



Site



Building



Exhibits



Richard M. Nixon County Park Master Site Plan

Springfield Township and Jacobus Borough, York County, Pennsylvania

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Richard M. Nixon County Park Master Site Plan

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Richard M. Nixon County Park Master Site Plan

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Chapter 1 - Background Information

Introduction

This planning project provides a vision for an enhanced Richard M. Nixon County Park. Richard M. Nixon County Park is the home of the Nixon Nature Center and the primary destination for environmental education in York County. The park is located in Springfield Township and Jacobus Borough, York County, Pennsylvania. The initial park land of 143 acres, was donated in 1968, through a gift from the Bob Hoffman family. The Nature Center building was constructed in 1978 and opened to the public in 1980. An addition to the Nature Center was built in 1992 to house a collection of specimens donated by William Koller. Over the years, additional acres were added to the property for a total of 187 acres.

The master plan addresses the park site, the nature center building, and the educational exhibits in the building. The master plan illustrates the future vision for the park, nature center, and exhibits to respond to the recreation and environmental education needs and interests of residents.

Planning Process

The Richard M. Nixon Park Master Plan planning process included five parts:

1. Inventory and Assessment
2. Public Participation
3. Master Plan
4. Costs and Implementation
5. Programming, Maintenance and Financing

1. Inventory and Assessment

The natural resources and existing features of the park site were viewed and assessed throughout the four seasons of 2014. Natural resources and site features were evaluated, visitor use patterns were observed, and site opportunities and constraints were explored. The municipal and regional setting was investigated to consider surrounding land uses, potential and existing linkages, and other influences on the park site. The nature center building and educational exhibits were reviewed.

2. Public Participation

Citizen and stakeholder input was sought throughout the planning process to broaden the consultant teams' understanding of how the park and nature center are used, investigate citizen's recreation and environmental educational needs and interests, and explore opportunities and issues associated with the park and its use. Public input was gathered by working with a study committee, completing interviews with stakeholders, holding two forums, and conducting two public meetings.

3. Master Plan

Conceptual alternative designs were developed to illustrate different approaches to enhancing and further developing the Richard M. Nixon Park site to achieve the goals of the community. Preliminary architectural studies and exhibit designs were developed to address facility and environmental education goals. The study committee reviewed the conceptual alternatives and preliminary designs and provided direction for the preparation of the pre-final designs. The master plan for Richard M. Nixon Park was finalized based on the findings and conclusions of the planning process.

4. Costs and Implementation

Probable construction cost opinions for implementing the master plan were completed for the site work. Implementation strategies and considerations were identified.

5. Programming, Maintenance and Financing

Park programming, operation and maintenance are the most significant lifetime costs of a park. Recommendations for operations, maintenance, management, and financing the park improvements were defined for Richard M. Nixon County Park.

Richard M. Nixon County Park

Richard M. Nixon County Park is part of the York County, Pennsylvania park system. York County is located in southcentral Pennsylvania and the park is located in Springfield Township and Jacobus Borough. The park site has frontage on Valley Road and Nixon Drive. The park site extends into the hollow that contains a tributary to East Branch Codorus Creek. The park offers a diverse setting for nature exploration and passive recreation. The woodlands and meadows are popular hiking areas and the small pond, wetlands, and stream offer aquatic study habitat. The Nature Center is popular with school groups, home-schoolers, and scout groups. The Nature Center offers two general exhibit themes: Pennsylvania natural history and world natural history.

Background and History

York County (Summarized from the York County website)

York County was founded in 1749 when it separated from Lancaster County. Lands west of the Susquehanna River were secured from native Indians through agreement with William Penn. York County grew as part of the westward migration and settlement of the nation. The City of York was laid out in 1741.



York became the center of American government in 1777 and 1778 when the Continental Congress governed the United States from York Town. The Articles of Confederation, the precursor to the U.S. Constitution, were drafted in York. York County has grown from a small settlement to a County of nearly 435,000 residents in 2010. York County is known for its agricultural and industrial heritage.

York County Department of Parks & Recreation

(Summarized from the York County website)

The York County Department of Parks & Recreation is part of the York County Government and is governed by the York County Board of Commissioners. The York County Advisory Board of Parks & Recreation works with the York County Department of Parks & Recreation Executive Director and staff to maintain and preserve the 11 parks in the system. The York County Parks Foundation Charitable Trust oversees monies that are donated to the parks for park enhancements. The York County Board of Commissioners established the Parks & Recreation Department in 1968 to provide activities and acquire, develop, maintain and preserve lands for future generations to enjoy. The park system includes over 4,300 acres of protected parkland.

Mission Statement:

York County Department of Parks & Recreation enhances the quality of community life acting as a steward for the environment. In this capacity, it acquires, conserves, and manages park lands and offers a variety of recreational and educational opportunities.

Vision Statement:

York County Department of Parks & Recreation strives to be the county leader in environmental conservation, preservation, and education. Programs and projects in these areas reflect sound management and stewardship principles and a strong organizational commitment to innovation and public service.

Values Statement:

As steward of the County's park lands, the York County Department of Parks & Recreation:

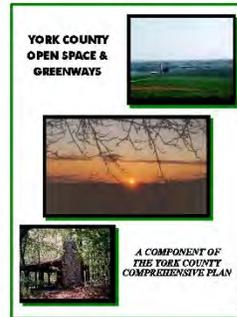
- Creates customer-friendly environments
- Provides a diversity of natural areas to promote passive recreation
- Conserves and interprets the natural and historical aspects of park resources
- Listens and responds to park users
- Encourages safe and responsible use of park resources
- Strives to maintain the highest level of professionalism
- Enters into partnerships and pursues networking
- Promotes and honors volunteer participation
- Fosters innovation and creativity in fulfilling mission responsibilities
- Cultivates new sources of support and funding

Local and Regional Planning Initiatives

The following local and regional planning initiatives were referenced as part of the planning process for the Richard M. Nixon County Park Master Plan.

York County Open Space and Greenways Plan, 2006

The first goal of the 2006 York County Open Space and Greenways Component of the York County Comprehensive Plan is to provide a vision for a coordinated and comprehensive system of open space and greenways. Within that vision, opportunities will be provided to enhance community identity and vitality and encourage connectivity in York County. The second goal of the Plan is to support the maintenance and enhancement of open space and greenways throughout York County in an effort to improve the quality of life for County residents. Data from the 2001 municipal inventory survey identified recreation areas and open space as a basis for assessing opportunities and challenges from local, County and regional perspectives. The plan recommends a system of interconnecting greenways along natural areas and stream corridors. The greenways or "Spokes" will connect major existing features, destinations of a region or "Hubs" with developed areas and can be used for hiking, biking, nature study, and other activities. The county parks are "hubs" within the proposed system.



York County Trail Plan, 2011

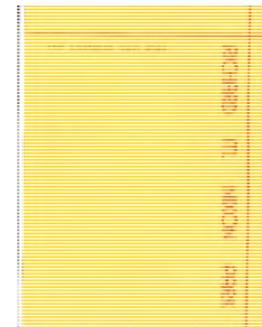
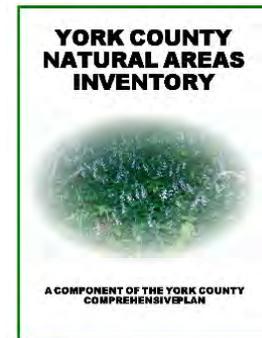
The York County Trail Plan identifies the Hollow Creek Greenway as a multi-use trail connecting to Richard M. Nixon County Park. Nixon County Park and William Kain County Park are identified as "Area of Local Trail Network".

York County Natural Areas Inventory

The Natural Areas Inventory (NAI) report presents York County's known outstanding natural features to include flora, fauna and geologic areas. No animal or plant species or geologic areas of special concern (endangered, threatened, or rare) were identified in Richard M. Nixon County Park.

Richard M. Nixon Park - Nature Center Development Plan, 1973

The Nature Center Development Plan was developed by the National Audubon Society. It explored the feasibility and concept of developing the original 150 acre Hoffman tract into a County Park with an environmental education focus. Recommendations include developing the site as a nature park for non-consumptive forms of recreation with a modest interpretative building.



York County Park System – Wildlife and Forestry Management Plan, 2002

This Plan is a guide for natural resource management for the York County Parks, including Richard M. Nixon County Park. The Plan addresses nuisance wildlife (white-tailed deer, resident Canada geese), other wildlife management issues, habitat management, forest management, multi-use trails, and environmental education.

Demographics

The population data and projections for York County and Jacobus Borough and Springfield Township are listed on the next page. The population of the two municipalities that include Richard M. Nixon County Park have increased significantly over the previous decade, at a greater rate than the County as a whole. This growth has placed significant burden on the park facilities to meet the needs of the growing school age population. The population projections for the County and two municipalities suggest that the population will continue to grow, but the rate of growth will decline to single digits. This suggests an ongoing need for expanded environmental education and passive recreation amenities and opportunities.

The County as a whole is getting older with the median age increasing by 2.3 years between 2000 and 2010. This indicates the need for recreation opportunities for residents to enjoy throughout their lifetime, including older residents. The passive recreation and environmental education opportunities offered at Nixon County Park will continue to be popular as they are enjoyed by all segments of the population.

While the school-age population has decreased slightly between 2000 and 2010, the importance of Nixon County Park and the environmental education opportunities offered will continue to grow

as school districts look beyond their own facilities to provide curriculum-based experiences in a cost effective manner.

York County is a relatively homogenous community with 88.5 percent Caucasian in 2010. African Americans make up 5.6 percent of the population, and Latino population is 5.6 percent.

York County/Jacobus Borough/Springfield Township Population Data						
County/ Township/ Borough	2000 Population	2010 Population	Percent Change	2020 Projection	2030 Projection	2040 Projection
York County	381,751	434,972	13.94%	464,424	504,958	542,340
Jacobus Borough	1,203	1,841	53.03%	1,857	1,894	1,913
Springfield Township	3,889	5,152	32.47%	5,410	5,680	5,964

Source: Population – U.S. Census Bureau, Population Projection – York County Planning Commission

York County Age of Population 2000-2010		
Age Group	2000	2010
Under 5 yrs.	6.1%	6.1%
5 – 19 yrs.	21.0%	19.9%
20 – 44 yrs.	35.4%	31.2%
45 – 59 yrs.	19.9%	22.8%
60 – 74 yrs.	11.2%	13.4%
75 – 84 yrs.	4.8%	4.6%
85 yrs. +	1.6%	1.9%
Median Age	37.8 yrs.	40.1 yrs.

Source: U.S. Census Bureau



Chapter 2 - Public Participation

Introduction

Public participation was a key component of the planning process for the Richard M. Nixon County Park Master Plan and includes four components: a study committee, stakeholder interviews, forums, and public meetings.

Study Committee

York County appointed a study committee that included York County Department of Parks & Recreation staff, representatives of the York County Advisory Board of Parks & Recreation, Director of York County Planning Commission, park volunteers, and a representative of the Dallastown School District. The study committee was very familiar with Nixon County Park and was tasked with steering the development of the master plan and working with the project consultants. The study committee provided input throughout the planning process and attended committee and public meetings.

Key Person Interviews

The consulting team conducted key person interviews to obtain input regarding the current use of Nixon County Park, environmental education programs and exhibits, and other information to inform the planning process. Input was gathered from representatives of park staff, volunteers, York County Parks Foundation, York Heritage Trust, visitors and others. Interviewees were provided a brief background on the project and asked questions relative to their expertise or program and knowledge of Nixon County Park.

Forums

Two topical forums were held to explore specific issues and opportunities associated with Nixon County Park. A volunteer forum was held for members of the York County Parks Trust Board, York County Parks Advisory Board, and Nixon County Park volunteers. A second forum was held for educators who visit the park with school groups. This forum was not well attended and follow-up calls were made to educators.



Public Meetings

Two public meetings were held to present project findings to the public and solicit input at various stages of the design process. The first meeting was scheduled early in the planning process to gather general input from the public regarding their ideas and concerns about Nixon County Park. The meeting was held at the Nature Center and approximately 30 interested citizens attended. Public input from the meeting guided the development of the conceptual

alternative site plans and the preliminary building and exhibit designs.

A second public meeting was held mid-way through the planning process to present the pre-final master plan and preliminary building and exhibit designs for comment. The consultants described the planning process, key findings of the needs assessment, and the park, building, and exhibit designs. Approximately 32 residents attended the meeting. Meeting discussion focused on explanation of the design and suggestions for design enhancements.

The public meetings were promoted through the park newsletter, letters to neighbors, media coverage, municipal websites, outreach to park volunteers and friends, and flyers posted in the nature center encouraging the public to attend and voice their thoughts on the Nixon County Park Master Plan.

Findings of the Public Participation Process

The following summarizes the input and findings of the public participation process.

Parking – Additional parking near the nature center is desired if it can be added without additional clearing of natural areas. School bus parking is not needed in the parking areas at the nature center. The smaller parking area is constructed of porous pavement.

Parking should be provided near the wetlands viewing area to accommodate several cars and one school bus.

Trails – The trails in Nixon County Park are popular and many visitors come to the park to hike the trails and do not enter the

nature center building. A trailhead kiosk would be helpful to orient visitors to the various trails and identify trail length.

The Hollow Creek Greenway will extend through the park along Nixon Park Drive and overland across steep terrain to connect to William H. Kain Park trails. Hollow Creek Greenway is used by equestrians and bicyclists and these users should be limited to the Hollow Creek Greenway trail.

Wetlands Area – The wetlands area is a new addition to the park and introduces an additional ecosystem. Parking will be required at the wetland area due to the distance from the nature center parking and the limited amount of time school groups have at the park.

Playground – Consider a “nature” playground with areas for children to explore nature. A traditional playground is not desired.

Park Aesthetics and Maintenance – The park is well maintained and a beautiful setting.

Project Goals

The following goals were defined for Richard M. Nixon County Park based on the findings of the planning and public participation process.

- Maintain and enhance the park’s beautiful setting.
- Develop opportunities to explore the wetlands located on the newly acquired parcel.
- Provide park and Nature Center amenities and enhancements to meet the environmental education and passive recreation needs of York County residents.
- Enhance and upgrade facilities, address accessibility, and improve park function and the convenience of using the park.



Chapter 3 - Resource Analysis

Introduction

Richard M. Nixon County Park is a 187-acre nature park and home of the Richard M. Nixon Nature Center, a 14,000 square foot structure, serving as the hub of environmental education for York County residents. The park's natural resources are associated with the unnamed tributary and its riparian corridor, the woodlands, meadows, and wetlands. An inventory and analysis of the park's natural and man-made resources was completed early in the planning process and subsequent field work was undertaken to view the park in different seasons. The site analysis focused on the area immediately surrounding the nature center building, the access drive and parking areas and entry area at the intersection of Nixon Road and Valley Road. A detailed study of low-lying wetland area was undertaken, as it relates to the proposed wetland mitigation plan proposed by PennDOT to understand the dynamics of the proposed wetland area and impact on the site. Additionally, consideration was given to blending the proposed wetland improvements into the master plan to expand environmental education opportunities associated with this newly expanded feature. Analysis of the nature center building and nature center exhibits was also completed to provide a comprehensive look at the nature center facility.

A comprehensive resource and facility inventory and analysis is critical to guide park planning. Park inventory and analysis:

- Defines areas that contain sensitive resources that should be protected, buffered, and/or enhanced.
- Considers the ability of resources to sustain and thrive with the continuation, addition, or introduction of public use.
- Explores resources that contribute to the visitor's experience.

- Evaluates man-made features to determine their appropriateness and utility in the park setting and ability to continue to meet user needs in the future.
- Explores the context of the park site and surrounding area/region.
- Investigates potential site characteristics or resources that pose development or use limitations, concerns for health and safety of park visitors, or other concerns.
- Explores existing user patterns, maintenance practices, and functional considerations.
- Explores resources to define if areas or facilities are in compliance with regulations and/or standards of the industry.

Good park design and relevant park master plans are born of a comprehensive resource and facilities analysis. Exploration of Nixon County Park was the first critical step in creating a future vision for the park.

Regional Connections

Springfield Township has developed the 1.5 mile Hollow Creek Greenway extending thru the rural township to neighboring Loganville Borough. The vision for the Hollow Creek Greenway Trail is to provide alternate routes of transportation through the community while expanding recreation. The trail is paved and designed to accommodate multi-use such as bicycles and equestrians. Phase one established a trail head at the southern corner of the Richard M. Nixon Park Site. The trail head contains a twenty car parking area and trail connection to a crossing at Valley Road where the greenway trail begins. A goal of this master plan is to safely route the trail through the Nixon Park site to the adjacent William H. Kain County Park.



Richard M. Nixon County Park Site Analysis

General Site Data

Size / Location – Nixon County Park is approximately 187 acres in size. The park is located in Springfield Township and Jacobus Borough, York County. Access to the park from the Borough of Jacobus is via Valley Road to Nixon Drive.

Surrounding Land Use – Surrounding land use includes suburban residential to the south, agricultural and rural residential to the north and west, and park to the east. The eastern property line of Nixon County Park is contiguous with William H. Kain County Park.

Zoning – The park site spans two municipalities, Springfield Township and Jacobus Borough. In Springfield Township, the park site is zoned Conservation, established to conserve the existing character and permits recreational use. The portion located within Jacobus Borough is zoned R-1 – Low Density Residential, which allows publicly owned parks as a permitted use.

Water Resources

Creek – The unnamed tributary to the East Branch Codorus Creek flows through the park parallel to Nixon Drive. The creek is a narrow water course which winds through the hollow, flowing north past the Nature Center. Chapter 93 of the Pennsylvania Code classifies this section of the East Branch from the outfall from Lake Williams to the confluence of the South Branch as a warm water fishery (WWF). The WWF designation provides for maintenance and propagation of fish species and flora and fauna indigenous to warm water habitat. A large section of the creek corridor near the nature center and south of the parking area was recently rehabilitated and stabilized. The rehabilitated section is performing well. The vegetative stabilization is young but appears well

managed. The stream corridor and associated wetlands at the new property, at the intersection of Nixon Drive and Valley Road is scheduled for rehabilitation in the fall of 2015 as part of the PennDOT wetland mitigation project associated with the I-83, Exit 18 Improvement Project. The wetland mitigation project will completely realign and rehabilitate the stream corridor near the park entrance.



Wetlands – A wetland field delineation was not completed as part of this study. The National Wetlands Inventory (NWI) map was reviewed. Freshwater emergent wetlands are noted in the low-lying area along the creek, near the park entrance. The palustrine emergent wetland notes surface water is present for brief periods during the growing season. A wetland delineation was completed for the PennDOT I-83 work. The PennDOT project will reconfigure the stream and create new wetlands, expanding the capacity for runoff, storage and treatment, creating environmental education opportunities to further the goals of the nature center.

A small pond exists southeast of the nature center building. The pond is convenient to the center and used for aquatic study.



Land Resources

Soils – Eight soil classifications are present on the 187-acre park site, which are characterized on the following chart. Aside from slope, the soils generally pose few limitations for park development with the exception of the Codorus Silt Loam, which occupy the low lying area along the creek. These soils are shallow to water table (18-36”) and prone to periodic flooding. The Mt. Airy and Manor Soils are stony and can contain shallow bedrock. The majority of the native soils in the area of the nature center building, parking area, entrance drive and wetland mitigation area are Codorus Silt Loam. Codorus Silt Loam soils are well drained floodplain soils containing slopes of 0-3%. These native soils will be substantially altered throughout the PennDOT Wetland Mitigation Plan to accommodate the additional wetlands, basins, and inundated marshes, shown on the plan.

Soil Symbol	Soil Name	Percent Slopes
Cm	Codorus Silt Loam	0-3%
MoB	Mt. Airy & Manor Soils	3-8%
MoC	Mt. Airy & Manor Soils	8-15%
MoD	Mt. Airy & Manor Soils	15-25%
MoE	Mt. Airy & Manor Soils	25-35%
MpD	Mt. Airy & Manor Soils – very stony	8-25%
MrF	Mt. Airy & Manor Soils – extremely stony	25-60%
UfC	Urban Land – Mt. Airy Complex	8-15%

Topography – Overall the 187 acre park site is a steep valley, draining to the unnamed tributaries of the East Branch of the Codorus Creek. The main stem of the creek divides the property, running southeast to northwest, parallel to Nixon Drive. A secondary, smaller tributary traverses the western hillside, travelling south to north. Generally, the site slopes to the creek and contains typical floodplain topography with shallow low-lying floodplain area, with steep side walls beyond. The floodplain/floodway occupies much of the lower elevations, to the toe of slope. The recently acquired parcel, in the southeast corner of the site is gently sloping, mostly floodplain area.

Vegetation – The park is dominated by a mixed mature deciduous woodland, meadow, riparian vegetation, and minimal maintained lawn areas. The woodland cover blankets the steeper topography. Meadow cover exists in the southeast corner of the site, in the low-lying floodplain areas. Lawn area is maintained in the developed portions of the site around the nature center and its grounds. Numerous mature canopy trees are scattered throughout the lawn areas and frame the nature center building. Numerous specimen native trees, shrubs and ground cover are established in the viewsheds of the developed areas.

Man-Made Resources and Influences

Site Access / Vehicular Circulation – A single point of vehicular access is provided for the park and Nature Center. Nixon Drive provides access to two parking areas serving the nature center. Nixon Drive enters the site from Valley Road following the stream corridor, and provides a two way drive toward the nature center. The drive splits into a one way loop system and drop off. An 18-car parking area is provided immediately adjacent to the northeast corner of the building providing convenient access to the entrance. The parking area is developed with pervious pavement, highlighted with an interpretive sign, celebrating the benefits. This parking area terminates in a dead end with limited room for maneuvering. The parking area is surrounded by steep, eroded slopes on all sides. A short stub pointing toward the nature center provides two handicap accessible parking spaces. The loop road turns 180 degrees in front of the nature center and drops into a larger 42-car parking area before merging back to the two-way drive.

Trails – Nixon Park is a local destination for trails. The park offers a great selection of diverse trails throughout the 187 acres. Most trails exist as mowed lawn, making them inaccessible to persons with disabilities. Earthen trails traverse the woodlands. The trail system is well marked in the field. Marked trails include:

Trail Name / Number	Trail length
Quiet Walk	0.6 miles
Bird Hollow Trail	1.0 mile
Short Cut Trail	0.2 miles
All -Purpose Trail (paved)	0.2 miles
Old Field Trail	1.5 miles
Geology Trail	1.0 miles
Upland Hardwood Trail	0.7 miles

Paved trails are developed in the area immediately surrounding the nature center. An elevated boardwalk is developed near the center’s entrance, connecting the lower parking area with the hub.

Outdoor Exhibit Space – An outdoor exhibit area is developed in the rear of the nature center building. A concrete walk leads visitors from the north corner of the building into a fenced yard with exhibit spaces along the path. The path loops down to the creek before turning back to the building. The creek area is developed to provide stabilized access to the water and provide a setting for outdoor education. Benches, arranged in a theater style, are provided at the creeks edge for small class gatherings.



Utilities / Infrastructure –

Electric – Electric service currently extends to the nature center building and parking area.

Water – Public water is available at the nature center building.

Sanitary Sewer – Sanitary sewer for the nature center building is provided through an on-lot septic system. At the time of this study, a new sanitary sewer line connecting the building to public sewer is undergoing phased construction.

Richard M. Nixon County Nature Center Building Analysis

Existing Building Conditions

The 14,000 sf Nature Center building is centered within the park site. The original Nature Center building, constructed in 1978, focused on Pennsylvania specific exhibits. A large addition was constructed in 1992 to accommodate a large collection of animal mounts from around the world.

The existing building has 4,400 sf on the lower level, 8,200 sf on the upper level, and 1,400 sf on the attic level. The Nature Center is sited west of the vehicular entrance to the park in a beautiful setting.

The entrance to the building is an understated pair of storefront doors covered by a modest roof overhang where the original building and addition meet. There is a mature walnut tree off center of the east end of the original building's barn-like massing that establishes an informal tone for the facility.

Visitors enter a vestibule that includes a donor wall to the south and a popular “sightings” wall to the north where recent sightings within the park are noted on a map of the park. Beyond the entrance vestibule is a wooden reception desk typically staffed by volunteers. The reception desk is also the point of sale counter for the modest gift shop to the north. Originally the gift shop was in a space to the northeast and staffed separately but due to staffing cuts it was reorganized and the prior space now contains a display of insects from around the world as well as free-standing merchandise displays.

There is no elevator within the building but there is a significant (190' long) ramp that connects the upper level to the lower level along the north and west exterior walls of the 1992 addition. The ramp has some display space along it and it is useful as a location for bag lunches during inclement weather. The approximately 3,000 sf exhibit hall containing displays of Arctic, African, and Northwest animal mounts is at the west end of the upper level. There is a cork floor area in the center of the space where school groups gather for educational sessions and temporary displays are setup for special events throughout the year. There is an open balcony overlooking the ramp at the northwest corner of the exhibit hall which lacks acoustic separation and a bridge that leads to an exterior deck at the rear of the building. The deck provides an opportunity for respite and reconnecting to the surrounding park space during a visit to the Nature Center.

Continuing counter-clockwise on the upper level you exit the exhibit hall via a pair of doors in the east wall adjacent to the African display that leads back to the original building and its display of Pennsylvania exhibits. The staff has created a Please Touch room for younger visitors that includes seasonal displays. The next display space includes a popular honey bee colony display. The main exhibit space in the original building is occupied by an octagonal silo in the center with aquarium displays for snakes, etc. Along 3 sides of the space

there are high ceilings with mounts on the wood soffit, shelf, & hung from the wood framed ceiling. The 4th side of the space includes what might be considered the best exhibit, a 26' long array of south facing windows with a view to the south lawn, another mature walnut tree, and creek below and the activity at a bird feeder in the foreground. There is a grouping of loose chairs in front of the windows to allow visitors to sit down and digest the beauty of the natural surroundings outside the windows. Rounding out the upper level spaces are a small library space, a small janitor's closet, and very small public restrooms.

The largest and only ADA accessible space on the lower level is an approximately 1,200sf classroom / event space. It contains additional animal mounts and a large bank of storage cabinets to support activities with the space. There are additional storage and A/V spaces to the south of the room. At the east end of the lower level and a floor elevation a couple feet above the main classroom space is work room space that is undersized and accessed by a front stair. Ringing this work room is a staff office, a staff kitchen, storage rooms, and mechanical rooms. In the center of the lower level is a storage room, a small conference room containing mounts within display cases, and a maintenance shed.

A front stair accessed through the library space leads to a warren of attic storage spaces. The staff is continually purging the storage and items are densely stored throughout this area. Access to the roof is via the attic and there are a handful of roof leaks (largely where the original and additions join). Staff reported that the HVAC system had been updated within the last 7 years including a sophisticated control system by Johnson Controls although there remains some humidity control issues especially during the winter months. All lighting within the building had been updated within the last 5 years and that occupancy sensors are currently being installed. York County worked with Marcus Sheffer, energy expert, through a grant by the York County Community Foundation to study the potential for

photovoltaics on site and due to the location within a valley a limited area near the entrance to the building was determined to be viable.

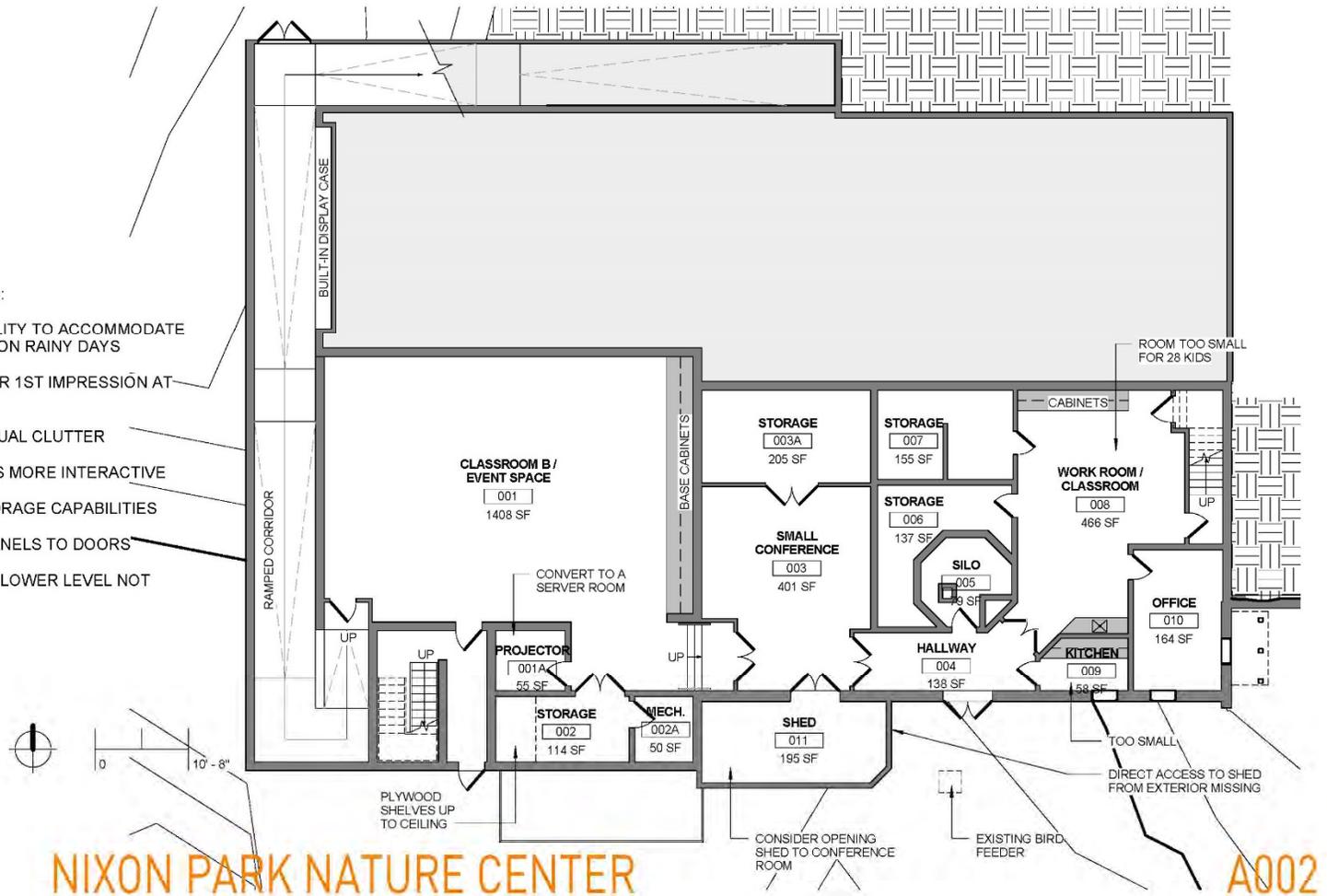
Building Code Review

The 2009 International Building Code (IBC) classifies the Nature Center as an A-3 Assembly occupancy, based on overall occupancy classification. The occupancy load for the lower level is approximately 100 based on 20 sf/occupant for the occupiable spaces (classroom, conference room, & work room) plus accessory space loads. The occupant load for the upper level is approximately 150 also based on 20sf/occupant for the occupiable spaces (the 2 exhibit halls and the gift shop) plus accessory space loads. There is sufficient egress capacity for both levels.

Table 2902.1 dictates a minimum count of plumbing fixtures for the building as follows: two water closets for women, one water closet for men, one lavatory for each, and one water fountain. The existing fixtures are compliant in terms of fixture count, but not in terms of accessibility. Entrance doors do not have sufficient maneuvering clearance. Existing fixtures and accessories do not meet ADA installation requirements. Water closets, urinals, and lavatories do not contain the required maneuvering clearances.

GENERAL NOTES:

1. INCREASE ABILITY TO ACCOMMODATE LARGE GROUPS ON RAINY DAYS
2. MAKE A BETTER 1ST IMPRESSION AT ENTRANCE
3. ELIMINATE VISUAL CLUTTER
4. MAKE EXHIBITS MORE INTERACTIVE
5. INCREASE STORAGE CAPABILITIES
6. ADD VISION PANELS TO DOORS
7. EAST HALF OF LOWER LEVEL NOT ACCESSIBLE



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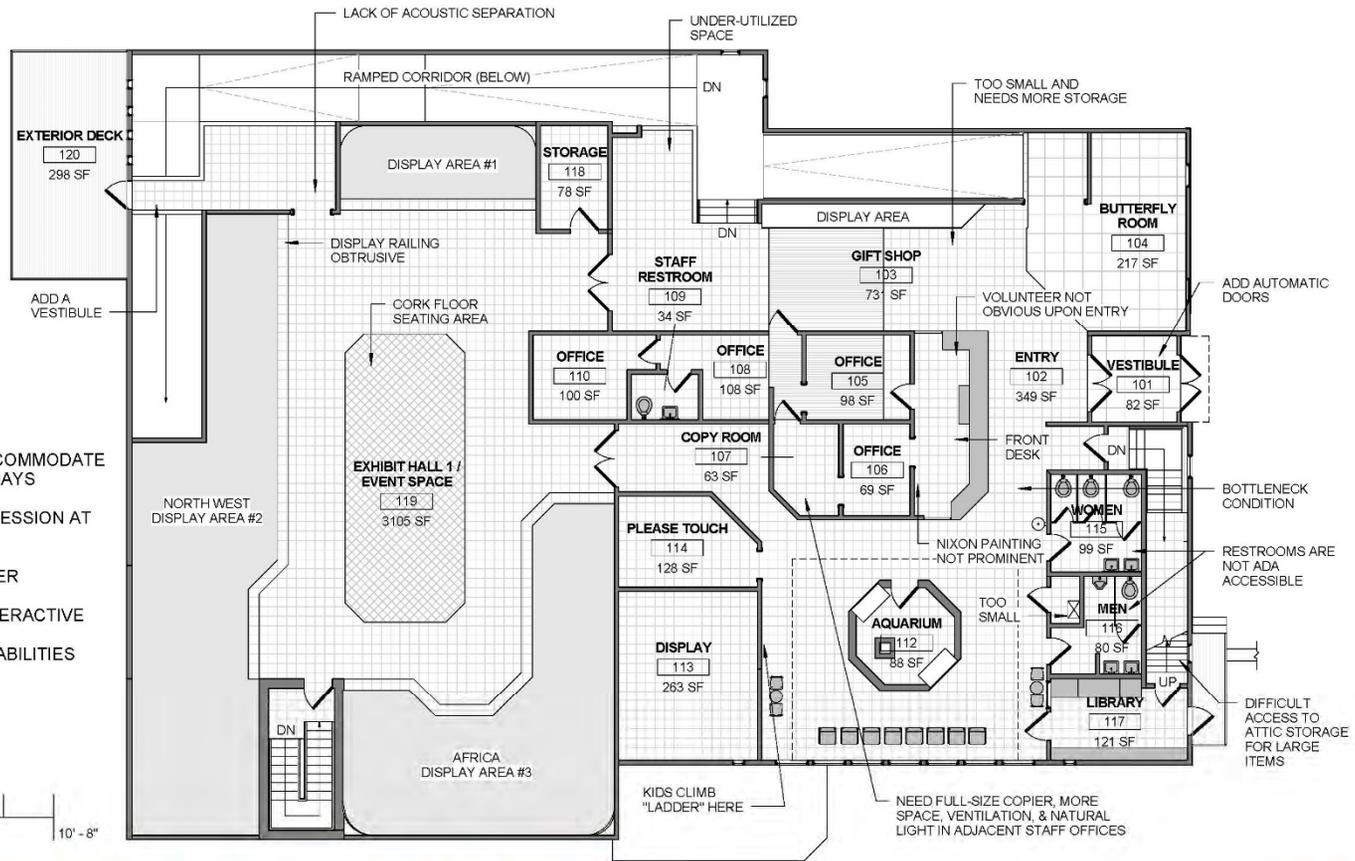
NIXON PARK NATURE CENTER

EXISTING LOWER LEVEL PLAN
6.19.2014 NFC

A002

GENERAL NOTES:

1. INCREASE ABILITY TO ACCOMMODATE LARGE GROUPS ON RAINY DAYS
2. MAKE A BETTER 1ST IMPRESSION AT ENTRANCE
3. ELIMINATE VISUAL CLUTTER
4. MAKE EXHIBITS MORE INTERACTIVE
5. INCREASE STORAGE CAPABILITIES

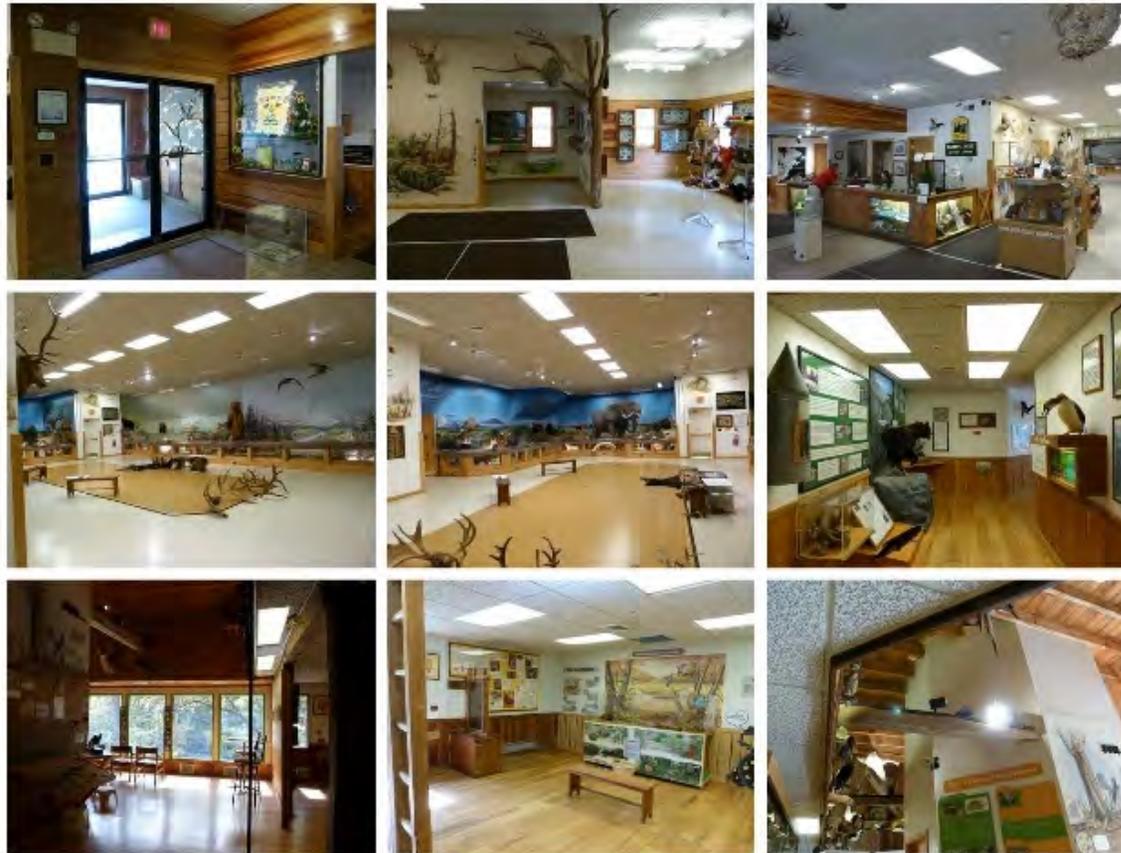


NIXON PARK NATURE CENTER

A003

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EXISTING UPPER LEVEL PLAN
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NIXON PARK NATURE CENTER

EXISTING INTERIOR PHOTOS
8.19.2014 NFC

A004



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NIXON PARK NATURE CENTER

EXISTING ELEVATION - NORTH
8.19.2014 NFC

A005



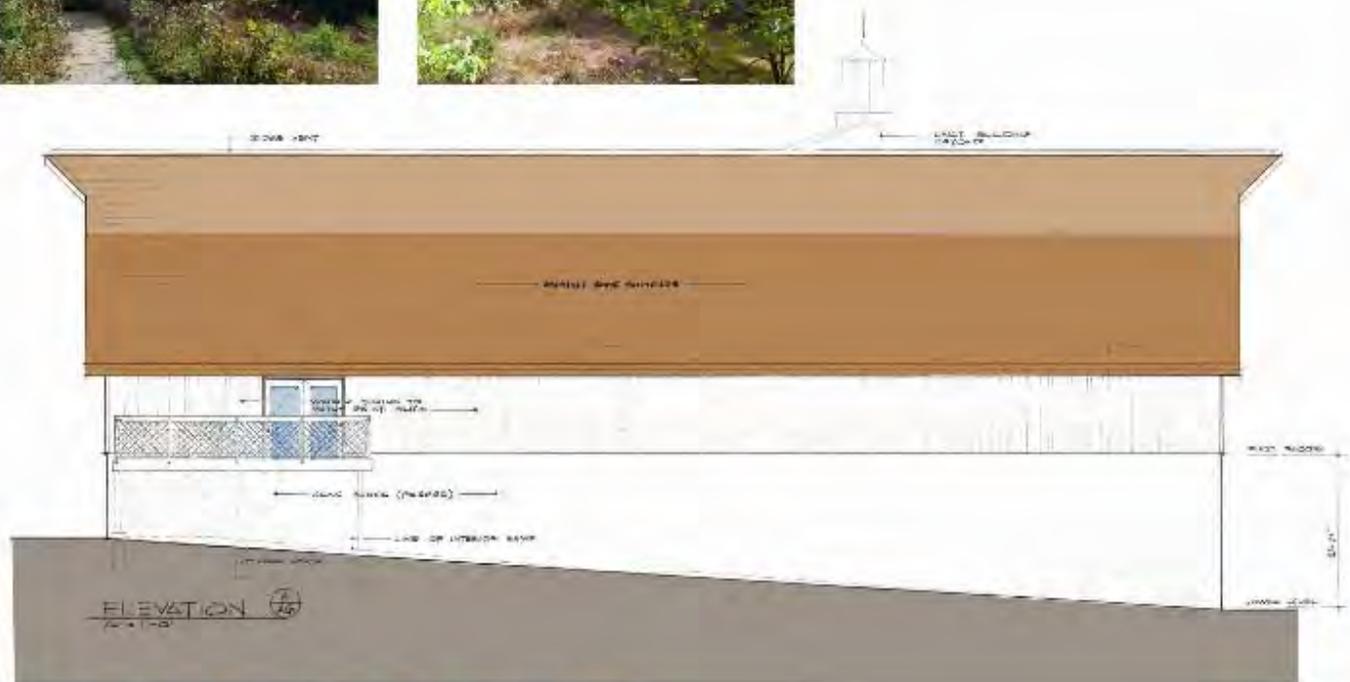
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NIXON PARK NATURE CENTER

EXISTING ELEVATION - EAST
8.19.2014 NFC

A007



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NIXON PARK NATURE CENTER

A008

EXISTING ELEVATION - WEST
6.19.2016 NFD

Richard M. Nixon County Nature Center Exhibit Analysis

Existing Nature Center Exhibits

Exhibits at the York County Department of Parks & Recreation's Nixon Park Nature Center are dated in both scope and method. The original nature center structure focuses on native Pennsylvania flora and fauna. Within the original barn structure, wrapping the existing silo structure, the interior setting is dimly lit, with warm wood surroundings, and views to the outdoors, lending to the natural atmosphere. The building addition is somewhat sterile in comparison with brightly lighted rooms, highlighting the Koller collection of specimens from distant lands. The main hall exhibits distinct regions including the Arctic, Africa, and North America along the walls, with a center flex space for classroom gatherings, presentations and seasonal exhibits. Additional specimens from the Koller collection can be found throughout the upper and lower floors.



A persistent visitor could discover facts and observe an abundant number of natural specimens, a percentage of which arguably do not belong at the Center. In the hands of a staff naturalist or educator, that visitor could begin to see the materials on display in context. Left alone, most visitors would struggle to find a coherent interpretation, whether for individual exhibit units or the Center overall.



Analysis Conclusions & Planning Implications

Nature Center Site

- The Nature Center building and its programs are the main attraction for the park. Its central location within the park site makes it a valuable starting point to embark into its learning environments.
- It is important to maintain a healthy vegetated riparian corridor with large, mature trees to hold the creek banks and prevent significant erosion. Newly planted riparian vegetation along the restored stream banks should be monitored to prevent the introduction of invasive species. Monitor and remove invasive species along the creek banks.
- Minimize man-made disturbances along the riparian corridor that could negatively impact mature trees, floodplain capacity and creek flow.
- The PennDOT wetland mitigation project at the site entrance provides the center with a distinctly new aquatic environment, expanding the education opportunities. Provisions for access, and gathering space should be incorporated into the plan for the area.
- Provide convenient vehicular access and parking area. Refine the sense of arrival for visitors to enhance their experience and welcome them to the site.
- Provide convenient handicap accessible parking spaces and an accessible walkway/trail throughout the park site to connect accessible parking areas and proposed improvements. ADA accessibility should be addressed to each facility.

- The existing restrooms within the nature center do not adequately serve the outdoor areas. Consider development of additional restrooms accessible when the nature center is closed. Restrooms should meet the requirements of the ADA, be vandal resistant, conveniently located, and above the 100-year floodplain elevation.
- Provide additional, convenient parking. The larger parking area is distant from the nature center. Consider a reconfiguration of the parking areas to be more convenient.
- The elevation change from the lower parking area to the nature center is a challenge for ADA access.
- Develop a staging area outside the nature center to allow staff to organize large groups.
- Consider an area designated for nature play. Allow youth to play with nature in a self-directed, unstructured environment. Area should be developed in close proximity to the nature center and parking area.
- Provide additional accessible trails throughout the park to reach key facilities such as the pond, and any new facilities.
- Explore safe pedestrian connection between the nature center and the new wetland mitigation project. Consider a satellite educational station and parking area near the park entrance to serve the new aquatic area.

Nature Center Building

- The nature center building is the hub of environmental education and programming.
- The staff indicated the biggest challenges with the existing Nature Center include:
 - The inability to accommodate large groups (as many as 120 children) during inclement weather.

- The eastern half of the lower level is inaccessible per the ADA. Restrooms do not meet the new ADA regulations.
- A lack of storage space.
- The visual clutter within the building.
- The dated impression of the decades old exhibits.
- Develop an entry sequence which welcomes and excites visitors. Overall there is a lack of signage and sense of arrival.
- Relocate and formalize the gift shop. The majority of the gift shop display is now within a circulation space north of the reception desk and contiguous staff offices but is a visually overwhelming space that leads to the main exhibit hall, is filled with an ad hoc array of merchandise display units, and includes animal mount displays.
- Consider installation of an elevator to accommodate ADA access to all three floors, allowing movement of seasonal displays for storage, and gaining valuable building area for nature center use. The large ramp providing accessible connections between floors takes up valuable floor space and no convenient access is available to the attic space.
- Seek areas for additional storage space within the existing building footprint.
- Expand or replace the existing restrooms. The existing restrooms are small and inefficient. Develop restrooms convenient to the use areas to accommodate the anticipated need and meet the requirements of the ADA.
- Continue to monitor the roof for leaks, due to design.
- Develop new facilities in compliance with the Americans with Disabilities Act.

Nature Center Exhibits

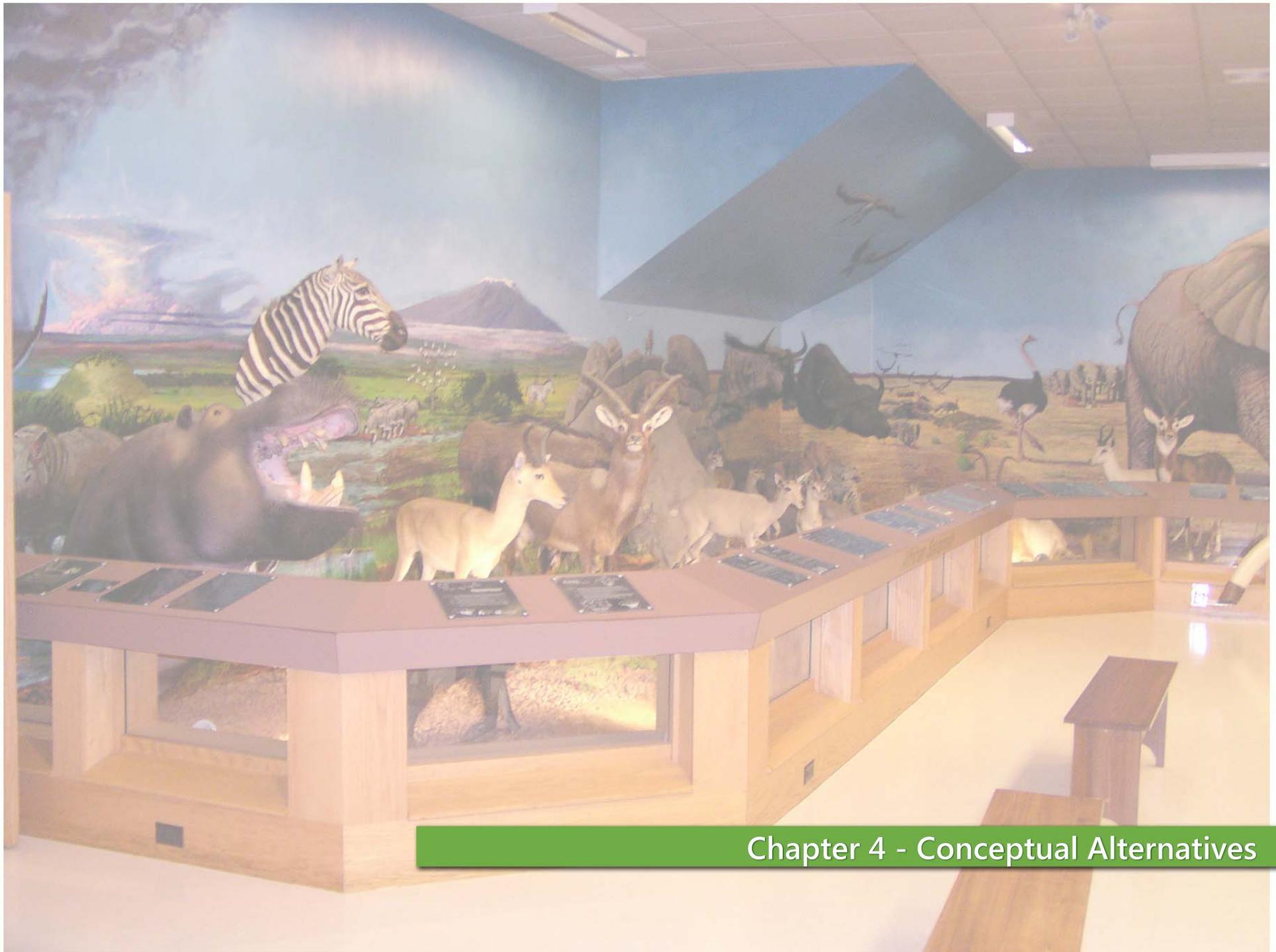
- The Nature Center has little open space, exhibit introduction or unifying narrative, way-finding, less than accessible exhibit

text and limited unit headings. Visitor experience is not productive without effort.

- The existing exhibits are dated, static, and some seem out of place to the central Pennsylvania region.
- Most visitors see no discernible exhibit pathway or flow. They are left to wander; in itself this often is productive.
- Information specific to this region is lacking. Content critical to the 21st century is missing.
- Programs the Center offers address issues locally and regionally – land and water use and management, habitat preservation, wildlife and resource management, etc. Exhibits are an ideal medium for these subjects. By presenting these same or similar issues in scientific and historical context and exploring economic and environmental relationships, they help “stakeholders” to make informed decisions on how current and future generations of residents of the county and Commonwealth will interact with their natural surroundings.
- Locally, other institutions are moving well beyond the Nature Center. The North Museum of Nature and Science recently completed a major renovation. STEM (Science, Technology, Engineering and Math) and interdisciplinary teaching are the foundation for its new exhibit galleries. An understanding that effective exhibits entertain as well as educate guided the design process. The Explore Nature gallery includes magnetic boards and drawing stations, a “Discovery” videomicroscope, an animal sounds interactive, a touchable geologic map of Pennsylvania, a large NatureMaker tree with its trunk hollowed out to “hide inside”, a functioning beehive and various exploration tables. Adjacent to this gallery is the new Live Animal area. Approximately 2,000 persons visited the

first day the museum re-opened. The Nature Center exhibits should be improved to align with these new innovative trends.

Overall, Richard M. Nixon County Park is the hub of environmental education within York County. The building and exhibits are showing age and in need of rejuvenation. It's acreage and proximity to the Hollow Creek Greenway and William H. Kain County Park make it a destination for enjoyment and understanding of our natural systems, both local and abroad.



Chapter 4 - Conceptual Alternatives

Conceptual alternative designs were completed for Richard M. Nixon County Park with consideration of the goals established by the master planning process, the analysis of the park site, nature center building and exhibits, surrounding area, and public input. The Conceptual Alternative designs explored different options for park development and rehabilitation and illustrate potential facility configurations and relationships. The study committee reviewed the Conceptual Alternatives and provided input and direction for development of the Pre-Final Master Plan.

Richard M. Nixon County Park offers a diverse array of environmental education opportunity. Visitors to the park include nature enthusiasts, birders, hikers, students, and many others. The center accommodates organized school groups and hosts numerous nature based club activities. Visitors include one-time visits and many re-occurring visitors who come back again and again to gain a deeper understanding of the environment. The nature center staff is dedicated to creating awareness of the natural world around us, and helping to understand the natural systems which drive our lives.

The conceptual alternatives explored the rehabilitation of the nature center building, exhibits and surrounding landscape to create a more engaging, user friendly campus for learning. The site designs focused on the area immediately surrounding the nature center. Proposed improvements associated with the PennDOT wetland mitigation project scheduled for construction in the fall of 2015 were considered separately, to align with their construction timeline.

The Conceptual Alternative designs for Richard M. Nixon County Park address the following park development objectives:

- Maximize the nature center building to improve function and visitor experience. Maximize storage space. Maintain the existing building footprint.

- Enhance the exhibits to be more engaging and excite visitors. Provide multiple levels of learning to accommodate the one-time user and the frequent repeat customer.
- Minimize disturbance to the existing natural features.
- Improve park function and visitor convenience by providing restrooms and improved parking areas to achieve better service and shorter distances to these amenities from park facilities.
- Consider self-directed nature play opportunities.
- Develop an outdoor staging area, near the nature center entrance to organize larger groups.
- Incorporate the PennDOT wetland rehabilitation project into the site plan, creating a unified design, expanding the area for aquatic learning within the park.
- Maintain utility right-of-way.

Conceptual Alternative A

Conceptual Alternative A maximizes user convenience. The functional aspects of the vehicular drop-off and staging areas are close to the entry. Proposed improvements include:

Site

- A new vehicular loop drop-off and 11 car parking area is developed close to the building entrance, occupying the former parking area footprint.
- A small play area occupies the remaining footprint of the existing parking area, to utilize the graded, level area.

- An accessible ramp makes the transition from the upper level to the lower level of the building and transitions to the lower level parking area.
- Bus parking pull-off area is located at the entry of the lower parking area.
- The open lawn on the south side of the building is maintained for flexible programming space.
- The riparian corridor is enhanced along the creek near the center. Areas are provided for creek access.
- A patio area is provided in the southern corner of the building oriented to the creek to serve as an outdoor classroom.
- The outdoor exhibit space on the west side of the building is revitalized with updated exhibits, trails and outdoor classroom.
- The lower parking area is expanded into the hillside on the western end, closest to the center, through grading and retaining walls. The parking area footprint is reduced on the south side for development of a plaza / overlook and trailhead.
- A maintenance garage and restroom is developed in the southeast corner of the parking area to serve the trail network for nature enthusiasts who may not be visiting the nature center building.
- A new elevator is proposed with two stops on the lower level to provide complete ADA access to the lower level. The existing ramp is maintained between floors.
- The upper level entry is redesigned to open an entry area and lobby to welcome visitors. A feature graphic wall is proposed on axis with the entry door to draw visitors into the building. The wall is envisioned to present a great graphic image or digital sightings map on the wall. The painting of President Nixon is provided on the main corridor wall, opposite the reception desk.
- A reception desk is conveniently located to welcome visitors, and buffer new office areas for staff behind. Windows are proposed on the north wall for offices.
- An orientation room is provided at the entrance in the building's northeast corner. The walls of the building corner are bumped out to create a new windowed seating area. A three dimensional site model is suggested in the orientation area to inform visitors of what the site offers.
- A new gift shop is proposed within the main entry corridor, convenient to reception.
- The existing restrooms on the upper level are relocated central to the building, convenient to the main corridor and welcome area.
- A new office for the nature center director and expanded "please touch" room are provided on the east wall, replacing the restrooms and library.
- The existing kitchen and office on the lower level are removed, expanding the workroom/classroom area. New

Nature Center Building

- A seating plaza and covered entry are provided at the building's main door to announce the entrance and provide outdoor staging area.

cabinets are provided on the lower level for additional storage.

- Additional storage areas are provided.
- The footprint of the main exhibit hall is unchanged in this design.

Nature Center Exhibits

- The upper floor of the nature center building was divided into two types of galleries; Local Galleries and Global Galleries.
- The Local Gallery is dedicated to exhibits focused on the formation of the Pennsylvania Landscape, ecosystems and habitats. Local area exhibits are expanded and updated.
- The Global gallery containing the Arctic, Africa, and North America exhibits, are enhanced with new railing system to aid in viewing the exhibits and graphic presentation. A slight reconfiguration of the rail footprint for discovery opportunities and reveals more detail.
- New railings are provided with integrated graphic pods.
- An interactive sculptural tree feature with kiosk exhibits highlighting the ecosystems and inhabitants is developed in the Global Gallery.
- The Arctic area has been redesigned smaller to accommodate additional room for the Local Gallery.
- A viewing alcove is developed on the west side of the building with terraced viewing to overlook the natural outside exhibit area. The space will provide seating for small presentations oriented inside.

- New, moveable cases and graphics are proposed to highlight the Pennsylvania flora and fauna throughout the Local Gallery.
- A new specimen case with storage unit and integrated seating is proposed beneath sculptural tree canopy/cloud ceiling shapes.
- New graphic rails and wall cases are provided to present move specimens currently in the Local Gallery.

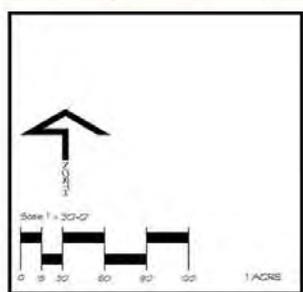
Richard M. Nixon County Park Master Site Plan *Option 1*

Springfield Township & Jacobus Borough, York County, Pennsylvania

June 2014

Prepared for:
The County of York

Prepared by:





PROPOSED EXTERIOR ENTRY RENDERING

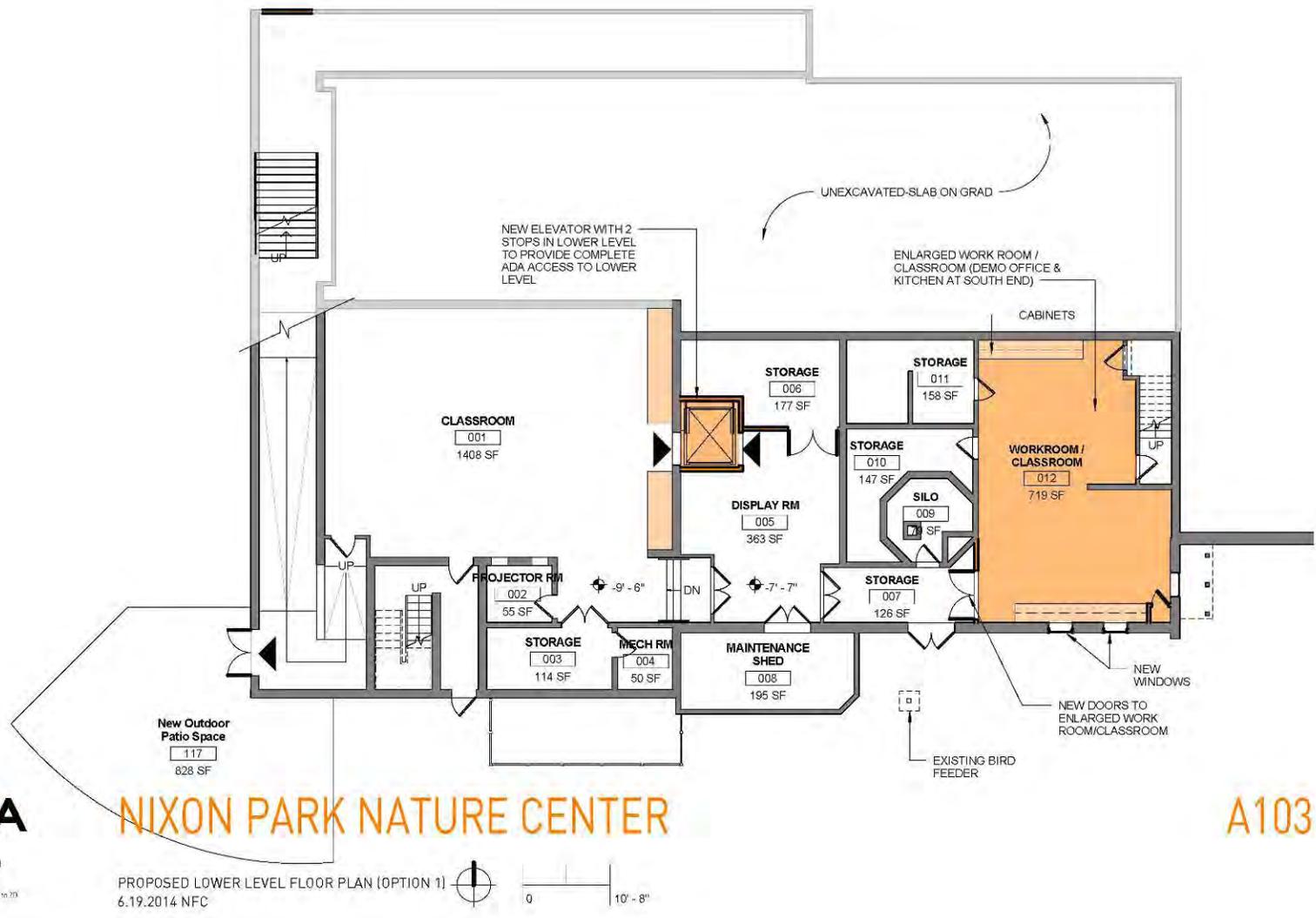


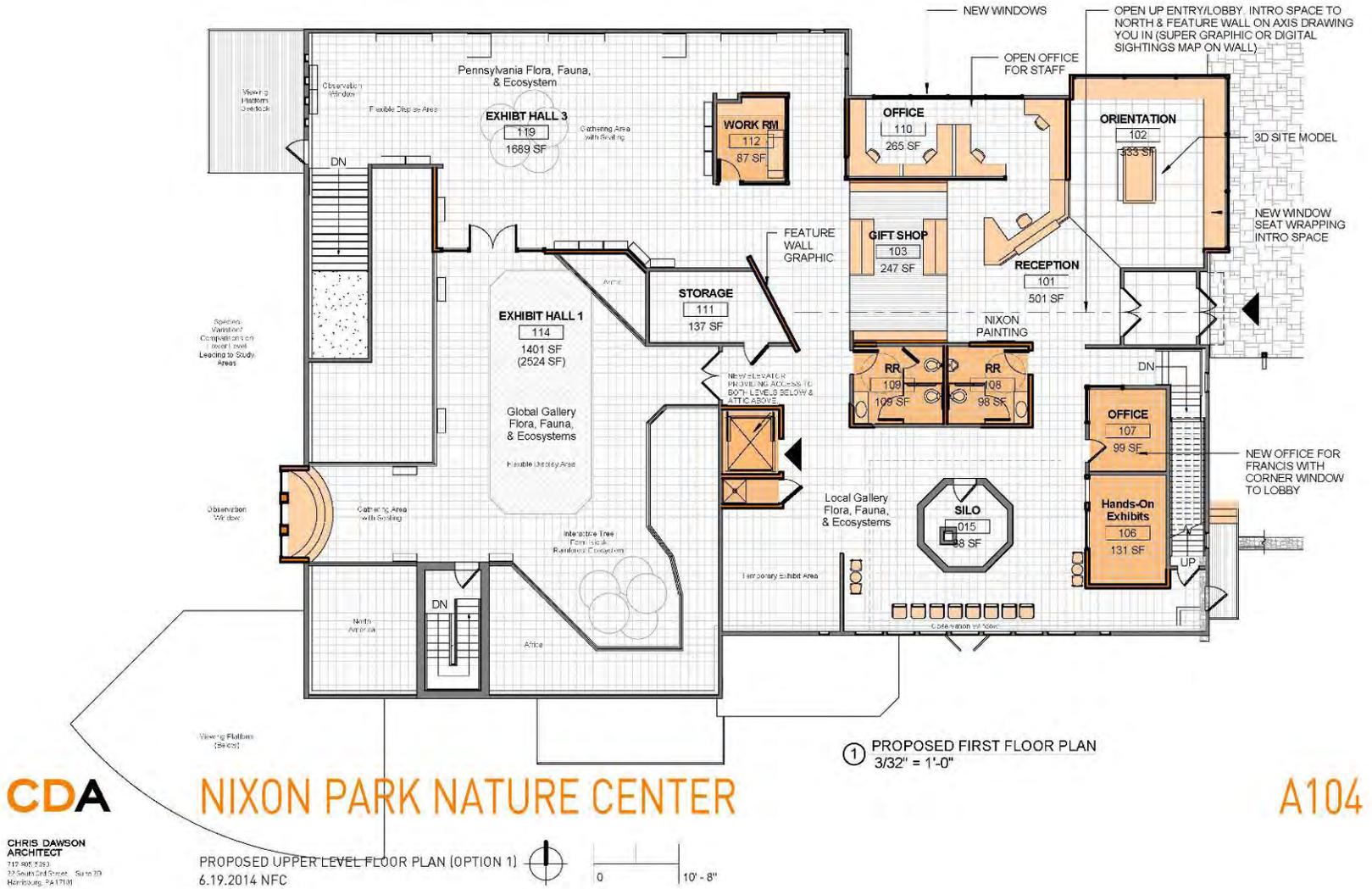
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NIXON PARK NATURE CENTER

PROPOSED EXTERIOR RENDERING
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A101.1







PROPOSED INTERIOR ORIENTATION AREA RENDERING



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A106



PROPOSED INTERIOR ORIENTATION AREA RENDERING

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6.19.2014 NFC

A107



VIEW FROM ENTRANCE

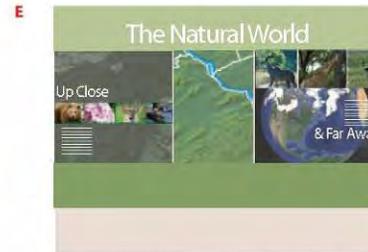
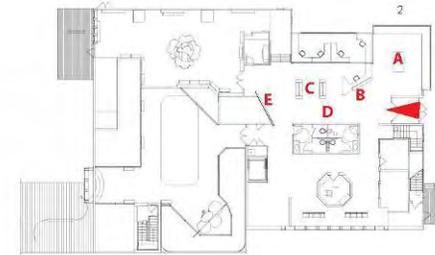


Exhibit introduction graphic defines the zones of discovery.



FEATURES

- A. Introductory Area
- B. Main Desk
- C. Retail Area
- D. Tribute/ Acknowledgement Area
- E. Main Exhibit Graphic Introduction



Map from Exhibit 27 x 32



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CLIENT: YSM - NIXON PARK

JOB #: YSM1301M

DESCRIPTION: NIXON PARK VISITOR'S CENTER-EXHIBITS

DATE: 06-03-14

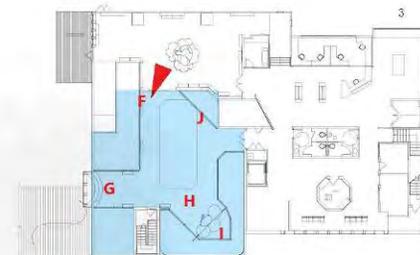
SCALE: NTS

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VIEW OF GLOBAL GALLERY FROM PENNSYLVANIA EXHIBIT

FEATURES

- F. New Rail system with graphic pods
- G. New Alcove
- H. Kiosk for interactives, small artifacts, and tree form
- I. Up-close viewing area
- J. New Arctic area



CLIENT: YSM - NIXON PARK

JOB #: YSM1301M

DESCRIPTION: NIXON PARK VISITOR'S CENTER-EXHIBITS

DATE: 06-03-14

SCALE: NTS

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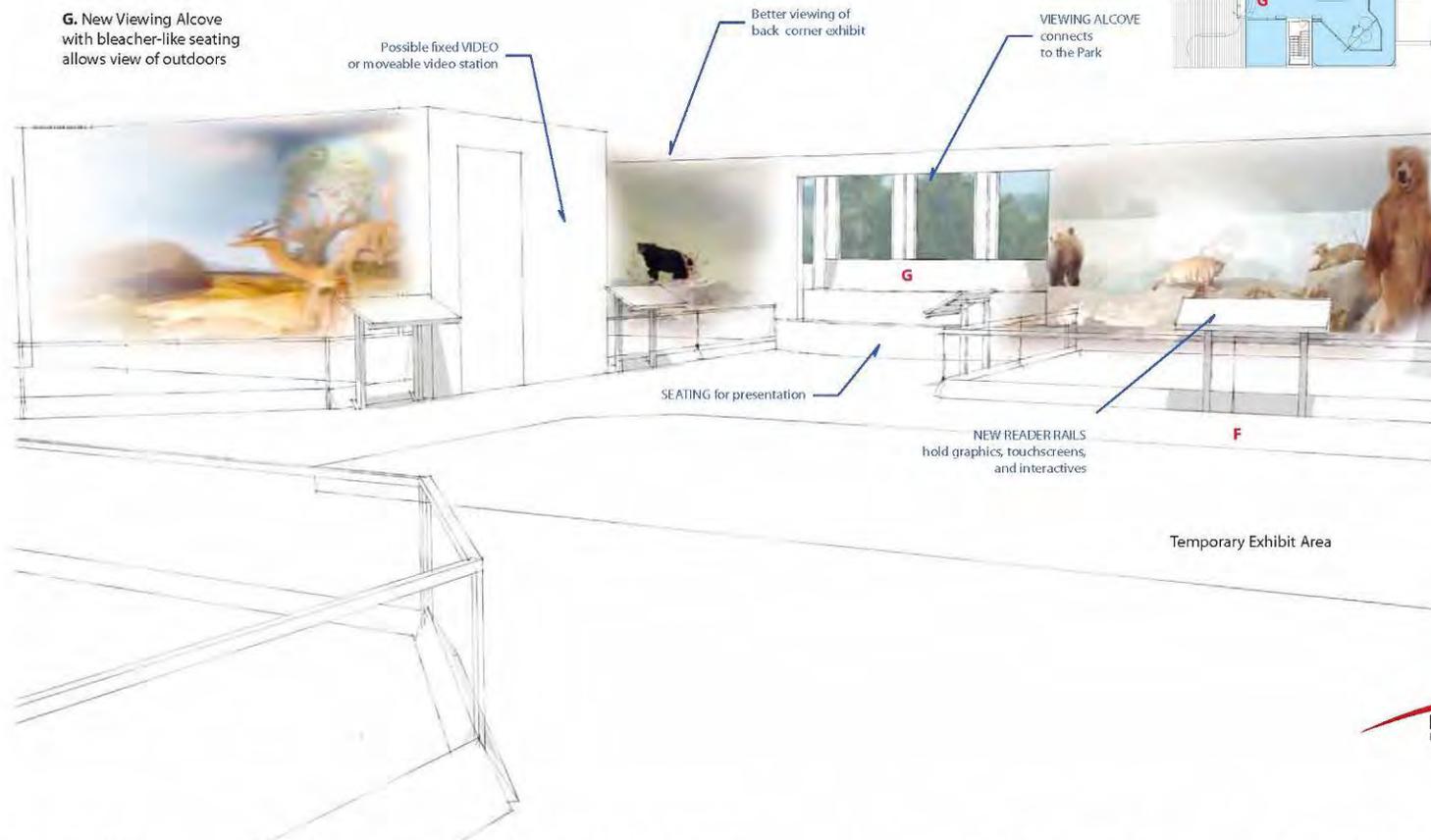


DETAIL OF VIEWING ALCOVE - GLOBAL AREA

FEATURES

F. New Rail system with graphic pods

G. New Viewing Alcove with bleacher-like seating allows view of outdoors



CLIENT: YSM - NIXON PARK

JOB # YSM1301M

DESCRIPTION NIXON PARK VISITOR'S CENTER-EXHIBITS

DATE: 06-03-14

SCALE: NTS



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NEW PA EXHIBIT EXPANSION AREA VIEW FROM GIFT SHOP

FEATURES

- K.** View of existing eastern fauna
- L.** Existing view onto back deck
- M.** New cases and graphics for PA flora, fauna and ecosystem. Tall cases can be moveable.
- N.** Combined seating, specimen case and storage unit below tree-canopy/cloud ceiling shapes
- O., P.** Graphic rails and wall cases present more information and more specimens currently in Local Gallery

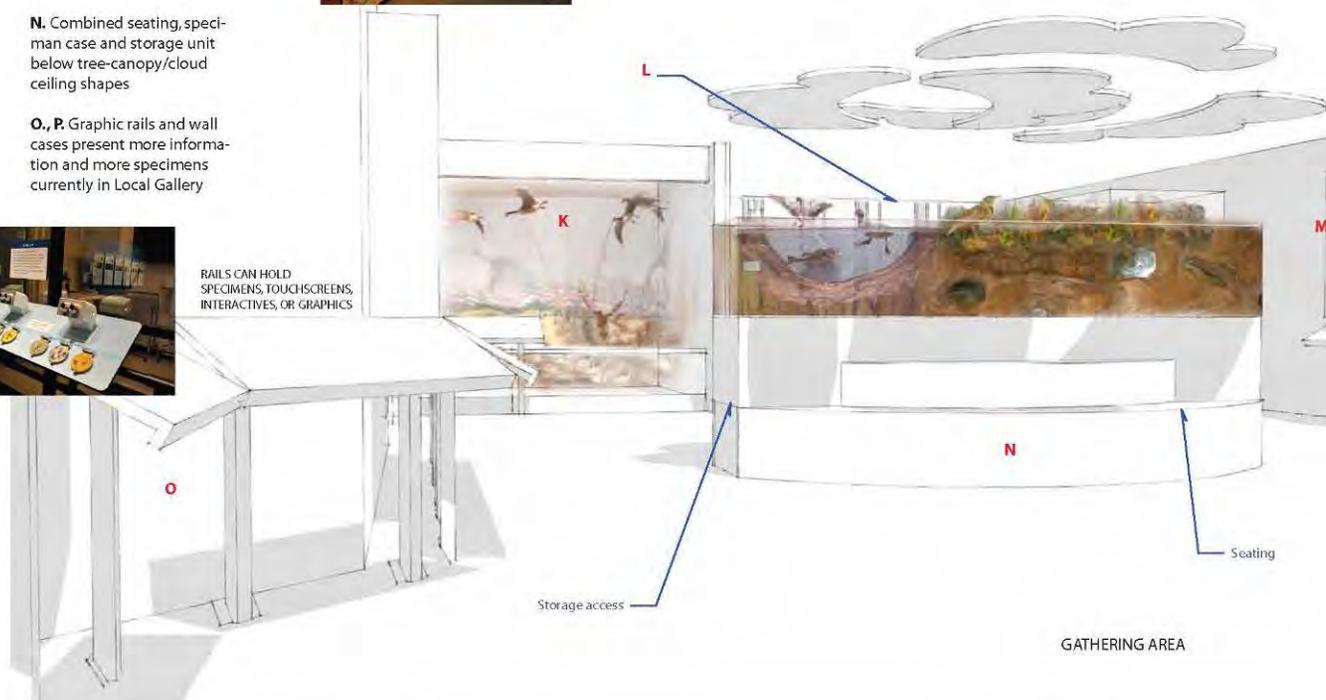
CONTEMPORARY DISPLAY STYLE



IMAGINATIVE DISPLAY STYLE



RAILS CAN HOLD SPECIMENS, TOUCHSCREENS, INTERACTIVES, OR GRAPHICS



WALLS CAN DISPLAY CONTENT IN A VARIETY OF WAYS



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CLIENT: YSM - NIXON PARK

JOB #: YSM1301M

DESCRIPTION: NIXON PARK VISITOR'S CENTER-EXHIBITS

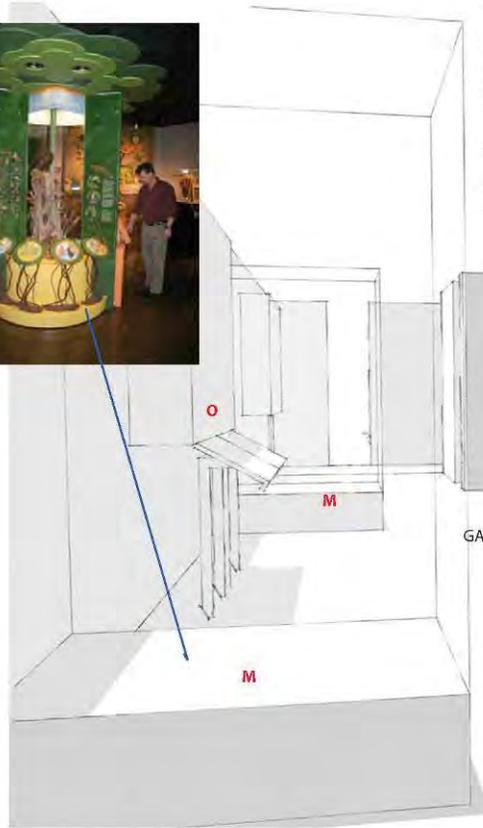
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NEW PA EXHIBIT EXPANSION AREA VIEW FROM DECK

ELABORATE CASE WITH INTERACTIVE FEATURES



FEATURES

M. New cases and graphics for PA flora, fauna and ecosystem. Tall cases can be moveable.

N. Combined seating, specimen case and storage unit below tree-canopy/cloud ceiling shapes

O., P. Graphic rails and wall cases present more information and more specimens currently in Local Gallery

GATHERING AREA

TO GIFT SHOP

TO GLOBAL GALLERY

RAILS CAN HAVE PULLOUT SPECIMEN DRAWERS BENEATH



CLIENT: YSM - NIXON PARK

JOB #: YSM1301M

DESCRIPTION: NIXON PARK VISITOR'S CENTER-EXHIBITS

DATE: 06-03-14

SCALE: NTS

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Conceptual Alternative B

Conceptual Alternative B maximizes the front yard of the nature center building to welcome visitors and prepare them for the visit. Proposed improvements include:

Site

- The existing vehicular turnaround is widened to provide parking spaces at the turn around drop off area. The entry is enhanced through native plantings, seat walls and signage to direct visitors.
- The steep wooded island separating the access drive from the lower parking area is thinned to open views to parking to make visitors aware of the additional parking. Removed landscape is replaced with low growing native planting/meadow to stabilize the area and beautify the entry sequence.
- A play area replaces the footprint of the existing upper parking area, to utilize the graded, level area.
- An open exhibit lawn is developed at the entrance to allow for flexible exhibit space and accommodate staging of larger groups.
- A pavilion is established between the exhibit lawn and playground area near the entrance to serve these facilities and provide an outdoor gathering area. The pavilion will assist staging in poor weather.
- One main walkway connects the parking area to the main building entry.

- The open lawn on the south side of the building is maintained for flexible programming space. A seating area is terraced into the hillside for outdoor classroom.
- The riparian corridor is enhanced along the creek near the center.
- A patio area is provided in the southern corner of the building oriented to the creek to serve as an outdoor classroom.
- The outdoor exhibit space on the west side of the building is revitalized with updated exhibits, trails, creek access and open lawn area access to the creek edge.
- The lower parking area is expanded into the hillside on the western end, closest to the center, through grading and retaining walls. The parking area footprint is reduced on the south side for development of a plaza / overlook and trailhead.
- Bus parking is located at the eastern end of the lower parking area.

Nature Center Building

- A new façade with large windows and bumped out seating is developed on the northern building addition housing the entry doors garners attention to the front entry.
- A new elevator is proposed with two stops on the lower level to provide complete ADA access to the lower level. The existing ramp between floors is abandoned to make room for additional exhibit space.
- The upper floor is designed to have a continuous Pennsylvania related exhibits theme flowing through it. The

intent is to develop a continuous zone of exhibit space focused on Pennsylvania and its unique creatures and habitats.

- The upper level entry is redesigned to open an entry area and lobby to welcome visitors. A feature graphic wall is proposed on axis with the entry door to draw visitors into the building. The wall is envisioned to present a great graphic image or digital sightings map on the wall. The painting of President Nixon is provided on the main corridor wall, opposite the reception desk.
- A reception desk is conveniently located to welcome visitors, and buffer new office areas for staff behind. Windows are proposed on the north wall for offices.
- An orientation room is provided at the entrance in the building's northeast corner. The walls of the building corner are bumped out to create a new windows and seating along the edge to help stage visitors. A three dimensional site model is suggested in the orientation area to inform visitors of what the site offers.
- A new gift shop is proposed within the main entry corridor, convenient to reception.
- The existing restrooms on the upper level are relocated central to the building, convenient to the main corridor and welcome area.
- A new office for the nature center director and expanded "please touch" room are provided on the east wall, replacing the restrooms and library.
- The existing kitchen and office on the lower level are removed, expanding the workroom/classroom area. New

cabinets are provided on the lower level for additional storage.

- Additional storage areas are provided.

Nature Center Exhibits

- Refer to Alternative A. No alternative design is provided for the Nature Center Exhibits.

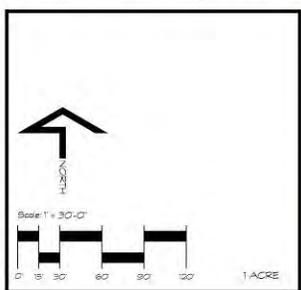
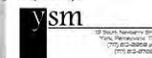
Richard M. Nixon County Park Master Site Plan *Option 2*

Springfield Township & Jacobus Borough, York County, Pennsylvania

June 2014

Prepared for:
The County of York

Prepared By:





PROPOSED EXTERIOR ENTRY RENDERING



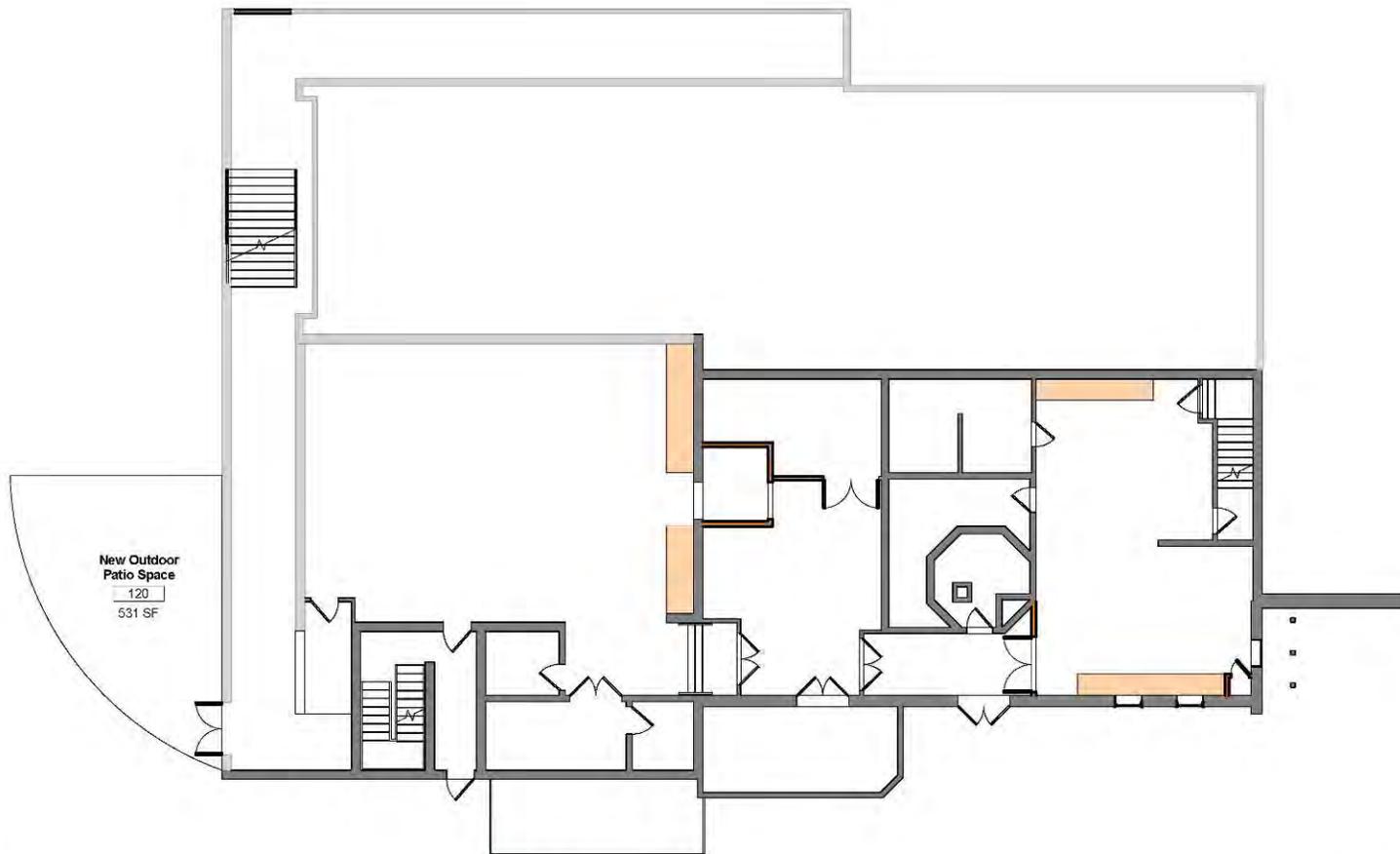
CDA

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NIXON PARK NATURE CENTER

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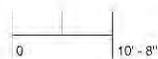
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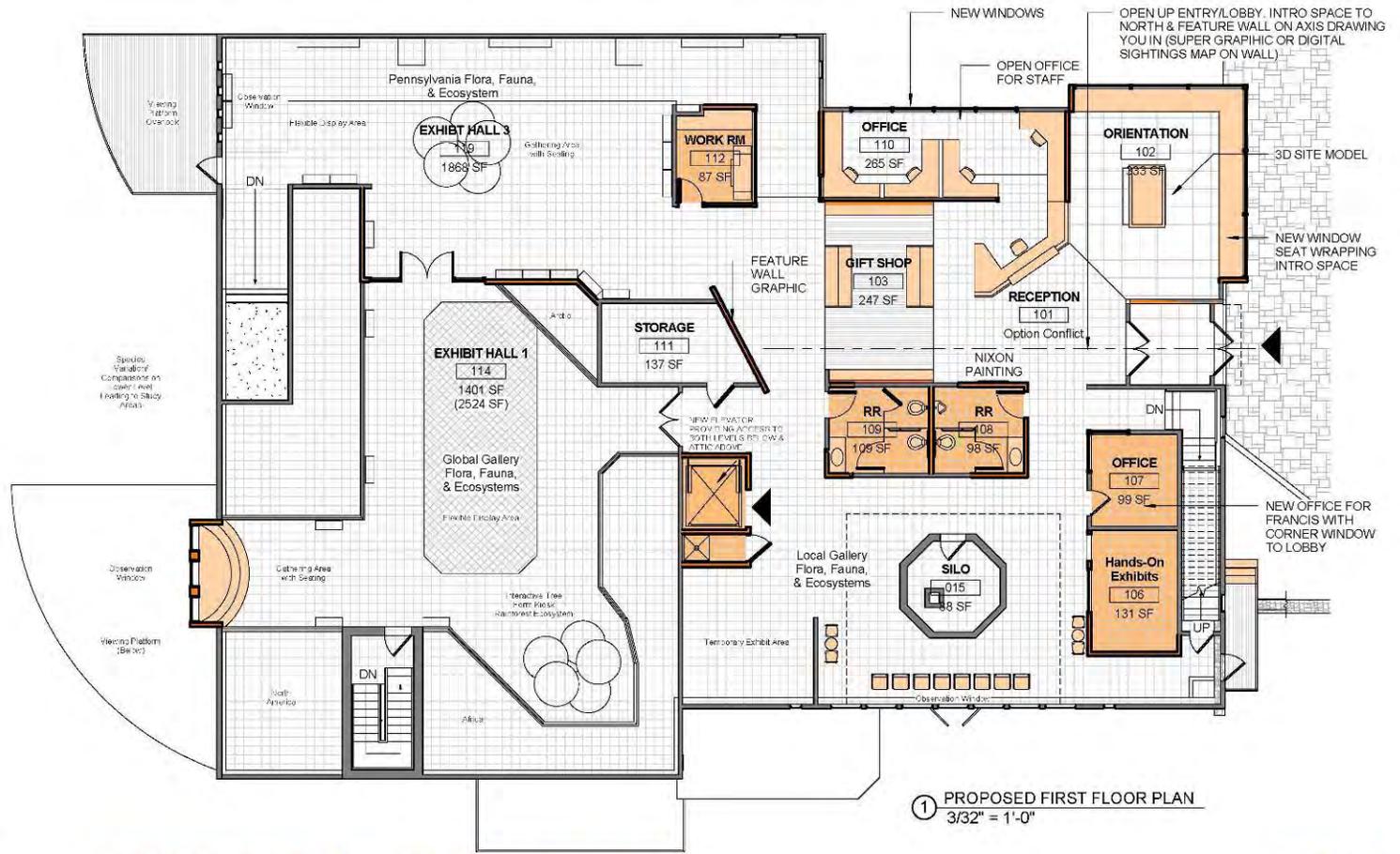
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Harrisburg, PA 17101

NIXON PARK NATURE CENTER

A103.1

PROPOSED LOWER LEVEL FLOOR PLAN (OPTION 2)
6.19.2014 NFC





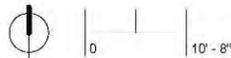
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NIXON PARK NATURE CENTER

A104.1

**CHRIS DAWSON
ARCHITECT**
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Harrisburg, PA 17101

PROPOSED UPPER LEVEL FLOOR PLAN (OPTION 2)
6.19.2014 NFC



The Study Committee reviewed the two conceptual alternative designs for Richard M. Nixon County Park site, nature center building and exhibits and offered the following guidance for the development of the Pre-Final Master Plan design.

- Automated entry doors were suggested.
- The to-scale park model was seen as a good way to orient visitors to what the site offers.
- New natural light through the addition of new windows is a great idea as long as it does not negatively affect the displays.
- The building entrance area should have a canopy.
- The outdoor orientation area should be able to accommodate 100-120 youth. Organizing youth into groups outside the building is a typical practice.
- A 14-foot wide Met-Ed utility right of way exists around the north side of the nature center building. This right of way must be respected in the design.
- The main parking area design must accommodate entry to the Quiet Walk Trail.
- Additional storage space within the building is needed.
- Additional bathroom space and a bathroom for staff was requested. The building design should consider a family changing room with shower facility for park employees.
- A kitchenette should be provided in the building design.
- The window seat at the entry was positively received.
- The Local Gallery at the northwest corner of the building incorporates a portion of the mounts from the large exhibit

room. This portion depicts animals of Northwest North America, not the northeast as assumed. The mounts could be rearranged in this area to depict the northeast.

- Concern regarding the available space and size of the arctic exhibit/mount area was raised.

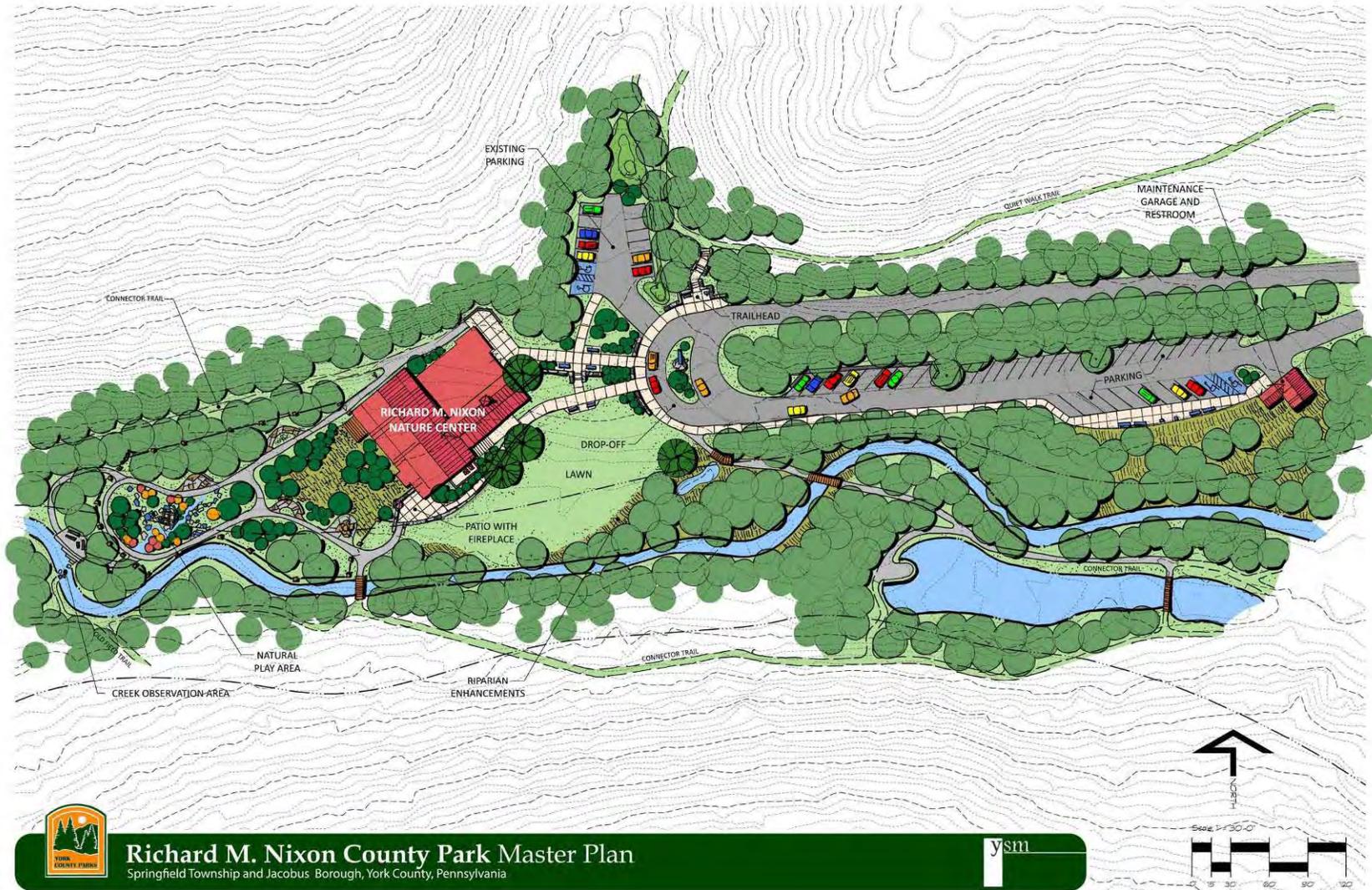
Conceptual Alternative A	
Positive	Negative
Parking is close and convenient to the front door.	The parking area is too close to the front of the building, leaving little room to welcome visitors and stage larger groups
The vehicular drop off is separate from the main access drive.	The upper parking area provides less spaces than the existing configuration.
Play area and pavilion is located to entertain youth while waiting for staff.	The proposed maintenance shed is distant from the nature center.
Maintenance shed and restrooms provide much needed garage and work space for employees and provides restrooms for park users not using the nature center	Maintaining the ramp between floors takes away valuable building space.
Plan offers multiple spaces for outdoor classrooms and education.	
Nature center entry is improved to welcome visitors and allow room for staging. Elevator provides accessibility throughout building and convenient movement of exhibits to the attic storage.	

Conceptual Alternative B	
Positive	Negative
The building entrance provides a welcoming landscape to greet visitors.	The upper parking area has been removed, eliminating parking close to the entrance.
Ample room is provided between the parking area and entry door providing room to separate and stage groups before entering the building.	The new parking area at the turnaround provides less spaces than the existing upper lot.
The pavilion will serve as a shelter for poor weather and could generate revenue thru rentals in association with the playground.	No exterior restrooms are available to park visitors if the nature center is closed.
Plan offers multiple spaces for outdoor classroom and education.	The Pennsylvania related exhibit space is a good idea, however it still meanders through the building undefined.
Nature center entry is improved to welcome visitors and allow room for staging.	
Elevator provides accessibility throughout building and convenient movement of exhibits to the attic storage.	
Consolidating the Pennsylvania related exhibits highlights the local features.	

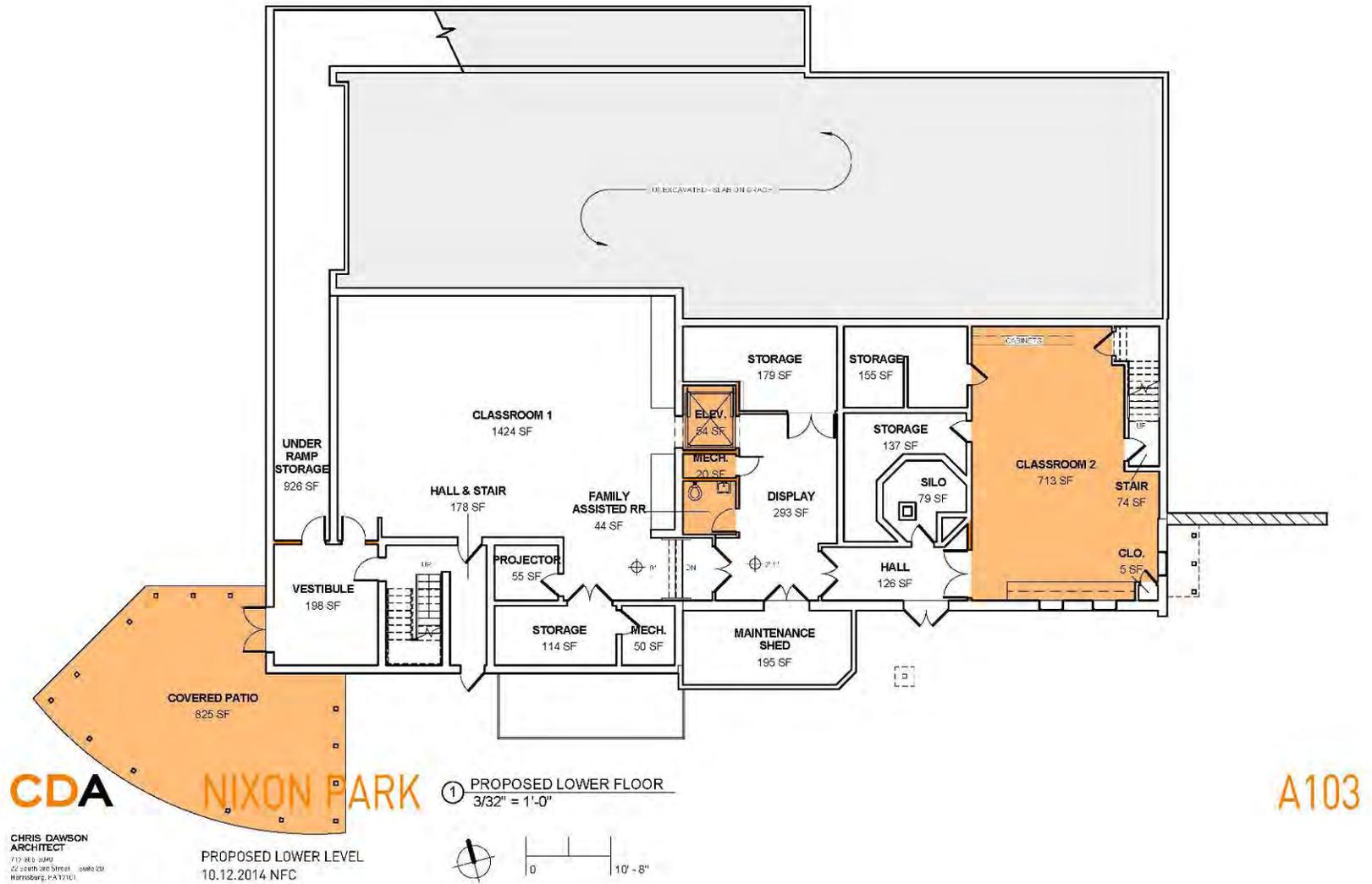
Pre-Final Master Plan

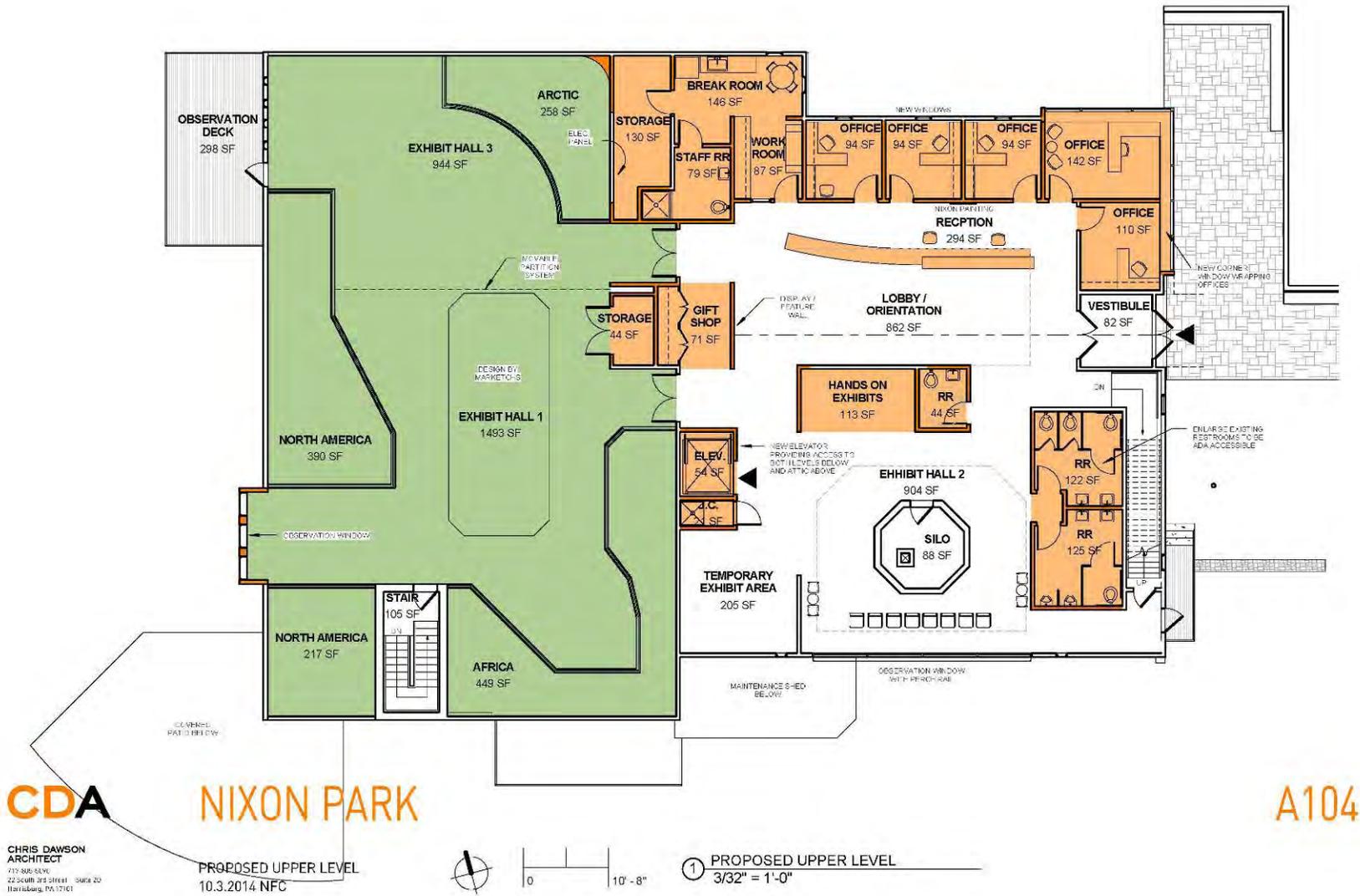
The Pre-Final Master Plan was developed for Richard M. Nixon County Park to reflect input from the Study Committee and general public. The pre-final design is a consolidation of the ideas and input from review of the Conceptual Alternatives into one cohesive master plan for the park site. A public meeting was held at the Nature Center building to present the Pre-Final Master Plan to the general public. The meeting was attended by residents, park staff and volunteers, and the Study Committee. The Pre-Final Master Plan is illustrated in the following sheets, followed by highlights of the input received at the public meeting.



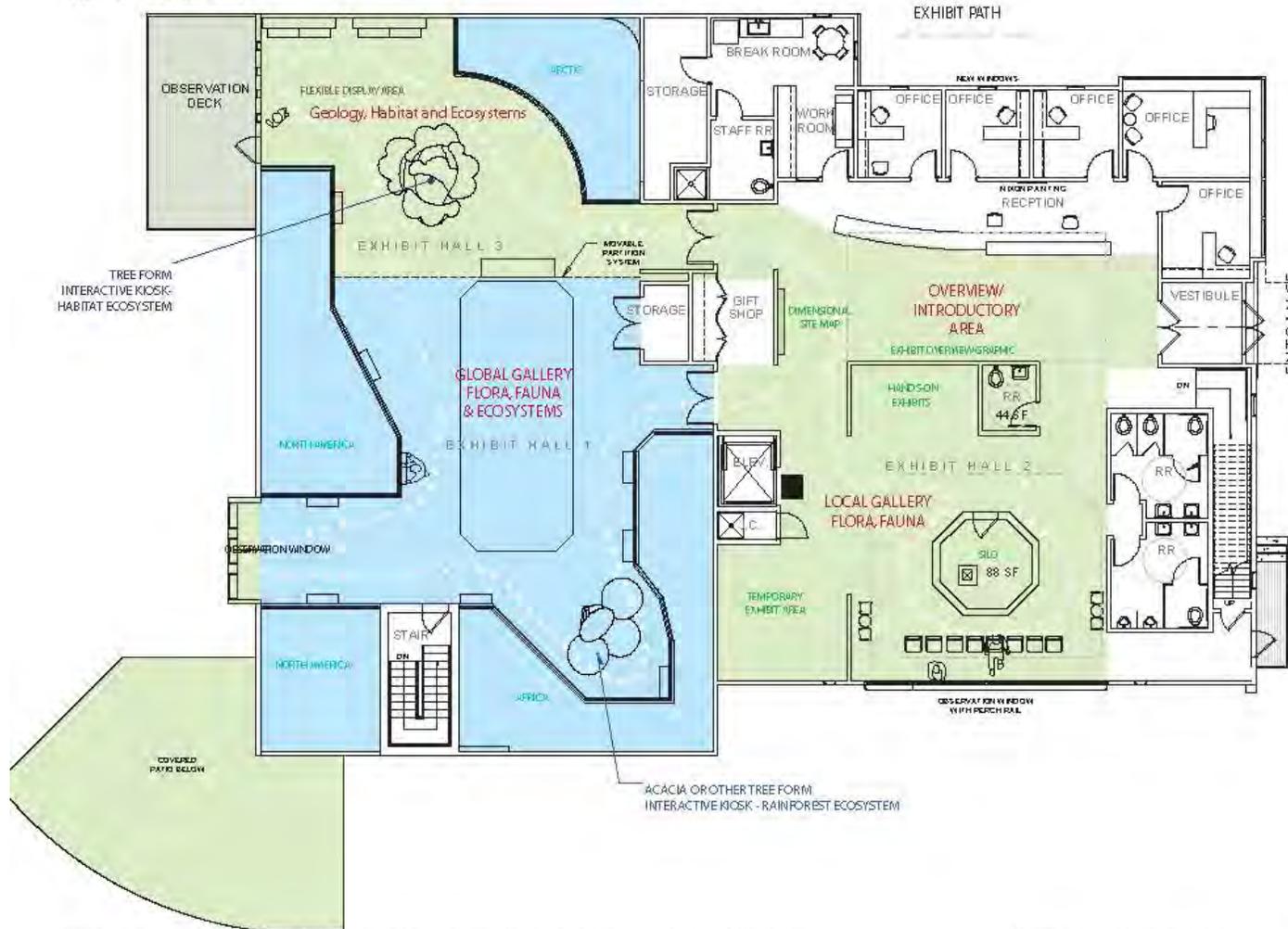








FLOOR PLAN - EXHIBIT SPACE



FEATURES

- Entrance area redefined
- Zone organization of exhibit content.

LOCAL GALLERIES

- Dinosaur hallway changes to Formation of PA Landscape, ecosystems and habitats science.
- Local viewing area opens up with Exhibit Introductory Area with supporting graphics, Dimensional Site Map and

GLOBAL GALLERY

- Replacement of Global Gallery rail system to aid view of exhibit and graphic presentation.
- Slight reconfiguration of rail footprint for discovery opportunities and better reveal of detail.
- Addition of ecosystem content to existing artifact display.



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CLIENT YSM - NIXON PARK

JOB # YSM1301M

DESCRIPTION NIXON PARK VISITOR'S CENTER-EXHIBITS

DATE 10-07-14

SCALE 3/32"=1'

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VIEW FROM ENTRANCE

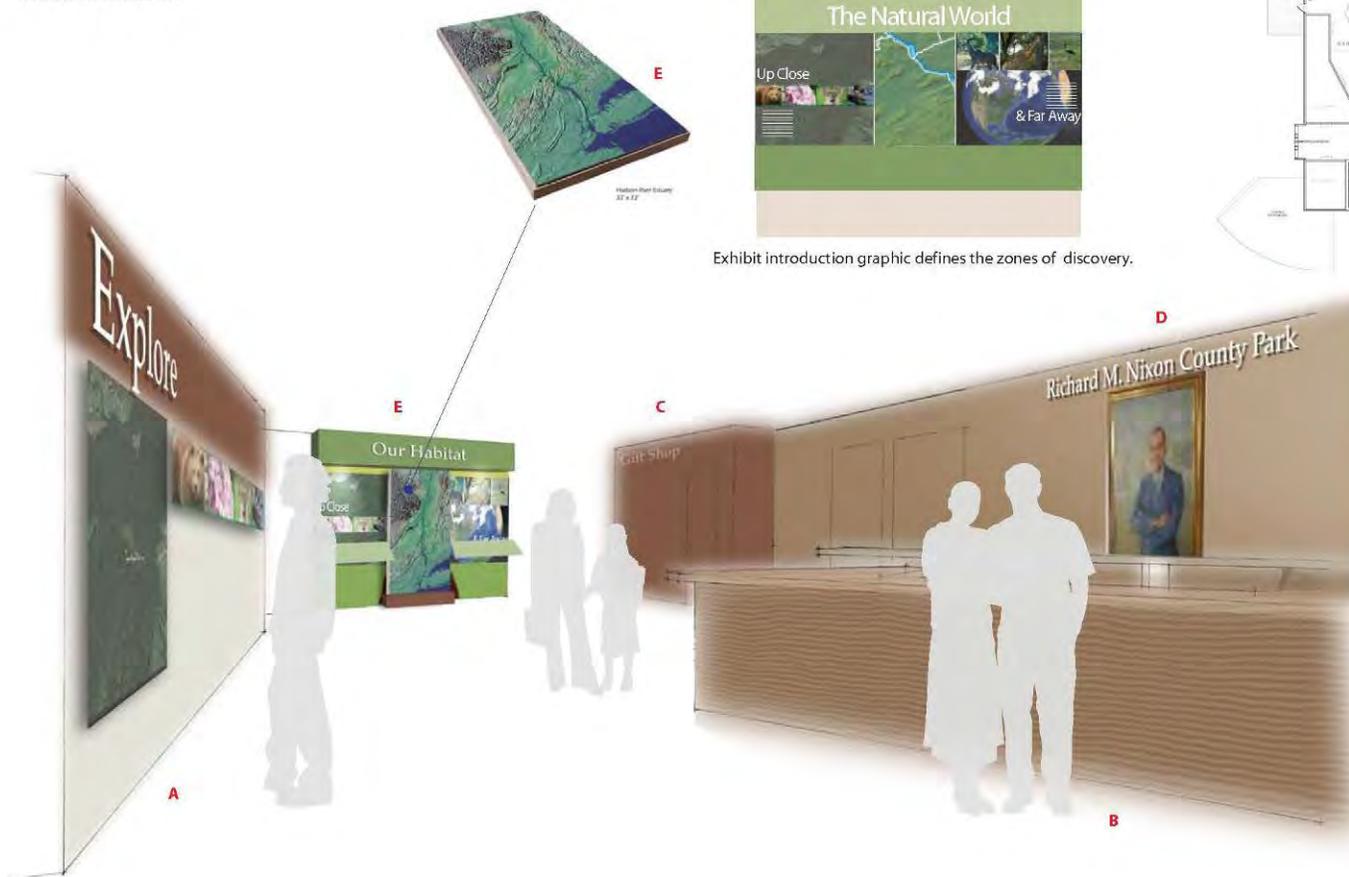


Exhibit introduction graphic defines the zones of discovery.

- FEATURES
- A.** Introductory Area
 - B.** Main Desk
 - C.** Retail Area
 - D.** Tribute/ Acknowledgement Area
 - E.** Main Exhibit Graphic Introduction



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JOB #: YSM1301M

DESCRIPTION: NIXON PARK VISITOR'S CENTER-EXHIBITS

DATE: 10-07-14

SCALE: NTS

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The public meeting to present the Pre-final Master Plan for the Richard M. Nixon County Park was held on October 15, 2014. The meeting was well attended. Input received at the public meeting is summarized below by component.

Site

- Consider developing exhibit space outside the main entrance to the Nature Center to draw visitors into the facility.
- Consider a sculptural element near the main entrance to highlight the entrance.
- Outdoor staging areas should be defined. Consider three separate areas with a sculpture at each area to identify the space. Sculpture could be three different animal types or stages of development such as egg, larva, and butterfly.
- The design should highlight the main entrance. Consider animal footprints in the pavement to direct visitors.
- Consider relocating the proposed restroom building to the other end of the parking area. Another suggestion was to build it into the island separating the drives, with an overlook opportunity on top of the structure.
- Consider additional parking spaces at the wetland restoration area.

Building

- Consider adding additional windows on the west side of the building as a backdrop to the interior exhibit space.
- The windows at main entrance should entice visitors to what is inside. Consider “skins” on the windows to hide the office spaces but graphically depict relevant nature center themes.

- Consider relocating the family restroom closer to the main restrooms so that it is not in the entry viewshed for visitors.
- Make sure the elevator is sized to accommodate movable exhibits, tables and chairs.

Exhibits

- Consider highlighting the history of Native Americans in the area.
- The Acadia tree exhibit was well received. Consider adding an African log hive to the tree exhibit.
- Consider installing remote cameras in the park, trained on nesting and habitat areas to provide a real time video experience.

General

- A resident questioned if there was a plan to connect Nixon Park to the York County Rail Trail. There is no immediate plan to make the connection.
- A suggestion was made to reach out to Gander Mountain or Cabela’s for funding assistance.
- Consider vending machines for convenience and to generate revenue.



Chapter 5 - Richard M. Nixon County Park Master Plan

Introduction

The Richard M. Nixon County Park Master Plan defines the overall vision for the Nature Center building, exhibits and its natural setting. The site planning focused on two areas in the park; the nature center building and the site entrance area, impacted by the Route 83 wetland improvement plan. The plan also promotes extension of the Hollow Creek Greenway through the park site, to the trails within William H. Kain County Park. The Master Plan illustrates the physical configuration of proposed improvements and strategies for enhancements. The Master Plan was developed after thoughtful consideration of input from citizens, the Study Committee, park users, and County and Nature Center staff, and volunteers and educators.

Opportunities

Richard M. Nixon Park, as envisioned by the master plan, will provide a blueprint for future improvements to the park, nature center and exhibits. The range of opportunities provided at Richard M. Nixon County Park is listed below.

Environmental Education – The nature center staff is the core of environmental education in the county. The master plan focuses on facilities and improvements that will help staff expand the learning environment and its exhibits and expands the curriculum, through introduction of new ecosystems as part of the wetland mitigation plan at the park entrance. The setting and these educational resources present greater opportunities for learning about our ecosystems through hands on experience. Information about the site’s unique features and habitat should be shared with park visitors through interpretative signage.

Resource Based Recreation – The site offers a diverse variety of settings to enjoy nature. The woodlands, geology, stream corridor, existing and proposed wetlands offer an array of natural resources. Lake Williams and Kain County Park, adjacent to the site, expand the resource opportunity. These settings provide opportunities for walking, hiking, bird watching and emersion into nature.

Group Outings and Programs – The nature center, exhibits, outdoor classrooms and open lawn areas provide space for families, school groups, and community organizations such as the scout groups, school ecology clubs, service clubs, and others to gather at the park for their programs.

Self-Directed Activities – Non-scheduled time is a premium for many as we get caught up in the hectic pace of our day to day lives. Richard M. Nixon County Park provides a place where visitors can enjoy the park setting and facilities at their own pace and on their own terms. Walking, hiking, birding and nature study are activities that visitors enjoy in the park on their own schedule.

Richard M. Nixon County Park Master Plan

Richard M. Nixon County Park Master Plan proposes improvements to the park that expand offerings; improve function, protect and enhance the natural features, welcome visitors, and engage and excite visitors who come to better understand the natural world around us.

Nature Center Building

Nature Center Building – A range of modification concepts for York County were developed to consider ways to improve the existing Nature Center Building producing a scheme influenced heavily by stakeholder feedback. On the upper level, recommendations focused on the entry sequence and adjacent staff spaces. A new reception desk is proposed to ones right as you enter the Nature Center via the vestibule and enter the building Lobby / Orientation space with a feature wall display to the north visually pulling visitors into the heart of the building. New staff offices and support spaces wrap around the new reception desk, creating offices with windows and access to daylight. Access to Exhibit Hall 1 is provided via glass doors either side the feature wall and contiguous gift shop niche.

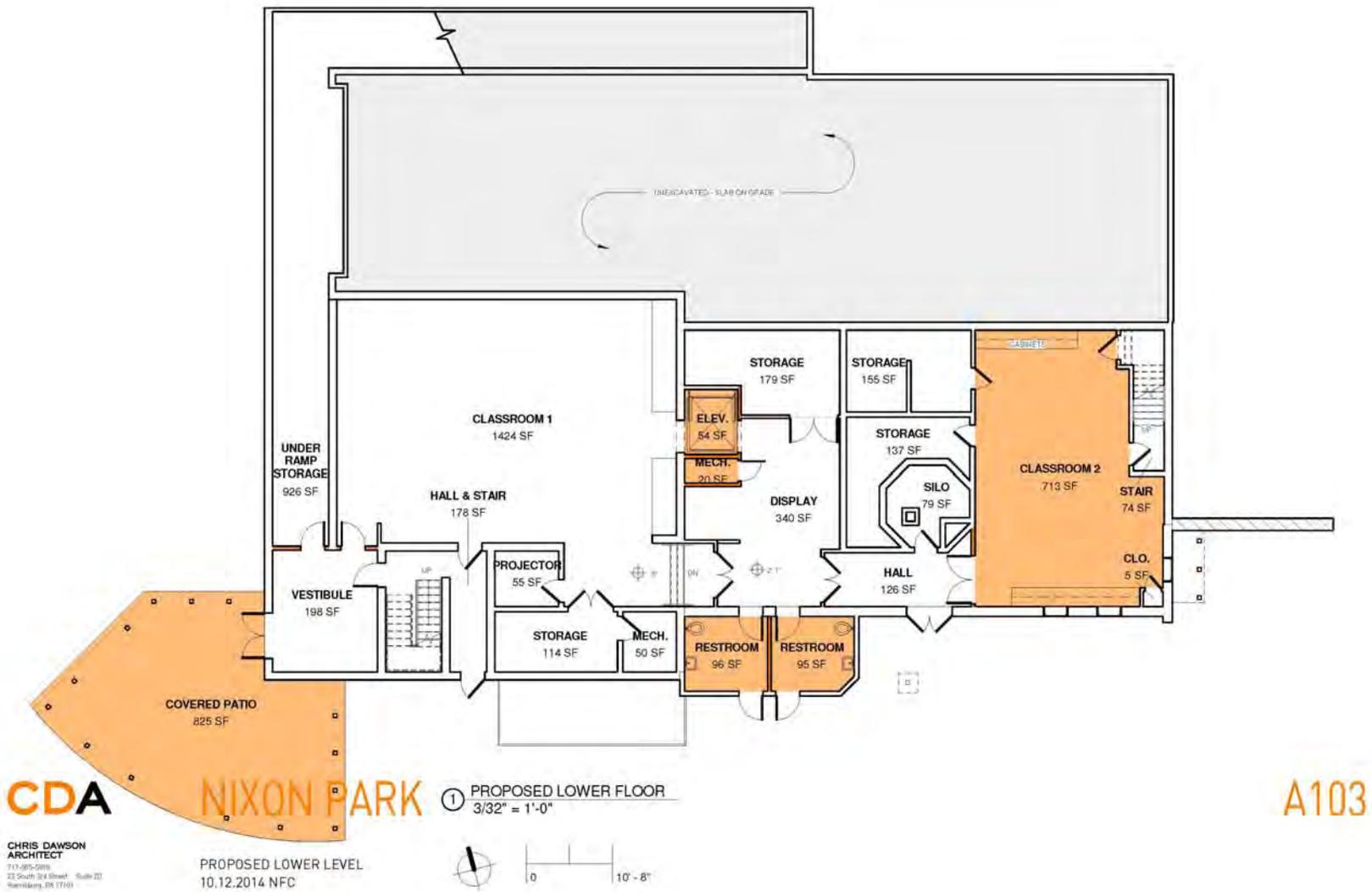
A new elevator is proposed at the west end of the original building contiguous to the 1992 addition to provide complete access to the lower level of the building, the upper level making moving items in and out of the attic storage space more convenient. This location requires relocation of the Please Touch Room which allows the space to increase in size as requested by staff. A new Hands-On Exhibits Room is located in a central area with a new ADA accessible single occupant restroom as a “bar” of support spaces separating the Lobby / Orientation Space from Exhibit Hall 2. The current restrooms will be renovated and expanded to provide the code required maneuverability for these critical support spaces.

The new upper level layout creates a very open arrival sequence. One potent idea for the feature wall display would be a 3d model of Nixon County Park as a visually interesting object that would help orient visitors to the extent of the Park.

The staff office on the lower level is eliminated in the southeast corner, opening up a new kitchen area to provide more viable work room space that would include new windows connecting this space to the exterior. A new covered patio space is proposed on the backside of the building near the southwest corner. This new patio could be used to accommodate a 4th group of approximately 30 children during visits by school groups when there is inclement weather.

New restrooms are developed on the lower level in the area of the former maintenance shed on the south facing wall. The restrooms are designed to provide access from inside the building and from the outside, permitting use of the facilities when the nature center is closed.

Improvements to the arrival experience on the east side of the Nature Center including a new skin that contrasts the original barn massing with dark siding, an entrance canopy, signage above the entrance, and a glass bay window that wraps the northeast corner of the building. The architectural improvements in concert with the upgrades to the site surrounding the Nature Center will signal to the public that the Nixon Park Nature Center is an inviting and important hub for visitors to connect with their beautiful natural surroundings.



Nature Center Exhibits

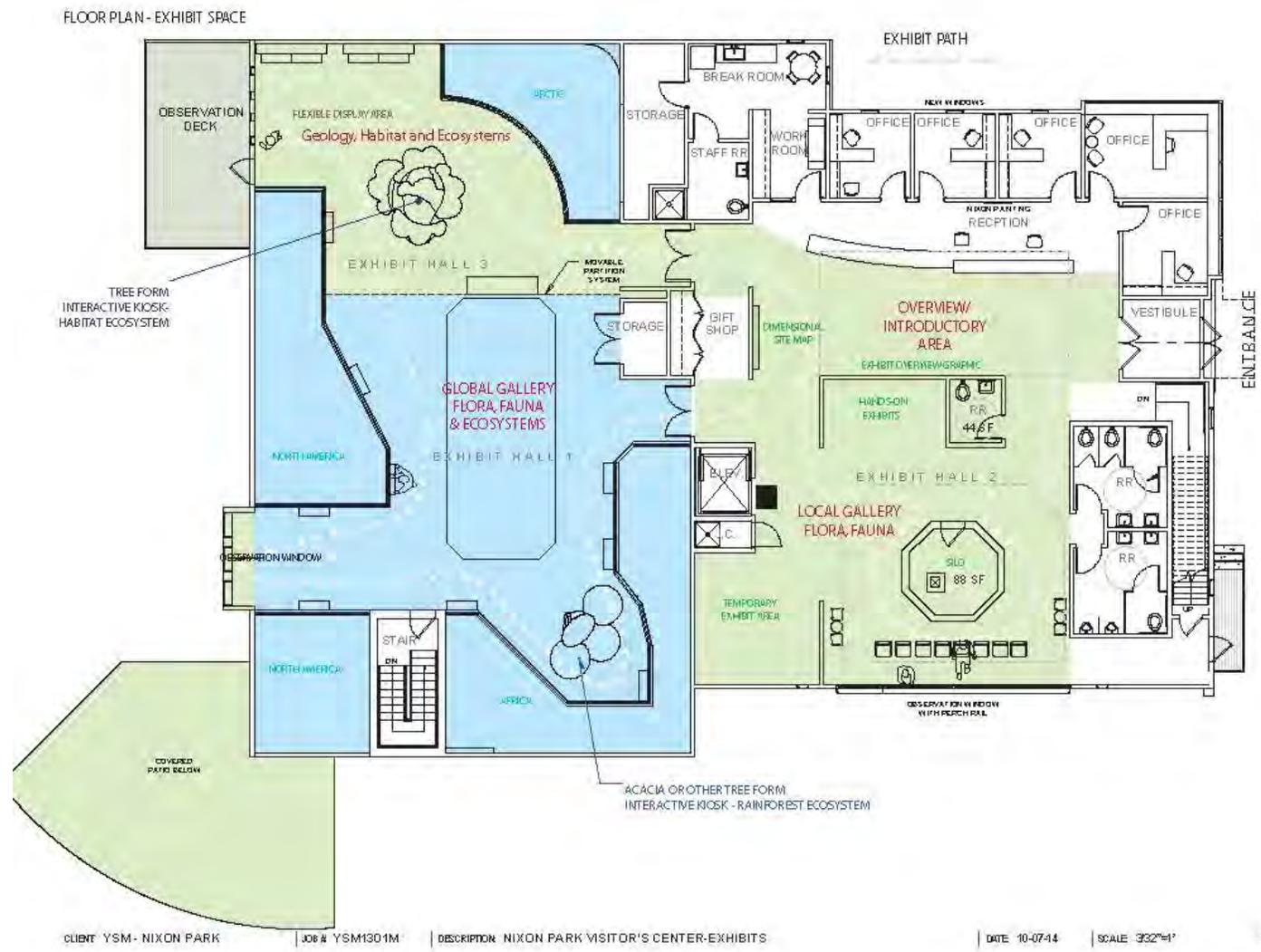
Nature Center Exhibits – Proposed designs for the Nature Center Exhibits address the problem areas raised by the staff, volunteers and citizens during the public participation portion of this project. To make better use of existing building features and justify the physical prominence of the Koller Gallery, four main gallery areas have been outlined, framed around the interpretive theme of a diverse world. The design plan allows visitors to move easily through each subject area and to make comparative connections across areas. Nature center staff and educators now may broaden, but are no longer essential to, the visitor experience.

Visitors enter the Center into an open, multi-purpose and orientation space. An orientation map and main interpretive station place visitors in space and time and introduce the subjects they will then explore. The design establishes interpretive zones, populated with a mix of graphic images, 3-dimensional structures and interactive learning stations. Among the exhibit methods proposed for these areas are tree forms, audio and visual media, touch stations, specimen drawers, touchscreen inter-actives, video-microscopes and themed or focused lighting. A significantly re-shaped Koller Gallery now makes effective use of the collections, using them to examine the ecologies of different habitats worldwide. The design has retained the Center’s most popular current elements: The large viewing window in the Pennsylvania (“Local”) area, the beehive and small areas for special, changing exhibits and hands-on activities. A second observation area has been added to the Koller Gallery.

After spending time in the new Pennsylvania geology, habitats and ecosystems area (currently the Dinosaur section), visitors may exit the exhibits area onto an observation deck, further linking the exhibits in the Center to the grounds beyond. A movable wall system is also proposed to separate this area from the Koller Gallery, which continues to be a principle staging point for school

groups and special programs. For structural reasons, the “silo” remains part of the second “Local” area, now with new exhibit content.

If developed, the design plan will result in exhibits that excite, challenge and educate and make Nixon Park central to the next generation.



FEATURES

- Entrance area redefined
- Zone organization of exhibit content.

LOCAL GALLERIES

- Dinosaur hallway changes to Formation of PA Landscape, ecosystems and habitats science.
- Local viewing area opens up with Exhibit Introductory Area with supporting graphics, Dimensional Site Map and

GLOBAL GALLERY

- Replacement of Global Gallery rail system to aid view of exhibit and graphic presentation.
- Slight reconfiguration of rail footprint for discovery opportunities and better reveal of detail.
- Addition of ecosystem content to existing artifact display.



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VIEW FROM ENTRANCE

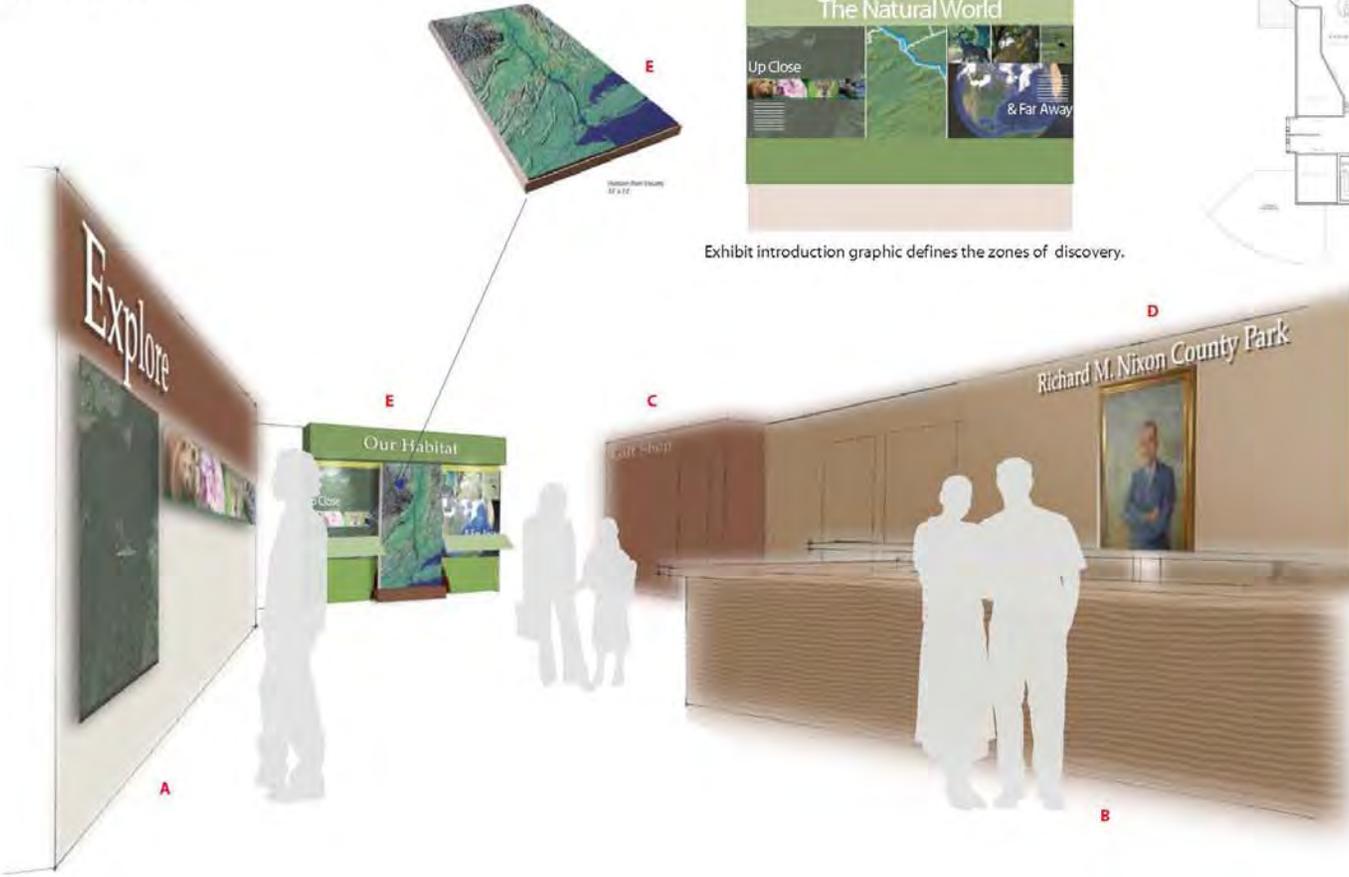


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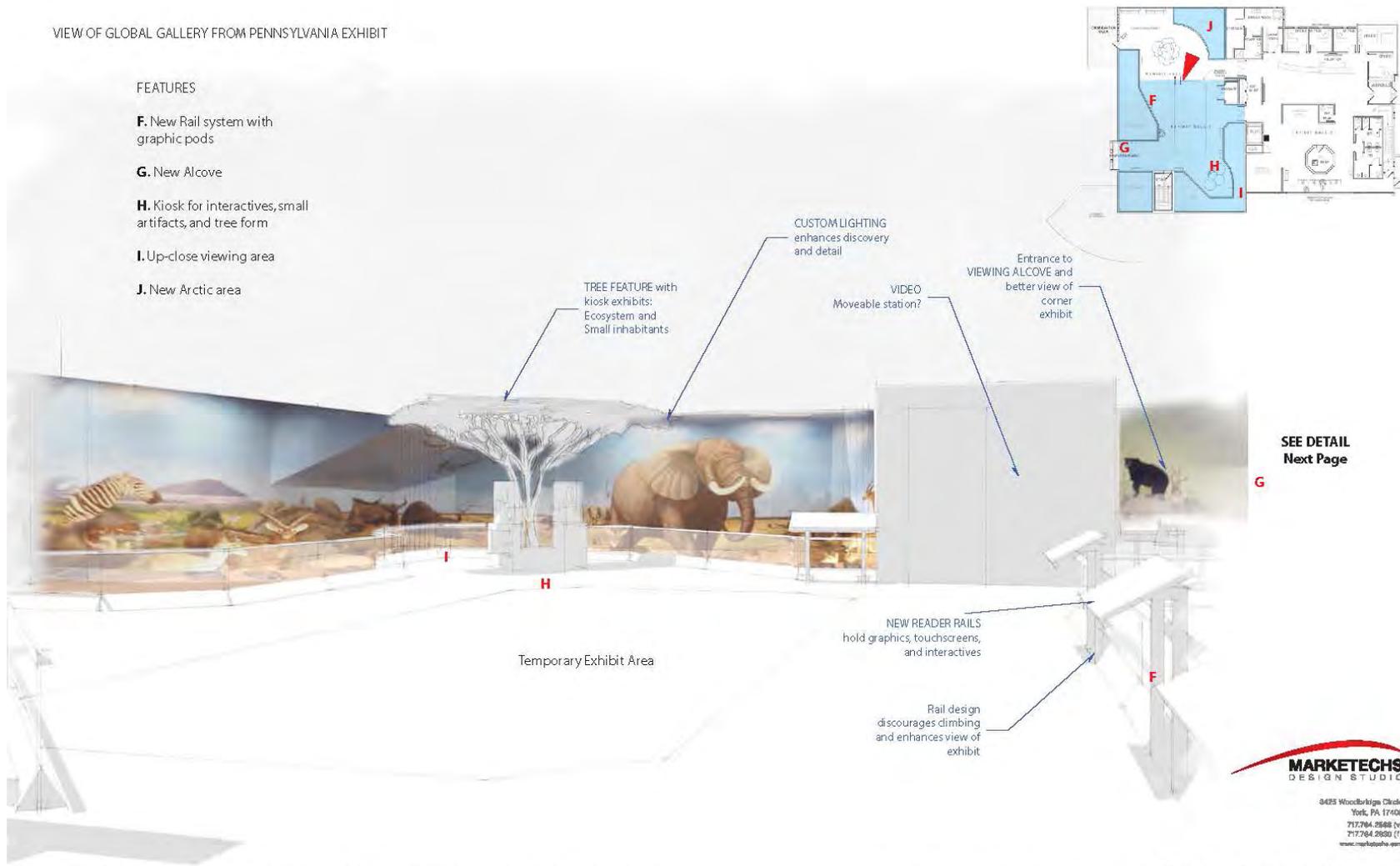
SCALE NTS

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VIEW OF GLOBAL GALLERY FROM PENNSYLVANIA EXHIBIT

FEATURES

- F.** New Rail system with graphic pods
- G.** New Alcove
- H.** Kiosk for interactives, small artifacts, and tree form
- I.** Up-close viewing area
- J.** New Arctic area



SEE DETAIL
Next Page



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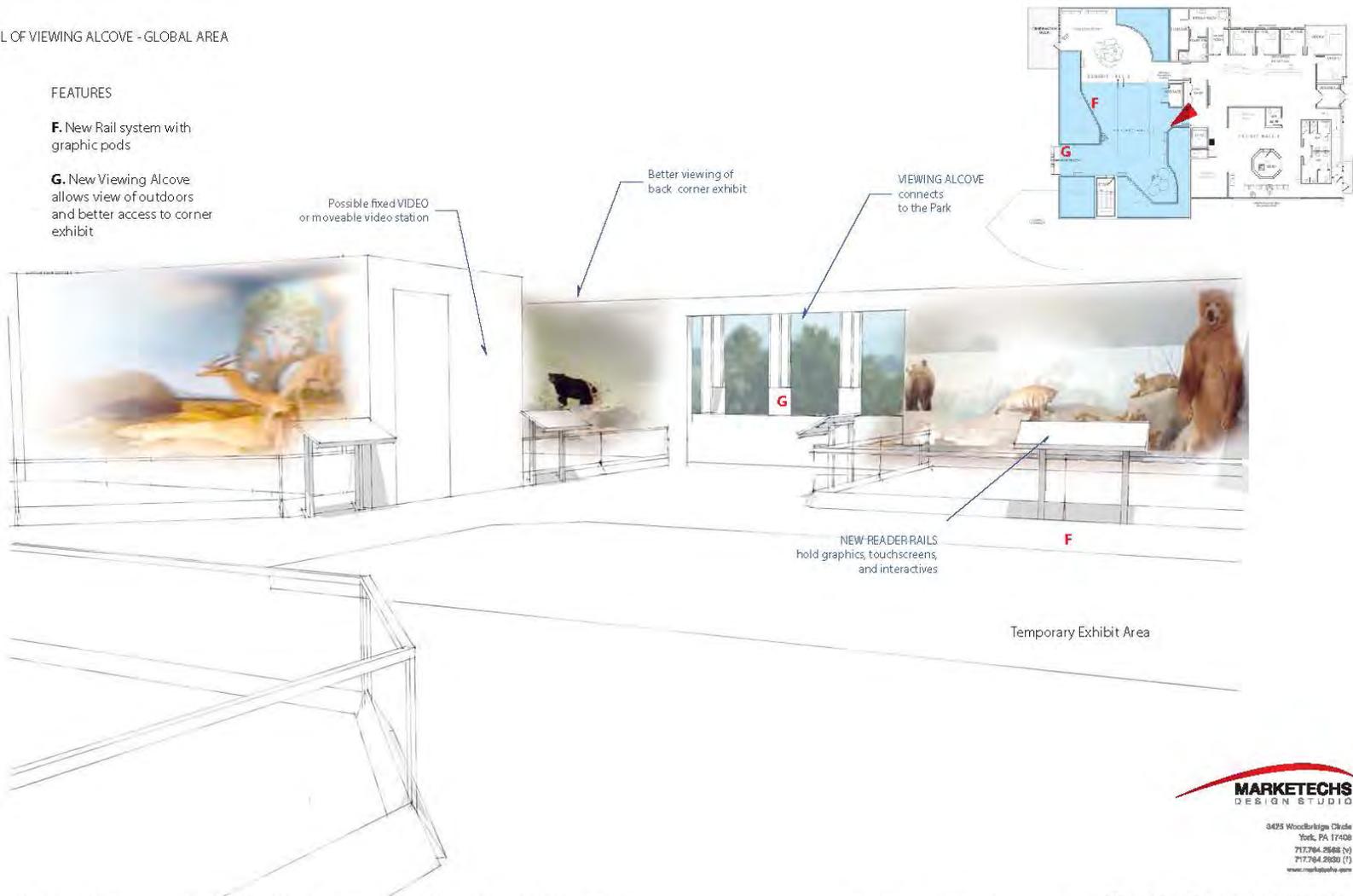
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DETAIL OF VIEWING ALCOVE - GLOBAL AREA

FEATURES

F. New Rail system with graphic pods

G. New Viewing Alcove allows view of outdoors and better access to corner exhibit



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NEW PA EXHIBIT EXPANSION AREA VIEW FROM GIFT SHOP

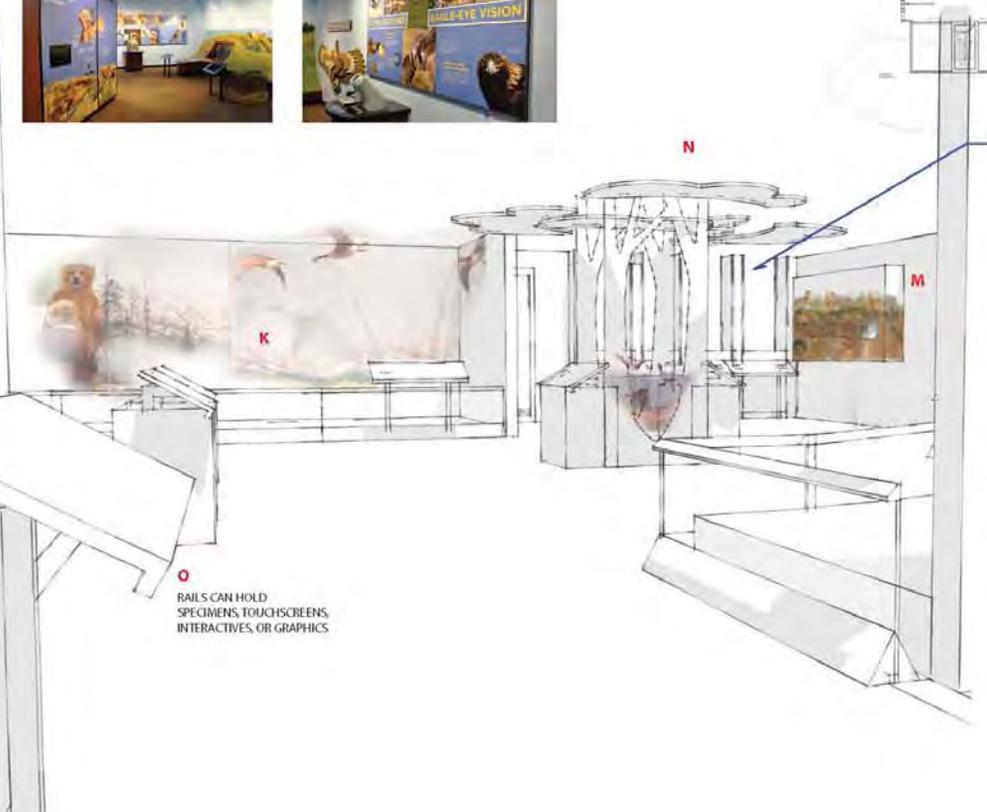
FEATURES

- K.** View of existing eastern fauna
- L.** Existing view onto back deck
- M.** New cases and graphics for PA flora, fauna and ecosystem. Tall cases can be moveable.
- N.** Tree-canopy/cloud ceiling shapes
- O.** Graphic rails and wall cases present more information and more specimens currently in Local Gallery

CONTEMPORARY DISPLAY STYLE



WALLS CAN DISPLAY CONTENT IN A VARIETY OF WAYS



Creative centerpiece can create display opportunities and interactive stations.

O
RAILS CAN HOLD SPECIMENS, TOUCHSCREENS, INTERACTIVES, OR GRAPHICS



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Nature Center Site

Site improvements proposed in the master plan focus efforts on the area immediately surrounding the nature center building, the entrance drive and entry area at the intersection of Valley Road and Nixon Drive. During the master plan process, the Route 83 wetland mitigation design and engineering was underway. The timing of the two projects allowed the master plan to influence the proposed wetland mitigation plan to provide for exploration of the new area, making it part of the learning landscape. Key features of the site are highlighted below.

Site Entrance and Satellite Nature Center – The main entrance to the site from Nixon Drive is maintained. The western corner of the site is drastically changed as part of the wetland mitigation project. The stream is relocated, and flanked with numerous wetland areas, saturated marshes, inundated marshes, and meadows. These natural areas are traversed by a series of trails and boardwalks to provide select access to the natural features. A portion of the trails are accessible to provide access for persons with disabilities. Many are maintained as grass trails.

A medium sized pavilion, accommodating 30-40 students is proposed near the intersection of Nixon Drive and Valley Road. The pavilion is accessed by a small 6 car parking area and bus parking space. This parking will be gated to prevent cut through traffic and control access.

Nature Center Entrance – The existing loop configuration of the access drive is maintained, with the addition of an island to separate the drop-off area from the main traffic flow. The existing rectangular parking area northeast of the entrance is maintained. The drop off area is enhanced with seatwalls and native plantings to provide a pleasant entrance and waiting area. The building drop off and entry area has been configured to provide a dual walk providing accessible routes to the upper and lower floor of the nature center. Seating areas are provided along the way to allow areas for rest and staging of

groups. The lower walk provides access to the new restroom within the nature center building, access from the outside, and the patio with fireplace on the south west corner of the building.

Nature Center Lawn – The open lawn on the south east side of the nature center is maintained for outdoor gatherings. The southern edge of the lawn, adjacent to the creek is defined with native plantings to naturalize the stream corridor and buffer the stream banks.

Outdoor Exhibit Area – The outdoor exhibit area on the southwest side of the building is rejuvenated with new exhibits and plantings to highlight key features and provide an outdoor learning experience. The existing trail system is maintained with minor adjustment to address accessibility. Access to the creek study area is maintained to allow school groups opportunity to interact with the creek.

Natural Play Area – Playgrounds should be designed to stimulate imaginative play as well as physical activity. Playgrounds should be interesting environments that engage children while providing convenience facilities for adults such as benches and shaded areas.

A natural play area is proposed at the confluence of Old Field Trail and Bird Hollow Trail, north of the existing pond. The play area offers a natural setting for youth to engage nature, on their own terms. The area was selected based on the existing canopy vegetation, access to trails, gentle topography and proximity to the creek. The area will be designed with minimal improvements to the natural setting so youth can interact with the natural features in an unstructured way. The area will be fenced to allow caregivers to oversee activities from the perimeter without concern of youth wandering off. Benches are provided with clear lines of sight through the area to make it comfortable for caregivers.

Trails – The majority of the existing trails within the park are earthen or mowed lawn. Proposed trails are developed to provide accessible routes to facilities and activity areas and provide opportunities for walking, nature study and exploring the park. Porous pavement is

suggested for proposed trails with consideration of accessibility requirements and environmental benefits that can be shared through education.

The Hollow Creek Greenway Trail is an existing multi-purpose trail which terminates at a trailhead along Valley Road, adjacent to the Nixon Park site. The trail allows pedestrians, bicycles, pets and equestrian use. Pet walking, bicycles and equestrian use is not permitted within the trails at Nixon Park. A route for the Hollow Creek Greenway is proposed at the eastern end of the site. The trail extends the greenway from the existing paved trailhead at Valley Road to the earthen trail system within William Kain County Park. Passage of the Hollow Creek Greenway is maintained near the edge of the park, along the existing roads to maintain separation of uses. The Greenway Trail follows the western shoulder of Valley Road, wraps the perimeter of the proposed parking area at the park entrance, follows the southern shoulder of Nixon Drive before crossing Nixon Drive and heading west through a mowed clearing in the woods. This section of the Hollow Creek Greenway trail should be developed at 10-foot wide thru the park until the crossing of Nixon Drive, before transitioning to the existing mowed trail. The greenway trail will connect to the existing trails within Nixon Park. Signage should be provided along the trail to clarify the permitted uses, preventing bicycles, pets and equestrians from entering the sensitive natural areas.

Other trails developed in the park should be developed with a narrow tread keeping the natural feel of the park. Trails that will be routinely used by school groups could be developed wider to facilitate education.

Trail markers should be maintained to identify trails and indicate key features such as steep slope, narrow tread, stream crossings and other influences that may challenge trail users. Kiosks at trailheads should have site maps, which show the trail layout and identify loop lengths.

Acquisition / Conservation Easements– Richard M. Nixon County Park provides protection for 187 acres of natural area habitat. Its proximity to William Kain County Park offers connectivity to an additional 1,637 acres of dedicated park land. While dense residential development occupies property immediately east of the site, the majority of the surrounding land use remains rural residential. Potential for acquisition or conservation easements is recommended for surrounding lands to protect and enhance the ecological systems and buffer the park site from incompatible use. Adjacent or nearby parcels which can extend trails, expand wildlife habitat and protect natural resources should be considered for acquisition or protection through a conservation easement with the cooperation of the landowner.

Support Facilities

Restrooms – The bottom floor of the Nature Center building has been revised to accommodate new restrooms in the area of the former maintenance shed on the buildings southeast wall. These restrooms will be developed to provide access from inside the building and outside to serve park visitors. Vandal resistant materials and fixtures are suggested.

Utilities – Infrastructure improvements are necessary at Richard M. Nixon County Park for the proposed uses and facilities as defined by the master plan.

Entrance/Access and Parking – Generally, the existing access drives and parking areas are maintained, as the existing lot size is adequate to serve the daily need of the facilities. The parking is well established and convenient for vehicles, and buses. Parking improvements include a defined drop-off area and additional parking spaces in the lower parking area, closest to the building. Development of these spaces will require the installation of a retaining wall to expand into the hillside. These new spaces will provide close access to the building

entrance. The existing handicap parking spaces are relocated to within the existing rectangular parking area.

A new six car parking area is developed near the site entrance to provide convenient access to the new wetland replacement area. Handicap parking spaces with appropriate signage and pavement markings should be provided in each parking area.

Natural Areas

The park site is a vast natural oasis within a growing suburban/rural area and its connections to Kain County Park offer contiguous natural areas for wildlife and nature study. Natural areas of Richard M. Nixon County Park include portions of a tributary of the East Branch of the Codorus Creek and its riparian corridor, wooded hillsides and meadows. This master plan process focused on improvements in close proximity to the nature center building. Detailed planning and analysis for the entire acreage was not completed. General guidelines are provided below.

Woodlands – The wooded setting has tremendous aesthetic values to the nature center setting. Disruption to the existing woodlands is minimized. To the extent possible new facilities should be integrated into the natural setting with as minimal tree removal and impact on natural resources as possible. The existing clearings and and trail treads are repurposed in the design. Judicious monitoring of these areas will be necessary to assure that invasive species are not introduced.

Wetland and Stream Mitigation Areas – The proposed wetland and stream mitigation area near the park entrance will require significant earthmoving to form the proposed wetlands and marshes. This broad disturbance will inevitably open the door to undesirable plant species. Any invasive species that is identified should be removed and native vegetation planted in its place. Riparian areas are difficult to protect from invasive species and monitoring and removal efforts should be

ongoing. Long term maintenance procedures, specific to these newly disturbed areas, are outlined in Appendix A – Wetland and Stream Mitigation Management Plan prepared by PennDOT.

Riparian Corridor – Large mature trees and low meadow and shrub vegetation exist throughout the riparian corridor, much of which was recently rehabilitated and stabilized. This vegetation helps to stabilize the stream banks and prevent excessive erosion. Trees in the riparian corridor also serve as nesting and roosting habitat for birds and shade the stream. Any improvements near the stream corridor should be field located to minimize removal of large trees and negative ecological impacts on riparian vegetation.

Vegetated riparian corridors are critical to healthy streams and rivers. These vegetated lands contiguous to streams and river banks protect watercourses and promote water quality. Riparian corridors provide ecological benefits which include:

- Stabilize Stream/River Banks – Deep-rooted vegetation binds the soil along water courses, stabilizing the banks, and preventing erosion during periods of high runoff and flooding.
- Improve Water Quality – Vegetation along streams traps and treats sediment, nutrients, and pollutants before they enter the water course or groundwater.
- Enhance Wildlife Habitats – Trees, shrubs, and grasses along water courses provide habitat, shelter, and travel corridors for many aquatic and land species.
- Reduce Flooding and Sedimentation – Vegetation retains stormwater runoff longer, improves infiltration, and filters sediment from flowing downstream during floods.
- Keep Streams Cooler and Healthier – Shade from riparian buffers cools the stream waters and increases food, oxygen, and habitat for aquatic life.

- Enhance Scenery – Vegetation along water courses adds beauty and diversity to the landscape.

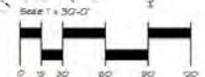
Invasive Species – Monitoring for invasive species should be part of the resource management. If invasive species are found, they should be removed and replaced with native material. As trails and other facilities are developed, care should be taken to minimize clearing and removal of large trees, so that invasive species cannot get a foothold on the site in cleared areas where sunlight can reach the forest floor.

LEGEND:

-  Accessible Parking Space
-  Lawn
-  Meadow
-  Concrete Pavement
-  Deciduous Tree
-  Shrubs
-  Pedestrian Bridge
-  Bituminous Pavement
-  Accessible Trail
-  Mowed/Earthen Trail



Richard M. Nixon County Park Master Plan
Springfield Township and Jacobus Borough, York County, Pennsylvania



General Park Design Considerations

Americans with Disabilities Act – ADA – The US Department of Justice and the Access Board has developed new guidelines covering access to trails, beaches, picnic areas, camping areas, and viewing areas. The guidelines supplement those the Board has issued for the built environment and address unique constraints specific to outdoor developed areas. The Accessibility Guidelines for Outdoor Developed Areas apply to all public projects. The following guidelines are outlined in the Accessibility Guidelines for Outdoor Developed Areas and summarized here, in part. Refer to the Access Board website for complete guidelines, www.access-board.gov/guidelines-and-standards/recreation-facilities/outdoor-developed-areas.

Trails – Trails shall be accessible where the trail directly connects to a trailhead or another accessible trail. Newly constructed trails shall be accessible and altered trails that change the original design, function, or purpose of the trail shall be accessible. Where a condition (listed below) does not permit full compliance with a specific requirement on a portion of a trail, that portion shall comply with the specific requirement to the maximum extent feasible. Where it is impracticable for an entire trail to comply, the trail shall not be required to comply.

Conditions for exception to trail accessibility criteria:

1. Compliance is not feasible due to terrain.
2. Compliance cannot be accomplished with the prevailing construction practices.
3. Compliance would fundamentally alter the function or purpose of the facility or the setting.
4. Compliance is precluded by the:
 - Endangered Species Act (16 U.S.C. §§ 1531 et seq.);
 - National Environmental Policy Act (42 U.S.C. §§ 4321 et seq.);

- National Historic Preservation Act (16 U.S.C. §§ 470 et seq.);
- Wilderness Act (16 U.S.C. §§ 1131 et seq.); or
- Other Federal, State, or local law the purpose of which is to preserve threatened or endangered species; the environment; or archaeological, cultural, historical, or other significant natural features

Trail surface shall be firm and stable and shall have a clear tread width of 36-inches minimum and no more than 30-percent of the total length of a trail shall have a running slope steeper than 1:12.

Parking – Parking areas should be developed to provide an appropriate stabilized surface for vehicle parking, and handicapped parking stalls should be paved and appropriately designated. Porous pavement is preferred for Richard M. Nixon County Park as it is accessible, environmentally friendly, and a vehicle to promote water conservation measures. The initial cost of pervious pavement is greater than traditional impervious pavement, but the need to develop stormwater management facilities for new parking area surfacing is avoided.

Site Furnishings – The park should have facilities that enhance the convenience of visiting the park and create a welcoming environment. Benches should be provided at gathering places, and periodically along trails. Park furnishings that provide for the leisurely enjoyment of the park are suggested. Through education and policy, York County Parks promotes carry in, carry out, eliminating the need for trash receptacles.

Park Architecture – Implementing the recommendations of the master plan will require rehabilitation and enhancement of the existing nature center and development of new park structures. The nature center barn improvements should retain its vernacular context. Proposed buildings should respond to the park site and

vernacular setting and the building design should reflect the typical farm architecture.

Developing park buildings with similar architectural style can be a unifying factor of a park and park system. The proposed maintenance garage and pavilion should respond to the park site and building location and elements of the buildings such as the materials, proportions and massing, roof lines, colors, and other factors should be similar. In addition to unifying the park, if the pavilion and maintenance buildings are developed with similar design and complementary qualities, repairs and upgrades will be more standardized.

An architectural style that has natural qualities and is compatible with the settings of the park is suggested. Consider using native stone, wood, and natural colors. Pavilions could be pre-engineered and chosen from one of many pavilion manufacturers or specifically designed for the park. All structures must comply with various local, State, and Federal codes and guidelines, including the American’s with Disabilities Act (ADA). Park architecture guidelines noted below are recommendations to guide the park structure design.

York County should consider developing buildings that are LEED certified to promote “green” sustainable development within the park. LEED is an internationally recognized green building certification system, providing third-party verification that a building was designed and built using strategies aimed at improving performance in energy savings, water efficiency, CO₂ emissions reduction, improved indoor environmental quality, and stewardship of resources and sensitivity to their impacts. LEED was developed by the U.S. Green Building Council to provide building owners and operators a concise framework for identifying and implementing practical and measurable green building design, construction, operation, and maintenance solutions.

Park Architecture Guidelines

Unifying Design – Buildings throughout the park should be similar in design and detail, while responding to context, function, and site characteristics. Building materials should be incorporated in other park elements, i.e. stone used for site walls or sign bases.

Building Style – The historic or vernacular style of existing or local traditional buildings and structures should be observed and highlighted in new building design if appropriate. Building materials and an earth tone color pallet that blends with the surrounding landscape should be used.

Complement the Park Setting – The buildings should relate to the topography and character of the setting, becoming an integral part of the park site and not forced upon the landscape.

Human Scale – The buildings should be human scale with wide roof overhangs to provide protection from the elements.

Vandal Resistant – Interior and exterior materials should be vandal resistant. Restrooms should have stainless steel fixtures, pavilion trusses should be closed, security lighting should be installed, exterior outlets should have locking covers, etc.

Expandable – The park structures should be built with expansion opportunities preserved as future needs arise as appropriate.

ADA Compliance – Public buildings must comply with the Americans with Disabilities Act requirements.

Green Design – Green materials and energy savings strategies should be incorporated into building designs. Consider developing LEED certified buildings.

Signage System Considerations – A comprehensive signage system is important to guide visitors to the park and inform and direct visitors once they are at the park site. A comprehensive signage system should include a park entrance sign(s), park rules sign, direction signs, trail mile markers, and interpretative signs. Currently there are few park signs within the park, including an entrance sign at the split in the access drive, deep in the site, directional trail signs, and local road signs directing visitors to the park.

Entrance Sign

Entrance signs should include the park name and County name and logo. Entrance signs should be located at the main entrance to the park at the intersection of Nixon Drive and Valley Road.

Information Kiosk

Information kiosk are suggested for Richard M. Nixon County Park at the parking drop-off area, lower level parking area, and trailheads. Kiosk orient visitors and provide information about the park and typically include a park and trail map, park rules and policies, and park announcements. The kiosk could be developed as a two, three, or four sided sign structure to accommodate desired information.

Interpretative Signs

Interpretive signs exist within the park. Interpretative signs are suggested to provide information about historical, cultural, and/or natural features of the park.

Directional Sign

Directional signs direct visitors to key features in the park such as the Nature Center Building, pond, natural play area, wetland mitigation area, etc.. Directional signs are typically located in park hubs and at trail intersections.

Park Sign Development Guidelines	
Vandal Resistant	Utilize materials such as phenolic resin panels (no frame required) or fiberglass embedded panels (frame required) which resist abrasions, graffiti, solvents, etc.
Weather Resistant	Utilize materials that will not fade or otherwise degrade from sunlight, moisture, or the freeze/thaw cycle.
Meet PennDOT Regulations	Along PennDOT roadways use standard signs.
Promote Consistent Image	Develop a “family” of graphics (logo, font, colors, etc.) that will be used on signs throughout the park to unify the park. Work with professional graphic artists to create a layout template for each sign type and park logo.
Graphics	Utilize maps, graphic illustrations and photographs, and text to communicate the intended message.
Positive Message	Research indicates that positive messages are far more effective in reducing depreciative activities (littering) than negatively worded messages. ¹

¹ Recreation Research Update, Pacific Southwest Research Station – Wildland Recreation and Urban Cultures, October 1999 No. 31 (USDA Forest Service).

Park Signage System Guidelines		
Sign Type	Sign Purpose	Sign Locations
Park Entrance Signs	Identify park and park entrances.	Each public entrance to the park.
Information Kiosks	Provide information about the parks such as park policies, park and trail maps, special events and program calendar, etc.	At activity area hubs and major trailheads.
Directional Signs	Identify direction and distance to destinations.	At trailheads and activity area hubs.
Trail Signs	Identify trails of the park, provide length of trail.	At trailheads and trail intersections to guide users and identify cross trails.
Mile Markers	Identify location on a trail (mile indication visible from both sides of the marker).	At one-quarter mile intervals along trails.
Interpretative Signs	Provide environmental education, historic, cultural, and general interest information about the park site, its resources, or surrounding area.	At points of interest in the park and along the trails.
Traffic Signs	Traffic control and warn motorists of park activity areas.	Along the entrance drives and vehicular ways within the parks.
Safety Signs	Warn visitors of safety issues.	Strategically located as necessary.

Natural Resources and Infrastructure

Stormwater Management – Stormwater facilities will be required to accommodate the stormwater runoff generated from improvements and facilities introduced into the park. Stormwater collection and conveyance facilities should be designed to comply with the municipal stormwater management code. Stormwater management facilities, such as detention, retention, or infiltration facilities, to reduce peak flows are not accommodated on the park master plan at this time. Further study to determine the type of stormwater management facility, the size, and location should be performed as part of the design and engineering for construction. Best Management Practice (BMP) principles should be used to manage stormwater where applicable. BMP's such as rain gardens, filter strips, subsurface infiltration beds, and other low impact controls should be considered to control stormwater runoff.

Best Management Practices – Richard Nixon County Park's natural resources are valuable assets and should be protected. Development and rehabilitation of the park, as conceived in this master plan, will involve earthwork and construction activities. Best Management Practices are encouraged throughout the construction process to protect and stabilize resources. Examples of Best Management Practices are noted on the next page.

Landscaping – Landscaping should be introduced to solve problems and enhance the visual image and function of Richard Nixon County Park. Landscaping should be located and maintained to buffer adjacent uses, nearby neighbors, and functional areas such as refuse areas. Additionally, landscaping should be planted to transition from high use areas to natural areas, and to aesthetically enhance the park settings.

Landscaping should be used as a strategy to minimize maintenance. Elements such as signs should be placed within landscaped areas to minimize hand mowing. Mow lines should be established which

reduce mowing, especially outside of activity areas. The main entrances to the park should be attractively landscaped with a signature design highlighting the facility. Consider low maintenance plantings for these areas that include native flowering shrubs, perennials, and warm season grasses to add color to the park.

Where planting is introduced into the park, native plant material should be used. Plant material native to York County is adapted to the geographic location and, as a result, will require less maintenance, withstand the extremes in climate change, be less susceptible to disease and pests, and propagate naturally. Native plant material will provide needed habitat and food for small mammals and birds. The introduction of native plants and enhancement of native plant areas will help reduce the opportunity for exotic species to establish a foothold on the site. Additionally, consideration should be given to choosing plant material that will withstand flooding for planting areas within the floodplain, as well as, withstand occasional wet conditions.

Best Management Practices		
BMP	Purpose	Application
Subsurface Infiltration Bed	Subsurface infiltration beds provide temporary storage and infiltration of stormwater runoff by placing storage media of varying types beneath the proposed surface grade.	Subsurface Infiltration beds are ideally suited for expansive, generally flat open spaces, such as lawns, meadows, and playfields, which are located downhill from nearby impervious areas.
Riparian Buffer Restoration	Stabilize slope, improve wildlife habitat, slow stormwater run-off	Areas of erodible soils and/or steep slope and at the edge of a stream and perimeter of pond.
Filter Strip	To trap sediment and convey run-off from paved surfaces to storm water channels and reduce run-off velocity	Adjacent to impervious surfaces and on gentle slopes. Adjacent to springs, streams, and ponds to filter sediment.
Grass Swales	Run-off conveyance, pollution, and sediment filtering device and increased ground water infiltration.	Where natural drainage ways can be incorporated into the storm water design in lieu of piped conveyance.
Rain Gardens / Bioretention	Shallow surface depression planted with native vegetation to capture and treat stormwater run-off, promoting infiltration and groundwater recharge.	Flexible in terms of size and infiltration. Great for treating direct source of run-off on an on-lot basis, such the run-off from a paved parking lot or building roof.
Flood Plain Restoration	Re-established a stream's floodplain and banks to stop stream bank erosion, improve stream health, provide species habitat for land animals and aquatic species, recreate wetland areas, increase riparian areas and reduce flooding overflow.	Can be easily integrated into the initial site planning process to prevent riparian problems from getting worse or can fix problems caused by historical practices.
Reduce Impervious Cover	Reduce stormwater run-off and promote infiltration.	Where development is proposed. Reduce driveway width, parking area dimensions, and paved areas to minimum dimensions. Utilize coarse aggregate porous surface in lieu of impervious pavement. Utilize stabilized turf for overflow parking.
Best Management Plan for Construction Activities	To prevent soil erosion, sediment, and other pollutants from entering springs, streams, ponds, etc.	Where development is proposed. Utilize during construction and post- construction period.

Sustainability & Green Design Considerations

Sustainability is a widely accepted concept that is often integrated into park development. Sustainability recognizes the impact of human actions on the natural world and promotes actions that align with conservation principles. Parks present opportunities to demonstrate and share environmental concepts and educate the general public about their role in the environment. Many park sites have embraced the concept of sustainability and have been developed with a sustainable site design approach that incorporates strategies that are ecologically based and compatible with the natural systems of the site. Sustainable park development additionally strives to repair and restore site systems and respect the function and process of the natural world. Andropogon Associates, Ltd developed the “Valdez Principles for Site Design” which promote a sustainable ecological model for site development.² The principles include:

- Recognition of Context.
- Treatment of Landscapes as Interdependent and Interconnected.
- Integration of the Native Landscape with Development.
- Promotion of Biodiversity.
- Reuse of Already Disturbed Areas.
- Making a Habit of Restoration.

Park development and rehabilitation provides an opportunity to incorporate green design techniques and features. Integration of green design principals and products for construction and

rehabilitation of park sites is encouraged to minimize the impact on natural resources and promote sustainable development.

Guidelines for sustainable site development have been developed through an effort call The Sustainable Sites Initiative. The Sustainable Sites Initiatives is a voluntary national guidelines and performance benchmarks for sustainable land design, construction, and maintenance practices. It is anticipated that these guidelines and performance benchmarks will be incorporated into the LEED Green Building Rating System.

Sustainable Design

Sustainable design is a concept that recognizes human civilization is an integral part of the natural world and nature must be preserved and perpetuated if the human community is to sustain itself indefinitely. Sustainable design is the philosophy that human development should exemplify the principles of conservation, and encourage the application of those principles in our daily lives.

Source: Guiding Principles of Sustainable Design

² *Guiding Principles of Sustainable Design* (Denver Services Center: United States Department of the Interior, National Park Service, 1993), p. 41.

Green Design Considerations		
Consideration	Intent	Application
Erosion and sedimentation control	Reduce negative impact on air and water quality	Provide erosion control measures and best management practices (BMP's) during new construction activities. Eliminate or minimize impacts to steep slope areas.
Reduce site disturbance	Limit development to appropriate sites to reduce the impact on the landscape and habitat.	Construct improvements within existing clearings or developed areas.
Reduce heat islands	Minimize impact of microclimate.	Provide plantings in the large, expansive parking areas to break up the hard surface and promote stormwater runoff infiltration.
Stormwater management	Limit disruption and pollution of natural water courses, reduce increased runoff, and promote infiltration.	Promote infiltration of runoff with grass swales, rain gardens, etc. Utilize porous pavement to promote infiltration of stormwater runoff. Size parking areas to meet park need and provide turf overflow parking for high use occurrences and special events.
Reduce light pollution	Improve night sky visibility and reduce impact on nocturnal environments.	Limit lighting within parks. Where night lighting is necessary for safety and security, specify full cut-off fixtures and only the necessary lumens.
Innovative wastewater treatment	Reduce the generation of wastewater and potable water demand	Provide self mulching, compost, or other environmentally friendly treatment alternatives.
Recycled building materials	Limit the use of consumptive building materials	Utilize recycled building materials in new construction.
Local materials and suppliers	Support the local economy and reduce the environmental impact resulting from transportation	Purchase products locally produced or manufactured.
Maximize solar orientation	Reduce electric needs through proper building orientation.	Orient buildings to take advantage of natural light and heat and cooling summer breezes. Plant deciduous trees to cool buildings in the summer and allow solar access in winter.
Promote water conservation	Reduce water use to lower burden on supply.	Select native and drought tolerant plants to reduce watering and maintenance demands. Mulch landscape areas to retain moisture and minimize the need to water plants.

Consideration	Intent	Application
Energy consumption	Minimize use of fossil fuels.	<p>Install a ground source geothermal heat pump system for heating and cooling of buildings.</p> <p>Connect park sites to regional trail systems so that non-motorized transportation modes can be used to access the site.</p> <p>Install solar powered amenities/features (lights, electric outlets, well power. Use of solar power also eliminates the need for electric trenches and distribution system.</p>
Use water efficiently	Maximize water collection to reduce burden on supply.	<p>Collect rainwater and runoff in rain barrels for watering landscaping and maintenance needs.</p> <p>Direct rainwater to rain gardens to promote groundwater recharge.</p> <p>Use high efficiency fixtures and composting toilets to reduce demand.</p> <p>Use re-circulating and water treatment systems for splash pads and spray features.</p>
Emphasize and promote recycling	Reduce the amount of new materials required and lower the demand for new materials to be produced.	<p>Reuse existing buildings, materials, and infrastructure.</p> <p>Build with salvaged materials whenever available,</p>
Participate in LEED and Sustainable Sites Initiative	Maximize the use of green solutions, strategies, and materials.	Use the LEED and Sustainable Sites Initiative project checklists for all aspects of design.

A photograph of a pond in a wooded area. The pond is on the left, with a stone retaining wall on the right side. A wooden fence runs along the back of the pond. A utility box is visible on the right side of the pond. The background is a dense forest of bare trees.

Chapter 6 - Cost & Implementation Analysis

Park Improvement Plan

Achieving the vision presented in the master plan for Ricard M. Nixon County Park will require significant capital expenditures and dedication of County staff. As with most government investment in recreation facilities, it is anticipated that the investment will occur in phases over several years. To guide the rehabilitation and improvements to Richard Nixon Park, cost estimates have been prepared to illustrate the probable costs associated with the improvements. The costs are not prepared in priority order but by geographic areas of the park. Costs associate with the proposed improvements to the nature center building and nature center exhibits are not prepared at this time. These costs will vary widely depending on the level of detail for each improvement. Additional study is necessary. The site development costs are separated into two areas of the park; the area surrounding the nature center and the wetland mitigation area near the park entrance at the intersection of Nixon Drive and Farmington Drive. The following defines the suggested park improvement areas for the development of Richard M. Nixon County Park:

- Nature Center Area** – The existing hub of the park, in close proximity to the Nature Center Building, to be improved with a new vehicular drop-off, expanded parking area, entry sequence improvements to enhance visitor experience, revitalized exhibit space in the rear of the building, and natural play area, east of the building. Accessible walks and trails are developed to connect the building with the key destination within the park. A new trailhead is developed to Quiet Walk Trail. A new maintenance building is proposed in the upper parking area to provide for vehicle storage and small workshop for staff. Access to restrooms within the improved nature center building are provided on the lower level of the south wall.

- Wetland Mitigation Area** – The I-83 Interchange Wetland Mitigation project is scheduled for construction in the fall of 2015. The proposed wetland mitigation was designed and developed outside this planning project. Input on the design of the mitigation area was influenced by this planning process thru staff input, blending the proposed improvements into a learning landscape for aquatic features. The costs associated with earthmoving, and development of the inundated and saturated marshes, meadows and wetland area were paid by the I-83 Interchange project.

Costs associated with the development of proposed park improvements including a classroom sized pavilion, overlooking the proposed improvements, small vehicular parking area, trails, and entry sign are outside of the interchange project are included in the probable cost opinion on the following pages. Additionally, costs associated with the extension of the Hollow Creek Greenway from the existing trailhead parking area to the proposed crossing of Nixon Drive is included.

- Nature Center Building** – Improvements to the Nature Center Building will improve function and enhance the visitor experience. Renovation costs will vary widely, depending upon the size and scope of the improvement. The ultimate scope of the improvements hinge upon the decision to remove the ramp between floors for development of an elevator to service all three floors. The elevator is a significant investment and would free up valuable internal building square footage, without increasing the building envelope. Recommendations developed in this master plan will require additional design and refinement under the guidance of an architect and interpretive planner experienced in nature center design.

- **Nature Center Exhibits** – Improvements to the nature center exhibits target grouping exhibits into different galleries. The local galleries showcasing Pennsylvania and global galleries exploring wider geographic areas. Initial improvements should focus on the local galleries, a strength of the nature center. Similar to the architectural renovation, cost for the exhibits vary based on scale and detail of improvements, and cannot be determined at this level of study.

Probable Construction Cost Opinions

All costs provided in this plan are estimated based on the findings of this master plan and knowledge of similar park development. The costs are provided by geographic area and are not listed in priority order. As funding becomes available or needs change, the sequence of development may be determined. As the park is developed, consideration should be given to escalation costs over the base cost provided herein. Design and engineering fees are presented as a percentage of construction costs and will vary based on actual phase of construction, required permits, and proposed features.

The following opinions of probable construction costs have been completed using DCNR format for use in future grant-funding applications. The cost opinions are separated into two modules as described below.

Module A – Area in proximity to the nature center building

Module B – Area in proximity to the wetland mitigation area

Maps illustrating the limits of the cost estimates are provided on the page following the cost estimate for each module.

Costs are based on Pennsylvania prevailing wages for year 2015 construction. A fifteen-percent contingency is included in each cost opinion.

Probable Construction Cost Opinion Assumptions and Exclusions

The Probable Construction Cost Opinions on the following pages focus on site development work and exclude the following items:

- Architectural improvements to the nature center building and construction of maintenance garage.
- Nature Center exhibit improvements.
- Utility service connection fees.
- Electric service upgrades or distribution.
- Utility relocation.
- Excavation or removal of rock or unsuitable materials.
- Remediation of soils and sinkholes.
- Soil amendments.
- Import of topsoil.
- Earthmoving and stabilization of the I-83 Wetland Improvements.
- Improvements to Nixon Road beyond the proposed drop off area.
- Improvements to Farmington Drive and Valley Road.
- Improvements to the earthen trails and bridges.
- Construction management.
- Construction inspections fees.

- Dumping/hauling fees.
- Interpretive signage message and graphic design.
- Off-site improvements and off-site engineering.

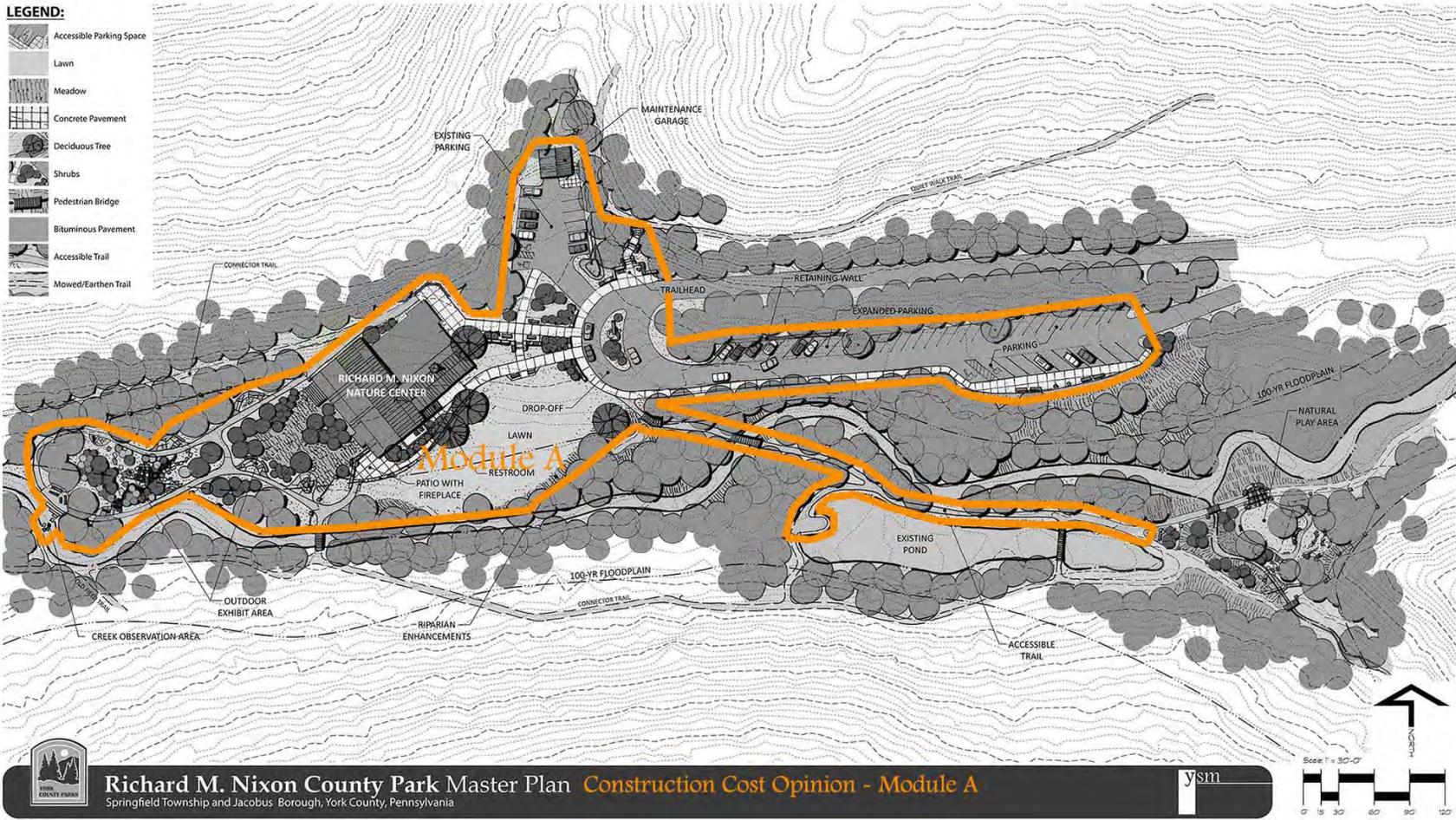
YSM is not a construction contractor and therefore probable constructions cost opinions are based solely upon our experience with construction. This requires YSM to make a number of assumptions as to actual conditions which will be encountered on the site; the specific decisions of other design professionals engaged; the means and methods of construction the contractor will employ; contractors' techniques in determining prices and market conditions at the time, and other factors over which YSM has no control. Additionally, the master plan was prepared using GIS mapping information and topographic and boundary line survey information was not available. GIS information is generalized and suitable for planning purposes but does not provide mapping that can be accurately measured for quantity take-offs. Assumptions were made based on our visits to the site and the review of available information. Stormwater management and erosion and sedimentation control costs are provided on a percent of construction cost and specific strategies for this work cannot be defined until the design and engineering phase.

Commonwealth of Pennsylvania Department of Conservation and Natural Resources Bureau of Recreation and Conservation PROBABLE CONSTRUCTION COST OPINION				
Grantee: <u>York County Parks</u> Project Title: <u>Richard M. Nixon County Park</u>		Module A		Date Prepared: <u>11/16/2015</u> DCNR Project No:
Item No.	Work Item	No. of Units	Unit Cost	Total Cost
1	Demolition/Site Preparation			\$15,400
	A. Misc. Site Preparation and Demolition	1 LS	\$3,000	\$3,000
	B. Pavement Removal	200 SY	\$7	\$1,400
	C. Boardwalk Removal	1 LS	\$8,000	\$8,000
	D. Prep Existing Pavement for Overlay	1,500 SY	\$2	\$3,000
2	Earthwork			\$11,895
	A. Strip/Stockpile/Replace Topsoil	600 CY	\$4	\$2,400
	B. Grading Operations	1,800 CY	\$4	\$6,750
	C. Small projects escalator (30% of costs)	1 LS	\$2,745	\$2,745
3	Access Drive and Parking			\$50,800
	A. Excavation, fine grading and compaction	450 CY	\$4	\$1,800
	B. 8" 2A Coarse Aggregate	500 SY	\$10	\$5,000
	C. 2.5" Binder Course	500 SY	\$8	\$4,000
	D. 1.5" Wearing Course	500 SY	\$7	\$3,500
	E. 1.5" Wearing Course Overlay over existing parking	2,500 SY	\$7	\$17,500
	F. Retaining Wall (pre engineered block)	375 SF	\$40	\$15,000
	G. Pavement striping	1 LS	\$2,000	\$2,000
	H. Handicap Pavement Striping and Signage	4 SP	\$500	\$2,000
4	6" Wide Aggregate Trail (880 lf)			\$7,290
	A. Excavation, fine grading and compaction	200 CY	\$4	\$800
	B. 6" 2A Coarse Aggregate	590 SY	\$9	\$5,310
	C. 2" Choke Course	590 SY	\$2	\$1,180
5	Outdoor Exhibit Area			\$62,400
	A. Individual exhibit pvmt (assume 100 SF/exhibit)	8 Space	\$1,800	\$14,400
	B. Exhibit Feature Allowance	8 EA	\$2,500	\$20,000
	C. Stone Seat Walls	60 LF	\$225	\$13,500
	D. Creek Exhibit Feature	1 LS	\$12,000	\$12,000
	E. Arbor/ Entry Feature Canopy	1 LS	\$2,500	\$2,500
6	Concrete (12,000 SF)			\$91,200
	A. Standard Concrete	9,600 SF	\$6	\$57,600
	B. Decorative Concrete (20% of total)	2,400 SF	\$14	\$33,600
7	Signage			\$11,000
	A. Park Signage (directional) Allowance	1 LS	\$3,000	\$3,000
	B. Information Kiosk at Trailhead	1 LS	\$3,000	\$3,000
	C. Park Signage (interpretive)	2 EA	\$2,500	\$5,000
8	Site Amenities			\$33,600
	A. Benches	16 EA	\$1,500	\$24,000
	B. Ship and Install Site Amenities (40% of costs)	1 LS	\$9,600	\$9,600

9	Pavilions, Walls and Structures			\$121,200
	A. Stone Walls at Trailhead	120 LF	\$180	\$21,600
	B. Trailhead Steps	1 LS	\$16,000	\$16,000
	C. Stone walls at Drop-off	60 LF	\$180	\$10,800
	D. Stone Walls at Nature Center Lawn	60 LF	\$180	\$10,800
	E. Steps at Nature Center Lawn	1 LS	\$8,000	\$8,000
	F. Stone Walls and Nature Center Rear Patio	150 LF	\$180	\$27,000
	G. Stone Walls at Nature Center Front Patio Entry	50 LF	\$180	\$9,000
	H. Stone Fireplace at Nature Center Rear Patio	1 LS	\$18,000	\$18,000
10	Landscaping			\$17,704
	A. Lawn Seeding	1,300 SY	1.20	\$1,560
	B. Meadow Seeding	11,200 SF	0.37	\$4,144
	C. Native Plant Allowance	1 LS	12,000.00	\$12,000
11	Stormwater Mgt and Erosion Control			\$50,699
	A. Stormwater Management (4%)	1 LS	\$16,900	\$16,900
	B. Erosion Control Measures (8%)	1 LS	\$33,799	\$33,799
12	Bond Mobilization and Layout			\$56,783
	A. Bond Mobilization and Layout (12%)	1 LS	\$56,783	\$56,783
13	Contingency			\$79,496
	A. 15% Contingency	1 LS	\$79,496	\$79,496
14	Professional Fees			\$91,420
	A. Survey, Design and Engineering Fees (15%)	1 LS	\$91,420	\$91,420
	Total			\$700,886

Cost estimate does not include any utility connection fees, utility location and/or relocation, renovation to existing Nature Center Building, improvements to Nixon Drive, turnaround or drop-off area, off site trail extensions, sink hole remediation, rock removal, soil amendments or remediation, and construction inspection fees. Power to the site and distribution varies widely and cannot be estimated at this time.

YSM is not a construction contractor and therefore probable construction cost opinions are based solely upon our experience with construction. This requires YSM to make a number of assumptions as to actual conditions which will be encountered on the site, the specific decisions of other design professionals engaged, the means and methods of construction the contractor will employ, contractors' techniques in determining prices and market conditions at the time, and other factors over which YSM has no control. Given these assumptions which must be made, YSM states that the above probable construction cost opinion is a fair and reasonable estimate for construction costs.

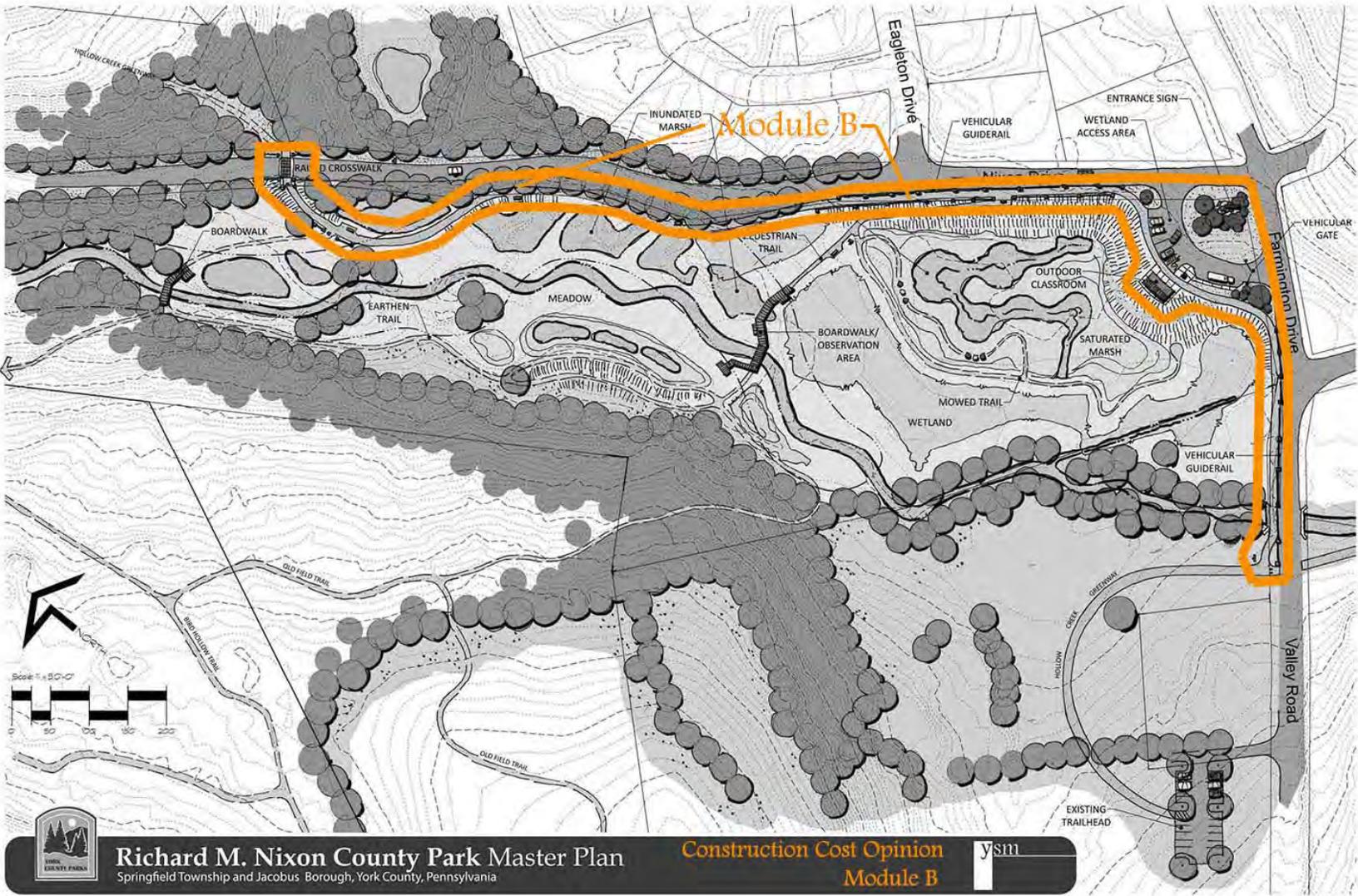


Commonwealth of Pennsylvania Department of Conservation and Natural Resources Bureau of Recreation and Conservation PROBABLE CONSTRUCTION COST OPINION				
Grantee: York County Parks Project Title: Richard M. Nixon County Park - Hollow Creek Greenway (From Valley Road x-ing to Nixon Drive X-ing)		Module B		Date Prepared: 11/16/2015 DCNR Project No:
Item No.	Work Item	No. of Units	Unit Cost	Total Cost
1	Demolition/Site Preparation			\$1,600
	A. Misc. Site Preparation and Demolition	1 LS	\$1,500	\$1,500
	B. Prep Existing Pavement for Overlay	50 SY	\$2	\$100
2	Earthwork			\$0
	A. Grading Operations (Assumed by others)	0 CY	\$4	\$0
3	Access Drive and Parking			\$20,500
	A. Excavation, fine grading and compaction	250 CY	\$4	\$1,000
	B. 8" 2A Coarse Aggregate	760 SY	\$10	\$7,600
	C. 2.5" Binder Course	760 SY	\$8	\$6,080
	D. 1.5" Wearing Course	760 SY	\$7	\$5,320
	E. Handicap Pavement Striping and Signage	1 SP	\$500	\$500
4	8' Wide Bituminous Trail (1,800 lf)			\$39,200
	A. Excavation, fine grading and compaction	1,000 CY	\$4	\$4,000
	B. 6" 2A Coarse Aggregate	1,800 SY	\$9	\$14,400
	C. 2" Binder Course	1,800 SY	\$7	\$11,200
	D. 1" Wearing Course	1,800 SY	\$6	\$9,600
5	Nixon Drive Raised Speed Table			\$5,480
	A. Saw cut and remove existing pavement	30 SY	\$6	\$180
	B. Raised Bituminous Speed Table	30 SY	\$30	\$900
	C. Decorative stamped pattern	240 SF	\$10	\$2,400
	D. Signage and pavement markings	1 LS	\$2,000	\$2,000
6	Concrete			\$9,600
	A. Concrete pavement at pavilion & parking area	1,600 SF	\$6	\$9,600
7	Signage			\$15,500
	A. Park Signage (directional) Allowance	3 EA	\$1,000	\$3,000
	B. Park Signage (interpretive)	4 EA	\$2,500	\$10,000
	C. Information Kiosk	1 EA	\$2,500	\$2,500
8	Site Amenities			\$73,560
	A. Benches	4 EA	\$1,500	\$6,000
	B. Bicycle Rack	1 EA	\$900	\$900
	C. Vehicular Gate at parking area	1 EA	\$2,500	\$2,500
	D. Vehicular Gate/ Bollards at Nixon Road crosswalk	2 EA	\$1,500	\$3,000
	E. Bollards at Trail Entrances	2 EA	\$400	\$800
	F. Ship and Install Site Amenities (40% of costs)	1 LS	\$4,960	\$4,960
	G. Guiderail (vehicular)	800 LF	\$50	\$40,000
	H. Guiderail (pedestrian)	440 LF	\$35	\$15,400
9	Pavilions and Structures			\$35,000
	A. Medium (4 table) Pavilion	1 EA	\$35,000	\$35,000

10	Landscaping			\$24,100
	A. Lawn Seeding	8,000 SY	1.20	\$9,600
	B. Meadow Seeding	0 SF	0.35	\$0
	C. Evergreen Trees	6 EA	250.00	\$1,500
	D. Shade Trees	12 EA	450.00	\$5,400
	E. Flowering Trees	12 EA	300.00	\$3,600
	F. Shrub Allowance	1 LS	4,000.00	\$4,000
11	Stormwater Mgt and Erosion Control			\$26,945
	A. Stormwater Management (4%)	1 LS	\$8,982	\$8,982
	B. Erosion Control Measures (6%)	1 LS	\$17,963	\$17,963
12	Bond Mobilization and Layout			\$30,178
	A. Bond Mobilization and Layout (12%)	1 LS	\$30,178	\$30,178
13	Contingency			\$42,249
	A. 15% Contingency	1 LS	\$42,249	\$42,249
14	Professional Fees			\$48,587
	A. Survey, Design and Engineering Fees (15%)	1 LS	\$48,587	\$48,587
	Total			\$372,498

Cost estimate does not include any utility connection fees, utility location and/or relocation, improvements to Valley Road, Farmington Drive, or Nixon Drive, Valley Road Culvert improvements or widening, off site trail extensions, sink hole remediation, rock removal, soil amendments or remediation, and construction inspection fees. Power to the site and distribution varies widely and cannot be estimated at this time.

YSM is not a construction contractor and therefore probable construction cost opinions are based solely upon our experience with construction. This requires YSM to make a number of assumptions as to actual conditions which will be encountered on the site, the specific decisions of other design professionals engaged, the means and methods of construction the contractor will employ, contractors' techniques in determining prices and market conditions at the time, and other factors over which YSM has no control. Given these assumptions which must be made, YSM states that the above probable construction cost opinion is a fair and reasonable estimate for construction costs.



Park Improvement Phasing

The vision created by the master plan will not happen immediately. Most often parks are developed in phases over time as grant funding becomes available. The following define the suggested park site improvement areas for phased development of Richard M. Nixon County Park.

Phase 1 – Early Implementation

To sustain the excitement for park improvements that this planning process has generated, small projects could be undertaken to create momentum for the entire project. These small improvements will show progress and provide enhancements that will immediately benefit citizens. Early implementation projects that can occur immediately, without significant investment or the need for extensive design and engineering include:

- The outdoor nature play area.
- Improvements associated with the Wetland Mitigation Area to facilitate aquatic study.
- Extension of the Hollow Creek Greenway through the site.
- Maintenance building with garage.
- Additional lower level parking spaces.
- Connection to sanitary sewer line.

The majority of these early implementation projects were scheduled to be completed in 2015-2016.

Phase 2– Nature Center Entrance and Drop-off Area

One of the more significant site improvement includes the reconfiguration of the access drive, drop-off and parking areas at the nature center entrance. Recommended improvements include:

- Separate drop-off area from the parking area to the front door of the nature center.
- Walks and plaza space from the vehicular drop-off to the front door of the nature center.
- Pedestrian access to the lower level patio area of the nature center.
- Seat walls and site amenities to develop outdoor staging areas at the nature center building entrance.
- Native plantings at the nature center entrance.

Floating Phase

Floating phase improvements include a variety of smaller, site specific projects which can be completed as one phase or individually as funding becomes available. Projects include:

- Trailhead improvement to the Quiet Walk.
- Lower level parking area overlook improvements.
- Improvements to the outdoor exhibit and creek observation area west of the building.
- Trail Improvements from the Nature Center to the natural play area.
- Directional and interpretive signs.
- Planting and riparian enhancements

Implementation Tasks

The development of Richard M. Nixon County Park as depicted on the final master plan will require additional planning, design, and approvals. The following list outlines the implementation tasks that may be required for renovation and development of Richard M. Nixon County Park. This list is provided for planning purposes and should not be considered all inclusive as additional tasks, approvals, and permits may be required.

- Apply for park development funding grants.
- Complete property line and topographic survey.
- Complete wetlands delineation.
- Complete Phase 1 archeological studies, as appropriate, to determine if there are archeological or historic artifacts of significance in the project area.
- Develop construction documents for the site work, architectural renovations and exhibits. Construction documents will design in detail and engineer the proposed improvements and associated amenities. Prepare a project manual including technical and bidding specifications.
- Prior to bidding and construction, obtain approvals from the various governing agencies. The following is a listing of typical approvals but may not be all-inclusive.
 - Municipal and County approval for land development plans, if required.
 - York County Conservation District approval for erosion and sedimentation control plans and NPDES Permit.
 - Pennsylvania Department of Environmental

Protection approval for any work within the waters of the Commonwealth including delineated wetlands and river and stream encroachments.

- Pennsylvania Department of Environmental Protection for sewage planning module approval.
- Pennsylvania One Call. Pennsylvania law requires three working days notice for construction phase and ten working days in design stage.
- Approval from public utilities required for development such as electric service extensions or work within the rights-of-way.

The above grants, permits, approval, and easements typically require advance planning, engineering, and coordination. Adequate preparation and review time should be allotted. Upon securing of all required approvals and permits and completion of the construction documents, the project should be publicly bid for construction.

Funding

It is likely that more than one source of funding will be required to complete the improvements illustrated in the Richard M. Nixon County Park Master Plan. Funding sources could include one or more of the following: grants, borrowing, corporate and foundation contributions, fundraising, partnerships, and program revenue.

Several governmental agencies provide financial grant assistance to municipalities, counties, and non-profit organizations to implement educational, recreational, and environmental enhancements similar to those proposed at Richard M. Nixon County Park. The following list of potential park funding sources identifies programs which may be compatible with the proposed improvements to Richard M. Nixon County Park.

Potential Park Funding Sources		
Agency/Contact	Program	Description
York County ycpc.org	Community Block Grant (CDBG)	Funding for public facilities and improvements to benefit low- and moderate-income persons.
York County Board of Commissioners (717) 771-9964	Conservation and Recreation Funding	County receives an allocation from a special Pennsylvania Marcellus Shale Legacy Fund established by Act 13 of 2012 used for conservation and recreation projects.
Pennsylvania Department of Environmental Protection depweb.state.pa.us	Growing Greener Watershed Protection Grants	Funding to clean up non-point sources of pollution for local watershed-based conservation projects.
Pennsylvania Department of Environmental Protection depweb.state.pa.us	Environmental Education Grants Program	Funding to support and strengthen environmental education in PA.
Pennsylvania Department of Environmental Protection wren.palwv.org	Watershed Education Grants	Funding for watershed education projects which educate, build awareness, and promote water-sustaining public policy.
PennVEST pennvest.state.pa.us	PENNVEST Growing Greener Grants	Funding for stormwater management projects that contribute to improving the environment, health of its citizens, and support economic growth.
Act 13 Marcellus Legacy Fund Programs (717) 787-6245	Watershed Restoration Protection Program	Funding for water shed restoration projects to restore and maintain impaired streams.
Act 13 Marcellus Legacy Fund Programs (717) 787-6245	Greenways, Trails and Recreation Program	Funding for planning, acquisition, development, rehabilitation, and repair of greenways, recreational trails, open space, parks and beautification projects.
PA Department of Conservation and Natural Resources dcnr.state.pa.us	Community Recreation and Conservation Program (C2P2)	Funding for recreation, park, trail and conservation projects.
Department of Conservation and Natural Resources dcnr.state.pa.us	Land and Water Conservation Fund	Funding for acquisition and development of park and recreation facilities.
National Fish and Wildlife Foundation nfwf.org	Numerous grant programs including the Chesapeake Bay Stewardship Fund	Funding to sustain, restore, and enhance fish, wildlife, and plants and their habitats.



Chapter 7 - Programming, Maintenance, & Financing

Introduction

York County is one of 19 county park systems in the Commonwealth of Pennsylvania. Eleven (11) parks with over 4,300 acres, two museums, a nature center and a historic site offer people who live, work and visit York County opportunities for relaxation, sports, environmental education, history, wilderness and recreation in the great outdoors.

Vision and Mission Statements

Mission Statement:

York County Department of Parks Recreation enhances the quality of community life acting as a steward for the environment. In this capacity, the Department acquires, conserves, and manages parklands and offers a variety of recreational and educational opportunities.

Vision Statement:

York County Department of Parks Recreation strives to be the county leader in environmental conservation, preservation, and education. Programs and projects in these areas reflect sound management and stewardship principles and a strong organizational commitment to innovation and public service.

Values

As a steward of the County's parklands, the York County Department of Parks and Recreation:

- Creates customer friendly environments,
- Listens and responds to park users,

- Provides a diversity of natural areas to promote passive recreation,
- Conserves and interprets the natural and historical aspects of park resources,
- Emphasizes creation and preservation of wildlife and plant habitat,
- Maintains the highest level of professionalism, enters in to partnerships and pursues networking,
- Promotes and honors volunteer participation,
- Fosters innovation and creativity in fulfilling mission responsibilities,
- And cultivates new sources of support and funding.

Richard Nixon County Park: Home to the County's Nature Center

Nestled on 187 acres of meadow, woodland and aquatic habitats, Richard Nixon Park is located in Springfield Township and Jacobus Borough. Nixon Park supports a wide variety of plant and animal life. Donated in 1968, through a gift of land from the Bob Hoffman family, the park was named after the newly elected President Richard M. Nixon.

This park is the only one within the York County Park system set aside solely for wildlife and education allowing only foot traffic on the trails. The property offers habitats ranging from oak dominated dry hillsides to streamside forests to meadows and old fields. Three clear flowing streams and two small ponds add to the landscape. These aquatic habitats attract their own special animals from stunningly colored wood ducks to lumbering snapping turtles. Approximately 2 acres of wetlands will be constructed in 2015-16 as part of a mitigation project funded by PENNDOT. A system of loop

marked trails, offers a combination of habitats, topography and totals 6 miles.

The Park features a 14,000-square-foot Nature Center that highlights Pennsylvania natural history was constructed in 1978 and opened to the public in 1980. This part of the center features a working honey bee hive, amphibians of PA display, live reptiles, taxidermy birds and mammals of PA, a children's touch room and much more. An addition was built in 1992 to house a worldwide collection of specimens donated by William Koller. The exhibits include an Arctic Display, African Savannah, and Northwest Territories of the United States.

Parks and Recreation Department Organization and Operations

The York County Department of Parks and Recreation is part of the York County Government and is governed and funded by the York County Board of Commissioners. The York County Advisory Board of Parks and Recreation works with the Director and staff to maintain and preserve the parks. The York County Parks Foundation Charitable Trust, Inc. oversees monies that are donated to the parks for land acquisition, capital improvements, specific projects or in-kind donations.

Established in 1968, the Parks and Recreation Department hosts about 1.5 million visitors annually. To accommodate this number of visitors, maintain over 4,300 acres of parkland and offer recreational and educational programs, the Department is organized in four divisions overseen by the Director of Parks and Recreation with support of Park Administration with an Administrative Assistant and Administrative Support. The Department staff includes 26 full-time park positions and two Liquid Fuel positions for a total of 28 positions. In addition, the Department provides support for other county departments.

- Natural Resource Management & Enterprise Operations - Manager, Seasonal Assistant, Seasonals for the boat concession, Eagle Scouts, Volunteers, and Leases and Agreements.
- Environmental Education & Outreach – Manager, Naturalist II (2), Program Coordinator, Volunteers, ARD/Community Service and Seasonals.
- Buildings and Grounds – Superintendent, Assistant Superintendent (2), Group Leaders (12), Seasonal Maintenance Workers, Volunteers, Outmates/ARD/Community Service, and Liquid Fuel (2).
- Public Safety - Chief Ranger, Park Rangers (3), Seasonal Park Rangers, Volunteers and Park Ambassadors Program.

Environmental Education, Recreation, and Outreach at Nixon Park

About 93,000 people visit Richard Nixon County Park annually. Most of the use is by people using the park on their own. With the County's Nature Center based in Richard Nixon County Park, the majority of scheduled programs are held here.

School District Programs

Nixon County Park is the only year around nature center in York County. It is one of two that provide environmental and science outdoor education. Nixon Park provides school programming to public and private schools, with students ranging from pre-kindergarten to college. The largest segment of school age visitors is from elementary and intermediate classrooms. Schools visit from nearly every public school district in the county as well as a wide range of private and alternative schools. School programming has been developed over many years and continues to evolve with

teacher input and evaluation as an ongoing process. Programs are offered to York County students free of charge. Currently out of county schools pay a \$2/student fee. Field trip lessons are closely aligned with Pennsylvania Academic Standards and have accompanying pre and post lessons designed by teachers.

Currently school groups book for either spring (starting December 1) or fall (starting August 1). The staff works to maintain a 14:1 student/naturalist ratio in an outdoor setting. Spring by far sees the most visits. The nice weather, being post assessment testing, and timed later in the school year all contribute to this. The popularity of spring field trips has results in a waiting list of classrooms due to facility and staff constraints. The number of school groups hosted in 2014 was 106 with 7,200 participants.

General Programs, Events and Environmental Education Activities

Over the course of a year, the staff and volunteers of Richard Nixon County Park offer 157 public programs with 6,701 participants in the following type of activities:

Naturalist-led walks have been a Sunday staple for many years. They run weekly April through October. Attendance varies based upon topic and weather from 10 to 60 participants.

Themed weekends are offered as an in depth look into various nature history topics. Some standard themed weekends include: Winter Wildlife Weekend, Reptile Week, Butterfly Weekend, Rock and Mineral Weekend, Dinosaur Weekend and occasional special topics.

Nature Discovery Programs are full and half day programs for children and youth from pre-schoolers through age 13. The participants experience a wide variety of recreational and educational opportunities including hands-on learning, games, arts, crafts, hiking, discovery and connecting with nature and enjoyment

of the outdoors. The York County Department of Parks and Recreation hires two seasonal staff to plan and run these programs. Many of those hired over the past 18 years have been college students. This experience is a great stepping-stone for college students who plan on working with children in the future or simply love children. Previous NDP staff members have not only graduated from college but some have received Masters and Doctoral degrees, have become full-time teachers, youth counselors and recreation director-

Scout Fun Days are designed especially for Brownies, Daisies, Cub Scouts, Friends, and Siblings in K - 3rd Grades. They participate in activities such as Pollinator Conservation Project, Wildlife Conservation Trail Walk and Exploration, Animal Games and Nature Center Scavenger Hunt, and a Live Animal Show, “Endangered Species”, by Hershey’s Zoo America educators.

Scout Programs include hiking, naturalist led hikes, overnight camping, and special events such as “get Outside Days” and “Nature Fun Days”. Eagle and Golden Scout Projects are made available as opportunities arise.

Internships and Practicums are available to students in a wide range of majors. The Department finds great value in the influx of new ideas, skills and viewpoints that interns bring. Welding this knowledge with field experience makes the public services provided by the Department truly first rate.

Maintenance

Maintenance is the single most expensive cost of a parks and recreation system. While it is relatively easier to secure capital improvement funds, it is ever more difficult to get the resources needed for parks and recreation facility maintenance. There are 11 maintenance workers for 4,300 acres of parkland.

Nixon County Park consists of 187 acres with the focus of maintenance on the Nature Center. The grounds and Nature Center are kept in a condition that is attractive, safe, clean, and ready to use. A major challenge to park maintenance is the fiscal austerity of York County. In the economic downturn of the past decade, the department experienced cutbacks in both operating funds and labor. The workforce is supplemented with the use of outmates working with maintenance department on a daily basis. In addition to park maintenance, the department is responsible for:

- 32 - 911 Tower sites
- Voting Machines
- 96 County Bridges

The County park system has also been growing. For example, Highpoint Scenic Vista (2008) and Native Lands (2009) were designated as the tenth and eleventh county parks. The additional workload makes it challenging to maintain quality facilities and the high standard of cleanliness park visitors have come to expect with a status quo labor force and budget. No workload cost tracking system is in place nor is tracking of costs by park. This kind of information helps with the allocation of resources and informed decision-making.

Financing

Table 1 presents the Parks and Recreation Department budget for 2011 through 2015. For every dollar in real estate tax dollar paid in York County, York County receives 16¢. The cost to operate York County’s Parks and Recreation system in 2014 was about \$3.75 per resident. The Department generates about half of its operating budget through program fees and charges, concessions, and facility rentals, a notable accomplishment. Non-tax revenues have been increasing steadily over the past five years.

In addition to Nixon County Park’s staff, the Park has about 260 volunteers who contribute an average of 300 hours per month for a total of about 3,600 hours annually. This is the equivalent of 1.8 full-time positions. The value of a volunteer hour in Pennsylvania is \$22.50. The value of volunteer services at Richard Nixon County Park is \$81,000.

The Accelerated Rehabilitation and Disposition (ARD) Program at Nixon County Park generates 400 to 600 hours of service for the park annually. These hours primarily go to park maintenance.

Table 1. York County Parks and Recreation Department Budget					
	2015	2014	2013	2012	2011
Operating Expenditures					
Labor	1,142,007	1,093,173	1,028,294	1,037,814	1,006,871
Operations	501,917	479,827	626,688	642,374	622,550
TOTAL	1,643,924	1,573,000	1,654,982	1,680,188	1,629,421
Capital Expenditures					
	237,438	210,546	294,867	936,916	
Revenues					
Grants			176,554	163,276	65,089
Revenues			629,345	615,776	604,535
			805,899	779,052	669,624

The York County Parks Foundation Charitable Trust became active in 1991 to assist in the development, enhancement, and operating the parks and recreation facilities of York County. The Trust has set up the policies and procedures regarding donations and gifts to the parks and recreation system. Since 1991, major accomplishments of the Trust include the Treasury Wildlife expansion at Nixon Park, capital campaign for the construction of the Heritage Rail Trail County Park and the acquisition of 17 acres of land adjoining Nixon Park. The Trust has provided support toward facility improvements,

stream and environmental restoration, recreational and education programming and as a partner in grant applications.

Security

York County Parks and Recreation Department has a Public Safety Division staffed by four Park Rangers. The York County Ranger Division is dedicated to the principle of providing visitor services and enforcement to ensure protection for the parks, and provide visitors with an enjoyable, safe, and secure park and recreation experience.

At one time, the Division had seven rangers. The Rangers provide law enforcement, traffic control, pedestrian safety, parking management, investigate complaints, submit work orders to the Maintenance Department, and collect park user surveys.

In Richard Nixon County Park, the Rangers report about 11- 18 incidents annually including visitor injuries. The Rangers issue fewer than three citations annually in Nixon Park. The most challenging problem for Public Safety is related to parking issues. Particularly during themed weekend events such as Maple Sugaring, there is not sufficient parking to accommodate the visitors. The Chief Ranger has reported increased use of the park grounds after the Environmental Education Center closes at 4:30 p.m.

Assessment of Operations

The planning team worked with the Parks and Recreation Department management team, analyzed reports and materials, and visited the Park in order to determine the strengths, weaknesses, opportunities and threats to the Richard Nixon County Park and/or the County park system depending upon the information available.

Strengths

Richard Nixon County Park is a very special park. It is a natural resource based park that serves as an important educational facility for the citizens of York County. The following list describes the strengths of Richard Nixon County Park:

- Dedicated, professional management team and staff have worked smart and diligently with the resources available to provide top notch programs, services, and maintenance that have garnered positive public recognition and support. The park has an outstanding reputation that generates numerous applications for positions, internships and practicums.
- Customer service is excellent.
- Programs are popular and well attended.
- 260 volunteers contribute more than 3,600 volunteer hours annually for a value of about \$81,000.
- Involvement in county ARD program is an asset to the park.
- The park is viewed as safe.
- The Nature Center staff includes four full time professional employees
- The park provides environmental education programs to approximately 17 school districts, private schools and home schoolers.
- The York County Parks Foundation Charitable Trust, Inc. provides financial support for the park and recreation system.
- The Park has a long history of success combined with forward looking people working for the park, in support of the park, in elected and appointed positions.
- The special events attract major participation.

Weaknesses

- Department resources including staffing and operating funds need to keep pace as land, facilities and responsibilities increase.
- There is no workload cost tracking system nor budgeting by cost center. Having these in place would help in the allocation of resources, setting fees and charges, staffing, budgeting and decision-making.
- There is no plan in place to rent the Nature Center. Developing a business plan will help to provide optimal public usage as well as increase revenue generation.
- While the Park has been fortunate in being a popular draw for interns, their length of service is not long enough to fully benefit the park after they have undergone training.
- There is not enough parking and interior space to host larger special events in the nature center. The size and topography of the park and nature center will always be a limiting factor for parking.
- There are times the nature center is not able to meet the demands of school programming due to staff and facility size limitations.
- A plan is not in place to update, fund and construct new major nature center displays on a twenty year cycle.
- The park has open access (is not gated) 24 hours/seven days. While car counters do not indicate a problem with after dark traffic, it does remain of concern to staff.
- There is no capital improvement plan in place. Capital funding is done on an annual basis. Developing a five to seven year capital improvement program would facilitate optimal purchasing and construction, fundraising, and planning.
- Current practices do not encourage after hour rental of the Nature Center. Additionally alcohol use is prohibited.

Permitting these uses could help to increase revenues at the Nature Center

- Some of the displays such as the mounts are inconsistent with current interpretive practices. This situation is complex because the mounts were donated. This leads to two conclusions: to ensure that the Department's gift policy does not lock the system into long-term situations that are inconsistent with best management practices and that decisions should be made about the mounts based upon the Department's vision and mission *to be the county leader in environmental conservation, preservation, and education, Programs and projects in these areas reflect sound management and stewardship principles and a strong organizational commitment to innovation and public service.*

Opportunities

- Expand the internship program could help with staffing. Finding housing options could help to attract outstanding interns.
- Develop a business plan to rent the nature center in order to provide optimal public service consistent with citizen preferences and generate revenues to offset operating costs. Considerations should include re-visiting the alcohol policy, a catering policy, fees and charges, marketing, and outreach.
- Develop two annual fundraising programs/projects to benefit the Center's facilities and programs
- Increase the use of social media.
- Develop a five to seven year capital improvement program could help with the implementation of the park master plan.
- Plan for the changes on budget and staffing needs as the master site plan improvements are implemented.

Threats

- The continued addition of land, facilities and responsibilities without commensurate staff and budget puts the Department at risk.
- Developing a park master plan usually carries the risk of failure to implement. Without a five to seven-year capital improvement program, the concern about implementation increases.
- Operating without a workload cost tracking system or a budget with cost and function centers inhibits effective decision-making.

Recommendations

- Develop a work plan for the implementation of the park master plan for the first year after plan adoption.
- Establish a five-to-seven year capital improvement program.
- Create a workload cost tracking system. Consider seeking a Peer Grant from PA DCNR to undertake this project.
- Craft a business plan for renting the Nature Center including exploration of the alcohol policy.
- Explore the establishment of an Intern Program to include the use of alternative housing.
- Develop one to two annual fundraising programs/projects to benefit the Center's facilities and programs
- Undertake a staffing assessment as new responsibilities are added.
- Address the parking problem as an early implementation project of the park master plan.
- Operate with the understanding that this site by its nature has limitations and those programs and events will have a limited capacity. Program and participation capacity will be limited by parking, facility space and support facilities such as restrooms.

- Continue to provide excellent customer service, high quality programs, and maintenance that ensures attractive, safe, clean and ready to use facilities.
- For the annual report, add information about the programs, services, participation numbers, and revenues to convey the value of this facility and its importance to the community.
- Evaluate the potential to start of Friends Group for the Nature Center and/or the Park.



Appendix A - Wetland & Stream Mitigation Management Plan

Long-Term Management Plan

Extensive long-term management is not expected. During the post-construction monitoring, PennDOT will be responsible for maintenance of the wetland site. Springfield Township and Loganville Borough will be responsible for maintenance of the stream site. Once the site has been released from post-construction monitoring, the York County Department of Parks and Recreation will be responsible for long term management of the site. The mitigation site will be included in the Master Site Plan for Nixon Park. The following Nixon Park Wetland and Stream Mitigation Management Plan has been developed by PennDOT for inclusion in the Nixon Park Master Site Plan.

Purpose

The purpose of this management plan is to maintain the site to ensure that the performance standards set in this mitigation plan will be met (see Section VII for the list of performance standards).

Intended and Accepted Uses

The intended and accepted uses for the Nixon Park Mitigation site are to:

1. establish and maintain approximately 1.80 acres of palustrine wetlands to compensate for wetlands permanently impacted by the I-83 Exit 18 Exchange improvements,

2. restore and enhance 1,190 LF of stream channel and riparian zone to compensate for the stream channel adversely impacted by the Loganville Bypass,
3. become part of the York County Park system and part of the Nixon Park Master Site Plan,
4. be used by Nixon Park to provide environmental education and recreational opportunities, including any activity not prohibited by this management plan,
5. install, operate, and maintain education features,
6. plant native vegetation (i.e., trees, shrubs, grasses and forbs) and plant native vegetation (i.e., trees, shrubs, grasses and forbs), and control all invasive species to comprise of less than a total of 15% area cover and,
7. restore or maintain the topography, hydrology, drainage, structural integrity, streambed, and wetland and vegetative buffer within the mitigation site to the original intent of the mitigation plan.

Restrictions

Any activity or use of the mitigation site inconsistent with the purpose of the compensatory mitigation project by York County and Nixon Park; subsequent property owner(s); and the personal representatives, heirs, and successors is prohibited. Without limiting the generality of the foregoing and except when an Accepted and Intended Use, or as necessary to accomplish mitigation, the following activities and uses are expressly prohibited in, on, over, or under the mitigation site.

1. **Structures.** The construction of man-made structures including but not limited to the construction, removal,

placement, preservation, maintenance, alteration, or decoration of any buildings, roads, utility lines, billboards or other advertising. This restriction does not include deer stands, bat boxes, bird nesting boxes, bird feeders, duck blinds, educational features, the trail system, the trail head at the intersection of Valley Road and Nixon Park Drive, and the placement of signs for safety purposes or boundary demarcation.

2. **Soils.** The removal, excavation, disturbance, or dredging of soil, sand, peat, gravel, or aggregate material of any kind or any change in the topography of the land, including any discharges of dredged or fill material, ditching, extraction, drilling, driving of piles, mining, or excavation of any kind.
3. **Drainage.** The drainage or disturbance of the surface water level or the water table. All pre-existing or approved project-related drainage discharge features may be maintained.
4. **Waste or Debris.** The storage, dumping, depositing, abandoning, discharging, or releasing of any gaseous, liquid, solid, or hazardous waste substance, materials, or debris of whatever nature on, in, over, or underground or into surface water or groundwater.
5. **Non-Native Species.** The planting or introduction of non-native species not intended to manage other invasive species.
6. **Herbicides, Insecticides and Pesticides.** The use of herbicides, insecticides, or pesticides or other chemicals, except for as may be necessary to control invasive species that threaten the natural character of the mitigation site. State-approved municipal application programs necessary

to protect the public health and welfare are not included in this prohibition.

7. **Removal of Vegetation.** The mowing, cutting, pruning, or removal of any kind; disturbance, destruction, or the collection of any trees, shrubs, or other vegetation, except for pruning, cutting, or removal for
 - a. safety purposes or to enhance educational opportunities,
 - b. control in accordance with accepted scientific forestry management practices for diseased or dead vegetation,
 - c. control of non-native species and noxious weeds, and
 - d. scientific purposes or nature study.
 - e. as needed to maintain the trails and other educational facilities within the site.
8. **Agricultural Activities.** No part of the mitigation site may be converted or expanded into agricultural usage including horticultural, aquacultural, silvicultural, livestock production, or grazing activities.
9. **Other:** Any other activity determined by PennDOT, USACE, or PA DEP not to be consistent with the intent of the mitigation plan is prohibited, without prior approval.

Inspection

York County, Nixon Park, or their representative shall inspect the mitigation site, including the in-line water control structure, not less than one time per month.

PennDOT, USACE, PA DEP, or their representative shall have unrestricted access to inspect the mitigation site during construction and the five-year post-construction monitoring period.

PennDOT, USACE, PA DEP, or their representative shall be granted free and reasonable access to inspect the mitigation site, with prior notification to Nixon Park.

Adaptive Management Plan

The Nixon Park Wetland and Stream Mitigation area will include the following Adaptive Management Plan contingencies.

1. In order to design a mitigation site that meets the necessary performance standards, Basins A and B will be constructed with variable water control structures which would allow for minor modifications in the pool water surface elevation. Water elevations in Basins A and B may be altered during the establishment and monitoring period to initially induce hydration in the basins; increase or decrease hydrology in the wetland areas; and/or treat invasive species. Once the appropriate discharge elevation is determined, to meet DEP and USACE guidance, the outlets will be replaced with fixed-crest weirs to provide for a more natural and low maintenance site. If the structures cannot be replaced, justification must be provided to the DEP and USACE for acceptance as well as the structure must remain fixed.
2. Unless altered by unforeseen events, the grading and stabilization of the site (both wetlands and stream) will be completed in mid-summer to early fall and allowed to reach hydrologic equilibrium over the first winter. The site will be permanently seeded and/or landscaped the following spring.
3. Should the as-built survey or the monitoring data show that the site has not developed the required habitat, PennDOT in coordination with the USACE and PA DEP will develop a remediation plan to bring the site into compliance. Execution of the monitoring plan will be completed by PennDOT maintenance personnel and/or Contract personnel.