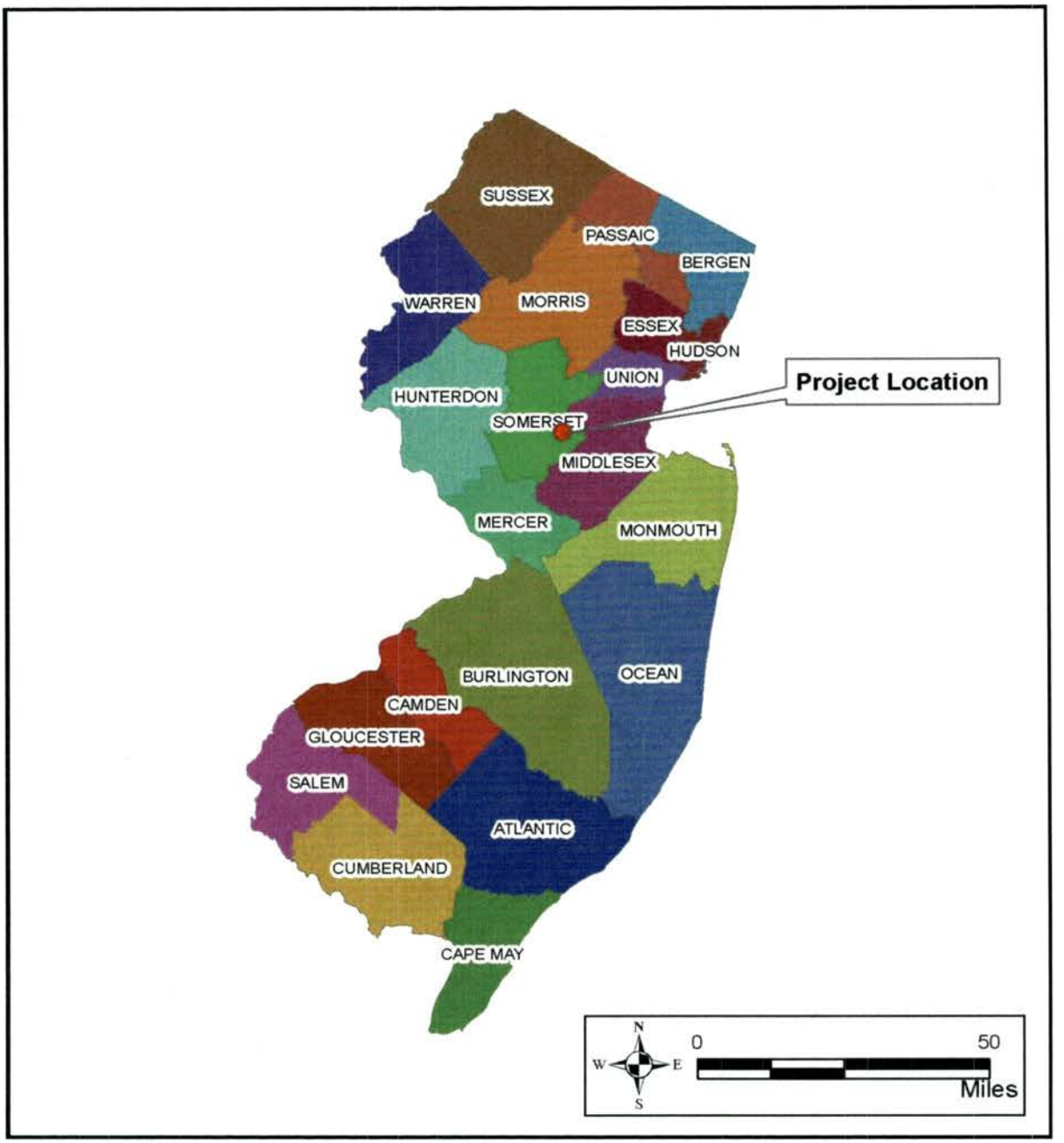

Figure 1.1. Project area location indicated with star.

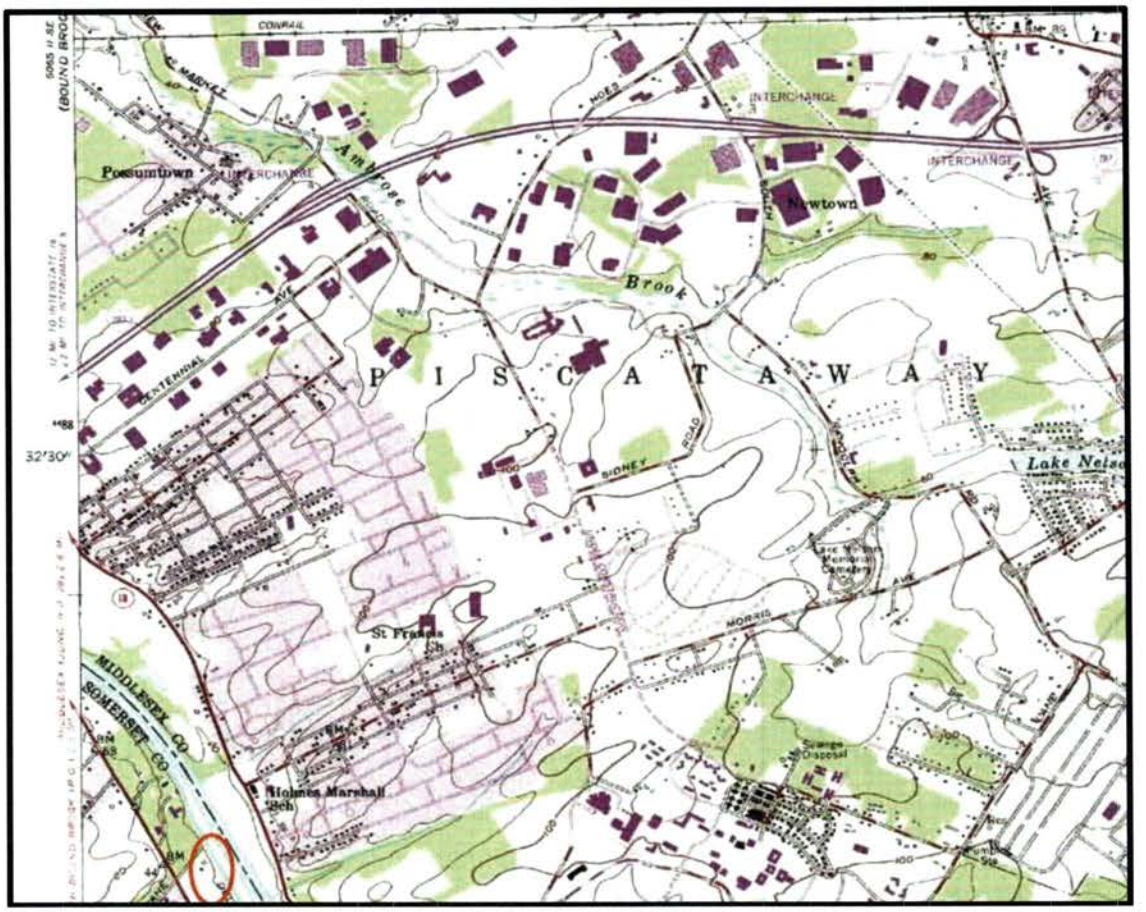

Figure 1.2. United States Geological Survey 7.5-Minute Topographic Quadrangle, Plainfield, New Jersey 1955 (Photorevised 1981). Study area circled. Not reproduced to scale.

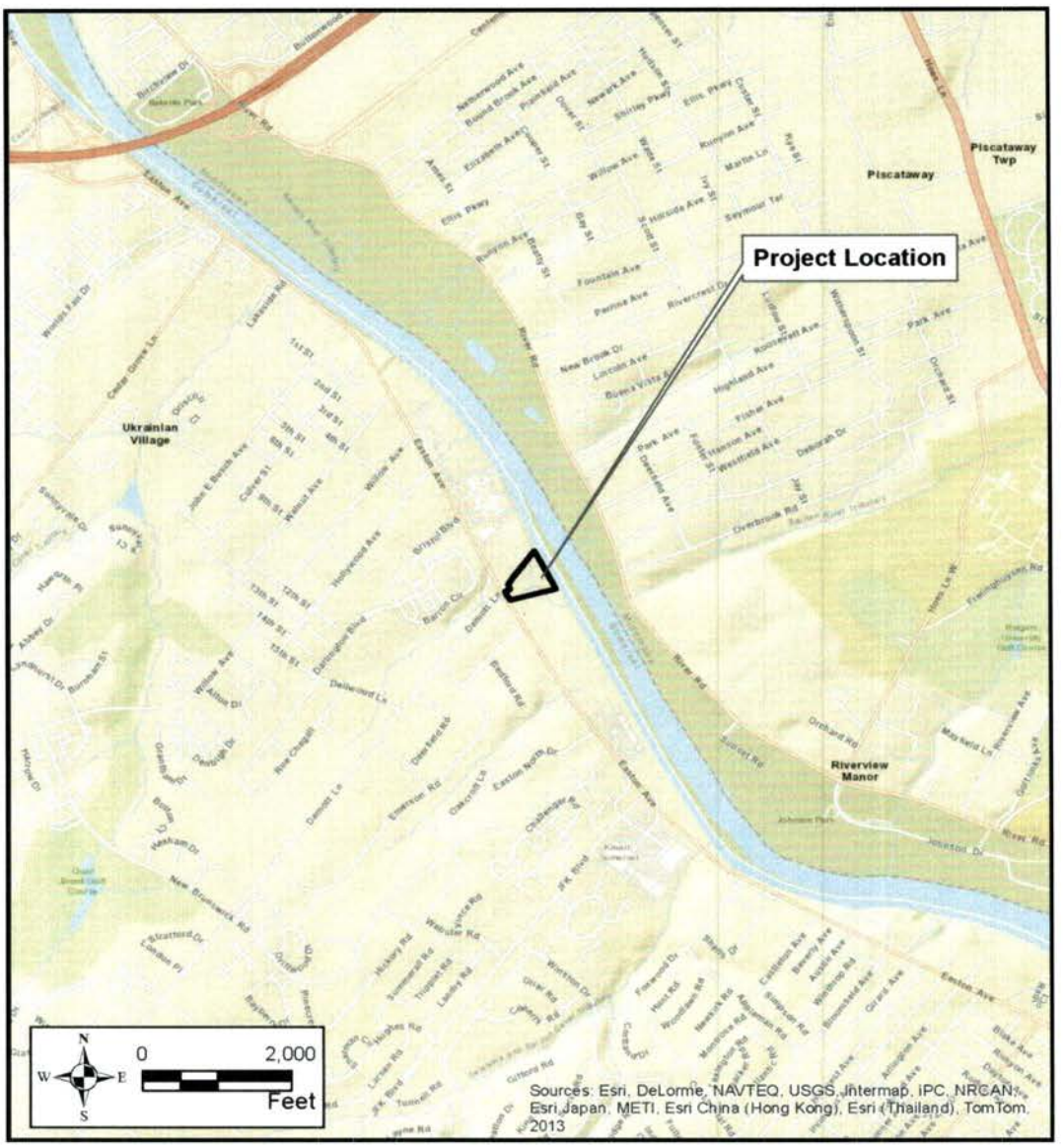

Figure 1.3. Google Map showing the Van Wickle House Property, Franklin, NJ. Not to scale. Retrieved 17 May, 2016.

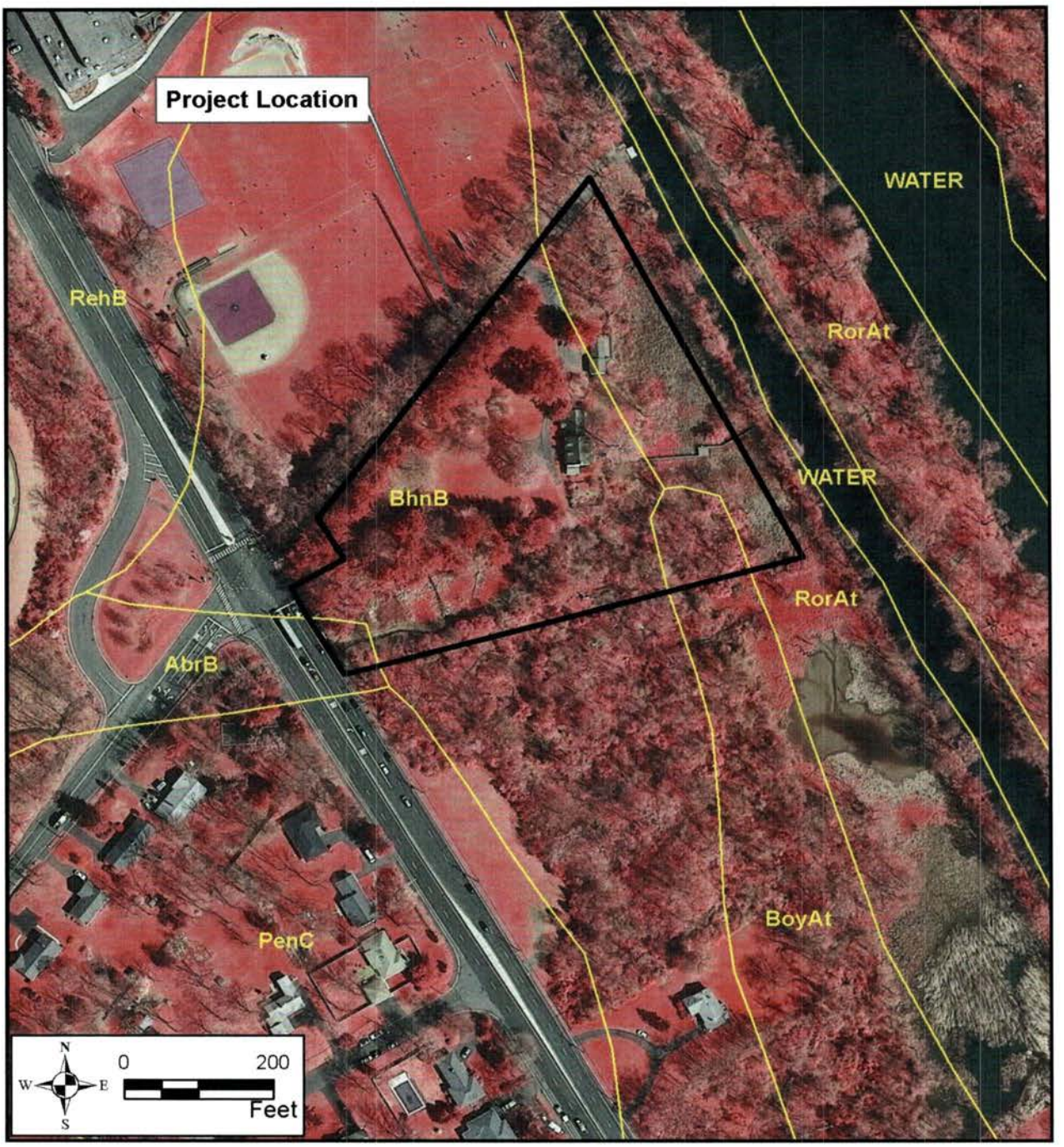

Figure 1.4. Web Soil Survey, Somerset County, New Jersey. Study area circled, retrieved, July 24, 2016.

CHAPTER 2: SITE SPECIFIC HISTORY (FROM BERTLAND 2013)1

Although it is beyond the scope of this report to provide a comprehensive history of the Symen Van Wickle House, such a history may be found in the Historic Structures Report authored by Dennis Bertland. The accepted history of the site is derived from a 1912 letter written by William H. Benedict, a local historian, who in corresponding with Miss Julia Lawrence Wells noted that her property, the Van Wickle-Beach house, "was in Lot 8 of the Raritan Lots, –Richard Jones owning Lot 7 & was therefore about 3 ½ miles from the Albany St. Bridge there seems to be quite some similarity between this deed & your property." This was in turn passed on to Rosalie Fellows Bailey, who included it in her 1936 book on Dutch houses, concluding erroneously that, "It is probable that Evert [Van Wickle I] bought out the interest of his two partners [Beekman and Pieterse]" and that "his son Symen Van Wickelen or Van Wickle settled on his father's property along the Raritan River about 1722, building a house [The Meadows Foundation] still standing."

Bertland's research into the primary documents provides a different historical narrative for the house. His research indicates that four generations of the Van Duyns owning the property from 1703 until the 1790s, and Hendrick Suydam from 1797 until 1838.

The property was one of the original Raritan Lots created in the 1680s, specifically the lot conveyed by the East Jersey Proprietors to James Miller, a merchant from Scotland who settled at Perth Amboy, in 1685. The tract (identified as Raritan Lot 6 by later historians) was acquired by Denys Vanduyn and Gusibert Hart, Dutch-American residents of Kings County, NY, in 1703. Van Duyn retained ownership of his half of the 608-acre tract until his death in 1729, whereupon as per his will (probated in Kings County in that year) his son William evidently inherited "all that tract of land or Plantation, whereon he now lives, at Raritan, in Somersett [sic] County, in Province of New Jersey, being 250 acres," (the remaining 50-acre portion of Denys Vandyn's half of Lot 6 was devised to his son Denys). The 1755 will of Evert Van Wickle, who owned the adjoining property to the north, confirms William Van Duyn's ownership of the subject property. The Van Wickle property was acquired by Symen Van Wickle, Evert's father, from the heirs of former New Jersey governor

1. For references please see Bertland 2016.

Governor Robert Hunter in the 1730s, and its ownership can be traced back to Richard Jones, the original owner of Raritan Lot 7.

When William Van Duyn settled on his plantation is unknown, but he evidently was living in the area by the early 1720s, and it could not have been much before then as he was not 21 until c. 1716. Based on the results of the dendrochronological study, it appears that he was responsible for the construction of the main block of the present house shortly after inheriting the property. And it may be that he was its builder. Members of the Van Duyn family were carpenters, or at least owned carpentry tools. The 1705 will of Gerrit Van Duyn (William's grandfather), mentions "all my working tools for the carpenters and wheel wrights work," and by his 1771 will (probated in 1773), William Van Dyn bequeathed his "carpenters and coopers tools," to his son Denys. William also devised to Denys "all my farm and plantation on which I now live Bounded on the Raritan River," and Denys in 1792 willed the "the remainder of the Farm unsold whereon I now live," to his son John. Late 18th-century tax records confirm that the Van Duyn farm adjoined the former Van Wickle property (that time owned by his only daughter Ann and her husband the Rev. Abraham Beach). An estate inventory was made upon Denys Van Duyns' death in 1792; but unfortunately provides only a short, perhaps partial list of his possessions (including several slaves) and names neither rooms in his house nor outbuildings. However, it does indicate that he practiced the diversified farming typical of the region and owned several slaves.

Tax records indicate that John conveyed a portion of his father's former plantation to Peter Antonides in 1793; and recorded deeds document that the property (comprised of a 95.2-acre river-front lot and a 22.6 acre lot to the west) changed hand once again before being purchased in 1797 by Hendrick Suydam. Suydam, a militia captain and descendant of another of the Dutch-American families who moved from Kings County to the Raritan Valley in the early 1700s, connected his two lots by the acquisition of a 55-acre parcel that had formed part of William Van Duyn's farm.

Demott Lane was surveyed in 1803, and the New Jersey Turnpike in 1807, after which the old road along the river was abandoned, certainly by the time of the construction of the D&R canal in the 1820/1830s. The graveyard at the intersection of the turnpike and Demott Lane is first mentioned in the above noted 1795 deed, but curiously has no gravestones of the families that owned or occupied the property.

Hendrick Suydam died intestate in 1838, and his inventory provides some information about the character and furnishing of his house, as well as mentioning several outbuildings (smoke house, barn and corncrib). It confirms that the house had two front rooms and that the cellar was divided into at least two areas (the "south front" and "west" cellars), and also included a "gangway." He also was engaged in diversified farming and owned the 'time" of two slaves.

The farm became the property of a scion of the Van Wickle family, when Suydam's son-in-law Henry Van Wickle purchased it from the other heirs in 1838. Van Wickle, the great grandson of Symen Van Wickle, had previously owned a pottery in Monmouth County and before then in Middlesex County, where in 1818 he and his father Judge Jacob Van Wickle achieved notoriety through their involvement in the interstate slave trade. Van Wickle sold the property in 1862.

Thereafter, the farm changed hands with some frequency and was apparently occupied by tenants during much of the latter 19th century, including members of the Smalley family who acquired title in 1900 and owned until 1926. Thereupon, the property was surveyed as a presumably residential development named "Raritan Heights," as part of which the house and the remaining acreage between Easton Avenue and the canal became one lot. The lot and house again changed hands until its acquisition in 1932 by sisters Katherine and Margaret Donaldson, who along with their mother Mrs. Malcolm Montgomery Donaldson evidently made it their residence. The transformation of the old Van Duyn farmhouse into a country residence was credited to local architect George B. Howell by Rosalie Fellows Bailey, who in her landmark 1936 book on early Dutch houses in New Jersey and New York cited his very successful restoration. While acknowledging that "the maximum charm and quaintness are achieved through a strict restoration, with the preservation of the original layout," she commended the sensitive way Howell overcame the design limitations of small rooms and dark halls, inherent in many old Dutch farm houses, to adapt the house for modern living:

"In these cases, an attractive and successful treatment is the one which has been used in the Van Wickle–Suydam house. The rear has been changed to the front of the house; the former front portion of the hall has been included in the new, large living room, leaving the former rear portion as an entrance hall with the box stairs going up one side."

In 1937, the "restored" house became the property of Business executive Robert T. Bogan, Jr., and his wife Virginia, who owned and occupied the property, which they named "The Meadows," until their deaths in the early 1970s. The Township of Franklin acquired the "The Meadows" from the Bogan heirs in 1977 for preservation purposes, and subsequently leased the house to a newly formed non-profit organization, named for the property. Since then, the Meadows Foundation has been actively engaged in the preservation and interpretation of the house, along with several other early township dwellings.

CHAPTER 3 TREE-RING DATING STUDY

3.1: Introduction

At the request of the Michael Calafati, Architect a dendrochronological (tree-ring dating) study was performed of the historic Van Wickle House in Franklin Township, New Jersey. Richard Veit, Ph.D., performed the fieldwork in April of 2016. A total of fifteen core samples were taken from timbers in the structure. Fourteen of the samples yielded dates, all in the 18th century.

Alice Gerard analyzed the cores at the Tree-Ring Laboratory of the Lamont-Doherty Earth Observatory, a division of Columbia University. The cores were compared with master chronologies made from the cores in the collections of the Tree-Ring Laboratory. The resulting analysis revealed that the last growth rings on the timbers range from early as 1676 to as late as 1740. The 1676 date likely does not reflect a construction episode, but rather a timber that had lost some of its outer growth rings. Based on the results of the testing it appears that the main (southern) block of the house was constructed in the first half of the 18th-century, likely in 1740 or earlier. There may have been two 18th-century construction episodes, one in 1729 and one in 1740. The north wing of the house also contained early timbers. Indeed, some predate the timbers in the main block of the house. Final ring dates ranged for samples from the wing range from 1676 to 1735. Although these dates are very early they are somewhat problematic, as the early date is inconsistent with the framing and archaeological evidence. These timbers may have been reused from an earlier structure or they may be lacking their final growth rings. Overall, the collection of samples is, in the words of lab analyst Alice Gerard, "An amazing collection of cores: so long, so old, and cross-dating so well."

3.2: Methods

Tree-ring dating and cross dating are essentially pattern matching of the variations in wide and narrow annual rings, wood density, or other ring characteristics resulting from variations in regional climate. All of the cores were taken from timbers that appear to be original components of the structure and in most cases had retained either their original bark, or showed a waney edge, indicating where bark once had been. As the master or best dated chronologies from the northeastern United States are based on oak, all of the samples taken were taken from oak beams.

Once they arrive at the lab, the cores are sanded and polished until the ring patterns show clearly. Measurements of ring widths are then recorded using a staging microscope and computer. These measurements are compared with master chronologies made from dated beams in the same geographical area. This is done with specialized computer software. All of the cores are kept on file at the Tree-Ring Laboratory.

3.3: Core Sample Catalog

Sample #1: Addition, first floor, Room 107, 1st post, west wall. 112 rings. In the field this sample appeared to have a waney edge but not in the lab. Dated 4 out of 4 rows, confidence level .62, giving a starting date of 1564 and a final ring date of 1676 (Figure 3.1).

Plate 3.1: Sample #1 Field Photo.

Sample #2: Addition, first floor, Room 107, 2nd post, west wall. 104 rings. In the field this sample appeared to have a waney edge but not in the lab. Dated 3 out of 4 rows, confidence level .60, giving a starting date of 1612 and a final ring date of 1716 (Figure 3.2).

Plate 3.2: Sample #2 Field Photo.

Sample #3: Addition, first floor, Room 107, 3rd post, west wall. 119 rings. In the field this sample appeared to have a waney edge but not in the lab. Dated 4 out of 4 rows, confidence level .60, giving a starting date of 1591 and a final ring date of 1710.

Sample #4: Addition, first floor, Room 107, 4th post, west wall. 100 rings. In the field this sample appeared to have a waney edge but not in the lab. Dated 3 out of 3 rows, confidence level .71, giving a starting date of 1625 and a final ring date of 1725.

Sample #5: Addition, first floor, Room 107, floor joist. 61 rings. In the field this sample appeared to have a waney edge but not in the lab. The sample was too short to date but suggests a starting date of 1676 and a final ring date of 1737 (Figure 3.3).

Plate 3.3: Sample #5 field photo.

Sample #6: Main block, south end, Room 107, 1st post, west wall. 99 rings. In the field this sample appeared to have a waney edge but not in the lab. Dated 3 out of 3 rows, confidence level .33, giving a starting date of 1636 and a final ring date of 1735.

Sample #7 Not sent. This sample was too short to be dated.

Sample #8: Main block, Room 103, south end, 3rd post, west wall. 126 rings. In the field this sample appeared to have a waney edge but not in the lab. Dated 3 out of 4 rows, confidence level .44, giving a starting date of 1602 and a final ring date of 1728.

Sample #9 Main block, Room 103, south end, 4th post, west wall. 120 rings. In the field this sample appeared to have a waney edge but not in the lab. Dated 3 out of 4 rows, confidence level .58, giving a starting date of 1609 and a final ring date of 1729.

Sample #10 Main block, Room 103, north end, 8th post, east wall. 112 rings. In the field this sample appeared to have a waney edge but not in the lab. Dated 3 out of 4 rows, confidence level .67, giving a starting date of 1615 and a final ring date of 1727.

Sample #11 Main block, Room 103, west end, 7th post, south wall. 133 rings. In the field this sample appeared to have a waney edge but not in the lab. Dated 4 out of 4 rows, confidence level .51, giving a starting date of 1607 and a final ring date of 1740.

Sample #12 Main block, Room 103, north end, 6th post, east wall. 100 rings. In the field this sample appeared to have a waney edge but not in the lab. Dated 3 out of 3 rows, confidence level .61, giving a starting date of 1629 and a final ring date of 1729.

Sample #13 Main block, Room 101, ceiling joist (anchor bent. 88 rings. In the field this sample appeared to have a waney edge but not in the lab. Dated 3 out of 3 rows, confidence level .50, giving a starting date of 1652 and a final ring date of 1730.

Sample #14 Main block, Room 102, ceiling joist (anchor bent. 99 rings. In the field this sample appeared to have a waney edge but not in the lab. Dated 3 out of 3 rows, confidence level .69, giving a starting date of 1625 and a final ring date of 1724.

Sample #15, Main block, Room 104, ceiling joist (anchor bent). In the field this sample appeared to have a waney edge but not in the lab. Dated 3 out of 3 rows, confidence level .48, giving a starting date of 1630 and a final ring date of 1740.

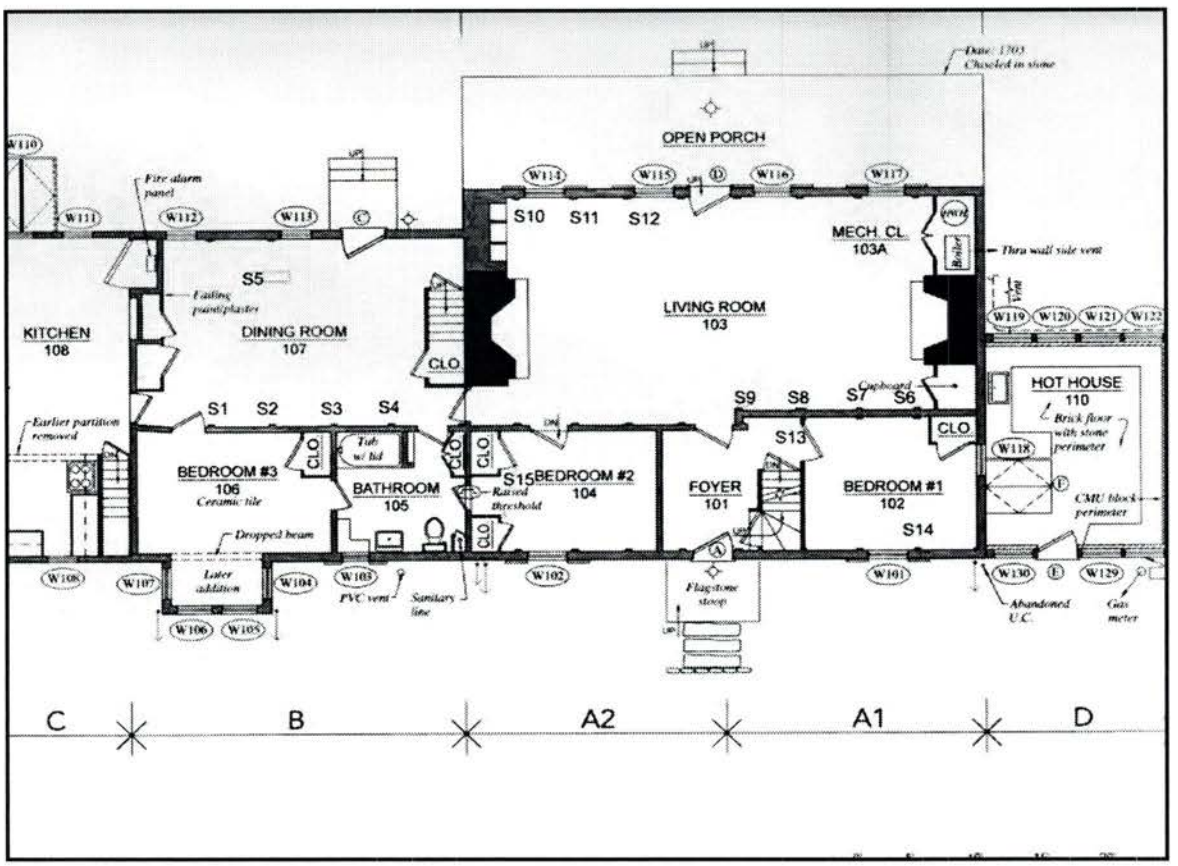

Figure 3.1: Plan view of the Van Wickle House samples are designated S1, S2, etc.

3.4: Interpretations and Conclusions

In summary fifteen oak timbers from the Van Wickle were sampled. Fourteen of the samples could be cross dated. Samples 1-6 came from Room 107 and yielded dates ranging from 1676 to 1737—see table below.

Sample #	Room	Architectural Element	Start Date	Final Ring Date	Number of rings	Confidence Level
S1	107	Post	1564	1676	112	.62
S2	107	Post	1612	1716	104	.60
S3	107	Post	1591	1710	119	.60
S4	107	Post	1625	1725	100	.71
S5	107	Floor joist	1676	1737	61	Not given
S6	107	Post	1636	1735	99	.61
S7	107	Post	Not dated	Not dated		

Table 3.1: Tree ring samples from the Van Wickle house, part 1.

These dates are very early and it is possible that the outer growth rings were lost on these timbers thus making the samples appear earlier than they are. Alternatively, the frame/north wing may actually incorporate very early material.

Samples 8-15 came from Room 101, 102, 103, and 104—see table below. They too yielded very early dates, ranging from 1724 to 1740. It appears that the main block of the house was constructed in two sections, the eastern section in the late 1720s or early 1730s and the western section after 1740. However, all of these dates should be used judiciously as timber was commonly reused in 18th-century structures.

Sample #	Room	Architectural Element	Start Date	Final Ring Date	Number of rings	Confidence Level
S8	103	Post	1602	1728	126	.44
S9	103	Post	1609	1729	120	.58
S10	103	Post	1615	1727	112	.67
S11	103	Post	1607	1740	133	.51
S12	103	Post	1629	1729	100	.61
S13	101	Bent/Joist	1652	1730	88	.50
S14	102	Bent/Joist	1625	1724	99	.69
S15	104	Bent/Joist	1630	1740	110	.48

Table 3.2: Tree ring samples from the Van Wickle house, part II.

CHAPTER 4 ARCHAEOLOGY

4.1: PREVIOUS ARCHAEOLOGICAL STUDIES

In 2003, caretaker John Lovel Smith began an archaeological dig in the crawlspace of the house. The dig was prompted by installation of a ductwork for a heating and cooling system (Scott and Fericy 2003). The dig began on February 17th, 2003 with enlargement of the crawlspace entrance. Excavation began three days later on February 20th. The dig was newsworthy and several articles were published in local newspapers recounting the finds (Scott and Fericy 2003; Fericy 2003). Artifacts recovered included: eyeglasses, nails, a tobacco pipe, coins, ceramics, button, and beads. For a period of several months excavations continued. Rather brief notes summarizing the excavation survive and are transcribed and included below. All citations are from an unpaginated notebook in the collections of the Meadows Foundation.

On March 3, 2003, modern 20th century debris was found. Four days later, excavation uncovered the New Jersey Copper. Soils were noted as disturbed from hurricane Floyd which led to extensive flooding in the Raritan Valley

March 15th saw the installation of lighting and plastic in the crawlspace. The lights and plastic sheeting are still present, except in an area paralleling the new cellar entrance.

Five days of archaeological excavations were subsequently noted. The first occurred on March 18th. Locations for these excavations are not noted. Dig I was described as follows, "Uncovered old foundation wall found noggin bricks and clay. Floor on other side of foundation. Ash trails and egg shells mixed in ash on clay floor. Looks like a temporary fire. Small pieces of charcoal." A pair of plan views show the areas excavated (Figures 4.1 and 4.2).

Dig II took place on May 4th 2003. It was described as follows: "Uncovered 2nd wall and found some foundation/then loose stone on top of debris. Might have been front wall of a fire pit for workers. Clay floor very flat."

Dig III took place on May 7th. The diary describes it as follows, "Found shoe buckle at 10"aff. Also started to find irregular bricks of fire place. Only a few bricks. Not very many noggin bricks."

Dig IV occurred on May 11th. The diary notes the following, "Buttons/ceramics/fireplace brick, clay floor rises to foundation of wall. Right hand side->Easton Ave. egg shells/chicken bones/clay pipes, a line of brick might be showing at edge of hole (Dig). Find out next section of dig. Note: the last joists of tree trunk not fully squared are not mortised into the middle wall plate like the others (Pictures to be taken)."

Dig V took place on 4/14/03. The notes recount the following" More rubble and less brick debris. Two coins, 1919 penny on surface, one cent piece inside rock (1813) clay floor. Not as low and even/another foundation wall unearthed, more cow and pig bones. Debris field trailing off." A sketch shows the three walls and is reproduced below (Figures 4.1 and 4.2).

A photo album of undated and unlabeled photos accompanies the diary. They show the hole being broken through the west wall of the cellar to create an entrance (Plates 4.1). Other images show the crawlspace before excavation (Plates 4.2 and 4.3). Many of the photographs show pieces of masking tape with an alphanumeric code written in Sharpie indicating a rough gridding out of the cellar beneath the wing.

John Lovel Smith's dig revealed an assortment of 18th and 19th century artifacts, as well as what he called a field of artifacts, presumably a sheet midden, and a clay floor, which may be a compacted earth floor from an earlier structures or possibly a subfloor pit that had been lined with clay, in front of the hearth of the west wing. Lovel Smith's work also helped document the support system for western section of the house, which consists of stone piers and what may be two different foundations.

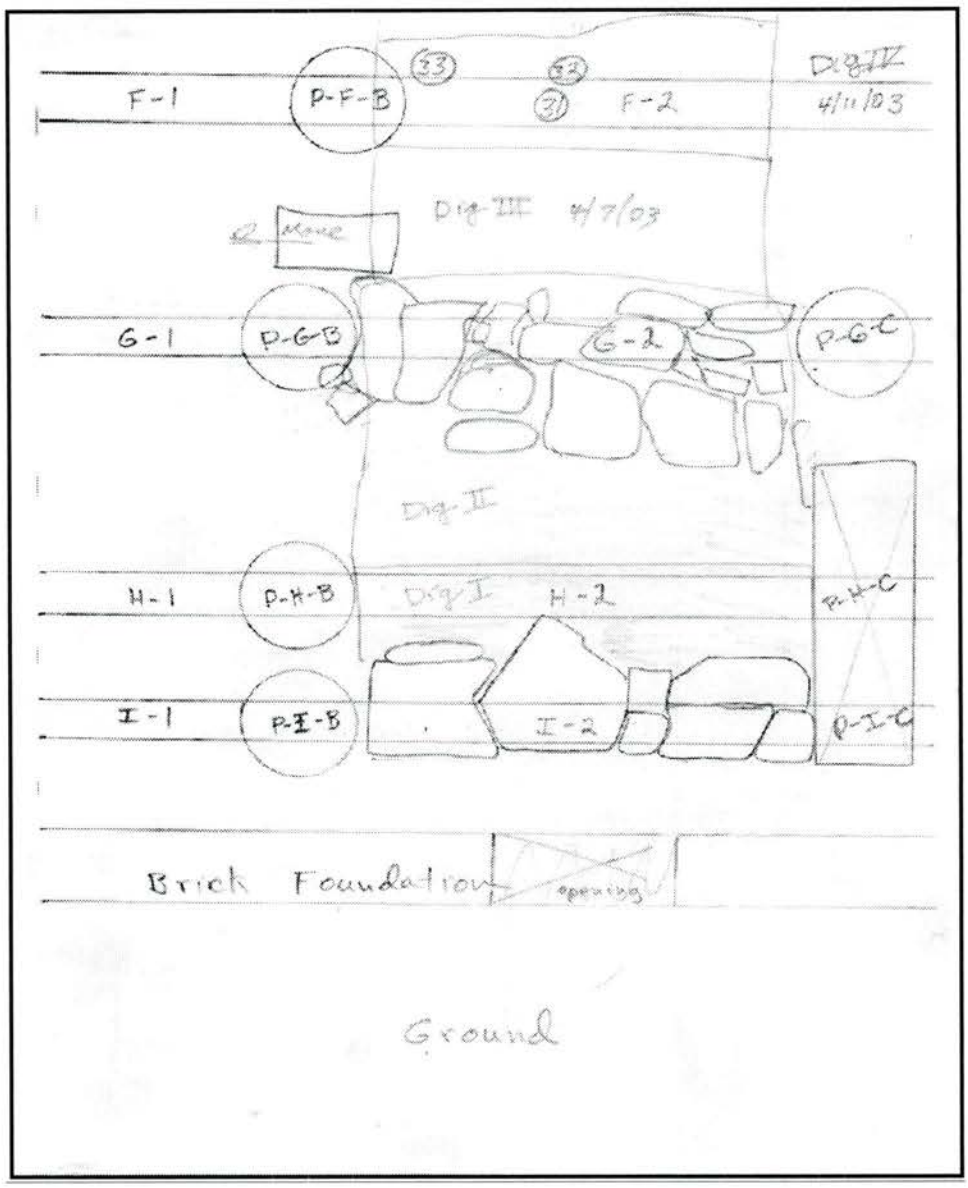

Figure 4.1: Undated plan showing the locations of digs I-IV. F, G, H, and I are floor joists. It appears that there was a hearth support located approximately where Digs I and II occurred. The image is oriented with south at the top.

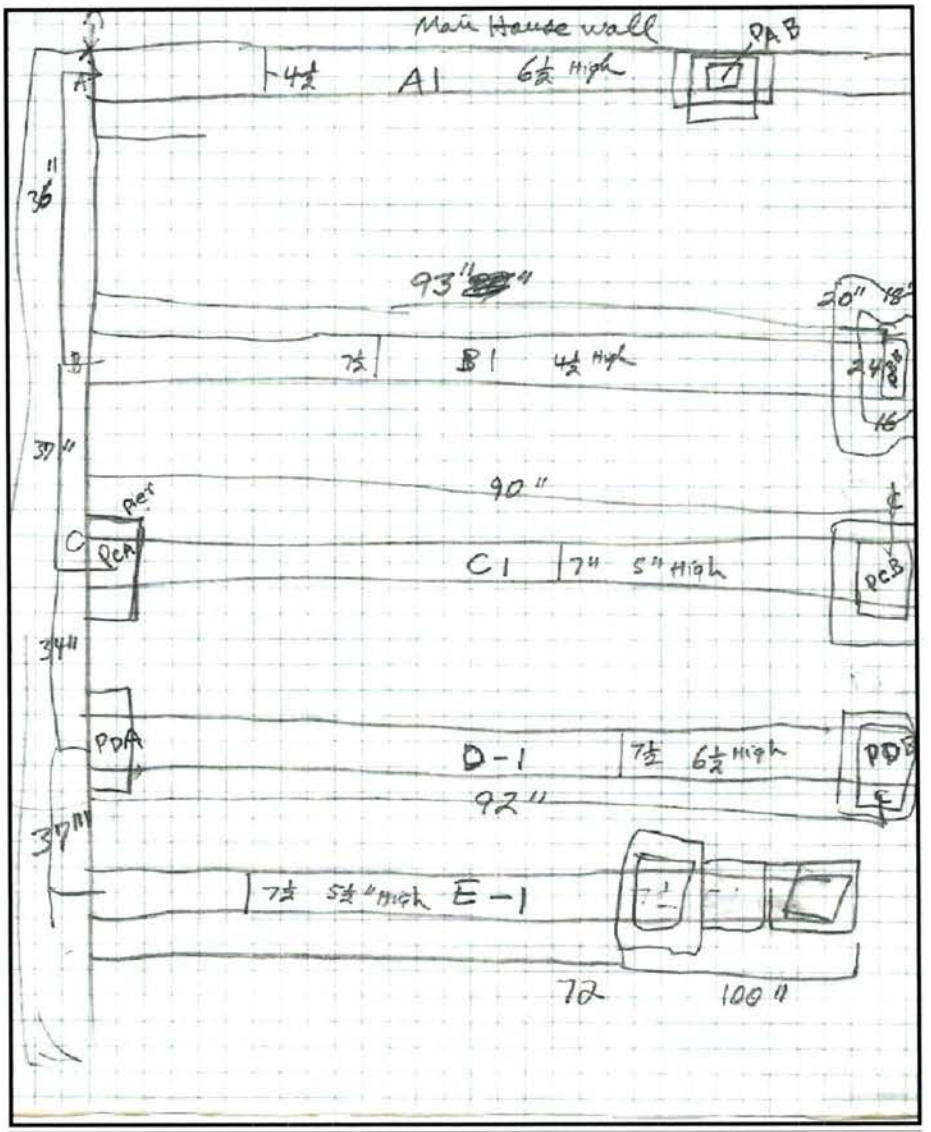

Figure 4.2. Undated plan showing the eastern end of the crawlspace. Floor joists and piers are shown. No excavation appears to have occurred in this area. The figure is oriented with south at the top.

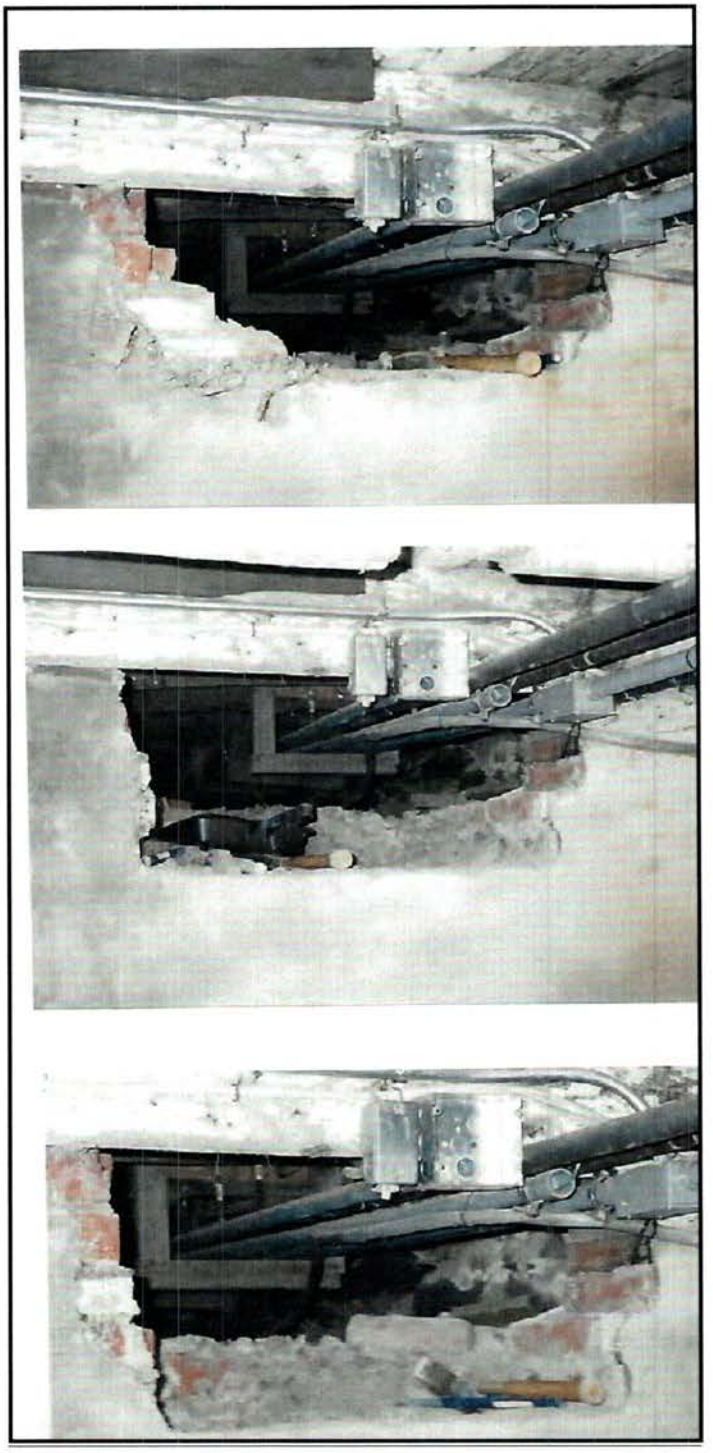

Plate 4.1: A sequence of photos showing the work done to enlarge the entrance into the crawlspace under the western addition of the house. View south.

Plate 4.2: Undated photo showing one of the dig locations within the crawl space.

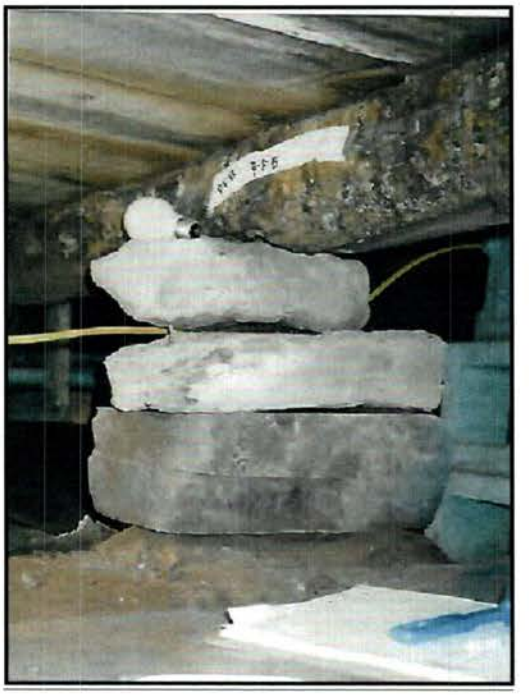

Plate 4.3: Undated photo showing a pier and floor joist within the crawl space. Note the masking tape label on the timber.

4.2 ARTIFACT ANALYSIS

A substantial collection of 19th century artifacts found during John Lovel Smith's dig and other informal excavations is housed at the Van Wickle house. Many of the artifacts are labeled Forest Well and were not analyzed as part of this project. However, two hundred and ninety six artifacts that may be from the archaeological digs were analyzed. These include 55 artifacts labeled as coming from the 2003 dig. The artifacts include ceramics, glass, buttons, coins, personal and architectural items, faunal remains, and shell. The majority of the collection is made up of ceramics (215) pieces.

Artifacts were broken into nine major categories for the purposes of analysis: architectural/other, bottle glass, buttons/buckles, ceramics, coins, faunal remains, personal items, tobacco pipes, and shell. Objects were then described as fragmentary or whole and the number of pieces was tabulated. When possible, consideration was paid to the classes and groups used by pioneering historical archaeologist Stanley South in his pattern analysis project (South 1977:95). Vessel fragments were identified by form whenever possible. Ceramic decorations, e.g. hand-painting, transfer printing, banding, were described. Glass was also described by color and using the protocols laid out on the Society for Historical Archaeology's webpage: http://www.sha.org/bottle/index.htm. Artifact dates were assigned based primarily on published works by Ivor Nöel Hume and George Miller and colleagues (No7l Hume 1970; Miller, Samford, Shlasko, and Madsen 2000). The assemblage dates primarily from the first half of the 19th century. It consists primarily of ceramics, followed by glass artifacts, pipe stems, faunal remains, and other items.

Artifact Type	Number
Architectural/Other	7
Bottle Glass	29
Buttons/Buckles	8
Ceramics	215
Coins	4
Faunal Remains	13
Personal Items	3
Pipe Stems	16
Shell	1
Total	**296**

Table 4.1: Major artifact types represented in the collection from the Van Wickle house.

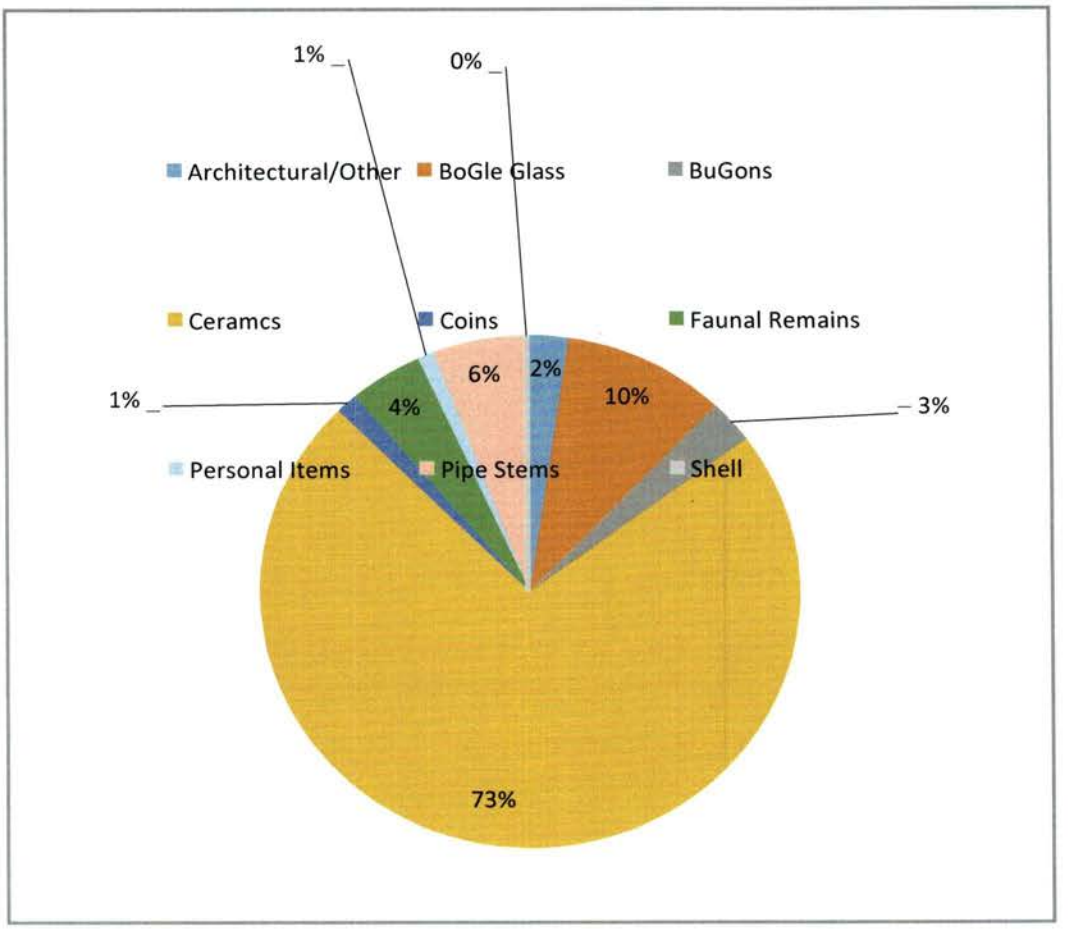

Table 4.1: Artifact types by percentage in the collection from the Van Wickle house.

Architecture

Only a small number of architectural artifacts were recovered. These consisted of two nails: one unidentified and one machine cut (1820+) and a pair of wooden pegs. Other unidentified artifacts which may be fragments of hardware were also included in this category.

Bottle Glass

Bottle glass ranged from olive colored fragments likely dating from the 18th century to early 20th century medicine bottles. Two glass stoppers were also noted, both dating from the 19th or early 20th centuries. A 1930s medicine bottle marked Hallock's Cough Syrup, was also recovered as was a Stickwell and Company ink well. In sum, the bottles reflect the entire historic occupation of the house. However, the small number of bottle fragments prevents any broader interpretations.

Buttons

Seven buttons were recovered, six copper alloy and one wooden (see Plate 4.4). They all appear to date from the late 18th or 19th centuries. One has a partial inscription IL on the rear. None are decorated. Fragments of an iron buckle and the hasp of a brass buckle, likely dating from the 18th century, were also recovered (see Plate 4.4).

Plate 4.4: Select artifacts from Bag 2, Day 2. Including, from left to right and top to bottom, two fragments of hand-painted pearlware, a transfer-printed pearlware fragment, a porcelain fragment, a buckle, three pipe stems, an unidentified button, a shoe buckle hasp, and a second button. Centimeter scale.

Ceramics

Ceramics made up 73 percentage of the assemblage with 213 artifacts. The number of ceramics relative to other artifact types may be more reflective of collector behavior than it is of the actual quantities of artifacts originally present on the site. Types represented included: creamware, pearlware (Plate 4.5), whiteware (Plates 4.6 and 4.7), porcelain, stoneware (Plate 4.8) and redware (Plate 4.9). Plain creamware plates were also present. Pearlware vessels included blue shell edged plates (1775-1840), hand-painted pearlware bowls (1775-1840), and transfer printed pearlware and whiteware (c. 1820+). The transfer prints included several fragments of an Abbey Pattern vessel and others showing a patriotic motif that includes images of George Washington and arched ribbons with the names of the states (see Plates 4.6 and 4.7).

Stoneware fragments included a gray salt glazed stoneware chamber pot, and a brown British stoneware jug (see Plate 4.5). Fragments of at least three redware utility or pie plates were present with simple slip trailed decoration on a clear lead glaze as was a milk pan with a brown manganese glaze (see Plate 4.6). All of these items likely date from the 19th century.

Plate 4.5: A fragment of hand-painted pearlware, likely dating from the late 18th or very early 19th centuries. Bag 13, Centimeter scale.

Plate 4.6: Fragments of Abbey pattern transfer-printed whiteware, dating from the mid 19th century. Bag 15, Centimeter scale.

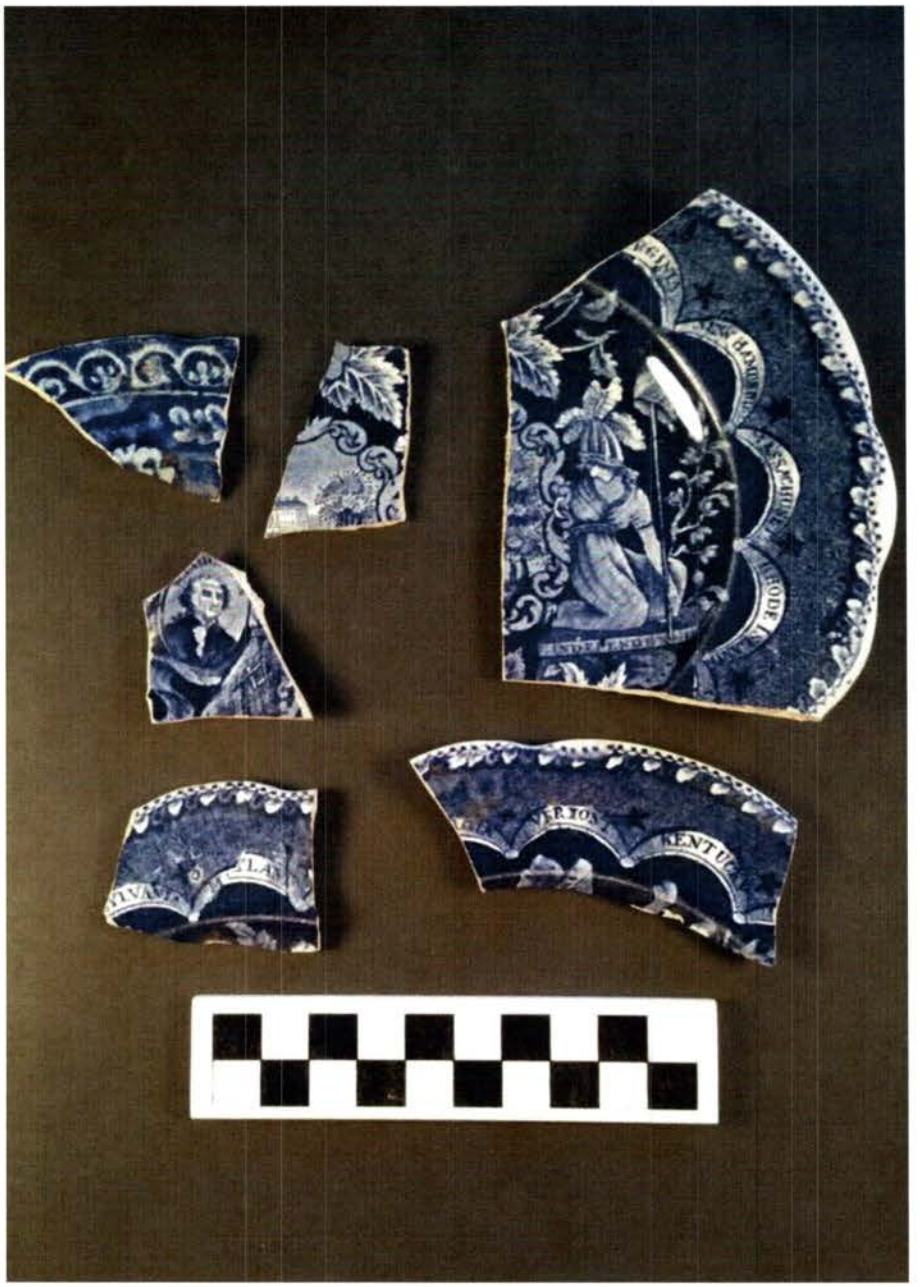

Plate 4.7: Fragments of patriotic pattern transfer-printed whiteware, dating from the mid 19th century. Bag 20, Centimeter scale.

Plate 4.8: Fragments of a gray salt glazed stoneware chamber pot, and a brown stoneware pitcher. Bag 32, Centimeter scale.

Plate 4.9: Fragments of three redware plates, the middle and right examples show slip trailed decoration, and a redware milk pan with brown manganese glaze. Bag 30, Centimeter scale.

Coins

Five coins are present in the collection. They include a 1786 New Jersey copper one-cent piece, with head facing right, an 1813 Liberty head large cent, a 1919 Lincoln cent, a 1910 dime, a heavily worn Buffalo nickel (1913-1938) (Plate 4.10). The most noteworthy of the coins is the New Jersey copper. These coppers were minted in Rahway, Elizabethtown, and Morristown. Three million were minted in 1786 and 1787 (Yeomans 2012:68). They were the first American coin to bear the inscription E Pluribus Unum. They, and other copper coins issued by the states under the Articles of Confederation, circulated widely in the northeastern colonies and are commonly found on historic sites. However, questions about the weight and composition of the state coppers began to cause concern. New Jersey Coppers were better than most and were allowed to circulate at 15 per shilling in 1787. However, in 1789 a Copper Panic led to such a decline in value that the coppers ceased to circulate (Mossman 1993:265).

Plate 4.10: Three of the coins recovered from the Van Wickle house, from left to right, a 1787 New Jersey Copper, an 1813 Liberty Head large cent, and a 1919 Lincoln cent. Centimeter scale.

Faunal Remains/Shell

Faunal remains consisted of a small number (5) of unidentified animal bones, as well as five (5) oyster shells.

Personal Items

Personal Items included two clay marbles, likely dating from the late 19th century. A lens from a set of eyeglasses, One especially interesting find is an ivory or bone tuning peg from a violin/fiddle or other stringed instrument.

Plate 4.11: Fragments of a bone or ivory tuning peg from a violin. An unusual artifact, it may date from the 18th or 19th centuries. Bag 9, Centimeter scale.

Plate 4.12: A fragmentary set of eyeglasses, two buttons, two beads, and four tobacco pipe fragments. Bag 6, Centimeter scale.

Tobacco Pipes

Fourteen bowl fragments and two pipe stem fragments were also recovered. All show common mid-19th century shapes. The assemblage is too small to employ any of the standard pipe-stem dating techniques (e.g. Binford 1962; Harrington 1954).

Artifact Interpretations:

The artifact assemblage from John Lovel Smith's excavations at the Van Wickle is an important source of information about the lives of the site's occupants during the 18th and 19th centuries. The collection is modest in size, fewer than 300 artifacts, and consists primarily of larger artifacts, possibly from historic features. Although Smith excavated different areas separately, there collection is best seen as a general provenience collection. It contains a range of historic artifacts. Ceramics are especially common. Porcelain, creamware, pearlware, whiteware, redware, and stoneware are all present in the collection. The ceramics include serving wares, especially hand painted and transfer printed pearlware; food preparation vessels, including redware plates and pans; and hygiene related vessels, such as a stoneware chamber pot.

Bottle glass varies from dark green/olive bottle glass, consistent with an 18th-century occupation, and 19th- and 20th-century medicine bottles.

Personal items include clothing related item including buttons and the hasp from and 18th-century shoe buckle. Tobacco pipes are represented by stems and bowl fragments. They are consistent with a 19th-century occupation of the site. Several coins are also present, including a 1787 New Jersey copper, and an 1813 Liberty Head Cent. The most unusual find was an ivory or bone tuning peg from a stringed instrument, likely a violin.

Overall, the collection shows a modest expenditure on household goods. The collection dates primarily from the 19th century. Based on John Lovel Smith's finds, it is clear that the soil deposits beneath the west wing of the Van Wickle house have considerable archaeological potential and could benefit from additional study. Any further ground disturbances in this area should be proceeded by a professional archaeological investigation.

SECTION 5 SITE MAPPING

Section 5.1 Introduction

In an effort to better understand the building chronology of the Van Wickle house a visual survey of the cellars under the southern block of the house, and the crawl space under the northern portion of the house was undertaken.

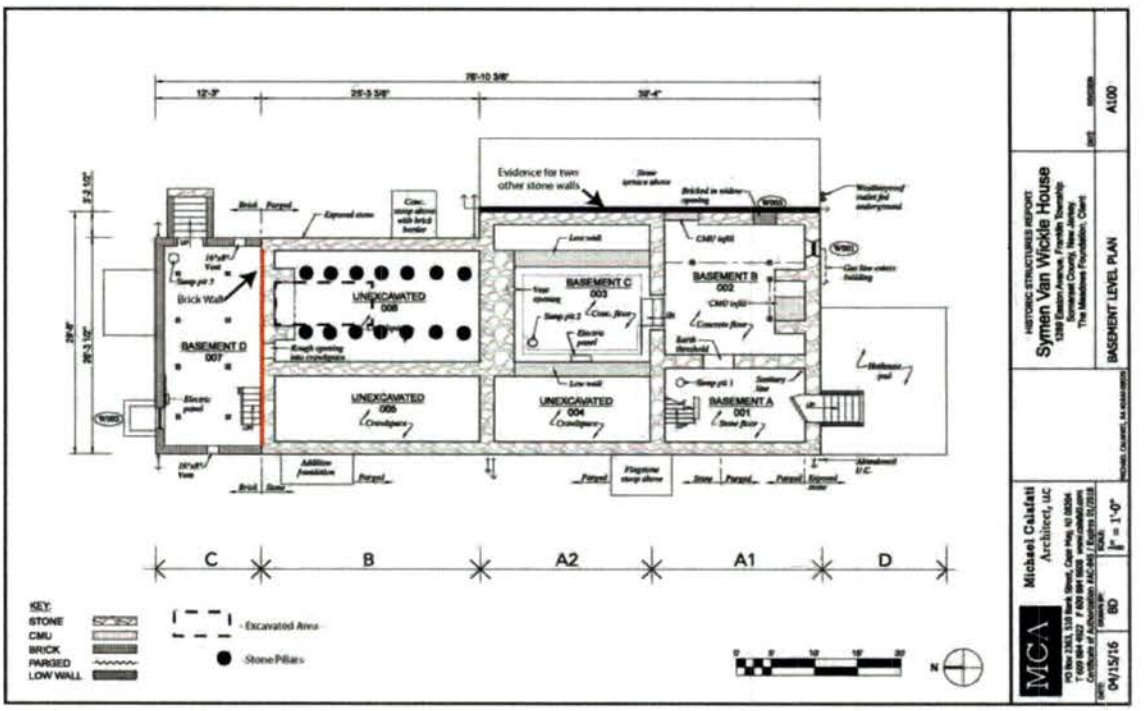

Figure 5.1: Foundation plan of the Van Wickle house, amended to show features noted during field recording. Note, the black dots indicate stone piers supporting the framing of the north block of the house. The red line indicates the doubled foundation separating Rooms 006 and 007. The black line indicates the doubled foundation on the eastern side of the house.

Although site conditions make it challenging to map the foundations associated with the Van Wickle house, a careful investigation of the basements and crawlspaces did provide some new information about the site and the evolution of the structure. Basement D has its own free-standing brick foundation. Inside Room 006 there are two rows of stone pillars supporting the floor joists. Excavation took place in the location of a former fireplace support near the western end of the structure. Room 002 clearly shows three foundations, one inside the other along the eastern side of the structure. It is possible that the southernmost section of the structure was the first portion of the Van Wickle house constructed. It may have been a simple one small structure, consisting of the

southern half of the southern block of the structure, supported by a simple fieldstone foundation with no cellar. At some later point, a cellar was inserted under the structure and at that point or at a later point, the cellars were extended to the north. Basement C was added later and also shows multiple foundations on the north wall. It appears that the Van Wickle house began as a small, perhaps single cell structure, possibly without a foundation that was later expanded with a series of additions to the north and the digging of cellars.

SECTION 6. CONCLUSIONS AND RECOMMENDATIONS

The following report presents the results of three specialized surveys carried out as part of a Historic Structures Report on the Van Wickle house a Meadows Foundation house, located at 1289 Easton Avenue, Franklin Township Somerset County, New Jersey. These reports were carried out under contract to Michael Calafai, Architect. The studies included a tree-ring dating study of the house, analysis of a collection of historic artifacts housed in the attic of the house and associated with a 2003 archaeological dig by tenant/caretaker John Lovel Smith, and select mapping of the foundations underneath the northern additions to the house in an effort to better understand the construction sequence of the building.

The tree-ring dating study consisted of sampling fifteen oak timbers. Fourteen yielded dates. Samples 1-6 came from Room 107 and yielded dates ranging from 1676 to 1737. Samples 8-15 came from Room 101, 102, 103, and 104. They too yielded very early dates, ranging from 1724 to 1740. It appears that the main block of the house was constructed in two sections, the southern section in the late 1720s or early 1730s and the northern section in the mid-18th century or later, possibly using timbers reused from an earlier structure. However, all of these dates should be used judiciously as timber was commonly reused in 18th-century structures and not all of the timbers had waney edges. They indicate that the structure was constructed in the 18th century, and that the main block likely dates from the late 1720s, possibly 1729, a date that corresponds with William Van Duyn's inheritance of the site. The curious multiple foundations noted in the southern block of the house may indicate that there was an even earlier structure on the site which was replaced in the 1720s.

A careful visual inspection of the cellars and crawl spaces beneath the house carried out as part of the effort to identify locations for tree-ring samples revealed that in the main (southern) block of the house, the building shows not one but three foundations, one inside the other. This may indicate that the building was initially built on a simple fieldstone foundation, which was repeatedly improved, perhaps after the cellar was dug. Archaeology could help provide more information about the construction sequence of the structure. Similarly, the northern section of the house shows what may be two different foundation construction episodes, likely representing repeated changes to that section of the structure.

Finally, a collection of 296 artifacts excavated in the early 200s by John Lovel Smith and excavated from beneath the western wing of the house, was analyzed. The artifacts date primarily from the very late 18th century and the 19th century. Many are large ceramic fragments. They may indicate that this area was an exposed ground surface that was subsequently covered over when the northern wing was constructed.

The Symen Van Wickle House is a significant historical and archaeological sites, recorded by the Historic American Buildings Survey and listed on the State and National Registers (NR 12-14-73 and SR 9-18-73; NR Reference #: 73001134, ID 2504). Tree-ring dating indicates that it contains an exceptional amount of 18th century framing material, in both its southern and northern sections. A visual inspection of the building's foundations shows repeated attempts to rebuild and expand the structure, while archaeological evidence highlights the site's occupation from the 18th through 20th centuries. Any ground disturbing activities on the property should be preceded by professional archaeological investigation.

SECTION 7. REFERENCES

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2016 Historic Structures Report for the Van Wickle House, Franklin, New Jersey.

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1962 A New Method of Calculating Dates from Kaolin Pipe Stem Samples. Southeastern Archaeological Conference Newsletter 9(1):19-21. Reprinted 1978 in *Historical Archaeology: A Guide to Substantive and Theoretical Contributions*, edited by Robert Schuyler, 66-67. Baywood Publishing Company, Farmingdale, New York.

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1970 *A Guide to the Artifacts of Colonial America.* Alfred A. Knopf, New York.

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F.
National Register Nomination

Form 10-300
(Rev. 6-72)

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES INVENTORY – NOMINATION FORM

(Type all entries – complete applicable sections)

STATE: New Jersey
COUNTY: Somerset
FOR NPS USE ONLY
ENTRY DATE: DEC 4 1973

1. NAME

COMMON: The Meadows
AND/OR HISTORIC: Symen Van Wickle House

RECEIVED SEP 26 1973 NATIONAL REGISTER

2. LOCATION

STREET AND NUMBER: 1289 Easton Avenue
CITY OR TOWN: Franklin ~~Township~~
CONGRESSIONAL DISTRICT: Fifth
STATE: New Jersey — CODE: 34
COUNTY: Somerset — CODE: 035

3. CLASSIFICATION

CATEGORY (Check One)	OWNERSHIP		STATUS	ACCESSIBLE TO THE PUBLIC
☐ District ☒ Building	☐ Public	Public Acquisition:	☒ Occupied	Yes:
☐ Site ☐ Structure	☒ Private	☐ In Process	☐ Unoccupied	☒ Restricted
☐ Object	☐ Both	☐ Being Considered	☐ Preservation work in progress	☐ Unrestricted
				☐ No

PRESENT USE (Check One or More as Appropriate)

☐ Agricultural	☐ Government	☐ Park	☐ Transportation	☐ Comments
☐ Commercial	☐ Industrial	☒ Private Residence	☐ Other (Specify)	
☐ Educational	☐ Military	☐ Religious		
☐ Entertainment	☐ Museum	☐ Scientific		

4. OWNER OF PROPERTY

OWNER'S NAME: Estate of Mr. R.T. Bogan, c/o Barrood Real Estate
STREET AND NUMBER: 50 Paterson Street
CITY OR TOWN: New Brunswick
STATE: New Jersey — CODE: 34

5. LOCATION OF LEGAL DESCRIPTION

COURTHOUSE, REGISTRY OF DEEDS, ETC: Franklin Township Municipal Building, Registry of Deeds
STREET AND NUMBER: De Mott Lane
CITY OR TOWN: Franklin Township
STATE: New Jersey — CODE: 34

6. REPRESENTATION IN EXISTING SURVEYS

TITLE OF SURVEY: Historic American Buildings Survey-NJ-479 NJHSI-1180.13
DATE OF SURVEY: 1938 ☒ Federal ☐ State ☐ County ☐ Local
DEPOSITORY FOR SURVEY RECORDS: Library of Congress
STREET AND NUMBER:
CITY OR TOWN: Washington
STATE: D.C. — CODE: 11

SEE INSTRUCTIONS

FOR NPS USE ONLY
STATE: New Jersey
COUNTY: Somerset
ENTRY NUMBER
DATE: DEC 4 1973

7. DESCRIPTION

CONDITION	(Check One)					
	☒ Excellent	☐ Good	☐ Fair	☐ Deteriorated	☐ Ruins	☐ Unexposed
	(Check One)		(Check One)			
	☒ Altered	☐ Unaltered	☐ Moved	☒ Original Site		

DESCRIBE THE PRESENT AND ORIGINAL *(If known)* PHYSICAL APPEARANCE

This Dutch house is composed of several different periods of construction. The early 18th century section is 40 feet by 30 feet. A 19th century kitchen wing extends to the north 38 feet and 26 feet deep.

The 18th century section appears to have been built in two sections. This one and a half story structure with a gable roof has a swept overhang projecting five feet across the east elevation (front) of both sections. This front facade has the original split shingles with round butts. The attic was probably originally unfinished. It has been more recently remodeled for bedroom space. This section fronts to the east, originally having two large rooms to the front with smaller rooms to the rear. As indicated by the differences in ceiling levels, this part of the house was probably built in two sections, each section having one front room and smaller rooms to the rear. These sections both measure 20 by 30 feet, together 40 by 30 feet.

The present living room is made from the two original front rooms. The exposed massive post and beam construction is typical of 18th century Dutch houses. The large beams, approximately 12 inches in depth, are squared and plained. There are five framing bents in both sections. The windows are 12/12. The doors have strap hinges on pintels.

The 19th century extension consists of the present dining room, kitchen, and rear rooms. This one story gable section is lower than the 18th century section. The sashes are 6/6 and 9/6.

This is a 1½ story frame house with a stone foundation.

SEE INSTRUCTIONS

CONGRESSIONAL REPRESENTATION

Harrison Williams, Senator
Clifford Case, Senator
Peter Frelinghuysen, Jr., Representative
5th District

8. SIGNIFICANCE

PERIOD *(Check One or More as Appropriate)*

☐ Pre-Columbian	☐ 16th Century	☒ 18th Century	☐ 20th Century
☐ 15th Century	☐ 17th Century	☐ 19th Century	

SPECIFIC DATE(S) *(If Applicable and Known)* 1722, 1755

AREAS OF SIGNIFICANCE *(Check One or More as Appropriate)*

Aboriginal	☐ Education	☐ Political	☐ Urban Planning
☐ Prehistoric	☐ Engineering	☐ Religion/Philosophy	☒ Other *(Specify)* Settlement
☐ Historic	☐ Industry	☐ Science	
☐ Agriculture	☐ Invention	☐ Sculpture	
☒ Architecture	☐ Landscape Architecture	☐ Social/Humanitarian	
☐ Art	☐ Literature	☐ Theater	
☐ Commerce	☐ Military	☐ Transportation	
☐ Communications	☐ Music		
☐ Conservation			

STATEMENT OF SIGNIFICANCE

Architecture.

The Van Wickle House is an excellent example of early 18th century colonial architecture unique to the New Jersey-New York area. Commonly called the 'Dutch Style' this form of construction is actually a combination of Dutch, Flemish, and English influences.

The Van Wickle House, a frame construction with brick fill, still has the original split shingles with round butts on the east, or front, facade. The east facade the Delaware and Raritan Canal, formerly an early New Jersey highway.

This early Dutch house has 1½ stories and a stone foundation. It has a characteristic wide swept overhanging roof and a massive open beam ceiling.

The house is one of the oldest buildings in Somerset County, and probably the oldest in Franklin Township.

Settlement.

In 1703 Evert Van Wickle, Gerardus Beekman, and Leffert Pieterse, all of Long Island, bought a 450 acre tract of land from Thomas Cardale of Jamaica. Van Wickle possibly bought out the others and added 800 more acres to his holdings. There is no evidence, however, to suggest that Evert lived in the area.

Van Wickle, a carpenter, emigrated to Flatbush, Long Island around 1664, married in 1690, and fathered six children. One of these, Symen Van Wickle, probably settled on his father's tract of land near New Brunswick and built the house in question at the time of his marriage in about 1722. Symen died about 1755 and his will mentions his homestead along the Raritan River.

From 1755 to 1795 little is known of the owners. However, in 1795 the property was sold to Robert T. Kemble. In 1797 Hendrick Suydam purchased the lot on which the house stood from Kemble. Suydam died around 1838 leaving the house to his three daughters, one of whom had married Nicholas Van Wickle, probably the grandson of Symen Van Wickle.

Then, in 1862, Nicholas and his wife, having previously purchased the two other daughter's shares of the house, sold the homestead to John Brooks. From this date onward the property changed hands frequently and is presently to be sold

SEE INSTRUCTIONS

9. MAJOR BIBLIOGRAPHICAL REFERENCES

Bailey, Rosalie F. Pre-Revolutionary Dutch Houses and Families in Northern New Jersey and Southern New York. New York: William and Morrow & Company, 1936.

Historic American Buildings Survey-NJ-479, 1938.

Cook, Winifred. "America's Heritage is in 'The Meadows'": The Home News, April 20, 1973.

10. GEOGRAPHICAL DATA

LATITUDE AND LONGITUDE COORDINATES DEFINING A RECTANGLE LOCATING THE PROPERTY						OR	LATITUDE AND LONGITUDE COORDINATES DEFINING THE CENTER POINT OF A PROPERTY OF LESS THAN TEN ACRES					
CORNER	LATITUDE			LONGITUDE				LATITUDE			LONGITUDE	
	Degrees	Minutes	Seconds	Degrees	Minutes	Seconds		Degrees	Minutes	Seconds	Degrees	Minutes	Seconds
NW	°	'	"	°	'	"		40°	31'	22"	74°	29'	36"
NE	°	'	"	°	'	"							
SE	°	'	"	°	'	"							
SW	°	'	"	°	'	"							

APPROXIMATE ACREAGE OF NOMINATED PROPERTY: 5.8

LIST ALL STATES AND COUNTIES FOR PROPERTIES OVERLAPPING STATE OR COUNTY BOUNDARIES

STATE:	CODE	COUNTY	CODE
STATE:	CODE	COUNTY:	CODE
STATE:	CODE	COUNTY:	CODE
STATE:	CODE	COUNTY:	CODE

RECEIVED
SEP 26 1973
NATIONAL REGISTER

11. FORM PREPARED BY

NAME AND TITLE: Historic Sites Section Staff (Lois Richman, & Terry Karschner)

ORGANIZATION: Historic Sites Office, Dept. of Envirnmental Prot. DATE: July, 1973

STREET AND NUMBER: P.O. Box 1420

CITY OR TOWN: Trenton | STATE: New Jersey | CODE: 34

12. STATE LIAISON OFFICER CERTIFICATION

As the designated State Liaison Officer for the National Historic Preservation Act of 1966 (Public Law 89-665), I hereby nominate this property for inclusion in the National Register and certify that it has been evaluated according to the criteria and procedures set forth by the National Park Service. The recommended level of significance of this nomination is:

National ☐ State ☐ Local ☒ (Acting)

Name [signature]

Title Richard J. Sullivan
Commissioner, Department of ~~Environmental Protection~~

Date September 18, 1973

NATIONAL REGISTER VERIFICATION

I hereby certify that this property is included in the National Register.

[signature]
~~Director, Office of Archeology and Historic Preservation~~
Associate Director, Professional Services

Date 12/4/73

ATTEST:

[signature]
acting Keeper of The National Register

Date 11-30-73

GPO 931-894

SEE INSTRUCTIONS

Form 10-300a
(July 1969)

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES
INVENTORY - NOMINATION FORM

(Continuation Sheet)

STATE	
New Jersey	
COUNTY	
Somerset	
FOR NPS USE ONLY	
ENTRY NUMBER	DATE
	DEC 4 1973

(Number all entries)

Symen Van Wickle House
Franklin Township
Somerset County, Code: 035
New Jersey, Code: 34

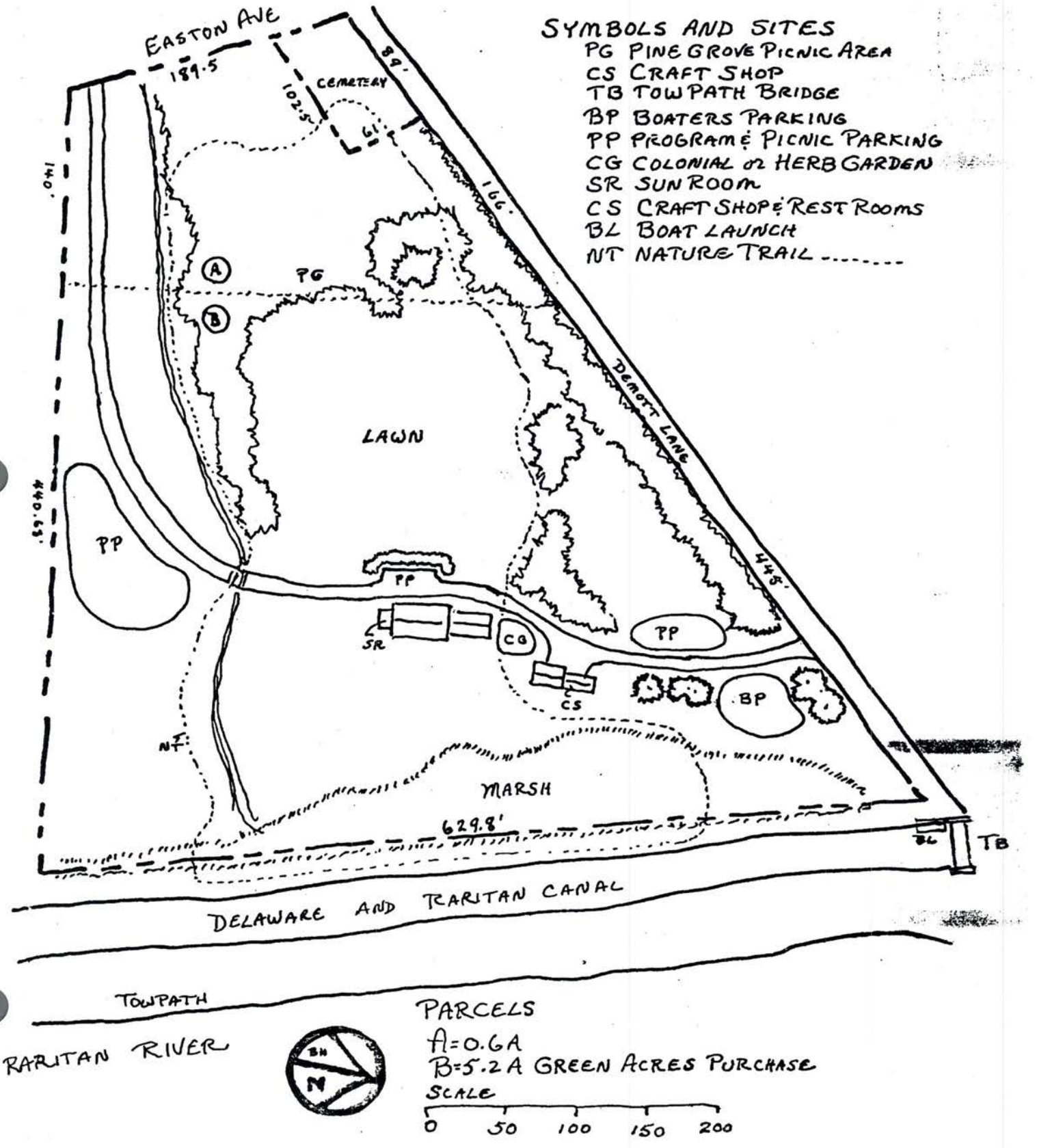
8. Significance (cont.)

again as part of the Estate of R.T. Bogan.

There is an 18th century family cemetery on the premises.

The Van Wickles were among the first settlers in the Somerset County area, especially around the township of Franklin.

BOGAN MEADOWS PLANNING CONCEPTS



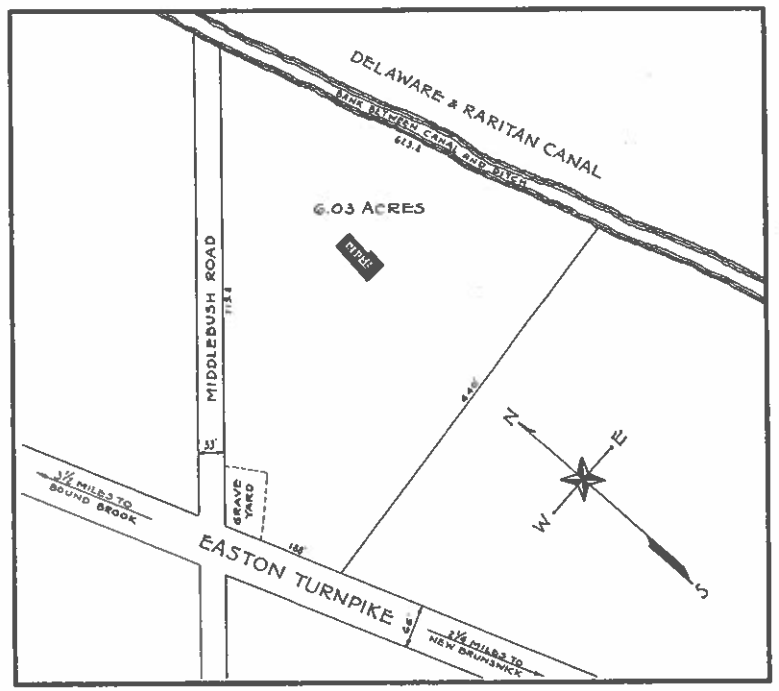
G.
Historic American Building Survey (HABS)

Obtained from the Library of Congress.[1]
Measured and drawn in 1938.

[1] https://www.loc.gov/item/nj0802/

SYMEN VAN WICKLE HOUSE,

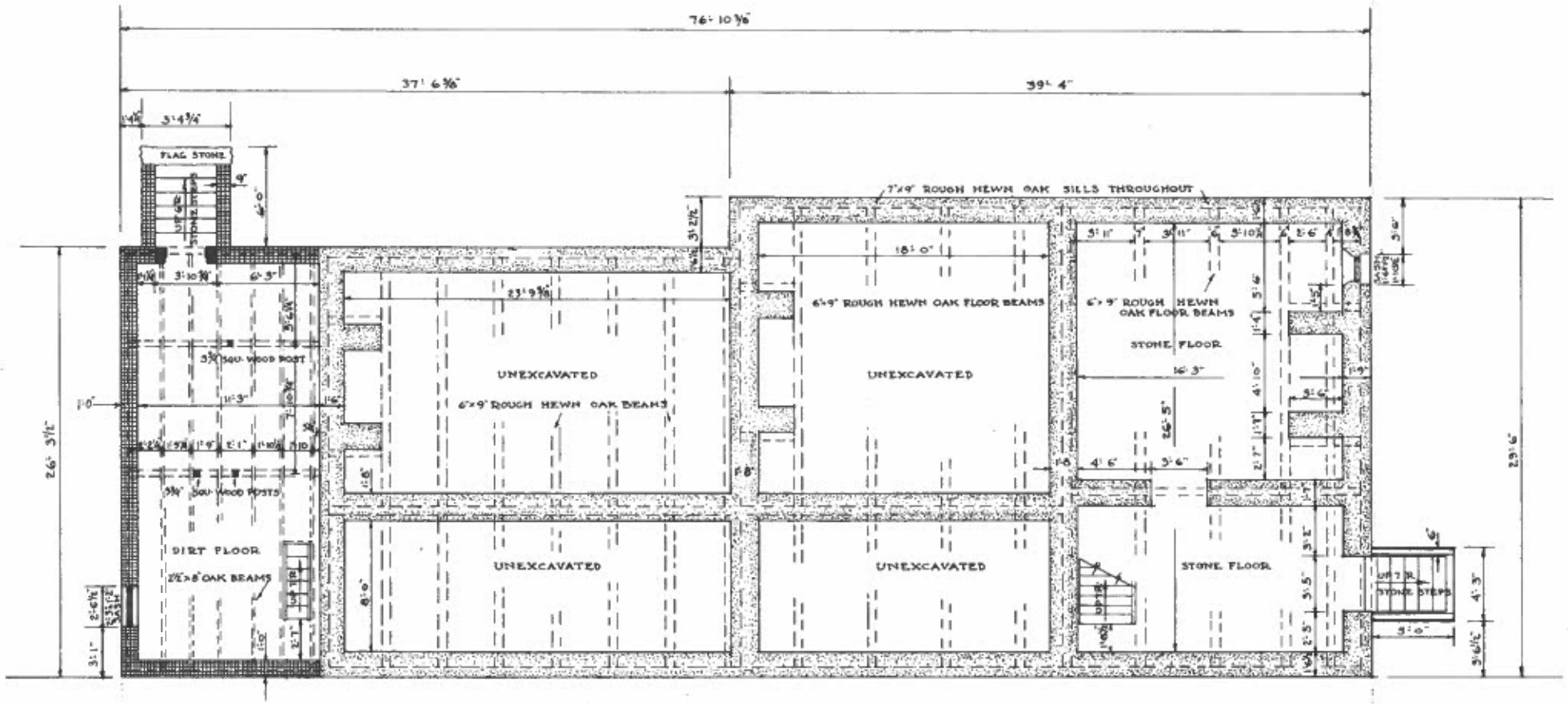
EASTON TURNPIKE FRANKLIN TOWNSHIP,
SOMERSET COUNTY, NEW JERSEY.
NEAR NEW BRUNSWICK

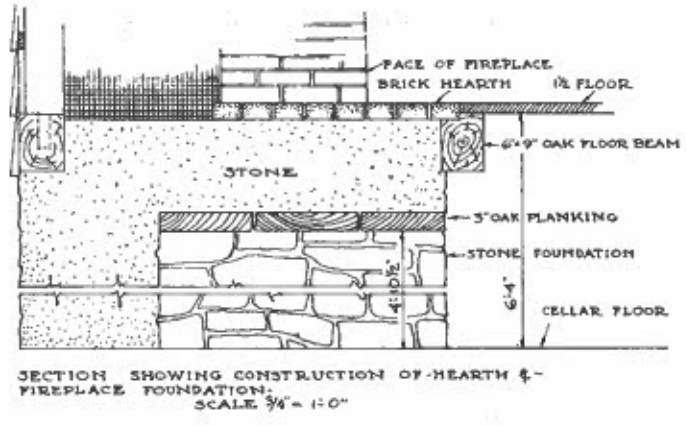


SKETCH MAP
SHOWING LOCATION

ERECTED APPROX 1722
BY
SYMEN VAN WICKLE

HISTORIC AMERICAN BUILDINGS SURVEY U. S. DEPARTMENT OF THE INTERIOR NATIONAL PARK SERVICE BRANCH OF PLANS AND DESIGN	MEASURED: APRIL 23RD TO APRIL 28TH 1938. DRAWN: MAY 1ST TO JULY 7TH 1938. MEASUREMENTS CHECKED:	DRAWINGS APPROVED: Seymour Williams, DISTRICT OFFICER. DRAWINGS APPROVED: , CHIEF ARCHITECT. ACCEPTED FOR LIBRARY OF CONGRESS:	SEYMOUR WILLIAMS A.I.A. DISTRICT OFFICER MIDDLESEX COUNTY SUPERVISOR PETER OTTZEN FIELD PARTY S.L. LATHAM, D.C. RUDDIMAN, J. LUBSEN, P. O'ROURKE, A. CHURCH, E. BECK, A. MENKO	SURVEY NO. NJ-479 SHEETS 1 TO 12	INDEX NO. NJ 1





SECTION SHOWING CONSTRUCTION OF HEARTH & FIREPLACE FOUNDATION.
SCALE 3/4" = 1'0"

FOUNDATION PLAN

LEGEND
STONE
BRICK
WOOD

SCALES
3/4" TO 1'0"
METRIC
3/16 TO 1'0"
METRIC

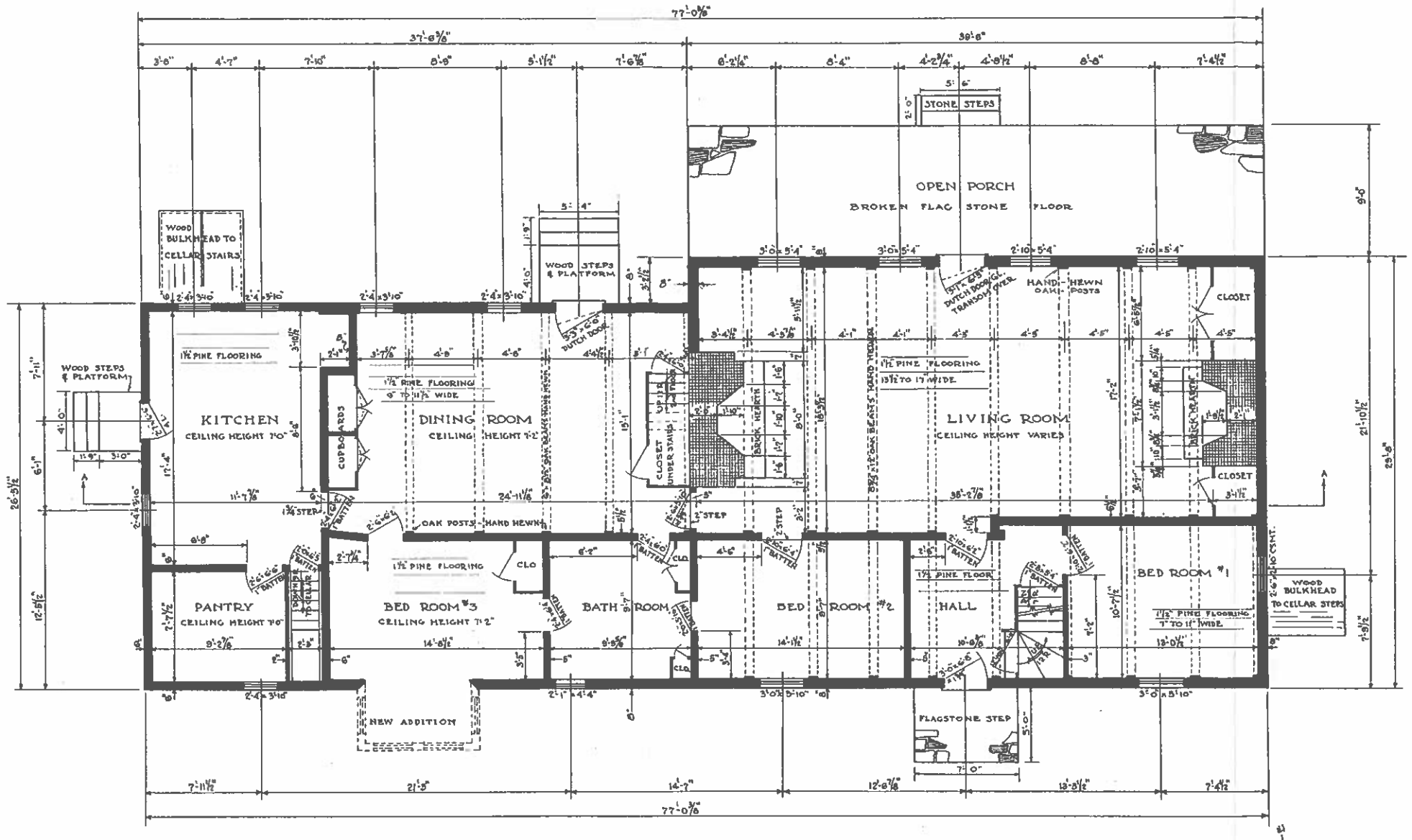
PETER O'ROURKE DEL.

WORKS PROGRESS ADMINISTRATION
OFFICIAL PROJECT Nº 165-22-6999
UNDER DIRECTION OF UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE, BRANCH OF PLANS AND DESIGN

NAME OF STRUCTURE
SYMEN VAN WICKLE HOUSE.
EASTON TURNPIKE, FRANKLIN TOWNSHIP, SOMERSET COUNTY, NEW JERSEY.

SURVEY NO.
NJ-479

HISTORIC AMERICAN BUILDINGS SURVEY
SHEET 1 OF 12 SHEETS



FIRST FLOOR PLAN

LEGEND
WOOD
BRICK

SCALES
3/16" TO 1'-0"
METRIC

NOTES –
ALL FRAMING TIMBERS – HAND HEWN OAK MORTISED & PINNED.
ALL EXTERIOR WALLS ARE BRICK FILLED.
INTERIOR PARTITIONS - FILLED WITH BRICK & CLAY.
INTERIOR WALL SURFACES HAS BEEN PLASTERED OR WHITEWASHED.

ARTHUR CHURCH DEL.

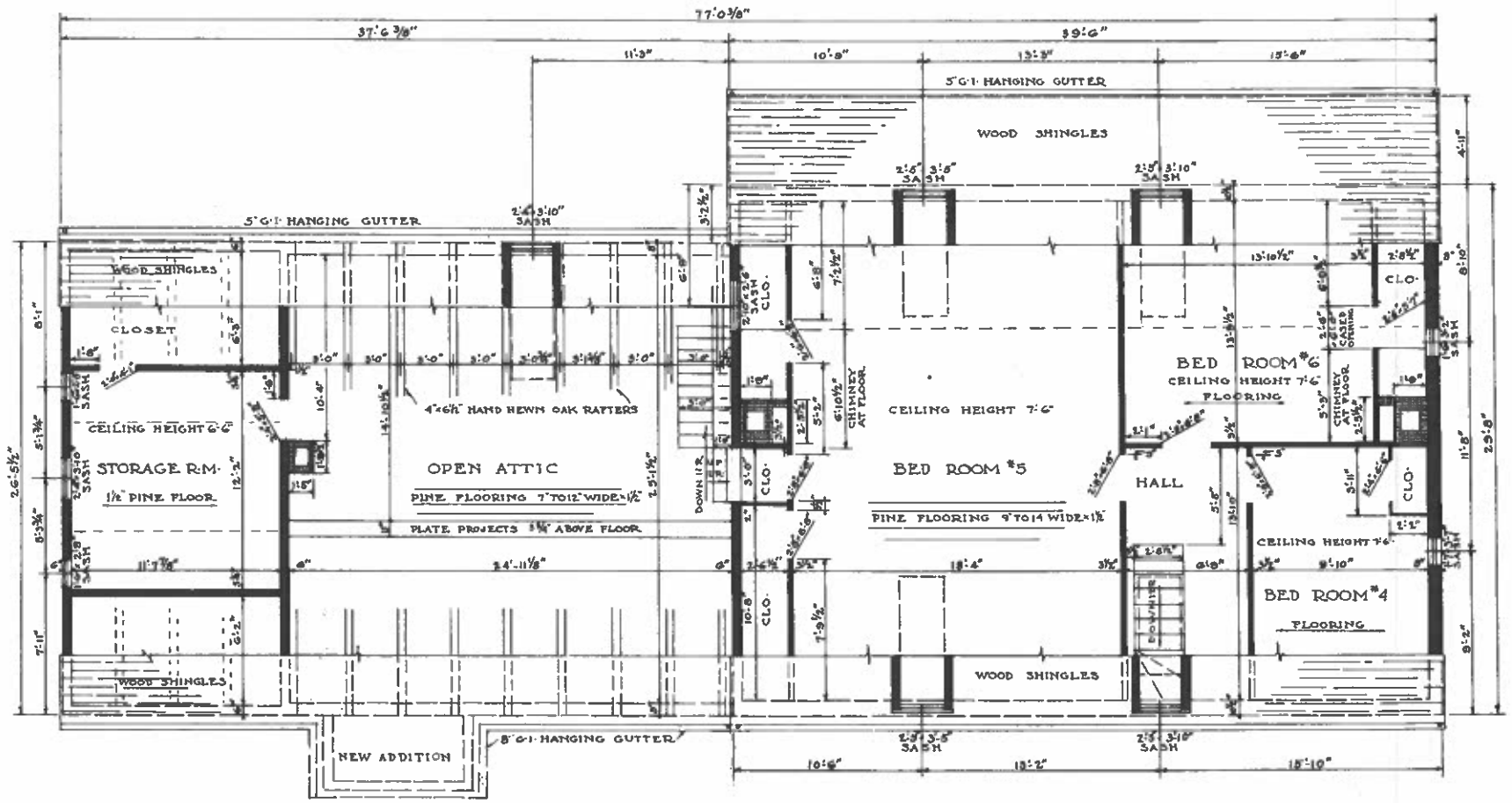
WORKS PROGRESS ADMINISTRATION
OFFICIAL PROJECT Nº 165-22-6999
UNDER DIRECTION OF UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE, BRANCH OF PLANS AND DESIGN

NAME OF STRUCTURE
SYMEN VAN WICKLE HOUSE.
EASTON TURNPIKE, FRANKLIN TOWNSHIP, SOMERSET COUNTY, NEW JERSEY.

SURVEY NO. NJ-479

HISTORIC AMERICAN BUILDINGS SURVEY
SHEET 2 OF 12 SHEETS

LIBRARY OF CONGRESS PRINTS DIVISION



SECOND FLOOR PLAN

NOTES:
ALL FLOORING - WHITE PINE RANDOM WIDTH 1½" THICK.
ALL DOORS ARE 1" WHITE PINE BATTEN DOORS.

LEGEND
WOOD
BRICK

SCALES
3/16" TO 1'-0"
METRIC

EMIL BECK DEL.

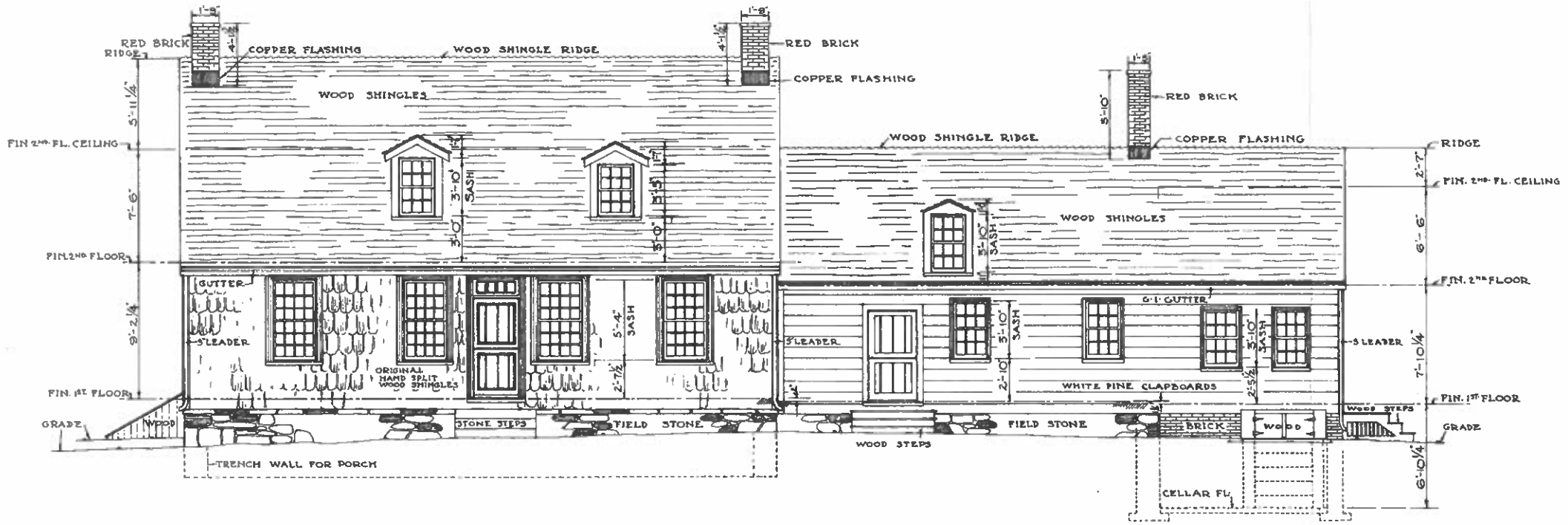
WORKS PROGRESS ADMINISTRATION
OFFICIAL PROJECT No. 165-22-6999
UNDER DIRECTION OF UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE, BRANCH OF PLANS AND DESIGN

NAME OF STRUCTURE
SYMEN VAN WICKLE HOUSE,
EASTON TURNPIKE, FRANKLIN TOWNSHIP, SOMERSET COUNTY, NEW JERSEY.

SURVEY NO.
NJ-479

HISTORIC AMERICAN BUILDINGS SURVEY
SHEET 3 OF 12 SHEETS

LIBRARY OF CONGRESS BRICK BUILDER



EAST ELEVATION

NOTES-
GLASS SIZES - LIVING R.M. 7"x 9½" & 7½"x 9½"
" " DINING R.M. 8"x 10"
" " KITCHEN 8"x10"
" " BED R.M. DORMERS 8¼"x 9"
" " ATTIC DORMER 8"x 10

SCALES
⅛" TO 1'-0"
METRIC

JOHN LUBSEN DEL

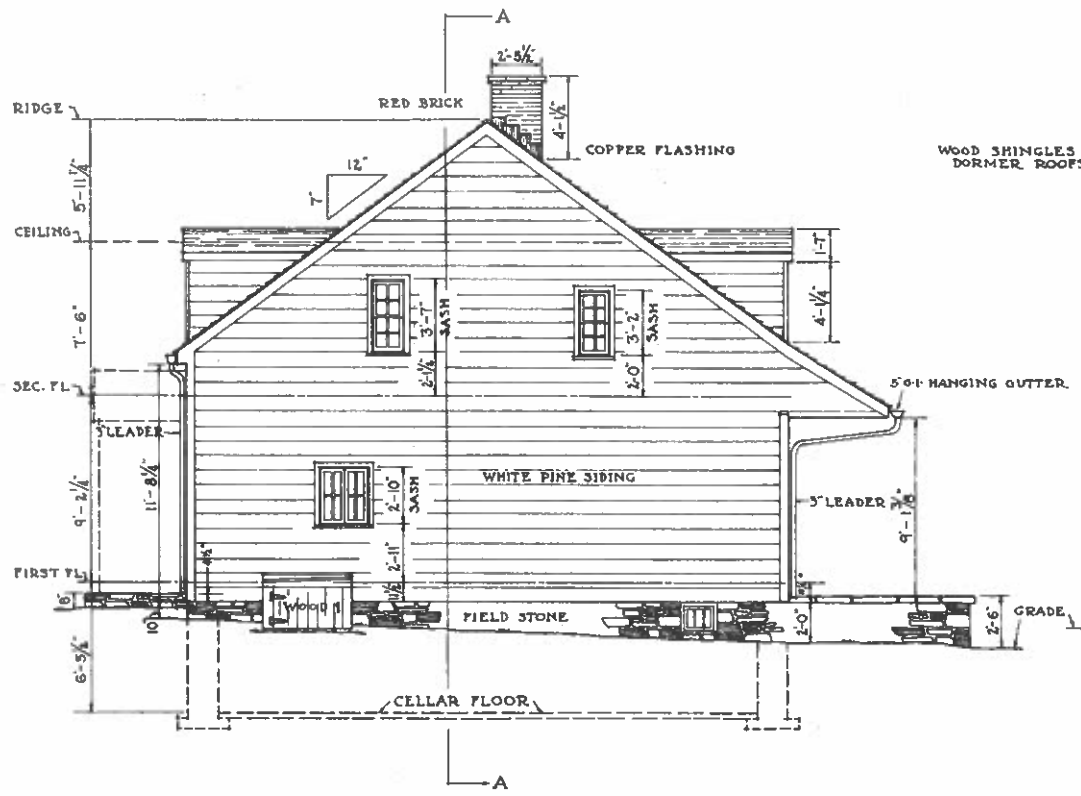
WORKS PROGRESS ADMINISTRATION
OFFICIAL PROJECT Nº 165-22-6999
UNDER DIRECTION OF UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE, BRANCH OF PLANS AND DESIGN

NAME OF STRUCTURE
SYMEN VAN WICKLE HOUSE.
EASTON TURNPIKE, FRANKLIN TOWNSHIP, SOMERSET COUNTY, NEW JERSEY.

SURVEY NO.
NJ-479

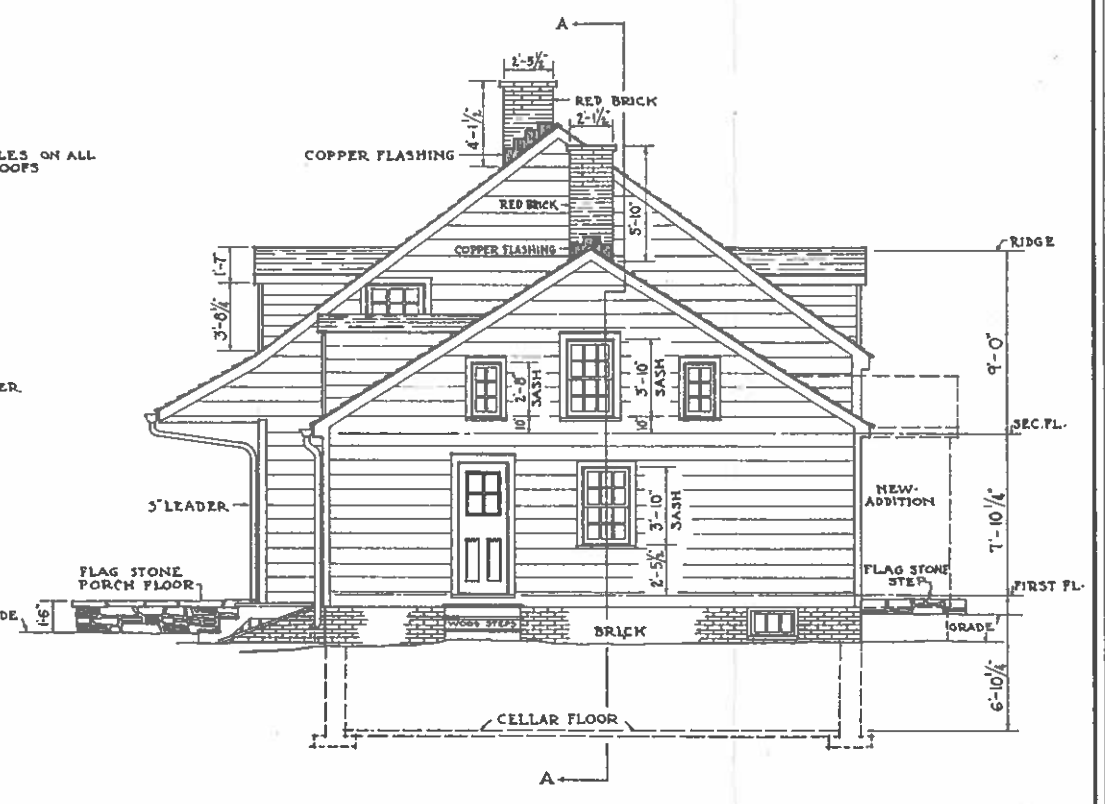
HISTORIC AMERICAN BUILDINGS SURVEY
SHEET 4 OF 12 SHEETS

LIBRARY OF CONGRESS INDEX NUMBER



SOUTH ELEVATION

WOOD SHINGLES ON ALL DORMER ROOFS



NORTH ELEVATION

GLASS SIZES 1ST FL: CASEMENT SASH 5'-1"×1'-2"
" " 2ND FL: 7½"×9¾" & 1'×8"
ALL EXTERIOR WOODWORK - WHITE PINE.
ORIGINAL GUTTERS HAVE BEEN REMOVED & REPLACED WITH G.I. GUTTERS & LEADERS

GLASS SIZES 1ST FL: KITCHEN 8"×10
" " 2ND FL: STORAGE R.M. 7"×9" & 8"×10"
" " " " BED ROOM & CLOSET 10"×8¼"
ENTRANCE DOOR TO KITCHEN - NOT ORIGINAL

SCALES
3/16 TO 1'-0"
METRIC

SAMUEL L. LATHAM DEL.

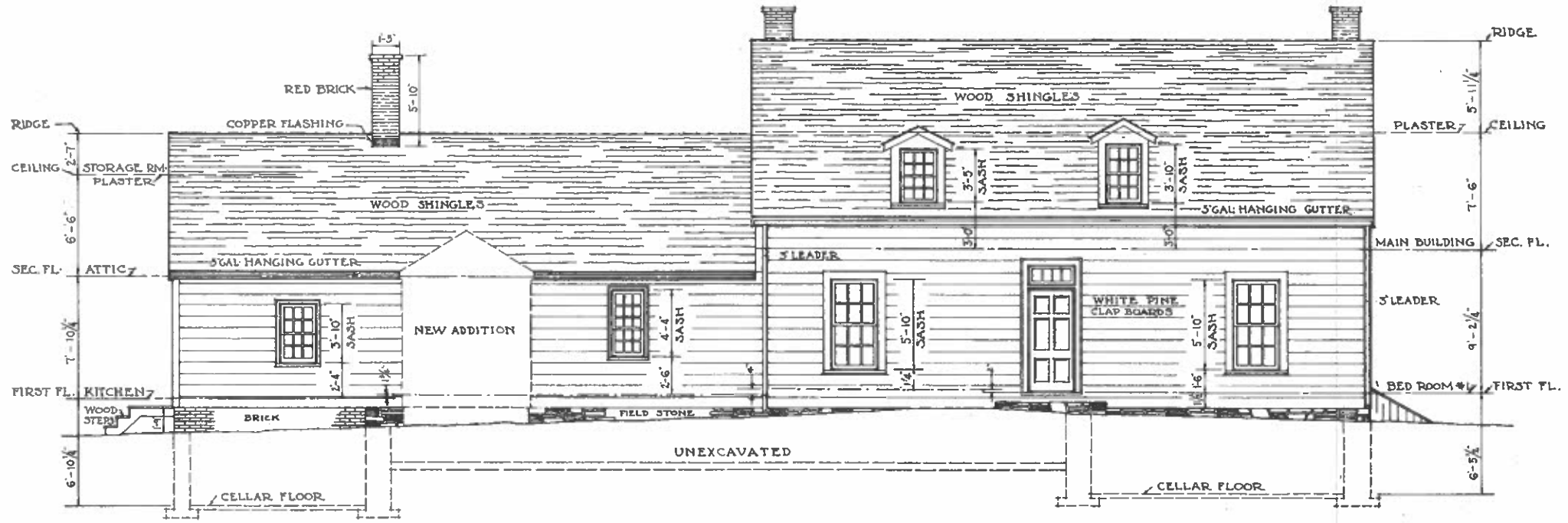
WORKS PROGRESS ADMINISTRATION
OFFICIAL PROJECT No. 165-22-6999
UNDER DIRECTION OF UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE, BRANCH OF PLANS AND DESIGN

NAME OF STRUCTURE
SYMEN VAN WICKLE HOUSE.
EASTON TURNPIKE, FRANKLIN TOWNSHIP, SOMERSET COUNTY, NEW JERSEY.

SURVEY NO.
NJ-479

HISTORIC AMERICAN BUILDINGS SURVEY
SHEET 5 OF 12 SHEETS

LIBRARY OF CONGRESS PRINTS DIVISION



WEST ELEVATION

NOTES +
ALL EXTERIOR WOODWORK — WHITE PINE, PAINTED WHITE.
GLASS SIZES, BED ROOMS # 1 & #2 - 10½" x 1'-4"
" " DORMERS 6" x 10" & 6" x 6¾"
" " BED ROOM # 3 - 7¾" x 9¼"
" " PANTRY 7¾" x 10"
CHIMNEYS - BUILT OF SOFT RED BRICK - LAID WITH ½" LIME MORTAR JOINTS.
ENTRANCE DOOR SHOWN ON THIS ELEVATION - WAS ORIGINALLY -
A DUTCH DOOR, SIMILAR TO EXTERIOR DOORS ON EAST ELEVATION,

SCALES
3/16 TO 1'-0"
METERS

SAMUEL L. LATHAM DEL.

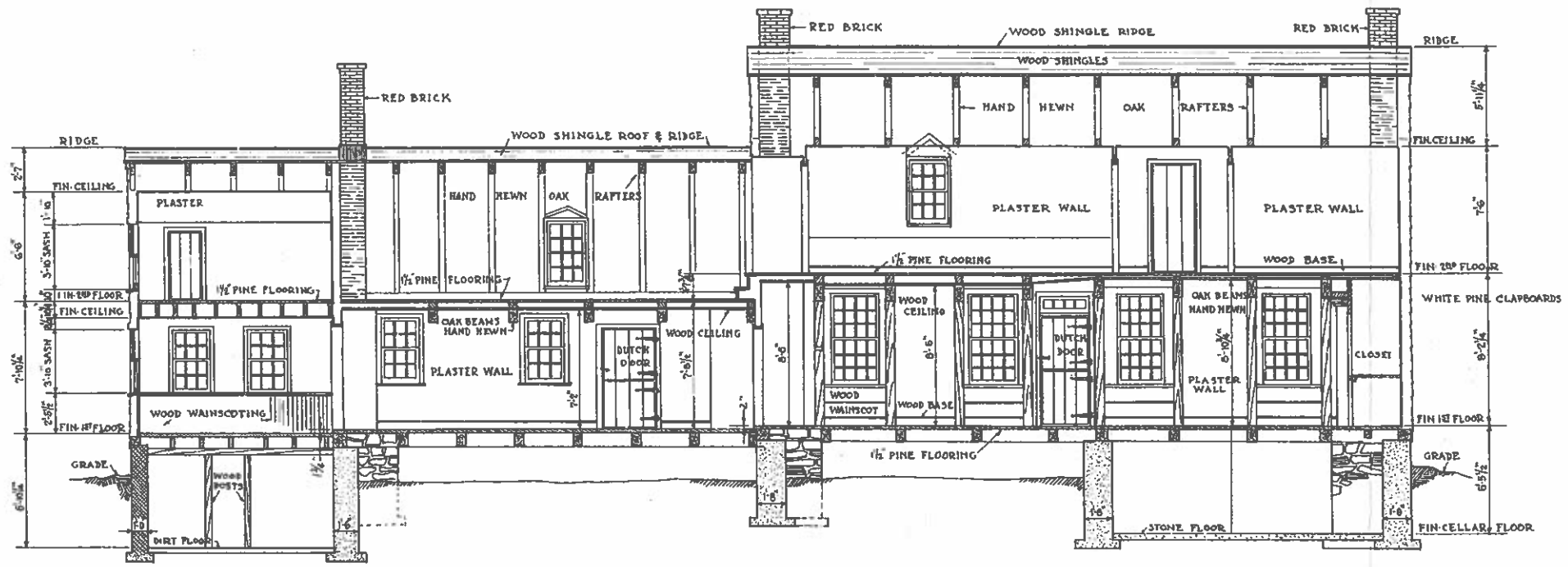
WORKS PROGRESS ADMINISTRATION
OFFICIAL PROJECT NO 165-22-6999
UNDER DIRECTION OF UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE, BRANCH OF PLANS AND DESIGN

NAME OF STRUCTURE
SYMEN VAN WICKLE HOUSE.
EASTON TURNPIKE, FRANKLIN TOWNSHIP, SOMERSET COUNTY, NEW JERSEY.

SURVEY NO.
NJ-479

HISTORIC AMERICAN BUILDINGS SURVEY
SHEET 6 OF 12 SHEETS

LIBRARY OF CONGRESS INDEX NUMBER



LONGITUDINAL SECTION A-A

NOTES-
HAND HEWN OAK USED FOR ALL FRAMING TIMBERS.
ALL EXTERIOR WALLS - BRICK FILLED

LEGEND
STONE
BRICK
WOOD
PLASTER

SCALES
3/16" TO 1'-0"
METRIC

ARTHUR CHURCH DEL.

WORKS PROGRESS ADMINISTRATION
OFFICIAL PROJECT Nº 165-22-6999
UNDER DIRECTION OF UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE, BRANCH OF PLANS AND DESIGN

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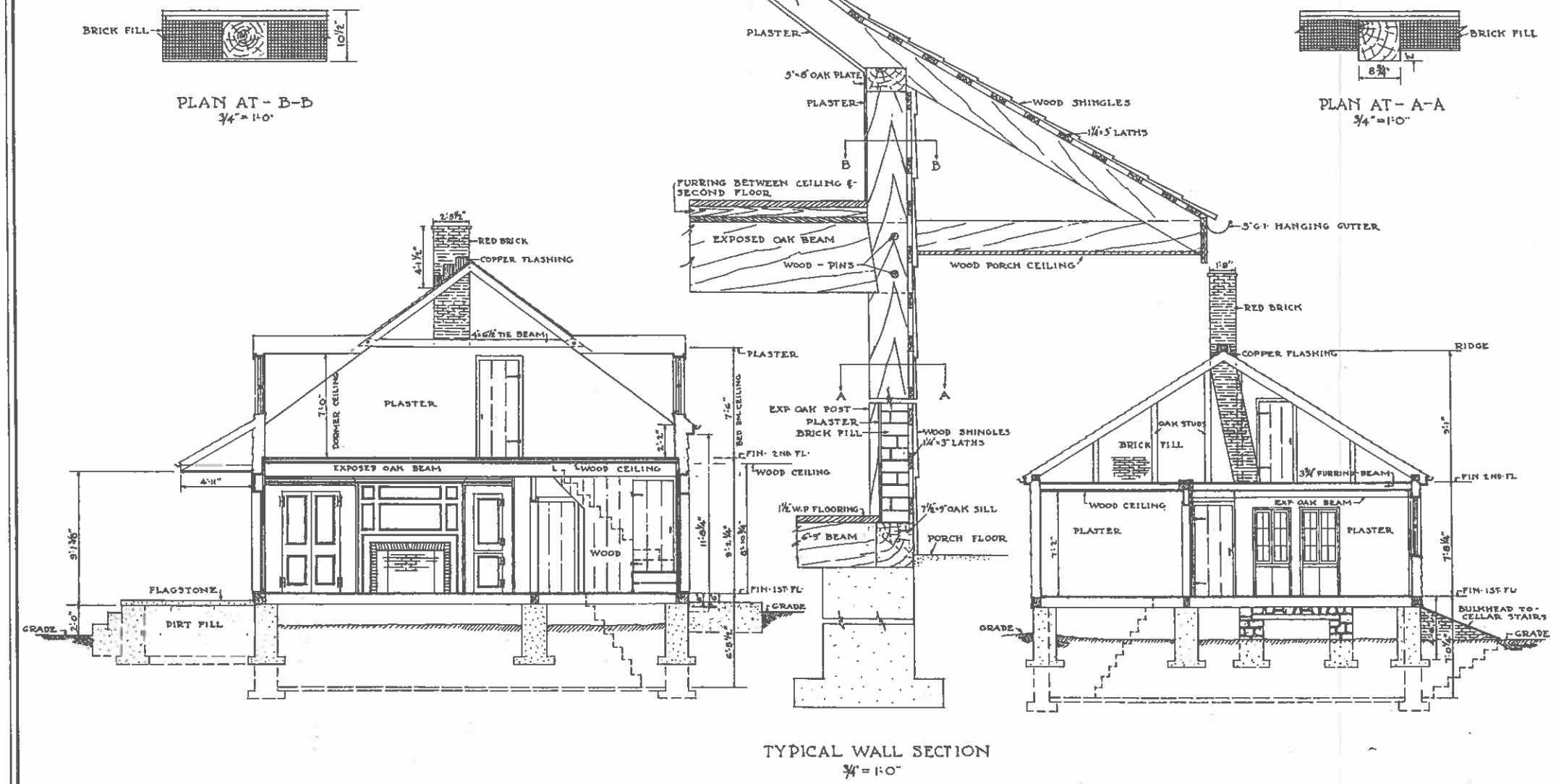
SURVEY NO. NJ-479

HISTORIC AMERICAN BUILDINGS SURVEY
SHEET 7 OF 12 SHEETS

LIBRARY OF CONGRESS PRINTS ORDERED



CROSS SECTION AT-B-B

3/16" = 1'-0"

CROSS SECTION AT-C-C

3/16" = 1'-0"

NOTES+
OAK USED FOR ALL FRAMING TIMBERS
ALL JOINTS MORTISED & PINNED.

SCALES
3/16" TO 1'-0"
METRIC
3/4" TO 1'-0"
METRIC

EMIL BECK DEL.

WORKS PROGRESS ADMINISTRATION
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HISTORIC AMERICAN BUILDINGS SURVEY
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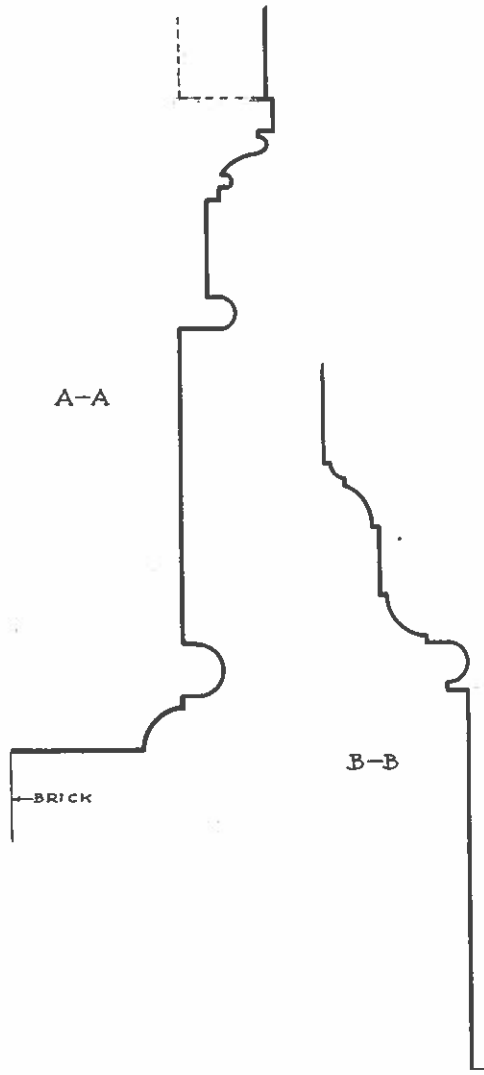
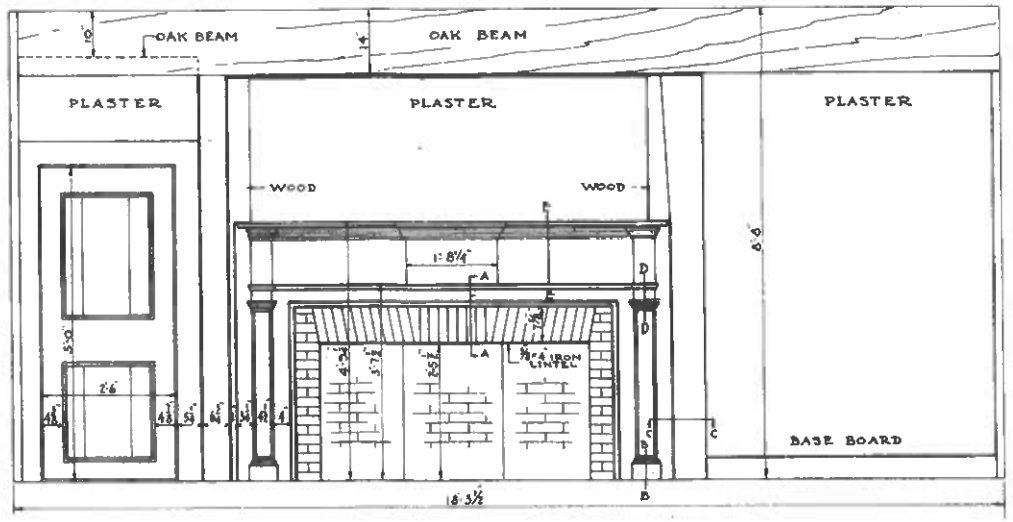
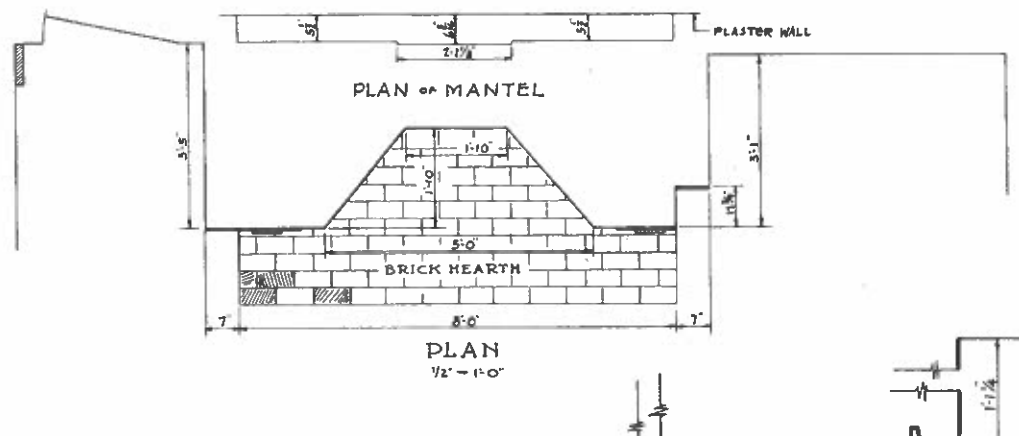
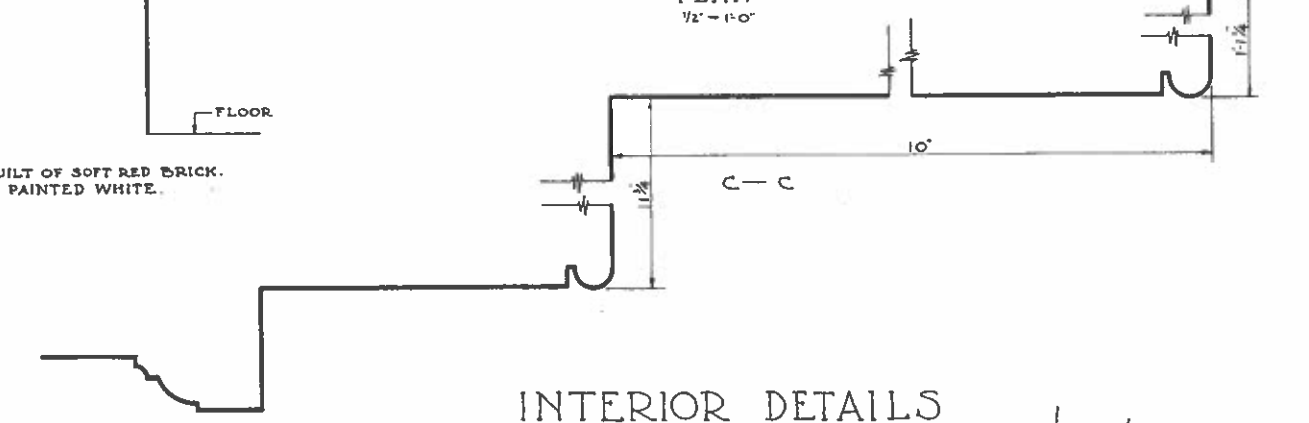


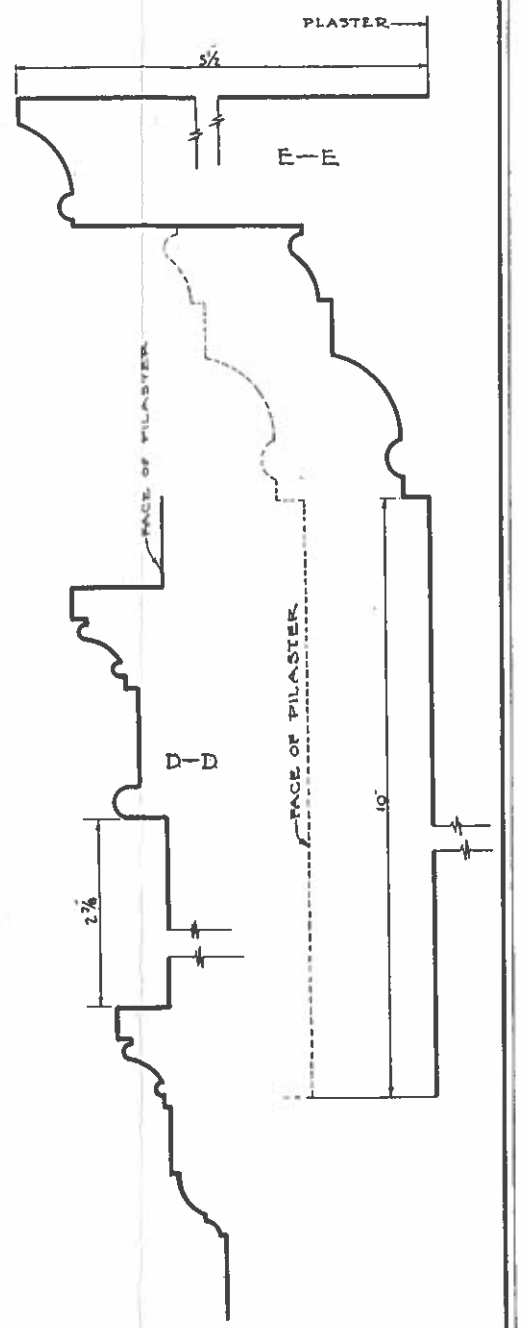


ELEVATION OF NORTH WALL IN LIVING ROOM
½" = 1'-0"



½" = 1'-0"





NOTES–
FIREPLACE AND HEARTH - BUILT OF SOFT RED BRICK.
ALL WOODWORK - WHITE PINE PAINTED WHITE.

INTERIOR DETAILS

NOTE
ALL PROFILES DRAWN FULL SIZE

SCALES
½" TO 1'-0"
METRIC
FULL SIZE
METRIC

DANIEL C. RUDDIMAN. DEL.

WORKS PROGRESS ADMINISTRATION
OFFICIAL PROJECT No. 165-22-6999
UNDER DIRECTION OF UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE, BRANCH OF PLANS AND DESIGN

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EASTON TURNPIKE, FRANKLIN TOWNSHIP, SOMERSET COUNTY, NEW JERSEY.

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HISTORIC AMERICAN BUILDINGS SURVEY
SHEET 9 OF 12 SHEETS

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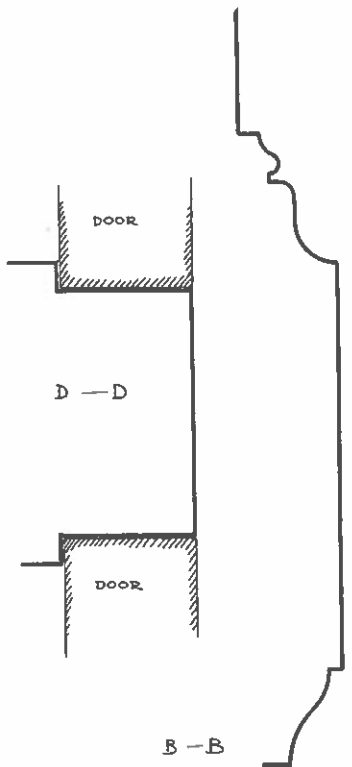
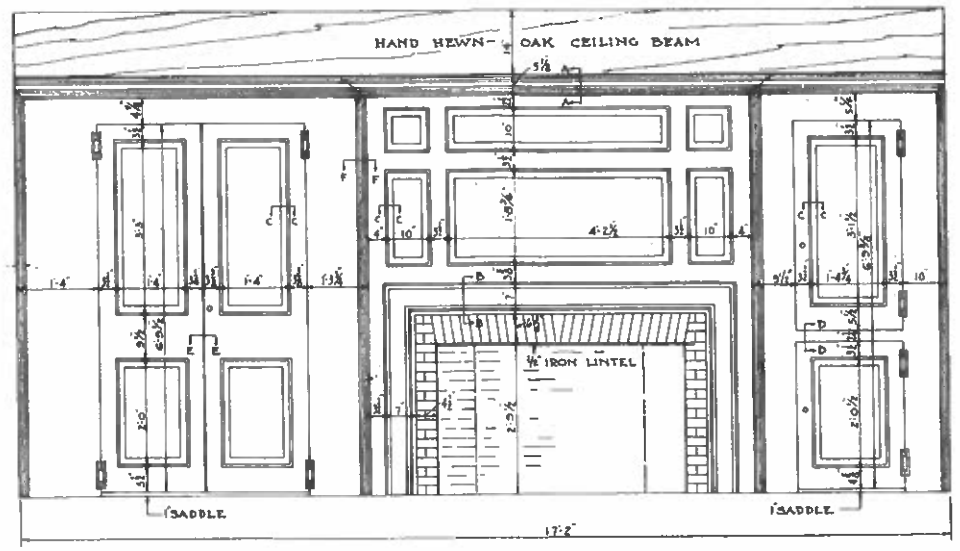
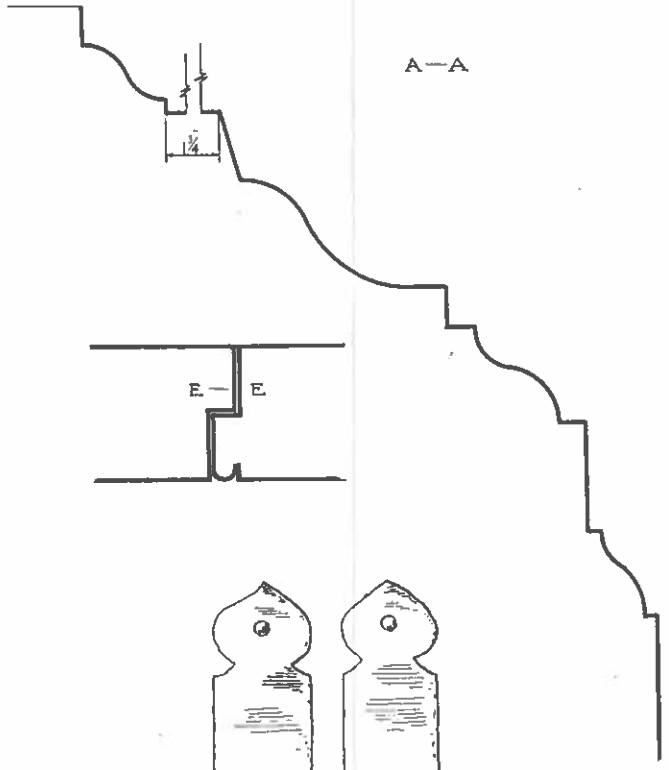
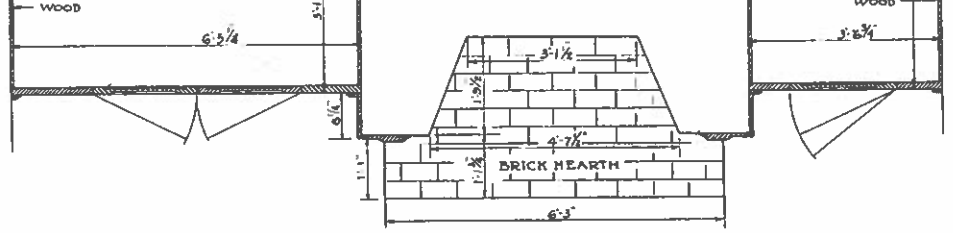


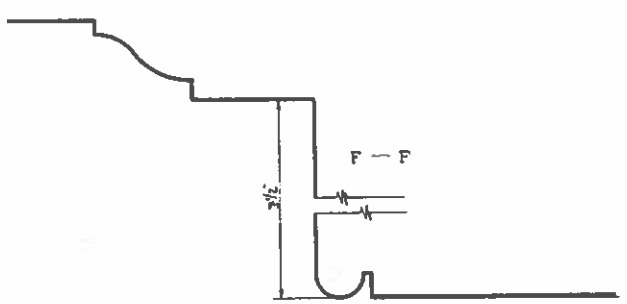


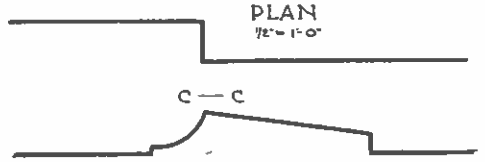
ELEVATION OF SOUTH WALL - LIVING ROOM
½" = 1'-0"





PLAN
½" = 1'-0"





WROUGHT IRON HINGE
ON CLOSET DOORS
FULL SIZE

INTERIOR DETAILS

NOTE:
ALL PROFILES DRAWN
FULL SIZE

NOTES
ALL WOODWORK WHITE-PINE MORTICED TENONED AND PINNED. FIREPLACE BUILT OF RED BRICK, LAID IN LIME MORTAR.

SCALES
½" TO 1'-0"
METRIC
FULL SIZE
METRIC

DANIEL C. RUDDIMAN DEL.

WORKS PROGRESS ADMINISTRATION
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EASTON TURNPIKE, FRANKLIN TOWNSHIP, SOMERSET COUNTY, NEW JERSEY.

SURVEY NO.
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HISTORIC AMERICAN BUILDINGS SURVEY
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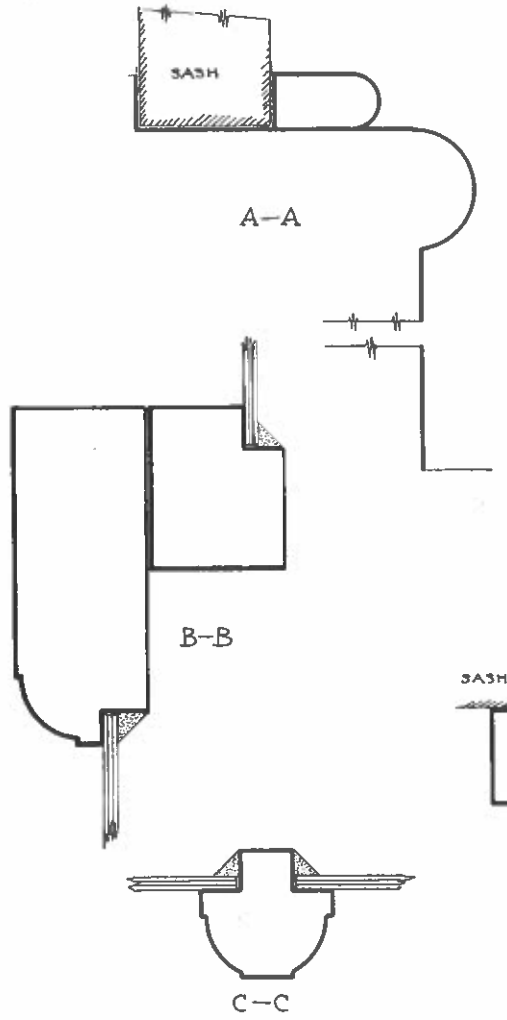
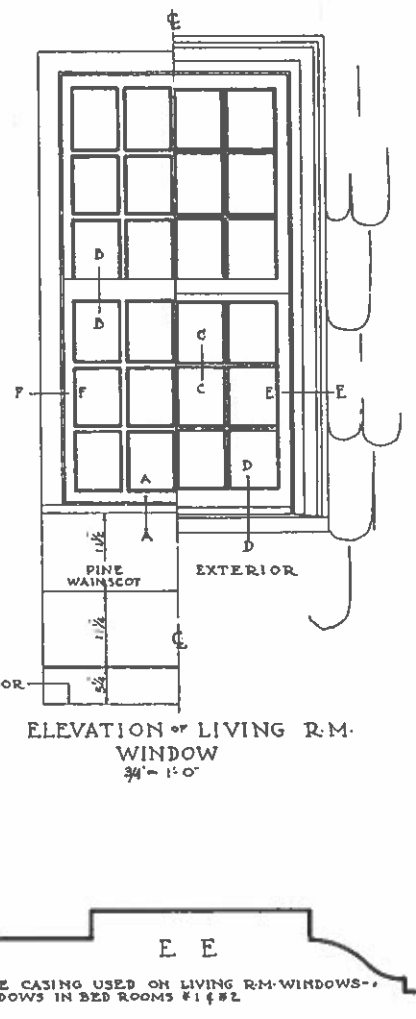
LIBRARY OF CONGRESS BRICK NUMBER



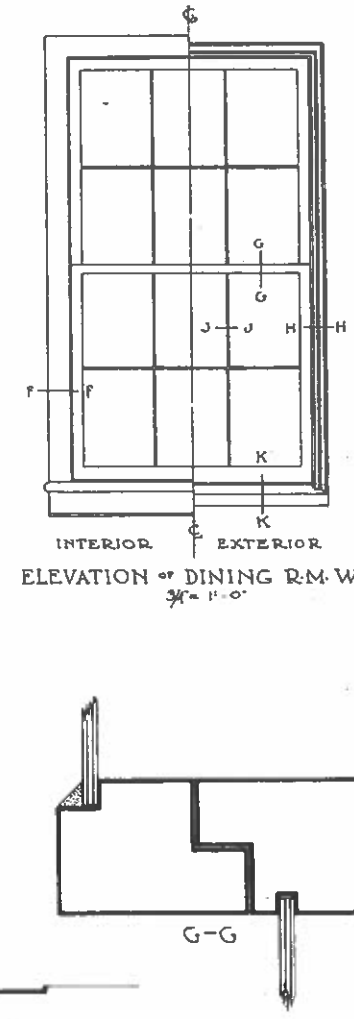
A–A

B–B

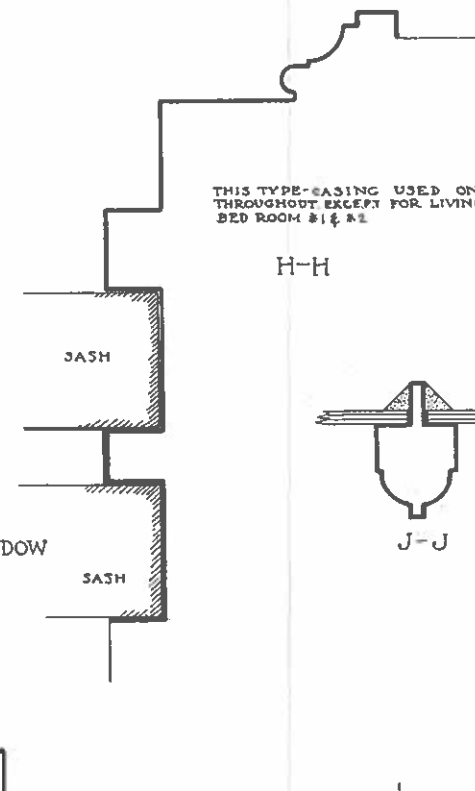
C–C



ELEVATION OF LIVING R.M. WINDOW
3/4"= 1'-0"

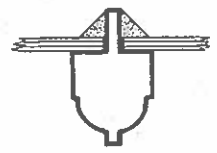


ELEVATION OF DINING R.M. WINDOW
3/4"= 1'-0"

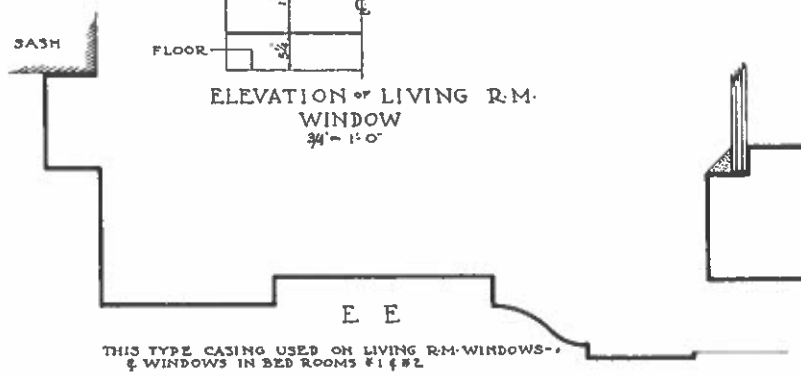


THIS TYPE CASING USED ON WINDOWS THROUGHOUT EXCEPT FOR LIVING R.M. & BED ROOM #1 & #2.

H–H

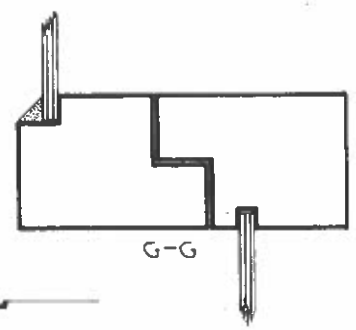


J–J

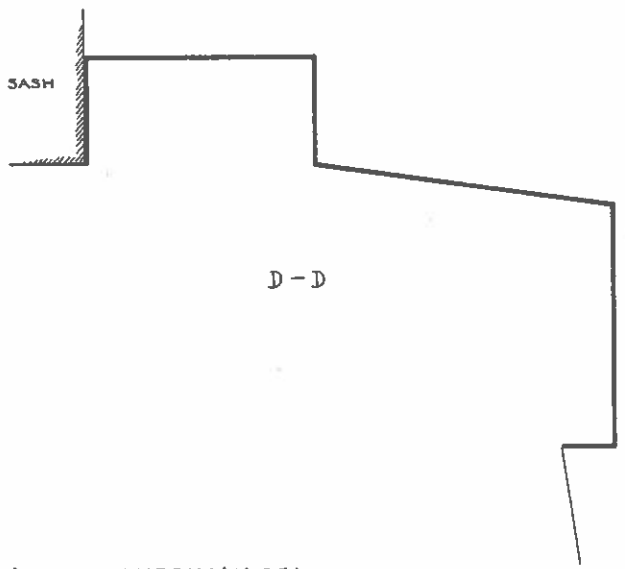


E E

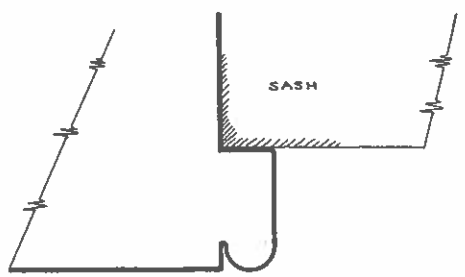
THIS TYPE CASING USED ON LIVING R.M. WINDOWS & WINDOWS IN BED ROOMS #1 & #2.



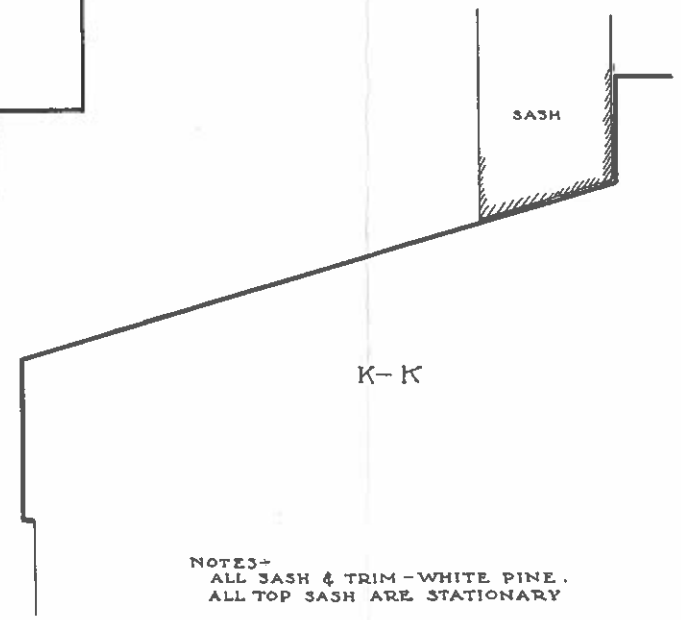
G–G



D–D



F F



K–K

NOTES–
ALL SASH & TRIM – WHITE PINE.
ALL TOP SASH ARE STATIONARY

INTERIOR & EXTERIOR DETAILS

Note:
ALL PROFILES DRAWN FULL SIZE.

SCALES
3/4 TO 1'-0"
METRIC
FULL SIZE
METRIC

DANIEL C. RUDDIMAN DEL.

WORKS PROGRESS ADMINISTRATION
OFFICIAL PROJECT Nº 165-22-6999
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NATIONAL PARK SERVICE, BRANCH OF PLANS AND DESIGN

NAME OF STRUCTURE
SYMEN VAN WICKLE HOUSE
EASTON TURNPIKE, FRANKLIN TOWNSHIP, SOMERSET COUNTY, NEW JERSEY.

SURVEY NO.
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HISTORIC AMERICAN BUILDINGS SURVEY
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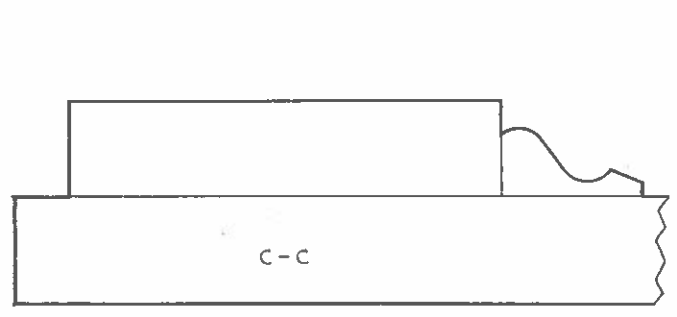
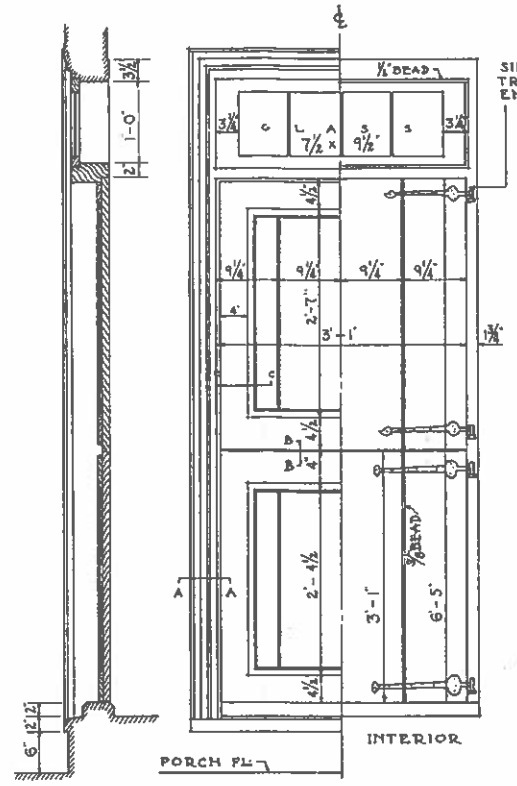
LIBRARY OF CONGRESS BRICK HOUSES



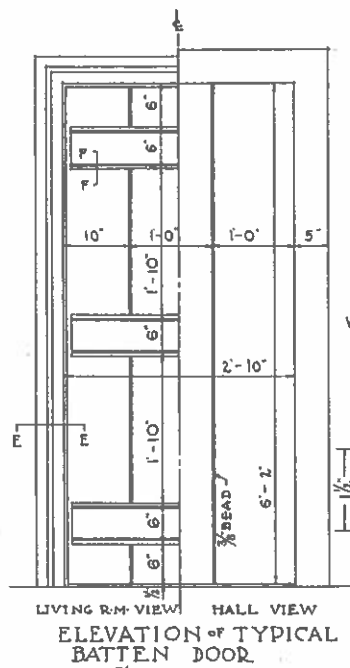


SECTION

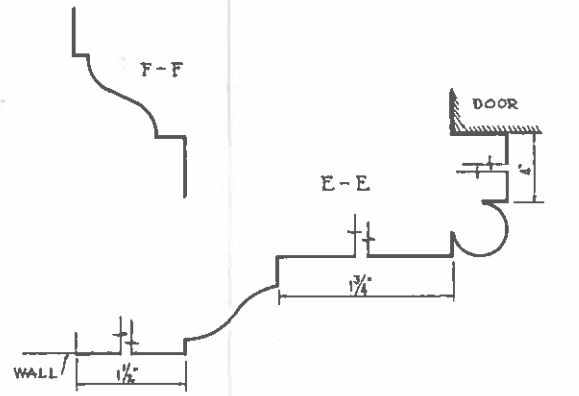
SIMILAR DUTCH DOOR WITHOUT TRANSOM-SASH USED AS REAR-ENTRANCE DOOR TO DINING ROOM

INTERIOR

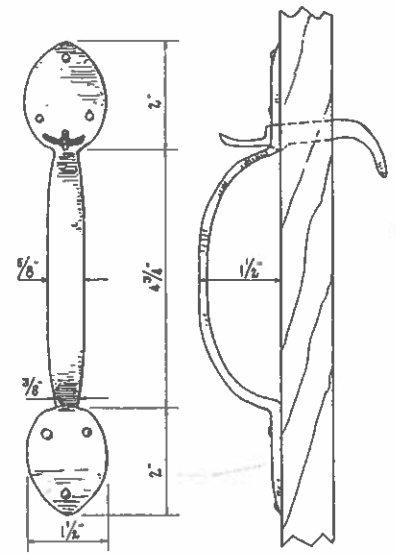
REAR ENTRANCE DOOR TO LIVING ROOM
¾" TO 1'-0"



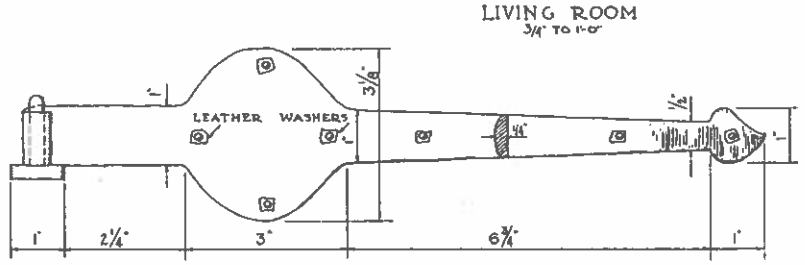
ELEVATION OF TYPICAL BATTEN DOOR
¾" TO 1'-0"



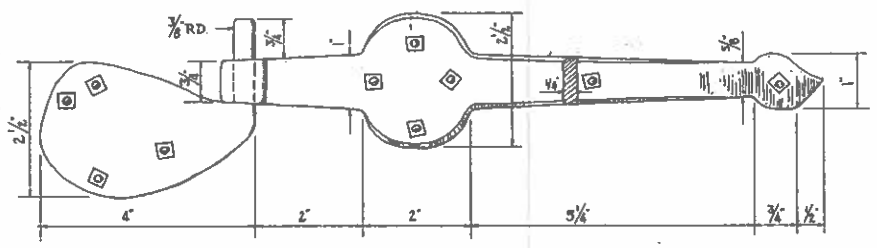
STRAP HINGE
6" TO 1'-0"



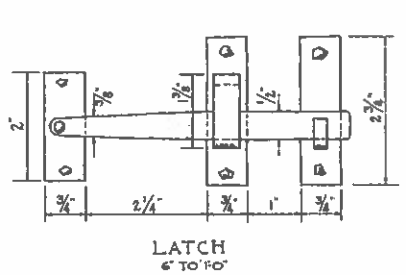
LATCH HANDLE
6" TO 1'-0"



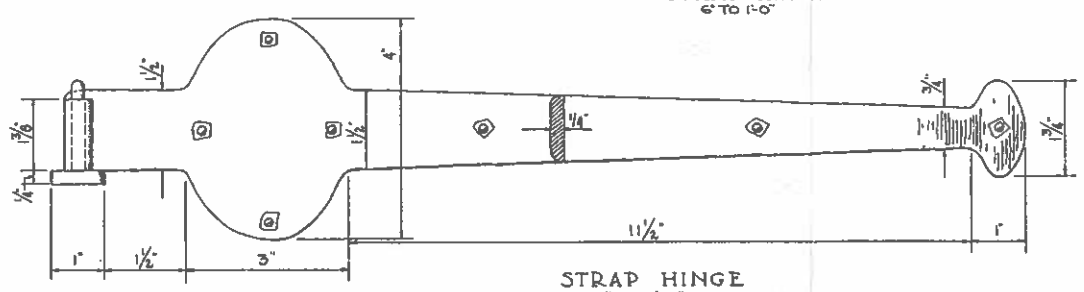
STRAP HINGE
6" TO 1'-0"



STRAP HINGE
6" TO 1'-0"



LATCH
6" TO 1'-0"



STRAP HINGE
6" TO 1'-0"

NOTES-
WHITE PINE USED FOR DOORS & TRIM.
ALL HARDWARE - WROUGHT IRON FASTENED WITH HAND MADE NAILS LEATHER WASHERS ON ALL STRAP HINGES

DOOR & HARDWARE DETAILS

NOTE: ALL PROFILES DRAWN FULL SIZE

SCALES
¾" TO 1'-0" 0 1' 2' 3' 4' 5' 6' FT.
METRIC 0 1 2 METERS
6" TO 1'-0" 0 1' 2' 3' 4' 5' 6' 7' 8' 9' 10" IN.
METRIC 0 1 2 DEC.
FULL SIZE 0 1" 2" 3" 4" IN.
METRIC 0 1 2 DEC.

SAMUEL L. LATHAM DEL.

WORKS PROGRESS ADMINISTRATION
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HISTORIC AMERICAN BUILDINGS SURVEY
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