

Trail Planning, Design and Construction

14th Annual Carolina Thread Trail Forum

Alfred Benesch & Company

December 2, 2021



WILDLANDS
ENGINEERING



Mecklenburg County
Park and Recreation



Presenters



Jeff Ashbaugh, PLA

Senior Project Manager
Landscape Architecture
Group Manager



Emily Reinicker, PE, CFM

Director of Operations and Design
Ecosystem Restoration Team



Jon Wood, PLA, CLARB

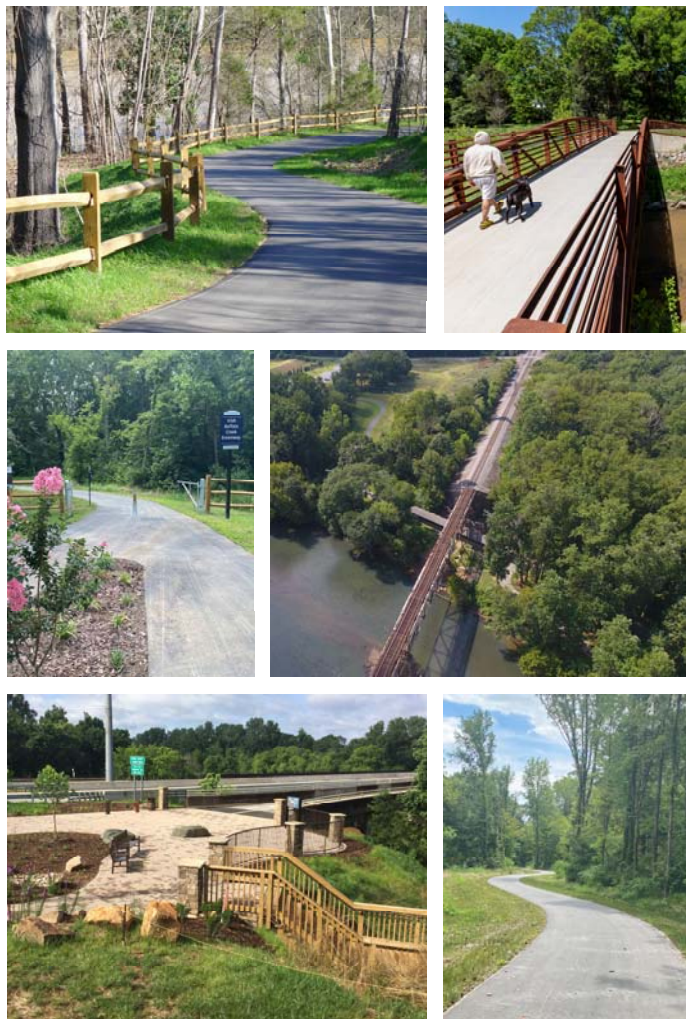
Senior Project Manager



Brian Bennett, PLA, ASLA

Project Manager
Mecklenburg County Asset &
Facility Management



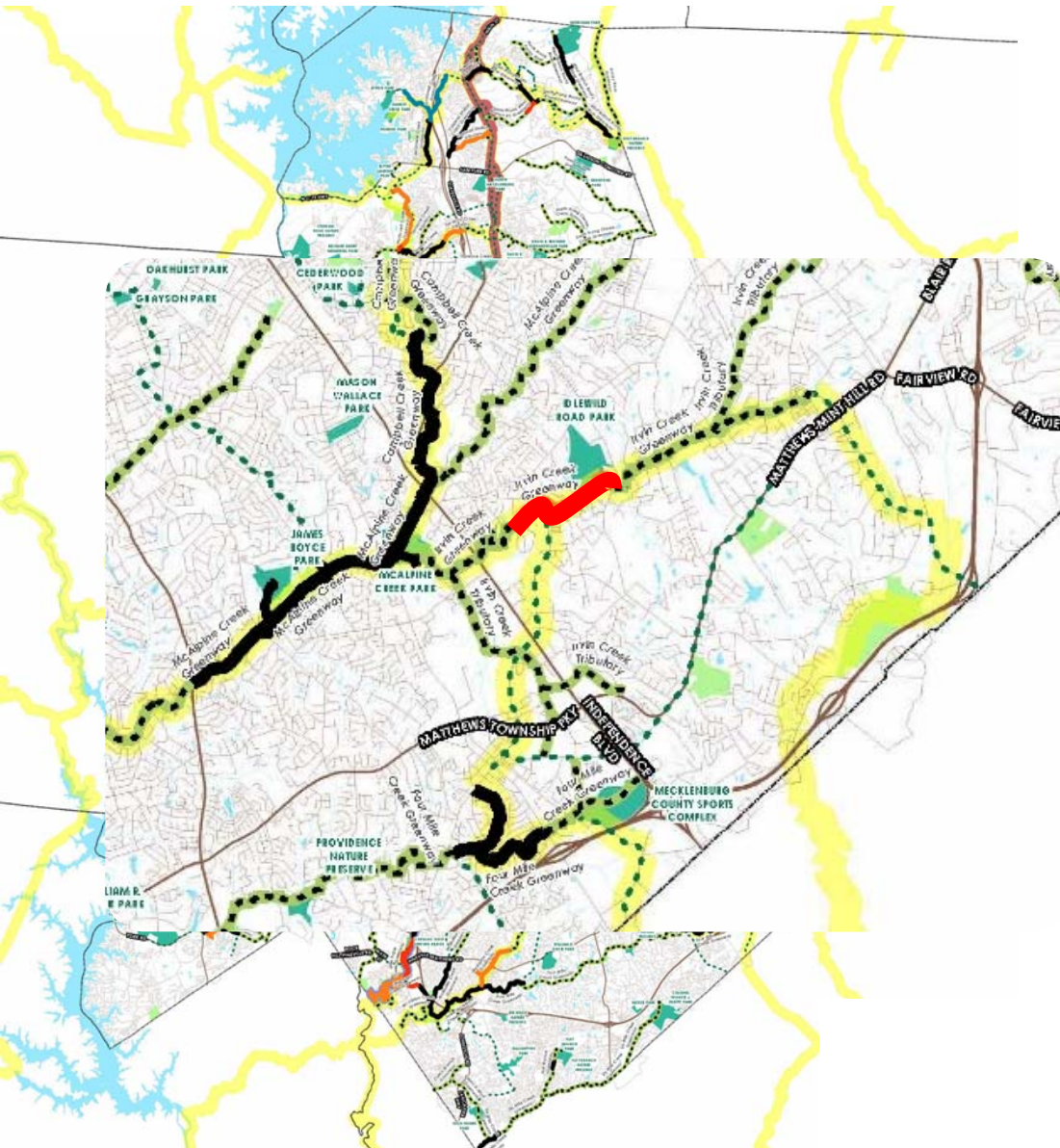


Agenda

- Project Background
- Map Your Trail/Breakout Group
- Points of Access
- Trail Facilities
- Material Selection
- Creek Crossings
- Floodplains/Floodways
- Roadway Crossing
- Other Considerations
- Questions



Please be sure to sit in front of a map



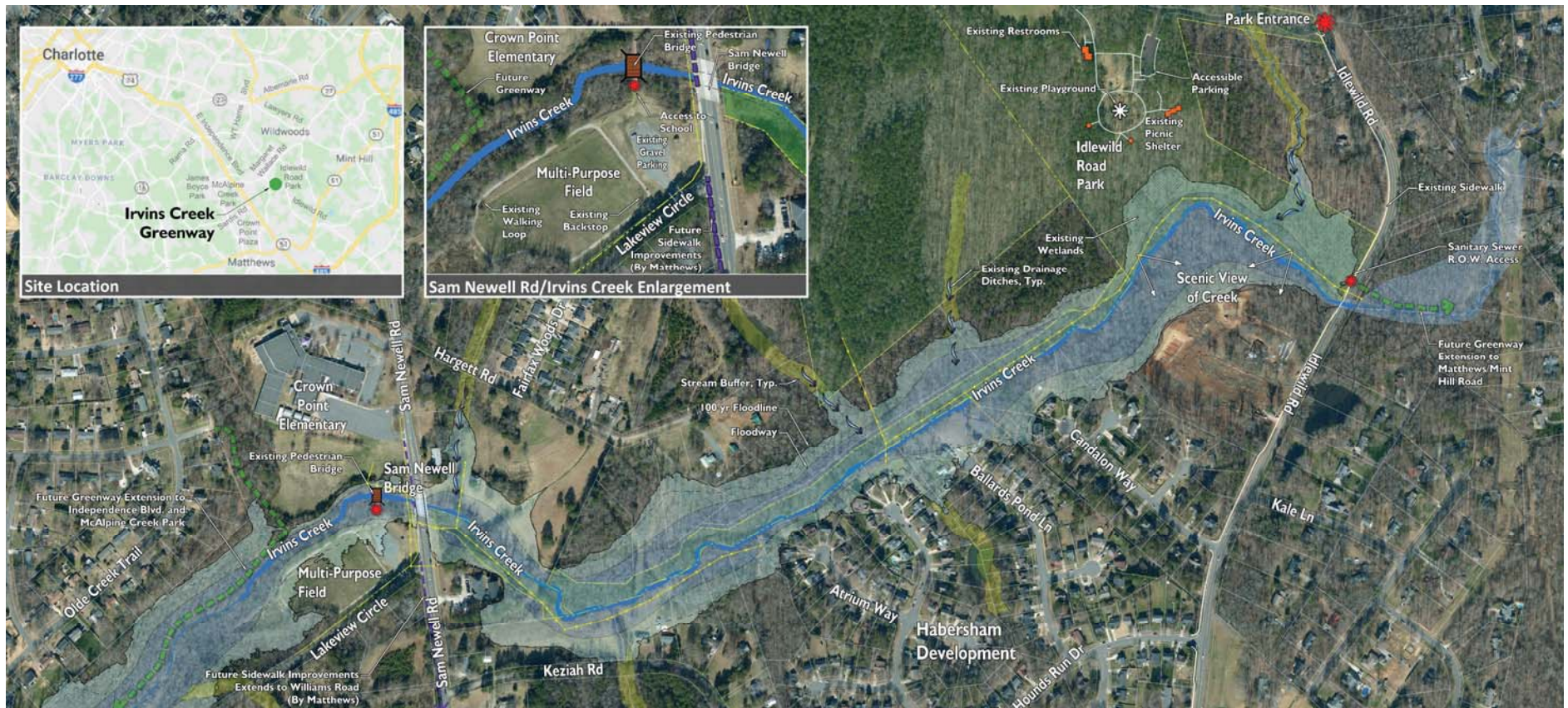
Mecklenburg County Greenway Master Plan

Legend

- Greenway - Existing/Developed
- Greenway - Funded - In Construction
- Greenway - Funded - In Design
- Greenway - Funded - (By Others)
- Greenway - Future
- Overland Connectors
- Creeks and Streams
- Mooresville to Charlotte Trail
- Cross Charlotte Trail (XCLT)
- Carolina Thread Trail
- Lakes and Ponds
- Undeveloped Park Property
- Developed Park Property

 Irvin Creek Greenway

Irvin Creek Greenway Pre-Design



Irvin's Creek Greenway Pre-Design



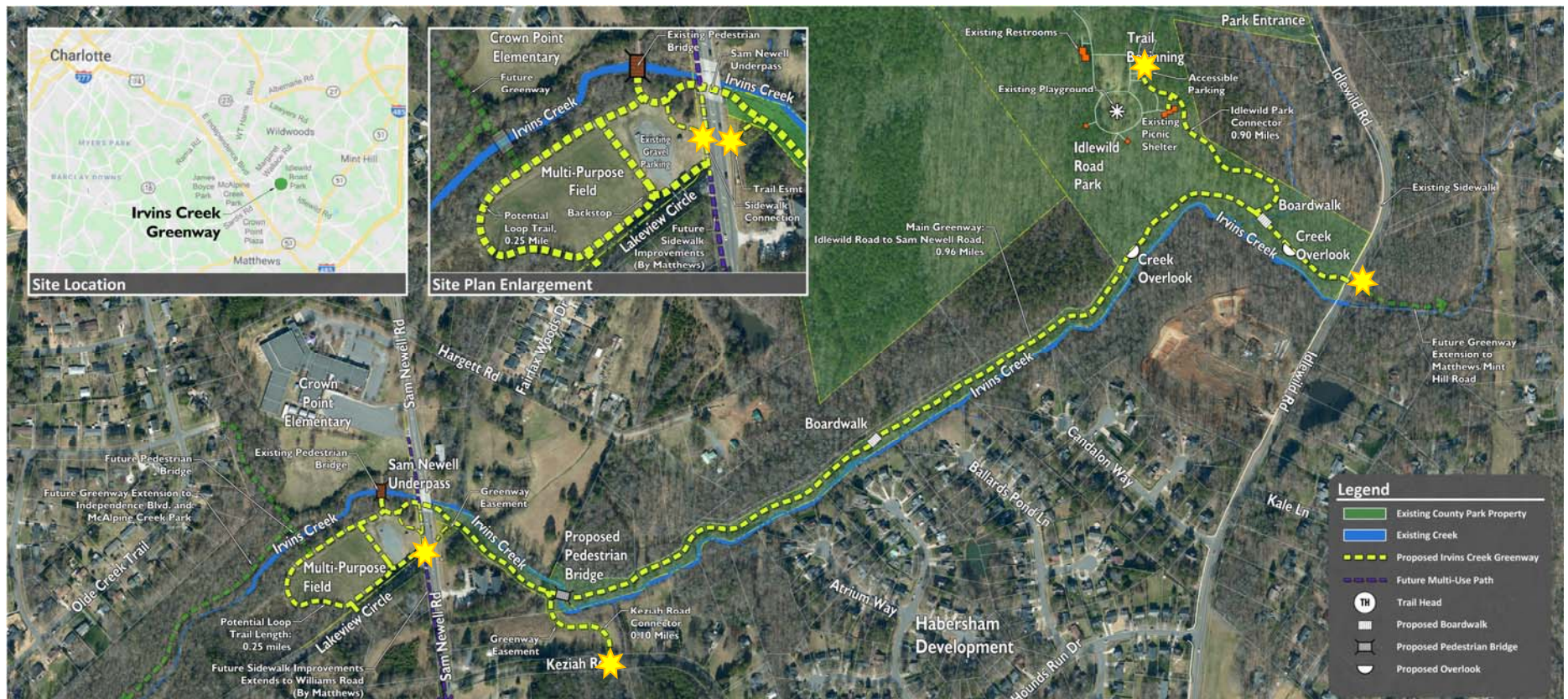


Map Your Trail

Considerations:

- Greenway Access Points
- Local Destinations and Points of Interest
- Creek & Road Crossings
- Parking
- Trail Surface and Width
- Environmental Impacts

Points of Access



Trail Support Facilities



Material Selection



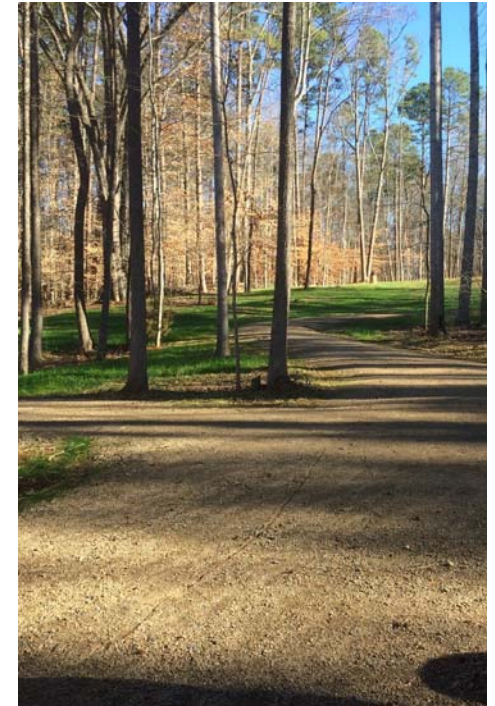
Compacted ABC
with stone edging



Pea gravel, filter fabric,
and with asphalt tack



Yard Waste mulch
or Engineered Wood fiber
(Fiber, Wood Carpet)



Compacted pit gravel
(similar to 'Chapel Hill' gravel)

Material Selection



Asphalt



Concrete



Crushed
(Recycled Concrete)



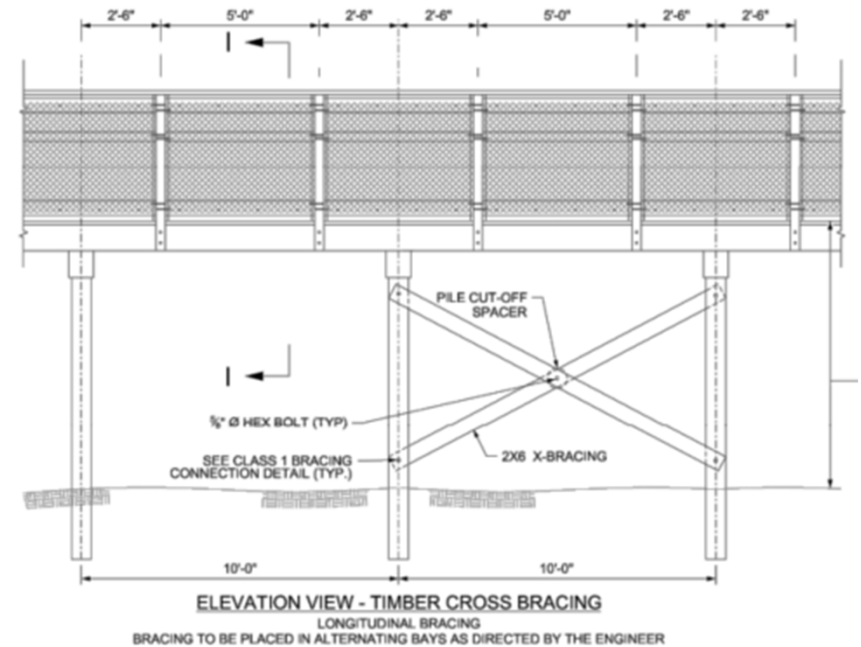
Pervious Pavers

Creek Crossings & Wetlands



Creek Crossings

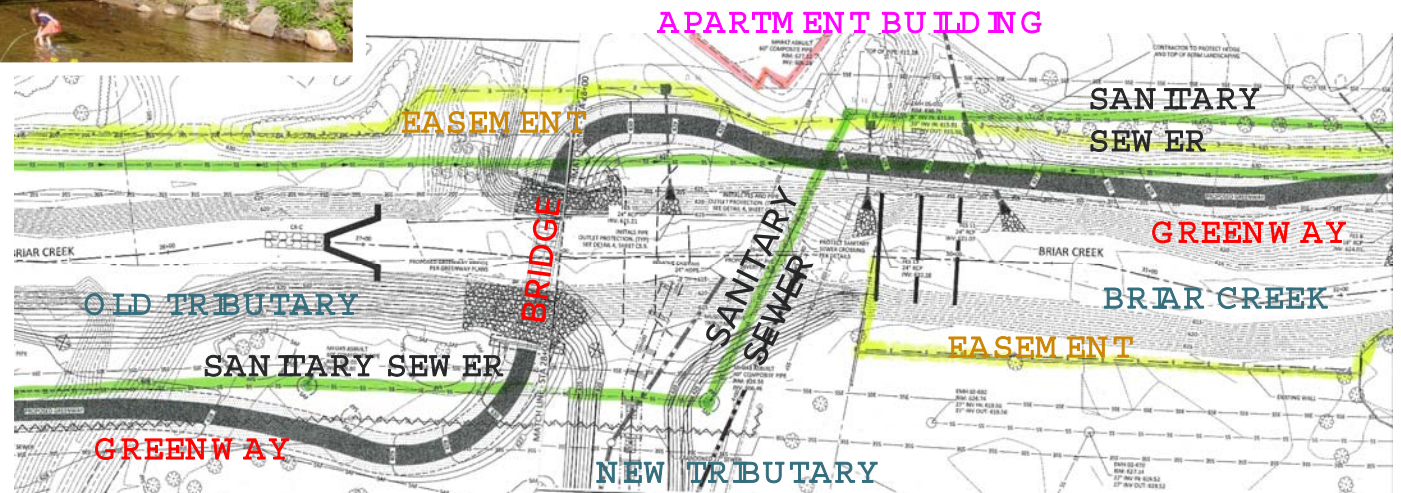
Wetlands or Small Stream Crossings



Creek Crossings

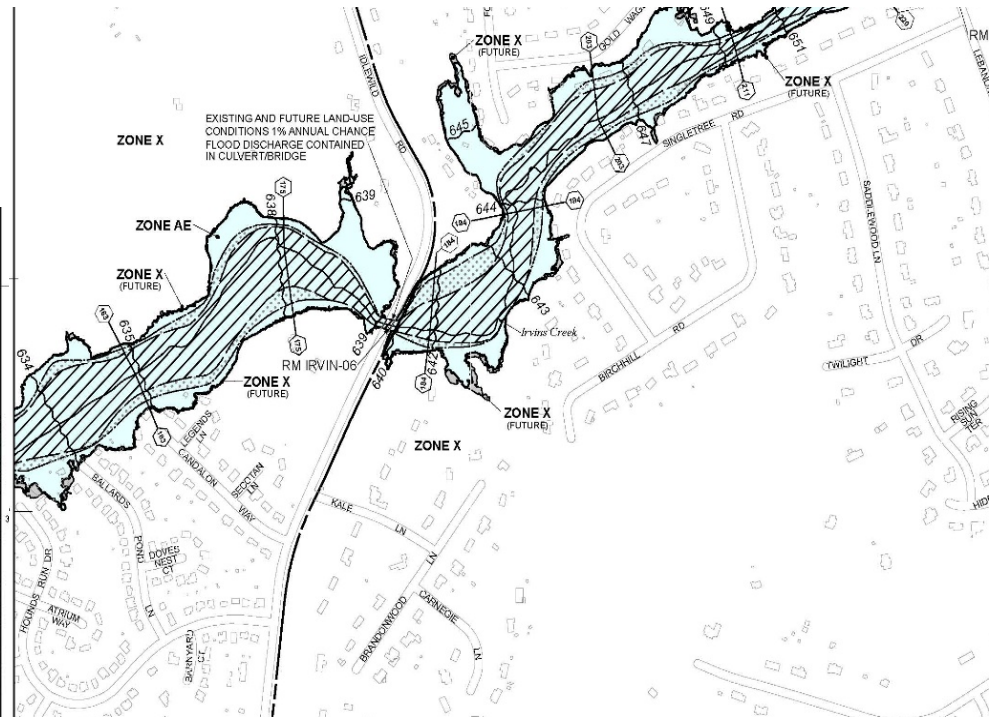
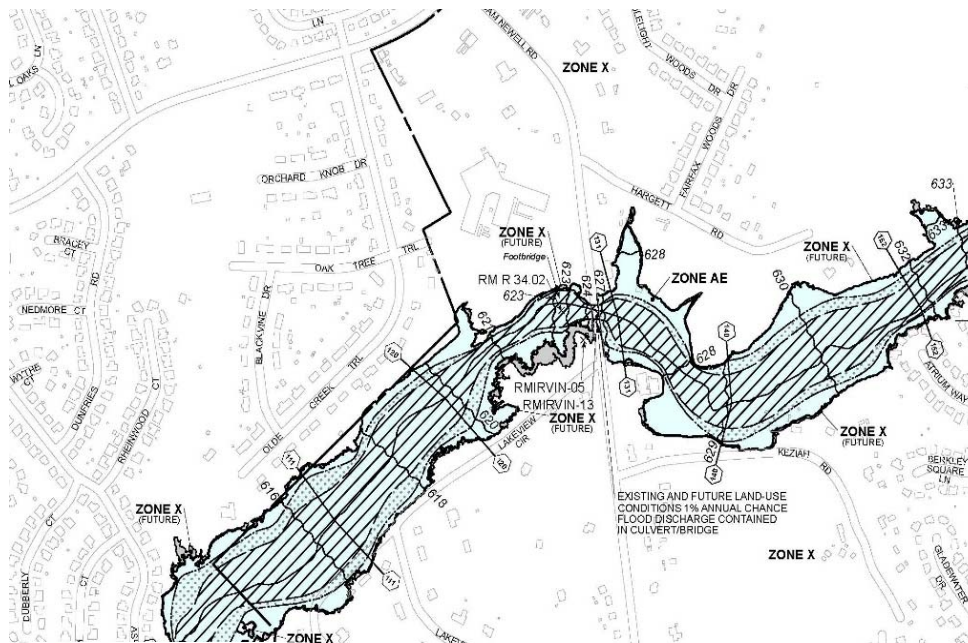


Creek Crossings

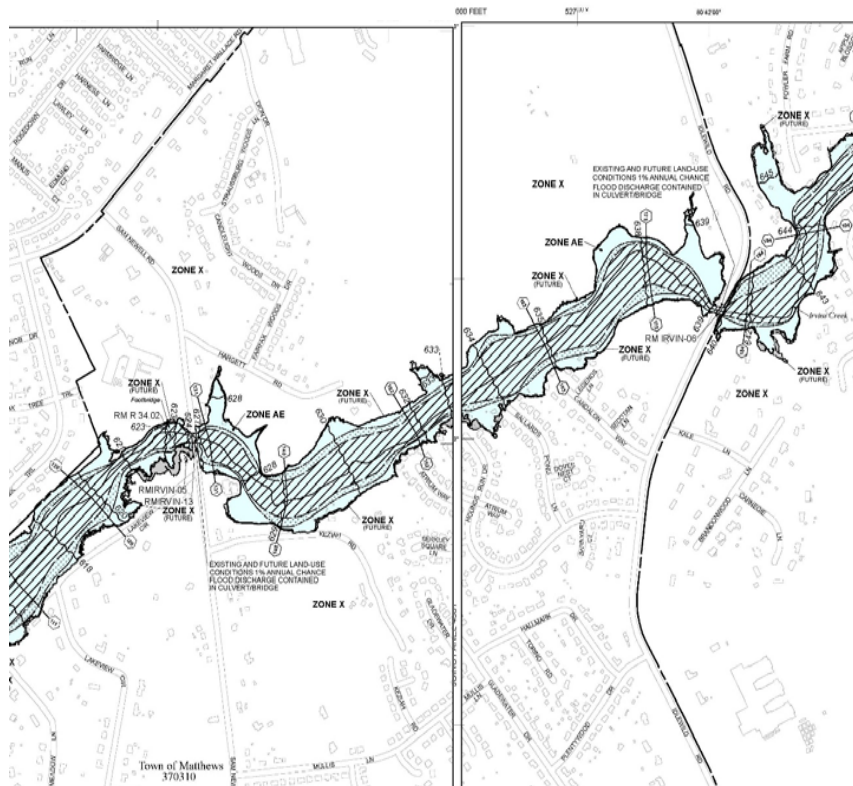


Creek Crossings

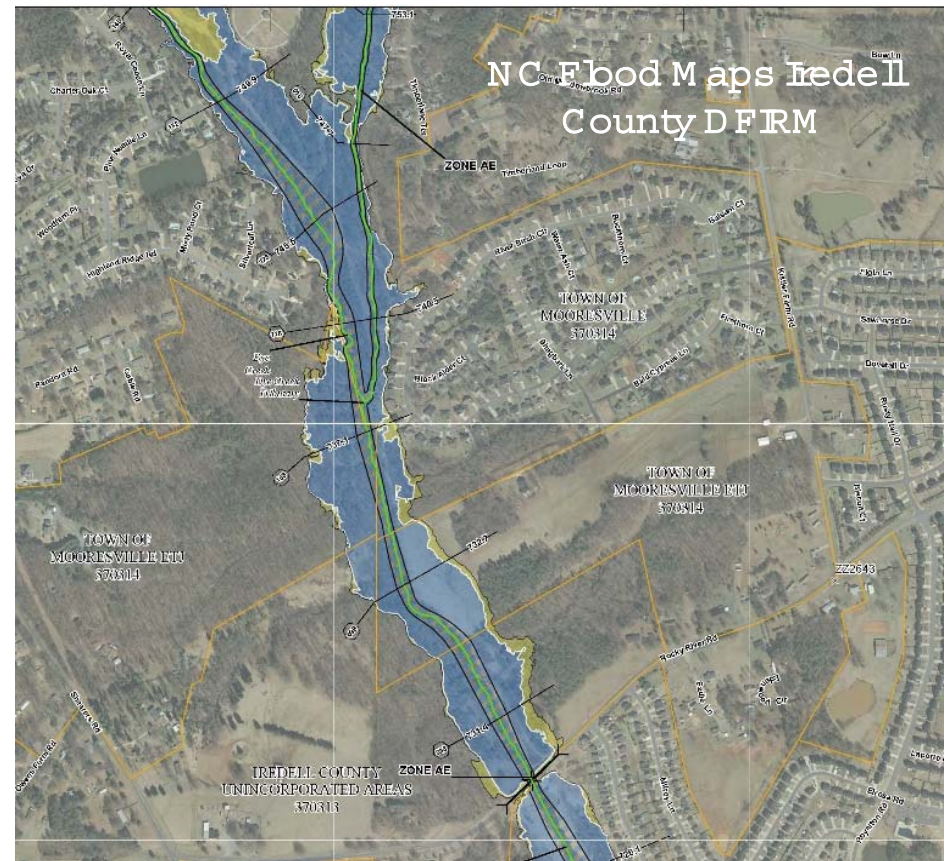
Span length drives bridge cost
choose the narrowest crossing location



Creek Crossings - Floodplains & Floodways

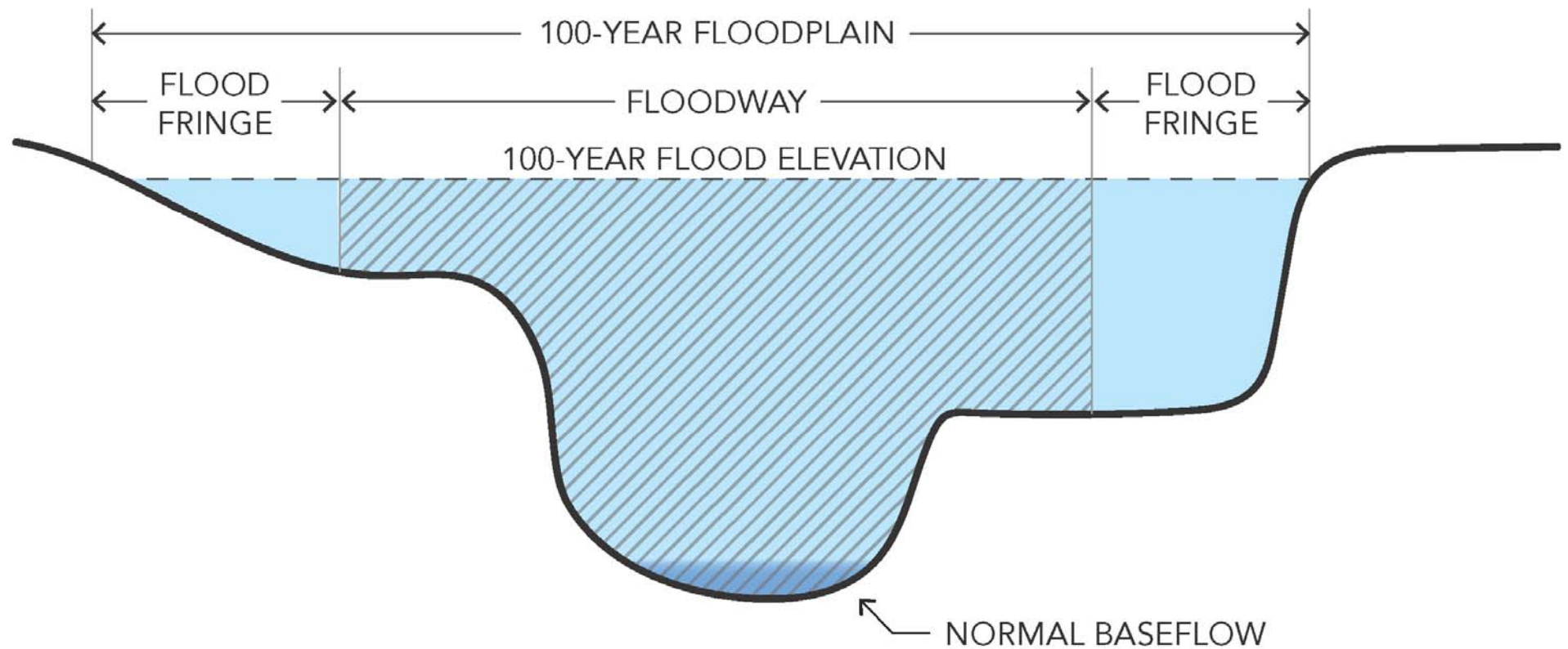


Mecklenburg County FIRM

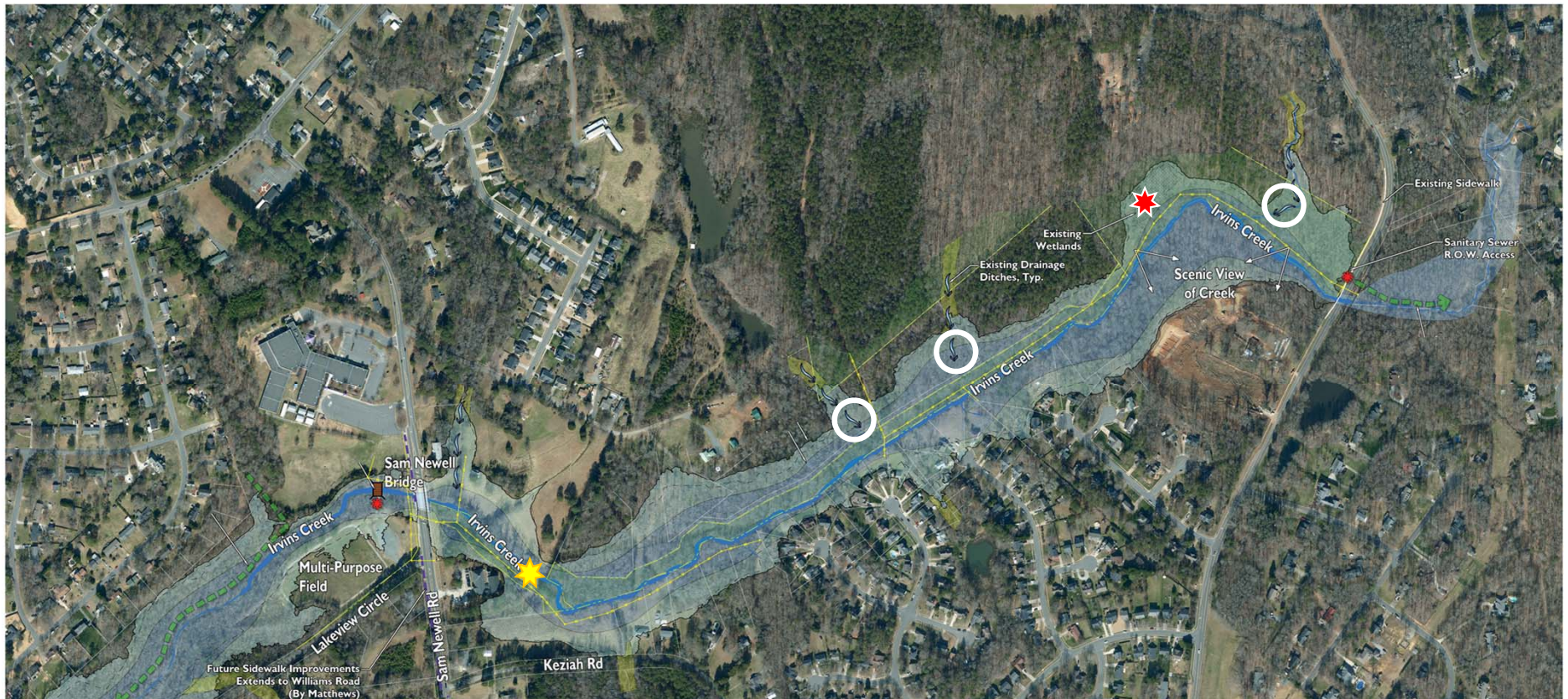


Trail Planning, Design and Construction | CTT Forum 2021

Creek Crossings - Floodplains & Floodways



Creek Crossings & Wetlands

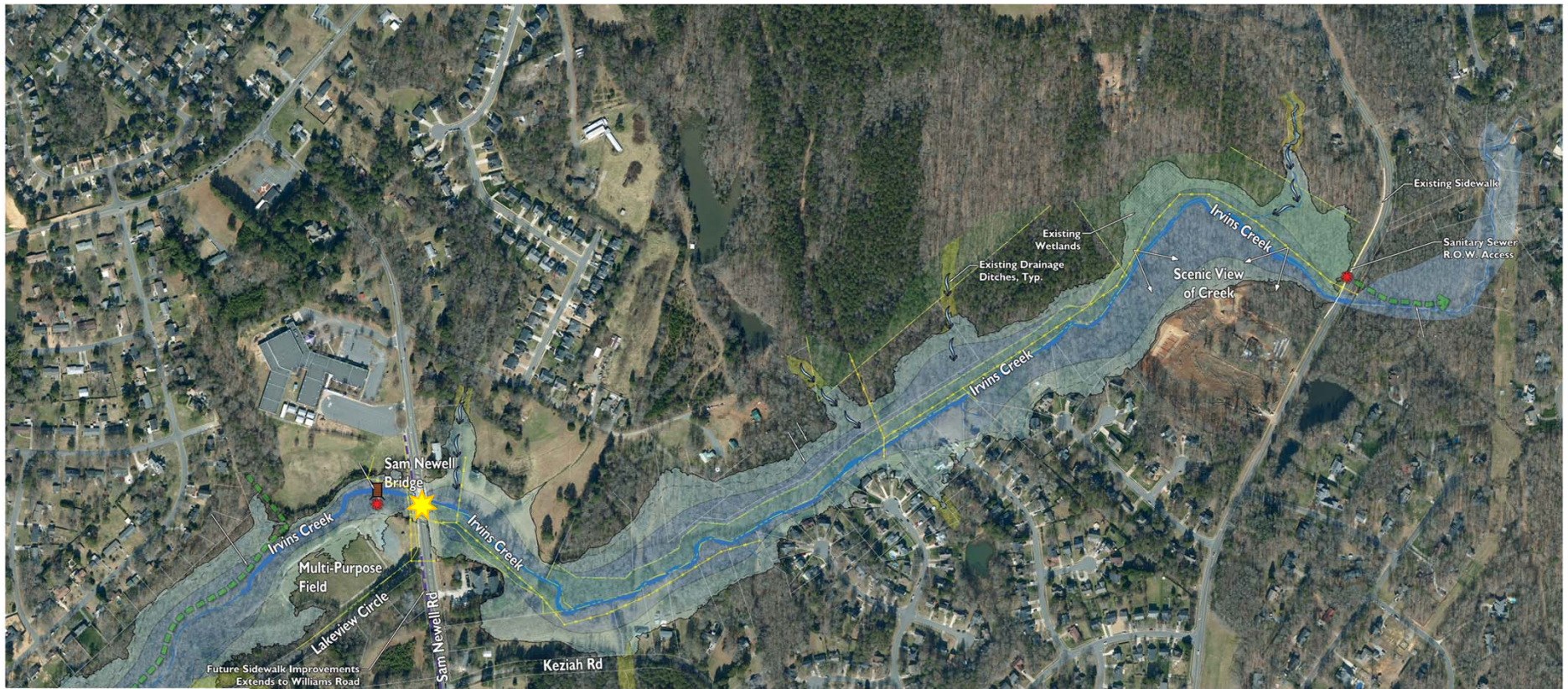


Roadway Crossings



Mecklenburg County
Park and Recreation

Roadway Crossings



Mecklenburg County
Park and Recreation

Roadway Crossings – Underpass



Mecklenburg County
Park and Recreation

Roadway Crossings – Underpass



Mecklenburg County
Park and Recreation

Roadway Crossings – At Grade



Mecklenburg County
Park and Recreation

Roadway Crossings – At Grade



Mecklenburg County
Park and Recreation

Other Considerations

- Getting support for your trails
- Acquisition & Easements
- Regulatory permits/Agency Coordination
- Utility Coordination
- Delivery Methods/Bid Form at
- Funding/Budget
- Schedule





Irvin's Creek Greenway: Process Overview

- Design-Bid-Build Delivery Method
- Unit-price bid format
(similar to NCDOT funded projects)
- Construction Schedule: 365 days
- Funding: County Budget



Roadway Crossings – Underpass



Mecklenburg County
Park and Recreation

Roadway Crossings – At Grade



Mecklenburg County
Park and Recreation

Creek Crossings - Floodplains & Floodways

