



STEWART
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Neuse River Greenway Trail
Plan-Partner-Build

2013 NCAMPO Conference
May 2013

Project History

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- 1976** Capital Area Greenway (CAG) ADOPTED
- 70-90's** Property Acquisition Underway
- 1996** City Council adopts the Neuse River Master Recreation Plan
- 2006** Design begins on Upper Neuse Greenway
- 2007** \$15M Bond passes to design and build greenway.
- 2009** Raleigh Mayor, Charles Meeker charges Raleigh Parks and Recreation Department to have the trail open by 2012.
- 2010** Upper Neuse Greenway Opens
- 2010** NCDOT Selects next section of trail from Wake/Johnston County Line to Clayton for 1st Greenway Design Build
- 2011** Wake County \$10M Open Space Bond approved a to pay for County portion
- 2011** NCDOT Design Build project complete
- 2012** Bulk of Trail Complete



City of Raleigh



NEUSE RIVER
REGIONAL PARK MASTER PLAN.
Spring 1996

April 25 2013 Neuse River Trail Opening Day!!

Core

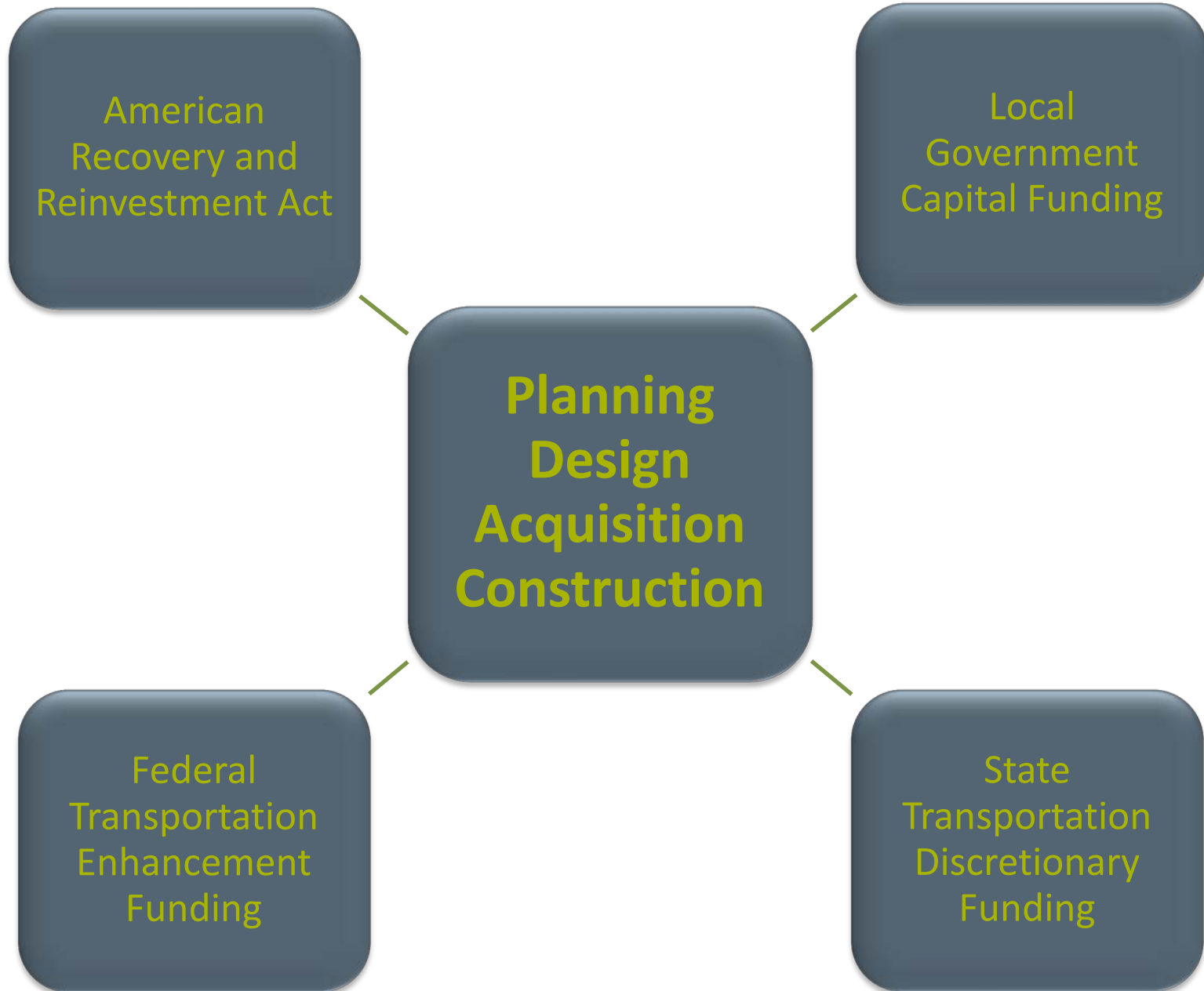


Connecting Jurisdictions

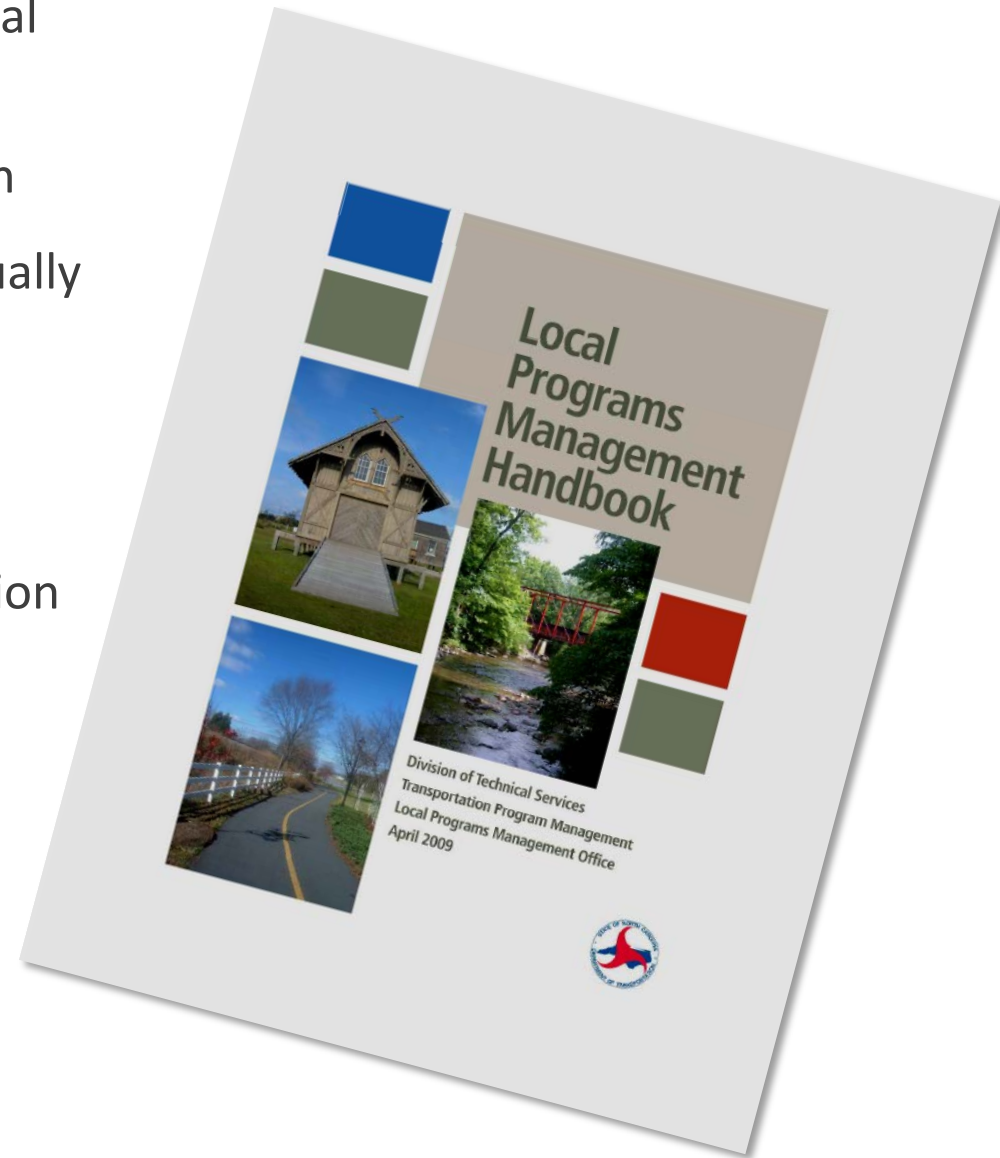


Trail Advocacy



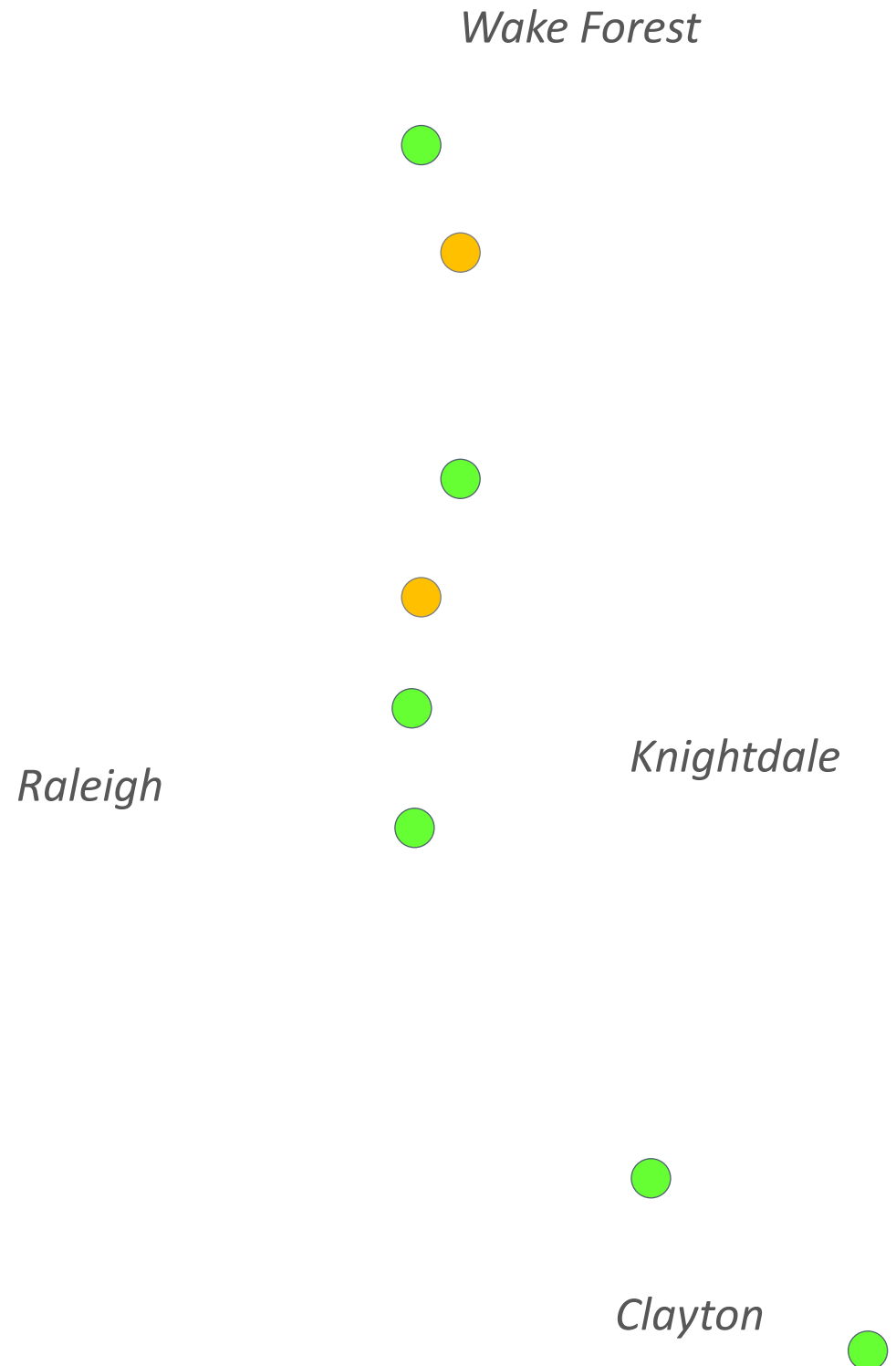


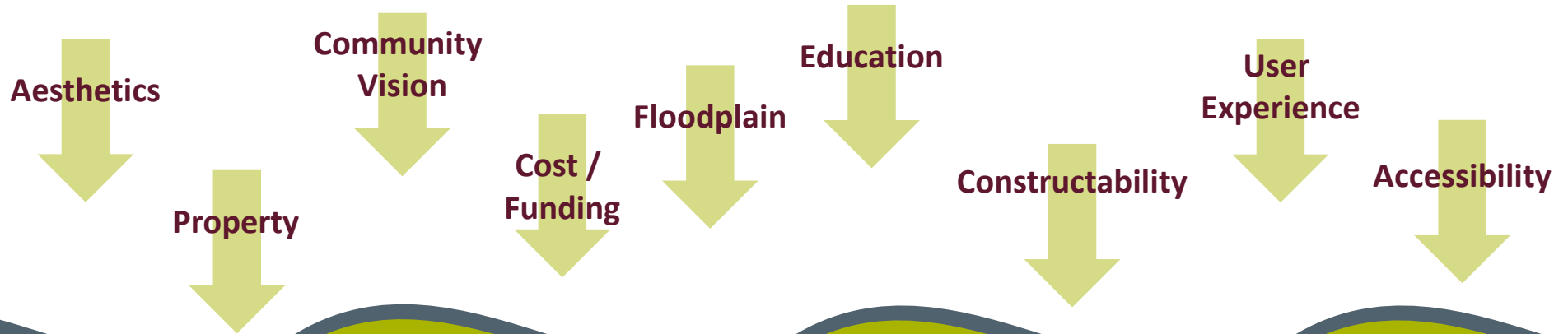
- Introduce Your Project to Your NCDOT Local Programs Coordinator
- Be Proactive with Right of Way Acquisition
- Complete Environmental Document – Usually PCE Checklist – As Soon As Possible
- Discuss Encroachment Agreement Needs Early with Division/District Office
- Understand the Construction Administration and Inspections Requirements
- Use the Local Programs Management Handbook



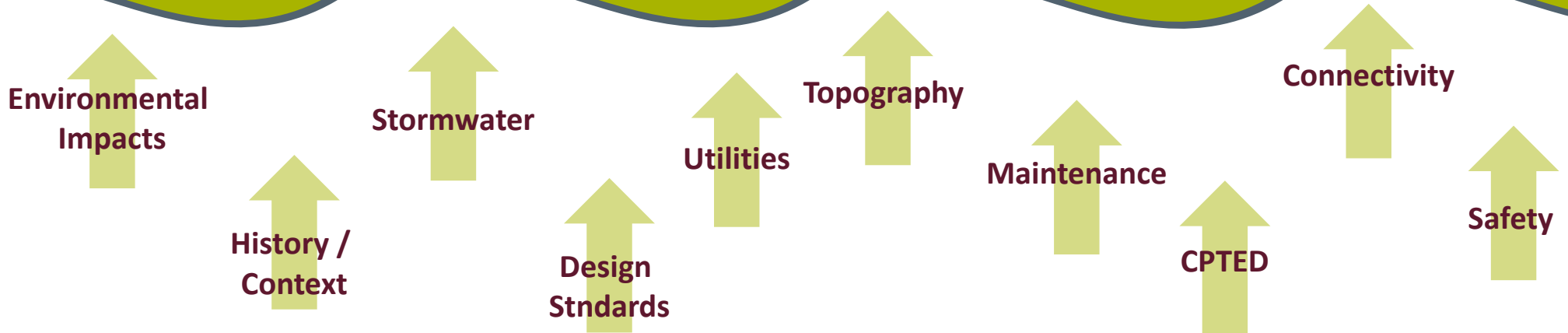
NRT by the Numbers

6	Jurisdictions Involved
34	Miles of Trail
1ST	Design Build Greenway
8	Pedestrian Bridges over the Neuse
2	Suspension Bridges
3	Miles of Boardwalk
1	Pedestrian Culvert
5	Canoe Launches
\$32M	Construction Cost
88	Easements Acquired
15	Engineers, Planners, and Landscape Architects on Project
6	CLOMR/LOMRs





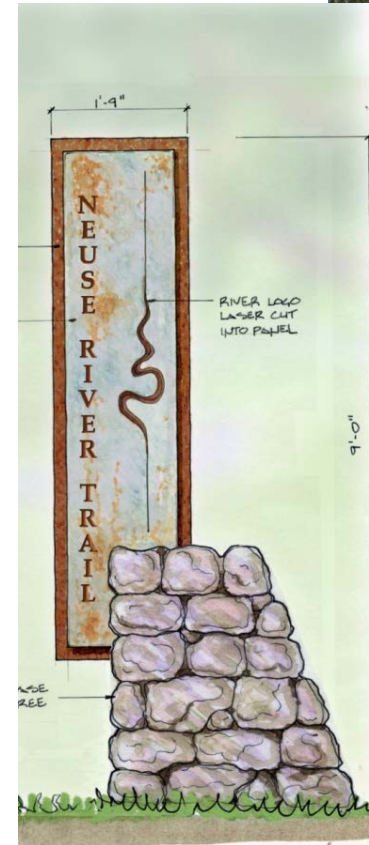
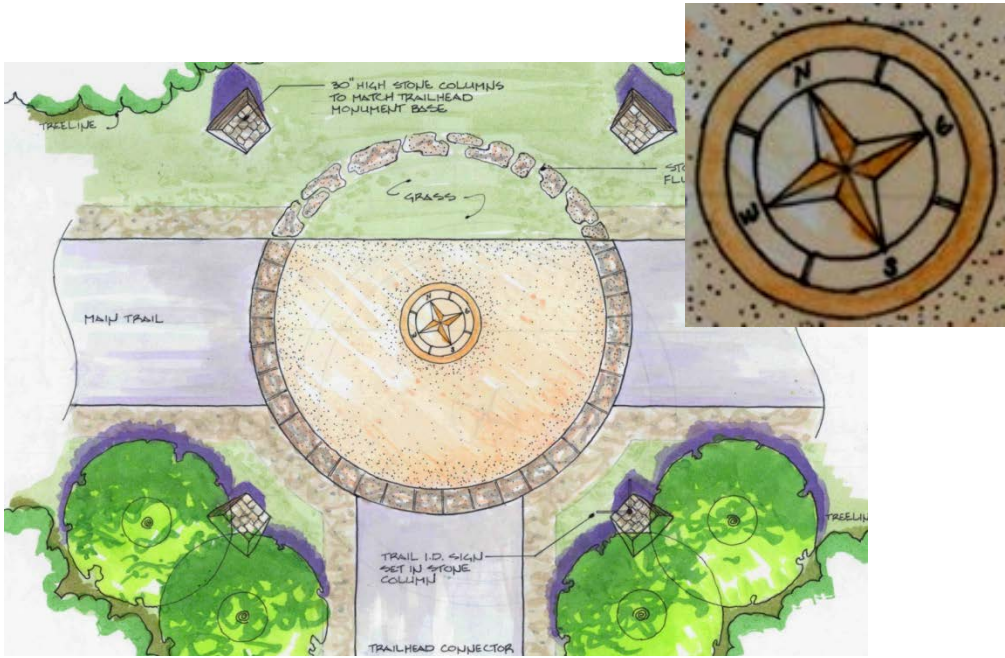
Why is the trail where it is?



With the Final User Experience Always in Mind, We Balance a Myriad of Considerations that Shape Where a Trail Goes

Branding and Wayfinding

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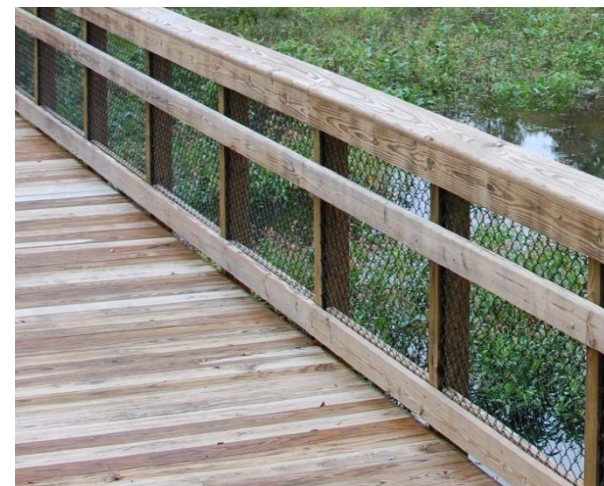
Quick Tour - Trail

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- Over 3 Miles of Boardwalk
- New Top-Down Construction Design
 - Approved by NCDOT
 - Reduces Environmental Impacts
 - Speeds Construction Time
- Railing Redesigned for Maintenance



Quick Tour – Pedestrian Culvert

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- 15 Bridges totaling over 1,528 feet
- 100' plus spans at Walnut, Crabtree, and Perry Creeks



Quick Tour – Wake Forest Connection

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- 558' total length makes this the longest bridge on the Neuse River Trail
- 5 Spans and a boardwalk approach across floodplain
- 200' span across Neuse River
- Connects to Smith Creek Greenway

Quick Tour – Milburnie Bridge

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- Two 163.75' Spans – 328' Total Length
- Links Neuse River Parks East and West

Quick Tour – Knightdale Connection

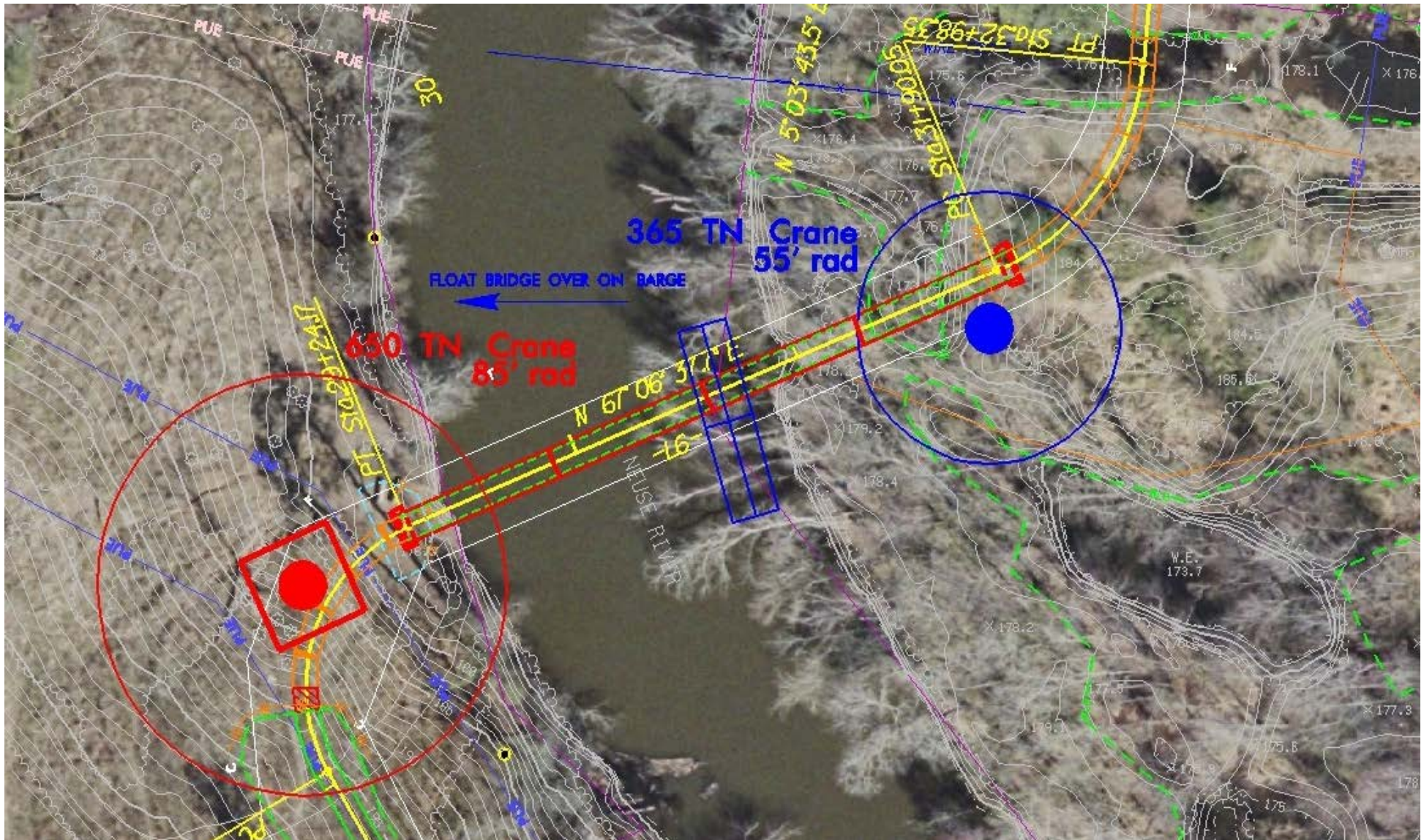
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- Single 228' Span
- Connects to Mingo Creek Greenway



- 4.5 Miles
- 200' Span over the Neuse
- Connects to Sam's Branch Greenway to Clayton
- Mountains to Sea and East Coast Greenway



Objective of Redesign

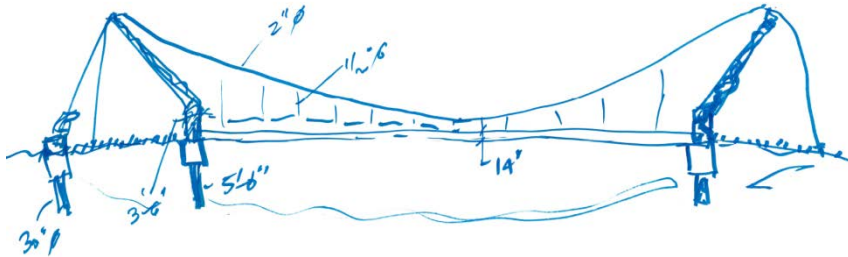
- Minimize Environmental Impacts
- Reduce Cost – Make Bid More Competitive
- Create Iconic Visual Impact
- Compliment Natural Context



- Single 275' span over the Neuse River
- 45' high towers supported on micropile foundations
- 3" diameter main cable with rock anchor foundations

Skycrest Suspension Bridge Specs

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Span – 270'

Width – 12'

Main Cable – 3" Diameter Spiral Strand Cable from Germany

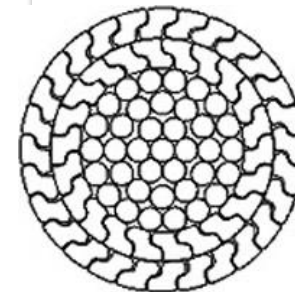
Stringer Cables – 1/2" Diameter Spiral Strand Cable from Germany

Deck – Concrete on Structural Steel Beams

Towers – 45' Structural Steel

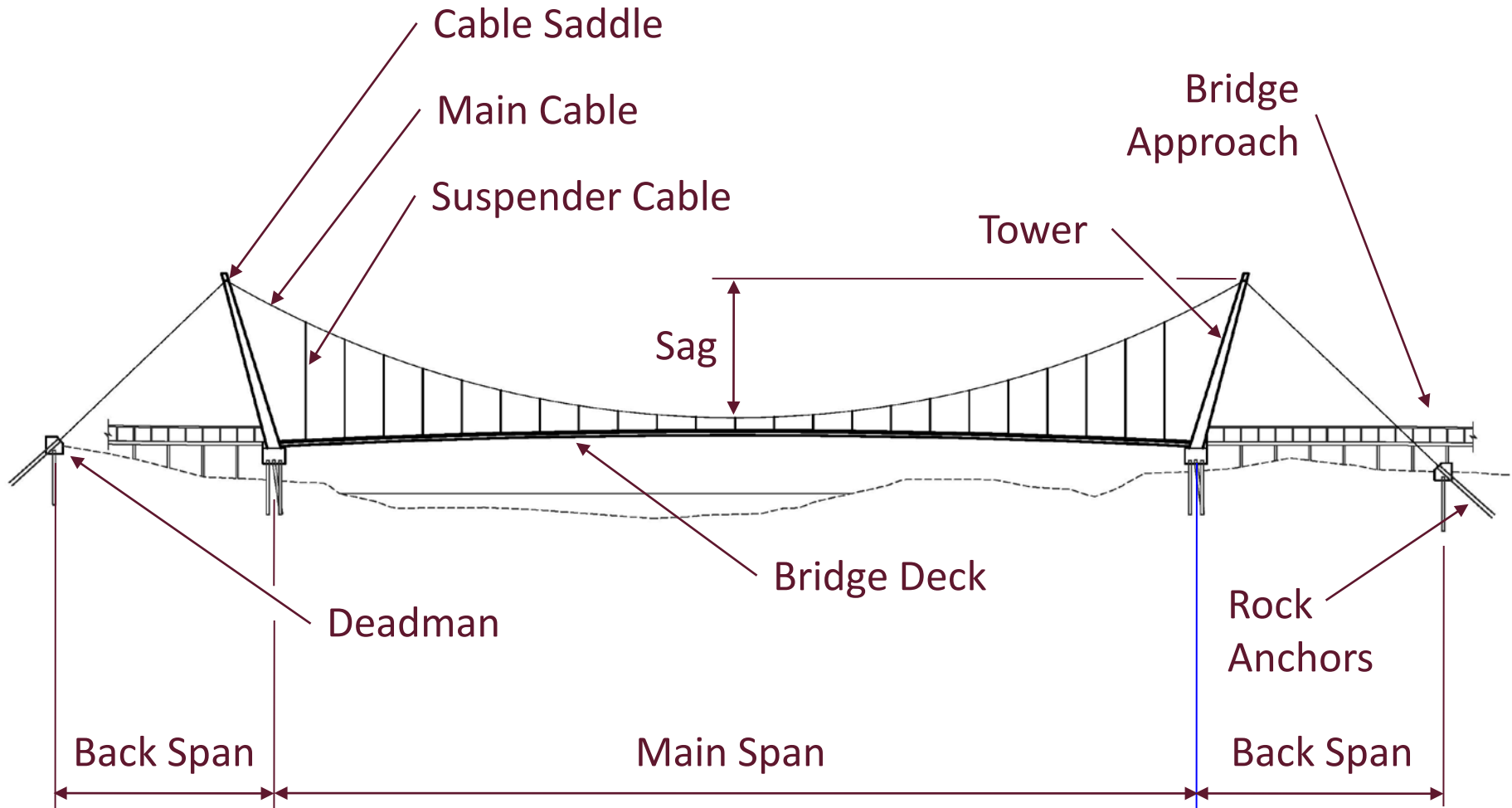
Deadmen – Rock Anchor and Micropile Foundations

Bid Cost – \$1.2M



Anatomy of a Suspension Bridge

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Rock Anchors



Cable Winch



Cable Placement with Idlers



Suspender Cable Placement



Steel framing underway

Skycrest Suspension Bridge

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