

APPENDIX A:
DEFINITIONS

APPENDIX A: DEFINITIONS

For the purpose of this Request for Proposal, the following terms shall have the following meanings unless the context otherwise specifically indicates. In some instances, preservation terms have been defined according to the Secretary of the Interior's Standards for the treatment of Historic Properties. Those terms are identified with the notation (SI).

1. Accessibility: In 1990, Congress passed the Americans with Disabilities Act (ADA), which expanded accessibility requirements beyond federal government buildings to state and local government buildings as well as the private sector. The ADA recognizes and protects the civil rights of people with disabilities and is modeled after earlier landmark laws prohibiting discrimination on the basis of race and gender. The ADA requires that buildings and facilities be accessible to and usable by people with disabilities. DCR, through its Universal Access Program and other initiatives, is committed to providing accessible facilities for all visitors.

2. Adaptive Reuse - use of the property in such a way that it retains and reinforces historic character and architectural integrity while accommodating contemporary use.
(SI)

3. Building Conditions Appraisals – Reports produced by DCR documenting the conditions of a property's structural systems, plumbing, heating and electrical systems, exterior and interior finishes, building code, accessibility and historic preservation priorities

4. DCAMU - the Division of Capital Asset Management, Commonwealth of Massachusetts, One Ashburton Place, 15th Floor, Boston, MA 02108

5. DCR - the Department of Conservation and Recreation of the Commonwealth of Massachusetts, Division of Planning and Resource Management, Office of Cultural Resources, 251 Causeway Street, 7th Floor, Boston, MA 02114

6. General Laws - the General Laws of the Commonwealth as amended including any rules, regulations and administrative procedures implementing said laws.

7. Historic Fabric - material remains of a historic building, structure or landscape; either original materials or materials incorporated in a subsequent historically significant period as opposed to materials utilized to maintain or restore the structure during a non-historic period. (SI)

8. Historic Integrity - the authenticity of a property's historic identity, evidenced by the survival of physical characteristics that existed during the property's historic period. (SI)

9. Historic Property - any site, building, or structure included which has been deemed by the Department of Conservation and Recreation to be significant to the history of the Massachusetts state forest and park system or which is included or has been determined by the Massachusetts Historical Commission to be eligible for inclusion on the National Register of Historic Places.

10. Mandatory Improvements - work necessary for the rehabilitation of the property as set forth in the Building Conditions Survey or an alternative rehabilitation plan proposed by the #) #k

11. Lease - a written contract by which rights of use and possession in land, structures and/or buildings is given to another person for a specified period of time for rent and/or other consideration.

12. Management Services - Work and expenditures not considered improvements or maintenance services which allow for the occupancy and management of the property, including utilities, insurance, legal fees, public benefit component; etc. DCR retains the right to determine whether services are considered essential to the management of the property.

13. National Register of Historic Places – The National Register of Historic Places is the Nation's official list of cultural resources worthy of preservation. Authorized under the National Historic Preservation Act of 1966, the National Register is part of a national program to coordinate and support public and private efforts to identify, evaluate, and protect our historic and archeological resources. Properties listed in the Register include districts, sites, buildings, structures, and objects that are significant in American history, architecture, archeology, engineering, and culture. The National Register is administered by the National Park Service, which is part of the U.S. Department of the Interior. Listing in the National Register contributes to preserving historic properties in a number of ways:

- Recognition that a property is of significance to the Nation, the State, or the community.
- Consideration in the planning for Federal or federally assisted projects.
- Eligibility for Federal tax benefits.
- Qualification for Federal assistance for historic preservation, when funds are available.

14. Preservation - the act or process of applying measures to sustain the existing form, integrity, and material of a structure or landscape. [This includes initial stabilization work where necessary, as well as on-going maintenance.] (SI)

15. Preservation Maintenance - the act or process of applying preservation treatment to a site or structure. This includes housekeeping and routine and cyclic work scheduled to mitigate wear and deterioration without altering the appearance of the resource, repair or replacement in-kind of broken, or deteriorated elements, parts or surfaces so as to keep the existing appearance and function of the site or structure, and emergency stabilization work necessary to protect damaged historic fabric from additional damage. (SI)

16. Project Manager - the individual assigned by the Commissioner to be responsible for coordinating and managing all activities of the Department under the Historic Curatorship Program.

17. Provisional Lessee Designation - agreement in which a proposer is designated as the selected Curator. Terms and conditions are outlined which must be satisfied prior to the execution of a lease between the Commonwealth and the Curator.

18. Public Benefit – Any programs, projects or other activities that allow the public to appreciate the historic qualities of the Curatorship property equal to or beyond the two annual public access opportunities required by the Historic Curatorship Program Enabling Legislation.

19. Reconstruction - the act or process of accurately reproducing a site or structure, in whole or in part, as it appeared at a particular period of time. (SI)

20. Rehabilitation - the act or process of returning the property to a state of utility through repair or alteration that makes possible an efficient contemporary use while preserving those portions or features of a property that are significant to its historical, architectural, and cultural values. (SI)

21. Restoration - the act or process of recovering the general historic appearance of a site or the form and details of a structure, or portion thereof, by the removal of incompatible natural or human caused accretions and the replacement of missing elements as appropriate. For structures, restoration may be for exteriors and interiors, and may be partial or complete. (SI)

22. Memorandum of Understanding - revocable agreement between DCR and the designated Curator which allows the rights of use and access to the property, subject to specific conditions, between the time the Curator is provisionally designated and the execution of the lease for a period up to three years.

23. Sustainable Design - Sustainable design seeks to reduce negative impacts on the environment, and the health and comfort of building occupants, thereby improving building performance. The basic objectives of sustainability are to reduce consumption of non-renewable resources, minimize waste, and create healthy, productive environments. Sustainable design principles include the ability to: optimize site potential; minimize non-renewable energy consumption; use environmentally preferable products; protect and conserve water; enhance indoor environmental quality; and optimize operational and maintenance practices. (Definition from General Services Administration)

(SI) From the Secretary of the Interior's Standards for the Treatment of Historic Properties

APPENDIX B:
REHABILITATION COST ESTIMATES

APPENDIX B - REHABILITATION COST ESTIMATES	
2016 - GATEKEEPER'S HOUSE, MAUDSLAY STATE PARK	
<i>Note: Cost estimates are derived from the Conditions Assessment (see Appendix C) and represent the estimated cost of this work if performed by the Commonwealth and not an expected cost for a potential Curator. Most Curators apply sweat equity to many of the required tasks. The figure represents the value of the work to DCR.</i>	
EXISTING CONDITIONS - 020000	
Exterior Demolition	
Remove existing slab on grade @ shed	\$ 4,034
Delead, scrape & paint all exterior trim & door @ detached garage	\$ 2,151
Prep for new slab	\$ 1,345
Remove existing east & south wall @ shed	\$ 1,775
Remove damaged/cracked stucco at northwest corner @ Main House	\$ 1,076
Interior Demolition	
Remove all wall finishes in second floor bathroom.	\$ 403
Remove vinyl tile in 2nd floor bathroom	\$ 202
Cleaning	
Clean cedar shingles on north side of house w/ light power wash @ Main house	\$ 672
CONCRETE - 030000	
New foundation @ screen porch	\$ 4,706
Concrete sonotube footings @ screen porch	\$ 2,017
New slab on grade @ shed	\$ 5,042
New curb on east and south perimeter @ shed	\$ 177
MASONRY - 040000	
Replace brick edging to floor @ porch	\$ 2,689
WOOD, PLASTICS & COMPOSITES	
Rough Carpentry	
Plywood sheathing @ selective locations	\$ 2,689
Wood blocking @ windows	\$ 1,549
Wood blocking @ doors	\$ 274
Repair extg conditions as found	\$ 13,446
Structural Wood Framing	
2x8 wood rafters @ screen porch	\$ 1,486
2x10 pressure treated wood floor framing @ screen porch	\$ 7,261
Reframe east & east end of south wall @ shed	\$ 581
Repair extg stud conditions	\$ 10,085
Finish Carpentry	
Wood gutters with copper lining, shaped to match, historic	\$ 16,135
3/4 plywood sheathing @ screen porch "	\$ 686
FSC Certified mahogany decking @ screen porch	\$ 2,743

Cedar breather @ Detached Garage	\$ 3,550
Cedar shingles @ Detached Garage	\$ 10,649
Cedar breather @ Shed	\$ 1,775
Cedar shingles @ Shed	\$ 5,325
Replace wood trim along gambrel roof breakline @ Main	\$ 484
Install missing balustrades (6), tighten loose balustrades.	\$ 269
Wood railing to open side of basement stairs	\$ 565
New wood cabinets	\$ 4,706
New solid surface countertops	\$ 4,303
THERMAL & MOISTURE PROTECTION - 070000	
Screen panels @ screen porch	\$ 3,025
Membrane roof @ screen porch	\$ 800
New gutters & historically accurate downspouts @ screen porch	\$ 504
New asphalt shingle roof @ Detached Garage	\$ 605
New gutters & historically accurate downspouts @ Detached Garage	\$ 887
New building wrap @ Detached Garage	\$ 5,680
Install new vapor barrier @ slab on grade Shed	\$ 1,291
New building wrap @ Shed east wall	\$ 1,936
New sheathing @ Shed east wall	\$ 968
New building wrap @ Shed east & east end of south wall	\$ 1,936
New sheathing @ Shed east & east end of south wall	\$ 968
New vertical furring @ Shed east & east end of south wall	\$ 1,065
New metal lathe @ Shed east & east end of south wall	\$ 1,065
New gutter to east wall @ Shed	\$ 706
Replace first course of asphalt shingles along gambrel roof breakline @ Main House	\$ 1,431
Line interior of existing wood gutters w/ membrane roofing material	\$ 2,420
New vertical furring @ Main house northeast corner	\$ 2,017
New metal lathe @ Main house northeast corner	\$ 2,017
Replace insulation w/ new blown-in cellulose @ attic	\$ 7,395
Install blown-in cellulose insulation in areas of inadequate @ main house	\$ 1,345
OPENINGS - 080000	
Repair in place windows @ detached garage, do not replace	\$ 1,479
FINISHES - 090000	
T&G bead board ceiling @ Screen Porch	\$ 1,829
2 coat stucco on east & east end of south wall	\$ 4,034
2 coat stucco on east & northwest corner wall	\$ 8,068
Paint/stain exterior façade surfaces	\$ 12,370
Painted wood posts & frames @ Screen Porch	\$ 457
Paint wood trim along gambrel roof breakline @ Main House	\$ 108
Paint wood window trim @ Main house	\$ 3,362
Repaint front door	\$ 269
Sand and refinish wood floor on first & second floors	\$ 6,051
Install tile in the mudroom	\$ 570

Ceramic tile @ 2nd floor bathroom	\$ 506
Refinish stair treads	\$ 1,614
Repair cracked & bulging plaster on south wall of east bedroom	\$ 1,614
Install ceramic tile around tub @ second floor bathroom	\$ 336
Plaster second floor bathroom wall & repaint.	\$ 3,362
Repair the plaster ceiling of the office, repaint.	\$ 2,420
Misc plaster repair as req'd	\$ 8,068
Misc painting of extg conditions	\$ 10,286
PLUMBING -0220000	
Raise manhole cover and pipe to finish grade elevations	\$ 1,748
Repair & replace deteriorated piping systems due to water damage, allowance	\$ 6,723
Electric water heater, point of use	\$ 6,723
Bathroom 2nd Floor	
Tub	\$ 1,076
Tub filler	\$ 403
Showerhead	\$ 269
Toilet	\$ 1,345
Sink	\$ 807
Faucet	\$ 134
Kitchen	
Sink	\$ 1,210
Faucet	\$ 269
Replace exterior utility sink	\$ 2,017
New pipe hangers and insulation on existing piping.	\$ 2,017
Replace extg damaged H/CW piping	\$ 3,227
New exterior wall hydrants with integral vacuum breakers	\$ 1,479
HVAC-230000	
Add exhaust fans to second floor bathroom	\$ 403
Piping insulation on exposed piping	\$ 1,614
ELECTRICAL - 260000	
New ceiling mounted light (LED) @ screen porch	\$ 1,614
New exterior sconce (LED) @ screen porch	\$ 1,210
Connect exhaust fans @ second floor bathroom	\$ 471
Replace existing main panel	\$ 7,395
Replace all receptacles & switches. Rewire & provide grounding type and cover plates.	\$ 6,454
Install new surface mounted LED light fixtures	\$ 16,135
Install new exterior LED lighting at entrances	\$ 3,362
Hard wire smoke detectors, install (2) additional CO detectors	\$ 9,009
Repairs of extg conditions as req'd	\$ 7,799
EARTHWORK - 310000	
Fill in septic pit and adjust finish grade	\$ 8,068

Provide gravel surfacing with clearly defined edges to accommodate 12 parking spots.	\$ 2,689
SITE IMPROVEMENTS - 323000	
Demo	
Remove fallen tree trunks lining north property.	\$ 20,169
Remove small tree stumps along the edge of the septic pit. Grind stumps 12" below grade	\$ 9,681
Remove two failing trees growing within septic pit.	\$ 2,689
Remove invasive vines from the bottom of the septic pit.	\$ 1,076
Remove all structures from private garden.	\$ 2,689
Remove failing Maple tree at corner of property at edge of garden Repair	\$ 1,614
Repair wire & slat fence	\$ 1,882
Repair leaning posts in solid wood fence	\$ 2,420
Grind tree stumps in stage area 12" below grade	\$ 4,841
Replace dirt drive with compacted gravel surface with clearly defined edges.	\$ 1,210
Provide paved pathway from the drives to the house entrances	\$ 1,412
Repair retaining walls and rebuild step w/ natural stone	\$ 8,068
Build new privacy screen to match existing ornate painted wood lattice	\$ 2,219
TOTAL	\$ 375,348

ADDITIONAL ALTERNATIVE TASKS		SUBTOTALS
ALT 1: Landscape Improvement		
Restore landscape plantings.	\$10,760	
Remove isolated understory invasive plants from area between stage and dirt drive.	\$1,614	
Remove 8 failing trees along the edge of the property.	\$12,912	
Prune trees along the property edge as needed to maintain good health.	\$5,380	
Install 6" raised granite curb vegetable beds; same dimension and location as existing wood to be removed.	\$3,430	
		\$ 34,096
ALT 2: Concrete frost wall @ screen porch		
Concrete sonotube footings @ screen porch	-\$2,018	
Concrete frost wall (Footings, strip footing, formwork, rebar)	\$20,848	\$ 18,830
ALT 3: Replace all asphalt shingles @ main house		
Replace first course of asphalt shingles along gambrel roof breakline @ Main House	-\$1,431	
Replace all asphalt shingles	\$46,160	\$ 44,729
ALT 4: Replace entire railing at existing interior stair		
Install missing balustrades (6), tighten loose balustrades.	-\$269	
Replace entire railing with new 36" tall wood railing match historic details of handrail	\$3,766	\$ 3,497

ALT 5: Stand alone exterior bathroom		
Install two ADA-accessible stand alone Clivus Trailhead Series composting toilets at the northwest corner of the property for use by the public during Theater in the Open performances.	\$53,800	
Extend electrical service to the toilet buildings (not solar powered) Including shallow trench	\$9,415	
Cedar shingle siding	\$6,187	
Asphalt roofing	\$2,421	
Wood trim and insulated hollow metal doors painted to match existing house	\$4,439	\$ 76,262
ADD ALTS TOTAL		\$ 177,414

APPENDIX C:
BUILDING CONDITIONS SURVEY

DCR Building Conditions Survey & Assessment for: Gate Lodge at Maudslay State Park Newburyport, MA



Massachusetts Department of Conservation and Recreation
Bureau of Planning, Design, and Resource Protections
Historic Curatorship Program

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I. EXECUTIVE SUMMARY

PURPOSE

The purpose of this report is to evaluate the existing condition of the Gate Lodge at Maudslay State Park and its adjacent detached garage, to make recommendations for its rehabilitation which support its continued use as a residential building, and to assess the costs of that rehabilitation.

The goals of the report are to:

- establish the overall condition of the building and its relevant components, finishes, and systems;
- identify items that are currently failing and make specific recommendations for immediate repairs and remediation;
- identify remediation scope, including scope related to building code compliance, required or recommended for long-term use of the building as a residence.
- characterize and prioritize issues and recommendations.

METHODOLOGY

The project team, along with DCR employees familiar with the building, conducted an on-site review of the existing conditions. The team accessed the basement, main floor, second floor and attic spaces as well as reviewing the building exterior and landscape within the current permittee's lease area. No destructive investigations or testing were undertaken; all observations are based on exposed conditions.

The scope of the review included investigations into:

- the exterior building envelope, attached shed and detached garage;
- the interior building components and finishes;
- the structural, mechanical, electrical and plumbing systems.
- the landscape within the bounds of the current permittee's lease boundaries.

Additional information on the history of the building was collected from the current permittee including reports of the renovations he's performed on the property in 2011, 2012 and 2014. DCR's management and Maintenance plan for Maudslay State Park and their Existing Building Survey and Conditions Report for Maudslay State Park from 2002 were also reviewed as well as Town of Newburyport assessor's information.

PROJECT TEAM

Architecture

LDa Architecture and Interiors

Landscape Architecture

SiteCreative Landscape Architecture

Structural Engineering

RSE Associates

Mechanical, Electrical, Plumbing & Fire Protection Engineering

Garcia Galuska Desousa

Cost Estimating

VJ Associates of New England



Image #01: Aerial photograph of Maudslay State Park location



Image #02: North Elevation from Theater in the Open stage

OVERALL CONDITION

The gate lodge is a two-story wood framed building with a granite stone foundation, stucco & wood shingle siding and asphalt roof. Historically called the “Forester’s House” is located on a wooded lot at the northeastern corner of Maudslay State Park. The building was built at the beginning of the 20th century and came under the ownership of the state in 1985. Originally this building served as the gate house at the entrance road to the Maudslay Estate. The building is now permitted to Theater in the Open.

The building is in mostly fair to good condition with the exception of the screen porch, shed and detached garage which are in poor condition. The permittee has completed several renovation projects that have helped to preserve the historic building, but there are more that need to be completed in addition to continued maintenance of the building and landscape. The most significant work to be done on the buildings includes: replacing the screen porch in its entirety, pouring a new slab for the shed, re-framing the east wall and part of the south wall of the shed, and replacing all the roofing, siding and windows in the detached garage. The most significant work to be done on the site includes removing numerous failing trees around the property, providing better delineated drives and pathways on the property and restoring the private kitchen garden and privacy screen. Many of the plantings are also overgrown and need to be pruned back.

BUILDING CODE ISSUES

This building code review is meant to identify possible code compliance issues including life safety and universal accessibility. Once an architectural plan is developed for the rehabilitation of the building, all assumptions made below, and applicable codes should be reviewed for compliance.

For the purposes of this report, it is assumed that DCR will be responsible for bringing the condition of the building into compliance with the Massachusetts Residential Code (780 CMR), International Residential Code for one & two-family dwellings (IRC), International Existing Building Code (IEBC), and International Energy Conservation Code (IECC).

The current house is a single family residence and it is assumed that it will remain as one. No use of the house by the public, as part of the Theater in the Open’s program, is considered.

Occupancy (IEBC Chapter 9, IBC chapter 3)

As the house will remain a single family residence, there will be no change in the occupancy classification. Group R-3 (single family) will be used when assessing building code requirements for the house in this report.

Alteration Level (IEBC Chapter 4 & 6)

The recommended scope of work for the building falls within the classification of Alteration-Level 1. Level 1 alterations include the removal and replacement or the covering of existing materials, elements, equipment, or fixtures using new materials, elements, equipment, or fixtures that serve the same purpose. Level 1 excludes any work that includes the reconfiguration of space, the addition or elimination of any doors or window, the reconfiguration of extension of any systems, or the installation of any new equipment.

Conformance with Level 1 alterations require that an existing building, or portion thereof, shall not be altered such that the building becomes less safe than its existing condition. Newly installed materials shall comply with the current building codes.

Fire Protection (IEBC 603)

There are no anticipated code-related issues regarding fire protection. The current level of fire protection should be maintained.



Image #03: Porch & main entrance on west elevation



Image #04a: South elevation from street



Image #04b: East & South elevation from garden

Means of Egress (IEBC 604)

There are no anticipated code-related issues regarding means of egress. The current level of protection provided for the means of egress should be maintained.

Structural (IEBC 606)

There are no anticipated code-related issues regarding structural work. The replacement structure for the replacement screen porch should comply with the current building codes.

Electrical & Plumbing (IEBC Chapter 6)

There are no anticipated code-related issues regarding MEP work. The replacement light fixtures, outlets, switches & plumbing fixtures should comply with the current building codes.

Energy Conservation (IEBC 607)

Level 1 alterations to existing buildings or structures are permitted without requiring the entire building or structure to comply with the energy requirements of the IECC or IRC. The alterations shall confirm to the energy requirements of the IECC or IRC as they relate to new construction only.

Accessibility (MAAB)

As a single family residence, and not a public building, the house does not fall under the scope of the Massachusetts Architectural Access Board (521 CMR)

PRESERVATION ISSUES

No independent research into the history of the house was conducted as part of this assessment. The Forrester's House is included in the Massachusetts Historical Commission's records for Maudslay State Park which indicate that Maudslay is a significant landscape district. Therefore the house and landscape have been determined to contribute to a potential historic district.

As such, any changes made to the house will need to be done in accordance with the Secretary of the Interior's Standards for Historic Rehabilitation. Any adverse effect on the historic integrity of the property should be avoided.

RECOMMENDATIONS & COST ESTIMATE SUMMARY

Repairs and remediation

The estimated total cost of rehabilitation of the Gate Lodge is between \$375,000 for the base rehabilitation work and \$553,000 total cost for the base rehabilitation work plus all alternates. Please see full cost estimate in appendix A.



Image #09: Aerial photograph of Gate Lodge location



Image #10: Bird's-eye view looking west

II. CONDITION ASSESSMENT

SITE

There are two entries to the gate lodge property (#09), one on Spring Lane and one on Pine Hill Road. The Spring Lane entrance is the typical entrance for the residence while the Pine Hill Road entrance is used by parents dropping off kids for the Theater in the Open's summer camps. There are no clearly defined paths from the drives to the building entrances.

The site around the gate house is relatively flat except for a large pit on the north side of the house which is the location of the septic system. The far northern corner of the property has a bowl shape with the stage for the Theater in the Open located at its center. The northern property line is delineated with a combination of wood fence, fallen tree trunks and broken wire & slate fence.

The heavily wooded site has several trees and shrubs that are in poor condition or failing. A small private garden abuts the house on the south side. It is heavily overgrown with retaining walls and an historic privacy screen that are deteriorated.

Please see the full landscape architecture report in the appendix.

BUILDING ENVELOPE ROOFS

Main House

The main roof of the house, including the roof over the attached shed consists of 2x8 wood rafters (true 2" width) 16 inches on center with 3/4 inch wood sheathing covered with asphalt shingle roofing (#14). The structural members are in good condition; the asphalt shingles are in fair condition. While immediate replacement does not appear necessary, the age of the current roofing is unknown and replacement should be planned for as a long term maintenance item. Currently, there are loose or missing shingles visible under the wood trim at the breakline of the gambrel which should be replaced. The wood trim at that breakline also appears to be deteriorating and should be replaced (#13).

There are no visible areas of discoloration, or growths that would indicate excess moisture on the roof surface. There are some water stains visible in the attic space on the roof rafters near the north chimney. The stains appear to be old and there is no rot visible in the structural members. The attic appears to be adequately ventilated through eave, gable & ridge vents (#13) and shows no obvious signs of moisture problems. There is a 2" layer of loose insulation above the ceiling of the 2nd floor.

Porch

The framing of the front porch roof was not visible during the assessment. The membrane roofing on the porch is in poor condition and has failed in several locations along the eave allowing



Image #11: Septic system pit



Image #12: Stage



Image #13: Missing asphalt shingles at gambrel breakline, deteriorating trim

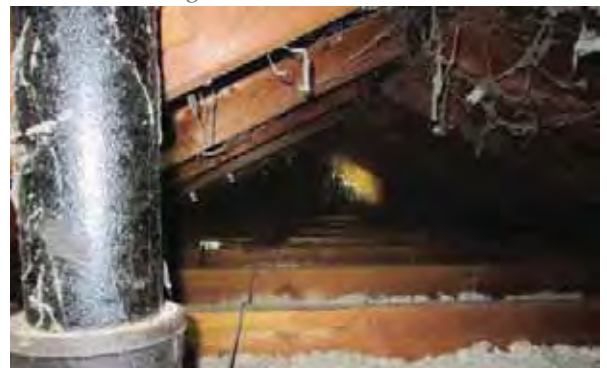


Image #14: Attic



Image #15: Asphalt shingles on detached garage



Image #16: Cedar shingles on detached garage

water into the roof sheathing and framing (#17). It can be assumed that the framing and sheathing have been damaged by the water infiltration. As noted in later sections, it is recommended that the entire porch structure be replaced. When the porch is replaced, new membrane roofing is recommended.

Detached Garage

The framing and sheathing of the detached garage roof appears to be in good condition; it consists of 2x6 rafters with 1x8 ties every other rafter with wood sheathing (nominal dimensions). There are no signs of significant deterioration visible from the inside of the garage. However the asphalt roofing on the detached garage roof is in poor condition and should be replaced before water begins to damage the sheathing and framing (#15).

CHIMNEYS

Main House

There are two brick chimneys in the house (#18). Both appear to be in good condition. The permittee replaced the south chimney in 2014. His report states that at that time, the masons confirmed that the chimney below the roof line was in good condition and they inserted a steel flue liner to make the chimney functioning for a new wood fireplace insert in the living room.



Image #17: Failing membrane roofing on porch



Image #18: Chimney & flashing

GUTTERS/DOWNSPOUTS

Main House

The house's gutters are wood. In 2011 the permittee restored the one remaining historic cedar gutter and installed new cedar gutters along with new, historically accurate downspouts. Those gutters which are visible from a second story window on the east side of the house appear to be unlined (#19). Other gutters should be checked for linings. All the wood gutters should be cleaned and lined with membrane roofing material or copper to improve their longevity. Gutters should be added to the eave at the eastern wall of the shed.



Image #19: Existing wood gutter with no lining

Porch

The gutters on the porch appear to be separating at the southwest corner (#20). The downspout is also missing from this location. When the porch is rebuilt, new wood gutters with copper lining, which match the historic wood gutters should be installed.

Detached Garage

There are no gutters or downspouts on the detached garage. Given the minimal overhang, new wood gutters with copper lining should be added to the detached garage.



Image #20: Wood gutters on the porch

WALLS/SIDING

Main House

The exterior wall framing of the main house was not visible at the time of the assessment. However, based on photographs provided



Image #21: Stained shingles on north elevation



Image #22: Cracked stucco on northwest corner of house

by DCR of renovation work to the gate lodge and it's companion house on the west side of the park, the wall structure is wood framed with horizontal board sheathing. The walls appear to be in good condition with the exception of the east and south walls of the shed. The east wall of the shed is rotted near the top along its entire length and needs to be replaced. The south wall of the shed is rotted at its base near the east corner (#26). This area should also be replaced. After the walls are replaced, the small walkway between the shed and detached garage should be kept clear of debris to allow the walls to dry after storm events (#25).

The exterior finish of the main house on the first floor is stucco, with the exception of the east wall of the shed which is cedar shingles. The exterior finish of the main house on the second floor is cedar shingles (#21, 23).

The stucco appears to be in good condition with the exception of a few areas which require repairs. Previous water damage at the northwest corner of the house damaged the stucco finish at that location (#22). There are cracks visible, as well as evidence of previous patching in this location which does not match the original stucco color or texture. The stucco on the southeast corner of the shed has also fallen off due to the significant water damage described above (#26). Both areas should be repaired.

The shingles on the main house are in fair to good condition with the exception of those on the east wall of the shed which are in poor condition (#25, 51). The shingles in the southeast corner of the second floor were replaced in 2011 and are in good condition (#23). The age of the rest of the shingles is unknown; they are in fair condition. On the west, south and east sides of the house there are signs of typical weathering for cedar shingles which have been exposed to the elements for a significant length of time. The shingles on the north side of the house also have green discoloration due to weathering that should be cleaned off (#21). The shingles on the east wall of the shed are in the worst condition with extensive green and black discoloration and various growths (#25); they should be removed and replaced.

Porch

The walls of the porch consist of wood frames with metal screens (#24). They are in poor to fair condition with significant rotted frames and torn screens along the west wall near the steps. When the porch is rebuilt, new wood frames and screen should be installed.

Detached Garage

The exterior wall framing of the detached garage are 2x4 stud walls with horizontal sheathing boards (nominal dimensions). The framing appears to be in good condition. The exterior cedar shingle finish is in poor condition and should be replaced (#16). The shingles are curled, discolored and falling off.



Image #23: Newer shingles on south & east elevations



Image #24: Debris between shed and detached garage



Image #25: Debris between shed and detached garage



Image #26: Failing south wall of shed



Image #27: Rotted framing in shed at southeast corner



Image #28: Front porch deterioration at front steps

FOUNDATION/BASEMENT

Main House

The foundation of the main house consists of granite stone masonry walls around the perimeter of the building (#29, 31) and several brick piers in the interior (#30). The walls are in good condition with no obvious signs of cracking or water infiltration. The brick piers are also in good condition with only minor cracking. The basement floor is a concrete slab on grade that is in good condition. The permittee has reported that the basement floor was originally dirt and the slab has been added over time. The last slab added was in 2012 by the permittee. The permittee reported that the basement is generally dry and there were no signs of significant water infiltration visible during the assessment. The permittee makes use of a dehumidifier to reduce moisture in the air as the basement is used for costume storage.

The north side of the shed bears on a concrete foundation that extends roughly six inches above grade. The south wall of the shed appears to bear on the floor slab except for a small portion on the east end of the wall that appears to be directly on grade (#27). The shed has a concrete slab on grade floor. The permittee reported that water seeps through the floor of the shed after rain events. The floor should be removed, a new vapor barrier installed below a new slab with stem walls to support the east and south walls of the garage.

Porch

The same granite foundation wall observed in the basement supports the porch floor framing on the north side and a concrete foundation wall appears to support the south side of the porch. It was not visible enough to determine its condition. When the porch is removed, the foundation should be reassessed, if needed new concrete sonotubes or a concrete frost wall should be added for support.

Detached Garage

The detached garage bears on a concrete foundation located at the perimeter that extends approximately one foot above grade. The foundation appears to be in good condition with no visible deterioration.

INSULATION

Main House

It is believed that the thermal envelope of the house includes insulation in the walls and ceilings. The permittee reported that there was insulation in the walls that had been opened up during previous renovation projects. An infrared camera should be used to determine areas within the walls that are lacking insulation. Blown



Image #29: Typical foundation wall condition

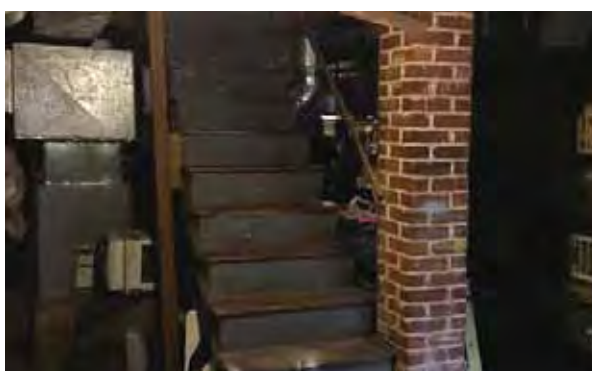


Image #30: Basement stairs



Image #31: Basement walls and first floor framing



Image #32: Insulation in attic



Image #33: Typical window & trim



Image #34a: Detached garage door



Image #34b: Detached garage window

in cellulose insulation should be added in those areas to improve the energy efficiency of the house and increase inhabitant comfort.

Some kind of loose cellular insulation is visible in the attic space (#32), above the ceiling of the second floor. The attic insulation should be tested to determine its contents. If no harmful chemicals are found, it can remain. If it needs to be remediated, it should be replaced with blown-in cellulose insulation to the depth of the ceiling framing cavity.

There is no insulation the porch or detached garage.

WINDOWS/DOORS

Main House

The windows are single glazed wood framed double-hung windows in the historic style of the house (#33, 36). The permittee has repaired or replaced damaged windows over the last five years and they are now in good condition. The permittee has also had all the windows stripped to remove their lead paint. Currently some of the window remain unpainted. They should be painted to prevent damage to the wood from exposure. The permittee has also built new storm windows for additional winter protection. If the newly stripped windows cannot be repainted before the winter, the storm windows should be installed over them.

The front door has also recently been de-lead and should be repainted (#35). The doors to the shed and the bulkhead doors have also been well maintained and are in good condition.

Porch

The door to the screen porch is in poor condition and is still painted to with lead paint. It should be replaced when the porch is rebuilt.

Detached Garage

The garage windows are also single glazed wood framed double-hung windows in the historic style of the main house (#34b). However, they are in poor condition and should be rehabilitated. The garage doors should be checked for lead, sanded and repainted (#34a).

SCREEN PORCH

As noted above, the condition of the screen porch is poor. The framing of the floor and roof have deteriorated from water damage. The most notable damage is to the floor framing at the front step which has completely disintegrated (#28, 38). The wall panels no longer meet the floor at this location. In addition to the structural damage to the porch, the paint on all the porch woodwork contains lead (#37). Given this combination of conditions, replacement of the entire porch, in the same size, style & detail of the original, is



Image #35: Front door and basement door



Image #36: Delead windows reinstalled.

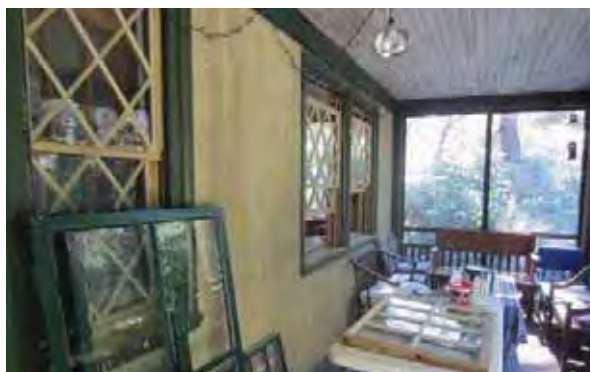


Image #37: Screen porch ceiling



Image #38: Screen porch step



Image #39a: 2nd floor bathroom fixtures & finishes to be removed



Image #39b: Simulated tile wallboard in 2nd floor bath



Image #40: Kitchen

INTERIOR BUILDING COMPONENTS

FLOORING

The flooring in the entry, living room, office, second floor hall, and bedrooms is stained wood (#41). The wood itself appears to be in good condition, but needs to be sanded and re-stained. The flooring in the kitchen is a vinyl tile that is relatively new and is in good condition (#40). The kitchen closets have an older vinyl tile flooring which is in fair condition. The wood flooring in the mudroom is painted rather than stained and appears quite worn (#42). Given the wear & tear in the mudroom, installing a vinyl tile or ceramic tile floor is recommended. The first floor bathroom has recently been renovated by the permittee and has a tile floor which is in good condition (#47). The second floor bathroom vinyl tile flooring is in poor condition (#39a). It should be removed and replaced with new ceramic tile.

WALLS & CEILING

The interior walls and ceilings are painted plaster and are in generally good condition (#48, 49). There is an area of bulging and cracking on the south wall of the eastern bedroom from previous water damage prior to exterior repairs on the house in that location (#43). The plaster in this area should be repaired and repainted. The ceiling of the office is also peeling and needs to be repainted (#44).

The wall tile in the newly renovated first floor bathroom is in good condition (#47). The simulated tile wallboard which surrounds the second floor tub is in poor condition and should be replaced (#39b).

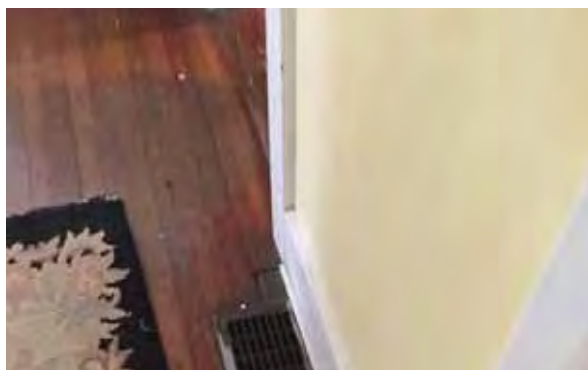


Image #41: Typical wood flooring condition



Image #42: Mudroom and side entry flooring



Image #43: Plaster in east bedroom

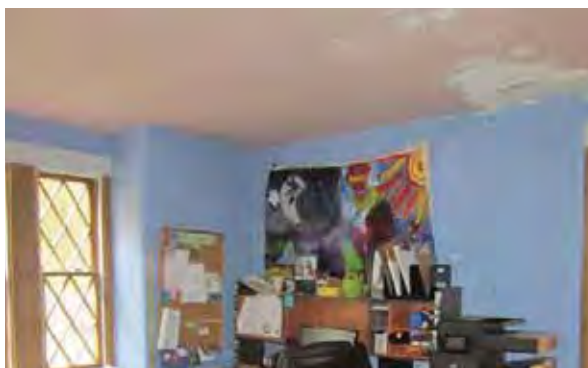


Image #44: Office ceiling



Image #45: 2nd floor guardrail with missing balustrades



Image #46: Main stair with worn treads and missing railing balustrades

DOORS

The doors are in good condition.

STAIRS

The wood stairs from the first floor to the basement are in fair condition. A railing should be added to the west side of the stair for safety (#30, 50).

The main staircase is in fair condition (#40). The wood treads are worn and should be sanded and re-stained. The railing has several missing or loose balustrades that should be replaced. While the balustrade spacing meets current code (no more than 4" between balustrades), the existing railing height does not. The existing railing is 31" high; current building code requires railings to be 36" high. Since no significant work is being done to the stair, it is not expected that raising the railing to 36" would be required by code officials. However, its replacement should be considered for increased safety.

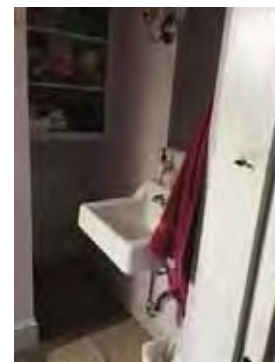


Image #47a &b: Renovated 1st floor bathroom

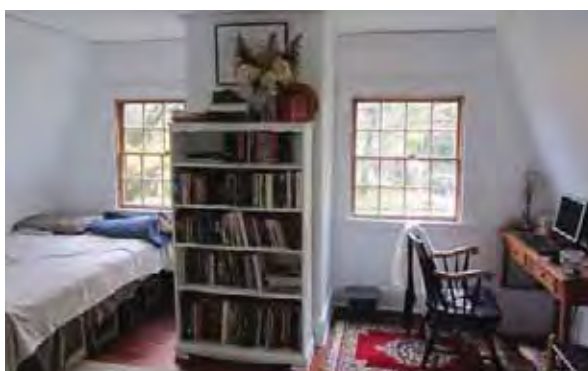


Image #48: Typical 2nd floor finishes



Image #49: Typical 1st floor finishes



Image #50: Basement stair with no handrail



Image #51: Deteriorated east wall of shed



Image #52a: Hot water heater



Image #52b: Furnace

STRUCTURAL SYSTEM SUMMARY

Main House

The structural components of the main house are generally in good condition. In areas where structural components were not visible, there were no observable conditions which would indicate the framing is deteriorated.

The structural components of the attached shed have deteriorated in several locations and require rehabilitation, including the concrete slab and entire east wall (#51, 54).

Porch

The structural components of the porch are generally in poor conditions. In areas where the structural components were not visible, observable deflection and water damage indicate that the structure is deteriorated (#28, 38).

Detached Garage

The structural components of the garage are in generally good condition (#53).

Please see the full structural engineering report in the appendix.

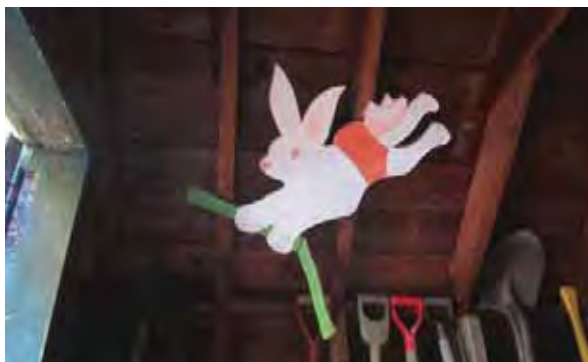


Image #53: Garage structure



Image #54: Shed concrete slab

MEP SYSTEM SUMMARY

Mechanical

The gate house's furnace was replaced in 2009 and is in good condition (#52b). There is no central air conditioning in the house and it is not expected to be added. There are no exhaust fans in the bathrooms, which should be added.

Electrical

The electrical system components are antiquated and should be replaced. This includes replacing the main distribution panel (#56), all receptacles and switches (#55), and light fixtures.

Plumbing

The plumbing system components are at or near their end of their useful lives or are inefficient and should be replaced. This includes the plumbing fixtures on the 1st and 2nd floors, the hot water heater (#52a) and hose bibs. All existing piping to remain requires new pipe hangers, insulation and valves.

Please see the full MEP engineering reports in the appendix.



Image #55: Receptacles without covers



Image #56: Electrical panel

III. RECOMMENDATIONS

Recommendation Summary Narrative

These recommendations would stabilize the existing building and make it code compliant for continued use as a residence. The base recommendations represent the minimum amount of repair that is necessary for life safety and code compliance as well as to arrest further deterioration of this historic resource. Discretionary add-alternate recommendations are noted.

Recommendation Summary List

Site (Base scope - see Landscape improvement Key Plan in Appendix B)

1. Clear fallen tree trunks lining north property line & repair wire & slat fence, Repair leaning posts in solid wood fence.
2. Grind tree stumps in stage area 12" below grade, finish grade to blend with existing. (quantity = 6)
3. Remove small tree stumps along the edge of the septic pit. Grind stumps 12" below grade, finish grade to blend with existing. (quantity = 6)
4. Remove two failing trees growing within septic pit.
5. Fill in septic pit to a max of 36" cover over existing septic tank and adjust finish grade to drain away from building. Raise manhole cover and pipe to finish grade elevations. Provide 2% cross slope over the septic system to avoid ponding on the leach field.
6. Remove invasive vines from the bottom of the septic pit.
7. Create new compacted gravel driving surface in place of existing informal dirt drive and drop-off area.
8. Provide paved pathway from the drives to the house entrances. (approx 30 ft)
9. All garden structures, except retaining walls, to be removed from private garden. Clear garden of overgrown plant material. Remove failing Maple tree at corner of property at edge of garden. Repair retaining walls and rebuild step with natural stone. Build new privacy screen to match existing. (privacy screen = ornate painted wood lattice, approx. 30 ft)
10. Provide storage for chopped wood away from play areas.
11. Provide gravel surfacing with clearly defined edges along filled in septic pit to accommodate 12 parking spots.
12. Preserve historic vine support on building structure and maintain Wisteria vines to prevent building damage.

Site (Add-alternate scope - see Landscape improvement Key Plan in Appendix B)

1. Restore landscape plantings (see planting recommendations in landscape report in Appendix B)
2. Provide new outdoor garden sink & stable step-up for children.
3. Remove isolated understory invasive plants from area between stage and dirt drive.
4. Remove 8 failing trees along the edge of the property.
5. Prune trees along the property edge as needed to maintain good health.
6. Install 6" raised granite curb vegetable beds; same dimension and location as existing wood to be removed.

Screen Porch (approx. 170 sf)

1. Replace screen porch in its entirety to match original
 - Membrane roof
 - New wood gutters with copper lining, shaped to match historic wood gutters & historically accurate downspouts
 - 2x8 wood rafters (nominal dimensions)
 - 3/4" plywood sheathing
 - T&G beadboard ceiling
 - Painted wood posts & frames
 - Screen panels
 - FSC Certified mahogany decking
 - 2x10 pressure treated wood floor framing (nominal dimensions)

- New foundation
 - **Base option:** concrete sonotube footings
 - **Alternate Option:** Concrete frost wall
- New ceiling mounted light (LED)
- New exterior sconce (LED)

Detached Garage (approx. 120 sf)

1. New asphalt shingle roof
2. New wood gutters with copper lining, shaped to match historic wood gutters & historically accurate downspouts
3. New building wrap, cedar breather, cedar shingles
4. Rehabilitate historic single pane wood windows (quantity = 2, size = 3'x6' double hung)
5. Delead, scrape & paint all exterior trim & door

Shed (approx. 150 sf)

1. Remove existing slab on grade in shed
2. Install new vapor barrier and new slab on grade. Provide a curb on east and south perimeter of slab to support newly framed walls and elevate their based off grade.
3. Remove existing east wall of shed & eastern end of south wall.
4. Reframe east wall and east end of south wall with pressure treated lumber.
5. Install new sheathing, building wrap, cedar breather & cedar shingles on east wall.
6. New sheathing, building wrap, vertical furring, metal lathe & 2-coat stucco on east end of south wall.
7. Add new wood gutters with copper lining, shaped to match historic wood gutters & historically accurate downspouts gutter to east wall

Main House (approx. 2200 sf)

Building Envelope & Interior Components

1. Repair Asphalt roofing
 - **Base Option:** Replace first course of asphalt shingles along gambrel roof breakline.
 - **Alternate Option:** Replace all asphalt shingles
2. Replace wood trim along gambrel roof breakline, repaint.
3. Line interior of existing wood gutters
 - **Base Option:** Line with membrane roofing material.
 - **Alternate Option:** Line with copper.
4. Clean cedar shingles on north side of house with light power wash.
5. Remove damaged/cracked stucco at northwest corner. Install new vertical furring, metal lathe & 2-coat stucco.
6. Test existing attic insulation, replace if needed with new blown-in cellulose insulation.
7. Use infrared photography to identify areas of inadequate insulation in the walls. Install blown-in cellulose insulation in those locations.
8. Repaint windows
9. Repaint front door
10. Sand and refinish wood floor on first & second floors
11. Install tile in the mudroom
12. Remove vinyl tile in 2nd floor bathroom, replace with ceramic tile.
13. Refinish stair treads
14. Repair cracked & bulging plaster on south wall of east bedroom
15. Remove all wall finishes in second floor bathroom. Install ceramic tile around tub. Install new plaster on the rest of the walls & repaint.
16. Repair the plaster ceiling of the office, repaint.

17. Repair stair railing
 - **Base Option:** Install missing balustrades (6), tighten loose balustrades.
 - **Alternate Option:** Replace entire railing with new 36" tall wood railing, match historic details of handrail and balustrades.
18. Add new code compliant wood railing to open side of basement stairs
19. Replace kitchen cabinets with new wood cabinets and counter tops with new solid surface counter tops.

Structural System

(All recommendations noted above)

Mechanical System

1. Add exhaust fans to second floor bathroom

Electrical System

1. Replace existing main panel.
2. Replace all receptacles & switches. Rewire & provide grounding type and coverplates.
3. Install new surface mounted LED light fixtures (quantity = 20)
4. Install new exterior LED lighting at entrances (quantity = 5)
5. Hard-wire smoke detectors
6. Install 2 carbon monoxide detectors

Plumbing System (Base scope)

1. Replace all plumbing fixtures in the 2nd floor bathroom (tub, tub filler, showerhead, toilet, sink & faucet); new fixtures to be water conserving types.
2. Replace all plumbing fixtures in the kitchen (sink & faucet); new fixtures to be water conserving type.
3. Replace exterior utility sink.
4. Provide new pipe hangers and insulation on existing piping.
5. Replace existing electric water heater with new high-efficiency electric type hot water heater.
6. Provide new exterior wall hydrants with integral vacuum breakers.

Plumbing System (Add-Alternate scope)

1. Install two ADA-accessible stand alone Clivus Trailhead Series composting toilets at the northwest corner of the property.
2. Extend electrical service to the toilet buildings (not solar powered)
3. Cedar shingle siding
4. Asphalt roofing
5. Wood trim and insulated hollow metal doors painted to match existing house.

APPENDIX A: COST ESTIMATE

DCR BUILDING CONDITIONS SURVEY & ASSESSMENT
for
Gate Lodge at Maudslay State Park
Newburyport, MA

January, 2016



35 HIGHLAND CIRCLE, SUITE 200, NEEDHAM, MASSACHUSETTS 02494

FEASIBILITY ESTIMATE

DCR HOUSE RENOVATION
GATE LODGE, MAUDSLAY STATE PARK
NEWBURYPORT, MA

Architects: LDA Architecture & Interiors

January 12, 2016



FEASIBILITY ESTIMATE
DCR HOUSE RENOVATION
GATE LODGE, MAUDSLAY STATE PARK
NEWBURYPORT, MA

January 12, 2016

BASIS OF ESTIMATE

The estimate is based on the Conditions Survey & Assessment report by LDA dated January 2016

Qualifications / Clarifications:

- 1 Labor costs included at local prevailing wage labor rates
- 2 The following mark ups area used:

General Conditions	14.00%
General Requirements	3.00%
Insurance & Bond	2.50%
Contractor's Overhead & Fee	5.00%
Design Contingency	excluded
Construction Contingency	excluded
Escalation Contingency	8.00%

The estimate excludes the following:

- 1 A-E Fees
- 2 Overtime
- 3 Hazardous materials abatement, both site and building
- 4 Working in contaminated soils
- 5 Loose furniture and equipment
- 6 Builder's Risk Insurance
- 7 Special seismic requirements
- 8 Third party commissioning costs
- 9 Work associated with the removal or remediation of contaminated soils, underpinning of existing foundations, unsuitable soil, unidentified underground obstructions or any other unsuitable materials including the haul in of replacement material.
- 10 Traffic Impact Fees
- 11 Geotechnical engineering
- 12 Testing or inspection services, as required by State Building Code or other: concrete, soils, pavement, fireproofing.



FEASIBILITY ESTIMATE
DCR HOUSE RENOVATION
GATE LODGE, MAUDSLAY STATE PARK
NEWBURYPORT, MA

January 12, 2016

TOTAL PROJECT SUMMARY

CSI CODE	DESCRIPTION	PRIORITY 1	NOTE
<u>BUILDING WORK</u>			
020000	EXISTING CONDITIONS	8,670	
030000	CONCRETE	8,882	
040000	MASONRY	2,000	
060000	WOOD, PLASTICS, & COMPOSITES	65,863	
070000	THERMAL & MOISTURE PROTECTION	28,307	
080000	OPENINGS	1,100	
090000	FINISHES	48,580	
100000	SPECIALTIES	-	
110000	EQUIPMENT	-	
120000	FURNISHING	-	
130000	SPECIAL CONSTRUCTION	-	
210000	FIRE SUPPRESSION	-	
220000	PLUMBING	21,900	
230000	HVAC	1,500	
260000	ELECTRICAL	39,750	
270000	COMMUNICATIONS	-	
280000	ELECTRONIC SAFETY & SECURITY	-	
SUBTOTAL BUILDING WORK COSTS		226,552	
<u>SITE WORK</u>			
310000	EARTHWORK	8,000	
320000	EXTERIOR IMPROVEMENTS	-	
329000	PLANTING	-	
323000	SITE IMPROVEMENTS	44,600	
330000	UTILITIES	-	
SUBTOTAL SITE WORK COSTS		52,600	
MARKUPS		SUBTOTAL FOR SITE & BUILDING COSTS	
		279,152	
14.00%	General Conditions	39,081	
3.00%	General Requirements	8,375	
2.50%	Insurance & Bond	6,979	
5.00%	Contractor's Overhead & Fee	13,958	
CONTINGENCIES		SUBTOTAL ECC BEFORE CONTINGENCIES	
		347,544	
excluded	Design Contingency	excluded	
excluded	Construction Contingency	excluded	
8.00%	Escalation Contingency, Through 2017	27,900	
TOTAL ECC WITH CONTINGENCIES		375,444	
<u>ALTERNATES</u>			
ALT 1	Landscape Improvement	34,094	ADD
ALT 2	Concrete frost wall @ screen porch	18,829	ADD
ALT 3	Replace all asphalt shingles @ main house	44,728	ADD
ALT 4	Replace entire railing at existing interior stair	3,497	ADD
ALT 5	Plumbing System (Add alternate scope)	76,258	ADD



FEASIBILITY ESTIMATE
DCR HOUSE RENOVATION
GATE LODGE, MAUDSLAY STATE PARK
NEWBURYPORT, MA

January 12, 2016

PRIORITY 1 : IMMEDIATE REPAIRS & REMEDIATION

CSI	DESCRIPTION	QUANTITY	UNIT	UNIT PR	AMOUNT
020000	EXISTING CONDITIONS				
	Exterior Demolition				
	Remove existing slab on grade @ shed	150	SF	20.00	3,000
	Delead, scrape & paint all exterior trim & door @ detached garage	1	LS	1,600.00	1,600
	Prep for new slab	1	LS	1,000.00	1,000
	Remove existing east & south wall @ shed	24	LF	55.00	1,320
	Remove damaged/cracked stucco at northwest corner @ Main House	1	LS	800.00	800
	Interior Demolition				
	Remove all wall finishes in second floor bathroom.	1	LS	300.00	300
	Remove vinyl tile in 2nd floor bathroom	1	LS	150.00	150
	Cleaning				
	Clean cedar shingles on north side of house w/ light power wash @ Main house	1	LS	500.00	500
				SUBTOTAL	8,670
030000	CONCRETE				
	New foundation @ screen porch	1	EA	\$ 3,500.00	3,500
	Concrete sonotube footings @ screen porch	1	LS	\$ 1,500.00	1,500
	New slab on grade @ shed	150	SF	\$ 25.00	3,750
	New curb on east and south perimeter @ shed	22	LF	\$ 6.00	132
				SUBTOTAL	8,882
040000	MASONRY				
	Replace brick edging to floor @ porch	20	LF	\$ 100.00	2,000
				SUBTOTAL	2,000
060000	WOOD, PLASTICS, & COMPOSITES				
	Rough Carpentry				
	Plywood sheathing @ selective locations	1	LS	2,000.00	2,000
	Wood blocking @ windows	192	LF	6.00	1,152
	Wood blocking @ doors	34	LF	6.00	204
	Repair extg conditions as found	1	LS	10,000.00	10,000
	Structural Wood Framing				
	2x8 wood rafters @ screen porch	170	SF	6.50	1,105
	2x10 pressure treated wood floor framing @ screen porch	120	SF	45.00	5,400
	Reframe east & east end of south wall @ shed	24	LF	18.00	432
	Repair extg stud conditions	1	LS	7,500.00	7,500
	Finish Carpentry				
	Wood gutters with copper lining, shaped to match , historic	1	LS	12,000.00	12,000
	3/4" plywood sheathing @ screen porch	170	SF	3.00	510
	FSC Certified mahogany decking @ screen porch	170	SF	12.00	2,040
	Cedar breather @ Detached Garage	528	SF	5.00	2,640
	Cedar shingles @ Detached Garage	528	SF	15.00	7,920
	Cedar breather @ Shed	264	LF	5.00	1,320
	Cedar shingles @ Shed	264	LF	15.00	3,960
	Replace wood trim along gambrel roof breakline @ Main	40	LF	9.00	360
	Install missing balustrades (6), tighten loose balustrades.	1	LS	200.00	200
	Wood railing to open side of basement stairs	1	EA	420.00	420
	New wood cabinets	1	EA	3,500.00	3,500
	New solid surface countertops	1	EA	3,200.00	3,200



FEASIBILITY ESTIMATE
DCR HOUSE RENOVATION
GATE LODGE, MAUDSLAY STATE PARK
NEWBURYPORT, MA

January 12, 2016

PRIORITY 1 : IMMEDIATE REPAIRS & REMEDIATION

CSI	DESCRIPTION	QUANTITY	UNIT	UNIT PR	AMOUNT
				SUBTOTAL	65,863
070000	THERMAL & MOISTURE PROTECTION				
	Screen panels @ screen porch	225	SF	10.00	2,250
	Membrane roof @ screen porch	170	SF	3.50	595
	New gutters & historically accurate downspouts @ screen porch	25	LF	15.00	375
	New asphalt shingle roof @ Detached Garage	150	SF	3.00	450
	New gutters & historically accurate downspouts @ Detached Garage	44	LF	15.00	660
	New building wrap @ Detached Garage	528	SF	8.00	4,224
	Install new vapor barrier @ slab on grade Shed	120	SF	8.00	960
	New building wrap @ Shed east wall	180	SF	8.00	1,440
	New sheathing @ Shed east wall	180	SF	4.00	720
	New building wrap @ Shed east & east end of south	180	SF	8.00	1,440
	New sheathing @ Shed east & east end of south	180	SF	4.00	720
	New vertical furring @ Shed east & east end of south wall	264	SF	3.00	792
	New metal lathe @ Shed east & east end of south wall	264	SF	3.00	792
	New gutter to east wall @ Shed	35	LF	15.00	525
	Replace first course of asphalt shingles along gambrel roof breakline @ Main House	38	LF	28.00	1,064
	Line interior of existing wood gutters/ membrane roofing material	1	LS	1,800.00	1,800
	New vertical furring @ Main house northeast corner	500	SF	3.00	1,500
	New metal lathe @ Main house northeast corner	500	SF	3.00	1,500
	Replace insulation w/ new blown-in cellulose @ attic	2,200	SF	2.50	5,500
	Install blown-in cellulose insulation in areas of inadequate @ main house	1	LS	1,000.00	1,000
				SUBTOTAL	28,307
080000	OPENINGS				
	Repair in place windows @ detached garage, do not replace	2	EA	\$ 550.00	1,100
				SUBTOTAL	1,100
090000	FINISHES				
	T&G bead board ceiling @ Screen Porch	170	SF	8.00	1,360
	2 coat stucco on east & east end of south wall	250	SF	12.00	3,000
	2 coat stucco on east & northwest corner wall	500	SF	12.00	6,000
	Paint/stain exterior façade surfaces	1,840	SF	5.00	9,200
	Painted wood posts & frames @ Screen Porch	170	SF	2.00	340
	Paint wood trim along gambrel roof breakline @ Main House	40	LF	2.00	80
	Paint wood window trim @ Main house	1	LS	2,500.00	2,500
	Repaint front door	1	EA	200.00	200
	Sand and refinish wood floor on first & second floors	1	LS	4,500.00	4,500
	Install tile in the mudroom	53	SF	8.00	424
	Ceramic tile @ 2nd floor bathroom	47	SF	8.00	376
	Refinish stair treads	1	LS	1,200.00	1,200
	Repair cracked & bulging plaster on south wall of east bedroom	1	LS	1,200.00	1,200
	Install ceramic tile around tub @ second floor bathroom	1	LS	250.00	250



FEASIBILITY ESTIMATE
DCR HOUSE RENOVATION
GATE LODGE, MAUDSLAY STATE PARK
NEWBURYPORT, MA

January 12, 2016

PRIORITY 1 : IMMEDIATE REPAIRS & REMEDIATION

CSI	DESCRIPTION	QUANTITY	UNIT	UNIT PR	AMOUNT
	Plaster second floor bathroom wall & repaint.	1	LS	2,500.00	2,500
	Repair the plaster ceiling of the office, repaint.	1	LS	1,800.00	1,800
	Misc plaster repair as req'd	1	LS	6,000.00	6,000
	Misc painting of extg conditions	1	LS	7,650.00	7,650
				SUBTOTAL	48,580
100000	SPECIALTIES				
				SUBTOTAL	0
110000	EQUIPMENT				
	No work				
				SUBTOTAL	0
120000	FURNISHING				
	No work				
				SUBTOTAL	0
130000	SPECIAL CONSTRUCTION				
	No work				
				SUBTOTAL	0
210000	FIRE SUPPRESSION				
	No work				0
				SUBTOTAL	0
220000	PLUMBING				
	Raise manhole cover and pipe to finish grade elevations	1	LS	1,300.00	1,300
	Repair & replace deteriorated piping systems due to water damage, allowance	1	LS	5,000.00	5,000
	Electric water heater, point of use	1	EA	5,000.00	5,000
	Bathroom 2nd Floor				
	Tub	1	EA	800.00	800
	Tub filler	1	EA	300.00	300
	Showerhead	1	EA	200.00	200
	Toilet	1	EA	1,000.00	1,000
	Sink	1	EA	600.00	600
	Faucet	1	EA	100.00	100
	Kitchen				
	Sink	1	EA	900.00	900
	Faucet	1	EA	200.00	200
	Replace exterior utility sink	1	EA	1,500.00	1,500
	New pipe hangers and insulation on existing piping.	1	LS	1,500.00	1,500
	Replace extg damaged H/CW piping	1	LS	2,400.00	2,400
	New exterior wall hydrants with integral vacuum breakers	1	LS	1,100.00	1,100
				SUBTOTAL	21,900
230000	HVAC				
	Add exhaust fans to second floor bathroom	1	EA	300.00	300
	Piping insulation on exposed piping	300	LF	4.00	1,200



FEASIBILITY ESTIMATE
DCR HOUSE RENOVATION
GATE LODGE, MAUDSLAY STATE PARK
NEWBURYPORT, MA

January 12, 2016

PRIORITY 1 : IMMEDIATE REPAIRS & REMEDIATION

CSI	DESCRIPTION	QUANTITY	UNIT	UNIT PR	AMOUNT
260000	ELECTRICAL			SUBTOTAL	1,500
	New ceiling mounted light (LED) @ screen porch	1	LS	1,200.00	1,200
	New exterior sconce (LED) @ screen porch	1	LS	900.00	900
	Connect exhaust fans @ second floor bathroom	1	LS	350.00	350
	Replace existing main panel	1	LS	5,500.00	5,500
	Replace all receptacles & switches. Rewire & provide grounding type and cover plates.	1	LS	4,800.00	4,800
	Install new surface mounted LED light fixtures	20	EA	600.00	12,000
	Install new exterior LED lighting at entrances	5	EA	500.00	2,500
	Hard wire smoke detectors, install (2) additional CO detectors	1	LS	6,700.00	6,700
	Repairs of extg conditions as req'd	1	LS	5,800.00	5,800
				SUBTOTAL	39,750
270000	COMMUNICATIONS				
	No work				
				SUBTOTAL	0
280000	ELECTRONIC SAFEY & SECURITY				
	No work				
				SUBTOTAL	0
310000	EARTHWORK				
	Fill in septic pit and adjust finish grade	1	LS	6,000.00	6,000
	Provide gravel surfacing with clearly defined edges to accommodate 12 parking spots.	1	LS	2,000.00	2,000
				SUBTOTAL	8,000
320000	EXTERIOR IMPROVEMENTS				
	No work				0
				SUBTOTAL	0
329000	PLANTING				
	No work				0
				SUBTOTAL	0
323000	SITE IMPROVEMENTS				
	Demo				
	Remove fallen tree trunks lining north property	1	AL	15,000.00	15,000
	Remove small tree stumps along the edge of the septic pit.				
	Grind stumps 12" below grade	6	EA	1,200.00	7,200
	Remove two failing trees growing within septic pit.	2	EA	1,000.00	2,000
	Remove invasive vines from the bottom of the septic pit.				
		1	LS	800.00	800
	Removed all structures from private garden	1	LS	2,000.00	2,000
	Remove failing Maple tree at corner of property at edge of garden	1	LS	1,200.00	1,200
	Repair				
	Repair wire & slat fence	1	LS	1,400.00	1,400
	Repair leaning posts in solid wood fence	1	LS	1,800.00	1,800
	Grind tree stumps in stage are 12" below grade	6	EA	600.00	3,600



FEASIBILITY ESTIMATE
DCR HOUSE RENOVATION
GATE LODGE, MAUDSLAY STATE PARK
NEWBURYPORT, MA

January 12, 2016

PRIORITY 1 : IMMEDIATE REPAIRS & REMEDIATION

CSI	DESCRIPTION	QUANTITY	UNIT	UNIT PR	AMOUNT
	Replace dirt drive with compacted gravel surface with clearly defined edges.	1	LS	900.00	900
	Provide paved pathway from the drives to the house entrances	30	LF	35.00	1,050
	Repair retaining walls and rebuild step w/ natural stone	1	EA	6,000.00	6,000
	Build new privacy screen to match existing ornate painted wood lattice	30	LF	55.00	1,650
					0
				SUBTOTAL	44,600
330000	UTILITIES				
	No work				0
				SUBTOTAL	0
TOTAL DIRECT TRADE COST					279,152



FEASIBILITY ESTIMATE
DCR HOUSE RENOVATION
GATE LODGE, MAUDSLAY STATE PARK
NEWBURYPORT, MA

January 12, 2016

ALTERNATES

Alternates	Description of Work			Add / Deduct	Total
ALT 1	Landscape Improvement				
	Restore landscape plantings	1	LS	8,000.00	\$ 8,000
	Remove isolated understory invasive plants from area between stage and dirt drive.	1	LS	1,200.00	\$ 1,200
	Remove 8 failing trees along the edge of the property.	8	EA	1,200.00	\$ 9,600
	Prune trees along the property edge as needed to maintain good health.	1	LS	4,000.00	\$ 4,000
	Install 6" raised granite curb vegetable beds; same dimension and location as existing wood to be removed.	30	LF	85.00	\$ 2,550
	Subtotal:				\$ 25,350
	Mark Ups :			34.5%	\$ 8,744
	Total: ALT 1			ADD	\$ 34,094
ALT 2	Concrete frost wall @ screen porch				
	Concrete sonotube footings @ screen porch	1	LS	(1,500.00)	\$ (1,500)
	Concrete frost wall (Footings, strip footing, formwork, rebar)	31	LF	500.00	\$ 15,500
	Subtotal:				\$ 14,000
	Mark Ups :			34.5%	4,829
	Total: ALT 2			ADD	\$ 18,829
ALT 3	Replace all asphalt shingles @ main house				
	Replace first course of asphalt shingles along gambrel roof breakline @ Main House	38	LF	(28.00)	\$ (1,064)
	Replace all asphalt shingles	2,640	SF	13.00	\$ 34,320
	Subtotal:				\$ 33,256
	Mark Ups :			34.5%	\$ 11,472
	Total: ALT 3			ADD	\$ 44,728
ALT 4	Replace entire railing at existing interior stair				
	Install missing balustrades (6), tighten loose balustrades.	1	LS	(200.00)	\$ (200)
	Replace entire railing with new 36" tall wood railing, match historic details of handrail	1	LS	2,800.00	\$ 2,800
	Subtotal:				\$ 2,600
	Mark Ups :			34.5%	\$ 897
	Total: ALT 4			ADD	\$ 3,497
ALT 5	Plumbing System (Add alternate scope)				
	Install two ADA-accessible stand alone Clivus Trailhead Series composting toilets at the northwest corner of the property for use by the public during Theater in the Open performances.	2	EA	20,000.00	\$ 40,000
	Extend electrical service to the toilet buildings (not solar powered) Including shallow trench	1	LS	7,000.00	\$ 7,000
	Cedar shingle siding	1	LS	4,600.00	\$ 4,600
	Asphalt roofing	1	LS	1,800.00	\$ 1,800



FEASIBILITY ESTIMATE
DCR HOUSE RENOVATION
GATE LODGE, MAUDSLAY STATE PARK
NEWBURYPORT, MA

January 12, 2016

ALTERNATES

Alternates	Description of Work			Add / Deduct	Total
	Wood trim and insulated hollow metal doors painted to match existing house.	1	LS	3,300.00	\$ 3,300
	Subtotal:				\$ 56,700
	Mark Ups :			34.5%	\$ 19,558
	Total: ALT 5			ADD	\$ 76,258

APPENDIX B: ENGINEERING REPORTS

DCR BUILDING CONDITIONS SURVEY & ASSESSMENT
for
Gate Lodge at Maudslay State Park
Newburyport, MA

January, 2016

DCR Maudslay State Park Report – LANDSCAPE SCOPE

Landscape Elements Inventory:

The main living building is situated on relatively flat ground at the corner of Pine Hill Road and Spring Lane with detached storage shed to the east of the building. There are two entrances to the property: one at Spring Lane and one on Pine Hill Road. The property along those streets is lined with a painted rail fence and gates at entrances. Rail fence returns to the storage shed on the east side. The gates and fences looked in good condition.



Image 1: Entrance along Pine Hill Road



Image 2: Entrance along Spring Lane (Image by Google) and rail fence returning to the shed

A short asphalt drive leads from Spring Lane entrance to an informal gravel parking area in front of the shed which can accommodate approximately 4-5 cars. (Image 3) The asphalt appears to be in good condition. The gravel parking area does not appear to have a defined edge. There is a large pit on the north side of the house which appears to contain the septic system. A manhole cover and a metal pipe protrude from the bottom. (Image 5) A dirt drive leads from Pine Hill Road, around the large pit and connects to Spring Lane Drive. (Image 4) We were informed by the house tenants that the dirt drive is used by parents as drop off loop during the summer open air theatre camp. There are approximately 12 informal parking spots along the septic pit and dirt drive. There is a decaying wood post along the drive.



Image 3: Dirt drive past Pine Hill Road entrance



Image 4: Informal parking along septic pit and dirt drive and decaying wood post along dirt drive



Image 5: Septic pit to the north of the main house and metal pipe at the bottom



Image 6: Informal gravel parking area in front of the shed

Four mature Norway Maple trees are growing inside the septic pit, two of which appear to be in poor condition. Edge of the pit is planted with isolated ornamental plants including ferns, hosta, and daylilies. A few small tree stumps are present. There are isolated invasive plants growing at the bottom of the pit (see invasive plant image board in this document for reference).

There are four residential trash receptacles located against the shed at the edge of grave parking area. There are two small brick plant beds against the north wall of the house with sparse ferns and hosta plants. The edge of plant beds was in poor condition. Small wisteria vine is climbing the building stucco wall. Small outdoor sink is placed between the two planters.



Image 7: Outdoor sink

Along the rail fence the property is lined with dense mature Rhododendron shrubs in various stages of decline that act as privacy screen. A small private garden abuts the house on the south side (*Image 8*). Part of the garden is delineated with low, crumbling retaining walls. A cinderblock serves as a step between upper and lower level of the garden. Several fallen screen fences that appear to have been part of the garden are leaning against Rhododendron and Forsythia shrubs. Three low wood vegetable beds and a bench with pergola are located within the lower section of the garden, both with signs of wood decay. The upper part of the garden is overgrown with blackberry vines and ferns. A small wisteria vine is climbing the building stucco wall (*Image 10*).



Image 8: Private garden



Image 9: Vegetable bed and bench in private garden



Image 10: Wisteria vine climbing building stucco wall



Image 11: West side of the house

The main entrance of the house is located on the west side of the building. There is no paved path leading to the door and entrance is not ADA accessible. Landscape on the west side of the building consists of two declining shrubs and barren soil (*Image 11*).

There is no fence along southwest property line, but a section of it is lined with dense mature Rhododendron shrubs in various stages of decline (*Image 12*). An approximately 5' wide dirt path enters the property at the edge of Rhododendron screen and connects with dirt drive near the septic pit. The dirt path leads to the rest of the Maudslay State Park. There is no gate on this path at property line. To the left of the drive chopped wood is being stored in a pile (*Image 13*).



Image 12 and 13: Rhododendrons along west property line and dirt path entering property

The stage of the summer outdoor theatre is located in a depression in the northwest corner of the property (*Image 14*). The area is mostly clear of understory plantings with isolated invasive Norway Maple saplings and bittersweet vines. There are several mature tree stumps in proximity of the stage.

The north property line is delineated partially by solid wood fence shared with the abutter, fallen tree trunks, and broken wire and slat fence. Sections of the wire fence are growing into adjacent trees. Some posts in the solid wood fence are leaning (*Image 15 and 16*).



Image 14: Stage area in northwest corner of property



Image 15: Wire and slat fence.



Image 16: Fallen tree trunks along north property line.

Necessary and Safety Landscape Improvement Recommendations: (See Landscape Improvement Key Plan)

1. Clear fallen tree trunks lining north property line and repair fence.
2. Grind tree stumps in stage area 12" below grade, finish grade to blend with existing.
3. Remove small tree stumps along the edge of septic pit. Grind stumps 12" below grade, finish grade to blend with existing.
4. Remove two failing trees growing within septic pit.
5. Fill in septic pit to a max of 36" cover over existing septic tank (per Title V) and adjust finish grade to drain away from the building. Raise existing manhole cover and pipe to finish grade elevations. Provide 2% cross slope over the septic system per Title V to avoid ponding water on the leach field.
6. Remove invasive vines from bottom of septic pit. (See invasive plant images)
7. Create new compacted gravel driving surface in place of existing informal dirt drive and drop-off area.
8. Provide paved pathway from drives to house entrances.
9. All garden structures except retaining walls to be removed from private garden. Clear garden of overgrown plant material. Remove failing Maple tree at corner of property at edge of garden. Repair retaining walls and rebuild step with natural stone. Build new privacy screens to match existing.
10. Provide storage for chopped wood away from play areas.
11. Provide gravel surfacing with clearly defined edges along filled in septic pit to accommodate 12 parking spots.
12. Repair leaning posts in solid wood fence.
13. Preserve historic vine support on building structures and maintain Wisteria vines to prevent building damage. Vine removal if necessary, should be cleared by Historic Committee.

Optional additional Landscape Improvement Recommendations: (See Landscape Improvement Key Plan)

- a. Restore landscape plantings, see planting recommendations.
- b. Provide new stable outdoor garden sink; Add stable step-up for children.
- c. Remove isolated understory invasive plants from area between stage and dirt drive. (See invasive plant images)
- d. Remove 8 failing trees along the edge of property
- e. Prune trees along property edge as needed to maintain good health
- f. Install 6" raised granite curb vegetable beds; same dimension and location as existed wood to be removed.

Planting Recommendations: (See Planting Recommendations Diagram)

- P1. Save and protect existing mature rhododendrons, approximately 200 LF of large shrubs. Prune to maintain good health. Add new rhododendron as needed to match existing and create continuous planting screen.
- P2. Install new plant material: 4 fruit trees, 40 medium shrubs, 200 SF of ornamental grasses and perennials at 12" o.c.

- P3. Plant rain garden in area of filled septic pit with 15 small deciduous trees, 80 medium shrubs, 1000 SF of ornamental grasses and perennials at 12" o.c.
- P4. Remove declining shrubs; Transplant Rhododendron to fill in perimeter Rhododendron screen as needed; Restore landscape at north and west side of the house with 30 shrubs and 100 SF perennials at 12" o.c.
- P5. Provide sod lawn planting between drive and shrub beds along west side of house frontage.
- P6. Plant new Lilac shrub screen along east side of storage shed. Approximately 12 Lilacs; 4' ht. min.



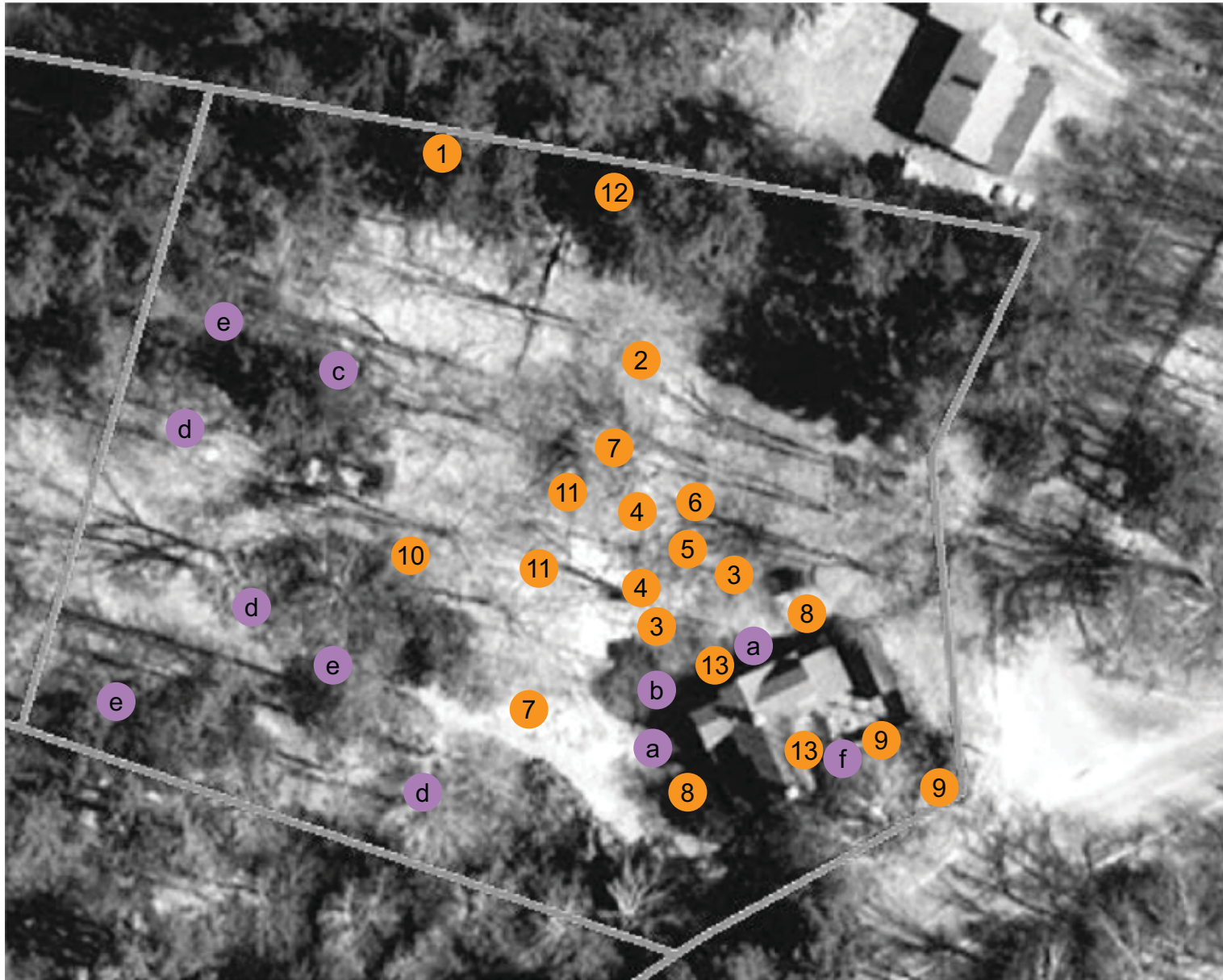
DCR Maudslay State Park

Newburyport, Massachusetts

Site Photos Key Plan

November 2015

0-51
sitcreative
landscape architecture



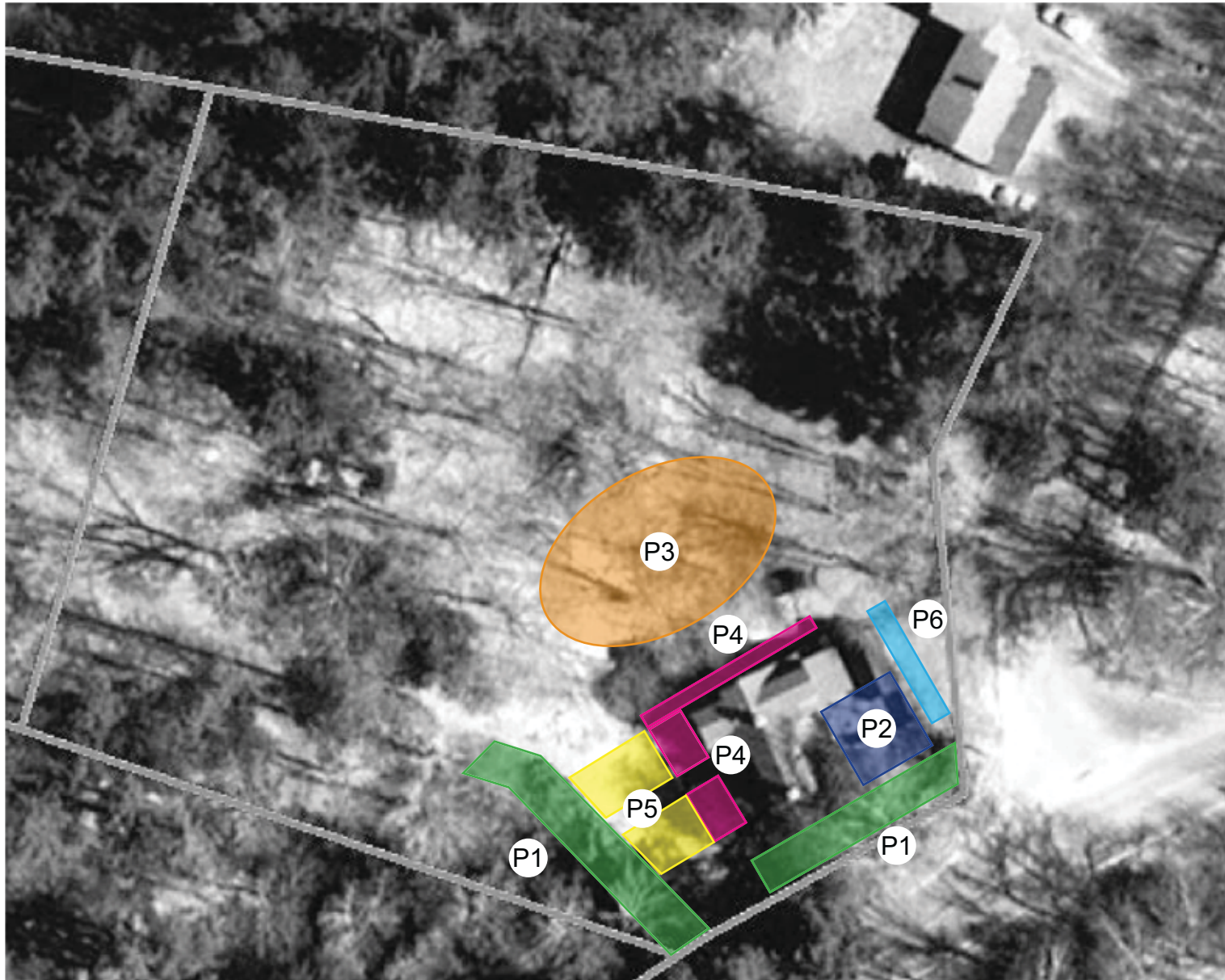
DCR Maudslay State Park

Newburyport, Massachusetts

Landscape Improvement Key Plan

November 2015

0-52
sitcreative
 landscape architecture



DCR Maudslay State Park

Newburyport, Massachusetts

Planting Recommendations Diagram

November 2015

0-53
sitcreative
landscape architecture



Oriental Bittersweet is a deciduous, climbing, woody vine that can grow to lengths of 60 ft. Prolific vine growth allows it to encircle trees and girdle them. Vines can completely cover other vegetation and shade, out-compete and kill even large trees. It can be dispersed widely and quickly due to birds eating the berries and spreading the seeds. Oriental bittersweet was introduced from China around 1860 as an ornamental. It has also been shown to hybridize with American Bittersweet, potentially leading to a loss of genetic identity.

Celastrus orbiculatus - Oriental Bittersweet



Invasive blackberry plants are easy to distinguish from other blackberries. While most cultivated blackberries have round stems, cutleaf and Himalayan blackberries have ridged stems with five angles. The leaves of Himalayan and cutleaf blackberries have five leaflets where most other types have only three leaflets.

Rubus sp. - Wild Blackberry



Norway maple is a deciduous tree that grows 40-60 ft. tall. Once established into a forest, it has the ability to shade out the native understory and out-compete the native tree species. Norway maple is native to Europe and was first introduced into the United States in 1756. It has been, and continues to be, widely sold as an ornamental.

Acer platanoides | Norway Maple



January 13, 2016

Kimberly Barnette
LDa-Architects
222 Third Street, Suite 3212
Cambridge, MA 02633

Re: Condition Survey – Gate Lodge at Maudslay State Park, Newburyport, MA

Dear Kimberley,

As requested, Dan Foiles of RSE Associates visited the Gate Lodge at Maudslay State Park on October 29, 2015 to observe the existing condition of the structure. The building is a single-family home constructed in the early 1900's (photo 1). The main structure consists of granite stone foundations with brick piers supporting light wood frame construction. Both the attached and detached sheds on the east side of the building consist of concrete foundations supporting light wood frame construction.

The Massachusetts Department of Conservation and Recreation (DCR) owns the Gate Lodge and currently leases it to the Theater in the Open organization.

This report presents our findings based on the observation of structural components accessible at the time of the visit and excludes below grade elements such as footings. Wood framing dimensions are nominal dimensions unless noted otherwise.

1. EXISTING CONDITIONS

a. Main Building

Foundations

The main building foundations consist of granite stone masonry walls (photo 2-3) around the perimeter of the building and several brick piers (photo 4) in the interior. The granite masonry walls are in good condition with no obvious sign of cracking or water infiltration. The brick piers are in good condition with only minor cracking. The basement floor is a concrete slab on grade that is in good condition. A report prepared by the current resident in 2012 suggests that the slab on grade is not original and replaced the original dirt floor. According to the resident's report, in 2012, the resident replaced the last portion of the dirt floor with slab on grade.

First Floor Framing

The first floor framing consists of 2x10 joists at roughly 16 in. on center and 6x10 beams (photo 5). The 2x10 joist widths are a true 2 in wide. The joists either bear directly on the granite foundation walls at the perimeter (photo 6) or frame into the 6x10 beams at interior locations (photo 7). The 6x10 beams bear either on the granite foundation walls or on the interior brick

piers. The first floor framing is in good condition. We did not observe any signs of rotting or other distress.

Second Floor Framing

The interior finishes hide the second floor framing so we were not able to observe its condition.

Roof Framing

Access to observe the roof framing is limited to one hatch into the attic near the north chimney. The attic is too small to move around in so we could only observe the roof framing from this one location. The roof framing consists of 2x8 (true 2 in. width) rafters at 16 in. on center with 3/4 in. wood decking (photo 8). From this location, the roof framing appeared to be in generally good condition. Near the north chimney, we observed water staining on the rafters (photo 9), but the staining appeared to be old and the wood did not appear to be rotting.

Chimneys

There are two chimneys in the building. One chimney is located at the south perimeter and one is located in the interior near the north side of the building (Photo 1). We observed the interior portions of the chimneys not hidden by the interior finishes and the interior portions of the chimneys are in good condition with only minor cracking. According to the same report from 2012 mentioned above, the resident hired masons to replace the exterior portion of the south chimney in 2012. The north chimney appears to be original and in good condition, but we could only observe the north chimney from the ground.

b. Front Porch

Foundations

The same granite foundation wall observed in the basement supports the porch floor framing on the north side and a concrete foundation wall appears to support the south side of the porch. The granite foundation wall is in good condition. Only a very small portion of the concrete foundation wall is visible and above grade, therefore, we could not observe the condition of the wall.

Floor Framing

The porch floor framing consists of 2x10 joists spanning in the north south direction. It is unclear if the joists span from the granite foundation wall on the north side of the porch to the concrete foundation wall on the south side or if there is also an additional intermediate support. The joist on the west perimeter of the porch is severely rotted near the porch entrance (photo 10-12). It appears that the adjacent joist is also rotted, but without removing the floor decking, we were unable to determine the full extent of the deterioration. The porch floor near the rotted joist slopes significantly starting from the house's exterior wall suggesting the deterioration extends beyond the area that we could observe.

Roof Framing

We could not observe the roof framing because it is hidden behind the ceiling boards. We were able to observe the roofing from a second story window. The roofing consists of only a waterproofing membrane without shingles. The seam of the waterproofing membrane near the eave is failed in several locations.

c. Shed

Foundations

The north side of the shed bears on a concrete foundation that extends roughly 6 in. above grade (photo 13). The south wall of the shed appears to bear on the floor slab except for a small portion on the east end of the wall that appears to be directly on grade (photo 14). The east wall also appears to be directly on grade.

Wall Framing

The shed walls are typical 2x4 stud walls with sheathing boards and wood shingles on the exterior. The east wall of the shed is rotted near the top along its entire length (photo 15). Vegetation and other miscellaneous items obscured the base of the east wall. Therefore, we could not observe the base of the east wall. The south wall is rotted at the base of the east end (photo 14). The north wall is in good condition.

Roof Framing

The shed has a monoslope roof and the framing is similar to the main house and consists of 2x8 rafters (true 2 in. width) and wood decking (photo 16). The roof framing is in good condition and we did not observe any significant deterioration.

d. Garage

Foundations

The garage bears on a concrete foundation located at the perimeter and that extends approximately 1 ft above grade (photo 17). The foundation is in good condition and we did not observe any significant deterioration.

Wall Framing

The garage walls are typical 2x4 stud walls with sheathing boards and wood shingles on the exterior (photo 18). The walls are in good condition and we did not observe any significant deterioration.

Roof Framing

The garage has an asymmetrical gable roof with 2x6 rafters and 1x8 ties every other rafter (photo 18). The garage roof is in good condition and we did not observe any significant deterioration.

2. DISCUSSION AND RECOMMENDATIONS

a. Main Building

Foundations

No action is necessary at this time.

First Floor Framing

No action is necessary at this time.

Second Floor Framing

Although we were not able to observe the second floor framing directly, we did not observe anything that would indicate that the second floor framing is deteriorated (excessive deflection, signs of water infiltration, etc.). No action is necessary at this time.

Roof Framing

We were only able to observe a small portion of the roof framing directly, but, similar to the second floor, we did not observe anything that would indicate that the roof framing is deteriorated. Heavy rain fell the night prior to the condition survey; however, we did not observe signs of recent water infiltration into the attic space. No action is necessary at this time.

Chimneys

No action is necessary at this time.

b. Front Porch

Foundations

We were not able to observe the porch foundations completely, but a more extensive condition survey should be performed during the work to repair the porch floor framing recommended below.

Floor Framing

The porch is exposed to the elements and very near grade, which makes it susceptible to deterioration. Therefore, it is possible that the extent of the rot is much greater than what we directly observed. We recommend removing the porch floor decking to survey all of the existing joists. All of the deteriorated joists should be replaced with pressure treated lumber.

Roof Framing

Given the condition of the existing porch roofing and water is likely leaking into the porch, we believe that some of the roof framing may be deteriorated. We recommend removing the ceiling boards or roof membrane/sheathing to conduct a complete survey of the roof framing.

It is our understanding that the porch contains lead paint and needs to be de-leaded. Given the cost of de-leading and the potential need for substantial repair of the floor framing and possible the roof framing, it may be more cost effective to completely demolish and replace the porch.

c. Shed

Foundations

The tenant informed us that water infiltrates up through the shed floor slab. If DCR replaces the slab to provide a vapor barrier, we recommend providing a curb at the east and south perimeter of the slab to support the walls and to elevate the base of the walls from grade. If DCR does not replace the slab, we recommend providing a grade beam at the east and south walls for the reasons mentioned above.

Wall Framing

We recommend DCR demolish and replace the east wall. In addition, DCR should remove the base of the south wall to eliminate the isolated area of deterioration and to allow the installation of either a concrete curb or grade beam. The bottom sill plate at the base of the new east wall and the modified south wall should be pressure treated. The shed roof will need to be temporarily shored to perform the repairs.

Roof Framing – No action is necessary at this time.

d. Garage

Foundations

No action is necessary at this time.

Wall Framing

No action is necessary at this time.

Roof Framing

No action is necessary at this time.

3. CONCLUSION

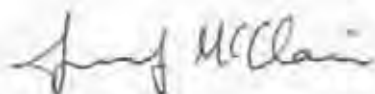
The structural systems, including the foundations, floor framing, roof framing, and bearing walls, are generally in good condition except several isolated locations, most notably the porch.

We recommend DCR complete the repairs presented in the above sections and complete routine maintenance to prevent future deterioration.

EXISTING BUILDING DISCLAIMER:

This assessment of this building is based on visible structural elements available at the time of this review. Note that most of the structural framing and foundations reviewed as part of this inspection were hidden within interior finishes or below grade, respectively. Due to this fact, the exact condition of the structure that is "out-of-sight", cannot be determined as parts of this review, nor can RSE Associates make an assessment of these elements ability to support structural loads imposed on them.

Sincerely,



Jennifer McClain, PE
Principal



Dan Foiles
Structural Engineer

Appendix A: Site Photos

APPENDIX A



Photo 1 – Gate Lodge viewed from the south west.



Photo 2 – Granite foundation wall exterior face at the north elevation.



Photo 3 – Granite foundation wall viewed in the basement.



Photo 4 – Interior brick pier in the basement.



Photo 5 – First floor framing.



Photo 6 – First floor joists bearing on the granite foundation walls.



Photo 7 – First floor framing joist-to-beam connection



Photo 8 – Main building roof framing.



Photo 9 – Water staining on the main building roof framing.



Photo 10 –Deteriorated framing at porch perimeter near the entrance.



Photo 11 – Close-up of the deteriorated framing near the porch entrance.



Photo 12 – Deteriorated decking at the porch perimeter near the entrance.



Photo 13 – Concrete foundation supporting the attached porch north wall.



Photo 14 – Deterioration on the east side of the attached shed's south wall.



Photo 15 – Deterioration at the top of the attached shed's east wall.



Photo 16 – Attached shed roof framing.



Photo 17 – Concrete foundation wall supporting the garage.



Photo 18 – Garage roof framing.

DCR Maudslay Gate Lodge
Newburyport, MA
Existing Conditions Systems Report
J#645 003 06.00/L#49923/Page 1
January 13, 2016

HVAC - Heating, Ventilation and Air Conditioning:

The gate house residence is heated by a single zone oil-fired ducted hot air system. The hot air furnace is a Thermopride Model OL11-105FOA rated for 126,000 BTU/hr input and 101 BTU/hr output while firing No 2 fuel oil. This furnace is 6 years old, having been installed in 2009 by the tenant. On September 15, 2015 an ignitor was replaced in the Beckett Model R7184D oil burner. There is a 275 gallon oil tank in the basement with a single wall oil line grouted into the basement floor to feed the furnace. The furnace vents via 6" galvanized breeching into a masonry chimney. The furnace is controlled by a White Rogers programmable thermostat located in the kitchen. Heated air is distributed to the house via uninsulated galvanized ductwork that is tied into original cast iron floor grilles and newer stamped steel floor and wall grilles. Return air is pulled back to the furnace via floor and wall mounted return grilles located throughout the house. There is an abandoned humidifier in the basement ductwork.

A secondary source of heat is a Lopi Republic 1750i fireplace insert woodstove located in the parlor. This woodstove has a multi-speed blower to improve convective heat output. It vents to a steel liner installed in a masonry chimney.

There is a residential dehumidifier in the basement that has an internal condensate bucket that has to be manually emptied.

The bathrooms do not have any exhaust fan. The only source of ventilation is operable windows.



Cast Iron Grille



275 Gallon Oil Tank

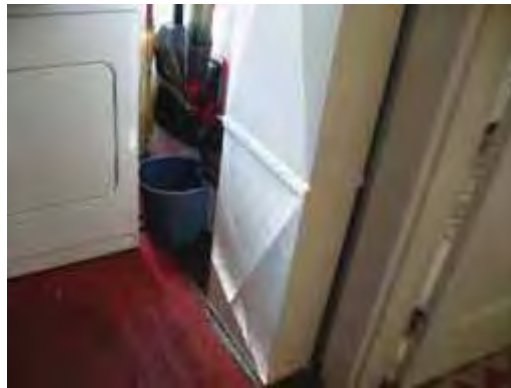
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Warm Air Furnace



Fireplace Insert Woodstove



Exposed Ductwork & Floor Grille

Recommendations:

- Add an exhaust fan to the bathroom containing the shower, or in lieu of an exhaust fan, open the bathroom door after taking a shower to let the moisture rapidly dissipate.
- Clean the wood stove chimney liner on a schedule that takes into account how dry the wood is, how much wood is burned and how much time the stove was dampered down.
- Relocate furniture that blocks floor grilles to assure good air circulation and even heating.
- Continue to maintain the furnace with annual filter changes, burner cleaning and tuning and fan lubrication and maintenance.

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ELECTRICAL

Executive Summary:

In general, the electrical distribution system located in the basement is adequate in capacity but is antiquated and in fair condition. Panel should be replaced.

New energy efficient lighting should be provided throughout the building. New exterior lighting will be the LED type.

Electrical Distribution System:

There is one service present at the facility. The service is rated at 100A, 120/240V, 1Ø, 3W. The main distribution panel with the main breaker are manufactured by Push-o-matic. The equipment is original and in fair condition. There is one meter at the exterior of the building.

The service is overhead from a utility pole to the exterior meter and continuing to the main breaker panel in the basement.



Main Distribution Panel



Overhead Service



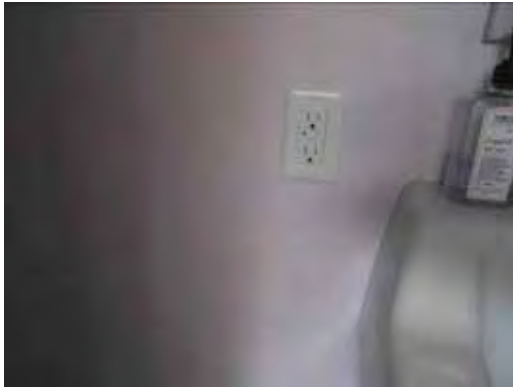
Exterior Meter

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Branch Circuits:

Outlets and switches in the kitchen do not have coverplates. Most are the non-grounding type and some are old and in poor condition.

Quantity of receptacles does not appear to be sufficient to meet current code requirements.



GFI Outlets



Outlet & Switch Without Cover



Kitchen Non-Grounding Outlets



General Non-Grounding Outlet

Bathrooms have GFI type outlets. Most outlets throughout the building are non-grounding and in poor condition. Exterior outlets are not the GFI type.

Interior Lighting System:

Basement lighting consists of porcelain socket with screw-in fluorescent lamps. Bathroom lighting has a ceiling surface mounted light fixture and wall sconces on each side of the mirror.

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Basement Lighting



Bathroom Lighting

Kitchen has a ceiling mounted fixture with a ceiling light over the sink. Hallway light is a surface fixture.



Kitchen Lighting



Hallway Lighting

Screened porch has porcelain sockets with screw-in fluorescent lamp and a pull string. Bedrooms consist of wall mounted plug-in fixture with integrated switch.

In general, the existing lighting throughout the building is in poor condition.

Site Lighting System:

The exterior lighting at the site consists of wall-mounted utility fixture at the exterior door to the shed. Perimeter lighting consists of wall-mounted flood lights on the building. The exterior light fixtures are in poor condition with no light at the entrance to the screened porch.

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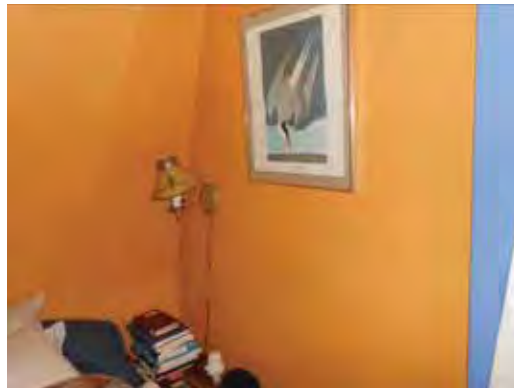
Door Light



Building Light



Porch Light



Bedroom Light

Fire Alarm System:

Fire alarm devices includes a combination smoke and carbon monoxide detector in the basement. The hallway also has a combination smoke and carbon monoxide detector on both the first floor an second floor.



Combo Detector in Basement



Hallway Detector

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Telephone/CATV:

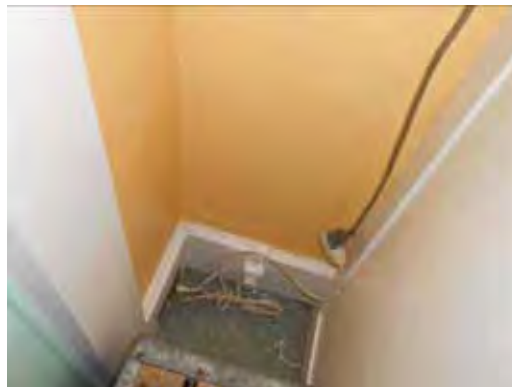
There is an overhead telephone and cable TV service to the building located in the basement. There are a couple of telephone jacks located in the building. No CATV jacks were found.



Telephone Service



Cable Service



Telephone Jack

Security System:

There appears to be an old security system in the building. The system consists of an Ademco control panel and key pad in the basement. Security system does not appear to be working.

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Control Panel

RECOMMENDATIONS

Electrical Distribution System:

The existing panel is in poor condition. A new panel should be provided.

Branch Circuits:

All receptacles and switches should be replaced, rewired and provided with grounding type and coverplates.

Interior Lighting System:

Lighting throughout the building is in poor condition. New energy efficient lighting should be provided.

Site Lighting System:

All exterior lighting should be provided with new energy efficient LED type fixtures and dark sky compliance.

Fire Alarm System:

Fire alarm devices should be replaced with new hard-wired type with battery back-up. Carbon monoxide detectors should be provided in the basement and outside each bedroom.

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Plumbing Systems:

The Building is supplied by a 3/4" domestic water service & meter which is located in basement. The water service enters building from Pinehill Road side.

Hot water to building is provided by an Electric type water heater which was manufactured in 1996 and is approaching the end of its useful life. Hot and cold water piping to and from water heater is not insulated.

Existing plumbing fixtures on the first & second floor appear to be in poor working order, are not water conserving type and do not meet current ADA requirement.

Washing machine is improperly connected to waste and water systems and does not meet current plumbing code.

Service sink mounted on exterior face of building is improperly connected and does not meet current plumbing code. Only cold water is supplied to sink. Sink is not covered and is open to the elements.

Existing exterior Hose Bibbs do not meet current plumbing codes they are not equipped with vacuum breakers.

Existing sanitary system discharges a septic system located in backyard. The septic system appears to be in working order but presently the age of septic system is unknown.



Domestic water service & meter



Electric Water Heater & Piping



Sanitary Service

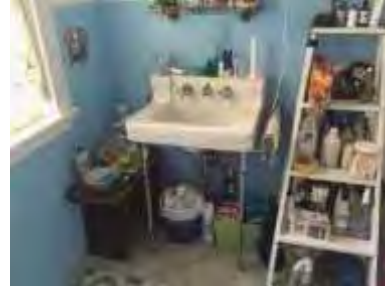
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Vitreous China Tank Type Water Closet



Cast Iron Tub & shower Valve



Vitreous China Lavatory



Stainless Steel Sink



Washing Machine Connection



Washing Machine Discharge



Exterior Service Sink



Service Sink Waste Connection



Exterior Hose Bibb

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January 13, 2016



Exterior Septic System



Septic System Vent

Plumbing Recommendations:

- All plumbing fixtures are in need of replacement, all new fixtures will be water conserving types.
- Plumbing fixtures to be installed per current plumbing code & ADA requirements.
- Provide new pipe hangers and insulation on any piping to remain. All new valves are to be provided on any existing water piping to remain.
- Replace existing electric water heater with new High-Efficiency Electric type Hot Water Heater.
- Provide new exterior wall hydrants with integral vacuum breakers.

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Fire Protection Systems:

The building does not presently have any installed fire protection systems.

Code analysis required to determine need for fire protection in future program.

There is a fire hydrant located at the corner of Pine Hill Road & Spring Lane. Hydrant flow test is required to determine the Municipal water supply capacity.



Fire Hydrant



Fire Hydrant

APPENDIX C: EXISTING DOCUMENTATION

DCR BUILDING CONDITIONS SURVEY & ASSESSMENT
for
Gate Lodge at Maudslay State Park
Newburyport, MA

January, 2016

Environmental Improvement Resources

-A Division of F. J. Ratta Co., Inc.-

19 Westford Road

Ayer, Massachusetts 01432

SUBSURFACE SEWAGE DISPOSAL SYSTEM INSPECTION FORM

PART A

CERTIFICATION

Maudsley State Park - Children's Theater, Newburyport

Property Address: Curzon Mill Rd.

Address of Owner: Commonwealth of Massachusetts

Date of Inspection: 11/12/98

(If different) Environmental Management

Name of Inspector: Scott Goodman

I am a DEP approved system inspector pursuant to Section 15.340 of Title 5 (310 CMR 15.000)

Company Name: F. J. Ratta Co., Inc.

Mailing Address: 19 Westford Road Ayer, MA 01432

Telephone Number: (978)772-5718

CERTIFICATION STATEMENT

I certify that I have personally inspected the sewage disposal system at this address and that the information reported below is true, accurate and complete as of the time of inspection. The inspection was performed based on my training and experience in the proper function and maintenance of on-site sewage disposal systems. The system:

☒ Passes

☐ Conditionally Passes

☐ Needs Further Evaluation By the Local Approving Authority

☐ Fails

Inspector's Signature:



Date: 11/18/98

The System Inspector shall submit a copy of this inspection report to the Approving Authority within thirty (30) days of completing this inspection. If the system is a shared system or has a design flow of 10,000 gpd or greater, the inspector and the system owner shall submit the report to the appropriate regional office of the Department of Environmental Protection. The original should be sent to the system owner and copies sent to the buyer, if applicable and the approving authority.

INSPECTION SUMMARY: Check A, B, C, or D:

A) SYSTEM PASSES:

☒ I have not found any information which indicates that the system violates any of the failure criteria as defined in 310 CMR 15.303. Any failure criteria not evaluated are indicated below.

COMMENTS:

B) SYSTEM CONDITIONALLY PASSES:

One or more system components as described in the "Conditional Pass" section need to be replaced or repaired. The system, upon completion of the replacement or repair, as approved by the Board of Health, will pass.

Indicate yes, no, or not determined (Y, N, or ND) Describe basis of determination in all instances. If "not determined", explain why not.

The septic tank is metal, unless the owner or operator has provided the system inspector with a copy of a Certificate of Compliance (attached) indicating that the tank was installed within twenty (20) years prior to the date of the inspection; or the septic tank, whether or not metal, is cracked, structurally unsound, shows substantial infiltration or exfiltration, or tank failure is imminent. The system will pass inspection if the existing septic tank is replaced with a conforming septic tank as approved by the Board of Health.

SUBSURFACE SEWAGE DISPOSAL SYSTEM INSPECTION FORM
PART A
CERTIFICATION (continued)

Property Address: Children's Theater, Curzon Mill Rd., Maudsley State Park, Newburyport
Owner: Commonwealth of Massachusetts, Environmental Management
Date of Inspection: 11/12/98

B) SYSTEM CONDITIONALLY PASSES (continued)

- ___ Sewage backup or breakout or high static water level observed in the distribution box is due to broken or obstructed pipe(s) or due to a broken, settled or uneven distribution box. The system will pass inspection if (with approval of the Board of Health): Describe observations:
 ___ broken pipe(s) are replaced
 ___ obstruction is removed
 ___ distribution box is levelled or replaced
- ___ The system required pumping more than four times a year due to broken or obstructed pipe(s). The system will pass inspection if (with approval of the Board of Health):
 ___ broken pipe(s) are replaced
 ___ obstruction is removed

C) FURTHER EVALUATION IS REQUIRED BY THE BOARD OF HEALTH:

___ Conditions exist which require further evaluation by the Board of Health in order to determine if the system is failing to protect the public health, safety and the environment.

1) SYSTEM WILL PASS UNLESS BOARD OF HEALTH DETERMINES THAT THE SYSTEM IS NOT FUNCTIONING IN A MANNER WHICH WILL PROTECT THE PUBLIC HEALTH AND SAFETY AND THE ENVIRONMENT:

- ___ Cesspool or privy is within 50 feet of a surface water
___ Cesspool or privy is within 50 feet of a bordering vegetated wetland or a salt marsh.

2) SYSTEM WILL FAIL UNLESS THE BOARD OF HEALTH (AND PUBLIC WATER SUPPLIER, IF APPROPRIATE) DETERMINES THAT THE SYSTEM IS FUNCTIONING IN A MANNER THAT PROTECT THE PUBLIC HEALTH AND SAFETY AND THE ENVIRONMENT:

- ___ The system has a septic tank and soil absorption system (SAS) and the SAS is within 100 feet to a surface water supply or tributary to a surface water supply.
___ The system has a septic tank and soil absorption system and the SAS is within a Zone I of a public water supply well.
___ The system has a septic tank and soil absorption system and the SAS is within 50 feet of a private water supply well.
___ The system has a septic tank and soil absorption system and the SAS is less than 100 feet but 50 feet or more from a private water supply well, unless a well water analysis for coliform bacteria and volatile organic compounds indicates that the well is free from pollution from that facility and the presence of ammonia nitrogen and nitrate nitrogen is equal to or less than 5 ppm. Method used to determine distance _____ (approximation not valid).

3) OTHER

___ _____
___ _____
___ _____

SUBSURFACE SEWAGE DISPOSAL SYSTEM INSPECTION FORM
PART A
CERTIFICATION (continued)

Property Address: Children's Theater, Curzon Mill Rd., Maudsley State Park, Newburyport
Owner : Commonwealth of Massachusetts, Environmental Management
Date of Inspection: 11/12/98

D) SYSTEM FAILS:

You must indicate either "Yes" or "No" as to each of the following:

_____ I have determined that the system violates one or more of the following failure criteria as defined in 310 CMR 15.303. The basis for this determination is identified below. The Board of Health should be contacted to determine what will be necessary to correct the failure.

Yes No

- | | | |
|-------|-------|--|
| _____ | _____ | Backup of sewage into facility or system component due to an overloaded or clogged SAS or cesspool. |
| _____ | _____ | Discharge or ponding of effluent to the surface of the ground or surface waters due to an overloaded or clogged SAS or cesspool. |
| _____ | _____ | Static liquid level in the distribution box above outlet invert due to an overloaded or clogged SAS or cesspool. |
| _____ | _____ | Liquid depth in cesspool is less than 6" below invert or available volume is less than 1/2 day flow. |
| _____ | _____ | Required pumping more than 4 times in the last year <u>NOT</u> due to clogged or obstructed pipe(s).
Number of times pumped _____ |
| _____ | _____ | Any portion of the Soil Absorption System, cesspool or privy is below the high groundwater elevation. |
| _____ | _____ | Any portion of a cesspool or privy is within 100 feet of a surface water supply or tributary to a surface water supply. |
| _____ | _____ | Any portion of a cesspool or privy is within a Zone I of a public well. |
| _____ | _____ | Any portion of a cesspool or privy is within 50 feet of a private water supply well. |
| _____ | _____ | Any portion of a cesspool or privy is less than 100 feet but greater than 50 feet from a private water supply well with no acceptable water quality analysis. If the well has been analyzed to be acceptable, attach copy of well water analysis for coliform bacteria, volatile organic compounds, ammonia nitrogen and nitrate nitrogen. |

E) LARGE SYSTEM FAILS:

You must indicate either "Yes" or "No" as to each of the following:

The following criteria apply to large systems in addition to the criteria above:

_____ The system serves a facility with a design flow of 10,000 gpd or greater (Large System) and the system is a significant threat to public health and safety and the environment because one or more of the following conditions exist:

Yes No

- | | | |
|-------|-------|--|
| _____ | _____ | the system is within 400 feet of a surface drinking water supply |
| _____ | _____ | the system is within 200 feet of a tributary to a surface drinking water supply |
| _____ | _____ | the system is located in a nitrogen sensitive area (Interim Wellhead Protection Area (IWPA) or a mapped Zone II of a public water supply well) |

The owner or operator of any such system shall bring the system and facility into full compliance with the groundwater treatment program requirements of 314 CMR 5.00 and 6.00. Please consult the local regional office of the Department for further information.

SUBSURFACE SEWAGE DISPOSAL SYSTEM INSPECTION FORM
PART B
CHECKLIST

Property Address: Children's Theater, Curzon Mill Road, Maudsley State Park, Newburyport
Owner: Commonwealth of Massachusetts, Environmental Management
Date of Inspection: 11/12/98

Check if the following have been done: You must indicate either "Yes" or "No" as to each of the following:

Yes No

☒ ☐ Pumping information was requested of the owner, occupant, and Board of Health.

☒ ☐ None of the system components have been pumped for at least two weeks and the system has been receiving normal flow rates during that period. Large volumes of water have not been introduced into the system recently or as part of this inspection.

☐ n/a ☐ As built plans have been obtained and examined. Note if they are not available with N/A.

☒ ☐ The facility or dwelling was inspected for signs of sewage back-up.

☒ ☐ The system does not receive non-sanitary or industrial waste flow.

☒ ☐ The site was inspected for signs of breakout.

☒ ☐ All system components, excluding the Soil Absorption System, have been located on the site.

☒ ☐ The septic tank manholes were uncovered, opened, and the interior of the septic tank was inspected for condition of baffles or tees, material of construction, dimensions, depth of liquid, depth of sludge, depth of scum.

The size and location of the Soil Absorption System on the site has been determined based on:

☒ ☐ The facility owner (and occupants, if different from owner) were provided with information on the proper maintenance of Sub-Surface Disposal System.

☐ n/a ☐ Existing information. Ex. Plan at B.O.H.

☒ ☐ Determined in the field (if any of the failure criteria related to Part C is at issue, approximation of distance is unacceptable) [15.302 (3)(b)]

SUBSURFACE SEWAGE DISPOSAL SYSTEM INSPECTION FORM
PART C
SYSTEM INFORMATION

Property Address: Children's Theater, Curzon Mill Road, Maudsley State Park, Newburyport
Owner: Commonwealth of Massachusetts, Environmental Management
Date of Inspection: 11/12/98

FLOW CONDITIONS

RESIDENTIAL:

Design Flow: 110 g.p.d./bedroom for S.A.S.
Number of bedrooms: 4
Number of current residents: 3
Garbage grinder (yes or no): no
Laundry connected to system (yes or no): yes
Seasonal use (yes or no): no
Water meter readings, if available (last two (2) year usage (gpd):
Sump Pump (yes or no): no

Last date of occupancy: present

COMMERCIAL/INDUSTRIAL:

Type of establishment:
Design flow: gallons/day
Grease trap present: (yes or no)
Industrial Waste Holding Tank present: (yes or no)
Non-sanitary waste discharged to the Title 5 System: (yes or no)
Water meter readings, if available:

Last date of occupancy:

OTHER: (Describe)

Last date of occupancy:

GENERAL INFORMATION

PUMPING RECORDS and source of information:

June 1998 by Currier Septic
System pumped as part of inspection: (yes or no) yes
If yes, volume pumped: 2000 gallons
Reason for pumping: structural inspection

TYPE OF SYSTEM

Septic tank/distribution box/soil absorption system
Single cesspool
Overflow cesspool
Privy
Shared system (yes or no) (if yes, attach previous inspection records, if any)
I/A Technology etc. Copy of up to date contract?
Other

APPROXIMATE AGE of all components, date installed (if known) and source of information: unknown
Sewage odors detected when arriving at the site (yes or no) NO

SUBSURFACE SEWAGE DISPOSAL SYSTEM INSPECTION FORM
PART C

SYSTEM INFORMATION (continued)

Property Address: Children's Theater, Curzon Mill Road, Maudsley State Park, Newburyport
Owner: Commonwealth of Massachusetts, Environmental Management
Date of Inspection: 11/12/98

BUILDING SEWER:

(Locate on site plan)

Depth below grade: 4'

Material of construction: cast iron 40 PVC ☒ other (explain)
Clay tile pipe

Distance from private water supply well or suction line:

Diameter: 4"

Comments: (condition of joints, venting, evidence of leakage, etc.)

No evidence of leakage

SEPTIC TANK:

(locate on site plan)

Depth below grade:

Material of construction: concrete metal FRP other (explain)

If tank is metal, list age: Is age confirmed by Certificate of Compliance (Yes/No)

Dimensions:

Sludge depth:

Distance from top of sludge to bottom of outlet tee or baffle:

Scum thickness:

Distance from top of scum to top of outlet tee or baffle:

Distance from bottom of scum to bottom of outlet tee or baffle:

How dimensions were determined:

Comments:

(recommendation for pumping, condition of inlet and outlet tees or baffles, depth of liquid level in relation to outlet invert, structural integrity, evidence of leakage, etc.)

GREASE TRAP:

(locate on site plan)

Depth below grade:

Material of construction: concrete metal FRP other (explain)

Dimensions:

Scum thickness:

Distance from top to scum to top of outlet tee or baffle:

Distance from bottom of scum to bottom of outlet tee or baffle:

Date of last pumping:

Comments:

(recommendations for pumping, condition of inlet and outlet tees or baffles, depth of liquid level in relation to outlet invert, structural integrity, evidence of leakage, etc.)

SUBSURFACE SEWAGE DISPOSAL SYSTEM INSPECTION FORM
PART C
SYSTEM INFORMATION (continued)

Property Address: Children's Theater, Curzon Mill Road, Maudsley State Park, Newburyport
Owner: Commonwealth of Massachusetts, Environmental Management
Date of Inspection: 11/12/98

TIGHT OR HOLDING TANK: _____ (Tank must be pumped prior to, or at time, of inspection)
(locate on site plan)

Depth below grade: _____

Material of construction: _____ concrete _____ metal _____ Fiberglass _____ Polyethylene _____ other (explain)

Dimensions: _____

Capacity: _____ gallons

Design flow: _____ gallons/day

Alarm level: _____ Alarm in working order: _____ Yes _____ No

Date of previous pumping: _____

Comments:

(condition of inlet tee, condition of alarm and float switches, etc.)

DISTRIBUTION BOX: _____

(locate on site plan)

Depth of liquid level above outlet invert: _____

Comments:

(note if level and distribution is equal, evidence of solids carryover, evidence of leakage into or out of box, etc.)

PUMP CHAMBER: _____

(locate on site plan)

Pumps in working order: (Yes or No) _____

Alarms in working order: (Yes or No) _____

Comments:

(note condition of pump chamber, condition of pumps and appurtenances, etc.)

SUBSURFACE SEWAGE DISPOSAL SYSTEM INSPECTION FORM

PART C

SYSTEM INFORMATION (continued)

Property Address: Children's Theater, Curzon Mill Road, Maudsley State Park, Newburyport
 Owner: Commonwealth of Massachusetts, Environmental Management
 Date of Inspection: 11/12/98

SOIL ABSORPTION SYSTEM (SAS):_____

(locate on site plan, if possible; excavation not required, but may be approximated by non-intrusive methods)

If not determined to be present, explain:

Type:

leaching pits, number: _____
 leaching chambers, number: _____
 leaching galleries, number: _____
 leaching trenches, number, length: _____
 leaching fields, number, dimensions: _____
 overflow cesspool, number: _____
 Alternative system: _____
 Name of Technology: _____

Comments: (note condition of soil, signs of hydraulic failure, level of ponding, condition of vegetation, etc.)

CESSPOOLS:_____X_____

(locate on site plan)

Number and configuration: _____(1)_____
 Depth-top of liquid to inlet invert: _____18"_____
 Depth of solids layer: _____10"_____
 Depth of scum layer: _____1-2"_____
 Dimensions of cesspool: _____8' diameter x 10' deep_____
 Materials of construction: _____
 Indication of groundwater: _____

inflow (cesspool must be pumped as part of inspection)

Comments: (note condition of soil, signs of hydraulic failure, level of ponding, condition of vegetation, etc.)

PRIVY:_____

(locate on site plan)

Materials of construction: _____Dimensions: _____
 Depth of solids: _____

Comments: (note condition of soil, signs of hydraulic failure, level of ponding, condition of vegetation, etc.)

SUBSURFACE SEWAGE DISPOSAL SYSTEM INSPECTION FORM
PART C
SYSTEM INFORMATION (continued)

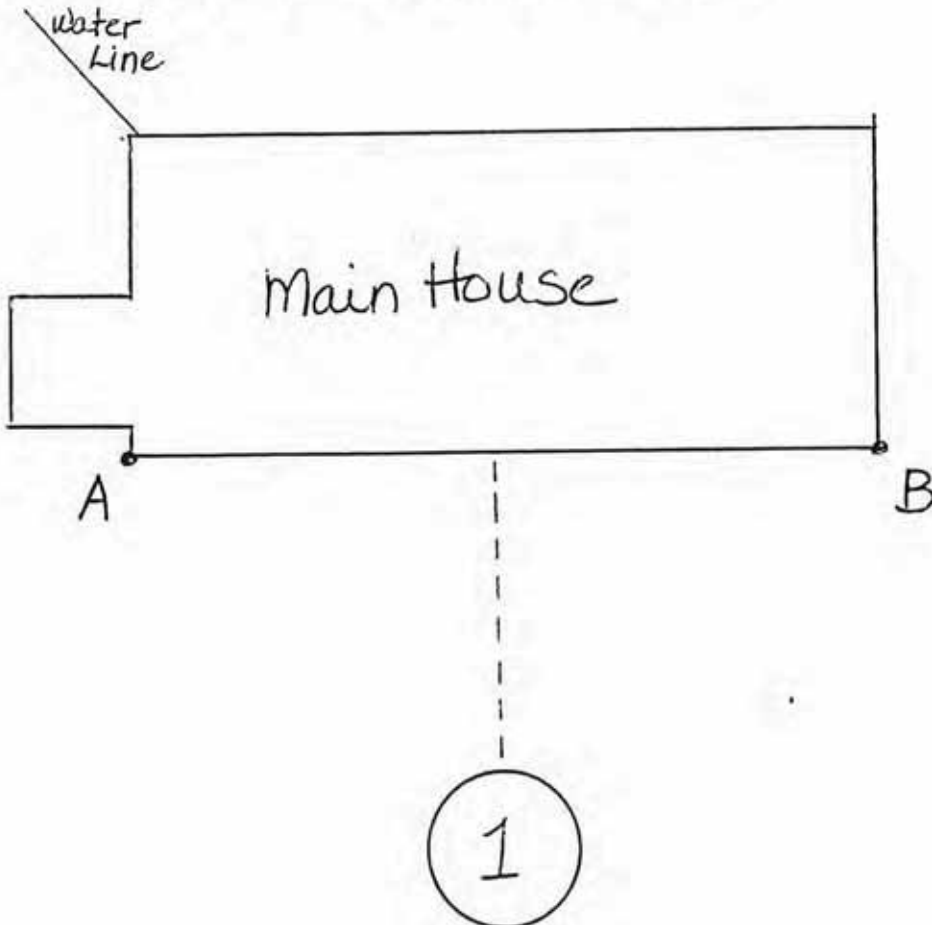
Property Address: Children's Theater, Curzon Mill Road, Maudsley State Park, Newburyport
Owner: Commonwealth of Massachusetts, Environmental Management
Date of Inspection: 11/12/98

SKETCH OF SEWAGE DISPOSAL SYSTEM:

include ties to at least two permanent references landmarks or benchmarks
locate all wells within 100' (Locate where public water supply comes into house)

A - 1 = 54'6"

B - 1 = 48'6"



SUBSURFACE SEWAGE DISPOSAL SYSTEM INSPECTION FORM
PART C
SYSTEM INFORMATION (continued)

Property Address: Children's Theater, Curzon Mill Road, Maudsley State Park, Newburyport
Owner: Commonwealth of Massachusetts, Environmental Management
Date of Inspection: 11/12/98

Depth to Groundwater > 20 Feet

Please indicate all methods used to determine High Groundwater Elevation:

- ☐ Obtained from Design Plans on record
- ☒ Observation of Site (Abutting property, observation hole, basement sump, etc.)
- ☒ Determine it from local conditions
- ☒ Check with local Board of Health
- ☐ Check FEMA Maps
- ☐ Check pumping records
- ☐ Check local excavators, installers
- ☐ Use USGS Data

Describe in your own words how you established the High Groundwater Elevation. (Must be completed)

This park is situated on an elevated sand and gravel area. There is a gravel pit adjacent to the property with a floor 30 - 40 feet below the septic systems of the park. There is a town well 800 - 900 feet from the park, 30 feet lower at its surface than the base of the gravel pit. At this well, seasonal high groundwater comes within a few feet of the surface, which is at least 60 feet below the park. Information obtained from Newburyport Board of Health and Newbury Water Department. It is highly unlikely that locations in the park are effected by seasonal high groundwater.

PINE HILL RD

Location

PINE HILL RD

Assessment

\$484,600

Mblu

115/ 1/B / /

PID

7266

Owner

COMMONWEALTH OF MASS

Building Count

1

Current Value

Assessment			
Valuation Year	Improvements	Land	Total
2015	\$309,800	\$174,800	\$484,600

Owner of Record

Owner

COMMONWEALTH OF MASS

Co-Owner

DEPT ENVIRONMENTAL MGMT

Address

100 CAMBRIDGE ST
BOSTON, MA 02202

Sale Price

\$190,000

Certificate

Book & Page

DOC21/3815

Sale Date

07/16/1986

Instrument

1E

Ownership History

Ownership History					
Owner	Sale Price	Certificate	Book & Page	Instrument	Sale Date
COMMONWEALTH OF MASS	\$190,000		DOC21/3815	1E	07/16/1986
TRUST FOR PUBLIC LAND	\$0		DOC20/3725		08/05/1985

Building Information

Building 1 : Section 1

Year Built:

1905

Living Area:

2278

Building Attributes	
Field	Description
Style	Conventional
Model	Residential
Stories:	2 Stories
Occupancy	1
Exterior Wall 1	Stucco/Masonry
Exterior Wall 2	Wood Shingle
Roof Structure:	Gambrel
Roof Cover	Asph/F Gls/Cmp

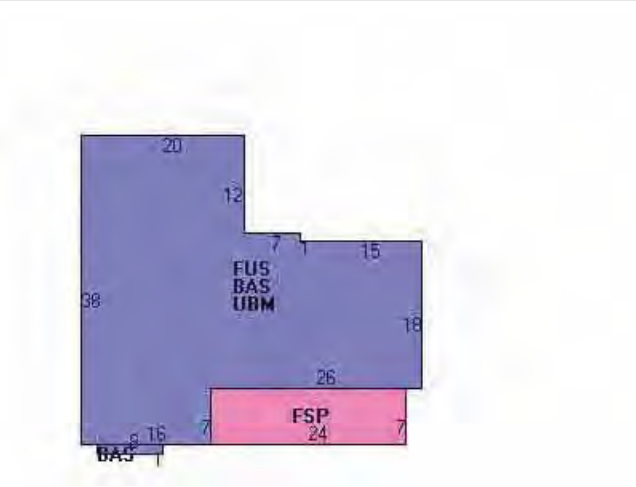
Building Photo



(http://images.vgsi.com/photos/NewburyportAPPhotos//\01\00'

Interior Wall 1	Plastered
Interior Wall 2	
Interior Flr 1	Hardwood
Interior Flr 2	Pine/Soft Wood
Heat Fuel	Oil
Heat Type:	Forced Air-Duc
AC Type:	None
Total Bedrooms:	4 Bedrooms
Total Bthrms:	2
Total Half Baths:	0
Total Xtra Fixtrs:	
Total Rooms:	8 Rooms
Bath Style:	Average
Kitchen Style:	Average

Building Layout



Building Sub-Areas			Legend
Code	Description	Gross Area	Living Area
BAS	First Floor	1143	1143
FUS	Upper Story, Finished	1135	1135
FSP	Porch, Screened	168	0
UBM	Basement, Unfinished	1135	0
		3581	2278



Extra Features

Extra Features					Legend
Code	Description	Size	Value	Bldg #	
FPL3	FIREPLACE 2 ST	1 UNITS	\$3,100	1	

Land

Land Use

Use Code 901R
Description COMM-MASS MDL-01
Zone AC

Land Line Valuation

Size (Acres) 2.99
Depth 0
Assessed Value \$174,800

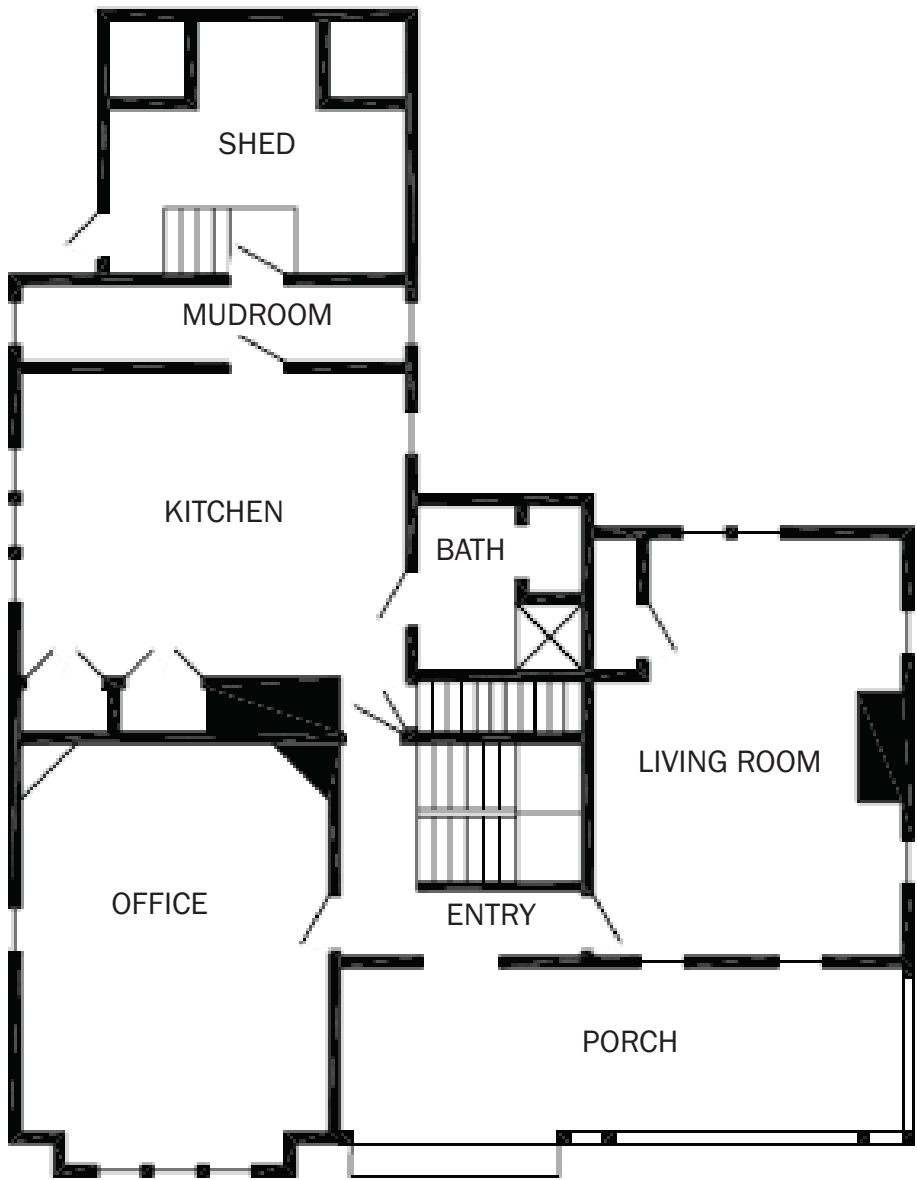
Outbuildings

Outbuildings							Legend
Code	Description	Sub Code	Sub Description	Size	Value	Bldg #	
FGR3	GARAGE-POOR			231 S.F.	\$2,400	1	

APPENDIX D: PLANS

DCR BUILDING CONDITIONS SURVEY & ASSESSMENT
for
Gate Lodge at Maudslay State Park
Newburyport, MA

January, 2016



FIRST FLOOR PLAN
1/8" = 1'-0"



SECOND FLOOR PLAN
1/8" = 1'-0"

APPENDIX D:
PRESERVATION STANDARDS AND CRITERIA

APPENDIX - : Preservation Standards and Criteria

DCR requires that the exterior of the property be preserved in its existing architectural style. Interior space may be adaptively used, but remaining original detail is to be retained to the greatest extent possible. Preservation work and maintenance will be done by the Curator with plans, specifications and the work itself reviewed and approved by DCR, in consultation with the Massachusetts Historical Commission (MHC) and any other pertinent authority.

1. Historic Standards

The following general standards, as well as the *Secretary of the Interior's Standards for the Treatment of Historic Properties; 1992* (below) should govern the specific approach to preservation and use of the exterior and interior of the property:

- a. Every reasonable attempt shall be made to provide for compatible uses that require minimal alterations.
- b. The proposed uses of the property must maximize both immediate and long range preservation of the structure and its environment.
- c. The distinguishing qualities and character of the property shall not be destroyed. Distinctive architectural and/or significant site features are not to be altered, and any historic material identified in the course of renovations is not to be removed from the building without the express approval of DCR.
- d. All treatment that may affect surface or subsurface disturbances within the lease area must be evaluated by an archaeologist for potential effects to archaeological resources. If it is determined that an archaeological survey is necessary it should be conducted under permit from the state archaeologist at the Massachusetts Historical Commission in accordance with 950 CMR 70. Should artifacts be discovered in the course of the project, they should be investigated and recorded by an archaeologist permitted by the State Archaeologist, and turned over to the appropriate curatorial facility in accordance with Massachusetts General Laws, Chapter 9 Sec. 27c.
- e. With regard to the interior of the property, DCR's preference is for historical fabric to be preserved. However, DCR is prepared to cooperate with a successful Proposer in developing an adaptive reuse program which insures the economic viability of the project while satisfying the Department's objective of preserving the property.

2. Construction Standards

DCR requires that all improvements to the property comply with the following codes and standards:

- a. Massachusetts State Building Code (most recent edition);
- b. State Plumbing Code;
- c. DEP Title V;
- d. Chapter 91;
- e. all other applicable state and local codes, laws and regulations

All work shall be reviewed and by DCR. All work to the building and plumbing system is subject to review and approval by the State Building and Plumbing Inspectors. Electrical work is subject to the review and approval of the local electrical inspector. Septic system work is regulated by the Department of Environmental Protection, in consultation with the local Board of Health. Fire protection, safety and projects that impact watershed resources fall under the authority of local officials.

Secretary of the Interior's Standards for the Treatment of Historic Properties

1. A property shall be used for its historic purpose or be placed in a new use that requires minimal change to the defining characteristics of the building and its site and environment.
2. The historic character of a property shall be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided.
3. Each property shall be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or architectural elements from other buildings, shall not be undertaken.
4. Most properties change over time; those changes that have acquired historic significance in their own right shall be retained and preserved.
5. Distinctive features, finishes, and construction techniques or examples of craftsmanship that characterize a property shall be preserved.
6. Deteriorated historic features shall be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature shall match the old in design, color, texture, and other visual qualities and, where possible, materials. Replacement of missing features shall be substantiated by documentary, physical, or pictorial evidence.
7. Chemical or physical treatments, such as sandblasting, that cause damage to historic materials shall not be used. The surface cleaning of structures, if appropriate, shall be undertaken using the gentlest means possible.
8. Significant archeological resources affected by a project shall be protected and preserved. If such resources must be disturbed, mitigation measures shall be undertaken.
9. New additions, exterior alterations, or related new construction shall not destroy historic materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the massing, size, scale, and architectural features to protect the historic integrity of the property and its environment.
10. New additions and adjacent or related new construction shall be undertaken in such a manner that if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

APPENDIX E:
MAINTENANCE GUIDELINES



EXHIBIT E:

Guidelines for:

The Maintenance of Historic Properties

Including Recommendations for the Long Term Care
of Historic Buildings and Landscapes

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FOREWORD

The Department of Conservation and Recreation (DCR), through the Office of Cultural Resources, has prepared the following:

STANDARDS FOR THE MAINTENANCE OF HISTORIC PROPERTIES

as a means to aid Curator/Tenants in the development of a long term maintenance plan for Historic Curatorship Program properties.

The purpose of these Maintenance Standards is to provide a means of evaluating the performance of the Curator/Tenant as well as to insure a high level of care and protection for these valuable historic resources.

The guidelines contained herein are meant to provide a broad-based philosophy of maintenance, applicable to all historic properties. However, the Department acknowledges that Curatorship properties vary in size and condition, with some properties requiring specialized attention to landscape and architectural details. Therefore, it is DCR's goal to work with each Curator/Tenant in setting annual priorities for individual properties in order to both preserve the character of the property and minimize future expenditures.

The Department intends to work cooperatively with the Curator/Tenant in overseeing the condition of the Curatorship property. The result of a well-developed maintenance plan will be the extended life of a historically significant property, lowered costs for the Curator/Tenant and the public benefit of a well-maintained, attractive property. The Department looks forward to working with Curator/Tenants towards the common goal of the preservation of the Commonwealth's historic properties.

PART I - BACKGROUND

A. Department of Conservation and Recreation

The Department of Conservation and Recreation (DCR) is an agency of the Commonwealth of Massachusetts. It is charged with overseeing and implementing a wide variety of statutory mandates relating to conservation and outdoor recreation. These include "control and supervision of such parks, forests and areas of recreational, scenic, or historic significance as may be from time to time committed to it." [Mass.General Laws, Ch. 21, §1]

B. Mission Statement

The mission of the Department of Conservation and Recreation is to exercise care and oversight of the natural, cultural and historic resources of the Commonwealth and to provide quality public recreation opportunities which are environmentally sound, affordable and accessible to all citizens.

To carry out its mission, DCR investigates, analyzes, promotes and demonstrates the wise stewardship of the Commonwealth's natural, cultural and historic resources; develops and maintains public access to such resources in the rural, suburban and urban areas of the Commonwealth; provides public recreation and education programs; and manages, protects and conserves all public lands, waters and facilities that have been entrusted to the care of the Department, for this and future generations.

C. The Massachusetts State Parks System

Beginning in 1898 with the establishment of Mt. Greylock State Reservation, the Commonwealth of Massachusetts has created an extensive system of State Parks and Forests. This system totals over 270,000 acres in over 160 distinct management units. It is under the control and supervision of the Department of Conservation and Recreation (DCR). Day to day management and operation of DCR properties is the responsibility of the Department's Division of State Parks.

D. Historic Curatorship Program

The Historic Curatorship Program, administered by DCR's Office of Cultural Resources, is a leasing program for historic properties located within the Massachusetts State Parks System. The primary goal of the Historic Curatorship Program is to obtain the rehabilitation and maintenance of historic state park properties in exchange for a long term lease.

PART II - METHODOLOGY

A. Purpose

The purpose of this document is to describe the maintenance requirements of the Historic Curatorship Program and to provide the Curator/Tenant with guidelines for the maintenance of historic properties in the Program.

The following guidelines are general maintenance standards required under a Curatorship lease. However, many Historic Curatorship Program properties include historic landscape elements which are character defining features of the property. In such cases, significant elements will be identified by DCR, and specific maintenance treatments will be developed with the Curator/Tenant.

B. Annual vs. Cyclical Property Maintenance

There are two categories of property maintenance: annual and cyclical. Since climate, weather conditions and other variables can affect the lifespan of materials, both annual and cyclical maintenance are essential to the proper upkeep of a historic building or landscape. Annual and cyclical maintenance can be defined as follows:

Annual maintenance is a regular, repeated action, usually performed every year and serves as a preventative measure. In a building, the cleaning of the roof gutters and downspouts would be examples of annual maintenance. In a landscape, mowing the lawn or raking leaves would be categorized as annual maintenance. A well-developed annual maintenance plan can extend the longevity of building materials, preventing costly future repairs.

Cyclical maintenance is a less frequent schedule of repair and replacement with a varied timetable, depending on the material in question. Installation of a new roof would be considered cyclical, since it occurs every 15 to 20 years. In a landscape, the rejuvenation of a plant bed or the resetting of stone steps is cyclical maintenance. Since cyclical maintenance can be more expensive than annual maintenance, Curator/Tenants should anticipate cyclical needs and plan accordingly. Appendix C of these guidelines lists the average lifespans for some common building materials.

C. Goals of Proper Maintenance

1. Benefits to the Curator/Tenant:

- a. Cost savings - Annual and cyclic maintenance of a property can prevent more serious and costly deterioration.
- b. Visual Character - If a property is regularly maintained it will look well-kept and attractive and inviting.
- c. Energy Efficiency - Regular work on securing windows, doors and chimneys as well as placement of insulation insure tighter, more energy efficient buildings. Such efficiency results in annual cost savings for building heat as well as making the building more livable.
- d. Public Safety - Regular and cyclical maintenance insures that buildings are kept up to current building codes and less likely to encourage fires, plumbing leaks and structural failures. Built forms within the landscape also need to be attended to in order to avoid structural failures, earth movement or other problems.
- e. Environmental Protection - Failed septic systems, well contamination, underground fuel storage tank leaks, over use of pesticides and herbicides and other forms of environmental degradation can be avoided if tested, checked and/or inspected on a regular basis.

2. Benefits to the Commonwealth:

- a. Compatibility with Public Open Space - Over the years DCR has acquired land for public use and has maintained these properties to a high standard. A comprehensive maintenance plan for a Historic Curatorship property will enhance the appearance of the DCR facility and promote the goals of the facility management plan.
- b. Preservation of Historically Significant Property -Almost all of the Historic Curatorship properties are eligible for nomination to the National Register of

Historic Places. Each property - building and landscape - is a significant physical reminder of the past. With proper maintenance they will be preserved for many generations to come.

- c. Public benefit - Historic Curatorship properties will be open to the public at least twice each year, some more frequently. Regular maintenance of the property will add to the public enjoyment of the historic site.

PART III - MAINTENANCE STANDARDS

In order to keep the Historic Curatorship Program properties - both buildings and their settings - in good, operable condition, the following minimum standards shall apply:

A. Building Exteriors

Buildings shall be kept tight to the weather by installation of watertight roofing, protective paint coatings, proper drainage systems and other means by which water is prevented from penetrating into the building. Foundation plantings shall be pruned in order to prevent excessive moisture against the buildings.

B. Building Interior

Interiors shall be kept clean and dry. To the greatest extent possible, interior plaster and wood finishes shall be protected from insect infestation, condensation and water penetration.

C. Building Structure

Buildings shall be kept dry, structurally sound and in good repair. While under structural repair, buildings shall be stabilized and properly protected to prevent further damage to the building or to persons performing or observing the work in progress. All building repairs shall comply with all applicable state and/or local building codes. In the event repairs and/or restoration cannot occur immediately, the building shall be stabilized, in accordance with recognized preservation standards, in order to prevent further deterioration.

D. Building Systems

All building systems (plumbing, heating, air conditioning, electrical, smoke detector, fire suppression, security alarm systems and other building systems) shall be kept operable and in good repair and shall comply with applicable state and/or local building codes. The Curator/Tenant shall take every measure to prevent water leaks and resultant damage, electrical shocks or failure, and other similar damage that may result from the failure of a building system.

E. Grounds

The Curator/Tenant shall keep the grounds around the buildings in good condition. Grounds shall be free of litter or debris, clear of clutter and, generally, shall be kept neatly and attractively. The Historic Curatorship Program property shall be kept in accordance with the standards and goals established by the park or reservation management plan, including mowing schedules and historic landscape management. Where applicable, the Curator/Tenant shall maintain the landscaped areas of the property in accordance with recognized standards for maintenance of historically-significant landscapes. The Curator/Tenant shall exercise every effort to protect, stabilize and maintain significant landscape features for interpretation and/or restoration. Missing or deteriorated landscape elements will be replaced, in kind.

F. Environmental Hazards

All Historic Curatorship Program properties shall be kept free of environmental contaminants or hazards including, but not limited to, unregistered vehicles, unused/antiquated agricultural machinery or vehicles or parts thereof, automotive lubricants, hazardous and/or toxic materials, used tires, tree stumps, road salts and other potential contaminants to the ground.

The Curator/Tenant shall keep all buildings free of destructive rodents and other animals or pests that may cause damage to the property. If applicable, the Curator/Tenant shall maintain a septic system in compliance with the State of Massachusetts Sanitary Code (Title V) and shall maintain a potable water supply in accordance with State and local standards.

G. Sanitation

Properties shall be kept clean and free of litter and debris. Trash and other wastes shall be removed on a regular basis. If the permitted uses of a property include the keeping of domestic or farm animals the Curator/Tenant shall remove animal wastes on a regular basis. The composting of organic wastes shall comply with all local health and safety regulations. Compost piles shall be located in areas approved by DCR.

H. Permitting

The Curator/Tenant will be responsible for obtaining all necessary permits and approvals for work on the Curatorship property. Special resources such as wetlands and archaeological sites contained within the Curatorship property will be identified.

PART IV - REVIEW & INSPECTION

A. Review

Cyclical maintenance of the Curatorship property may involve major changes to the building or landscape. Replacement of or significant repair to historic fabric, including landscape elements, will require DCR approval. In some cases, DCR will file a Project Notification Form (PNF) with the Massachusetts Historical Commission (MHC), as required under law. MHC must approve the project within 30 days in order for the work to proceed.

B. Inspection

Each year a DCR representative will inspect the property with the Curator/Tenant. Using the checklist found in Appendix A, the inspector will evaluate the condition of the property and the performance of the Curator/Tenant. A Curator/Tenant will be eligible for the credit if all of the requirements of the "Maintenance Services," as outlined in the Lease agreement, have been met.

The Curator/Tenant should inspect the property periodically to insure that the guidelines are being met prior to the annual inspection. From the ground, binoculars will make the inspection easier. The best time to observe the performance of the roof is during a moderate rain, when the drainage systems are in full use. The Quick Checks found in Appendix B will aid the Curator/Tenant in identifying areas which need attention. The checklists provided address general maintenance issues and should be customized to include special features or circumstances associated with a specific property.

PART V: APPENDICES

APPENDIX A: Annual Maintenance Inspection Checklist

Property Name:

Date of Inspection:

Value of Annual Maintenance Credit:

Curator / Tenant(s) present:

DCR Representative(s) present:

				I. BUILDING EXTERIOR
				A. Roof Structure and Materials
yes	no	n/a		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		1. Are there any missing, broken, or damaged roof slates or shingles?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		2. Are wooden shingles splitting and/or curling?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		3. Are slates cracked?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		4. Are there any signs of rusting?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		5. Are there any indications of standing water, water back-up or other water damage? (Example: damage from ice dams, damaged or missing gutters)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		6. Does any part of the roof sag or look out of alignment?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		7. Is there any damage to the cornice, soffits or fascia boards?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		8. Are there loose, rotten or missing gutters?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		9. Is the paint on the gutters peeling from the gutter?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		10. Do the gutters need to be cleaned and oiled with linseed oil?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		11. Do the downspouts need to be adjusted and connected with the gutter?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		12. Does the water from the downspouts need to be directed away from the house?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		13. Does the house need splash pads?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		14. Does the water collect near the foundation?
				Comments:
				B. Chimneys (from roof line up)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		1. Are the chimney flashings unsecured from either the roof or the chimney?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		2. Is the masonry cracked or crumbling?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		3. Are bricks and/or pargeting cracked or missing?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		4. Is the chimney leaning more than a few degrees?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		5. Is there bracing on the chimney?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		6. Are the chimneys in need of cleaning?
				Comments:
				C. Exterior Walls
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		1. Are the walls warped or bulging?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		2. Are doors and windows misaligned with their frames or operating

				improperly?
yes	no	n/a		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		3. Are there signs of settlement around the doors and windows?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		4. Is the exterior siding placed on the building improperly?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		5. If wooden ext walls, does the exterior siding undulate, buckle or curl?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		6. If brick or masonry walls, are mortar joints spalled, washed out or broken?
				Comments:
				D. Exterior Woodwork
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		1. Is the woodwork less than 6"-8" from the ground?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		2. Do probes into the wood indicate more than a ¼ "penetration?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		3. Is there any rotted or splitting wood?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		4. Are there any signs of dirt (in the form of termite mud tunnels) on foundations, steps and cellar walls?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		5. Are there any signs of insect boring, such as holes, sawdust, wood penetration, or other indicators?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		6. Are vines and other vegetation located close to the house, thus keeping moisture close to the house and inviting insect damage and rot?
				Comments:
				E. Exterior Trim and Finishes
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		1. Are there any clapboards or sheathing materials missing from the exterior?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		2. Are there any loose, cracked or damaged clapboards or sheathing materials?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		3. Are sheathing materials improperly attached to the wall?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		4. If aluminum, vinyl or asbestos siding is over the original sheathing, is artificial siding cracking, buckling or splitting, etc.? Does the siding prevent the building from breathing?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		5. Is decorative woodwork improperly secured to the house?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		6. Do decorative features, windows, door frames and other areas need to be caulked and painted?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		7. Is paint peeling, flaking or blistering? (If so, check for moisture in the walls and presence of a vapor barrier)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		8. Do any joint areas require caulking or flashing to prevent moisture penetration
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		9. Does the surface contain mildew, chalking or other paint surface reaction?
				Comments:
				F. Doors and Windows
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		1. Are doors and windows improperly fitted in their openings?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		2. Is the glass cracked, loose or improperly glazed or painted?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		3. Is there any rotted wood in the sills or lower rails?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		4. Is weather stripping failing?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		5. Are exterior storm windows and doors uninstalled?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		6. If exterior storm windows are not feasible for historic or technical reasons, are interior storm windows installed?
yes	no	n/a		
				Comments:
				G. Foundation and Masonry
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		1. Is water collecting at the foundation walls?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		2. Is the foundation or masonry cracked or crumbling?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		3. Are bricks, stone and/or parging cracked or missing?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		4. Is the mortar eroding or loosening?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		5. Are there serious signs of building settlement (ie., more than hairline cracks in the masonry)?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		6. Is there spalling, cracking or crumbling of stone trim? (Example: if there is brownstone, is it flaking?)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		7. Are there any signs (bulges, cracks, etc.) of separation of brick courses?
				Comments:
				II. BUILDING INTERIOR
				A. Cellar/Basement
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		1. Is the basement inadequately ventilated?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		2. Does the basement smell damp and moldy?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		3. Do sills or joists show signs of termite or insect damage? (Probe wood to determine extent of damage)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		4. Are there any signs of building sagging or deflection? (If so, check for weakened support posts, rotten beams, etc.)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		5. Are there any signs (wood dust, holes, active insects) of weakened or damaged floor joists or beams, flooring or other wooden members?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		6. Are there indications of leaking pipes — water pipes, pumps or wells, waste pipe failure, etc.?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		7. Is there any flooding in the basement?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		8. Is the bulkhead unsecured or improperly flashed and caulked?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		9. If there is a crawl space, is it opening and allowing moisture to enter the house?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		10. Is the foundation mortar separating from the masonry foundation or cracking?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Comments:
				B. Finished Spaces
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		1. Are there any signs of damp plaster on ceilings, walls, around chimneys, under kitchen or bathrooms, or in other applicable locations?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		2. Is there any vibration or “bounce” to the staircase or other floor area of the house, indicating potential structural problems?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		3. Do floors sag or vibrate when there is a lot of foot traffic or jumping?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		4. Are there prominent cracks in walls, floors or near window or

				door casings which indicate settlement?
yes	no	n/a		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		5. Are these cracks old or recently created?
				Comments:
				C. Insulation and Ventilation
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		1. Are the exterior walls uninsulated? If not, what insulating material is used, and was a vapor barrier installed?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		2. Is attic insulation improperly installed?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		3. Does the attic insulation restrict adequate ventilation?
				Comments:
				D. Attic
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		1. Are there any signs of leaks (staining) on the attic rafters or sheathing?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		2. Is the attic improperly ventilated, causing moisture and mildew to collect on the underside of the roof?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		3. Are there any sagging rafters, broken collar ties or other structural deficiencies?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		4. Are the chimney bricks in the attic loose or in bad condition?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		5. Are there any holes in the chimney or indication that there is a failure of the present chimney flue to contain the heat generated from the heating system and/or fireplaces?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		6. Is there any evidence of insect infestation (sawdust, borings, etc.) in wooden members (rafters, purlins or sheathing)?
				Comments:
				III. BUILDING SYSTEMS
				A. Water Systems and Plumbing
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		1. Is water pressure inadequate?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		2. If a private well, is the pump malfunctioning?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		3. If a private well are there any issues with the drinking water quality?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		4. Are there any leaks in the water lines?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		5. Are the kitchen and bathroom fixtures improperly installed, causing leaks, "sweating", or other water damage?
				Comments:
				B. Heating System
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		1. Is the heating system malfunctioning?
				C. Sewage/Septic Systems
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		1. Are there odors emanating from the septic tank/field or sewage line area?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		2. If a septic system, are there any depressions or "wet spots" in the ground area adjacent to or within the septic field?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		3. Does the septic tank need pumping?

				Comments:
yes	no	n/a		
				D. Natural Gas Systems
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		1. Are there any natural gas/propane odors emanating from the system?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		2. If a propane tank is located on the property, is it improperly secured?
				Comments:
				E. Electrical Systems
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		1. Are overhead electrical lines coming into the property disconnected or uncovered?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		2. Are poles supporting the wires too close to tree limbs and other encumbrances?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		3. Does the present amperage violate the Mass. Building Code and/or local building code?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		4. Have any major electrical appliances been added to the system within the last year?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		5. Do any lights or electrical utilities fail when turned on?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		6. Do bathroom, laundry room and kitchen electrical systems need ground fault outlets?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		7. Beyond regional electric systems failures, have there been any electrical failures, "black outs", or other problems system within the last year?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		8. Are any electrical lines located close to water sources?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		9. Are any outside electrical plugs and lights exposed to weather damage?
				Comments:
				F. Telephone/Cable System
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		1. Are the overhead telephone lines coming into the property loose or disconnected?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		2. Are poles supporting the wires too close to tree limbs or other encumbrances?
				Comments:
				G. Fire/Security Systems
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		1. If there is a fire suppression system, is it due for an annual check up?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		2. If there is a home security system, is it due for an annual check up?
				Comments:
				IV. WALKWAY AND DRIVEWAY MAINTENANCE
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		1. Are the walks and driveway surfaces in bad condition, with any uneven or cracked surfaces?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		2. If gravel, stone or brick paths, are any materials missing and is infill material needed to supplement existing way?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		3. If an asphalt material, does surface need a seal coat?
				Comments:
yes	no	n/a		
				V. MISCELLANEOUS PROVISIONS
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		1. Are there any systems and/or property features that warrant special maintenance considerations and/or unique treatment? If so, what are they and what special provisions need to be made?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		2. Are trash containers securely covered to prevent animals from getting in?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		3. Are trash containers left in the street after trash pickup?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		4. Where waste collection is not available, is no more than two weeks worth of waste collected located on the site?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		5. Are recycling materials uncovered?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		6. Is more than a month's worth of recycled materials located on the site?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		7. Are ladders, building materials and other construction-related equipment properly secured to limit theft and insurance liability?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		8. Are boats, mobile homes, trailers, recreational vehicles, etc., in plain view?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		9. Is the yard littered with children's toys, bicycles, plant pots, garden tools, barbecue grill and other items?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		10. Is the outside laundry line screened in plain view?
				Comments:
				VI. COMPLIANCE AND COMPATIBILITY
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		1. Is the overall appearance of the Curatorship site incompatible with the conservation and recreation goals of DCR, as well as with those of the facility management plan?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		2. Has the Curator/Tenant failed to comply with the reporting requirements of the lease agreement?
				Comments:
				VII. REMINDERS
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		1. Are there any unpaid taxes on the property?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		2. Is the insurance coverage inadequate or out of date?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		3. Do we need a copy for the file?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		4. Are any utility services out of date?
				comments:

APPENDIX B: Annual Building and Landscape Quick Checks

3 MONTH INSPECTION

- ☐ ☐ Inspect yard to see that it is properly maintained/picked up
- ☐ ☐ Check foundation plantings for moisture retention
- ☐ ☐ Check roof for debris
- ☐ ☐ Clean downspouts and gutters. Oil gutters
- ☐ ☐ Check fuse box for proper operation and amperage of fuses
- ☐ ☐ Inspection of yard
- ☐ ☐ Mow lawn regularly (April-November)
- ☐ ☐ Weed/water lawn and planting beds (April-November)
- ☐ ☐ Mulch (seasonal)
- ☐ ☐ Check irrigation systems

6 MONTH INSPECTION

- ☐ ☐ Inspect foundation for movement, spalling or other damage
- ☐ ☐ Inspect and treat for insect damage and/or nests
- ☐ ☐ Check for any structural deficiencies in wooden members
- ☐ ☐ Inspect joint areas for caulking and flashing
- ☐ ☐ Check condition of exterior paint
- ☐ ☐ Check condition and energy efficiency of doors, windows and bulkhead
- ☐ ☐ Check gas/propane system for leaks and proper connection to structure
- ☐ ☐ Inspect electrical lines to determine if they are free of obstructions
- ☐ ☐ Inspect interior electrical systems for proper operation
- ☐ ☐ Test fire suppression system for proper operation
- ☐ ☐ Test security alarm system for proper operation
- ☐ ☐ Apply fertilizers, lime and herbicides to lawns and plants (as needed)
- ☐ ☐ Apply soil nutrients (as needed)
- ☐ ☐ Rake leaves, general yard clean up (seasonal)
- ☐ ☐ Aerate Lawn
- ☐ ☐ Replace plant materials (spring and fall for trees and shrubs)
- ☐ ☐ Prune trees and shrubs (spring and fall)
- ☐ ☐ Clear paths and trails
- ☐ ☐ Mow meadow (once per year or as needed)
- ☐ ☐ Spray fruit trees
- ☐ ☐ Divide perennials

9 MONTH INSPECTION

- ☐ ☐ Check exterior walls for bulges, settlement, and curling clapboards
- ☐ ☐ Check condition of exterior woodwork (trim, cornerboards, posts,ballustrades)
- ☐ ☐ Review plumbing system for leaks, "sweating" and general operation
- ☐ ☐ Inspect telephone lines to determine if they are free of obstructions
- ☐ ☐ Protect garden furnishings (paint as needed)
- ☐ ☐ Inspect driveway and drainage systems

12 MONTH INSPECTION

- ☐ ☐ Inspect roof for leaks, shingle/slate coverage, structural changes, proper ventilation
- ☐ ☐ Clean heating system (ducts and vents)
- ☐ ☐ Inspect and clean chimney
- ☐ ☐ Check insulation materials and vapor barriers

- [] Inspect septic system for proper operation and/or pumping
- [] Inspect driveways and walkways
- [] Test private well water per State and Local regulations
- [] Test soils for Ph and other factors (add supplements as needed)
- [] Clean drainage structures
- [] Repoint masonry on garden structures (as needed)

Cyclical Building and Landscape Milestones

2-5 YEAR TASKS

- ☐ Apply fungicide treatment to wooden roof shingles.
- ☐ Check roof air circulation
- ☐ Repair windows and doors for damage and energy efficiency
- ☐ Check and clear property storm drainage system
- ☐ Install basement vapor barrier (as needed)
- ☐ Add insulation to walls, basement ceiling and attic (as needed)
- ☐ Check house for proper ventilation - basement, attic and living area
- ☐ Pump septic system (every two years or more as necessary)
- ☐ Replace/supplement path materials
- ☐ Drain and clean ornamental pool
- ☐ Remove invasive plant material from natural pond
- ☐ Stabilize stone walls
- ☐ Stabilize garden structures
- ☐ Replace lawnmower blades

5-10 YEAR TASKS

- ☐ Repoint chimneys and foundations, add related flashings (as needed)
- ☐ Paint interior walls, trim and ceilings
- ☐ Paint exterior siding, trim and windows
- ☐ Replace gas meter (every 7 years)
- ☐ Replace hot water tank (every 5-10 years)
- ☐ Rejuvenate plant beds (as needed)
- ☐ Replace/stabilize driveway materials

11-15 YEAR TASKS

- ☐ Replace linoleum and similar flooring materials
- ☐ Refinish wood floors (as needed)
- ☐ Repair or replace private well pump
- ☐ Replace gas dryer
- ☐ Replace propane tank
- ☐ Replace/repair garden water system
- ☐ Replace/Repair wooden fencing and posts

16-20 YEAR TASKS

- ☐ Replace roofing materials and wooden sheathing as necessary
- ☐ Replace synthetic (vinyl, aluminum, etc.) as needed
- ☐ Replant lawn area (as needed)

21-30 YEAR TASKS

- ☐ Replace wooden clapboard, trim and/or decorative elements (as needed)
- ☐ Repoint masonry (as needed)
- ☐ Repair cracks from structural settlement (as needed)
- ☐ Replace gas boiler
- ☐ Replace gas or electric stove
- ☐ Replace water lines to property

APPENDIX C: Average Lifespan of Some Common Building Materials

I. BUILDING EXTERIOR

A. Roof

Asphalt Shingles.....	20-25 years
Slate/Tile.....	60-80 year
Wooden Shingle.....	20-30 years
Metal.....	20-30 years

B. Chimneys

Brick/Stone.....	10-15 years (repoint)
Clapboard or Metal cover.....	15-20 years
Clay Flue Liner.....	75 years

C. Masonry Foundation.....10 years (repoint)

D. Exterior Walls

Wooden Clapboard.....	25 years
Wooden Shingles.....	40 years
Paint.....	5-7 years
Brick, stone, concrete block.....	25 years (repoint)
Synthetic siding (aluminum, vinyl).....	20-30 years

E. Exterior Woodwork.....Indefinitely (with proper maintenance)

II. BUILDING INTERIOR

A. Finishes

Paint, varnish and wallpaper.....	7-10 years
Wood Flooring.....	5-10 years (refinish)
Linoleum.....	10-15 years

B. Building Systems

1. Plumbing

Lead pipes.....	replace immediately
water meter.....	7-10 years
well pump.....	10-20 years
fixtures.....	varies
septic.....	pump every 5 years

2. Heating system

Gas meter.....	7 years
Boiler.....	15-20 years (repair @ 10 yrs)
Hot Water Tank.....	5-10 years
Dryer.....	10-15 years
Oil Tank.....	25-30 years (inspect @ 5 yrs)

3. Electrical System.....50 years

pull cords.....	5 years
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switch plates and outlets.....15 years
lighting fixtures.....20 years
electric heat pump.....20-25 years (repair @ 10 yrs)
baseboard wiring.....2-5 years (repair)

4. Telephone Cable.....50 years (repair @ 10 yrs)

5. Insulation (Check for settlement)2 years

6. Life Safety Systems

Smoke detectors.....15 years
Home Security System(repair).....10 years

APPENDIX F:
HISTORIC CURATORSHIP PROGRAM ENABLING LEGISLATION

**APPENDIX F: HISTORIC CURATORSHIP PROGRAM ENABLING LEGISLATION
(As of October 2016)**

DCR Historic Curatorship Program Enabling Legislation and Amendments

Section 44, Chapter 85, Acts of 1994

SECTION 44. Notwithstanding the provisions of any general or special law to the contrary, the department of environmental management may, consistent with established procedures of the division of capital planning and operations, and as provided herein, lease real property under its control and supervision to any person or organization, if the commissioner of said department makes a determination that such lease will adequately ensure the preservation and maintenance of an historic property, and that such lease is otherwise consistent with the department's duties and responsibilities.

For the purposes of this section the following words shall have the following meanings:-

"Historic property", any real property possessing historic value, and so identified hereunder in this section.

Any lease entered into by the department pursuant to this section shall provide, at a minimum, for the following: (a) the improvement and maintenance and management, throughout the term of the lease, of the property by the Tenant in conformance with appropriate standards for rehabilitation of historic properties approved by the Massachusetts historical commission, and all other applicable provisions of law; (b) the payment to the department of fair market rent for the property, provided that the value of any improvements and maintenance and management services provided by the Tenant under the lease may be deducted from the amount payable over the term of the lease; (c) a finding by the commissioner that the property covered by the lease, while not needed for use by the department for the duration of the lease, is nonetheless subject to its statutory duty under section one of chapter twenty-one of the General Laws to exercise control and supervision of areas of historic significance committed to it, and that the lease is entered into by the department pursuant to said duty; (d) the opening of the property to the public, no less often than twice each year, for the purpose of providing public access to the historic qualities of the property; and (e) any and all other provisions, terms and conditions as the commissioner may deem necessary and appropriate to protect the interests of the commonwealth and ensure the adequate preservation of the historic or other qualities of the property for future generations.

Historic properties subject to the provisions of this section shall include: the Barton house, so-called, Foxborough state forest, the Bell house, so-called, in Maudslay state park, the farm house, so-called, in Maudslay state park, the superintendent's house, so-called, in Wachusett Mountain state reservation, the Benjamin Osborne house, so-called, in Mount Washington state forest, Palmer mansion, so-called, in Bradley Palmer state park, E. F. Dodge house, so-called, in Bradley Palmer state park, Summit house, so-called, in Skinner state park, Hunter House, so-called, in Windsor state forest, Lowell Litchfield house, so-called, in Carlisle state forest, Graham house, so-called, in Nickerson state park, the former Knights of Columbus camp, so-called, in Dubuque state forest, Hunt house, so-called, in Mount Washington state forest, the gatekeeper's house and shed, so-called, Lowell heritage park, the superintendent's house, so-called, Beartown state forest, Swans Lodge and barn, so-called, Beartown state forest, the Intemann house, so-called, Mount Washington state forest, Crosby mansion, so-called, Nickerson state park, Graham house, so-called, Nickerson state park, Vierick house,

so-called, Halibut Point state park, Elder house, so-called, Natural Bridge state park, Windago Camp compound, so-called, Windsor state forest, and Bascom Lodge, so-called, Mount Greylock state reservation.

The commissioner shall establish guidelines for the implementation of a program of curatorship leases, provided, however, that such guidelines shall, at a minimum, provide for an open, competitive process for selecting lessees.

Historic Curatorship Enabling Legislation Amendments

Section 50, Chapter 15, Acts of 1994

SECTION 50. Said section 44 of said chapter 85 is hereby further amended by striking out, in line 35, the words ", E.F. Dodge house" and inserting in place thereof the following words:-, the Coach House and Carriage Garage at Bradley Palmer State Park, the Farm Complex at Maudslay State Park, Gilder House complex at Jug End, the Weeks House at Myles Standish State Forest, the Baker Chocolate Factory Company Administration Building at Lower Mills in the city of Boston, Lamson House and garage.

Section 19, Chapter 236, Acts of 2002

SECTION 19. Section 44 of chapter 85 of the acts of 1994, as amended by section 50 of chapter 15 of the acts of 1996, is hereby further amended by inserting after the word "forest", in line 31, the following words:- , Smith farmhouse, garage and barn in Borderland state park, Woodis house in Acushnet cedar swamp state reservation, Harlow house and barn in Ellisville state park, the farmhouse and barn in Carroll A. Holmes recreational area, formerly known as Lake Wyola state park, and coachman's house and barn in Maudslay state park.

Section 76, Chapter 182 of the Acts of 2008

SECTION 76. Section 44 of chapter 85 of the acts of 1994, as most recently amended by [section 19 of chapter 236 of the acts of 2002](#), is hereby further amended by inserting after the words "Mount Greylock state reservation" the following words:- , Whitehead House at Willowdale state forest, Kerighan House at Bradley Palmer state park.

Section 14, Chapter 312 of the Acts of 2008

SECTION 14. Section 44 of chapter 85 of the Acts of 1994, as most recently amended by section 19 of chapter 236 of the acts of 2002, is hereby further amended by inserting after the word "reservation", in line 45, the following words:- , CCC Camp in Upton state forest.

Chapter 302, Acts of 2008

SECTION 22. Section 44 of chapter 85 of the acts of 1994, as most recently amended by section 76 of chapter 182 of the acts of 2008, is hereby further amended by inserting after the word "reservation", in line 45, the following words:- , Wilbur Farmhouse and Barn at Borderland state park, police station, dormitory, laundry and waiting room structures at Nantasket Beach reservation, Caretaker's Cottage and the Barn at Brookwood Farm in the Blue Hills reservation, 1 Woodland Road in the Middlesex Fells reservation, Print Shop at the Brook Farm Historic Site in West Roxbury, Carriage House at Havey Beach in West Roxbury, CCC Camp in Upton state forest and the Teahouse and Boathouse in Maudslay state park

Chapter 164, Acts of 2009

Westport Lifesaving Station Legislation

AN ACT RELATIVE TO THE LEASING OF THE HORSENECK POINT LIFESAVING STATION IN THE TOWN OF WESTPORT TO THE WESTPORT FISHERMEN'S ASSOCIATION.

Whereas, The deferred operation of this act would tend to defeat its purpose, which is to authorize forthwith the lease of the lifesaving station in the town of Westport to the Westport Fishermen's Association, therefore it is hereby declared to be an emergency law, necessary for the immediate preservation of the public convenience.

Be it enacted by the Senate and House of Representatives in General Court assembled, and by the authority of the same, as follows:

SECTION 1. Section 44 of chapter 85 of the acts of 1994 is hereby amended by striking out, in line 2, the words "environmental management" and inserting in place thereof the following words:- conservation and recreation.

SECTION 2. Said section 44 of said chapter 85 is hereby further amended by inserting after the word "forest", in line 44, the following words:- , Horseneck Point Lifesaving Station in the Horseneck Beach State Reservation.

SECTION 3. Notwithstanding sections 40F to 40J, inclusive, of chapter 7 of the General Laws or section 44 of chapter 85 of the acts of 1994 or any other general or special law or rule or regulation to the contrary, the commissioner of conservation and recreation may lease certain land and the building thereon to the Westport Fishermen's Association. The parcel, the exact boundaries of which shall be established prior to such conveyance by a survey commissioned by the commissioner, is located at the corner of West Beach and East Beach roads at Gooseberry Neck in the town of Westport and known as the Horseneck Point Lifesaving Station. The term of such lease shall be 25 years, subject to extension for another 10 year term at the discretion of the commissioner.

SECTION 4. Notwithstanding any general or special law to the contrary, the parcel described in section 3 shall be leased subject to a restriction limiting the use of the parcel to operating a lifesaving museum and promoting the appreciation of the Horseneck Point Lifesaving Station and historic resources. If at any time the property ceases to be used for the purposes described in this section or should the commissioner of conservation and recreation determine that the Westport Fishermen's Association has failed to comply with the terms of the lease entered into between the department and the Westport Fishermen's Association, the commissioner shall give written notice to the lessee of the unauthorized use. The lessee shall, upon receipt of the notice, have 30 days to respond and a reasonable time to establish an authorized use of the parcel. If an authorized use of the parcel is not thereafter established, the lease of the parcel, upon the recording of a notice thereof by the commissioner in the appropriate registry of deeds, shall terminate and any further disposition of the property shall be subject to chapter 7 of the General Laws.

SECTION 5. Notwithstanding any general or special law, or any rule or regulation to the contrary, the commissioner of capital asset management and maintenance shall, 30 days before the execution of any lease authorized by this act, or any subsequent amendment thereto, submit the proposed lease or amendment and a report thereon to the inspector general for his review and comment. The inspector general shall issue his review and comment within 15 days of receipt of the proposed lease or amendment. The commissioner of

capital asset management and maintenance shall submit the proposed lease or amendment, and the reports and the comments of the inspector general, if any, to the house and senate committees on ways and means and the joint committee on state administration and regulatory oversight at least 15 days before execution of said lease.

SECTION 6. Notwithstanding any general or special law to the contrary, the lessee shall be responsible for all costs associated with the lease of the property under this act including but not limited to, costs associated with any engineering, surveys and legal or recording fees as such costs may be determined by the commissioner of capital asset management and maintenance. During the term of the lease, the lessee shall be solely responsible for all costs, liabilities and expenses of any nature and kind for the development, maintenance and operation of the leased property.

SECTION 7. Use of the Horseneck Point Lifesaving Station shall be in compliance with all applicable statutes, regulations and executive orders, including, but not limited to, laws relating to environmental protection and the Westport Fishermen's Association shall secure all necessary approvals and permits. Failure to obtain or maintain compliance with these statutes, regulations and executive orders or to obtain and maintain permits and approvals shall constitute cause for termination of the lease and the notice and right to cure provisions of section 4 shall apply.

SECTION 8. The use of the Horseneck Point Lifesaving Station shall not interfere with the commonwealth's use and operation of adjacent property as a state park.

Chapter 67, Acts of 2011, Sections 1 and 2

SECTION 1. Section 44 of chapter 85 of the acts of 1994 is hereby amended by inserting after the words "Horseneck Beach State Reservation", inserted by section 2 of chapter 164 of the acts of 2009, the following words:- Officers' Quarters at Fort Revere in the town of Hull, Gatekeeper's House at Maudslay State Park, Gates House at Wachusett Mountain State Reservation, Blue Farmhouse and garage and associated barns 3, 4 and 5 at 215 Cold Spring road and Red Farmhouse and shed at 220 Cold Spring road at Spectacle Pond in the town of Sandisfield, the McKay House at Willowdale State Forest, 57 Dedham street in the Hyde Park section of the city of Boston, Speedway Administration Building located in the Brighton section of the city of Boston, the Police Substation on Furnace Brook Parkway in the city of Quincy, the Compressor Building at Quincy Quarries in the Blue Hills Reservation, any of the cottages on Peddock's Island in the Boston Harbor Islands National Park Area, 3 Wompatuck Cottages in Wompatuck State Park, Stress House 1 at Neponset River Reservation and, notwithstanding any general or special law to the contrary, the Schooner Ernestina and a portion of the New Bedford state pier, to provide sufficient berthing space.

SECTION 2. Said section 44 of said chapter 85 is hereby further amended by inserting after the fourth paragraph the following paragraph:-

Notwithstanding section 182B of chapter 6 of the General Laws, the department shall, as a condition of a lease of the Schooner Ernestina, require that the lessee consult with the Cape Verdean Association in New Bedford in order to provide historic and cultural education programs at said Schooner.

Chapter 242, Acts of 2014

Whereas, The deferred operation of this act would tend to defeat its purpose, which is to forthwith authorize the lease of certain parkland in the city of Cambridge, therefore it is hereby declared to be an emergency law, necessary for the immediate preservation of the public convenience.

Be it enacted by the Senate and House of Representatives in General Court assembled, and by the authority of the same as follows:

The fourth paragraph of section 44 of chapter 85 of the acts of 1994, as most recently amended by section 1 of [chapter 67 of the acts of 2011](#), is hereby further amended by inserting after the words "Mount Greylock State Reservation" the following words:- Powder House, so-called, at Magazine beach in the city of Cambridge.

Section 186, Chapter 165, Acts of 2014

SECTION 83F. Section 44 of chapter 85 of the acts of 1994 is hereby amended by inserting after the words "Stress House 1 at Neponset River Reservation" inserted by section 1 of chapter 67 of the acts of 2011, the following words:- Cochituate Headhouse at Lake Cochituate in the town of Wayland.

Chapter 262 of the Acts of 2014 (former House Bill H.4359)
(not an amendment to the Section 44, Chapter 85, Acts of 1994)

An Act to preserve the historic Speedway Administration Building in the Brighton district of the city of Boston.

Whereas, The deferred operation of this act would tend to defeat its purpose, which is to promote the preservation and adaptive reuse of an important state-owned historic resource, therefore it is hereby declared to be an emergency law, necessary for the immediate preservation of the public, therefore, it is hereby declared to be an emergency law, necessary for the immediate preservation of the public convenience.

Be it enacted by the Senate and House of Representatives in General Court assembled, and by the authority of the same, as follows:

SECTION 1. Notwithstanding sections 32 to 38, inclusive, of chapter 7C of the General Laws or any general or special law to the contrary, and pursuant to such additional terms and conditions as the commissioner of capital asset management and maintenance may prescribe, the division of capital asset management and maintenance, in consultation with the department of conservation and recreation, may lease a portion of a parcel of land and the so called Speedway Administration Building, and convey part of the same parcel by deed or lease the same to the Architectural Heritage Foundation, Inc., a Massachusetts non-profit corporation, or its nominee in which it maintains an interest, as the Architectural Heritage Foundation was selected through an open and public process by the department of conservation and recreation in accordance with the historic curatorship statute, being section 44 of chapter 85 of the acts of 1994, as amended by section 50 of chapter 15 of the acts of 1996, as amended by section 19 of chapter 236 of the acts of 2002, as amended by section 76 of chapter 182 of the acts of 2008, as amended by section 22 of chapter 302 of the acts of 2008, as amended by section 14 of chapter 312 of the acts of 2008, as amended by sections 1 and 2 of chapter 164 of the acts of 2009, as amended by sections 1 and 2 of chapter 67 of the acts of 2011. The parcel is presently under the care, custody and control of the department of conservation and recreation and held for conservation and recreation purposes.

SECTION 2. The parcel referenced in section 1 consists of 2 lots of lands. The first lot of land fronts Soldiers Field Road, contains approximately 8,515 square feet of land, and is shown on the city of Boston Assessors' Maps as Parcel No. 2200577001. The second lot of land contains approximately 38,155 square feet, and is a portion of the land shown on city of Boston Assessors' Maps as Parcel No. 2200577000, with said portion being bounded by Western Avenue, the above-referenced Parcel No. 2200577001, the land shown on the city of Boston Assessors' Maps as Parcel No. 2200576000, and Soldiers Field Road. Notwithstanding any general or special law to the contrary, the exact location and boundaries of the areas to be leased or conveyed, and the subdivision of the parcel and lots, shall be determined by the commissioner of capital asset management and maintenance in consultation with the department of conservation and recreation.

SECTION 3. The division of capital asset management and maintenance shall proceed in accordance with the proposal of the Architectural Heritage Foundation, Inc., as approved by the department of conservation and recreation following the open process conducted by the department under the historic curatorship statute. The proposal generally includes preservation of the historically significant portions of the Speedway Administration Building in

accordance with the Secretary of the Interior's Standards for Historic Rehabilitation, demolition of minor non-significant building additions, adaptive reuse for residential housing, non-profit organization offices, artist studio, or commercial or retail space, and the construction of a new multi-story building on the portion of the parcel authorized for conveyance by deed.

Notwithstanding any general or special law or rule or regulation to the contrary, the new improvements shall be approved by the department consistent with the proposal and shall not be subject to dimensional, height and setback requirements of local zoning ordinances or zoning regulations, provided, however, that no new building shall exceed 35 feet in height for the façade of any portion of the building bordering Western Avenue, and shall not exceed 75 feet in building height as measured from Western Avenue but the Architectural Heritage Foundation, Inc. shall apply for permits from the city for the construction and occupancy of the new building, if the area is conveyed by the commonwealth, and the new building shall be otherwise subject to local zoning and other ordinances and regulations, including 5 per cent over the inclusionary development policy of the city of Boston and the Boston Redevelopment Authority for affordable units. The division and the department shall consult with the Boston Redevelopment Authority on the design review of any new buildings to be constructed on the parcel. The division may retain a conservation or preservation restriction over any area conveyed by deed, to be held by the department of conservation and recreation for the benefit of the remaining portion of the parcel. The division is authorized to grant or retain any easements as necessary to effectuate the purposes of this section. The lease of the Speedway Administration Building, once executed, shall be administered by the department of conservation and recreation as part of its historic curatorship program. Any deed, lease or other agreements shall ensure, in the discretion of the division and the department, that rents, unit or other sale proceeds, or other revenues generated from the area to be conveyed by deed are sufficiently accounted for and dedicated to ensure the continuing proper management, maintenance and capital repair of the Speedway Administration Building and its grounds throughout the term of the lease as set forth in the Architectural Heritage Foundation, Inc. proposal. During the term of the lease, the land to be conveyed by deed shall be limited to residential use or the uses identified and accepted by the department within the proposal of the Architectural Heritage Foundation, Inc. and shall not be sold, transferred or conveyed to a private college or university or its agent. The lessee under the lease, shall install and maintain a sign, on the parcel, at or near the corner of Western Avenue and Soldiers Field Road, stating "Welcome to Allston-Brighton", and provide for and maintain appropriate landscaping, subject to the approval of and design standards of the department. The lessee shall provide a minimum of 300 square feet of office space to an Allston/Brighton non-profit for a fee of 1 dollar per calendar year within the restored Speedway Building. The lessee shall contract with a bicycle sharing partner to provide rental biking opportunities on the Speedway Administration Building parcel for a period of 10 years and thereafter for the length of the lease, provide a service with a recreational purpose.

SECTION 4. In furtherance of the commonwealth's policy to ensure a no-net-loss of lands protected for natural resource purposes, the consideration for the lease and conveyance authorized in section 1 shall be the full and fair market value of the parcel, as determined by the division of capital asset management and maintenance based upon an independent professional appraisal, provided that the division shall credit the value of any improvements to the Speedway Administration Building and maintenance and management services provided by the Architectural Heritage Foundation, Inc. under the lease towards the consideration. The appraisal required by this section shall be subject to the review and approval of the inspector general, and such review shall include an examination of the methodology utilized for the appraisal. Within 30 days after receiving an appraisal, the inspector general shall prepare a report of his review and file the report with the division of capital asset management and

maintenance for submission by the division to the house and senate committees on ways and means and the joint committee on state administration and regulatory oversight. The division shall submit copies of the appraisals, and the inspector general's review and approval and comments, if any, to the house and senate committees on ways and means and the joint committee on state administration and regulatory oversight at least 15 days prior to the execution of documents effecting the transfers described in section 1. All consideration not fulfilled by the value of the improvements and maintenance and management of the Speedway Administration Building shall be deposited in the Division of State Parks and Recreation Trust Fund, established by section 34 of chapter 92 of the General Laws.

SECTION 5. Architectural Heritage Foundation, Inc. shall be responsible for all costs and expenses including, but not limited to, costs associated with any engineering, surveys, appraisals, deed preparation related to the conveyance authorized in this act as those costs may be reasonably determined by the division of capital asset management and maintenance and accepted in advance by Architectural Heritage Foundation, Inc.

Section 224 of Chapter 127 of the Acts of 1999

Crosby Mansion / Cottages Legislation

(not an amendment to the Section 44, Chapter 85, Acts of 1994)

Section 1. Notwithstanding section forty-four of chapter eighty-five of the acts of 1994, as amended by section fifty of chapter fifteen of the acts of 1996, the commissioner of the department of environmental management is authorized to convey to the town of Brewster a leasehold interest in the Crosby Mansion, so-called, and three cottages in Nickerson State Park. The area of said leasehold is described on a plan to be filed with the department of environmental management entitled "Land and buildings in Nickerson State Park to be leased to the town of Brewster." Said lease shall contain terms and conditions established by the department. Notwithstanding any other provision of law, the term of such lease shall be twenty-five years, subject to extension for another ten year term at the discretion of the commissioner.

Section 2. The use of said Crosby Mansion and cottages shall be for Town municipal purposes, and for promoting the appreciation of the Mansion and historic resources. Should said use terminate, or should the commissioner determine that the town has failed to comply with the terms of the lease entered into between said department and the town, the property described in section 1 shall revert to said department.

Section 3. Use of said mansion and cottages shall be in compliance with all statutes, regulations and executive orders governing, but not limited to environmental protection, and the town shall secure all necessary approvals and permits. Failure to obtain or maintain compliance with said statutes, regulations, or to obtain and maintain permits and approvals shall constitute cause for termination of said lease.

Section 4. The use of said Mansion and cottages shall not interfere with the Commonwealth's use and operation of adjacent property as a state park.