

Graystone Manor

Coatesville, PA

Feasibility Study

Dagit•Saylor Architects

May 15, 2003

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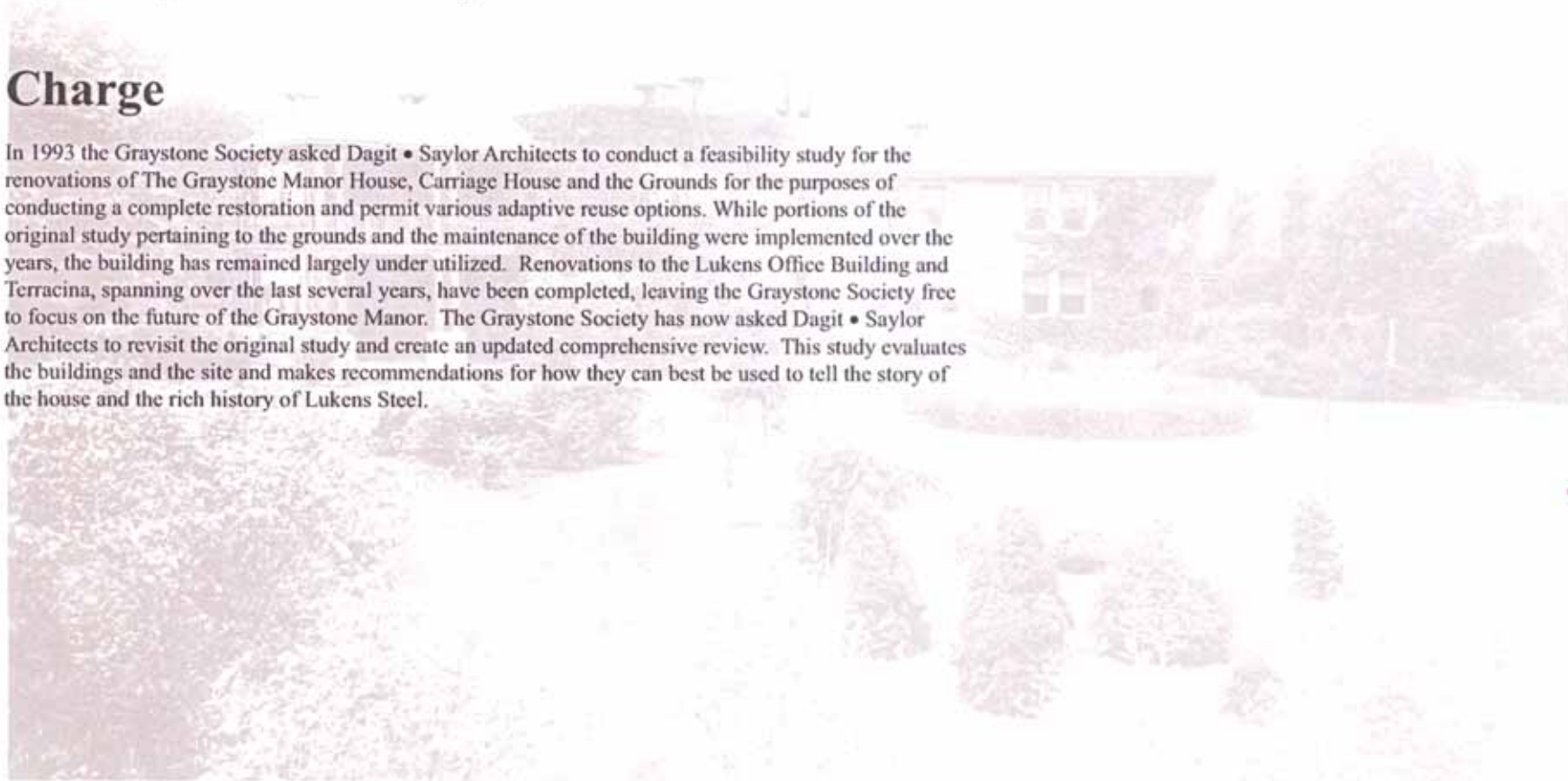
Introduction

At the heart of the City of Coatesville lies The Graystone Manor, a stately building poised to tell the story of a thriving steel town, the family legacy that ran the mill, and a century of history in American Industry. Commissioned by the fourth generation patriarch Abram Houston, The Graystone Manor was built in 1889 and is a premier example of the Collegiate Gothic style by the noted architects Cope and Stewardson.

After serving as a residence for four decades, The Manor was sold to the City of Coatesville in 1938 at which time it served as the city hall for over half a century. More recently within the last decade the city, in need of more space, moved out of Graystone Manor and into a larger facility. This move has left Graystone available for new opportunities in these new times. Presently the building is owned by the Graystone Society and is listed in the National Register of Historic Places.

Charge

In 1993 the Graystone Society asked Dagit • Saylor Architects to conduct a feasibility study for the renovations of The Graystone Manor House, Carriage House and the Grounds for the purposes of conducting a complete restoration and permit various adaptive reuse options. While portions of the original study pertaining to the grounds and the maintenance of the building were implemented over the years, the building has remained largely under utilized. Renovations to the Lukens Office Building and Terracina, spanning over the last several years, have been completed, leaving the Graystone Society free to focus on the future of the Graystone Manor. The Graystone Society has now asked Dagit • Saylor Architects to revisit the original study and create an updated comprehensive review. This study evaluates the buildings and the site and makes recommendations for how they can best be used to tell the story of the house and the rich history of Lukens Steel.



Executive Summary

The main components of the study are The Introduction, The Physical Analysis, The Vision, The Phasing and Costs, and The Code and Parking Summaries.

- The Introduction – this study is a continuum of the 1993 study. This study will focus on the renovation and alterations of Graystone Manor into a heritage museum. All aspects of the study have been updated to reflect the desired use of the property, current building and zoning codes and current construction costs.
- The Physical Analysis – the existing conditions of the grounds have been documented and updated from the '93 report. An aerial photograph, circa 1920-30 shows the gardens of the time and is helpful for the restoration of the grounds. A thorough building survey documents the scope of work needed throughout the entire Manor House and Carriage House.
- The Proposed Use, Heritage Museum – The Interpretive Design Summary, The Illustrative Concept Site Plan and The Proposed Use Plans will show the the future of Graystone Manor as a Heritage Museum. Together, these three will illustrate how the Graystone Manor will be used to tell the many stories of its rich past. The grounds will be used for activities to attract visitors young and old. The Carriage house will be restored to house the Visitor's Orientation Center, Museum Shop and Restroom Facilities. The Manor House will be restored to its full splendor encompassing a range of exhibitions and period rooms.
- The Phasing and Costs – the project will be spread out over several years consisting of eight phases to coincide with fundraising and grant commitments. The cost estimate is also divided by phase and itemizes the various scopes of work.
- The Code and Parking Summaries - the renovations of the Manor House and Carriage House will need to comply with the International Building Code 2000 edition. The usable space of the Manor House is defined as the first and second floors in order to be exempt from installing a sprinkler system throughout the entire building. The parking requirements are based on the City of Coatesville Zoning Code. The Interim Parking plan illustrates the required number of spaces as directed by the zoning code. The city is planning on building additional parking spaces to serve this immediate area, and when that occurs the goal is to remove all the parking spaces from the grounds of the Graystone Manor and restore the drive way to it's original condition.

● Existing Conditions

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Existing Conditions Summary

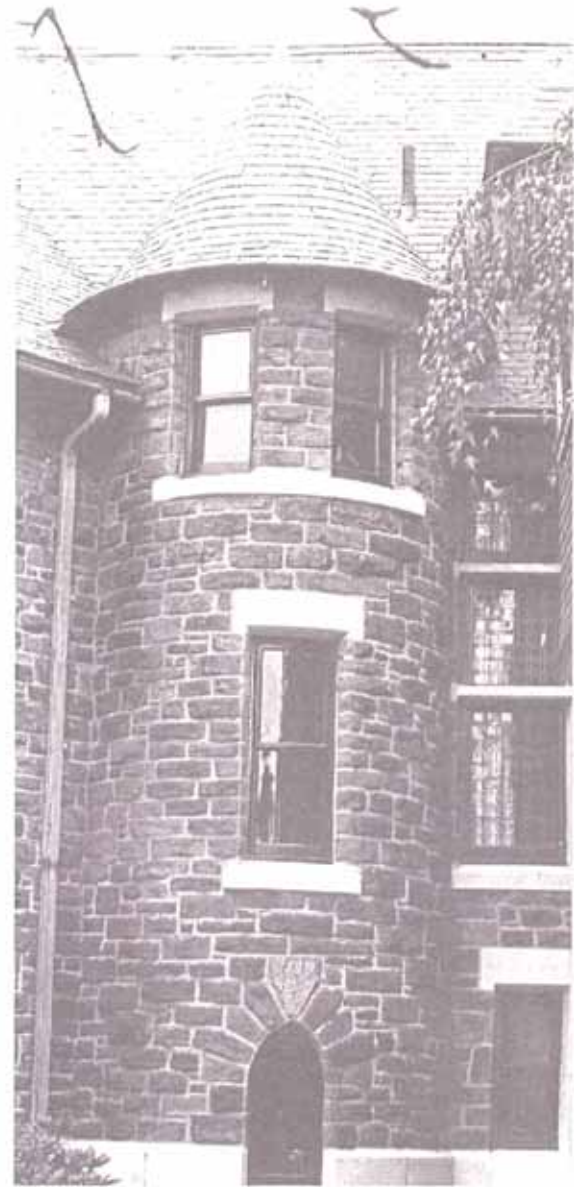
The conditions of the Manor House and Carriage House, along with the grounds have been carefully studied. Comprehensive lists of conditions that need to be addressed have been assembled. The grounds will receive a full restoration that will include drives and paths, grading and landscaping. The Manor House and Carriage House will undergo a full interior and exterior restoration. In addition to the restoration of the architectural elements, the buildings will receive a complete Mechanical, Plumbing and Electrical upgrade.

Vestiges of the city hall years are all but gone. What remains behind from that important part of the house's history are the 'wear and tear' items that contribute to the scope of work in restoring the Manor House.

The most noticeable features that remain from the City Hall years are; the two story masonry and clad in stone vault, which took the place of the grand two-story covered porch, the concrete handicap ramp that provide wheelchair access to the first floor, and the asphalt parking lot that replaced the exit drive way and garden. In the Carriage House, all that remains of the former police station is remnants of the holding cell. The interiors of both floors of the Carriage House are in poor condition and require complete renovation.

Since the 1993 study, several of the improvements mentioned in the report have taken place. Some of these include, the removal of fluorescent light fixtures, lay-in ceiling systems, electric water cooler, interior window and information desk, restoration of pocket doors, new electric service in the first floor of the service wing, and removal of plaster finishes to exposed blocked openings at the vault. Additionally in several areas throughout the house there has been exploratory paint removal on various pieces of wood trim, built in casework, doors and windows to expose previous layers of paint, and natural wood finishes. In the carriage house, the holding cells were removed, as were the exterior masonry addition and radio tower. On the grounds several diseased or dead trees were pruned or removed, and general seasonal debris has been maintained.

Structurally, both buildings remain sound and do not appear to have changed much since the last report. There is more evidence of water leaks in various parts of the house that have contributed to damaged plaster ceilings and walls. The slate roof and copper flashing and gutter systems, which are original to the building, have exceeded their useful life span and as in the '93 report, are in need of replacement.



Existing Site & Landscaping Update



Urban Context Update

Since the completion of the 1993 Feasibility Study, Graystone Manor has assumed an exciting new presence in the gateway fabric of the City. With the creation of Gateway Park, as you enter the City from Route 82, you immediately perceive in panoramic view a major piece of the history of Coatesville stretched out before you - the hulking presence of the Lukens Steel Mill in the background with its handsome executive offices just beyond the park and to the left, across South First Avenue is Graystone Manor, the stately turn of the century home of the mill owner. The land clearing necessary to create this parkland on the southwest corner of Main Street and Route 82 has created exciting opportunities to tell the story of

Graystone Manor within the context of the City's history.

Graystone Plan Update

Future plantings along South First Avenue and Harmony Street would strengthen the open space connection between Graystone Manor as a museum and the open space fabric of this historic gateway. Furthermore, recently uncovered aerial photographs from the late 1920's or early 1930's suggest a historic basis for these plantings. Richly layered plantings at the property line of the manor afforded privacy to this important residence while providing enclosure for outdoor rooms within the property and a backdrop for the long vistas appreciated from the important sitting rooms on the first floor.

Developing a historic gardenesque atmosphere for the site which is both memorable and inviting to the museum going public, while accommodating the programmatic needs for circulation, parking, security, access and lighting is critical to the success of this restoration project. In fact, the development of the site could well precede the more costly renovation of the house, permitting attractive outdoor activities to go on concurrently with the renovation of the house. Already, the Graystone Society attracts more than 4000 visitors in mid-July for an ice cream festival on the lawn. As the landscape character of the site is restored, additional activities and festivals that attract attention and interest in Graystone's restoration as a house museum can be organized.

Existing Conditions Update

The Graystone Society has already implemented many of the landscape management recommendations in the 1993 study. Many trees identified as hazards because they were structurally unsound, diseased or damaged have already been removed. Furthermore, the rank overgrowth along the property lines to the back and side (along the Pennsylvania Association for the Blind) has been cleared. Additional clearing and pruning around valuable specimen trees, such as the magnolia and weeping beech trees in the front



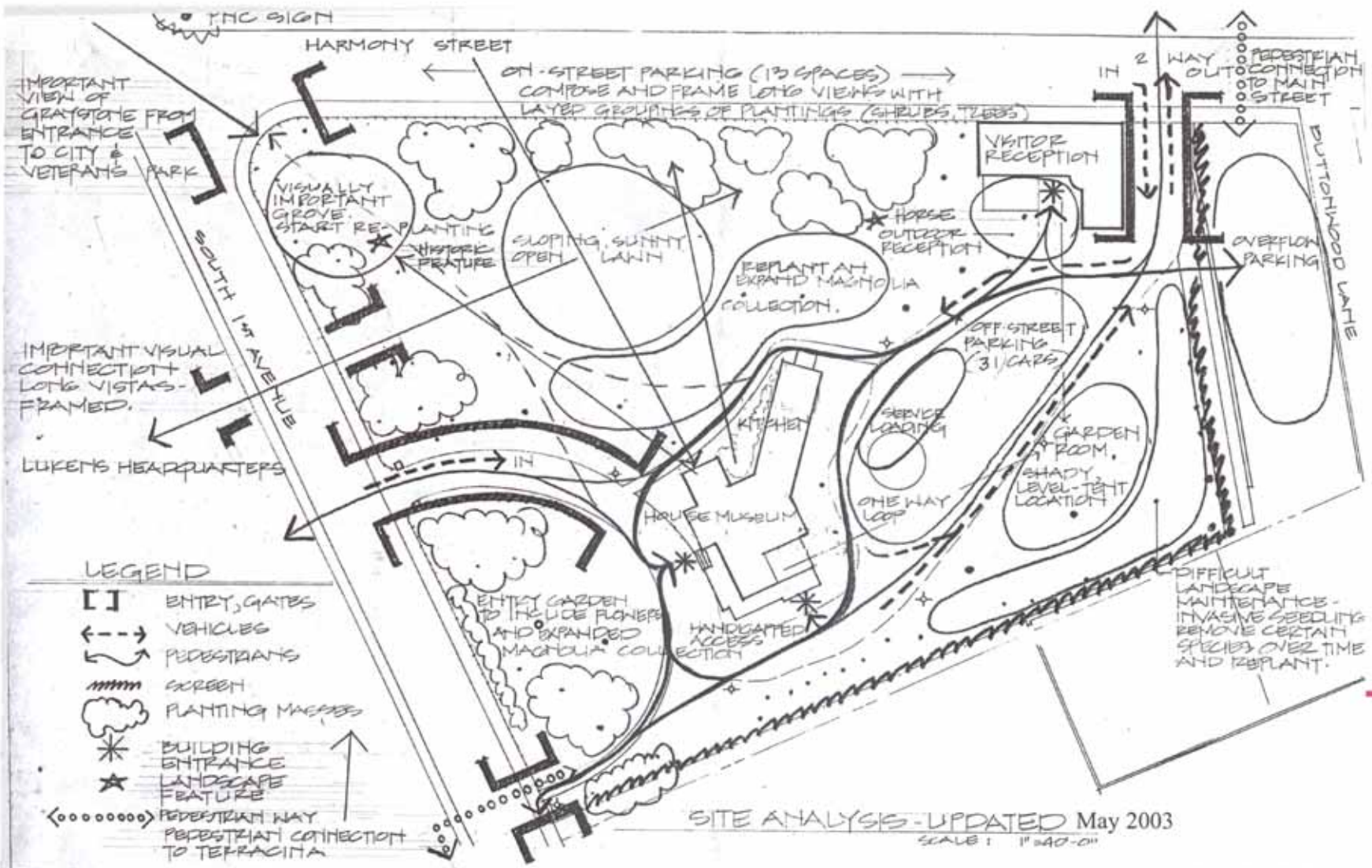
Fig. 28. A grouping or thicket of shrubs with pointed evergreens in the center of the shrub mass.

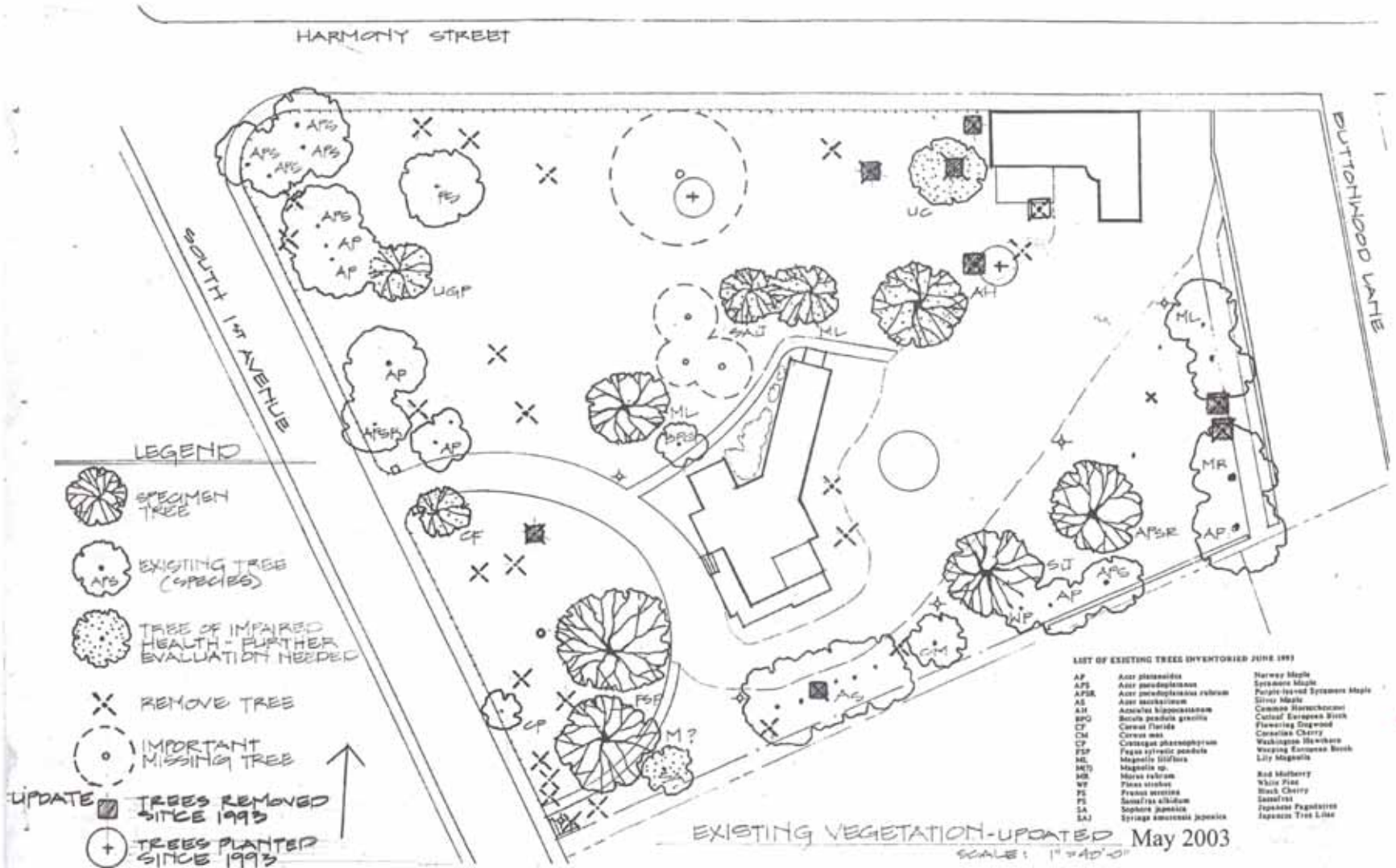


will give them space to grow and space to be appreciated.

Clearly, a conservation program of important landscape elements has been initiated, discordant site features (the radio tower and the flagpole) have been removed, the original wrought iron gates at the entry drive have been restored and installed, and two handsome European Beeches have been planted. Conservation of these site features is the first important step in a restoration of the Graystone Manor landscape.







HARMONY STREET

DUTCHWOOD LANE

SOUTH 1ST AVENUE

LEGEND

- SPECIMEN TREE
- EXISTING TREE (SPECIES)
- TREE OF IMPAIRED HEALTH - FURTHER EVALUATION NEEDED
- REMOVE TREE
- IMPORTANT MISSING TREE
- TREES REMOVED SINCE 1993
- TREES PLANTED SINCE 1993

LIST OF EXISTING TREES INVENTORIED JUNE 1993

AP	Acer platanoides	Norway Maple
AFS	Acer pseudoplatanus	Sycamore Maple
AFSR	Acer pseudoplatanus rubrum	Purple-leaved Sycamore Maple
AS	Acer saccharinum	Silver Maple
AH	Acacia bipinnata	Common Hornacacia
APG	Acacia bipinnata	Catalpa Europaea Birch
CF	Caracas Florida	Flowering Dogwood
CM	Caracas mas	Cornelia Cherry
CF	Caracas phoenicifolium	Washington Silverberry
FSP	Fagus sylvatica pendula	Weeping European Beech
ML	Magnolia liliifera	Lily Magnolia
ML?	Magnolia sp.	
MR	Morus rubra	Red Mulberry
WF	Fraxino cuneata	White Elm
FS	Fraxino ovata	Black Cherry
SA	Sassafras albidum	Sassafras
SAJ	Sassafras japonica	Japanese Paperbark
		Japanese Tree Lilac

EXISTING VEGETATION-UPDATED May 2003

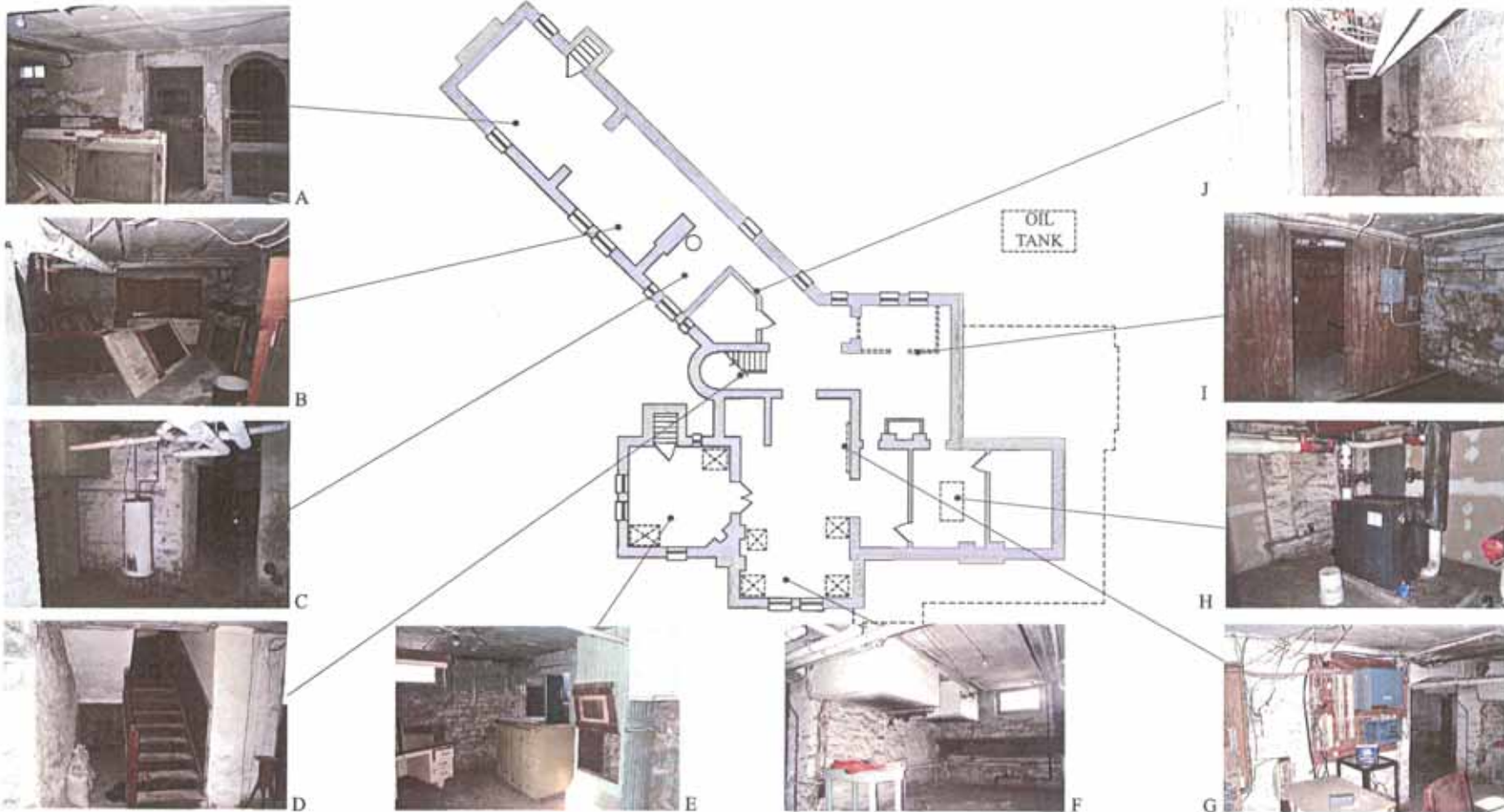
SCALE: 1" = 40'-0"

Building Restoration Summary

The Graystone Manor will be methodically restored to its splendor, capturing the look and feel that it had during the 1920's. In the interior of the Manor house, the ornate woodwork seen in the paneling, windows and doors will be fully restored. The wood floors and stairs will be repaired and restored. The plaster walls and ceilings will be repaired, patched and painted, and where appropriate, wallpaper of the period will be installed. Historic light fixtures will be replaced. Alterations such as the addition of the stone vault will be removed and the two-story porch overlooking the gardens will be rebuilt to match exactly the original conditions and construction details. Modern amenities will be carefully and seamlessly incorporated including centralized heating and cooling, new electrical and plumbing services and new state of the art security systems. Along the exterior of the house, a new slate roof is to be installed, exterior wood trim is to be restored, and stone is to be cleaned. New handicap access will be provided as part of the restored porch.

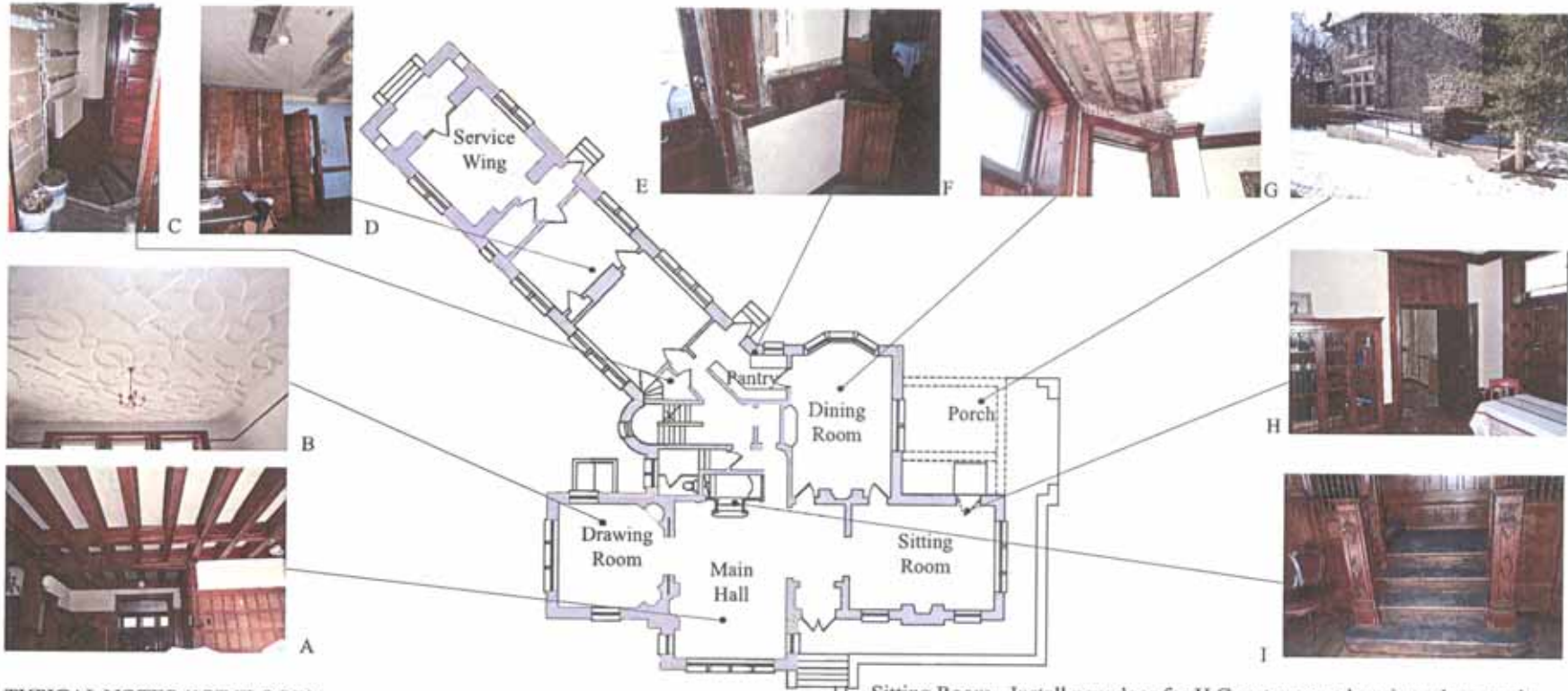
The interior of the carriage house will be restored to the original stable and programmatically function as the Visitor Orientation Center, consisting of orientation space, museum gift shop and public restrooms. The second floor of the Carriage house will be restored to the coachman's residence and will serve as the museum's site manager's residence. The following pages illustrate this work with a descriptive list pointing to specific locations.





TYPICAL NOTES (BASEMENT)

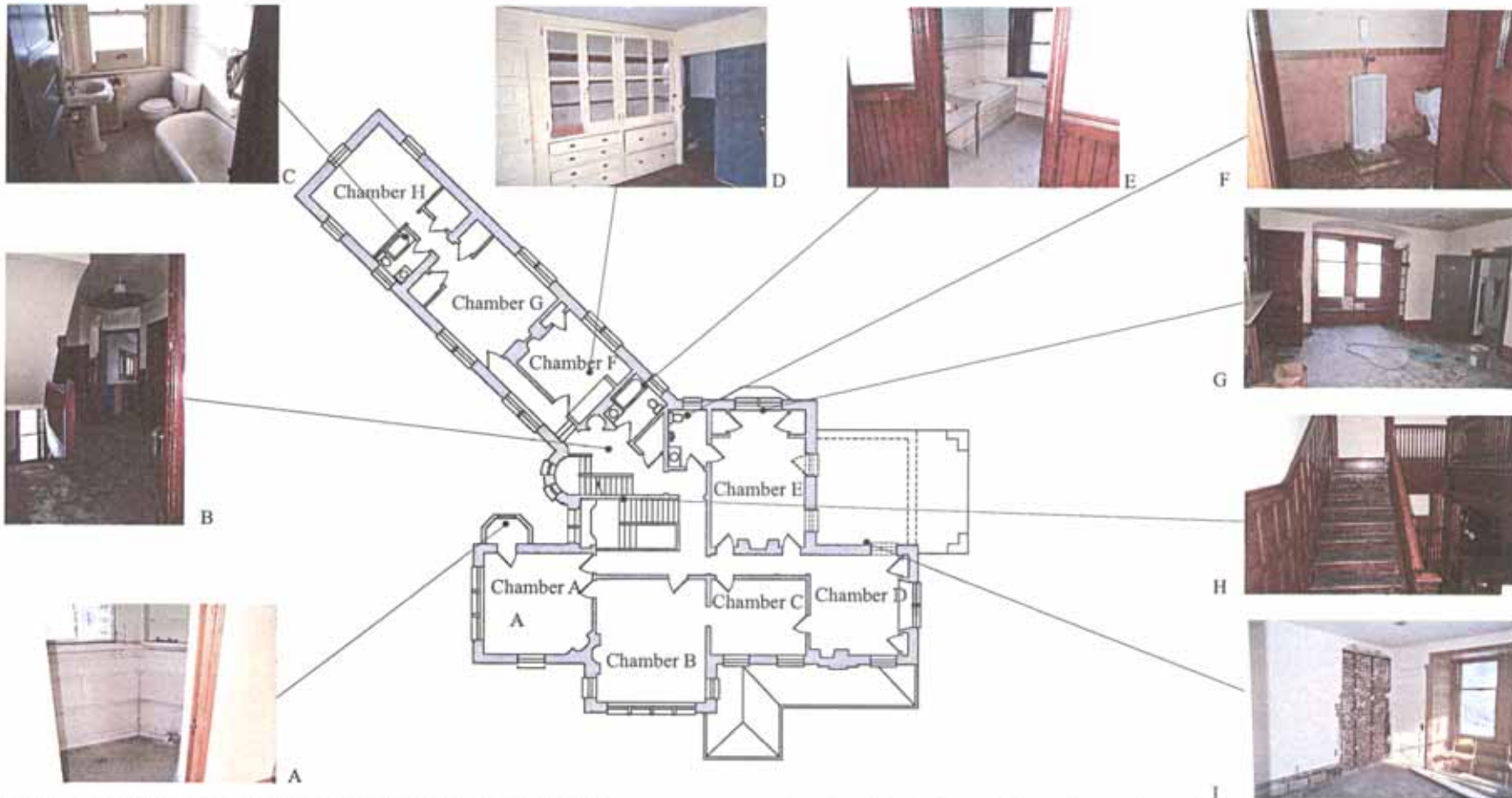
1. Remove debris, misc. doors, windows, etc. Store storm windows and doors, screen windows and doors in safe place during construction.
2. Provide abatement report and remove any asbestos material that may be found (i.e. pipe insulation)
3. Parge and repair areas where plaster/concrete stone foundation walls are loose and crumbling.
4. Restore existing exterior doors and make weather tight.
5. Restore windows to make weather tight and secure. Maintain historic profiles, number of lights, etc. -Paint interior sides of window frames.
6. Paint all interior plaster and brick walls throughout.
7. Paint plaster ceiling throughout.
8. Patch and Seal concrete floor throughout
9. Remove existing coils, plenum boxes, and all related piping associated with existing gravity fed heating system. (Photo F)
10. Remove all incandescent lighting and related wiring and replace w/ new lighting.
11. Replace existing cast iron sanitary waste line w/ new cast iron pipe.
12. Repair and refinish existing wood stair. (Photo D)
13. Remove wood partition and relocate services as needed. (Photo I)
14. Remove abandoned tel/data cables and panels. (Photo G)
15. Remove underground oil tank
16. Remove oil fired boiler, associated piping and misc. appurtenances. (Photo H)
17. Remove electrical wiring system and replace with new system including branch wiring, panels and electrical devices. See electrical report.
18. Provide new HVAC system utilizing existing shaft spaces for duct work distribution. See mechanical report.



TYPICAL NOTES (1ST FLOOR)

1. Existing wood floors are to be restored. Sand down to bare wood, stain, and seal. Coatings are to be consistent with historic restoration requirements.
2. Remove all cast iron radiators and misc. piping. Patch and repair holes in floor, ceiling, and walls as needed.
3. Remove all window treatment that is not historic in nature (i.e. roller shades, non-period curtains).
4. Exterior doors are to be made weather tight. Provide guard rails at rear doors.
5. Restore all woodwork including wainscot, fireplace surrounds, base board, window and door trim, stair assemblies, and coffered ceilings. Strip down to bare wood, stain and refinish in accordance with historic restoration requirements.
6. Install wire & wireless security system throughout entire building without disturbing existing finishes and woodwork.
7. Existing plaster walls are to be restored and painted and/or prepped for wallpaper.
8. Install museum exhibit lighting in addition to the period lighting fixtures in each room.
9. Remove miscellaneous phone outlets, switches, and sensors. Reset loose tiles and replace broken tiles at fireplace hearths.
10. Main Stair - Remove residual glue from removed floor tiles at treads and risers and refinish with historically consistent wood floor finish. (Photo I)

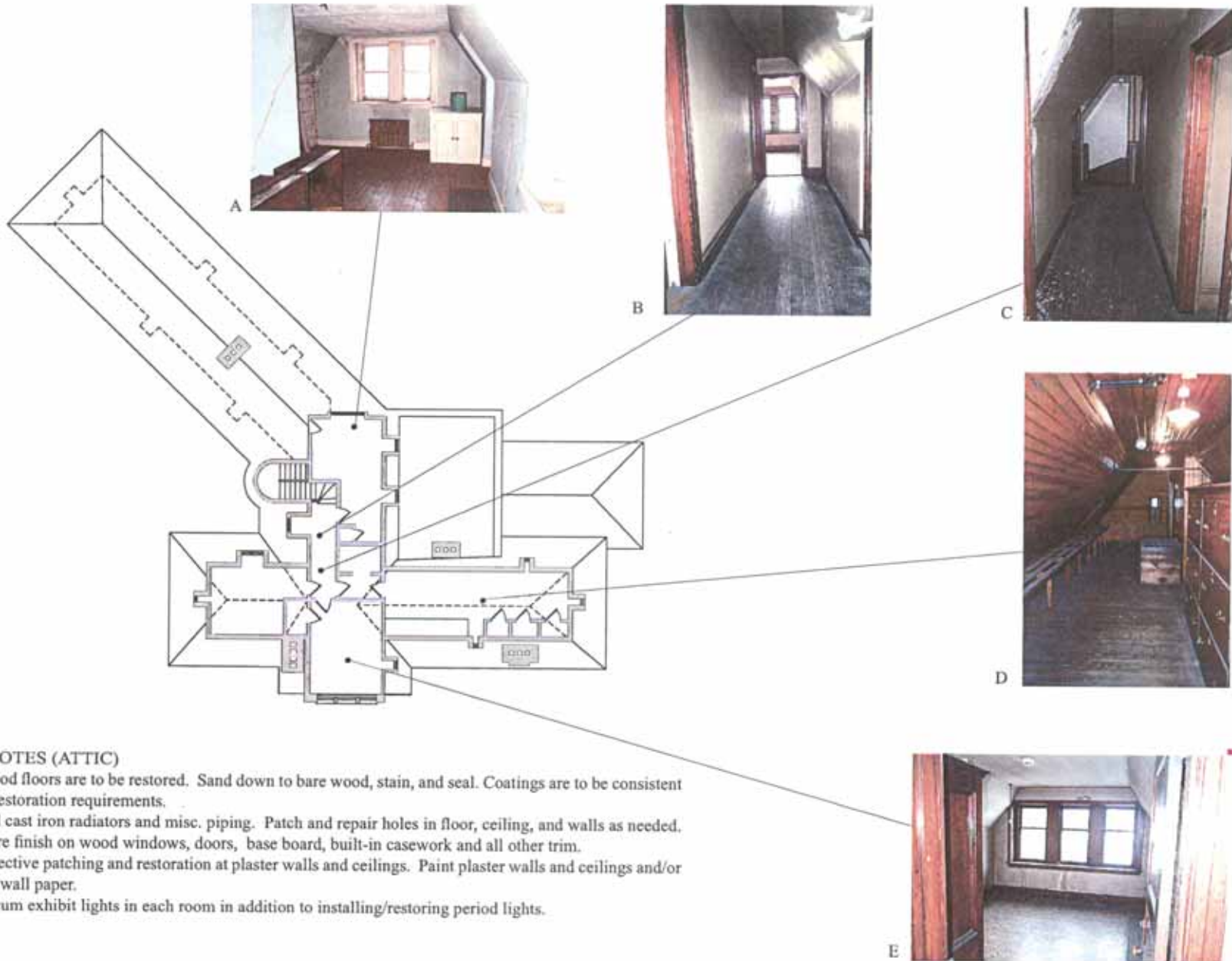
11. Sitting Room - Install new door for H.C. entrance at location where vault door is to be removed. Repair broken wood shutters. (Photo H)
12. Porch - Remove 2-story stone vault. Remove vault door and install windows with historic profiles, trim and shutters. Re-build 2-story covered porch to match original construction. Remove H.C. ramp and rail. Remove H.C. ramp at main entrance and restore porch. (Photo G & H)
13. Dining Room - Replace historic light fixture. Repair plaster ceiling and wall at bay window. Repair and replace loose window trim. Install windows with historic profile where vault is to be removed. (Photo F)
14. Pantry - Repair and patch entire plaster ceiling and all plaster walls. Install missing raised paneled wood door. Replace 6 l.f. of missing base cabinets. Restore cabinet doors, glass lites, hardware and trim. (Photo E)
15. Drawing Room - Decorative plaster ceiling - provide minor patching and paint ceiling. Restore finish on woodwork at baseboard, fireplace surround and window trim. (Photo B)
16. Service Wing - Restore exterior doors to make weather tight. Restore wood finish on all raised paneled doors. Repair damaged plaster ceiling throughout entire wing. Repair and paint all plaster walls. Restore and rebuild plaster walls to original condition at basement stair. Renovate rest room with new finishes and new fixtures. (Photos C & D)



TYPICAL NOTES (2ND FLOOR CHAMBERS AND HALLWAYS)

- 1 Existing wood floors are to be restored. Sand down to bare wood, stain, and seal. Coatings are to be consistent with historic restoration requirements.
- 2 Remove all cast iron radiators and misc. piping. Patch and repair holes in floor, ceiling, and walls as needed.
- 3 Restore all woodwork including wainscot, fireplace surrounds, base board, window and door trim, stair assemblies, and coffered ceilings. Strip down to bare wood, stain and refinish in accordance with historic restoration requirements.
- 4 Remove non-historic ceiling mounted light fixtures and patch plaster. Install period style ceiling mounted light fixtures. Install museum exhibit lighting in addition to the period lighting fixtures in each room.
- 5 Paint all plaster finishes and/or prep for wallpaper.

- 6 Provide selective patching and restoration at plaster walls and ceilings.
- 7 Chamber D - Remove brick from exterior wall at window location. Install new window to match existing historic profiles. Restore damaged plaster around window. Re-install/restore baseboard removed from same wall. (Photo I)
- 8 Hallways & Stairs - Remove residual glue from removed floor tiles at tread, risers, landings and corridors. Restore and repair balusters and railings. Patch and refinish plaster walls and ceilings. Restore all woodwork at stair assembly. (Photo H)
- 9 Chamber E - Remove vault door and install two windows with matching historic profiles and details. (Photo G)
- 10 Bathrooms - (General for 4) Restore floor tile and wall tile surfaces. Replace plumbing fixtures and accessories with period fixtures. Replace lighting fixtures with period fixtures. Patch and restore plaster walls and ceilings. (Photos A, C, E & F)
- 11 Chamber F - Restore built in armoire to original condition. (Photo D)



TYPICAL NOTES (ATTIC)

1. Existing wood floors are to be restored. Sand down to bare wood, stain, and seal. Coatings are to be consistent with historic restoration requirements.
2. Remove all cast iron radiators and misc. piping. Patch and repair holes in floor, ceiling, and walls as needed.
3. Fully restore finish on wood windows, doors, base board, built-in casework and all other trim.
4. Provide selective patching and restoration at plaster walls and ceilings. Paint plaster walls and ceilings and/or prep walls for wall paper.
5. Install museum exhibit lights in each room in addition to installing/restoring period lights.



A



SOUTH ELEVATION



F



B



E



C



NORTH ELEVATION



D

TYPICAL NOTES (EXTERIOR)

- 1 Remove slate roof and install new slate roof.
- 2 Remove all copper flashing, gutters, scupper boxes and downspouts and replace with new to match existing. Salvage and reuse all decorative elements possible.
- 3 Restore/replace wood structure at porch roofs and roofs eaves.
- 4 Strip paint and refinish all exposed painted surfaces.
- 5 Remove and install new lighting protection system.

- 6 Clean stone exterior. Re-point with matching mortar where existing mortar has come loose.
- 7 Replace basement access hatch w/ new hatch.
- 8 Remove 2-story stone vault. Re-build 2-story covered porch to match original construction. (Photo E)
- 9 Remove H.C. ramp and rail. Remove H.C ramp at main entrance and restore porch. (Photo E)



G



EAST ELEVATION



L



H



K



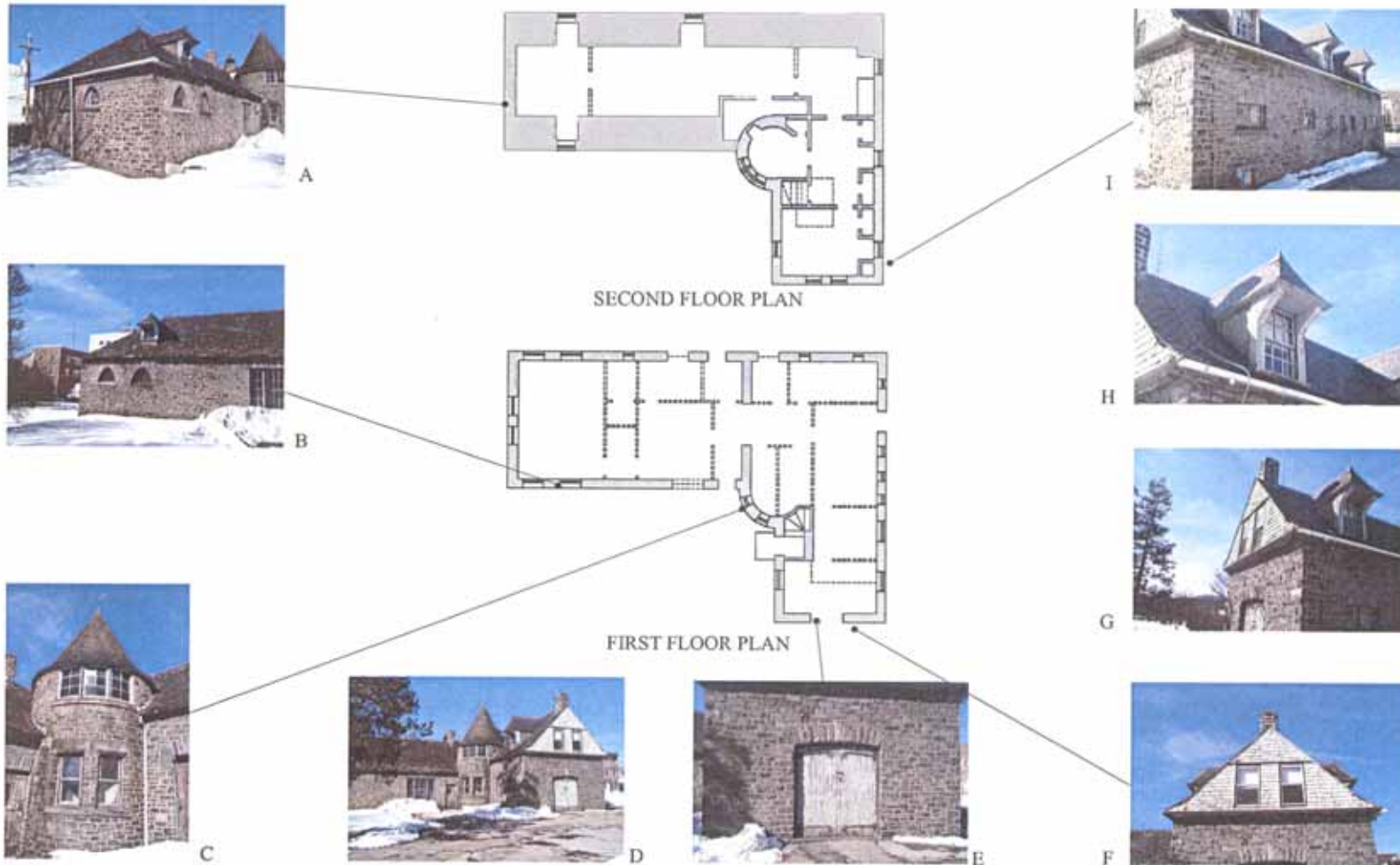
I



WEST ELEVATION



J



TYPICAL NOTES

- 1 Remove and replace all HVAC, Plumbing and electrical services. See mech. and electrical reports.
- 2 Replace all wood windows with new insulated windows with matching historic profiles.
- 3 Restore/replace exterior doors.
- 4 Remove all interior partitions and finishes that are not original to the building.
- 5 Install wire & wireless security system throughout entire building without disturbing existing finishes and woodwork.
- 6 At first floor, provide new partitions, floor and ceiling finishes and amenities for new men's and

- women's public restrooms, Visitor Center and Museum exhibit space.
- 7 At second floor, provide new partitions, floor and ceiling finishes and amenities for new Site Manager Apartment.
- 8 Remove slate roof, miscellaneous copper flashing, gutters and downspouts and install new slate roof and all new copper flashing, gutters and downspouts.
- 9 Clean exterior stone walls, and re-point as required.
- 10 Remove cedar shingle siding and replace with new cedar shingle siding. (Photo F)
11. Restore/replace all exterior wood trim.

New Mechanical, Plumbing & Electrical Summary

Mechanical System



The restoration of the Graystone Manor for utilization as a Museum, Office Space, and/or formal functions necessitates a new heating, ventilation, and air conditioning system.

To preserve the historic character of the building, the proposed system must be carefully incorporated in the building fabric. Humidification systems will require careful evaluation to provide the necessary balance between the appropriate environment and avoidance of deterioration to the building structure.

To meet the various criteria as herein described, a zoned hot water radiation system in conjunction with a heated/cooled and humidified air distribution system is proposed.

A new heating hot water system would be provided through a gas fired hot water boiler with hot water circulating pumps. The plant would be sized to incorporate the restoration of the original Stable. Hot water radiation would be located within the existing building elements to minimize disruption to the historic nature of the project.

Individual air handling units would be located primarily in the basement and on the third floor for supplemental heating, humidification and cooling of the first and second floors respectively. The air distribution system, where plausible, would be incorporated into existing riser locations utilizing existing wall grilles.

A chilled water plant consisting of an outdoor air cooled chiller, chilled water pumps, and chilled water piping is proposed as the central plant for the project. Utilization of a chilled water system minimizes the amount of outdoor equipment and provide maximum flexibility in zoning and location of the indoor air handling units. In addition, utilization of an outdoor air cooled chiller will further permit flexibility in locating the outdoor equipment are required to satisfy the historical and architectural requirements. The chilled water plant would be sized to incorporate the restoration of the original Stable.

The proposed chilled water plant and hot water plant could be located in either the Manor (Scheme A), Carriage House, (Scheme B) or a proposed separate building (Scheme C). The location of the plant in the Manor would be the least desirable due to the historic nature of the building and the fire hazard of the gas fired plant. Locating the boiler plant in the Stable does not represent any significant cost increase to the project as equivalent underground piping would be required between the Manor and Stable regardless of the location in either of the two buildings. An additional alternative would be to build a new building



Manor House - Lower Level

Scheme A



Carriage House - First Floor

Scheme B



Site Plan

Scheme C

to house the boiler plant and the chilled water pumps and appurtenances. This alternative would eliminate the boiler plant in either building and provide full utilization of both the Stable and the Manor. Additional costs based on construction of the new building and the impact on the existing site should be compared to the advantages of eliminating the plant from the existing structures.

Plumbing System

New plumbing fixtures and piping will be provided as required to satisfy the new plumbing requirements.

Electrical System

Existing Service Equipment

Completely disconnect and remove the existing electrical service.

Proposed Service Equipment

Provide new 120/208V-3PH-4W (three-phase four-wire) electrical service including new primary lines on the site from utility company mains, new utility company (PECO Energy) outdoor pad mounted transformer, new secondary underground lines into the building, new utility metering, new 400 A main circuit breaker distribution panel.

Branch Panels

Provide new branch panels throughout the facility. Provide each panel as 42-circuit and with bolt-on circuit breakers, aluminum bus, and 225A main lugs only. Provide power panels rated 120/208V-3PH-4W and with minimum short circuit rating of 22,000A. Provide branch circuit breakers as required for equipment and loads served. Provide all unused spaces in all panels filed with 20/1 circuit breakers, so all 42-poles have breakers.

Provide a 225 A feed to the Carriage House.

Provide each floor with branch panels as follows

<u>Panel Name</u>	<u>Use</u>	<u>Area Served By Panel</u>
PB	General Power	Basement
P1	General Power	First floor
P2	General Power	Second floor
P3	General Power	Attic floor
PC1	General Power	Carriage House ground floor
PC2	General Power	Carriage House second floor (fed from "PC2")



Emergency Lighting System

Provide exit and emergency lighting as indicated in the Branch Wiring and Devices section of this scope specification. Provide all exit signs and emergency luminaires with integral battery packs. Provide emergency lighting using suitable remote style lighting heads fed from large centrally located battery units. Provide exit signs as required to direct occupants to exits and so at least one exit sign is visible from every point in the area. Provide so the next exit sign in line leading to the exit is visible from the previous exit sign's location.

Wiring Methods

Provide wiring methods as follows:

- 1) Utilize EMT conduit with compression fittings for all wiring, unless indicated otherwise. In dry locations only, set screw fittings may be used.
- 2) Utilize galvanized rigid steel conduit for all exterior exposed wiring, underground wiring, and wiring in wet locations. Utilize rigid steel conduit for all wiring over 600V (where permitted, PVC conduit may be used underground). Utilize rigid steel conduit within 4'0" of all building exterior wall penetrations. Utilize rigid steel conduit only, encased in a 3" concrete envelope, under all roadways, parking lots, and other areas subject to vehicular traffic. Provide rigid steel conduit installed underground or in contact with earth coated with coal tar coating (Carboline/Kop-Coat Bitumastic Super Service Black).
- 3) Utilize PVC conduit (encased in minimum 3" concrete envelope) for underground wiring.
- 4) Utilize "Sealtite" for flexible connections to motors and equipment and all flexible connections in wet or damp locations and mechanical rooms. "Greenfield" flexible conduit may be used for flexible connections to luminaires in concealed dry locations only. "Greenfield" flexible conduit may be used where wiring is fished in existing walls.
- 5) Where wiring is concealed in walls or ceilings, where applicable by code, and where approved by local authorities and the owner, and unless otherwise noted, "BX" armored cable (type "AC") or metal clad cable (type "MC") may be used for branch wiring only.
- 6) Romex cable (type "NM") and ENT conduit are not permitted under any circumstance.

Provide all wiring as copper (aluminum is not acceptable under any circumstance). Provide all wiring as #12 A.W.G. minimum. Utilize #10 A.W.G. minimum for all emergency wiring, outdoor wiring, dedicated receptacles, and all wiring exceeding 75' from the panel to the center of load. Provide all conduits as 3/4" minimum.

For all wiring, provide a separate neutral conductor for each circuit ("shared" neutrals are not permitted). Provide grounding conductors run with all wiring.

Provide all safety switches and enclosed breakers of the heavy-duty type. Base pricing on all safety switches being fused. Provide NEMA-1 enclosure for indoor equipment and NEMA-3R enclosure for outdoor equipment.

All lighting shall utilize incandescent lamps for color temperature and color rendering, except that fluorescent lighting is proposed in utility and similar spaces.

Mechanical and Other Equipment Connections

Provide electrical connections to all mechanical equipment. Refer to the mechanical documents for information. Connect all miscellaneous 120V equipment (1/2HP and less) to power branch panels. Connect all equipment larger than 1/2HP to motor control centers.

Provide all equipment with heavy-duty local disconnecting safety switches.

Telephone and Data Pathways

Provide telephone/data outlets as indicated in the Branch Wiring and Devices section of this report. Provide each outlet consisting of a 2-gang outlet box with one (1) 1" conduit run from the outlet to nearby corridor ceiling.

Provide two (2) 4" conduits run from the main telephone/data room to each satellite telephone/data room on each respective floor. Provide four (4) 4" conduits run out to the street for the incoming telephone service.

Provide suitable sleeves in all walls as required for complete wiring accessibility between ceiling spaces.

Fire Alarm System

Provide a complete new fire alarm system throughout the entire facility. Provide a fully point addressable fire alarm system with intelligent analog detectors. Provide control panel located in the main electrical room. Provide an alphanumeric (80-character) remote annunciator at the main entrance.

Completely disconnect and remove the existing fire alarm serving the facility.

Provide fire alarm devices as follows:

- 1) Provide audio/visual horn/strobes (ADA approved type) and smoke detectors as indicated in the Branch Wiring and Devices section of this report.
- 2) Provide smoke detectors as indicated in the Branch Wiring and Devices section of this report.
- 3) Provide a double action manual pull station at every exterior exit or exit into a stairwell on every floor. Refer to drawings for quantity of exits.
- 4) Provide duct type smoke detectors (complete with connections to the fire alarm system and shut down controls) in air handling equipment as follows. Provide one (1) duct detector in any air handling unit over 2,000CFM. Provide two (2) duct detectors in any air handling unit over 15,000CFM.

Security System

Provide a new security system consisting of a control panel, door release, card readers, wiring, etc..

Reference the floor plans for the extent of devices associated with the project phasing.

Demolition and Removal

Completely disconnect and remove all equipment within areas of renovation, unless indicated otherwise on the drawings. Reference the drawings for the extent of removals associated with the project phasing.

Salvage, protect, reuse, and re-wire historically significant luminaires, fixtures, and devices as directed by the architect and owner.

Branch Wiring and Devices

Provide quantities of branch wiring equipment, devices, and circuiting based on the following. Provide a minimum of one (1) of each respective device listed per room, unless indicated otherwise.

Wherever quantities of devices are listed on the basis of square feet (SF), linear feet (LF), etc., provide a minimum of one (1) per room.

- 1) **Entry Area**
 - a) **Lighting:** Provide special architectural lighting as directed by the architect. Restore/refurbish existing historic lighting whenever possible. Provide individual switching of different individual areas and lighting "scenes" as defined by the architect.
 - b) **Emergency Lighting:** Provide one (1) emergency luminaire for every 400SF. Provide one (1) exit sign at each exit door and additional exit signs as required by code.
 - c) **Convenience Receptacles:** Provide one (1) convenience receptacle for every 24LF of wall space. Circuit for a maximum of six (6) receptacles per circuit.
 - d) **Fire Alarm:** Provide quantity of fire alarm horn/strobes as required so no point within the area is more than 50'0" from a horn/strobe. A horn/strobe must be visible from every point within the area. Provide one (1) smoke detector for every 400SF, maximum spacing between detectors of 20'0".

- 2) **Typical Corridor**
 - a) **Lighting:** Provide special architectural lighting as directed by the architect. Restore/refurbish existing historic lighting whenever possible. Provide one (1) incandescent luminaire for every 8LF of corridor. For each section of corridor, provide two (2) three-way wall switches, one (1) at either end of the corridor section.
 - b) **Emergency Lighting:** Provide one (1) emergency luminaire for every 48LF of corridor. Provide one (1) exit sign at each exit door and additional exit signs as required by code.
 - c) **Convenience Receptacles:** Provide one (1) convenience receptacle for every 24LF of wall space. Circuit a maximum of six (6) receptacles per circuit.
 - d) **Fire Alarm:** Provide quantity of fire alarm horn/strobes as required so no point within the area is more than 50'0" from a horn/strobe. A horn/strobe must be visible from every point within the area. Provide one (1) smoke detector for every 30LF, maximum spacing from detector to end of corridor of 15'0".

- 3) Stair
 - a) Lighting: Provide special architectural lighting as directed by the architect. Restore/ refurbish existing historic lighting whenever possible. Provide one (1) wall or ceiling mounted 4' fluorescent luminaire for each stairwell landing.
 - b) Emergency Lighting: Provide one (1) emergency luminaire at each floor level in each stairwell.
 - c) Fire Alarm: Provide one (1) fire alarm horn/strobes at each floor level in each stairwell. Provide one (1) smoke detector at the top of each stairwell smoke chamber.

- 4) Typical Public Bathroom (Carriage House)
 - a) Lighting: Provide continuous linear luminaires run continuously around the perimeter of the room. For all rooms 100SF and larger, provide one (1) recessed fluorescent down light for every 100SF. Provide one (1) wall switch in each room.
 - b) Emergency Lighting: Provide one (1) emergency luminaire in each room.
 - c) Convenience Receptacles: Provide one (1) duplex ground fault circuit interrupter type convenience receptacle for every two (2) vanity sinks, so each vanity sink has a receptacle directly adjacent. Circuit a maximum of six (6) receptacles per circuit.
 - d) Fire Alarm: Provide one (1) fire alarm horn/strobe in each room. Provide one (1) smoke detector for every 900SF, maximum spacing between detectors of 30'0".
 - e) Mechanical Connections: Provide one (1) exhaust fan connection and one (1) wall switch (to control the exhaust fan, separate from lighting switch) in each room.

- 5) Typical Period Bathroom (Manor House)
 - a) Lighting: Provide special architectural lighting as directed by the architect. Restore/ refurbish existing historic lighting whenever possible. Provide one (1) wall switch in each room.
 - b) Convenience Receptacles: Provide one (1) duplex ground fault circuit interrupter type convenience receptacle for every two (2) vanity sinks, so each vanity sink has a receptacle directly adjacent. Circuit a maximum of six (6) receptacles per circuit.
 - c) Fire Alarm: Provide one (1) fire alarm horn/strobe per room. Provide one (1) smoke detector per room.
 - d) Mechanical Connections: Provide one (1) exhaust fan connection and one (1) wall switch (to control the exhaust fan, separate from lighting switch) in each room.

- 6) Museum Office
 - a) Lighting: Provide special architectural lighting as directed by the architect. Restore/ refurbish existing historic lighting whenever possible. Provide one (1) incandescent luminaire for every 80SF, minimum of two (2) per room. Provide two (2) wall switches (dual switching, both switches control the same luminaires for multiple lighting levels) in each room.
 - b) Convenience Receptacles: Provide one (1) convenience receptacle for every 8LF of wall space, minimum of four (4) per room (generally one (1) per wall). Provide one (1) circuit per room.

- c) Computer Receptacles: Provide one (1) duplex isolated ground receptacle for each workstation location in each room. Circuit a maximum of three (3) receptacles per circuit.
 - d) Telecommunications/Data: Provide one (1) telephone/data outlet for each workstation location in each room.
 - e) Fire Alarm: Provide one (1) smoke detector per room.
- 7) **Museum/Exhibit Area**
- a) Lighting: Provide special architectural lighting throughout these areas as directed by the architect, including adjustable and flexible track lighting. Restore/refurbish existing historic lighting whenever possible. Provide individual switching of different individual areas and lighting "scenes" as defined by the architect.
 - b) Emergency Lighting: Provide one (1) emergency luminaire for every 400SF. Provide one (1) exit sign at each exit door and additional exit signs as required by code.
 - c) Convenience Receptacles: Provide one (1) convenience receptacle for every 8LF of wall space. Provide additional receptacles as directed by the architect. Circuit a maximum of six (6) receptacles per circuit, minimum of one (1) circuit per room.
 - d) Computer Receptacles: Provide duplex isolated ground receptacles as directed by the architect. Circuit a maximum of three (3) receptacles per circuit.
 - e) Telecommunications/Data: Provide telephone/data outlets as directed by the architect.
 - f) Fire Alarm: Provide quantity of fire alarm horn/strobes as required so no point within the area is more than 50'0" from a horn/strobe. A horn/strobe must be visible from every point within the area. Provide one (1) smoke detector for every 900SF, maximum spacing between detectors of 30'0".
- 8) **Lower Level (Electrical, Mechanical, Telephone, Janitorial, HVAC, And Storage Spaces)**
- a) Lighting: Provide one (1) 8' industrial fluorescent luminaire for every 100SF. Provide one (1) wall switch in each room.
 - b) Emergency Lighting: Provide one (1) emergency luminaire for every 400SF (for rooms 300SF and larger only and for electrical rooms of any size).
 - c) Convenience Receptacles: Provide one (1) convenience receptacle for every 30LF of wall space. Circuit a maximum of six (6) receptacles per circuit.
 - d) Computer Receptacles: Provide four (4) duplex isolated ground receptacles in each telecommunications/data room. Provide one (1) dedicated circuit for each receptacle.
 - e) Telecommunications/Data: Provide one (1) telephone/data outlet in each room. Provide 1" conduit run from each outlet to nearby corridor ceiling.
 - f) Fire Alarm: In rooms 300SF and larger only, provide quantity of fire alarm horn/strobes as required so no point within the area is more than 50'0" from a horn/strobe. A horn/strobe must be visible from every point within the area. Provide one (1) fire detector for every 900SF, maximum spacing between detectors of 30'0". Utilize heat detectors in electrical, mechanical, telecommunications/data rooms. Utilize smoke detectors in janitors and storage rooms and other areas.
 - g) Mechanical Connections: Provide connections to mechanical equipment as required. Refer to mechanical documents for information.

- h) Backboards: Provide 8' high X 3/4" thick fire resistant plywood backboard around the perimeter of all electrical and telecommunications/data closets and rooms. Provide 8' high X 3/4" thick fire resistant plywood backboard the length of all spaces for electrical panels.
- 9) Typical Outdoor Wiring
- a) Lighting: Include pricing allowance for special architectural site lighting throughout these areas. Include pricing for lighting including decorative wall mounted outdoor luminaires, ground mounted outdoor accent luminaires, tree up luminaires (flush mounted in ground), bollard luminaires, and owner approved decorative pole mounted luminaires. See landscaping report.
 - b) Emergency Lighting: Connect all luminaire at building exterior exits to emergency site lighting circuits.
 - c) Lighting Controls: Provide an integrated lighting controller for control of all exterior luminaires, both normal and emergency. Locate lighting controller in the main electrical room. Interconnect lighting controls with a roof-mounted photocell, emergency generator controls, as well as manual bypass and override controls and time clock integral to the controller.
 - d) Convenience Receptacles: Provide weatherproof convenience ground fault circuit interrupter type receptacles as follows. Provide two (2) receptacles at each building exterior exit (one (1) on either side of the exit). Provide one (1) receptacle for every 16LF of garden and planter areas. Circuit a maximum of four (4) receptacles per circuit.

● Proposed Use – Heritage Museum

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Heritage Museum Landscape Approach



The landscape approach seeks to interpret the character of the site at the turn of the century while creating an outdoor museum setting, which supports activities, events and connections to the broader historic fabric of Coatesville. The site analysis investigates the programmatic implications of restoring the Manor as a museum and the Carriage House as a visitor reception area for both the Manor and for other historic sites relating to the Lukens family, steel manufacturing, and their place in the history of Coatesville. While providing a setting that is as secure and easily maintained as it is inviting, the landscape plan will tell the story of the property's civic importance to the City of Coatesville.

Circulation

Circulation patterns will remain basically unchanged with a one way entry drive at the front of the mansion and a two-way entrance at the Carriage House. The concept plan suggests reducing the amount of paving and restoring the original configuration of the carriage drive in the back of the house.

Zoning requirements stipulate that one parking space per 300 square feet of gross area be provided. The gross area of the Manor (1st and 2nd floor) and the Carriage House totals 9,954 square feet, requiring a total of 34 parking spaces be provided, forty percent of which (13 spaces) are permitted to be on-street or on adjacent public lots. Therefore, 21 parking spaces of off-street parking will be accommodated along the carriage drive as configured in Interim Parking Plan. This parking will be handled with a pervious parking surface of reinforced lawn to minimize its' visual impact on the landscape when not in use.

Plantings

Creating a gardenesque atmosphere as a backdrop for all sorts of activities, events and exhibits will invite visitors in to enjoy the site. For example the site already has 4000 visitors for an ice cream festival in July, so at this time all kinds of flowering trees should be in bloom to make the event more visible and more festive. Gateways to the site, both visual and physical, are important and should be emphasized with special plantings that create memorable horticultural 'events' throughout the year. These gateways are noted on the Site Analysis drawing. Careful planting design will connect Graystone Manor visually with the handsome Headquarters Building across South First Avenue. In fact the development of thematic and/or seasonal planting schemes would be an interesting way to connect Graystone with the other historic sites.

Presently, the space around the house is open, undifferentiated and unfriendly as contrasted with the aerial view of the site circa 1925. At that time the garden was enclosed, almost walled off from public view in a series of varied outdoor rooms by dense plantings resembling thickets. The present landscape plan seeks to strike a balance between enclosure and transparency, inviting the public to look in on the exciting activities taking place in a series of pleasant outdoor rooms. Screening discordant views

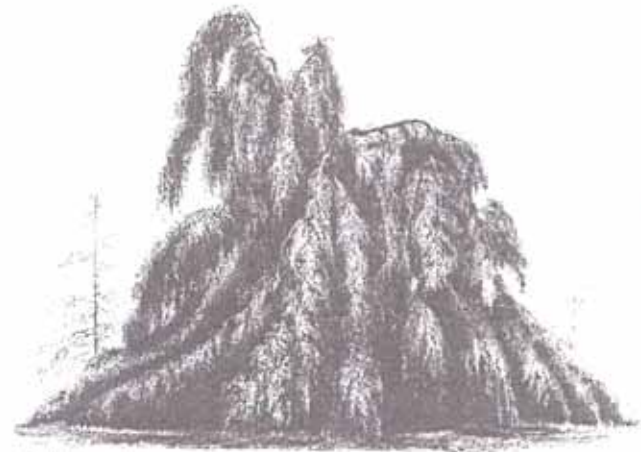


Fig. 103. Weeping plants are another example of the exaggerated forms used in Victorian landscapes. They were not always grown as single specimens, such as the weeping birch.

along the southern and eastern boundaries with a solid hedge will further enhance the historic garden atmosphere of the site.



Site Furnishings

Site furnishings will be carefully selected to both enhance the historic character and to tell some of the interesting stories about the site. For example, the little horse statue, given to the city while Graystone was the City Hall will be placed within a landscape setting that tells its' story. Another focus or destination point, will be the development of a historically appropriate garden feature that terminates an important view from the house. Other important documented furnishings, including the wrought iron archway over the main entrance should be fabricated in the spirit of the original to complement the recently restored wrought iron gates.

In addition to being pedestrian in scale and of an appropriate character, the site lighting has the potential, as an important design element, to enhance the museum's year-round presence in the community. The present above ground wiring will be put underground and the proposed lighting will create secure and inviting evening environments.

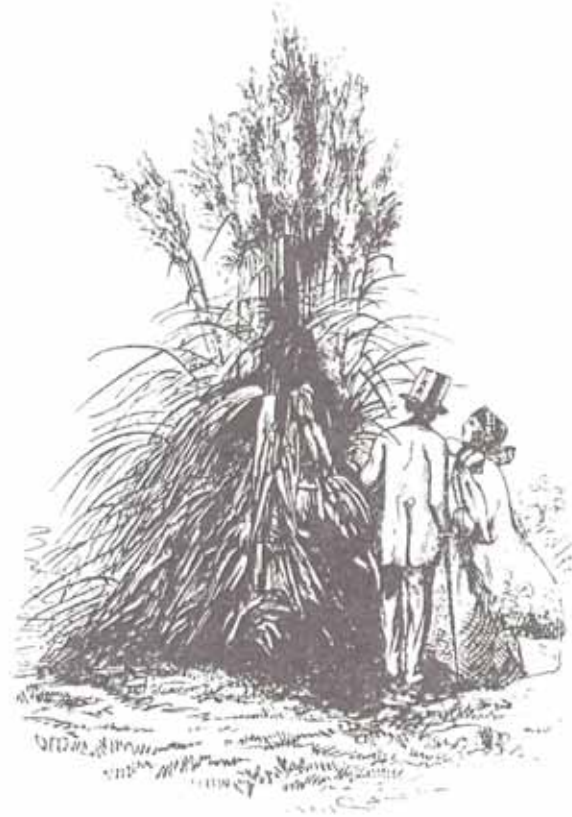


Fig. 100. Grasses, such as this clump of pampas, were either planted in the center of beds or incorporated into flower borders. Sometimes they were set directly into the lawn.

Historical Landscape Summary

A recently uncovered aerial photograph taken one summer between 1925 and 1929 provides a fascinating overview of the mature landscape plan developed by A. F. Huston for Graystone. One sees in the photograph a commodious house situated on a high point surrounded by rolling lawns that stretch down to the corner of South First Avenue and Harmony Street. Densely planted, and generous borders give the property a rich sense of privacy and importance: the borders together with the free standing trees in open lawn create a wonderful series of outdoor rooms in sun and shade that accommodate a variety of outdoor family activities.

Plantings

The plantings along both Harmony Street and South First Avenue have all but disappeared. From the aerial you can see wide curvilinear beds on an average of 20 to 25 feet wide, dense with plantings. These beds with occasional openings out onto the street enclose the formal landscape spaces of the property that are viewed from the important living rooms on the first floor. On South First Avenue there is a wide break in the plant beds on axis with the front door of the Lukens Headquarters across the street, creating an important visual connection between the two properties. Conversely, as one leaves the Headquarters you have a fine long view of Graystone's sunny lawn enclosed by shrubberies and stately, specimen trees casting shadows on the grass.

The circular entrance drive was densely planted with shrub thickets and large, overhanging, canopy trees, so that upon entering the drive the visitor had the feeling of emerging from dense shade into the sunny splendor of an expansive and generous property. The imposing house avoided small scale foundation plantings, but views from important rooms look out under flowering trees in the foreground such as magnolias and Japanese tree lilacs, and in the front a stately weeping beech stands guard.

In the back of the house the carriage drive turn-around was planted with ornamental grasses and large scale tropical plants such as cannas. Again, large canopy trees shaded the drive and enclosed the back lawn area.

At the back of the property, the private landscape spaces fronting onto Buttonwood Lane are organized in a rectilinear fashion with parallel paths separated by planting beds. Adjacent to the greenhouse on the corner of Buttonwood and Harmony appears to be a garden room bounded by hedges that probably served as the family's vegetable and cutting garden. All of these garden elements have disappeared when a parking lot for the new City Hall was constructed on this portion of the property.

Circulation

The circular carriage drive enters the property off South First Avenue and brings the visitor up to the front door before swinging around to the back of the house in a circular drop-off. The drive then exits the site at the service entrance between the carriage house and the former greenhouses onto Harmony Street. A series of pedestrian paths serve to bring visitors on foot to the front door, or around the house and then meander off to the more private garden spaces at the back of the property.



Fig. 37. Picturesque evergreens combined with deciduous trees and shrubs. Combinations such as these were used to define a lawn area, at the edges of the property, or at the juncture of paths or roads within the landscape. They were also planted to enframe vistas or as free-standing specimen groups.

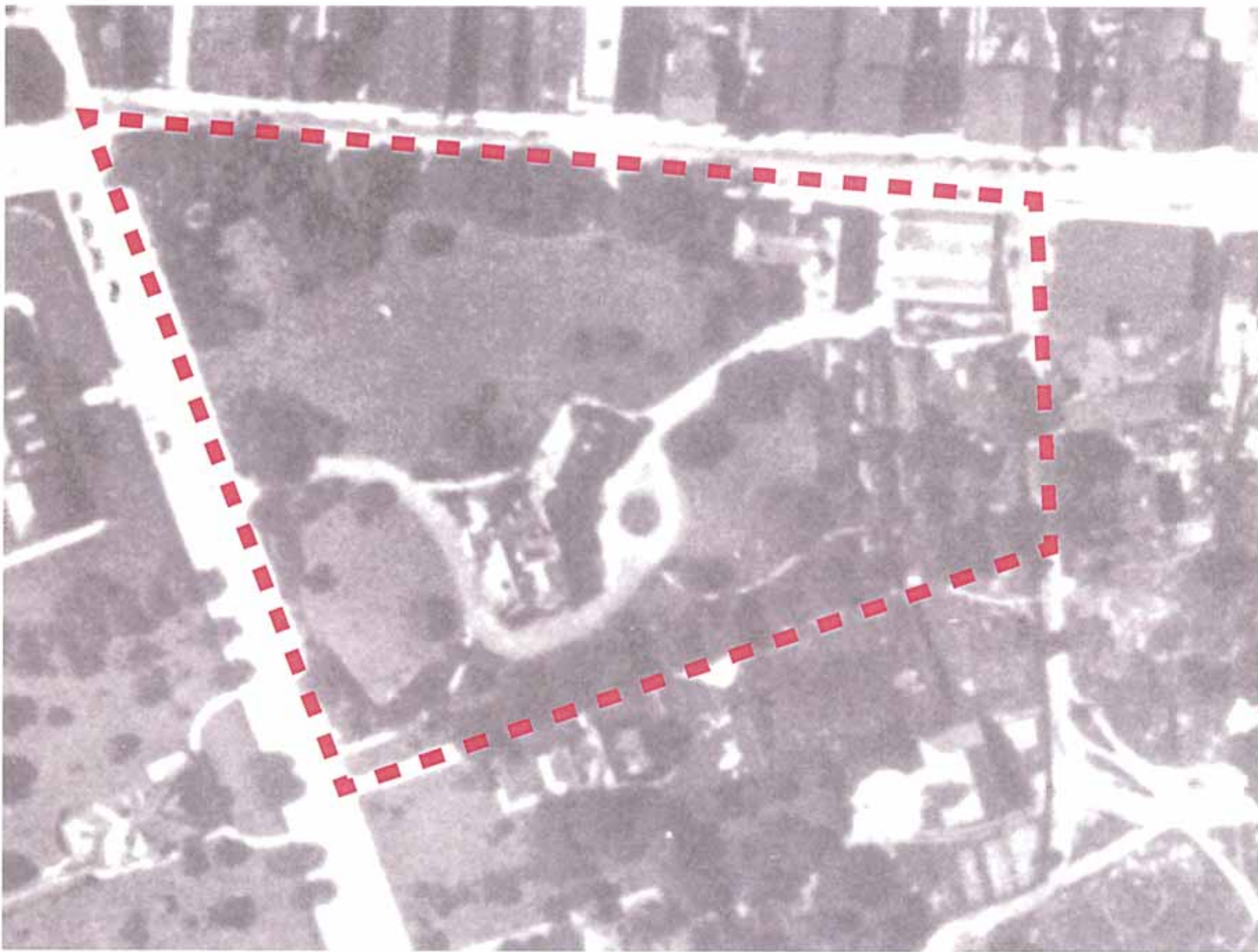


Fig. 11. Garden urn of one made of cast iron

Garden Elements

In the front corner of the property one can barely make out on the aerial photograph a light colored circle with a dark mass in the center. This appears to be a circular paved area, approximately 10 to 12 feet in diameter with a central element perhaps planting, perhaps a piece of sculpture or an urn tucked into the enclosing folds of the surrounding plant beds. This landscape feature terminated an important vista from the music room and served to create a destination point to explore the garden.

Handsome wrought iron elements in the landscape create a connection between the interior and exterior rooms. Recently, the wonderful iron gates very much in the design spirit of the interior lighting fixtures were restored and re-installed on the piers to the entry drive. Furthermore, an old photograph of the entrance shows that at one time the stone piers to be surmounted by a wrought iron archway with a lantern at the apex. Lanterns, large scale and civic in character, have replaced the graceful archway.



Historic Aerial Photograph - Circa 1925

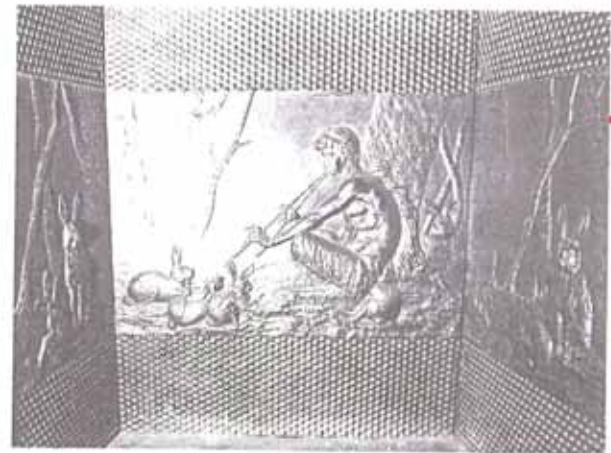
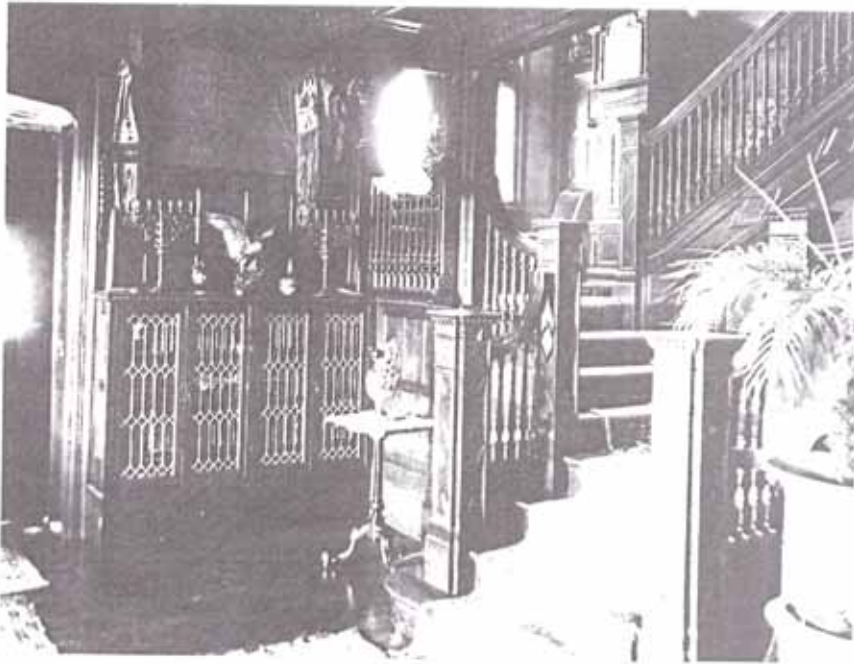


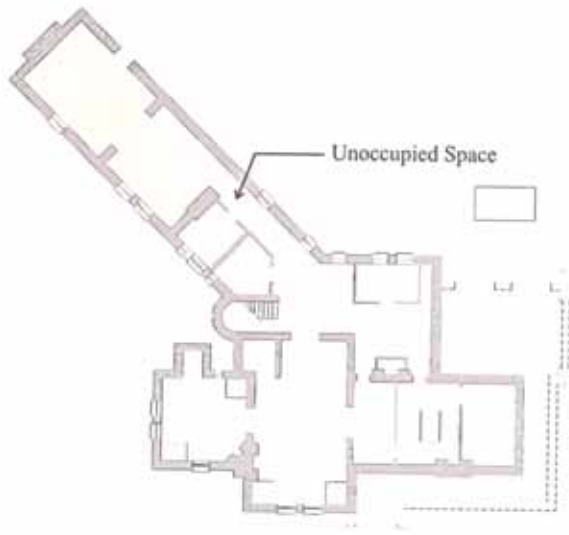
SKETCH PLAN BASED ON AERIAL PHOTOGRAPH TAKEN 1925 TO 1929.



Heritage Museum - Proposed Use Floor Plans

The restored Graystone Manor will serve the City of Coatesville as the home of the Heritage Museum. The restored rooms of the Manor House will give museum goers the experience of life at the turn of the century. On the first and second floors of the Manor House, various rooms will be open to the public to see a vast and changing array of exhibits and installations telling the many stories of the rich history of Graystone. The museum offices will reside in the second floor of the service wing in the Manor House. The attic, not open to the public, will be restored as well and through video technology, exhibits of these curious rooms can take place. The basement will house the services that will provide the exhibits and users alike with the modern comforts of heating and air conditioning without interrupting the historical building elements. In the renovated Carriage House, visitors can be greeted at the Visitor and Orientation Center on the first floor. Here one will find the necessary maps and guides, gifts from the museum shop, and accessible restrooms. The second floor of the Carriage House was originally the Coachman's residence. Fittingly it will be carefully restored to serve as the residence of the Museum Site Manager. The Carriage House serves an important link connecting the Graystone Manor with the pedestrian friendly Main Street of Coatesville.





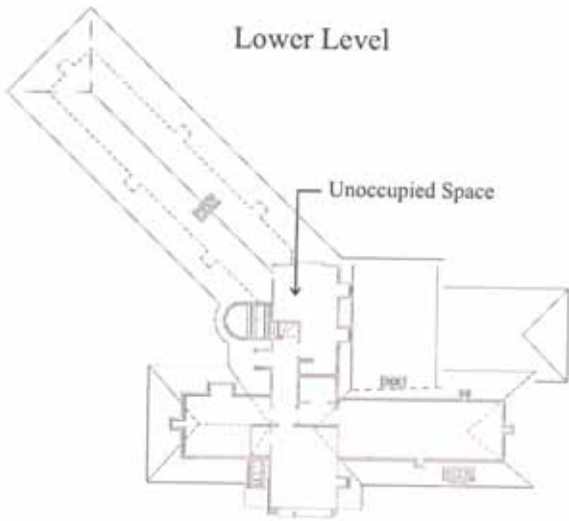
Lower Level



First Floor



Second Floor



Attic



Carriage House
First Floor



Carriage House
Second Floor

Heritage Museum - Interpretive Design Summary

Graystone Manor will become one of the cornerstones in the Lukens Historic District by housing a heritage center that interprets the multi-faceted history of the manor house, the people who lived and worked in the house and in the surrounding Coatesville community.

Graystone Manor will be more than a traditional house museum. It will be a heritage center with an imaginative combination of period settings, accurately furnished rooms, mini-exhibits, DVD presentations, and participatory activities. This major exhibition, which will fill the Graystone Manor and spill out onto the surrounding grounds, is part of a wide-ranging look at the Lukens Historic District and the stories of the many people from all walks of life that have contributed to its heritage.

As one of the first components of the Lukens Historic District to come on line, some of the exhibits or activities developed for Graystone may later be spun off and enlarged for other sites, such as the proposed steel museum complex.

What is interpretation?

Good history museums and heritage centers tell stories. 'Interpretation' is a term that museum professionals have chosen to describe the process of developing the stories and the ways that they are told to the public. Interpretation involves examination of historic buildings, objects, and other artifacts, and then finding ways that those physical remnants of past times support the development of intellectual themes. It is an organized, intentional program of imparting information to the visitor.

In its simplest form, interpretation is selecting from all the possible facts about a subject and presenting them to the visitors in a meaningful way. In the classic *Interpreting Our Heritage*, first published in 1957, Freeman J. Tilden described his experience with visitors to National Park Service sites. He felt that interpretation must touch some experiences of the visitor to be effective. He also wrote:

"Interpretation: An educational activity which aims to reveal meanings and relationships through the use of original objects, by firsthand experience, and by illustrative media, rather than simply to communicate factual information." and:

"Interpretation is the revelation of a larger truth that lies behind any statement of fact."

"Interpretation should capitalize mere curiosity for the enrichment of the human mind and spirit." and:

"Information, as such, is not Interpretation. Interpretation is revelation based upon



Spencer Peirce Little Farm
Courtesy of Society for the Preservation of New England Antiquities



Spencer Peirce Little Farm
Courtesy of Society for the Preservation of New England Antiquities

information. But they are entirely different things. However, all interpretation includes information.” and:

“The chief aim of Interpretation is not instruction, but provocation.”
[Freeman Tilden, *Interpreting Our Heritage*, pages 8 & 9]

In the more than 45 years since Tilden wrote these words, the essence of interpretation remains the same, although methods of presentation have evolved. New technologies – particularly computer-aided design, graphics, and digital presentations – have opened a range of new possibilities. As well, a more sophisticated understanding of how people of various ages learn, particularly the need of youngsters to participate in history by not only seeing, but by touching, feeling, smelling, doing, and even tasting, has influenced exhibit design to allow for a much wider range of experiences.

What Stories Will Be Told Here

Graystone Manor already fulfills one of the key features that visitors appreciate in a heritage center – it has an authentic feeling because of its marvelously preserved Victorian exterior and interior, enclosed grounds, and setting in the Lukens Historic District. It looks out on several equally well-preserved buildings including the Lukens Office Building and Terracina. Beyond is the historic industrial backdrop of the Lukens Steel Mill. Nearby are also Coatesville’s historic Lincoln Highway commercial district and neighborhoods of authentic workers’ houses. Graystone Manor, the stately house built in 1889 and lived in by steel mill-owner Abram Huston and his family, then later and for more than 50 years the site of the Coatesville City Hall, has long been an important center of Coatesville history. It is appropriate that many different stories of Coatesville be told here.

Among the important stories to tell are:

- the story of Abram Huston and his family.
- the story of the servants, cooks, nannies, gardeners, and other people who also lived and/or worked in the house and their families (upstairs/downstairs).
- the story of City Hall and the civil servants and elected officials who worked in the house.
- the story of the use of the carriage house as a police station and jail.
- the story of Victorian architecture, furnishings, and decorative arts.
- the story of Victorian residential landscape and gardening.
- the story of a steel town and the steel mill’s owners, managers, and workers.

These stories touch on many themes of everyday life in Coatesville. Topics such as family, home, childhood, health, education, religion, fashion and clothing, leisure and recreation, stores and shopping, local governance, and jobs and work.

The interpretation program will use a combination of proven techniques to engage the visitor and further the telling of stories.



Spencer Peirce Little Farm
Courtesy of Society for the Preservation of New England Antiquities

Orientation Center at Carriage House

An orientation center is the first point of contact for visitors. It is a place to meet and greet them, provide them basic information, offer them basic comforts, such as restrooms and food, as well as a place to offer them some interpretation and an introduction to what they can expect to do while at the Graystone Heritage Center and in the Lukens Historic District.

The Carriage House is an ideal location and size for an orientation center. Its interior can be adaptively re-used to accommodate visitor's services without significant alterations to an historic interior. It has space for a modest exhibit and orientation video. It can also serve as the location of a gift shop, a service that all visitors have come to expect, and a source of income for heritage center operations.

A building can have a profound impact on visitors. Subtle clues can make a person excited and expectant or just the opposite. For this reason, it is suggested that the orientation in the Carriage House be first quality and focus on a few simple stories that are intriguing, and perhaps somewhat unexpected. The Carriage House will offer a taste of the many opportunities available on a visit to Graystone Manor and the Lukens Historic District.

It is recommended that interpretation in the Carriage House focus on the following themes and activities:

- a short orientation video. An area of the building should be dedicated specifically to this function.
- an interpretation of the carriage house, including its original use as a place to stable horses, store carriages, and provide accommodations for the coachman, and its later use as a police station and jail. Visitors are always interested in jails, and this interpretation may be developed using oral histories of former Coatesville policemen or even people who remember stories of spending time in the jail. This exhibit may even be supplemented by special events, such as the Carriage House serving as the site for telling ghost stories and handing out treats at Halloween.
- a signature beverage, such as might have been served at Graystone in the Victorian era, will be served at the Carriage House. This might be a special blend of coffee or tea, or a juice or ade, such as limeade. It can be given a clever name, like Rebecca Lukens's Limeade.

On The Grounds:

The Grounds at Graystone beg to engage visitors. Walking the grounds and admiring the landscape will be enhanced regularly by programs and activities. The grounds will be a major part of the interpretation program. It will house a large and varied group of activities on a regular schedule. Each activity will be designed to convey aspects of the historical stories of the Heritage Center and adjust with the audience and with the season.



Spencer Peirce Little Farm
Courtesy of Society for the Preservation of New England Antiquities

The audiences for outdoor programs will be broad. Families will find points of interest, as will school groups. Parents with their children will be seen here on weekday mornings and afternoons, and, entertaining programs will attract nearby office workers at lunch time. There will also be programs for those with special interests, such as gardening or traditional sports and games. Programs might demonstrate pruning, planting and lawn care using Victorian-era techniques, or they might challenge people to try their hand at croquette, badminton, or launching a hot air paper balloon. A sand box and rabbit hutch will surely attract little visitors. Each program will be entertaining at the same time it is conveying accurately crafted historical information. Hoop rolling, marbles, stilt walking, horse shoes, double-dutch rope skipping, and a miniature garden railroad will be found all over the grounds. Some outdoor programming will come on line immediately to alert the community that the Heritage Center at Graystone is open.

Restoration Philosophy:

Exhibit development at Graystone Manor will adhere to the New Orleans Charter for the Joint Preservation of Historic Structures and Artifacts adopted by the American Institute for the Conservation of Historic and Artistic Works, the Association for Preservation Technology, the American Institute of Architects, and others. The Charter insures the unique character of the historic structure will not be harmed by the actions of interpretive development.

Heritage Museum

Expenses for Exhibits, Period Rooms and Outdoor Programming.

The following figures were prepared by McKelvey Museum Services. They represent estimates based on comparable activities that have occurred nationally over the past few years and, on the experience and sense of the project by McKelvey Museum Services.

These figures do not include systems such as electrical and HVAC; nor does it include exhibit concept development, exhibit design, furnishing plans, artifact acquisition and artifact preparation.

Many museums and historic sites do their own exhibit planning and artifact acquisition. Design, furnishing plans, exhibit construction and installation are also often in-house activities. In reality Graystone is likely to contract many of these activities out to qualified practitioners. Costs for each of these services should be added to those presented here.

Restoring and furnishing period rooms with accurately chosen paints, wall finishes, floor coverings, and window treatments can be very expensive. The figures below assume that most room furnishings are either on hand, can be acquired on loan or donated; and that only 25% will need to be purchased in the antique market place. It is also assumed that most, if not all artifacts for the mini exhibits, and period sets will be donated.

The miniature garden train can start as a simple installation with existing equipment and expand as contributions of equipment and labor allow.

Expenses

Carriage House:		
Exhibition:	500 sq. ft. @ \$150 per sq ft	\$75,000.00
Video	5 min @ \$5,000.00 per min	\$25,000.00
Graystone Manor:		
Exhibitions	2,500 sq ft @ \$200. per sq ft	\$500,000.00
Restoration & Furnishing		
Parlor		\$50,000.00
Entry Hall & Stairway		\$20,000.00
Butler's Pantry		\$10,000.00
Dining Room		\$50,000.00
Bedroom		\$30,000.00
Grounds:		
Programming Materials:		\$20,000.00
Program Installations		\$40,000.00

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Construction Phases & Cost Estimate

The project to restore and renovate Graystone Manor and develop it as a museum is divided below into eight phases. The individual phases reflect the need to provide immediate results for the public to see and be a part of, and also consist of grouping the various line items that need to be done simultaneously. Although these phases reflect one approach, the issuance of grants and fundraising along with other programmatic needs can affect the sequencing and organization of the phases. The cost estimate is also reflecting the eight phases and is broken down into even more detail, reflecting the scope of work identified in the landscaping plans, architectural analysis and mechanical, plumbing and electrical summaries. Though the estimate is divided into eight parts, it does not reflect any inflation or deflation as it is not known yet when these projects will commence. The cost estimate does not include any costs for operational costs of the buildings or grounds. As the various phases are completed, operating costs for the buildings, and the landscaped grounds should be increased incrementally from their current figures.

Phase 1

- Remove stone vault, restore interiors associated with removal of vault, and restore exterior fenestration adjacent to vault location.
- Restore 30% of the grounds consisting of northwest garden along First Avenue and Harmony Street.

Phase 2

- Renovate first floor of Carriage house.
- Abate hazardous materials from Manor House and remove basement debris.
- Install main components of mechanical system including chiller and boiler.
- Install main components of electrical system including increased electrical service.
- Install main components of plumbing system including main sanitary and domestic distribution lines.
- Trench and install underground piping between Manor House and Carriage House.

Phase 3

- Replace slate roof, copper gutters, and exterior wood restoration on Manor House and Carriage house.
- Rebuild 2-story porch, and restore/clean exterior stone at Manor House.
- Restore 10% of grounds including landscaping adjacent to new porch.

Phase 4

- Restore the Main Hall, Sitting Room, and Drawing Room, including mechanical and electrical distribution upgrades associated with these areas.
- Restore 20% of the grounds consisting of southwest garden along First Street.

Phase 5

- Restore the Dining Room, Main stair, Pantry, and First floor bathroom, including mechanical, plumbing and electrical distribution upgrades associated with these areas.
- Restore 20% of the grounds consisting of the northeast garden adjacent to the carriage house.

Phase 6

- Restore the first floor Service wing, Chambers A, B, C, and D including mechanical, plumbing and electrical distribution upgrades associated with these areas

Phase 7

- Restore chambers E, Back Stair, second floor corridor, and period bathroom, including mechanical, plumbing and electrical distribution upgrades associated with these areas.

Phase 8

- Restore chambers F, G, H, and two remaining bathrooms, including mechanical, plumbing and electrical distribution upgrades associated with these areas.
- Renovate second floor of Carriage house.
- Restore Manor House attic.
- Restore remaining 20% of grounds consisting of back driveway and parking area.

Cost Estimate

ESTIMATE SUMMARY

CODE	DESCRIPTION				COST
A	Phase 1 - Remove Vault & NW Site				\$189,000
B	Phase 2 - Systems Infrastructure & 1st/CH	4,190	SF	\$183	\$767,000
C	Phase 3 - Restore Exterior/Rebuild Porch/Adj. Site				\$541,000
D	Phase 4 - Restore Front Rooms & SW Site	1,220	SF	\$177	\$216,000
E	Phase 5 - Restore Dining/Etc. & CH Site	1,000	SF	\$215	\$215,000
F	Phase 6 - Restore Service Wing & Chambers A-C	2,170	SF	\$116	\$251,000
G	Phase 7 - Restore Chamber E/Back Stair/Corr/Et	750	SF	\$175	\$131,000
H	Phase 8 - Restore F-H/CH Apt/Site & Parking	3,090	SF	\$156	\$483,000
	Total	12,420	SF	\$225	\$2,793,000
Breakout Costs					
	Manor House - Exterior Restoration				\$245,000
	- Interior Restoration	10,270	SF	\$129	\$1,322,000
	- Remove Vault/New Porch				\$158,000
	Carriage House - Exterior Restoration				\$163,000
	- Interior Renovation	2,150	SF	\$172	\$370,000
	Abatement Allowance	12,420	SF	\$7	\$90,000
	Sitework	2.9	AC		\$445,000
	Total				\$2,793,000

Note:

Costs are for Summer 2003 construction.

ESTIMATE Proj: 0
Date: 0

CODE	DESCRIPTION	QUANTITY	UNIT	UNIT COST	COST
A	Phase 1 - Remove Vault & NW Site				
A1	Remove Vault	6,900	CF	1.50	10,350
A2	- Restore Windows/4x6	3	EA	3,600.00	10,800
A3	- Restore Windows/4x9	2	EA	5,400.00	10,800
A4	- Replace Shutters	4	PR	800.00	3,200
A5	- New Door	1	EA	1,500.00	1,500
A6	- Repair/Clean Masonry	430	SF	10.00	4,300
A7	Sitework/30%/NW Garden @ 1st/Harmony - Dem	0.9	AC	5,000.00	4,500
A8	- Remove Trees	14	EA	400.00	5,600
A9	- Fence Repaint/Repair	550	LF	40.00	22,000
A10	- Site Accessories/Furnishings Allowance	1	LS	5,000.00	5,000
A11	- Plantings/Trees	29	EA	500.00	14,500
A12	- Plantings/Shrubs	85	EA	50.00	4,250
A13	- Plantings/Flower Beds/Not Shown	1	LS	7,500.00	7,500
A14	- Plantings/Lawn Work	37,500	SF	0.50	18,750
A15	- Site Lighting	2	EA	3,000.00	6,000
	Subtotal				\$129,050
	General Conditions / O. H. & P.		17.5%		\$22,950
	Phasing Premium		5.0%		\$8,000
	Bond		2.5%		\$4,000
	Contingency		15.0%		\$25,000
	Total - Phase 1				\$189,000

ESTIMATE

Proj: 0
Date: 0

CODE	DESCRIPTION	QUANTITY	UNIT	UNIT COST	COST
B	Phase 2 - Systems Infrastructure & 1st/CH	4,190	SF		
B1	Renovate Carriage House/1st Floor - Demolition	1,220	SF	5.00	6,100
B2	- Rework Stairs	1	LS	20,000.00	20,000
B3	- Fitout/Finish/Toilet Rooms/Not Shown	400	SF	75.00	30,000
B4	- Fitout/Finish/Visitor & Museum/Not Shown	820	SF	50.00	41,000
B5	- Sprinklers	1,220	SF		NIC
B6	- Plumbing/Assume 2 Rooms w/ 6 Fixtures/EA	14	EA	3,000.00	42,000
B7	- HVAC Distribution	1,220	SF	15.00	18,300
B8	- Electric Lighting & Branch Wiring	1,220	SF	15.00	18,300
B9	- FA System	1,220	SF	1.00	1,220
B10	Abatement Allowance - Manor	10,270	SF	5.00	51,350
B11	- Carriage House	2,150	SF	5.00	10,750
B12	Infrastructure - Renovate Basement	2,970	SF	25.00	74,250
B13	- Plumbing/Service/House Trap/Etc.	1	LS	5,000.00	5,000
B14	- Heating/Boilers/Breeching/Pumps/Piping	1	LS	40,000.00	40,000
B15	- Heating/Temporary Connections to Existing	1	LS	2,500.00	2,500
B16	- Cooling/Chiller/Air-cooled/CHW Pumps/Piping	1	LS	50,000.00	50,000
B17	- Electrical/Service/Ductbank/Trench	150	LF	100.00	15,000
B18	- Electrical/MDP/400A	1	EA	10,000.00	10,000
B19	- Electrical/Temporary Connections to Existing	1	LS	5,000.00	5,000
B20	- FA System/New Panel	1	EA	5,000.00	5,000
B21	- Trench to Carriage House/HW & CHW Pipes	240	LF	340.00	81,600
	Subtotal				\$527,370
	General Conditions / O. H. & P.		17.5%		\$92,630
	Phasing Premium		5.0%		\$31,000
	Bond		2.5%		\$16,000
	Contingency		15.0%		\$100,000
	Total - Phase 2				\$767,000

ESTIMATE Proj: 0
Date: 0

CODE	DESCRIPTION	QUANTITY	UNIT	UNIT COST	COST
C	Phase 3 - Restore Exterior/Rebuild Porch/Adj. Site				
C1	Manor - Replace Slate Roof/Flashing/Gutters	4,600	SF	26.00	119,600
C2	- Lightning Protection	1	LS	2,500.00	2,500
C3	- Repair Wood/Allow 10%	460	SF	10.00	4,600
C4	- Patch/Paint Windows/Doors	116	EA	150.00	17,400
C5	- Repoint Masonry/Allow 10%	690	SF	10.00	6,900
C6	- Clean Masonry	6,900	SF	2.50	17,250
C7	CH - Replace Slate Roof/Flashing/Gutters	1,800	SF	26.00	46,800
C8	- Lightning Protection	1	LS	2,500.00	2,500
C9	- Repair Wood/Allow 10%	180	SF	10.00	1,800
C10	- Replace Windows	34	EA	1,100.00	37,400
C11	- Replace Doors/Per Leaf	4	EA	1,500.00	6,000
C12	- Repoint Masonry/Allow 10%	500	SF	10.00	5,000
C13	- Clean Masonry	5,000	SF	2.50	12,500
C14	Rebuild Porch - 2 Story w/ Roof	900	SF	75.00	67,500
C15	Sitework/10%/Adj. Garden - Demo	0.3	AC	5,000.00	1,500
C16	- Remove Trees	2	EA	400.00	800
C17	- New Sidewalk/Conc.	1,250	SF	5.00	6,250
C18	- Plantings/Trees	4	EA	500.00	2,000
C19	- Plantings/Flower Beds/Not Shown	1	LS	7,500.00	7,500
C20	- Plantings/Lawn Work	12,500	SF	0.50	6,250
	Subtotal				\$372,050
	General Conditions / O. H. & P.	17.5%			\$64,950
	Phasing Premium	5.0%			\$22,000
	Bond	2.5%			\$11,000
	Contingency	15.0%			\$71,000
	Total - Phase 3				\$541,000

ESTIMATE Proj: 0
Date: 0

CODE	DESCRIPTION	QUANTITY	UNIT	UNIT COST	COST
D	Phase 4 - Restore Front Rooms & SW Site	1,220	SF		
D1	Restore Draw/Main/Sitting Rooms - Demo	1,220	SF	1.00	1,220
D2	- Partition/Plaster Work	1,220	SF	10.00	12,200
D3	- Restore Doors/Frames/Per Leaf	4	EA	500.00	2,000
D4	- General Restoration/Paint/Refin. Floors	1,220	SF	25.00	30,500
D5	- Restore Fireplace	1	LS	2,000.00	2,000
D6	- HVAC Distribution	1,220	SF	17.50	21,350
D7	- Electrical Lighting/Wiring	1,220	SF	12.50	15,250
D8	- Museum Lighting Allowance	1	LS	10,000.00	10,000
D9	- FA System	1,220	SF	1.00	1,220
D10	- Security System Allowance	1	LS	5,000.00	5,000
D11	Sitework/20%/SW Garden @ Entry Loop - Demo	0.6	AC	5,000.00	3,000
D12	- Remove Trees	10	EA	400.00	4,000
D13	- Fence Repaint/Repair	180	LF	40.00	7,200
D14	- Driveway Repair	490	SY	10.00	4,900
D15	- Sidewalk Repair	880	SF	2.50	2,200
D16	- Site Accessories/Furnishings Allowance	1	LS	5,000.00	5,000
D17	- Plantings/Trees	9	EA	500.00	4,500
D18	- Plantings/Shrubs	22	EA	50.00	1,100
D19	- Plantings/Flower Beds/Not Shown	1	LS	5,000.00	5,000
D20	- Plantings/Lawn Work	20,600	SF	0.50	10,300
Subtotal					\$147,940
General Conditions / O. H. & P.		17.5%			\$26,060
Phasing Premium		5.0%			\$9,000
Bond		2.5%			\$5,000
Contingency		15.0%			\$28,000
Total - Phase 4					\$216,000

Cost Estimate - Phase 4

ESTIMATE Proj: 0
Date: 0

CODE	DESCRIPTION	QUANTITY	UNIT	UNIT COST	COST
E	Phase 5 - Restore Dining/Etc. & CH Site	1,000	SF		
E1	Restore Dining/Pantry/Stair Hall - Demo	1,000	SF	1.00	1,000
E2	- Partition/Plaster Work	1,000	SF	10.00	10,000
E3	- Restore Doors/Frames/Per Leaf	5	EA	500.00	2,500
E4	- General Restoration/Paint/Refin. Floors	1,000	SF	25.00	25,000
E5	- New Finishes/Accessories @ Toilet Room	1	EA	5,000.00	5,000
E6	- Refinish Stair/Railing	1	LS	7,500.00	7,500
E7	- New Pantry Casework	6	LF	400.00	2,400
E8	- Plumbing/Allowance Per Fixture	3	EA	3,000.00	9,000
E9	- HVAC Distribution	1,000	SF	17.50	17,500
E10	- Electrical Lighting/Wiring	1,000	SF	12.50	12,500
E11	- Museum Lighting Allowance	1	LS	5,000.00	5,000
E12	- FA System	1,000	SF	1.00	1,000
E13	- Security System Allowance	1	LS	5,000.00	5,000
E14	Sitework/20%/Garden @ CH - Demo	0.6	AC	5,000.00	3,000
E15	- New Sidewalk to Carriage House	1,750	SF	5.00	8,750
E16	- Site Accessories/Furnishings Allowance	1	LS	2,500.00	2,500
E17	- Carriage House Courtyard/Allowance	600	SF	20.00	12,000
E18	- Plantings/Trees	1	EA	500.00	500
E19	- Plantings/Flower Beds/Not Shown	1	LS	5,000.00	5,000
E20	- Plantings/Lawn Work	25,000	SF	0.50	12,500
E21					0
E22					0
Subtotal					\$147,650
General Conditions / O. H. & P.			17.5%		\$25,350
Phasing Premium			5.0%		\$9,000
Bond			2.5%		\$5,000
Contingency			15.0%		\$28,000
Total - Phase 5					\$215,000

ESTIMATE Proj: 0
Date: 0

CODE	DESCRIPTION	QUANTITY	UNIT	UNIT COST	COST
F	Phase 6 - Restore Service Wing & Chambers A-C	2,170	SF		
F1	Restore Service Wing/Toilet - Demo	2,170	SF	1.00	2,170
F2	- Partition/Plaster Work	2,170	SF	10.00	21,700
F3	- Restore Doors/Frames/Per Leaf	14	EA	500.00	7,000
F4	- General Restor/Paint/Refin. Floors @ Service	950	SF	20.00	19,000
F5	- General Restor/Paint/Refin. Floors @ Chamber	1,220	SF	20.00	24,400
F6	- Repair Plaster Ceiling @ Service	950	SF	7.50	7,130
F7	- New Finishes/Accessories @ Toilet Room	1	EA	5,000.00	5,000
F8	- Sprinkler System	2,170	SF		NIC
F9	- Plumbing/Allowance Per Fixture	3	EA	3,000.00	9,000
F10	- HVAC Distribution	2,170	SF	17.50	37,980
F11	- Electrical Lighting/Wiring	2,170	SF	12.50	27,130
F12	- Museum Lighting Allowance	1	LS	5,000.00	5,000
F13	- FA System	2,170	SF	1.00	2,170
F14	- Security System Allowance	1	LS	5,000.00	5,000
F15					0
F16					0
Subtotal					\$172,680
General Conditions / O. H. & P.			17.5%		\$30,320
Phasing Premium			5.0%		\$10,000
Bond			2.5%		\$5,000
Contingency			15.0%		\$33,000
Total - Phase 6					\$251,000

ESTIMATE Proj: 0
Date: 0

CODE	DESCRIPTION	QUANTITY	UNIT	UNIT COST	COST
G	Phase 7 - Restore Chamber E/Back Stair/Corr/Et	750	SF		
G1	Restore Service Wing/Toilet - Demo	750	SF	1.00	750
G2	- Partition/Plaster Work	750	SF	10.00	7,500
G3	- Restore Doors/Frames/Per Leaf	7	EA	500.00	3,500
G4	- General Restoration/Paint/Refin. Floors	750	SF	20.00	15,000
G5	- Refinish Stair/Railing	1	LS	7,500.00	7,500
G6	- New Finishes/Accessories @ Toilet Room	2	EA	5,000.00	10,000
G7	- Sprinkler System	750	SF		NIC
G8	- Plumbing/Allowance Per Fixture	6	EA	3,000.00	18,000
G9	- HVAC Distribution	750	SF	17.50	13,130
G10	- Electrical Lighting/Wiring	750	SF	12.50	9,380
G11	- Museum Lighting Allowance	1	LS	5,000.00	5,000
G12	- FA System	750	SF	1.00	750
G13					0
G14					0
	Subtotal				\$90,510
	General Conditions / O. H. & P.		17.5%		\$15,490
	Phasing Premium		5.0%		\$5,000
	Bond		2.5%		\$3,000
	Contingency		15.0%		\$17,000
	Total - Phase 7				\$131,000

Cost Estimate - Phase 7

ESTIMATE

 Proj: 0
 Date: 0

CODE	DESCRIPTION	QUANTITY	UNIT	UNIT COST	COST
H	Phase 8 - Restore F-H/CH Apt/Site & Parking	3,090	SF		
H1	Restore Chambers F-H/Attic - Demo	2,160	SF	1.00	2,160
H2	- Partition/Plaster Work	2,160	SF	10.00	21,600
H3	- Restore Doors/Frames/Per Leaf	11	EA	500.00	5,500
H4	- General Restor/Paint/Refin. Floors @ Attic	1,200	SF	15.00	18,000
H5	- General Restor/Paint/Refin. Floors @ Chamber	960	SF	20.00	19,200
H6	- New Finishes/Accessories @ Toilet Room	1	EA	5,000.00	5,000
H7	- Plumbing/Allowance Per Fixture	3	EA	3,000.00	9,000
H8	- HVAC Distribution	2,160	SF	17.50	37,800
H9	- Electrical Lighting/Wiring	2,160	SF	12.50	27,000
H10	- Museum Lighting Allowance	1	LS	5,000.00	5,000
H11	- FA System	2,160	SF	1.00	2,160
H12	New Apartment @ Carriage House/2nd - Demo	930	SF	4.00	3,720
H13	- Partitions/Doors/Finishes	930	SF	25.00	23,250
H14	- Kitchen/Cabinets/Appliances	1	EA	10,000.00	10,000
H15	- Bathroom Finishes/Accessories	1	EA	5,000.00	5,000
H16	- Plumbing/Allowance Per Fixture	4	EA	3,000.00	12,000
H17	- HVAC Distribution	930	SF	15.00	13,950
H18	- Electrical Lighting/Wiring	930	SF	10.00	9,300
H19	Sitework/20%/Parking Lot - Demo	0.6	AC	5,000.00	3,000
H20	- Remove Trees	5	EA	400.00	2,000
H21	- New Parking Lot	1,980	SY	22.50	44,550
H22	- Paint Spaces	31	EA	10.00	310
H23	- Site Accessories/Furnishings Allowance	1	LS	5,000.00	5,000
H24	- Plantings/Trees	7	EA	500.00	3,500
H25	- Plantings/Shrubs	49	EA	50.00	2,450
H26	- Plantings/Flower Beds/Not Shown	1	LS	5,000.00	5,000
H27	- Plantings/Lawn Work	7,200	SF	0.50	3,600
H28	- Site Drainage	1	LS	15,000.00	15,000
H29	- Site Lighting	6	EA	3,000.00	18,000
H30					0
	Subtotal				\$332,050
	General Conditions / O. H. & P.	17.5%			\$57,950
	Phasing Premium	5.0%			\$20,000
	Bond	2.5%			\$10,000
	Contingency	15.0%			\$63,000
	Total - Phase 8				\$483,000

- Code and Parking Summary

Code Summary	50
Parking Analysis	51

Code Summary

The codes used in the 1993 report are outdated and no longer relevant. Additionally the '93 report's code summary focused around various different use options. The updated code summary below specifically reflects a Museum type use. Only the first and second floors of the Manor House are designated as museum use. Keeping the museum on the first two floors eliminates the need to include a sprinkler system. The use in the carriage house is a combination of museum space on the first floor and residential use on the second floor, and it is also permissible without a sprinkler system.

Applicable Building Codes: IBC 2000 & ICC/ANSI A117.1
 Use Group A-3 (section 303.1) Manor House and 1st floor of Carriage House
 Partial Use Group R-3 (section 310) 2nd floor of Carriage House

Height Limitations: Two Stories (table 503)
 Existing: Two stories. Attic space is unoccupied.
 Area Limitations: 9,500 square feet per floor (table 503)
 Existing: 3,565 square feet

Construction Type: Type IIIB (Exterior masonry, interior non-rated) (section 602.3)

Occupancy Load (table 10003..2.2.2)
 Museum – Assembly unconcentrated: 15 net
 Site Manager's Apt. – Residential: 200 gross

Occupancy is defined as the Area divided by the Allowable floor area per Occupant
 1st Floor Manor House (net area): $1,963 \text{ s.f.}/15 = 131$ occupancy
 2nd Floor Manor House (net area): $1,877 \text{ s.f.}/15 = 126$ occupancy
 1st floor Carriage House net area): $1,138 \text{ s.f.}/15 = 76$ occupancy
 2nd floor Carriage House (gross area): $1,443 \text{ s.f.}/200 = 8$ occupancy

Two means of egress are required from the 1st floor & 2nd floor of the Manor house, and 1st floor of Carriage house. (section 1004).
 Existing exits from 2nd of the Manor house floor do not meet the required distance apart from each other (section 1004.2.2.1). Requires new exit stair complying with section 1004 or, exemption under Chapter 34 based on building evaluation.

Accessible route required from arrival point to entrance (section 3408.3).
 Accessible entrance is required.
 Accessible parking is required.
 Access to first floor is required
 Access to handicap restrooms are required
 Access to second floor is required unless exempted under Chapter 34 based on building evaluation.

Parking Analysis

During the time the Graystone Manor served as a residence, one could imagine arriving via a horse drawn carriage, entering through the main gates under the wrought iron arch, and stepping down in front of the house at the main entrance and onto the covered porch. The coach and its driver would continue on around the side of the house and then retreat to the carriage house in the rear. Essentially the grounds and landscaping were such that they did not support any additional space for parking during these early years of the house's history. As the Graystone Manor changed to become the city hall, the grounds changed with the use of the building and the need for off-street parking emerged. Presently there are 31 off-street parking spaces that were carved out of the lawn and garden areas. One of the goals of this study is to bring forth a solution that allows the driveway to be restored to its original condition. Having all the parking removed from the site is a key component to the experience of the house and its grounds as a museum. The phasing of the restorations stretch out over several years, during which time an interim parking plan can be implemented and the city can develop its ongoing plans to create more parking that would serve the downtown historic district and the Graystone Manor within it.

Existing Parking Conditions:

- 31 off-street parking spaces

Proposed Interim Parking Plan:

- 34 parking spaces, 21 off-street spaces and 13 on-street spaces

City of Coatesville Zoning Code Chapter 224

Zoning: Public Service (PS) - City of Coatesville Zoning Map

Intended Use: Museum/Gallery – Section 224-14

Off-Street Parking Requirement: 300 square feet per parking space – Section 224-64

Off-street parking alternatives: "...40% of on-street parking spaces may be counted towards meeting off-street parking requirements..." – Section 224-64

Usable gross area of occupied space with the 40% reduction.

Grounds:	0 s.f.
1 st Floor:	3,565 s.f.
2 nd Floor:	3,503 s.f.
Attic:	0 s.f.
Basement:	0 s.f.
1 st Fl. Carriage House:	1,443 s.f.
2 nd Fl. Carriage House:	1,443 s.f.
Total:	9,954 s.f.

Number of parking spaces: $9,954/300 = 34$ spaces



Existing Parking Conditions - 31 spaces



Proposed Interim Parking Plan - 34 spaces; 21 off-street, 13 on-street