

CITY OF WACO

CITY-WIDE TRAILS MASTER PLAN

TRAILS ADVISORY COMMITTEE
MAY 6, 2021

AGENDA

PRESENTATION

- Scope of the Project
- Trail Advisory Committee
- Strategic Considerations

EXERCISES

- Trail Typologies
- Vision and Goals



CHRISTIAN LENTZ
AICP, CNU-A



- 25 years experience
- Public and private sector experience
- Strong background in parks system master planning and active transportation planning

LEYLA AHMADI
PLANNER



- 4 years experience
- Background in transportation and transit planning, environmental clearance
- Public and private sector experience
- GIS expertise



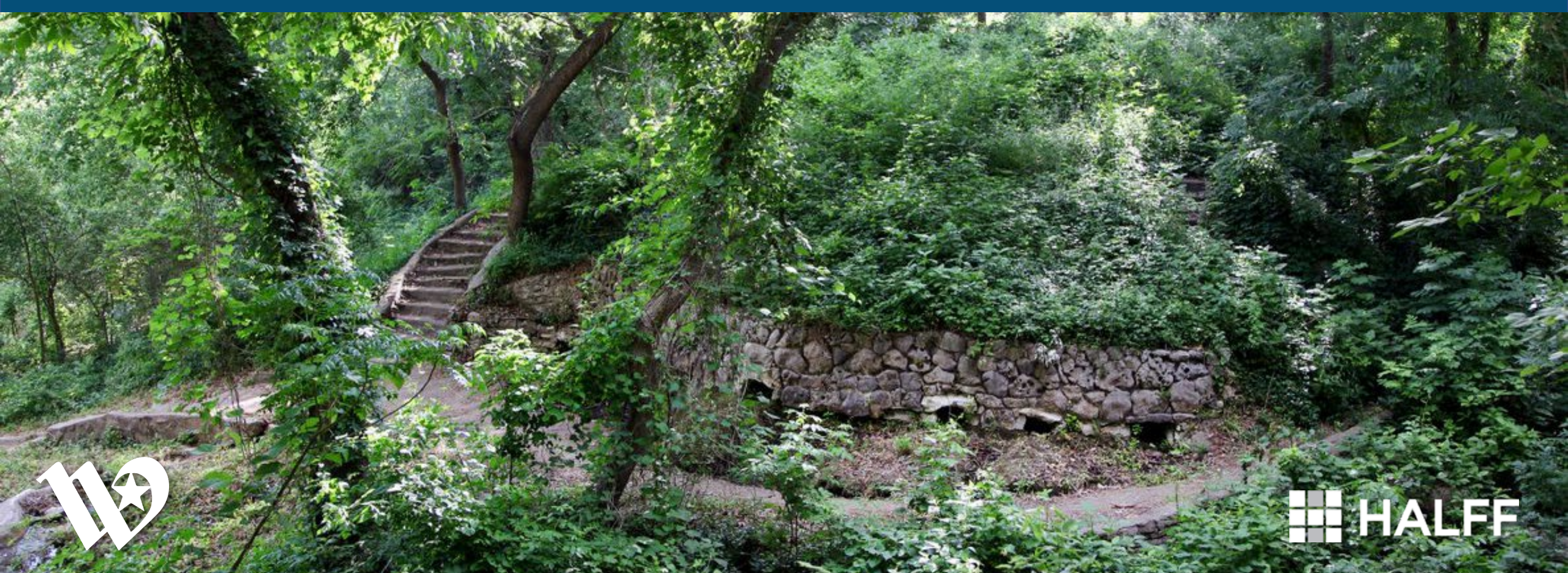
PARTICIPATION OPTIONS

RAISE HAND



CHAT BOX





CITY OF WACO

CITY-WIDE TRAILS MASTER PLAN

SCOPE OF PROJECT

WHAT ARE THE BENEFITS OF A TRAILS MASTER PLAN?

BENEFITS OF AN INTERCONNECTED TRAILS SYSTEM:

- Transportation Cost Savings
- Health Improvements
- Community Cohesion and Cultural Awareness
- Environmental Conservation
- Recreation and Tourism Opportunities
- Increase Property Value
- Future Opportunities for Trail Corridors



PROJECT SCOPE

MASTER PLAN COMPONENTS

- Trails system vision and goals
- Trail typologies and user groups
- Measure community preferences
- Trail distribution and access
- Corridor opportunities
- Facility condition and adequacy
- Facility design
- Project priority, cost and funding





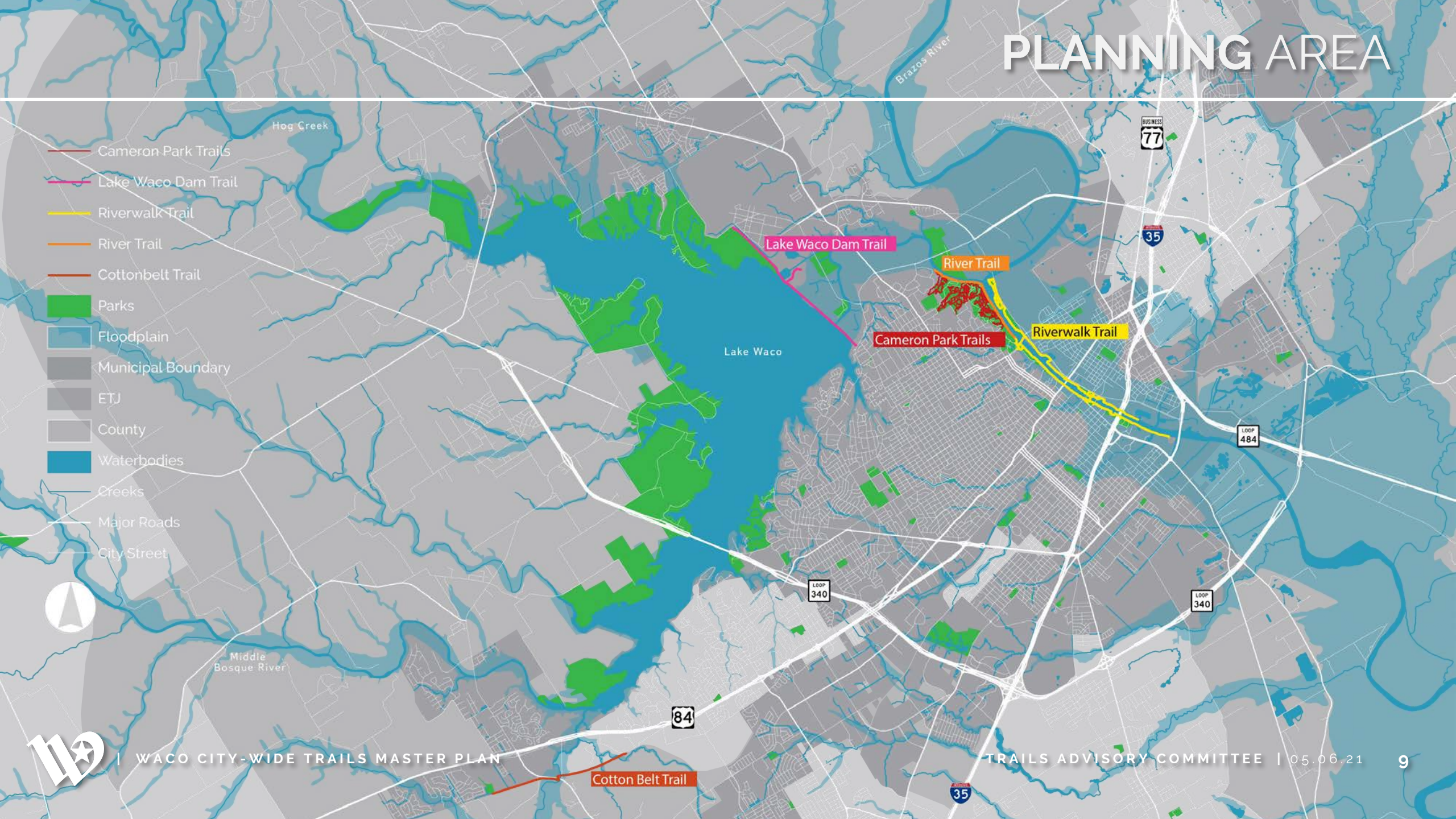
RECREATION



TRANSPORTATION



PLANNING AREA



- Cameron Park Trails
- Lake Waco Dam Trail
- Riverwalk Trail
- River Trail
- Cottonbelt Trail
- Parks
- Floodplain
- Municipal Boundary
- ETJ
- County
- Waterbodies
- Creeks
- Major Roads
- City Street



MAPPING YOUR NETWORK

METROPOLITAN TRAILS (MAPPED)



RECREATIONAL TRAILS (UNMAPPED)



PROJECT PHASES



PHASE 1
GATHER
WINTER 2021



PHASE 2
ENVISION
WINTER/SPRING
2021



PHASE 3
COMPOSE
SUMMER/FALL
2021



PHASE 4
APPROVE
FALL/WINTER
2021



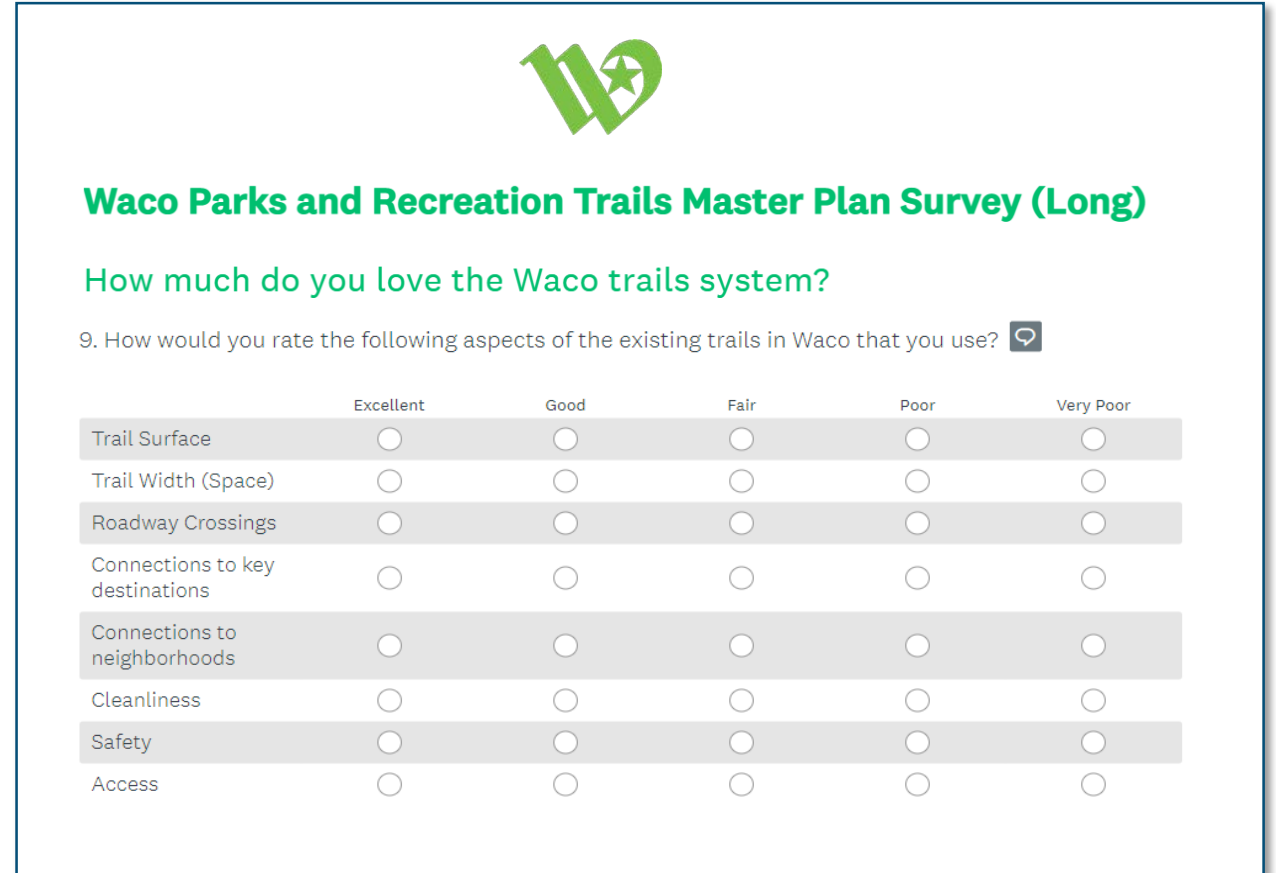
METHODS OF PUBLIC INPUT

IN-PERSON OUTREACH

- Stakeholder meetings
- Intercept surveys
- Public open houses
- Trails advisory committee

DIGITAL OUTREACH

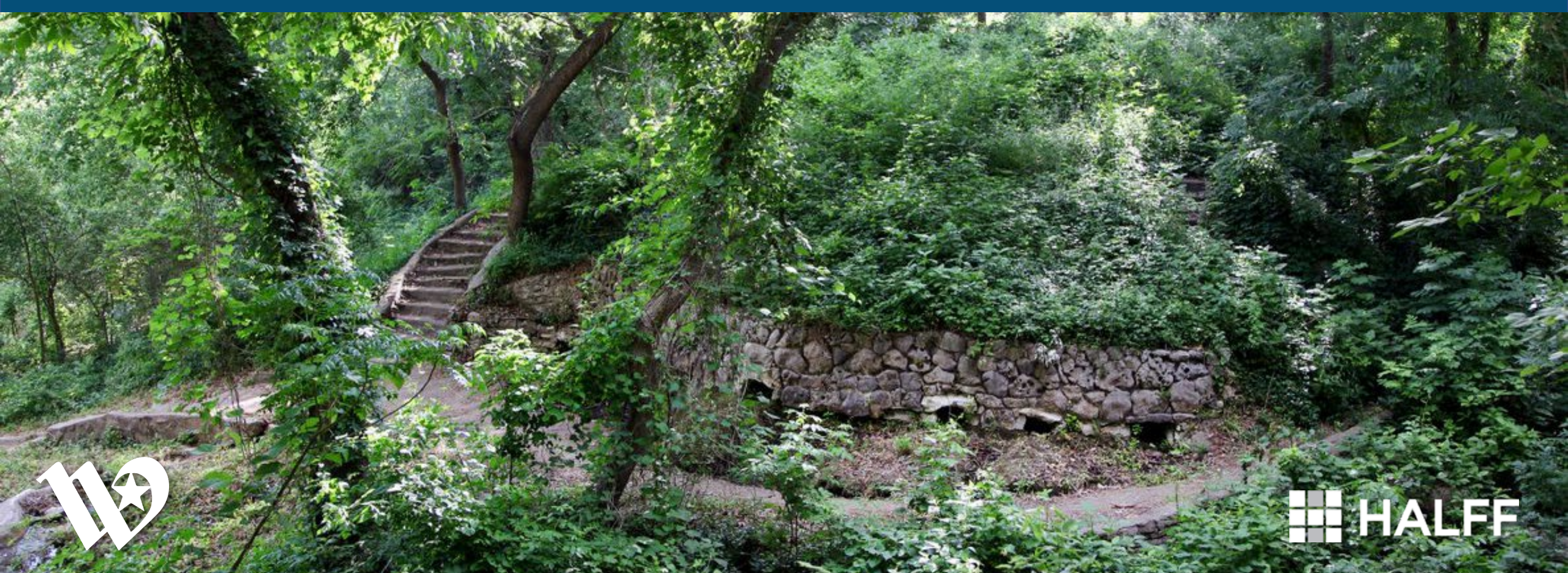
- Project webpage (City administered)
- Online survey
- <https://www.waco-texas.com/cms-parksandrecreation/page.aspx?id=528#gsc.tab=0>



The image shows a screenshot of a survey titled "Waco Parks and Recreation Trails Master Plan Survey (Long)". The survey asks "How much do you love the Waco trails system?" and includes a question: "9. How would you rate the following aspects of the existing trails in Waco that you use?". The survey uses a Likert scale from "Excellent" to "Very Poor" for various aspects of the trails system.

	Excellent	Good	Fair	Poor	Very Poor
Trail Surface	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Trail Width (Space)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Roadway Crossings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Connections to key destinations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Connections to neighborhoods	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cleanliness	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Safety	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Access	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>





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CITY-WIDE TRAILS MASTER PLAN

TRAIL ADVISORY COMMITTEE

DIVERSE STAKEHOLDER GROUPS

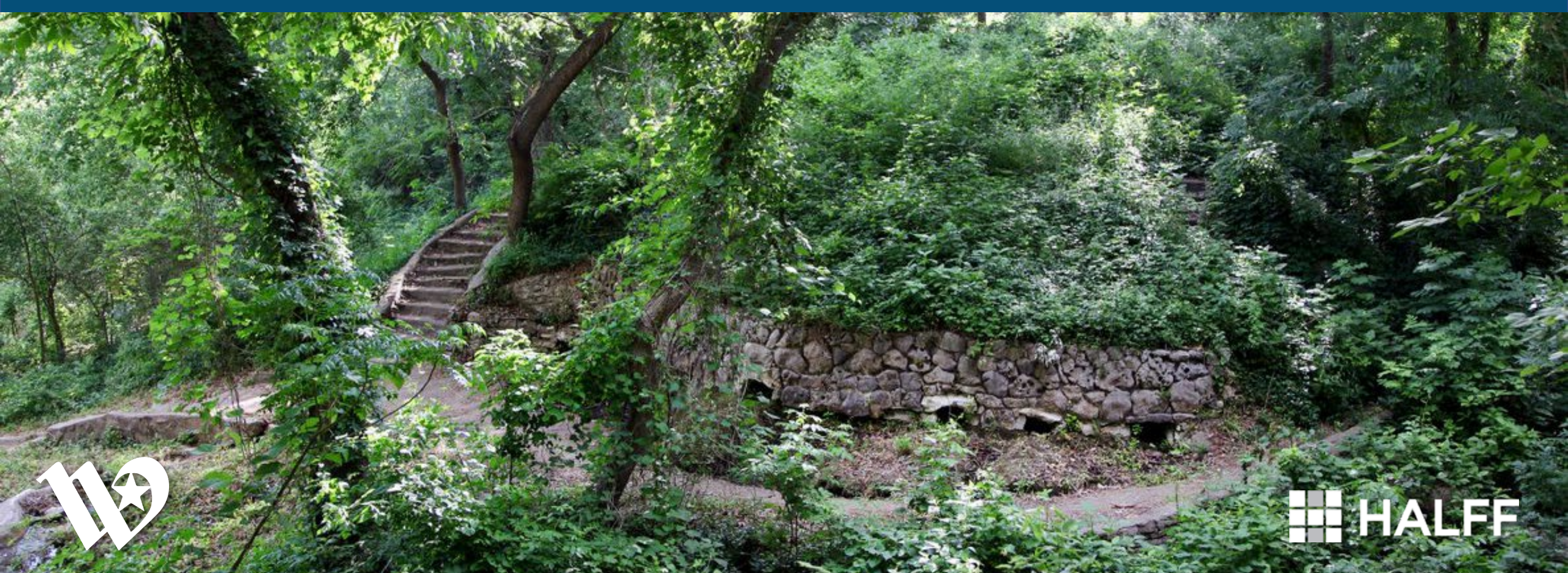
- Bicycling/walking groups
- Human service organizations
- Economic development interests
- Neighborhood associations
- Local, state, federal government
- City boards/commissions



TRAIL ADVISORY COMMITTEE

- Serves as a **review body** that provides guidance throughout the plan development
- Confirms the **vision and goals**
- Reviews interim **concepts and recommendations**
- Provides feedback on the **draft plan**
- Meets **three times** throughout the plan process





CITY OF WACO

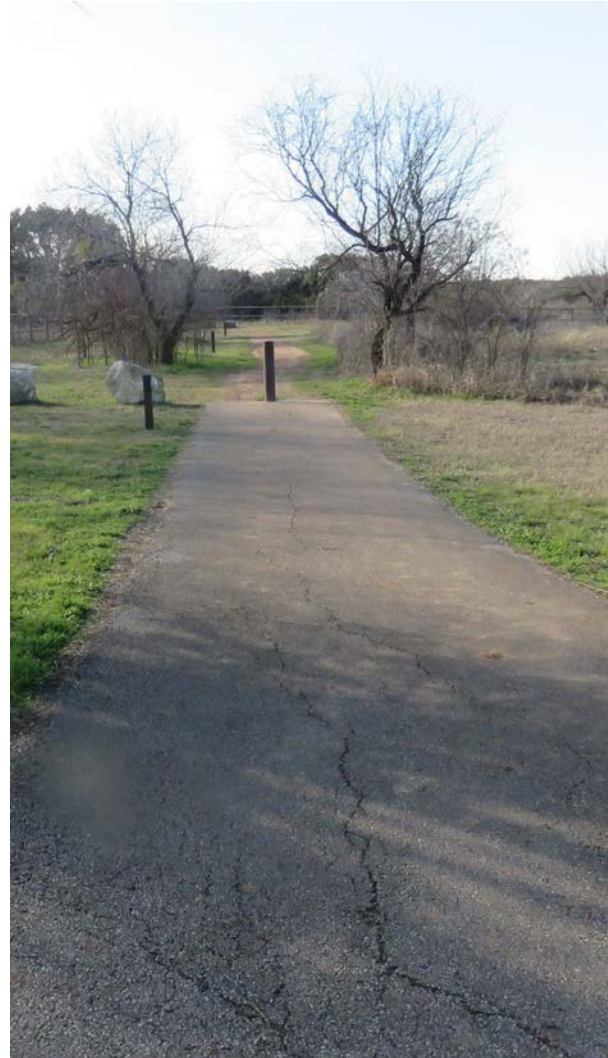
CITY-WIDE TRAILS MASTER PLAN

STRATEGIC CONSIDERATIONS

LEVEL OF SERVICE (TRAIL FACILITIES)

ESSENTIAL METRICS

- Trail mileage by type
- Trail proximity/access
- Park and trailhead access
- Facility volume and distribution



FUTURE NETWORK

PRINCIPAL COMPONENTS

- Connections to key destinations
- Future trail corridors
- Neighborhood connections



EQUITABLE DISTRIBUTION AND ACCESS

Equality



Equity

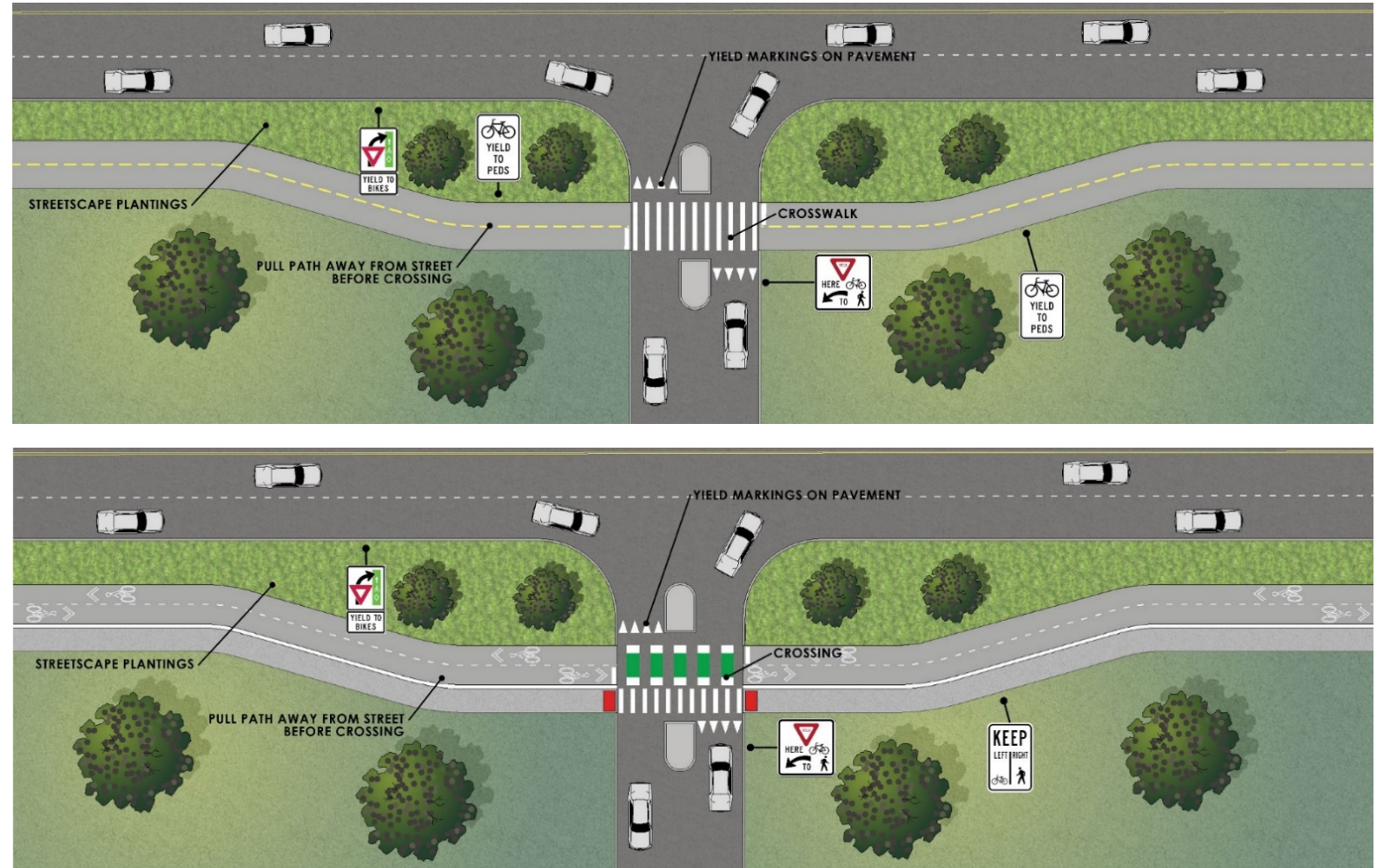


Visualizing Health Equity: One Size Does Not Fit All (RWJF)



DESIGN COMPONENTS

- Pathway dimensions and surfacing
- Signage and wayfinding
- Crossings
- Bridges
- Lighting
- Public Art
- Trailheads



PLAN OF INVESTMENT

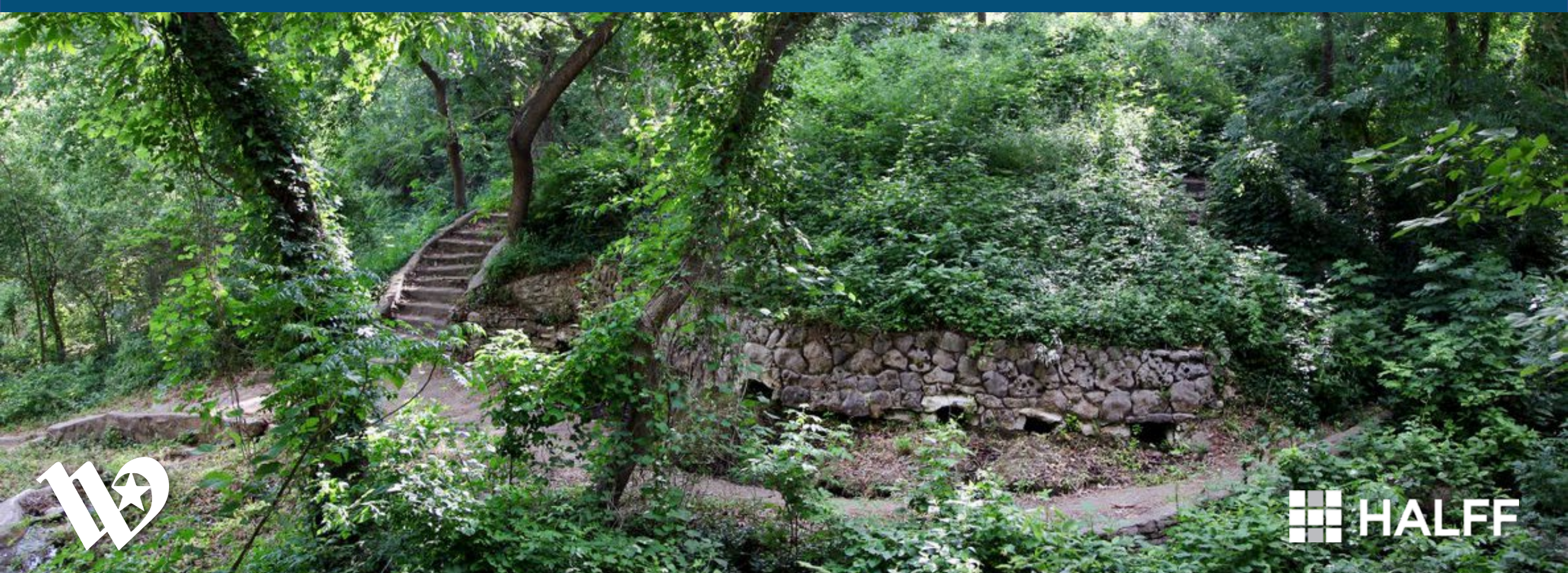
- High priority corridors
- Planning level cost estimates
- Funding sources

Trail Name	Proposed Length (lf)	Concrete		Decomposed Granite	
		Unit Cost (lf)	Total Cost	Unit Cost (lf)	Total Cost
Lynchburg Reservoir Canal Corridor	31,079.8	\$100	\$3,108,000	\$75	\$2,331,000
Drainage Corridor A	3,176.0	\$100	\$318,000	\$75	\$238,200
Drainage Corridor B	2,177.3	\$100	\$218,000	\$75	\$164,000
Drainage Corridor C	1,766.9	\$100	\$177,000	\$75	\$133,000
Drainage Corridor E	5,545.5	\$100	\$555,000	\$75	\$416,000
Utility Corridor A	3,789.6	\$100	\$380,000	\$75	\$285,000
Baytown Nature Center	-	-	-	-	-
Utility Corridor B	2,571.9	\$100	\$257,000	\$75	\$193,000
Utility Corridor C	10,834.9	\$100	\$1,084,000	\$75	\$813,000
Drainage Corridor D	2,591.8	\$100	\$260,000	\$75	\$195,000
Union Pacific Rail Line Corridor	21,522.5	\$100	\$2,152,250	\$75	\$1,615,000
Evergreen Park	-	-	-	-	-
North Goose Creek Corridor	12,354.1	\$100	\$1,236,000	\$75	\$927,000
Utility Corridor D	7,768.3	\$100	\$777,000	\$75	\$583,000
Utility Corridor E	5,017.8	\$100	\$502,000	\$75	\$376,000
Utility Corridor F	4,244.2	\$100	\$425,000	\$75	\$319,000
Cary Bayou Corridor	1,879.3	\$100	\$188,000	\$75	\$141,000
Blue Heron Highway / Jenkins Park Connection	-	-	-	-	-
East Fork Goose Creek	4,425.4	\$100	\$443,000	\$75	\$332,000
Allenbrook Park Connector	-	-	-	-	-
Goose Creek	8,262.5	\$100	\$826,250	\$75	\$620,000
Drainage Corridor G	5,673.3	\$100	\$568,000	\$75	\$426,000

Trail Element	Major Trailhead	Minor Trailhead
Trailhead signage	\$5,200	\$5,200
Wayfinding signage	\$2,000	\$2,000
Group of 3 large trees (\$450 each)	\$1,350	-
Group of 3 medium trees (\$350 each)	-	\$1,050
Landscaping	\$1,000	\$1,000
Land grading	\$50,000	-
Streetlights (\$3,750 each)	\$7,500	\$3,750
Bench (\$1,750 each)	\$3,500	\$1,750
Shade structure	\$15,000	\$7,500
Drinking fountain	\$4,000	-
Recycle receptacle	\$750	\$750
Trash receptacle	\$750	\$750
Curb ramp (\$1,500 each)	\$3,000	-
Paved parking area (7 spaces)	\$250,000	-
Total	\$344,050.00	\$23,750.00

STANDARD COST PER UNIT TABLES





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WHAT TYPE OF TRAIL IS THIS?

WHAT IS A TRAIL?

"A trail is a travel way established either through construction or use and is passable by at least one or more of the following, including but not limited to: foot traffic, stock, watercraft, bicycles, in-line skates, wheelchairs, cross-country skis, off-road recreation vehicles such as motorcycles, snowmobiles, ATVs and 4-wheel drive vehicles."

- AMERICAN TRAILS



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- AMERICAN TRAILS



TRAIL PLANNING PARAMETERS



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ACKNOWLEDGE: CHALLENGES
OF MOTORIZED MOBILITY



FOCUS: TRAIL SYSTEM FOR
NON-MOTORIZED MOBILITY



TRAIL PLANNING PARAMETERS



ACKNOWLEDGE: CHALLENGES
OF MOTORIZED MOBILITY



FOCUS: TRAIL SYSTEM FOR
NON-MOTORIZED MOBILITY



"A **shared use path** provides a travel area separate from motorized traffic for bicyclists, pedestrians, skaters, wheelchair users, joggers, and other users. Shared use paths can provide a low-stress experience for a variety of users using the network for transportation or recreation."

- FEDERAL HIGHWAY ADMINISTRATION



"A **sidepath** is a bidirectional shared use path located immediately adjacent and parallel to a roadway. Sidepaths can offer a high-quality experience for users of all ages and abilities as compared to on-roadway facilities in heavy traffic environments, allow for reduced roadway crossing distances, and maintain rural and small-town community character."

- FEDERAL HIGHWAY ADMINISTRATION



METROPOLITAN TRAILS

- Roadside Trails (Sidepaths)
- Greenway Trails (Shared-use Paths)

MAPPED NETWORK



TRAIL TYPOLOGIES IN WACO

METROPOLITAN TRAILS

- Roadside Trails (Sidepaths)
- Greenway Trails (Shared-use Paths)
- Feeder Path (Connector Trail)



TRAIL TYPOLOGIES IN WACO

RECREATIONAL TRAILS

- Special-Use
 - Hiking
 - Mountain biking
 - Equestrian
- Paddling Trails



TRAIL TYPOLOGIES IN WACO

RECREATIONAL TRAILS

- Special-Use
 - Hiking
 - Mountain biking
 - Equestrian
- Paddling Trails
- Site-Amenity Trails



WHAT TYPE OF TRAIL IS THIS?



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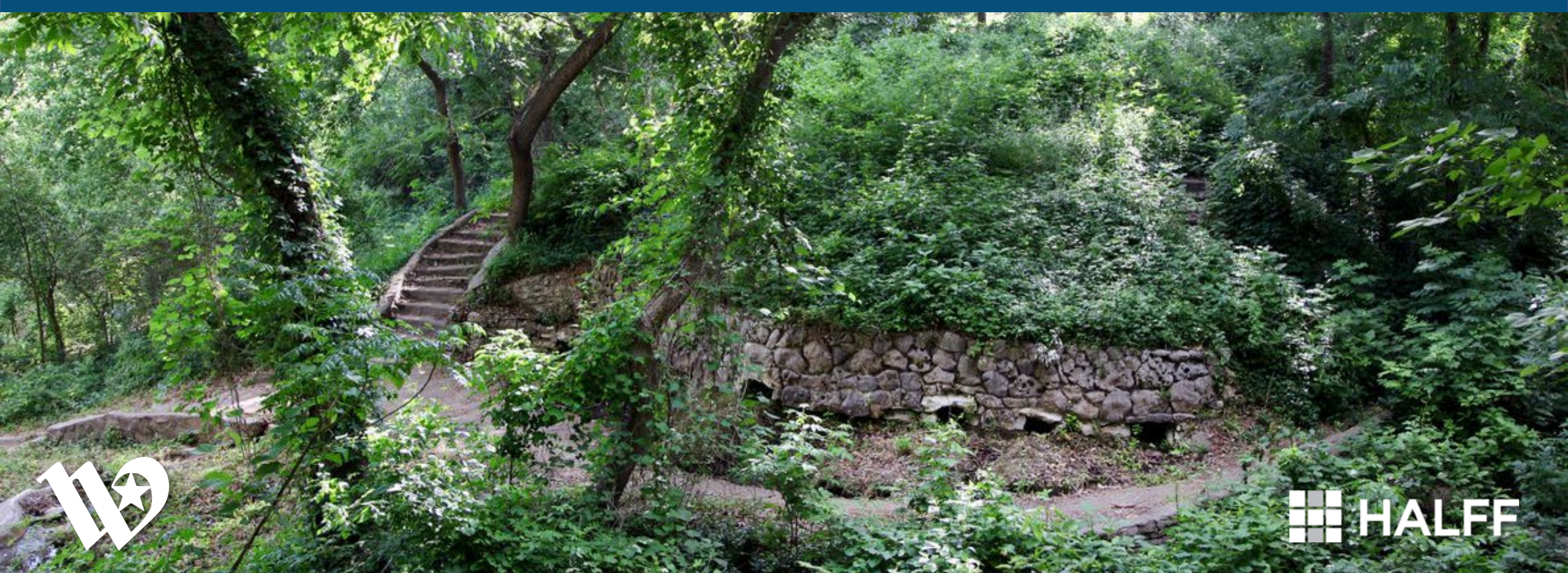
A paved trail winds through a grassy area with trees and a signpost. The signpost is brown with white text and lists distances to various locations. The trail is paved with concrete and has a brick border at the junction. The surrounding area is grassy with some trees and utility poles in the distance.

BENCH REST STOP	1/2 MILE
CHURCH ROAD	3/4 MILE
SOUTH BOSQUE RIVER BRIDGE	1 1/4 MILE
EAST TRAIL HEAD	2 1/4 MILES
HANNAH HILL ROAD	2 1/2 MILES



WHAT TYPE OF TRAIL IS THIS?





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VISION AND GOALS

“Improve and expand the active transportation network in McLennan County to provide better connectivity between neighborhoods and destinations for people of all ages and abilities, and services to attract and retain business and industry.”

HOW WELL HAS THE COMMUNITY PERFORMED IN
ACHIEVING THIS GOAL?



“Increase the **safety** and **convenience** of walking, rolling, and biking.”

HOW WELL HAS THE COMMUNITY PERFORMED IN
ACHIEVING THIS GOAL?



“Enhance the quality of life in McLennan County by **reducing vehicle emissions, encouraging physical activity, activating street life,** and helping to **create dynamic, connected communities.**”

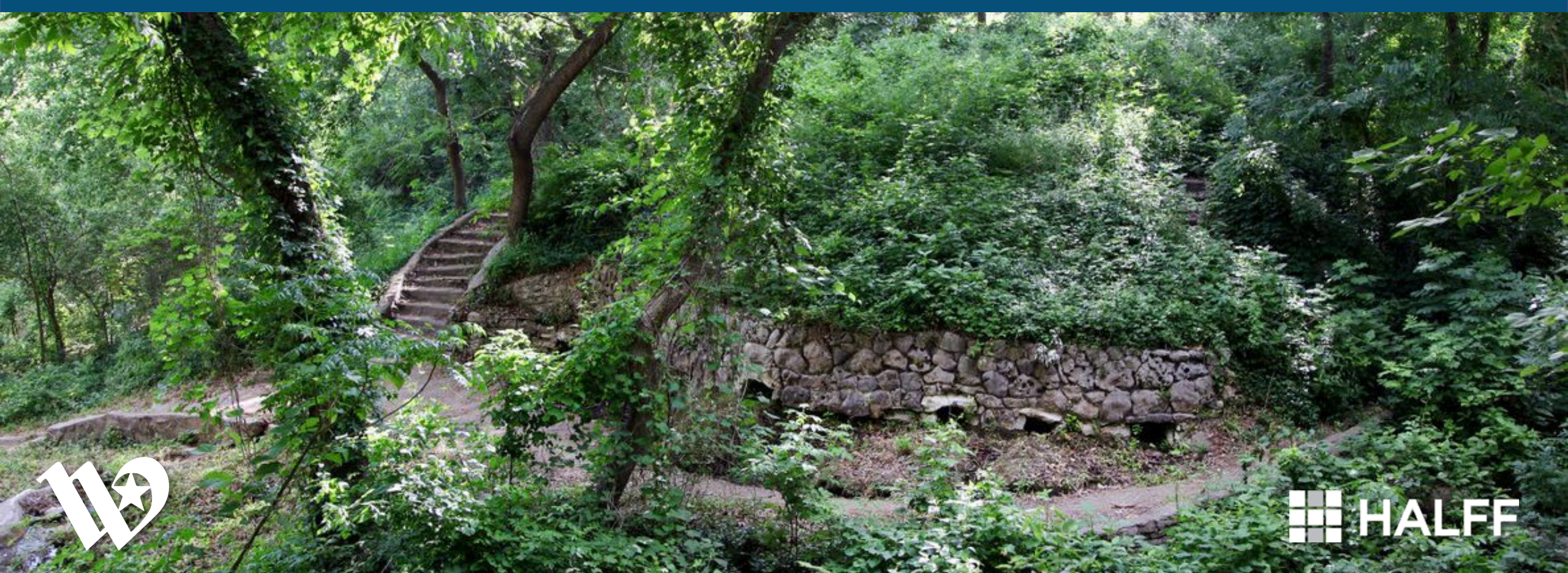
HOW WELL HAS THE COMMUNITY PERFORMED IN ACHIEVING THIS GOAL?



“**Use natural areas** such as floodplains and wetlands along creeks to provide open space and **create connectivity** between neighborhoods and the Brazos River Corridor.”

HOW WELL HAS THE COMMUNITY PERFORMED IN
ACHIEVING THIS GOAL?





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TRAILS ADVISORY COMMITTEE

MAY 6, 2021

PROJECT WEBSITE: <https://www.waco-texas.com/cms-parksandrecreation/page.aspx?id=528#gsc.tab=0>