



NCDOT Prioritization 4.0 Project Summary

SPOT ID: H150220

Mode: Highway

Status: Draft

I-85, US-15

From/Cross Street: E Club Blvd

Specific Improvement Type: 8 - Improve Interchange

To:

Project Category: Statewide Mobility

Length: 2

TIP#:

Fully Funded in Draft STIP? No

Cost to NCDOT: \$10,230,000

Description:

Improve interchange. modernization of this interchange. The big concern is the pre-1970's design speed for the on-and off-ramps and merging. Not so much a congestion issue, but a safety issue.

Division(s): Division 5

County(s): DURHAM

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

Project Location



Statewide Mobility Total Score: 0

Quantitative Score	Division Engineer Points	MPO/RPO Points
Congestion SW (30%) In Progress Safety (15%) In Progress Economic Competitiveness (10%) In Progress Multimodal (5%) In Progress Freight (15%) In Progress Benefit-Cost SW & REG (25%) In Progress	N/A	N/A
Totals: Weight: 100% Weighted Score: 0		

Regional Impact Total Score: 0

Quantitative Score	Division Engineer Points	MPO/RPO Points
Safety (10%) In Progress Accessibility / Connectivity (10%) In Progress Congestion REG (20%) In Progress Freight (10%) In Progress Benefit-Cost SW & REG (20%) In Progress	Percent: 15% Points:	Percent: 15% Points:
Totals: Weight: 70% Weighted Score: 0		

Division Needs Total Score: 0

Quantitative Score	Division Engineer Points	MPO/RPO Points
Safety (10%) In Progress Accessibility / Connectivity (5%) In Progress Congestion DIV (15%) In Progress Freight (5%) In Progress Benefit-Cost DIV (15%) In Progress	Percent: 25% Points:	Percent: 25% Points:
Totals: Weight: 50% Weighted Score: 0		

Criteria measures

Criteria	Measure	Raw Value	Scaled value
Congestion	Volume/Capacity (SW 60%, REG 80%, DIV 100%)	0.65	
	Volume (SW 40%, REG 20%, DIV 0%)	20634.95	
Benefit-Cost (SW/REG)	Benefit/Cost SW/REG (100%)		
Benefit-Cost (DIV)	Benefit/Cost DIV (100%)		
Safety (Segments)	Crash Density (33%)	60.88	
	Crash Severity (33%)	33.3	
	Critical Crash Rate (33%)	60.88	
Safety (Intersections)	Crash Frequency (50%)		
	Severity Index (50%)		
Economic Competitiveness	%Change in Economy (50%)		
	Long-term Jobs (50%)		

Criteria	Measure	Raw Value	Scaled value
Accessibility / Connectivity	County Economic Indicator (50%)	337	
	Upgrade Roadway Travel Time Savings (50%)		
Freight	Truck Volume (50%)	0	
	Volume/Capacity on Non-Interstate STRAHNET or Future Interstate (30%)		
	Distance to Freight Terminal (20%)	9.72	
Multimodal	Distance to Multimodal Terminal (60%)	3.4	
	Volume/Capacity on Route near Multimodal Terminal (40%)		
Lane Width	Lane Width Difference (100%)	1	
Shoulder Width	Paved Shoulder Width Difference (100%)	0	
Pavement Condition	Pavement Condition Rating (100%)	100	

Project Data***Existing Conditions**

Existing Cross-Section:	2 Lane Undivided
Speed Limit (mph):	40
Length (miles):	2
Facility Type:	Arterial
Access Control:	None
Functional Classification:	Major Collector
Terrain Type:	Rolling
Lane Width (ft):	11
Paved Shoulder Width (ft):	4
Roadway has Curb & Gutter?	No
Volume (AADT):	19024.97
Volume (PADT):	20634.95
Peak ADT (PADT) Factor:	1.08
Capacity (vpd):	31600
Volume (PADT)/Capacity Ratio:	0.65
% Autos:	100%
% Trucks:	0%
Truck Volume (AADTT):	0
Crash Density (seg):	60.88
Crash Severity (seg):	33.3
Critical Crash Rate (seg):	60.88
Crash Frequency (int):	
Severity Index (int):	
Adjusted Property Tax Base Per Capita Rank:	
Population Growth Rank:	
Median Household Income Rank:	
12 Month Average Unemployment Rate Rank:	
Sum County Rank:	337
Non-Interstate STRAHNET Route?	No
Future Interstate Route?	No
Pavement Condition Rating:	100

Project Benefits

Project Cross-Section:	
Speed Limit (mph):	60
Length (miles):	2
Facility Type:	Freeway
Access Control:	Full
Functional Classification:	Major Collector
Terrain Type:	Rolling
DOT Design Lane Width (ft):	12
DOT Design Paved Shoulder Width (ft):	4
Travel Time Savings for 10 Years (NCSTM) - SW/REG:	0
Travel Time Savings in \$ (NCSTM) - SW/REG:	
Travel Time Savings for 10 Years (CALC) - DIV:	
Travel Time Savings in \$ (CALC) - DIV:	
Safety Benefits in \$:	
Long-Term Employment:	
% Change in Economy:	
Nearest Freight Terminal:	Raleigh-Durham International Airport
Distance to Freight Terminal (miles):	9.72
Nearest Multimodal Passenger Terminal :	Durham Amtrak Rail Station
Distance to Multimodal Terminal (miles):	3.4
Does project upgrade how the roadway functions?	Yes
Travel Time Savings/User:	
In CTP or LRTP?	Yes
CTP/LRTP Name:	DCHC MPO 2040 MTP
CTP/LRTP Completion Year:	2013
Submitted by:	Durham Chapel Hill Carrboro MPO

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

Project Ownership

Division

Division	Percent	Regional Impact Points	Division Needs Points
Division 5	100%	0	0
	0%	0	0
	0%	0	0
TOTAL Division Points		0	0

MPO/RPO

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

Project Cost and Source

Construction Cost:	\$8,580,000	Cost Estimation Tool
Right-of-Way Cost:	\$1,650,000	Cost Estimation Tool
Utilities Cost:	\$0	Cost Estimation Tool
Total Project Cost:	\$10,230,000	
Other Funding:	\$0	None
Cost to NCDOT :	\$10,230,000	