

Pritzker Military Museum, Library, and Archives Center

LOCATION:

Somers, Wisconsin

CATEGORY:

General Design

ABSTRACT:

The project marks the initial 40-acre phase of a decade-long development project across 283 acres of farmland in Somers, Wisconsin. It effectively addresses the institution's expansion needs and vision of a world-class museum campus, enhancing public understanding of military history through artistic, expressive, and functional design. It prioritizes ecological restoration, sustainability, water resilience, and community benefits. Inspired by the military values of discipline, it features a simple yet orderly site layout and symbolic material selection for a memorable visitor experience. Landscape architects led sustainability efforts and integrated artistic landforms seamlessly. The project's success prompted the institution to relocate its entire operation to the campus upon completion, highlighting its environmental, cultural, and institutional impact.

NARRATIVE

The Pritzker Military Museum, Library, and Archives Center marks the initial 40-acre phase of a decade-long development project across 283 acres of farmland in Somers, Wisconsin. It addresses the need for a new archive center to accommodate the growing collection of military artifacts by the Pritzker Military Museum & Library, with a focus on promoting public understanding of military history through artistic, expressive, and functional design.

During site selection, the landscape architect collaborated closely with the clients and architects, conducting thorough analysis and design explorations across potential locations to ensure alignment with the museum's vision. They developed a comprehensive master plan for the chosen site, optimizing its features for a nationally significant museum campus. In phase 1 execution, including the museum, archival space, parking, event areas, and trails, landscape architects led sustainability efforts and artistic landform creation.

The design prioritizes ecological restoration, sustainability, and community benefits. It restores pre-settlement ecological habitat, enhances sustainability with measures like stormwater collection and reuse, and offers public amenities such as a comprehensive trail system and flexible event spaces. Additionally, it aims to reflect the military code of conduct through a simple yet orderly geometric site layout, and the utilization of symbolism in material selection, creating a memorable experience for visitors. Inspired by the trench warfare earthworks, the site features a circular rampart with the museum at its center, offering various perspectives for visitors to experience architecture, nature, and the broader land context. Linear pathways and tree-lined boulevards overlay the circular pattern, forming a simple and strong geometric grid to pay homage to military order and discipline. This grid defines wetland gardens and restored prairie meadows, connecting visitors to the site's wilder surroundings.

Situated near the mapped Kilbourn Road Drainage floodway and wetlands, which serve as a tributary of the Des Plaines River, the project prioritizes the preservation of existing hydrology and hydraulics from development impact. Furthermore, landscape architects took proactive measures to address the environmental challenges posed by the Midwest farming industry, such as extensive fertilization, leached soil nutrients, and high water usage. They implemented a large-scale native habitat restoration plan, creating naturalistic stormwater ponds with wetlands, wet meadows, and dry-mesic prairies, covering 32% of the redevelopment site with native prairie seeding. This environmentally conscious approach not only pays homage to the pre-settlement tall grass prairie/savanna natural habitat but also positively influences the region's ecosystem.

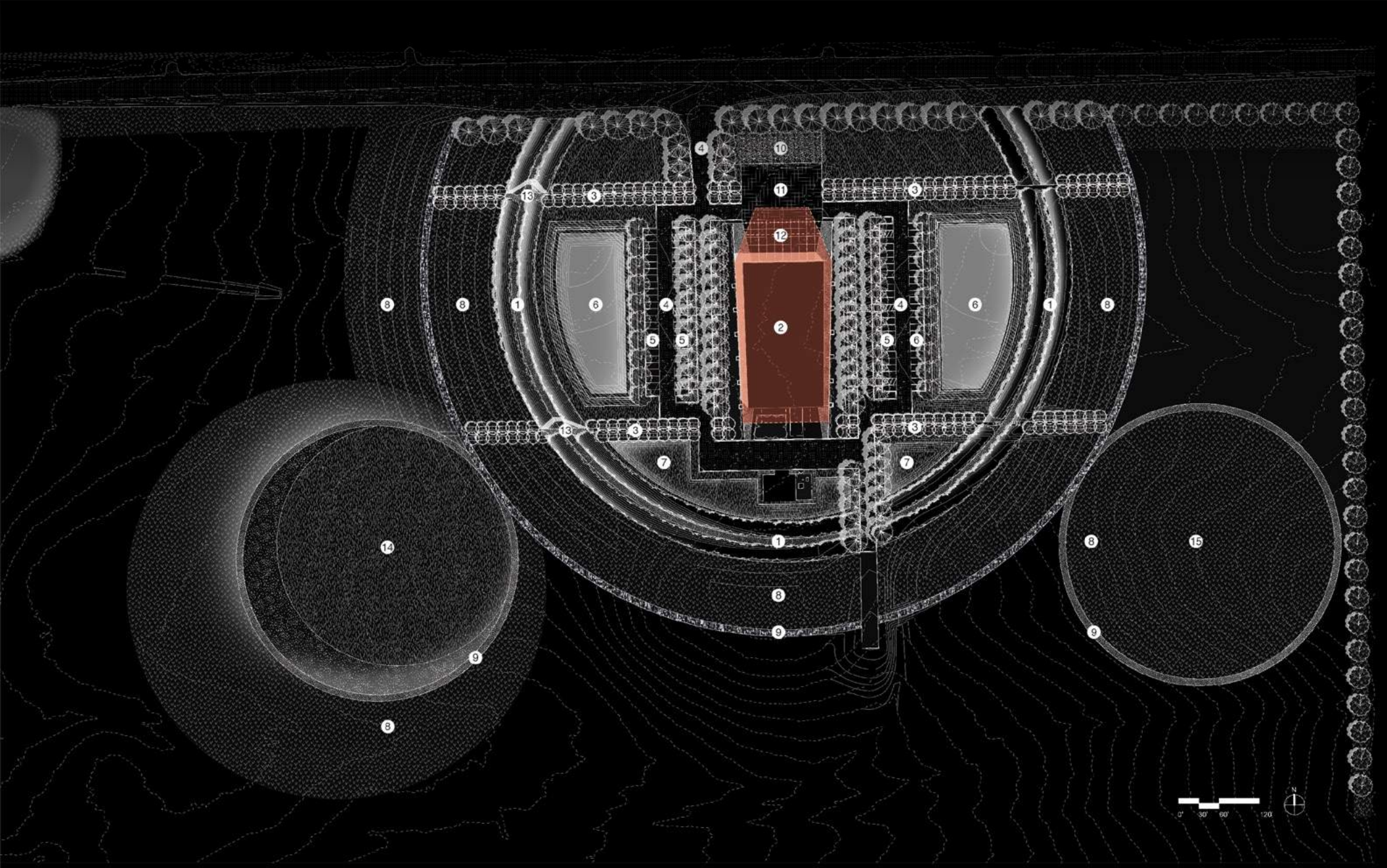
The project integrates innovative rainwater harvesting and stormwater management systems, enhancing quality and storage capacity while meeting irrigation needs. Twelve rainwater collection vaults capture runoff from the building roof, complemented by two permeable pavers parking lots to infiltrate ground runoff. The captured runoff is then directed through native-planted wet meadow basins to permanent retention ponds. Here, the natural wetland filters and stores the runoff

for irrigation purposes within the wetland bounce buffer. These basins have a combined storage capacity of 3.19 acre-feet, exceeding the site's average monthly irrigation requirements of 67,743 gallons. This native-focused landscape design results in an 86% reduction in irrigation needs compared to the previous requirement for soybean fields, underscoring the significant conservation and sustainability benefits of this transformation.

Beyond its environmental impact, the Pritzker Military Museum, Library, and Archives Center extends a socioeconomic benefit to the community. It offers miles of walking trails for public enjoyment, extends public utility infrastructure, facilitates public education and outreach initiatives, and plays a crucial role in the preservation of our military history and artifacts.

During the design development phase, the landscape architect collaborated with the contractor and other consultant partners to implement a Guaranteed Maximum Price (GMP) system, effectively reducing the total cost by 30%, and meeting the client's budget. This achievement was realized through several key strategies. Firstly, they worked closely with the civil engineer to modify the grading concept, ensuring a balanced cut-and-fill approach. Additionally, collaboration with the earthwork contractor and landscape contractor facilitated the cultivation and amendment of topsoil for optimal planting conditions, reducing soil import costs. Native seeding was utilized to conserve costs associated with large-area restoration. Furthermore, proactive planning involved securing plants from local nurseries at discounted prices, two years ahead of the planting season.

The unequivocal success of the Pritzker Military Museum, Library, and Archives Center has prompted the institution's decision to relocate its entire operations to the newly developed campus upon project completion, underscoring the profound impact and enduring legacy of this transformative initiative.



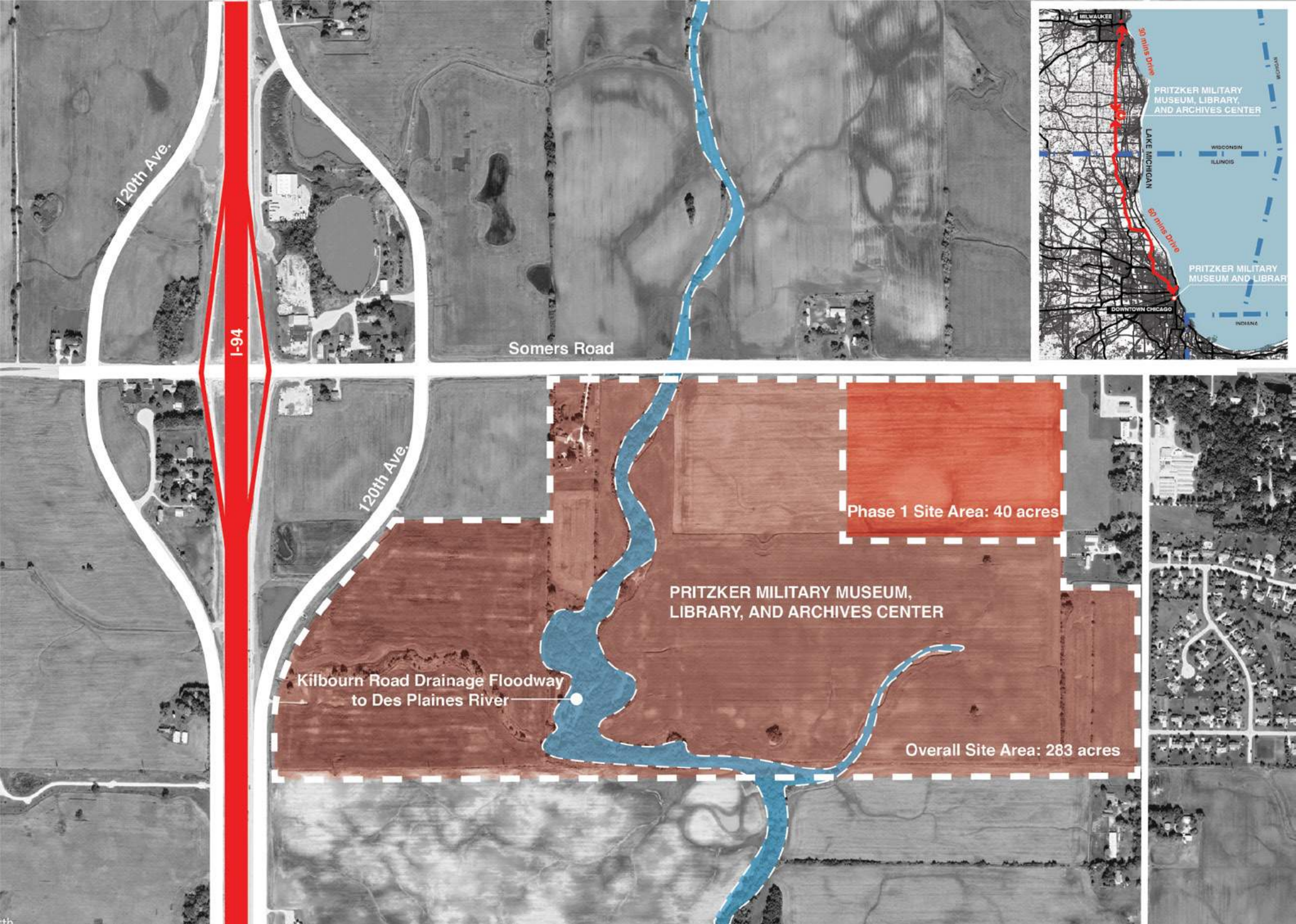
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|-----------------------|------------------------------|----------------------------------|---------------------|-----------------------|
| 1. The Circle Rampart | 4. Esplanade | 7. Wet Meadow | 10. The Orchard | 13. Site Bridge |
| 2. Museum Building | 5. Permeable Parking Lot | 8. Restored Prairies | 11. Gathering Plaza | 14. Cold War Memorial |
| 3. The Formal Allee | 6. Stormwater Detention Pond | 9. Extended Circular Grass Trail | 12. Entrance Plaza | 15. Solar Farm |

Site Plan
 An orderly geometric layout features a circular rampart with the museum at its center, overlaid by a grid of tree-lined pathways and boulevards.



Bird's Eye View Rendering

Ecological sustainability is prioritized with permeable parking lots, native-planted stormwater ponds and rampart, and restored prairie.



Regional Context and Site Condition Overview

The site is selected for its proximity to Chicago, Milwaukee, and Lake Michigan. It involves master planning and executing phase 1 design.

ECOLOGY/CULTURE



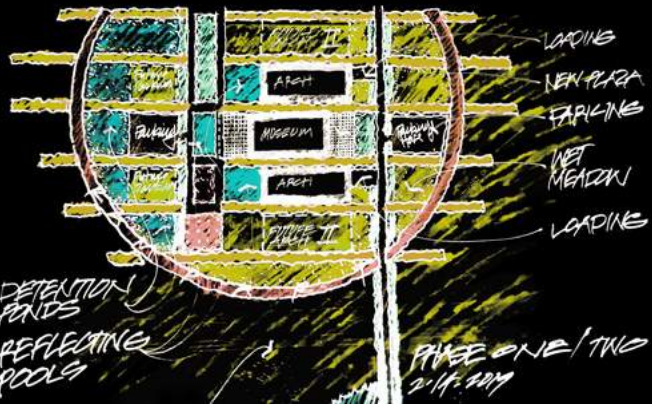
EXHIBIT/MILITARY HISTORY



INSTITUTION MISSION

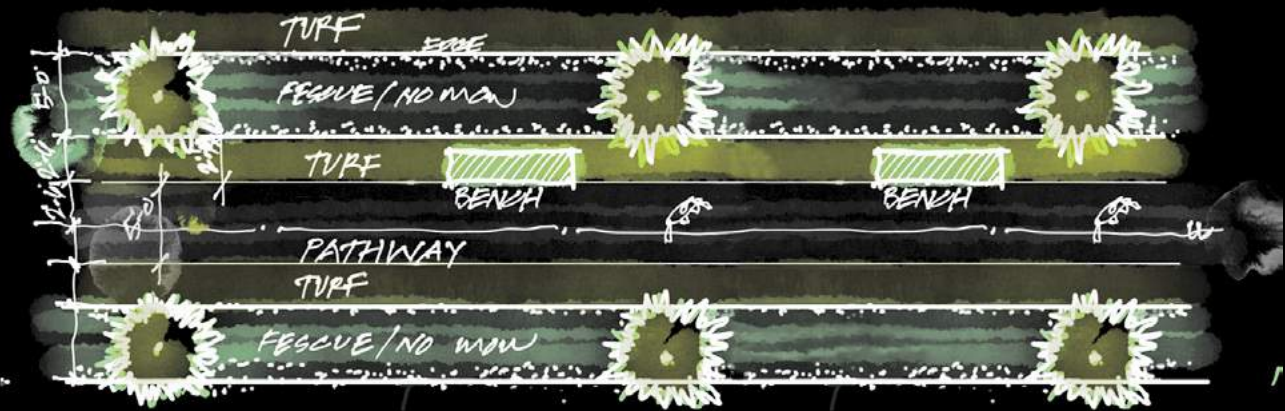


The design blends site ecology and cultural history, the institution's expansion needs, and its mission of commemorating military history. It prioritizes ecological restoration, sustainability, and community benefits while reflecting military disciplines in layout and material selection.



The site layout is inspired by the military service ribbons.

The tree-lined boulevards and distinctive patterns intend to mimic the orderly laid rows and strips on the service ribbons display.



The site's material selection, design details, and installation utilize symbolism to commemorate military sacrifices.

Oak trees represent military memorial value. 200 Oaks line pathways like soldiers, with bollards and striped plantings, forming a strong pattern.



The design chooses a cohesive color palette across the site to align with the military theme of red, gold, and blue. From red trusses to stairs, bridges, and gates, along with red maple and dogwood, to golden grass under a blue sky, material choices are expressive.



181
Columnar Oak



64,771 s.f
Fescue Sodding



20,969 s.f
Wet Meadow Seeding



10,433 s.f
Pond Edge Plug Mix



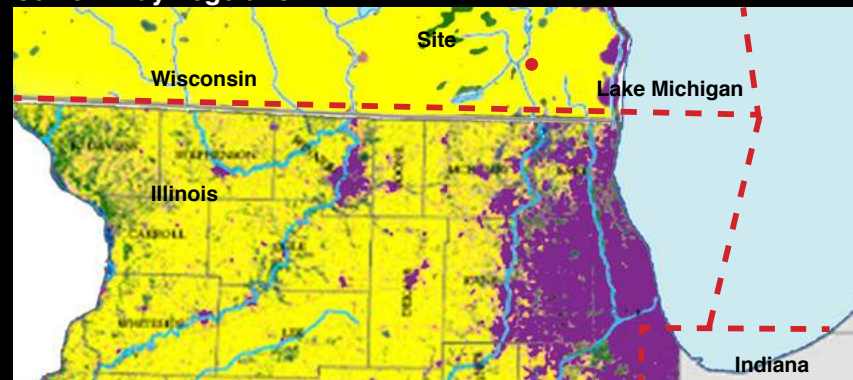
455,610 s.f
Little Bluestem Seed Mix



Early 1800s Vegetation



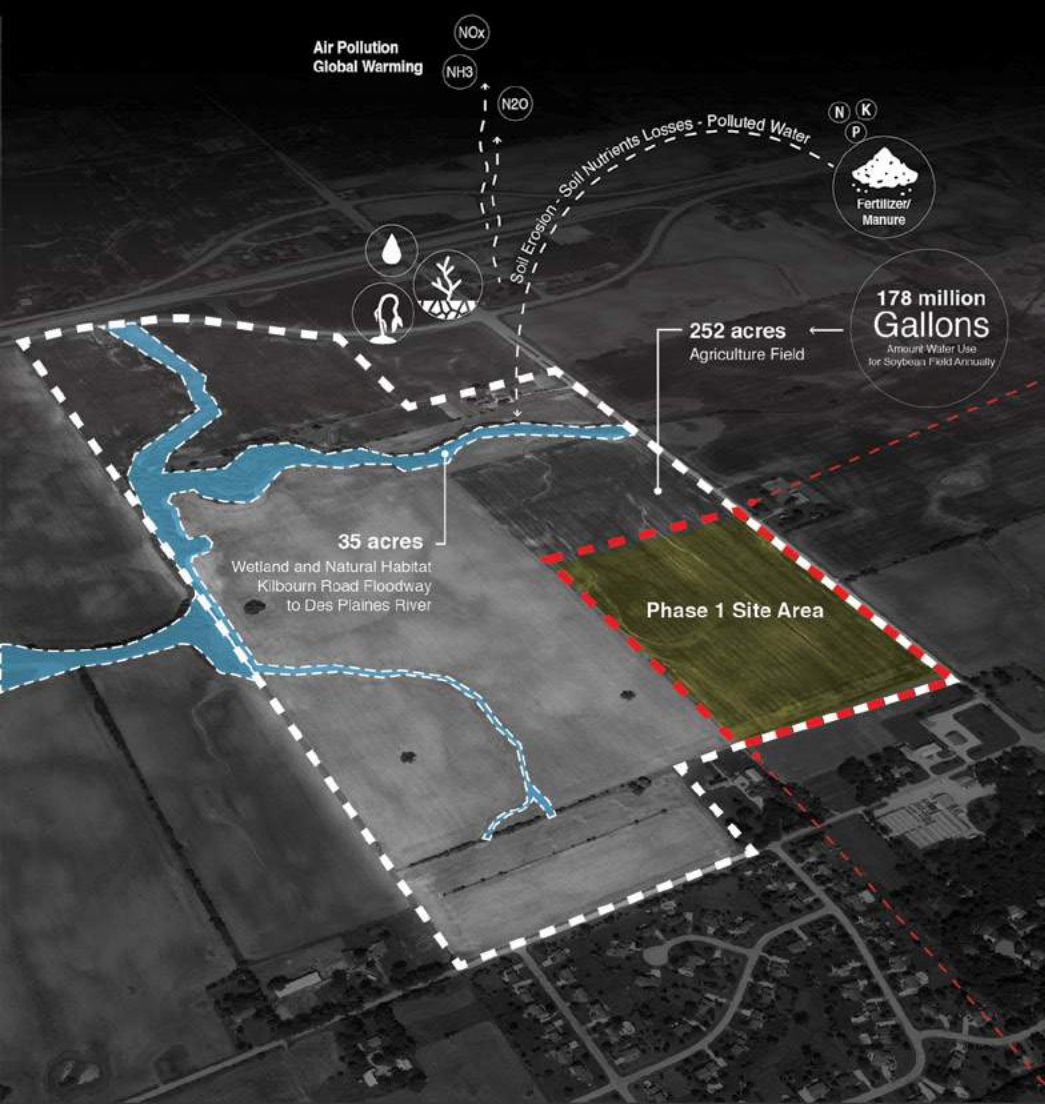
Current Day Vegetation



- Forest
- Savanna / Prairie
- Water
- Rivers
- Agriculture
- Developed Area

The project features a native-focused landscape design to restore the site's pre-settlement habitat. Inspired by prairie/savanna habitat, the design covers 1/3 of the site with native prairie and creates naturalistic wetlands in stormwater ponds.

BEFORE



DEGRADING ENVIRONMENT

Agriculture is the leading source of pollution in many countries. Pesticides, fertilizers and other toxic farm chemicals can poison fresh water, air and soil. They also can remain in the environment for generations. Many pesticides are suspected of disrupting the hormonal systems of people and wildlife.

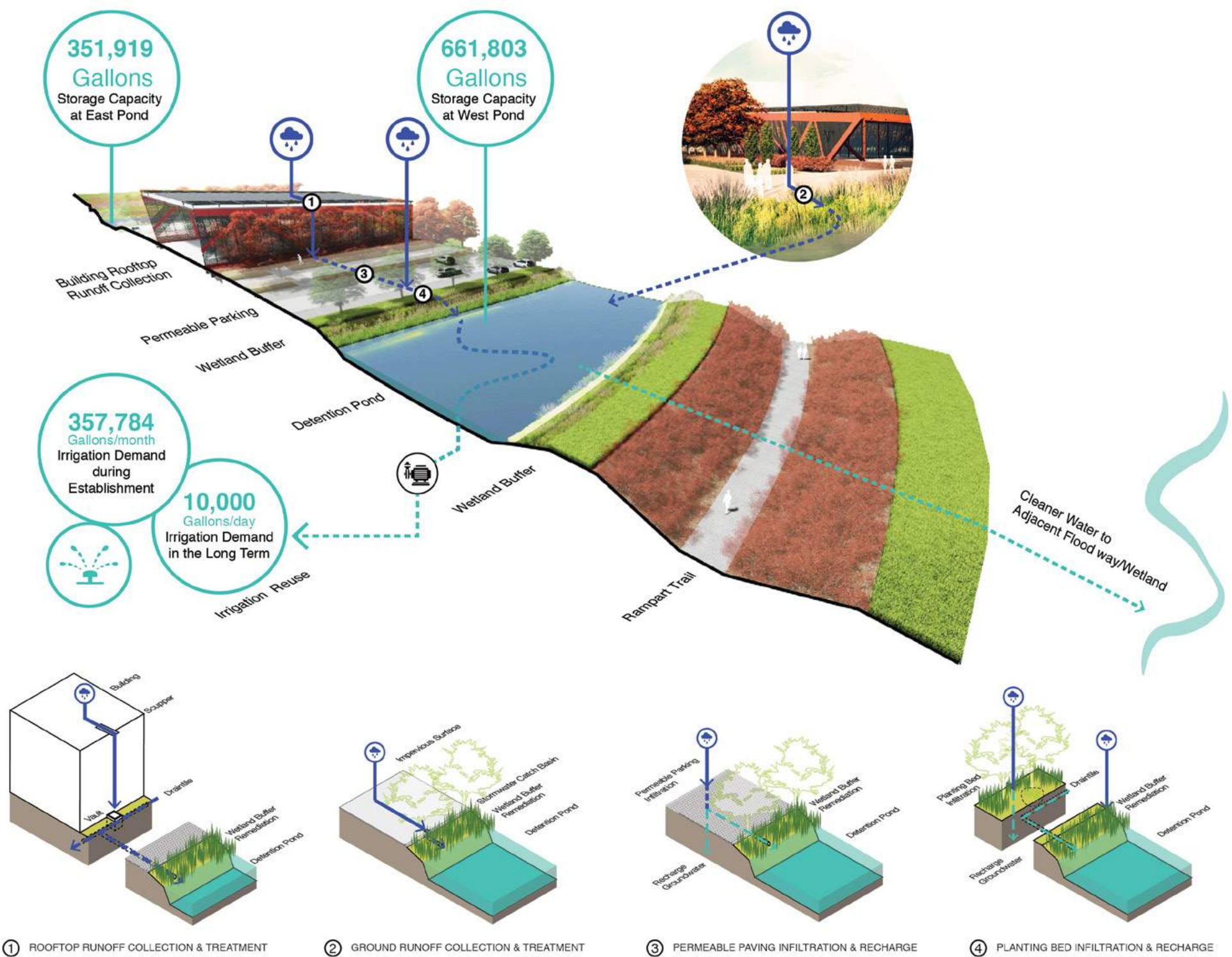
AFTER



EFFECTIVE IRRIGATION

During the summer and spring months, an estimated 289,554 gallons of water each month can be utilized for irrigation, in stark contrast to the previous requirement of 2.1 million gallons when the land was used for soybean agriculture, underscoring the significant conservation and sustainability benefits of this transformation.

Innovative rainwater harvesting and stormwater management systems address previous farming industry environmental challenges. The design enhances runoff quality, improves storage and reuse for irrigation and habitat benefits, in addition to reducing irrigation demand.



Stormwater runoff from building rooftops and ground level is collected, infiltrated, and purified for irrigation.

A series of interconnected naturalistic wet meadows and pond basins have a storage capacity of 3.19 acre-feet, exceeding monthly irrigation needs.



The rampart features densely planted slopes with bridges across the top. The design is inspired by trench warfare. Visitors can walk the mile-long trail, experiencing shifting perspectives from enclosures to openness.



Standing atop the rampart, overlooking the bridge leading to the museum building.

The oaks march orderly down the path, while the site structures and building display coherent expressions, showcasing attention to detail.



Sunset view of the building from the permeable parking lot.

Red Maple and Golden Karl Foerster Grass line the sidewalks along the side of the building, accentuating the bold architectural features.



The view of campus arrival area under full moon.

The design provides human scale throughout, offering flexible gathering space at the entrance, complementing night features with natural warmth.



Bird's eye view of the completed project under dusk

The simple yet strong geometric forms—a circular rampart, linear boulevards, and stormwater pond—stand illuminated under the twilight.