

MOUNTAIN TO RIVER (M2R)

TRAIL ACTIVATION STUDY



ACKNOWLEDGMENTS

The Mountain to River Trail Activation Study was initiated through the Atlanta Regional Commission's Community Development Assistance Program (CDAP), which connects communities with technical assistance to complete community planning efforts. As a technical assistance partner to ARC's CDAP program, Georgia Conservancy is grateful for the opportunity to aid cities, counties, and organizations throughout Metro Atlanta.

The City of Marietta has lent endless support to Georgia Conservancy throughout the course of the Study, working to connect us with data, community members, and local interest groups, as well as dedicating staff time to reviewing report drafts and discussing interim updates. We thank them for their time, expertise, and communication surrounding all aspects of the Study.

Special thanks to the Marietta Arts Council, whose members have made a tremendous impact to the quality and activation of the trail through public art and event programming, to the Marietta Farmer's Market for hosting our community engagement booth, and to Sessions Stand for facilitating our second community engagement effort.

We would also like to thank the general public of the City of Marietta who engaged with Georgia Conservancy at pop-up events and provided their opinions and feedback through our survey.



Michaela Master
Luben Raytchev
Sanjana Roy



Daniel Cummings
Courtney Verdier



Lauren Blaszyk
Andrew Smith

3

6

12

20

30

TABLE OF CONTENTS

INTRODUCTION

ENGAGEMENT

ANALYSIS

DESIGN

RECOMMENDATIONS





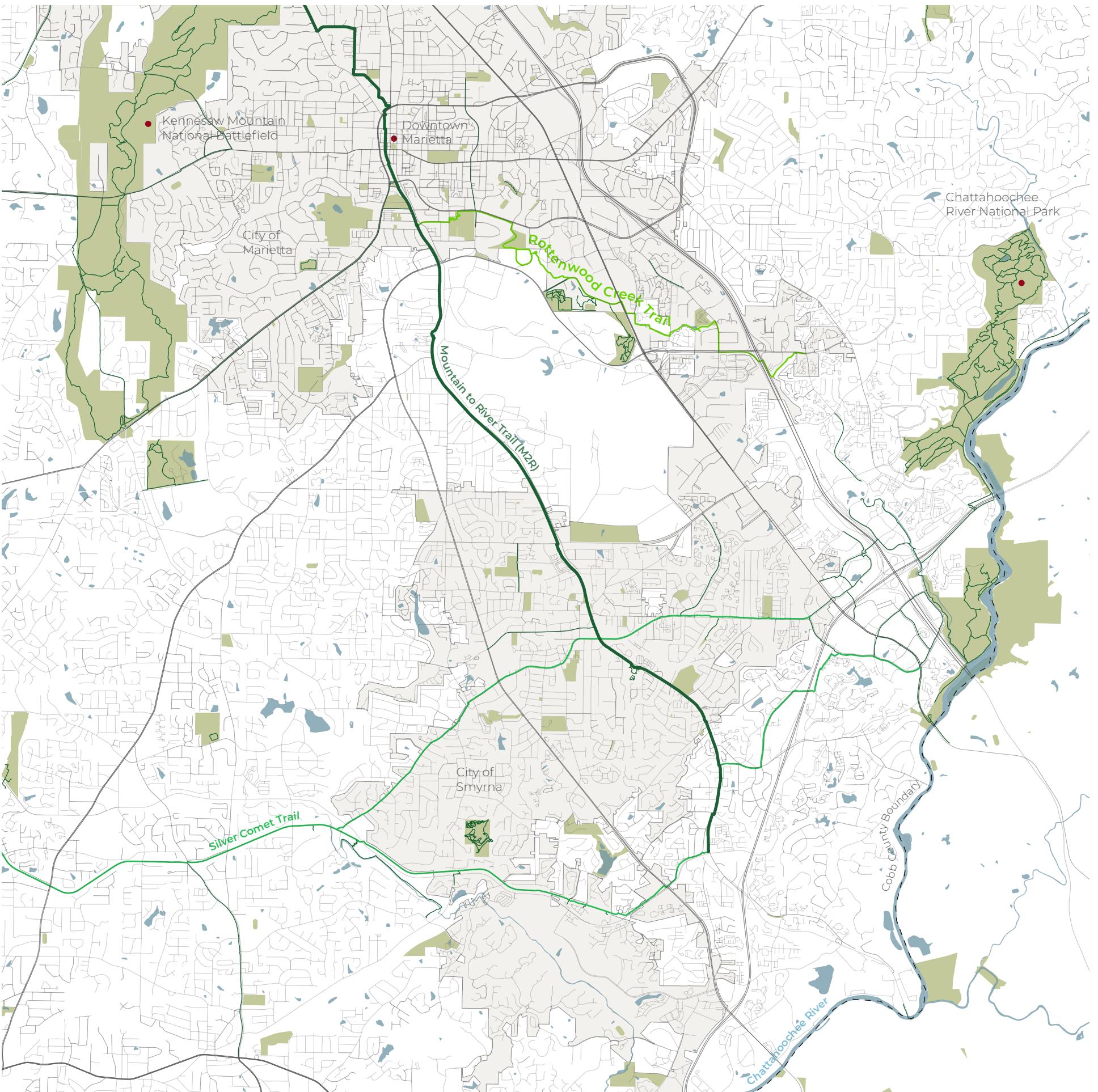
INTRODUCTION

The Mountain to River Trail (M2R) is a catalytic multimodal trail infrastructure that will span, at completion, from Kennesaw Mountain National Park to the Silver Comet Trail. The 3.5 mile stretch of the trail within the City of Marietta is almost completed. While the trail has been addressed in regional and citywide plans, this Study drills down on how to enhance the trail amenity within the City and promote increased user-ship.

MOUNTAIN TO RIVER TRAIL

The Mountain to River (M2R) Trail Activation Study seeks to address the key components of placemaking, wayfinding, and integration of the trail with its surrounding communities. The full M2R trail is 13.5 miles long, which connects Kennesaw Mountain National Battlefield to the Chattahoochee River National Recreation Area and beyond. The full trail passes through multiple jurisdictions, including Cobb County and the city of Smyrna, and will connect to the Silver Comet Trail. This study focuses specifically on the 3.5 miles of trail within Marietta City limits. However, findings can be applied to additional segments of the trail outside city limits, as well as new trails in Marietta such as the Rottenwood Creek Trail.

This study arose out of the Atlanta Regional Commission's Community Development Assistance Program (CDAP). CDAP provides planning assistance to local governments, CIDs, & nonprofits across the 11-county metropolitan region to undertake local planning activities that advance the goals of the Atlanta Region's Plan. CDAP helps bring the regional plan down to a local level by focusing on projects that address ARC's priority issues, and advance the program's guiding principles of equity and resilience. This project addresses two of the CDAP program's priority issue areas: creative placemaking and lifelong communities. For the Marietta M2R project, CDAP connected staff at Georgia Conservancy to provide technical assistance for leadership in the City of Marietta's Office of Economic Development.



PAST PLANNING EFFORTS

City of Marietta Comprehensive Plan (2022)

Public engagement identified the use of the M2R trail as a second frontage for restaurants and retail stores as one of the primary improvements that need to be made to enhance downtown. More broadly, residents indicated a need for enhanced pedestrian and bicycle infrastructure including wider sidewalks, barriers between sidewalks and roadways, and crosswalks. The Community Work Program identifies this item as a key recommendation, with follow-up action of initiating a M2R Trail Activation study through ARC CDAP.

Envision Marietta LCI (2019)

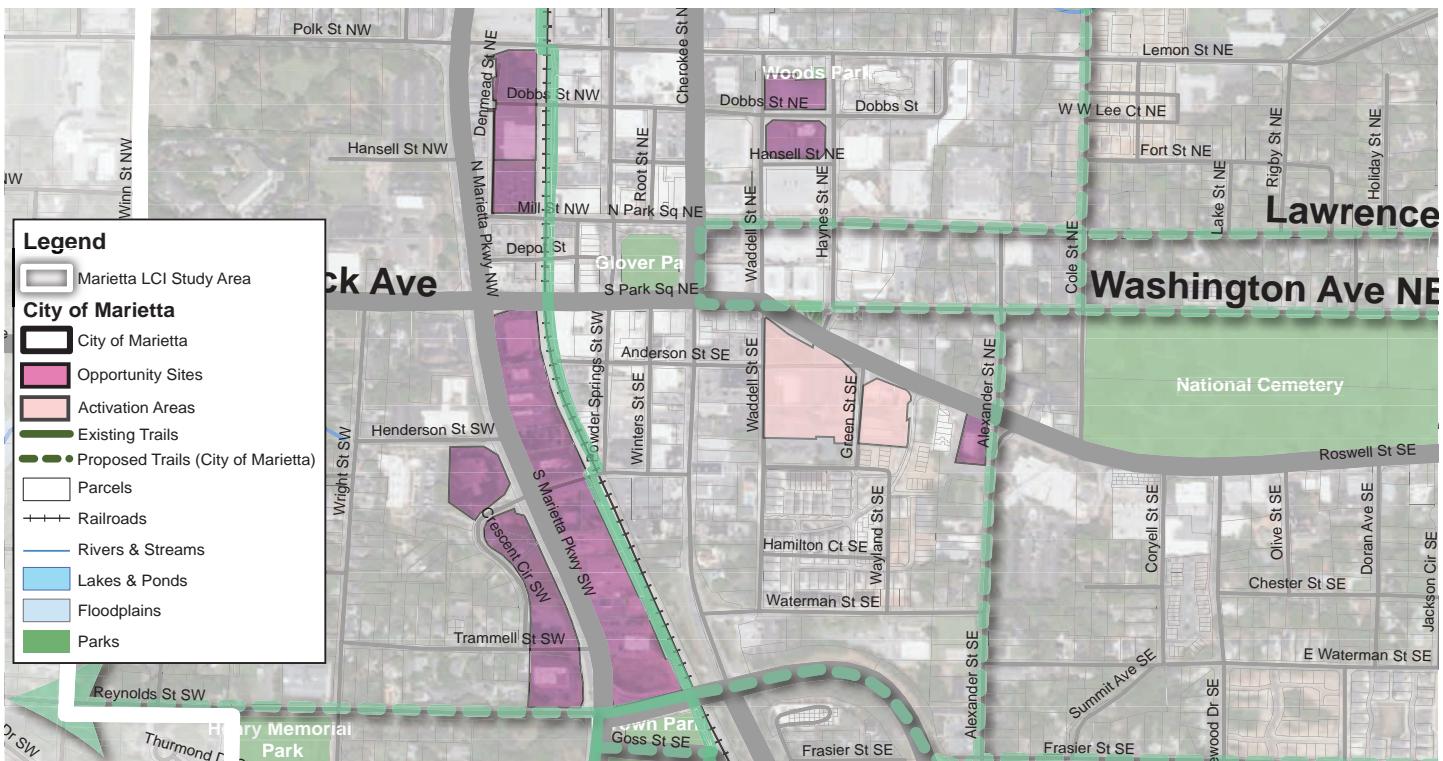
This Envision Marietta LCI envisioned creating an active downtown gateway corridors rich with art, entertainment, and mixed-use options that can be easily and safely accessed by all members of the diverse Marietta community. The LCI recommends incorporating trails and greenspace throughout the study area to better connect the community, achieved via placemaking. This includes improved gateway signage and wayfinding, public art installations, safe streetscapes, and urban greenspace. The plan recommends mixed-use infill development in between the trail and South Marietta Parkway, particularly between Whitlock Avenue and Reynolds Street.

Cobb County Greenways and Trails Master Plan (2018)

This plan cements the regional significance of the M2R trail as one of the main spines of the entire Cobb County trail system. M2R links separate trail systems throughout the county, including the Noonday Creek Trail and the Chattahoochee River National Recreation Area.

Atlanta Regional Commission, Walk. Bike. Thrive! (2016)

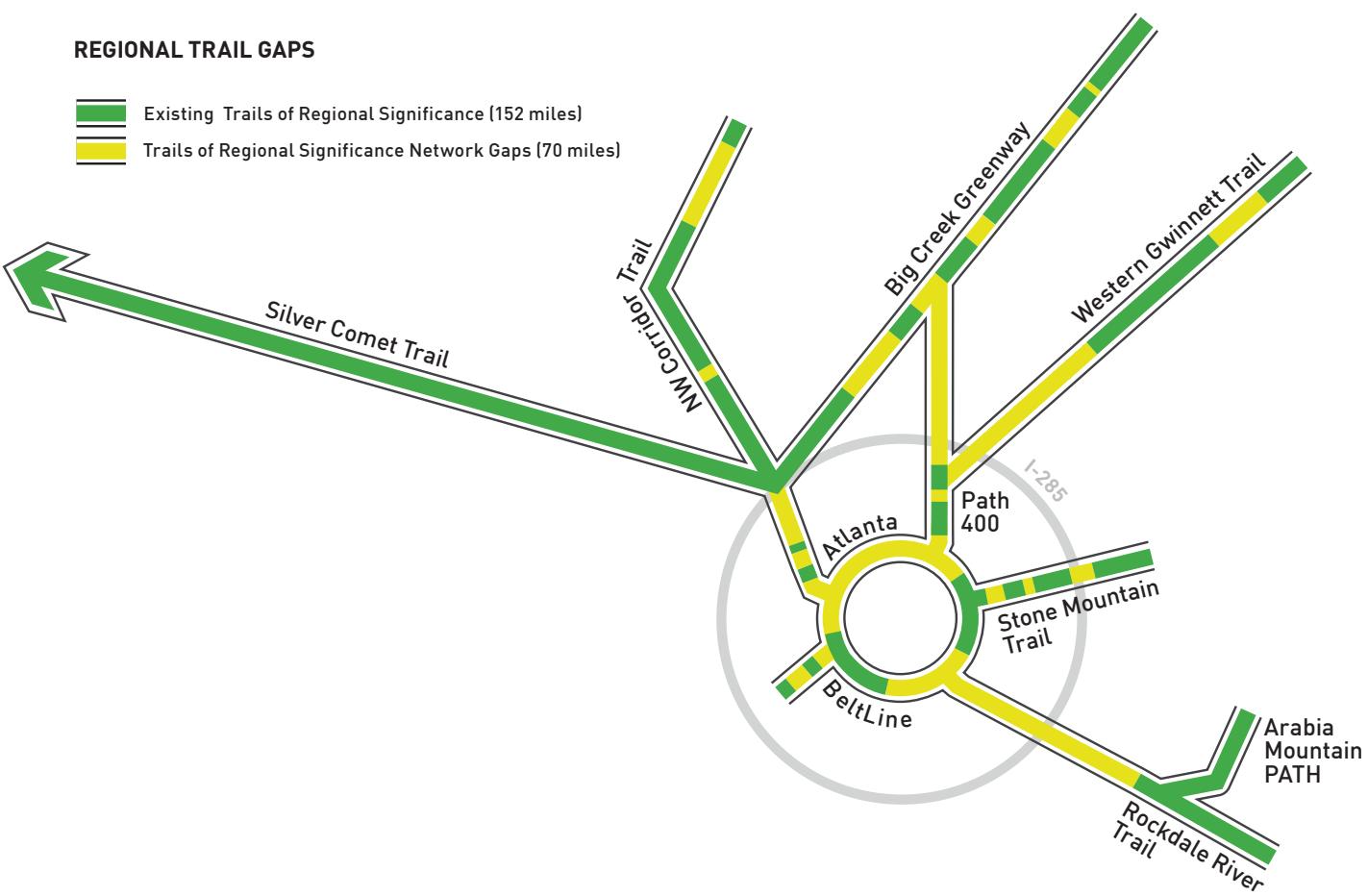
The Atlanta Regional Commission has identified the M2R trail as a trail of "regional significance" in its regional bicycle and pedestrian plan as it connects separated trail systems for pedestrians and cyclists. It currently connects with the Silver Comet Trail, another existing trail of regional significance. When the Connect the Comet project is complete, M2R will reach down to the city of Atlanta trails via the Beltline.



2019 Envision Marietta LCI, priority infill redevelopment in downtown Marietta - much of which is adjacent to the M2R trail

REGIONAL TRAIL GAPS

- Existing Trails of Regional Significance (152 miles)
- Trails of Regional Significance Network Gaps (70 miles)



Regional Trail Vision Map, composed of both existing (green) and planned (yellow) trails. Not pictured is three identified regional trail confluence areas, which are locations where several regional trails converge. M2R Connects with the Cumberland Area regional confluence



ENGAGEMENT

Feedback from the trail users and the general public is vital to planning future improvements to the Mountain to River Trail. The Activation Study incorporated two in-person engagements: at a Marietta Farmer's Market and on the trail across from Sessions Stand. The Study also deployed an online survey that yielded more than 200 responses, assessing how people utilized the trail.

COMMUNITY ENGAGEMENT

Community engagement is a key component of the CDAP process. As such, this study utilized a variety of engagement opportunities for residents and stakeholders to provide input on the trail.

In-person engagement

The project team organized two in-person engagement opportunities. The first took place at Marietta Farmers Market on August 12, where the project had a standalone table and tent amongst the market vendors. Attendees shared their feedback on posters, and were given fliers linking to a survey if they were not available to give feedback in real time. The second engagement took place on Sunday November 19 near Sessions Stand at 397 Sessions Street NW. This engagement interacted with active trail users outside of the Square, though engagement opportunities (talking with project staff, feedback options) were identical to those at the farmers market.



Completed boards after first engagement event in August

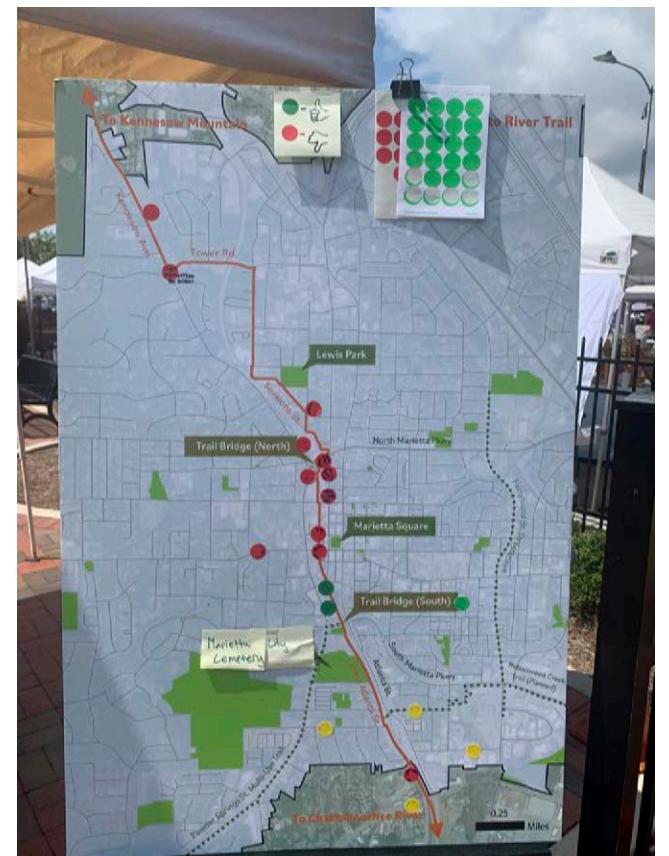


Photo of table with project staff engaging with residents at first engagement event in August

Completed boards after second engagement event in November, which were hung up on the trail next to public art installed by a neighbor

COMMUNITY ENGAGEMENT

Online engagement

An online questionnaire was available to complete between the first and second in-person engagement events, from August to November of 2023. The questionnaire collected more in-depth feedback, including how the trail is used, frequency of trail use, improvements desired, and more. The questionnaire was hosted on Survey123, which allowed users to place a point where they typically access the trail.

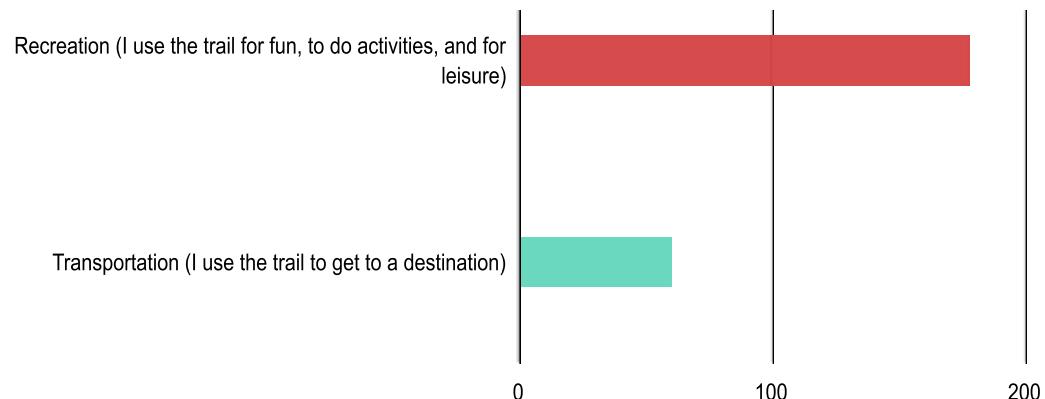
The questionnaire garnered 226 responses. 36 of 226 respondents (16%) had never used the M2R trail. The summary results of the rest of the questions represent the responses of the 190 survey-takers who did use the trail.

The questions asked are listed below:

- **Q1: How do you primarily use the M2R trail?**
- **Q2: How do you primarily access the M2R trail?**
- **Q3: How often do you use the M2R trail?**
- **Q4: What recreational activities do you like to do on the M2R trail?**
- **Q5: "It is easy to find and access the M2R trail" (Rate this statement.)**
- **Q6: "It is easy to navigate the M2R while I am using it" (Rate this statement.)**
- **Q7: "I feel comfortable and safe while using the M2R trail and at trail crossings." (Rate this statement.)**
- **Q8: "I use the M2R trail to get to a destination." (Rate this statement.)**
- **Q9: What trail amenities would you like to see more of along the M2R trail, if any?**
- **Q10: What type of development would you like to see more of along the M2R trail?**

The survey also gave the opportunity for respondents to leave additional comments about development along the trail, to identify the point at which they access the trail (recorded as geospatial point data), and leave comments about trail issues.

Q1) How do you primarily use the M2R trail?



Between using the trail for recreation or transportation, most people who got on the trail did so for recreational purposes. A smaller number reported using it solely for transportation or for both transportation and recreation.

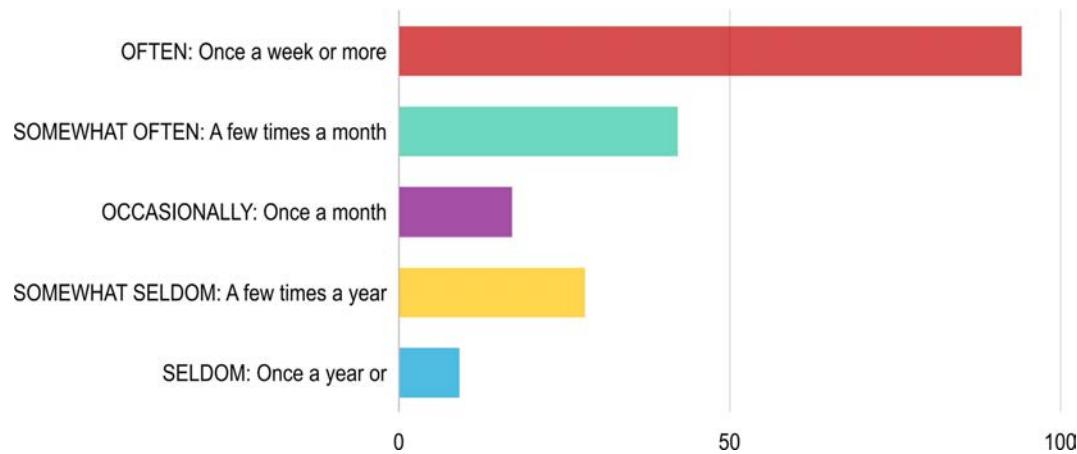
Q2) How do you primarily access the M2R trail?



For this question, respondents were able to select one mode of transportation by which they predominantly accessed the trail. Nearly half (46%) accessed the trail by foot, followed by bike (28%) and by car (26%). By car was the least common mode by which trail users accessed the M2R trail. Since the majority of users access the trail by foot, most users likely live within walking distance to the trail.

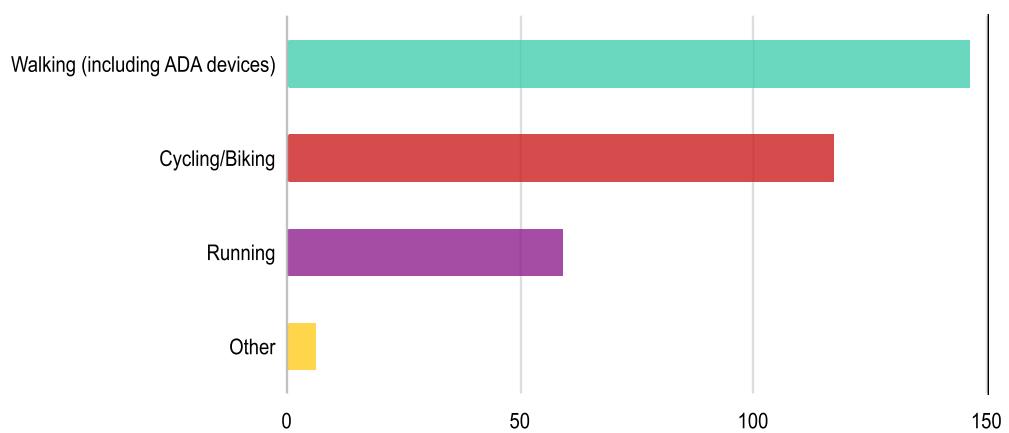
COMMUNITY ENGAGEMENT

Q3) How often do you use the M2R trail?



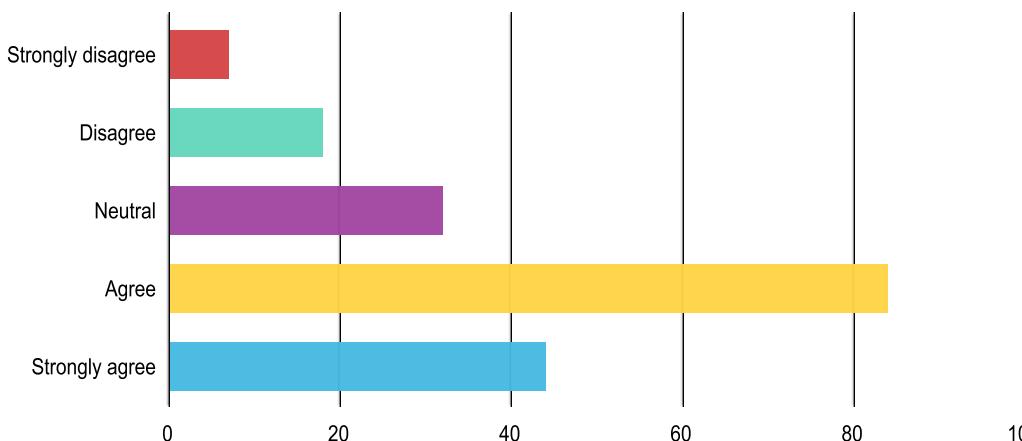
Most people who reported having used the trail use it frequently (once a week or more) or at least a few times a month. These groups accounted for 72% of responses.

Q4) What recreational activities do you like to do on the M2R trail?



For people using the trail, walking and biking were the predominant recreational activities they performed while on the trail. Fewer used the trail to run (higher intensity exercises) or via other mobility modes.

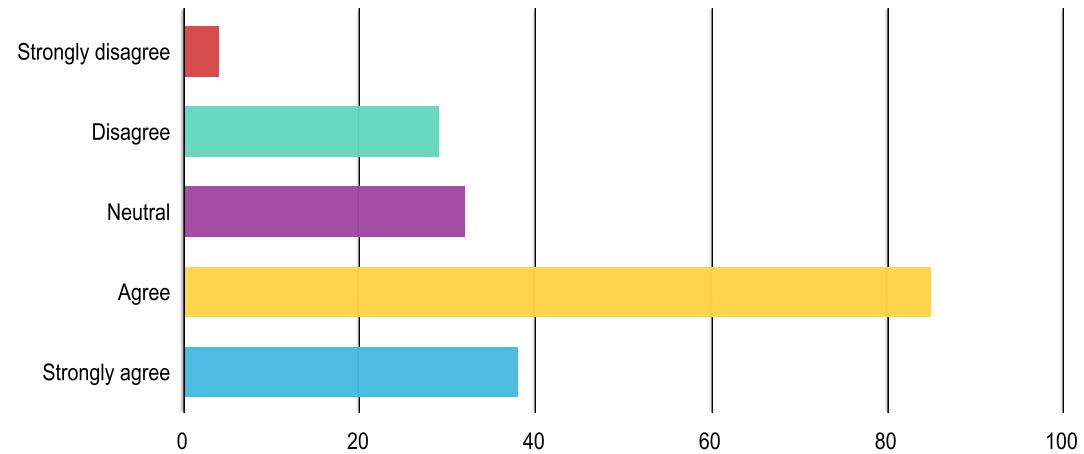
Q5) Rate: "Is it easy to find and access the M2R trail"



Most people agreed that the trail was easy to find and access. 57 of 185 (approx. one third) respondents to this question felt neutral about or disagreed with the statement.

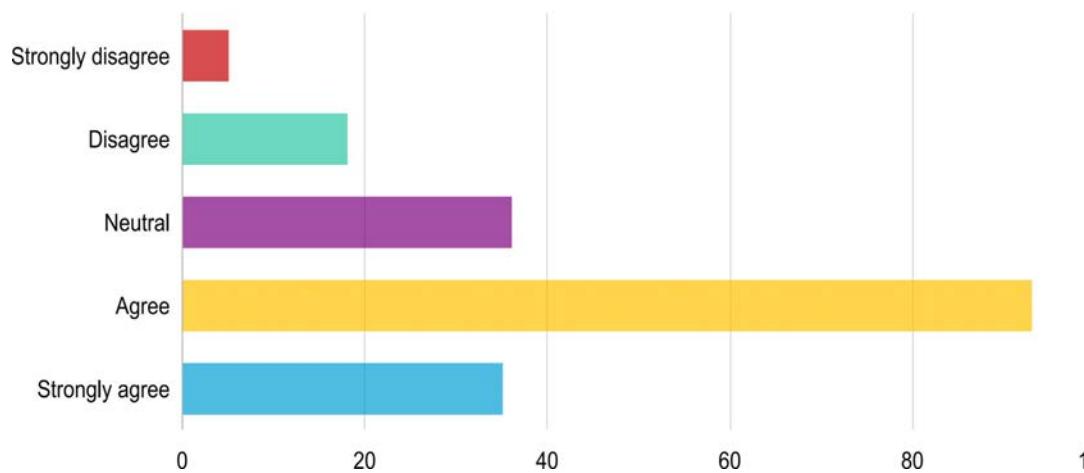
COMMUNITY ENGAGEMENT

Q6) Rate: "It is easy to navigate the M2R trail while I am using it"



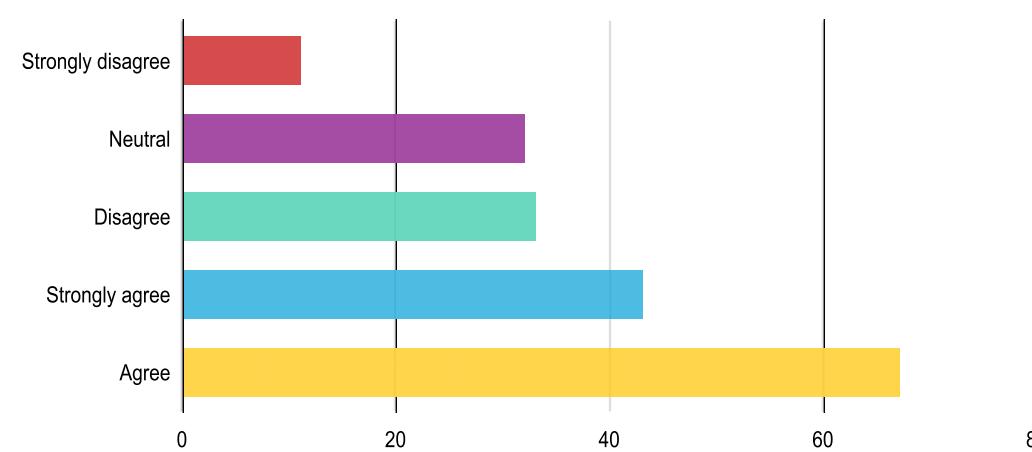
Similarly, most respondents also felt that the trail was easy to navigate after they had accessed it, although sentiments about trail navigation were slightly lower. This may indicate that keeping on the trail is more challenging than accessing it from a familiar location.,

Q7) Rate: "I feel comfortable and safe while using the M2R trail and at trail crossings"



Positive sentiments about a feeling of safety and comfort while using the trail were widely reported. Less than a third of respondents felt neutral or worse.

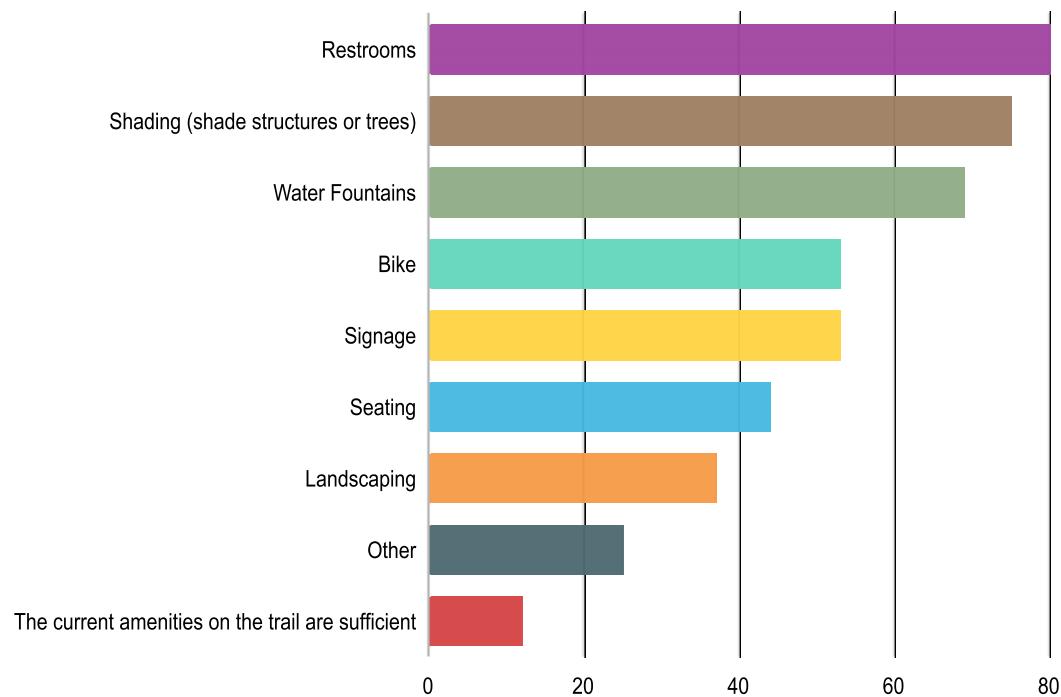
Q8) Rate: "I use the M2R trail to get to a destination"



Compared to the 60 survey-takers who stated that they use the trail to get to a destination, more individuals agreed or strongly agreed with this statement [110]. While users may not primarily use the trail for transportation, many may still at least occasionally use the trail for that purpose, to reach a destination.

COMMUNITY ENGAGEMENT

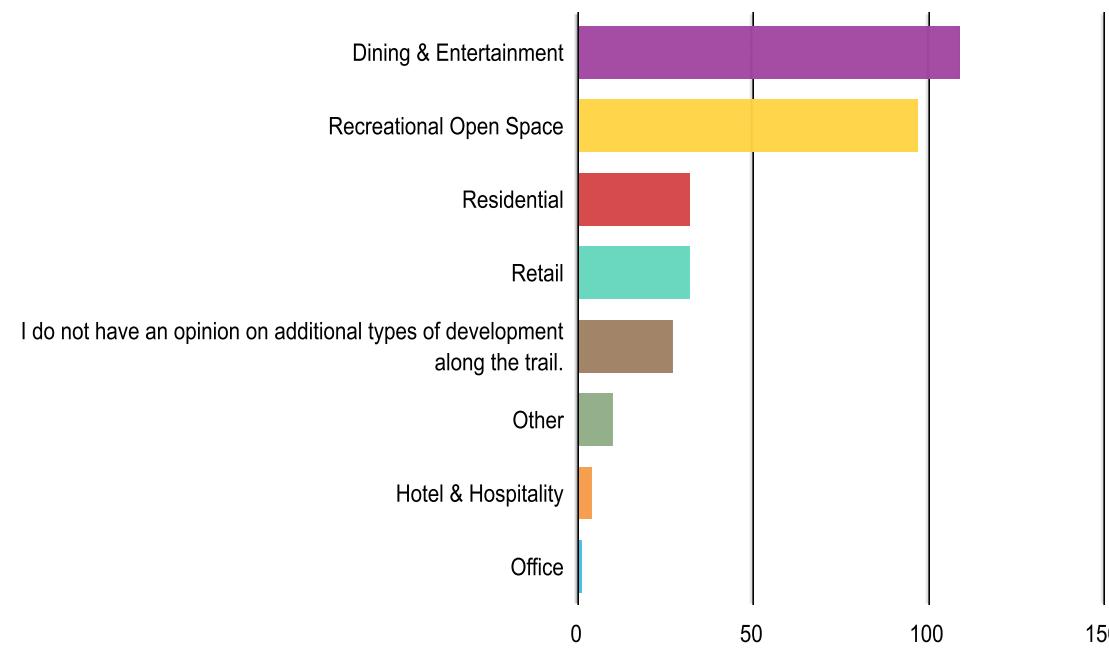
Q9) What trail amenities would you like to see more of along the M2R trail, if any?



Trail users were polled on what trail amenities (restrooms, shade, water fountains, bike racks, signage, seating, landscaping, and other) they most desired to be added or augmented along the trail, or if they believed the current level of amenities was sufficient. Respondents could select multiple choices.

Restroom facilities, shade, and water were the most highly requested amenities. Despite moderately strong feelings that the trail was easy to navigate, many respondents still desired more frequent or improved signage.

Q10) What type of development would you like to see more of along the M2R trail?



Given that most users use the trail for recreation purposes, it is not surprising that most respondents desired to see more dining, entertainment, and recreational open space opportunities. Preference for either type of development was equally strong.



ANALYSIS

Information on trail usage from public engagement formed the backbone for analysis of trail needs and recommendations. Several other factors such as land use, undeveloped properties, amenity, and signage information was collected during the course of the Study. An understanding of these factors helped build a picture the regulatory and physical status of the trail to better orient the Study's recommendations.

ACCESSING THE TRAIL

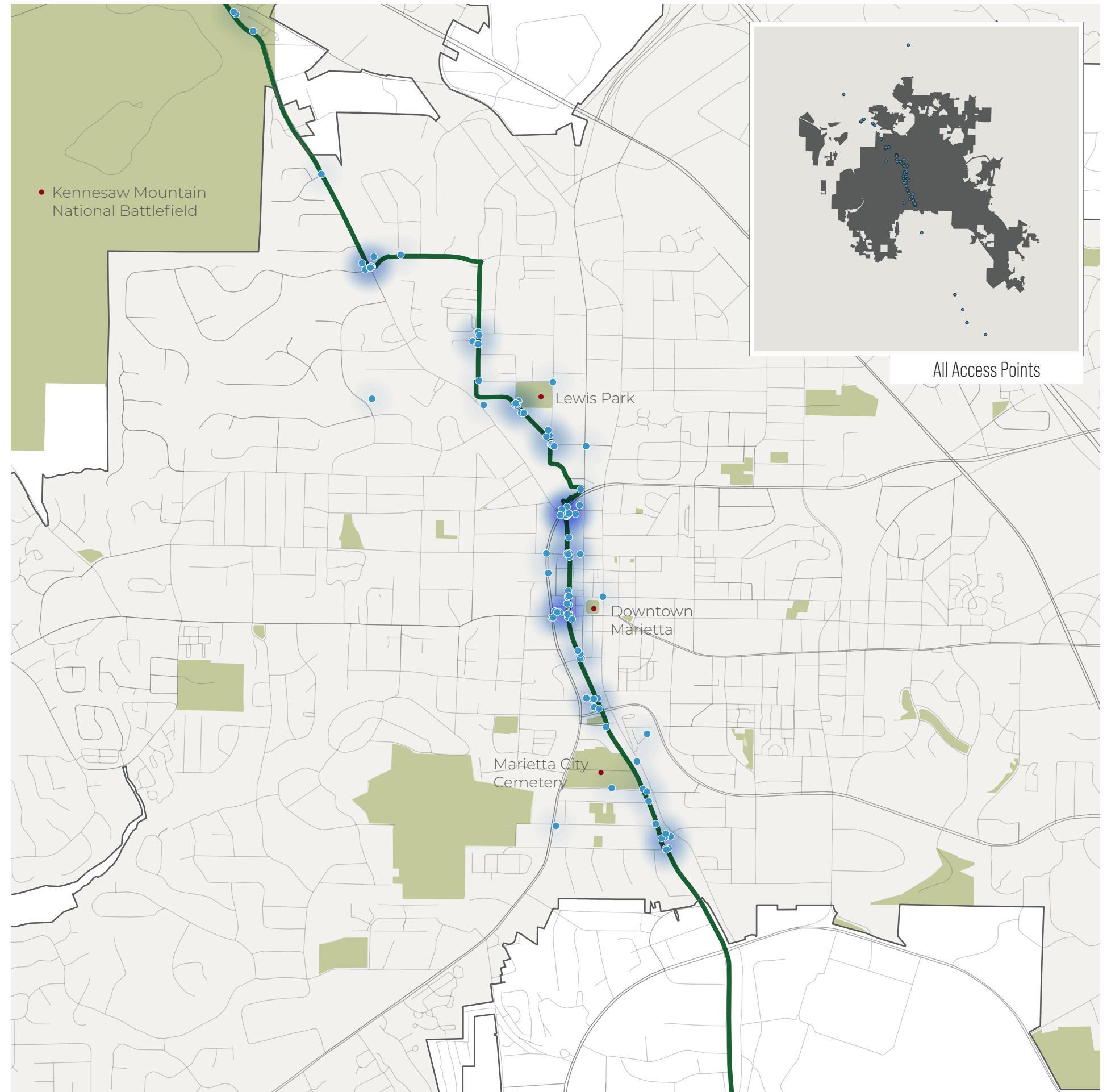
As part of the survey, respondents were asked to identify the location at which they most often accessed the trail. The points were recorded as geospatial data and mapped.

A map of the points at which users accessed the trail revealed access hotspots, essentially near the Square and in residential parts of the city adjacent to the trail:

- Tower Rd. and Kennesaw Ave.
- Areas along Sessions St. and one area on Roselane St. immediately next to a residential development and the health center
- Areas near Marietta Square
- A residential area at the southern part of the trail (Hedges, Dixie, and Gramling streets)

The most popular access points to the trail were between the North and South pedestrian bridges, or the part of the trail between North Marietta Pkwy and South Marietta Pkwy, which covers the stretch of the M2R that passes through Downtown Marietta. Downtown Marietta is a largely commercial area, though there are historic and other residential neighborhoods just a few blocks from Marietta Square. For those who access the trail by car, accessing the trail directly at Downtown may be popular because of the parking options available. Other nodes where people identified they accessed the trail tended to be near residential developments. A small number of users reached the trail at points outside of the city, either at Kennesaw Mountain National Park or between Marietta and Smyrna.

Because most users access the trail by foot or bike, and because many popular points of access are near or in residential areas, creating more opportunities for people to live near the trail may be the best way to increase usership.



CHARACTER AREA MAP

The M2R trail spans an entire north-south stretch through the middle of Marietta, passing by distinct areas and neighborhoods including Downtown Marietta, historic neighborhoods and new residential developments, office and medical campuses, and city and regional parks. Each of these places embody a unique character that influence the appropriate design and function of the trail at particular locations. It is useful to divide the trail into these general Character Areas to better characterize the trail and identify recommendations in specific areas.

Character Area 1: Destination Trail (North)

This part of the trail, between the Roselane-Tower Rd. intersection and Kennesaw Mountain Park, is characterized by residential land uses and an uninterrupted pathway, except for residential subdivision entrances. There are few destinations, rest areas, or points of interest where trail users might pause and, as such, is a part of the trail that users travel through.

Character Area 2: Sessions - Kennestone

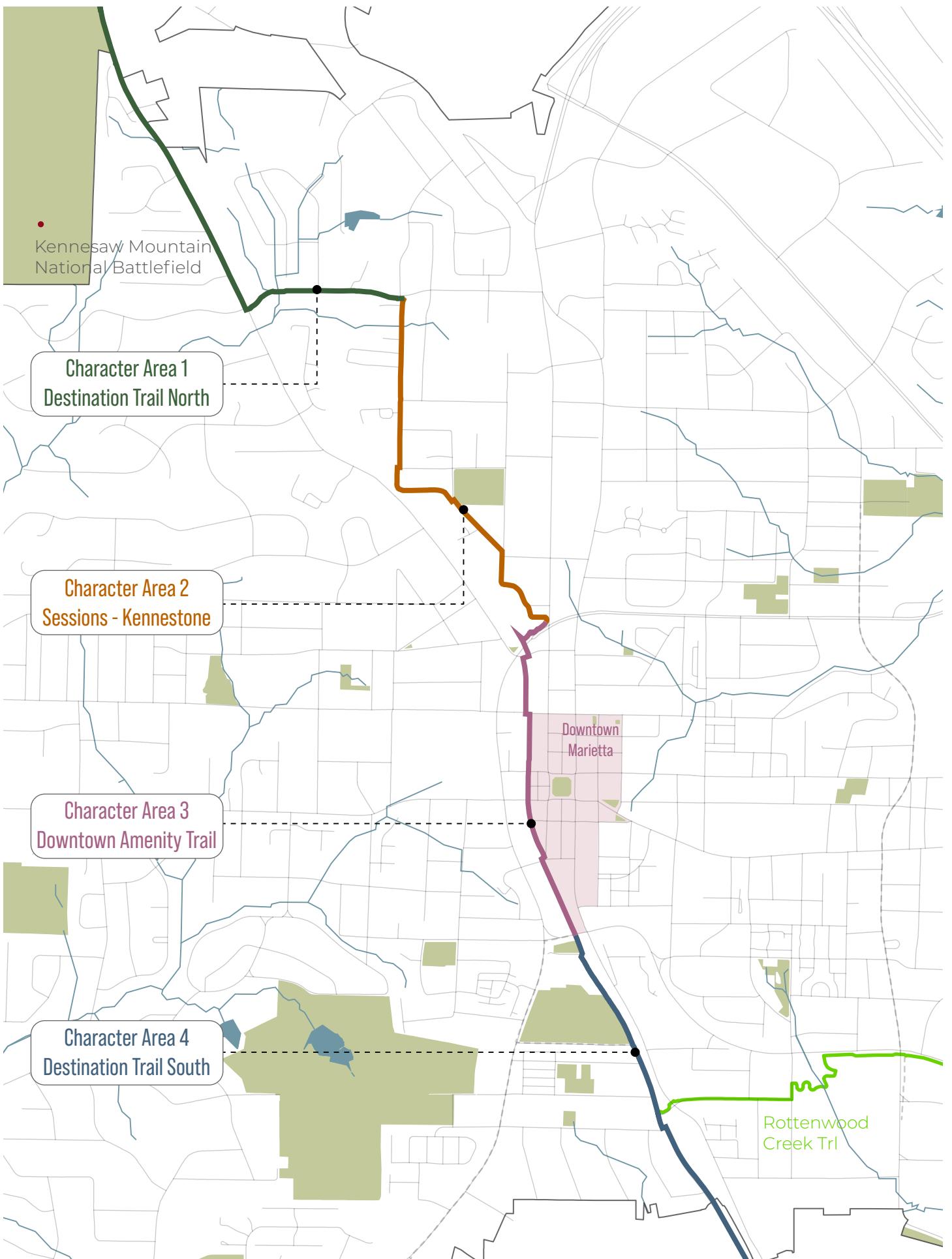
Character Area 2 includes the sections of the trail from Brumby Lofts to the end of Sessions St. and Roselane St. to Tower Rd. On Sessions St., the trail features some small-scale commercial uses (including Sessions Stand) and Lewis Park. The residential developments are varied in type and are built in a traditional neighborhood fabric (compared to the subdivisions on Kennesaw Ave.). Roselane St. is notably different than Sessions St. It hosts some residential uses but is mainly characterized by commercial offices and medical offices accessory to Wellstar Kennestone hospital.

Character Area 3: Downtown Amenity Trail

This is the part of the trail that passes along the edge of downtown Marietta. It has the highest concentration of dining, entertainment, and shopping establishments, making it a major destination and point of trail access. The part of the trail between the north and south pedestrian bridges has also been subject to different design treatments than other parts of the trail.

Character Area 4: Destination Trail (South)

This part of the trail, like Character Area 1, has few points of interest. It is the start of the connection of the M2R with the Silver Comet trail and also connects to the Rottenwood Creek Trail that goes east. This character area includes a segment of the trail on West Atlanta street that is not completed, although signage for the trail is present. A planned renovation will add a 10' wide trail path on the east side of West Atlanta St. and widen and clear of utilities the existing sidewalk on the east side of the street.



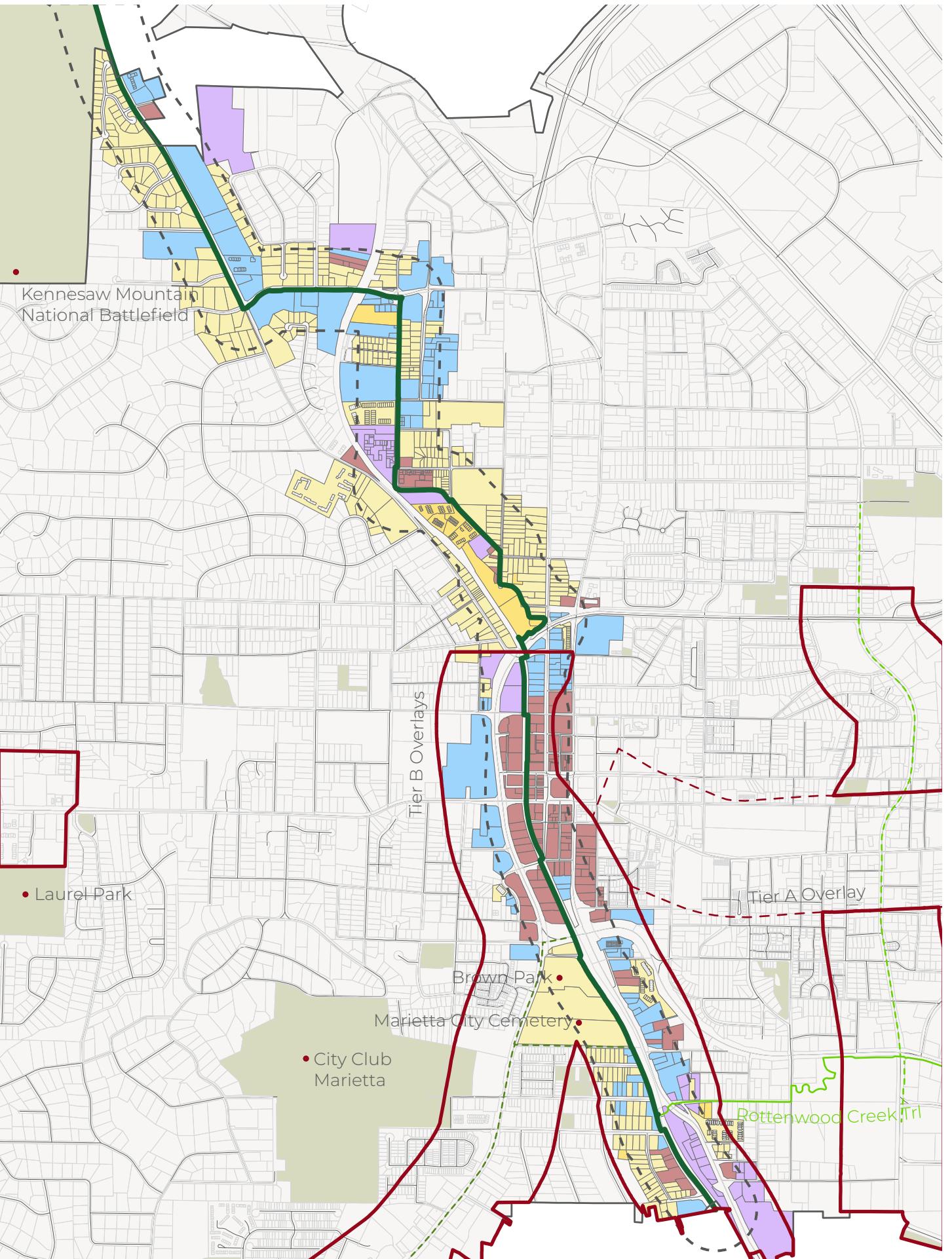
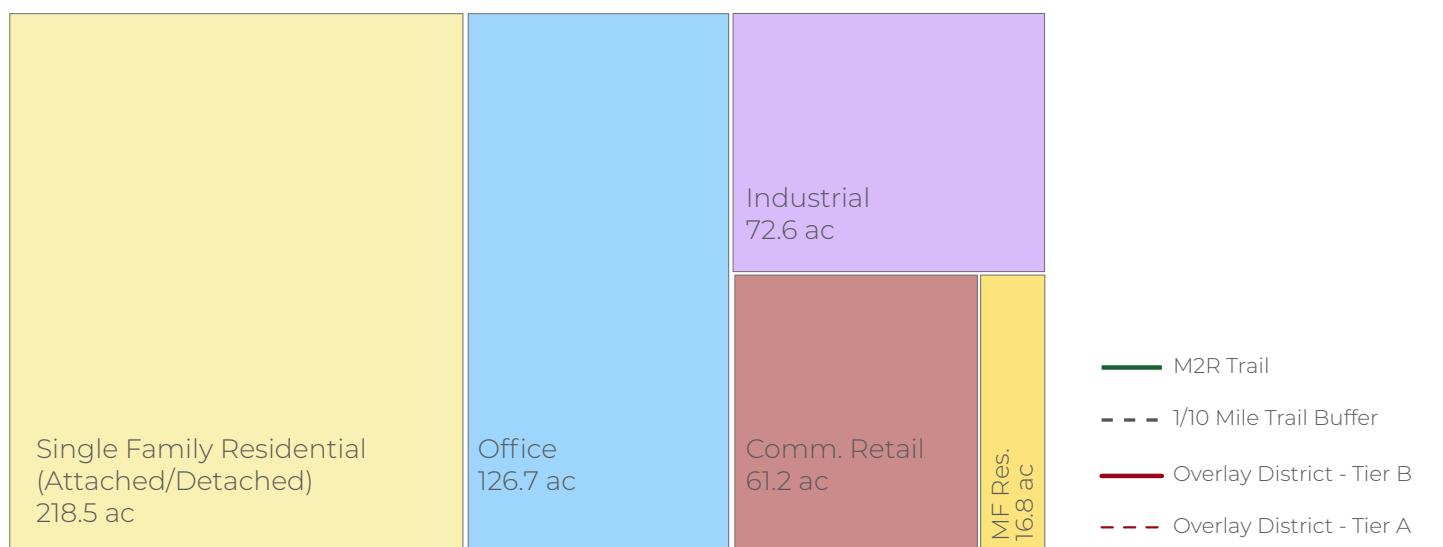
LAND USE ALONG THE TRAIL

Coordinating appropriate land uses along the M2R trail is important to maximizing its transportation and recreation potential. This analysis sought to examine and map the zoning districts within a 0.1-mile radius of the trail. To simplify the assessment, zoning districts were grouped into broader categories Single-Family Residential (PRD_SF, R2, R3, R4, RA5, RA8), Office (O1, OIT, OS), Industrial (HI, LI), Commercial Retail (CBD, CRC, MXD, NRC), and Multifamily Residential (PRD_MF).

The predominant zoning along the trail is single-family residential (218.5 acres), followed by Office (126.7 acres), Industrial (72.6 acres), Commercial Retail (61.2), and Multifamily Residential (16.8 acres). The most efficient way to increase trail usage would be to maximize opportunities to add residential units near the trail. This strategy would bring more people within easy access to the trail without a reliance on getting to the trail by car. Other factors will need to be considered to determine what types and intensities of residential development are appropriate. Additional residential uses can be supplied by encouraging denser developments, regardless of single- or multifamily typologies, or encouraging mixed use developments that can also incorporate service, dining, entertainment, and retail opportunities. Single-use industrial and office zones along the trail may be good candidates for rezoning for when redevelopment opportunities arise. Far from being eliminated, these uses can also be incorporated in mixed use developments (with the exception of Heavy Industrial (HI) uses).

Overlay Districts

Marietta has two overlay districts, Tier A and Tier B, that promote pedestrian-oriented design standards and mixed-use development. Tier B overlaps with the M2R trail. Most stipulations in the Tier B ordinance may also benefit the trail's activation and overall design. However, standards that urge developments to address the trail, for example via a secondary frontage, should be incorporated in the ordinance to ensure that new developments are integrating with the trail in a mutually beneficial way. The overlay may also be extended to overlap with the northern parts of the trail and encourage beneficial streetscape design standards and mixed uses in those areas, if deemed appropriate by the City.



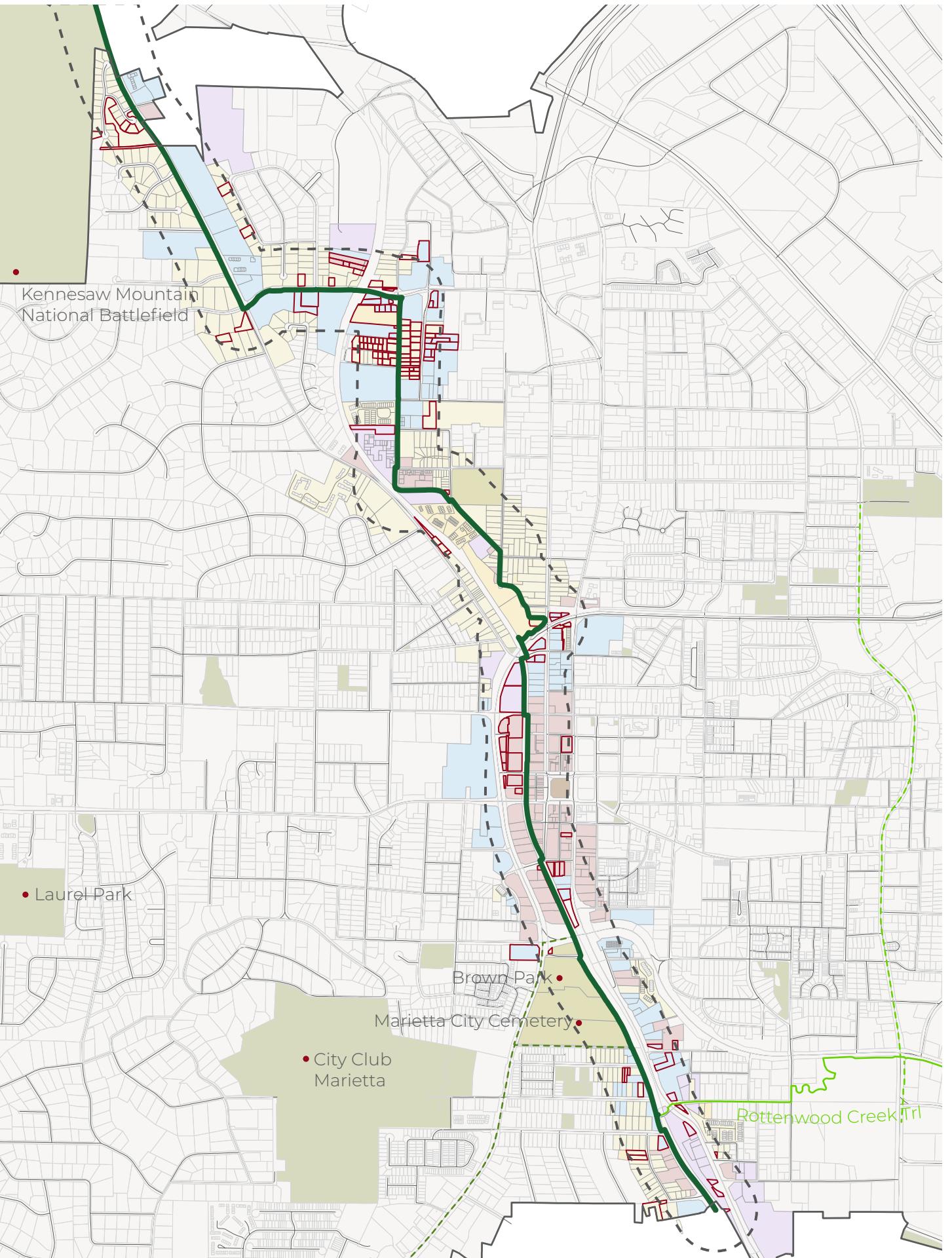
UNDEVELOPED PROPERTIES

There are a number of undeveloped properties within the 0.1-mile buffer from the trail that present development opportunities. Many of these parcels, however, are not adjacent to the trail or may be too insignificant in size, if taken alone, to allow for substantial developments. Nevertheless, there are a few clusters of undeveloped properties (either completely undeveloped or serving as surface parking) that, if developed as residential or mixed-use projects, will likely translate into a boost in users of the M2R trail.

A handful of the properties identified as undeveloped are currently under development, and others may be in a planning stage to be developed. The large residentially zoned lot on the west side of Roselane St. is, for example, currently under construction. Disregarding these exceptions, there are about 46 acres of undeveloped or underutilized properties in the 0.1-mile buffer. Of these, R-2 and OI zones make up more than half of that acreage.

Two areas along the trail stand out as likely candidates for development or redevelopment opportunities:

- The undeveloped properties along Roselane St. These parcels may require merger depending on the type and size of a proposed future development.
- The surface parking lots near or adjacent to the Square. Because of their location and significant size, these properties are prime candidates for redevelopment. There are additional properties with substantial surface parking lots that were not flagged as undeveloped, likely due to an improvement value component in the data, that may also be retrofitted in the future. To reduce reliance on surface parking, parking demand may be met through integrated structured parking facilities or by shared parking agreements.



SIGNAGE ALONG THE TRAIL

Stone Marker (Marietta Square)

An elegant trail marker made of stone with the M2R logo on one side. These markers are present where the trail goes through Marietta Square and are sometimes hard to see.

Post & Picket

Color picket sign where the picket points the way to a landmark. The size and bright colors of these signs makes them easy to spot. Sometimes the picket signs are themselves marked with arrows, which are unnecessary.

Post & Picket (Marietta Square)

These pickets in these signs do not point to a direction, as they are centrally mounted. In this case, arrows are used. The muted colors of these signs makes them harder to spot. Destinations are made clear but the design is not connected to the M2R branding style.

Sheet Metal Signs

Large sheet metal signs with the M2R logo. These signs usually directly face trail users and are easy to see from users' perspectives. The drawback is that two signs must usually be installed, one facing either direction. These signs can be found on the trail along Kennesaw Ave.

Small Sheet Metal Sign

This sign is possibly only used once and is so small as to be difficult to notice.

Stub Marker

Stub markers are used throughout the trail outside of Marietta Square. They have the disadvantage of only indicating how the trail continues in one direction of movement, and so they are usually found in pairs. Some stub markers blend in to the surroundings and are too discreet.

M2R Map

The M2R maps are mounted on the same metal material used for the stub markers. The maps are useful but will need to be updated as new connector trails, like the Rottenwood Creek Trail, connect to the M2R.



Stone Marker (Marietta Square)



Post & Picket



Sheet Metal Sign



Stub Marker



Post & Picket (Marietta Square)



Small Sheet Metal Sign



M2R Map

SIGNAGE MAP

While the Mountain to River Trail has a variety signage, it is still at times difficult for users to navigate the trail. This might be the case for several reasons: signage is not frequent enough, signage is absent at key points, signage types and/or designs are too numerous, signage is not obvious or hard to spot, the signage may be indicating direction incorrectly.

Frequency of Signage

Signage along the M2R appears consistently enough, though in different types. Usually, signage appears at turns and crossings along the trail, which is appropriate. Linear stretches of trail [without turns or crossings] are less supplied with signage, except for Kennesaw Ave., which may be oversupplied. Roselane St and Tower Rd could benefit from occasional midway signage similar to Kennesaw Ave. However, striping the trail would eliminate this need.

Signage Absent at Key Points

Almost all key points (crossings, turns, and intersections) feature some form of signage, with the exception of immediately after users descend the ramp from the north bridge.

Signage Designs Too Numerous

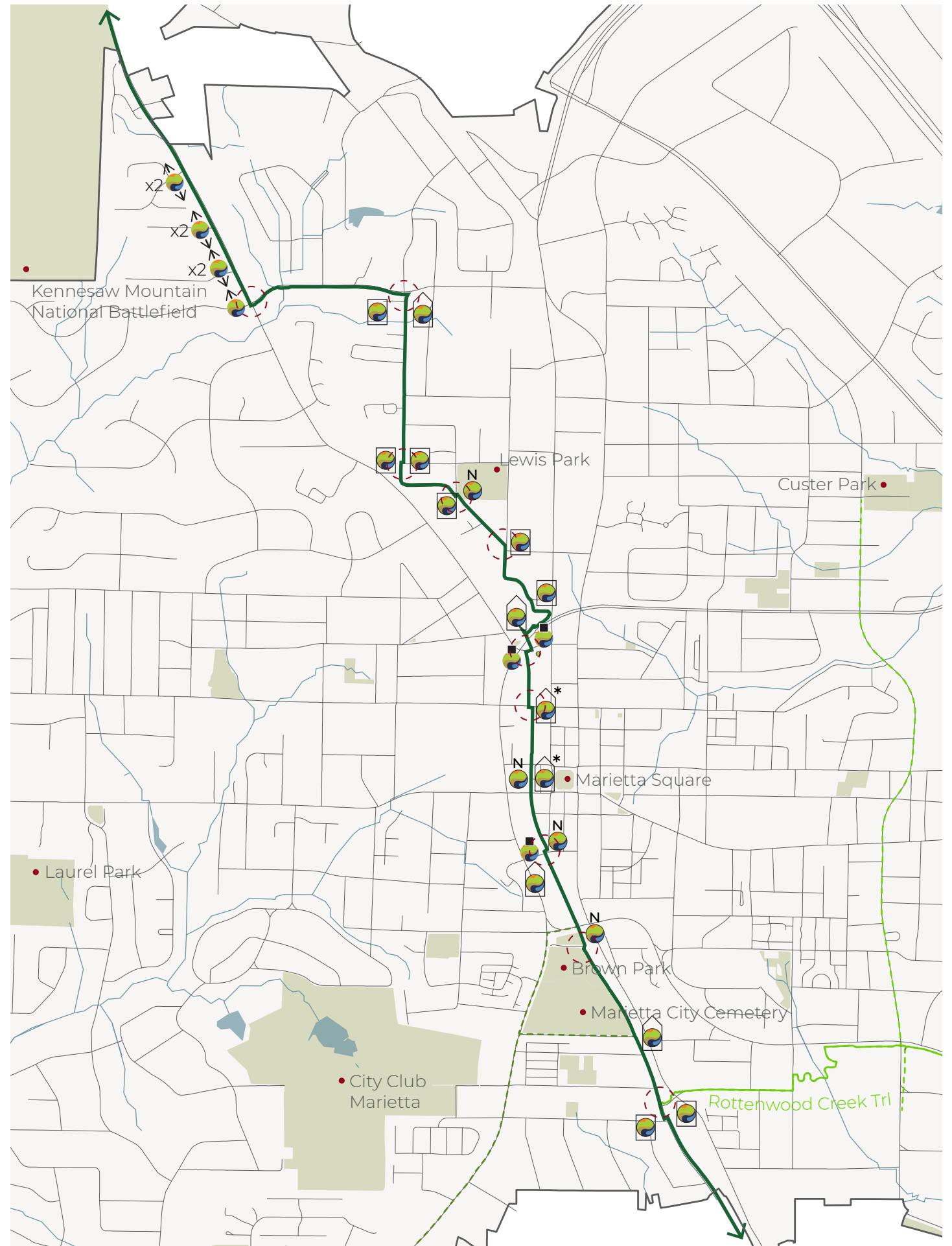
The M2R trail incorporates a variety of sign types for different conditions, but the sheer variety of signage may render navigation more confusing. There are at least seven types of signs along the trail.

Inconspicuous Signage

At times, the signage on the trail is hard to see. This is usually a result of the signage not being in an obvious location (such as beside the trail where users cannot see if in front of them, or when it is around a bend) or the design of the signage blending into the surroundings (low-to-the-ground, near similar objects, or having dull colors).

Incorrect Indication

Rarely, signage points in the wrong direction from the perspective of the trail user (if using arrows). Picket signs sometimes incorporate arrows to indicate direction but other times rely on the direction in which the picket itself is pointing, which may also cause mild confusion.



TRAIL AMENITIES

While the M2R connects to several key parks and to Downtown Marietta, which are amenitized zones, there are few amenities to be found directly on the trail. Restrooms, water fountains, bike racks, shade, and seating were all desired amenities from community feedback, and all are sparsely scattered throughout the trail or are not provided.

Frequency of Amenities

Generally, there are not enough amenities like trash cans, benches, pet stations, bike racks, restrooms, and water fountains along the trail. The appropriate locations for most of these amenities are key points along the trail like Lewis Park, Downtown Marietta, Brown Park, and Kennesaw Mountain National Battlefield (especially when it comes to water and restroom facilities). Others, like benches and trash cans can be installed more frequently.

Street Trees & Buffers

Street trees are a great way to improve the aesthetic quality of the street and to provide shade in warmer months. Additional street trees would be especially appropriate in long, exposed stretches of the trail like on Kennesaw Ave., Roselane St., and West Atlanta south of the Cemetery. If street trees are not an option, vegetated buffers or non-vegetated protective buffers can be implemented along stretches of the trail that abut a street for enhanced aesthetics and safety. Though buffers do not provide shade, they augment comfort for pedestrians and cyclists using the trail. The higher the design speed of the road, the greater the need for a buffer space.

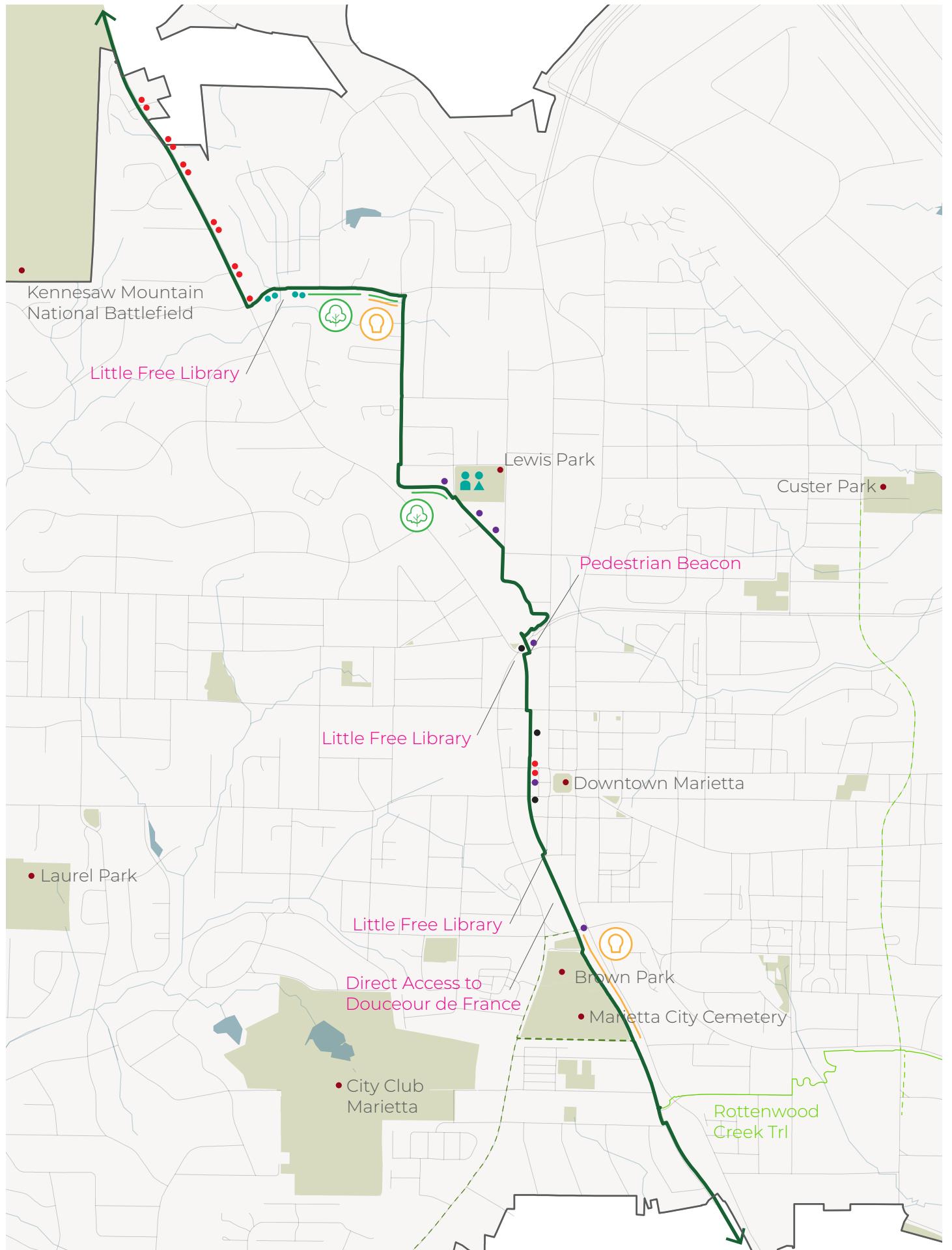
Public Art

Public art is best placed along heavily trafficked sections of the trail. Generally, the M2R in Downtown Marietta is well-supplied with visual art installations. Other opportunities for visual art along the trail could be painted crosswalks, additional murals and other opportunities, sidewalk art, art integrated with M2R wayfinding signage, and sculptures.

Other Signage

Though not strictly amenities, there are other types of signage along the trail, such as pedestrian/cyclist stop signs and bike decals on the ground, that are mapped here.

- Ped/Cycling Stop Sign
- Public Art (Installations, murals, etc.)
- Waste Bin
- Cycling Decals
- Restrooms
- Street Trees
- Street Lamps





DESIGN

Design changes can enhance the M2R trail by providing a more comfortable, enjoyable, and navigable user experience. Design encompasses all physical aspects along the trail, from the civic infrastructure of the trail path to signage, markings, and public art.

CASE STUDIES | BEST PRACTICES

Signage

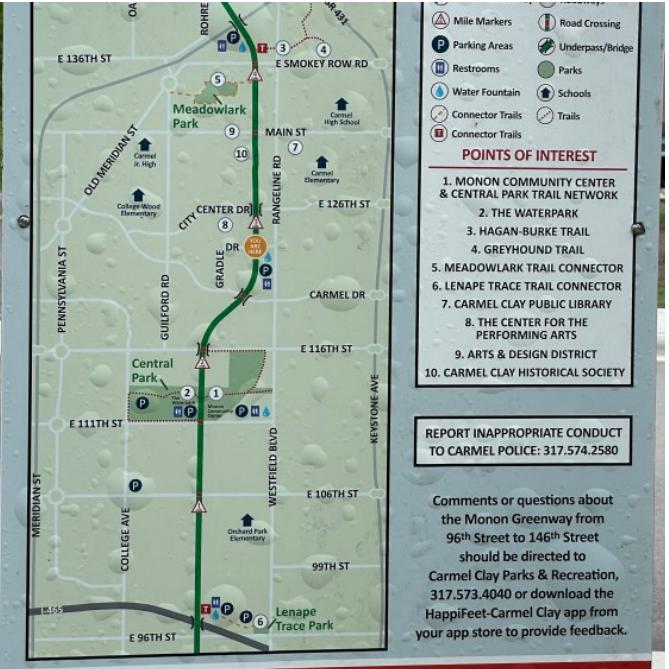
- Clear signage over short distances is necessary for wayfinding.
- It can be signage for preferences, such as yield to pedestrians or skaters. Signage can also be the map of the entire trail, showing where we are located on the trail.
- Should be readable from a reasonable distance and should not be too small.
- Should have icons more than text which make it more communicative to users.
- Signage should have brighter colors which catches the eye of the user. It should not be merged with the surroundings or hidden due to foliage.



Monon Trail, Indianapolis, Indiana



Ann and Roy Butler Hike and Bike Trail, Austin, Texas



Monon Trail, Indianapolis, Indiana

Markings

- In Naito Parkway, Portland, Oregon the turning of the bike trail at the intersection is separated from the street by a concrete curb, this makes it safer for cyclists to take a turn at road intersections.
- Clear markings defining bike lanes help bikers navigate smoothly especially at intersections where car traffic creates a concern for safety among cyclists as seen in the Orlando Urban Trail in Florida.
- The Orlando urban trail also has glow in the dark aggregates on the sidewalk which demarcate sidewalks clearly even in areas without proper street lighting.



Naito Parkway, Portland, Oregon



Orlando Urban Trail, Orlando, Florida



Orlando Urban Trail, Orlando, Florida

CASE STUDIES | BEST PRACTICES

Traffic Calming

- Raised crosswalks and raised intersections can be used to slow traffic down at mid-block trail crossings and where the trail interacts with a street intersection.
- Raised crosswalks can be combined with paint and pedestrian crossing signage to bring heightened attention.
- Raised crosswalks can be integrated into the M2R Trail where the trail crosses from one side to the other on the same street (Roselane, Sessions, and West Atlanta streets)
- Bollards can be used with raised intersections to keep turning vehicles from encroaching into the pedestrian space



Raised Intersection, NACTO



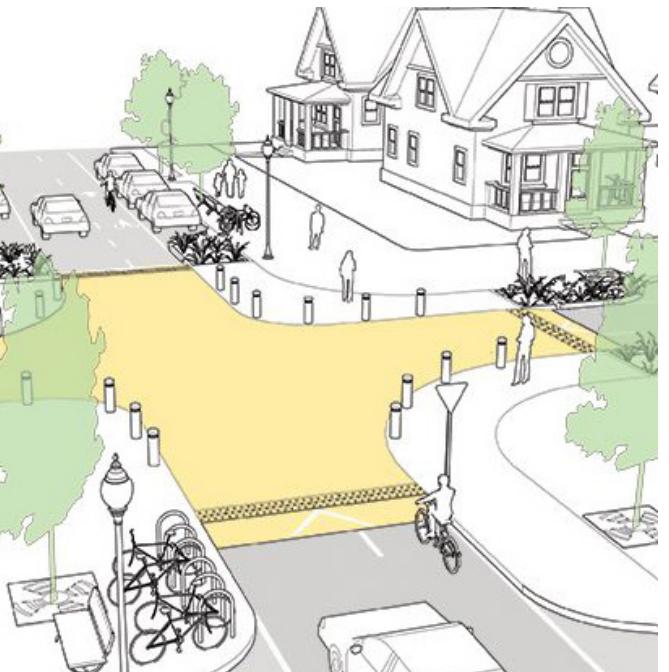
Raised Crosswalk

Paving Materials

- Different paving material having various colors or textures can also serve as a tool for better navigation for bikers and differentiating between bike lane and pedestrian lanes as shown in.
- Different segments of the trail can also have different materials respectively to demarcate the segments.
- The Vera Klatz Esplanade in Portland uses concrete blocks for flooring and the map of the river along which the esplanade runs, has been etched on the concrete flooring. This is an interesting way to create interest among users while also giving information about the trail.



Capital Crescent Surface Trail, Bethesda, Maryland



Raised Intersection (Diagrammatic), NACTO



Monon Trail, Indianapolis, Indiana



Vera Katz Eastbank Esplanade, Portland, Oregon

CASE STUDIES | BEST PRACTICES

Public Art

- Public art can take many forms (visual displays, sculpture, temporary exhibits, etc.). Dynamic installations like the wind chimes along the Holloway Trail can inject points of interest on a trail path.
- Having art on asphalt like the Broad Street Walk generates user interest in the trail and provides beautification.
- Wall murals can also be used to activate blank surfaces such as compound walls and beautify the trail.
- Public art along trails can serve as an opportunity for local artists to display their art as temporary exhibits.



Broad Street City Walk, Providence, Rhode Island



Cherry Creek Trail, Denver, Colorado



High Trestle Trail, Central Iowa

Buffers

- The clear separation between trail and road is an important safety aspect for cyclists and can be created in a variety of ways.
- Using parking as a way to create separation between bike lanes and car lanes is a great way to safeguard cyclists from car traffic as shown in Guadalupe Street.
- Landscape and plant buffers are another way of separating bike lanes and car lanes. These buffers are a long term solution instead of flex posts or wheel stops which are more temporary solutions.



Guadalupe Street, Austin, Texas



Garden Oaks Drive, Algiers, New Orleans, Louisiana



Bigelow Boulevard, Pittsburgh, Pennsylvania

CASE STUDIES | BEST PRACTICES

Moments of Pause

There can be moments of pause created for users along the trail to provide users as a place for rest or to generate activity along the trail. This can also serve as a way to generate activity along the trail and attract different users apart from cyclists. Some ways to do this is as follows:

- Plazas
- Landscape elements or parks
- Art installations or murals
- Seating areas
- Food carts or kiosks



Monon Trail, Indianapolis, Indiana



Monon Trail, Indianapolis, Indiana



Monon Trail, Indianapolis, Indiana

Street & Trail Objects

Street furniture is an important component of public spaces where users can take a rest. The type of furniture can influence how people interact in a space. Ideally the furniture should be light, moveable, and sturdy yet economical. Types of amenities to consider incorporating in parts of the trail near downtown and other important nodes include:

- Seating and shade elements
- Bicycle parking/bicycle racks
- Planters
- Trash/recycling receptacles



Moveable Outdoor Furniture, Macon, Georgia



Patio Furniture with Shade Umbrellas, Charlotte, NC

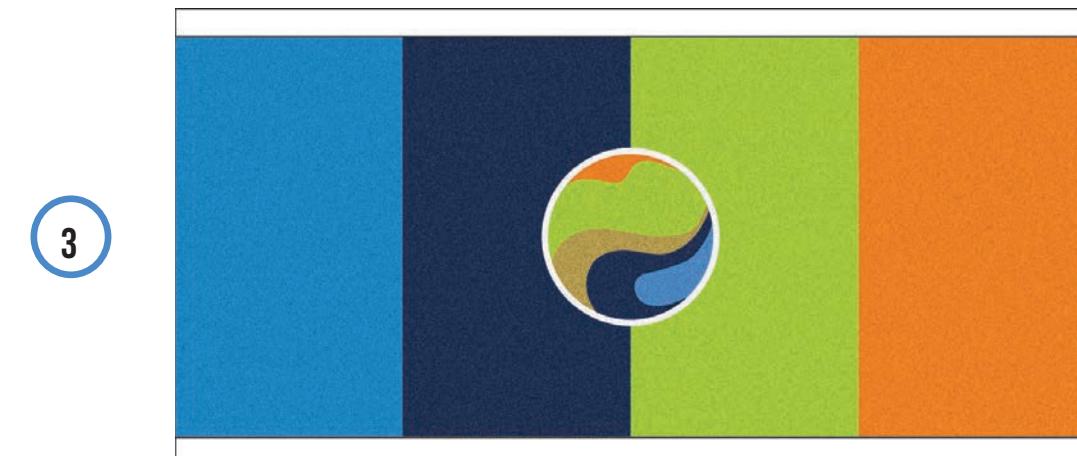
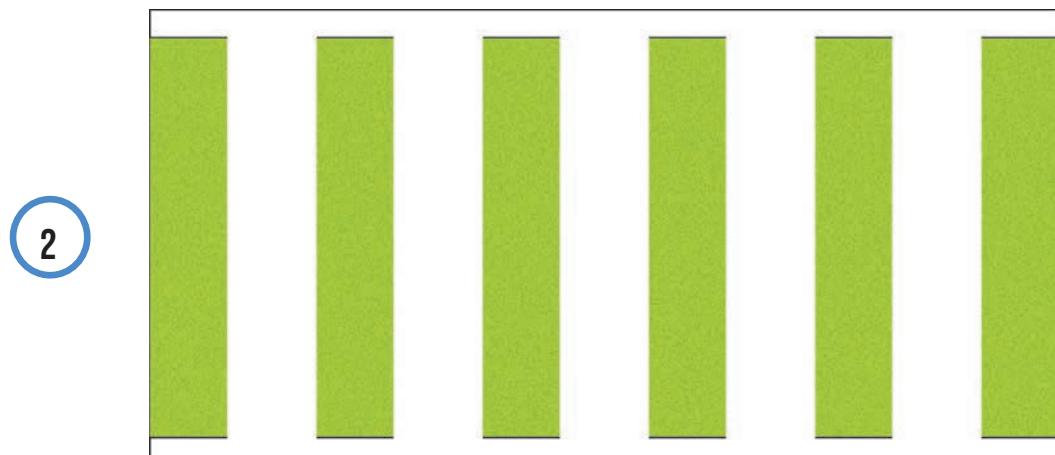
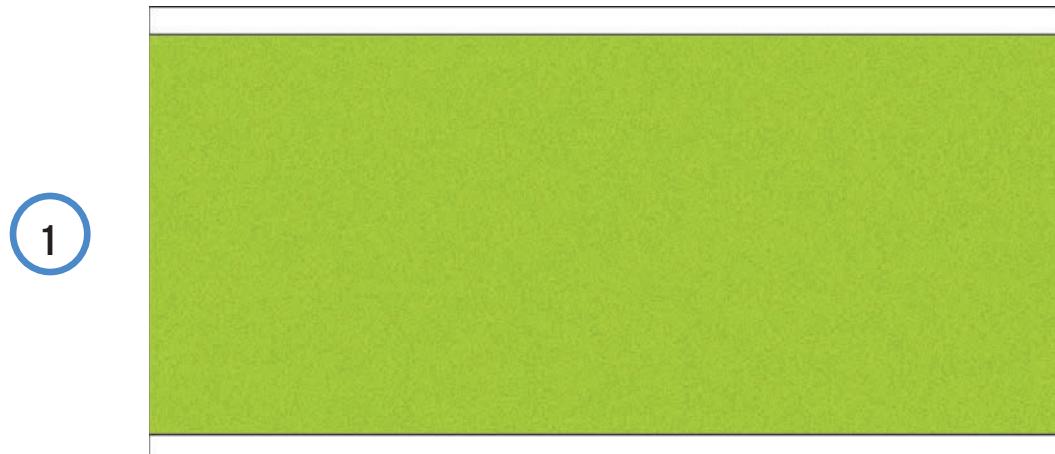


Simple Trough Planters, Atlanta, Georgia

CROSSWALK DESIGNS

Many of the concepts illustrated in the following pages feature some rendition of a high-visibility crosswalk design. The intent of the enhancing the visibility of existing crosswalks, or painting additional crosswalks where none currently exist, is to create a more prominent signal for drivers of a pedestrian crossing and to indicate to pedestrians the route of the Mountain to River trail. Some possible crosswalk designs are illustrated here, but potential designs are not limited to these options. In the following pages, the designs on this page will be used interchangeably.

1. Solid color.
2. Solid color with white cross-bars.
3. M2R themed color scheme with M2R logo decal. Another possibility is adding the decal on top of designs 1 or 2.
4. M2R themed color scheme with the trail name integrated into the crosswalk design.
5. An artistic design option. Any artwork can be inserted in this design option.



TRAIL INTERSECTIONS

Polk St. & Waverly St.

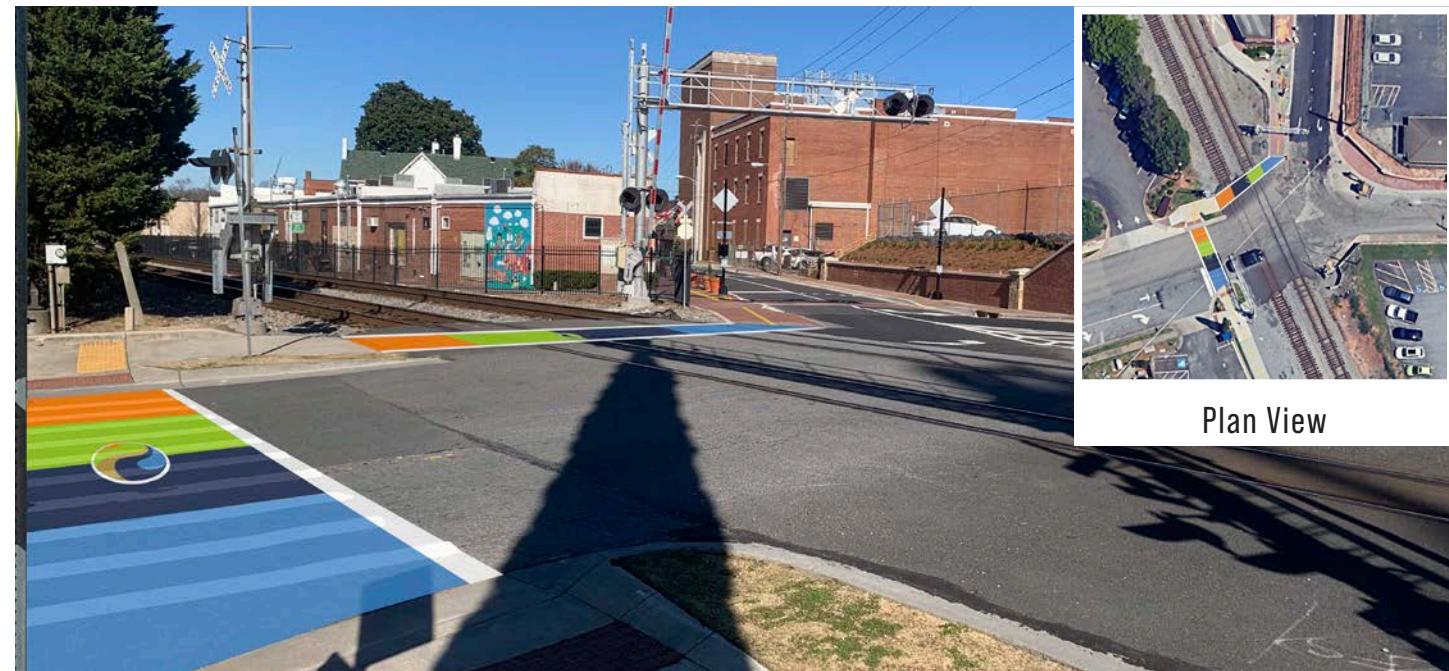
Polk St. and Waverly St. are two places in Downtown Marietta where the trail is intersected by a cross-street and the trail switches sides. As in other places where the trail is intersected by cross-streets, this creates a potential conflict between car traffic and trail users and all means should be explored to enhance and prioritize pedestrian safety at these crossings (Polk, Waverly, Mill, Whitlock, Kennesaw Ave.)

In cases where the trail also switches from one side of the street to the other at a crossing, this creates a wayfinding challenge for trail users. Often, trail signage is too distant or unclear to be easily noticeable. In these cases markings like decals and painted crosswalks can help clarify where the trail continues.

Whether crosswalks, decal stamps on the ground, or both, these interventions are interchangeable. Each or a combination of both can be applied to any intersection.



Solid color painted crosswalk with dashed median lines.



Painted crosswalks with stamped M2R logos.



Stamped logos at trail endpoint indicating direction to where the trail continues.

TRAIL INTERSECTIONS

Tower Rd. - Kennesaw Ave. Intersection

The intersection of the M2R trail, Tower Rd., and Kennesaw Ave. is similar to intersections in the Downtown area where the trail also switches sides of the road. However, this intersection is larger, with long crossing distances, and higher design speeds. Consideration should be taken to optimize signal patterns and integrate traffic calming measures at this intersection of pedestrians and cyclists, especially if the trail becomes more active on this segment in the future.

In terms of wayfinding, this intersection was frequently identified as challenging for trail users. Users reported being unable to find where the trail continues. Sometimes this has led to cyclists or pedestrians continuing in the wrong direction and, with cyclists, a conflict of unintentionally riding on a sidewalk.

There is one trail marker (sheet metal sign) at this intersection, but it is only visible to southbound foot or bicycle traffic that is already on the trail, and it does not indicate the direction in which the trail continues. Generally, no signage typology currently used along the trail is suited to adequately indicate diagonal crossings because all rely on arrows in a two-dimensional plane that can only indicate left or right, or on user-facing signs that can indicate forward continuity. The post-and-picket signs are also unable to signify 90-degree turns because the pickets only occur in 180-degree positions to each other. At this time, only the trail maps can clearly show if the trail takes a 90-degree turn or switches sides of the road, but they are for infrequent use.

Painted crosswalks, stamps on the ground, or both, would clearly show where the trail proceeds. Additional signage could also be placed on the northwest and southeast corners of the intersection. One sign would be visible to northbound trail users and the other to southbound users. However, the great distance between these two points necessitates that the signs should be abundantly obvious. Median striping on the trail would also help users confirm that they are on still on the trail.



Painted crosswalks with the name of the trail integrated into the crosswalk design, a sign at the far corner visible to northbound users (across the street), and dashed median trail markings (across the street) continuing up Kennesaw Ave.



Plan view of the same design

TRAIL CROSSINGS

Roselane St. Trail Crossing

At points where the trail crosses sides of the streets, but not at a street intersection, wayfinding improvements are less crucial. These points demand a single crossing over the street (instead of two) and usually do not span as large of distances as at intersections, making them easier to navigate.

Nonetheless, more obvious wayfinding signage anywhere will improve trail navigation for users, especially at places where the trail switches sides but the pedestrian path transitions into a sidewalk. Dashed median lines on the trail would distinguish the trail from the sidewalk. Brighter or otherwise more obvious signage, instead of the stub markers, would be helpful but not crucial at short crossings.

Mid-block trail crossings such as this one offer opportunities to integrate brightly painted or artistically designed crosswalks with a raised crosswalk. A raised crosswalk is depicted only in one option but can be integrated into any of the other designs. While the final option represents an ideal design with all feature improvements (painted crosswalk, more obvious signage, dashed median markings, street trees, and a raised crosswalk), not all need be included in a future redesign.

Lastly, exposed stretches of trail such as along Roselane St. and Kennesaw Ave. would benefit most from street trees and/or improved buffers and landscaping.



Painted crosswalk with white crossbars and dashed median markings on the trail path.



Painted crosswalk and dashed median markings, with more obvious trail signs at both sides of the street.



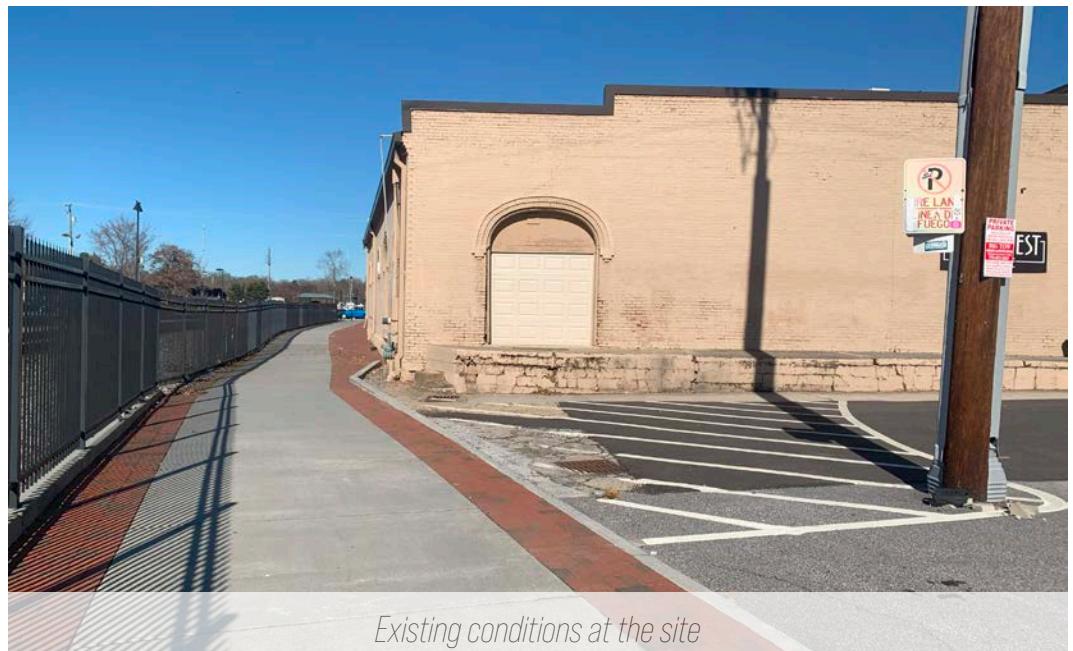
Artistic crosswalk design, raised crosswalk, dashed median markings on the trail path, more obvious trail signs at both sides of the street, and street trees in the planting strips along the eastern side of Roselane St.

POCKET PARKS & PARKLETS

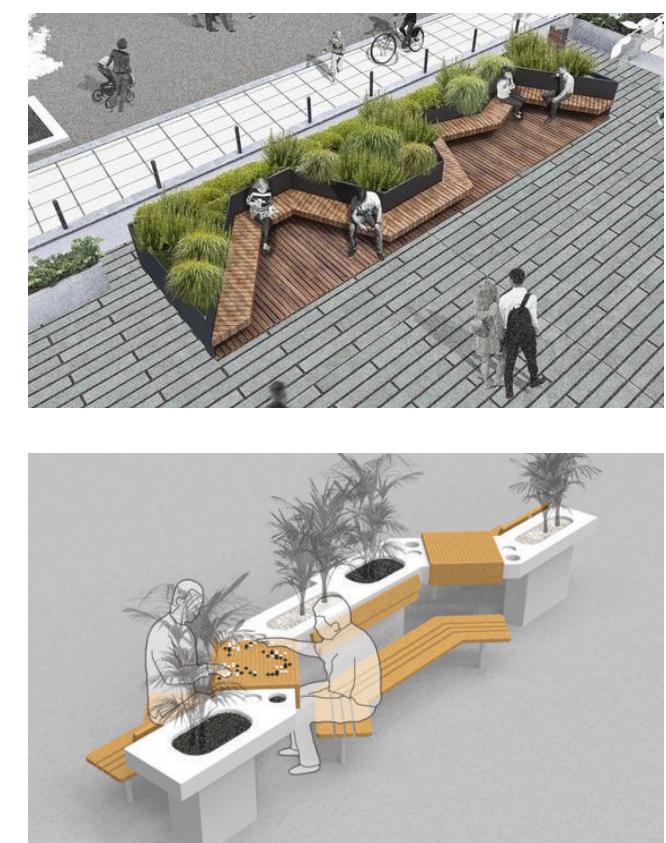
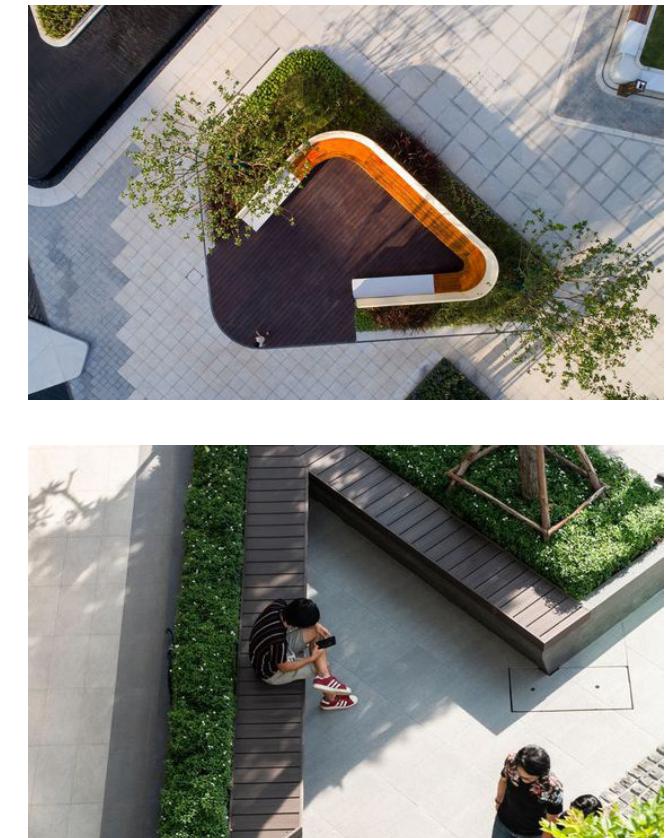
Parklets are small “pocket parks” that provide opportunities for rest, relaxation, and passive activities. Parklets can be temporary or permanent and can be designed with different materials according to their intended purpose and duration.

Parklets can claim residual spaces in an lot, breathing new life into the area as a point of interest. They need not be complicated but should, at minimum, provide a place for people to sit. Depending on the materials used, which could range from finished outdoor furniture products to pallets or milk cartons, they can be quick and cheap to construct. Some companies also sell prefabricated parklet kits.

Residual ares of surface parking lots are good opportunities for parklets. They could also be installed outside of dining establishments to create patio spaces, in front setback areas of commercial spaces, or on the lawns of commercial, church, and civic properties next to the trail (or a sidewalk). The illustrations on this page depict a parklet on a striped-off section of a surface parking lot entered through Anderson St. The designs feature seating and planter landscaping, similar to the case study examples. The second design shows a more enclosed space and a different seating arrangement that is more conducive to groups.



Existing conditions at the site

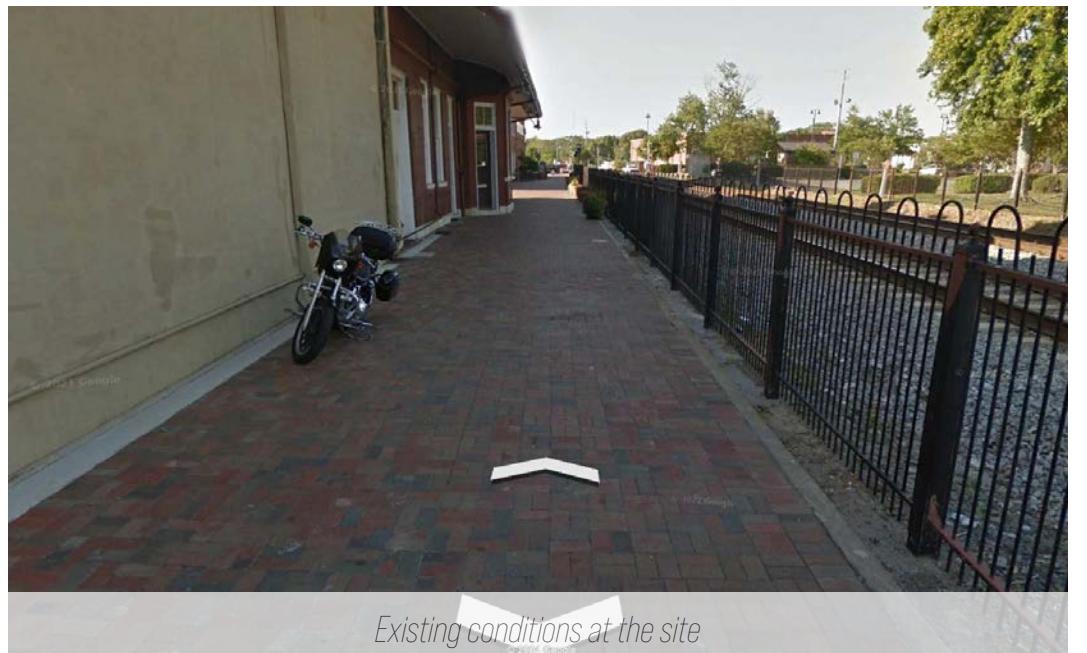


POCKET PARKS & PARKLETS

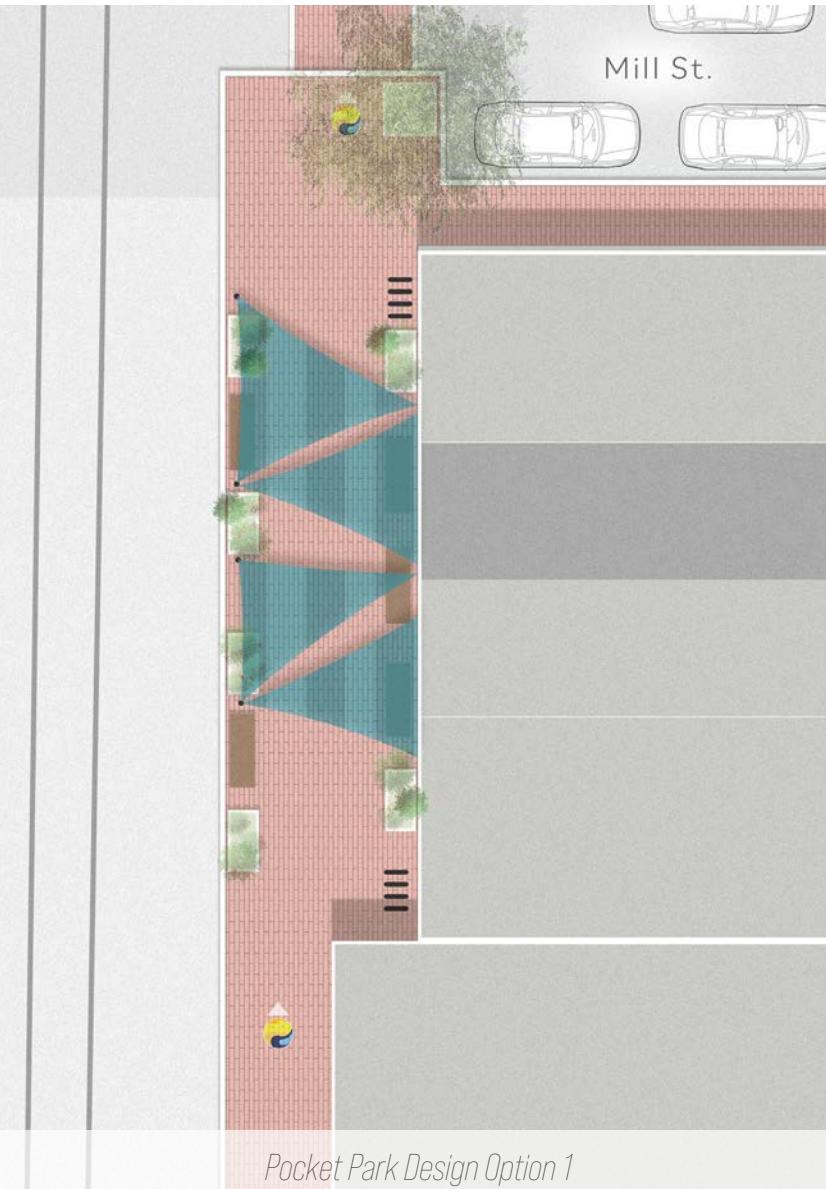
There are some opportunities along the trail where parts of the trail itself can be retrofitted into amenity areas. Simple interventions such as adding seating, planters or landscaping, and shade structures will encourage trail users and downtown visitors to linger in these areas.

The illustrations present design options for enhancing a short segment of the trail south of Mill St. This portion of the trail is wide enough to accommodate street furniture and other amenities. The photo of the existing site below was taken before a mural was painted on the blank wall (left), which has already enlivened this otherwise bland stretch of the trail. Indications of the trail as it passes through Downtown are muted (e.g. signage does not use vibrant colors as in other parts of the trail), so the design options also envision pavement decals to indicate users are on the trail.

Design Option 1 illustrates bench seating, planters, and overhanging shade elements. Design Option 2 utilizes inexpensive cafe chairs and tables (moveable furniture) and adding shading through patio umbrellas. Bike racks are depicted in both cases, as bike racks on the trail through downtown would provide cyclists secure parking and convenient access to downtown retail.



Existing conditions at the site



Pocket Park Design Option 1



Pocket Park Design Option 2



BRUMBY LOFTS CROSSING

The segment of the trail on North Marietta Pkwy. in front of Brumby Lofts is problematic from a navigation and usability perspective. The ramp leading off of the North Pedestrian Bridge and configurations around the intersection at the entrance to Brumby Lofts are especially challenging for cyclists (see recommendations D21-23). Furthermore, as users descend from the bridge, there is no signage to indicate where the trail continues. The following design options present alternative configurations for the intersection that may alleviate these pain points:

- Option 1: Painted crosswalks and dashed median lines are painted to improve navigation, clearly indicating where the trail continues.
- Option 2 : Entrance to Brumby Lofts is redesigned. Entrance is reduced to one lane to accommodate left and right turning traffic rather than a lane for each. The traffic island is redone according to the new traffic pattern and the crosswalk is realigned more directly with the trail. The curb cut on the west side of the intersection is repositioned to align with the crosswalk and the ramp coming off of the bridge. Painted crosswalk and dashed markings for navigation.
- Option 3 : Entrance to Brumby Lofts redesigned into a two-way driveway for entrance/egress, rather than three one-way lanes. Crossing distance for trail users is dramatically shortened. Painted crosswalk and dashed markings for navigation.



Option 1 - Navigation improvements



Option 2 - Intersection redesign with crosswalk to trail realignment and navigation improvements.



Option 3 - Intersection redesign with shortened crosswalk and navigation improvements



RECOMMENDATIONS

The following chapter compiles recommendations arising out of the Mountain to River Trail Activation Study. Recommendations are organized by Character Areas (color-coded lines), though some recommendations apply throughout the entire trail in Marietta. The recommendations are intended to form the basis of an action plan for improvements to the Mountain to River Trail and considerations to keep in mind for Rottenwood Creek Trail as the latter is completed.

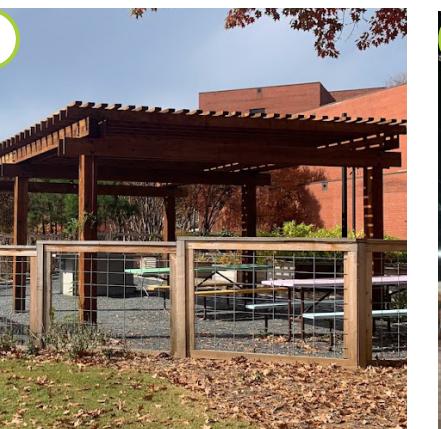
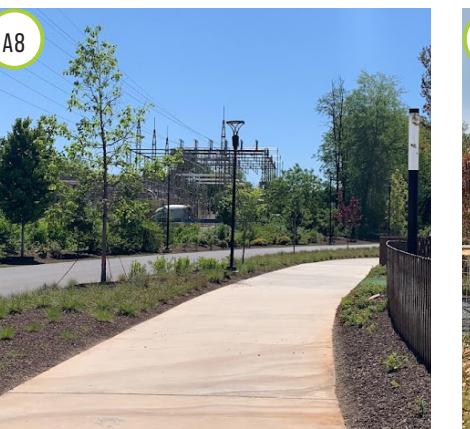
RECOMMENDATIONS - AMENITIES

Amenities		Character Area	Mapped
A1	Add pet stations at points along the trail (e.g. Brown Park, Lewis Park, and Tower Rd.)		X
A2	Ensure that the trail is well lit, especially at the segment behind Brumby Lofts leading to Sessions St. & at trail segment adjacent to St. James Episcopal	Downtown Amenity Trail	X
A3	Add bike parking stations and bike tool stations for cyclists		X
A4	Add benches and more opportunities to sit along the trail		X
A5	Place water fountains along trail or indicate where water is available at adjacent public facilities		
A6	Add public restrooms along the trail or indicate where restrooms are available at adjacent public facilities. Consider constructing restroom facilities at Brown Park accessible to trail users.		
A7	Place additional waste and recycling bins along the trail		X
A8	Consider planting shade trees or installing shade features like canvas awnings along the trail		X

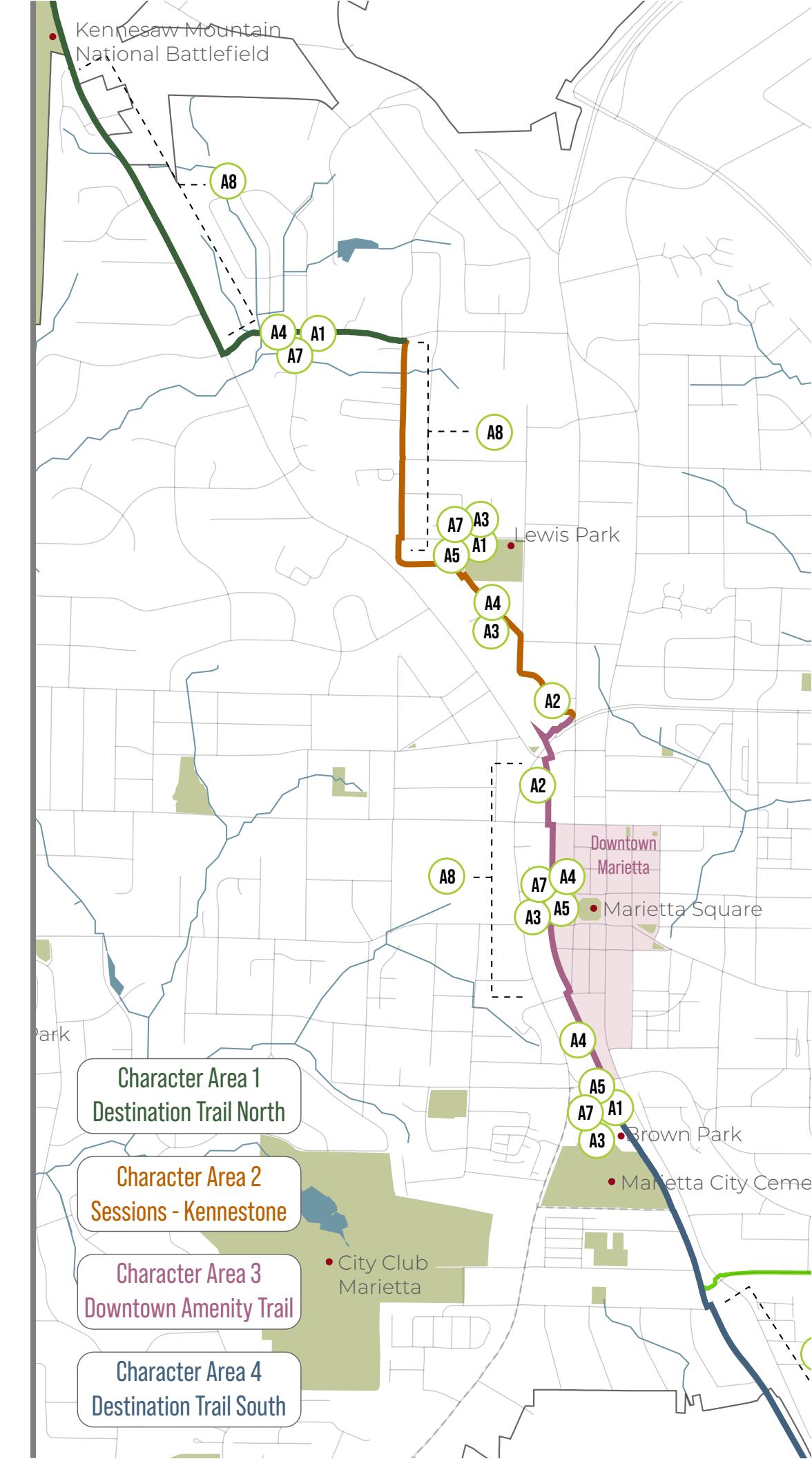
A3 Popular stopping points along the trail with commercial or recreational opportunities, like the City Cemetery, the Square, the Sessions St. commercial node, Lewis Park, and Kennesaw Mountain National Battlefield Park are good locations where bike racks might be placed. Bike racks should be placed in multiple locations in the Square to serve cyclists visiting downtown businesses from the trail or vice versa.

A5 The public pocket plaza (b/w Cool Beans and the Welcome Center) could provide an opportunity for a public water station midway between Brown Park and Lewis Park

A6 If appropriate, the Marietta Welcome Center and the Marietta History Museum could allow and advertise public access to their restroom and water facilities



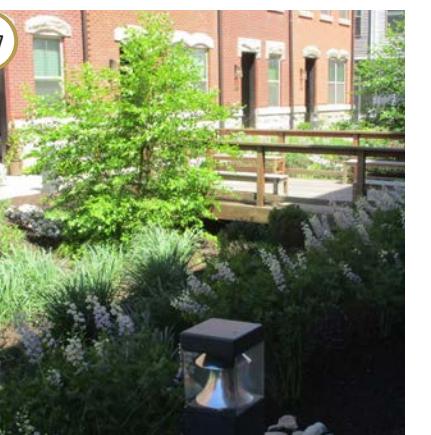
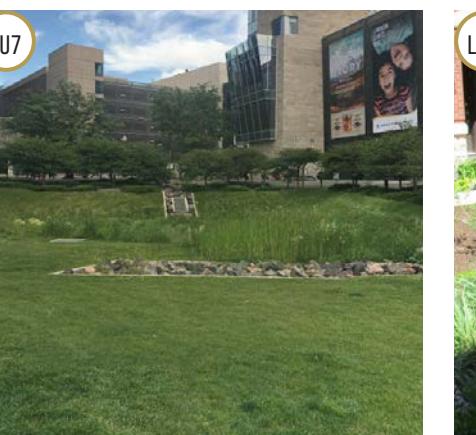
(Left to right) Custom logo bike rack and bike tool station (CycleSafe®); Street trees and lighting on a multiuse trail; Standalone trellis canopy awning; Synthetic fabric shade sails



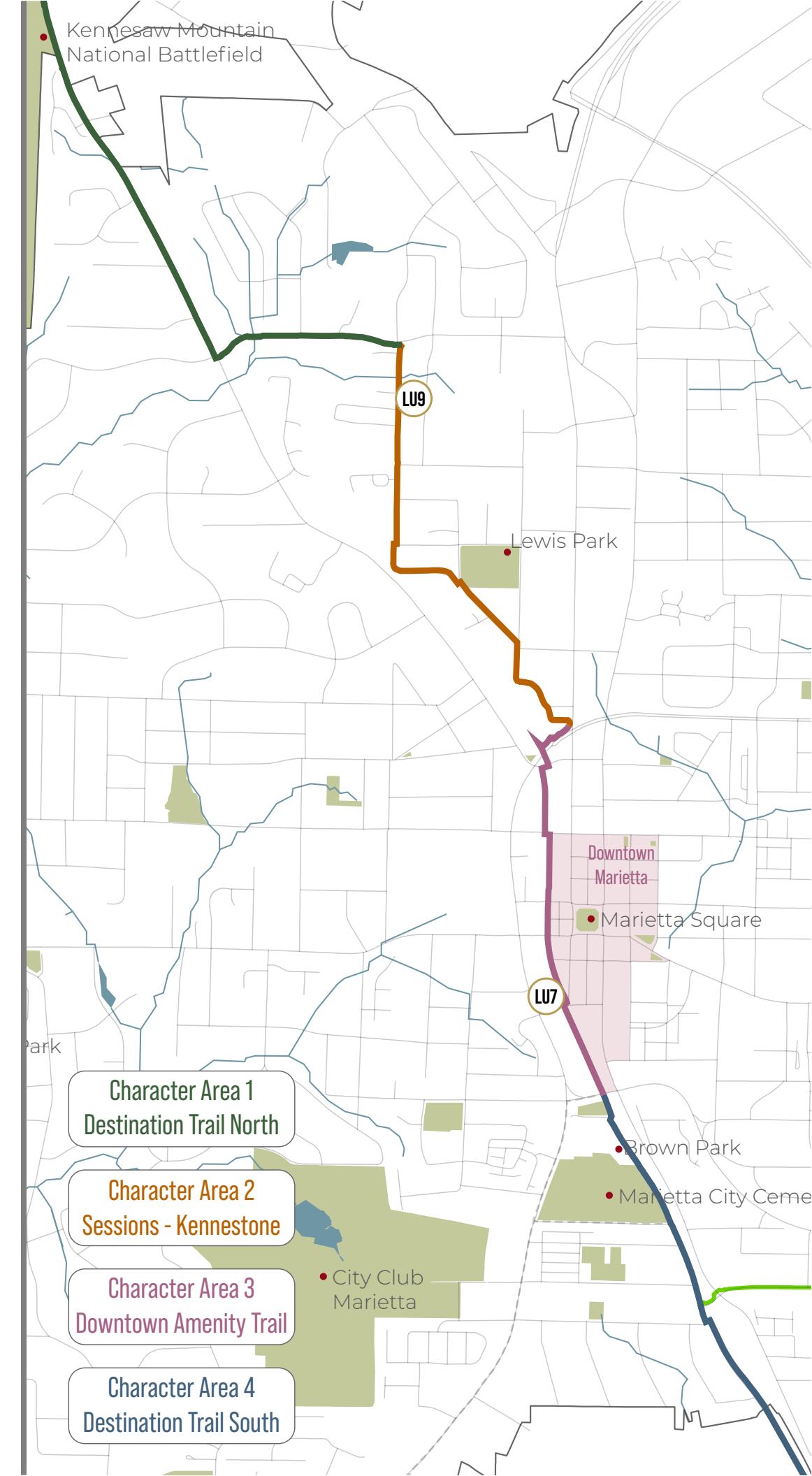
RECOMMENDATIONS - LAND USE

Land Use	Character Area	Mapped
LU1 Encourage residential and mixed-use land uses near the trail		
LU2 Consider targeted recruitment of a bike shop along the trail		
LU3 Zone for and recruit small-scale commercial, trail-oriented businesses along corridor (coffee shops, breweries, restaurants, retail, mixed-use)		
LU4 Consider applying an overlay district on the trail with additional design standards and restricted auto-oriented commercial uses		
LU5 Create a permitting process for vendors, artists, and buskers to use the trail on non-event days		
LU6 Continue to explore opportunities to add a civic building/use along the trail		
LU7 Redesign and utilize the stormwater detention lot (near Douceur de France)		x
LU8 Explore opportunities for pocket parks alongside the trail that may create new greenspace, rest areas, or play areas like playgrounds, basketball courts, pickle ball, or outdoor gyms		
LU9 Plan and facilitate development of undeveloped parcels on Roselane	Sessions-Kennestone	x
LU10 Use redevelopment opportunities on Roselane as a chance to reduce curb cuts and consolidate surface parking	Sessions-Kennestone	
LU11 Encourage trail-adjacent businesses downtown to open onto the trail via a secondary frontage	Downtown Amenity Trail	

- LU4 If extending the Tier B overlay, consider allowing the recommended landscape buffer zone to be placed between the sidewalk and the roadway to act as a buffer for pedestrians from vehicular traffic (currently, landscape buffer zone is required between the sidewalk and the building face)
- LU8 Pocket parks can be placed in underutilized areas, like marginal spaces of surface parking lots, on small undeveloped properties, or as distinct spaces in existing parks
- LU10 Promote inter-parcel connectivity among adjacent commercial developments



(Left to right) Pocket park in underutilized space with some commercial activation, seating, art, and greenery; Activated sidewalk and parklet (NACTO); Aesthetically enhanced stormwater facilities

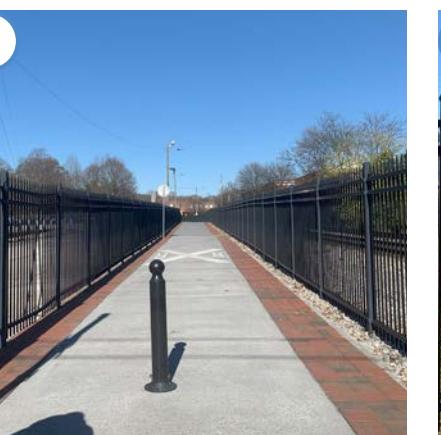


RECOMMENDATIONS - DESIGN

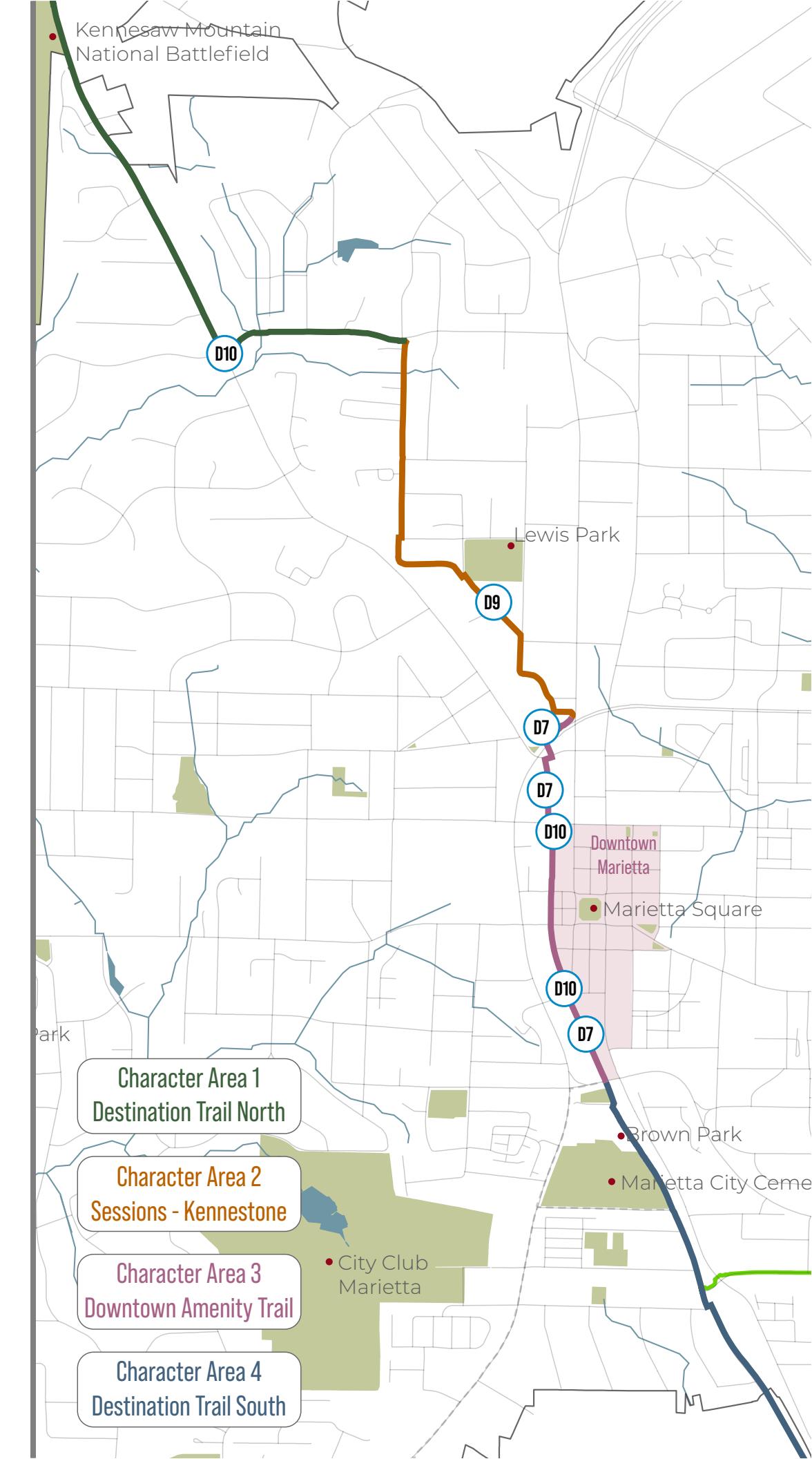
	Design	Character Area	Mapped
D1	Add striped median line to the trail path	All (except Downtown Amenity Trail)	
D2	Correct direction indication/orientation where needed		
D3	Reduce the variation in signage types for the M2R trail		
D4	Reserve special design treatments [e.g. brick pavers, special signage] to the part of the trail by the CBD. Do not apply to other Character Areas.		
D5	Consider using M2R picket signage with bright, easily visible colors in the CBD, instead of muted signage		
D6	Widen narrow sections of the trail if possible		
D7	Consider removing or reducing fencing and/or railing along the trail, especially where there is fencing on both sides and fencing does not significantly enhance safety	Downtown Amenity Trail, Sessions-Kennestone	x
D8	If fencing is required, consider installing waist-high or lower fencing types with high visual transparency [similar to the bollard and chain fencing where Mill St. intersects the trail]	Downtown Amenity Trail, Sessions-Kennestone	
D9	Continue to utilize chain fences along the trail to display art or for new art installations	Sessions-Kennestone	x
D10	Improve signage and wayfinding, particularly at key intersection crossings like Waverly St., Polk St., and Tower Rd.- Kennesaw Ave.		x

D4 Ideally, signage should be consistent along the trail. Consider using brighter, bolder, more obvious signage in the Downtown Amenity Trail Character Area

D6 The Destination South Character Area is pending redesign on West Atlanta Rd., but this is currently a portion of the trail where the path is too narrow



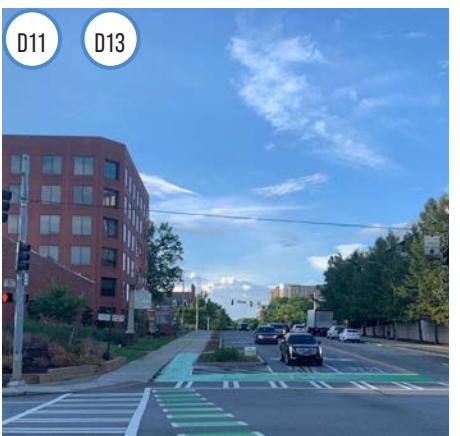
(Left to right) Trail with dashed median striping; Trail with differentiated zones; Examples along the M2R trail where some fencing can be removed



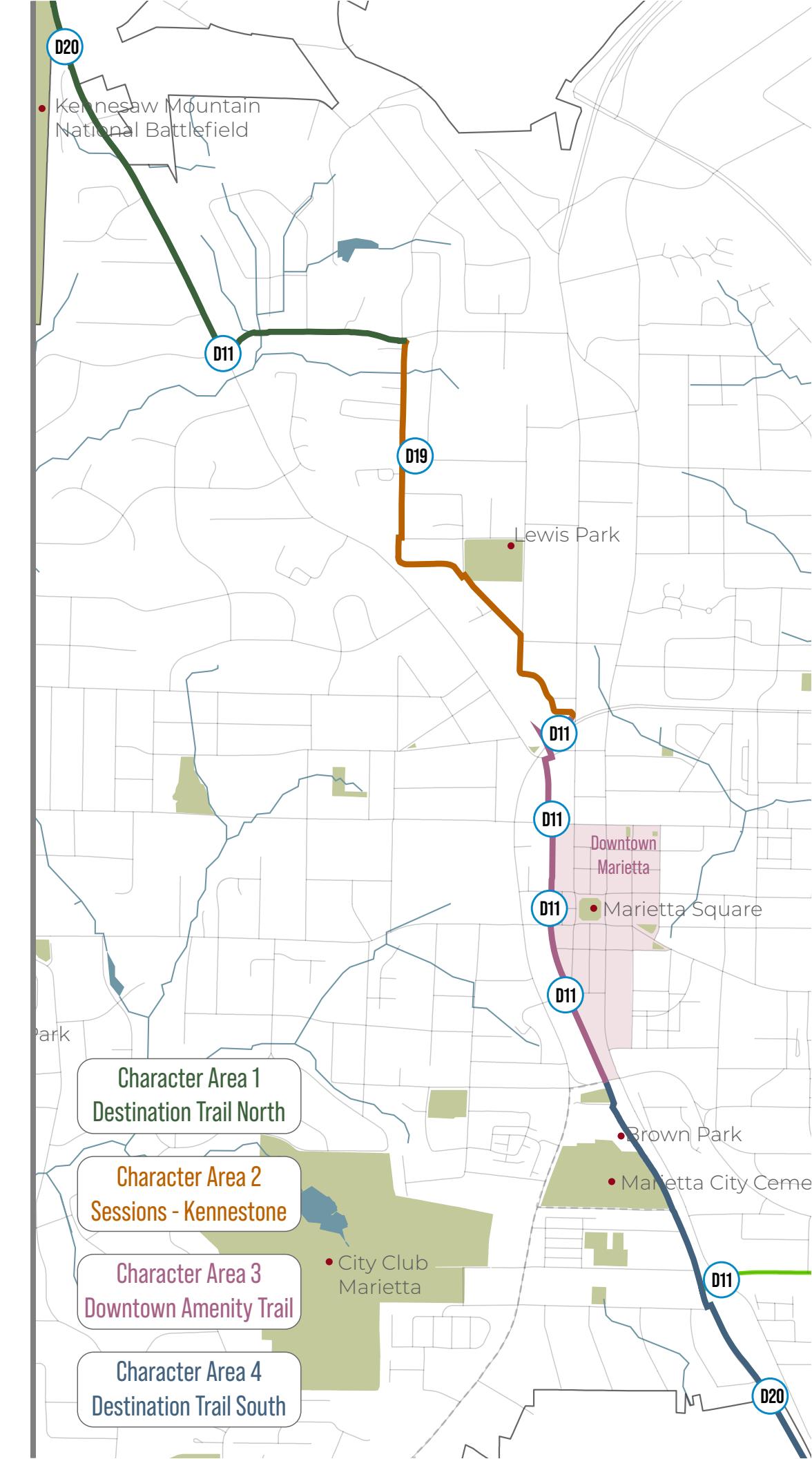
RECOMMENDATIONS - DESIGN (CONT.)

	Design	Character Area	Mapped
D11	Design highly visible crosswalks (artistic designs or plain, bright colors) at key intersections and where trail crosses the street for ease of navigation		x
D12	Continue to utilize blank exterior wall space for art and mural opportunities along the trail		
D13	Increase buffer zones between street and trail, if possible, especially north and south of the CBD	Destination Trail North, Sessions - Kennestone, Destination Trail South	
D14	Improve signage and other visual cues from the M2R Trail to the Rottenwood Creek Trail. Existing signage on West Atlanta Rd. does not clearly indicate the Rottenwood Creek Trail continues on E Dixie Ave.	Destination Trail South	
D15	Design streetscape improvements for trail segment along West Atlanta (buffer strip, tree planting, lighting, etc.) (Refer to D6, D15)	Destination Trail South	
D16	Consider using stamp decals on pavement and/or exterior walls along the trail as wayfinding markers		
D17	Consider relocating or reproducing the trail map signage by the train car downtown to a location directly on the trail		
D18	Apply more frequent visual cues at the trail from the Cemetery leading south on West Atlanta to reassure users they are still on the trail (Refer to D6, D18)	Destination Trail South	
D19	If possible, reduce curb cuts and consolidate driveways that interrupt the trail along Roselane St.	Sessions - Kennestone	x
D20	Install gateway signage to the City of Marietta where the trail crosses city boundaries (on West Atlanta and Kennesaw Ave.)	Destination Trial North, Destination Trail South	x

D15 **D18** The Destination South Character Area is pending redesign on West Atlanta St., but this is currently a portion of the trail where the path is too narrow



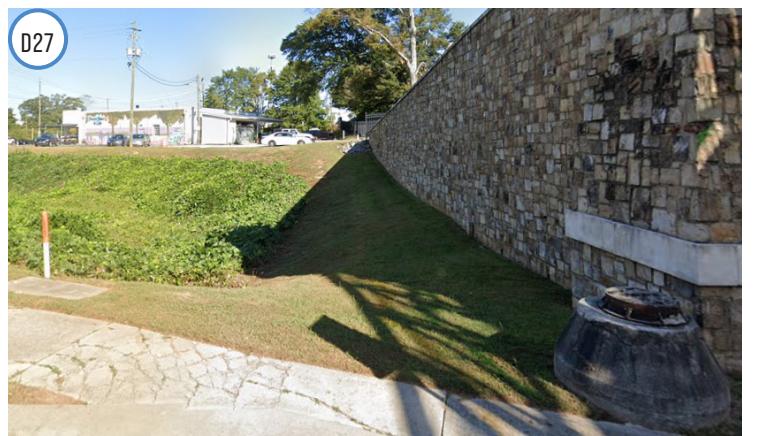
(Left to right) High-visibility bike crossings and planting buffers along multiuse path; Sidewalk decal (National Highway Products); High-visibility crosswalks indicating trail path



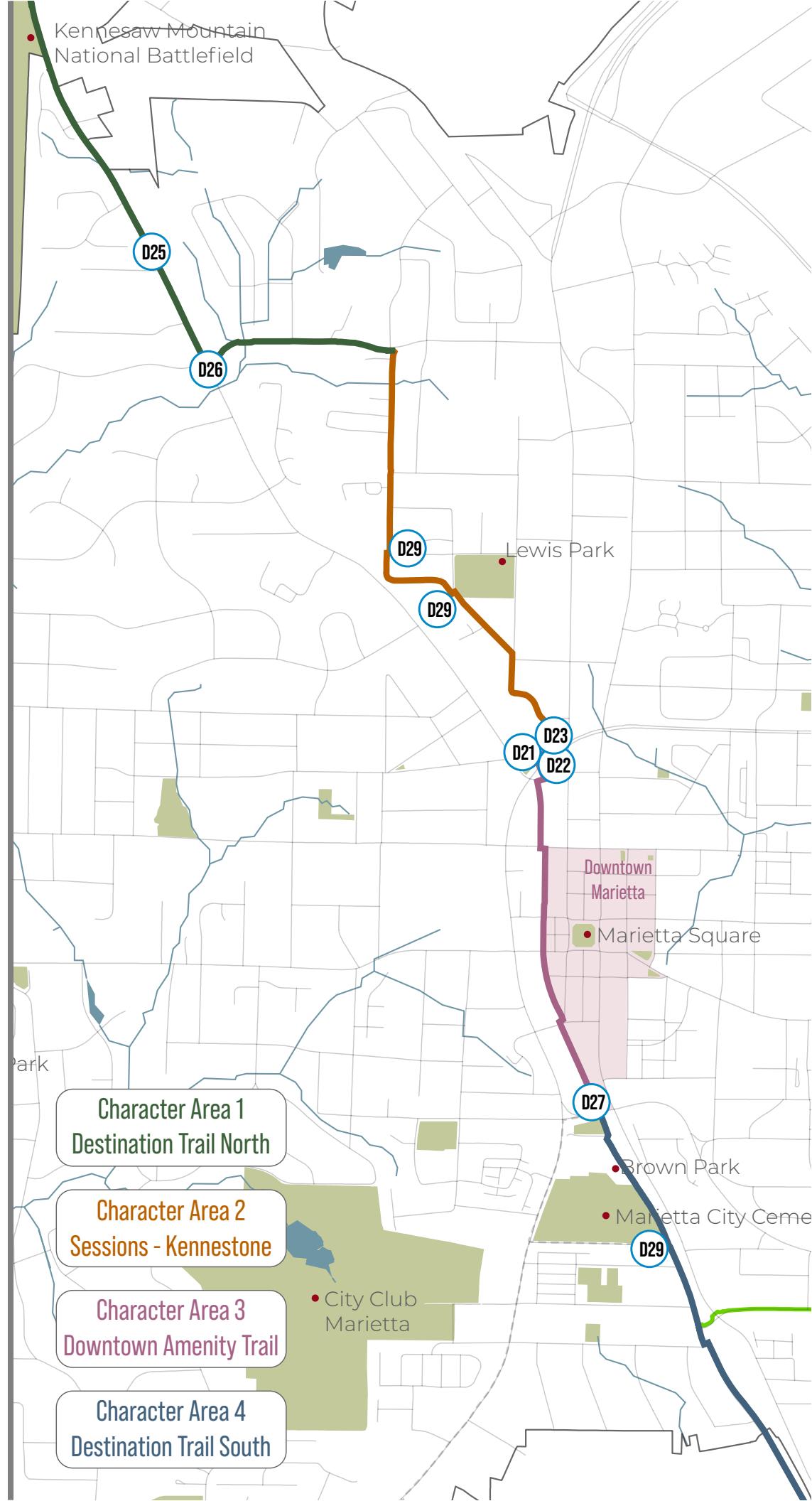
RECOMMENDATIONS - DESIGN (CONT.)

	Design	Character Area	Mapped
D21	Brumby lofts: On the ramp leading down from the bridge, remove superfluous sections of railing on one or both sides of the path		x
D22	Brumby lofts: Create new curb cut that is more aligned with flow of the ramp (see pg. 29)		x
D23	Brumby lofts: Widen ramp connecting from switchbacks to street [if possible]		x
D24	Clarify trail direction indicators and signage, especially at points where the trail switches sides at intersections (Refer to D11, in addition or in place of)		
D25	Install convex traffic mirrors at exits from subdivisions on Kennesaw Ave. that may help outgoing drivers spot pedestrians and cyclists on the trail	Destination Trail North	x
D26	In particular, install signage at or add markings at Tower Rd. and Kennesaw Ave. to indicate trail direction		x
D27	Consider providing stair access to the trail from S Marietta Pkwy to the trail's southern bridge		x
D28	Create, expand, and enhance existing cycling and pedestrian connections to the M2R trail		
D29	Consider designing a raised crosswalk, raised intersection, or pedestrian-activated signals at street intersections with the trail, or areas at mid-block trail crossings (e.g. Roselane St., Sessions St., West Atlanta St.*)		x
D30	Add stop signs for cars on roads crossing the trail through Downtown Marietta (Whitlock, Polk, Mill, Waverly)	Downtown Amenity Trail	

D29 The pending redesign of West Atlanta St. calls for a mid-block trail crossing similar how the trail crosses over Sessions St. and again over Roselane St. These crossings are opportunities where a raised crosswalk may be appropriate. Mid-block crossings, including the planned crossing on West Atlanta St., are marked on the map.



[Left to right] Opportunity to add access to M2R from S. Marietta Pkwy; Examples of raised crosswalks



RECOMMENDATIONS - COORDINATION

	Coordination	Character Area	Mapped
C1	Create a designated contact person from the city for trail management needs, inquiries, suggestions, and complaints		
C2	Program other major events, in addition to Trailfest, on parts of the trail		
C3	Conduct city-led walks and/or cycling trips for residents to experience the trail		
C4	Coordinate with Google Maps to update bike route layer		
C5	Coordinate with CobbLinc to explore opportunities for public transit agencies to indicate the trail to passengers		
C6	Install signage outside of the trail route but near major trail access points to direct people to the trail, especially in Downtown Marietta	Downtown Amenity Trail	x
C7	Coordinate with Cobb County to match signage and branding along the whole trail. The County could adopt the colors and signage style of the City.	Destination Trail South, Destination Trail North	x
C8	Coordinate with new developments and redevelopments to negotiate designs addressing the M2R trail, to provide access points, landscaping, and pleasure paths		
C9	Encourage use of parking facilities in Downtown Marietta for those accessing the trail by car	Downtown Amenity Trail	x

