KETCHUM PARK

25 Year Master Plan

CITY OF Marshall Michigan

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KETCHUM PARK

25 Year Master Plan

April 2018

PREPARED FOR THE CITY OF MARSHALL, MICHIGAN

CITY COUNCIL
MARSHALL'S PARK, RECREATION AND CEMETERY BOARD
KETCHUM PARK ADVISORY COMMITTEE

FUNDED BY THE KALAMAZOO RIVER COMMUNITY RECREATIONAL FOUNDATION

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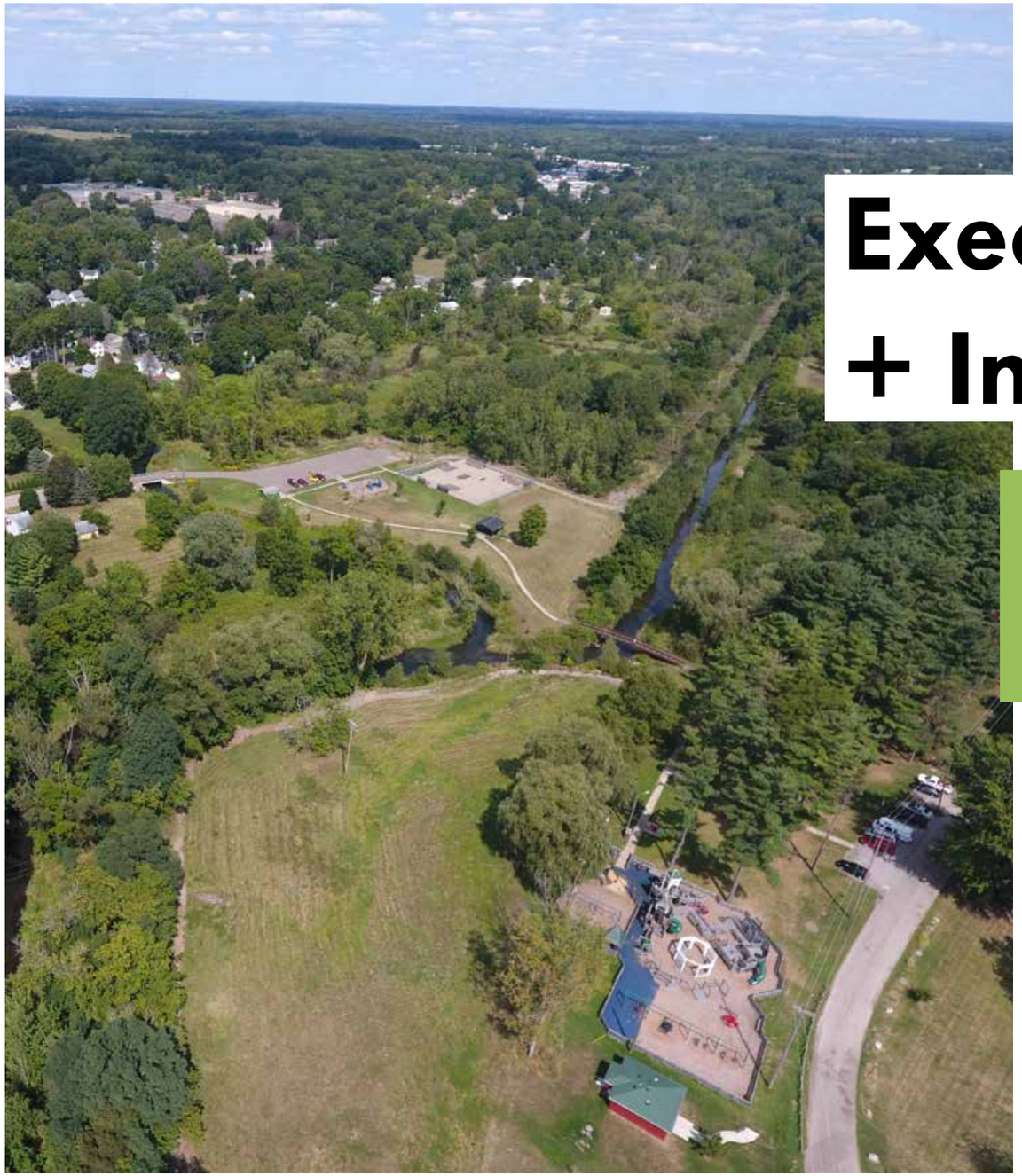


Executive Summary + Introduction

PURPOSE OF THE MASTER PLAN

Ketchum Park is a well-loved community recreational asset and an important riparian corridor within the Kalamazoo Watershed. It also stands at a crossroads, in need of a new direction that embraces the ecological, industrial and cultural richness inherent to the site. The Master Plan describes a vision and framework for review, discussion and decision making. It is a living document where recommendations are not fixed or final but stand as a primary filter in the decision-making process as funding becomes available over the next 20 years. Along with a vision for Ketchum Park shared by the community, a set of principles were developed to serve as a guide when changes, uses, activities, or introductions are considered:

- Use the **foundational features** of the park's landscape as the basis for its design, such that the stream, the race, and recreation form its core patterns
- Embrace the **natural and industrial history** of the site as cues in creating spaces to support its social and recreational future
- Create spaces that encourage a **range of recreation activities and users**, but not in ways that allow those spaces to be dedicated for a singular activity
- **Protect the park's natural resources** by limiting the expanse of activities that pose a potential to downgrade the park's landscape, especially the riparian corridor
- Provide opportunities for **incremental evolution and implementation** of the park's improvements

Executive Summary + Introduction

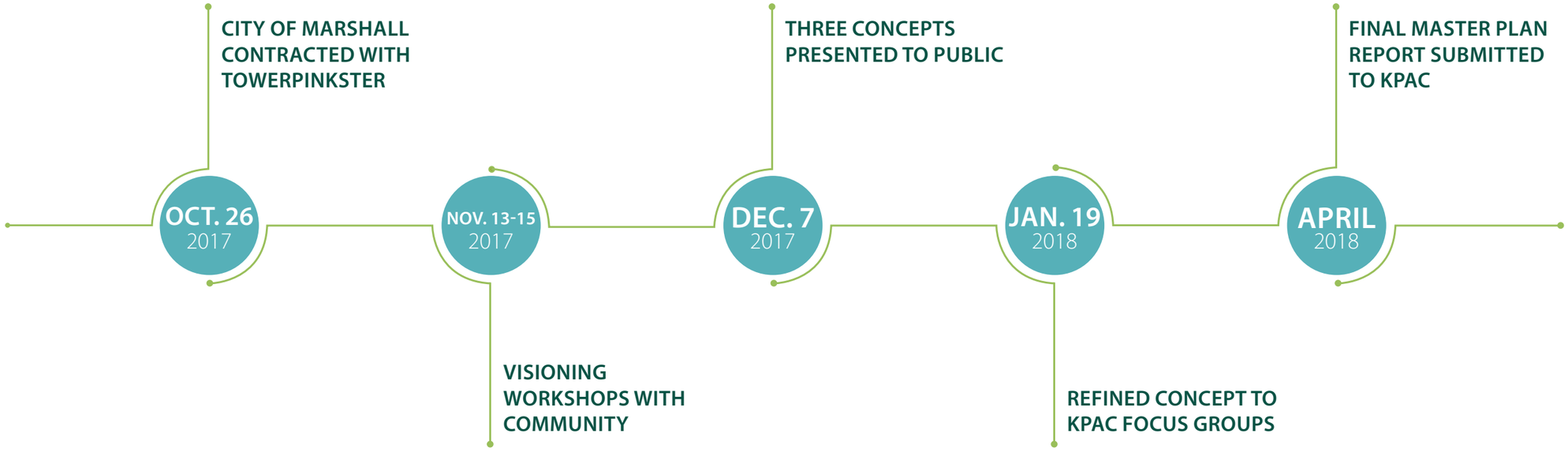
THE MASTER PLANNING PROCESS

On October 26, 2017, the City of Marshall contracted with TowerPinkster, a regional architectural and engineering design and planning firm, to produce a forward-looking Master Plan for Ketchum Park. Complimenting the park's existing assets, the Master Plan sets expectations, direction and development goals that will enable the city to step knowledgeably and responsibly into the park's future.

To best represent the views of the park's numerous stakeholders and to provide timely and strategic feedback to the planning team, the Ketchum Park Advisory Committee (KPAC) and the City of Marshall assembled existing documents and data on community outreach, historical site documentation, existing site conditions, wetland delineation mapping, and Parks Maintenance plans to inform the Master Plan process.

A two-night Visioning Workshop was held at City Hall on November 13 and 15, 2017, with KPAC members and selected community representatives providing information and insight into current conditions, as well as hopes and aspirations. The community feedback, in conjunction with the existing site and data analysis, informed goals and objectives for the park over the next 25 years. This framework was used to direct the design team through the planning process and to determine programmatic needs and desired site improvements.

Subsequent stages of the master planning included the creation of three concept alternatives that were guided by five park goals determined from community feedback: Connectivity, recreation and play, sustainability, community engagement, and education and outreach. The concepts were presented to KPAC for feedback and discussion at City Hall. After gathering input from community members, a refined Master Plan was created by the design team and reviewed by the KPAC Focus Group. This report conveys and expands on the directions that were established during the Master Plan process.



Executive Summary + Introduction

"Recreation for a Lifetime"

City of Marshall Recreation Department

The City's motto reflects the community's commitment to engage all users and abilities in meaningful experiences that celebrate the area's natural and cultural resources for generations to come.

DESIGN DIRECTION

Through an iterative process, the design team isolated significant elements to consider in the 25 Year Master Plan. Diversity of park experiences and connection to the community were regarded as very important components to include, and were an underlying theme throughout the process. Many people expressed the importance of telling the industrial and cultural history of the site, while emphasizing and protecting the park's natural beauty and native ecosystems. Large, open green space was identified as a priority, as many people expressed interest in a flexible space that could accommodate large and small-scale events and activities. Additionally, active spaces were analyzed to determine if they were essential, properly located, or in need of renovation. By eliminating underutilized park elements and addressing major drainage issues, the community agreed that space should be allocated for passive, non-programmed use in addition to newly designed active areas.

Defining Features: STREAM | RACE | RECREATION

Three eras of natural and human history intertwine in Ketchum Park: A time when the stream carved its course through an unmarked landscape, a time when the power of the stream was harnessed for local industry, and a time when streets and homes reached outward from the historic center of Marshall. Today, the focus of the land has turned to recreation for the dedicated community. These patterns, all visible today, become the forces shaping an experience in Ketchum Park, an experience that weaves the natural environment into a people-centered time. In the master plan we see:

- Restoration of the stream, creating a space for appreciation of the great banks.
- A race, once used to build the city, now a place for activity and entertainment.
- Recreation created with the highest regard for nature and the greater Rice Creek, organized for gathering, play, and learning.

Until now, these patterns have been separated, and often unrecognized. The Master Plan reconciles the stream, the mill race, and recreation to create a series of spaces and activities resonating with one another. The stream is made better by interacting with people, the race reconnects with stream and people, and recreation is balanced between nature, history, health, and social interaction.

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Project Background

Location + Context

Ecological Framework

Existing Conditions + Uses

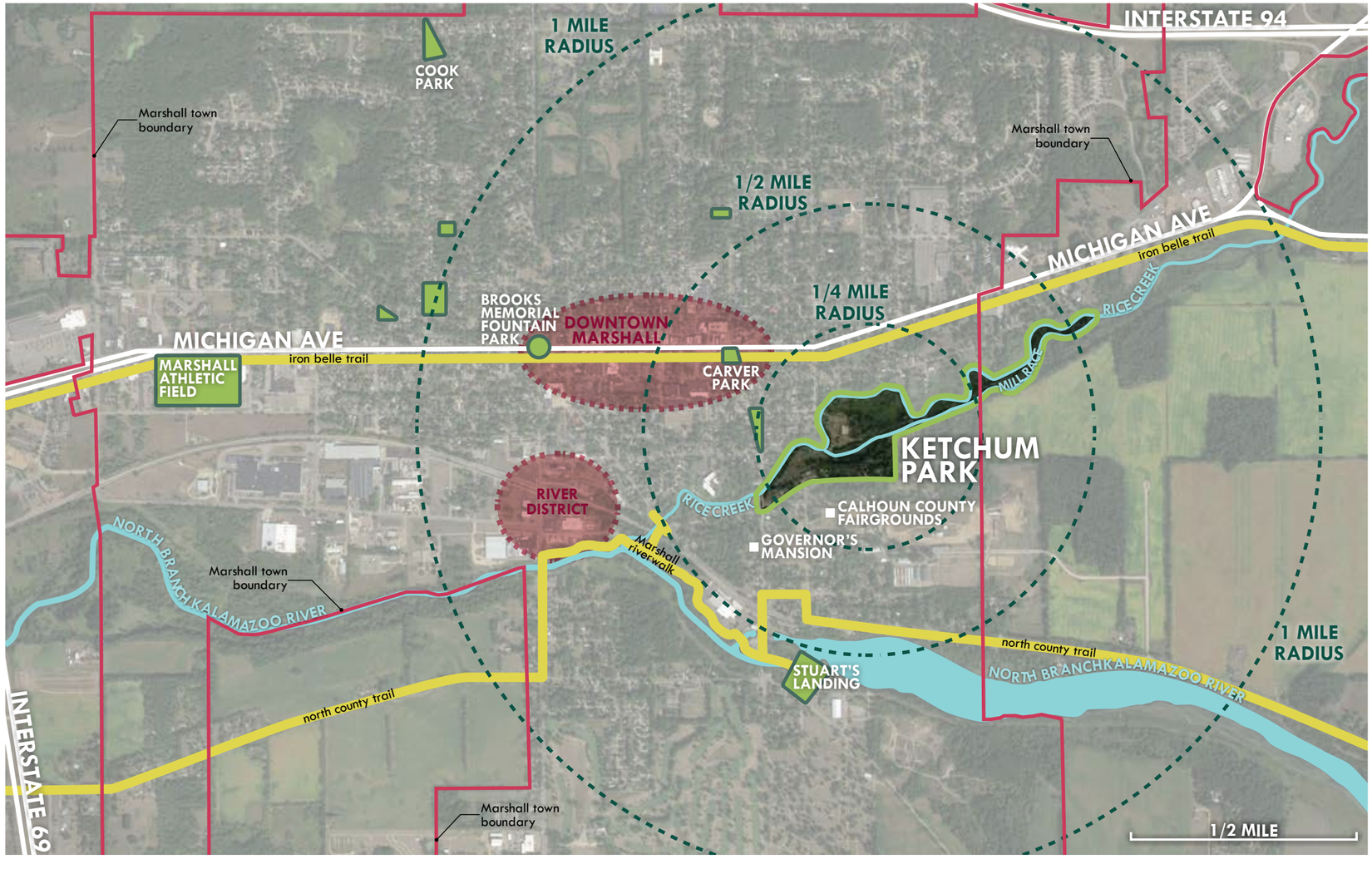
Site Assessment

Community Feedback

Project Background

LOCATION + CONTEXT

Ketchum Park is a well-loved community green space located in the heart of historic Marshall, Michigan. The park's 25 acres feature passive and active recreational opportunities and a diverse riparian habitat nestled within a residential neighborhood, making it Marshall's largest public park. Two significant waterways shape the boundaries of the Park: 1) Rice Creek, a headwater tributary to the Kalamazoo River, and 2) a Mill Raceway, a human-made channel that once served the site's industrial past. These two waterways divide the park into upper and lower regions that are linked by the scenic Rotary Bridge.



Upper Ketchum Park is bound by Rice Creek to the north and the Mill Race to the south, and extends west, beyond the city line, terminating at a peninsula where the Mill Race splits off from Rice Creek. The west end of the park is accessed by a utility maintenance path that extends the length of Upper Ketchum Park. Access to Upper Ketchum is from a small vehicular bridge that extends over Rice Creek from the corner of South Gordon Street and East Hanover Street.

Lower Ketchum Park is bound by Rice Creek to the north and Montgomery Street to the south. The east side of the park ends at Marshall Way, where Rice Creek passes through a historic bridge on its way to the Kalamazoo River. Access to Lower Ketchum is from South Marshall Avenue to Montgomery Street where visitors are greeted by the popular Kids' Kingdom playground.

A 10-minute walk from downtown Marshall, Ketchum Park is close to many of the city's amenities and assets. In addition to its proximity to major highways I-94 and I-69, the park sits between several non-motorized local and regional trail systems including the Iron Belle Trail, the North County Trail and the Marshall River Walk. The park is also close to many tourist attractions such as the Calhoun County Fairgrounds, the Governor's Mansion and other 19th century historic buildings, and the growing, up-and-coming River District. Additionally, there are three schools and a library, all within a half mile radius.

Project Background

PARK CHARACTER + HISTORY

The landscape on which Ketchum Park sits today has a longstanding history of modification. Over the last 180 years, the landscape has been shaped to suit the needs of the community. What stands today is a resilient landscape that evolved to support both a diverse natural area and a thriving Marshall community.

Before the City's establishment in 1830, the Potawatomi Indians inhabited Marshall. The tribe had a deep understanding and relationship with the landscape. Rice Creek's namesake comes from the tribe's name "Manoomin," meaning wild rice, and several species of native wild rice were grown and harvested in the stream. Native vegetation was used for tools, food, and medicine. The sacred species white cedar, sage, sweet grass, and tobacco, as well as native wild rice, can all be found in Ketchum Park today. The Potawatomi used fire as a tool to control and manage the development of the landscape. Regular burning for hunting, traveling, and vegetation management changed the landscape from a forested area to open grasslands. When city founders Sidney and George Ketchum arrived in the area in 1830, they found a park-like landscape with abundant water resources, which made for an ideal settlement.

When Sidney and George Ketchum handed down their claims to lands in this area along Rice Creek, the primary use of the land became industry. From 1836 through 1956 the land passed through several hands and was manipulated to serve as a resource for a castings and brick furnace, and four different logging and flour mills. A mill race and a dam were also constructed to support the local industry. The dam was located where the Park's far east peninsula is today, in Rice Creek. At this same location, just south the dam, a linear mill race was trenched to supply water to a pond that supported the mill. The water rejoined with Rice Creek at a spillway near the South Marshall Bridge. The Mill Race received the majority of water flow, leaving Rice Creek short of its natural flow.

In 1957, the Rotary Club helped support the purchase of the property and designate the land as a public park. Over the years many improvements and amenities have been added to the park including a picnic pavilion, a playground, and a bridge that linked the north and south sides of the park. These developments allowed Ketchum Park to become a sought out location for recreation and social gatherings. A robust volunteer base has regularly contributed to park recreation additions over the years, including the creation of a skate park, the Kids' Kingdom playground, and a disc golf course.

In 2007, the state Department of Natural Resources worked with the city of Marshall, the Calhoun Conservation District and Trout Unlimited to remove the mill pond dam in Rice Creek, due to its failing infrastructure. The natural flow of water returned to Rice Creek, and the Mill Race remained a park feature. Two years later, lower Ketchum went through significant physical changes when the Mill Race pond was filled in as part of the dam removal project. The fill material used created an unstable surface and left many residents unsatisfied. Dam and spillway remnants still remain at their original location.

The Ketchum Park Advisory Committee was established in 2014 to engage the Marshall community in improvement projects and management activities. Together with the city, there have been many small-scale improvements made to the park, as well as a Ketchum Park Management Plan. In 2017, KPAC reached out to The Kalamazoo River Community Recreational Foundation for master plan funding. The foundation granted KPAC funding for a comprehensive 25 Year Master Plan report to guide future development decisions.

NATIVE PERENNIAL - DWARF LAKE IRIS

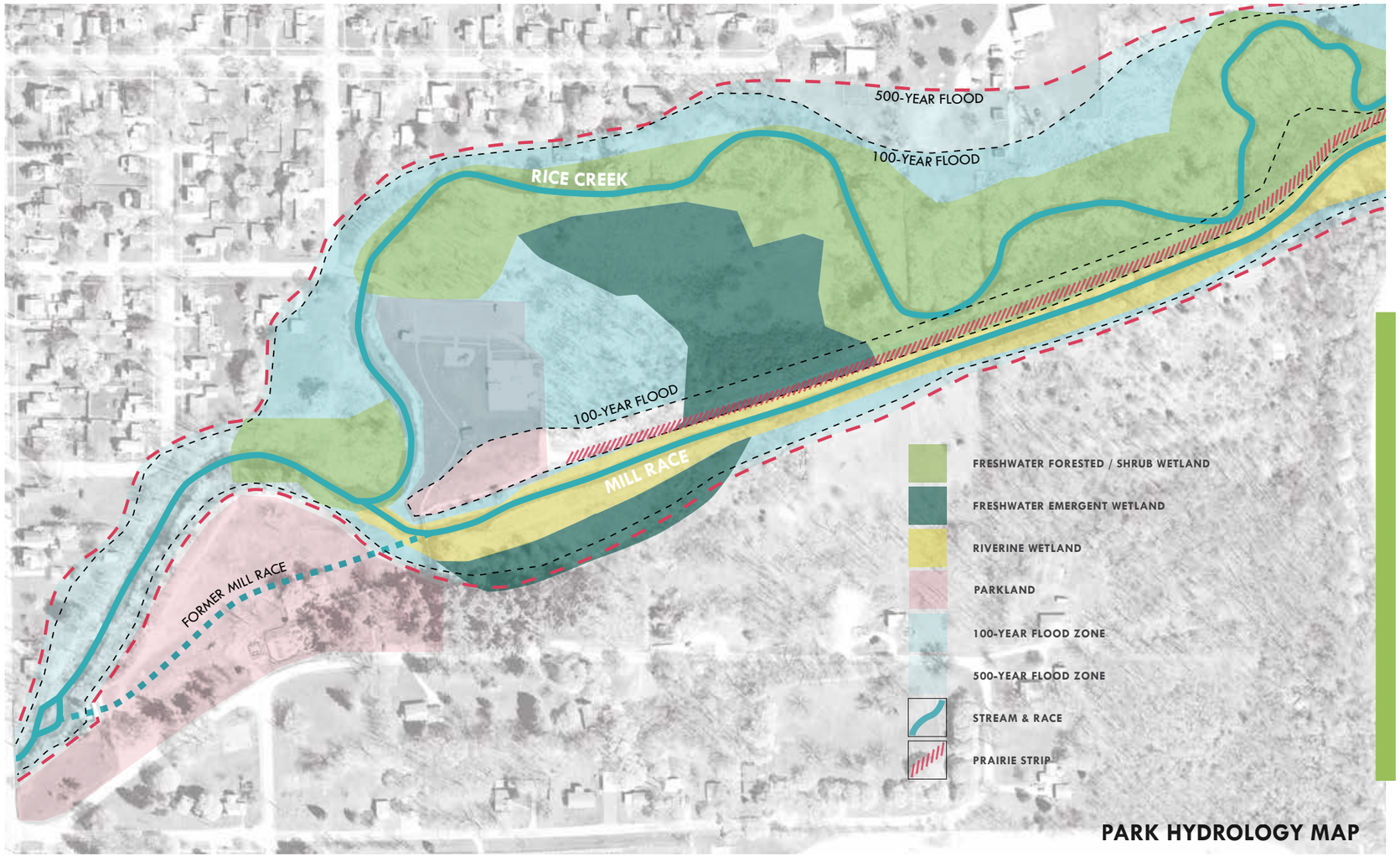
FORMER SPILLWAY AT WEST END OF PARK

FORMER MILL BUILDING IN THE 1920s

Project Background

ECOLOGICAL FRAMEWORK

The native landscape of Ketchum Park has proved resilient despite its long-standing history of change and manipulation by human hands. The Park's local topography, soils, hydrology, and historic vegetation have adapted over time to create a framework of five distinct ecological zones within the Kalamazoo River Watershed riparian area—**AQUATIC ECOSYSTEM, WETLANDS, LOWLAND FOREST, PRAIRIE STRIP, and PARKLAND.**



PARK HYDROLOGY MAP

Understanding the diversity of these zones will help inform future large- and small-scale design improvements. They will also guide ongoing maintenance in the park by including restoration efforts and storm water management. By highlighting the park's ecological resources, a narrative for environmental education is created that serves as a connection for Marshall residents to their park and the larger landscape context.

AQUATIC ECOSYSTEM

DESCRIPTION:
Rice Creek and the Mill Race are natural and human-made water systems within Ketchum Park. Rice Creek is a shallow, meandering tributary to the Kalamazoo River. The Mill Race is a deeper, faster linear channel that meets Rice Creek at the Rotary Bridge.

GENERAL CONDITIONS:
A diverse aquatic organism presence, cool water temperatures, and high water quality maintain a healthy, balanced ecosystem. Rice Creek and the Mill Race both provide important habitat to populations of trout. Currently, Rice Creek contains natural barriers that prevent human access, while the Mill Race is generally free of obstructions.

HISTORIC VEGETATION:
Water edge plant material including native rushes, reeds, sedges, and cattails. Tribe members are currently restoring native wild rice (Zizania aquatica and zizania palustris) along Rice Creek's waters edge, at the park's north entry.

DESIGN IMPLICATIONS/OPPORTUNITIES:
- Clearing of overgrown vegetation will allow for scenic views of the waterways and adjacent landscape
- Improving in-stream habitat and slope stabilization
- Water access and trails for visitor and wildlife connections
- Enhancing wild rice planting and relating Potawatomi narrative

WETLANDS

DESCRIPTION:
A transitional area between the aquatic ecosystem and adjacent terrestrial ecosystems, consisting of freshwater emergent and riverine wetlands.

GENERAL CONDITIONS:
A large majority of Ketchum Park's wetlands are unaccessible due to continuously wet conditions and dense vegetation. Invasive species have spread both along Rice Creek and the Mill Race Bank. The recent loss of many Ash trees due to insect damage has left many standing dead trunks.

HISTORIC VEGETATION:
Large stream-edge trees mix with early to mid-successional emergent wetland vegetation. Species includes Cottonwood, Mulberry and Gray Dogwood.

DESIGN IMPLICATIONS/OPPORTUNITIES:
- Potential for a nature trail/boardwalk system to allow access within the wetland habitat
- Removal of invasive species and planting of native vegetation to maintain the native landscape
- Interpretive stations to promote ecological awareness and stewardship

LOWLAND FORESTS

DESCRIPTION:
Lowland hardwoods are found in areas that hold water seasonally in Ketchum Park. Hardwood swamps and flood plain forests are both found within the park's freshwater forested habitat and contain many plant species not commonly found in other forest types.

GENERAL CONDITIONS:
Flooded hardwood lowland in the spring and fall, in addition to shade cover, cause plant material at the ground level to be sparse. Mature trees have shallow root systems and are subject to blow down during strong storms.

HISTORIC VEGETATION:
Larger trees including Silver Maple, Red Maple and Cottonwood make up a large majority of the tree population. Common ground layer plants include skunk cabbage, ferns, and jack-in-the-pulpit.

DESIGN IMPLICATIONS/OPPORTUNITIES:
- Planting of desirable species as openings occur: Yellow Birch, White Cedar, Larch, and Burr Oak
- Potential for an elevated boardwalk system for year-round access within the habitat
- Interpretive stations to learn about lowland forest birds, reptiles, mammals, and amphibians

PRAIRIE STRIP

DESCRIPTION:
A highly dynamic plant community of grasses, forbes, and pioneering shrubs found in ecological succession along the Consumer's Energy Right of Way (ROW). The narrow strip sits atop a weir that divides Rice Creek from the Race, forming a narrow peninsula on the park's far east end.

GENERAL CONDITIONS:
ROW requirements include a 30' clearance of tall trees and shrubs. Invasive plants quickly move into disturbed areas and banks from spraying and clear cutting, crowding out native species. Volunteers regularly work to remove invasives and establish native vegetation in their place.

HISTORIC VEGETATION:
Large native shrubs such as American Cranberry and Common Ninebark must be managed to maintain the 30' ROW clearance. Native low herbaceous vegetation of early successional habitat is essential for birds, small mammals, and invertebrates to thrive.

DESIGN IMPLICATIONS/OPPORTUNITIES:
- Removal of invasive species and restoration of native early successional habitat
- Development of a visitor access trail along the maintenance path to access the east end of the park
- Elevated flat surfaces along the maintenance path allow for small gatherings for schools and community organizations
- Potential areas to access the Mill Raceway for fishing and other water recreation

PARKLAND

DESCRIPTION:
Maintained green spaces in Upper and Lower Ketchum Park, punctuated by mature trees. Primary use of the space is for recreation, and includes site amenities such as picnic shelters and restrooms, as well as active areas like the playgrounds, skate park and disc golf.

GENERAL CONDITIONS:
Trees and brush along the perimeter of the lawns provide the primary habitat in this zone for small mammals and birds. Both Upper and Lower Ketchum Park suffer from poor drainage in wet seasons. Concrete fill has been dumped in several locations including the disc golf course and the Lower Ketchum lawn area, posing safety concerns.

HISTORIC VEGETATION:
Large park trees have been planted over the years by Park volunteers and staff. Existing mature trees include Willows, Maples and Pines. Landscape plantings feature low maintenance grasses and shrubs and several native wildflower gardens.

DESIGN IMPLICATIONS/OPPORTUNITIES:
- Potential for storm water management such as rain gardens and other infiltration areas
- Introduce pockets of habitat throughout the parkland green space
- Incorporate interpretive elements and sustainable materials in the design of new structures and spaces

Project Background

EXISTING CONDITIONS + USES

Ketchum Park has a variety of passive and active uses for visitors in addition to providing a connection to the natural environment. The parkland green space in both Upper and Lower Ketchum is relatively flat and open allowing for a wide range of programmed and spontaneous recreational opportunities. Currently, the lower half is the most used area of the park due to several popular park amenities: Kids' Kingdom playground, a picnic shelter and barbecue, and well-maintained public restrooms. The upper half of Ketchum Park features a skate park, smaller playground, 6-hole disc golf course, and a secondary picnic shelter.

To date, the City of Marshall and KPAC's large volunteer base have made many recent, low cost improvements to the park:

- New concrete sidewalk along Montgomery Street between South Marshall Avenue and the lower east parking lot
- Native plants and tree planting
- Repairs and improvements to Kids' Kingdom, the skate park, and other park structures and equipment
- Trail building/maintenance
- Water quality monitoring
- Flower box and wildflower garden planting
- Viewshed improvements
- Habitat enhancements
- General park clean-up

KIDS" KINGDOM

SKATE PARK IMPROVEMENTS

Project Background

SITE ASSESSMENT

SITE DRAINAGE

Some areas of Ketchum Park are impacted by inadequate storm water management, standing water, or saturated soils. These impacts are most often noticed after significant rainfall events, and can last minutes to weeks depending on the amount of rainfall and the given location.

Inadequate storm water management primarily impacts the Kids' Kingdom playground and surrounding area. Storm water from Montgomery Street and the Ketchum Park parking lots runs downhill and is channeled through Kids' Kingdom, resulting in the dispersal of wood chips to lower lying areas, or out of the playground entirely.

Standing water primarily affects the former mill race channel due to poor rainfall infiltration into the soil. This is most likely due to the improper material used to fill the channel following the dam removal project in 2007. The areas of standing water are usually gone within a week if no further rainfall has occurred.

Saturated soils are found in the upper park, and are concentrated around the sidewalk that extends from the restrooms to Rotary Bridge. The saturated areas can extend further to east beyond the picnic pavilion. This portion of the park was at one time likely wetland, but was filled with a high-clay content to create more usable parkland.

As park improvements are made over the next 25 years, an *ecologically*-based stormwater management approach is recommended to manage rainfall and filter pollutants through a vegetated treatment network, but also together with traditional engineered subsurface drainage systems.

PARK ACCESS, PARKING + PATHS

Surrounded by single-family homes, Ketchum Park is strongly connected to its residential community. Aside from the main entry and vehicle bridge, Rice Creek and the Mill Race are physical barriers that prevent visitors from entering the park. Given these limited access points, the park needs clear and welcoming gateways, with minimal impact on the neighborhood. Traffic, parking, and noise all affect the surrounding community, and have been evaluated in terms of park function and interface with adjacent neighbors. At this time, the north entrance bridge is not pedestrian friendly. Drivers often speed across the bridge down to the parking lot, unaware of their surroundings. Improved pedestrian passageways and traffic calming strategies are recommended.

Ketchum Park currently has three parking lots: two in the lower half, and one in the upper that include a total of approximately 52 spaces. The lower east lot provides approximately 10 spaces, the lower west lot provides approximately 12 spaces, and the upper lot provides 30 spaces, including six that are barrier-free spaces. Additional, on-street parking is available in the surrounding neighborhood.

The majority of paths and trails in Ketchum Park today are disjointed and lack fluidity between recreational spaces. The new concrete sidewalk along Montgomery Street provides a safe pedestrian passage to from the west parking lot to Kids' Kingdom. The sidewalk then connects to a narrow concrete path that brings visitors across the Rotary Bridge to the north parking lot. A mulched path was recently installed in lower Ketchum along the tree line overlooking Rice Creek, and a crushed gravel maintenance path now extends from the north parking lot (behind the skate park) and into the power line ROW.

As part of the 25 Year Master Plan, a recommendation has been made to improve and enhance both connection and wayfinding within the park, and to the surrounding community. Barrier-free access should be implemented in both parkland and natural area spaces.

MILL RACE FILL AREA IN LOWER KETCHUM PARK

NORTH ENTRANCE VEHICULAR BRIDGE

SOUTH ENTRANCE WELCOME SIGN AT S MARSHALL AVENUE + MONTGOMERY STREET

Project Background

SITE ASSESSMENT

PARK STRUCTURES + AMENITIES

Playgrounds
Kids' Kingdom is a charming, well-used, 11,000 square foot playground modeled after historic Marshall architecture. The playground integrates its customized, unique structures with traditional play equipment, including swings, slides and bars. Planned, designed and built by community members, the playground remains primarily maintained regularly by volunteers. Since its opening in 2005, the playground has received cosmetic and safety improvements as well as annual spreading of fresh wood chips. This regular maintenance has helped ensure the longevity and safe function of the playground structures and play surfaces. As mentioned earlier, this area experiences washout during major storm events, resulting in temporarily soggy conditions, displacement of the play surfacing, and exposure of the soil surface or geotextile fabric.
The upper park playground is traditional in its form and design. The structure is supported by steel posts and has plastic sides and climbing ladders. The playground, while well used and in fair condition, does not receive the same activity and attention as Kids' Kingdom. There is the option to relocate the play structure to another well-suited park in the city.

Restroom Buildings
There are currently two restroom facilities at Ketchum Park. Lower park restrooms were built in 2015 and support the adjacent Kids' Kingdom and nearby picnic shelter. These fully functional restrooms meet barrier-free requirements and lock after the park closes at 10pm to reduce the risk of vandalism. Drinking fountains are located at the restroom entry. The upper restroom has struggled with vandalism, tagging, and equipment damage, and is currently locked and non-functional.

Picnic Shelters
There are currently two 25'x25' timber frame picnic shelters at Ketchum Park. The lower park shelter is highly used by the community for small gatherings such as birthday parties or small events. Parking and restrooms are in close proximity to this shelter. The structure is in good, well-maintained condition and sits on a concrete pad. The structure contains eight picnic tables and a barbecue. The upper Park picnic shelter is less used by the community and is in need of aesthetic and functional repair. The shelter is located along the main pathway between the Rotary Bridge and the upper parking lot. The timber structure sits on concrete footings and has a dirt floor surface. The shelter contains five picnic tables and a barbecue. This shelter is in an area seasonally saturated with water.

Rotary Bridge
The Rotary Bridge is an iconic link within Ketchum Park. The bridge was built in 1988, connecting lower and upper portions of the park, and is structurally sound to this day. The framework of the bridge is composed of steel and the footpath flooring of the bridge is wood. The wood flooring boards are in fair condition, and will eventually need to be replaced due to wear and weather exposure.

UPPER PARK RESTROOM (CLOSED)

UPPER PARK PICNIC SHELTER

ROTARY BRIDGE

LOWER PARK PICNIC SHELTER

Project Background

SITE ASSESSMENT

PARK STRUCTURES + AMENITIES

Skate Park
The Ketchum skate park was designed and built in two stages by a small committee of volunteers, and is well used by skaters of all ages within the Marshall community. The park sits on a 10,000 square foot concrete pad and contains grind bars and nine plywood ramps. The skate park is currently enclosed by a tall chain link fence, which will potentially be removed in the near future as it has been deemed unnecessary by KPAC and its users. The ramps are in various stages of disrepair, with some needing updates soon due to safety concerns.

Disc Golf Course
Ketchum Park currently has a "natural style" 6-hole beginners disc gold course located at the edge of the upper park's natural area. The course has a small environmental footprint, requires no mowing, and only needs overgrown brush cut back seasonally. The existing layout of the course works around current park features and high traffic areas, and activates an otherwise unused portion of the park. Portions of the course were established on fill from the dam removal. With exposed blocks of concrete in some areas, uneven walking surfaces are a concern to be addressed. The disc golf course has an active volunteer group with plans to expand beyond the 6-hole course. The course is used by all ages and has both daytime and night time events.

DISC GOLF EVENT

SKATE PARK

CHALLENGES + OPPORTUNITIES

Spillway Bank
KPAC has voiced concern about the steep bank between the former spill way and the South Marshall Bridge. Currently, the bank is retained with boulders and is overgrown, primarily with invasive vegetation. Restoration of the bank is desired to improve safety and stabilization, and to reestablish an important viewshed to the historic bridge.

The scope of bank restoration is difficult to determine because there are many unknowns. The bank is steep, with little space to slowly grade the slope back. Fill material is unknown and the bank is directly tied-in with the bridge. Access is limited as the bank hovers above Rice Creek. The combination of these factors could potentially be very costly.

Further investigation is needed to determine the designed outcome for the bank. One possible option could be a terraced system planted with native vegetation, that would enhance the view and provide better access for maintenance.

EXISTING BANK CONDITION AND HISTORIC BRIDGE

POTENTIAL DESIGN OPTION - TERRACED NATIVE GARDEN

Eastern Park Peninsula
Ketchum Park extends east beyond the city limits along a narrow peninsula to where the Mill Race splits off from Rice Creek. Visitors have access to the far eastern point via the unpaved Consumer's Energy ROW clearing (.6 mile) below utility power lines, where it terminates at the remains of the former dam. The one-way-in, one-way-out nature of this path presents both personal and physical safety concerns, as well as maintenance issues, at the far end of the peninsula due to lack of access. A connection to land on the north side of Rice Creek would activate the peninsula and encourage visitors to engage with and explore this area safely and responsibly, while providing a new gateway and experience into the park.

Project Background

COMMUNITY FEEDBACK

KPAC COMMUNITY OUTREACH

Extensive community outreach was facilitated by KPAC prior to TowerPinkster's inclusion on a Park Master Plan. Workshops and brainstorming sessions were held to determine and vet future development priorities for the park. Through this process, KPAC identified a list of opportunity areas and programs to move forward with. At the top of the list was a disc golf course, a pathways and trails system, restoration of the landscape at the old dam and mill sites, and increasing water access. These findings suggest community members were looking for new recreational ways of interacting with the park, while deepening their connection to the landscape. With this information, KPAC and a local landscape architect created a preliminary Master Plan drawing in the winter of 2015 that lay out the community's initial thoughts and ideas.

The preliminary plan, and collaboration with City staff members, gave KPAC insight in developing a Ketchum Park Management Plan report. The report outlines the park's history, the community's vision for the park, current park conditions and uses, and issues and opportunities within the park. The report became a tool for KPAC to obtain funding to complete a comprehensive Master Plan report that would guide the City and the Committee over the next 25 years. TowerPinkster was brought on as a design consultant to guide the master planning process.

Project Background

COMMUNITY FEEDBACK

VISIONING WORKSHOPS

During the Master Plan process, public input was the main generator of ideas to create the 25-year vision for the park. The design team worked closely with KPAC and City staff to gather information that reflected the broader community. Neighbors and representatives from many local groups attended and gave input including Youngish Professionals, the Potawatomi Tribe, skate park volunteers, and Trout Unlimited. Two visioning workshops were held to revisit information collected from KPAC's previous outreach sessions, and to brainstorm new ideas and approaches for park improvements.

The groups discussed the importance of weaving the industrial, cultural and ecological stories of the park's landscape into designed elements and features. Recreation, wayfinding and gathering spaces were all thought to be opportunities to directly and indirectly teach park visitors the history of Ketchum Park and encourage environmental stewardship through different forms of interpretation. Connectivity and access within and surrounding the park was another common theme in the visioning discussions. The group expressed the need to improve and add pathways within the park and connect them to nearby City amenities and regional trail systems. Additionally, ensuring the park is grounded in sustainable practices, in both an ecological and operations sense, was a high priority at the workshops. Designing versatile spaces that minimize maintenance costs and respond to the landscape was emphasized as an important aspect to consider.

An overall vision and set of goals was developed based on the initial community outreach and the feedback and discussion from the visioning workshops. This provided direction for the design team throughout the planning process and helped determine programmatic needs and desired park improvements.

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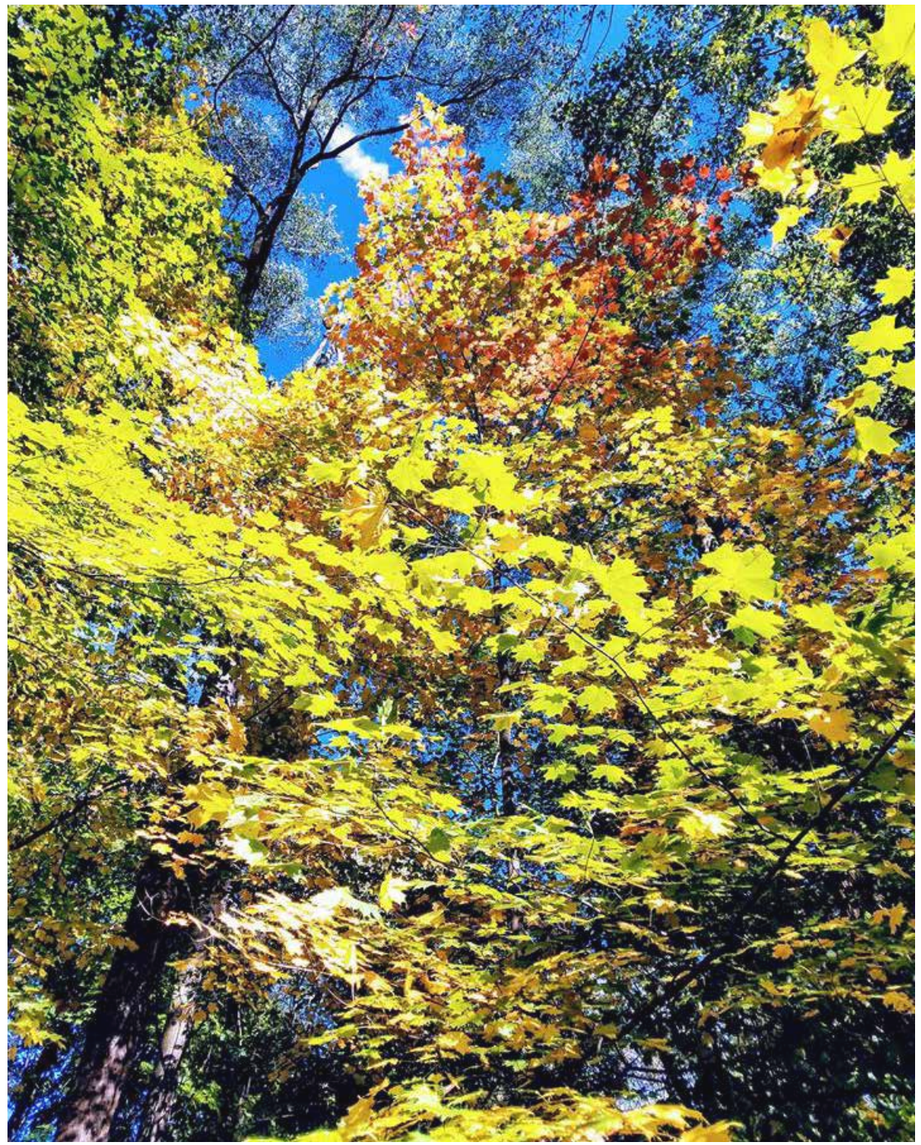
Project Vision + Goals

Project Vision + Goals

KETCHUM PARK MISSION STATEMENT:
To provide a thriving natural open space and parkland with multi-generational recreational opportunities within the heart of Marshall.



KETCHUM PARK VISION:

Through purposeful management we will maintain the integrity of Ketchum Park and guarantee its long-term preservation by:

1. Providing high-quality, diverse recreation opportunities for visitors
2. Connecting the community to the park physically, ecologically and socially
3. Enhancing visitors' understanding and appreciation of the park's natural, cultural and industrial history
4. Practicing responsible management that fosters environmental stewardship and supports conservation goals

Project Vision + Goals

KETCHUM PARK GOALS:
A statement of intent that describes the desired result or aim for improvements, based on the vision and fundamental principles of the park.

- **Connected Network** – Maximize the physical, social, and ecological connections between the park and community members. Provide a connected pedestrian trail system within the park that links to nearby neighborhoods, waterways and trails systems. Utilize wayfinding and interpretive signage as a way of connecting to ecological systems. Enhance the park's native flora to improve the riparian corridor along Rice Creek. Improve gathering spaces for both large- and small-scale interaction.
- **Recreation and Play** – Create a regionally recognized park known for its diverse, high-quality experiences that are accessible to all. Create unique social opportunities that support the physical and mental health and wellness of the community.
- **Engaged Community** – Draw on community feedback and national trends to build programs and projects that activate the park year-round. Encourage continued investment by capturing the interests of Marshall's diverse committees, clubs and schools.
- **Sustainable Solutions** – Implement green infrastructure strategies and sustainable maintenance practices, and provide corresponding educational opportunities for community members.
- **Education and Outreach** – Design structures, signage and programs as learning opportunities, inspired by the ecological, cultural and industrial history of the site.

Project Vision + Goals

PRIMARY INTRODUCTIONS

RESTORATION | HEALTH | HISTORY

The vision for a revitalized Ketchum Park is based on the themes of restoration, health, and history. This design enhances the natural beauty of the stream and allows for a wider range of accessibility for more users. When people can participate in natural environments, it creates a new type of recreation – one that is based on health and connectivity. If this ambient environment is at the center of the community, only a short walk from home, the bond created between space and community is further strengthened. The park offers a range of spaces for gathering, suitable for a solitary wanderer to a community get together.

As the public utilizes this space, they will feel the history of Marshall running through the park. At one time, the mill and race were key in Marshall industry, and that is a story that should be passed through generations, as they come to that same space to create their own stories.

Project Vision + Goals

BIG MOVES

STREAM RESTORATION | RECOGNITION OF RACE | SPACES FOR COMMUNITY

The diagram suggests several big moves, each based largely on one or more foundational features of the Park. Where some can be achieved as a single project, others might be more incrementally accomplished or require continuing effort.

- Restore the stream bed and banks. Create protected natural areas for habitat that harbor intentional opportunities for human interaction with the stream
- Acknowledge the abandoned millrace. Recognize the race as a formative element of the park and its current use, and represent as an abstract from within the landscape
- Create spaces for people. Provide spaces for large and small scale social gatherings that interact with and celebrate the park's natural features
- Allow for spontaneity. Introduce universal, unprogrammed activities that relieve the park of having to conform to recreational standards that mights be at odds with its character-defining features

THE STREAM

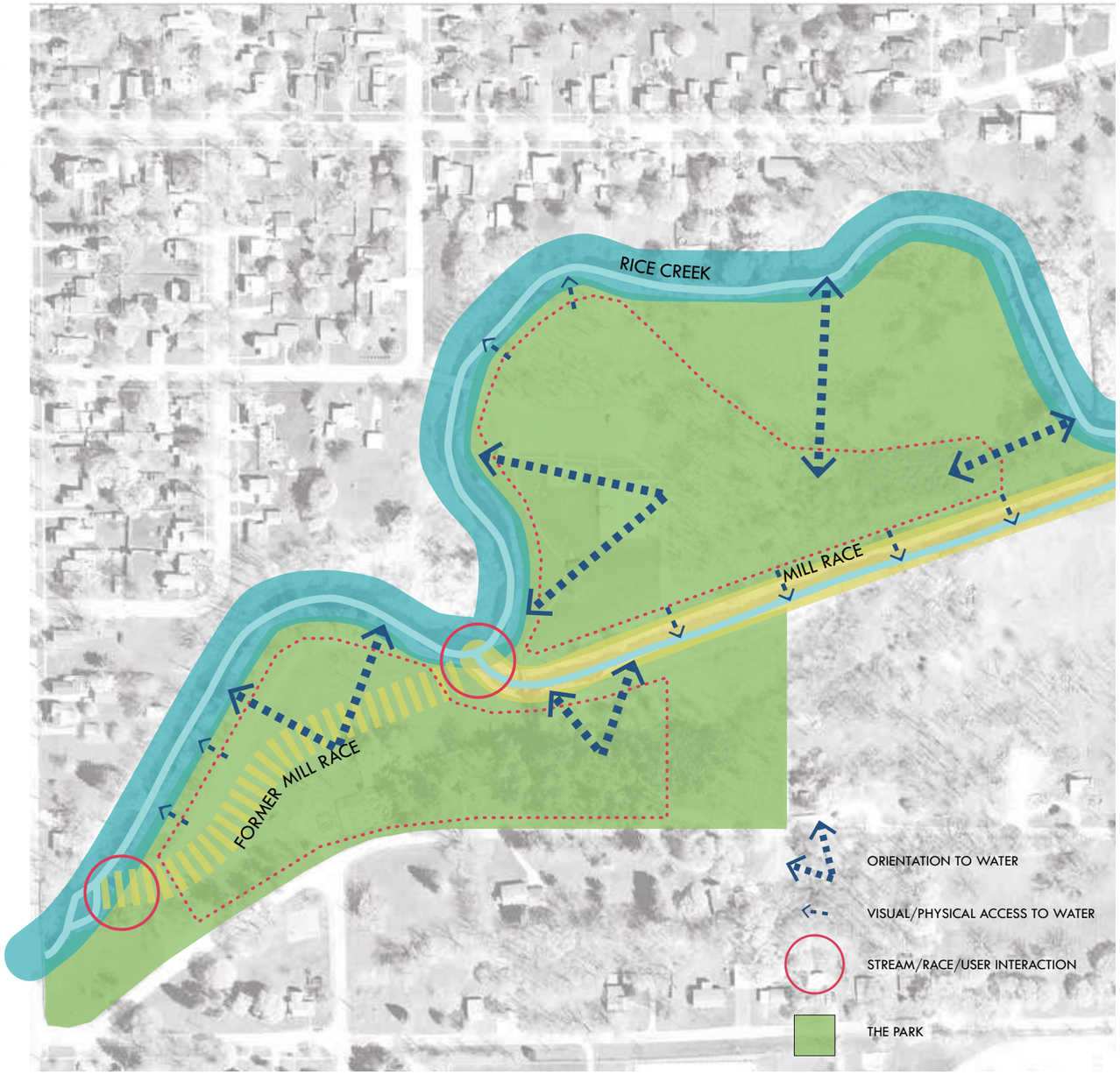
- A dominant feature in park's landscape, the stream forms a foundational element of design.
- Recognizing the shape of the stream as it flows around the park offers clues on where emphasis might be placed for human use.
- Places of confluence deserve special attention and can become places where stream, race, and people mix.
- Orientation of spaces in the park should recognize the stream so that its presence informs experiences people will have in the park.

THE RACE

- The lost industrial feature of the park has a compelling narrative that can be revealed by seeing where the race is today and where it once stood.
- Remnant features of the race can add to the unique experience of the park.
- Reinforcing the orientation of the park to the race is a reminder of the park's evolution.

RECREATION

- Consideration for the park's natural features and stream must be made when new activities are added to the park.
- Gathering, at a range of scales, supports a key recreational function of the park.
- At key locations, interpretive signage and features can tell important stories of the park's cultural, ecological, and industrial heritage.



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Ketchum Park Concept Plan

Park Feature Descriptions

Gateways + Circulation

Interpretive Program

Low Impact Development

RECOMMENDATIONS

Recommendations

THE MASTER PLAN

The concept for Ketchum Park is one that reflects on cultural, ecological, and industrial heritage, while celebrating the spirit and energy of Marshall's community today. The plan is built on principles that embody the role of the park within the city of Marshall. Crafted with input from the community, KPAC and City officials, the plan will guide the design of the park for the next 25 years:

- **Park Accessibility** – Our park will provide universal access into and within its boundaries and will function as a connecting hub within the City of Marshall. The park will serve residents city-wide, with physical and visual access to the Park's waterways and natural areas.
- **Park Identity** – Our park will be a recognizable asset to the community that fosters a love of nature while acknowledging the site's cultural and industrial past. The park will build on the existing character of the Marshall community and will be influenced by the input of present users and the City's vision for growth.
- **Ecological Sensitivity** – Maintenance and improvements made to our park will support the health of Rice Creek and the ecosystems within the larger Kalamazoo River Watershed. Delineated wetlands and natural areas will be protected and restored, with any development using a light-touch approach.
- **Community Building** – Our park will bring people together by providing integrated recreational opportunities for all generations and user groups, year-round.
- **Economic Sustainability** – Improvements made to our Park will be measured against the City's financial capacity to build AND maintain. A holistic approach to the park's management is based on values that preserve the function of the park's natural systems and minimize maintenance costs.

E. GREEN ST.

S. LIBERTY ST.

S. GORDON ST.

E. HANOVER ST.

S. MARSHALL ST.

RICE CREEK

potential pocket park expansion

suspension bridge

potential park expansion

native riparian planting

cross walk

9-HOLE DISC GOLF COURSE

nature trails/boarwalk

new parking (pervious surface)

RIPARIAN HABITAT

outdoor amphitheater classroom and water access

new foot bridge

rain gardens

boat launch terrace

drop off

shared use pedestrian bike path

renovated restroom

native rice plantings

SKATE PARK

paved path

UPPER LAWN

seating and interpretive stations

Rice Creek interpretive overlooks

access path

NATURE PLAY

RICE CREEK

viewing platforms

natural trail

terraced water access and play

MILL RACE

riparian restoration

UPPER PARK

LOWER PARK

Rotary Bridge

great lawn promenade (concrete surface)

THE RAMBLE

tree house

pines discovery trail

restoration and native riparian plantings

GREAT LAWN

pine and woodland restoration

WOODLAND DISCOVERY

ADA trail

KID'S KINGDOM

MONTGOMERY ST.

CONFLUENCE PAVILION AND GARDEN

kid's kingdom expansion

mounded meadow planting

existing restroom

expanded existing parking

rain garden

rain garden

woodland picnic shelters (3)

new parking

water access

mill race path (pervious surface)

mill race shadow (tall native grass)

one way shared road

parking

historic bridge

MAPLE ST.

slope stablization and restoration focus area. remove invasives and install terraced retaining wall.

WARREN ST.

N

LOWER KETCHUM PARK

The lower park is defined as those areas downstream of the confluence of the stream and millrace, an area currently focused on Kids' Kingdom and a portion of the park resulting from the abandonment and filling of the lower portion of the millrace. Two primary forces are suggested in the design: a link across the park that bridges Kids' Kingdom to the Creek, and a passage recalling the former millrace.

Primary features are described generally with function, character, and materials in ways that recall the stream, race and recreation basis of the Park.

These icons represent reoccurring themes and programs within the park:

history, culture, + education

ecological sensitivity

passive + active recreation

site amenity

LOWER PARK CHARACTER AND FEATURES MAP

Park Feature Descriptions LOWER PARK PATTERNS / SPACES / OBJECTS

A Stream Restoration Focus Area

Possible focus for first phase stream restoration by Trout Unlimited through a grant by KRCRF; orientation to fish and riparian habitat; active water if possible.

B Lower Stream Ramble

Narrow "bridges" through terrain; stream overlooks as isolated pods and perches for individual retreat and small gatherings (3-5 visitors).

C1 The Great Lawn

Expansive and unprogrammed lawn; focus for large gatherings; resilient turf achieved through the sand-slit drainage system and irrigation.

C2 Lower Ketchum Promenade

Broad strolling accessible walkway encircling lower Ketchum Commons; benches directed towards Commons; low-level illumination to create pools of light along the path; permeable paving material

D Kids' Kingdom

Expanded area for traditional or inventive play, with a future focus on the park's industrial evolution and ecological restoration.

E1 Millrace Shadow

Recollection of former mill race using low maintenance native grass resulting in a walkable surface that is different than the adjacent Great Lawn; interpretive elements and/or signage assists in storytelling.

E2 Millrace Path

8' wide pedestrian path along the Millrace Shadow marking southerly bounds of former mill race; permeable paver or crushed granite path material that mimics the flow of water.

E3 Confluence Garden

Gathering area at former spillway reaching to water; raised planters and terrace layout represents the flow of water and movement; "industrial" materials; access to stream for human-powered watercraft and play.

E4 Millrace Pavilion

Formal gathering area and shelter overlook the former confluence of the millrace and creek; "industrial materials and forms to recall former mill use (not architecture of former mill).

E4 Millrace Terraces

Gatherings at upper end of former mill race; undulating terraced steps lead down to the water's edge for visitor access; coordination design and installation efforts with Trout Unlimited.

F1 Montgomery Passage

Reconfiguration of road as a "Green Street" for the entry to lower Ketchum Park; curving, one-way road to slow vehicular traffic entering the park. Focus on green infrastructure and a park-like entry, rather than parking.

F2 Woodland + Meadow Patches

Zones of recreated woodland and meadow landscape as a restorative and healing entrance to the park; both zones accommodate functions of storm water management.

H1 Pine Discovery Trail

Soft-surface natural path that weaves between existing and newly planted pines; interpretive elements and/or signage describe ecological succession and native flora/fauna.

H2 Tree House Overlook

Small elevated gathering space (+/- 5 visitors) within the native woodland, overlooking the millrace; multileveled to accommodate all user groups; constructed with natural materials and interpretive interactive elements.

I Woodland Picnic Shelters

Series of picnic shelters for mid-size gatherings (+/- 15 visitors); timber frame construction recalling the surrounding pine woodland; picnic table seating and set-in-place barbecues.

UPPER KETCHUM PARK

The upper park is defined by the active areas east of the rotary bridge, to the wetlands south of where East Green Street meets Lincoln Street. Responding to the park's natural features and landscape, the spaces and paths are sculpted to encourage a variety of play and recreational activities.

Primary features are described generally with function, character, and materials in ways that recall the stream, race and recreation basis of the Park.

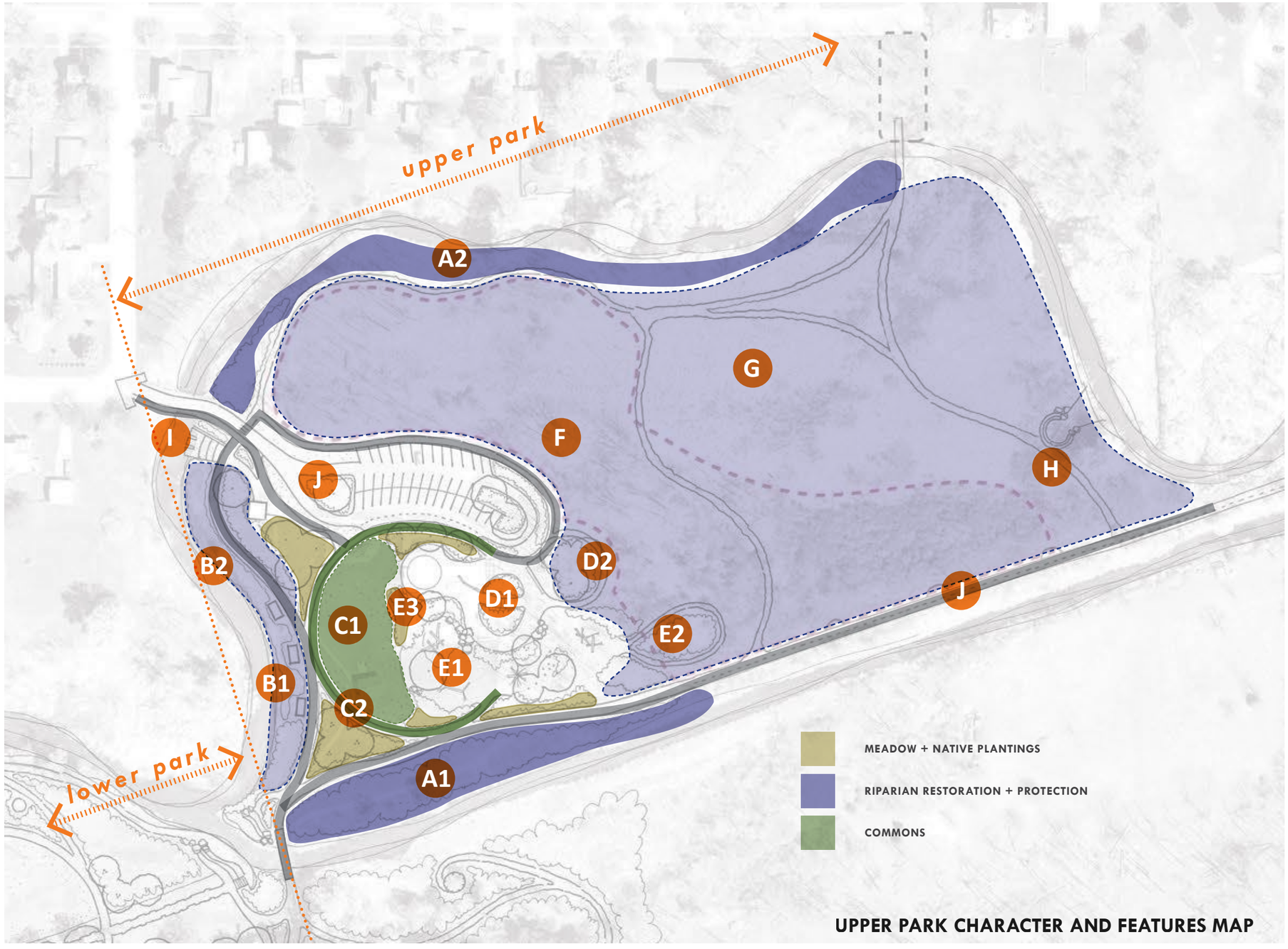
These icons represent reoccurring themes and programs within the park:

history, culture, + education

ecological sensitivity

passive + active recreation

site amenity



UPPER PARK CHARACTER AND FEATURES MAP

Park Feature Descriptions UPPER PARK PATTERNS / SPACES / OBJECTS

A1 Mill Race Restoration

Restoration design in collaboration with Trout Unlimited; Pedestrian access to water from shoreline, human-powered watercraft access within the Race.

A2 Stream Restoration

Restoration design in collaboration with Trout Unlimited; continue restoration/invasive removal along Rice Creek as needed; create clear passage within the water to allow for kayaks/canoes.

B1 Upper Stream Overlook

Series of small scale, interpretive gathering shelters (+/- 8 visitors) overlooking Rice Creek, access to nearby park amenities; native riparian vegetation restoration plantings between the shelters.

B2 Wild Rice Establishment

Preserve existing and encourage growth of native wild rice in collaboration with local Potowatomi Tribe; provide interpretive trail or boardwalk along planting.

C1 Upper Ketchum Commons

Mid-sized unprogrammed lawn; resilient turf achieved through sand-slit drainage system and irrigation

C2 Upper Ketchum Promenade

Broad, strolling, barrier free walkway linking upper Ketchum's gathering spaces, lawn, nature play, and skate park; path lights serve as wayfinding and night time activation; permeable paving.

D1 Skate Park

Non-traditional skate park that integrates storm water management practices and green space into the design; seating opportunities and adjacent pathways for onlookers.

D2 Skate Trail

Extension of the skate park that affords users the experience of skating in a natural environment; 8' wide paved surface that can accommodate active park users, including skaters, BMX bikers, joggers, and onlookers.

E1 Watershed Nature Play

Inclusive, nature-based playground inspired by the local watershed and historic mill race; composed of natural materials only, with interactive components; opportunities to perch on boulders to watch activity in adjacent skate park.

E2 Nature Play Discovery Trail

Extension of the nature playground; interpretive, interactive nature trail aimed at engaging young children.

E3 Native Wildflower Garden

Native demonstration garden; interpretive signage promoting ecological literacy and do-it-yourself gardening strategies; managed by community volunteer groups

F Disc Golf Nature Trails

Reconfigured and expanded 9-hole disc golf course trail though the Wooded highland and natural space; basket location to be determined on-site to minimize impact on surrounding landscape.

G Wetland Boardwalk and Trails

Network of natural paths and elevated boardwalks through wetlands and natural space; barrier free accessible loop within the trail system; benches and viewing platforms and ecological interpretive elements.

H Rice Creek Interactive Learning Station

Outdoor classroom open to the elements; natural seating with logs and/or rocks creates an amphitheater setting that overlooks the Creek; space for small groups/ classes.

I Boat Launch

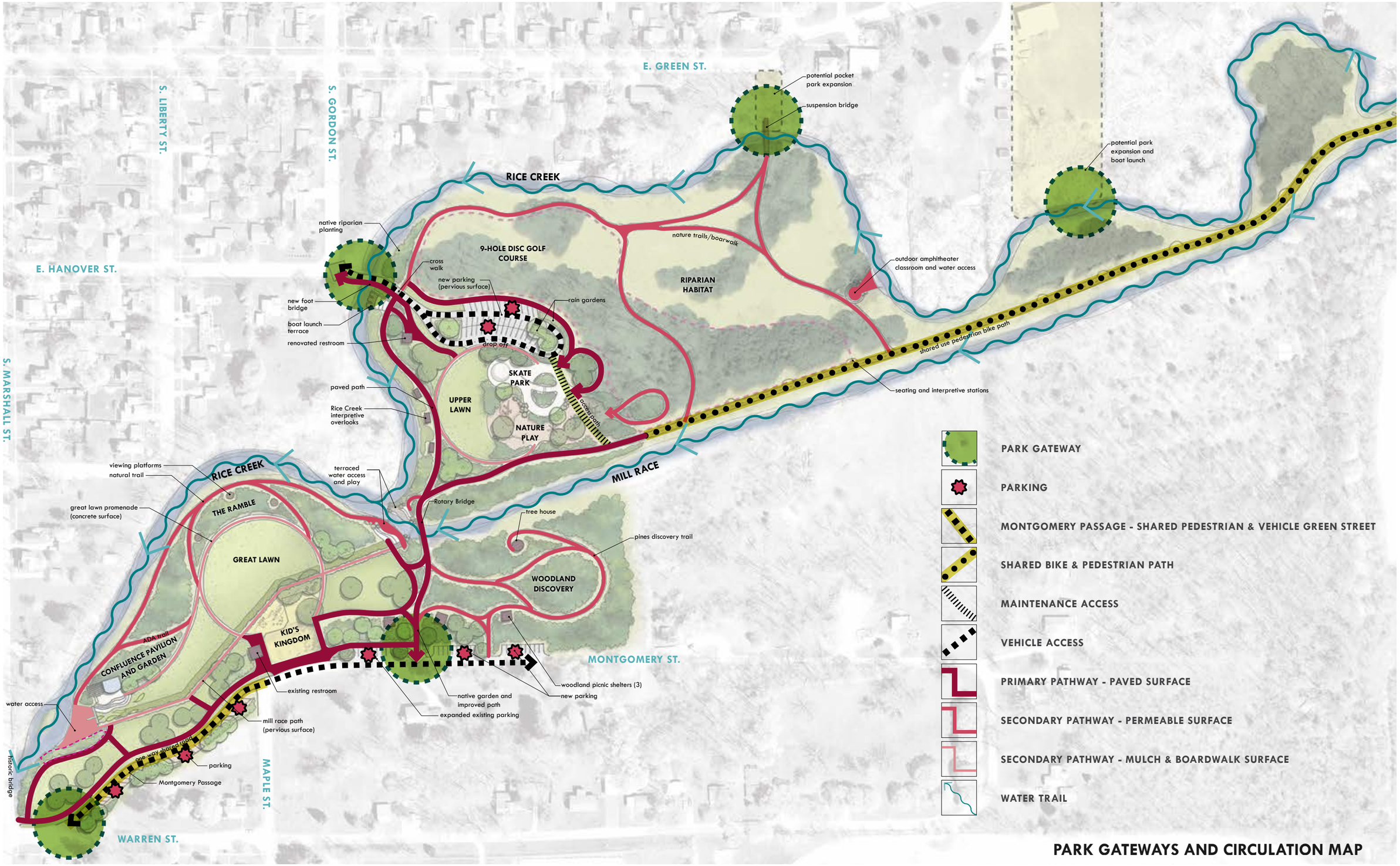
Formal boat launch for easy access to the water and human-powered watercraft; serves as a gateway to north entry of park.

J Upper Ketchum Arrival

Pervious paved entry drive and parking lot (44 spaces); crosswalk and speed table at entry to slow incoming vehicles; secondary pedestrian bridge for safe access into park; drop off/ pick up adjacent to skate park; rain garden plantings for additional infiltration.

K Shared Pedestrian Path

10' wide paved path along the Consumer's Energy ROW, designated for pedestrians and bicyclists; interpretive and/or exercise stations and benches; mill race access points at various locations



PARK GATEWAYS AND CIRCULATION MAP

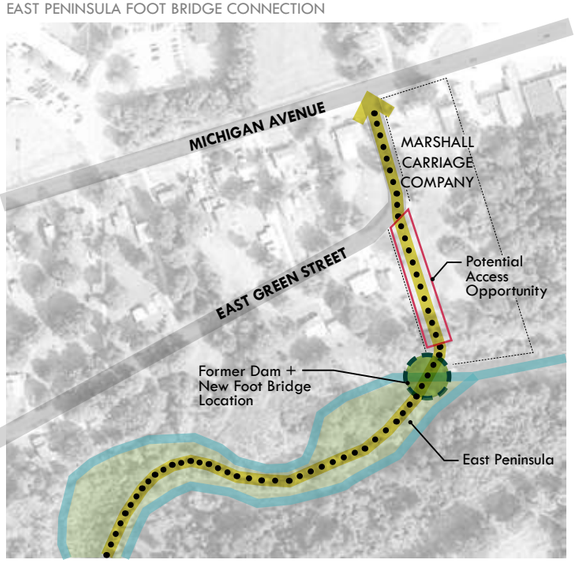
Recommendations

GATEWAYS

The arrival sequence into a park is important because it sets the stage for the types of experiences visitors will have. In the Master Plan concept, existing entries into Ketchum Park have been modified to create welcoming, pedestrian-scale gateways. There is the potential for three additional park entrances with the acquisition of new park land north of Rice Creek. These access points would allow passage into the park in areas where Rice Creek has been a physical barrier, and link the park to businesses and regional trail systems along Michigan Avenue:

- Expansion to a city easement at East Green Street and Lincoln Street can provide a small-scale neighborhood connection in the form of a pocket park. A pedestrian foot bridge, such as a suspension bridge, could connect one side of the stream to the other.
- If the city water plant is relocated, Ketchum Park could re-purpose this green space. It is an excellent side for a boat launch, as it lengthens the water trail experience through the park. A small parking lot could be positioned at the south end of the property, allowing boaters to enter the park of East Green Street and drop their watercraft of close to the launch.
- A narrow strip of land may be available as an easement along the west edge of the Marshall Carriage Company. Access to this piece of land means to the park would connect to Michigan Avenue, a main artery within Marshall's business district. With this connection, the park would provide a pedestrian-friendly link between the Iron Belle Trail and the Marshall River Walk and North County Trail. Additionally, this new access point prevents the peninsula from being a dead end, improving both safety and maintenance for the east end.

EAST PENINSULA FOOT BRIDGE CONNECTION



CIRCULATION

The Ketchum Park Master Plan updates the park's circulation network through a multi-modal approach that enhances the walking and biking experience while improving vehicular movement. A system of hard and soft trails would create a connected, hierarchical system to accommodate all types of users. The primary pathway is a barrier-free paved surface that completely connects the upper and lower park. Secondary pathways split off from the primary to provide different environmental experiences for visitors. For example, the Ramble is a meandering natural path that veers off from the paved promenade at the large, open Great Lawn. The Ramble is a wooded area with small areas for respite that provide physical and visual connections to Rice Creek.

Partnering with Trout Unlimited, water trails will be improved by removing natural barriers within the stream, and improving habitat within and at the water's edge. Visitors will have the ability to canoe or kayak in both Rice Creek and the Mill Race, downstream to the Kalamazoo River.

SHARED PEDESTRIAN BIKE PATH

PEDESTRIAN-FRIENDLY "GREEN STREET"

BOARDWALK TRAILS

MULCHED "SOFT" TRAILS AT THE RAMBLE

Recommendations

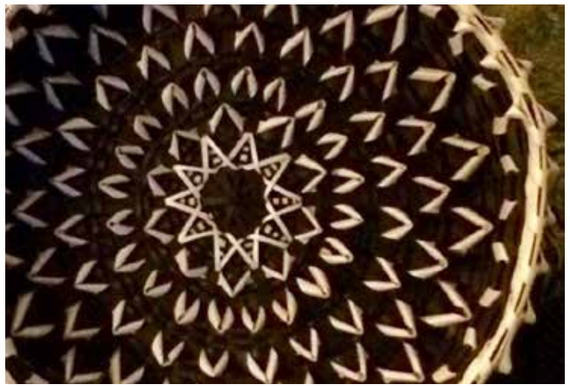
INTERPRETIVE PROGRAM

Ketchum Park has the wonderful opportunity to educate visitors as they use and move through the open space. Stewardship begins with knowledge and a connection to your surrounding environment, which means Ketchum Park can be a space the community takes ownership of and embraces for years to come. It is important to understand that people have different access points for how information is absorbed. Interpretive elements placed throughout the park must be universally accessible, engaging visitors with all of the senses. These elements can serve as wayfinding tools along pathways, in association with plant and wildlife, interwoven into the design of structures, play features, and furnishings.

FOOTPRINTS IN CONCRETE

SCULPTURE

POTAWATOMI BLACK ASH BASKETRY TEXTURES



WATER PLAY

MAPS + SIGNAGE

NATURE PLAY

READER BOARDS

PERSONAL CONNECTION + INTERACTIVE

Recommendations

LOW IMPACT DEVELOPMENT (LID)

> "An ecologically-based stormwater management approach favoring soft engineering to manage rainfall on site through a vegetated treatment network. The goal of LID is to sustain a site's pre-development hydrologic regime by using techniques that infiltrate, filter, store and evaporate close to its source."
>
> - *Low Impact Development; A design Manual for Urban Areas,* University of Arkansas Community Design Center

Ketchum Park has been designed using LID principles in conjunction with traditional engineered subsurface drainage systems to capture surface run-off in an environmentally beneficial way. Rain gardens have been designed into the park in frequent intervals in order to capture run-off from any hard surfaces within or directed towards the park. Rain gardens will filter stormwater before entering Rice Creek, removing any silt and pollution from the water as it moves through the plant material and soil. Rain gardens are also a key component of the upper parking lot. To aid in the capturing of rain water, the upper parking lot surface and several park pathways will be constructed of a permeable material and designed to direct water flow towards rain gardens or bioswales.

VIEWING PERCHES AT "THE RAMBLE"

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Focus Areas

Mill Pavilion + Confluence Garden

Mill Race Terraces

Skate Park + Watershed Nature Play

Focus Areas

FOCUS AREA - MILL PAVILION AND CONFLUENCE GARDEN

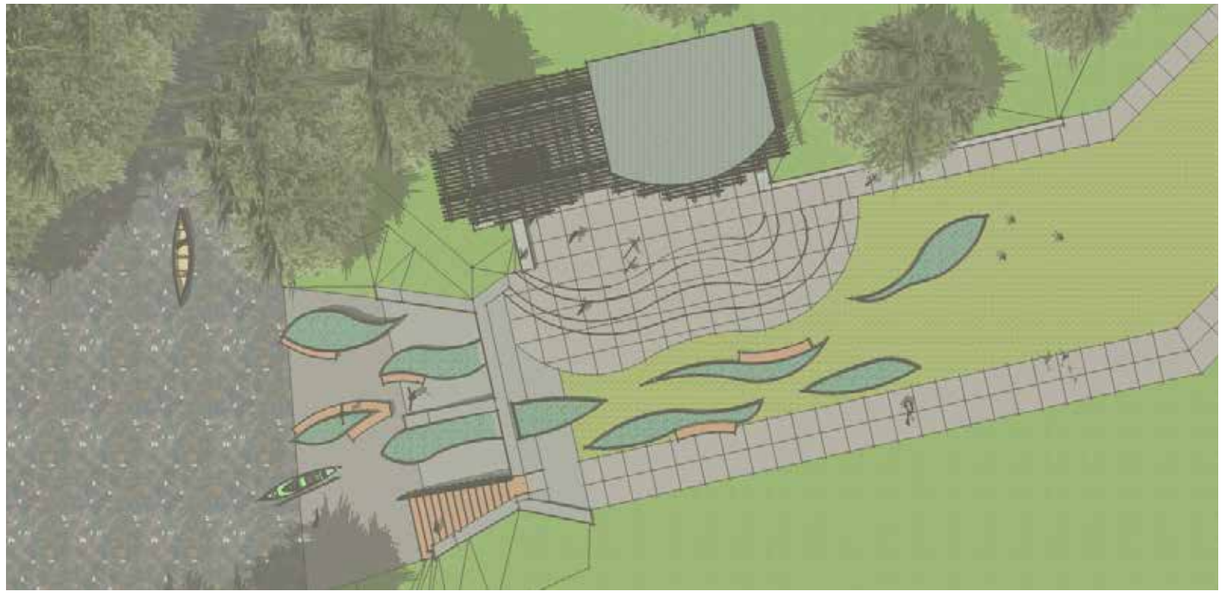
The Mill Pavilion and Confluence Garden represent the melding of both nature and “the manufactured” in our everyday lives. The industrial materials take us past the historic form of the mills and direct focus on the energy and movement that comes from the mergence of race and stream. This place of confluence is one of the most important in Ketchum Park, where the human changes to the stream are reconciled as the water resumes its natural course. The pavilion is a place for the community to gather, heal, and restore their faith in the power of nature.

The pavilion base will be concrete and will lead to a southern patio with broad, undulating steps that lead to the former race. Concrete walls will support a steel and wood layer roof. The roof will feature a mix of materials, including corten steel beams, wood timbers, painted steel angles, and a translucent polycarbonate roof. The translucent portion of the roof will cover half of the pavilion, allowing for protection from elements while also allowing sunlight. The other half will allow light, wind and weather to pass into the space. The materials that will be used recall the old industrial materials of the dam and mill structure, while also connecting people to a broader sense of nature.

It will be possible for one large group—or two smaller groups—to occupy the pavilion. The smaller section of the space would allow for eight users under the covered portion, and approximately 14 in the patio area. The larger covered section would accommodate around 16, with approximately 24 to 30 in the patio area. The wide wall in both portions will provide space that can be used for seating or serving, which will expand the seating capacity of each section.

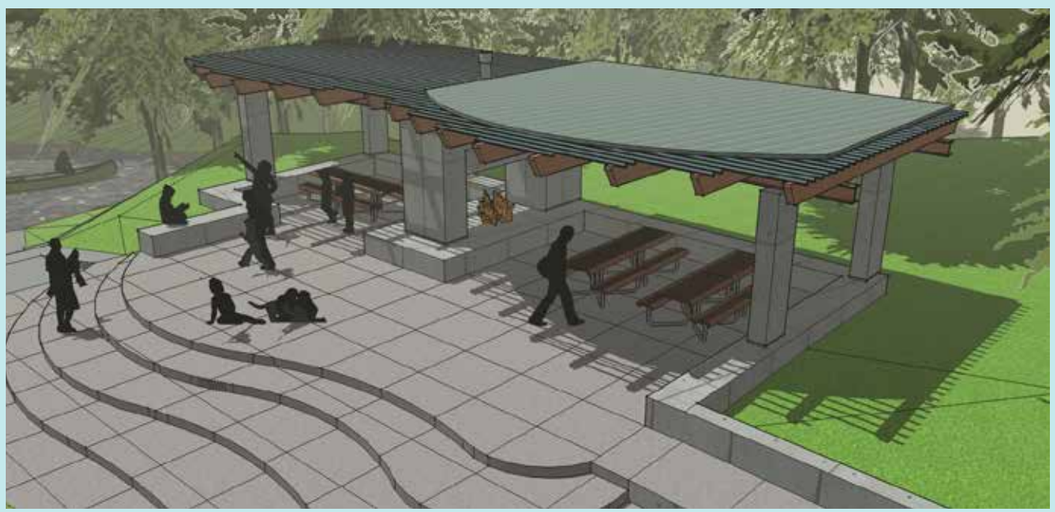
The Confluence Garden will represent the energy of the surrounding water. Above the dam, the corten steel planters will feature seating options to allow more space for social interactions. These planters will hold simple plants like Juniper, that will slowly creep over the edge. Below the dam, the plantings will be a more relaxed tumble of bright, energetic colors. The planters will extend from above the former dam to the edge of the stream below.

Future plans could include steps to the water from the removed portion of the dam. Presently, there will be a series of timber steps that follow the alignment of the millrace path for visitors to interact with the Creek.



Focus Areas

FOCUS AREA - MILL PAVILION AND CONFLUENCE GARDEN



Focus Areas

FOCUS AREA - MILLRACE TERRACES

The Millrace Terraces offer visitors an opportunity to fully engage with the water. The terraces are located at the confluence of Rice Creek and the millrace, offering some of the park's most scenic views. The use of natural stone materials and organized native plant material and wildflowers will allow the terraces to seamlessly blend into the viewshed. Repeating the undulating form of the steps at the Confluence Pavilion, a terraced seating area on both sides of the race leads visitors down to the waters edge. Large ledge stones help support the grade and also provide additional seating options for people watching and sunbathing.

Within the race, in-stream improvements will be made to create a more user-friendly experience for people of all ages. Reconstruction of the riffle will slow the water and provide a flatter surface for children to play in the water. Ledge stones serve as platforms within the water for jumping and splashing. A cross vane will add to the sound and aesthetics of flowing water, creating a dynamic, multi-sensual experience.

With its central park location, the Terraces are a wonderful resting spot for boaters continuing on to the Kalamazoo River. The wide terraces provide ample room for small watercraft and seating. The location is also ideal for fishing and other aquatic recreational activities.

WATERS EDGE PLAY

NATURAL STONE STEPS

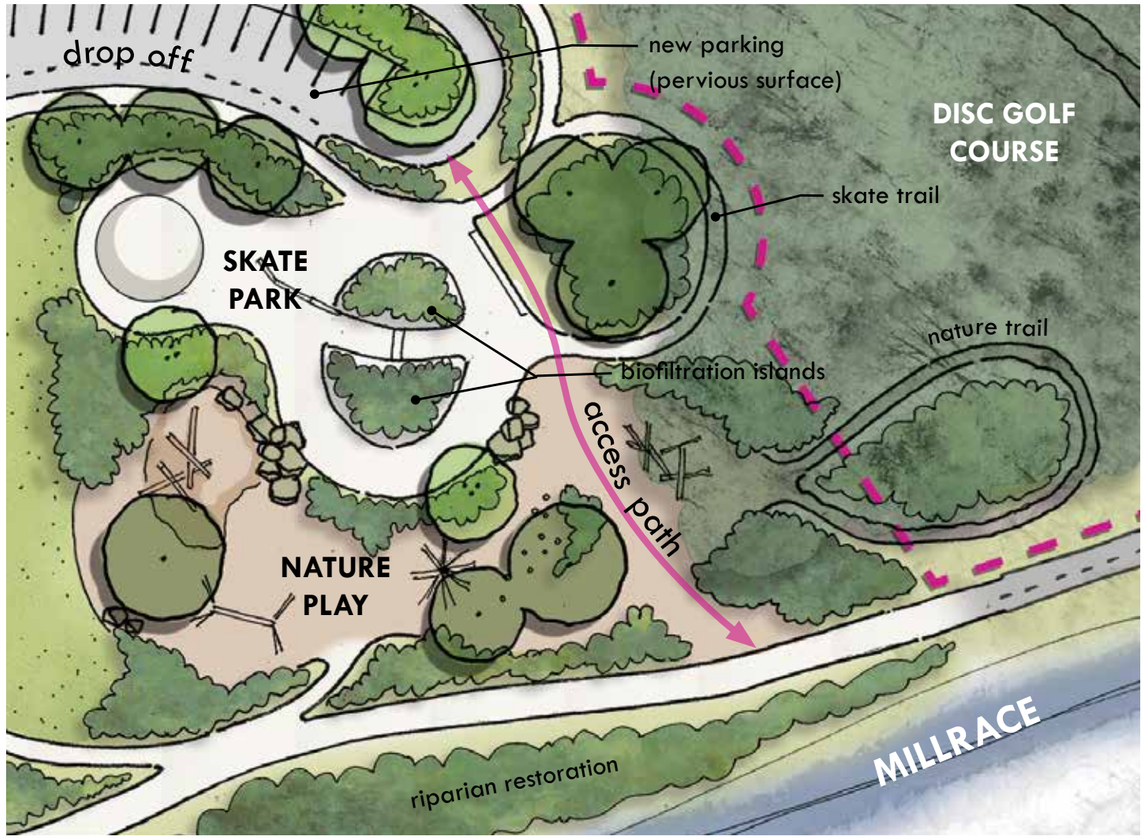
Focus Areas

FOCUS AREA - WATERSHED NATURE PLAY + SKATE PARK

Ketchum Park's nature playground and skate park offer visitors different experiences under the same ecological narrative. Both spaces provide opportunities to learn about the region's valuable natural resources through interpretive elements and regenerative design. The layout of the two spaces encourages social interaction between the different users, with benches and boulders to perch on and watch each other play and perform.

The nature-based playground provides important connections for children and adults to Ketchum's natural environment. Instead of traditional playground equipment, visitors can climb on natural boulders and logs and use their imagination to create playful narratives inspired by the Kalamazoo Watershed and the history of the millrace. The playground also features drought-tolerant native plant material and a native wildflower demonstration garden to educate visitors on the benefits of native plant gardens. Recycled concrete found on site can be used as a sub-base for creating climbing mounds and salvaged logs for play features and custom benches. An accessible nature trail geared towards younger children extends into the adjacent wooded area, allowing kids to have an immersive play experience.

The re-envisioned skate park moves beyond a solid mass of concrete to create a recreational space that melds the built and natural environment. Its proximity to the park's wetlands call for a design approach that incorporates biofiltration islands that allow water to filter through native plants and soil before entering the park's water system. At approximately 100,000 square feet, the park is adapted for skateboarding, rollerskating, and bmx biking for all skill levels. Concrete formed ramps, bowls, steps, and seat walls will further the life of the park and reduce maintenance and upkeep costs, while providing fun and interesting challenges for all users. A paved skate trail extends into the adjacent wooded area, offering users the unique experience of skating in a natural environment.



ECO-SKATE PARK

STREAM RESTORATION INSPIRED NATURE-BASED PLAYGROUND

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Phasing + Implementation

Implementing the Master Plan

Phasing Maps + Cost Estimates

Operations + Maintenance

Phasing + Implementation

IMPLEMENTING THE MASTER PLAN

MAINTAINING THE VISION

A Master Plan is a constantly evolving, living document that is aspirational in nature and reflects a comprehensive vision comprised of many incremental steps which may or may not occur, depending on market conditions at any given time.

The Ketchum Park Master Plan plans for a 25-year life expectancy for park improvement projects, based upon material selection and maintenance, as well as changing community expectations and the regulatory landscape. As each development phase is completed, the Master Plan should be reviewed to fine-tune the next steps in the park's evolution while maintaining the overall vision.

SECURING COMMUNITY SUPPORT

Ketchum Park is an extension of the community, reflecting its hopes and aspirations for the future, as well as its willingness to support services of a potentially intangible nature. City staff and KPAC must continue to engage and develop a deep understanding of not only Park visitors, but also the community at large in order to develop trust and secure their support.

PARTNERING

The park becomes stronger with each viable partnership that it undertakes. Such partnerships enable the city to focus on the core services that it can apply on site. At present time, Ketchum Park's strong volunteer base fills the maintenance and programming gap where the city is unable to direct funding towards. Continued outreach to community groups and organizations such as schools and universities, local businesses, church groups, and the Scouts is encouraged to maintain and increase community involvement and investment.

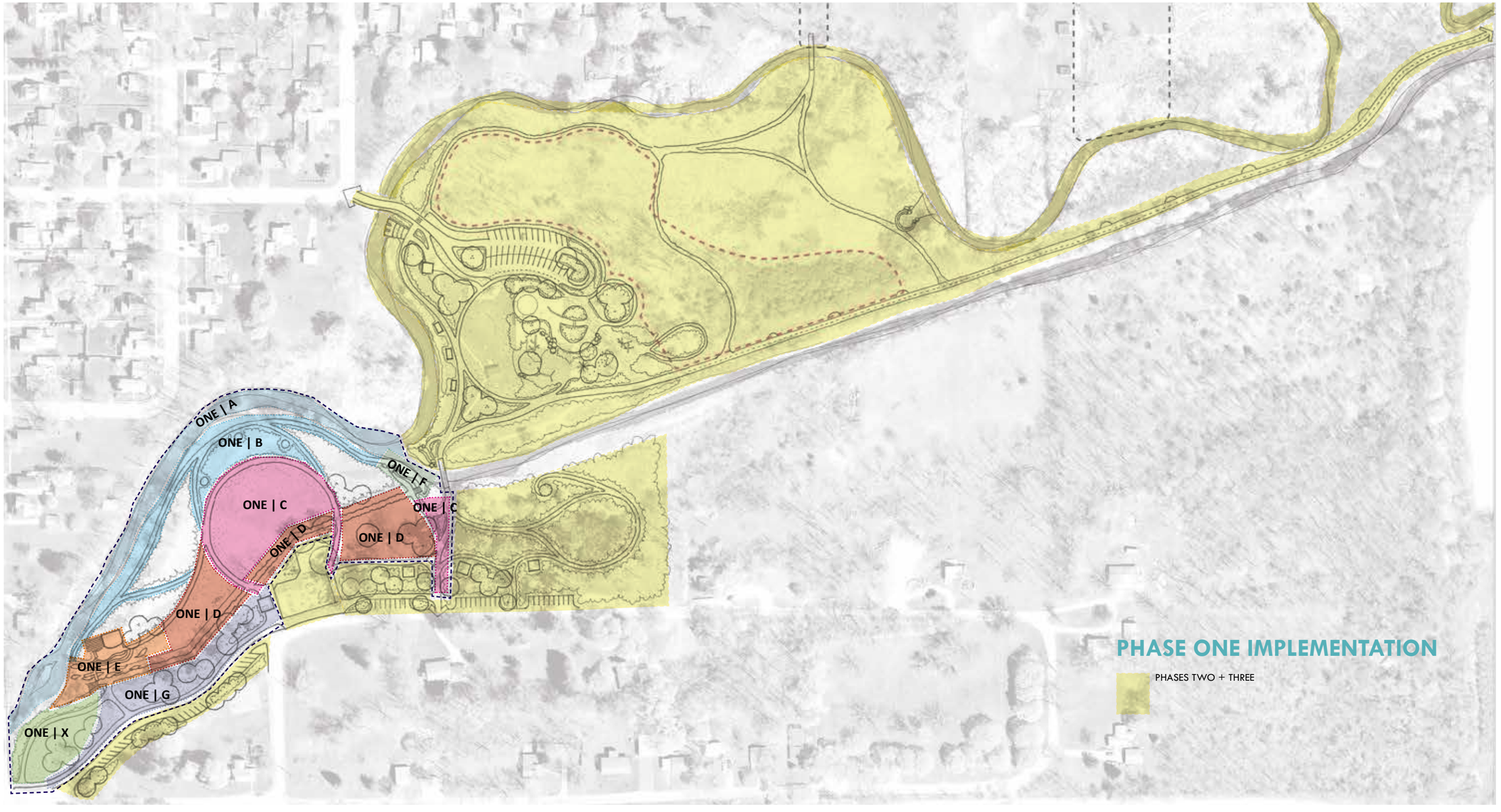
APPROACH TO COSTING

To test our ability to achieve the Master Plan's vision, TowerPinkster prepared budgets for each of the proposed Master Plan elements. The challenge in developing costs for master plans is that detailed plans have yet to be drawn and future regulatory requirements can only be approximated. TowerPinkster has extensive experience with comparable construction projects throughout the State of Michigan. By combining this broader knowledge of regional construction with targeted knowledge of local construction standards and the labor market, appropriate budgets have been developed to guide project organization and funding. The projects budgets include allocations for site demolition and grading, utility work, plant material, hardscapes, lighting, and site furnishings.

"Soft costs" have been included in the estimate to provide a "full project" cost. These soft costs have been estimated at 30% of the construction budgets and include the following:

- Design contingency (~5%)
- Construction contingency (~8%)
- Design fees (~6%)
- Construction management fees (~5%)
- Testing and permit fees (~3%)
- Escalation (~3% per year)

Phasing + Implementation



Phasing + Implementation

PHASE ONE DESCRIPTION + COST ESTIMATE

Phase One includes improvements to those portions of Ketchum Park and Rice Creek at the lower half of the park, south and west of the Rotary Bridge.

ONE | A LOWER STREAM ECOLOGY

In-stream work performed by Trout Unlimited. To align with Ketchum Park improvements, this work is best directed to the portions of Rice Creek below the confluence of the stream and the mill race.

Construction Cost: $10,000
Construction and Soft Costs: $13,000

ONE | B LOWER STREAM RAMBLE

The establishment of pedestrian paths along the banks of the stream, and perches providing stream overlooks and opportunities for small-scale gatherings.

Construction Cost: $32,000
Construction and Soft Costs: $41,600

ONE | C LOWER KETCHUM COMMONS AND PROMENADE

Work related to the establishment of the lower lawn commons, drainage system, and its perimeter pedestrian walkway. Also included is the main path between parking on Montgomery Street and the Rotary Bridge.

Construction Cost: $143,000
Construction and Soft Costs: $185,900

ONE | D MILL RACE PATH AND SHADOW

The creation of a pedestrian pathway aligned, generally, with the southerly edge of the former mill race. Mill Race Shadow includes the installation of native grasses adjacent to the pedestrian pathway.

Construction Cost: $136,000
Construction and Soft Costs: $176,800

ONE | E CONFLUENCE GARDEN AND MILLRACE PAVILION

The creation of a formal gathering space and garden that overlooks the former spillway.

**Construction Cost:* $548,138
**Construction and Soft Costs:* $673,752

**Cost not prepared by TowerPinkster*

ONE | F MILLRACE TERRACES AND STREAM IMPROVEMENTS

Establishment of a terraced water access gathering space on the south side of the Rotary Bridge. In-stream improvements to manage the flow of water. Coordinate funding with Trout Unlimited.

Construction Cost: $50,000
Construction and Soft Costs: $65,000

ONE | G MONTGOMERY PASSAGE PEDESTRIAN PATH

The improved pedestrian path and connection to the Mill Pavilion along Montgomery Street. Design and function with emphasis on the pedestrian scale.

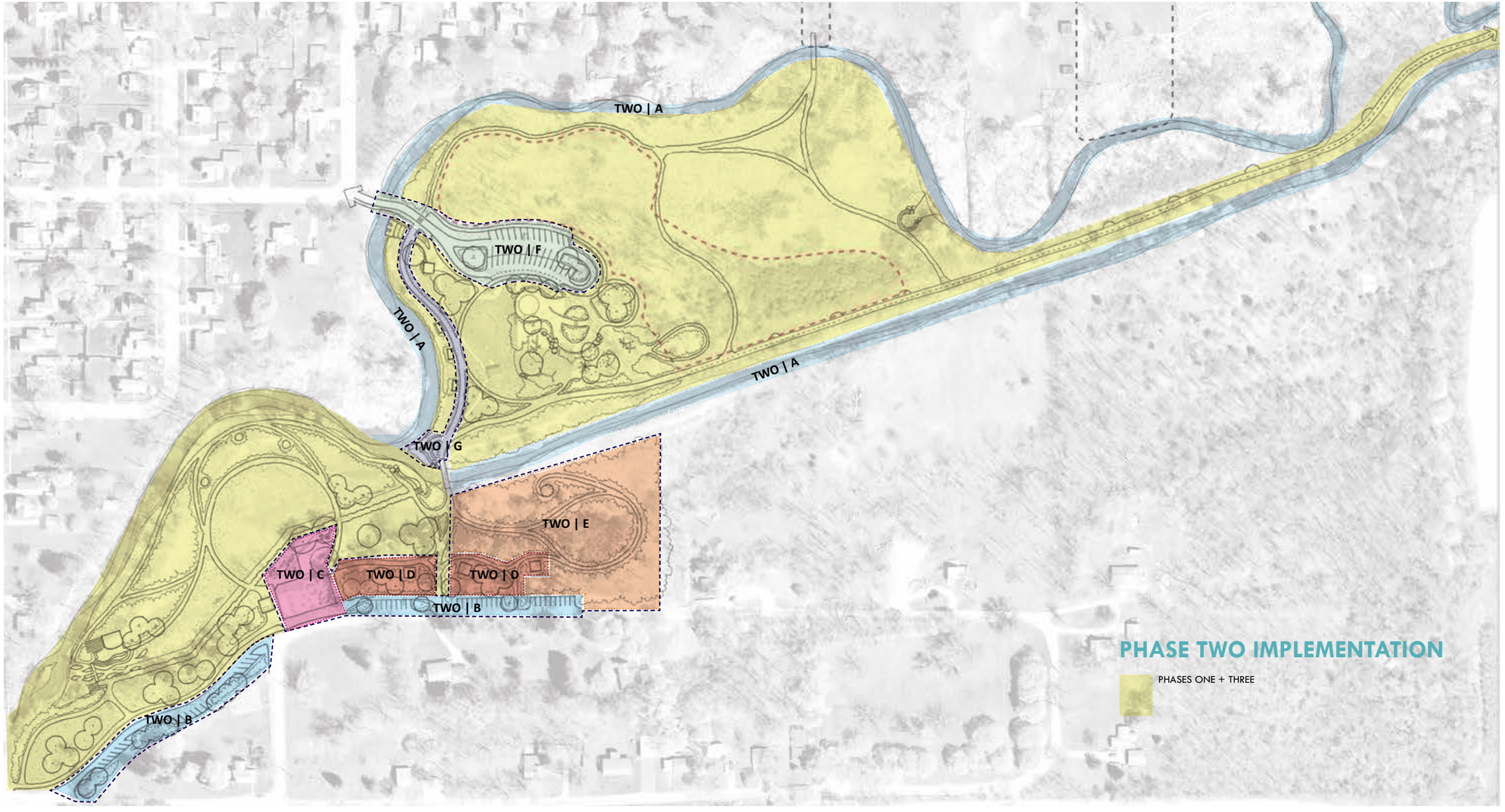
Construction Cost: $60,000
Construction and Soft Costs: $78,000

ONE | X *SLOPE RESTORATION AND STABILIZATION

The restoration and stabilization of the slope between the old spillway and the South Marshall Avenue Bridge. Further investigation is needed to determine the scale and scope of retaining wall replacement and improvements. Potential designs may include a terraced wall system with native plantings.

**This stage not included in the cost estimate - further investigation required*

Phasing + Implementation



Phasing + Implementation

PHASE TWO DESCRIPTION + COST ESTIMATE

Phase Two includes improvements in the upper and lower portions of Ketchum Park, and Rice Creek from the old dam location to the Rotary Bridge.

TWO|A UPPER STREAM ECOLOGY

In-stream work performed by Trout Unlimited. To align with Ketchum Park improvements, this work is best directed to the mill race and the portion of Rice Creek above the Rotary Bridge.

Construction Cost: $108,000
Construction and Soft Costs: $140,400

TWO|B MONTGOMERY PASSAGE

The realignment of Montgomery Street, to be redefined as a one-way road shared by pedestrians and vehicles. Design and function with emphasis on the pedestrian scale. This stage also includes parking expansion and improvements south of the Rotary Bridge, along Montgomery Street.

Construction Cost: $113,400
Construction and Soft Costs: $147,400

TWO|C KIDS' KINGDOM IMPROVEMENTS

Maintenance improvements made to the existing play structures and expansion of the play area, with emphasis on inclusive play.

Construction Cost: $140,000
Construction and Soft Costs: $182,000

TWO|D WOODLAND PICNIC SHELTERS

The creation of three picnic shelters and their corresponding pathways. This stage also includes the installation of set-in-place barbecue grills and native planting beautification improvements.

Construction Cost: $140,000
Construction and Soft Costs: $182,000

TWO|E PINE DISCOVERY TRAIL

Restoration of the pine woodland natural area and the establishment of a nature trail. This stage also includes the creation of an elevated, inclusive tree house.

Construction Cost: $120,000
Construction and Soft Costs: $156,000

TWO|F UPPER KETCHUM ARRIVAL

The reconfiguration of a paved entry drive and parking lot (44 spaces), crosswalk and traffic table. Also included is a secondary pedestrian bridge adjacent to the existing vehicular bridge, and sidewalks surrounding the lot.

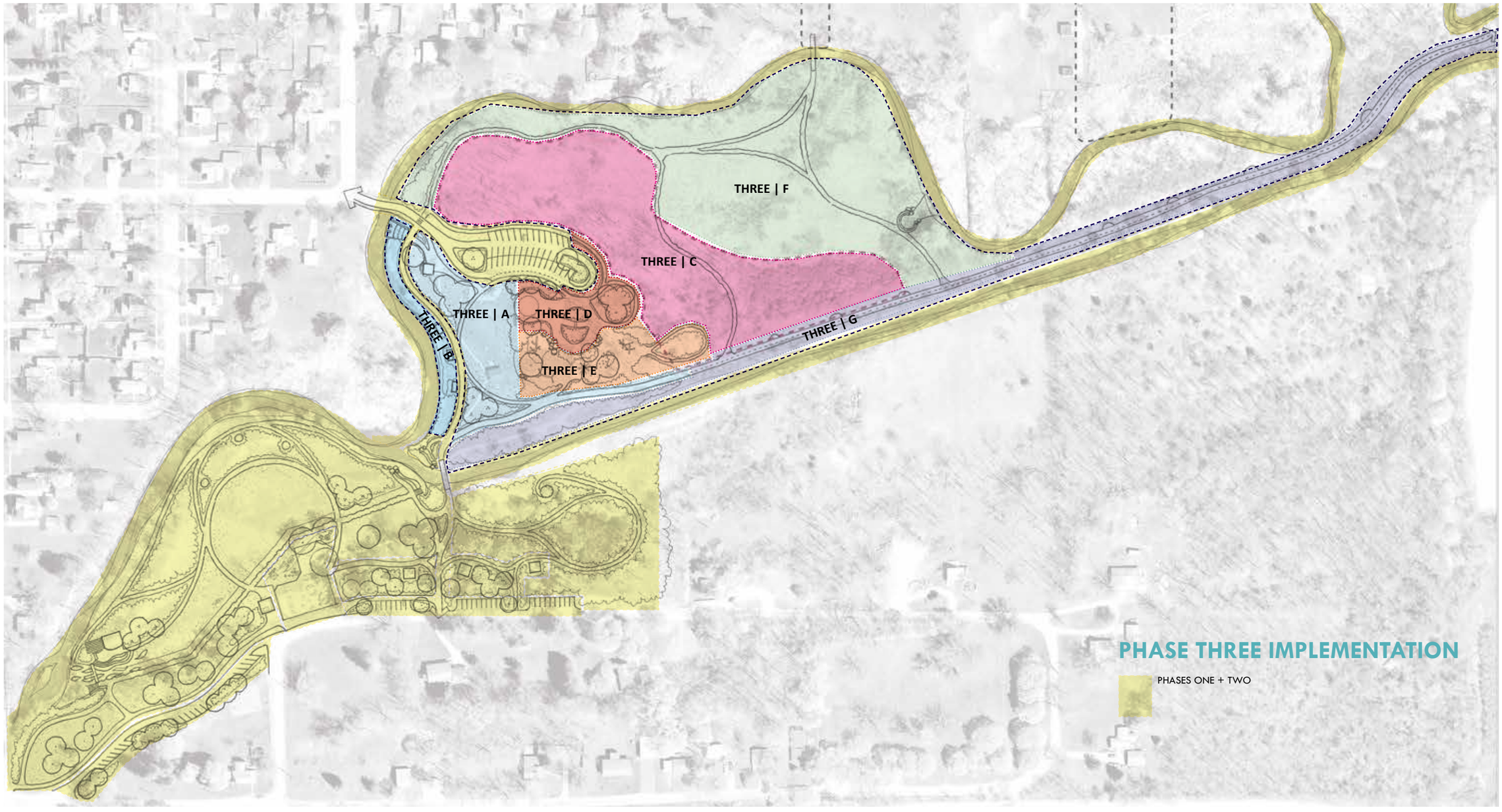
Construction Cost: $289,000
Construction and Soft Costs: $375,700

TWO|G MILLRACE TERRACES AND PEDESTRIAN PATH

The creation of a terraced gathering space with water access, north of the Rotary Bridge. In-stream improvements to manage the flow of water. Coordinate funding with Trout Unlimited.

Construction Cost: $42,000
Construction and Soft Costs: $54,600

Phasing + Implementation



Phasing + Implementation

PHASE THREE DESCRIPTION + COST ESTIMATE

Phase Three includes improvements to upper Ketchum Park, and a paved pedestrian bike path that extends to the far east peninsula.

THREE | A UPPER KETCHUM COMMONS AND RESTROOMS RENOVATION

Work related to the establishment of the Upper Commons lawn and drainage system, and its supporting pedestrian walkways. This stage also includes the renovation of the existing north restrooms.

Construction Cost: $87,000
Construction and Soft Costs: $113,100

THREE | B UPPER STREAM OVERLOOK AND WATER ACCESS

The creation of three interpretive shelters and removal of invasive plant species allowing for the expansion of native wild rice plantings. This stage also includes the implementation of a formal boat launch south of the upper park entrance bridge.

Construction Cost: $167,000
Construction and Soft Costs: $217,100

THREE | C DISC GOLF EXPANSION AND IMPROVEMENTS

The expansion and reconfiguration of the existing disc golf course, into a 9-hole course. Includes removal of invasive plant species and overgrown plant material, removal of concrete fill where applicable, and the implementation of a disc golf nature trail.

Construction Cost: $37,000
Construction and Soft Costs: $48,100

THREE | D SKATE PARK

The creation of a new skate park, skate trail, and connecting pathways.

Construction Cost: $165,200
Construction and Soft Costs: $214,800

THREE | E WATERSHED NATURE PLAYGROUND

Creation of a nature-based playground, discovery nature trail, wildflower and native garden, and connecting pathways.

Construction Cost: $70,800
Construction and Soft Costs: $92,100

THREE | F NATURE TRAILS

The establishment of a nature trail and boardwalk system through upper Ketchum's wetland and natural areas. This stage includes the removal of invasive plant species, and the creation of an outdoor classroom along Rice Creek.

Construction Cost: $167,000
Construction and Soft Costs: $217,100

THREE | G SHARED PEDESTRIAN BIKE PATH AND BANK RESTORATION

The creation of a paved non-motorized bike path and interpretive stations that extend to the Park's eastern peninsula. This stage includes the removal of invasive plant species, and slope stabilization along the stream and millrace. Coordinate funding for race and stream with Trout Unlimited.

Construction Cost: $143,000
Construction and Soft Costs: $185,900

Phasing + Implementation

OPERATIONS + MAINTENANCE

A clear and organized maintenance plan will help set the park up for success. A well-maintained park increases the longevity of features and structures, and inspires community members to be active participants in its welfare. Below are general guidelines for maintaining a clean and safe environment at Ketchum Park.

NATURAL LANDSCAPE/CONTROLLED LANDSCAPES

Natural spaces will require various levels of upkeep depending on the space. Unchanged woodlands may require minor attention to address safety and unsightly concerns such as dead tree limbs, trash removal, etc. Rain gardens should ideally require more attention during establishment, and less frequent as time goes on. Watering, weeding, and slope protection will be critical for the first year, lessening to mostly weed removal after establishment.

Controlled (more manicured) spaces may need more frequent attention to manage decorative plant growth, lawn issues, biological spills/cleanups, graffiti, and more.

HARDSCAPES/PARKING

Portions of the various hardscapes will require debris removal, occasional power-washing, vandalism repair, and other issues due to weather and users' activities. De-icing salt use in parking lots may be desired for safety reasons, and occasional street sweeping of the lots to keep them clean.

NATURE PATHS

Trails through the various types of natural areas will generally need less attention, but regular path mowing, weed control, and debris removal will help keep these routes looking great and functioning well. Occasional monitoring of the more remote areas by security will be essential to ensure visitors feel safe traversing the harder-to-see portions. Refer to the next paragraph for additional, shared concerns along these pathways.

PLATFORMS/OVERLOOKS/BRIDGES

These more-expensive park features will require special attention to keep up their safety, looks, and longevity. Usually a small subset of users will attempt publicly-undesirable activities, and so these features will need a little more policing to ensure the appropriate enjoyment of the park can be had by the vast majority of users. Quarterly monitoring of structural members, supports, foundations, and connections will be important for load-bearing and/or elevated crossing features such as bridges, in particular. Vandalism such as graffiti, carvings, paint, burning, etc. will need to be addressed very quickly once known, especially those creating unexpected hazards.

PLAYGROUNDS/SKATE PARKS

High-liability zones like these will also require close daily/weekly attention to make sure safety is the number one addressed concern. Well-maintained surfacing is a must to help remove hazardous conditions that will arise frequently due to human use, and nature-borne concerns of various types. Keeping drainage functioning well will need to be a priority so as to avoid flooding/erosion damage that threaten play zones. Loose and movable play features such as logs, branches, rocks will need re-situating, and somewhat frequent inspection and replacement due to normal use.

UTILITIES: STORMWATER, ELECTRIC, SANITARY, GAS

These necessary utilities each present their own set of upkeep challenges best handled by tradesmen skilled in their servicing. Storm water structures/features will need monthly monitoring and occasional clean out as environmental and weather conditions warrant. Accessible power to various venues of the site will be especially susceptible to vandalism at times, including light bulbs, outlets, and breaker panels. Sanitary concerns should be minimal from the system perspective, but refer to "Buildings" portion for additional needs. Gas-powered fireplace issues will also need to be frequently monitored at their valves, and to ensure that safety shut-off functions and lockable panels are working to prevent tampering and/or uncontrolled fire situations.

EQUIPMENT: SHELTERS, SIGNAGE, PLANTERS, SITE FURNISHINGS

Similar to "Platforms and overlooks", these various types of constructed/installed site amenities may require weekly inspection to ensure graffiti/vandalism issues aren't cropping up. Shelters will need occasional attention to remove insect-made features, and touch up paint for framing members that get chipped/damaged. Both wayfinding and interpretive signs may need monthly inspection looking for bent/broken features, sun-fade, graffiti, and even theft. Planters will need occasional debris clearing, mulching and infrequent plant replacement due to environmental or man-made stresses. Site furniture such as benches, picnic tables, litter receptacles, bollards, and so forth, will likewise need care similar to "Shelters", but litter will require almost daily attention to help avoid fauna issues in the park. Bent/broken parts may need monthly repair and replacement efforts to address normal use, accidents, and vandalism.

IRRIGATION

If and where present, underground irrigation systems will need their normal bi-annual spring start-up and fall blow-out efforts. Mower or other human damage to spray heads will require occasional nozzle care, spray pattern adjustment, and even head replacement from time to time. Control panel with electric power concerns will need lockable, secure access maintained with remote control capabilities to aid in emergency shut-off and seasonal programming.

BUILDINGS

Seasonal opening and closing of building functions are the basis, but ongoing daily trash removal and bathroom cleanup are essential. Unexpected biological cleanups will occur, and require varying levels of both cleanup and response speed by trained staff. Any somewhat-fragile components of structures (E.G. Glass, hardware, water service lines) will need frequent monitoring and attention to address vandalism or misuse especially. Security cameras, and staff presence are recommended where and when appropriate to keep building users both honest, and feeling secure. Supplies, monitoring, and daily upkeep are essential.

Phasing + Implementation

BOAT LAUNCH + STREAM ACCESS POINTS

Water access inherently includes a higher level of fitness and risk concerns that will need both signage and occasional staff presence to help ensure safe use. Accessible and user-friendly watercraft storage areas will need minor policing from time to time. Access ramp/step cleanliness will be a priority to minimize the likelihood of barefoot injuries. Water quality alert notification may be helpful at these features to increase potential users' awareness prior to entry.

WATER ACCESS/WATER PLAY

Similar to the previous water access points, water play especially will benefit from increased vigilance by staff and users to help ensure young humans' safety. Broken glass can be an especially difficult item to police and address when water and small feet are involved.

LIABILITIES/SAFETY

Safety will always be the number one challenge when staff assess and address all of the park's widely varying opportunities, and the unique challenges for upkeep that each one entails. Staff training and response to emergencies and unusual situations in the park, including knowledgeable coordination with local law enforcement will help keep this Park operating smoothly. Signage clearly indicating users' restrictions for liability reasons should be very clear, understandable, and placed appropriately for maximum visibility.

SECURITY

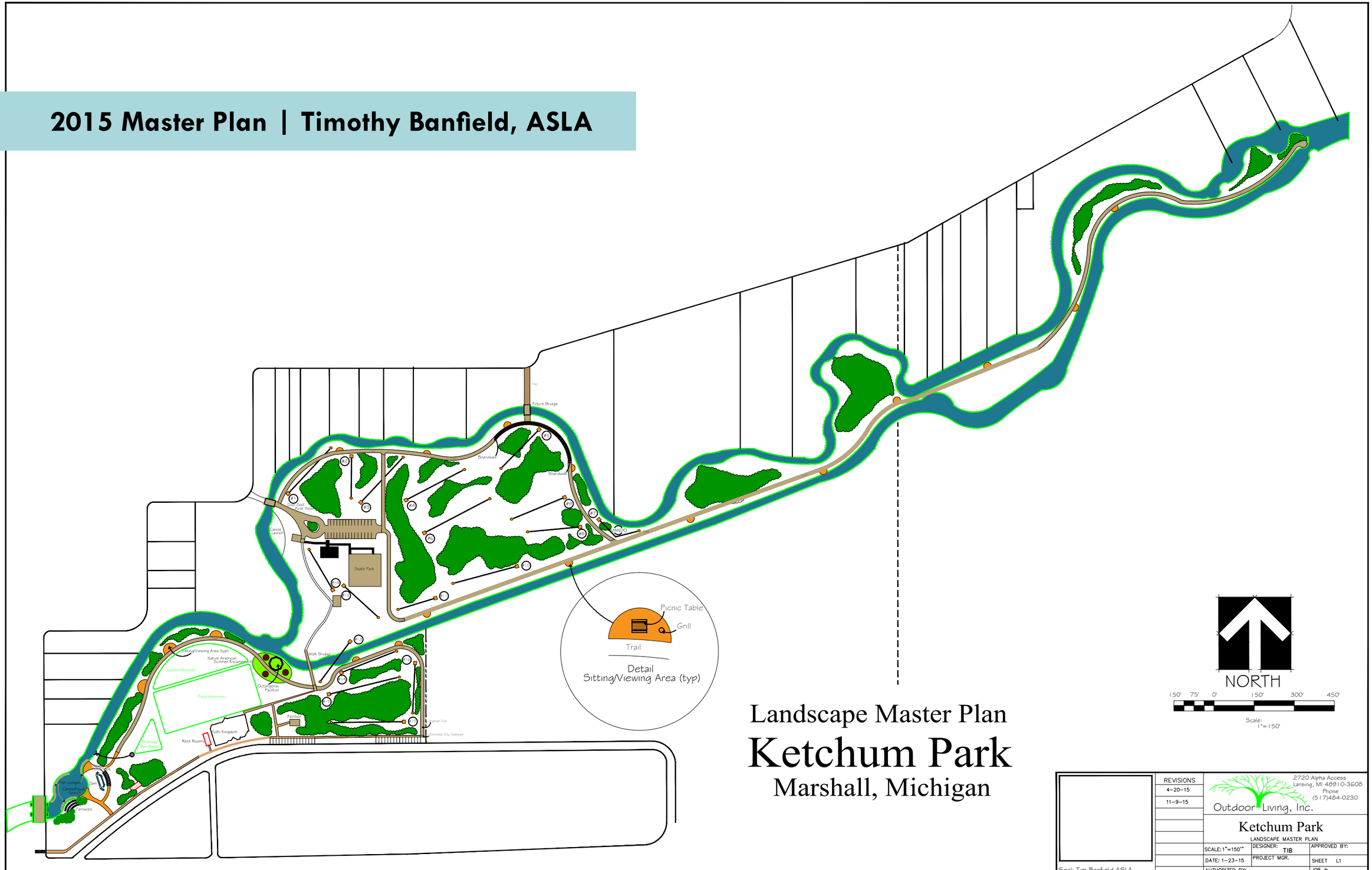
Daily policing, in general, is advised to spot and address all of the previously mentioned concerns in this section. Staff, local police, and even State DNR officials will have need to visit the park throughout all seasons. Secure "blue phones" can be helpful additions to improve security in such park settings as this one. Neighborhood watches can be added eyes and ears fixed on the park as an extra layer of security.

Appendices

2015 Master Plan |Timothy Banfield, ASLA

2018 Trout Unlimited Rice Creek Plans

2015 Master Plan | Timothy Banfield, ASLA



Landscape Master Plan

Ketchum Park

Marshall, Michigan

NORTH

150' 75' 0' 150' 300' 450'

Scale: 1"=150'

REVISIONS
4-20-15
11-9-15

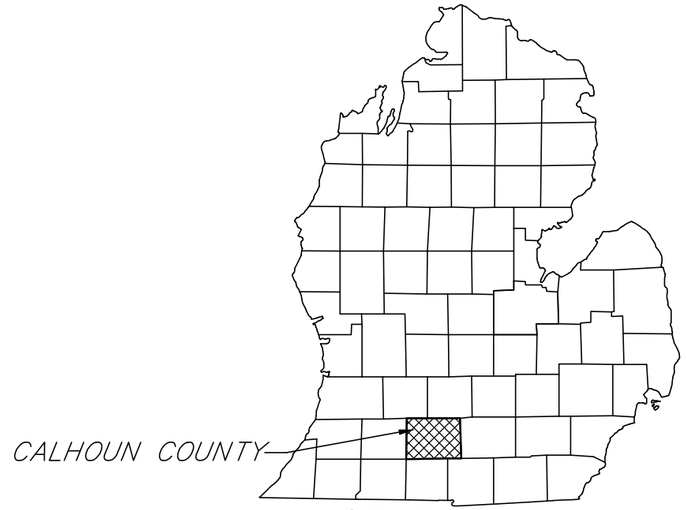
2720 Alpha Access
Lansing, MI 48910-3608
Phone
(517)484-0230
Outdoor Living, Inc.

Ketchum Park
LANDSCAPE MASTER PLAN

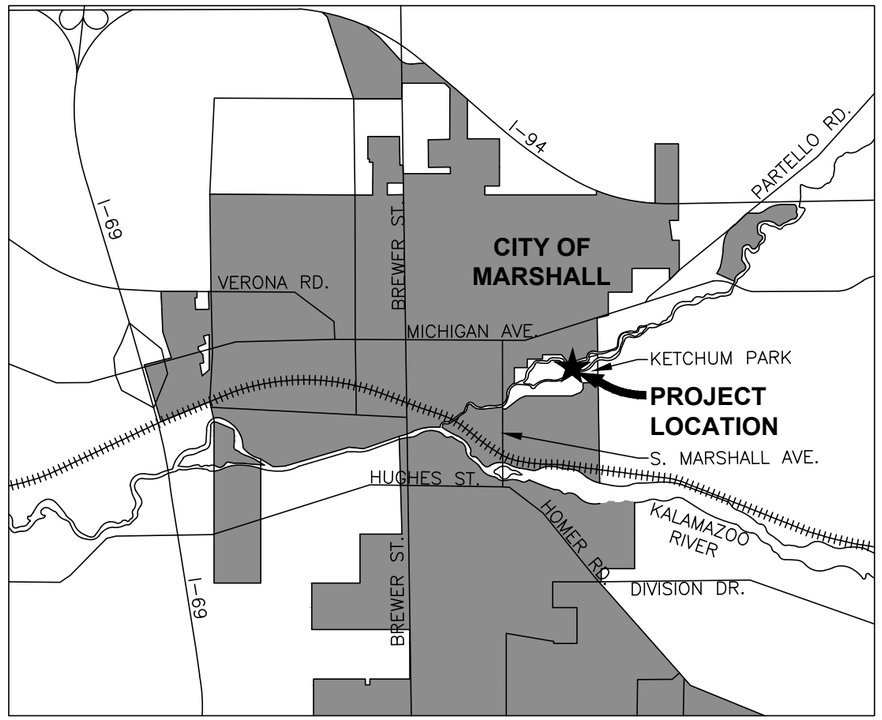
SCALE: 1"=150'"	DESIGNER: TIB	APPROVED BY:
DATE: 1-23-15	PROJECT MGR.	SHEET L1
AUTHORIZED BY:		JOB #: 15910-C

Seal: Tim Banfield ASLA #39010000859

2018 Trout Unlimited Rice Creek Plans



STATE MAP



VICINITY MAP

NOT TO SCALE

NORTH

NOT TO SCALE

DATUM NAVD 88

LOCATION MAP

APPLICANT: MICHIGAN TROUT UNLIMITED
TOWNSHIP: MARSHALL TOWNSHIP
COUNTY: CALHOUN
NUMBER OF SHEETS: 1 OF 20
DATE: APRIL 17, 2018

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fax. 616.784.0737
www.LREmi.com

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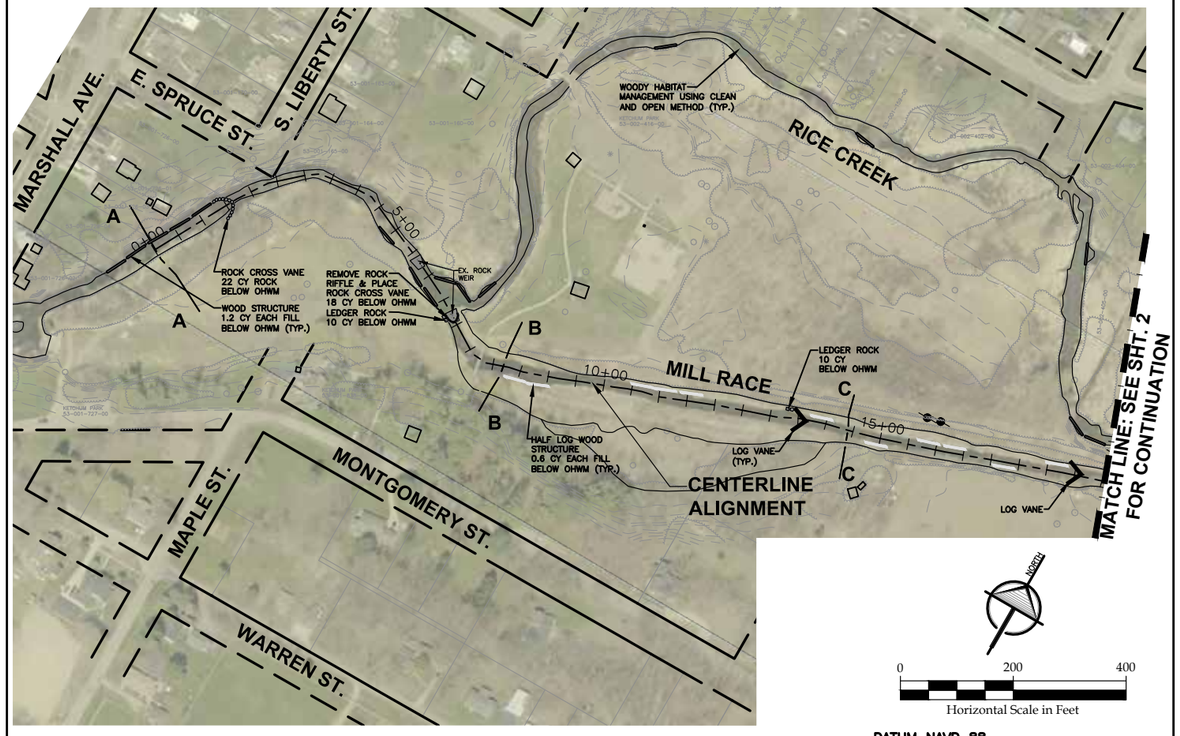

PLAN VIEW

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DATUM NAVD 88

SITE PLAN (STA. 0+00–19+00)

APPLICANT: MICHIGAN TROUT UNLIMITED
TOWNSHIP: MARSHALL TOWNSHIP
COUNTY: CALHOUN
NUMBER OF SHEETS: 2 OF 20
DATE: APRIL 17, 2018

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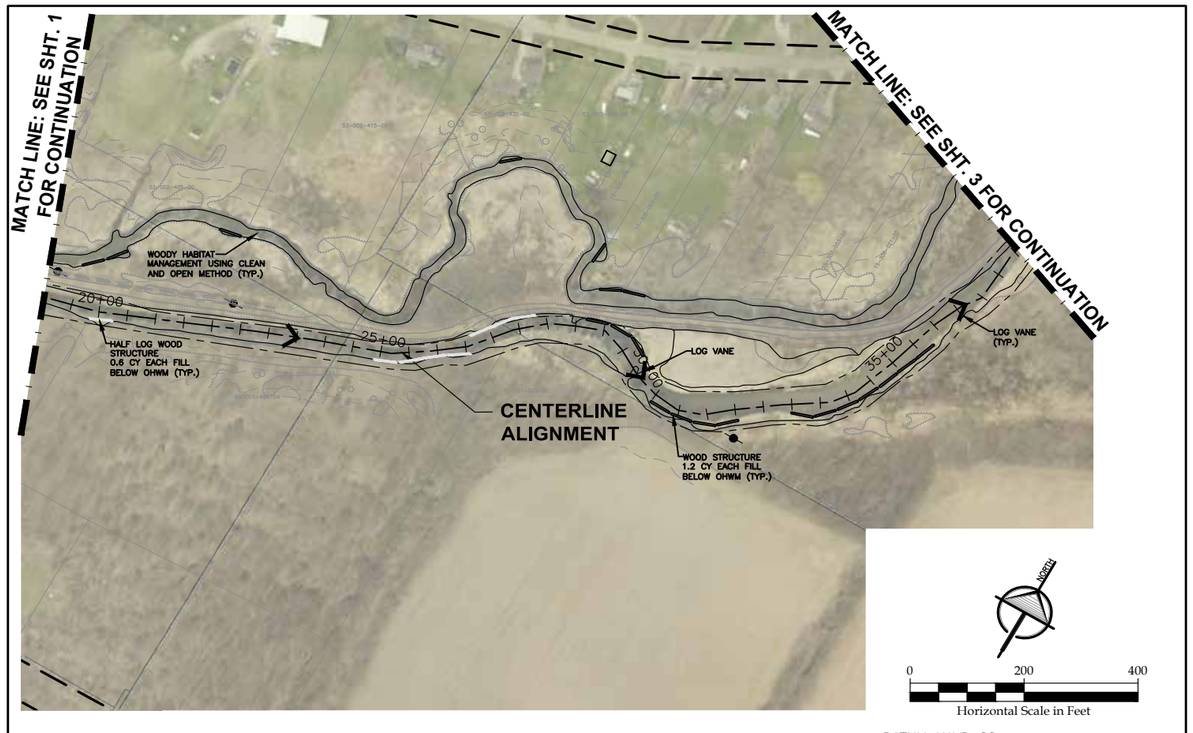

PLAN VIEW

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DATUM NAVD 88

SITE PLAN (STA. 19+00–38+00)

APPLICANT: MICHIGAN TROUT UNLIMITED
TOWNSHIP: MARSHALL TOWNSHIP
COUNTY: CALHOUN
NUMBER OF SHEETS: 3 OF 20
DATE: APRIL 17, 2018

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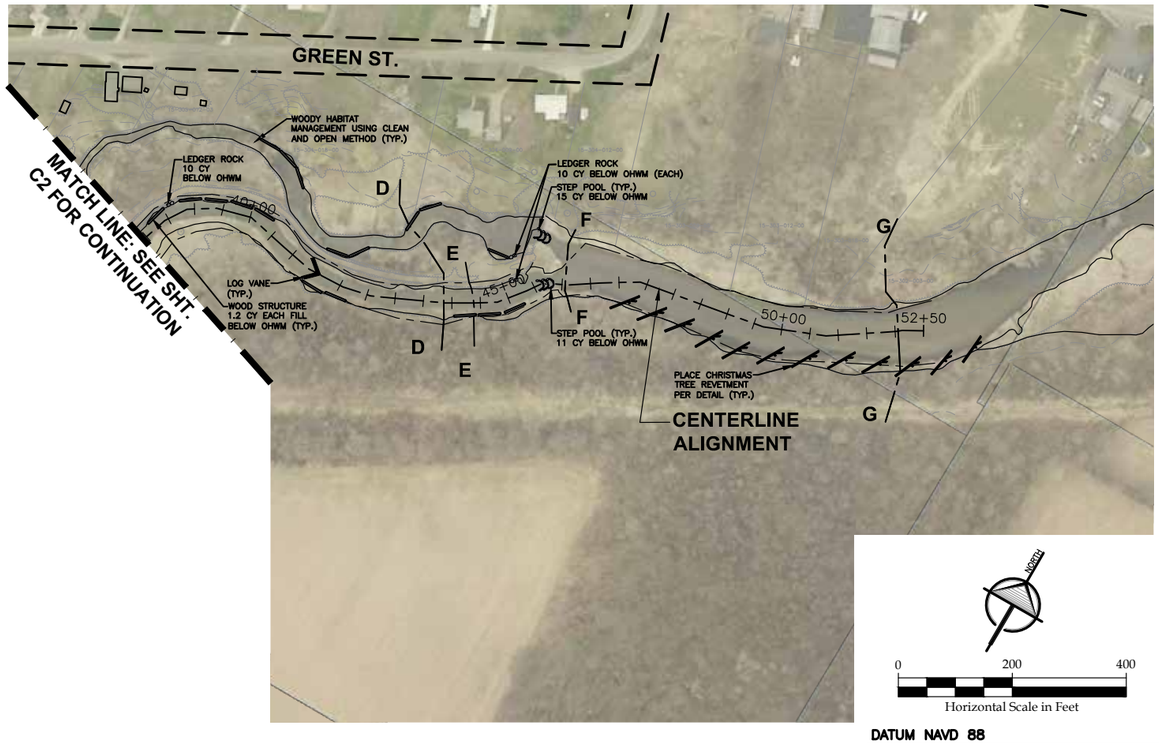

PLAN VIEW

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DATUM NAVD 88

SITE PLAN (STA. 38+00–52+50)

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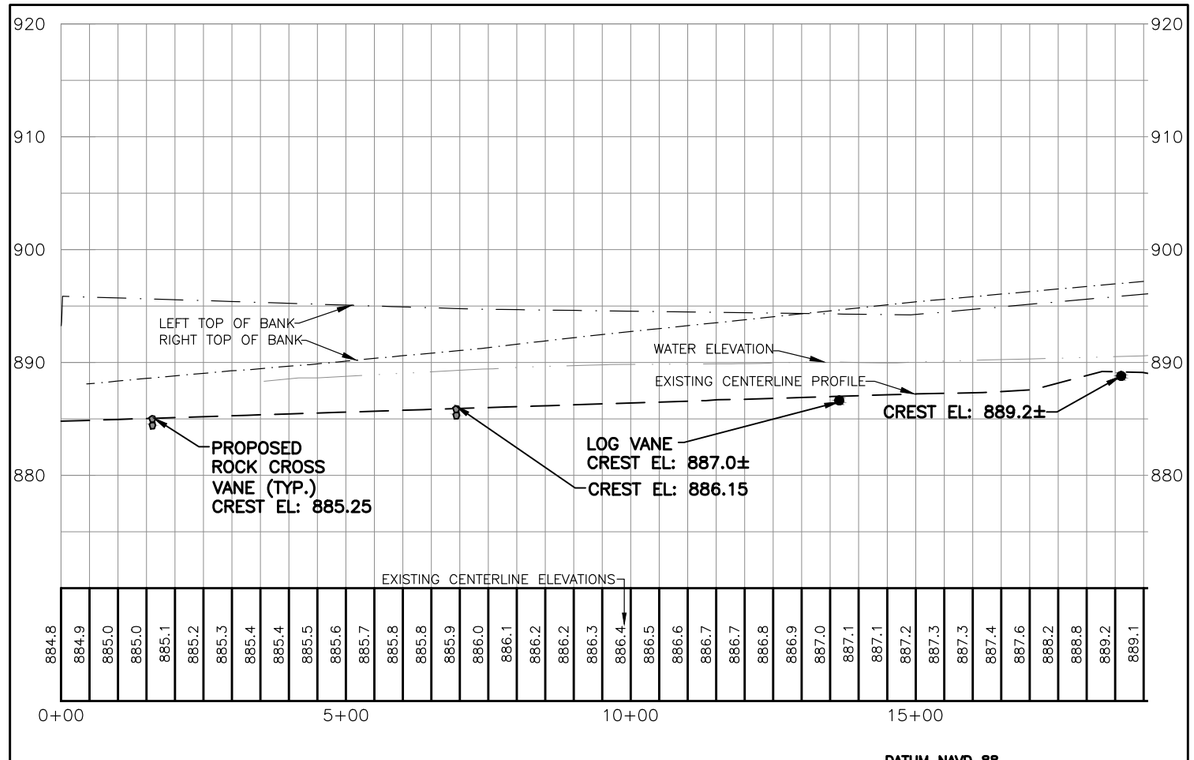
TOWNSHIP: MARSHALL TOWNSHIP
COUNTY: CALHOUN
NUMBER OF SHEETS: 4 OF 20
DATE: APRIL 17, 2018



CENTERLINE PROFILE

SCALE: HORIZONTAL: 1" = 200'
VERTICAL: 1" = 10'

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PROFILE (STA. 0+00–19+00)

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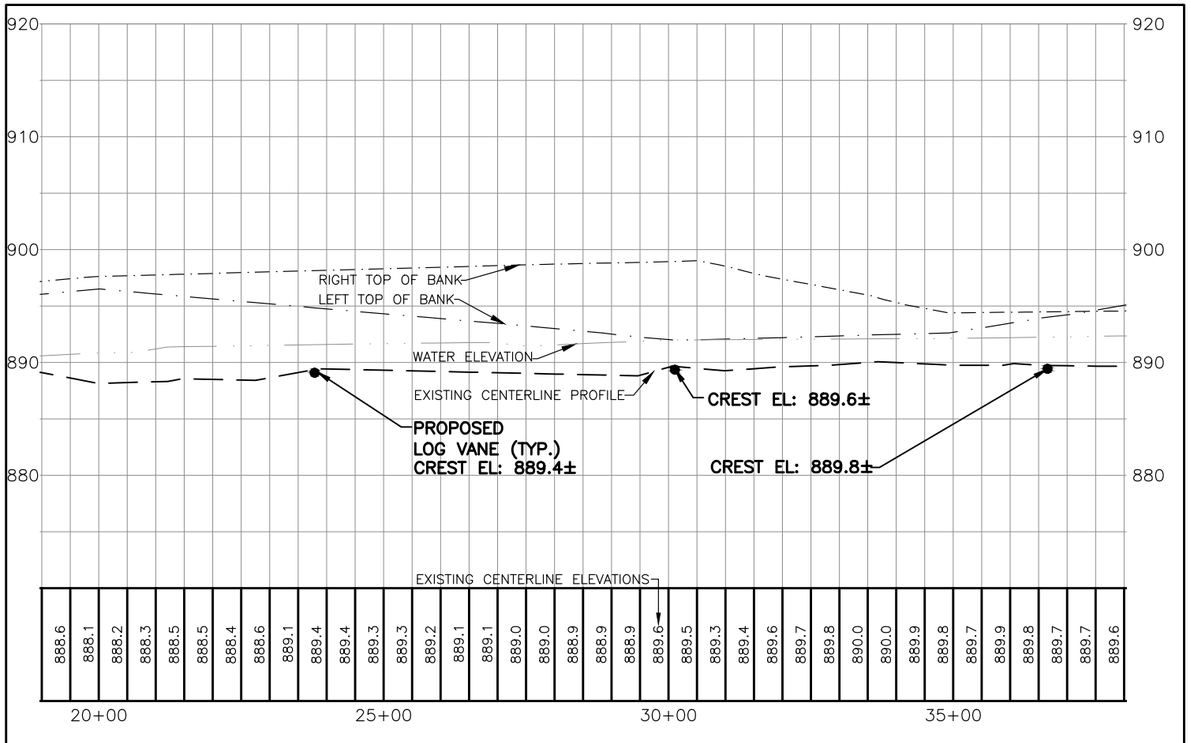
COUNTY: CALHOUN
NUMBER OF SHEETS: 5 OF 20
DATE: APRIL 17, 2018



CENTERLINE PROFILE

SCALE: HORIZONTAL: 1" = 200'
VERTICAL: 1" = 10'

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DATUM NAVD 88
PROFILE (STA. 19+00–38+00)
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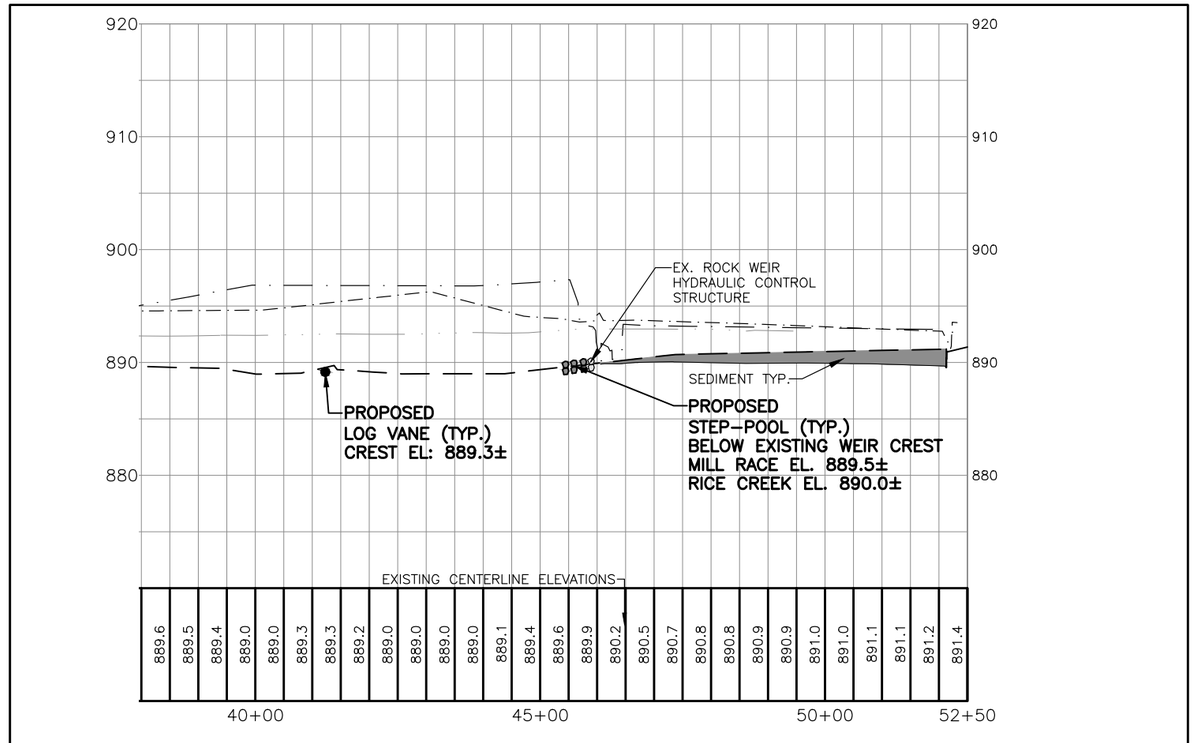
TOWNSHIP: MARSHALL TOWNSHIP
COUNTY: CALHOUN
NUMBER OF SHEETS: 6 OF 20
DATE: APRIL 17, 2018



CENTERLINE PROFILE

SCALE: HORIZONTAL: 1" = 200'
VERTICAL: 1" = 10'

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DATUM NAVD 88
PROFILE (STA. 38+00–52+50)
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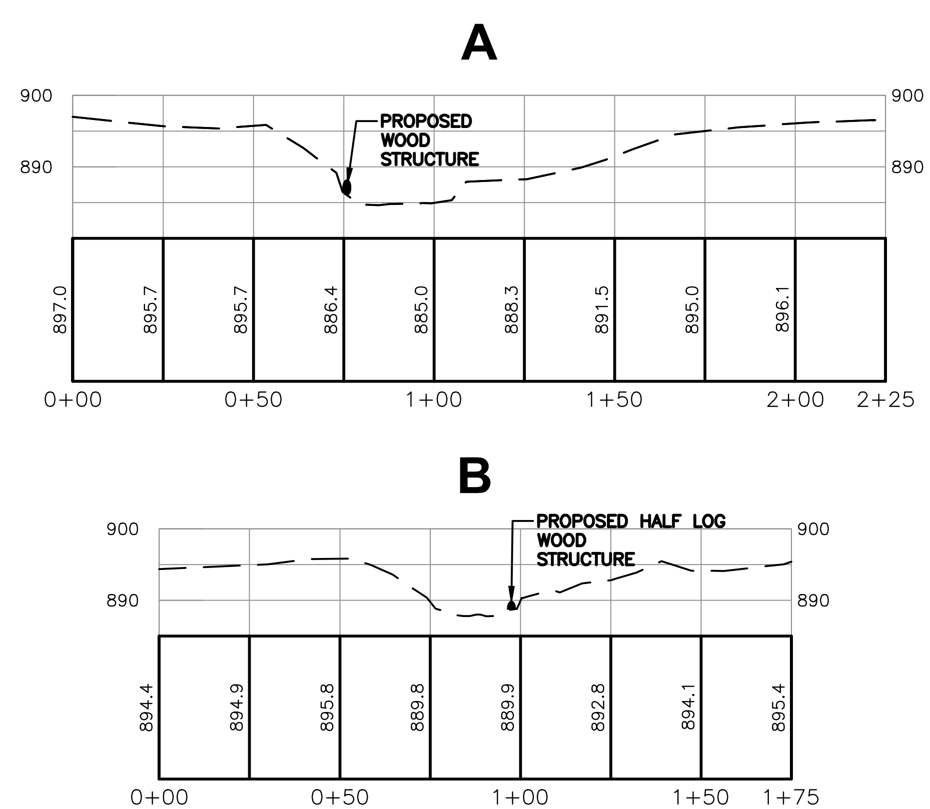
TOWNSHIP: MARSHALL TOWNSHIP
COUNTY: CALHOUN
NUMBER OF SHEETS: 7 OF 20
DATE: APRIL 17, 2018



CROSS SECTIONS

SCALE: HORIZONTAL: 1" = 40'
VERTICAL: 1" = 20'

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CROSS SECTIONS
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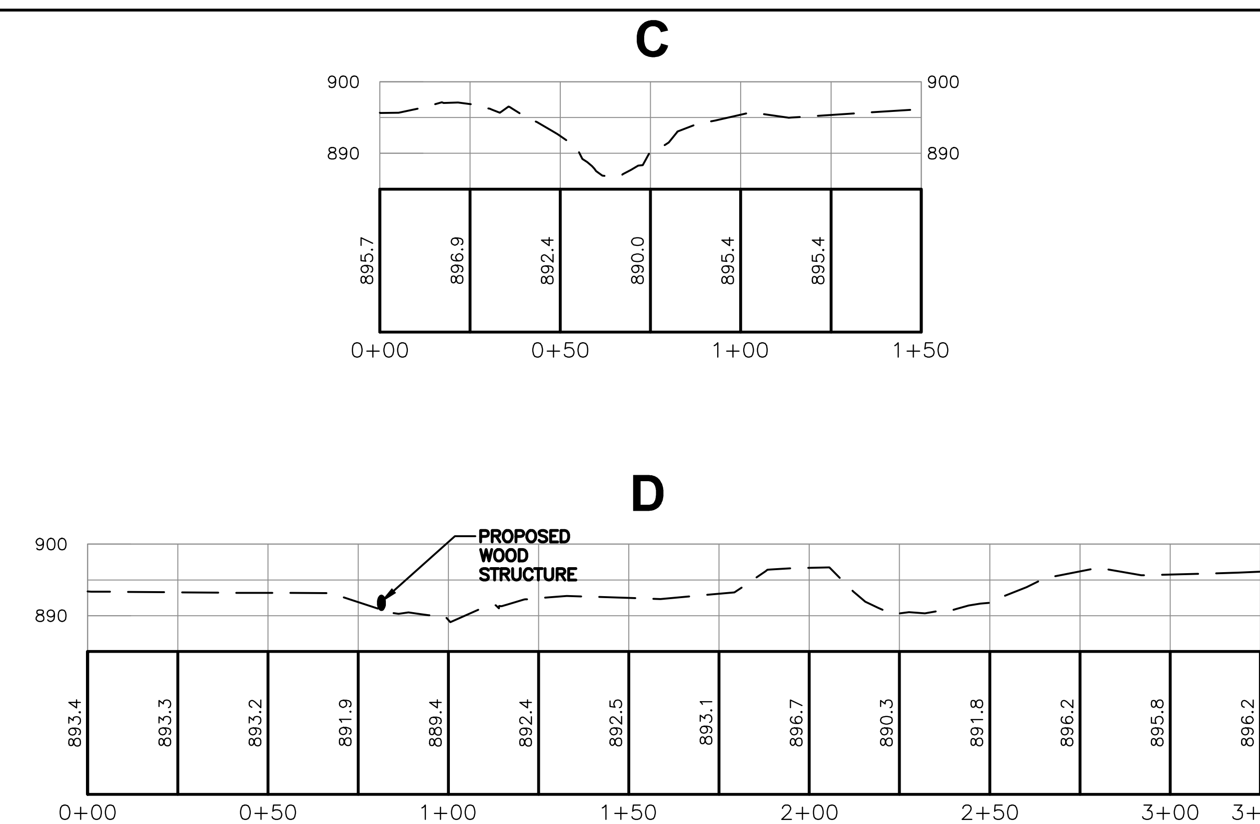

CROSS SECTIONS

SCALE: HORIZONTAL: 1" = 40'
VERTICAL: 1" = 20'

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CROSS SECTIONS
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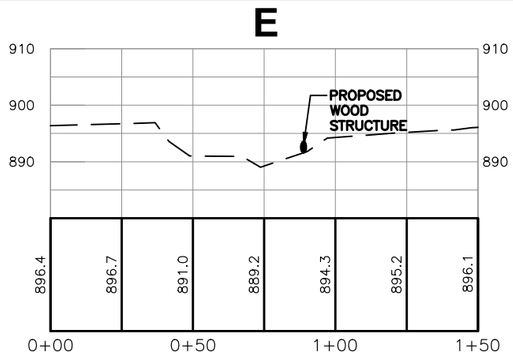

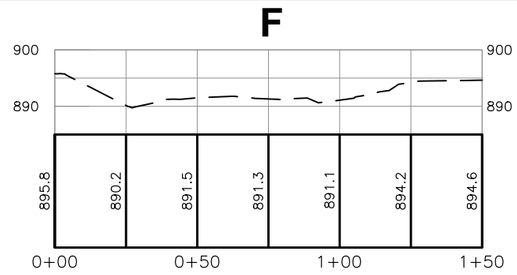

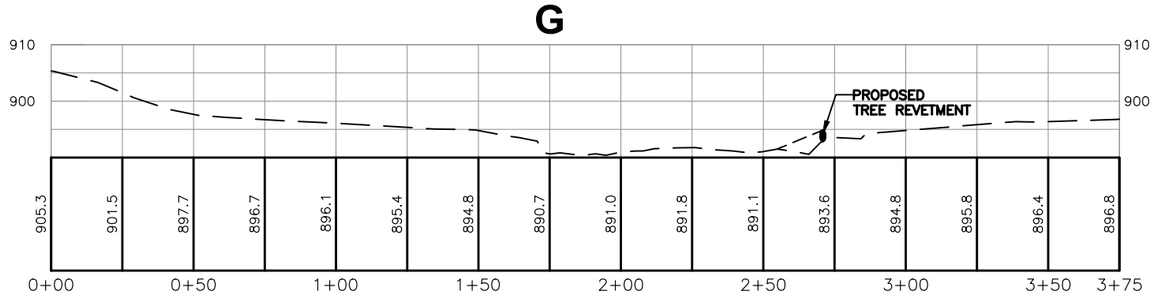

CROSS SECTIONS

SCALE: HORIZONTAL: 1" = 40'
VERTICAL: 1" = 20'

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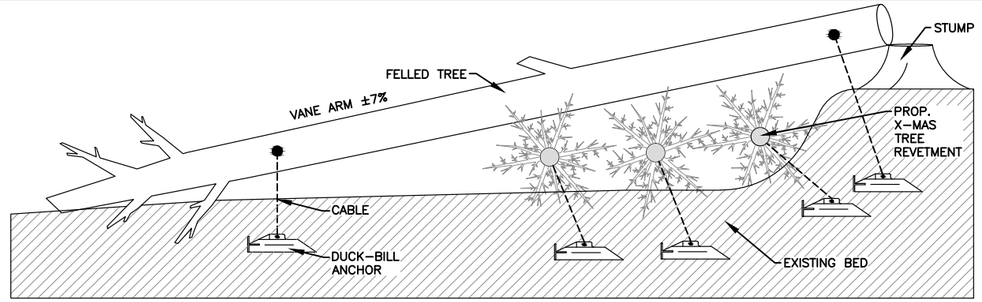
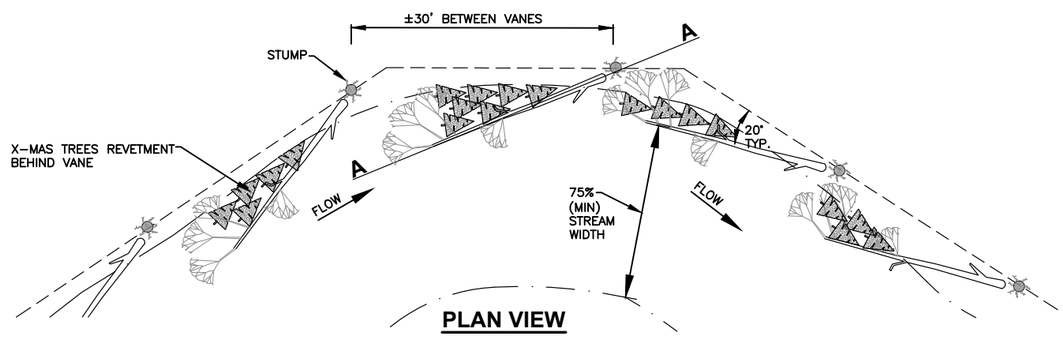
CROSS SECTIONS

APPLICANT: MICHIGAN TROUT UNLIMITED
TOWNSHIP: MARSHALL TOWNSHIP
COUNTY: CALHOUN
NUMBER OF SHEETS: 10 OF 20
DATE: APRIL 17, 2018



PROFILE VIEW A-A



PLAN VIEW

CHRISTMAS TREE REVETMENT

NOT TO SCALE

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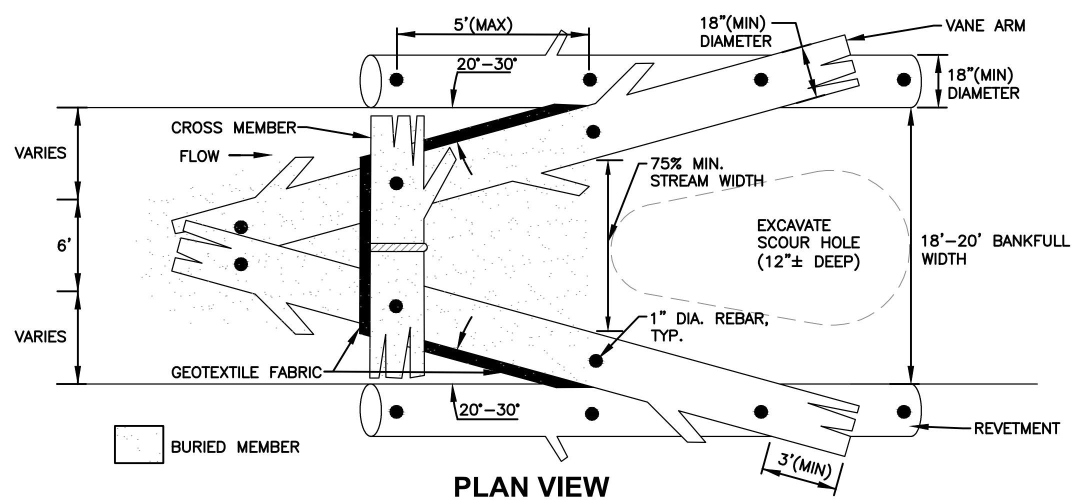
DATUM NAVD 88

DETAILS

APPLICANT: MICHIGAN TROUT UNLIMITED
TOWNSHIP: MARSHALL TOWNSHIP
COUNTY: CALHOUN
NUMBER OF SHEETS: 11 OF 20
DATE: APRIL 17, 2018



PLAN VIEW

LOG VANE DETAIL

NOT TO SCALE

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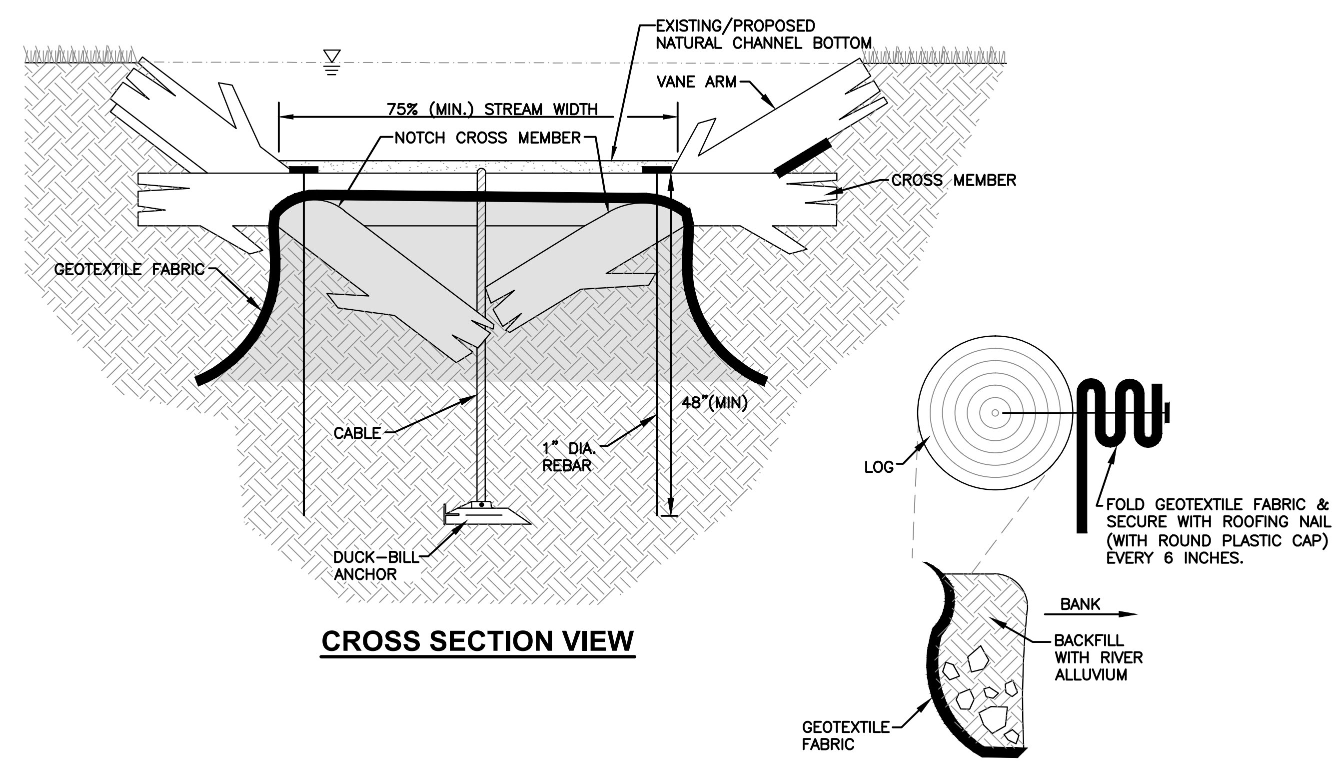
DETAILS

APPLICANT: MICHIGAN TROUT UNLIMITED
TOWNSHIP: MARSHALL TOWNSHIP
COUNTY: CALHOUN
NUMBER OF SHEETS: 12 OF 20
DATE: APRIL 17, 2018



CROSS SECTION VIEW

LOG VANE DETAIL

NOT TO SCALE

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DATUM NAVD 88

DETAILS

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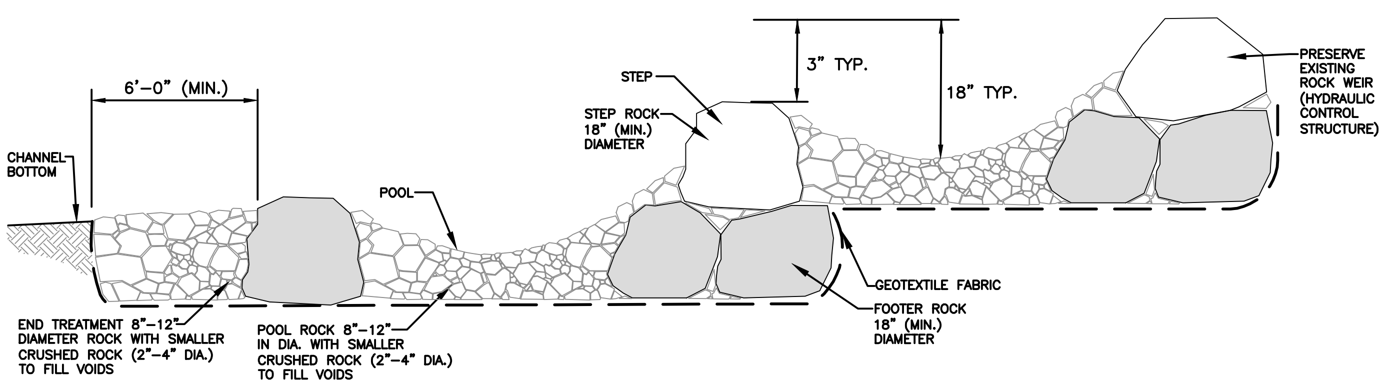
NUMBER OF SHEETS: 13 OF 20
DATE: APRIL 17, 2018



STEP-POOL PROFILE

NOT TO SCALE

LRE ENGINEERS & SURVEYORS

3800 W. River Dr. Ste. A
Comstock Park MI 49321
ph. 616.301.7888
fax. 616.784.0737
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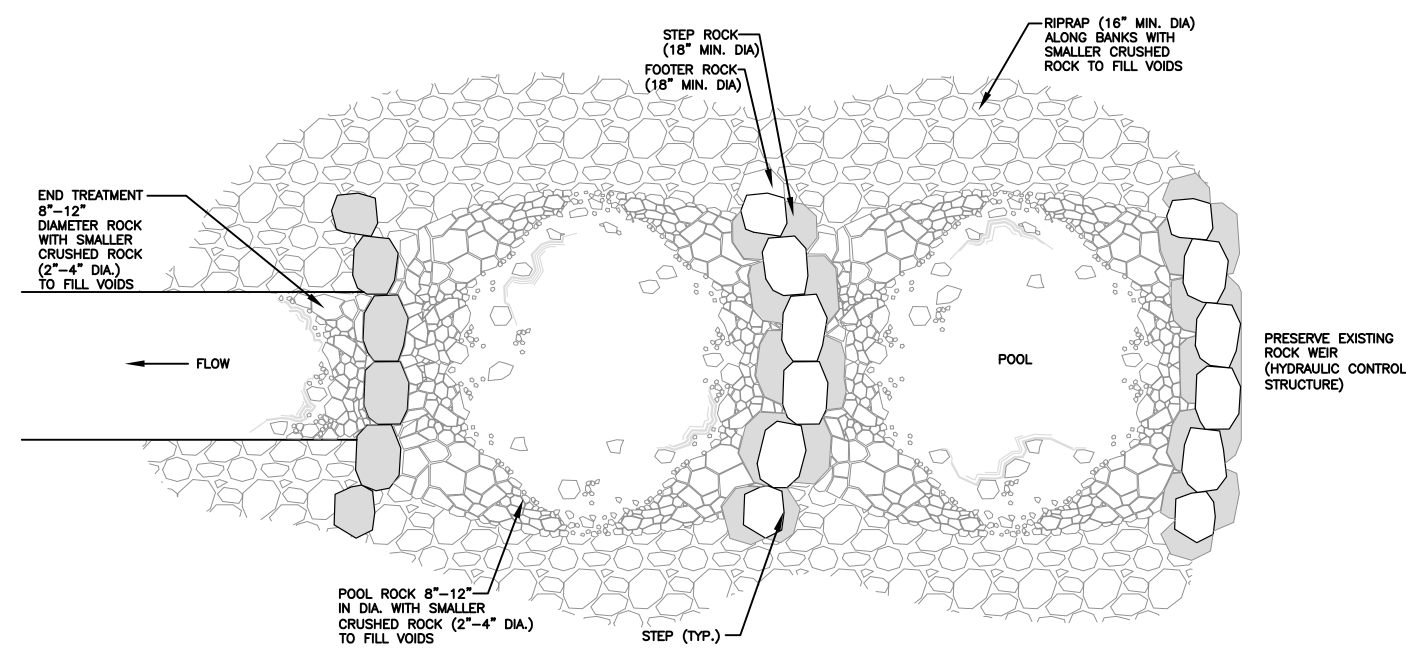
DATUM NAVD 88

DETAILS
APPLICANT: MICHIGAN TROUT UNLIMITED
TOWNSHIP: MARSHALL TOWNSHIP
COUNTY: CALHOUN
NUMBER OF SHEETS: 14 OF 20
DATE: APRIL 17, 2018



STEP-POOL PLAN VIEW

NOT TO SCALE

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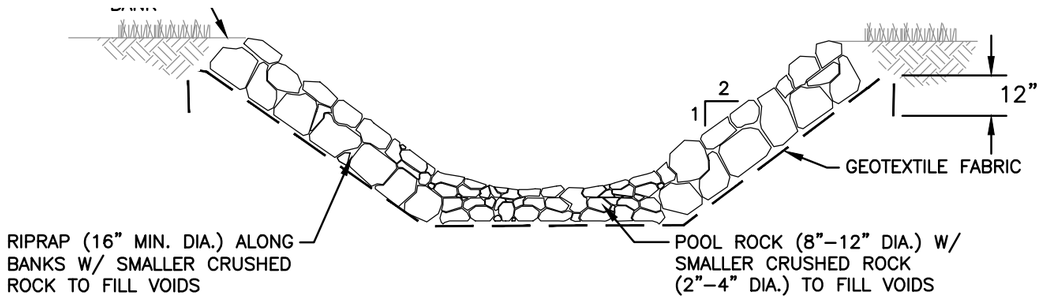
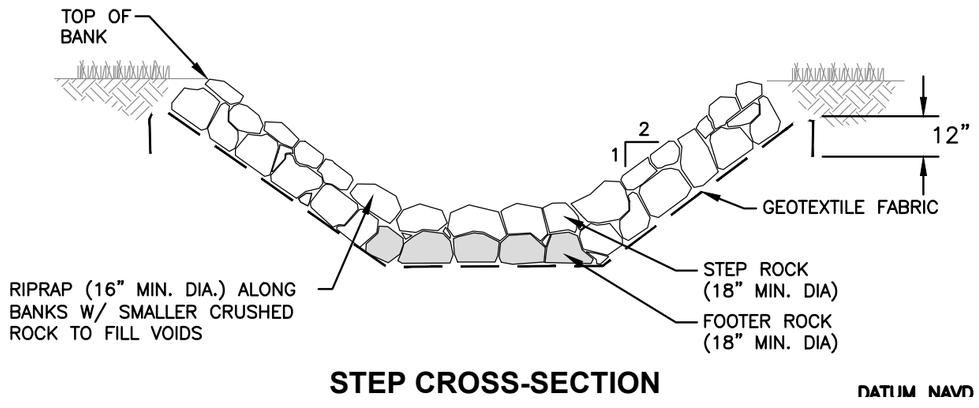
DATUM NAVD 88

DETAILS
APPLICANT: MICHIGAN TROUT UNLIMITED
TOWNSHIP: MARSHALL TOWNSHIP
COUNTY: CALHOUN
NUMBER OF SHEETS: 15 OF 20
DATE: APRIL 17, 2018



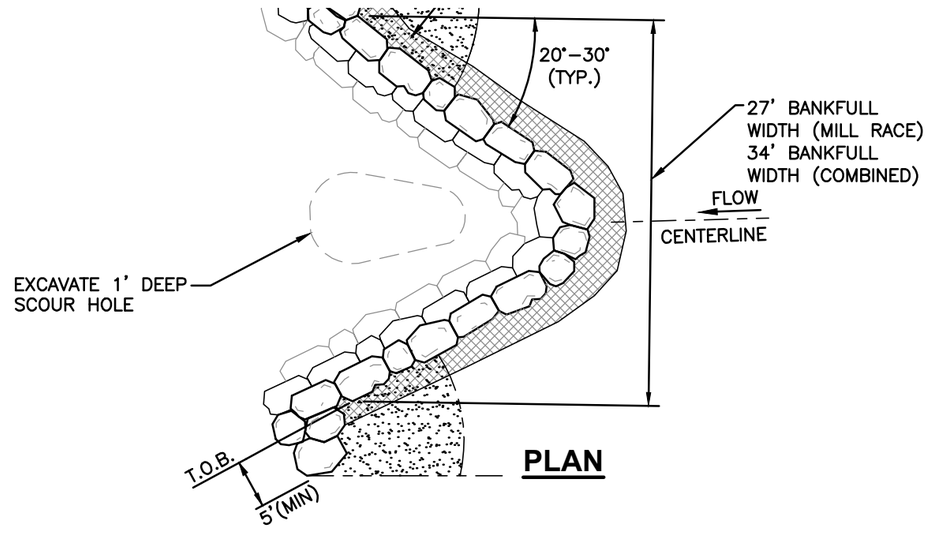
POOL CROSS-SECTION

NOT TO SCALE

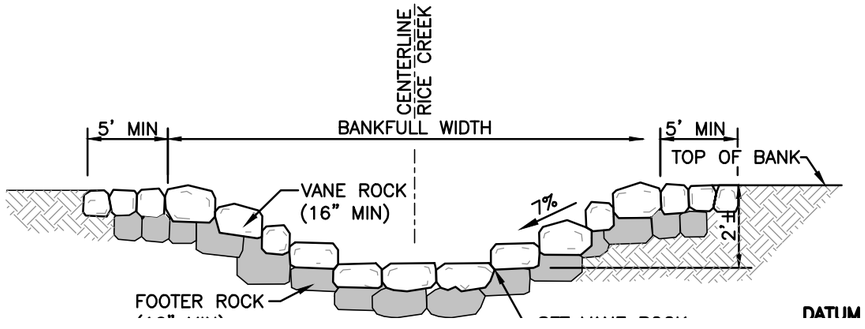


STEP CROSS-SECTION

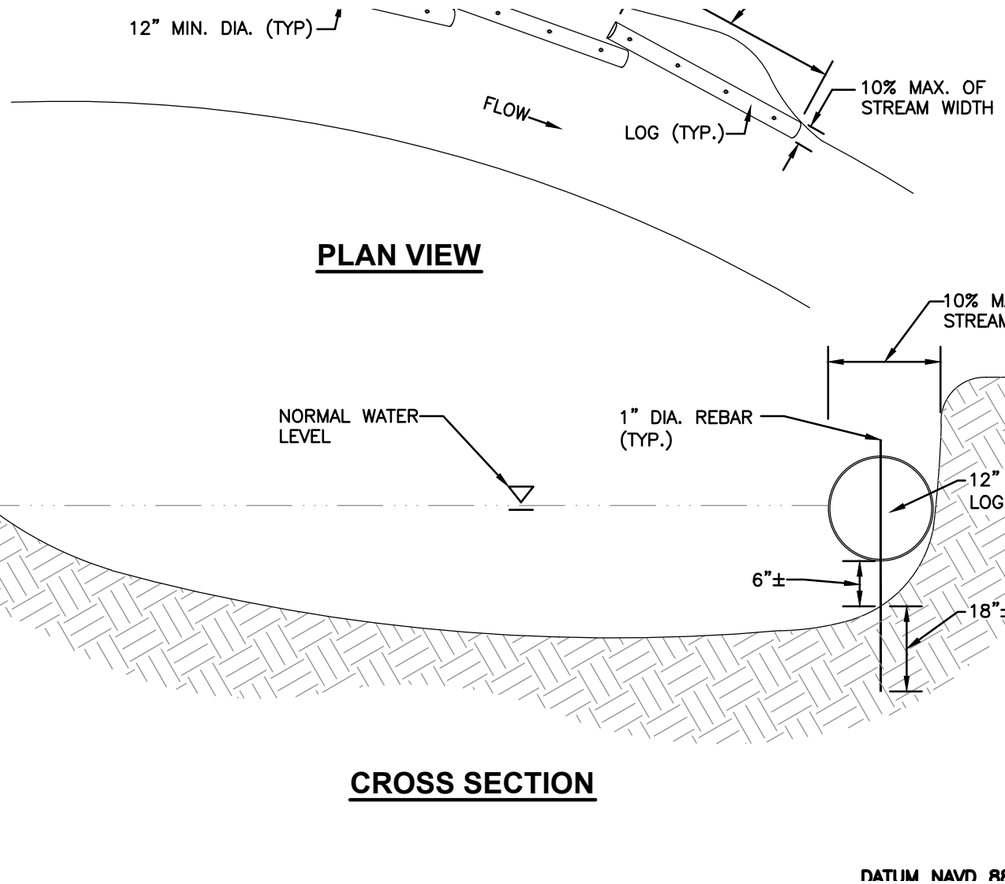
DATUM NAVD 88

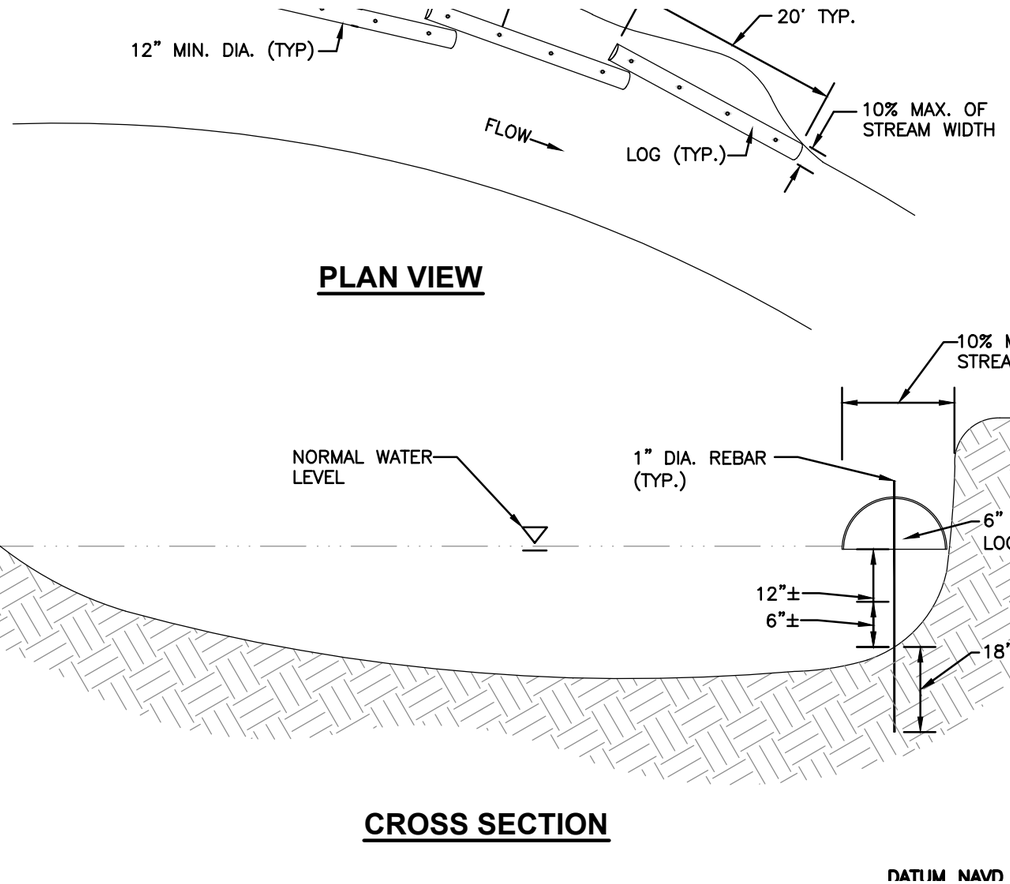


PLAN



DATUM NAVD 88


12" MIN. DIA. (TYP)
FLOW
LOG (TYP.)
10% MAX. OF
STREAM WIDTH
PLAN VIEW
10% MAX. OF
STREAM WIDTH
NORMAL WATER
LEVEL
1" DIA. REBAR
(TYP.)
12" DIA.
LOG (TYP.)
6"±
18"±
CROSS SECTION
DATUM NAVD 88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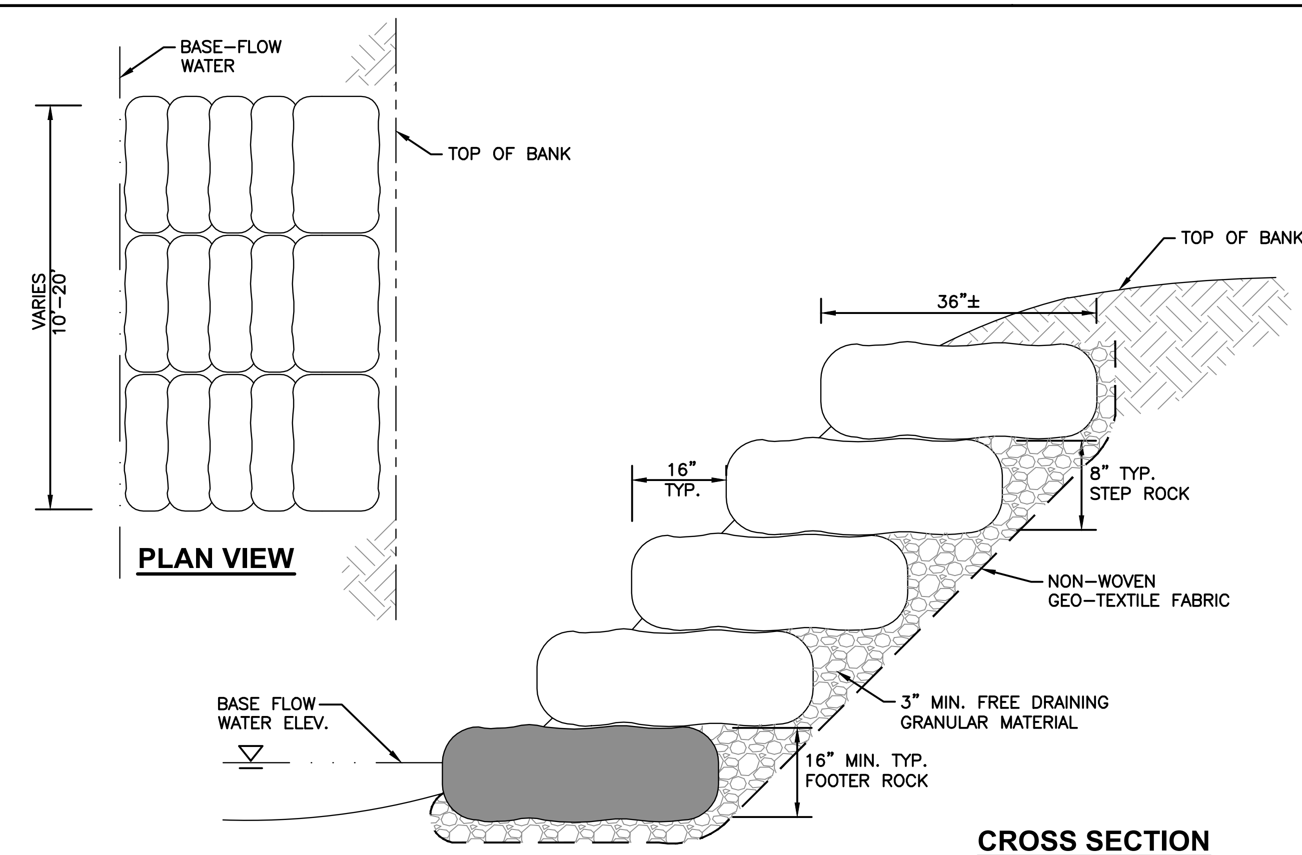
20' TYP.
FLOW
LOG (TYP.)
10% MAX. OF
STREAM WIDTH
PLAN VIEW
10% MAX. OF
STREAM WIDTH
NORMAL WATER
LEVEL
1" DIA. REBAR
(TYP.)
6" DIA.
LOG (TYP.)
12"±
6"±
18"±
CROSS SECTION
DATUM NAVD 88



DATUM NAVD 88

DETAILS

APPLICANT: MICHIGAN TROUT UNLIMITED
TOWNSHIP: MARSHALL TOWNSHIP
COUNTY: CALHOUN
NUMBER OF SHEETS: 20 OF 20
DATE: APRIL 17, 2018

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LEDGER ROCK DETAIL

NOT TO SCALE