NCDOT Prioritization 3.0 Project Summary

SPOT ID: H142127 **Mode:** Highway **Status:** Submitted

I-277 (Brookshire Freeway)

From/Cross Street: I-77

To: North Caldwell Street (City Street)

Length: 1.37

Specific Improvement Type: 1 - Widen Existing Roadway

Project Category: Statewide Mobility

TIP#: I-5405

Fully Funded in Draft STIP? No

Cost to NCDOT: $79,625,000

Description:

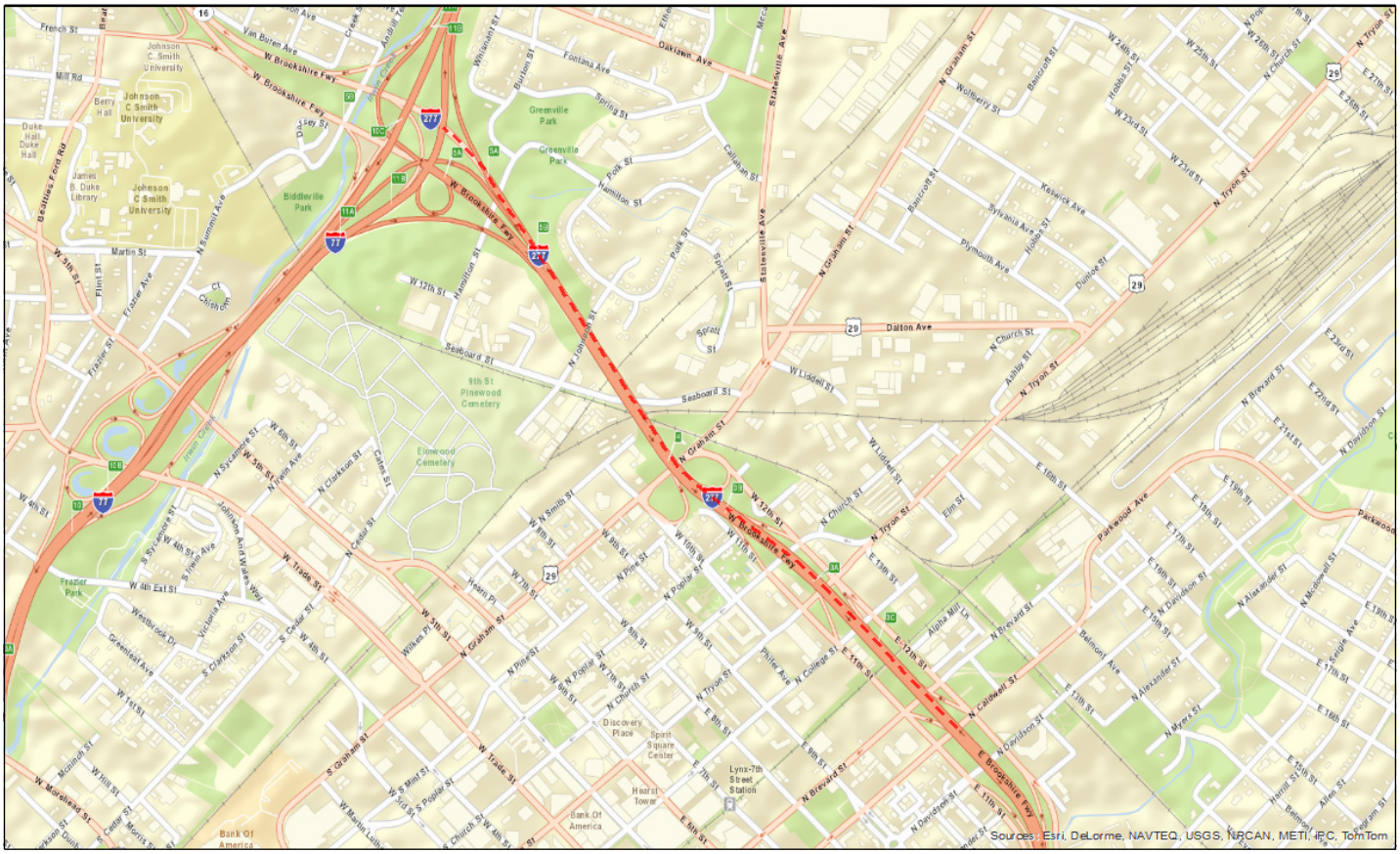
Widen to add one HOT Lane in each direction and flyover for direct connection to HOT lanes on I-77 North of Brookshire.

Division(s): Division 10

County(s): MECKLENBURG

MPOS(s)/RPO(s): Charlotte Regional Transportation Planning Organization

Project Location



Statewide Mobility Total Score: 43.21

Quantitative Score		Division Engineer Local Input Points	MPO/RPO Local Input Points
Economic Competitiveness (10%)	9.27	N/A	N/A
Multimodal + [Freight & Military] (20%)	18.28		
[Travel Time] Benefit/Cost (30%)	1.92		
Safety (10%)	92.81		
Congestion (V/C) (30%)	95.90		
Totals: Weight: 100% Weighted Score: 43.21			

Regional Impact Total Score: 0

Quantitative Score		Division Engineer Local Input Points	MPO/RPO Local Input Points
Congestion (V/C) (25%)	95.90	Percent: 15%	Percent: 15%
Safety (10%)	92.81	Points:	Points:
[Travel Time] Benefit/Cost (25%)	1.92		
Accessibility / Connectivity (10%)	33.58		
Totals: Weight: 70% Weighted Score: 37.09			

Division Needs Total Score: 0

Quantitative Score		Division Engineer Local Input Points	MPO/RPO Local Input Points
Congestion (V/C) (20%)	95.90	Percent: 25%	Percent: 25%
Safety (10%)	92.81	Points:	Points:
[Travel Time] Benefit/Cost (20%)	1.92		
Totals: Weight: 50% Weighted Score: 28.84			

Project Data *

Existing Conditions

Existing Cross-Section:	
Speed Limit:	55
Length (miles);	1.37
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):	100732.73
Capacity:	108700
Volume/Capacity Ratio:	0.93
% Autos:	96%
% Trucks:	4%
Truck Volume:	3656.51
Crash Density:	99.85
Crash Severity:	78.75
Critical Crash Rate:	99.85
Crash Frequency:	0
Severity Index:	0
County Tier Designation:	3
Non-Interstate STRAHNET Route?	No
Average Commuting Time:	18
Existing Median Type (for Cost Estimation):	Divided
Pavement Condition Rating:	99
Actual Congested Speed:	47.43
Travel Time Index:	1.16

Project Benefits

Project Cross-Section:	8D - 8 Lane Freeway (6 General Purpose Lanes, 2 Managed Lanes, and 27' Median with Jersey Barrier) with Paved Shoulders
Speed Limit:	55
Length (miles):	1.37
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):	6840087.96
Travel Time Savings for 30 Years (Autos):	6591798.77
Travel Time Savings for 30 Years (Trucks):	248289.19
Long-Term Employment:	109.83
% Change in Economy:	7.56E-05
Provides Direct Connection to Transportation Terminal?	No
Does project upgrade how the roadway functions?	No
In CTP or LRTP?	No
CTP/LRTP Name:	
CTP/LRTP Completion Year:	
Submitted by:	Division 10

***** 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 10	100%	0	0
	0%	0	0
	0%	0	0
TOTAL Division Points		**0**	**0**

MPO/RPO

MPO/RPO	Percent	Regional Impact	Division Needs
Charlotte Regional Transportation Planning Organization	100%	0	0
	0%	0	0
	0%	0	0
TOTAL MPO/RPO Points		**0**	**0**

Project Cost and Source

Construction Cost:	$76,907,000	Cost Estimation Tool
Right-of-Way Cost:	$2,427,000	Cost Estimation Tool
Utilities Cost:	$291,000	Cost Estimation Tool
Total Project Cost:	$79,625,000	
Other Funding:	$0	None
Cost to NCDOT :	**$79,625,000**	