



# NCDOT Prioritization 3.0 Project Summary

SPOT ID: H129616

Mode: Highway

Status: Submitted

## NC-540 (New Route - Southern Wake Freeway/Triangle Expressway (Toll))

From/Cross Street: US 401

Specific Improvement Type: 5 - Construct Roadway on New Location

To: I-40

Project Category: Statewide Mobility

Length: 16.8

TIP#: R-2828

Fully Funded in Draft STIP? Yes Statewide Mobility

Cost to NCDOT: \$284,706,000

### Description:

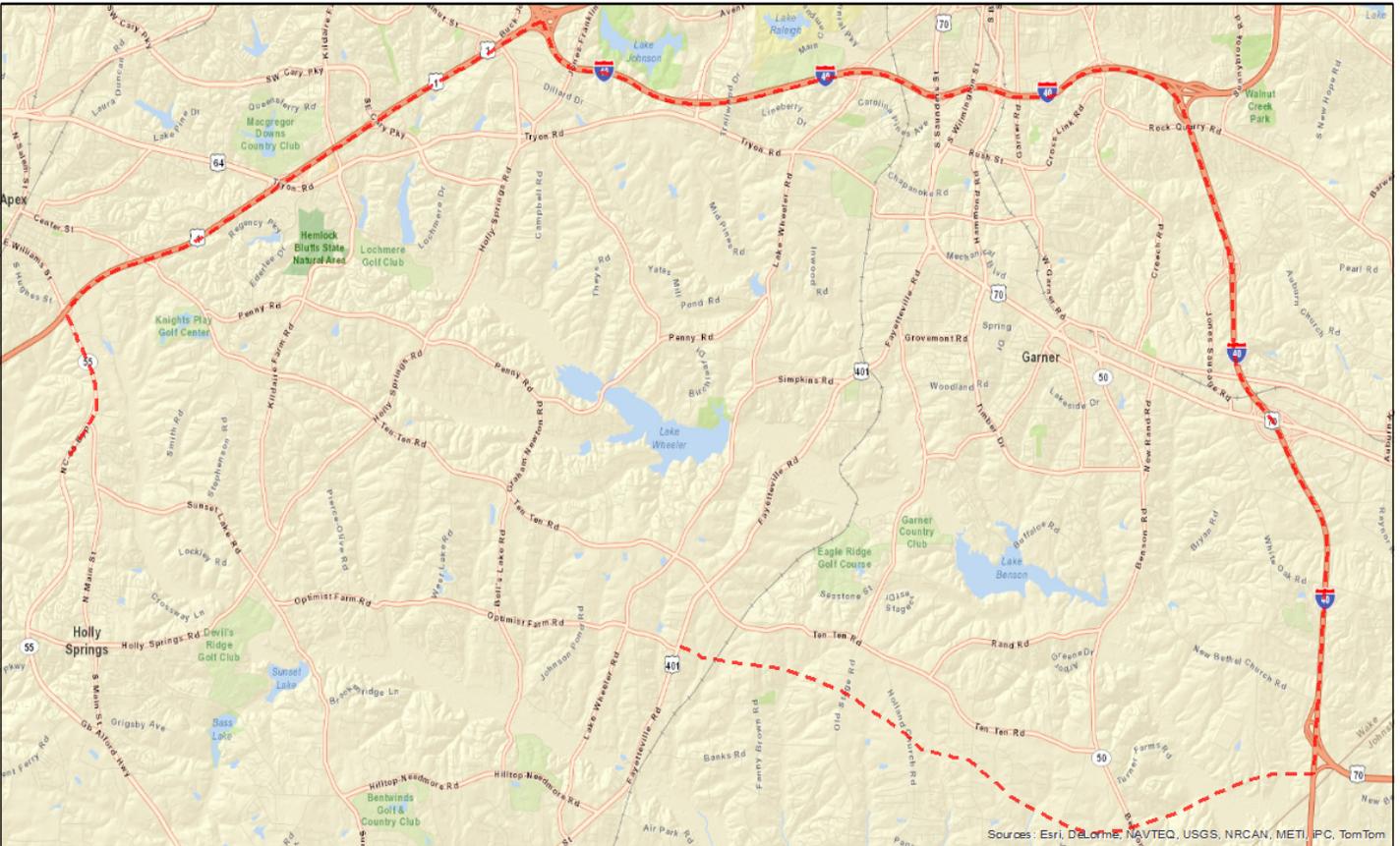
Construct Freeway on New Location (toll)

Division(s): Division 5

County(s): WAKE

MPOS(s)/RPO(s): Capital Area MPO

### Project Location



**Statewide Mobility Total Score: 52.7**

Quantitative Score	Division Engineer Local Input Points	MPO/RPO Local Input Points
[Travel Time] Benefit/Cost (30%) 11.41 Congestion (V/C) (30%) 89.31 Safety (10%) 69.35 Economic Competitiveness (10%) 100.00 Multimodal + [Freight & Military] (20%) 27.73	N/A	N/A
<b>Totals: Weight: 100% Weighted Score: 52.7</b>		

**Regional Impact Total Score: 0**

Quantitative Score	Division Engineer Local Input Points	MPO/RPO Local Input Points
Safety (10%) 69.35 Congestion (V/C) (25%) 89.31 [Travel Time] Benefit/Cost (25%) 11.41 Accessibility / Connectivity (10%) 48.26	Percent: 15% Points:	Percent: 15% Points:
<b>Totals: Weight: 70% Weighted Score: 42.11</b>		

**Division Needs Total Score: 0**

Quantitative Score	Division Engineer Local Input Points	MPO/RPO Local Input Points
Congestion (V/C) (20%) 89.31 Safety (10%) 69.35 [Travel Time] Benefit/Cost (20%) 11.41	Percent: 25% Points:	Percent: 25% Points:
<b>Totals: Weight: 50% Weighted Score: 27.08</b>		

**Project Data \*****Existing Conditions**

Existing Cross-Section:	
Speed Limit:	65
Length (miles);	26.25
Facility Type:	Freeway
Access Control:	Full
Functional Classification:	Interstate
Terrain Type:	Rolling
Lane Width:	12
Paved Shoulder Width:	10
Roadway has Curb & Gutter?	No
Volume (AADT):	90784.92
Capacity:	102782.5
Volume/Capacity Ratio:	0.88
% Autos:	94%
% Trucks:	6%
Truck Volume:	5545.89
Crash Density:	84.97
Crash Severity:	52.4
Critical Crash Rate:	70.71
Crash Frequency:	0
Severity Index:	0
County Tier Designation:	3
Non-Interstate STRAHNET Route?	No
Average Commuting Time:	29
Existing Median Type (for Cost Estimation):	Divided
Pavement Condition Rating:	89
Actual Congested Speed:	52.53
Travel Time Index:	1.12

**Project Benefits**

Project Cross-Section:	6A - 6 Lane Divided (46' Depressed Median) with Paved Shoulders
Speed Limit:	70
Length (miles):	16.8
Facility Type:	Freeway
Access Control:	Full
Functional Classification:	Interstate
TerrainType:	Rolling
DOT Design Lane Width:	12
DOT Design Paved Shoulder Width:	10
Travel Time Savings for 30 Years (Total):	224178222.11
Travel Time Savings for 30 Years (Autos):	210483581.02
Travel Time Savings for 30 Years (Trucks):	13694641.09
Long-Term Employment:	5644.17
% Change in Economy:	0.00376279
Provides Direct Connection to Transportation Terminal?	No
Does project upgrade how the roadway functions?	Yes
In CTP or LRTP?	No
CTP/LRTP Name:	
CTP/LRTP Completion Year:	
Submitted by:	Division 5

\* 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 5	100%	0	0
	0%	0	0
	0%	0	0
<b>TOTAL Division Points</b>		<b>0</b>	<b>0</b>

**MPO/RPO**

MPO/RPO	Percent	Regional Impact	Division Needs
Capital Area MPO	100%	0	0
	0%	0	0
	0%	0	0
<b>TOTAL MPO/RPO Points</b>		<b>0</b>	<b>0</b>

**Project Cost and Source**

Construction Cost:	\$462,850,000	TIP Unit
Right-of-Way Cost:	\$38,100,000	TIP Unit
Utilities Cost:	\$1,800,000	TIP Unit
Total Project Cost:	\$502,750,000	
Other Funding:	\$218,043,750	Toll Revenue less Roadway Maintenance & Financing
<b>Cost to NCDOT :</b>	<b>\$284,706,000</b>	