



NCDOT Prioritization 3.0 Project Summary

SPOT ID: H141550

Mode: Highway

Status: Submitted

NC-54 (Raleigh Road)

From/Cross Street: Burning Tree Drive

Specific Improvement Type: 4 - Upgrade Arterial to Superstreet

To: Barbee Chapel Road

Project Category: Regional Impact

Length: 0.72

TIP#:

Fully Funded in Draft STIP? No

Cost to NCDOT: \$32,106,000

Description:

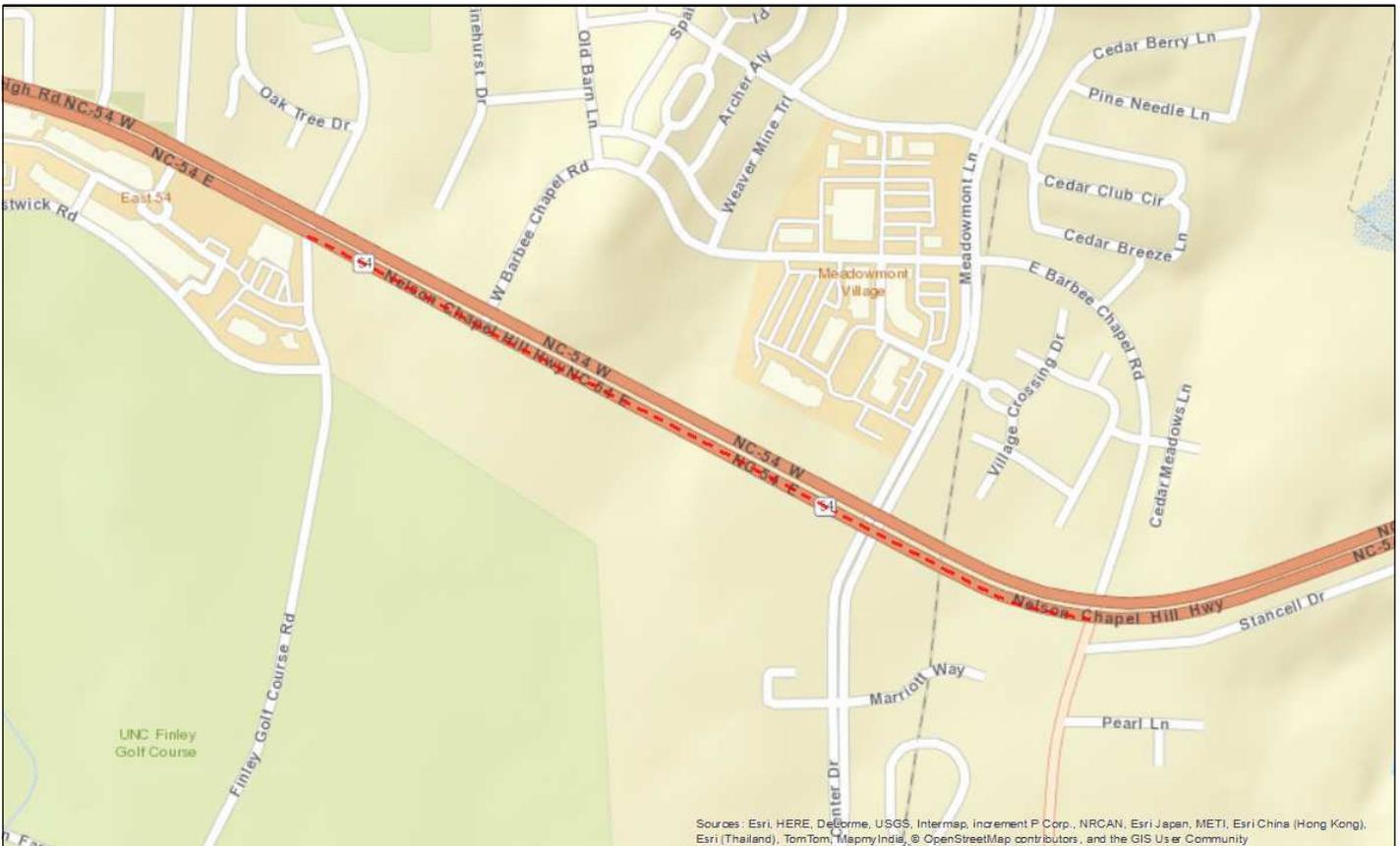
Improve NC 54 to a Superstreet design and construct interchange at Barbee Chapel Road

Division(s): Division 7, Division 5

County(s): ORANGE, DURHAM

MPOS(s)/RPO(s): Durham Chapel Hill Carrboro MPO

Project Location



Statewide Mobility Total Score: 0

Quantitative Score	Division Engineer Local Input Points	MPO/RPO Local Input Points
	N/A	N/A
Totals: Weight: 0% Weighted Score: 0		

Regional Impact Total Score: 65.06

Quantitative Score	Division Engineer Local Input Points	MPO/RPO Local Input Points
Congestion (V/C) (25%) 76.57	Percent: 15% Points: 88	Percent: 15% Points: 100
Safety (10%) 60.65		
[Travel Time] Benefit/Cost (25%) 6.59		
Accessibility / Connectivity (10%) 100.00		
Totals: Weight: 70% Weighted Score: 36.86		

Division Needs Total Score: 22.7

Quantitative Score	Division Engineer Local Input Points	MPO/RPO Local Input Points
Congestion (V/C) (20%) 76.57	Percent: 25% Points: 0	Percent: 25% Points: 0
Safety (10%) 60.65		
[Travel Time] Benefit/Cost (20%) 6.59		
Totals: Weight: 50% Weighted Score: 22.7		

Project Data ***Existing Conditions**

Existing Cross-Section:	
Speed Limit:	37
Length (miles):	0.72
Facility Type:	Arterial
Access Control:	None
Functional Classification:	Other Principal Arterial
Terrain Type:	Rolling
Lane Width:	12
Paved Shoulder Width:	0
Roadway has Curb & Gutter?	No
Volume (AADT):	44000
Capacity:	44767.47
Volume/Capacity Ratio:	0.98
% Autos:	97%
% Trucks:	3%
Truck Volume:	1210
Crash Density:	67.06
Crash Severity:	60.19
Critical Crash Rate:	54.72
Crash Frequency:	0
Severity Index:	0
County Tier Designation:	3
Non-Interstate STRAHNET Route?	No
Average Commuting Time:	22
Existing Median Type (for Cost Estimation):	Divided
Pavement Condition Rating:	89
Actual Congested Speed:	28.89
Travel Time Index:	1.21

Project Benefits

Project Cross-Section:	6A - 6 Lane Divided (46' Depressed Median) with Paved Shoulders
Speed Limit:	45
Length (miles):	0.72
Facility Type:	Superstreet
Access Control:	Limited
Functional Classification:	Other Principal Arterial
Terrain Type:	Rolling
DOT Design Lane Width:	12
DOT Design Paved Shoulder Width:	10
Travel Time Savings for 30 Years (Total):	9415888.92
Travel Time Savings for 30 Years (Autos):	9156951.97
Travel Time Savings for 30 Years (Trucks):	258936.95
Long-Term Employment:	
% Change in Economy:	
Provides Direct Connection to Transportation Terminal?	No
Does project upgrade how the roadway functions?	Yes
In CTP or LRTP?	Yes
CTP/LRTP Name:	2040 MTP
CTP/LRTP Completion Year:	2013
Submitted by:	Division 7

* Data reflects calculations which include weighted averages (where applicable) and represent raw output from the Department's SPOT On!ine tool and associated databases.

Project Ownership

Division

Division	Percent	Regional Impact	Division Needs
Division 7	82%	82	0
Division 5	18%	6	0
	0%	0	0
TOTAL Division Points		88	0

MPO/RPO

MPO/RPO	Percent	Regional Impact	Division Needs
Durham Chapel Hill Carrboro MPO	100%	100	0
	0%	0	0
	0%	0	0
TOTAL MPO/RPO Points		100	0

Project Cost and Source

Construction Cost:	\$26,932,000	Cost Estimation Tool
Right-of-Way Cost:	\$4,620,000	Cost Estimation Tool
Utilities Cost:	\$554,000	Cost Estimation Tool
Total Project Cost:	\$32,106,000	
Other Funding:	\$0	None
Cost to NCDOT :	\$32,106,000	