
Southern Brevard Trails Master Plan



Working Group Meeting #2

July 17, 2024

Ted Moorhead Lagoon House

3275 Dixie Highway NE, Palm Bay, FL, 32905

9:30 AM – 11:30 AM

1. Introductions
 2. Refresher on Project Background and Goals
 3. Project Schedule Updates
 4. Project Working Group Meeting #1 Recap
 5. Trail Hierarchy & Typology System
 6. Draft Recommended Trails Network
 7. Next Steps
 8. Questions and Discussion
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AGENDA

- 1 |** Introductions
- 2 |** Refresher on Project Background & Goals
- 3 |** Project Schedule Updates
- 4 |** Project Working Group Meeting #1 Recap
- 5 |** Trail Hierarchy & Typology System
- 6 |** Draft Recommended Trails Network
- 7 |** Next Steps
- 8 |** Questions and Discussion



Please Introduce Yourself

Name

Title/Role







Agency/Organization


REFRESHER ON PROJECT BACKGROUND & GOALS

- Create a sub-area trails plan for the Southern Brevard study area based on the goals and objectives from the Bicycle & Pedestrian Master Plan (BPMP)
- Build on the existing regional trail networks like Showcase, SUN Trail Network, EEL, etc. to identify additional trail connections
- Develop a trail system hierarchy (regional, secondary, tertiary, etc.) and typology (surface types and activity types)
- Prioritize new trail connections and identify one or more high priority trail corridors to conduct a feasibility study




PROJECT SCHEDULE UPDATE

Task No.	Task	2023			2024									2025					
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
1	Existing Conditions Analysis	█	█	█	█														
2	Trail System Hierarchy and Typology					█	█	█											
3	Recommended Trails Network						█	█	█	█	█	█							
4	Trails Network Prioritization										█	█	█	█					
5	Public and Stakeholder Engagement						█	█	█	█		█		█		█			
6	Master Plan Document																█	█	█


We are Here

 Project Working Group Meetings

 Public Open House + Virtual Meeting

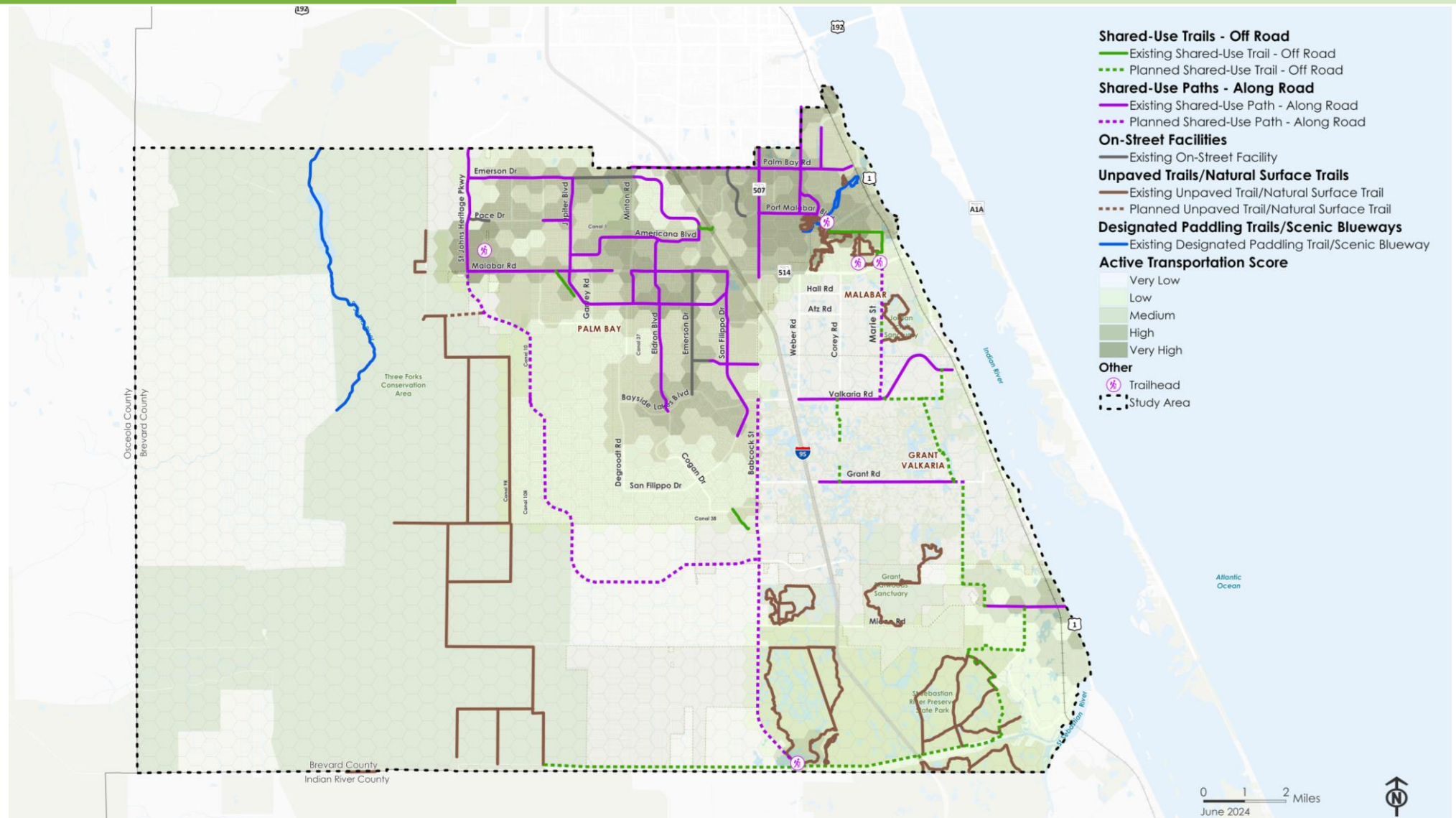
 Final Board and Council Presentations

WORKING GROUP MEETING #1 RECAP

- Conducted on February 22, 2024, at Grant-Valkaria Town Hall from 9:30 AM – 11:30 AM
- 24 Attendees from Various Local and State Agencies and SCTPO Committees
- Presented:
 - Project Background and Goals
 - Project Scope and Schedule
 - Study Area Overview
 - Existing Conditions Analysis
 - Active Transportation Propensity Index
 - Synthesis Diagram – Approach to Developing the Trail Network



PROPENSITY INDEX & EXISTING/PLANNED TRAILS



EXISTING CONDITIONS SYNTHESIS DIAGRAM



Note: Diagram is for illustrative purposes only. Alignments do not necessarily represent existing trails



TRAIL SYSTEM HIERARCHY & TYPOLOGY

POTENTIAL TRAIL HIERARCHY & TYPOLOGY

Potential Trail Hierarchy



Primary Trails

Secondary Trails

Tertiary Trails

Potential Trail Typologies



Shared-Use Trail – Off-Road

Shared-Use Path – Along Road

On-Street Facility




Unpaved Trail/Natural Surface Trail

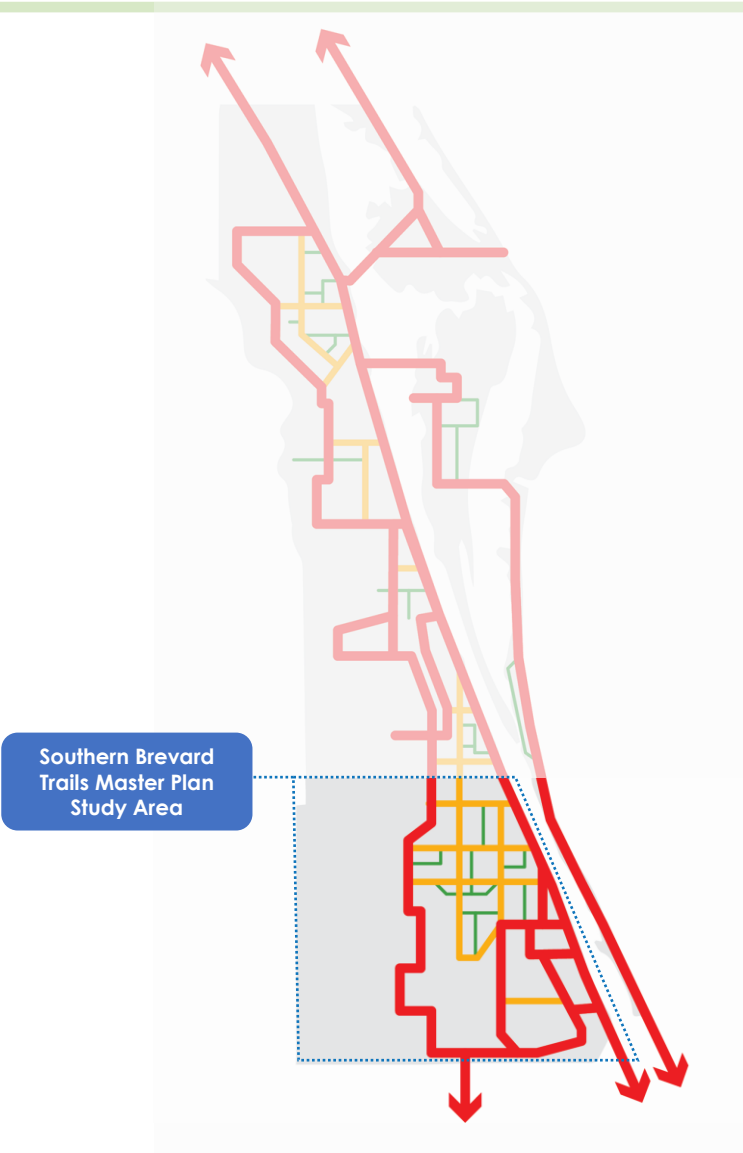
Unpaved Equestrian Trail

Designated Paddling Trail/Scenic Blueway

POTENTIAL TRAIL HIERARCHY

POTENTIAL TRAIL HIERARCHY

-  Primary Trail
(Regional Connections)
-  Secondary Trail
(Sub-Area Connections)
-  Tertiary Trail
(Neighborhood/Park/Local Connections)

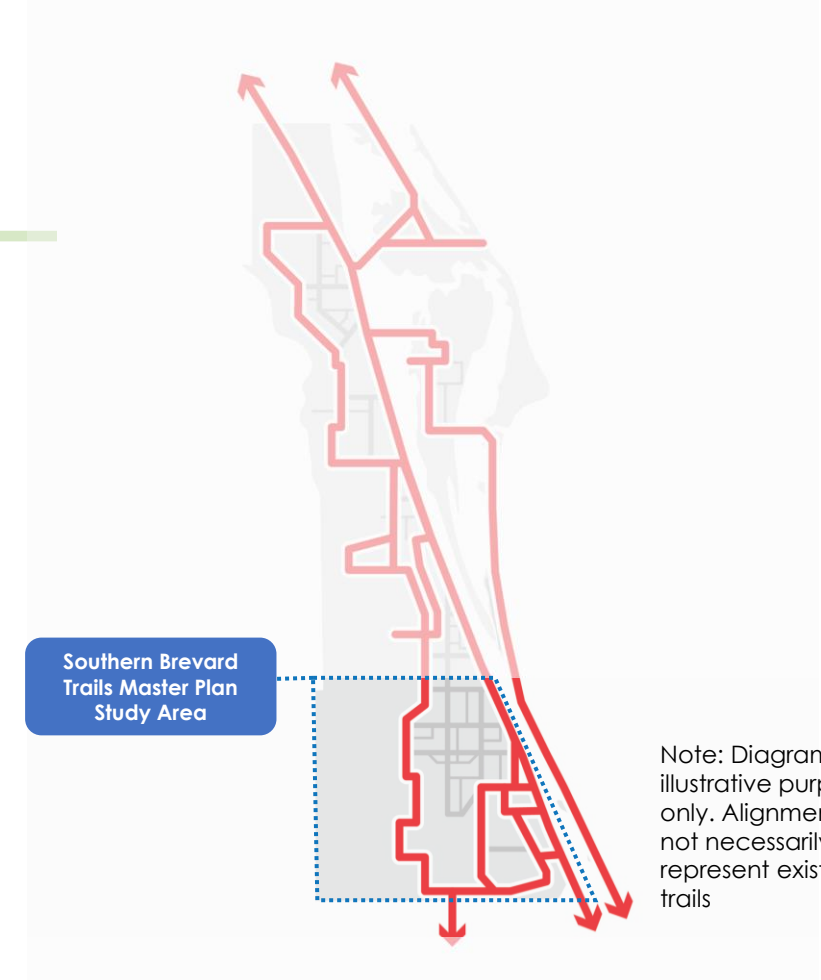


Note: Diagram is for illustrative purposes only. Alignments do not necessarily represent existing trails

PRIMARY TRAILS



(Source: Florida Department of Environmental Protection Office of Greenways and Trails)



Physical Features:

- 12'-15' wide (or wider)
- Paved Shared-Use Trails - Off Road or Along Road
- On-Street Facilities

Connecting Features:

- Part of state-wide/regional/county-wide trail systems
- Branded trails serving longer trips connecting major cities and destinations

SECONDARY TRAILS



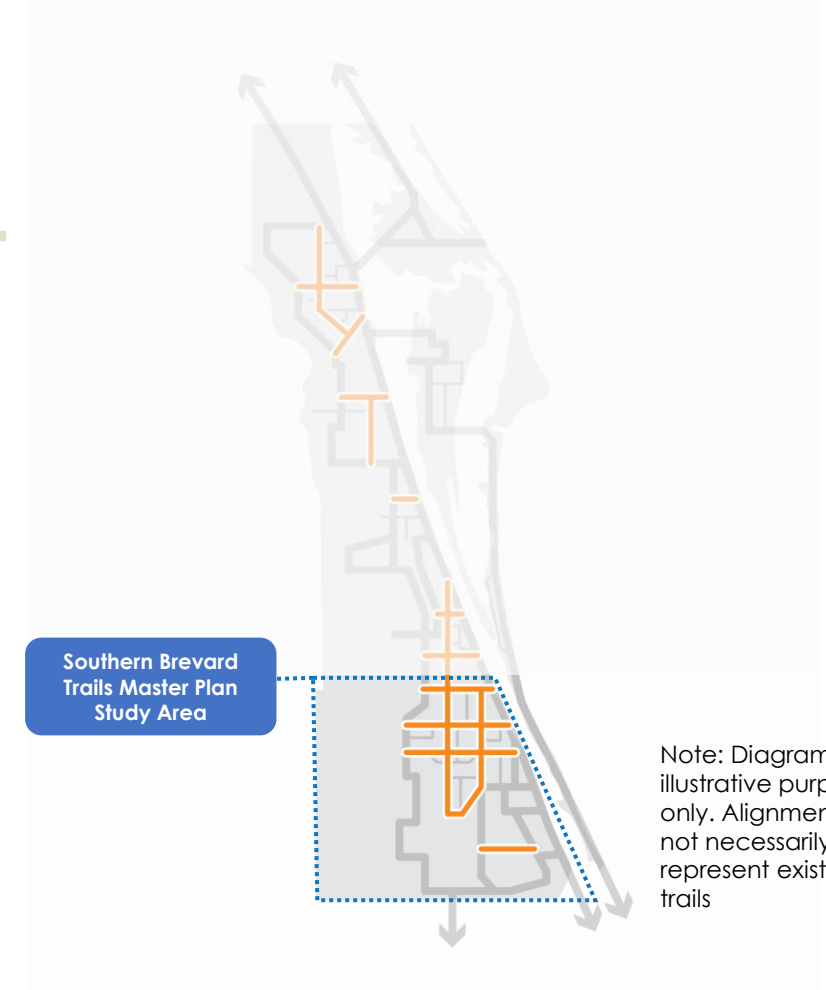
(Source: Kittelson & Associates, Inc.)

Physical Features:

- 8'-15' wide (or wider)
- Paved Shared-Use Trails - Off Road or Along Road
- On-Street Facilities

Connecting Features:

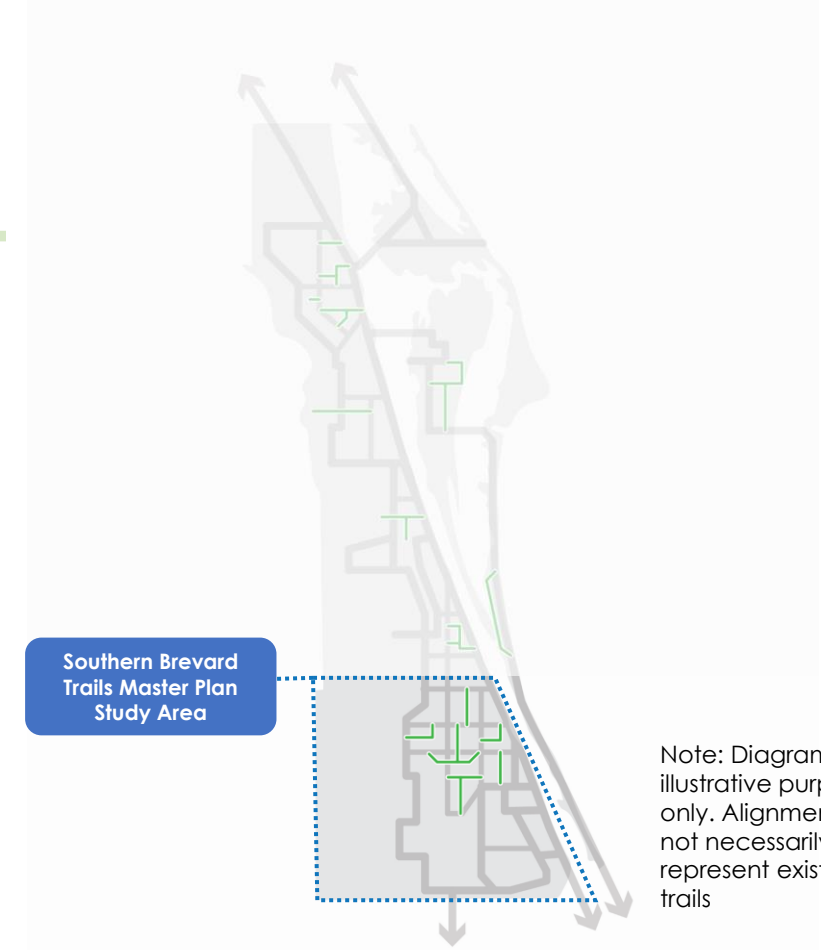
- Sub-area connections
- Provides connections between Primary Trails
- Serving medium distance trips connecting smaller close by cities/towns or different parts of larger cities



TERTIARY TRAILS



Neighborhood Trail to Fred Lee Park, I-95 Underpass. (Source: Google Earth)



Physical Features:

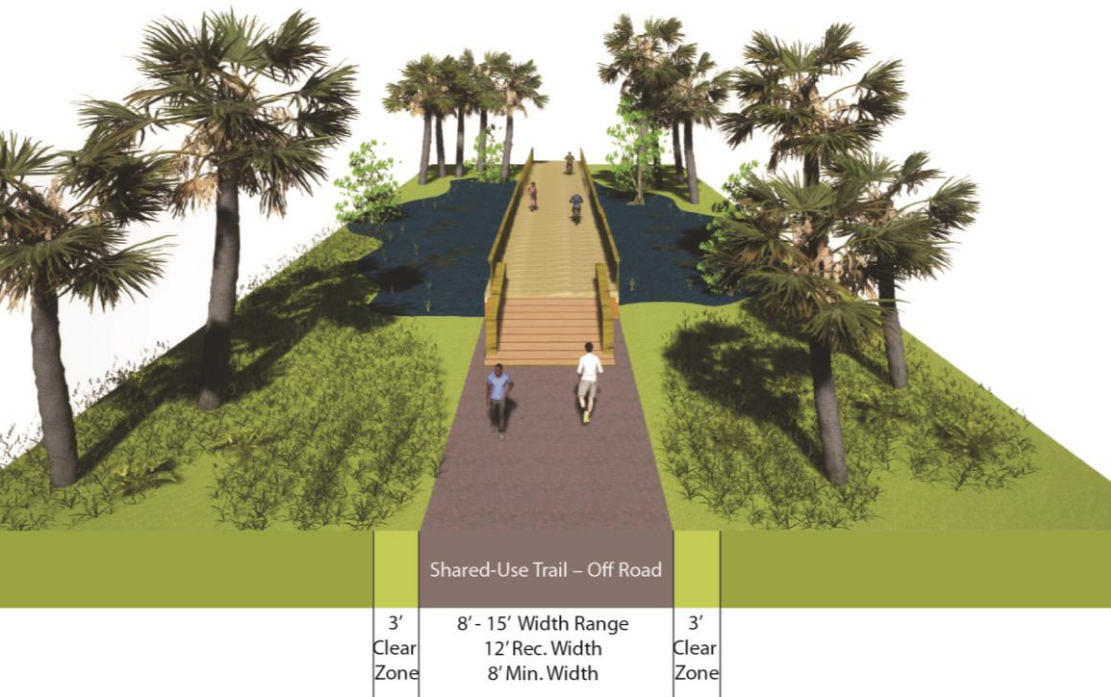
- 6'-12' wide (or wider)
- Paved Shared-Use Trails - Off Road or Along Road
- On-Street Facilities
- Unpaved Trails
- Blueways

Connecting Features:

- Neighborhood connections
- Park trails or other types of recreational trails
- Provides connections from neighborhoods to nearby Secondary or Primary Trails
- Serving small distance trips

POTENTIAL TRAIL TYPOLOGY

SHARED-USE TRAIL – OFF-ROAD



Typical Width Range:

- 8'-15'
- 12' (Recommended)
- 8' (Minimum)

Trip Purpose:

- Active Transportation
- Recreation

Primary Users:

- Pedestrians
- Bicyclists
- Wheelchair Users
- E-devices (<20 mph)

Typical Materials:

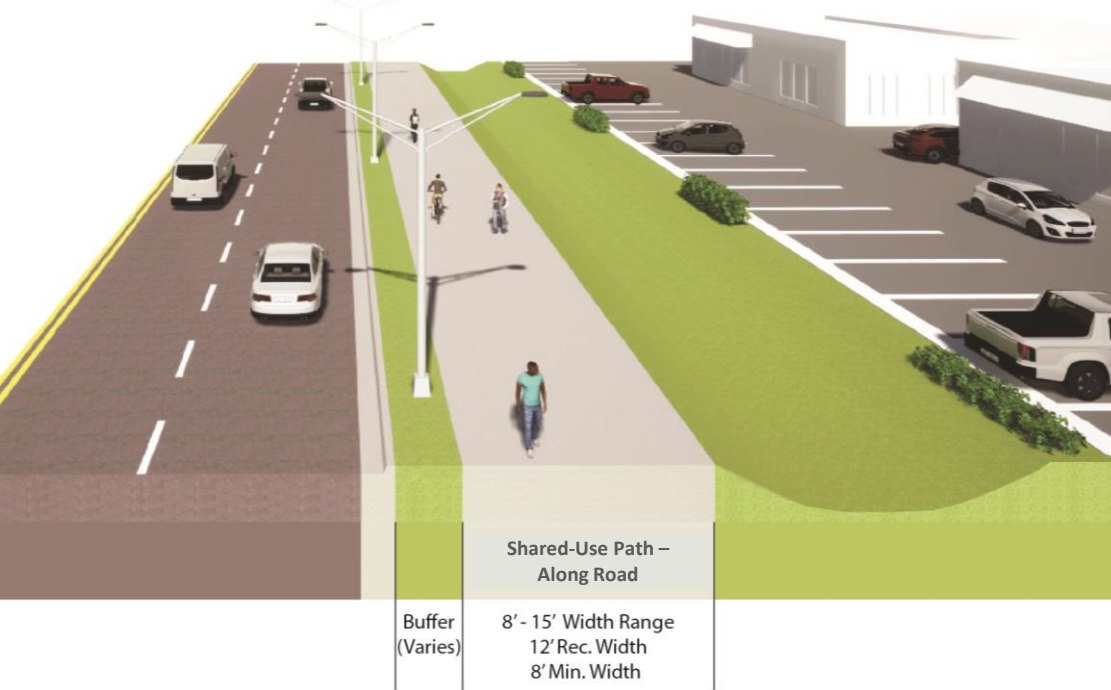
- Asphalt
- Concrete
- Permeable Asphalt
- Permeable Concrete
- Boardwalk

Typical Locations:

- Canals, Rivers, Creeks
- Utility Corridors
- Rail Corridors (Active or Abandoned)
- Forested Areas
- Conservation Areas



SHARED-USE PATH – ALONG-ROAD



Typical Width Range:

- 8'-15'
- 12' (Recommended)
- 8' (Minimum)

Trip Purpose:

- Active Transportation
- Recreation

Typical Materials:

- Asphalt
- Concrete
- Permeable Asphalt
- Permeable Concrete
- Boardwalk

Primary Users:

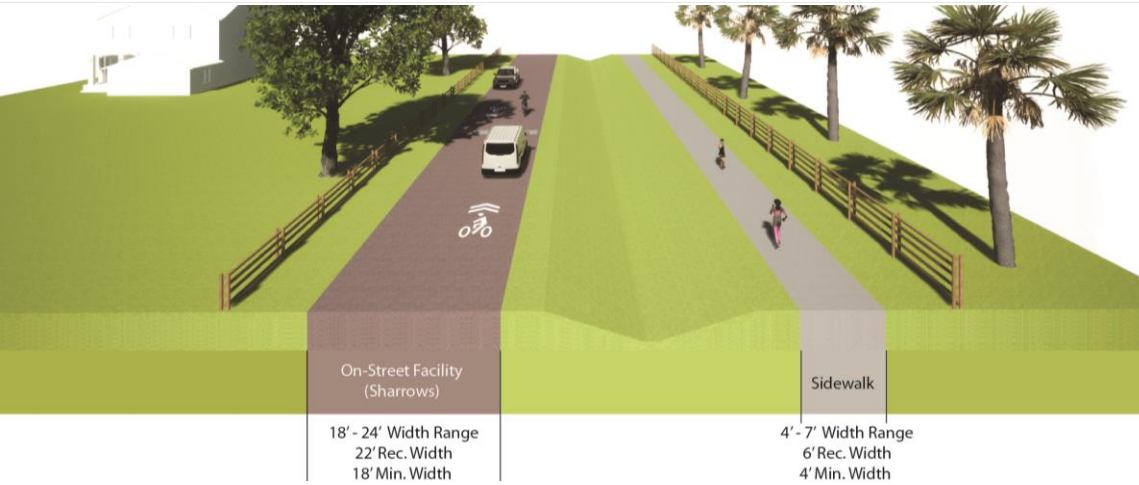
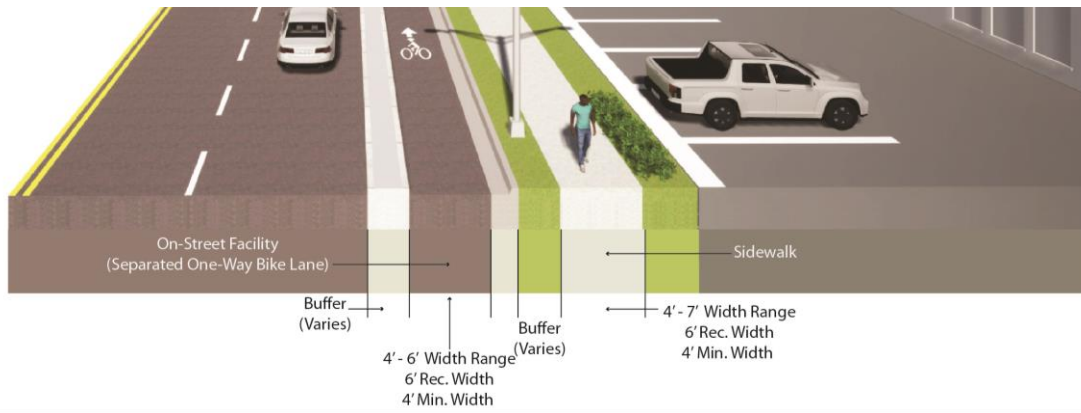
- Pedestrians
- Bicyclists
- Wheelchair Users
- E-devices (<20 mph)

Typical Locations:

- Multi-lane Roads
- High-volume Roads (>5,000 AADT)
- Connections to Off-Road Shared-Use Trails



ON-STREET FACILITY



Source: Kittelson & Associates Inc.

Facility Types:

- Separated Bike Lanes
- Buffered bike Lanes
- Striped Bike Lanes
- Sharrows (Shared Lanes)
- Sidewalk

Typical Width Range:

- 4'-18' (Varies by Type)
- 5-14' (Recommended - Varies by Type)
- 4-10' (Minimum - Varies by Type)

Typical Materials:

- Asphalt
- Concrete
- Permeable Asphalt
- Permeable Concrete
- Boardwalk

Typical Locations:

- Multi-lane Arterials/ Collectors (On-Street Dedicated Bicycle Facility)
- Low Speed, Low Traffic Volume (Sharrow/ Shared Lane)

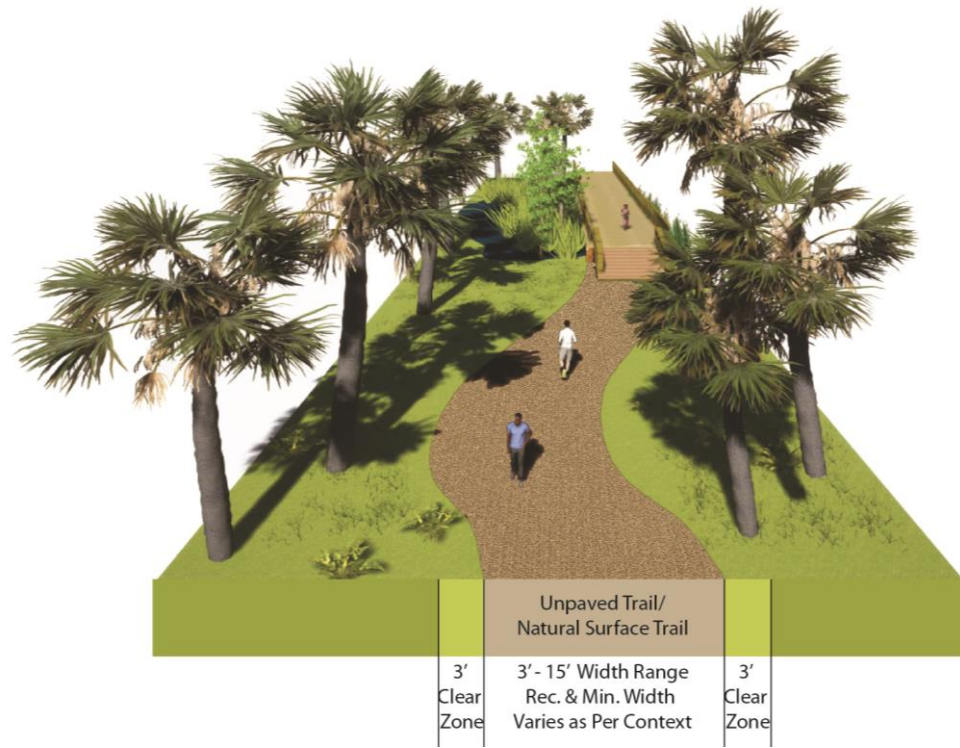
Trip Purpose:

- Active Transportation

Primary Users:

- Pedestrians
- Bicyclists
- Wheelchair Users
- E-devices (<20 mph)

UNPAVED TRAIL/ NATURAL SURFACE TRAIL



Typical Width Range:

- 3'-15'
- Recommended and Minimum Widths Vary as per Context

Trip Purpose:

- Recreation

Primary Users:

- Hikers
- Mountain Bicyclists

Typical Materials:

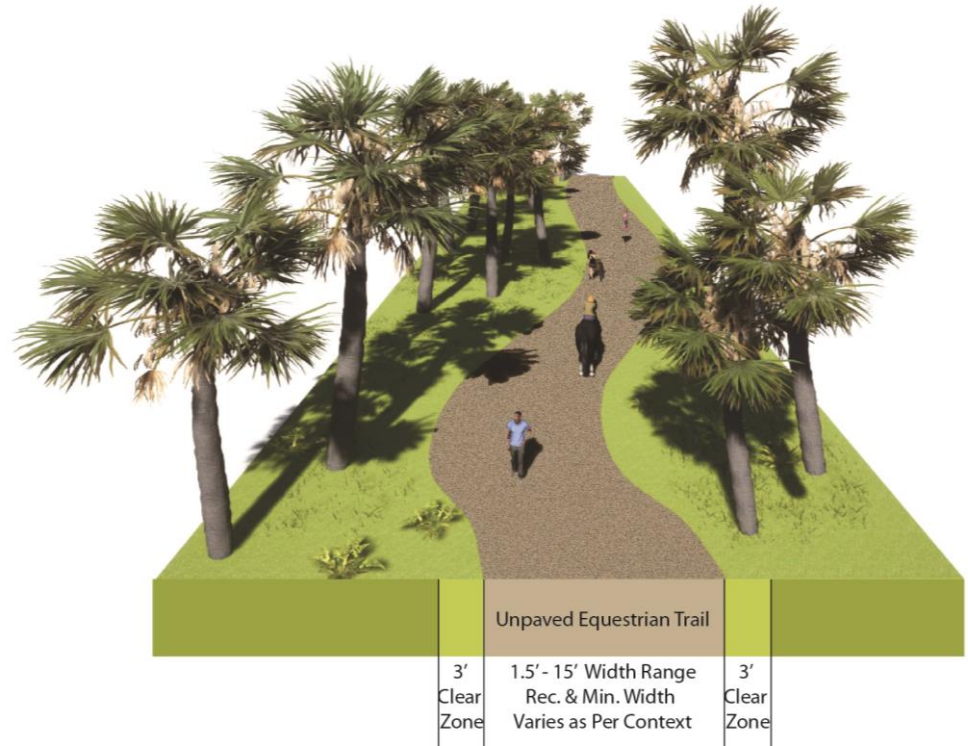
- Compacted Natural Earth Soil/Dirt
- Stabilized Crushed Stone Aggregate
- Wood Chips

Typical Locations:

- Conservation Areas
- Forested Areas
- Canals
- Rivers
- Creeks



UNPAVED EQUESTRIAN TRAIL



Typical Width Range:

- 1.5'-15'
- Recommended and Minimum Widths Vary as per Context

Trip Purpose:

- Recreation

Primary Users:

- Horseback Riders

Typical Materials:

- Compacted Natural Earth Soil/Dirt

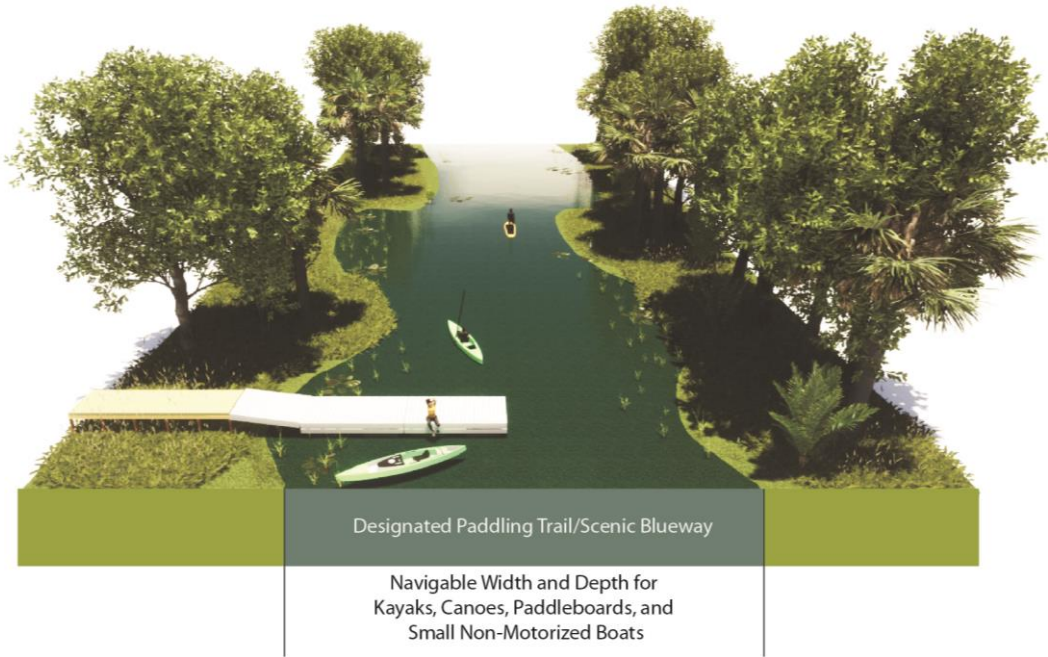
Typical Locations:

- Conservation Areas
- Forested Areas
- Canals
- Rivers
- Creeks



Source: Yelp

DESIGNATED PADDLING TRAIL/ SCENIC BLUEWAY



Typical Width Range:

- Suitable for Kayaks, Canoes, Paddleboards, and Small Non-Motorized Boats
- Recommended Width Varies
- Minimum Width Varies

Trip Purpose:

- Recreation

Primary Users:

- Kayaks
- Canoes
- Paddleboards
- Small Non-Motorized Boats

Typical Materials:

- Water

Typical Locations:

- Canals
- Rivers
- Creeks





DRAFT RECOMMENDED TRAILS NETWORK

DRAFT RECOMMENDED TRAILS NETWORK METHODOLOGY

Step 1: Mapping Existing and Planned Trails

- FDOT SUN Trails, SCTPO Showcase Trails, OGT Priority Trails, EEL, Other Trails

Step 2: Referring to Active Transportation Propensity Index

- Used as base layer to identify potential trail alignments that connect areas with high index scores

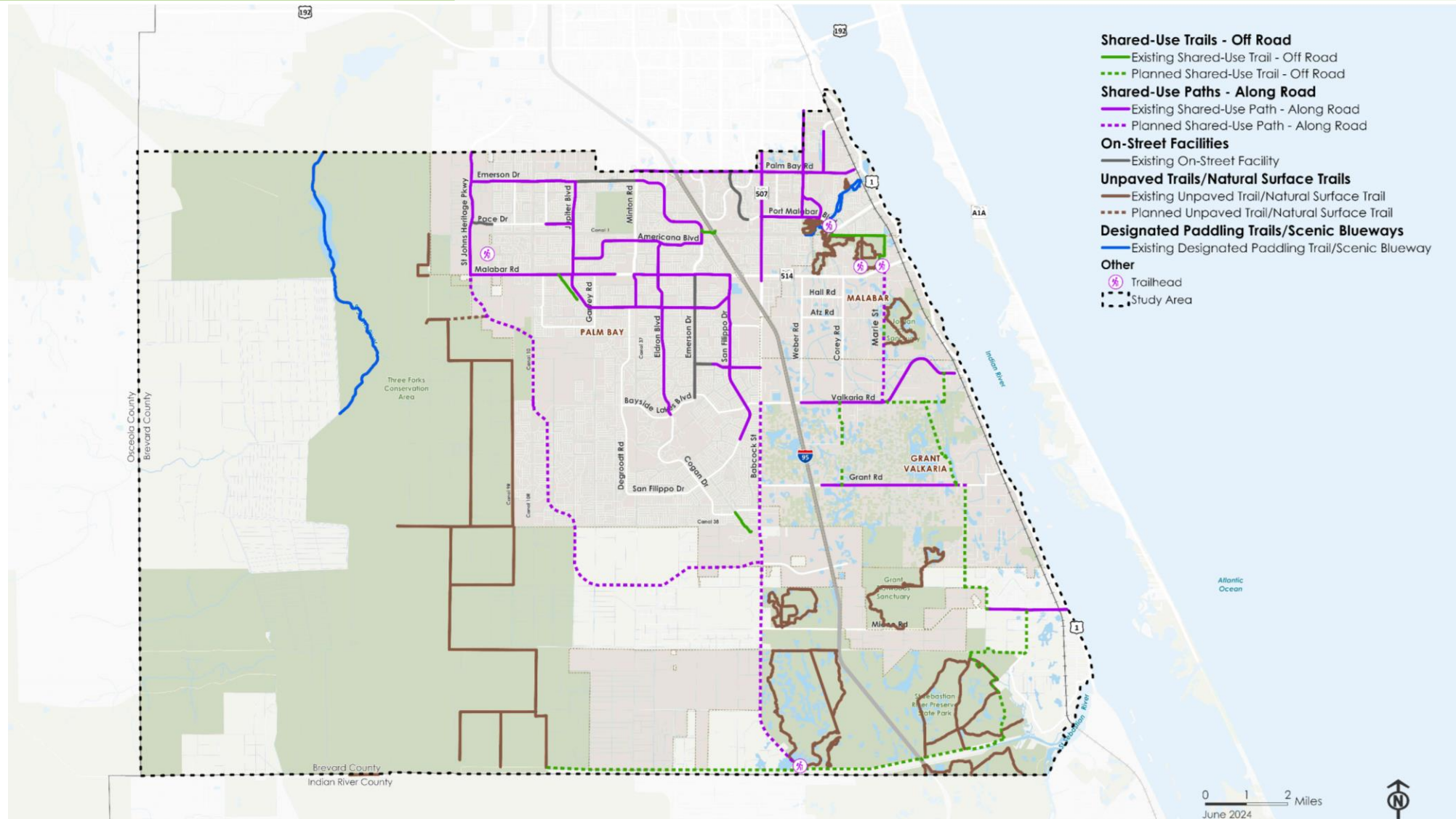
Step 3: Stakeholder Coordination to Identify New Trail Alignments

- Town of Malabar, City of Palm Bay, EEL, MTWCD, SJRWMD, FPL, Indian River County MPO
- Focused on barriers and solutions to potential trail alignments along canals, utility ROWs and conservation areas

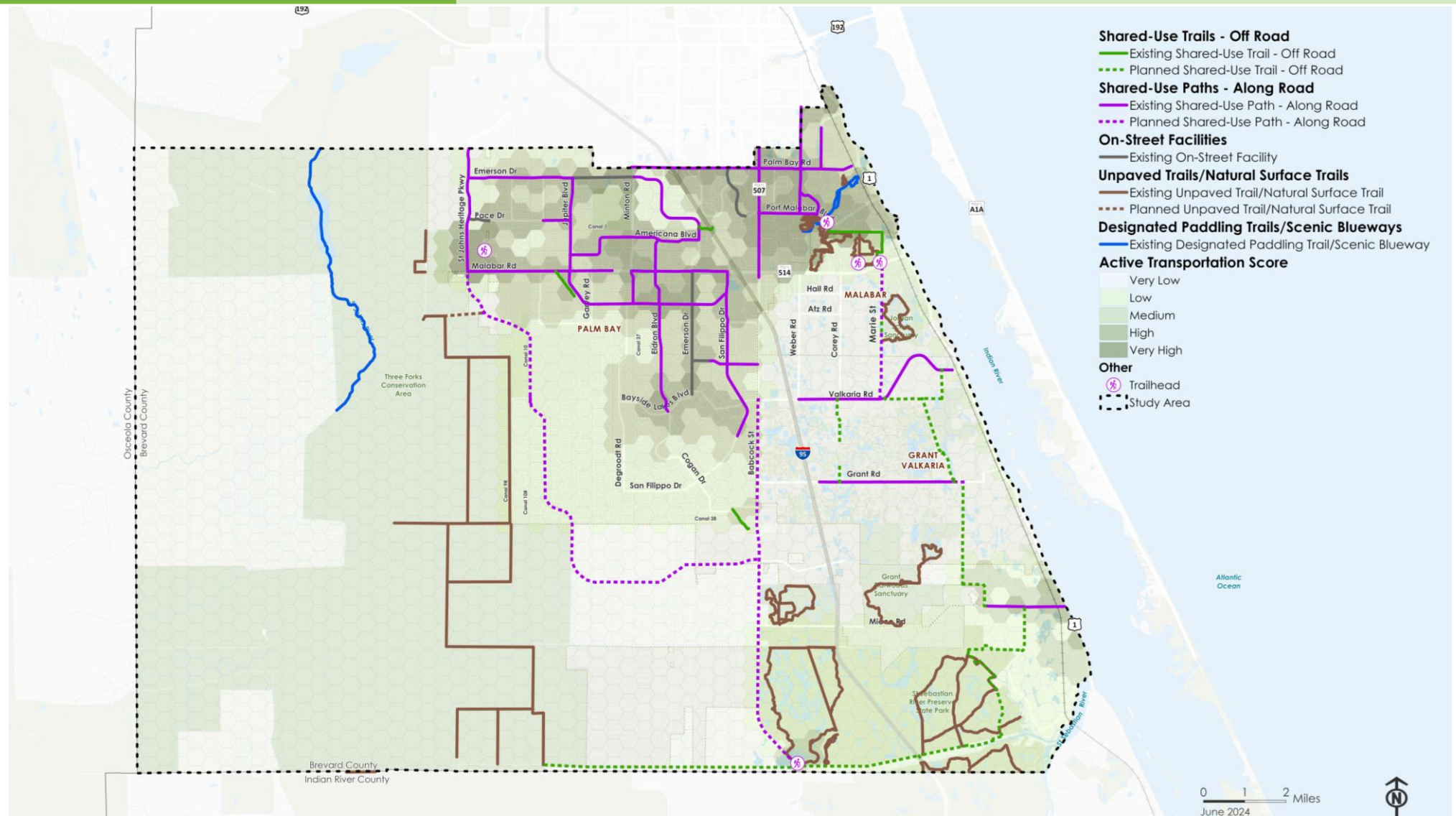
Step 4: Potential Trail Network with Hierarchy

- Identify potential Primary, Secondary, and Tertiary trail alignments

EXISTING & PLANNED TRAILS



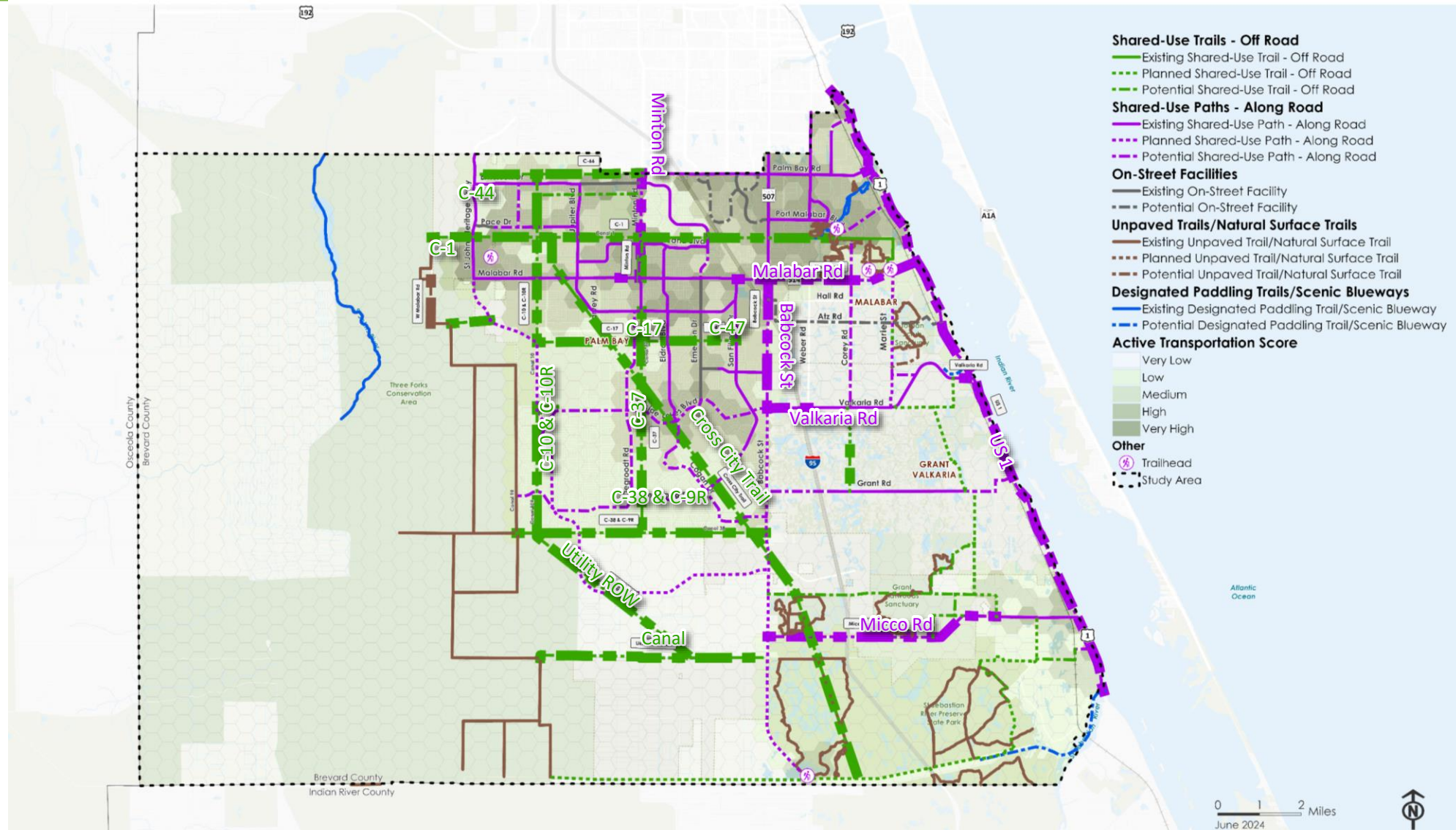
EXISTING & PLANNED TRAILS ON PROPENSITY INDEX



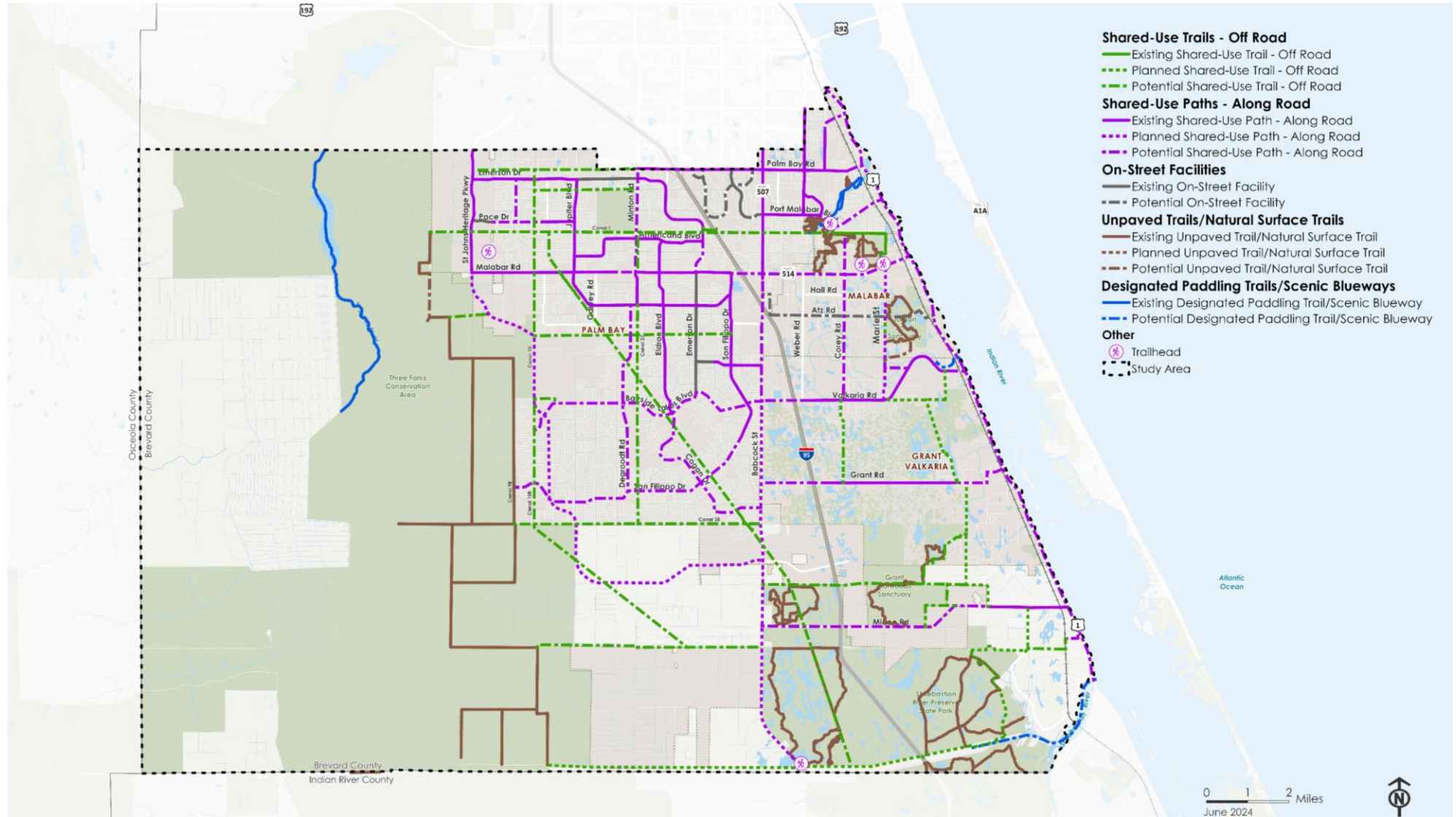
0 1 2 Miles
June 2024



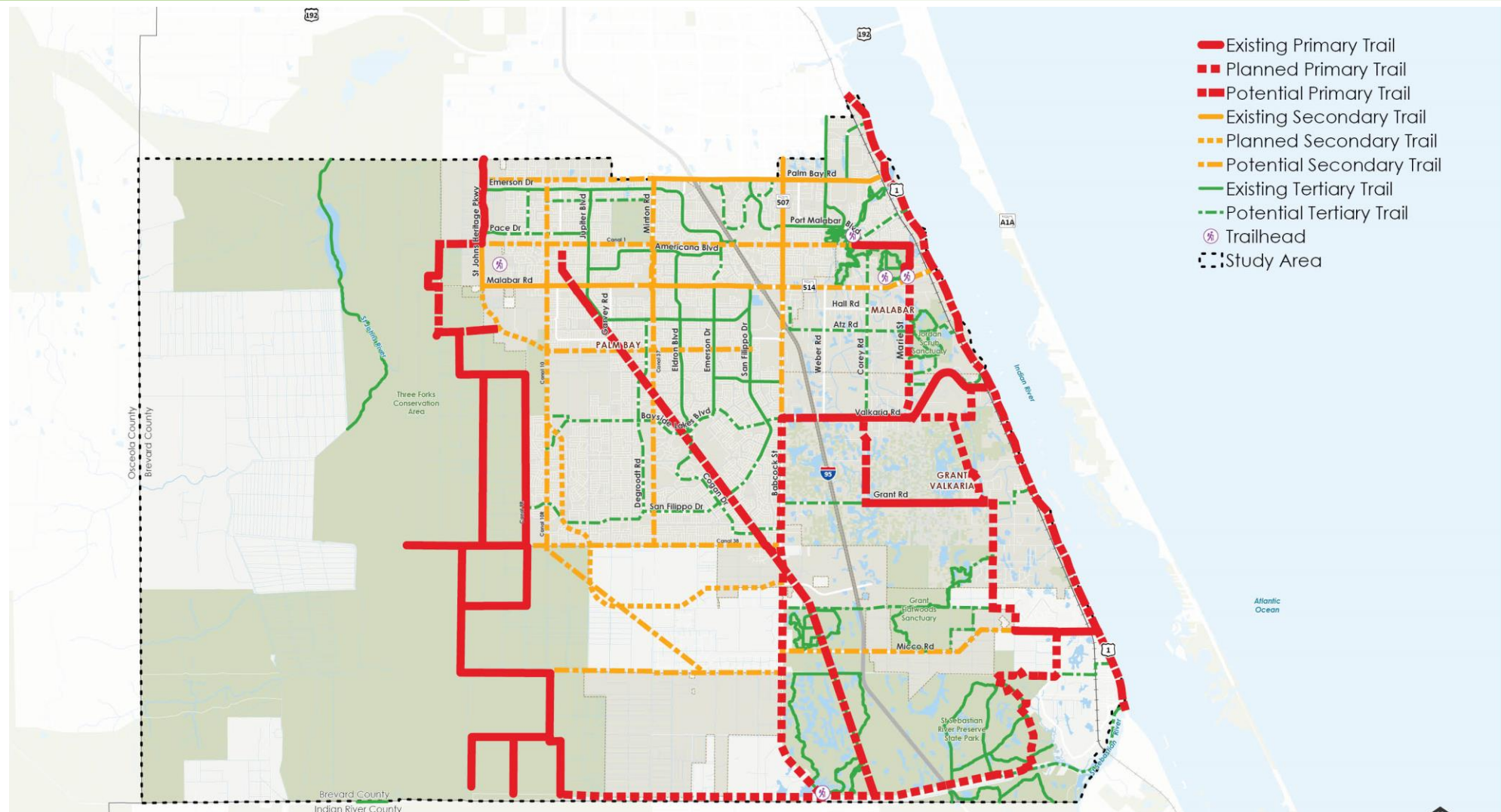
NEW POTENTIAL PRIMARY + SECONDARY TRAILS



DRAFT POTENTIAL TRAILS NETWORK



POTENTIAL TRAIL NETWORK BY TRAIL HIERARCHY

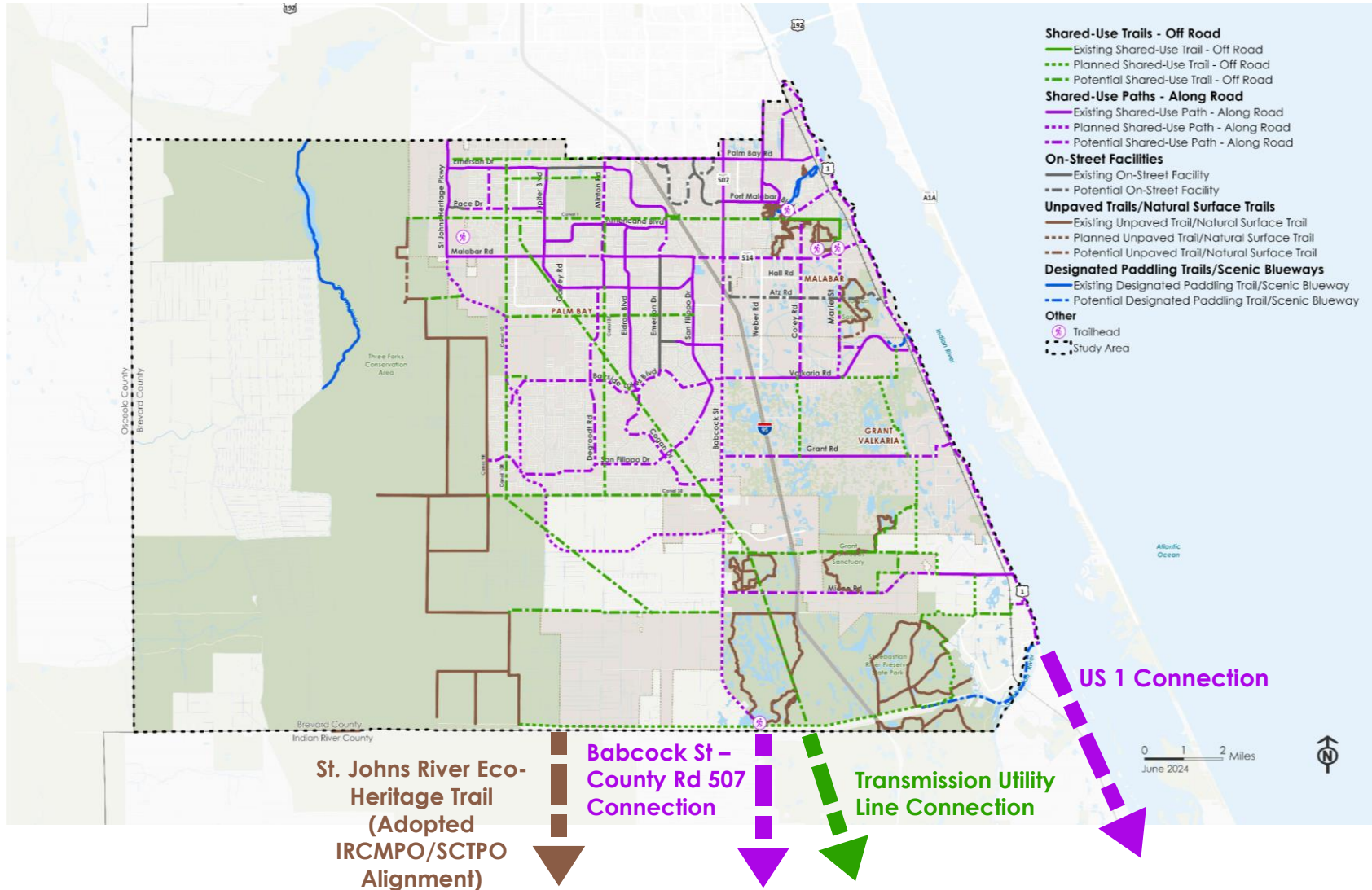


- Existing Primary Trail
- - - Planned Primary Trail
- · · Potential Primary Trail
- Existing Secondary Trail
- - - Planned Secondary Trail
- · · Potential Secondary Trail
- Existing Tertiary Trail
- - - Potential Tertiary Trail
- ⊗ Trailhead
- Study Area

0 1 2 Miles
April 2024



POTENTIAL REGIONAL CONNECTIONS



ONLINE MAP TO REVIEW AND PROVIDE FEEDBACK

The screenshot displays the 'Southern Brevard Trails Master Plan' web application. At the top left, the title 'Southern Brevard Trails Master Plan' is shown next to a logo. Below the title, a search bar contains the text 'Find address or place'. To the left of the map is a sidebar with a 'Create a Specific Comment' section, which includes a 'Comments' button. The map itself shows a detailed trail network in various colors (green, purple, red, blue) overlaid on a satellite-style map of the region. Key locations labeled include West Melbourne, Melbourne Beach, Palm Bay, Melbourn, Melbourn Shores, and Floridana Beach. Major roads like US 507, US 95, and A1A are also visible. The map includes a scale bar (0 to 2 miles) and a coordinate display at the bottom left showing -80.369 27.880 Degrees. At the bottom right, there is a 'POWERED BY esri' logo and a list of data sources: NASA, NGA, USGS, FDEP, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, N...

NEXT STEPS

- Provide Feedback on the Draft Trails Network by August 2, 2024
- Virtual Lunch & Learn on September 4, 2024 (12:00 Noon – 1:00 PM)
- In-person Public Open House on September 18, 2024 (5:30 – 6:30 PM)
at Ted Moorhead Lagoon House

ADDITIONAL QUESTIONS & OPEN DISCUSSION



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Southern Brevard Trails Master Plan



Project Working Group Meeting #2 Notes

July 17, 2024

Ted Moorhead Lagoon House

3275 Dixie Highway NE, Palm Bay, FL, 32905

9:30 AM – 11:30 AM

Introduction and Attendees

A Project Working Group (PWG) meeting was held with Space Coast Transportation Planning Organization (SCTPO) staff and PWG members to discuss the Southern Brevard Trails Master Plan (SBTMP). Below are the attendees of the second PWG:

- Georgina Gillette (SCTPO)
- Laura Carter (SCTPO)
- Debbie Flynn (SCTPO)
- Murray Hann (SCTPO Bicycle Pedestrian Trails Advisory Committee (BPTAC))
- Peter Nguyen (Brevard County)
- Brad Manley (Brevard County Environmentally Endangered Lands (EEL) Program)
- Kim Haigler (City of Palm Bay)
- Frank Watanabe (City of Palm Bay)
- Jason Mahaney (Town of Grant-Valkaria)
- Mike McCabe (Melbourne-Tillman Water Control District)
- Patrick McCord (St. Johns River Water Management District)
- Richard Kohler (Town of Malabar)
- Anna Hopkins (Florida Department of Environmental Protection)
- Stephanie Moss (Florida Department of Transportation, District 5)
- Paul Schoelzel (Florida Department of Transportation, District 5)
- Aish Sandineni (Florida Department of Transportation, District 5 SUNTrail Coordinator)
- Travis Hills (Kittelson & Associates, Inc.)
- Aditya Inamdar (Kittelson & Associates, Inc.)
- Roxane Van Horn (Kittelson & Associates, Inc.)

Meeting Summary

Meeting Schedule

- After brief introductions, the consultant team's Project Manager reiterated the project background, goals, schedule, and updates from PWG Meeting #1.
- The next PWG Meeting will be scheduled in late Fall or early Winter to present the revised draft trails network and draft Master Plan.
- Due to limited parking and ADA compliance at the Ted Moore Lagoon House, the Project Team will coordinate a date, time, and location for the in-person Public Open House.

Trail Hierarchy & Typology System

- PWG members noted that paved trails along canals and utility corridors are preferred as they do not compete with existing road space and are completely separated from vehicular traffic.
- A PWG member noted the Boundary Canal Trail as an example of how impervious bike paths along canal banks may stabilize a canal and decrease sand/soil slowing into canals.
- There is a need to explore the use of innovative building materials for constructing trails that can mitigate runoff and other environmental issues. A PWG member suggested the use of close cell granulated foamed glass aggregate ([AeroAggregates of North America, LLC \(aeroaggregates.com\)](http://aeroaggregates.com)) to mitigate some of the environmental and stormwater concerns of paved trails. Another PWG member mentioned an example from South Lake Tahoe, where a trail made of recycled glass has held up for 15 years.

Draft Recommended Trails Network

- The trail between Port Malabar Boulevard and Clermont St to L3Harris as an example of a trail that runs along a utility corridor. This trail was envisioned to extend further south to C-1 canal.
- A PWG member mentioned that there is a potential to create a trail along the western edge of L3Harris property, north of Valaria Road that could connect to existing Shared-Use Path along Valkaria Road.
- There is an opportunity to create a new Designated Paddling Trail/Blueway along Goat Creek.
- A major east-west trail alignment along the C-1 canal would likely attract many road cyclists, pedestrians, and increase the overall safety of such users in comparison to riding on or along multi-lane roads.

-
- There is potential for flooding if a trail were to be built along the lower tier of the C-1 canal.
 - There may be potential conflicts between bridge crossings and MTWCD maintenance operations. The current scope of the Master Plan is to develop a long-term vision for the trails network. The Project Team will explore new infrastructure such as bridges, underpasses, and at-grade crossings of roadway crossings and canal crossings as part of the follow-up feasibility study(s).
 - A potential trail crossing under the SR 507/Babcock St bridge would be ideal for bicyclists. SR 507/Babcock St has been identified for a future widening project. There could be potential conflict between trails and existing water control buildings and structures throughout Three Forks Conservation Area.
 - It is anticipated that SJRWMD will be responsible for construction and maintenance of any trails on their properties, unless SJRWMD signs an agreement with local jurisdictions and/or other agencies.
 - SJRWMD will discuss the feasibility of converting the existing stabilized aggregate trail in Three Forks Conservation Area into a paved trail and share its position on paved trails along their properties with SCTPO.
 - Pedestrians and bicyclists regularly use the underpass at I-95.
 - There is potential to coordinate with developers when it comes to building and maintaining future trails, such as the Palm Vista property north of C-1 canal. PWG members also noted several planned developments that incorporate trails, including but not limited to Ashton Park, Sun Terra, Lotis, and Eden of Bayside Lakes.
 - The Project Team noted that this Master Plan will envision options that are viable in the long-term. However, some alignments may never be feasible and will not be included in the Master Plan. For instance, trail alignments along gas lines or canals where the ROW is too narrow are not feasible in the long-term.
 - Overall, PWG members are in support of paved trails along utility corridors. However, a PWG member expressed concern for some potential alignments along FP&L due to potential conflict between underground and above-ground utility equipment. FP&L coordination and buy-in will be critical to advancing trail projects on FP&L easements and/or properties.
 - Some of the existing sidewalks/Shared-Use Paths along roads in Palm Bay are 8' wide, which is less than SUN Trail and OGT standards of minimum 12'. However, PWG members agreed that it may be beneficial to allocate resources in places that lack trails rather than widening an existing 8' Shared-Use Path/Sidewalk. A general recommendation can be made in the Master Plan to widen existing facilities to 10' or 12' Shared-Use Paths, ideally separated by a minimum 3' landscape buffer if a roadway is reconstructed in the future to enhance pedestrian and bicycle level of comfort.
 - The Project Team will add parcel data (including ownership) to the online comment map.

-
- The Project Team will revise the online comment map to include a feature that shows the name of the commenter.
 - PWG members who wish to share a PDF or other related material as a comment to the online comment map may provide a link to a shared Google Drive/Dropbox in the comment box.
 - A PWG member suggested showing all transit stops on the maps.

Action Items

- Kittelson will update the online map comment tool to include fields for name, email, organization of commentator. (Complete)
- Kittelson will update the recommended trails network maps based on the comments received at the PWG meeting.
- PWG members will provide feedback via the online web map by Friday, August 2nd, 2024.
- The Project Team will coordinate a date and location for the public in-person Public Open House.