

65% Design Public Meeting

Sandy Forks RD
2014

Sandy Forks Road Improvements

From Six Forks Road to Falls of Neuse Road

**Prepared by RK&K
April 10, 2014**

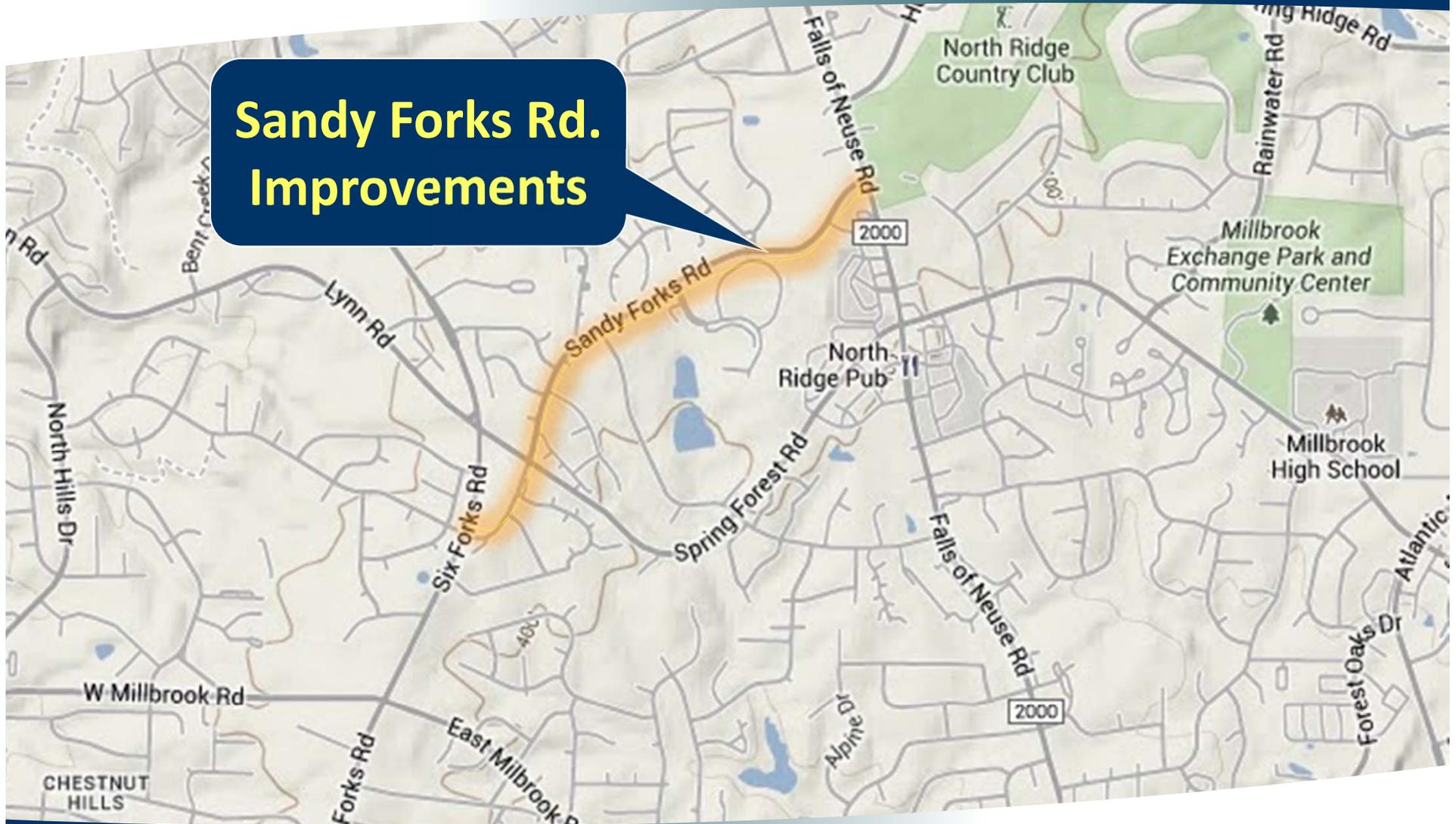
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Project Location

**Sandy Forks Rd.
Improvements**



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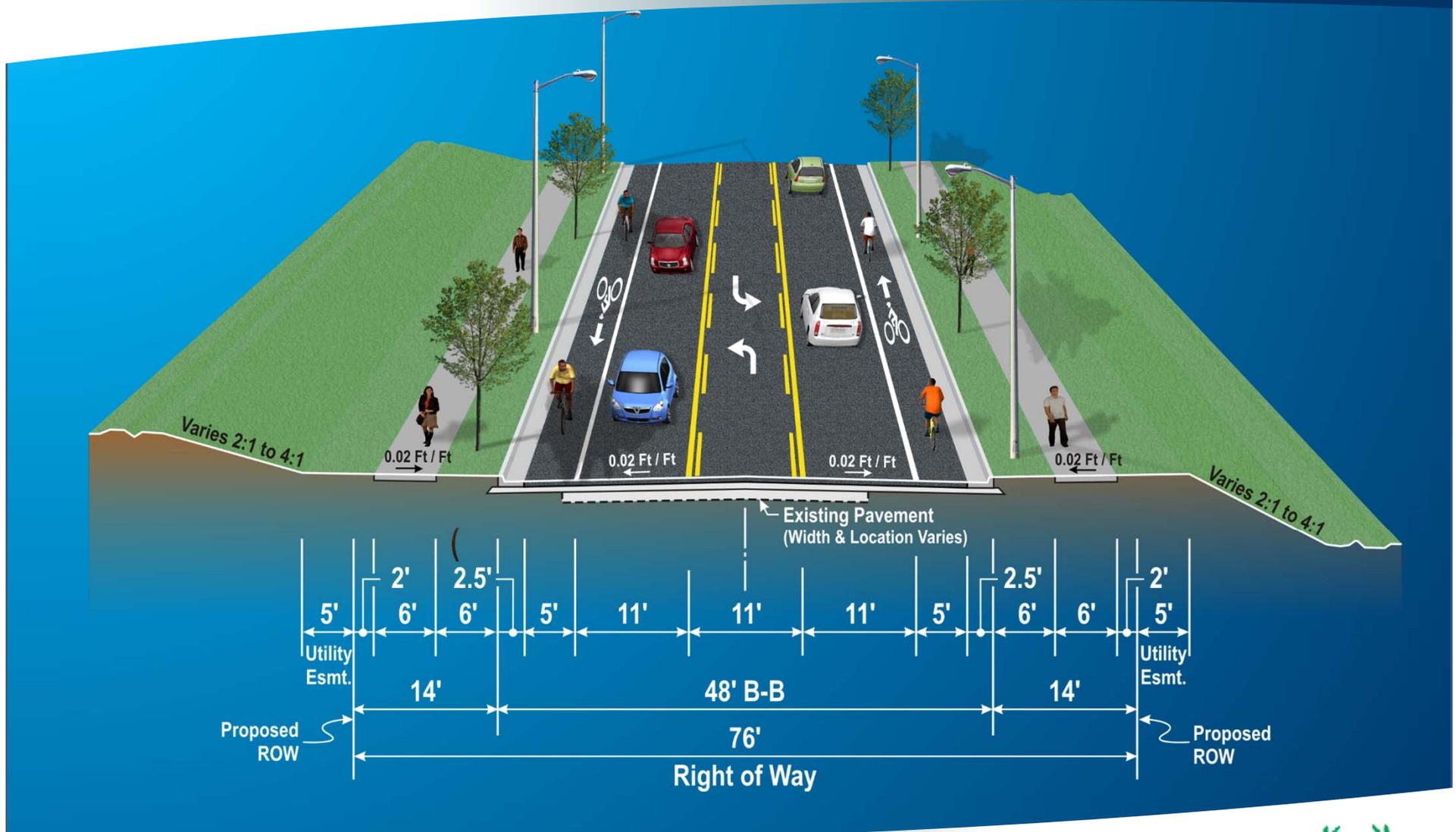
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Project Background



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Typical Section – 3 Lane Undivided



3- 11' Lanes, 6' Sidewalks, 5' Bike Lanes, 76' ROW

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Sustainable features include:

- **Bioretention**
- **Native Landscaping**
- **Bike & Pedestrian Access**
- **Context-Sensitive Solutions**
- **Cultural Outreach**
- **Warm Mix Asphalt/Recycled asphalt**



Planting Objectives

- Low maintenance, native, naturalized
- Human scale
- Seasonal interest
- CPTED principles

Plantings

- **Canopy Trees:** Willow Oak, Nuttall Oak, Black Gum, Sycamore
- **Understory Trees:** Eastern redbud, Serviceberry, Ironwood
- **Shrubs:** Eastern red cedar, Dwarf yaupon, Inkberry, Witch hazel
- **Grasses/perennials:** Prairie dropseed, Muhly grass, Black-eyed susan



- **First Public Meeting held on December 5, 2013.**
- **Second Public Meeting on April 10, 2014**
- **City Council Public Hearing tentatively in June 2014.**



Sandy Forks Road Widening

Comments from 1st Public Meeting



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- **Comment #1 – School buses stop on Suburban Dr. for children living in nearby apartment complex. This sometimes causes traffic to back up into Sandy Forks Road.**
- **Answer – Wake County Transportation is revising bus stop plan so all buses enter subdivision, instead of stopping on Sandy Forks. City has requested that buses stop on Brook Hollow (outbound) side.**

- **Comment #2 – Flatten curve near Falls of Neuse Road to create a safer roadway alignment and reduce impacts to properties on south side of Sandy Forks Road.**
- **Answer – Horizontal alignment of roadway revised to flatten curve and reduce widening along south side of Sandy Forks Road.**

- **Comment #3 – At Sandy Forks Place Condominiums, consider avoiding the existing tree buffer and retaining the existing partial right turn lane into complex.**
- **Answer – Construction will not extend beyond outside edge of existing sidewalk. Tree buffer will not be impacted. Partial right turn lane will not be incorporated due to safety reasons.**

- **Comment #4 – Improve pedestrian crossing across Six Forks Road.**
- **Answer – High visibility crosswalks proposed at all signalized intersections. Pedestrian ramps will also be upgraded to meet current ADA standards.**

- **Comment #5 – The two gas stations at the intersection of Falls of Neuse Rd. both have dangerous driveways on Sandy Forks Rd. Also, it's difficult for pedestrians to safely cross Falls of Neuse Road.**
- **Answer – A concrete island is proposed along Sandy Forks Road which will prevent left turning traffic into the two driveways. A pedestrian refuge island is also proposed on Falls of Neuse Road.**

- **Comment #6 – How will Sandy Forks Road be maintained between now and the completion of the project? Can the resurfacing of Windfield Court be added to the project?**
- **Answer – Sandy Forks Road will be maintained by patching potholes as needed. Windfield Court resurfacing will not be added to the project but based on its current condition, should be resurfaced in the next 3 to 5 years.**

- **Comment #7 – Concerned about damage to existing trees and landscaping in the construction easement.**
- **Answer – Right of way and easements have been refined based on more detailed design. Construction easements allow contractor the necessary room to construct the roadway. Once right of way acquisition begins, City staff will work with each property owner to closely review landscape impacts.**

- **Comment #8 – Concerned about the assessment for property owners along corridor.**
- **Answer – Assessments will only apply to properties with frontage on Sandy Forks Road that do not currently have curb and gutter. City staff is available to discuss estimated assessment costs with each property owner after the presentation.**

Estimated Project Cost:

- \$9.8 Million for Construction and Right of Way

Project Schedule:

- Complete Right of Way Acquisition – Winter 2015
- Advertise Construction Contract – Winter 2015
- Award Construction Contract – Spring 2015
- Complete Construction – Fall 2016

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Project Overview



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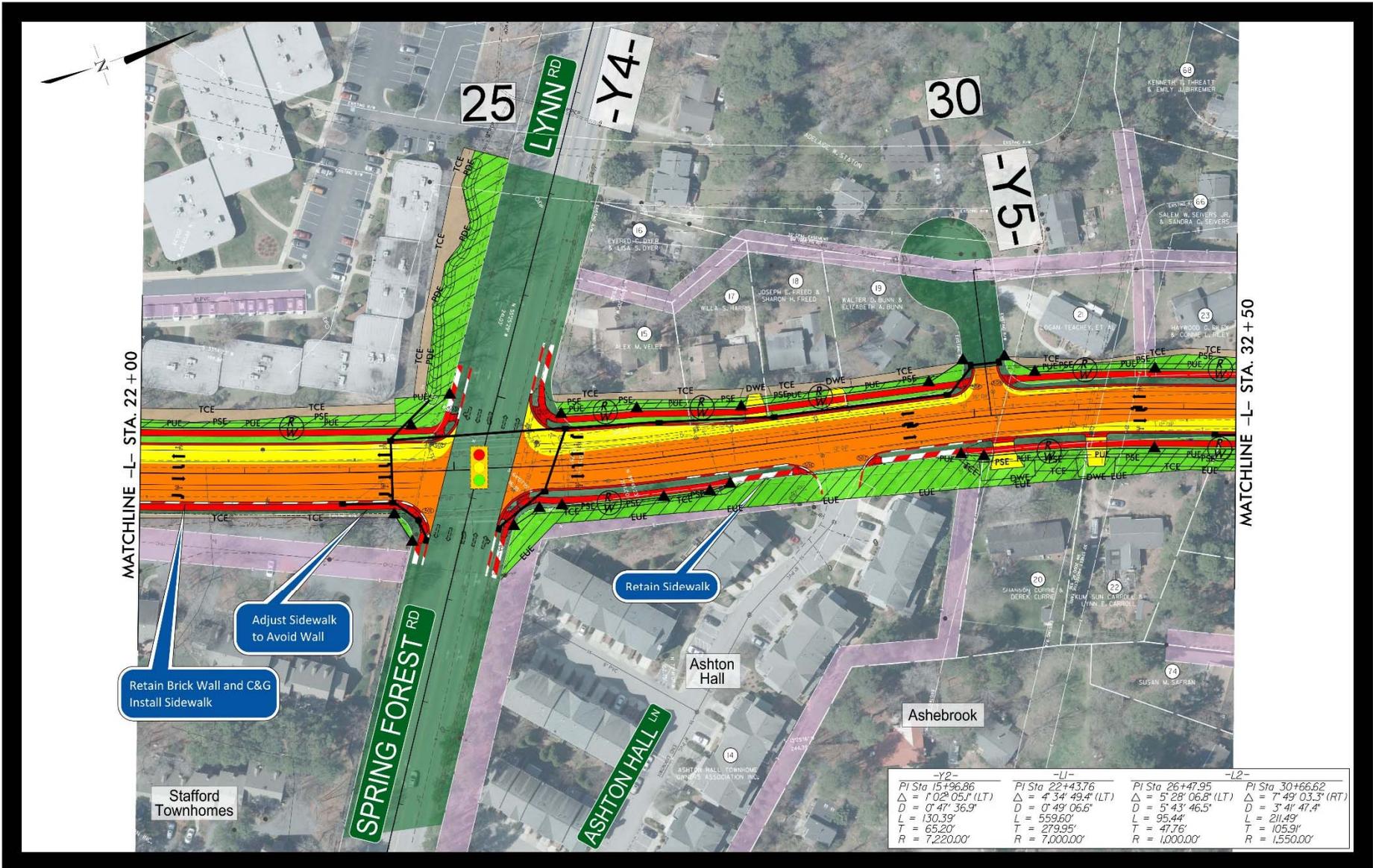
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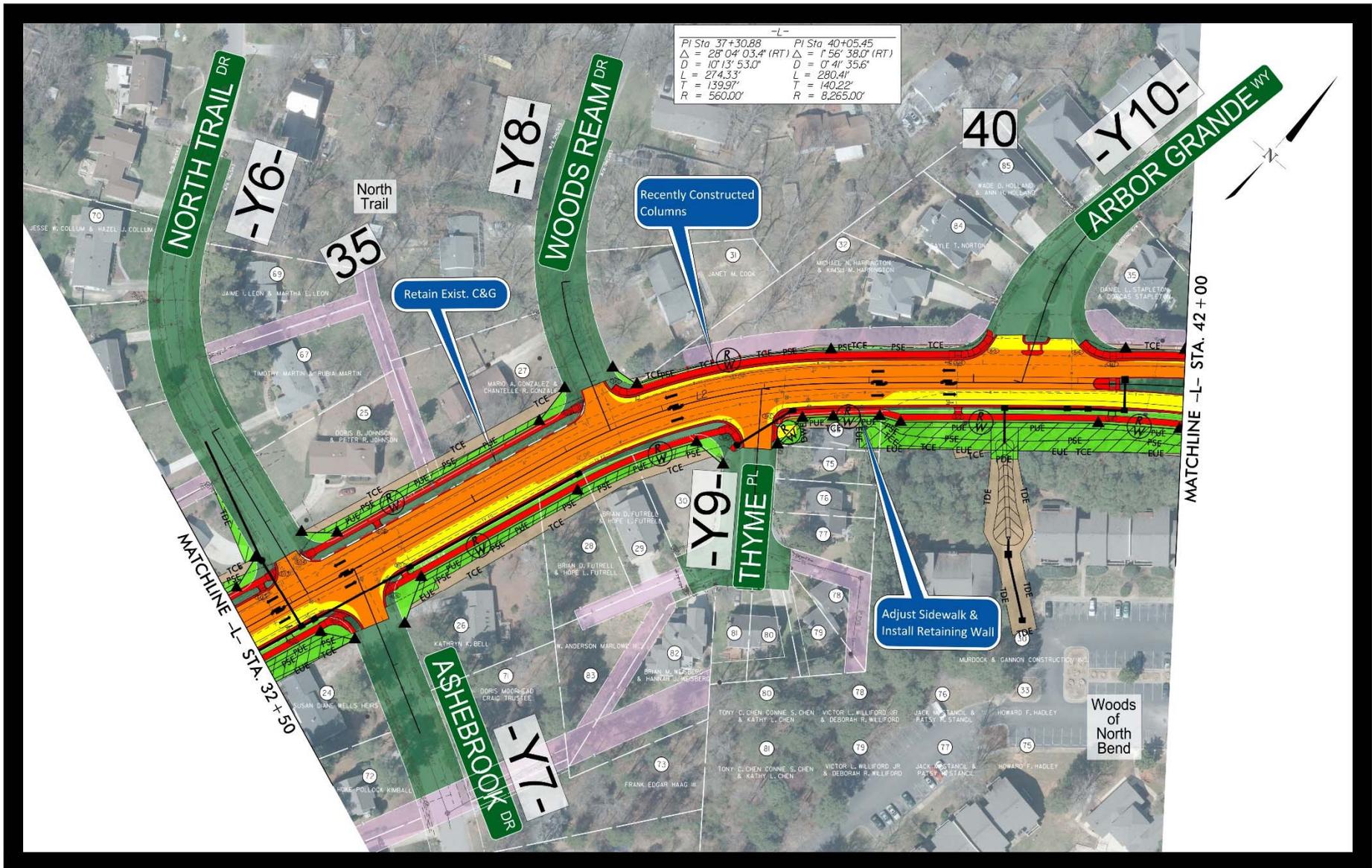
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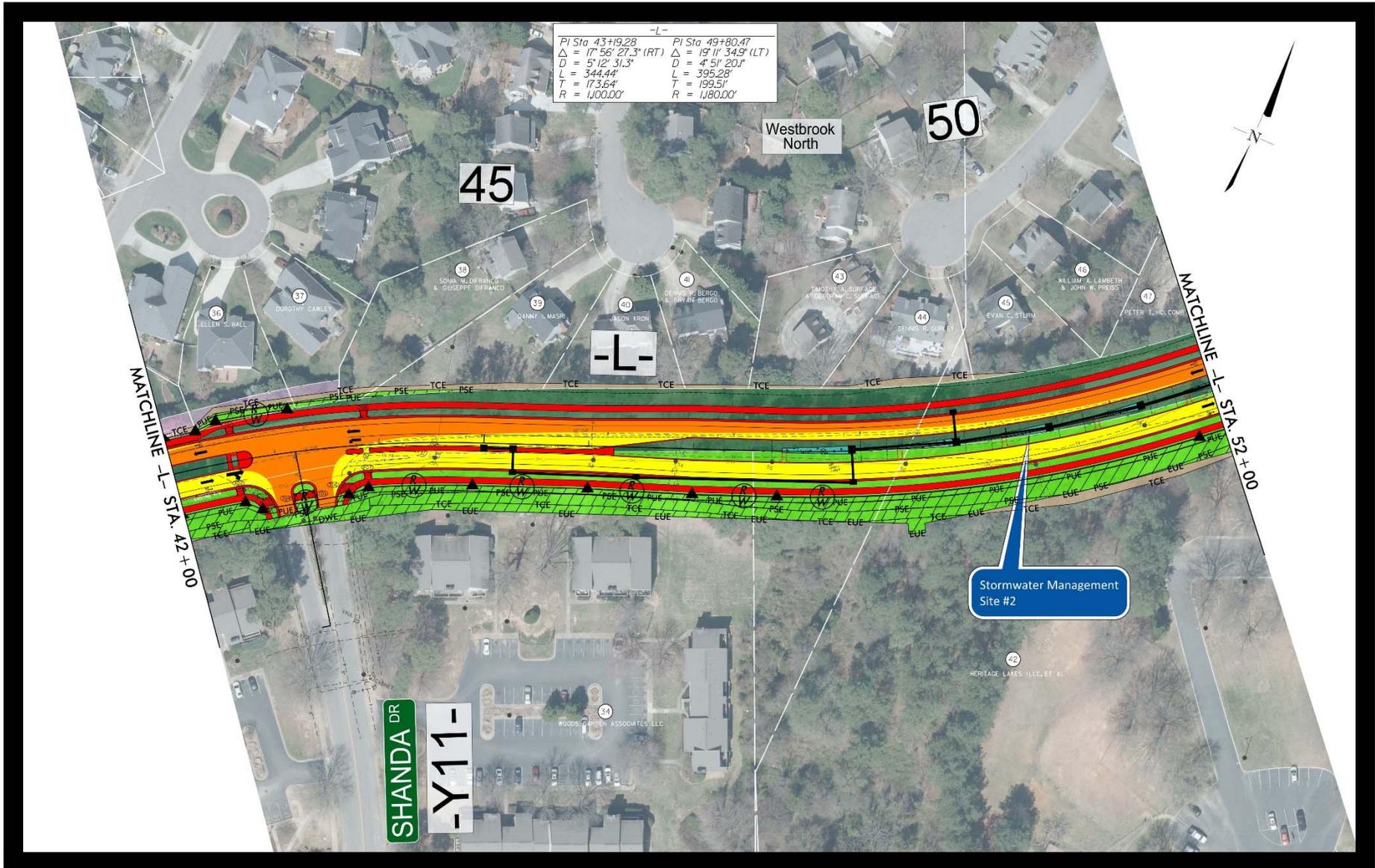
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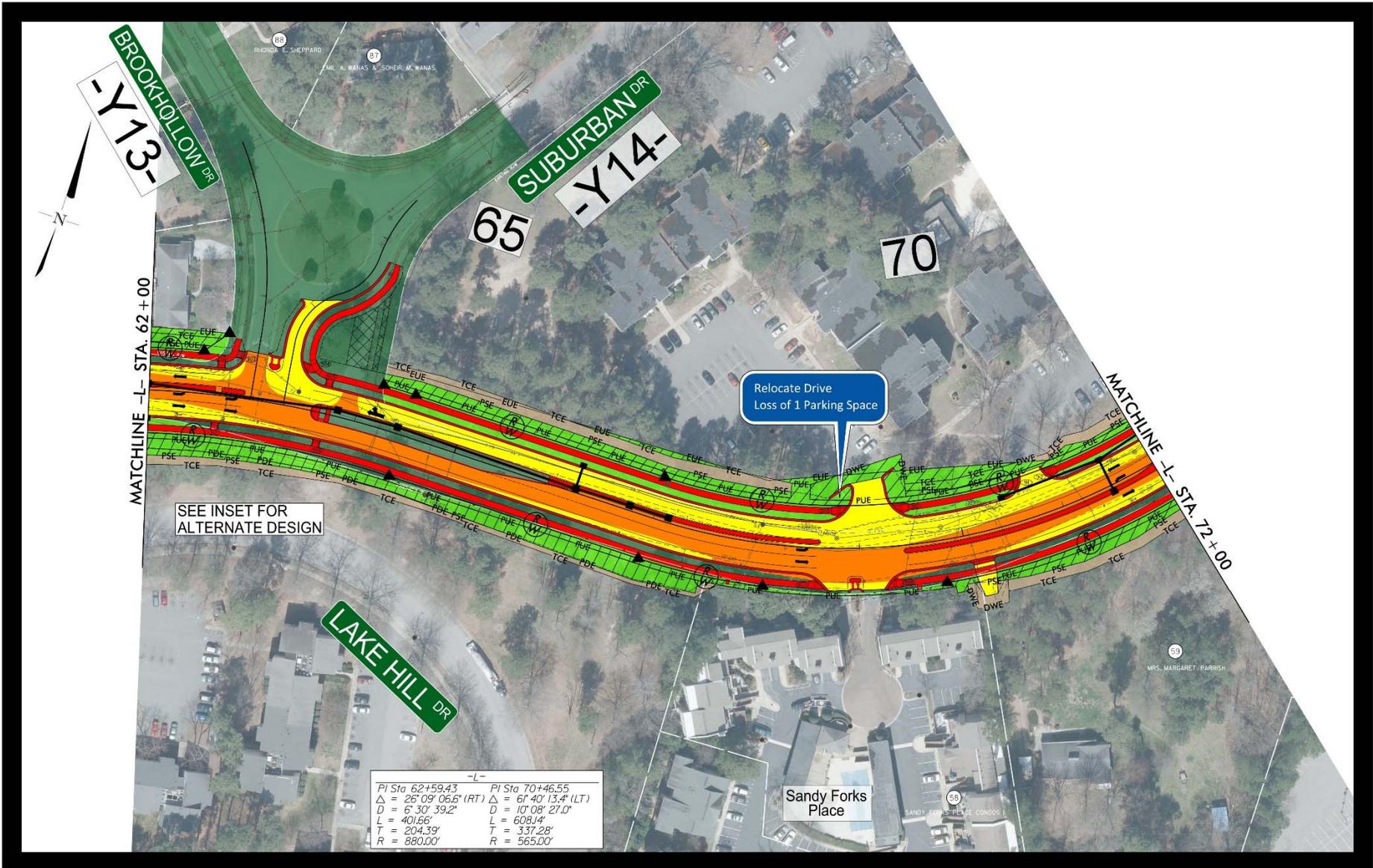
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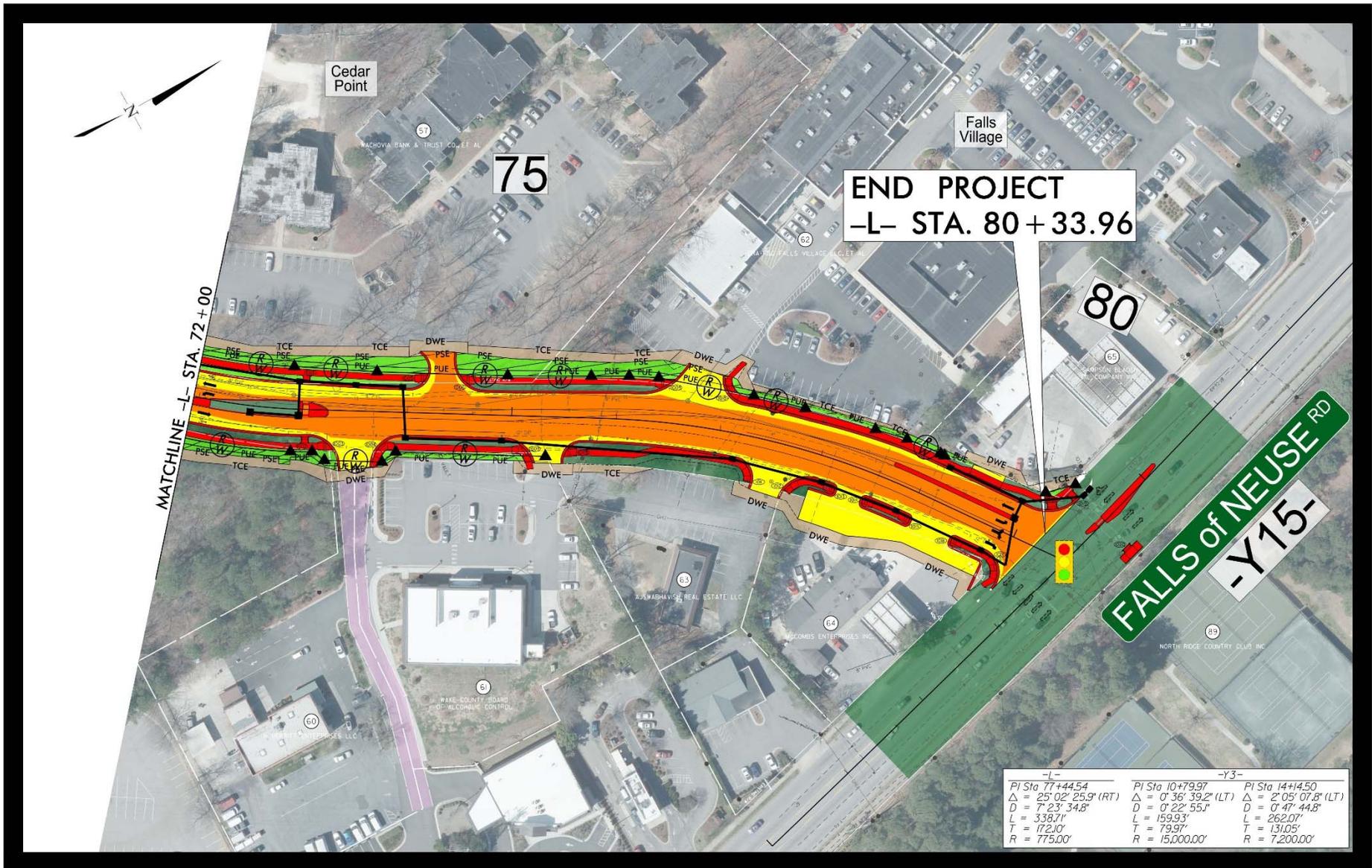
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Sandy Forks Road Widening

Greenroads



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Sandy Forks Road Widening

What is a Greenroad?

“A Greenroad is defined as a roadway project that has been designed and constructed to a level of sustainability that is substantially higher than current common practice.”





Sandy Forks Road Widening

Background and History

- Greenroads Rating System is a sustainability rating system for roadway design and construction projects
- Awards points for sustainable design/construction, similar to LEED certification for green buildings
- Rating system managed by Greenroads Foundation (third party non-profit corporation)
- Over 120 projects rated around the world, most completed during five years of research/development at the University of Washington
- Currently around 50 registered projects, mostly western US, also Texas, Michigan, Colorado, North Carolina (City of Charlotte), and Canada





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What sustainability topics are covered?

- Project Requirements – environmentally responsible decision making processes/plans
- Environment & Water – best practices related to stormwater management and ecological resources
- Access & Equity – safety, access, and mobility
- Construction Activities – construction management
- Materials & Resources – recycle, reuse, reduce waste
- Pavement Technologies – pavement innovations
- Custom Credits – innovations/ideas not in manual





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Voluntary Credit Category Weights

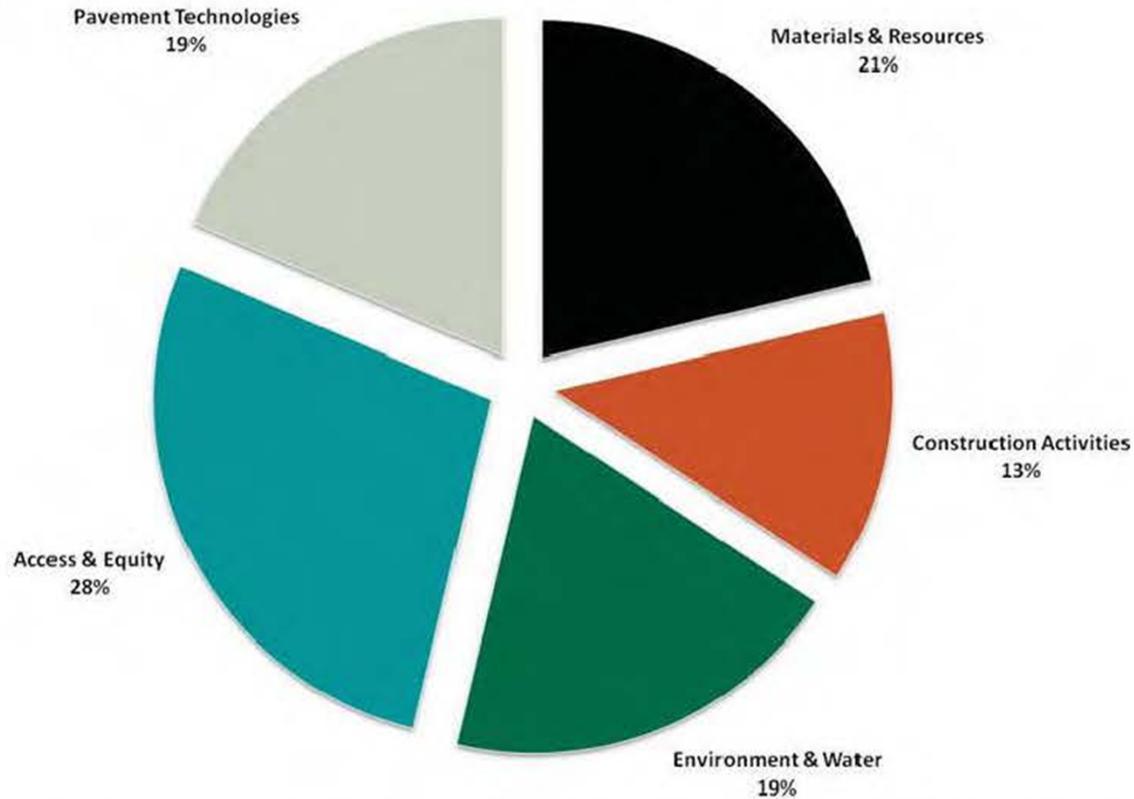


Figure I.5: Graph showing the distribution of Voluntary Credit points (by percentage of the total)





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No.	Title	Pts.	Description
Project Requirements (PR) – Mandatory for all projects			
PR-1	Environmental Review Process	Req	Complete a comprehensive environmental review
PR-2	Lifecycle Cost Analysis (LCCA)	Req	Perform LCCA for pavement section
PR-3	Lifecycle Inventory (LCI)	Req	Perform LCI of pavement section
PR-4	Quality Control Plan	Req	Have a formal contractor quality control plan
PR-5	Noise Mitigation Plan	Req	Have a construction noise mitigation plan
PR-6	Waste Management Plan	Req	Have a plan to divert C&D waste from landfill
PR-7	Pollution Prevention Plan	Req	Have a TESC/SWPPP
PR-8	Low Impact Development (LID)	Req	Complete a LID feasibility study
PR-9	Pavement Management System	Req	Have a pavement management system
PR-10	Site Maintenance Plan	Req	Have a roadside maintenance plan
PR-11	Educational Outreach	Req	Publicize sustainability information for project
Environment & Water (EW) – Up to 21 Points			
EW-1	Environmental Management System	2	ISO 14001 certification for general contractor
EW-2	Runoff Flow Control	1-3	Reduce runoff quantity
EW-3	Runoff Quality	1-3	Treat stormwater to a higher level of quality
EW-4	Stormwater Cost Analysis	1	Conduct an LCCA for stormwater elements
EW-5	Site Vegetation	1-3	Use native low/no water vegetation
EW-6	Habitat Restoration	3	Restore habitat beyond what is required
EW-7	Ecological Connectivity	1-3	Connect habitat across roadways
EW-8	Light Pollution	3	Discourage light pollution
Access & Equity (AE) – Up to 30 Points			
AE-1	Safety Audit	1-2	Perform roadway safety audit
AE-2	Intelligent Transportation Systems (ITS)	2-5	Implement ITS solutions
AE-3	Context Sensitive Solutions	5	Plan for context sensitive solutions
AE-4	Traffic Emissions Reduction	5	Reduce emissions with quantifiable methods
AE-5	Pedestrian Access	1-2	Provide/improve pedestrian accessibility
AE-6	Bicycle Access	1-2	Provide/improve bicycle accessibility
AE-7	Transit Access	1-5	Provide/improve transit accessibility
AE-8	Scenic Views	1-2	Provide views of scenery or vistas
AE-9	Cultural Outreach	1-2	Promote art/culture/community values





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Construction Activities (CA) – Up to 14 Points

CA-1	Quality Management System	2	ISO 9001 certification for general contractor
CA-2	Environmental Training	1	Provide environmental training
CA-3	Site Recycling Plan	1	Have a plan to divert waste from landfill
CA-4	Fossil Fuel Reduction	1-2	Use alternative fuels in construction equipment
CA-5	Equipment Emissions Reduction	1-2	Meet EPA Tier 4 standards for non-road equip.
CA-6	Paving Emissions Reduction	1	Use pavers that meet NIOSH requirements
CA-7	Water Tracking	2	Develop data on water use in construction
CA-8	Contractor Warranty	3	Warranty on the constructed pavement

Materials & Resources (MR) – Up to 23 Points

MR-1	Life Cycle Assessment (LCA)	2	Conduct a detailed LCA of the entire project
MR-2	Pavement Reuse	1-5	Reuse existing pavement sections
MR-3	Earthwork Balance	1	Use native soil rather than import fill
MR-4	Recycled Materials	1-5	Use recycled materials for new pavement
MR-5	Regional Materials	1-5	Use regional materials to reduce transportation
MR-6	Energy Efficiency	1-5	Improve energy efficiency of operational systems

Pavement Technologies (PT) – Up to 20 Points

PT-1	Long-Life Pavement	5	Design pavements for long-life
PT-2	Permeable Pavement	3	Use permeable pavement as a LID technique
PT-3	Warm Mix Asphalt (WMA)	3	Use WMA in place of HMA
PT-4	Cool Pavement	5	Contribute less to urban heat island effect (UHI)
PT-5	Quiet Pavement	2-3	Use a quiet pavement to reduce noise
PT-6	Pavement Performance Tracking	1	Relate construction to performance data

Custom Credits (CC) – Available for all projects based on context and innovation, subject to approval

CC-1	Custom Credit 1	1-5	Design a new voluntary credit
CC-2	Custom Credit 2	1-5	Design a new voluntary credit

Greenroads Total Points:

118





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Rating System Details

- 108 Total Points possible (excluding custom credits)
- Bronze Certified (32-42 points, PR +30% VC)
- Silver Certified (43-54 points , PR +40% VC)
- Gold Certified (55-63 points , PR +50% VC)
- Evergreen Certified (64+ points , PR +60% VC)





Sandy Forks Road Widening

Why Rate your Project?

- Reduce costs (initial and long term lifecycle costs)
- Create green jobs
- Reduce environmental impacts
- Promote sustainability practices
 - Communicate to stakeholders
 - Demonstrate leadership
 - Collaboration among the project team
 - Early engagement of stakeholders
- Increase property values near Greenroads projects
- Environmentally, socially, and fiscally responsible spending of taxpayer dollars



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Questions



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