

HWY N TRAILHEAD PARK MASTER PLAN

Platte County, Missouri

September 2026



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SUMMARY OF PROCESS

The Trailhead Park Master Plan was developed through a process of site analysis, stakeholder coordination, public engagement, concept development, and final plan refinement.

Project Initiation & Site Analysis

The project began with a review of available background information, including topographic and boundary mapping, utility information, existing trail maps, and known site restrictions. A kickoff meeting was held on April 29th, 2026, to visit the site and confirm the project goals and planning direction with the County and the stakeholder Advisory Committee. The Advisory Committee, made up of the following individuals, supported the project throughout the planning process:

Mel Campbell	Sammy Robertson	Tom Taylor
Caitlin Carney	Carla Lewis	Joe Vanover
Mike Claxton	Lucinda Taylor	Steve Wegner

Public Engagement

On July 22nd, 2026, a public engagement design workshop was held at the County YMCA to identify community priorities and desired park amenities. The Design Workshop was targeted towards the surrounding neighborhoods, as well as active residents in the area.

Concept Plan Development

Based on site analysis and community input received, the design team prepared two preliminary concept plan alternatives. The alternatives were reviewed with the Advisory Committee and were evaluated based on site access, parking, trailhead amenities, stormwater management, maintenance capabilities, and phasing opportunities.

Final Master Plan

The preferred concept was refined into the final Trailhead Park Master Plan, including recommended improvements, planning level opinions of probable cost, and phasing opportunities. The final plan was presented to the Platte County Park Board in September 2026.



EXISTING CONDITIONS – SITE PHOTOS



Edge of parking, looking west



Northeast corner of pump station, looking west



North side of detention, looking north



North side of detention, looking southwest



South of pump station, looking south



Southeast of pump station, looking east

EXISTING CONDITIONS – SITE DIAGRAM

- Primary vehicle access on the northeast corner of site from Highway N
- Existing amenities include asphalt parking, trailhead kiosk, signage, waste receptacles, and portable restroom
- Trail connection from parking lot to Prairie Creek Greenway (and future trail connection)
- Existing sanitary easement runs diagonally through north edge of site
- Overhead electric lines and utility poles cross parking and run along sanitary easement and western edge of site
- Existing detention pond and steep slopes run through central portion of site
- Floodway borders and extends through eastern portion of site



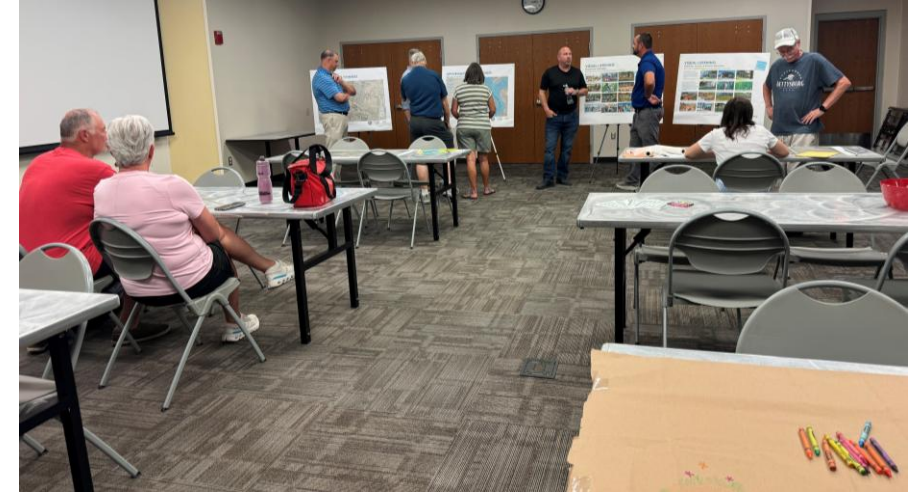
COMMUNITY ENGAGEMENT – DESIGN WORKSHOP

The July 22nd community design workshop invited participants to help shape the park's future through a series of activities. Existing conditions boards provided context about the park space, while visual listening boards (following page) allowed attendees to identify preferred amenities and experiences. Maps with movable park feature pieces helped identify programming and amenity priorities.

Input from this event helped develop priorities for the master plan concepts.



Exploratory concepts spurred programming conversations



COMMUNITY ENGAGEMENT – VISUAL LISTENING BOARDS

VISUAL LISTENING

Playground Typologies

WHAT TYPE OF PLAY WOULD YOU LIKE INCLUDED IN THIS PARK?

NATURE-INSPIRED PLAY

NATURE PLAY

OBSTACLE & CLIMBING

TRADITIONAL PLAY SYSTEMS

NATURE-INSPIRED PLAY

NATURE PLAY

OBSTACLE & CLIMBING

TRADITIONAL PLAY SYSTEMS

NATURE-INSPIRED PLAY

NATURE PLAY

OBSTACLE & CLIMBING

TRADITIONAL PLAY SYSTEMS

GIVE INPUT
Place sticky notes with your comments!

Design Workshop | July 22, 2026

Platte County Parks & Recreation

RDg...

VISUAL LISTENING

Trailhead, Nature, & Wildlife Amenities

WHAT TYPE OF AMENITIES WOULD YOU LIKE INCLUDED IN THIS PARK?

PUBLIC RESTROOM & SHELTER

A public restroom and open-air shelter(s) are planned for the new park design. The restroom will have flush toilets, hand washing sinks, and a drinking fountain. The open-air shelter(s) will serve trail and park users and will incorporate site furnishings such as picnic tables and trash receptacles.

To the right are a few examples potential styles and layout of the future restroom and shelter.

SEPARATED RESTROOM AND SHELTER

COMBINED RESTROOM AND SHELTER

WOOD FRAME SHELTER

NATURE & WILDLIFE AMENITIES

Below and to the right are examples of nature and wildlife amenities that could be in this park.

While not comprehensive, these images show features that create enjoyable experiences for park users while supporting pollinator and wildlife habitat.

Do any of these speak to you? What other park or environmental amenities would you like to see incorporated?

BIRD BLIND/VIEWING PLATFORM

WILDLIFE SHELTERS

BIRD HABITATS & NESTING

POLLINATOR PLANTING & HABITAT

NATURE TRAILS & WAYFINDING

PRAIRIE PLANTING

WETLAND HABITAT IMPROVEMENT

LEARNING AND GATHERING SPACES

EDUCATIONAL SIGNAGE

INFORMAL PICNIC & REST AREAS

OFF LEASH DOG PARK

GIVE INPUT
Place sticky notes with your comments!

Design Workshop | July 22, 2026

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RDg...

Design workshop attendees identified preferred amenities and experiences through dot voting.

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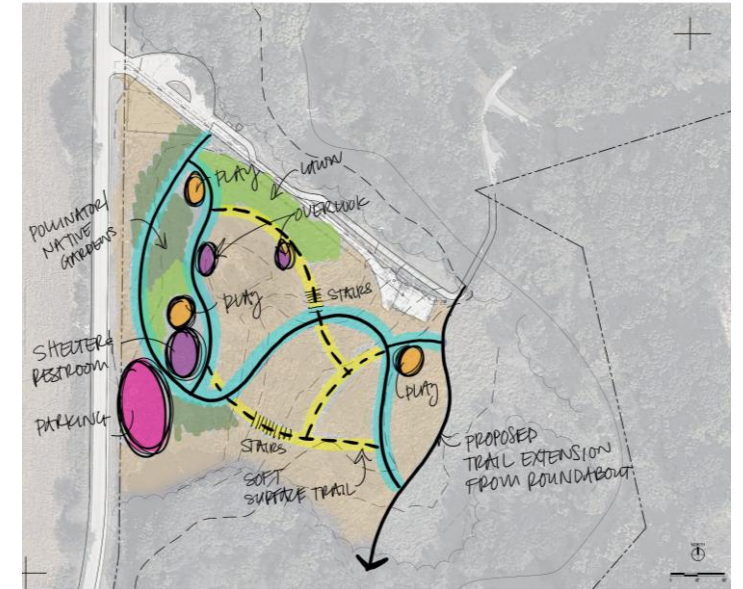
DESIGN ALTERNATIVES

Two preliminary design concepts were presented for Trailhead Park. Following discussion of the alternatives, the Advisory Committee identified **Concept B - Enhance Trailhead** as the preferred direction for advancement in the master plan.

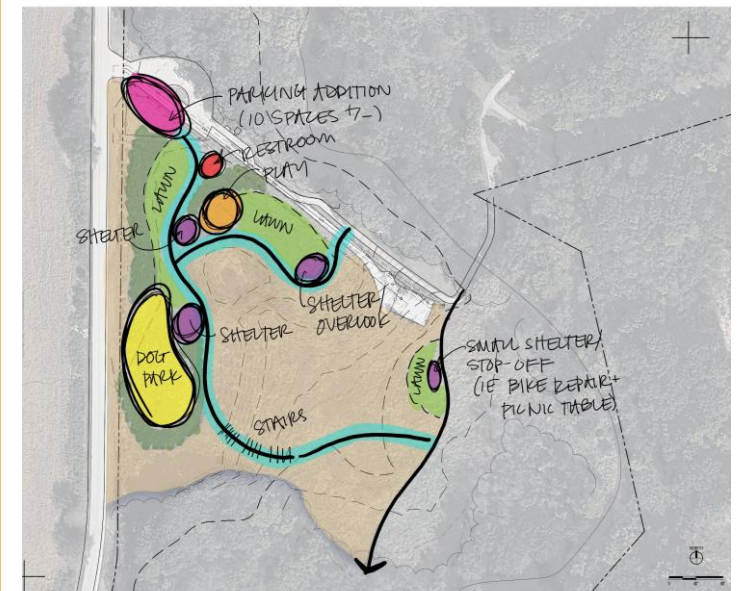
Concept A emphasized a more immersive natural landscape and nature play experience that separated the new park features from the trail. The concept included a second parking area, requiring another entry point to Highway N. It also separated play areas into multiple small nature play nodes. While the committee supported the emphasis on natural landscapes, they expressed concern related to multiple site entry points and the efficiency of the layout.

Concept B was the preferred alternative to move forward with. The concept expands the existing trailhead parking area to accommodate new park programming while avoiding an additional highway access point. The layout consolidates play, shelter, and a restroom building near the expanded parking to act as an extension of the trailhead, serving both trail and future park users. The committee desired bringing in some of the natural elements from Concept A into B, such as nature inspired play spaces and future expansion of soft surface trails. The committee also expressed support for a dog park based on public feedback but preferred it to be in the eastern portion of the site and confirmed it should be fenced. There was consensus that multiple smaller shelters are preferred over one very large shelter to accommodate multiple groups at once. The committee also expressed a desire for increased parking volumes based on experiences with other new park facilities in the region.

CONCEPT A - IMMERSIVE LANDSCAPE



CONCEPT B - ENHANCE TRAILHEAD



DESIGN PRECEDENT IMAGERY – SHELTER & RESTROOM



Open air shelters & restroom with picnic table seating, standard kit style.

DESIGN PRECEDENT IMAGERY – PLAY



Nature inspired climbing play structures. Pre-engineered & fabricated.

DESIGN PRECEDENT IMAGERY – PARK GREENSPACE



Informal picnic and rest areas, with and without direct trail access.

DESIGN PRECEDENT IMAGERY – DOG PARK



Platte County Parks



Fully fenced off-leash areas with separate zones for large and small dogs. Natural feel materials and limited structures to complement the surrounding park setting.

DESIGN PRECEDENT IMAGERY – SOFT SURFACE TRAIL



Soft surface trail materials, aggregate surface with stone steps at steeper grades.

FINAL MASTER PLAN – TRAILHEAD PARK



LEGEND KEY	
(A)	ASPHALT PARKING EXPANSION (APPROX. 31 STALLS)
(B)	SHELTER - 20x30
(C)	RESTROOM, TRAILHEAD KIOSK, BIKE PARKING & REPAIR STATION
(D)	PLAYGROUND SPACE
(E)	SHELTER - 10x20
(F)	OFF-LEASH DOG AREA (FENCED)
(G)	RECONFIGURED CONCRETE TRAIL/ PUMP STATION CONNECTION
(H)	CONCRETE TRAIL
(I)	STAIRS
(J)	SOFT SURFACE TRAIL CONNECTION (FUTURE PHASE)
(K)	EXISTING PUMP STATION
(L)	NATIVE GRASS
(M)	TURF GRASS
(N)	EXISTING TREE (TYPICAL)
(O)	PROPOSED TREE (TYPICAL)
(P)	EXISTING DRAINAGE POND WITH IMPROVED RIPARIAN HABITAT

FINAL MASTER PLAN – TRAILHEAD PARK PROGRAMMING

Parking and Trailhead Amenities: The existing trailhead parking lot will be expanded to provide approximately 31 stalls, including ADA parking. A plumbed restroom will be located near the trailhead and parking lot to conveniently serve both trail users and park visitors.

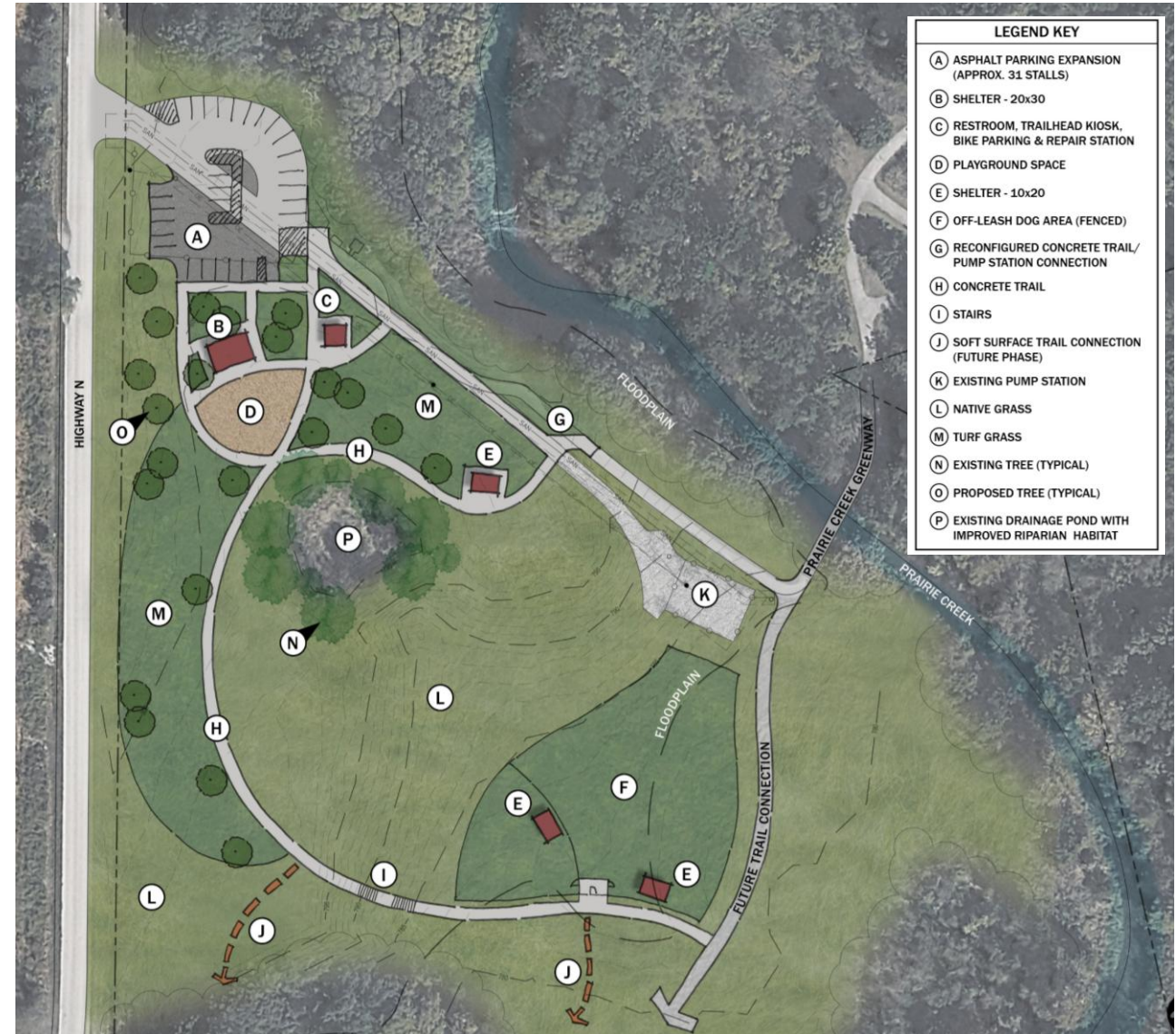
Shelters and Gathering Areas: Multiple shelters will support activity areas throughout the site, including the play space, open lawn, and dog park. They are divided into one larger primary shelter and two or three smaller shelters, creating flexible gathering spaces distributed across the park. These range from large, reservable event shelters to small overhead canopies.

Play Area: The design will incorporate ADA accessible, nature inspired play features in response to the community's input. Engineered wood fiber surfacing keeps a natural feel to the play space, with a concrete edge and ADA entry ramp to access the space. Playground equipment allowances assume the play equipment is pre-engineered and designed (not custom play equipment).

Existing Drainage Basin: The layout allows the existing drainage basin to remain as is, with opportunities for native planting and habitat restoration to occur along the edges. Future review in the construction phase will determine the level of improvements to this feature.

Dog Park: A trail extension connects park amenities to the fenced dog park in the eastern portion of the site.

Trail Extension: The trail extends through the site for opportunities for additional seating or shelter, and soft surface trail extensions to connect to future greenway development.



PROJECT PHASING AND OPINION OF COST

Project Phasing

The master plan is organized into two implementation phases. **Phase 1: Trailhead Improvements** establishes access, parking, utilities, restrooms, play area, and a reservable gathering space for trail and park users. **Phase 2: Trailhead Park Expansion** adds additional shelters, a fenced dog park, native restoration, and new trail connections that expand the site into a flexible neighborhood park. The following pages contain a breakout and alternatives of these two phases.

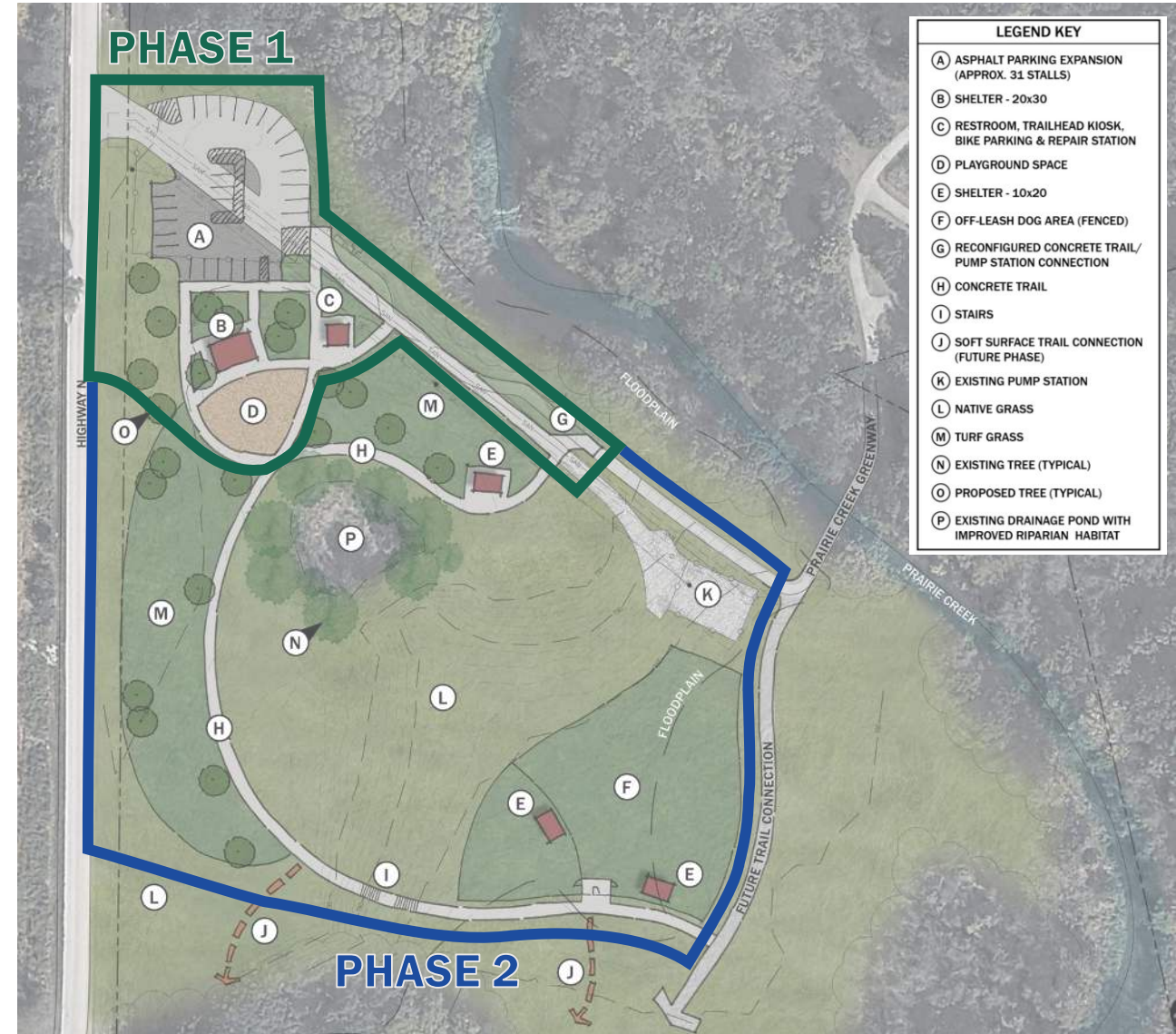
Special Consideration - Existing Drainage Basin

Prior to final design of improvements near the drainage basin area, the design team recommends completing a field wetland delineation and jurisdictional review. Use these findings to establish the limits of disturbance, refine stormwater and grading design, identify any permitting requirements, and determine whether mitigation measures are necessary.

Estimate Assumptions

Opinion of Probable Cost does not include improvements to Highway N right-of-way, including, but not limited to sidewalk, road pavement, curb and gutter, drainage infrastructure, etc.; future greenway connection to roundabout (east side of project site); improvements to existing Prairie Creek Greenway (with exception to what is defined on the master plan). The proposed sanitary line can be connected directly to the existing on-site sanitary line. Existing sanitary line and easement will remain in place and will not be affected by park improvements.

Costs are expressed in 2026 dollars and do not include escalation to the anticipated year of construction. Future CIP budgeting should apply construction escalation separately based on the anticipated midpoint of construction; escalation is not included in the design/estimating contingency.



OPINION OF COST – PHASE ONE: TRAILHEAD ENHANCEMENTS

Phase 1 focuses on new trailhead infrastructure and amenities for current greenway users and future park visitors, including expanded parking, restrooms, a reservable 20×30' event shelter, an ADA accessible nature-inspired playground, sidewalks, site furnishings, trail improvements, and related site work.

These foundational enhancements provide improved access, essential services, gathering spaces, and play amenities creating a more functional and welcoming trailhead destination.

Phasing Alternatives:

The parking lot reconstruction or expansion could be deferred to Phase 2, though completing it in Phase 1 minimizes future disruption to trailhead amenities.

PHASE 1	
SITE PREPARATION	
Includes mobilization, demolition of existing site elements, site preparation, site grading, and erosion control.	\$162,800
UTILITIES	
Includes utility service lines and connections (storm, electrical, sanitary sewer, and water) and site lighting. Excludes trail lighting.	\$185,000
PARKING	
Includes pavement for expanded parking drive and parking, curb and gutter, curb ramps, signage, and striping.	\$139,000
HARDSCAPE	
Includes paved pedestrian trails and plazas.	\$148,000
SITE STRUCTURES	
Includes 2-room single user flush restroom kit, and pre-engineered 20'x30' shelter. Does not include exterior enhancements.	\$280,000
PLAY SPACE	
Full development of the playground, including equipment, surfacing, surfacing containment (concrete curb at sidewalk), and concrete playground ramp.	\$244,400
SITE FURNISHINGS & AMENITIES	
Includes tables, benches, bike racks, trash receptacles, bike repair station, drinking fountain, round rail fencing, and removable bollards.	\$42,500
SITE PLANTING	
Includes tree plantings and site restoration (turf seed).	\$24,100
Subtotal Net Construction Costs	\$1,225,800
General Conditions, Design & Construction Contingency, insurance, bonds, etc. (40%)	\$490,400
Subtotal Construction Budget	\$1,716,200
Owner soft costs (12%) - topographic survey, geotechnical, Architect & Engineering fees, etc.	\$206,000
Total Project Cost	\$1,922,200



OPINION OF COST – PHASE TWO: TRAILHEAD PARK EXPANSION

Phase 2 builds upon the initial Trailhead development to create an expanded Trailhead Park destination. Key improvements include a 10x20' shelter, a fenced dog park, drainage pond/riparian habitat enhancements, native planting and restoration, and trails that link the park and trailhead spaces.

Together, these improvements expand the site beyond a trailhead into a flexible neighborhood and regional park resource that supports recreation, gathering, and connection to the Prairie Creek Greenway system.

Phasing Alternatives:

The dog park could be built in Phase 2 with only fencing and gate entry as an off-leash dog run, with shelters and site furnishings added later. This estimate assumes there will be no water utilities at the dog park.

PHASE 2		
SITE PREPARATION		
Includes mobilization, demolition of existing site elements, site preparation, site grading, erosion control, and site restoration.		\$173,600
HARDSCAPE		
Includes paved pedestrian trails, plazas, and stair connections.		\$191,700
SITE STRUCTURES		
Includes (3) 10'x20 pre-engineered shelters. Does not include exterior enhancements.		\$180,000
DOG PARK		
Includes fencing and site furnishings in the dog park area.		\$85,000
SITE FURNISHINGS & AMENITIES		
Includes tables, trash receptacles, and round rail fencing.		\$21,100
SITE PLANTING		
Includes trees, shrubs, perennials, native planting, turfgrass establishment/restoration, and improved riparian vegetation/habitat around existing drainage pond.		\$105,900
	Subtotal Net Construction Costs	\$757,300
	General Conditions, Design & Construction Contingency, insurance, bonds, etc. (40%)	\$303,000
	Subtotal Construction Budget	\$1,060,300
	Owner soft costs (12%) - topographic survey, geotechnical, Architect & Engineering fees, etc.	\$127,300
	Total Project Cost	\$1,187,600

