



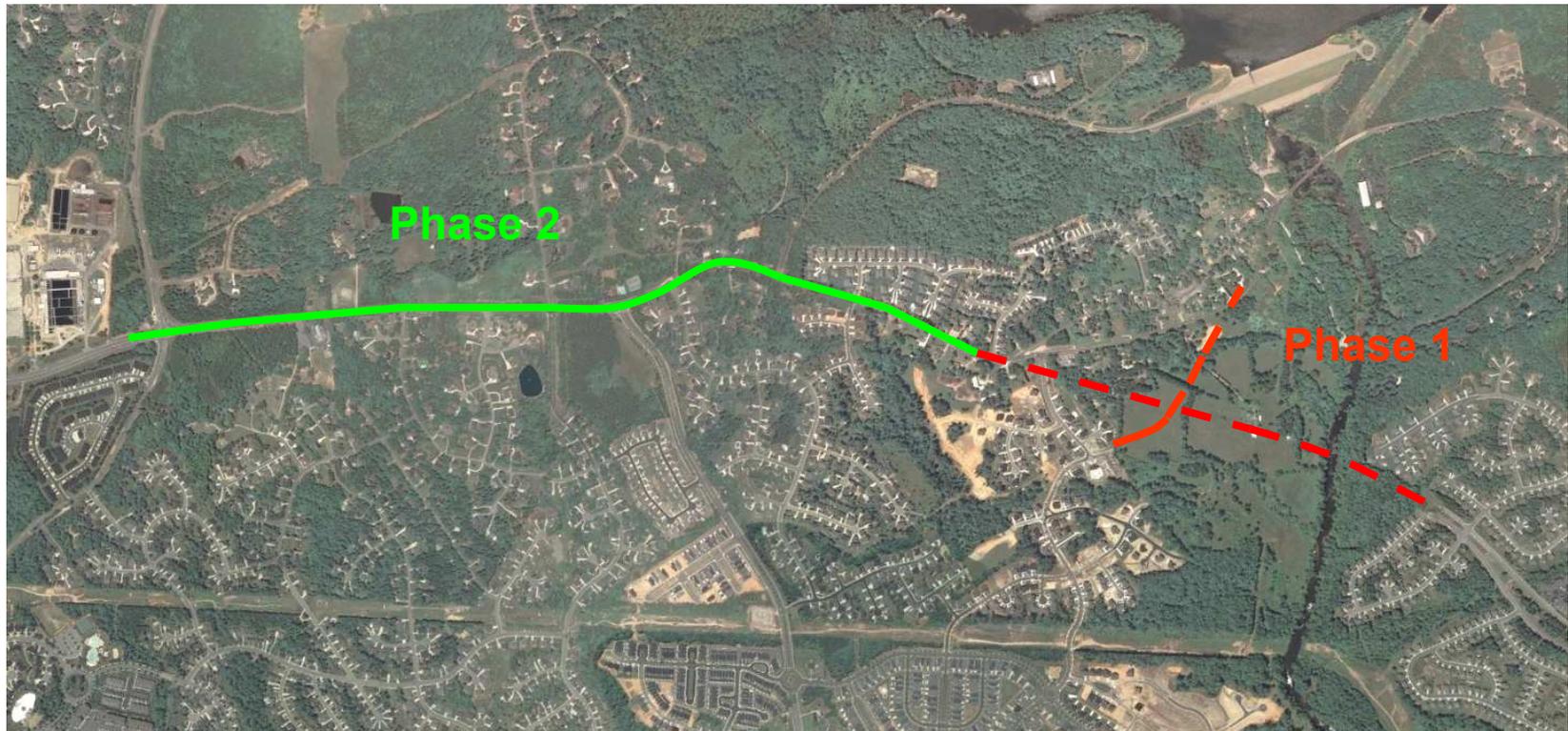
City of Raleigh

Falls of Neuse Road Realignment and Widening Project Phase II

City Council Public Meeting
July 21, 2009



PROJECT PHASES



July 21, 2009



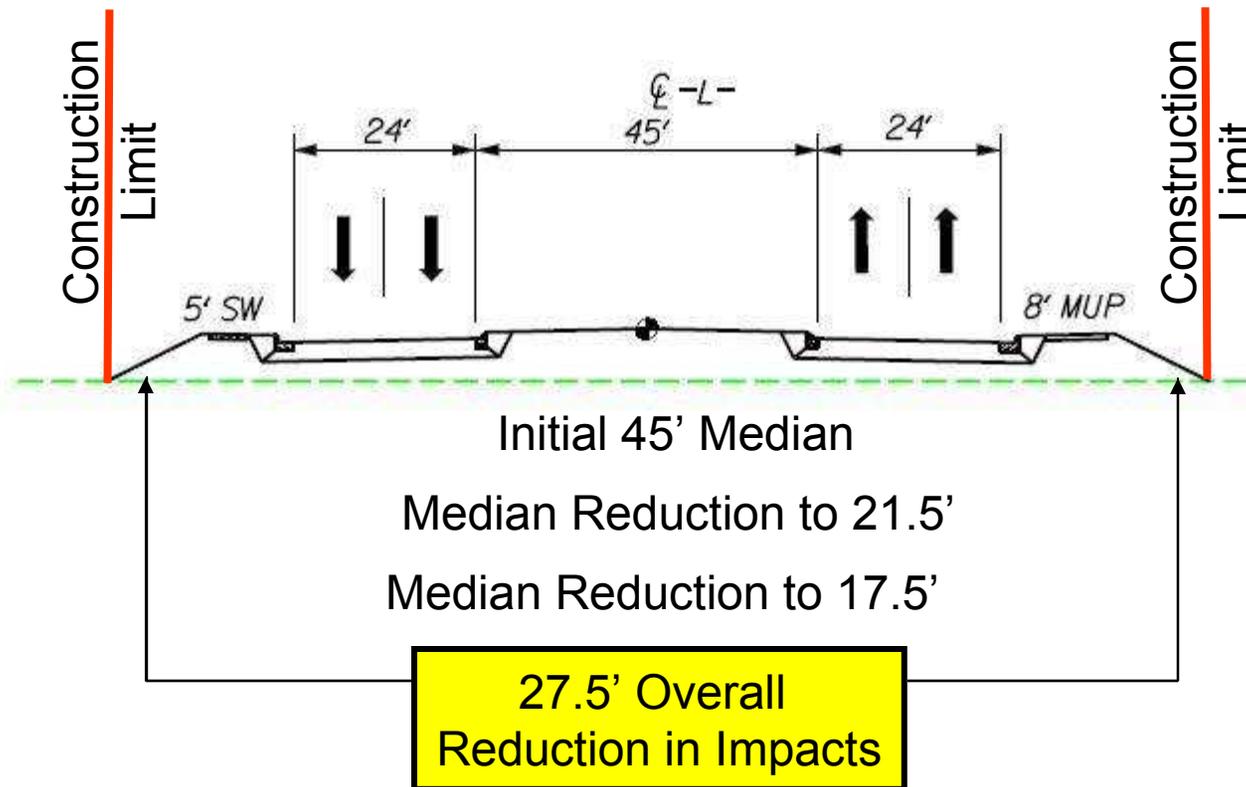
PROJECT COORDINATION EFFORTS

DATE	STAKEHOLDER	REPRESENTATION
1/31/09	NORCHOA	City of Raleigh, URS
2/6/09	Bedford HOA	City of Raleigh, URS
2/3/09	USACE	URS
2/10/09	River Run Advisory Committee	City of Raleigh, URS
2/18/09	NCDOT/City Coordination	City of Raleigh, NCDOT, URS
3/10/09	Wakefield HOA	City of Raleigh, URS
3/16/09	NCDOT/City Coordination	City of Raleigh, NCDOT, URS
4/9/09	NORCHOA	City of Raleigh, NCDOT, URS
4/20/09	Bedford HOA	City of Raleigh, URS
4/28/09	Wakefield HOA	City of Raleigh, URS
5/1/09	River Run Advisory Committee	City of Raleigh, URS
5/15/09	Mt. Pleasant Baptist Church	City of Raleigh, URS
5/22/09	NCDOT/City Coordination	City of Raleigh, NCDOT, URS

July 21, 2009



REDUCING PROJECT SIZE





DESIGN VISUALIZATION



Mt. Pleasant Baptist Church

July 21, 2009



DESIGN VISUALIZATION



Kings Grant Drive/Whittington Drive/Dunn Road Vicinity

July 21, 2009



DESIGN VISUALIZATION



**Kings Grant Drive/Whittington Drive/Dunn Road Vicinity
Close-Up View**

July 21, 2009



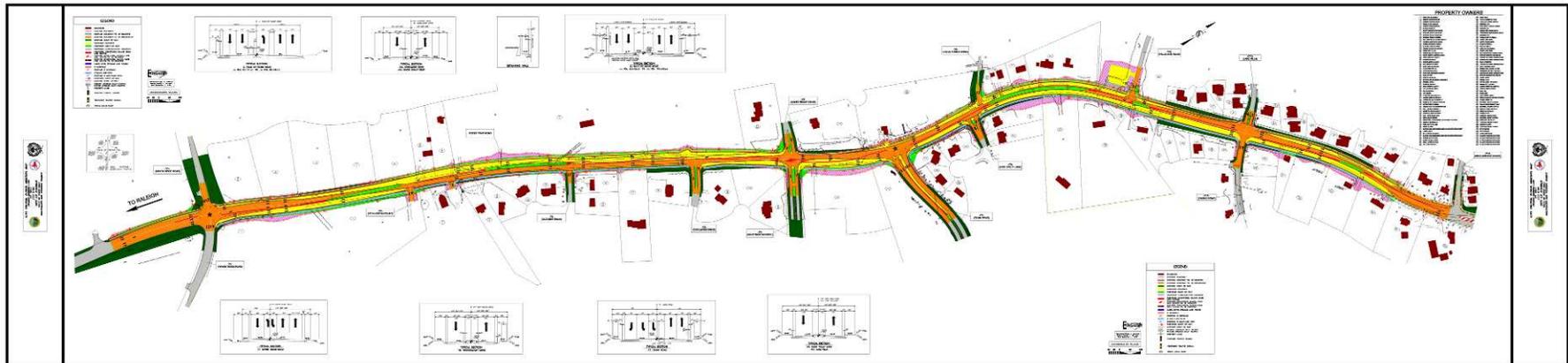
CORRIDOR ACCESS

INTERSECTION COMPARISON TABLE		
INTERSECTION	ORIGINAL TREATMENT	CURRENT TREATMENT
RAVEN RIDGE ROAD	SIGNALIZED FULL-MOVEMENT	SIGNALIZED FULL-MOVEMENT
DEHIJUSTON COURT	LEFT-OVER DIRECTIONAL ACCESS	UNSIGNALIZED FULL-MOVEMENT
OCTOBER ROAD	UNSIGNALIZED FULL-MOVEMENT	LEFT-OVER DIRECTIONAL ACCESS
COOLMORE DRIVE	RIGHT-IN/RIGHT-OUT	UNSIGNALIZED FULL-MOVEMENT
KINGS GRANT/WHITTINGTON DRIVE	UNSIGNALIZED OPPOSING LEFT-OVER ACCESS	UNSIGNALIZED OPPOSING LEFT-OVER ACCESS
DUNN ROAD	SIGNALIZED FULL-MOVEMENT	SIGNALIZED FULL-MOVEMENT
FALLS TOWER/HIGH HOLLY LANE	RIGHT-IN/RIGHT-OUT	RIGHT-IN/RIGHT-OUT
FALLS DAM ROAD	RIGHT-IN/RIGHT-OUT	LEFT-OVER DIRECTIONAL ACCESS
TABRIZ POINT/LAKE VILLA WAY	UNSIGNALIZED FULL-MOVEMENT	UNSIGNALIZED FULL-MOVEMENT
WATERWOOD COURT	LEFT-OVER DIRECTIONAL ACCESS	UNSIGNALIZED FULL-MOVEMENT
OLD FALLS OF NEUSE/WIDE RIVER DRIVE	SIGNALIZED OPPOSING LEFT-OVER ACCESS	SIGNALIZED OPPOSING LEFT-OVER ACCESS

RESULTED IN



- ✓ 2 Additional Full Movement Intersections
- ✓ 1 Additional Left-Over Access

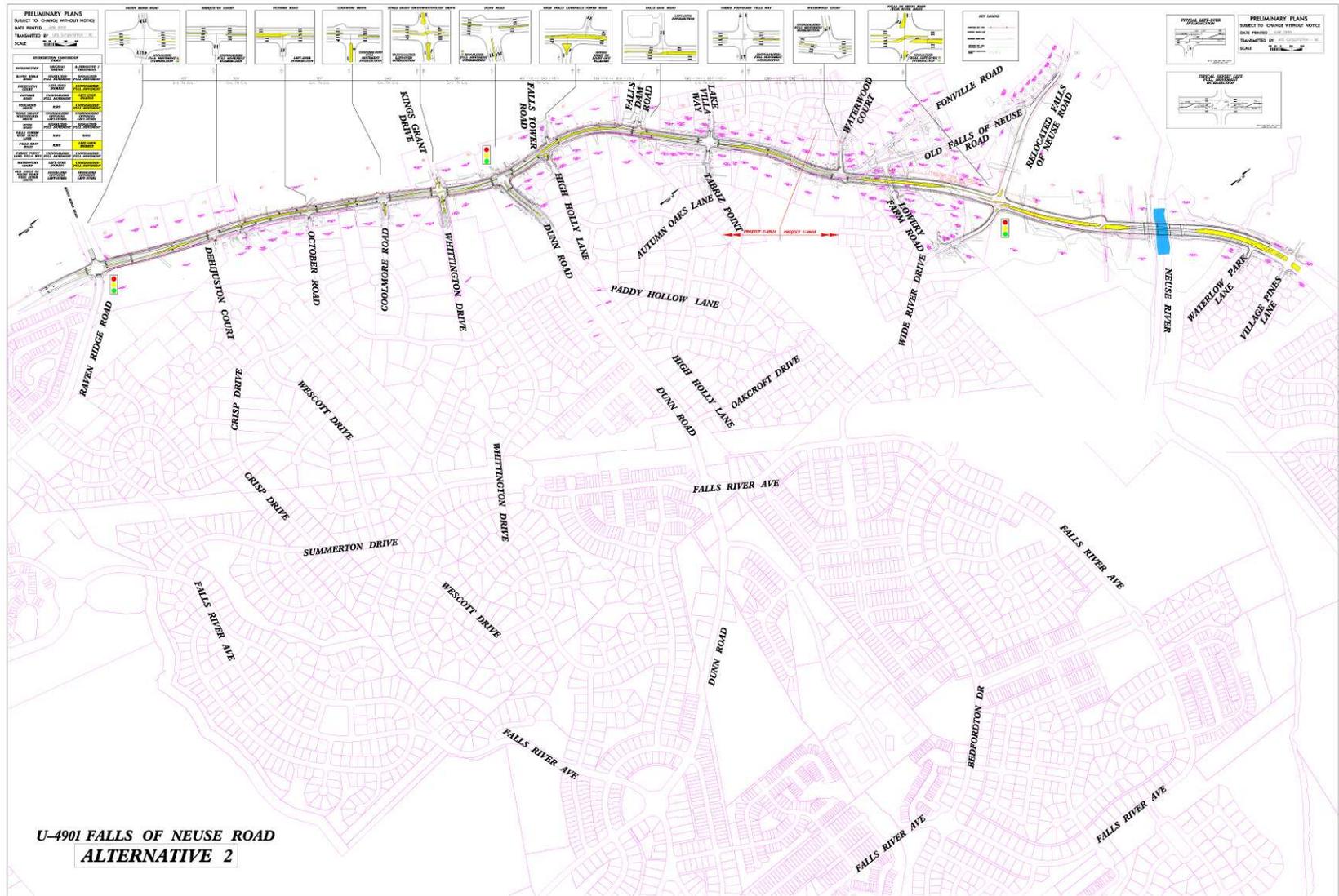


25% Design Meeting Map

July 21, 2009



INTERCONNECTIVITY



July 21, 2009



UNRESOLVED CONCERNS

- o Provide a Continuous Two Way Left Turn Lane

July 21, 2009



SAFETY OF MEDIAN DIVIDED FACILITIES

- Access Management Manual – *Transportation Research Board, 2003*
- A Policy on Geometric Design of Highways and Streets – *American Association of State Highway Transportation Officials, 2004*
- Highway Safety Design and Operations Guide - *American Association of State Highway Transportation Officials, 1997*
- Traffic Engineering Handbook – *Institute of Transportation Engineers, 1999*
- NCHRP Report 524 Safety of U-turns at Unsignalized Median Openings – *Transportation Research Board, 2004*
- NCHRP Report 420 Impacts of Access Management Techniques – *Transportation Research Board, 1999*
- NCHRP Report 395 Capacity and Operational Effects of Midblock Left-Turn Lanes – *Transportation Research Board, 1997*
- NCHRP Synthesis 299 Recent Geometric Design Research for Improved Safety and Operations – *Transportation Research Board, 2001*
- Evaluation of Four Recent Traffic and Safety Initiatives - *Utah Department of Transportation, 2005*
- Comparison of Delay and Accident on Three Roadway Access Designs in Springfield – *Gattis and Hutchison, 2000*
- Safety of U-turns at Signalized Median Openings on Urban and Suburban Arterials – *Potts, Levinsan, et al., 2004*
- Estimating the Safety and Operational Impacts of Raised Medians and Driveway Density: Experience from Texas and Oklahoma Case Studies – *Eisele and Frawley, 2005*
- Effects of Rural Highway median Treatments and Access – *Gattis, Balakumar and Duncan, 2004*
- Access Management Toolkit: Answers to Frequently Asked Questions – *Center for Transportation Research and Education, 2002*
- The Access Management Guidebook – *Michigan Department of Transportation, 2001*
- Access Management Handbook – *Center for Transportation Research and Education, 2000*
- Statistical Relationship Between Vehicular Crashes and Highway Access – *Minnesota Local Road Research Board, 1998*
- Georgia Study Confirms the Continuing Safety Advantage of Raised Medians over Two-Way Left-Turn Lanes – *Parsonson, Waters III and Fincher, 2000*
- Access Management on Suburban Roads – *Levinson, 1994*
- Median Handbook – *Florida Department of Transportation, 2002*
- District Wide Median Operations Evaluation – *Florida Department of Transportation, 1995*
- Methodology to Quantify the Effects of Access Management on Roadway Operations and Safety – *Lu, Williams, et al., 2001*
- Safety of U-turns at Unsignalized Median Openings – Some Research Findings – *Levinson, Potts, et al., 2005*

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SAFETY OF MEDIAN DIVIDED FACILITIES

Access Management Manual
Transportation Research Board, 2003

Use of a Two-way Left-Turn Lane

Evaluations indicate that a two-way left-turn lane may be appropriate for the following roadways:

- Roadways in urban and suburban areas with a projected average daily traffic of less than 24,000 vehicles per day

Use of a Non-traversable Median

A non-traversable median is more desirable than a two-way left-turn lane for the following situations:

- All new multilane urban arterial roadways;
- Existing multilane urban arterial roadways with average daily traffic in excess of 24,000 to 28,000 vehicles per day, depending on local conditions
- Rural multi-lane roadways



UNRESOLVED CONCERNS

- o Provide a Continuous Two Way Left Turn Lane
- o Provide Additional Traffic Signals along the Project



ADDITIONAL SIGNAL STUDIES

Additional Traffic Signal Studies

Evaluated for signal warrants in October 2008:

- October Road
- Kings Grant Drive /Whittington Drive
- Waterwood Court
- Tabriz Point/Lake Villa Way

Evaluated for traffic operations in July 2009:

- Coolmore Drive
 - Travel Time along Falls of Neuse - 2035
 - SB(AM)/NB(PM) increase of 5:26
 - NB(AM)/SB(PM) increase of 0:16
 - Travel Time along Falls of Neuse - 2025
 - SB(AM)/NB(PM) increase of 1:51
 - NB(AM)/SB(PM) increase of 0:08



UNRESOLVED CONCERNS

- o Provide a Continuous Two Way Left Turn Lane
- o Provide Additional Traffic Signals along the Project
- o Eliminate Sidewalk and reduce Berm on west side of Project



UNRESOLVED CONCERNS

- o Provide a Continuous Two Way Left Turn Lane
- o Provide Additional Traffic Signals along the Project
- o Eliminate Sidewalk and reduce Berm on west side of Project
- o Lower the roadway grade in the vicinity of Daltons Ridge



UNRESOLVED CONCERNS

- o Provide a Continuous Two Way Left Turn Lane
- o Provide Additional Traffic Signals along the Project
- o Eliminate Sidewalk and reduce Berm on west side of Project
- o Lower the roadway grade in the vicinity of Daltons Ridge
- o Narrow the median north of Dunn Road to Waterwood Court



QUESTIONS?

July 21, 2009