

JOSIAH HENSON PARK - FACILITY PLAN REPORT

ARCHITECTURE / ENGINEERING DESIGN

MAY 28, 2013



Architecture/Engineering Facility Plan Report

Table of Contents

| | | |
|-------|---|----|
| I. | Executive Summary | 1 |
| II. | Introduction | 3 |
| III. | Objectives | 5 |
| IV. | Methodology | 6 |
| V. | Guiding Documents | 6 |
| VI. | Facility Plan Process | 7 |
| VII. | Summary of Existing Conditions | 8 |
| | Landscape Features..... | 8 |
| | Riley/Bolton House | 9 |
| VIII. | Program of Requirements | 13 |
| | Site / Landscape Requirements..... | 13 |
| | Historic Riley / Bolton House | 17 |
| | 1850-1851 Log Kitchen..... | 21 |
| | 1936-1939 Lorenzo Winslow Ell | 23 |
| | Visitor Orientation Center | 26 |
| | Recommended Treatment Matrix | 29 |
| IX. | Description of Proposed Work | 37 |
| X. | Cost Estimates | 39 |
| | Summary | 39 |
| | Sitework..... | 40 |
| | Historic Riley/Bolten House | 41 |
| | Visitor Orientation Center..... | 42 |
| XI. | Visitor Center Building (Alternative Study)..... | 43 |
| | Description of Alternative..... | 43 |
| | Alternate Cost Estimate..... | 46 |
| XII. | Analogous Facilities Comparison | 47 |
| XIII. | List of Consultants | 49 |

XIV. **Appendices**

Appendices are products of the Facility Plan project but are incorporated by reference only. They include technical reports, specifications, detailed cost estimates and other facility plan products that are too much information to include in the report and report attachments.

| | |
|---|----|
| Appendix 1 – Design Reports and Specifications..... | 50 |
| Appendix 2 – Existing Condition Reports | 51 |
| Appendix 3 – Regulatory Correspondence | 52 |

Provided as a separate document:

Attachment B, Part 1: Architectural and Engineering Design Drawings

Attachment B, Part 2: Visitor Center Building Drawings (Alternate)

I. Executive Summary

This facility plan report is a summary of architecture and engineering studies, analysis and design work that was prepared to convert the existing Josiah Henson Park into a significant educational and cultural destination in Montgomery County, Maryland.

The park consists of the small 3,100 GSF Riley / Bolten house that is listed on the National Register of Historic Places for its historic significance. It is considered to have irreplaceable cultural, material and aesthetic value. From 1800 to 1850 the property served as the main farmhouse on the Riley plantation, where Josiah Henson, a slave, lived before escaping to freedom in Canada.

Montgomery County Parks intends to rehabilitate the historic house and convert it to a public museum, improve the surrounding landscape, and create a new visitor building where guests can better access the park property. At the park, visitors will be introduced to programs and exhibits that focus on the first-person narrative of Josiah Henson whose autobiographical life story inspired Harriet Beecher Stowe to write her world-famous novel, Uncle Tom's Cabin.

The architecture and engineering work is the physical foundation for a visitor experience far superior to the existing conditions. Physical changes to the park property will be provided in order to increase visitation and educational opportunities. The house and its attached log kitchen will be repaired and rehabilitated to preserve the historic structures. Though the house was originally constructed in the early 1800s, rehabilitation work must use materials and methods consistent with a Colonial Revival renovation of the house by the Bolten family in the 1930's which preserved the original wood timber/frame house beneath its exterior walls and roof.

Sitework consists of a new driveway with bus drop off and small parking lot, which anticipate two busload tours of school children per tour and also provide parking for staff and disabled visitors. Additional visitor parking is located walking distance from the Park, thus the plans make every effort to ensure the safety of those walking between the parking areas and the museum site. Paths and outdoor exhibits have been strategically located to take advantage of archeological areas, respect and preserve appropriate landscape features and provide effective circulation for the visitor experience.

Historic House work includes stabilizing the existing construction, enclosing the former screen porch for a new museum room, converting the 1930's west-wing kitchen addition to an exhibit space, and rehabilitating the attached log kitchen on the north side of the house so it can be used for exhibits and living history demonstrations. It is intended to protect and preserve the existing construction to the greatest extent possible. The first floor of the house will be used as museum and exhibit space while the second floor will be primarily used by staff as office and light storage space. The basement can continue to be used as storage of items which do not require temperature and humidity control.

A new visitor orientation building will be constructed to provide ticketing, retail, restrooms and a theatre to screen an orientation video/film. The orientation building is sited to mitigate noise from Old Georgetown Road and create a visual barrier between the museum exhibits and the “outside world”. The location of the visitor orientation building necessitates some site work to provide appropriate access to enhance the visitor experience and provide accessibility to all. The park is expected to accommodate 200-400 visitors in one day, throughout the park facility. The plaza at the rear of the orientation building has been oversized to provide a staging area for school groups of approximately 100 children separate from a seating area for 25 visitors to rest.

On the following pages, detailed information is provided that will describe the existing conditions, the program of requirements and recommendations for the proposed work and cost estimates. There are two final sections. The first describes an alternative visitor center building with a multipurpose theater wing that is large enough for 100-120 persons at one time. The final section includes analogous visitor center and museum information that provided guidance to the project team.

II. Introduction

The Maryland-National Capital Park and Planning Commission (M-NCPPC) Montgomery County Department of Parks purchased the historic Riley/Bolten property from private ownership in 2006 and the adjacent non-historic Rozier property in 2009. Together both properties now comprise the Josiah Henson Park that is the subject of this facility planning project.

The first parcel, at 11420 Old Georgetown Road, consists of the historic "Riley/Bolten House" (an 1800-1815 wood frame, two-story house) and the log kitchen (a one-story wing with log walls dating to 1850-51), both remodeled to varying degree in 1936 by architect Lorenzo Winslow. The parcel has a detached one-car garage from the 1970s and landscaping and mature trees that primarily date to the second half of the 20th century. The Riley/Bolten House is listed in the National Register of Historic Places for its historic significance. It is considered to have irreplaceable cultural, material, and aesthetic value. The work described is funded in part by a Save America's Treasures grant, which is subject to having all work items meet The Secretary of the Interior's Standards for the Treatment of Historic Properties. (<http://www.nps.gov/tps/standards>) The historic period of significance is 1936-39.

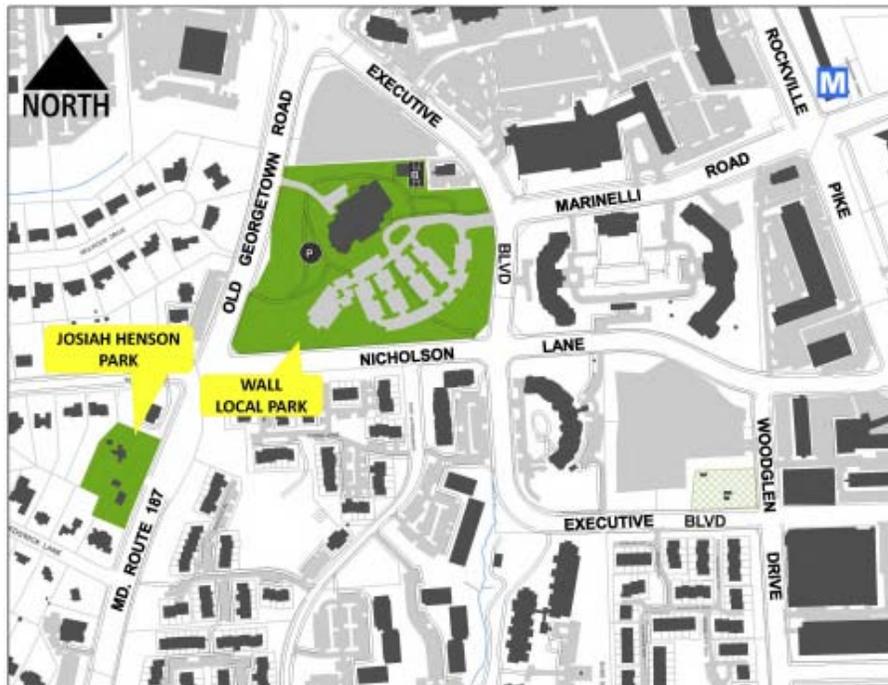
The second parcel is located at 11410 Old Georgetown Road. Although once part of the original plantation, the former Rozier property is not historically significant; a house and detached garage from post-World War II were demolished by Parks in June 2011 to make room for the approved master plan park.

The 1.5 acre park is bounded by Aish D.C. a Jewish Family Learning Center to the north, single family residential development in the Luxmanor neighborhood on the south and west, and townhouse development at Old Georgetown Village on the east. The park is a small portion of the original Riley plantation.

The existing frame structure of 1800-1815 is the former slave master's house that belonged to Isaac Riley. (The Boltens were later owners in the first half of the 20th century.) Josiah Henson was an enslaved man on the plantation from 1795 to 1830 who went on to escape enslavement, found a settlement of free peoples in Canada, and wrote his autobiography. The autobiography and Henson's true story served as inspiration for Harriett Beecher Stowe's abolitionist novel, *Uncle Tom's Cabin*. Henson lived in a "log hut" (his words) on the larger plantation grounds, which comprised several hundred acres in the 19th century. The log wing that is directly attached to the house is a kitchen whose walls date to 1850-51, but which appears to stand on the site of earlier kitchens.



Aerial image – Josiah Henson Park property divisions



Vicinity Map – showing relationship to Wall Local Park

III. Objectives

The Maryland-National Capital Park and Planning Commission awarded the Facility Plan project for the Historic Architecture and Engineering for the Riley/Bolten House and Josiah Henson site to LSC Design, Inc. in December of 2010. The key design team consultants during the project consisted of these sub-consulting services: traffic and pedestrian analysis; civil engineering; surveying; landscape architecture; structural engineering; mechanical, electrical, plumbing and fire-suppression engineering; geotechnical and storm water investigations; hazardous materials investigations; energy-analysis testing; commissioning; Leadership in Energy and Environmental Design (LEED) and Sustainable Sites Initiative (SSI) analysis and checklists; historic preservation expertise; and cost estimating.

The key goals of this facility plan are to provide a park for interpretation of Josiah Henson's life and story, develop a "blended" treatment plan (defined in the 2008 Historic Structures Report as part restoration¹ and part rehabilitation²) for the preservation of the historic Riley/Bolten House and attached Log Kitchen, provide a new orientation building that will control the site operations and manage large school/tour groups and public events, convert the Site and the house into a public museum that will be accessible for all visitors and incorporate sustainable practices into the construction and ongoing maintenance of the site to meet or exceed Maryland's energy goals.

The overlying goals for the park include: Provide safe pedestrian and bicycle circulation; Provide ADA accessible access; Accommodate large groups of people (up to 400) during events; Retain cultural resources through minimal ground disturbance; Retain important trees and landscaping; Provide a safe environment through design and lighting; Institute sustainable practices through LEED site initiatives.

The overlying goals for the Riley House and Log Kitchen include converting the existing building into an interpretive museum space. The first floor of the house, screen porch and log kitchen will have interpretive program exhibits which will be open to the public. The second floor will have a research library, office space, limited storage and a staff restroom. The basement will be used primarily for storage and mechanical equipment.

The overlying goals for the Visitor Orientation Building include: Provide retail space for the purchase of commemorative items and tickets; Provide multipurpose theater space for 30 people to view an informative movie about Josiah Henson and the site; Provide permanent toilet facilities for public visitors.

¹ Depicting the characters and features of a property as it appeared at a particular period.

² Returning a building or structure to a useful state by means of repair, modification, or alteration.

IV. Methodology

The Historic Structures Report conducted by John Milner Associates, Inc. concluded in June of 2008, and the Approved Park Master Plan approved in December 2010 provided the main platform for the Facility Plan. The goal of the Facility Plan Project's A/E design team has been to perpetuate the process of planning and design through the initial exploration and recommendations set forth in these documents. The design team has conducted further surveys, tests, assessments and research both based on recommendations from the 2008 HSR and within the facility plan process. This Facility Plan Report includes design and site studies and is the conclusion of three sub-phases within the facility plan process: preliminary, schematic and 30% design development.

V. Guiding Documents

The proposed park design will abide by the following guiding documents:

A. Regulatory Plans

- MP for Historic Preservation, 1979
- The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines on Historic Buildings, 1995
- The Secretary of the Interior's Standards for Rehabilitation & Illustrated Guidelines on Sustainability for Rehabilitating Historic Buildings, 2011
- 2010 ADA Standards for Accessible Design
- Maryland State Highway Access Manual Engineering Access Permits Division, January 2004

B. Park Plans

- Legacy Open Space Master Plan, 2001
- Land Preservation, Parks & Recreation Plan (LPPRP), 2005
- Parks, Recreation and Open Space Plan (PROS), 2012
- Vision 2030: Strategic Plan for Parks and Recreation in Montgomery County
- Strategic Plan for Cultural Resources, 2006
- Riley House/Josiah Henson Site: Historic Structures Report, 2008
- White Flint Sector Plan, 2010
- M-NCPPC Josiah Henson Special Park Master Plan, 2010

C. Facility Plan

- M-NCPPC Montgomery Parks Park Development Division Std. Details and Specifications for Construction
- Pedestrian Impact Statement: Josiah Henson Special Park, 2011
- NRI/FSD Plan, 2012

- Forest Conservation Exemption / Tree Save Plan, 2013
- Storm water Management Concept Plan, 2013 pending

VI. Facility Plan Process

The Josiah Henson Park facility planning process included the following sequence of work:

- Collected data, analyze existing buildings, site and operational conditions
- Prepared site survey, existing condition reports, hazardous materials assessment, energy audit, LEED and SITES criteria, pedestrian safety impact analysis, traffic transit analysis
- Prepared general online and paper survey of potential and future visitors regarding their knowledge of Josiah Henson, the book Uncle Tom's Cabin and other potential subject matter
- Held two sessions with focus group experts to obtain feedback on interpretive program goals for the project
- Visited analogous historic museum facilities to learn about their programs and facilities
- Met and corresponded with regulatory agencies DPS-DOT, SHA, DPS-Building and Stormwater Management officials, MC-FRS, WSSC and other regulatory agencies to confirm regulatory feasibility
- Developed program of requirements for historic house, site and interpretive program.
- Prepared and received federal (NPS), state (MHT) and local (HPC) approvals for the historic house and site schematic design approach.
- Developed program of requirements for the new visitor orientation building
- Developed Owner's Project Requirements (OPR) for building systems and building "commissioning"
- Completed geotechnical investigations for buildings and site
- Prepared and obtained approval of Natural Resources Inventory/Forest Stand Delineation Summary Map
- Participated in Pre-Development Review and Development Review Committee processes
- Presented schematic design options at a community meeting and the Countywide Recreational Advisory Board
- Coordinated with park neighbors to address ongoing operational issues
- Revised and finalized plan based on input received from community, facility management, and Cultural Resources stakeholders
- Prepared and received approval of Forest Conservation Plan Exemption and Tree Save Plan
- Prepared stormwater management concept submission and awaiting approval from DPS
- Prepared Fire Flow Tests to confirm cost and feasibility of extending water lines to the property from either Sedgwick or Tilden Lanes
- Prepared facility plan report, cost estimates
- Present facility plan recommendations and costs to the Montgomery County Planning Board for approval

VII. Summary of Existing Conditions

This information provided below summarizes opportunities and constraints identified in the facility plan process. Detailed reports for each discipline area are located in Appendix 1. The recommendations herein are the observations and findings of this facility plan and have been coordinated with reviews with the M-NCPPC park staff, the Maryland State Historic Preservation Office's Section 106 Compliance Section, the National Park Service, the local Historic Preservation Commission (holds the historic preservation design covenant on the property), building code agencies, and utility service agencies. The findings and recommendations are broken down into individual disciplines below.

Landscape Features

- There are no wetlands or streams present within 100 feet of the property.
- There is no 100 year floodplain on the site.
- The site is not in a Special Protection Area (SPA).
- The site is well connected to other community functions including churches, schools, retail, restaurants, doctor offices, other parks, and housing.
- There are many ways for visitors to reach the park, including transit by bus or the metro; bicycle lanes, pedestrian walkways, parking at the local Wall Local Park.
- The park consists of a mix of native and non-native plant species. Some invasive plant species are also present within the site.
- Site furnishings and lighting is inadequate for current public park use.
- The site slopes between 5% & 10% on average.
- The site is divided into two drainage fields. Runoff leaves the site to the north and northwest.



Open archaeological excavations in rear yard.

Riley / Bolten House

Architectural Features

- Single pane windows throughout. Some windows have non-historic storm windows applied on exterior.
- Presence of non-historic utility cabling/conduit applied to exterior cladding of building.
- Asbestos Containing Materials and lead based paints found in building.
- Mold found in Basement locations, summer beam and second floor bathroom.
- Excessive soil and vegetation in direct contact with wooden components around house and log kitchen. In places around the house, this material is blocking crawl space ventilation.
- Animal hole found in west wall.
- The design team observed significant termite damage, bug damage, woodpecker damage and moisture issues around the perimeter of the house.
- Plumbing fixtures throughout are at the end of their service life.
- Presence of Non-contributing garage in close proximity to Riley House. Garage is not big enough to house 30 people for orientation video.
- Live floor loads for the main house will need to be a minimum of 50 psf for a business occupancy, limiting the occupancy to a maximum of 50 people.
- Rear Porch has settled and is misaligned. No railing present on rear stair. Brick of rear stair has separated and settled away from brick piers.
- Water and moisture problems in basement and crawl spaces. Main point source for water infiltration is located right below the front entrance door into the house.



Front view of historic Riley / Bolten House with Log Kitchen on right and screen porch on left

- Gutter on front façade pools water at mid-length and spilling over into foundation wall.
- The house building envelope has little to no insulation or air barriers.
- Currently, the house has no ADA features. Any future use as an interpretive center will need to introduce ADA accessible entryways and pathways.
- The second floor is under 8,000 sf and is exempt from any ADA scoping requirements as it falls under a Maryland ADA code exception to compliance.
- Screened-in porch is lower than main floor level (ADA issue). Exposed wood posts show woodpecker and insect damage.
- House is devoid of thermal insulation and draft / fire stopping.
- No sprinkler system currently in house.



Rear view of historic Riley / Bolten House with screen porch on right and 1935 addition on left

Structural Features

- Wood species identifications were conducted to determine the specific kind and grade of wood found in the building. (No further tests were performed in the Log Kitchen as they were already identified in 2010 dendrochronology report.)
- Resistance drilling tests were conducted at 26 different locations to assist in diagnosing the extent of wood decay.
- The existing first floor live load capacity for the main house is 40 pounds per square foot.
- The main house second floor bedrooms (supported by the summer beam) have an existing live floor loading capacity of 15 pounds per square foot.
- The Log Kitchen floor load capacity is 80 psf.
- The main house and log kitchen roof operate above the required design roof snow load.
- The first floor beam spanning the opening in the basement wall between the main house and the 1936 addition has been significantly damaged due to termites. Temporary

Shoring was detailed and installed. This beam is completely deteriorated and needs replaced.

- The sill beams around the perimeter of the main house, where accessible, were found to have sustained significant termite damage.
- The lowest course of log framing in the log kitchen needs to be replaced.



Existing notches in Log Kitchen - evidence of former loft

Mechanical, Electrical, Plumbing, Fire Protection and Security System Features

- The house has a forced air heating and air conditioning system. The main branchline ductwork is distributed throughout the basement to feed the upper floors. Many of the supply and return ducts serving the second floor are narrow. The return ducts for the second floor are in the exterior wall. None of the ductwork is insulated.
- The bathrooms and kitchen are not equipped with exhaust air provisions.
- There are no mechanical systems associated with the Riley Garage.
- A one inch copper water service enters the basement on the North side of the building.
- There is no existing fire suppression, fire alarm, or sprinkler systems in the buildings.
- The existing water supply is not sized adequately for flush valve equipped water closets and is too small to be used in any fire protection role.
- The water piping within the building is mainly copper. It is possible given the age of the house that lead solderings were used for the fittings and joints.
- The powder room plumbing is not properly vented.
- The galvanized steel vent piping is bubbled, indicating corrosion.
- A 200 amp electrical service is in good condition and would service the house in both a residential and museum capacity.

- Older branch circuits with obsolete cloth/wax wrapped insulation over aluminum wires are present. These should be replaced as they are a fire hazard.
- A security system is present in the building.



Existing HVAC equipment in basement of Riley / Bolten house

VIII. Program of Requirements

The user group staff team participating in the project includes the Cultural Resources Stewardship Section that consists of an architectural historian, museum manager, historian, researcher and archeologists. The team also includes: Horticulturalists, Arborists, Civil and Environmental Engineers, Landscape Architect team, Park Managers, Police Officers, Facilities Managers, and Architects who have contributed to this process.

The information provided below summarizes opportunities and constraints identified in the facility plan process. Detailed reports for each discipline area are located in Appendix 1 for reference. The recommendations herein are the observations and findings of this facility plan and have been coordinated with reviews with the M-NCPPC park staff, the Maryland State Historic Preservation Office's Section 106 Compliance Section, the National Park Service, the local Historic Preservation Commission (holds the historic preservation design covenant on the property), building code agencies, and utility service agencies. The findings and recommendations are broken down into individual disciplines below.

1. Site / Landscape Requirements

The requirements for the project site include a number of improvements that address areas that will enhance the visitor experience on the property. This includes improvements to how pedestrians will be able to navigate the site, parking and vehicle circulation on the property, and a few other important items to improve the site. The landscaping of the property will be enhanced and improvements in open space adjacencies to the historic house and the new facility will be integrated effectively. These improvements include revisions to the architectural and engineered building systems which include:

- Site furnishings
- Lighting
- Site Security
- Stormwater Management
- Site Utilities

The items will be integrated into a more cohesive site for the public to enjoy. Specifics details related to the improvements follow with more specifics.

Pedestrian Circulation

- A pedestrian circulation system will be created to introduce visitors to a variety of amenities and components designed to give visitors a sense of earlier plantation times. Nodes will be provided in key locations to provide space for gathering, reflecting, resting and observing. Paths will be generally 4'-0" wide and nodes should be sized to accommodate projected group sizes and exhibits while taking care not to overpowering the site. These routes and spaces should be designed to provide barrier free access while considering preservation and enhancement of both historic features and existing trees to be preserved. Paving material should respect and where possible reflect the historic period in appearance. Pedestrian routes should also be designed to accommodate the maintenance requirements of the facility as well. Entrance/ exit from the Historic House will be fully accessible by all visitors. Provide chain / barrier to prohibit visitor access to existing basement and rear porch ell stairs.



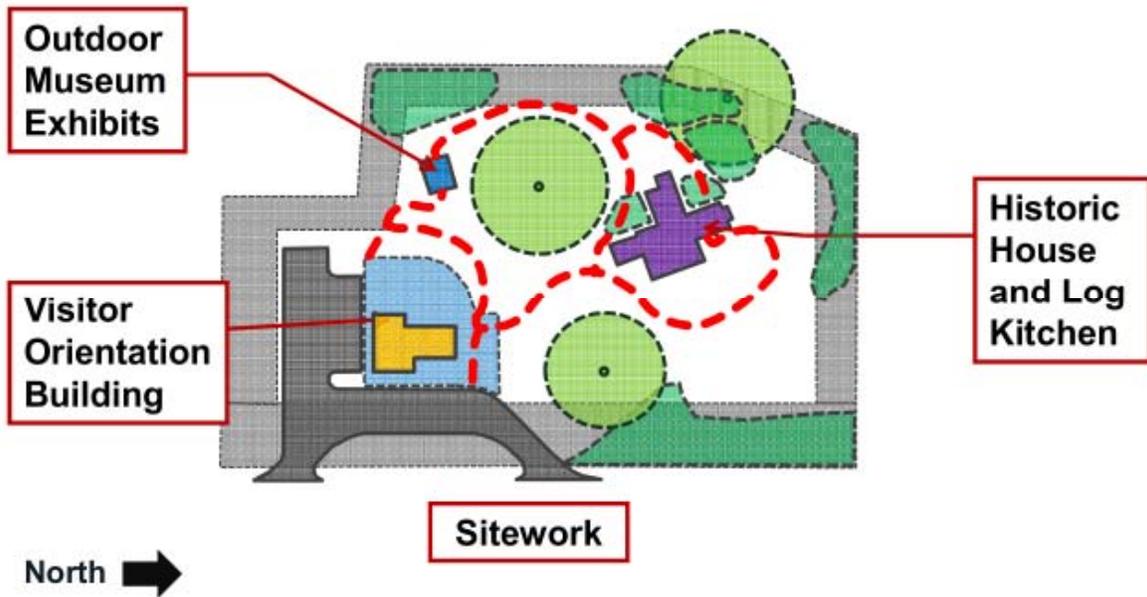
Facility Site Plan

Vehicular Access

- A main arrival point to the park is needed to accommodate bus and vehicle traffic. A small visitor orientation building, information kiosk, and pedestrian entry plaza will orient visitors to the site and create a sense of arrival to the park. A drop-off driveway with room for two buses is needed as well as a small parking lot with 5 stalls. The parking lot should accommodate one van accessible handicap space, one staff space, one short term visitor space, one car/vanpool space and one space large enough to accommodate the Cultural Resources Section’s archeology van. Care should be taken to respect both the character of the surrounding neighborhood and the historic significance of the property in creating these spaces.

Trees and Landscaping

- Large specimen trees and other key plantings should be preserved where practical to preserve the tree-lawn appearance of the property. Selective site clearing is recommended to remove invasive-exotic plant species that may be detrimental to the longevity of the trees and plants to be preserved. Trees should be preserved in accordance with the recommendations of the M-NCPPC arborist’s comments as well as the Tree Save Plan, Natural Resources Inventory / Forest Stand Delineation (NRI/FSD) and the Historic Structures Report. Care should be taken to limit or modify site construction to reduce the impact within the critical root zone of the high priority trees identified in those documents.



- Selective screen plantings should be added to the site perimeter allowing views into the site while selectively screening adjacent residential uses. Additional screening should be provided around the parking area on site. Security will also need to be considered in plant material selection and location. Any new plantings should be native and respectful of the historic context of the site. New plantings should integrate the building with the site, paying homage to the connection between the home and surrounding grounds. Both new plantings and modification of the existing landscaping should be considered with respect to the guidelines provided by Crime Prevention Through Environmental Design (CPTED) and *The Secretary of the Interior's Standards for Rehabilitation & Illustrated Guidelines on Sustainability for Rehabilitating Historic Buildings*.
- Key views into the site from Old Georgetown Road may be enhanced by selective clearing in certain areas such as the existing clearing to the north where the former Riley / Bolten House driveway was located. Care must be taken not to overly hinder the natural screen separating the site from the very busy Old Georgetown Road. Prior to any clearing or construction, an M-NCPPC arborist should be consulted to ensure minimal disturbance to existing vegetation.

Open Space

- The park site currently consists of lawn space, wooded areas, and landscaped beds. Existing lawns should be maintained or enlarged to provide space for special events, performances and other gatherings. Proposed redevelopment of the site should embrace the historic significance of the site, creating a space for visitors to learn, relax and reflect. Open space should also serve as a connection between the historic house and grounds. The park offers opportunities for the adjacent community to enjoy the open space created by lawns and landscaped beds, tying into the overall open space fabric of the neighborhood.
- Future opportunities may exist to expand the park grounds by purchasing neighboring properties. This would offer the opportunity to reconnect the historic house with grounds that once served the Isaac Riley plantation.



Potential view from sidewalk along Old Georgetown Road

Site Furnishings

- Site furnishings should be kept to a minimum to avoid cluttering the site. Benches should be provided at key points to allow visitors to contemplate and rest while experiencing the site. Associated trash receptacles or recycling bins and portable toilets should be minimized, keeping in mind not to detract from the character of the site. Bike racks should be provided in order to accommodate those biking to the site. Care should be taken to ensure site furnishings compliment the period of design without posing as or competing with actual historic elements.

Exterior Lighting Requirements

- New site lighting should be provided to meet the minimal needs of the park. This includes lighting for the parking and entry areas, paths that will be used after hours and lighting for security. Lighting should take into consideration the adjacent residential properties and environmental guidelines. Site lighting should be incorporated into the overall historic character of the site, reflecting the style of other site amenities without detracting from the historical character of the site.

Site Security

- Site security will be improved with natural surveillance measures to the extent possible, perhaps an after-hours gate, and intrusion detection for buildings.

Storm water Management

- Storm water management solutions should be as sensitive as possible to the archeological significance of the site by limiting excavation as much as possible. Techniques such as pervious pavement, above grade cisterns, landscape infiltration areas, rain gardens and micro-bio retention plantings should be considered to reduce the impact to the historically sensitive parts of the site.

Undergrounding of Overhead Utilities

- The Riley House is currently serviced by overhead utilities. Overhead utilities should be located underground during site improvements to reflect the historic nature of the site and limiting views of modern amenities serving the site. Directional boring would allow relocation of the existing electrical utilities with minimal impact to both archeologically significant areas and existing vegetation to be preserved.

2. Historic Riley / Bolten House

The requirements for the historic elements of the Riley / Bolten House on the property include a meticulous attention to detail to recreate the original conditions of the two original properties from the time they were originally used by Josiah Henson and the inhabitants of the property during that time period. Over the years, improvements have been completed, ongoing maintenance has been required, and areas of building improvement have been implemented. The following list includes specifics of the technical improvements required to revive the historic value of all the elements of the original portions of the House. Technical improvements to the architecture, structure, mechanical, electrical, plumbing, fire protection, and commissioning of the building have been provided to provide further explanation of the improvements.

Architectural Requirements

- Remove exterior storm windows. Re-condition exterior windows to be weather-tight. Install interior storm windows. Interior storm windows to be UV filtering lites with a minimum 90% UV filtering capacity. (See item 6.a, page 112 of the HSR.)
- Explore upgrading the building envelope to allow for the Riley house to support museum-like climate control settings. Design guidelines should support maintaining 70 degrees Fahrenheit with a relative humidity of 50%. Additionally, any artifacts to display will use climate controlled display cases if needed. The house building envelope has little to no insulation or air barriers. Develop method and means to minimize the air infiltration and address means for installing insulation that remain sensitive to the historic fabric of the building.
- Most exterior elements and finishes including the shutters and shutter hardware (HSR option 5.a) should remain in place and be restored and repaired to the 1936 renovation campaign intent per the Menu of Options from pages 111 - 115 of the HSR and further described within this report.
- Lower the soil line abutting the entire house. Excessive soil and debris provides pathways for insect/pest infestation. Wire mesh vents were previously installed around the perimeter of crawlspaces. Address long term solution in which vents will be blocked off with perimeter crawl space walls to be insulated. All crawl spaces should be treated as basement/cellar and dehumidified/air conditioned like the basement. In general, it is recommended to lower the soil lines around the house and institute a water/moisture management plan as soon as possible to prevent further damage to the building.



Existing wire mesh vents

- Remove plantings and vegetation around perimeter of house.
- Use the basement for archaeological storage. Remove existing mechanical equipment and locate new equipment here.
- Lead: avoid abatement of existing lead paints and paints containing lead within the house.
- Demolish non-contributing Riley Garage. Its close proximity to the Riley house makes it detrimental to the goals of the interpretive experience. (Option 3a on page 111 of the HSR.)
- Install insulation and draft stopping where possible without disrupting the historic fabric of the building.
- The code required occupancy use group classification shall be Business. Live floor loads for the house will need to be a minimum of 50 psf for a business occupancy, limiting the occupancy to a maximum of 50 people.
- Preserve the existing wood floors throughout both floors. Preserve the natural patina to all extents possible. Some small areas will need minor repairs to stabilize the material. Locate any problem areas that would cause a tripping hazard. Floors to meet ADA accessibility guidelines.
- Re-slope gutter above front entrance door. Currently, it pools water in middle of the run. This is causing a point source of water in the basement below the front entrance door.
- Reconstruct wall on west side of dining room to delineate the original size and character of the Dining Room. Provide a 36" wide cased opening into this space from the 1936 ell addition.
- Remove throughway access from Dining Room to Log Kitchen; maintain window opening to view 1850 Log Kitchen.

- Avoid using the front entrance entirely, except as needed by park staff.

Structural Requirements

- Final floor live load capabilities will be based on the occupancy determined in the code review.

Option 1: No reinforcing. Post and enforce maximum occupancy at public (first floor) areas, restrict second floor use to private office and research space.

Option 2: Reinforce floors for desired live load requirements.

Option 3: Combination of Options 1 and 2.

- Shored first floor beam in basement.
- Deteriorated pine sills to be replaced due to significant termite damage.
- Protect against future termite activity.
- Repair of splits where log joists tapered for bearing.
- Provide minimum clearance to soil below wood joists.
- Remove and infill basement stair opening. Remove surrounding first floor walls.



Existing framing in house – temporarily exposed during Facility Plan process

Mechanical, Electrical, Plumbing and Fire Protection Requirements

- Conceal exposed conduits, cabling and utilities applied to the exterior surface of building where possible.
- Remove and re-route any visible electrical conduit/cabling within rooms of house.

- Re-route underground & surface downspout drains. Re-route sump drain pipes. Develop overall scheme to route water away from the building. Integrate into stormwater management system for site.
- Install a sprinkler system throughout the house. A pre-action system is being proposed to protect against accidental sprinkler discharge and associated water damage.
- It is not usually recommended to install wall insulation in historic buildings per the NPS preservation briefs. Insulation should be explored first in attic and cellar spaces prior to adding insulation in wall construction. Timber framed corners of the tidewater house will not allow full cavity insulation due to the diagonal wood bracing. Loose fill insulation is preferable because it is reversible whereas a spray applied insulation would be permanent.

Interior Lighting Requirements

- Architectural lighting in the house will provide background lighting to soften the contrast of the accent lighting, identify the character and texture of each room, increase the apparent volume of the small rooms, and improve visual acuity and awareness to allow adults to monitor students for quicker assessment and response as needed. Lighting will be coordinated with exhibit lighting.



Interior view from main living room to study – existing candle holders

- Refurbish existing wall-mounted candle holders to provide an authentic background.
- Remove the existing wall-mounted Porch light and associated wiring.
- Replace the existing Porch ceiling fixture with architecturally appropriate fixture.
- Add wall-mounted uplights behind exhibits to visually disconnect them from the original space (typical).

Commissioning Requirements

- Although the Historical Riley House will not be registered with the USGBC, green sustainable building practices shall be employed: New Heating, Ventilating and Air Conditioning (HVAC), Plumbing and Lighting systems shall be properly documented and functionally tested.
- LEED Enhanced Commissioning credit (EA-3) shall be provided. Refer to LEED NC Scorecard.
- Building systems commissioning will be based on the latest ASHRAE Guideline 1 and Guideline 0, and documented in accordance with the latest ASHRAE Building Systems Commissioning requirements, as approved by the Owner.

3. 1850 – 1851 Log Kitchen

The requirements for the historic elements of the Log Kitchen also include a meticulous attention to detail to recreate the original conditions of this original property to recreate the time they were originally used by Josiah Henson and the inhabitants of the property during that time period. The following list includes specifics of the technical improvements required to revive the historic value of all the elements of the original portions of the facility and the other additions of the complex. Technical improvements to the architecture, structure, mechanical, electrical, plumbing, fire protection, and commissioning of the building have been provided to further explain the extent of the improvements.

Architectural

- Reconstruct a partial loft. Use hand-hewn timbers and pine flooring. Explore using the existing notches located on the west wall for reintroduction of a loft structure. Adding a reconstructed partial loft in the Log Kitchen has been discussed and seems to be a viable option to explore. This would provide headroom for visitors in the majority of the kitchen, but would still provide the spatial experience of an antebellum kitchen where living and working conditions were not ideal. A decision to leave this space of the house as unconditioned to help further reinforce the hardships endured by its inhabitants has been discussed but may not be the best approach for preserving the structure. Furthermore, we suggest removing the floor and leaving an earthen / hard packed dirt floor (see Architectural / Engineering drawings - Log Kitchen sheet 28 of 52).
- Remove the existing flooring. Lower the floor to accommodate head height clearance for a reconstructed partial loft. Floor level to be complimentary to exterior grade in order to provide ADA access. Suggested flooring materials is pine wood planks with several glass viewing panes inset in the floor.
- Reopen the former doorway in the west wall. Cut logs to provide 36" wide by 6'-8" high doorway.
- Remove any remaining remnants of 1936 renovation to expose the log walls, chinking, etc.
- Install gutter and downspout on front (east wall) of Log Kitchen.
- Rehabilitate the log kitchen fireplace. This includes lowering the floor of the firebox and hearth to original levels.

- Stabilize the current existing stairs connecting the frame house. Construct barrier at existing opening to allow viewing only into the dining room per HSR recommendation 10.b.2.



Excavated historic floor levels

- Reconstruct period style log cabin ceiling structure. Roof framing was replaced during 1936 renovation campaign. Options for a period style ceiling include applying riven rafters to underside of existing Celotex plaster. Remove the flat ceiling and 1936 collar ties and reconstruct a peaked ceiling to resemble what it would have been prior to 1936.
- Infill wall above the gable end that adjoins the tidewater house. This cavity could be used for ductwork if HVAC needs to be introduced as an approach to preserve the structure. Relocate the existing ductwork openings above the top log and infill voided log areas.

Structural

- Lowest level of logs to be replaced
- Log House – lower / remove floors, add loft
- Other repairs and treatments of logs



Weather damage at lowest course of Log Kitchen

Mechanical, Electrical, Plumbing and Fire Protection

- Provide air circulation within space to control major temperature and humidity swings. Museum control will be limited due to the historic nature of the Log Kitchen construction and lack of insulation and vapor barrier.
- Glass portals will allow condensation to form and may become fogged as the dirt floor will permit moisture to penetrate into the space. Providing air circulation below the new floor structure will limit the amount of moisture build up and prohibit the formation of condensate.

Lighting

- Add wall and cove-mounted led uplights to identify the room.
- Add soft linear LED wall-wash to feature the fireplace.
- Add soft LED lighting under the glass floor to identify the original floor area.

4. 1936-1939 Lorenzo Winslow Ell, Screened-in Porch, Rear Porch

The requirements for the Lorenzo Winslow Ell, a later addition to the complex, include improvements to update this area of the facility. Improvements have been completed, ongoing maintenance has been required, and specific focus areas of building improvement have been implemented. The following list includes specifics of the technical improvements required to update this facility for years to come. Technical improvements to the architecture, structure, mechanical, electrical, plumbing, fire protection, and commissioning of the building have been provided to provide further explanation of the improvements.

Architectural

- Provide interpretive space in first floor ell per recommendation 14.c of the HSR. To accomplish this, the kitchen closet cabinets, fixtures and finishes, basement stair and

walls, and post-1936 half bathroom should be removed. These changes will minimize the need to make other changes to the more historically significant rooms of the house and will ensure ADA-required guidelines for circulation between exhibit spaces (within walls of other rooms) are met. The ductwork going up through stair wall will need to be re-routed to provide conditioning for second-floor offices in existing rooms above.



Lorenzo Winslow ell kitchen - cabinets and finishes to be removed.

- Provide ADA access by reopening the former exterior doorway at the southwest corner of the 1936 kitchen wing. Door should be a minimum 36" wide by 6'-8" tall. Door should be of the style and character of the 1936-1939 renovation campaign. Door hardware to be ADA accessible. Per HSR recommendation 9.b, page 112.
- Removal of the existing basement stair and half-bath to provide appropriate ADA accessibility and required turning radius.
- Remove pest damaged, exposed wood columns on screened in porch. Completely reconstruct this space to provide one more room for the house (per recommendation 15.b of the HSR). Provide ADA access by constructing a raised floor to be level with the main house. Provide ADA threshold and offset door hinges. Re-swing the door for latch side clearance (if needed). See Book 2, South Wing Program space. Convert screened-in porch for use as program space, and optional entry/exit for visitor thoroughway.
- Remove second floor bathroom plumbing fixtures and built-in cabinetry (per HSR recommendations). Provide new toilet, shower and lavatory.



Existing door leading into first floor of house from screen porch.

Structural

- Repair of brick piers and stairs at rear porch.
- Replace screened porch wood posts and post bases / foundations.
- Protect against future termite activity

Mechanical, Electrical, Plumbing and Fire Protection

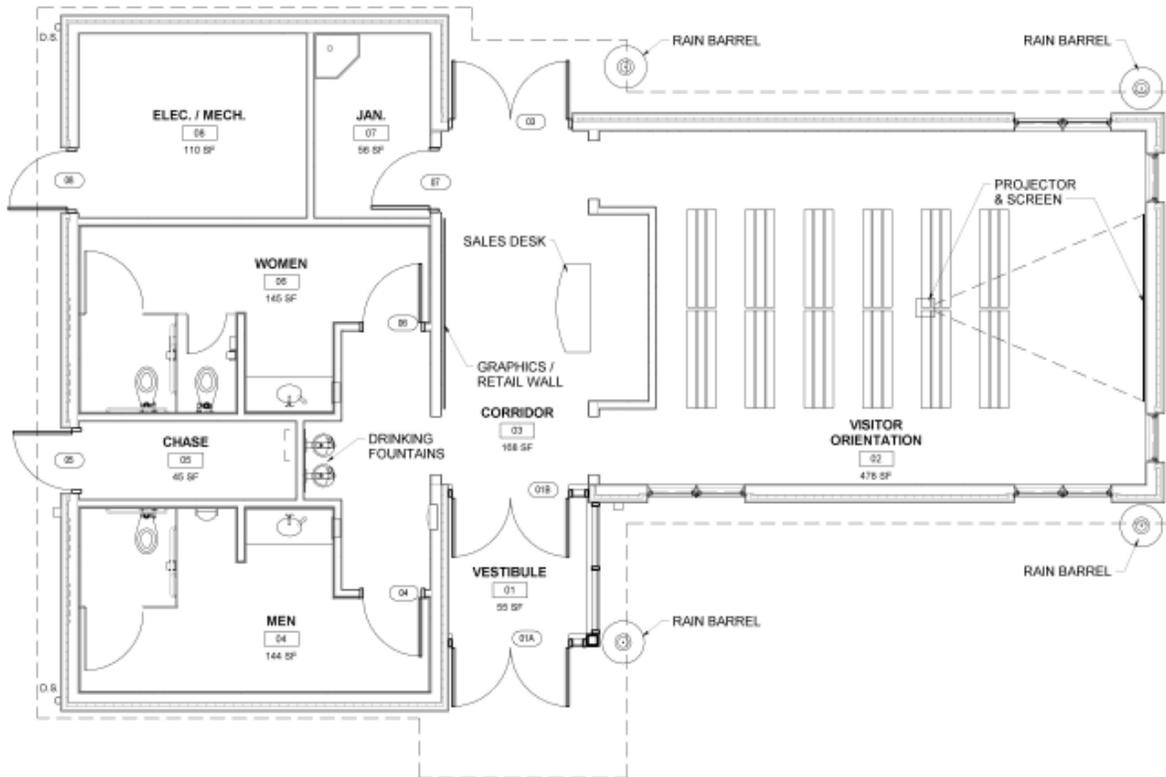
- Provide air circulation in screened porch. Will require two pilasters, one either side of existing door leading into house, to be constructed within screen porch to conceal new ductwork from basement.

5. Visitor Orientation Building (1,522 GSF)

The requirements for the Visitor Orientation Building include a range of programmatic elements to serve the visitors to the property once the facility improvements have been completed. This new facility will provide minimal needs of the public when they visit this property: a transaction desk in the entry hall, restrooms and a video viewing room. This section describes architecture, structure, mechanical, electrical, plumbing, fire protection, and commissioning of the building.



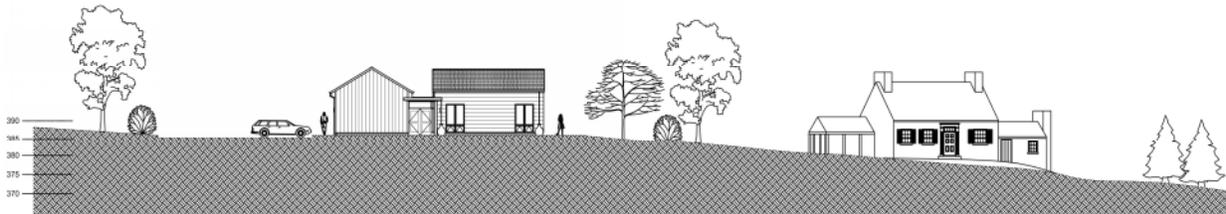
Visitor Orientation Building – Front Elevation



Visitor Orientation Building Plan

Architectural

- Provide Men's and Women's ADA accessible restrooms (2 toilets and 1 sink each). Restrooms to be accessible to the public during staff hours.
- Provide a video viewing room to accommodate seated groups of 35 people. Seating should be moveable to provide flexibility of function.
- Provide a transaction desk for ticketing/information. Casework to have glass front and shelves for retail display.
- The form, style, and principal elevations and exterior materials could match the 1800-1936 Tidewater House, but not compete with it.



North – South Site Section

Structural

- Standard methods of bearing walls and prefabricated roof trusses are intended.
- Typical strip foundations will be used.

Mechanical, Electrical, Plumbing and Fire Protection

- HVAC system selected for use is a Variable Refrigerant Flow (VRF) heat pump system using a single condensing unit.
- A new electrical service will be routed from Old Georgetown Rd for this structure.
- New plumbing fixtures will meet current code requirements.
- Fire Protection will be provided.
- New water and sewer service routed from Old Georgetown Road.

Lighting

- Vestibule and Circulation: ceiling-mounted period fixtures will help create an authentic arrival experience; adjustable wall-wash fixtures will light the entrance and exterior perimeter.
- Retail: decorative pendant fixtures will provide sparkle to highlight the destination view, enticing patrons to enter; dimmable LED downlights will provide general illumination for entry and seating; dimmable wall-mounted linear direct/indirect fixtures will provide supplemental lighting and surface luminance, to activate the space during participatory educational activities.

Commissioning

- New Visitor Orientation building is pursuing LEED New Construction (NC) Certification in accordance with LEED Scorecard. All equipment shall be fully commissioned as required under Fundamental Commissioning Energy & Atmosphere (EA Pre-Requisite) credit
- LEED Enhanced Commissioning credit (EA-3) shall be provided for both facilities. Refer to LEED NC Scorecard.
- Building systems commissioning, provided by Complete Commissioning, Inc., will be based on the latest ASHRAE Guideline 1 and Guideline 0, and documented in accordance with the latest ASHRAE Building Systems Commissioning requirements, as approved by the Owner.

Recommended Treatment Matrix - Building Function and Amenities per Room

Room Number **Room Name** **Recommended Treatments** **Constraints** **Square footage required** **Options / MNCPPC Staff Priorities** **Public Code related Space comments** **Additional References**

| Room Number | Room Name | Recommended Treatments | Constraints | Square footage required | Options / MNCPPC Staff Priorities | Public Code related Space comments | Additional References |
|---|------------------------------|---|---|--------------------------------|--|------------------------------------|---|
| Historic Riley/Bolten House Museum | | | | | | | |
| | Operating Assumptions | The Riley house will be open to the general public on weekends starting in February and lasting through November. In addition to the weekend operations, the building will be open during four (4) annual special programs. Luxmanor Citizens Community Art Show (April), Maryland House & Garden Pilgrimage (May), Montgomery County Heritage Days (June), and Maryland Emancipation Day (November). The building will also host by special request, private group tours and school groups (primarily 4th and 8th grade levels). A full time employee will be needed to manage the museum onsite to carry out operations with the assistance of other staff, docents and volunteers. | Limit the size of tour groups to 15 people. | | | | JHSP Master Plan Goal #1 page 30 |
| | Exterior | Restore the exterior of the house. Add security lighting, remove sight-limiting shrubs, install ADA accessible ramp and door into West Wing Program Space. Maintain and restore the shutters, repairing damaged elements, and remaining faithful to the 1936 design. Keep the window and door design as they are now, add interior storm windows. | | | HSR Option 5.a. HSR Option 6.a. page 112 | | JHSP Master Plan Goal #1 page 32 RFP page 43 item 11.b. |
| | Basement | The basement will be used for archaeological implements, storage, and wash up, plus mechanical equipment for the house. Otherwise, keep basement as clear as possible for possible guided tours of historic wood structure (by request & pre-arrangement only) | | existing space (1,065 sq. ft.) | | | RFP page 25 |



Recommended Treatment Matrix - Building Function and Amenities per Room

| Room Number | Room Name | Recommended Treatments | Constraints | Square footage required | Options / MNCPPC Staff | | Public Space | Code related comments | Additional References |
|--------------------|----------------------|---|--|--------------------------------|---------------------------|-------|--|---|-----------------------|
| | | | | | Priorities | Space | | | |
| Rm 001 | Basement | All sill beams should be replaced with new termite-resistant wood sills. Lower the grade/ soil line around foundation walls to provide adequate clearance to untreated wood framing. Stitch together log joists at splits where needed. Correct connection detailing at modified framing locations with new blocking, nailing, hangers and straps. Provide moisture and termite protection with the use of a borate based treatment. Pour new concrete floor for moisture protection. This room could be used for guided interpretation of the historic wood structure, but is not ADA accessible or compliant. This room not recommended for storage | | existing space (191 sq. ft.) | | No | Door into this space has threshold not ADA compliant. Width of door not ADA compliant. Height of door is not ADA compliant. Low head clearance in this room. Uneven dirt floor surface. Recommendation is to limit access only to open door viewing. | | |
| Rm 002 | Basement | Same comments as generated for Room 001; This room currently houses mechanical equipment and will be used for new/upgraded mechanical equipment. This portion of basement resides under original building footprint. Historic tours of the structure could be conducted in this room with an open door view into room 001 | | existing space (210 sq. ft.) | | No | No ADA accessible access into basement if guided tours are being considered. | | |
| Rm 003 | Basement/ Laundry | Primary use for archaeologists. Room to have washer, dryer and wash sink. Remove existing toilet. Replace beam being temporarily shored with new wood or steel beam. | | existing space (247 sq. ft.) | | No | No ADA accessible access into basement if guided tours are being considered. | | |
| First Floor | | A first floor museum-quality exhibit space focusing on the life of Josiah Henson. | | existing space (1,300 sq. ft.) | | | | RFP page 25 | |
| Rm 102 | Living Room | Keep Living Room as it is, restoring surfaces and fixtures to match the 1936 design. Space used for interpretive exhibits including timelines, display cases, interactive exhibits, archeological finds, and photographs. | | existing space (375 sq. ft.) | HSR Option 12.b. page 114 | Yes | | JHSP Master Plan page 37 | |
| Rm 105 | South Wing | Raise the floor of this space to meet the first floor of the Riley House and enclose into a conditioned interior space with glass, wood, or wood/glass infilling expression of porch posts. This space would function as the entry into the house and the first gallery space with interpretive exhibits. | Historic Wood Posts must remain clearly identifiable from the exterior of the house. | existing space (134 sq.ft.) | HSR Option 15.b. page 114 | Yes | Existing door into Living Room is 32" wide. Would need to be modified to meet ADA. | RFP page 24 JHSP Master Plan page 30-31 | |

Recommended Treatment Matrix - Building Function and Amenities per Room

| Room Number | Room Name | Recommended Treatments | Constraints | Square footage required | Options / MNCPPC Staff | | Public Space | Code related comments | Additional References |
|-------------|---|--|-------------|------------------------------|---|-------|--------------|-----------------------|---|
| | | | | | Priorities | Space | | | |
| Rm 102A | Closet | Function as closet serving the needs of the staff. Possible location for small coat closet for visitors/ staff and mechanical shafts. | | existing space (6 sq. ft.) | | No | | | RFP page 43 item 11.a. |
| Rm 106 | Back (West) Porch | Leave porch doors in place for occasional staff use only. Repair/replace damaged materials by following the 1936 Design in all aspects. Allow the glazed storm enclosure to remain. Construct an exterior barrier (Fence with gate) at the bottom of the stairs to prohibit access. | | existing space | HSR Option 7.b page 112 | No | | | JHSP Master Plan page 37 |
| Rm 107 | West Wing Exhibit Space (1930s Kitchen) | Remove kitchen cabinets and appliances, Closet 107A, Stairway 108A, Toilet Room 109 to allow for this space to become the final exhibit gallery in the house museum. Reopen the former (south-facing) exterior doorway that existed opposite the 1930s basement stair and incorporate into ADA accessible exit from the house. | | existing space (160 sq. ft.) | HSR Option 9.b. page 113 HSR Option 14.c page 114 | Yes | | | JHSP Master Plan page 37 |
| Rm 104 | Dining Room | Restore surfaces and fixtures to match the 1936 design, construct wall to demarcate the original exterior wall of the existing Dining room footprint and provide open threshold from this room into the West Wing Exhibit space. Exhibits would tell the story of Josiah Henson and include permanent didactic panels, low-tech interactive exhibits, artifact displays, and interactive web presence. Install glass guardrail that allows visibility between the Dining Room and Log Kitchen. | | existing space (98 sq. ft.) | HSR Option 10.b.2 page 113 HSR Option 13.a. page 114 | Yes | | | JHSP Master Plan page 31 Alt. JHSP Master Plan page 37 |
| Rm 103 | Study | Remove the book cases, but retain all other 1936 details, keeping fireplace as it is. Keep the doorway as a window. Use as additional exhibit space. | | existing space (148 sq. ft.) | HSR Option 8.a. page 112 | Yes | | | JHSP Master Plan page 37 |

Recommended Treatment Matrix - Building Function and Amenities per Room

| Room Number | Room Name | Recommended Treatments | Constraints | Square footage required | Options / MNCPPC Staff Priorities | | Public Space | Code related comments | Additional References |
|---------------------|--------------------|--|---|------------------------------|--|----------|--|--|-----------------------|
| | | | | | HSR Option | Priority | | | |
| Rm 101 | Log Kitchen | Treat this space as a teaching environment; interpretation about antebellum kitchen spaces and log slave quarters on the property up through 1850. Re-open rear (west) door and front (east) door, provide ADA threshold at entry doors, restore the fireplace to its original floor level, partially reconstruct the sleeping loft above the fireplace. Remove 1930's wood floor and replace with new wood floor at lower level. Remove lowest course of log framing and replace. Possible source for hand hewn loft logs includes 1816 log structure owned by Parks and being razed. About 15 people could circulate throughout this space at one time. (Note size of circulating groups established by CBSS is 17-20) Remove this closet | Possible constraint if lowest level of logs is not at the same level of existing ground level. The goal is to attain the most headroom available to reconstruct partial loft above fireplace. | existing space (226 sq. ft.) | HSR Option 4 page 111 HSR Option 10.b, HSR Option 10.b.2 page 113 | Yes | 1 exit required for this space (less than 49 people). Provide minimum 6'-8" head height, and a minimum 32" clear door opening. | Alt. JHSP Master Plan page 37 | |
| Rm 107A | Closet | Remove this closet | | | | | | | |
| Rm 108A | Basement Staircase | Remove staircase. Infill with floor. | Removal of historic fabric as it pertains to the 1936 building campaign. | existing space (30 sq. ft.) | HSR Option 14.c page 114 | Yes | | | |
| Rm 109 | Toilet | Removal of toilet and wall partitions to allow circulation of the former kitchen into the Dining Room. Remove toilet and lavatory and all plumbing. | Removal of historic fabric as it pertains to the 1936 building campaign. | existing space (18 sq. ft.) | HSR Option 14.c page 114 | Yes | | RFP page 42 item 'f' | |
| Second Floor | | Second floor to be a staff and volunteer work area. Provide plans delineated with functional areas for period furniture. Repair any materials that have been damaged without removing or destroying any details shown on the 1936 drawings. Reinforce the floors as needed. | | 787 sq. ft. | HSR Option 16.a pages 114, 115 | | | RFP page 25, 41-42 JHSP Master Plan pages 32 & 37 | |
| Rm 201 | South Bedroom | Lightly furnished bedroom with simple exhibit. Restrict visitor groups to less than 5 people. | Functional use of this bedroom as an office space relies on reinforcing the main exposed summer beam in the floor to maintain a minimum level of live load bearing allowed per code. This will be disruptive to the original historic fabric. | existing space | HSR Option 16.a pages 114, 115 | No | Determine Floor loading requirements - Business occupancy | | |

Recommended Treatment Matrix - Building Function and Amenities per Room

| Room Number | Room Name | Recommended Treatments | Constraints | Square footage required | Options / MNCPPC | | | Additional References |
|--|--------------------|--|-------------|------------------------------|--------------------------------|-----------------------|--------------|-----------------------|
| | | | | | Staff Priorities | Public Space comments | Code related | |
| Rm 202 | Closet | Function as a closet serving the needs of the staff. | | existing space | HSR Option 16.a pages 114, 115 | No | | |
| Rm 203 | Hall | Used for main circulation on second floor. Keep existing railings intact. | | existing space | HSR Option 16.a pages | No | | |
| Rm 204 | East Bedroom | To serve as an office space for staff or volunteers. | | existing space | HSR Option 16.a pages | No | | |
| Rm 205 | Closet in Rm 204 | Function as a closet serving the needs of the staff | | existing space | HSR Option 16.a pages | No | | |
| Rm 206 | Closet in Hall 203 | Storage Closet -Possible use for Docent Literature since it would not disturb Offices | | existing space | HSR Option 16.a pages | No | | |
| Rm 207 | Bathroom | Function as a restroom to serve staff only. Keep a Shower for LEED / Bicycle Shower Facilities | | existing space | HSR Option 16.a pages 114, 115 | No | | |
| Rm 208 | Closet | Function as closet serving the needs of the staff. Possible location for small refrigerator to store lunches and refreshment storage | | existing space | HSR Option 16.a pages 114, 115 | No | | |
| Rm 209 | Research Library | Convert to library for staff and research visitors. Provide meeting table/chairs and perimeter bookcases for storage of archival materials. Perhaps provide secure lock or safe for this room. | | existing space | HSR Option 16.a pages 114, 115 | No | | |
| Riley Garage | | | | | | | | |
| | Garage | Demolish non-contributing garage structure. Conduct Archeological explorations to locate possible location of meat house, out-buildings, slave quarters. | | existing space (326 sq. ft.) | HSR Option 7.a, page 111 | No | | RFP page 42 |
| New Visitor Center (on non-historic property) | | | | | | | | |
| | Entry Plaza | Area for visitors to disembark from buses, pick-up/drop-off visitors. Previous Pavers, benches for seating, Information Kiosk | | | | | | |
| | Lobby / Entrance | Entry/exit vestibules. Interior congregating area for access to theatre/meeting room, retail (ticketing/sales desk), restrooms, coats | | 400 sq. ft. | | Yes | | RFP page 24, 43 |

Recommended Treatment Matrix - Building Function and Amenities per Room

| Room Number | Room Name | Recommended Treatments | Constraints | Square footage required | Options / | | Public Space | Code related comments | Additional References |
|-------------|--------------------------|--|--|---------------------------|-------------------------|-------|--------------|-----------------------|--------------------------|
| | | | | | MNCPPC Staff Priorities | Space | | | |
| | Retail/Info Desk Area | Space for information, ticketing, retail sales (merchandise and books), media boards for times and dates of special and daily events pertaining to site. Additional information for other organizations. Consider providing a virtual tour of the property in this area for those that cannot access the site easily. | | 250 sq. ft. - 400 sq. ft. | Yes | | | | |
| | Retail Storage | Space for the storage of merchandise and books, dry goods and supplies to operate the Visitor Center sufficiently. This includes storage for sales refreshments, publications. | Note: Move after Retail/Info Area. Exhibit storage in basement or elsewhere. Furniture storage w/meeting room. | 50 sq. ft. | No | | | | RFP page 43 |
| | Staff/Retail Office | Provide workroom for staff adjacent to Info Desk/Retail Area and Retail Storage. Provide room for typical office equipment and desk for one person. | | 100 sq. ft. | No | | | | |
| | Theater / Meeting Room | Multipurpose room for 5-10 minute interpretive program orientation video and educational/public meeting space. Provide seating for 30-50 persons. The orientation video will introduce Josiah Henson, the Riley plantation history, and an overview of slavery in Montgomery County. The video could be followed by the 30 minute educational video, "Father Henson - His Spirit Lives On" produced by uncle Tom's Cabin Historic Site in Ontario, Canada. The design of this room could include rudimentary slave dwelling finishes that would add to the visitor's experience of the site. | Note: Virtual tour idea if desired by CRSS needs to be part of Experience Design's work. If a separate item from the 5-10 minute video, then discussion of the physical needs for the virtual tour should be discussed -- maybe it's simply a computer monitor/station. Care should be taken not to expose the visitor to too much log cabin materials | 400 sq. ft. - 700 sq. ft. | Yes | | | | JHSP Master Plan page 31 |
| | Theatre By-Pass Exhibits | Provide wall space for display of introductory interpretive information for visitors that are by-passing the introductory orientation video in the theatre. | Note: Refer to Exhibit Program for space needs. | | | | | | |



Recommended Treatment Matrix - Building Function and Amenities per Room

| Room Number | Room Name | Recommended Treatments | Constraints | Square footage required | Options / MNCPPC Staff | | Public Space | Code related comments | Additional References |
|-------------|------------------------------|--|--|---|------------------------|-------|--------------|--|------------------------|
| | | | | | Priorities | Space | | | |
| | Kitchen / Docent Locker Area | Small counter/storage area. Sink, microwave, small refrigerator. Place for refreshments to be located for functions in meeting room. Lockers or bin containers where docents can store personal or tour materials, congregate before a tour. 1-2 chairs. | | 150 sq. ft. | | No | | | |
| | Table/Chair Storage | Tables and chairs for alternative furniture arrangements in meeting room. Table and chair storage capacity to be verified upon selection of final option. | | 100 sq. ft. - ? | | No | | | |
| | A/V Storage | Equipment room for storage of projectors and other small equipment. | | 50 sq. ft. | | No | | | |
| | Men's Restroom | Gang style (2-3 stall) restroom with accessible fixtures per code. | | 190 sq. ft. - 230 sq. ft. | | Yes | | JHSP Master Plan Goal #3 Maximum page 32 | |
| | Women's Restroom | Gang style (2-3 stall) restroom with accessible fixtures per code. | | 190 sq. ft. - 230 sq. ft. | | Yes | | JHSP Master Plan Goal #3 Maximum page 32 | |
| Exterior | Event Staging Area | Exterior area on lawn at far southwest corner of historic property behind Visitor Center - area for canopies/tented event space | | 100 people | | Yes | | | |
| | Recycling Area | Per LEED Materials and Resources Prerequisite 1: provide an area for the collection and storage of recycled materials. Materials must include at a minimum Paper, corrugated cardboard, glass, plastics and metals | Note: Combine w/trash area requirements. Include portable toilet concrete pad. | Is recycle collection single stream or multiple stream? | | Yes | | | |
| Exterior | Trash Area | The use of Wheeled Toters is anticipated/Dumpsters not anticipated. Provide an enclosed area for both trash and recyclables adjacent to new visitor center. | | 3 toters | | No | | | |
| Exterior | Courtyard | Outdoor area where visitors can congregate away from street noise behind the building. Paved area that could be set up with tables/chairs or picnic tables or a tent as needed for educational or special event activities. Location contiguous to meeting room would facilitate flow between spaces for special events in the meeting room. | | | | | | | |
| Exterior | Control area | Centrally located lighting, audio, media, data, and telecommunications controls | Note: could combine with A/V storage | | | No | | | RFP page 43 Item 11.f. |



Recommended Treatment Matrix - Building Function and Amenities per Room

| Room Number | Room Name | Recommended Treatments | Constraints | Square footage required | Options / | | | Additional References |
|-------------|-------------------------------|---|---|---------------------------|-------------------------|--------------|-----------------------|-----------------------|
| | | | | | MNCPPC Staff Priorities | Public Space | Code related comments | |
| | Mechanical/Electrical Storage | Centrally located HVAC equipment, electrical room/closet. Located in basement. | | 200 sq. ft. | | No | | |
| | Basement Storage | Exhibit Storage, Facility Storage and outdoor event items as needed: tables, chairs, special temporary program signage. | Note: Some outdoor storage may be needed, especially for temporary sandwich-board event signage usually set along adjacent roadways. | 380 sq. ft. - 550 sq. ft. | | No | | 9/15/2011 email |
| Option | Research Center | Instead of locating a research center in the existing Riley House Screened in porch, an option would be to located one such room within the new welcome center. | Note: This will be provided in the historic house, unless you show a VC basement option that can accommodate it, the main floor won't have room for it. If it's rejected in the basement, it can be deleted from the VC requirements. | 150 - 300 sq. ft. | | Yes | | RFP page 24 |



IX. Description of Proposed Work

The information provided in the program of requirements identifies the requirements for the scope of the work for this project. Detailed reports for each discipline area are located in Appendix 1 for reference. The recommendations herein are the observations and findings of this facility plan and have been coordinated with reviews with the M-NCPPC Park staff, the Maryland State Historic Preservation Office's Section 106 Compliance Section, the National Park Service, the local historic preservation commission (holds the historic preservation design covenant on the property), building code agencies, and utility service agencies. The findings and recommendations found in Section VIII and elsewhere in this report will be further developed during the next phase of document development of this project. The project scope sets up the parameters for developing this project into a full set of construction documents.

In general there are three areas of focus for the proposed work. They are site improvements, renovations and improvements to the historic house complex, and the construction of a new visitor facility. The proposed work for the new facility has two options which are tied to the budget of the project; a smaller visitor orientation center and a more comprehensive full visitor center.

The proposed work can be summarized as follows:

Improved Site Improvements- The proposed work for the site generally involves improving the accessibility of visitors to the site and how they visit the property, including those individuals who have to park off-site and walk to the property. More details are provided elsewhere, but in general the proposed work includes:

- Widen sidewalk at park frontage; widen to Tilden Lane if feasible
- New ADA accessible parking
- A new bus drop-off area
- New landscaping
- Preserve as much of the existing landscaping as possible
- Creation of elevated walkways to provide accessible paved walkways throughout the historic property
- A new outdoor plaza adjacent to the visitor center for visitors to gather and enjoy the property

Historic House- The proposed work for the original connected buildings and the various additions involves improving, stabilizing, and adding some aesthetic improvements to the historic property. More details are provided, but in general the proposed work includes:

- Stabilizing the existing conditions of the historic buildings on-site
- Providing new fire protection systems to decrease the risk and improve the longevity of the historic built elements of the site
- Making non-visible improvements to the building elements to make this historic facility as energy efficient as possible without altering the historic elements of the original buildings.
- Addition of exhibit space on the first floor
- Accommodations for staff administrative space on the second floor
- Improvements to the Log Kitchen to allow it to be used as an exhibit and living history demonstration space

Visitor Orientation Building- This option provides minimal amenities and services required for the visitors to the property. In order to maintain the available budget for the project, this option has a number of scope items. They include the following:

- This facility provides some much needed indoor space for the groups arriving at the property
- A video viewing space for up to 35 people is provided for group usage and to help enhance programs
- Indoor restroom facilities are provided for visitors with full ADA accessibility
- A ticketing/information transaction desk is provided with a small retail display area

These elements all serve as the bulk of the proposed work for the property. Within other sections of this report, much more concise detail of the full scope of the proposed work is provided.

X. Cost Estimates

Josiah Henson Park – Construction Costs Provided by Kinsley Construction, Inc.

| | |
|----------------------------------|-----------------------|
| General Requirements | \$628,000.00 |
| Sitework | \$722,528.43 |
| Riley / Bolten House | \$754,436.25 |
| Visitor Orientation Building | \$454,952.25 |
| Net Construction Subtotal | \$2,559,916.93 |
| Liability Insurance (1%) | \$25,599.17 |
| Overhead & Profit (6%) | \$153,595.02 |
| Bond (1%) | \$25,599.17 |
| Total Construction | \$2,764,710.28 |

Costs Per Square Foot

Does Not Include General Requirements

| | |
|---|-----------------|
| Sitework (41,764sf within limit of disturbance) | \$17.30 / sf |
| Riley / Bolten House | |
| Riley House (2,707 GSF) | \$220.07 / GSF |
| Log Kitchen (295 GSF) | \$276.31 / GSF |
| Screen Porch / South Wing (145 GSF) | \$532.37 / GSF* |
| Visitor Orientation Building (1,522 GSF) | \$298.92 / GSF |

*The escalation in the cost per GSF in the Screen Porch is a direct reflection of the extent of construction necessary to create an enclosed room. The existing roof structure is not designed to handle the additional lateral wind forces caused by enclosing the space and will have to be supplemented. In addition, the existing wood posts will be replaced with structural members, a new floor structure will be constructed level with the first floor of the main house and a new full height aluminum window system with textured laminated art glass to replicate the appearance of the screen material will be provided to complete the room.



Josiah Henson Park - Facility Plan

Sitework Cost Estimate

Date: **Monday, May 20, 2013**

30% Design Development

Version: **Final**

Client: **M-NCPPC, Montgomery County Parks**

Architect: **LSC**

| | | |
|---|-----------|-------------------|
| 1 Division 01: General Requirements | \$ | - |
| 2 Division 02: Sitework | \$ | 722,528.43 |
| 3 Division 03: Concrete | \$ | - |
| 4 Division 04: Masonry | \$ | - |
| 5 Division 05: Steel | \$ | - |
| 6 Division 06: Carpentry | \$ | - |
| 7 Division 07: Moisture Protection | \$ | - |
| 8 Division 08: Doors, Windows and glass | \$ | - |
| 9 Division 09: Finishes | \$ | - |
| 10 Division 10: Specialties | \$ | - |
| 11 Division 11: Equipment | \$ | - |
| 12 Division 12: Furnishings | \$ | - |
| 13 Division 13: Special Construction | \$ | - |
| 14 Division 14: Conveying Systems | \$ | - |
| 15 Division 15: Mechanical | \$ | - |
| 16 Division 16: Electrical | \$ | - |
| Total Sitework Division 1-16 | \$ | 722,528.43 |
| Liability insurance @ 1% | \$ | 7,225.28 |
| Overhead & Profit @ 6% | \$ | 43,351.71 |
| Bond @ 1% | \$ | 7,225.28 |
| Subtotal | \$ | 780,330.70 |



Josiah Henson Park - Facility Plan

Riley / Bolten House

Date: **Tuesday, May 14, 2013**

30% Design Development

Version: **Final**

Client: **M-NCPPC, Montgomery County Parks**

Architect: **LSC**

| | | |
|---|-----------|-------------------|
| 1 Division 01: General Requirements | \$ | - |
| 2 Division 02: Demolition | \$ | 77,000.00 |
| 3 Division 03: Concrete | \$ | 4,500.00 |
| 4 Division 04: Masonry | \$ | 25,000.00 |
| 5 Division 05: Steel | \$ | 11,000.00 |
| 6 Division 06: Carpentry | \$ | 147,821.25 |
| 7 Division 07: Moisture Protection | \$ | 53,600.00 |
| 8 Division 08: Doors, Windows and glass | \$ | 80,250.00 |
| 9 Division 09: Finishes | \$ | 128,150.00 |
| 10 Division 10: Specialties | \$ | 2,900.00 |
| 11 Division 11: Equipment | \$ | - |
| 12 Division 12: Furnishings | \$ | 3,000.00 |
| 13 Division 13: Special Construction | \$ | - |
| 14 Division 14: Conveying Systems | \$ | - |
| 15 Division 15: Mechanical | \$ | 81,615.00 |
| 16 Division 16: Electrical | \$ | 139,600.00 |
| 17 Division 17: Miscellaneous | \$ | - |
| Total House Divisions 1 - 17 | \$ | 754,436.25 |
| Liability insurance @ 1% | \$ | 7,544.36 |
| Overhead & Profit @ 6% | \$ | 45,266.18 |
| Bond @ 1% | \$ | 7,544.36 |
| Subtotal | \$ | 814,791.15 |



Josiah Henson Park - Facility Plan Visitor Building Comparison

Date: **Monday, May 20, 2013**

30% Design Development

Version: **Final**

Client: **M-NCPPC, Montgomery County Parks**

Architect: **LSC**

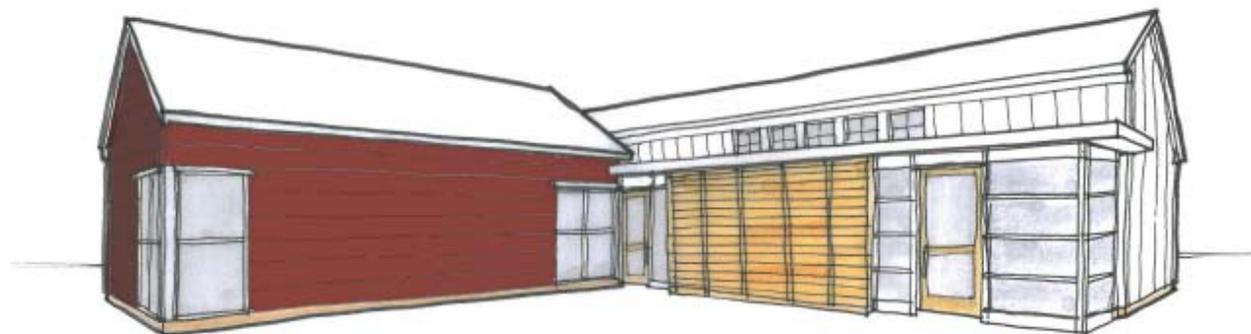
| | Visitor Orientation | Visitor Center (Alt.) | Difference |
|--|----------------------|-----------------------|------------------------|
| 1 Division 01: General Requirements | \$ - | \$ - | \$ - |
| 2 Division 02: Sitework - Visitor Center | \$ - | \$ - | \$ - |
| 3 Division 03: Concrete | \$ 31,350.00 | \$ 68,848.00 | \$ (37,498.00) |
| 4 Division 04: Masonry | \$ 13,400.00 | \$ 24,400.00 | \$ (11,000.00) |
| 5 Division 05: Steel | \$ 37,343.75 | \$ 86,325.00 | \$ (48,981.25) |
| 6 Division 06: Carpentry | \$ 52,020.00 | \$ 97,990.00 | \$ (45,970.00) |
| 7 Division 07: Moisture Protection | \$ 36,876.00 | \$ 156,950.00 | \$ (120,074.00) |
| 8 Division 08: Doors, Windows and glass | \$ 21,150.00 | \$ 72,450.00 | \$ (51,300.00) |
| 9 Division 09: Finishes | \$ 73,297.50 | \$ 152,835.00 | \$ (79,537.50) |
| 10 Division 10: Specialties | \$ 16,750.00 | \$ 11,750.00 | \$ 5,000.00 |
| 11 Division 11: Equipment | \$ 400.00 | \$ - | \$ 400.00 |
| 12 Division 12: Furnishings | \$ 3,000.00 | \$ - | \$ 3,000.00 |
| 13 Division 13: Special Construction | \$ - | \$ - | \$ - |
| 14 Division 14: Conveying Systems | \$ - | \$ - | \$ - |
| 15 Division 15: Mechanical | \$ 101,365.00 | \$ 132,840.00 | \$ (31,475.00) |
| 16 Division 16: Electrical | \$ 68,000.00 | \$ 110,600.00 | \$ (42,600.00) |
| 17 Division 17: Miscellaneous | \$ - | \$ - | \$ - |
| Total Divisions 1 - 17 | \$ 454,952.25 | \$ 914,988.00 | \$ (460,035.75) |
| Liability insurance @ 1% | \$ 4,549.52 | \$ 9,149.88 | \$ (4,600.36) |
| Overhead & Profit @ 6% | \$ 27,297.14 | \$ 54,899.28 | \$ (27,602.15) |
| Bond @ 1% | \$ 4,549.52 | \$ 9,149.88 | \$ (4,600.36) |
| | \$ 491,348.43 | \$ 988,187.04 | \$ (496,838.61) |

XI. Alternative Design Visitor Center (2,390 GSF first floor, 510 GSF basement)

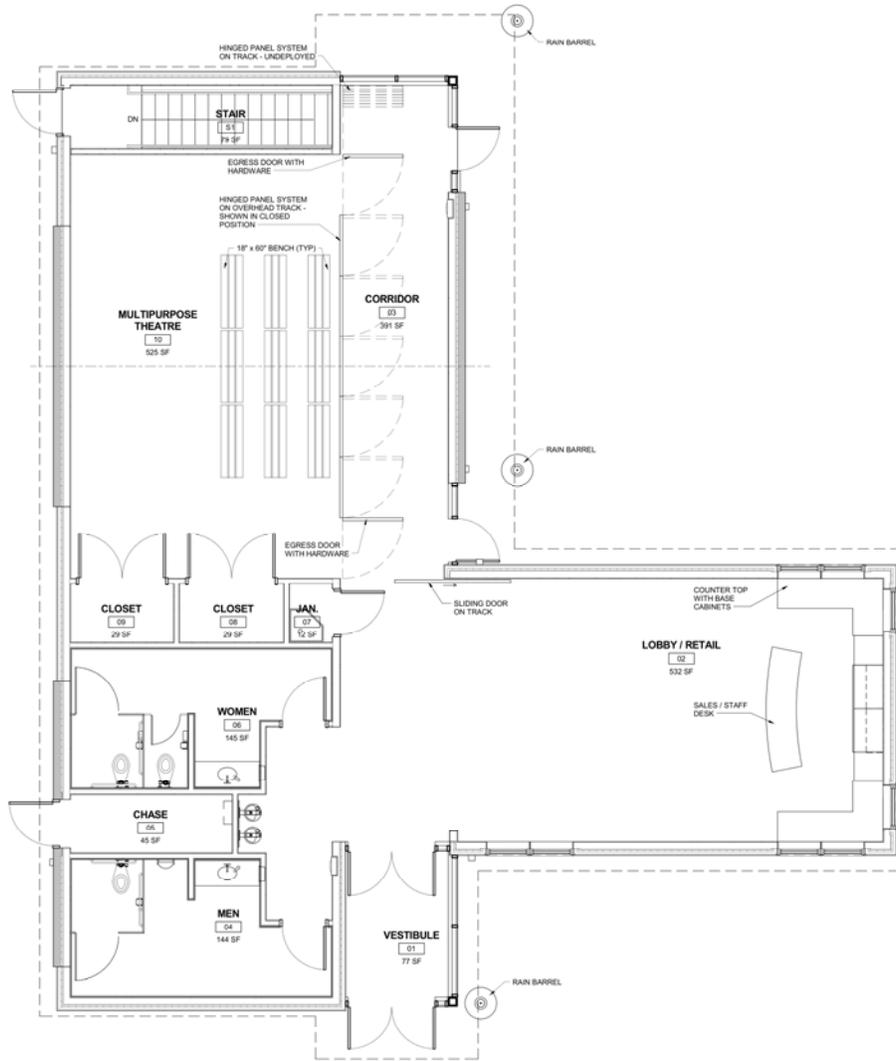
The requirements for a larger Visitor Center building includes the same programmatic elements as the proposed Visitor Orientation building described previously with additional features to better serve the public. This section describes architecture, structure, mechanical, electrical, plumbing, fire protection, and commissioning of the building to provide in-depth explanations of the new facility improvements. Detailed reports for each discipline area are located in Appendix 1 for reference.

This option provides a number of enhancements to the Visitor Orientation Building option, allowing for more amenities, services, and much needed items to help the property in its ongoing programs and activities on the property. The building will have a large 525 sf multipurpose theater room and higher quality interior and exterior finishes. This building will handle groups of 100-120 persons at one time more effectively. The space provides everything in the Orientation Center with the following enhancements:

- A 525 sf multipurpose theater which features a moveable room divider that can seat 50 people when closed and 85 people when opened for visitors to sit and view a multimedia program. This room has dedicated storage for tables and chairs, allowing the space to be reconfigured for meetings and can accommodate 70-125 persons standing. This will allow for larger indoor programs and special events throughout the year.
- A 532 sf retail / lobby space that will accommodate 28 persons standing and 10 seated. Additional features include a larger transaction desk for ticketing and retail sales, storage for docent / employee belongings, supplies and back retail stock, additional wall and exhibit display space and room for groups to gather while waiting for the video to reset and theater to empty.
- Upgraded interior finishes including a pitched drywall ceiling in the retail wing and full height ceramic tile in the restrooms.
- The proposed roof material is metal, which is more durable and will require less maintenance than asphalt shingles.
- A 510 sf basement for mechanical, electrical and data equipment and additional storage space for program elements needed throughout the year for the grounds keeper and for facility operations including the archaeology department.



Visitor Center Building Perspective – view from rear courtyard



Visitor Center Building Plan

Architectural

- The restroom facilities are the same as the visitor orientation building (2 toilets and 1 sink each gender).
- Provide a multipurpose theater to accommodate seated groups of up to 50-85 people seated. Seating will be moveable to provide flexibility of function and can double as a meeting space with tables and chairs.
- Provide a ticketing/information space.
- Provide Bookstore/Gift shop space with wall space for exhibit display.
- Provide storage for docent/guides personal belongings.
- Provide storage for grounds keeper and facility operations.
- The form, style and principal elevations and exterior materials could match the 1800-1936 Tidewater House, but not compete with it.



Structural

- Standard methods of bearing walls and prefabricated roof trusses are intended.
- Typical strip foundations will be used.

Mechanical, Electrical, Plumbing and Fire Protection

- HVAC system selected for use is a Variable Refrigerant Flow (VRF) heat pump system using a single condensing unit.
- A new electrical service will be routed from Old Georgetown Rd for this structure.
- New plumbing fixtures will meet current code requirements.
- Fire Protection will be provided.

Lighting

- Vestibule and Circulation
- Ceiling-mounted period fixtures will help create an authentic arrival experience.
- Wall-wash fixtures will create a welcoming lantern effect to orient visitors, and illuminate displays.
- Adjustable wall-wash fixtures will light the entrance and exterior perimeter of the Gallery.

Retail

- Adjustable LED downlights will feature the merchandise, and create an engaging shopping experience. Vestibule and Circulation: ceiling-mounted period fixtures will help create an authentic arrival experience; adjustable wall-wash fixtures will light the entrance and exterior perimeter.
- Linear uplights will orient patrons to the transaction counter and softly illuminate the ceiling to enliven the space.
- Wall-wash will provide soft, active background lighting.
- Decorative pendant fixtures will provide sparkle to highlight the destination view, enticing patrons to enter.

Multi-purpose Theater

- Dimmable LED downlights will provide general illumination for entry and seating.

- Dimmable wall-mounted linear direct/indirect fixtures will provide supplemental lighting and surface luminance, to activate the space during participatory educational activities.
- Moveable wall that divided primary theater space from corridor. When open, it provides additional square footage for larger groups.

Commissioning

- New Visitors Center is pursuing LEED New Construction (NC) Certification in accordance with LEED Scorecard. All equipment shall be fully commissioned as required under Fundamental Commissioning Energy & Atmosphere (EA Pre-Requisite) credit.
- LEED Enhanced Commissioning credit (EA-3) shall be provided for both facilities. Refer to LEED NC Scorecard.
- Building systems commissioning, provided by Complete Commissioning, Inc., will be based on the latest ASHRAE Guideline 1 and Guideline 0, and documented in accordance with the latest ASHRAE Building Systems Commissioning requirements, as approved by the Owner.

Alternative Josiah Henson Park – Construction Costs Provided by Kinsley Construction, Inc.

| | |
|----------------------------------|-----------------------|
| General Requirements (no change) | \$628,000.00 |
| Sitework (no change) | \$722,528.43 |
| Riley / Bolten House (no change) | \$754,436.25 |
| Visitor Center Building | \$923,388.25 |
| Net Construction Subtotal | \$3,028,352.68 |
| Liability Insurance (1%) | \$30,283.53 |
| Overhead & Profit (6%) | \$181,701.16 |
| Bond (1%) | \$30,283.53 |
| Total Construction | \$3,270,620.89 |

Costs Per Square Foot

Does Not Include General Requirements

Visitor Center Building

| | |
|-------------------------|----------------|
| First Floor (2,390 GSF) | \$370.35 / GSF |
| Basement (510 GSF) | \$75.00 / GSF |

The increase in the cost per square foot is due to the roofing selection (metal on VC - vs - asphalt shingles on the VOB), amount of architectural lighting and the interior finishes. The VC includes gypsum ceilings, ceramic tile full height on all walls in the restrooms, a significant amount of door and window openings and aluminum storefront. These items are always more expensive than typical wall construction and are a contributing factor to the higher cost per square foot of the VC.



Josiah Henson Park - Facility Plan Analogous Facility Comparison

Date: **Monday, May 20, 2013**

Version: **Final**

Client: M-NCPPC, Montgomery County Parks

| Architect: | LSC Design | | Riley House | Clifton Mansion (18,902sf) |
|---|----------------------|---------|-------------|-------------------------------|
| | | | 3,147 | 18,902 sf |
| | | | \$/sf | \$/sf |
| 1 Division 01: General Requirements | \$ - | | | |
| 2 Division 02: Demolition | | | | |
| 2A Division 02: Demolition | \$ 77,000.00 | \$24.47 | \$10.64 | |
| 3 Division 03: Concrete | \$ 4,500.00 | \$1.43 | \$1.52 | |
| 4 Division 04: Masonry | \$ 25,000.00 | \$7.94 | \$34.62 | |
| 5 Division 05: Steel | \$ 11,000.00 | \$3.50 | \$4.66 | |
| 6 Division 06: Carpentry | \$ 147,821.25 | \$46.97 | \$25.14 | |
| 7 Division 07: Moisture Protection | \$ 53,600.00 | \$17.03 | \$5.09 | |
| 8 Division 08: Doors, Windows and glass | \$ 80,250.00 | \$25.50 | \$13.33 | |
| 9 Division 09: Finishes | \$ 128,150.00 | \$40.72 | \$41.25 | |
| 10 Division 10: Specialties | \$ 2,900.00 | \$0.92 | \$2.07 | |
| 11 Division 11: Equipment | \$ - | \$0.00 | \$0.00 | |
| 12 Division 12: Furnishings | \$ 3,000.00 | \$0.95 | \$0.88 | |
| 13 Division 13: Special Construction | \$ - | \$0.00 | \$0.00 | |
| 14 Division 14: Conveying Systems | \$ - | \$0.00 | \$3.73 | |
| 15 Division 15: Mechanical | \$ 81,615.00 | \$25.93 | \$64.95 | |
| 16 Division 16: Electrical | \$ 139,600.00 | \$44.36 | \$44.73 | |
| 17 Division 17: Miscellaneous | \$ - | | | |
| Subtotal Divisions 1 - 17 | \$ 754,436.25 | | | |
| Liability insurance @ 1% | \$ 7,544.36 | | | |
| Overhead & Profit @ 6% | \$ 45,266.18 | | | |
| Bond @ 1% | \$ 7,544.36 | | | |
| | \$ 814,791.15 | | | |



Josiah Henson Park - Facility Plan Analogous Facility Comparison

Date: **Monday, May 20, 2013**

Version: **Final**

Client: M-NCPPC, Montgomery County Parks

| | | | Visitor Orientation Building | I-70 Welcome Center (21,000 sf) |
|---|------------|----------------------|------------------------------------|--|
| Architect: | LSC Design | | 1522 | 21,000 sf |
| | | | \$/sf | \$/sf |
| 1 Division 01: General Requirements | | | | |
| 2 Division 02: Sitework | | | | |
| 2A Division 02: Sitework - Visitor Center | | | | |
| 3 Division 03: Concrete | \$ | 31,350.00 | \$9.97 | \$14.63 |
| 4 Division 04: Masonry | \$ | 13,400.00 | \$4.26 | \$39.61 |
| 5 Division 05: Steel | \$ | 37,343.75 | \$11.88 | \$2.97 |
| 6 Division 06: Carpentry | \$ | 52,020.00 | \$16.55 | \$44.86 |
| 7 Division 07: Moisture Protection | \$ | 36,876.00 | \$11.73 | \$45.85 |
| 8 Division 08: Doors, Windows and glass | \$ | 21,150.00 | \$6.73 | \$25.51 |
| 9 Division 09: Finishes | \$ | 73,297.50 | \$23.31 | \$18.57 |
| 10 Division 10: Specialties | \$ | 16,750.00 | \$5.33 | \$5.82 |
| 11 Division 11: Equipment | \$ | 400.00 | \$0.13 | \$3.69 |
| 12 Division 12: Furnishings | \$ | 3,000.00 | \$0.95 | \$1.14 |
| 13 Division 13: Special Construction | \$ | - | \$0.00 | \$0.00 |
| 14 Division 14: Conveying Systems | \$ | - | \$0.00 | \$0.00 |
| 15 Division 15: Mechanical | \$ | 101,365.00 | \$32.24 | \$110.38 |
| 16 Division 16: Electrical | \$ | 68,000.00 | \$21.63 | \$36.37 |
| 17 Division 17: Miscellaneous | \$ | - | | |
| Subtotal Divisions 2A - 17 | | \$ 454,952.25 | | |
| Liability insurance @ 1% | \$ | 4,549.52 | | |
| Overhead & Profit @ 6% | \$ | 27,297.14 | | |
| Bond @ 1% | \$ | 4,549.52 | | |
| | \$ | 491,348.43 | | |

XIII. List of Consultants

Architect:

LSC Design, Inc.
1110 East Princess Street
York, PA 17402
www.lscdesign.com

Landscape Architect / Civil Engineer:

Site Resources, Inc.
14315 Jarrettsville Pike
Pheonix, MD 21131
www.siteresourcesinc.com

Structural Engineer:

Keast & Hood
1350 Connecticut Avenue NW
Suite 412
Washington, DC 20036
www.keasthood.com

Survey Engineer:

A. Morton Thomas & Associates, Inc.
12750 Twinbrook Parkway
Rockville, MD 20852
www.amtengineering.com

Mechanical, Electrical, Plumbing Engineers:

Century Engineering, Inc.
10710 Gilroy Road
Hunt Valley, MD 21031
www.centuryeng.com

Geotechnical Engineer / Environmental Hazardous Materials Specialist:

Hillis-Carnes Engineering
10975 Guilford Road
Suite A
Annapolis-Junction, MD 20701
www.hcea.com

Lighting Design Consultant:

Bruce Dunlop Lighting Design LLC
1134 York Road
Suite 200
Lutherville, MD 21093
www.dunloplighting.com

APPENDIX 1: DESIGN REPORTS AND SPECIFICATIONS

TABLE OF CONTENTS

Meeting Minutes

| | |
|--|---|
| I/P Focus Group Meeting Minutes, 07/09/12..... | 1 |
| Site & Building Circulation Meeting Minutes, 07/09/12..... | 6 |

Guiding Documents

| | |
|---|----|
| 2008 Historic Structure Report Excerpts (John Milner & Associates)..... | 16 |
| Recommendations for Log House (p.63-64) | |
| Recommendations for Frame House (91-92) | |
| Treatment Plan, Menu of Options (p.111-115) | |

| | |
|--|----|
| Analogous Facilities Report | 21 |
|--|----|

| | |
|--|----|
| LEED Checklist (LSC Design) | 69 |
|--|----|

| | |
|---|----|
| Lighting Design (Bruce Dunlop) | 76 |
|---|----|

| | |
|--|----|
| Commissioning Plan (Complete Commissioning) | 92 |
|--|----|

| | |
|---|-----|
| Draft Technical Specifications | 105 |
|---|-----|

| | |
|---|-----|
| Detailed Cost Estimates (Kinsley Construction) | 133 |
|---|-----|

APPENDIX 2: EXISTING CONDITION REPORTS

TABLE OF CONTENTS

| | |
|--|-----|
| Structural Conditions (Keast & Hood) | 4 |
| Energy Assessment (Smart Home Services) | 66 |
| Hazardous Materials Survey (Hillis-Carnes) | 91 |
| Geotechnical Engineering Study (Hillis-Carnes) | 193 |
| Traffic, Pedestrian, Bicycle Report (The Traffic Group) | 220 |

APPENDIX 3: REGULATORY AGENCY COORDINATION

TABLE OF CONTENTS

Maryland Historical Trust

| | |
|---|---|
| MHT Concurrence Letter, dated 05/21/12..... | 1 |
| MHT Letter Signed, dated 06/20/12..... | 4 |

Department of Permitting Services

| | |
|---|----|
| Building Code Review Meeting Minutes..... | 6 |
| Water Resources Meeting Minutes..... | 10 |
| Fire & Rescue Access Conf. Call Minutes | 12 |
| Existing Hydrant Exhibit..... | 14 |

M-NCPPC Environmental Planning Review

| | |
|---|----|
| NRI/FSD Approval Letter, dated 08/02/12 | 15 |
| Draft NRI/FSD Application | 16 |

State Highway Administration

| | |
|---|----|
| MD-SHA AMD Response Letter, October 11, 2011 | 21 |
| Parks Letter to SHA AMD September 26, 2011 | 22 |
| <i>Attachment A</i> | |
| M-NCPPC Vice chair letter to SHA & MCDOT, 12/2/10 | |
| <i>Attachment B</i> | |
| Agency email, 1/19/11 | |
| <i>Attachment C</i> | |
| GIS Vicinity Map of Park | |
| <i>Attachment D</i> | |
| Existing Conditions Site Plan Sheet C-1.01 | |
| <i>Attachment E</i> | |
| SHA Access Exhibit (proposed access site plan Sht C-2.02) | |
| <i>Attachment F</i> | |
| Project Summary | |
| <i>Attachment G</i> | |
| Traffic Statement | |
| <i>Attachment G1</i> | |
| Event Parking Advance Directive | |
| <i>Attachment H</i> | |

Park Master Plan Excerpts

Utility Company Information

Washington Suburban Sanitary Commission..... 54
 Conference Call Meeting Minutes
 WSSC Pre-DRC Correspondence
 Well Septic & WSSC for 11410 Old Geo Road
 Fire Flow Test

Utility Certifications 72

Public Utility contact list 75

Miss Utility information..... 76

Utility Certification Correspondence..... 77
 Verizon Response

