

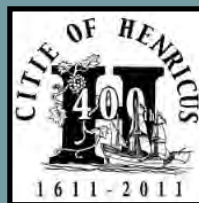
# *Henricus Historical Park Master Plan*

June 2013



*Prepared by:*  
Timmons Group

*For:*  
The Henricus Foundation  
Chesterfield County Parks and Recreation





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# Executive Summary

In 2011, the Henricus Foundation made the decision to contract with Timmons Group to conduct a comprehensive master plan for the Historical Park. Throughout the initial planning process, landscape architects, horticulturists, transportation, environmental, and storm water engineers from Timmons Group studied the operations and existing conditions of the site. The consultants regularly interviewed staff, assessed needs, and began to develop concept plans for the growth of Henricus Historical Park and the Dutch Gap Conservation Area. The ultimate master plan is a result of nearly a year of planning and design, meetings, coordination and engagement.

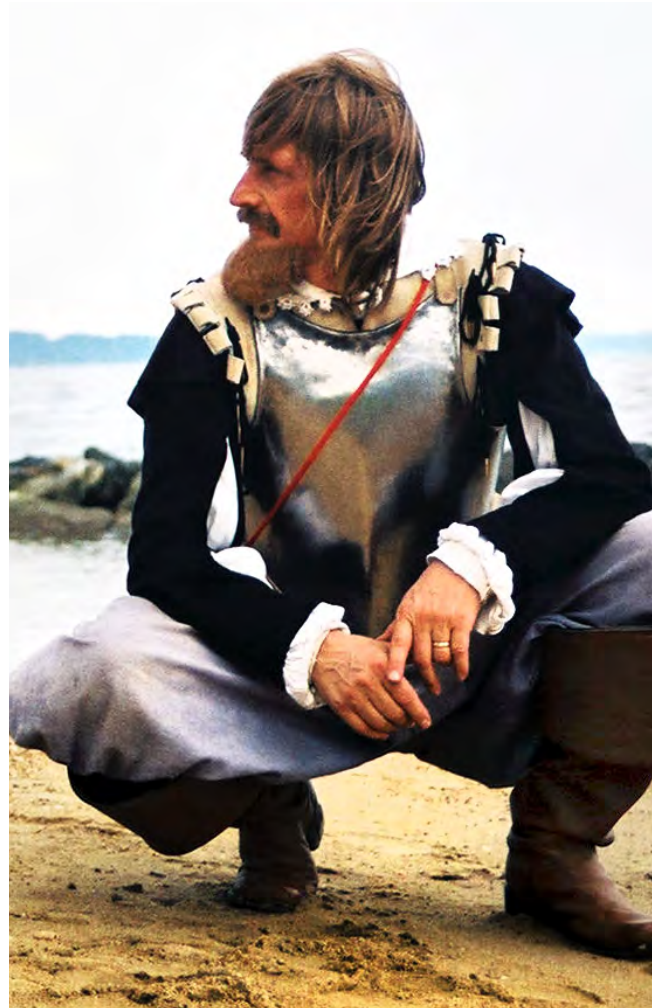
The intent of this master plan is to provide a road map for growth over the next five to twenty years for Henricus Historical Park and Dutch Gap Conservation Area. As a result of the study, six key points were identified as priority development areas and immediate needs for the park:

1. Increase staffing for the Historical Park to provide an adequate level of employees for live interpretation and facility management.
2. Design and construct the Relic River overlook and boardwalk to better tell the story of the river channel and connect people with nature.
3. Design and construct a new Visitor's Center and civic space capable of housing event space, classrooms, artifact displays, interpretation, gift shop, restrooms, and offices.
4. Design and construct a new pedestrian boardwalk that will act as the main circulatory spine throughout the Historical Park and orient visitors to the various exhibits in a fascinating way.
5. Design and construct a new Indian Site large enough to tell the story of Indian life along the river.
6. Design and construct a River Commerce exhibit to interpret the rich history that has occurred along the James River and its significance to commerce and growth throughout time.

These key items are the priorities identified that should be taken towards implementation of this master plan and will be a guide for the growth of Henricus Historical Park.

Funding will be a priority in order to make this vision a reality and this master plan will be a tool to communicate the importance of this great Virginia park. Chesterfield County Parks and Recreation has created a true underappreciated gem in Henricus Historical Park and the potential for future growth is astounding and exciting.





## Historical Overview





# Historical Overview

## Pre 1611

Archaeological evidence indicates that Native Americans were living in what are now Chesterfield and Henrico counties at least 10,000 years ago. Known as Paleo-Indians, these early inhabitants of the area were loosely organized into bands in which people were related by kinship ties. Leadership was acknowledged on the basis of ability. Being few in number, they typically occupied small, seasonal camps, subsisting by hunting, fishing and gathering wild plants.

By the Woodland Period (1000 B.C. – A.D. 1600), major changes were taking place in the lives of the Virginia Algonquian. Most importantly, agriculture first appeared and gradually became increasingly important. Plants cultivated included corn, beans, squash, tobacco, pumpkins and gourds. Because an agricultural way of life produces far more food, semi-permanent villages, occasionally containing as many as several hundred persons, appeared for the first time. Settlements were mainly established along the banks of tidal waterways during the warmer months before moving into the interior during the winter, when the gardens were dormant and fishing was less productive. Their relatively substantial houses usually were clustered close together or interspersed with farmed fields and sometimes surrounded by a palisade.

In A.D. 1607, the Native Americans living in the area near today's Henricus Historical Park were known as the Arrohateck and numbered perhaps 250. Captain John Smith's famous 1612 Map of Virginia shows one major village and five smaller Settlements situated on both sides of the James River.

The Arrohateck were one of over 30 groups in the Powhatan Chiefdom whose population exceeded 13,000 and occupied most of coastal Virginia. According to early accounts written by the English, the paramount chief Powhatan inherited six to nine groups along the James River and York River basins, including the Arrohateck. He acquired the remaining portions of the chiefdom through warfare or threat of warfare during the late 1500s and early 1600s. By 1607, the Powhatan Chiefdom had developed into one of the most complex societies then existing in the Middle Atlantic region of North America. One of the original groups, the Arrohateck undoubtedly occupied a privileged position.





## 1611 English

In May 1611, Sir Thomas Dale arrived in Virginia with instructions from the London Company to find a secure and healthy area to establish a new town and principal seat for the colony. In September 1611, Sir Thomas Dale moved up the James River to establish Henricus, the colony's second English Settlement.

Sir Thomas Dale was an experienced officer, having served as a captain in the Netherlands. He had been knighted at Richmond (England) on June 19, 1606, as Sir Thomas Dale of Surrey.

As High Marshall, Dale was responsible for enforcing the laws, determining punishment and leading military expeditions. As Commander, Dale was also responsible for overseeing the construction and defense of the city.

Men were assigned specific tasks. While some cleared the land, others began construction of the palisades and buildings, while still others kept vigil over hostile Native Americans. He already had *"timber, pales, posts and rails"* prepared *"for the present impaling this new Towne to secure himself and men from the malice and treachery of the Indians."*



Henricus stood *"upon a neck of very high land, three parts thereof environed with the main River."* As a defensive measure, Dale erected a long fence known as a pale across the narrow end of the neck of land to make it an island.

Powhatan's skilled bowman harassed the Englishmen as the fort and palisades took shape, sending arrows over the walls.

Dale confidently expected that the new town would replace Jamestown as the principal seat of the colony. The location upriver provided security from possible Spanish attack (Britain was hostile with Spain at this time); and the high bluffs provided a healthier environment than the swamps of Jamestown.

The introduction of private land ownership, instituted by Sir Dale, drastically altered the development of Henricus. By 1616 it is believed that approximately 50 persons were all that remained within the Citie walls. Others also established their own private farms along the James River.

As the colonists began to prosper, their increased numbers and aggressive expansion further strained the relationship between the English and the Native Americans. On March 22, 1622, Opechancanough, Powhatan's younger brother and successor, led a raid against English Settlements up and down the James River. During this uprising, The Citie of Henricus was destroyed. Although Opechancanough did not succeed in driving the English from the area, some of the Settlements were abandoned, including portions of Henricus.

Subsequent efforts to reestablish the town of Henricus failed. In May 1625, more than three years after the devastating attack, only 22 inhabitants were reported residing in ten "dwelling-houses" at Henricus.

In 1637, fifteen years after the uprising, the site was included in a 2,000 acre tract patented by William Farrar. Because it was owned by William Farrar, Sr., the peninsula became known as Farrar's Island.



## Pocahontas

A truly remarkable woman, Pocahontas helped ease tensions between Native Americans and English settlers.

Named Matoaka upon her birth in the 1590's, Pocahontas (her tribal nickname) was reportedly one of Chief Powhatan's favorite children. She first captured the attention of the English when she and other Native American children began visiting Jamestown in 1607. John Smith was intrigued by the presence of this young lady, and described her as playful, spirited and smarter than the other children. Later, Pocahontas was credited for saving Smith from death at the hands of her father.

Captured by Captain Samuel Argall in 1613, Pocahontas was initially taken to Jamestown. Sir Thomas Gates was fearful of reprisal from Powhatan, and turned her over to Sir Thomas Dale at Henricus where she was held as a guarantee of peace with her father Powhatan.

Dale instructed Reverend Alexander Whitaker to care for Pocahontas and instruct her in the ways of Christianity. While living at Henricus she converted to Christianity, was baptized and took the Christian name Rebecca.

She met and was courted by John Rolfe, whom she married in April 1614. After their marriage, Powhatan signed a peace treaty with the English settlers which lasted until March 22, 1622.

In 1616, Pocahontas traveled to England with her husband and infant son Thomas where she met both King James I and the bishop of London. While there she contracted an illness, possibly tuberculosis or smallpox, and died at the age of 22. She remains buried in Gravesend, England.





### Revolutionary and Civil Wars

On April 21, 1781, British General Benedict Arnold surprised the Virginia Navy at Osborne's Landing in the old river channel by Farrar's Island (the site of today's Henricus Historical Park).

Though the American fleet consisted of approximately 20 ships, they were no match for the cannon fire from the river banks on Farrar's Island. It soon became apparent to James Maxwell, the American commander that the Americans could not remain where they were and expect to survive the onslaught. He ordered a retreat. Those vessels that could not be moved were set afire. As the British continued to fire upon the American ships, some crew members tried to escape in boats, while others jumped overboard in an attempt to swim to the opposite shore of the James River.

Without any ships of their own to pursue the escaping vessels, the British had to content themselves with the nine ships they either sank or captured. Listed among those vessels lost at Osborne's Landing were the flagship *Tempest* and the lesser ships *Apollo*, *Jefferson*, and *American Fabious*. The hulls of several of these are believed to remain in the silt on the river bottom.



The James River at Henricus played an important role during the American Civil War. In 1864, Richmond, the Confederate capital, was the focal point of Federal strategy. The fall of Richmond would ensure the end of the war, and the river around Farrar's Island held the key to a safer, shorter route up the James River for Federal naval forces.

General Benjamin Butler devised a plan to build a canal at Henricus. Construction began in August 1864. Federal soldiers at Dutch Gap (mostly from black regiments) faced continuous fire from Confederate sharpshooters and artillery. With bullets whistling and shells exploding over their heads, their job was increasingly hazardous. These soldiers also succumbed to fever and disease requiring an ever-ready flow of replacements.

By mid-November 1864, the canal was two-thirds finished. Manpower alone had removed 15,000 cubic yards of soil in addition to that removed by steam dredge. The bulkhead proved difficult to destroy. Six tons of gunpowder was placed throughout its carefully dug channels.

On New Year's Day, 1865, General Butler and his staff assembled at the site of Dutch Gap Canal to watch the explosion. Twelve minutes before 4 p.m. the fuses were lit. Amidst a thunderous roar, the bulkhead blew up and earth was sent flying almost 100 feet into the air, ultimately falling back into the gap and foiling the canal project.

Ironically, the explosion gave Confederate gunners a better view of their targets! The project was temporarily abandoned as other Federal military gains in the area negated the need for the canal. Two weeks after the explosion, pressure from heavy rains that had been swelling the James River forced a 10-foot gap through the remaining part of the bulkhead. This opened the Dutch Gap Canal for limited use to small vessels.





## River Commerce and the James River

A long and fertile waterway for the Powhatan Indians and other tribes, the James River became the cradle of English Settlement in 17th century Virginia and the New World beginning with the Jamestown Settlement. When the Virginia Company of London sought to find a more advantageous location to replace Jamestown as the seat of English colonial life, they chose an area west of Jamestown just below the falls of modern-day Richmond, and called it the Citie of Henricus.

This Settlement became the beginning of the American way of life we know today. Other English Settlements such as Bermuda Hundred, Upper Hundred, Digges Hundred, Sheffield Place and the Falling Creek Ironworks were all formed during the early 17th century around what would become Richmond.

The James River flows differently today than when the Citie of Henricus was founded. Sir Thomas Dale began to transform the land at Henricus in 1611 when he employed a Dutch fortification technique to dig a ditch, or moat, and construct a paled fence behind the ditch to protect the Citie. The land masses on either side of the ditch became known as Dale's Dutch Gap.

The river at Dutch Gap again made history during the Revolutionary War when Benedict Arnold, then a General in the British Army, captured or sank the Virginia Navy at a site known as Osborne's Landing.

In August 1864, Federal troops under General Benjamin Butler began the arduous job of digging a canal to divert the river from Confederate cannons firing on the Union troops from Farrar's Island. After Butler's failed attempt to divert the river's course during the Civil War, the James River returned to commercial and private use.

In 1870 the United States government appropriated funds for improvements to the James River and the Dutch Gap Canal.

In 1870, the river was sufficiently diverted and widened to allow the steamship Sylvester to travel up to the Port of Richmond.

Later, in 1930, the river underwent further improvements to straighten its course. At that time, the Dutch Gap Canal was extended to where the Dominion Virginia Power plant is today. This work, completed in November 1933, provided a more efficient waterway. It eliminated another large loop in the river and created Hatcher's Island to the north. These two channels significantly reduced the navigable length of the James River.

Today, this vast river offers, in addition to commercial traffic, many recreational opportunities for the casual visitor. Dutch Gap Boat Landing, located a mile from Henricus Historical Park, is accessible to the public and is the perfect boat launch. The floating boat dock at Henricus and the lagoons in the Dutch Gap Conservation Area provide wonderful fishing opportunities. The serene and beautiful riverside trails along the James in Dutch Gap provide a lovely view for nature enthusiasts, walkers and bikers.







Existing Conditions





## Site Context

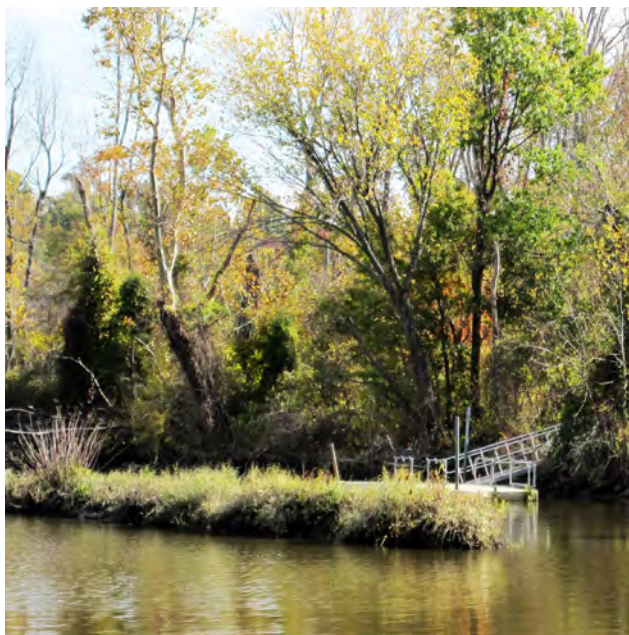
### Location

Henricus Historical Park is located in central Virginia with parcels in both Chesterfield and Henrico Counties. The historic English Settlement was populated on a bluff overlooking the James River below the falls, approximately 20 miles southeast of Richmond and 50 miles northwest of Jamestown. Henricus Historical Park is an historic English Settlement located atop a narrow neck of land within the 810 acre Dutch Gap Conservation Area. The peninsula on which the park is situated is located along the flood plain of the James River. The park is bounded by a Dominion Virginia Power coal fly ash lot to the west, the floodplain of the James River to the south and east, and Aiken Swamp / Farrah's Island, a historic oxbow channel of the James River, to the North.

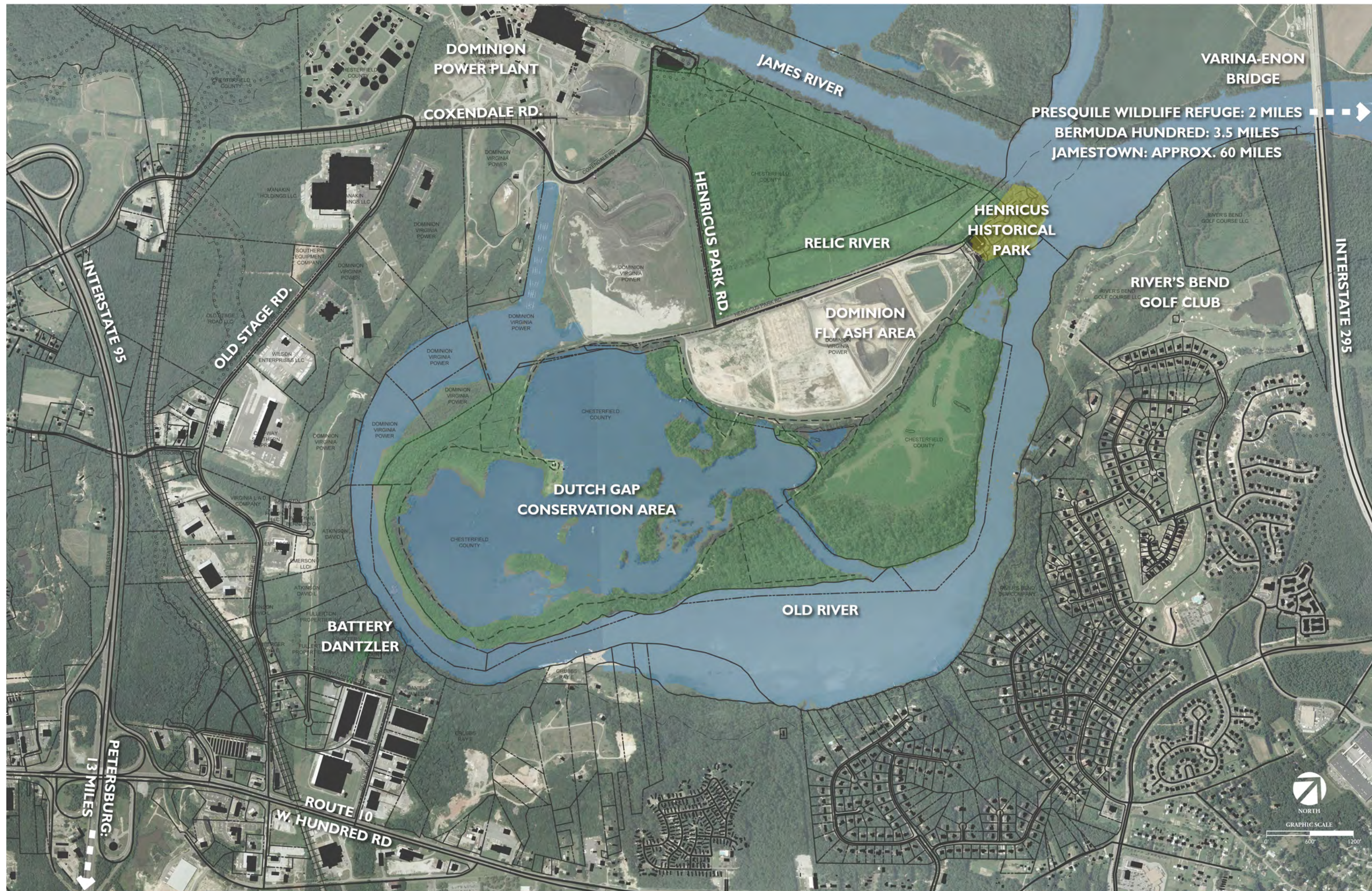


### Physiographic Context

The site is located within the Inner Coastal Plain physiographic province, which is generally an area of level to hilly topography dissected by numerous drainages. The topography on top of the peninsula is 40 feet above sea level. Steep side slopes of approximately 2:1 abruptly drop off to the toe of slope of the floodplain, which gradually transitions to the river. The James River is accessible by public dock and through the Dutch Gap Conservation Area. Expansion of the Henricus Historical Park facilities is limited by the natural features of the James River and Dominion Virginia Power fly ash operation.









Access & Circulation

Access to the Park

The primary vehicular access is from I-95, Jefferson Davis Highway and Route 10 through major industrial areas and a power plant facility.

Direct vehicular access to Henricus Historical Park and the Dutch Gap Conservation Area is provided by Henricus Park Road. Henricus Park Road is a gate-controlled, 2-lane facility with a posted 25 mph speed limit. The road is narrow with limited shoulders in place. Dense low-lying woodlands overlook the relic river on one side of the road. A chain link fence and a sloped hill owned by Dominion Virginia Power line the other.

Emergency access to the facilities parallels the English Settlement on top of the bluff. The emergency access road is not paved.

Parking

On-site parking at Henricus Historical Park and Dutch Gap Conservation Area is provided by a parking lot located just outside the visitor center. Overflow parking is available on the adjacent fly ash area which is owned by Dominion Power and not paved nor designated for daily use.

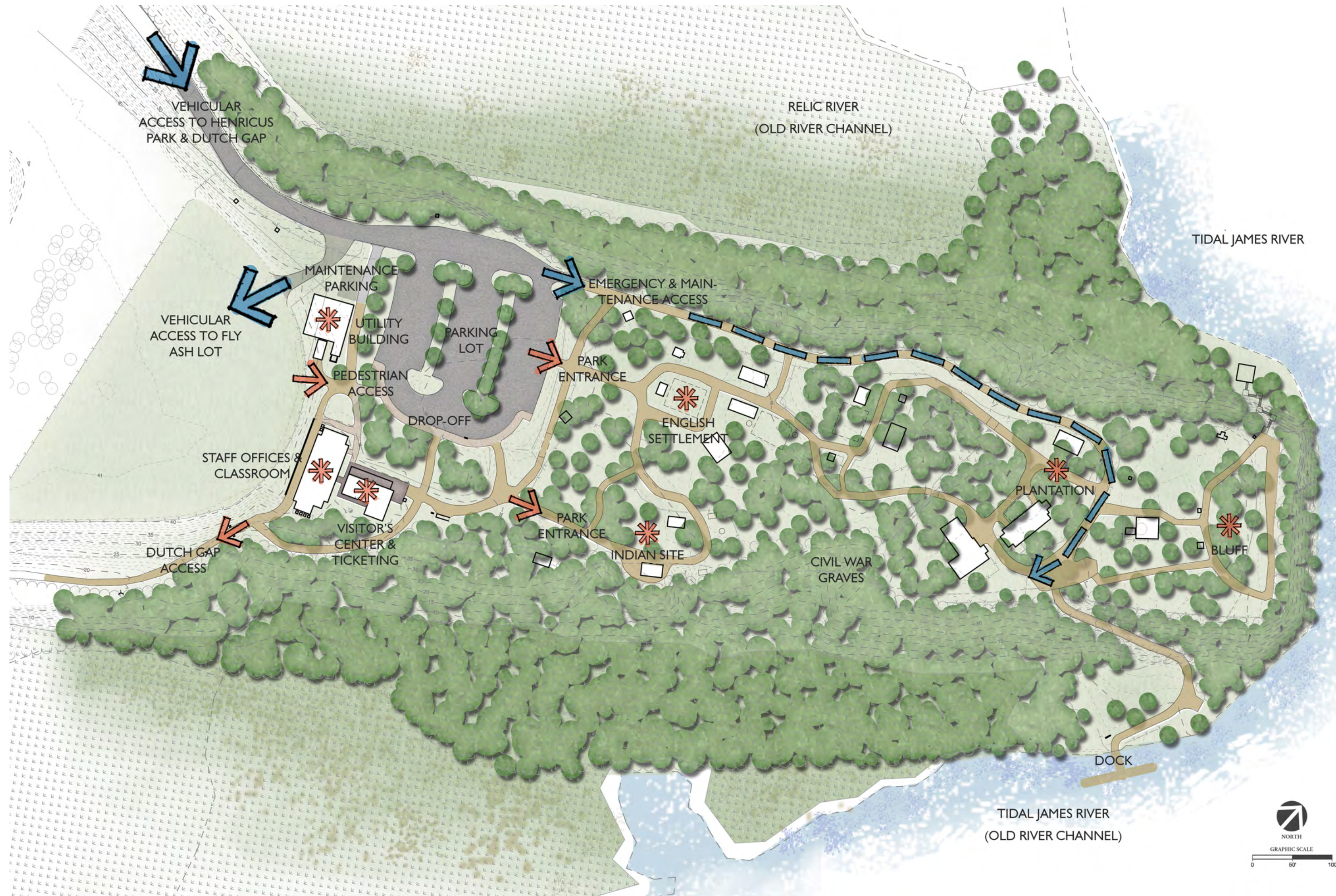
Off-site parking for special events is provided by parking lots at the Dutch Gap Boat Landing and the use of three (3) Dominion Virginia Power lots located along Old Stage Road.

Pedestrian Circulation

Generally, the park is not overcrowded and visitors have sufficient room to walk amongst the exhibits, talk with interpreters, and enjoy the park. During peak visitation times, several observations regarding pedestrian circulation were noted. Upon arrival, some visitors entered directly into the Indian Site while others entered directly into the English Settlement. Clear pedestrian wayfinding needs to be a priority when laying out the new visitor center.









Topography & Stormwater

General Topography

The Henricus Historical Park education and visitor center, English Settlement, and Indian Site sit atop a bluff surrounded by steep, wooded slopes that lead to the James River floodplain and wetlands. The topography at the top of the bluff is relatively flat with two significant drainage collection paths: the swale adjacent to the parking lot and a swale located west of the hospital building. Drainage at the site relies on overland flow, infiltration, and flow towards the main water swales.

English Settlement and Indian Site Drainage

Impervious surfaces in the English Settlement and Indian Site are disconnected. They flow directly to vegetated areas rather than gutters or storm drain piping systems. This practice minimizes stormwater runoff, especially in small storm events. A single drop inlet conveys drainage from the eastern end of the bluff to a storm drain pipe. The pipe discharges directly into the James River.



Parking Lot

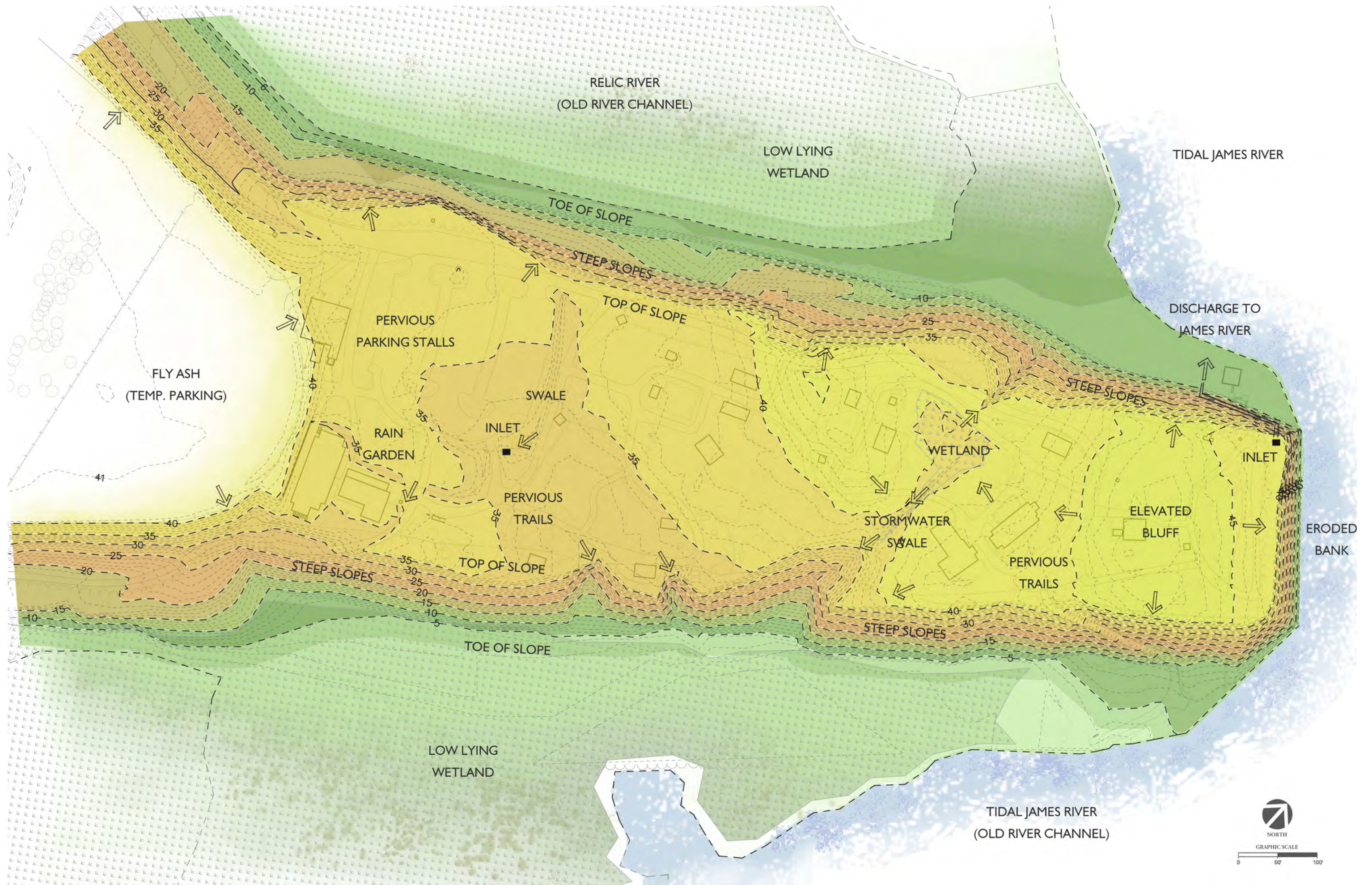
Runoff in the parking lot flows into the medians or infiltrates through pervious parking spaces using gravel-pave. A drop inlet in the swale collects the overflow drainage which then discharges by way of storm drain piping to the low lying wetland areas at the bottom of the steep slope.

Education and Visitor’s Centers

Like the other impervious surfaces at the historic site, the center roofs are primarily allowed to sheet flow into rain garden areas. The rain garden reduces runoff and improves water quality from the visitor center roof. Stone beds along the education center foundations stabilize areas receiving roof runoff.









Environmental Features

Ecosystem

Floodplain and riparian ecosystems surround the park along the James River. Repeated alluvial landforms, including natural levees, backswamps, sloughs, and abandoned channels are scattered throughout the floodplain as a result of the James River meandering over time.

Drainage

Positive drainage for the park is provided by a swale located adjacent to the parking lot and a headwater slope wetland system located west of the hospital building. The hydrology of the headwater wetland is derived primarily from highly seasonal groundwater discharge and is dominated by sycamore trees (*Platanus occidentalis*) and bay shrubs (*Magnolia virginiana*). The wetland is drained by an ephemeral channel which discharges to the James River.

Vegetation

Bottomland hardwood forested wetlands occupy the floodplain area. These areas are seasonally and tidally inundated by overbank and backwater flooding. Dominant species composition in the tree and sapling stratum consists water tolerant hardwoods to include River Birch (*Betula nigra*), Sycamore (*Platanus occidentalis*), American Hornbeam (*Carpinus caroliniana*), Red Maple (*Acer rubrum*), Sweet Bay (*Magnolia virginiana*), Sweet Gum (*Liquidambar styraciflua*), and Black Willow (*Salix nigra*) saplings and trees. The scrub/shrub layer was dominated by Rosemallow (*Hibiscus moscheutos*), Sweet Pepperbush (*Clethra alnifolia*), Giant Kane (*Arundinaria gigantea*), Multiflora Rose, (*Rosa multiflora*) and Phragmites (*Phragmites australis*). Herbaceous species composition within forested bottomland hardwood forests includes Sweetflag (*Acorus americanus*), Pickerelweed (*Pontederia cordata*), Arrow Arum (*Peltandra virginica*), Lizard’s Tail (*Saururus cernuus*), Soft Rush (*Juncus effusus*), Cattail (*Typha latifolia*), Woolgrass (*Scirpus cyperinus*) and Woodoats (*Chasmanthium latifolium*). Vine species included Japanese Honeysuckle (*Lonicera japonica*), Greenbriar (*Smilax rotundifolia*), and Muscadine (*Vitis rotundifolia*).

Upland species composition within forested areas of the park consists of White Oak (*Quercus alba*), American Beech (*Fagus grandifolia*), American Holly (*Ilex opaca*), Eastern Red Cedar (*Juniperus virginiana*),

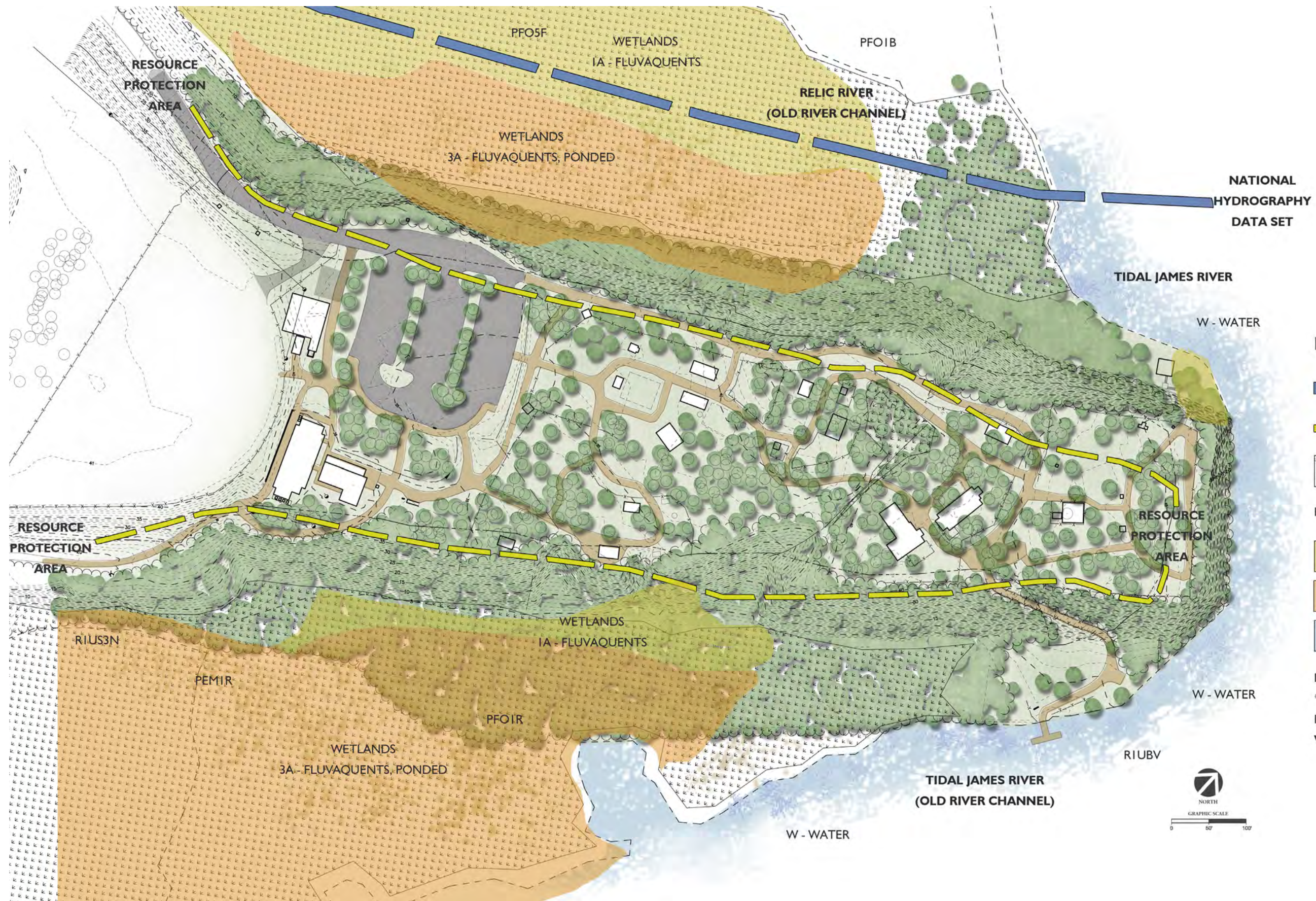


Tulip Poplar (*Liriodendron tulipifera*), Southern Red Oak (*Quercus falcata*), Mockernut Hickory (*Carya tomentosa*) and facultative species to include Red Maple, Sweet Gum, and American Hornbeam. Saplings and shrub understory species located in the park include Pawpaw, (*Asimina triloba*), Privet (*Ligustrum sinense*), American Holly (*Ilex opaca*) and American Hornbeam (*Carpinus caroliniana*). Herbaceous understory species included Christmas Fern (*Polystichum acrostichoides*) and Trumpet Creeper (*Campsis radicans*).

Soils

Soils located within the park consist of material eroded from ancestral Appalachian Mountains and deposited in the ocean. Soils in this area are of the Pamunkey-Lenoir-Dogue association. These soils are described as deep, poorly drained to well drained soils that have dominantly loamy or clayey subsoil. Soil series located within the park include Fluvaquents (1A), Fluvaquents, ponded (3A), Chewacla loam (28), Pamunkey loam, 0-6% slopes (51B) and Ochrepts and Udupts, sloping (172D). Soil series 1A and 3A are included on the state list of hydric soils. Fluvaquents are low lying areas of mixed alluvium along stream, branches and large drainage ways associated with the floodplain of the James River. These areas are flooded and ponded for long periods from December to May and after large storms and prolonged wet periods throughout the rest of the year. Chewacla series soils consist of deep, somewhat poorly drained, nearly level soils. These soils have a dominantly loamy subsoil. They are formed in loamy alluvium on flood plains along streams. Ochrepts and Udupts are formed in interbedded layers of sandy, loamy, clayey, and gravelly Coastal Plain sediment. The soils are found along deeply incised drainageways, between uplands and floodplains, and terraces along large stream systems. These soils are commonly acidic. Permeability ranges from moderately rapid to moderately slow. The majority of the site consists of Pamunky series soils that are deep, well drained, nearly level to moderately steep soils. These soils have a dominantly loamy subsoil. Runoff is slow to medium. The hazard of erosion is moderate. If adequately limed and fertilized, it is well suited to most locally grown crops.







## Natural and Cultural Vegetation

### General

Transition floodplain and riparian ecosystems from the Dutch Gap Conservation Area to Henricus Historical Park are primarily floodplain and riparian. The fly ash field impacts the ability to vegetate central areas of the peninsula. With the exception of impervious surfaces, the site is primarily wooded with a concentration of large deciduous canopy trees. This forest is indicative of time past representing a typical piedmont mixed ecosystem.

### Arrival and Entry

Entrance Sign and Median- Although separated, the sign and median plantings draw interest with a splash of annual color to attract the eye. The Dwarf Burning Bush located in the median is now considered a Virginia invasive species and should be considered for removal.

Parking Lot- Growth is moderately successful utilizing introduced large deciduous trees, small flowering trees and understory ornamental plantings of shrubs and ground cover. Growing conditions are typically challenging and only a select group of trees will flourish in these conditions. Willow Oak, as expected, is thriving. Performing well are ground covers such as Verbena, Liriope and Candytuft. Lawns are in good condition considering the amount of foot traffic and lack of irrigation.

Visitor Center- Ground level plantings here are under a high tree canopy of both evergreen and deciduous native trees such Tulip Poplar, Sweetgum and Loblolly Pine. Ornamental planting beds are appropriately placed near building foundations and containerized displays compliment building layout and function. These plantings add visual interest and add to the visitor experience.



### Program Spaces

Indian Site- Most notably, culturally specific plantings have limitations in this space with the abundance of shade from the overstory canopy. Although clearing has allowed for the construction of dwellings and pathways, little has been done to expand the plantings. Opportunities for programmed plantings as an interpretive experience can be achieved with consideration for additional thinning of trees. Functional screening of this area is needed, visually and audibly separating it from the English Settlement.

English Settlement- As with the Indian Site, the overstory tree canopy restricts planting opportunities at the ground level. However, it appears that a balance has been achieved as programmed plantings are highly successful and are more effective here than in the Indian Site. Gardens are in good proportion to physical features and positioned effectively with adequate sun exposure.

Civil War Graves Cemetary- The density of vegetation causes this area to go unnoticed, a far different experience than the Indian Site and English Settlement. Attention should be given to opening it up visually.

### Bluff

This bluff consists of grassed forest floor with large deciduous tree canopy. The bluff functions as a multipurpose area. The park-like setting with the shaded lawn is appealing and contributes to the panorama views of the river. Tree care is most critical here considering the compaction potential of the soils from high-traffic events. Generally, the mature trees are healthy but thought should be given to planting the next generation of cover in anticipation of future tree removals.

### Perimeter Forest

These sloped areas define the limits of the Park and transition to a dense, natural, mixed canopy forest. This riparian ecosystem is essential to preventing erosion and should be preserved.







Historic Features



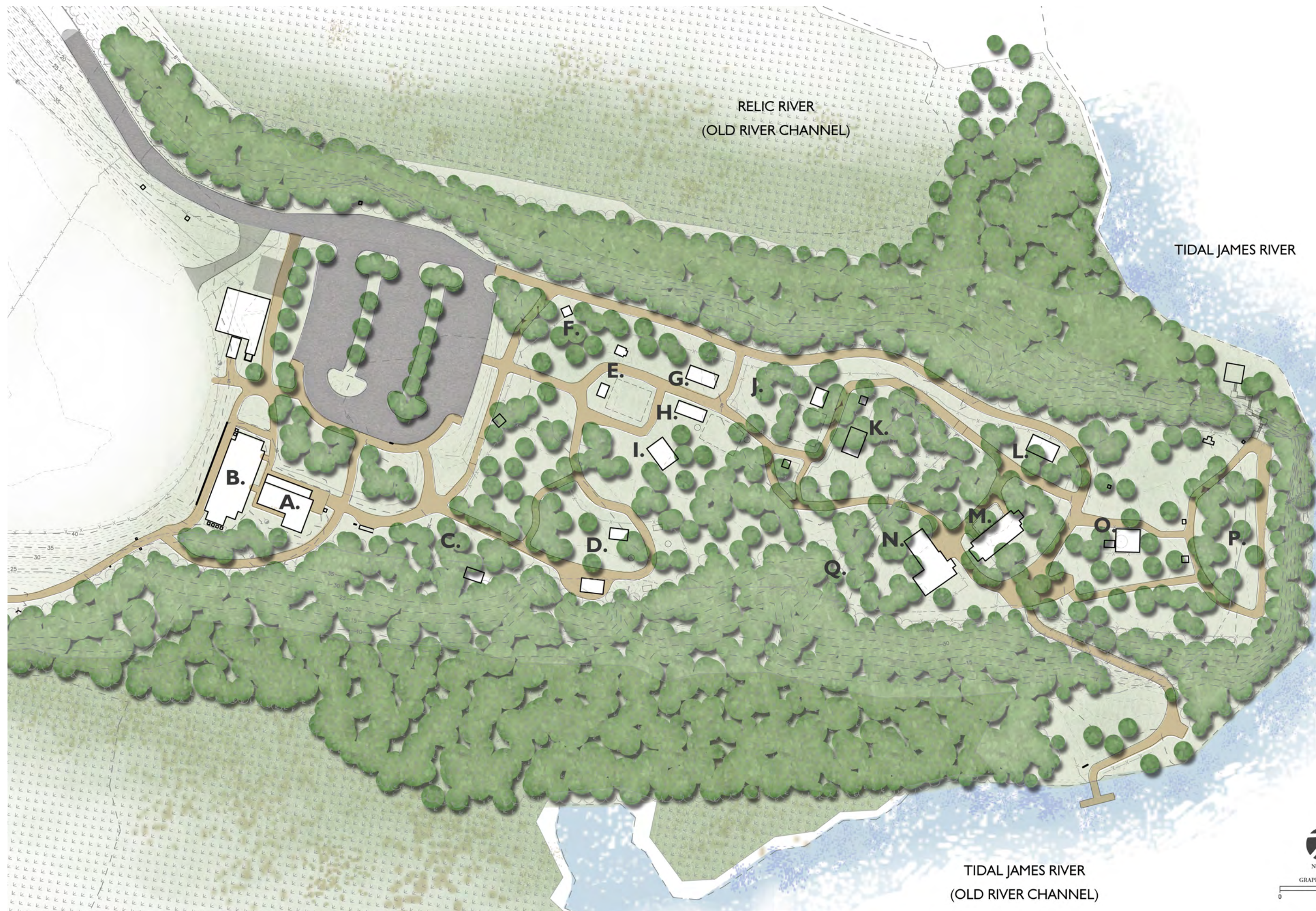
Over 400 years of the Henricus Historical Park story is represented along the site's ridge line and bluff. The exhibits represent typical life in central Virginia through peace and war.

Existing Exhibits

- A. Visitors Center and Gift Shop
- B. Staff Offices and Classroom
- C. Indian Site, Dance and Drumming
- D. Arrohateck Indian Site
- E. Court de Guard
- F. Palisade Tower Lookout
- G. Blacksmith's Forge
- H. Woodworking Barn
- I. 1611 Church
- J. Proctor's Plantation
- K. Tobacco Barn
- L. Ordinary/Tavern
- M. Mount Malady
- N. Rocke Hall
- O. Lightkeeper's House
- P. Soldiers of Dutch Gap 1781-1917
- N. 1611 Church
- Q. Civil War Grave Sites







### LEGEND

- A. Visitors Center & Gift Shop
- B. Staff Offices & Classroom
- C. Indian Dance & Drumming
- D. Arrohateck Indian Site
- E. Court de Guard
- F. Palisade Tower Lookout
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NORTH

GRAPHIC SCALE

0 50' 100'



Recreational Features



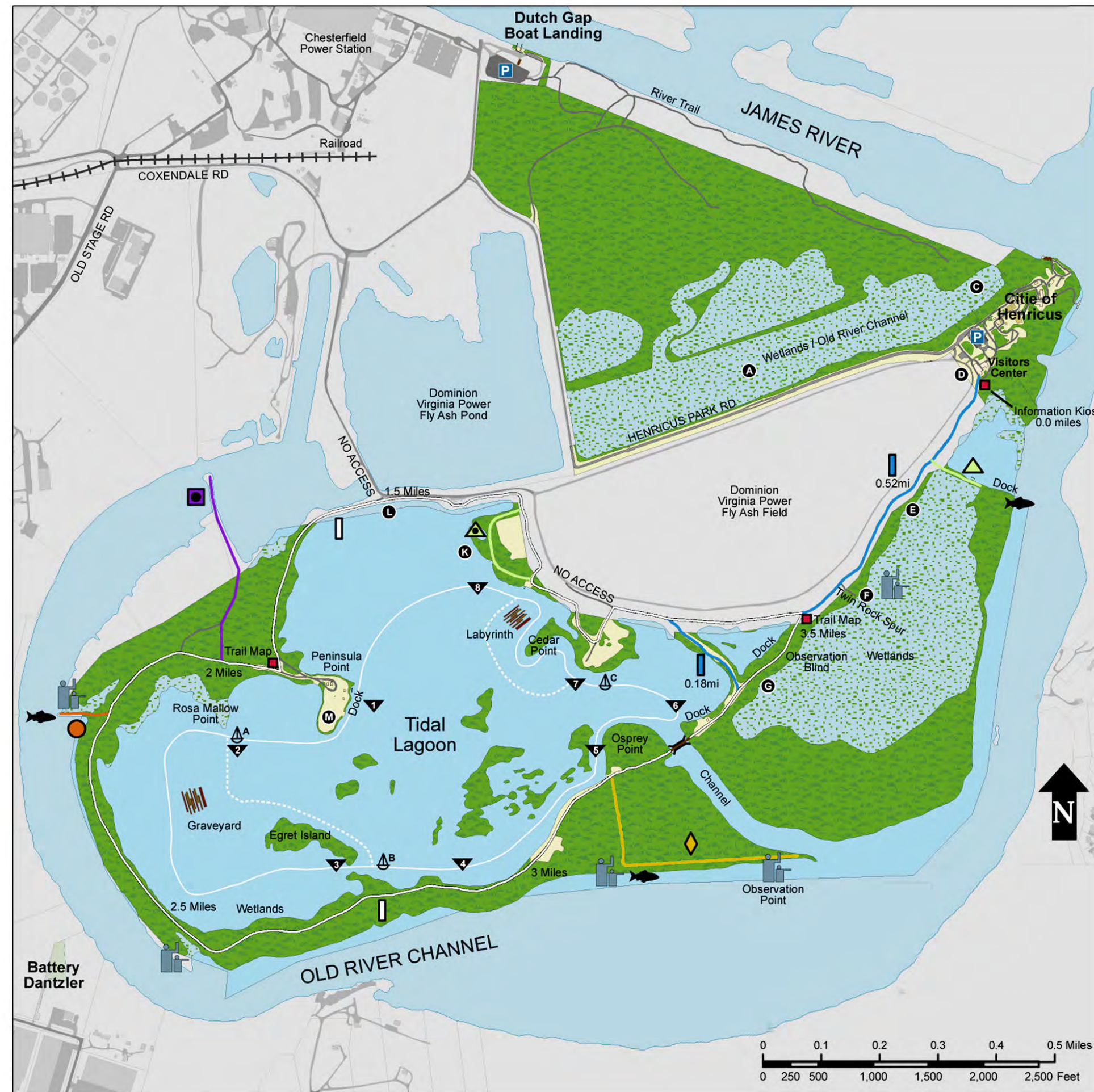
Recreation Opportunities

The Dutch Gap Conservation Area is 810 acres of diverse woods, wetlands and wildlife, bordered by the beautiful and scenic James River. The 4.5-mile Dutch Gap Trail is a multiuse trail open for hiking, biking and horseback riding. This easy trail takes visitors along bottomlands, meadows, a small pond and wetlands and circumnavigates the Tidal Lagoon. Bird-watching is superb in all seasons. The abundance of habitats creates a rich, diverse population of birds in the conservation area. Wetlands and ponds attract gadwalls, pintails, widgeons, ringnecks, Canada geese, kingfisher, osprey and bald eagles. Meadows draw sparrows, goldfinches, indigo buntings, eastern bluebirds, kingbirds and sparrow hawks. Forests are filled with the songs of red-eyed vireo, red tanagers, crested flycatchers, American redstart and more. Many birders come to witness the heron rookery located in the tidal lagoon or to observe bald eagles.

Two observation platforms along the entrance road provide aerial views of the Relic River. Kayaking and canoeing opportunities along the 2.5-mile Lagoon Water Trail offer paddlers the experience of the tidal waters of the James River. Paddlers can observe the “graveyard” of barges, wetlands, islands and the heron rookery. The blue way provides a safe, flat-water experience and is suitable for beginners. Camping under the stars at the peninsula is available for organized groups and can be reserved through the visitor’s center. Fishing is available along the River Trail and at five docks situated throughout the conservation area. The tidal waters include freshwater fish including small and largemouth bass, catfish, perch, sunfish and crappie.







## PARK DATA

Magisterial District: Bermuda  
Maintenance District: 6

Dutch Gap Conservation Area

Acres: 795.9  
Miles of Trails: 5.8  
Parking Spaces: 56  
GPIN: 8106582597

Dutch Gap Boat Landing

Acres: 0.7  
Parking Spaces: 44  
GPIN: 8096644930

## LEGEND

- Parking Lot
- Bridge
- Fishing Access
- Loop Trail - White Rectangle (3.5 Miles)
- Connector Trail (Blue Rectangle)
- Oxbow Point Spur Trail (Orange Circle) (0.13 Miles)
- Horsetail Loop Trail (Triangle w/Dot) (0.2 Miles)
- Sycamore Spur Trail (Green Triangle) (0.1 Miles)
- Dog Leg Point Trail (Yellow Diamond) (0.43 Miles)
- Long Point Trail (Purple Square) (0.33 Miles)
- Lagoon Water Trail (Low Water Route) (1 mile) Information (see brochure)
- Bouy Marker
- Information (see brochure)

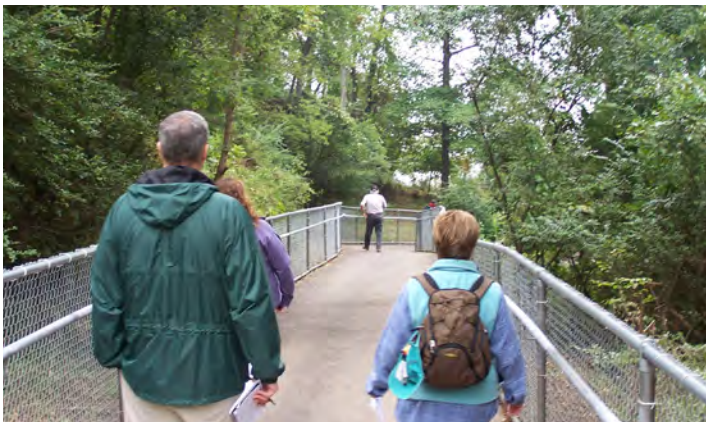








## Data Gathering





## Principle Findings

### Park Planning Process

The first step in the planning process involved an in-depth study of the existing operations at Henricus Historical Park. To catch a glimpse of the park during peak operating time, the consultants observed the park on the Publick Days at Henricus 400th Anniversary event. To contrast, evaluations were also conducted on typical operating days when school group tours and the general public were on site. The site was analyzed from several different lenses.

The consultants and staff looked at the functional relationship of Henricus Historical Park and Dutch Gap Conservation Area as well as physical site conditions such as topography and drainage, viewsheds and vistas, environmental features, natural and cultural vegetation. Overall pedestrian paths and vehicular routes were observed as were the historic features on site.

The data gathering process involved interviews with Henricus Historical Park staff and interpreters as well as precedent studies and site visits to Jamestowne. Design charrettes with staff and consultants were held to develop the initial programming and conceptual plans. As a result, three alternative schematic master plans were created that looked at the grand vision for the park. Meetings were held with key personnel to discuss the alternative concepts and evaluate the important characteristics of each. The compilation of the concepts into one final masterplan encompassed the ideas and visions for Henricus Historical Park.

Subsequent meetings with Dominion Virginia Power and the Henricus Foundation informed stakeholders while generating excitement. Consulting architects coordinated their efforts to design and plan the new visitor's center. The plans were reviewed by staff and ultimate approval of the master plan came from the Henricus Foundation.

### Park Planning Guidelines

The vision for the master plan looked out ten years to twenty years for critical areas of the plan. Spatially, Henricus Historical Park is limited and growth must be planned appropriately to create the ultimate experience for the visitor. Explorations of all possible spatial expansion yielded common themes for growth and are represented in the master plan. The business model for the park will remain intact, with live interpretation being the main attraction and public draw. In the ten year period, the goal is to double visitation and significantly increase revenue. At the same time, the Dutch Gap Conservation Area will benefit and expand on programming within.

### Park Planning Principles

During the process, realistic planning goals are needed to guide growth and priority areas. Most importantly, Henricus Historical Park and Dutch Gap Conservation Area will maintain and enhance their current experience. Henricus Historical Park will retain interpreter delivery as the primary method for the Henricus story line. The vision for the facility allows the park to function as a Chesterfield County park with a regional visitor base and will be a major destination for tourism in the county. A critical component to the success of the park is the connectivity to the water. Programming must be expanded around the principle relationship to the water. Cooperation with Dominion Virginia Power is critical to future development and operations for parking and physical growth in general. It is deemed essential to maintain the bluff area as public space with free access during daytime hours. A larger visitor center has been modeled combining historical, environmental, and daily operations into a 22,000 sq. ft. building.

### Park Planning Targets

In conjunction with the planning principles, numerous planning targets were established to identify the key components to the plan. As with any public facility, it is important to create gateways for pedestrian, vehicular, and even water traffic coming to Henricus Historical Park and Dutch Gap Conservation Area. Pedestrian linkage to the planned James River Greenway is critical to get cyclists and hikers from Dutch Gap to Falling Creek and beyond. The need to program other linkage with state greenways and trail initiatives is also a top priority for the county.



## Principle Findings

### Park Planning Targets (cont.)

In order to establish programming and spatial organization for future growth at Henricus Historical Park, several priority areas were identified to study further in the planning process. It is necessary to improve and develop alternatives for the current entry experience from new visitor center to all park exhibits as well as to develop a strong sequence and organization between existing exhibits. ADA accessibility throughout the site must be maintained in some capacity, with use of a golf cart or tram as an alternative. The identity of the bluff needs to remain intact, serving as a scenic vista and overlook while interpreting the rich history that occurred there.

A study to evaluate improved connectivity to the Dutch Gap Conservation Area was identified as a priority. The creation of additional space for an expanded Indian Site with better connectivity to the water is necessary. There is a need for the addition of a thriving River Commerce exhibit including interpretation of a dry dock for the ships and a true port for working vessels. The park currently interprets little Civil War history and focuses mainly on Colonial Settlement and Indian interpretation. Expanded venues to interpret a wider range of historic periods is recommended. Chesterfield Parks & Recreation has undertaken plans for an expansion of the boat launch area at Dutch Gap to a 4-6 ramp facility. Similarly, a new small craft launch site in the Dutch Gap Conservation area is necessary for better river access. Along the river, a trail connecting Henricus Historical Park and the new boat launch facility is essential to complete the loop around the park. A boardwalk across the relic river will be needed in order to make this connection.

### Dutch Gap Conservation Area Principal Findings for Transportation and Access

The consultant assess was tasked with the current access through the Dutch Gap Conservation Area to Henricus Historical Park. It was apparent that vehicular options for establishing a new gateway were limited by Dominion Virginia Power topography proximity to the river. Discussions with the power company yielded no willingness to grant access or easements.

There are several options for the creation of additional parking and pedestrian access to Henricus Historical Park through the Dutch Gap Conservation area. There is potential to create a gateway off Old Stage Road and to construct a bridge for pedestrians that spans the river to the conservation area. This will open up new visitation options and give alternative access to the site.

The existing parking lot at Henricus Historical Park and Dutch Gap Conservation Area is adequate for today's daily parking requirements. For special functions and large multi-day events additional parking is needed. Parking on large event days is always a challenge and maintaining relationships with local business owners is critical to use of these satellite parking lots on large event days. Dominion Virginia Power will continue to grant use of the fly ash field adjoining Henricus Historical Park informally, but will not grant permanent easement for its use. Today 60% of the parking is used by visitors to the Dutch Gap Conservation Area and the remaining is used by the Henricus Park visitors. When growth causes daily parking to be a problem at Henricus Historical Park, one option would be to separate the traffic to Henricus Historical Park and the conservation area by building a separate lot for the conservation area nearby. Two areas have been identified that will help to alleviate the parking problem going forth. One satellite parking lot could be located off Coyote Drive, south of the old river channel. The second option for additional parking is located in proximity to the existing Dutch Gap Boat Landing and could be constructed in conjunction with the proposed expansion of the boat launch facility at the end of Coxendale Road.



## Principle Findings

### Henricus Historical Park Principal Findings for Transportation and Access

The consultant's study of the parking situation at Henricus Historical Park concluded that the existing parking lot is adequate for today's daily parking requirements. For special functions and large multi-day events additional parking is needed. The solution to the lack of parking will be critical to the long term planning of Henricus Historical Park but the temporary parking at the Dominion Fly Ash lot is a viable short term solution. The entry sequence to the park begs for a large flexible plaza space as a transition between the parking lot and visitor center. This space would serve as a gathering space and place for orientation, large event tents, and other needs.

### Henricus Historical Park Facilities

In a detailed study of the existing facilities, it was determined that the English Settlement is adequate for day to day use but the entry sequence should be improved. The new Visitor Center will function as the entrance to the facility where visitors can first be ticketed and then funneled to the desired exhibits via a new pedestrian spine. The top priority for future facilities is to add a River Commerce exhibit and Harbor with an opportunity for dry dock and floating ship displays. This would be located near the current dock and adjacent low-lying area. There is inadequate space for expansion of the Indian Site which is a major attraction for tours and student groups. The existing physical relationship with the English Settlement and the Indian Site is unrealistic. The Indian Site should have a better relationship to the water and needs room for expansion of interpretation.

The design team recommends expanding the Indian Site along the low lying area adjoining the river oxbow. For safety and code purposes, the park must always maintain the dedicated fire and emergency access to all facilities. The bluff should remain as a public space for viewing, monuments, picnicking, and bird watching during daily operations. This space also functions as a flex space for large events capable of handling several temporary tents and vendor operations.

The master plan recommends an upper boardwalk spine that hugs the top of the slope and runs the entire length of the exhibits to the bluff with access to exhibits both visually and physically. This spine would be ADA compliant and would allow interpretation with signage in the event that a disabled person could not traverse the gravel trails and steep slopes in some places. Continued access to the bluff and to the trails within the Dutch Gap Conservation Area will be through Henricus Historical Park and the new visitor center.

Tweaks to primary pathways, landscaping and other features are needed to accommodate large events and to assure the long-term use of the facility is adequate and can handle growth. Personal interpretation through paid employees is a critical element of the success of Henricus Historical Park. The recommendation is to continue this personal interpretation, but to add signage along the pedestrian spine for additional interpretation of culture, history and ecology. Technology has advanced to the point where interpretation for other parks is being done electronically or digitally, and 3-D fly throughs can be watched online. The in depth investigation by staff and foundation members of how best to utilize current and future technology is essential for the future of the park.



## Principle Findings

### Visitor Center Planning Targets

Throughout the planning process for the site master plan, it was deemed essential to have a building capable of handling visitor services, receiving, ticketing, rest rooms, administrative/operational needs, gift shop, food service, 300-350 people multi-purpose space, numerous classrooms, thematic exhibit areas and associated circulation and building systems. Evaluation of the existing buildings became the critical path. It was decided that the most economical way to approach this was to repurpose the staff building and construct a new visitor center to handle the remaining needs. As not distract from thematic venue areas, the building has to be designed and sited appropriately. The new structure needs to have connection to county water and other basic utilities. Henricus Historical Park's human history natural history needs to be told inside the building as well in a space that is almost as powerful as the live interpretations outside. To maximize the dollar value, multi-purpose should allow for flexibility whenever possible within the building. Way finding and visitor arrival needs to be clearly articulated with the plans.

### Visitor Center Principal Findings

The preliminary programming for the building suggests the construction of a new 22,000 square foot multi-use building. Administrative needs will be housed in the existing staff and education building. Site space limitations will require demolition of existing gift shop and rest rooms. The apartment over rest rooms cannot be re-purposed and will need to be demolished with the gift shop building. Spatial programming of the new building suggests the desire for a single story structure that will lie lightly on the land. In addition to the visitor center building, the Ordinary and Tavern will require the development of complimentary site functions to better utilize food service and meeting room spaces in the future.

### Visitor Center Functional Diagrams

In order to develop a program and spatially plan the building, maps were created to illustrate the needs and to organize the building sequence. The coordination of exterior functions and arrival sequence set up the ticketing and information area, which helps to locate exhibit displays, rest rooms and classrooms. Consideration of "green" building elements such as geothermal energy creation and environmental building systems were evaluated with associated costs. The resulting functional diagram shows a 22,000 square foot facility capable of phased construction.

### Next Steps in the Planning Process

As the master plan and building concepts are studied and phasing options are prioritized, funding becomes the driver for accomplishing projects and long term maintenance for those projects. Parallel fund raising will be a priority. The next steps need to identify issues that warrant further study. Completion of the new Visitor Center schematic design will be important to establish a baseline cost for construction. The need to complete a phased construction analysis seems inherent and necessary to move forward with site related construction. The cost estimates within this document allow for priorities to be set. At the outset, the pedestrian circulation paths, construction of visitor center, and expansion of interpretation and exhibits take priority.









## Transportation Plan





## Park Access

### Existing Access

Current conditions for access and circulation to and around Henricus Park on peak visitation and normal visitation days were evaluated. During the peak visitation days including Publick Days at Henricus Historical Park, variable message signs were placed on the outer shoulder of Interstate 95 directing visitors to the event. Patrons were alerted to exit Interstate 95 and proceed east on Route 10. No additional signage was present on Route 10 to direct visitors onto Old Stage Road and toward the Henricus Park.

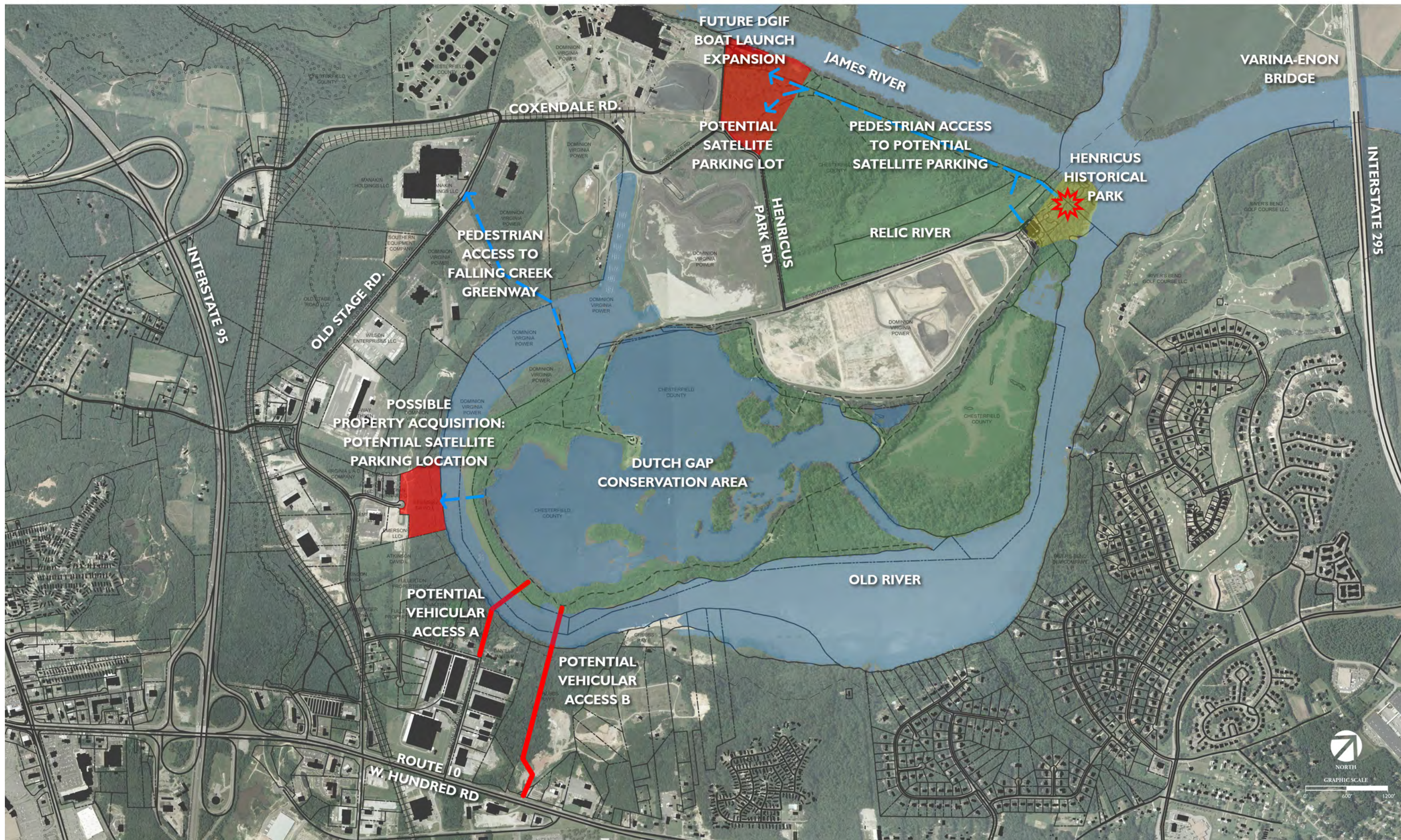
Upon reaching Old Stage Road, signage for both the park and event were minimal. As one proceeds along Old Stage Road, multiple industrial properties line the street. A large, billowing smokestack from the Dominion Virginia Power Plant dominates the landscape as you proceed toward Coxendale Road. New county signage for the historical park is helpful as one nears the park entrance.

Coxendale Road provides access from Old Stage Road to Henricus Park, the Dutch Gap Conservation Area, and the Dutch Gap Boat Landing at the end of the road. Coxendale Road is a narrow, 2-lane facility with a posted speed limit of 35 mph. Chain link and barbed wire fencing border Coxendale Road to limit public access to the adjacent Dominion Power facilities.

Direct access to the Henricus Historical Park and the Dutch Gap Conservation Area is provided by Henricus Park Road. Henricus Park Road is a gate-controlled, 2-lane facility with a posted 25 mph speed limit. The road is narrow with limited or no shoulders in place. Dense low-lying woodlands line one side of the road while a chain link fence and sloped hill owned by the Dominion Virginia abuts the other side.









Parking and Circulation

Parking

On-site parking at Henricus Historical Park and Dutch Gap Conservation Area is provided by the paved parking lot located just outside the visitor center and consists of approximately 90 paved parking spaces. Overflow parking is available on the adjacent fly ash area which is owned by Dominion Virginia Power and not paved nor designated for daily use.

Off-site parking for special events is provided through the use of three (3) Dominion Virginia Power lots located along Old Stage Road in addition to any available parking at Dutch Gap Boat Landing.

Vehicular Traffic Circulation

For Publick Days at Henricus Historical Park, the paved parking area is reserved primarily for handicapped, staff, and volunteers. In addition, fire and EMS vehicles parked in this lot.

The fly ash parking lot, situated on the hill adjacent to the park and visitor center, served as the primary parking lot for 300 vehicles. It was used by staff/volunteers and visitors and allows for direct pedestrian access to Henricus Historical Park down a set of wooden stairs and through the main plaza. The fly ash lot gates opened at 9:00 AM and were fully occupied by 11:00 AM.

Busses began running to the Park from the satellite lots at 11:15 AM. During this time, multiple school busses continually utilized a circuit between the satellite parking areas and the drop-off area in front of the visitor center. These operations continued until the facilities closed for the day. On average, bus trips from the satellite lot to the drop-off area were 6.5 minutes in duration and were rarely at full capacity.



The sharp corner, 90 degree turn, on Henricus Park Road is difficult for busses to maneuver.

Henricus Park Road is a narrow thoroughfare and busses appeared to have difficulty passing one another and often traveled partially off of the road to do so.

Vehicles parked on the shoulders opposite from the overlook/ observation and interpretation areas limit the travel way for through vehicles. from the overlook/observation and interpretation areas limit the travel way for through vehicles.

Bus loading and unloading operated smoothly within the paved lot.

During special events, traffic operations at the main gate were directed by volunteers. This is necessary to ensure safe operations due to limited sight distances and to collect donations from visitors.





## Pedestrian Traffic



### Peak Operation

During the peak visitation times at Publick Days at Henricus Historical Park, several observations regarding pedestrian circulation and movement throughout the site were noted. Upon arrival, some visitors entered directly into the Indian Site while others entered directly into the English Settlement. Clear directions for pedestrian wayfinding were not posted. Generally, the park was not overcrowded and visitors had plenty of room to walk amongst the exhibits, talk with volunteers, and enjoy the park.

The bluff area appeared to be underutilized. Visitors congregated in the area but seemed to mingle among themselves instead of with the volunteers or vendors.

Access to the Godspeed was limited to a steep, paved walkway. Handicap access was provided by golf carts in conflict with pedestrians on the steep trail.

### Normal Operation

During normal operation days, the entire park is utilized and is not crowded. Pedestrians are free to circulate as they please and wander from exhibit to exhibit.

### Observations

Access from the fly ash lot is not ADA compliant.

There was a limited amount of signage to guide visitors into and through the park and provide information. The park utilizes interpreters and prides on personal interaction.

Limited information is available to visitors outside of park that would introduce them to the historical experience or the Dutch Gap Conservation Area.











## Master Plan





## 10 Year Master Plan

### Summary

The 10 year master plan is the result of several iterations and potential concepts for the various program elements within the park. Intended to be used as a guide for future growth and a tool for fund-raising, the plan illustrates the big picture and recognizes the potential for the park.

### Character Areas

The master plan has been broken into significant character areas. The character areas, detailed plans, and descriptions are provided on subsequent pages.

1. Parking and Entry
2. Visitor Center Building
3. Overlook 1, Visitor Center
4. Upper Indian Site
5. Lower Indian Site
6. Harbor and Dock
7. River Commerce
8. Overlook 2, River Commerce
9. Civil War Graves
10. Pedestrian Spine / Boardwalk
11. English Settlement -Citie of Henricus
12. Plantation/Mt. Malady/Ordinary and Rocke Hall
13. Bluff
14. Relic River Overlook and Boardwalk
15. Existing River Overlook









Visitor Center Building - Phase I Plan

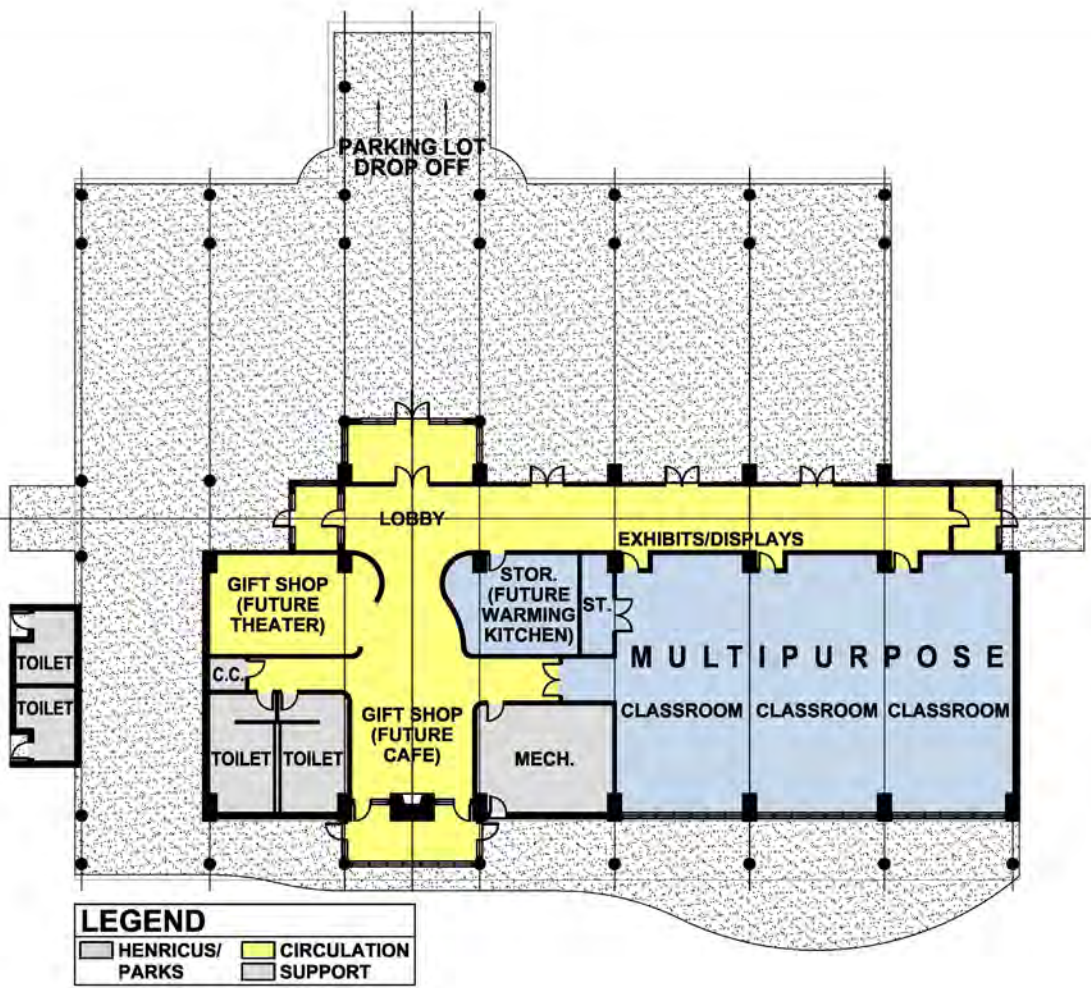
Summary

Phase 1 plans for the new Visitor's Center will address the immediate needs for the park as future funding is pursued for the full construction build-out.

As a part of Phase 1, the existing gift shop and visitor's center will be demolished and the site will be prepared for construction of a new facility. The foundation, floor, shell, and roof structures will be constructed for the entire build-out. Finished space within the building alone will include the multi-purpose classrooms, toilets, storage, gift shop, and mechanical space.

The roof structure will cover the entirety of the full build-out and will be an ideal exterior space for large event gathering, orientation, and outdoor learning.

Sequentially, the visitor will park in the parking lot, walk into the lobby, pay for admission, and proceed down the hallway corridor into the park.



Visitor Center Building - Ultimate Plan

Summary

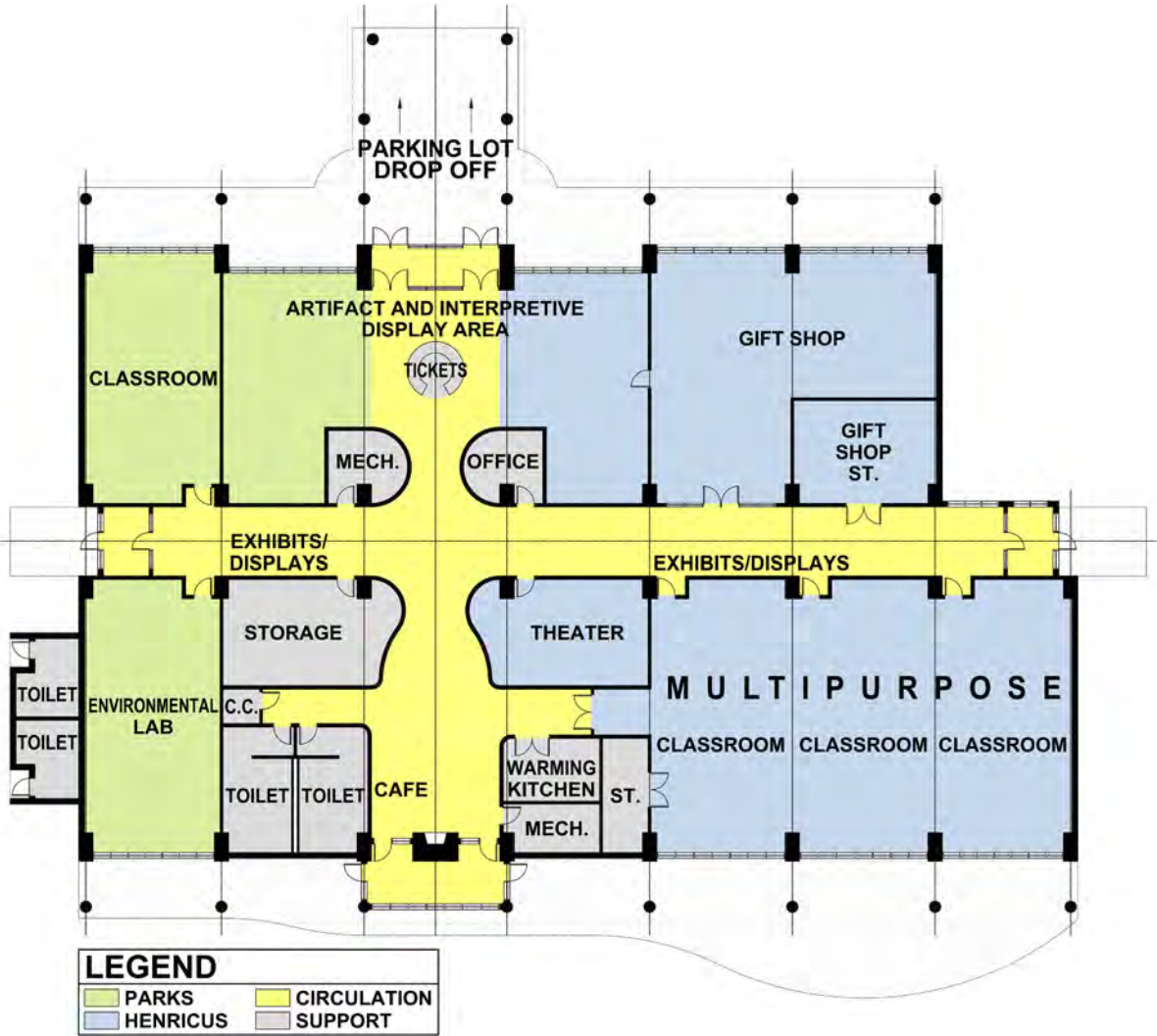
The proposed new Visitor's Center for Henricus Historical Park is a single story 18,000 square foot structure. The building is programmed to support a wide variety of functions including artifact and interpretative display, exhibit areas, gift shop, classrooms, environmental lab, theater, café, multi-purpose and support spaces. Outdoors Programming and Henricus Citie programming will be housed in the building.

The Visitor Center will provide a new, well defined entry to Henricus Historical Park. All visitors will enter the new building and navigate to their desired destination through clearly defined circulation paths.

The existing gift shop / bathroom building on site will be demolished to make way for the new center.

The new building design is sympathetic to language, form and fabric of existing Henricus Citie buildings. The primary structural system will be similar to traditional English timber framing.

Internal circulation corridors will be high bay spaces with exposed structure and clerestories to provide natural light within the building. Primary exterior materials proposed for the building are natural wood, stone, glass and standing seam metal roof. A geothermal heating, ventilation and air conditioning system is planned for the building.









## I Parking and Entry

**Recommendations:**

- Existing parking lot layout meets day to day parking and bus drop-off needs. For special functions and large multi-day events, additional parking is handled through agreements with area businesses.
- Retain existing tree canopy reflective of the regional ecosystem focused on native species.
- Maintain relationship with Dominion Virginia Power for periodic use of overflow parking needs at Fly Ash lot and other parking areas serving the power plant.
- Create an experience that envelopes the visitor with historic, cultural, and environmental education from parking to Visitor Center.
- Establish a horticultural vision for Henricus Historical Park utilizing a native palette of plant material typical for the period.
- Construct new entrance plaza to enhance pedestrian orientation, group gathering, and large event programming.
- Ensure ADA accessibility throughout the area.

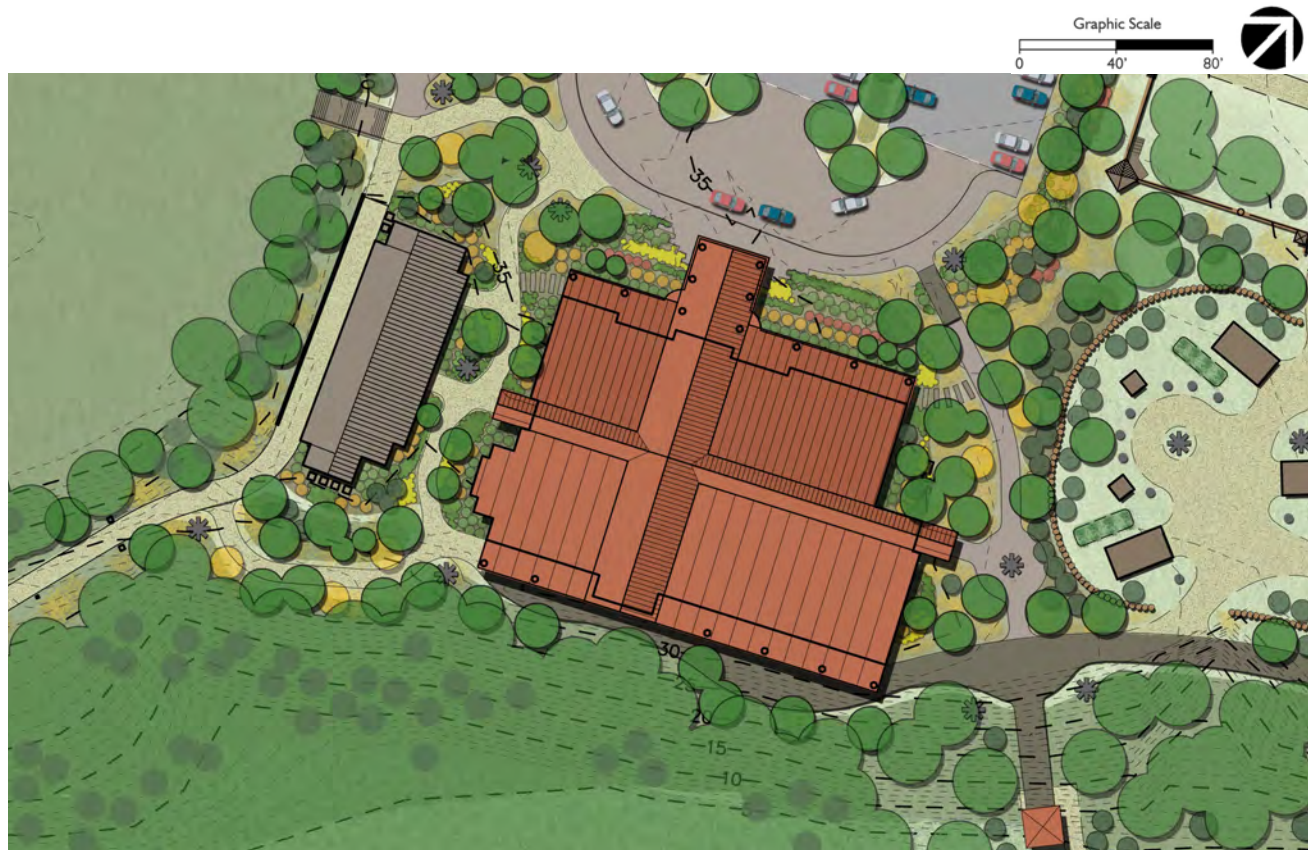




## 2 Visitor Center Building

### Recommendations:

- Require admission to Henricus Historical Park but retain public access to Dutch Gap Recreation Area.
- Repurpose the first floor of the existing administration building into office space to meet current and future needs of staff.
- Create a unique arrival sequence from Visitor Center to the proposed overlook and trail head.
- Build a new Visitor Center which integrates education, interpretation, and amenities for Henricus Historical Park and the Dutch Gap Conservation Area. This requires the demolition of the existing gift shop and rest room facilities.
- Craft a safe, efficient and memorable departure progression.
- Improve Dutch Gap Conservation Area trail head visibility, access and expand interpretation within Visitor Center.

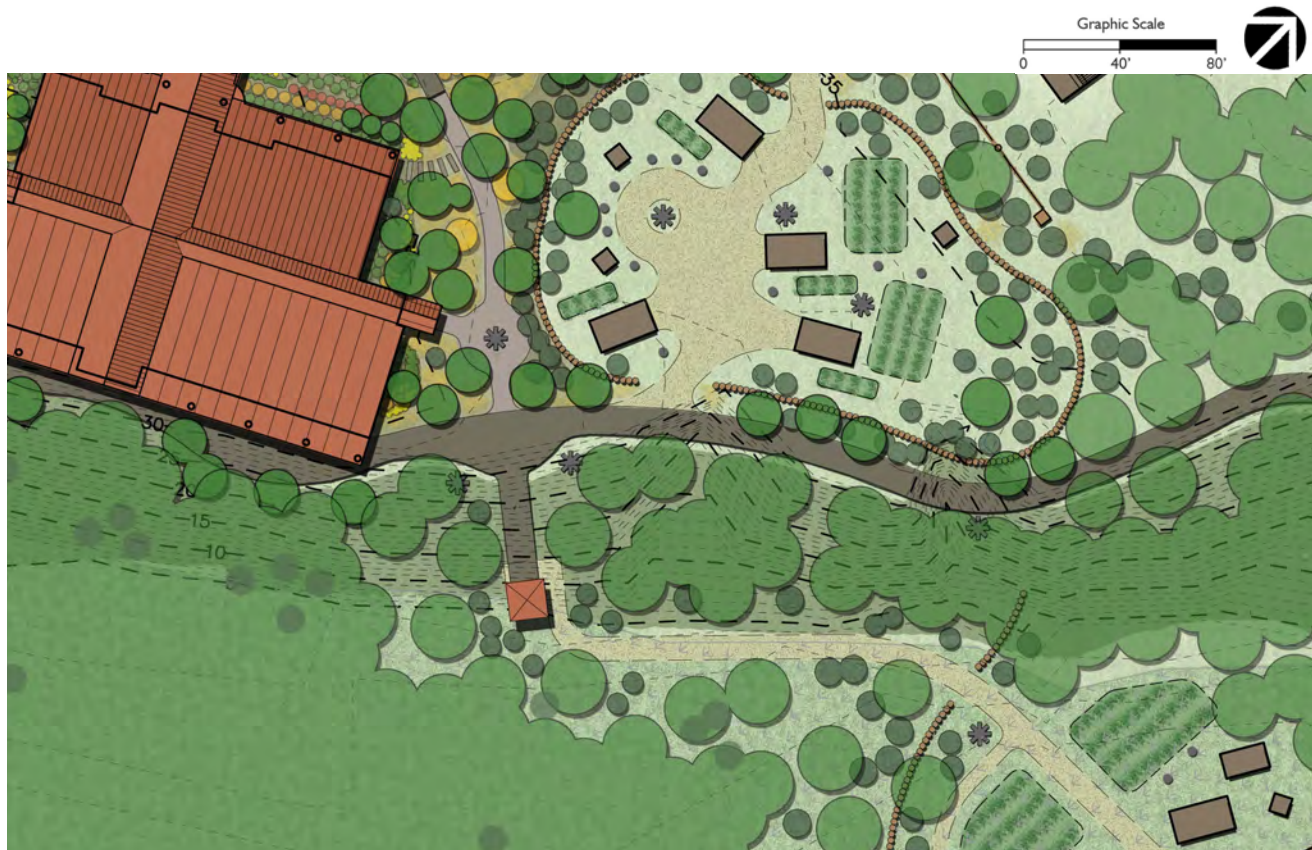




## 3 Overlook I, Visitor Center

### Recommendations:

- Maximize view sheds to James River and Indian Site below.
- Construct a distinctive overlook for viewing and pedestrian orientation of the site that can accommodate up to 50 people and overflow for larger functions.
- Establish the overlook as the central core connecting the Visitor Center to the interpretive spine along the slope and trail head to the Dutch Gap Conservation Area.
- Improve views to the river and Indian Site with selective removals and canopy thinning.





## 4 Upper Indian Site

### Recommendations:

- Expand Indian Site venue to allow for more extensive interpretation.
- Maintain historical accuracy of Indian Site components.
- The expanded Indian Site should include authentic dwellings, farming, hunting, trapping, tanning, and other daily life experiences for interpretation.
- Develop comprehensive plantings including native species, introduced plants used for food, cultivated crops, and medicinal herbs.
- Continue to enclose Upper Indian Site in palisade of the period and provide vegetative screening of the adjacent English Settlement.
- Preserve and protect existing over story tree canopy.





## 5 Lower Indian Site

### Recommendations:

- Develop Lower Indian Site to include authentic dwellings, farming, fishing, boat building, and other daily life experiences for interpretation.
- Maintain historical accuracy of Indian Site components.
- Develop comprehensive plantings including native species, introduced plants used for food, cultivated crops, and medicinal herbs.
- Clear views and limited access to the river. Demonstrate historically accurate connection to the water and make it a focus of the interpretive experience.
- Preserve and protect existing overstory tree canopy.
- Obtain required environmental permitting associated with disturbing wetlands and resource protection areas. Mitigate on-site if possible.

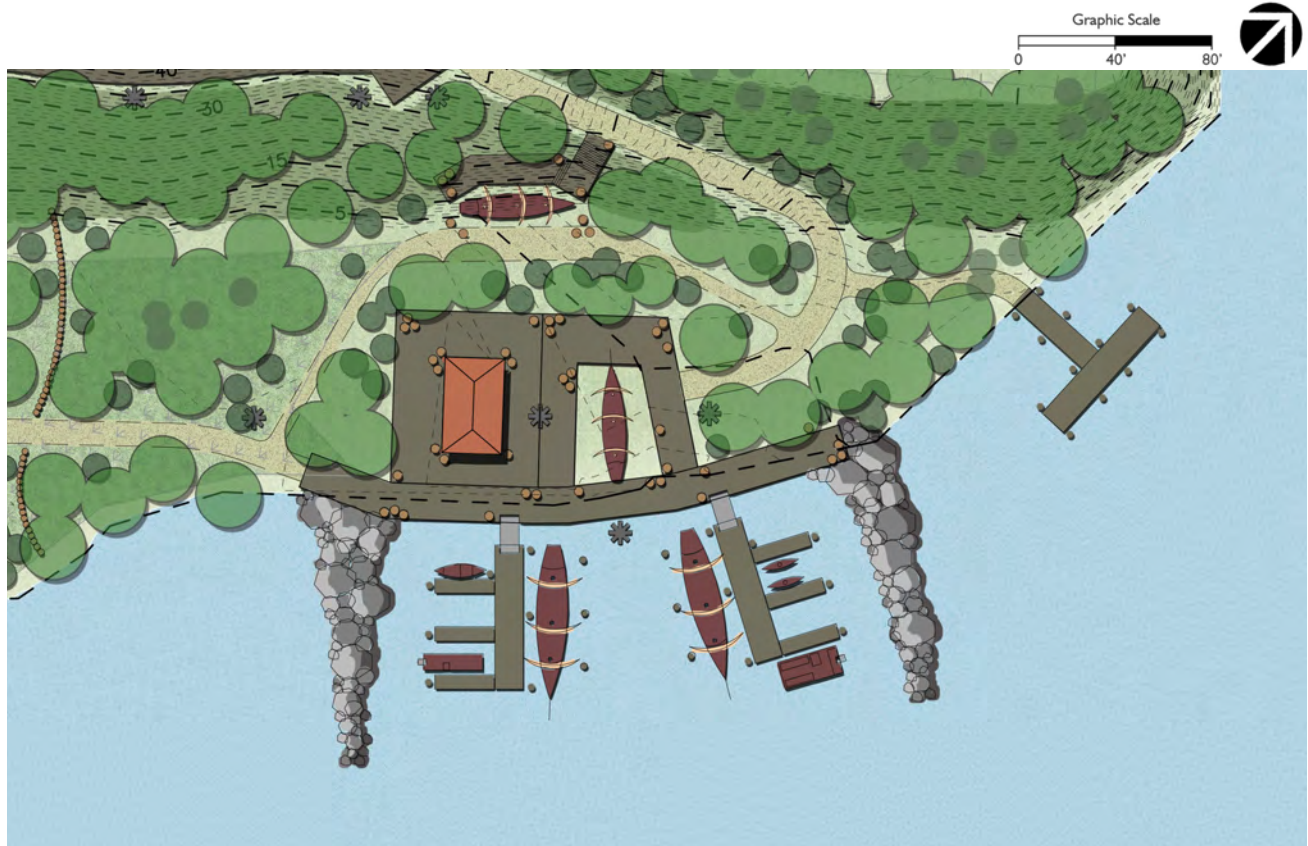




## 6 Harbor and Dock

### Recommendations:

- Retain current location for integrated River Commerce/Henricus Harbor exhibits.
- Stabilize shoreline with period methods and materials.
- Relocate existing dock upstream and provide access path
- Develop and program Henricus Harbor to include historic interpretive elements, docking facilities for tall ship display and tour vessels, and slips for visitors arriving by boat.
- Add jetties as needed for maximum protection from currents and waves
- Selectively clear and clean existing vegetation. Remove exotic plant species.
- Ensure ADA access to all harbor components.
- Initial access down the slope shall be via cart transport.
- Secure and separate historical areas from public dock areas.





## 7 River Commerce

### Recommendations:

- Retain and upgrade pedestrian access from the bluff to the water's edge in the current location of the floating dock.
- Program and develop a thriving river commerce exhibit which highlights and interprets the long term importance of this location along the James River from pre-colonial period to present day.
- Develop a working dry dock facility to house and maintain a period vessel of the 16th century. Visitors should be able to experience the ship from ground and deck levels.
- The proposed expanded location is adjacent to the flood plain/wetlands areas and may need permitting and possible mitigation.
- Selectively clear and clean existing vegetation. Remove invasive plant species.
- Ensure ADA accessibility to all aspects of the display.
- Initially principle access down the slope shall be via cart transport.
- Secure and separate historical areas from public dock areas.

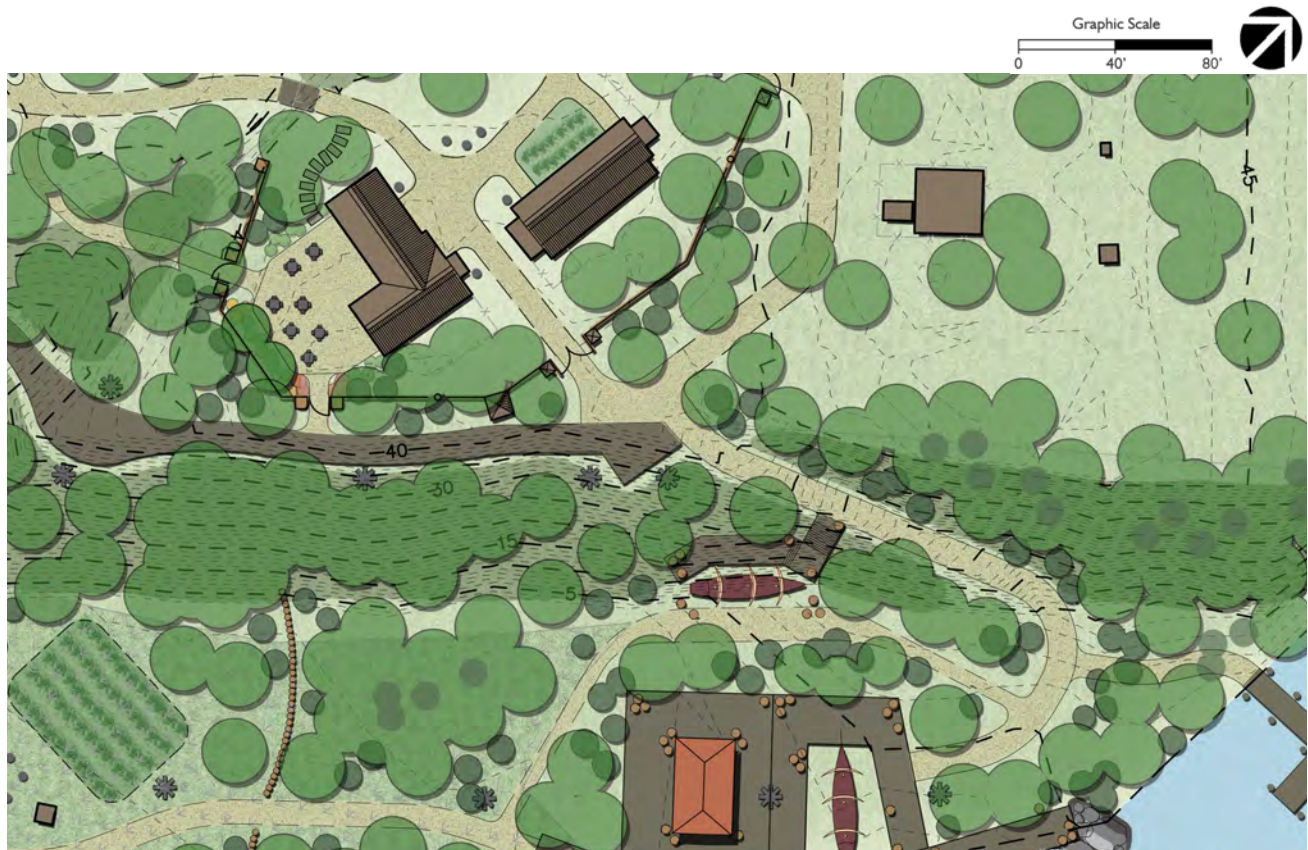




## 8 Overlook 2, River Commerce

### Recommendations:

- Develop a distinctive overlook and trail for views to the River Commerce ship display and provide accessible pedestrian access from the overlook, down to the riverside exhibits.
- Add connection with the Tavern and outdoor eating area for events and school field trips.
- Maximize viewsheds to James River, ship display, and River Commerce exhibits below. Use the thinning of trees & canopies to create significant views to the area from the bluff.

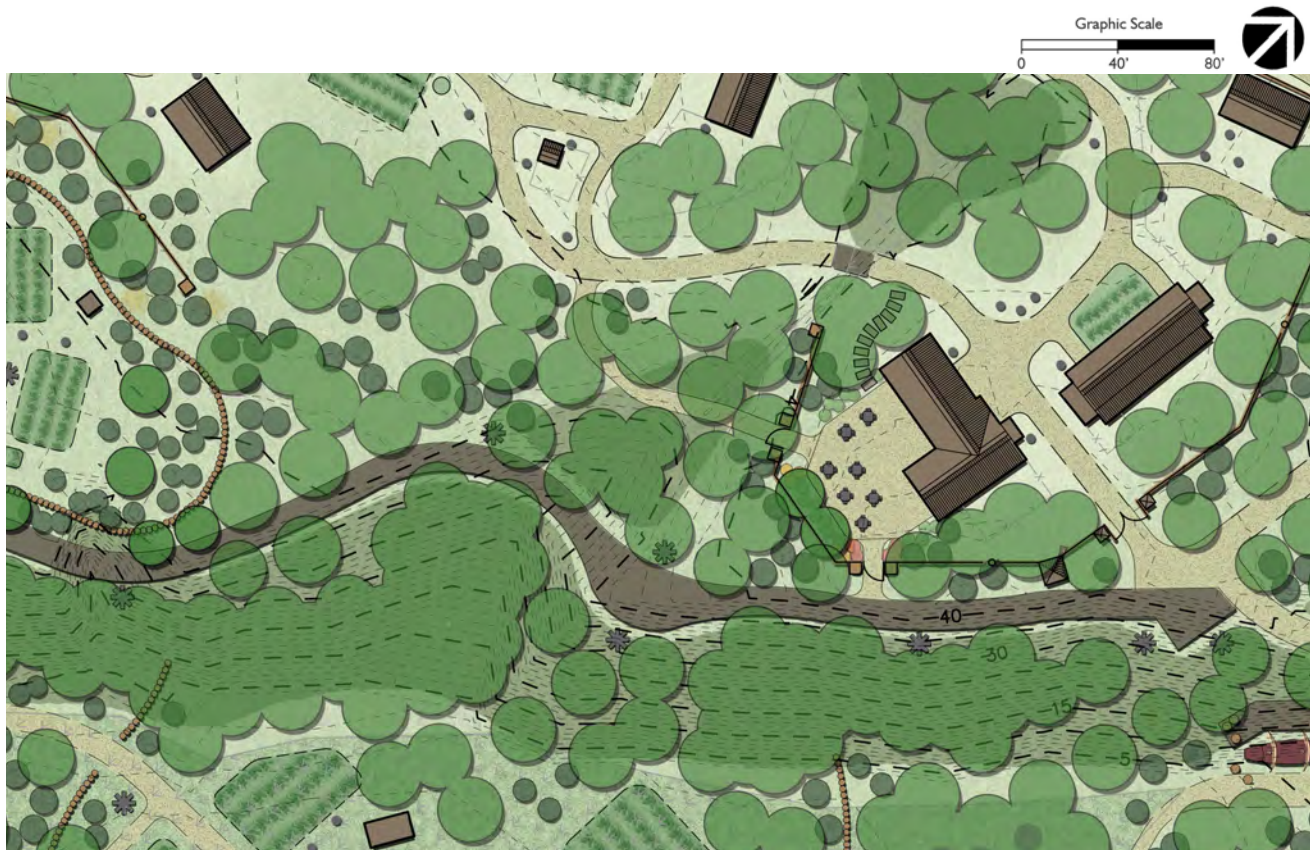




## 9 Civil War Graves

### Recommendations:

- Interpret Civil War elements including hillside bunkers and grave sites along the Pedestrian Spine.
- Add palisade or hedging along the Civil War area to give visual separation from English Settlement and Plantation areas.
- Utilize the Bluff for Civil War interpretation and re-enactments. Much of the history of the Henricus Historical Park site takes place within the Bluff viewshed.
- Clear and clean vegetation to compliment exhibit.
- Assure ADA accessibility exists to Civil War overlook.





## 10 Pedestrian Spine / Boardwalk

### Recommendations:

- Design a pedestrian boardwalk/trail along the entire south eastern ridge of the park which affords physical and visual access to exhibits.
- Locate Pedestrian Spine / Boardwalk along the natural ridge line to maximize long elevated viewsheds.
- Assess existing over story tree canopy and weave spine through older heritage trees.
- Utilize cantilevered support method where feasible to minimize overall footprint of the walkway and clear-span support over swales, to minimize impacts to drainage and natural features.
- Create nodes for groups of 30-40 people along the spine for interpretation and visual orientation.
- Provide ADA access to English Settlement, Upper Indian Site and Bluff from the walkway.
- Develop stairway access to Lower Indian Site and connecting to River Commerce / Harbor and Dock exhibits.





## II English Settlement Citie of Henricus

### Recommendations:

- Maintain existing English Settlement elements and interpretive stations.
- Retain existing main entrance from parking lot to function as a secondary entrance/exit for high attendance days.
- Balance tree canopy for visitor comfort and historical accuracy of the space.
- Add additional tower lookout in association with the stockade fence to interpret guarding the fort.
- Add stockade and other fencing needed to enclose the English Settlement visually and physically.
- Modify the primary interpretive path through the English Settlement for better orientation and flow to the Tavern and Mt. Malady.





## I2 Plantation, Mount Malady, Ordinary and Rocke Hall

### Recommendations:

- Preserve plantation layout but improve circulation and function between Tavern, Mt. Malady and John Rolfe's residence.
- Retain existing entrance as a secondary entrance/exit to the bluff.
- Enhance the Plantation outdoor interpretation.
- Improve capacity and capability of this area to handle large events and functions.
- Develop an outdoor eating area adjacent to the Tavern.
- Remove invasive species and enhance the venue with additional period native plants.
- Ensure ADA accessibility throughout the Plantation / Mt. Malady / Ordinary and Rocke Hall Site.
- Realign palisade as needed to create a more definitive separation between the Civil War Graves and English Settlement.





## 13 Bluff

### Recommendations:

- Retain open/un-programmed space to function as flex space for events such as the Richmond Symphony, Civil War or Revolutionary War reenactments, and Publick Days.
- Maximize viewsheds up and down the James River.
- Preserve existing monument and ruins.
- Continue free public access to Bluff from dawn to dusk.
- Investigate the potential for a temporary covered space as protection in inclement weather.
- Improve pedestrian circulation by redefining primary pathways.
- Closely monitor health of existing canopy trees and plant next generation of vegetation.
- Stabilize existing slopes as needed to reduce erosion along slope.
- Ensure ADA accessibility through the Bluff and Overlook.





## I4 Relic River Overlook and Boardwalk

### Recommendations:

- Maintain existing marsh overlooks along Henricus Park Road.
- Chesterfield Parks and Recreation has developed plans for a trail head with interpretation at the northwest corner of the existing parking lot.
- Plans link pedestrian access by way of a staired overlook, floating dock and observation deck integrated into the marsh.
- Identify and create view sheds from proposed overlook to the Relic River wetlands.
- Ensure ADA accessibility throughout.
- Stabilize existing slopes as needed to reduce erosion along slope.





## 15 Existing River Overlook

### Recommendations:

- Assess existing over story tree canopy. Thin canopies to open up significant views.
- Maximize view sheds up and down James River and across the Relic River wetlands.
- Continue to integrate interpretive signage highlighting significant ecological, cultural and historical items.
- Preserve and maintain Existing River Overlook shelter and access stairs for short term. Develop new distinctive overlook to maximize long viewsheds.









## I Parking & Entry

**Components of Estimate:**

- Demolition of some pavement in parking lot and drop-off area and demolition of some landscape elements
- Expanded drop-off area paved with concrete pavers
- New pedestrian pavers at plaza and entrance to building
- New signage for Henricus Historical Park

**Cost Breakdown:**

Construction Cost:	\$ 245,000
Development Cost (25%):	\$ 61,250
<u>Contingency (10%):</u>	<u>\$ 30,625</u>
<b>Total Cost:</b>	<b>\$ 336,875</b>
Initial Operating Costs (10%):	\$ 33,687
<u>Major Maintenance (10%):</u>	<u>\$ 33,687</u>
<b>Total Character Area Cost:</b>	<b>\$ 404,249</b>





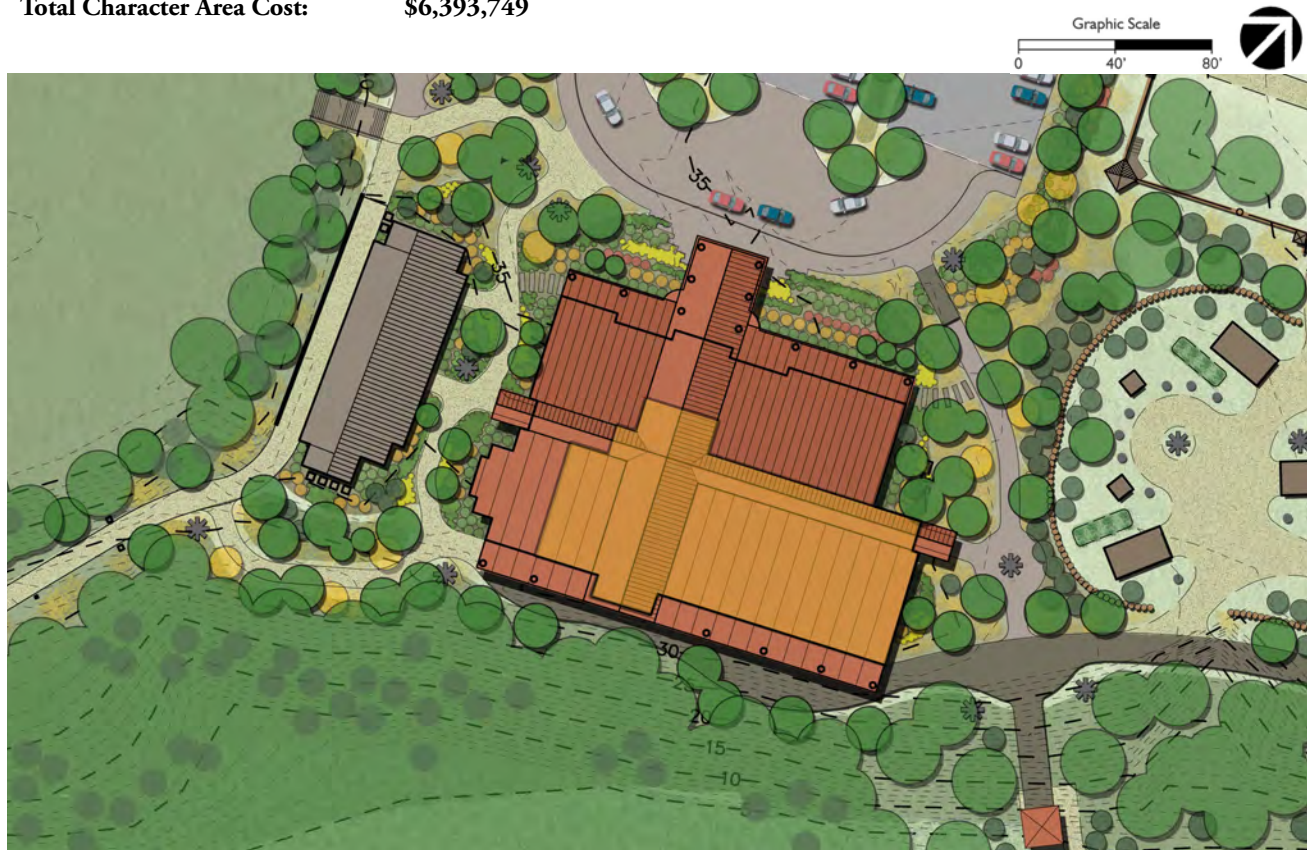
## 2 Visitor Center

### Components of Estimate:

- Demolition of existing gift shop and Construction of Phase 1 of Visitors Center Building - Floor, Shell, and Roof (Multi-purpose Classrooms, Toilets, Storage, and Gift Shop)
- New trail head, signage, and access to trails at Dutch Gap Conservation Area and access to Overlook 1
- Native landscape plantings around the building and circulatory paths
- Site work, grading, and drainage

### Cost Breakdown:

Construction Cost:	\$ 3,875,000
Development Cost (25%):	\$ 968,750
<u>Contingency (10%):</u>	<u>\$ 484,375</u>
<b>Total Cost:</b>	<b>\$ 5,328,125</b>
Initial Operating Costs (10%):	\$532,812
<u>Major Maintenance (10%):</u>	<u>\$532,812</u>
<b>Total Character Area Cost:</b>	<b>\$6,393,749</b>





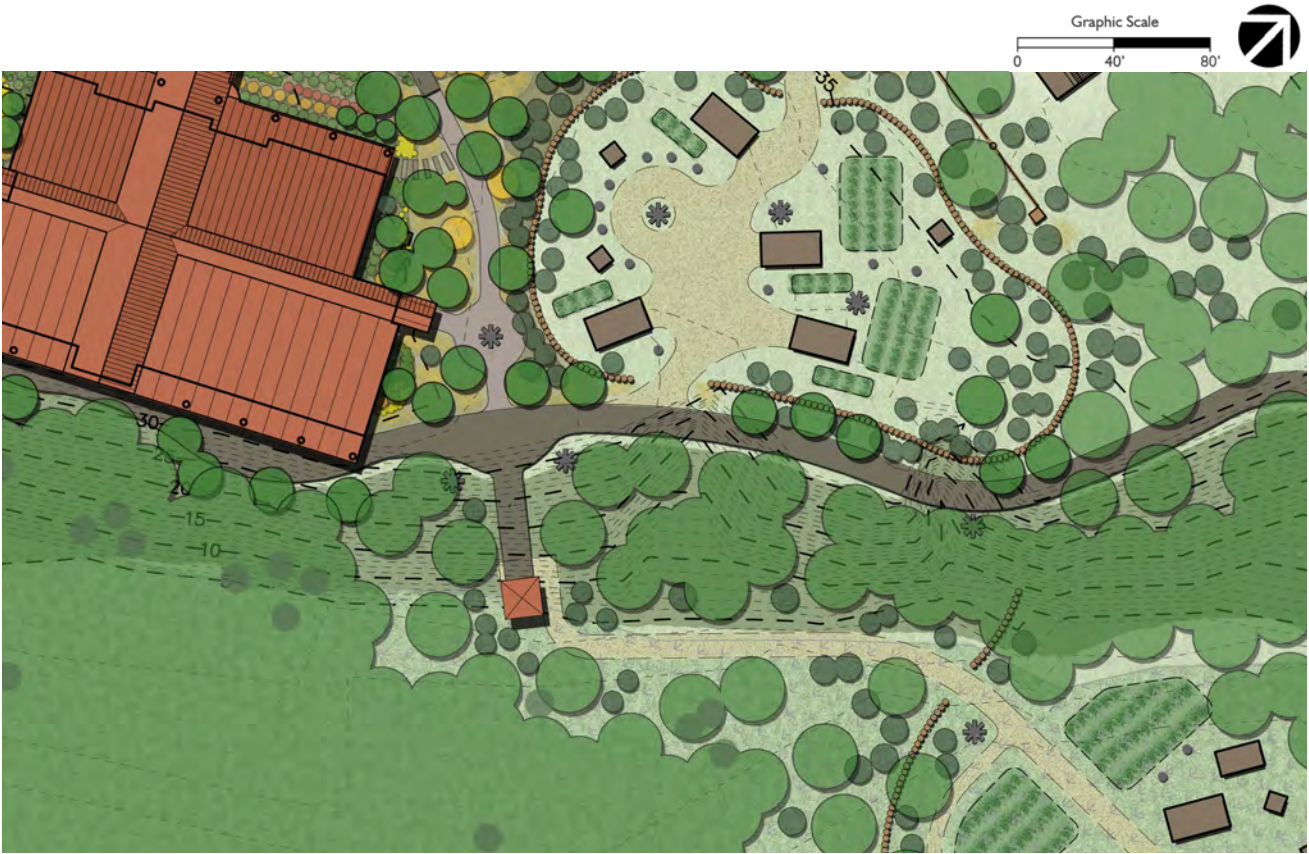
### 3 Overlook I, Visitor Center

**Components of Estimate:**

- Overlook area clearing and grubbing, thinning of trees for longer views
- New boardwalk overlook area with railing
- New pedestrian access tower down to Lower Indian Site
- New signage and interpretation for overlook

**Cost Breakdown:**

Construction Cost:	\$ 150,000
Development Cost (25%):	\$ 37,500
<u>Contingency (10%):</u>	<u>\$ 18,750</u>
<b>Total Cost:</b>	<b>\$ 206,250</b>
Initial Operating Costs (10%):	\$ 20,625
<u>Major Maintenance (10%):</u>	<u>\$ 20,625</u>
<b>Total Character Area Cost:</b>	<b>\$ 247,500</b>





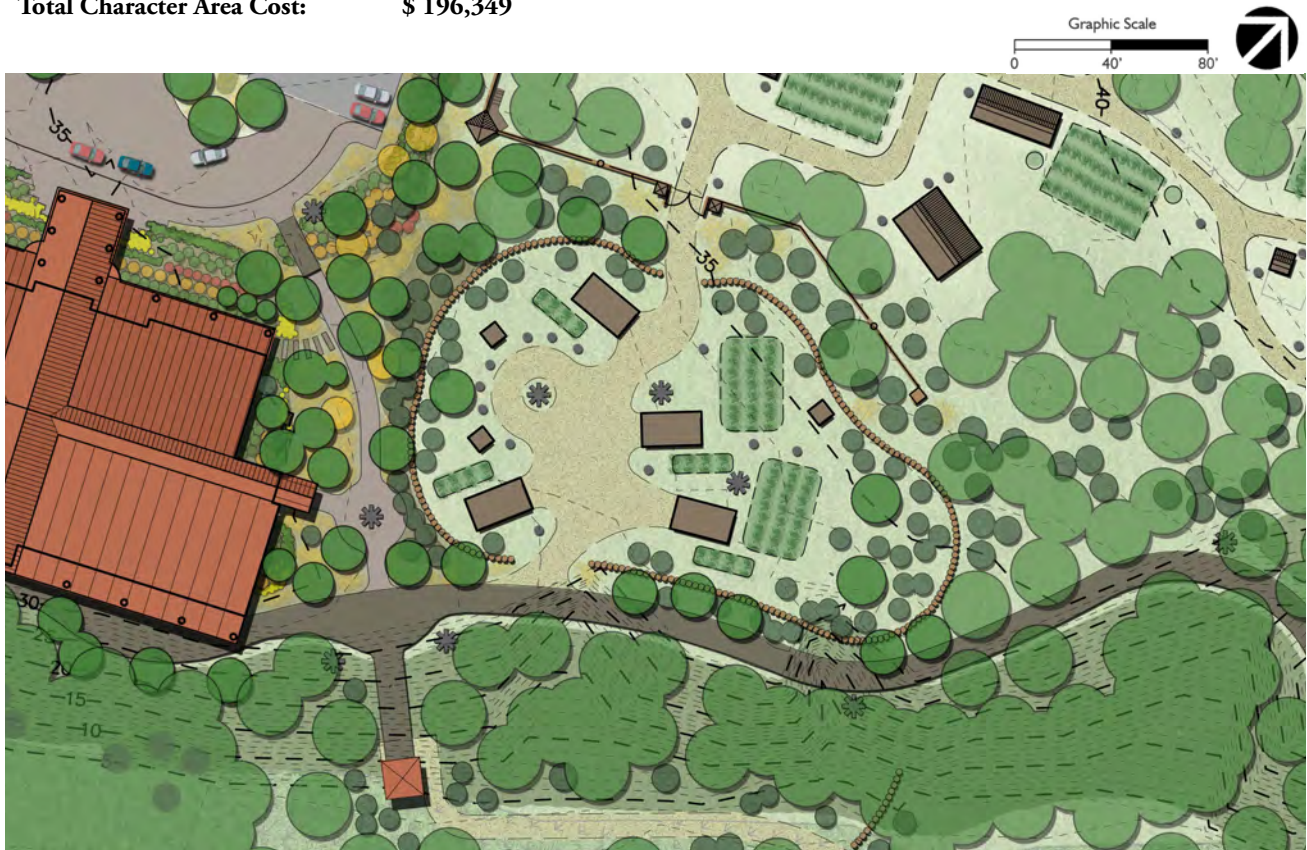
## 4 Upper Indian Site

### Components of Estimate:

- Clearing and grubbing of Indian Site
- Construction of two new Uhagan dwellings
- New crushed gravel surface, grading, and drainage for circulation through and around exhibit
- Indian palisade fencing around perimeter
- Interpretation tools and accessories, agriculture, and native landscape plantings

### Cost Breakdown:

Construction Cost:	\$ 119,000
Development Cost (25%):	\$ 29,750
<u>Contingency (10%):</u>	<u>\$ 14,875</u>
<b>Total Cost:</b>	<b>\$ 163,625</b>
Initial Operating Costs (10%):	\$ 16,362
<u>Major Maintenance (10%):</u>	<u>\$ 16,362</u>
<b>Total Character Area Cost:</b>	<b>\$ 196,349</b>





## 5 Lower Indian Site

### Components of Estimate:

- Demolition of some pavement in parking lot and drop-off area and demolition of some landscape elements
- Expanded drop-off area paved with concrete pavers
- New pedestrian pavers at plaza and entrance to building
- New signage for Henricus Historical Park

### Cost Breakdown:

Construction Cost:	\$ 315,000
Development Cost (25%):	\$ 78,750
<u>Contingency (10%):</u>	<u>\$ 39,375</u>
<b>Total Cost:</b>	<b>\$ 433,125</b>
Initial Operating Costs (10%):	\$ 43,312
<u>Major Maintenance (10%):</u>	<u>\$ 43,312</u>
<b>Total Character Area Cost:</b>	<b>\$ 519,749</b>





## 6 Harbor and Dock

### Components of Estimate:

- Clearing and grubbing of dock area
- Relocation of existing dock
- Shoreline stabilization, jetties, bulkheads, grading, and drainage
- New floating docks and gangways from shoreline boardwalk
- River commerce accessories

### Cost Breakdown:

Construction Cost:	\$ 637,000
Development Cost (25%):	\$ 159,250
<u>Contingency (10%):</u>	<u>\$ 79,625</u>
<b>Total Cost:</b>	<b>\$ 875,875</b>
Initial Operating Costs (10%):	\$ 87,587
<u>Major Maintenance (10%):</u>	<u>\$ 87,587</u>
<b>Total Character Area Cost:</b>	<b>\$ 1,051,049</b>





## 7 River Commerce

### Components of Estimate:

- Clearing and grubbing for river commerce area
- Dry dock exhibit, path, ship, etc.
- Boardwalk, dock, interpretive signage, and pavilion structure
- Accessories for river commerce exhibit

### Cost Breakdown:

Construction Cost:	\$ 408,000
Development Cost (25%):	\$ 102,000
<u>Contingency (10%):</u>	<u>\$ 51,000</u>
<b>Total Cost:</b>	<b>\$ 561,000</b>
Initial Operating Costs (10%):	\$ 56,100
<u>Major Maintenance (10%):</u>	<u>\$ 56,100</u>
<b>Total Character Area Cost:</b>	<b>\$ 673,200</b>





## 8 Overlook 2, River Commerce

### Components of Estimate:

- Clearing and grubbing for overlook area
- Construction of overlook in conjunction to boardwalk
- Paved connections to adjacent tavern and bluff areas
- Interpretive signage and accessories

### Cost Breakdown:

Construction Cost:	\$ 45,000
Development Cost (25%):	\$ 11,250
<u>Contingency (10%):</u>	<u>\$ 5,625</u>
<b>Total Cost:</b>	<b>\$ 61,875</b>
Initial Operating Costs (10%):	\$ 6,187
<u>Major Maintenance (10%):</u>	<u>\$ 6,187</u>
<b>Total Character Area Cost:</b>	<b>\$ 74,249</b>





9 Civil War Graves

Components of Estimate:

- Clearing and grubbing for Civil War Grave area
- Construction of overlook
- Interpretive signage

Cost Breakdown:

Construction Cost:	\$ 27,000
Development Cost (25%):	\$ 6,750
<u>Contingency (10%):</u>	<u>\$ 3,375</u>
<b>Total Cost:</b>	<b>\$ 37,125</b>
Initial Operating Costs (10%):	\$ 3,712
<u>Major Maintenance (10%):</u>	<u>\$ 3,712</u>
<b>Total Character Area Cost:</b>	<b>\$ 44,549</b>





## 10 Pedestrian Spine / Boardwalk

### Components of Estimate:

- Clearing and grubbing for boardwalk
- Construction of cantilevered boardwalk and railing
- Interpretive signage and site furnishings

### Cost Breakdown:

Construction Cost:	\$ 150,000
Development Cost (25%):	\$ 37,500
<u>Contingency (10%):</u>	<u>\$ 18,750</u>
<b>Total Cost:</b>	<b>\$206,250</b>
Initial Operating Costs (10%):	\$20,625
<u>Major Maintenance (10%):</u>	<u>\$20,625</u>
<b>Total Character Area Cost:</b>	<b>\$247,500</b>





II English Settlement (Citie of Henricus)

Components of Estimate:

- Realign stockade fence in specific areas and add additional fence near Indian Site
- Add new gate between upper Indian and English Settlement lookout towers
- Realign path through the English Settlement slightly and supplement with crushed stone where needed
- Maintain the existing large mature tree canopy and plant supplementary native plant materials to enhance settlement character

Cost Breakdown:

Construction Cost:	\$ 50,000
Development Cost (25%):	\$ 12,500
Contingency (10%):	\$ 6,250
<b>Total Cost:</b>	<b>\$ 68,750</b>
Initial Operating Costs (10%):	\$ 6,875
Major Maintenance (10%):	\$ 6,875
<b>Total Character Area Cost:</b>	<b>\$ 76,500</b>





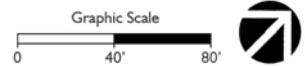
## I2 Plantation, Mount Malady, Ordinary & Locke Hall

### Components of Estimate:

- Realign stockade fence. Add additional fence in the rear of the tavern
- Add new gates at major pedestrian ingress and egress points renovate existing lookout towers
- Realign path through the plantation area slightly and supplement with crushed stone where needed
- Add paved dining area at rear of the tavern and connect to adjacent boardwalk and paths
- Maintain the existing large mature tree canopy and plant supplementary native plant materials to enhance character

### Cost Breakdown:

Construction Cost:	\$ 65,000
Development Cost (25%):	\$ 16,250
<u>Contingency (10%):</u>	<u>\$ 8,125</u>
<b>Total Cost:</b>	<b>\$ 89,375</b>
Initial Operating Costs (10%):	\$ 8,937
<u>Major Maintenance (10%):</u>	<u>\$ 8,937</u>
<b>Total Character Area Cost:</b>	<b>\$ 107,249</b>





## 13 Bluff

**Components of Estimate:**

- Stabilize slope and eroded areas
- Resurface primary paths and circulation
- Protect and maintain native vegetation and preserve large mature trees
- Remove invasive species

**Cost Breakdown:**

Construction Cost:	\$ 80,000
Development Cost (25%):	\$ 20,000
<u>Contingency (10%):</u>	<u>\$ 10,000</u>
<b>Total Cost:</b>	<b>\$ 110,000</b>
Initial Operating Costs (10%):	\$ 11,000
<u>Major Maintenance (10%):</u>	<u>\$ 11,000</u>
<b>Total Character Area Cost:</b>	<b>\$ 132,000</b>





## I4 Relic River Overlook and Boardwalk

### Components of Estimate:

- Clearing and grubbing for construction of Relic River boardwalk, tower, and parking lot area
- Paving new drop-off area
- Construction of new boardwalk over Relic River area
- Construction of access tower to boardwalk below

### Cost Breakdown:

Construction Cost:	\$ 344,600
Development Cost (25%):	\$ 86,150
<u>Contingency (10%):</u>	<u>\$ 43,075</u>
<b>Total Cost:</b>	<b>\$ 473,825</b>
Initial Operating Costs (10%):	\$ 47,382
<u>Major Maintenance (10%):</u>	<u>\$ 47,382</u>
<b>Total Character Area Cost:</b>	<b>\$ 568,589</b>





## 15 Existing River Overlook

**Components of Estimate:**

- Demolition of existing river overlook and site preparation
- Construction of new river overlook
- Interpretive signage and furnishings

**Cost Breakdown:**

Construction Cost:	\$ 50,000
Development Cost (25%):	\$ 12,500
<u>Contingency (10%):</u>	<u>\$ 6,250</u>
<b>Total Cost:</b>	<b>\$ 68,750</b>
Initial Operating Costs (10%):	\$ 6,875
<u>Major Maintenance (10%):</u>	<u>\$ 6,875</u>
<b>Total Character Area Cost:</b>	<b>\$ 76,500</b>















## Operations & Maintenance





## General Overview

### Increased Revenue through River Commerce Exhibit

In 2010 Henricus Historical Park was offered possession of a re-created late 16th century ship named Sea Lion. In consideration of this proposal, capital construction plans and operational plans required review to determine whether or not the Sea Lion proposal would be a feasible and desirable addition to the living history museum.

The 400th commemoration of the founding of the historic Citie of Henricus in 2011 combined with various major capital construction projects, enhanced media visibility and an already excellent and growing reputation as an educational and recreational facility has allowed Henricus to enjoy significant growth in school field trip and general visitation. As activity at Henricus continues to grow and demand for programming continues to increase, it has become obvious that proper planning needs to take place to ensure orderly progress.

A reanalysis has taken place regarding the 32 acres that the Citie of Henricus occupies and how that fits into the entirety of the 810 acre Dutch Gap Conservation Area and what other opportunities Dutch Gap offers that can be capitalized on through program diversification. While Henricus has traditionally offered interpretation and education programs that revolve around the time period from 1611 to 1622, it is recognized that Henricus and Dutch Gap combined offers rich human history and natural history on subjects as diverse, yet interconnected, as the Revolutionary War, the Civil War, ecology and biology. Through partnerships with public and private institutions, Henricus may diversify and expand program offerings and better control economic peaks and valleys. No longer will Henricus almost solely be dependent upon SOL-aligned elementary school age field trips focused on specific topics. Instead Henricus, and Chesterfield Parks and Recreation, will be in position to offer a variety programs and experiences designed to align with many age groups and interests.

In response to internal discussions about Sea Lion and other program offerings and opportunities, the Henricus Foundation formed a Strategic Planning Committee in 2010 to assess the park's current and future plans from top to bottom. For well over a year, the Strategic Planning Committee has met regularly to analyze current and future needs and opportunities (SWOT analysis). Some basic themes have emerged:

- Enhance the excellent colonial history programs now in place with added exhibits and attractions like the Sea Lion

- Expand into or build upon existing areas of human history such as Virginia Indian history, The Revolutionary War and The Civil War

- Begin offering programs that concentrate on the biology and ecology of the Dutch Gap Conservation Area, man's impact on the area and vice versa.

Henricus Historical Park program growth combined with physical site growth, opportunities like the Sea Lion exhibit, and demand from area schools require that the Henricus Foundation review and modify the current physical site planning. The addition of a 1611 church to be constructed in summer 2012 highlights a living history site that is currently nearing the point of saturation. If new programs are to be added and more visitors are to visit Henricus Historical Park and Dutch Gap Conservation Area, revised facilities and site planning is required.

In light of this, in 2011 the decision was made by Henricus to conduct a comprehensive master plan under the guidance of Timmons Group of Richmond, VA. Timmons staff has visited Henricus and Dutch Gap regularly, interviewed staff, assessed needs and begun the process of creating plans for the expansion and use of Henricus Historical Park and Dutch Gap Conservation Area in partnership with Henrico County and Chesterfield County. The mission for Timmons Group is to permit and promote the growth and diversification of Henricus Historical Park and its program offerings in an effort to better utilize the resources available in the entire 810 acres over the next 5-20 years for the benefit of our citizens.

### Bubble Diagram and Planning Process:

In consultation with Henricus Historical Park staff, The Henricus Foundation and Chesterfield County Parks and Recreation, Timmons developed a "bubble diagram" or proposal of the basic venues associated with the 1611 Citie of Henricus. The plans include a "spine" walkway designed to thread various historical venues associated with the site's human history. New pedestrian traffic patterns are proposed so that visitors have a more logical and chronological path to follow. Special attention is paid to enhancing the experience while being sensitive to the time necessary to complete a tour of the site within a reasonable period of time. This is especially critical when it comes to school groups who have a finite period of time at the park and prescribed academic material to cover during that period of time.



# River Commerce and Sea Lion Exhibit

### Plan for River Commerce

Among the major changes and additions is the development of a River Commerce site in the area of the existing floating dock located on the low-lying bluff area of Henricus. This area is the proposed site for the Sea Lion ship exhibit, where the 56 ton reproduction ship may be situated on a dry dock platform primarily for historical interpretation and education purposes. The ship will be surrounded by an aesthetically appealing security fence and will include interpretive signs noting the historical significance of the ship and the river. In addition, signs may be added exploring the Sea Lion itself and the interesting history involved with its construction, preservation and eventual move from New York to Virginia. This interpretive venue will be open to the public 6 days per week and possibly 7 depending upon demand.

Additional Henricus staffing needs would include 4 historical interpreters at a rate of \$30,000 each, totaling \$120,000 per annum.

### Goals

The goal is to target and draw from the local audience that would otherwise opt to have their educational programs at Jamestown due to the existence of their sailing vessels.

### Educational Programs

General programs would include the integrations of the Sea Lion as part of most existing school programs, adult group tours, Camps, Camp Ins, public events and Teacher Institutes. We would create one or more new Camps designed specifically around the Sea Lion. Each public event would target interpretation and programming around the Sea Lion.

New programs would include the Sea Lion to be used for the creation of NEW SOL-aligned, income-producing programs including the following:

- Navigating the North Atlantic
- English Explore the Chesapeake Bay – Meet the Virginia Indians
- Trade and the 17th Century River Front
- A Sailor's and Sea Farer's Life
- 17th Century Warfare
- Archaeology
- 17th Century Art, Literature & Music



## Expected Income and Expenses

**Expected Income (Year 1) = \$148,000**

### **General programs\***

\$40,000 - Program prices increase by \$2/student (from \$6.00/student) x 20,000 students

\$40,000 - An additional 5,000 students per year x \$8/student

### **New Sea Lion-themed programs\*\***

\$48,000 - 6,000 additional students x \$8/student

\$20,000 - New camps/Teacher Institutes/Other Programs

\* These would add a new stop – the Sea Lion – to our existing traditional programs, allowing more persons or groups to be booked and accommodated at one time in the Park.

\*\*New programs, themed specifically around the Sea Lion itself.

**Expected New Expenses (Year 1) = \$73,000**

\$22,500 - Ship's Interpreter x 1 (3/4 of the hours dedicated to Sea Lion education programs)

\$35,000 - Ship's Educators x 2 (1/2 of the hours dedicated to Sea Lion education programs)

\$6,500 - Contractor Educators as needed (120 days x 4 hrs/day x \$13/hr.)\*\*\*

\$8,000 - Teaching Equipment\*\*\*\*

\$1,000 - Teaching Supplies

**Expected Profit (Year 1) = \$75,000**

\*\*\* Contractor Educators brought in for large groups and for nontraditional hours (afternoons/evenings/weekends). This number was based upon one Contractor for 120 days, but may consist of fewer days with multiple Contractors or more hours per day.

\*\*\*\* For Year 1, Teaching Equipment funds will be for a one-time purchase of items for the basic programs. Purchases in subsequent years will be for replacement and enhancement only. Teaching Supplies are yearly expenses for non-reusable items.

Note: Expected profits for the initial year will be less than expected in subsequent years. Startup costs include teaching equipment and training of staff and Contractors. Successful print and word-of-mouth marketing of this option will enhance future booking potential. Enhanced promotions, advertisements and fliers, Teacher In Services, free introductory tours, and Sea Lion Days holiday events will be used to promote the new programs and offerings.



## Site Enhancements Necessary to Meet Target Income

### Site Enhancements Necessary to Meet Target Income

Enhanced promotions, advertisements and fliers, Teacher In Services, free introductory tours, and Sea Lion Days holiday events will be used to promote the new programs and offerings.

Civil War Site: Within the currently developed colonial site resides a Civil War site worthy of preservation, enhancement and interpretation. Henricus staff has positively identified approximately 10 Civil War graves once occupied by United States Colored Troops who performed a majority of the labor in 1864-1865 under the command of General Benjamin Butler. Their mission was to cut through the James River to allow better access to Richmond by Federal Troops while simultaneously by-passing Confederate gun emplacements. As one of the only major USCT sites known, the area ought to be protected and promoted. This interpretive venue will be open to the public 6 days per week and possibly 7 depending upon demand.

Additional Henricus staffing needs for Civil War site include 2 historical interpreters x \$30,000 each = \$60,000 per annum.

Enhanced Virginia Indian Site: Woodland Indians most commonly occupied areas in close proximity to waterways for hunting and gathering, agriculture, travel and trade. The current site at Henricus is small and far removed visually from the river. During most of the year the James River is not visible from the site even though the site itself is only a matter of about 50 yards from the banks of the James River. The current master plan enlarges the site and shifted its location down a significant embankment for better interpretation and education programs. The larger area will allow for significantly more students and general visitors to Henricus, many of whom travel to Henricus specifically to experience Indian life in 17th century Virginia. At present, approximately 75% of booked school field trips to Henricus involve programs about Virginia Indian life. This shift also connects the Indian site with the River Commerce and Sea Lion Exhibit area. This interpretive venue will be open to the public 6 days per week and possibly 7 depending upon demand.

### Other Programs

Arrohateck Expansion Educational Programs

Henricus Historical Park for Native American Culture and Life ways Education

Expansion of Arrohateck:

Bookings for our SOL-aligned programs on Virginia Indian history, using the re-created village of Arrohateck, currently accounts for 75% of our educational programming. Demand for these programs currently exceeds our ability to serve the requisite number of students.

These programs, which take place in Arrohateck, would include History Kids/Indian (Pre-K – K), People of the River (grades 1 – 5), Two Lives of Pocahontas (grades 4 – 6) and Powhatan People of the James River (grade 8).

Expanding both the square footage and the living spaces within an “enhanced” Arrohateck will allow for more students for existing programs to be accommodated at the same time. Currently, we can handle 3 rotations of 30 students per hour (90 per hour). With additional space, staff and living areas (yehakins, fire pits, ramadas, gardens, canoe & netting areas, etc.) we can add one or more additional rotation (30 – 60 additional students per hour).

The creation of new themed Indian-era programs will re-enact historical scenes, provide programming that focuses on specific rather than general topics, and add famous-people orientations.

Add new interpretive sections that are not currently in existence:

- Tool/pottery making areas and ongoing yehakins building

- Hunting skills areas

- River use sections with canoes, canoe making, fishing/fish drying/trading activities

- Areas for Indian and English interactions

- Governmental and religious areas

- Additional yehakins constructed for different uses and family structures

- Additional gardening space to plant more varieties of native and farmed foods

- Additional cooking areas



## Site Enhancements Necessary to Meet Target Income

**Additional Income: Expected Profit (Year 1) = \$32,000**

\$18,000 - Provide additional programming for Elementary Levels (additional 60 students per hr. x \$6 per student x 1 hr. x 50 days)

\$14,400 - Provide additional middle school to high school programming (60 students per hr. x \$6 per student x 2 hr./day x 20 days)

**Additional Henricus staffing needs for Virginia Indian Site = \$60,000) per annum**

2 historical interpreters x \$30,000 each

### Dutch Gap Wetlands Walkway

A very popular wetlands walkway connecting Henricus with the Dutch Gap boat landing area deteriorated and was finally destroyed because of age. The walkway served as an educational tool and recreational space and was identified as a priority for reestablishment. The programs will interpret the natural history of the conservation area and its relationship to the cultural history. Interpretation focuses on the theme of “A Changing Landscape” which was developed with the Gateway Project (National Park Service). Interpretive themes include the interconnectedness of the James River and the Chesapeake Bay; the types, functions and values of wetlands; the geological change of landscape and the human change in landscape; the history/evolution of people and cultures; and wildlife and culture of the river.

### New Education and Visitor’s Center

As Henricus and Dutch Gap grow in popularity, so do the program offerings. Each year, Henricus hosts over 23,000 area school children and that number increases each academic year. The limitations on continued growth have less to do with physical outdoor accommodations than they have to do with staff ability to keep up with the demand. In addition, Henricus hosts a number of special events that require indoor facilities. The addition of buildings like the church/meeting hall combined with more emphasis being placed on special events like weddings and business retreats portends the need for larger and more easily accessible climate controlled space.

### Existing Buildings

It was determined that the existing administration and education building could be converted to offices while the new building would serve to provide classrooms, multi-use space, science labs, storage, some additional offices along with a new gift shop, static display areas and enhanced visitor services such as small orientation theaters. The existing administration and education building simply could not meet the capacity requirements necessary to accommodate multiple classes simultaneously or host single events with more than 125 attendees comfortably or legally. However, the existing building seemed well suited to house additional offices on the first floor to include the anticipated increased staff requirements associated with growing visitation and program diversification. The new building would be designed to serve Henricus indoor education needs and Dutch Gap naturalist education and research needs. The centerpiece of the new building would be the 3,000 square foot multi-purpose area capable of being partitioned into 3 separate 1,000 square foot classrooms suitable for hosting an average school classroom of children in each partitioned area.

### Uses of Education & Visitor’s Center Building

Currently, most of our group-scheduled programs occur outdoors in the historic sites. We now have only one main room that can be used as a classroom (in the Administration Building). It has competing uses: for inclement weather programs, for indoor-designed programs, for Board meetings, for rentals. Adding an Education Building to Henricus Historical Park can do the following: add classrooms, a film theater, history exhibition hall, environmental displays, and indoor assembly space.



### Site Enhancements Necessary to Meet Target Income

#### **Estimated Additional Income Generated through use of Education & Visitor's Center Building**

Inclement Weather Programs – move programs indoors to facilitate running of programs without cancellation.

\$5,000 - Income recovered – currently approximately 20% of our income is lost due to weather related cancellations of programs.

New Indoor SOL-aligned Programs (for science, environmental, language arts and math programs)

\$12,000 - Additional Income – from new indoor programs

New Special Event Group Programs

\$12,000 - Additional Income

Adult Classroom Programs

\$7,000 - Additional Income

**Expected Profit (Year 1) = \$36,000**

#### **Additional Henricus staffing needs for new education & visitor's center combined (not including interpreters):**

1 visitor's center representative x \$30,000 each = (\$30,000) per annum

2 educators x \$30,000 each = (\$60,000) per annum

1 administrative/clerical employee x \$25,000 each = (\$25,000) per annum

#### **Additional Chesterfield County Parks and Recreation Department staffing needs:**

Provide 3 outdoor natural history program educators with proposed funding for these positions provided by Chesterfield County Parks and Recreation.



## Comprehensive Staffing Requirements

### Summary of Current and Proposed Additional Staffing

Henricus Historical Park is open to the public 6 days per week, with Mondays being the only day the historic citie and the visitor's center are closed to the public. Henricus administration and education staff works Monday through Friday, while Henricus historical interpretation staff works Tuesday through Sunday. The Dutch Gap Conservation Area is open to the public 7 days per week at no charge from 8:00 a.m. until dusk (closing time varies depending upon the time of year). All Henricus employees are required to attend and participate in special events and programs which take place at Henricus throughout the year primarily on weekends.

Because the historic citie and the visitor's center are open 6 days per week, each associated interpretation and visitor services position requires 1.5 employees in order to be covered properly. It is anticipated that as demand for Henricus services continues to grow that the historic citie may begin 7 days per week operations. Administration and education positions currently require a 1:1 employee to position ratio and this is not anticipated to change.

At present, the Henricus Foundation also contracts with 2 independent contractors involved with media relations and development/fund raising efforts and they are included in this discussion of staffing requirements as current staff even though they are not Chesterfield County employees.

As noted within each discussion section of the master plan, increased facilities, site footprint, programming and visitation requires more administration, education, interpretation and visitor services employee coverage. At present, Henricus Historical Park employs 16 full time and part-time employees through Chesterfield County. The Henricus Foundation also employs 2 independent contractors described above. Chesterfield County Parks and Recreation currently employs 1 full time naturalist at Dutch Gap Conservation Area with an office in the existing administration building. It is anticipated that full implementation of the master plan and strategic plan as currently drafted will require combined staff level increases from 19 presently to 35 once completed. The total additional investment in Henricus staff will be approximately \$355,000 not including three additional outdoor naturalist positions which will be funded and managed separately by Chesterfield County Parks and Recreation. This figure may be impacted by employee status as full time or part-time and the number of hours associated with each position.

16 current full time and part-time Henricus/Chesterfield County positions as of May 2012

2 current independent Henricus Foundation contractor positions as of May 2012

1 current full time Chesterfield County Parks and Recreation naturalist position as of May 2012

### Summary of All Proposed New Staffing (includes all positions discussed above):

1 clerical/administrative position x \$25,000 each = (\$25,000) per annum

2 education positions x \$30,000 each = (\$60,000) per annum

8 interpretation positions x \$30,000 each = (\$240,000) per annum

1 visitor's services position x \$30,000 each = (\$30,000) per annum

3 Naturalist positions funded by Chesterfield County Parks and Recreation



## Comprehensive Staffing Requirements

### Summary of Current and Proposed Additional Staffing

18 total current full time and part-time Henricus & Henricus Foundation positions as of May 2012 (including 2 independent Foundation contractors, but not including Dutch Gap naturalist)

\$535,000 in current fulltime and part-time Henricus staff positions (not including Dutch Gap naturalist)

\$150,000 in wages and expenses for 2 independent Henricus Foundation contractors

13 total new full time and part-time Henricus & Henricus Foundation positions as of May 2012 (not including 3 proposed Chesterfield County Dutch Gap naturalists)

\$355,000 in new full time and part-time Henricus positions (not including 3 proposed Chesterfield County Dutch Gap naturalists)

\$1,018,000 total in current and new Henricus & Henricus Foundation positions (not including 3 proposed Chesterfield County Dutch Gap naturalist positions which will be funded by Chesterfield County Parks and Recreation)

### General Operations:

Facility and site usage will more than double when the master plan and strategic plan are fully implemented. Based on the current operational requirements associated with county services and those paid directly by The Henricus Foundation, it is anticipated that general operating expenses will rise from \$140,000 per year presently to approximately \$325,000 per year. This is based on the operation of the planned visitor's center, the increased use of the existing administration building, the normal use of resources by a larger staff, maintenance and cleaning.

(\$1,343,000) total annual operating expenses (not including 3 Chesterfield County Dutch Gap naturalist positions which will be funded by Chesterfield County Parks and Recreation)

Overall operational impact of implementation of the 2012 master plan and strategic plan

(\$355,000) in new payroll expenses

(\$185,000) in new operating expenses

(\$540,000) total in new annual expenses

\$291,000 total in projected new education income (does not include general site visitation revenue)

(\$249,000) total per year new operating deficit (approximately 36,000 additional general site visitors required at \$7.00 average per visitor to break even)



## Major Maintenance Costs

henricus master plan													
COST ESTIMATING MAJOR MAINTENANCE /REPLACEMENTS				2011 base year 400th									
1-May-13					major maint all ex facilities								
		base	task			quantity							
item	description	year	interval	cost	total cost	number of units	FY15	FY16	FY17	FY18	FY19	FY20	FY21
							86030	110714	15000	0	0	25000	75000
<b>FIVE YEAR INTERVAL TASKS</b>													
uhakgans -posts	ea - locust	2011	5	10000	30000	3		30000					
			5		32338			32338					
gravel pathways	regrade and 1" topdress per sy	2011		5	20924	4185							
gravel driveway	regrade and 2" topdress per sy	2011		10	11413	1141							
thatch roofs - repair and fire retardent	adjust reeds/spray per sy	2011	5		35877	7		35877					
court de guard		2011		40	1354	34							
church		2013		50	9400	188							
first house		2011		40	902	23							
protors house		2011		40	1880	47							
barn		2011		50	6768	135							
rock hall		2011		50	6549	131							
mt malady		2011		50	9024	180							
exterior painting			5		12500			12500					
the ordinary	caulk and [2] costs pitch tar	2011		5000	5000	1							
rocke hall	caulk and [2] costs pitch tar	2011		7500	7500	1							
<b>TEN YEAR INTERVAL TASKS</b>													
wood shingle roofs	remove and replace per sf				26030	4							
guard tower		1990		10	2030	203	2030						
blacksmith		2000		10	8000	800	8000						
woodworking barn		2002		10	6000	600	6000						
ordinary		2007		10	10000	1000			10000				
palisades - tree posts	locust per lf	2011	10	50	12500	250							12500
waddle and daub - replace	remove and replace		10	10000	52500	5							
court de guard		2011		7500	7500	1							7500
church		2013		15000	15000	1							
first house		2011		5000	5000	1							5000
protors house		2011		10000	10000	1							10000
mt malady		2011		15000	15000	1							15000



## Major Maintenance Costs

item	description	base year	task interval	cost	total cost	quantity number of units	FY15	FY16	FY17	FY18	FY19	FY20	FY21
<b>interior painting</b>			<b>10</b>										
admin building	caulk and [2] coats	2000		15000	15000	1	15000						
the ordinary	caulk and [2] coats	2007		2500	2500	1			2500				
rocke hall	white wash	2007		2500	2500	1			2500				
<b>FIFTEEN YEAR INTERVAL TASKS</b>													
uhakgans -skin	ea - vinyl skin	2011	15	10000	30000	3							
palisades - small pale	oak per lf	2011	15	60	36000	600							
<b>HVAC replacement</b>			<b>15</b>		<b>40000</b>								
admin buidling	system, less ducts	2000		35000	35000	1	35000						
gift shop and restrooms	system, less ducts	1995		5000	5000	1	5000						
<b>exterior painting</b>			<b>15</b>										
admin building	caulk and [2] costs stain	2000		15000	15000	1	15000						
<b>TWENTY YEAR INTERVAL TASKS</b>													
palisades -large pale	oak per lf	2011	20	100	25000	250							
<b>asphalt pathways</b>	<b>1.5" overlay per sy</b>	<b>2011</b>	<b>20</b>	<b>10</b>	<b>4444</b>	<b>444</b>							
<b>HVAC replacement</b>			<b>20</b>										
mt malady	system, less ducts	2001		25000	25000	1							25000
the ordinary	system, less ducts	2007		15000	15000	1							
the church	system, less ducts	2013		20000	20000	1							
roof replacement -admin building	30 fiberglass shingle and flashing	2000	20	25000	25000	1						25000	
<b>THIRTY YEAR INTERVAL TASKS</b>													
thatch roofs -remove and replace	12" depth per sy		<b>30</b>		<b>308571</b>	<b>7</b>							
court de guard		2000		375	12690	34							
church		2013		425	79900	188							
first house		2000		375	8460	23							
protors house		2001		375	17625	47							
barn		2001		425	57528	135							
rock hall		2011		425	55664	131							
mt malady		2002		425	76704	180							

item	description	base year	task interv	cost	total cost	quani ty	FY15	FY16	FY17	FY18	FY19	FY20	FY21
<b>claboard oak siding</b>	<b>remove and replace per sf</b>		<b>30</b>		<b>121500</b>	<b>4</b>							
woodworking barn		2002		18	22500	1250							
barn		2002		18	27000	1500							
rocke hall		2011		18	27000	1500							
the ordinary		2007		18	45000	2500							









## Acknowledgements





**Henricus Historical Park is managed in a regional partnership of  
The Henricus Foundation, Chesterfield County and Henrico County.**

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Citie of Henricus and Dutch Gap Conservation Area:

Jay Stegmaier, Chesterfield County Administrator

Dorothy Jaeckle, Bermuda District Representative, Chesterfield County Board of Supervisors

**Thanks to the Henricus Foundation Board of Trustees for their support and dedication during the master planning process.**

John Siddall, Chair

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Charles L. Grant, Executive Director

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Bruce Fowler, Strategic Planning Committee Chair  
George Drumwright, Henrico Deputy County Manager  
Mike Golden, Director, Chesterfield County Parks & Recreation  
Wayne Adkins, Henricus Foundation Board of Trustees  
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Text and photographs have been utilized for this document with permission from the  
Henricus Historical Park and Dutch Gap Conservation Area websites.









## Appendix





### The Sea Lion Project



Two farmers from New York, John Cheney and Ernest Cowan attempted a reconstruction of the 16th century ship using plans obtained from England. The Sea Lion, originally constructed in 1585, stretched 65' long with one mast that stood 58' tall. In the late 1970's, Cheney and Cowan cut their own wood for the construction. White oak planks as long as 65' were used for the hull and ribs and white pine was used for the three masts. With financing troubles looming, the ship was unfinished and left afloat on Chautauqua Lake until it was sold to the Buffalo Maritime Society for one dollar in 1992.

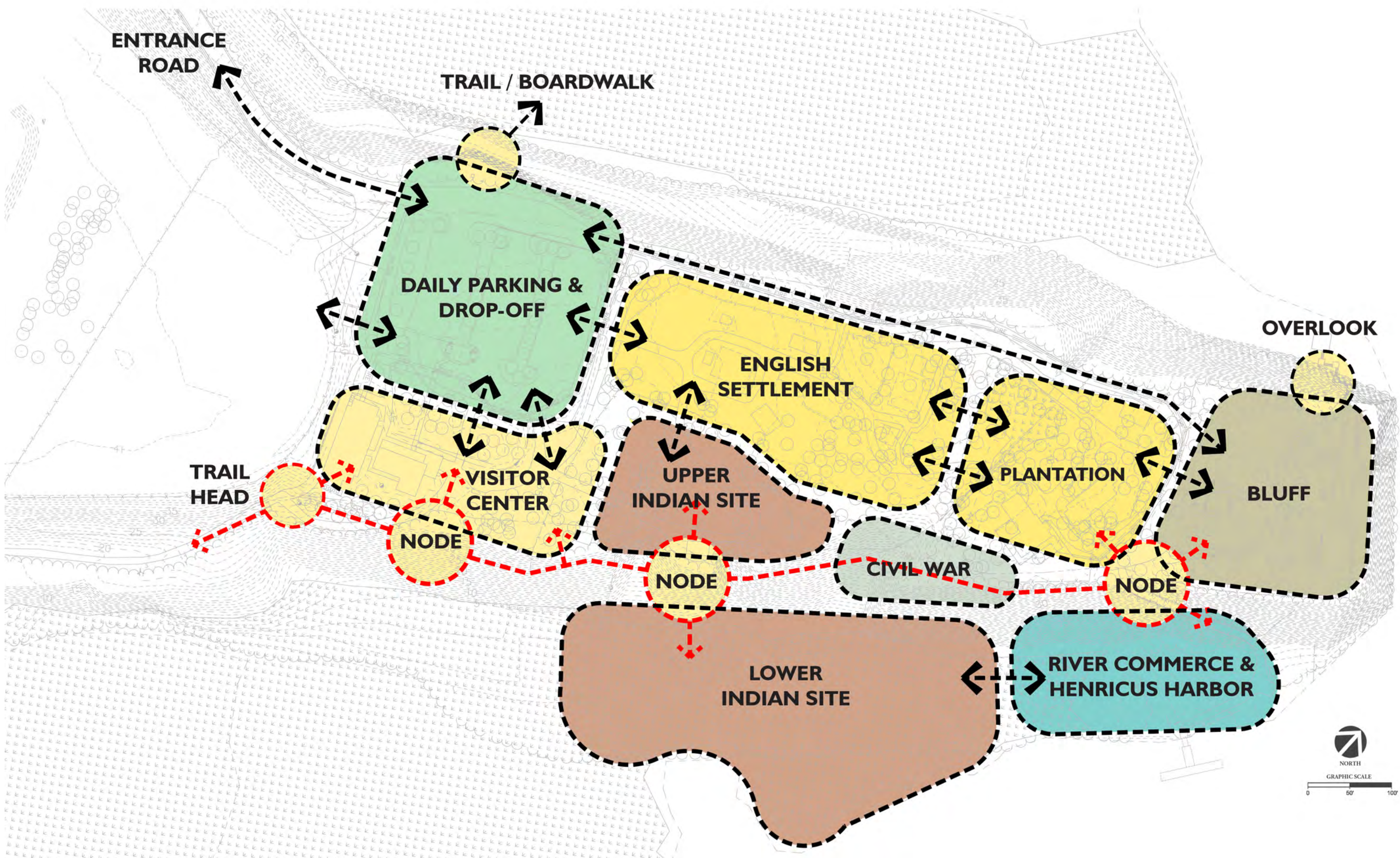
Under the Maritime Society supervision, the Sea Lion sunk to the bottom of Buffalo Harbor on Lake Erie during a storm in January of 1999 and for two years, the ship sat at the bottom of the lake. After the Sea Lion Restoration group banded together and resurrected the boat from the lake bottom, plans came together to restore what was left of the ship. Slowly, the ship is coming back to life with plans to seal it with tar and outfit it with fresh paint and sails made from linens. With the expertise on hand, the Sea Lion could once again become a historically accurate replica of the 16th century ship. The goal for the incorporation of a River Commerce Exhibit at Henricus Historical Park is to target the local audience that would opt to have their educational programs at Jamestown due to the existing ship exhibits.

The Sea Lion would become an integral part of school programs, camps, camp-ins, public events, and teacher institutes. The creation of new camps based on the Sea Lion would be a priority. Each public event would target interpretation and programming around the Sea Lion.

Partnering with the Sea Lion Project, Henricus Park is seeking an opportunity to bring the ship south to Virginia in hopes of creating a dry dock display and adding tremendous value to the park experience. The Sea Lion Project would still retain ownership of the vessel and need to make initial repairs to get the vessel in place at Henricus. Insurance for the ship would be the responsibility of the Sea Lion Project with others coinsured.

The value of the Sea Lion at Henricus Park is in the educational benefit, increased attendance, and school group excitement. The Sea Lion will be the beginning of a valuable river commerce exhibit at the park.







Concept Plan Alternative A

Key Features

Parking lot decreases in size, allowing more room for an expanded building program. A parking agreement with Dominion for perpetual use of the fly ash lot would be necessary.

Visitor's center is large and prominently located with expansive gathering spaces and a restaurant detached.

Existing gift shop and office buildings would remain.

Entrance monument at gateway to be prominent and impressive.

English Settlement remains intact as it stands today with minor modifications.

Indian Site is expanded in the current location to maximize the space available. More dwellings and exhibits are added and circulation throughout is enhanced.

Civil war exhibit enhanced through use of new boardwalk.

Bluff area to remain undisturbed.

Existing dock area to remain undisturbed and in current condition.

New Henricus harbor and river commerce exhibit to be constructed in low lying wetland area. Dry dock display also incorporated.

Low lying trail would connect to the conservation area trail and primary access to harbor exhibit would be from the bluff and new overlook area.

Emergency vehicle and maintenance access drive would remain as existing with the addition of an enhanced turnaround area.

Example Overlook



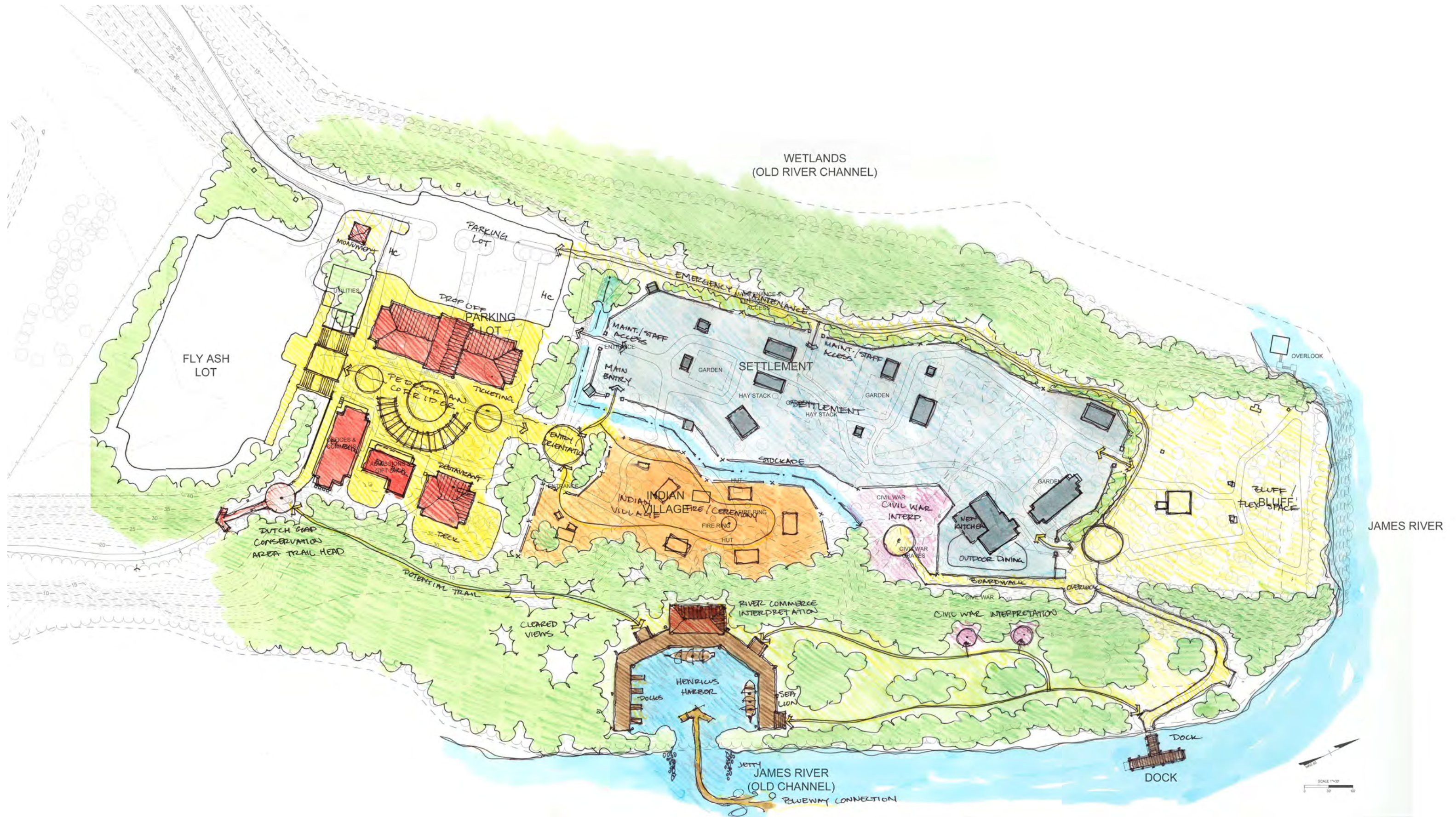
Example Dry Dock Display



Example Pedestrian Gathering Space









Concept Plan Alternative B

Key Features

Existing parking lot is removed, allowing greatest potential for an expanded building program. A parking agreement with Dominion for perpetual use of the fly ash lot would be necessary on a daily basis and a portion might need to be paved.

The fly ash lot would have a new entrance connection down to the Dutch Gap Conservation area for direct access for visitors only experiencing this portion of the park.

Visitor’s center is large and prominently located with expansive gathering spaces, a restaurant, and an exterior classroom / pavilion.

Existing gift shop and office buildings would remain.

Entrance monument at gateway to be prominent and impressive.

English Settlement remains intact as it stands today with minor modifications.

An outer English Settlement would be established as an enhanced entrance experience into the existing English Settlement.

Indian Site is completely relocated to the low lying area with a more direct relationship to the river. There would be more room for expansion and space for live interpretation.

A central spine and boardwalk will lead visitors from the new visitor’s center and gift shop out into the various exhibits. The spine will be a cantilevered boardwalk on the edge of the raised peninsula that allows for many opportunities to interpret history, ecology, and culture with overlooks, signage, and technology. An access down to the expanded Indian Site will allow a direct route to and from the low lying area.

Civil war exhibit interpreted along the central spine and boardwalk.

Bluff area to remain undisturbed.

Existing dock area to remain undisturbed and in current condition.

New river commerce exhibit to be constructed at the base of the slope adjacent to the existing dock and shall interpret a vessel through use of a dry dock display and other river commerce exhibits.

Emergency vehicle and maintenance access drive would remain as existing with the addition of an enhanced turnaround and overlook area.

A boardwalk and nature trail will connect the existing parking lot area to the future boat ramp expansion at Dutch Gap.

Example Pedestrian Gathering Space



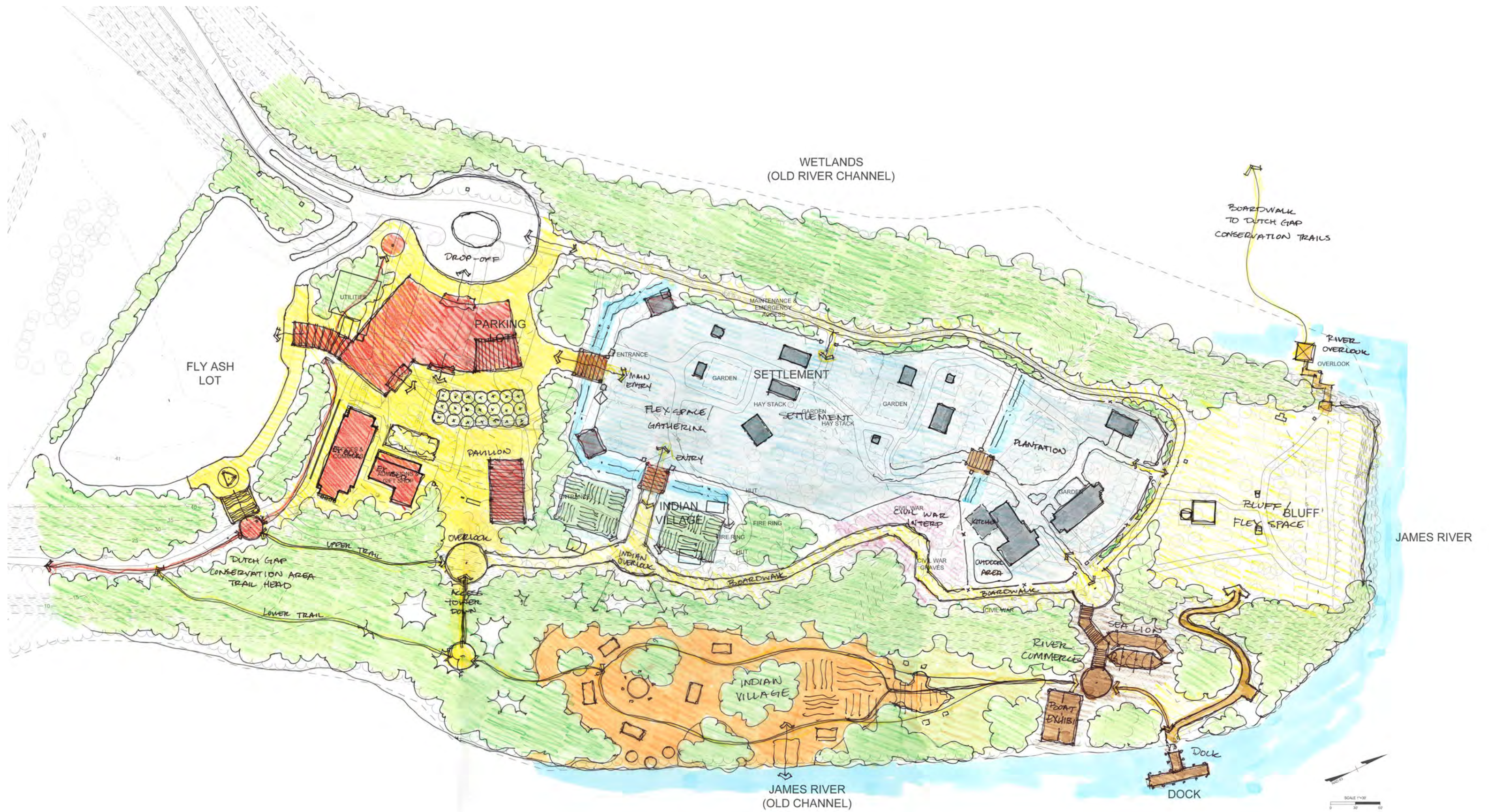
Example Boardwalk and Overlook



Example Dry Dock and River Commerce Interpretation









Concept Plan Alternative C

Key Features

Existing parking lot size is decreased and reoriented to better front a new building. Parking agreement with Dominion for perpetual use of the fly ash lot would be necessary.

The fly ash lot would have an expanded entrance staircase leading to the outdoor space by the new visitor’s center and existing buildings. The access to the Dutch Gap Conservation Area would be reoriented so that on must enter through the main plaza space before heading to the trail.

Visitors center is built as two large and prominently located buildings with expansive gathering spaces and a formal ticketing and central exhibit entrance space.

Existing gift shop and office buildings would remain.

English Settlement is expanded over the existing Indian Site footprint, allowing for maximum growth and interpretation of the settlers. A pavilion would be added inside the English Settlement as an outdoor classroom and interpretation point for hot and sunny or inclement weather days.

Indian Site is completely relocated to the north-west side of the relic river channel and a boardwalk across the marsh would connect the area to the main park.

A boardwalk will lead visitors from the expanded English Settlement out into the various exhibits and will connect back into the English Settlement near the bluff. One access tower at each end of the boardwalk will afford ADA access to the river commerce exhibit and low lying areas.

Civil war exhibit will be interpreted along the boardwalk and overlook area.

Bluff area to remain other than the addition of an event space and pavilion or amphitheater. This will act as a large gathering space for peak attendance days or performances and weddings.

Existing dock area to remain undisturbed and in current condition.

New river commerce exhibit to be constructed in the low lying area and shall interpret river commerce along the James through several exhibits connected by a loop trail.

Emergency vehicle and maintenance access drive would remain as existing with the addition of an enhanced turnaround and overlook area.

A boardwalk and nature trail will connect the existing parking lot area to the future boat ramp expansion at Dutch Gap.

Example Boardwalk and Interpretive Signage



Example Indian Site Interpretive Exhibit



Example Pedestrian Access Tower





