



**MEETING AGENDA**  
**Monthly Meeting of the North Carolina Board of Transportation**  
1 South Wilmington Street Raleigh, North Carolina 27601  
**November 2-3, 2016**

**WEDNESDAY, November 2, 2016**

**10:30AM – 12:00PM**

Multi-Modal Committee	EIC
Highway Committee	Room 150

**12:00PM – 12:30PM**

**LUNCH IS AVAILABLE / BREAK**

**Room 150**

**12:30PM**

**Working Lunch – Full Board Attendance**

Hurricane Matthew Update	Mike Holder Rick Barks
Emergency Express Design Build Project	Virginia Mabry
The Greensboro MPO BiPed Plan and the Transportation Future	Tyler Meyer Planning Division Manager Greensboro DOT
Semi-Autonomous Vehicle	Charles Edwards Kevin Lacy
CFO Update	David Tyeryar
Product Evaluation Program Awareness	Ben Johnson

**1:45PM – 2:00PM**

**BREAK**

**2:00PM – 3:00PM**

Funding Appropriations and Strategies Committee	Room 150
Economic Development & Intergovernmental Relations Committee	

**3:00PM – 3:30PM**

Audit Committee	Room 150
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**3:30PM – 4:00PM**

Road, Bridge, Ferry Naming Committee	Room 160
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**4:00PM – 5:00PM**

General Meeting Time	Various Locations
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NORTH CAROLINA BOARD OF TRANSPORTATION MEETING

- Call to Order Chairman Curran
- Invocation Jake Alexander
- Ethics Declaration Chairman Curran
- Approval of October 6, 2016 Board Meeting Minutes Chairman Curran
- Swearing-in of Robert Collins, Jr. The Honorable Jefferson Griffin
- Secretary's Remarks Secretary Tennyson

INFORMATION AND DELEGATED AUTHORITY

- (Item C) Award of Highway Construction Contracts
- (Item D) Award of Contracts to Private Firms for Engineering Services
- (Item E) Approval of Funds for Secondary Road Improvement Projects- Highway Fund and Highway Trust Fund
- (Item H) Approval of Funds for Division-wide Small Construction, Statewide Contingency, Public Access, and Economic Development,
- (Item L) Approval of Funds for Specific Spot Safety Improvement Projects

Division 1 Update

Malcolm Fearing

ACTION

Chairman Curran

Approval of Projects

- (Item G) Additions and Abandonments to State Secondary Road System
- (Item I) Public Transportation Program
  - (Item I-1) Public Transportation
  - (Item I-1A) Public Transportation
  - (Item I-2) Rail Program
  - (Item I-4) Aviation
- (Item J) Specific State Funds for Construction Projects
- (Item K) North Carolina Highway Trust Funds
- (Item M) Funds for Specific Federal-Aid Projects
- (Item N) TIP Amendments
- (Item O) Municipal and Special Agreements
- (Item P) Municipal Street System Changes
- (Item R) Right of Way Resolutions and Ordinances
- (Item T) Comprehensive Transportation Plans for Mutual Adoption by the Board of Transportation
- (Item V) Mobility Funds for Construction Projects

Committee Reports

Chairman Curran

Other Business

Adjourn

**PROJECTS LIST**  
**NORTH CAROLINA BOARD OF TRANSPORTATION**  
**RALEIGH, NORTH CAROLINA**  
**November 2-3, 2016**

Delegated Authority ..... Secretary Tennyson

- (Item C) Award of Highway Construction Contracts from October 18, 2016 Letting
- (Item D) Award of Contracts to Private Firms for Engineering Services
- (Item E) Funds for Secondary Road Improvement Projects –  
Highway Fund and Highway Trust Fund
- (Item H) Funds for Division-wide Small Construction,  
Statewide Contingency, Public Access, and Economic Development
- (Item L) Funds for Specific Spot Safety Improvement Projects

Action ..... Chairman Curran

- (Item G) Additions, Abandonments, and Road Name Changes to State  
Secondary Road System
- (Item I) Public Transportation Program
  - (Item I-1) Public Transportation
  - (Item I-1A) Public Transportation
  - (Item I-2) Rail Program
  - (Item I-3) Bicycle and Pedestrian **(No Item this month)**
  - (Item I-4) Aviation
- (Item J) Specific State Funds for Construction Projects
- (Item K) North Carolina Highway Trust Funds
- (Item M) Funds for Specific Federal-Aid Projects
- (Item N) Revisions to the 2016-2025 STIP
- (Item O) Municipal and Special Agreements
- (Item P) Municipal Street System Changes
- (Item R) Right of Way Resolutions and Ordinances
- (Item S) Maintenance Allocations **(No Item this month)**
- (Item T) Submission of Comprehensive Transportation Plans for Mutual  
Adoption by the Board of Transportation
- (Item V) Mobility Funds for Construction Projects

# **NCDOT Board of Transportation Agenda**

## **ITEM C**

### **October 2016**

**According to Executive Order No. 2 and G.S. 143B-350(g), the Board is requested to concur with staff recommendations and delegate authority to the Secretary to award the following highway construction projects.**



HIGHWAY LETTING  
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
RALEIGH N.C.  
OCTOBER 18, 2016  
DIVISION 00003

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C203923

2017CPT.03.06.10101, 2017CPT.03.06.20101, 2017CPT.03.06.20102

STATE FUNDED

BRUNSWICK

PROPOSAL LENGTH 59.541 MILES

TYPE OF WORK MILLING, RESURFACING, WIDENING, AND SHOULDER RECONSTRUCTION.

LOCATION 1 SECTION OF US-74/US-76, 2 SECTIONS OF NC-179, AND 41 SECTIONS OF SECONDARY ROADS.

EST CONST PROGRESS.... FY-2017..70% OF BID  
FY-2018..30% OF BID

RPN 002 3 BIDDER(S) MBE GOAL 4.00 % WBE GOAL 4.00%  
ESTIMATE 9,324,507.79

DATE AVAILABLE NOV 28 2016

INTER COMPLETION MAY 25 2017 COMPLETE ALL WORK REQUIRED ON MAP #3.  
AUG 18 2017 COMPLETE ALL WORK REQUIRED ON MAP #5.

FINAL COMPLETION DEC 16 2017

	\$ TOTALS	% DIFF
S T WOOTEN CORPORATION WILSON, NC	9,477,379.76	+1.6
HIGHLAND PAVING COMPANY LLC FAYETTEVILLE, NC	10,237,252.50	+9.8
BARNHILL CONTRACTING COMPANY ROCKY MOUNT, NC	10,776,630.00	+15.6

HIGHWAY LETTING  
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
RALEIGH N.C.  
OCTOBER 18, 2016  
DIVISION 00004

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C203921  
46448.3.1  
STATE FUNDED  
JOHNSTON  
R-5769

PROPOSAL LENGTH 0.636 MILES

TYPE OF WORK GRADING, DRAINAGE, PAVING, AND STRUCTURE.

LOCATION NOVO NORDISK ACCESS ROAD FROM SR-1913 (GORDON ROAD) TO PROPOSED NOVO NORDISK SITE.

EST CONST PROGRESS.... FY-2017..75% OF BID  
FY-2018..25% OF BID

RPN 003 9 BIDDER(S) MBE GOAL 4.00 % WBE GOAL 6.00%  
ESTIMATE 6,514,645.50

DATE AVAILABLE NOV 28 2016

INTER COMPLETION NOV 15 2017 COMPLETE ALL WORK EXCEPT PLANTING, REFORESTATION, OR PERMANENT VEGETATION ESTABLISHMENT.

FINAL COMPLETION MAY 14 2018

	\$ TOTALS	% DIFF
PLT CONSTRUCTION CO., INC. WILSON, NC	6,110,668.89	-6.2
BMCO CONSTRUCTION, INC. LUMBERTON, NC	6,119,034.67	-6.1
FSC II LLC DBA FRED SMITH COMPANY RALEIGH, NC	6,235,500.00	-4.3
TRIANGLE GRADING & PAVING INC BURLINGTON, NC	6,385,447.36	-2.0
THALLE CONSTRUCTION CO., INC. HILLSBOROUGH, NC	6,734,252.04	+3.4
S T WOOTEN CORPORATION WILSON, NC	6,925,140.50	+6.3
W. C. ENGLISH, INCORPORATED LYNCHBURG, VA	7,251,723.42	+11.3
D.H. GRIFFIN INFRASTRUCTURE, LLC GREENSBORO, NC	7,330,242.53	+12.5
C. M. LINDSAY & SONS, INC. LUMBERTON, NC	7,483,590.60	+14.9

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HIGHWAY LETTING  
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
RALEIGH N.C.  
OCTOBER 18, 2016  
DIVISION 00004

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C203924

45615.3.1, 45620.3.1

BRZ-1100(036), STATE FUNDED

HALIFAX, NASH

B-5660, B-5665

PROPOSAL LENGTH 0.631 MILES

TYPE OF WORK EXPRESS DESIGN BUILD.

LOCATION REPLACEMENT OF SIX BRIDGES IN HALIFAX COUNTY AND ONE BRIDGE IN NASH COUNTY.

EST CONST PROGRESS.... FY-2017..09% OF BID  
FY-2018..39% OF BID  
FY-2019..34% OF BID  
FY-2020..18% OF BID

RPN 009 5 BIDDER(S) DBE GOAL 8.00 %  
ESTIMATE 6,888,355.00

DATE AVAILABLE NOV 28 2016

FINAL COMPLETION OCT 01 2019

	\$ TOTALS	% DIFF
S T WOOTEN CORPORATION WILSON, NC	5,179,000.00	-24.8
T. A. LOVING COMPANY GOLDSBORO, NC	5,290,550.00	-23.2
SANFORD CONTRACTORS INC LEMON SPRINGS, NC	5,560,711.00	-19.3
UNITED CONTRACTORS, INC. DBA UNITED CONTRACTORS INC. OF IOWA JOI	5,635,907.00	-18.2
R.E. BURNS & SONS CO., INC. STATESVILLE, NC	5,938,646.00	-13.8

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HIGHWAY LETTING  
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
RALEIGH N.C.  
OCTOBER 18, 2016  
DIVISION 00005

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C203920  
39971.3.1  
STATE FUNDED  
VANCE  
B-4945

PROPOSAL LENGTH 0.090 MILES

TYPE OF WORK GRADING, DRAINAGE, PAVING, AND STRUCTURE.

LOCATION BRIDGE #36 OVER ANDERSON SWAMP CREEK/JOHN H. KERR RESERVOIR ON SR-1374  
(WIGGINS ROAD/ANDERSON CREEK ROAD).

EST CONST PROGRESS.... FY-2017..100% OF BID

RPN 004 6 BIDDER(S) MBE GOAL 2.00 % WBE GOAL 3.00%  
ESTIMATE 825,303.30

DATE AVAILABLE NOV 28 2016

INTER COMPLETION APR 01 2017 COMPLETE ALL WORK EXCEPT PLANTING, REFORESTATION, OR  
PERMANENT VEGETATION ESTABLISHMENT

FINAL COMPLETION SEP 28 2017

	\$ TOTALS	% DIFF
DANE CONSTRUCTION, INC. MOORESVILLE, NC	780,880.35	-5.4
S T WOOTEN CORPORATION WILSON, NC	824,724.28	-0.1
SMITH-ROWE, LLC MOUNT AIRY, NC	848,040.44	+2.8
FSC II LLC DBA FRED SMITH COMPANY RALEIGH, NC	859,700.60	+4.2
PALMETTO INFRASTRUCTURE INC GREENVILLE, SC	879,177.60	+6.5
BLYTHE CONSTRUCTION, INC. CHARLOTTE, NC	1,063,882.00	+28.9

HIGHWAY LETTING  
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
RALEIGH N.C.  
OCTOBER 18, 2016  
DIVISION 00008

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C203805  
46074.3.1  
STATE FUNDED  
RANDOLPH  
B-5360, B-5546

PROPOSAL LENGTH 0.496 MILES

TYPE OF WORK GRADING, DRAINAGE, PAVING & STRUCTURES.

LOCATION BRIDGE #374 OVER SANDY CRK ON SR-2481(LOW BRIDGE RD); BRIDGE #307 OVER MOUNT PLEASANT CRK ON SR-2481(LOW BRIDGE RD).

EST CONST PROGRESS.... FY-2017..75% OF BID  
FY-2018..25% OF BID

RPN 005 11 BIDDER(S) MBE GOAL 2.00 % WBE GOAL 5.00%  
ESTIMATE 2,757,688.20

DATE AVAILABLE NOV 28 2016

INTER COMPLETION NOV 15 2017 COMPLETE ALL WORK EXCEPT PLANTING, REFORESTATION, OR PERMANENT VEGETATION ESTABLISHMENT.

FINAL COMPLETION MAY 14 2018

	\$ TOTALS	% DIFF
APPLE TUCK & ASSOCIATES, INC. RUTHERFORDTON, NC	2,582,926.95	-6.3
DELLINGER, INC. MONROE, NC	2,653,292.35	-3.8
DANE CONSTRUCTION, INC. MOORESVILLE, NC	2,663,608.44	-3.4
MILLER ENGINEERING COMPANY, INC MARION, NC	2,712,339.06	-1.6
SMITH-ROWE, LLC MOUNT AIRY, NC	2,722,253.26	-1.3
SANFORD CONTRACTORS INC LEMON SPRINGS, NC	2,795,250.00	+1.4
S T WOOTEN CORPORATION WILSON, NC	2,842,992.56	+3.1
EASTERN STRUCTURES LLC MOCKSVILLE, NC	2,878,508.26	+4.4
BLYTHE CONSTRUCTION, INC. CHARLOTTE, NC	3,451,363.53	+25.2
TRIANGLE GRADING & PAVING INC BURLINGTON, NC	3,571,729.35	+29.5
LEE CONSTRUCTION COMPANY OF THE CAROLINAS INC LYNCHBURG, VA	3,595,500.75	+30.4

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HIGHWAY LETTING  
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
RALEIGH N.C.  
OCTOBER 18, 2016  
DIVISION 00010

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C203869  
53011.3.1  
NHP-0077(008)  
MECKLENBURG  
I-5768

PROPOSAL LENGTH 5.468 MILES

TYPE OF WORK PAVEMENT AND BRIDGE REHABILITATION.

LOCATION I-77 FROM SOUTH CAROLINA LINE TO SR-1577 (WEST TYVOLA RD).

EST CONST PROGRESS.... FY-2017..64% OF BID  
FY-2018..36% OF BID

RPN 006 2 BIDDER(S) DBE GOAL 3.00 %  
ESTIMATE 10,617,873.67

DATE AVAILABLE APR 01 2017

FINAL COMPLETION SEP 30 2017

	\$ TOTALS	% DIFF
BLYTHE CONSTRUCTION, INC. CHARLOTTE, NC	11,405,066.44	+7.4
BLYTHE BROTHERS ASPHALT CO LLC CHARLOTTE, NC	12,888,978.90	+21.4

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HIGHWAY LETTING  
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
RALEIGH N.C.  
OCTOBER 18, 2016  
DIVISION 00011

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C203804  
46095.3.1  
STATE FUNDED  
AVERY  
B-5380

PROPOSAL LENGTH 0.050 MILES

TYPE OF WORK GRADING, DRAINAGE, PAVING, AND STRUCTURES.

LOCATION BRIDGE #141 OVER FALL BRANCH ON SR-1114 (BIG PLUMTREE CREEK ROAD).

EST CONST PROGRESS.... FY-2017..71% OF BID  
FY-2018..29% OF BID

RPN 007 6 BIDDER(S) MBE GOAL 1.00 % WBE GOAL 3.00%  
ESTIMATE 561,651.76

DATE AVAILABLE MAR 01 2017

INTER COMPLETION OCT 01 2017 COMPLETE ALL WORK EXCEPT PLANTING, REFORESTATION, OR  
PERMANENT VEGETATION ESTABLISHMENT

FINAL COMPLETION MAR 30 2018

	\$ TOTALS	% DIFF
YOUNG & MCQUEEN GRADING CO INC BURNSVILLE, NC	587,873.75	+4.7
DANE CONSTRUCTION, INC. MOORESVILLE, NC	663,964.60	+18.2
JAMES R VANNOY & SONS CONSTRUCTION COMPANY INC JEFFERSON, NC	678,635.21	+20.8
BUCKEYE BRIDGE, LLC CANTON, NC	722,014.56	+28.6
NHM CONSTRUCTORS, LLC ASHEVILLE, NC	811,054.04	+44.4
MILLER ENGINEERING COMPANY, INC MARION, NC	829,946.25	+47.8

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HIGHWAY LETTING  
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
RALEIGH N.C.  
OCTOBER 18, 2016  
DIVISION 00011

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C203919  
17BP.11.R.173  
STATE FUNDED  
WATAUGA, AVERY

PROPOSAL LENGTH 0.342 MILES

TYPE OF WORK DESIGN BUILD.

LOCATION REPLACEMENT OF 2 BRIDGES IN AVERY COUNTY AND 5 BRIDGES IN WATAUGA COUNTY.

EST CONST PROGRESS.... FY-2017..09% OF BID  
FY-2018..38% OF BID  
FY-2019..34% OF BID  
FY-2020..19% OF BID

RPN 011 4 BIDDER(S) MBE GOAL 2.00 % WBE GOAL 4.00%  
ESTIMATE 3,201,357.00

DATE AVAILABLE NOV 28 2016

FINAL COMPLETION NOV 01 2019

	\$ TOTALS	% DIFF
JAMES R VANNOY & SONS CONSTRUCTION COMPANY INC JEFFERSON, NC	3,859,543.93	+20.6
MOUNTAIN CREEK CONTRACTORS INC CATAWBA, NC	4,295,000.00	+34.2
SUMMERS-TAYLOR, INC. ELIZABETHTON, TN	4,524,500.00	+41.3
DLB, INC DBA DLB INC (OF VA) HILLSVILLE, VA	4,639,000.00	+44.9

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HIGHWAY LETTING  
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
RALEIGH N.C.  
OCTOBER 18, 2016  
DIVISION 00014

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C203667  
42271.3.2  
STATE FUNDED  
MACON  
B-5125

PROPOSAL LENGTH 0.127 MILES

TYPE OF WORK GRADING, DRAINAGE, PAVING, SIGNAL, AND STRUCTURE.

LOCATION BRIDGE #22 OVER LITTLE TENNESSEE RIVER ON US-441 BUS.

EST CONST PROGRESS.... FY-2017..49% OF BID  
FY-2018..50% OF BID  
FY-2019..01% OF BID

RPN 008                      5 BIDDER(S)                      MBE GOAL 2.00 %                      WBE GOAL 4.00%  
ESTIMATE 3,322,480.81

DATE AVAILABLE NOV 28 2016

INTER COMPLETION JUL 15 2018 COMPLETE ALL WORK EXCEPT PLANTING, REFORESTATION, OR  
PERMANENT VEGETATION ESTABLISHMENT.

FINAL COMPLETION JAN 11 2019

	\$ TOTALS	% DIFF
BUCKEYE BRIDGE, LLC CANTON, NC	3,501,013.45	+5.4
DANE CONSTRUCTION, INC. MOORESVILLE, NC	4,103,223.16	+23.5
SIMPSON CONSTRUCTION CO., INC. CLEVELAND, TN	4,225,841.18	+27.2
UNITED INFRASTRUCTURE GROUP INC GREAT FALLS, SC	4,612,599.27	+38.8
NHM CONSTRUCTORS, LLC ASHEVILLE, NC	4,898,601.04	+47.4

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ESTIMATE TOTAL	44,013,863.03	
LETTING TOTAL	43,484,353.52	-1.2

**NCDOT November 2016  
Board of Transportation Agenda**

**According to Executive Order No. 2 and G. S. 143B-350 (g) the Board is requested to concur with staff recommendations and delegate authority to the Secretary to award contracts to private firms for engineering services.**

**Professional Services Management**

**Deputy Chief Engineer**

**Materials & Tests**

The following is a supplemental contract to a previous contract approved by the Board with the same engineering firm. This supplemental contract was necessary due to approved additional work that was unknown at the inception and is required of the firm to complete the project. Our staff has completed the actions in accordance with the policies and procedures adopted by the Board on May 7, 2009. This is for information only.

**STATEWIDE**

Description of Work:	QA/QC Aggregate Sampling LSC
Firm:	S&ME, Inc., Raleigh, NC
Original Engineering Fee:	\$3,000,000.00
Supplemental Fee:	\$1,000,000.00
SPSF Utilization:	0%

**Pavement Management**

The following is a supplemental contract to a previous contract approved by the Board with the same engineering firm. This supplemental contract was necessary due to approved additional work that was unknown at the inception and is required of the firm to complete the project. Our staff has completed the actions in accordance with the policies and procedures adopted by the Board on May 7, 2009. This is for information only.

**STATEWIDE**

Project:	Statewide Pavement Condition LSC
Scope of Work:	Conduct pavement condition surveys on roadways statewide
Firm:	S&ME, Inc., Raleigh, NC
Original Engineering Fee:	\$2,500,000.00
Previous Supplemental Fee:	\$5,000,000.00
Supplemental Fee:	\$2,500,000.00 (Third of four allowed annual extensions)
Supplemental Work:	Conduct pavement condition surveys on roadways statewide
SPSF Utilization:	0%

## **Field Support**

### **Right of Way**

After careful evaluation of the workload and schedules of the work that can be accomplished by our staff, it was determined necessary to employ a private firm to provide Right of Way Services on the project U-4405 listed below for our Department to obligate available funds. Our staff was authorized to proceed with the actions required to employ private engineering firms in accordance with the policies and procedures adopted by the Board on May 7, 2009. This is for information only.

### **DIVISION 6**

Project:	39049.2.1 (U-4405) Cumberland County US 401 (Raeford Road) from west of Hampton Oaks Drive to east of Fairway Drive in Fayetteville
Scope of Work:	Right of Way acquisition, negotiations, legal, appraisal and relocation assistance.
Estimated Right of Way Cost:	\$13,690,000.00
Firm:	Vistabution, LLC, Raleigh, NC
Maximum Engineering Fee:	\$1,082,260.00
DBE/MBE/SPSF Utilization:	100%

## **Transit**

### **Public Transportation**

After careful evaluation of the workload and schedules of the work that can be accomplished by our staff, it was determined necessary to employ a private firm to provide KARTS (Kerr Area Regional Transportation Systems) Construction Project Monitoring listed below for our Department to obligate available funds. Our staff was authorized to proceed with the actions required to employ private engineering firms in accordance with the policies and procedures adopted by the Board on May 7, 2009. This is for information only.

### **DIVISION 5**

Project:	36233.100.4.1 Vance County KARTS Construction Project Monitoring
Scope of Work:	Construction Project Monitoring and Oversight
Firm:	Bree & Associates, Inc., Raleigh, NC
Maximum Engineering Fee:	\$183,849.24
DBE/MBE/SPSF Utilization:	100%

## Planning & Programming

### Transportation Planning

The following is a supplemental contract to a previous contract approved by the Board with the same engineering firm. This supplemental contract was necessary due to approved additional work that was unknown at the inception and is required of the firm to complete the project. Our staff has completed the actions in accordance with the policies and procedures adopted by the Board on May 7, 2009. This is for information only.

#### STATEWIDE

Description of work:	2016 Traffic Forecasting Services LSC
Firm:	RS&H Architects-Engineers-Planners, Inc., Charlotte, NC
Original Engineering Fee:	\$500,000.00
Supplemental Fee:	\$500,000.00
SPSF Utilization:	Clearbox Forecast Group, PLLC    \$75,000.00 15%

## Information Technology

### Geographic Information Systems (GIS)

The following is a supplemental contract to a previous contract approved by the Board with the same engineering firm. This supplemental contract was necessary due to approved additional work that was unknown at the inception and is required of the firm to complete the project. Our staff has completed the actions in accordance with the policies and procedures adopted by the Board on May 7, 2009. This is for information only.

#### STATEWIDE

Description of Work:	2015 GIS Support for Transportation Legislative Initiatives
Firm:	Arcadis G&M of North Carolina, Inc., Raleigh, NC
Original Engineering Fee:	\$250,000.00
Supplemental Fee:	\$250,000.00
SPSF Utilization:	0%

**NCDOT November 2016 Board of Transportation Agenda**

According to G.S. 143B-350(g) the Board is requested to concur with staff recommendations and delegate authority to the Secretary to approve funds for secondary road improvement projects.

**Secondary Road Improvement Projects (Highway and Trust Funds)**

<b>County</b>	<b>SR No./ Road Name</b>	<b>Description</b>	<b>Amount</b>
Caswell Div. 7	SR 1596 Bob Smith Road	GDB&P. Increase Funds. WBS 7C.017074	\$70,502.32
Guilford Div. 7	Various	Countywide Maintenance to Driveway Entrances of Certified Volunteer Fire Departments and Rescue Squads. Increase Funds. WBS 7C.041036	\$18,000.00
Guilford Div. 7	SR 3725 Phillippi Road	GDB&P. Increase Funds. WBS 7C.041164	\$87.21
Guilford Div. 7	SR 3113 Nature Road	GDB&P. Increase Funds. WBS 7C.041169	\$135.90
Guilford Div. 7	SR 3099 Armps Road East	GDB&P. Increase Funds. WBS 7C.041203	\$119.67
Mecklenburg Div. 10	Various	Spot Improvements, Spot Stabilization, Paved Road Improvements, Replacement of Small Bridges with Pipe, Safety Projects, Etc. Increase Funds. WBS 10C.060014	\$10,000.00
Wilkes Div. 11	SR 2310 Groce Road	GDB&P. Reopen WBS and Fund. WBS 11C.097126	\$1,000,000.00
Haywood Div. 14	SR 1380 Turkey Creek Road	GDB&P. WBS 14C.044182	\$10,000.00
Haywood Div. 14	SR 1891 Sharp Mountain Road	GDB&P. WBS 14C.044183	\$10,000.00

**Closings**

<b>Division</b>	<b>County</b>	<b>WBS Element</b>	<b>Road Number / Name</b>	<b>Amount</b>
Div. 7	Caswell	7C.017103	GDB&P. SR 1332, Rat Castle Road. Increase and Close.	\$13,890.13

**NCDOT November 2016 Board of Transportation Agenda**

According to G.S. 143B-350(g) the Board is requested to concur with staff recommendations and delegate authority to the Secretary to approve funds for secondary road improvement projects.

**Secondary Road Improvement Projects (Highway and Trust Funds)****Deletions**

<b>County</b>	<b>SR No.</b>	<b>Reason</b>	<b>Amount</b>
Martin Div. 1	SR 1311 Norman Road	GDB&P. Funded By Another Source. WBS 1C.058050	-\$99,869.12
Mecklenburg Div. 10	SR 2460 Rocky Ford Club Road	GDB&P. Funded By Another Source. WBS 10C.060066	-\$10,000.00
Alleghany Div. 11	Various	Countywide Maintenance to Driveway Entrances of Certified Volunteer Fire Departments and Rescue Squads. Funded By Another Source. WBS 11C.003012	-\$76,890.58

**November 2016 Item E Summary:**

<b>9</b>	<b>Projects to Establish Funds</b>	<b>Amount:</b>	<b>\$1,118,845.10</b>
<b>1</b>	<b>Projects to Close</b>	<b>Amount:</b>	<b>\$13,890.13</b>
<b>3</b>	<b>Projects to Delete</b>	<b>Amount:</b>	<b>-\$186,759.70</b>

# **NCDOT November 2016 Board of Transportation Agenda**

## **Road Additions:**

<b>County</b>	<b>Pet. No.</b>	<b>Length (Miles)</b>	<b>Description</b>	<b>Date of Report</b>
<b>Division 2</b>				
Pitt	51202	0.07 0.21	<b>Brittany Ridge Subdivision</b> Sir Morris Court Sir Eugene Court	6/8/16
<b>Division 4</b>				
Johnston	51203	0.32 0.04	<b>Joseph Pointe Subdivision</b> Cotton Mill Drive Textile Lane	8/5/16
Johnston	51204	0.08	<b>Lee Woods Subdivision</b> Lee Woods Drive	7/20/16
<b>Division 5</b>				
Franklin	51205	0.16 0.15 0.19	<b>Heron's Landing Subdivision</b> Heron Drive Snowey Egret Court Wood Ibis Way	10/4/16
Franklin	51206	0.23 0.14	<b>Harrison Village Subdivision</b> Harrison Street Yancey Road	9/29/16
<b>Division 6</b>				
Cumberland	51207	0.24 0.12 0.06 0.31 0.19 0.23 0.11 0.26 0.05 0.07	<b>Arlington Plantation Subdivision</b> Kentucky Lane, SR 3718 Ext. Slew Drive Northern Dancer Place Finish Line Drive Quarter Pole Lane Starting Gate Drive Rio Dosa Downs Finish Line Drive Trotter Court Prospector Court	9/12/16
<b>Division 7</b>				
Guilford	51208	0.19	<b>Englewood Forest Subdivision</b> Beaverbrook Drive, SR 3165 Ext.	9/16/16
Guilford	51209	0.06 0.07	<b>Henson Farms Subdivision</b> Monk Court Mashoes Court	8/29/16
Guilford	51210	0.12	<b>Summit Ridge Subdivision</b> Rylan Court	9/16/16

**November 3, 2016**

# NCDOT November 2016 Board of Transportation Agenda

## Road Additions:

County	Pet. No.	Length (Miles)	Description	Date of Report
<b>Division 7</b>				
Guilford	51211	0.45 0.10	<b>Woodfield Subdivision</b> Brigham Road Merrick Court	9/14/16
<b>Division 8</b>				
Randolph	51212	0.31	<b>Uwharrie Ridge Subdivision</b> Overlook Drive	9/8/16
<b>Division 10</b>				
Union	51213	0.07 0.14	<b>McKinley Subdivision</b> Cold Springs Road Copper Tree Lane	8/1/16
Union	51214	0.16 0.93	<b>Tuscany Subdivision</b> Tuscany Drive Madeira Circle	7/15/16
<b>Division 12</b>				
Alexander	51215	0.06	<b>Meadowridge Acres Subdivision</b> Duck Hollow Lane	4/13/16
Gaston	51216	0.06 0.08	<b>Mary Stowe Subdivision</b> Weldon Lane Washington Street	5/19/15
Iredell	51217	0.57	<b>Bells Crossing Subdivision</b> Bells Crossing Drive	5/18/16
Iredell	51218	0.16	<b>Highland Place Subdivision</b> Tall Fern Loop	6/11/15
<b>Division 13</b>				
Buncombe	51219	0.11	<b>Oakley Cottages Subdivision</b> Onteora Oaks Drive	8/25/16

**Summary:**    **Number of Roads Petitioned for Addition – 37**  
**Number of Roads Petitioned for Abandonment – 0**

**November 3, 2016**



**NCDOT NOVEMBER 2016 BOARD OF TRANSPORTATION AGENDA**  
**Funds Request**  
**Division-wide Small Construction, Statewide Contingency,**  
**Public Access, Economic Development**

**According to Executive Order No. 2 and G.S. 143B-350(g), the Board is requested to concur with staff recommendation and delegate authority to the Secretary to approve funds for specific Division-wide Small Construction / Statewide Contingency projects.**

<b>County</b>	<b>Description</b>	<b>Type</b>	<b>Amount</b>
Div 3 Onslow	City of Jacksonville – Improve existing driveway to Montford Point Marine Memorial (Memorial Gardens) & pipe lateral ditch on NC-24 Business  WBS 45860	Small Construction  TOTAL	 \$50,000.00  \$50,000.00
Div 4 Wilson	City of Wilson – Add protected / permitted left turn signal phasing at entrance into Wilson Christian Academy at the Intersection of SR 1158 (Airport Blvd) and SR 1157 (Merck Rd)  WBS 80027	Contingency  TOTAL	 \$11,000.00  \$11,000.00
Div 4 Wilson	Town of Weldon – Install turn lane on SR 1641 approximately 0.5 mile from the intersection of SR 1641 and US-158 and an access road, approximately 1,700 ft, from SR 1641 to Halifax Community College  WBS 80028	Contingency  TOTAL	 \$500,000.00  \$500,000.00
Div 10 Stanly	City of Albemarle – Widen, grade, mill, & pave; install concrete monolithic islands, curb & gutter, & thermoplastic pavement markings on NC-24/27 & Leonard Ave from Hinson St to Spalding St  WBS 50138.3.249	Contingency  TOTAL	 \$125,000.00  \$125,000.00
Div 14 Jackson	Cullowhee – Extend SR 1337 (Ledbetter Rd) on new location to SR 1336 (Monteith Gap Rd)  WBS 44983	Contingency  TOTAL	 \$250,000.00  \$250,000.00
Div 14 Transylvania	City of Brevard – Construct a left turn lane on US-64 at Brevard Academy  WBS 44883	Contingency  TOTAL	 \$200,000.00  \$200,000.00

**NCDOT NOVEMBER 2016 BOARD OF TRANSPORTATION AGENDA**  
**Funds Request**  
**Division-wide Small Construction, Statewide Contingency,**  
**Public Access, Economic Development**

**Deletions:**

Div 8, Hoke County – WBS 43850 was established (04/13) for improvements to the intersection of SR 1305 (Wayside Rd) and US-401 to include the addition of two left turn lanes with 300' of storage each and a thru/right turn lane with appropriate taper; funded by an alternate source

<b>Summary:</b>	<b>Number of Projects</b>	<b>6</b>
	<b>Number of Divisions</b>	<b>4</b>
	<b>Small Construction Commitment</b>	<b>\$50,000.00</b>
	<b>Public Access Commitment</b>	<b>\$0.00</b>
	<b>Contingency Commitment</b>	<b>\$1,086,000.00</b>
	<b>Economic Development</b>	<b>\$0.00</b>
	<b>TOTAL</b>	<b>\$1,136,000.00</b>

<u>Highway</u> <u>Division</u> <u>#</u>	<u>5317 - New Freedom Capital</u>	<u>Estimated</u> <u>Project Cost</u>  <u>Capital</u>
14	<b>16-NF-021 Eastern Band Cherokee Indian (EBCI)</b> The capital replacement van will be providing the Snowbird community with a much needed accessible vehicle to better meet their needs and the increased ridership.	\$46,000 Total \$41,400 Federal \$0 State \$4,600 Local

Item I-1; 1 Project; Total Federal and State Funds \$ 41,400

*These items are for informational purposes only and subject to future NC Board of Transportation approval. It is anticipated that these items will be considered for NC Board of Transportation approval in 30 days.*

**ADDITIONS to the Transit 2016-2025 STIP**

STIP #	Transit Partner	DESCRIPTION	match	FUND	FY16 (000)	FY17 (000)	FY18 (000)	FY19 (000)	FY20 (000)	FY21 (000)	FY22 (000)
TO-6141	Cape Fear Transportation Authority	Operating assistance for fixed route serving Carolina/Kure Beaches	FUZ	STPDA	75						
			Local	L	75						
TA-5228	Winston-Salem TA	Replacement Bus	FUZ	5307		1000					
			Local	L		200					
TG-6178A	GoDurham	Purchase of Service	FEPD	5310		100					
			Local	L		25					

**MODIFICATIONS to the Transit 2016-2025 STIP**

STIP #	Transit Partner	DESCRIPTION	match	FUND	FY16 (000)	FY17 (000)	FY18 (000)	FY19 (000)	FY20 (000)	FY21 (000)	FY22 (000)
TQ-3002	Orange County Department on Aging	Mobility Management and Purchase of Service/Capital	FEPD	5310		110					
			Local	L		28					
TQ-3001	Durham County Access	Purchase of Demand Response Service/Capital	FEPD	5310		100					
			Local	L		25					
TQ-7002	DCHC MPO LPA/City of Durham	Administration of 5310 Program	FEPD	5310		48					
TQ-5104	Chapel Hill Transit	EZ Rider Senior Shuttle - Provision of Service/Operating	FEPD	5310		120					
			Local	L		120					
TO-5130B	GoDurham	Operating Assistance New route	5307	CMAQ		1100					
			Local	L		275					

Item I-1A, 8 Projects, Total Federal/State funds \$2,653,000

## NCDOT November 2016 Board of Transportation Agenda Rail Program

Town/County Division	Project Description	Estimated Cost
Division 4 Nash County	The Rail Division requests reallocation of Freight Rail & Rail Crossing Safety Improvement (FRRCSI) funds from the Braswell Mills project located on Carolina Coastal Railway (CLNA) at milepost ABA 130.2 near Nashville to a 4,200-foot siding to serve the Perdue Farms feedmill on CLNA near milepost ABA 131.2. The Braswell Mills project is no longer being pursued. The new track is needed to accommodate 90-car unit grain trains. The siding will be constructed on CLNA right of way. CLNA will be responsible for the remaining project costs not covered by the Department. The Department will participate in the total cost of the project up to \$150,000. The estimated cost of the project is \$300,000.	\$150,000
Divisions 5, 7, 9 and 10 Wake, Durham, Guilford, Rowan, Cabarrus and Mecklenburg Counties 44976	The Rail Division requests approval of State Rail Funds for the Last Mile Program. The Last Mile Program will provide passengers using NC ByTrain <i>Piedmont</i> service a transit pass that is valid for transit trip for 11 local transit agencies between Raleigh and Charlotte. Local transit agencies will invoice NCDOT for reimbursement for all rides taken by NC ByTrain Last Mile pass holders. The requested amount will cover the cost to print the passes and reimburse the local transit agencies. As part of the initial program, the cost of Last Mile transportation will be tracked and included as a part of NC ByTrain's revenue management strategy.	\$25,000
Division 6 Columbus County 44972	The Rail Division requests Board approval for the reallocation of remaining state funding from the now complete Camp Lejeune Railroad Feasibility Study to the RJ Corman Carolina Line (RJCS) to CSX Rail Connector Conceptual Study. The Columbus County Economic Development Commission has expressed interest in the RJCS being connected directly to the CSXT SE line and the Port of Wilmington so that freight does not have to interchange through Mullins, SC. This will be a high-level study that considers the potential conceptual alignments and economic impacts of a RJCS to CSX connector. The study will address the following areas: Literature Review; Benefit-Cost Analysis; Sector Analysis; Economic Impact Analysis; and Environmental Screening. Columbus County Economic Development will contribute \$19,600 towards the cost of the study to the Department.	\$66,218.20

Division 9 Rowan County 80000.2.1.12	<p>The Rail Division requests Board approval of additional Freight Rail &amp; Rail Crossing Safety Improvement (FRRCSI) funds for the further progression of ROW plan development and purchase of the alternate access roadway for the closure of the highway/rail at-grade crossing of Henderson Grove Church Road, SR 1526, Crossing No. 724 362M, Norfolk Southern/NCRR milepost Main 336.24, in Salisbury. The Department will be responsible for the design of the project. The total estimated cost to the Department has been revised from \$400,000 to \$900,000.</p> <p>TIP No. Y-5500IA</p>	\$500,000
Division 10 Mecklenburg County 45361.3.FD6	<p>The Rail Division requests approval to award a contract to the lowest responsive bidder, Progressive Contracting Company, Inc., for P&amp;N Thrift Depot Reroofing and Structural Renovations. The award will be for a general construction contract that was competitively bid and includes structural and architectural infrastructure to be performed by a general contractor properly licensed in North Carolina. Funding is 80% FHWA Enhancement Funds and 20% State Funds. The project design, bidding, and construction shall comply with State Construction Office requirements.</p>	\$337,300
Division 10 Cabarrus County 44098SA.1.1	<p>The Rail Division requests approval of State Rail Funds for the cost of a Phase II Harrisburg Train Station Feasibility Study. The Town of Harrisburg is located half way between Charlotte and Kannapolis, and the potential ridership could provide revenue increase for the state supported passenger train services. Funds will be used to produce conceptual station and parking lot designs for the preferred site, develop cost estimates and analyze potential ridership and revenue. Notice to proceed on the study is contingent on the Harrisburg Town Council selecting and acquiring a site for the station.</p>	\$150,000
Division 11 Wilkes County 80000.1.4.30	<p>The Rail Division requests Board approval of additional Freight Rail &amp; Rail Crossing Safety Improvement (FRRCSI) funds for bridge renewal on the Yadkin Valley Railway (YVRR) K Branch rail corridor to improve bridge safety and operating efficiency. The initial project cost of \$60,000 was approved at the February 2016 board meeting. In order to complete the necessary repairs on the bridge structure, YVRR has requested an additional \$15,000. The total cost of the Department's participation has been revised from \$60,000 to \$75,000, as has YVRR's. The estimated cost of the project is \$150,000.</p>	\$15,000

Division 12 Iredell County	The Rail Division requests Board approval of Freight Rail & Rail Crossing Safety Improvement (FRRCSI) funds for the extension of existing rail industrial access track to serve Project Sparrow. The company is expanding an existing facility in Iredell County, and proposes to create a minimum of 27 jobs during the first two years, investing a total of \$64 million in the project. The company anticipates shipping 220 carloads of rail freight per year and additional rail access is required in order to develop the Iredell County site. Funding is contingent on a completed Rail Industrial Access Program (RIAP) application, an environmental review, a construction schedule that complies with grant requirements, all other RIAP/FRRCSI program requirements being satisfied, and on implementation of transportation improvements necessary to protect the safety of contractors and employees of Project Sparrow. The total cost to the Rail Division is not to exceed \$131,250. The estimated cost of the project is \$375,000.	\$131,250
Division 14 Swain County	The Rail Division requests Board approval of Freight Rail & Rail Crossing Safety Improvement (FRRCSI) funds for a 1,480-foot spur to serve the proposed Swain County Turntable on the Great Smoky Mountain Railroad (GSMR) near MP T 64.0 in Bryson City. The new track is needed to access a turntable which will allow GSMR to turn and operate their steam locomotive. The turntable has been constructed on land owned by Swain County. GSMR is responsible for the remaining project costs not covered by the Department. The Department will participate in the total cost of the project up \$75,000. The estimated cost of the project is \$204,705.	\$75,000

**ITEM I-2 SUMMARY – 9 PROJECTS – (TOTAL FEDERAL AND STATE) \$1,449,768.20**

## **NCDOT November 2016 Board of Transportation Agenda**

### **Bike & Pedestrian Program**

<b>Town/County Division</b>	<b>Project Description</b>	<b>Estimated Cost</b>
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There will be no items presented for approval at the November 3, 2016 Board of Transportation meeting.

### **ITEM I-3 SUMMARY – NO PROJECTS**



## NCDOT November 2016 Board of Transportation Agenda

### Aviation Program

<b>Division Airport</b>	<b>Project Title Project Description [Partner Connect #]</b>	<b>Estimated Cost</b>
Division 3 Wilmington International Airport	<b>North GA Redevelopment Improvements</b> Redevelop north general aviation (GA) terminal area apron site for a second Fixed Base Operator or other compatible use. This project is a reallocation of space from the south GA area. Project includes access road/parking area, stormwater improvements, aircraft wash pad/apron expansion, and security gates meeting TSA requirements. [3605]	\$1,500,000

#### ITEM I-4 SUMMARY – 1 PROJECT - (TOTAL STATE COST) \$1,500,000

**\*\*Project selection and approval for award. Estimated costs are shown; only eligible costs within the project scope of work will be reimbursed.**

**NCDOT November 2016 Board of Transportation Agenda**  
**Approval of Specific State Funds for Construction Projects**  
**(For projects previously identified as Specific State Funds for Construction projects**  
**Now being funded under Strategic Transportation Investments)**

<b>Town/ County Division PROJ. CATEGORY</b>	<b>Project Description</b>	<b>Estimated Cost</b>
Greensboro/ Guilford Co. Div. 7 U-4750 DIVISION	WBS 39581.3.1 Hornaday Road Extension from the current terminus to Chimney Rock Road. \$4,716,000.00 has previously been approved for construction. Funds need to be decreased (\$1,333,450.34). WBS will be closed.	-\$1,333,450.34
Statewide M-0194 STATEWIDE	WBS 34263.1.1 Feasibility Studies by Division of Planning and Programming. \$25,300,381.00 has previously been approved for feasibility studies. Additional funds are requested.	\$3,000,000.00
<b>ITEM J SUMMARY</b>	<b>2 PROJECTS</b>	<b>\$1,666,549.66</b>

**NCDOT November 2016 Board of Transportation Agenda**  
**Approval of State Highway Trust Funds - Strategic Transportation Investments**

<b>Town/ County Division PROJ. CATEGORY</b>	<b>Project Description</b>	<b>Estimated Cost</b>
Northampton Co. Div. 1 R-2582A STATEWIDE	WBS 34472.2.S1 US 158 from I-95 / NC 46 in Roanoke Rapids to SR 1312 (St. John Church Road) in Northampton County. \$8,040,000.00 has previously been approved for early acquisition of specific parcels. Funds need to be decreased (\$7,944,225.49). WBS will be closed. <b>This is a Strategic Transportation Investments Transition project.</b>	-\$7,944,225.49
Statewide Div. 2 M-0488G STATEWIDE	WBS 46404.1.7 Greenville Southwest Bypass - Map Act Lawsuit. \$200,000.00 has previously been approved for preliminary engineering / legal services. Funds need to be decreased (\$184,333.73). WBS will be closed due to change of Strategic Transportation Investments Tier to Regional. (New WBS # is 46404.1.16).	-\$182,350.08
Jones/ Onslow Cos. Div. 2/3 R-2514WM STATEWIDE	WBS 34442.4.2 US 17 (North of Jacksonville) from SR 1327/SR 1410 (Kellum Loop Road) to SR 1330/SR 1439 (Deppe Loop Road/Spring Hill Road) South of Belgrade. \$5,076,744.00 has previously been approved for wetland mitigation. Additional funds are requested. <b>This is a Strategic Transportation Investments Transition project.</b>	\$126,410.92
Johnston Co. Div. 4 R-5722 DIVISION	WBS 50216.2.1 SR 1913 (Wilson's Mills Road) from SR 1501 (Swift Creek Road) to east of SR 1908 (Fire Department Road). Initial funds are requested for full right of way.	\$215,000.00
Durham Co Div. 5 U-4722 REGIONAL	WBS 41575.1.R1 US 501 (Roxboro Road) from US 501 Bypass (Duke Street) to SR 1640 (Goodwin Road). \$1,000,000.00 has previously been approved for preliminary engineering. Funds need to be decreased (\$999,953.64). WBS will be closed.	-\$999,953.64

**NCDOT November 2016 Board of Transportation Agenda**  
**Approval of State Highway Trust Funds - Strategic Transportation Investments**

<b>Town/ County Division PROJ. CATEGORY</b>	<b>Project Description</b>	<b>Estimated Cost</b>
Creedmoor/ Granville Co. Div. 5 R-5707 REGIONAL	WBS 46379.1.1 NC 56 at US 15 and NC 50 in Creedmoor. \$230,000.00 has previously been approved for preliminary engineering. Additional funds are requested.	\$170,000.00
Guilford Co. Div. 7 I-5110A STATEWIDE	WBS 42345.3.S3 I-73 from NC 68 to Greensboro Western Loop. \$3,570,425.00 has previously been approved for construction. Funds need to be decreased. (3,570,425.00). WBS will be closed. <b>This is a Strategic Transportation Investments Transition project.</b>	-\$3,570,425.00
Guilford/ Rockingham Co. Div. 7 R-2413WM STATEWIDE	WBS 34429.4.1 Future I-73 from NC 68 at SR 2011 (Edgefield Road) in Guilford County to US 220-NC 68 Intersection in Rockingham County. \$5,425,149.00 has previously been approved for wetland mitigation. Additional funds are requested. <b>This is a Strategic Transportation Investments Transition project.</b>	\$135,086.22
Orange Co. Div. 7 P-5701 DIVISION	WBS 46395.1.1 Norfolk Southern H Line, Milepost 41.7 in Hillsborough. Initial funds are requested for preliminary engineering.	\$810,000.00
Chatham Co. Div. 8 U-5737 REGIONAL	WBS 54027.1.2 U 64 (East 11th Street) from North Glenn Avenue to US 421 in Siler City. Initial funds are requested for preliminary engineering.	\$1,000,000.00

**NCDOT November 2016 Board of Transportation Agenda  
Approval of State Highway Trust Funds - Strategic Transportation Investments**

<b>Town/ County Division PROJ. CATEGORY</b>	<b>Project Description</b>	<b>Estimated Cost</b>
Forsyth Co. Div. 9 R-2247EA REGIONAL	WBS 34409.2.27 Winston-Salem Northern Beltway from NC 67 to south of US 52. \$100,000.00 has previously been approved for right of way. Additional funds are requested.	\$700,000.00
Forsyth Co. Div. 9 R-2247EB STATEWIDE	WBS 34409.2.28 Winston-Salem Northern Beltway Interchange at US 52. Initial funds are requested for Map Act Appraisal & future acquisition of specific parcels.	\$100,000.00
Winston-Salem/ Forsyth Co. Div. 9 U-2579 STATEWIDE	WBS 34839.2.19 The Winston-Salem Northern Beltway (Eastern Section) from US 52 to US 311. Initial funds are requested for Map Act Appraisal & future acquisition of specific parcels for segments D, E and F.	\$1,200,000.00
Winston-Salem/ Forsyth Co. Div. 9 U-2579 REGIONAL	WBS 34839.2.20 The Winston-Salem Northern Beltway (Eastern Section) from US 52 to US 311. Initial funds are requested for Map Act Appraisal & future acquisition of specific parcels for segments AA, AB, B and C.	\$1,600,000.00
Forsyth Co. Div. 9 U-2579WM STATEWIDE	WBS 34839.4.1 Winston-Salem Northern Beltway Eastern Section (Future I-74) from US 52 to US 311. \$6,855,678.00 has previously been approved for wetland mitigation. Additional funds are requested.	\$170,706.38

**NCDOT November 2016 Board of Transportation Agenda**  
**Approval of State Highway Trust Funds - Strategic Transportation Investments**

<b>Town/ County Division PROJ. CATEGORY</b>	<b>Project Description</b>	<b>Estimated Cost</b>
Kannapolis/ Cabarrus Co. Div. 10 U-3440 REGIONAL	WBS 39010.3.2 NC 3 from proposed West Side Bypass (Project U-2009) to SR 1691 (Loop Road) in Kannapolis. Initial funds are requested for construction based on the estimate from the 12-month Tentative Letting List published September 26, 2016. <b>This is a Strategic Transportation Investments Transition project.</b>	\$24,200,000.00
Mecklenburg Co. Div. 10 U-5907 BONUS ALLOCATION	WBS 46452.1.1 Potts-Sloan-Beatty Connector in Davidson. Initial funds are requested for preliminary engineering.	\$150,000.00
Hickory/ Catawba Co. Div. 12 U-5510 DIVISION	WBS 45532.2.1 SR 1468 (Sweetwater Road Extension) from US 70 to SR 1148 (Startown Road). Initial funds are requested for full right of way and utilities.	\$1,400,000.00
Cleveland Co. Div. 12 R-2707 REGIONAL	WBS 34497.2.12 US 74 Bypass from existing US 74 west of Shelby to existing US 74 east of Shelby. Initial funds are requested for Map Act Appraisal & future acquisition of specific parcels for segments C, D and E.	\$500,000.00
Iredell Co. Div. 12 R-5100 DIVISION	WBS 41890.1.D1 SR 1109 (Williamson Road) from I-77 to NC 150. \$500,000.00 has previously been approved for preliminary engineering. Additional funds are requested.	\$576,621.00

**NCDOT November 2016 Board of Transportation Agenda**  
**Approval of State Highway Trust Funds - Strategic Transportation Investments**

<b>Town/ County Division PROJ. CATEGORY</b>	<b>Project Description</b>	<b>Estimated Cost</b>
Statewide Div. 12 M-0488A STATEWIDE	WBS 46404.1.1 Shelby Bypass - Map Act Lawsuit. \$437,010.00 has previously been approved for preliminary engineering. Additional funds are requested. WBS will be closed due to change of Strategic Transportation Investments Tier to Regional. (New WBS # is 46404.1.4).	\$27,843.88
Yancey/ Mitchell Cos. Div. 13 R-2519WM STATEWIDE	WBS 35609.4.1 US 19E from SR 1336 (Jack's Creek Road) to multi-lane section west of Spruce Pine. \$4,406,012.00 has previously been approved for wetland mitigation. Additional funds are requested. <b>This is a Strategic Transportation Investments Transition project.</b>	\$109,709.71
Jackson Co. Div. 14 R-5206 DIVISION	WBS 42974.3.3 SR 1449 (Cope Creek Rd.) from SR 1710 to US 23/74. \$2,210,000.00 has previously been approved for construction. Additional funds are requested. <b>This is a Strategic Transportation Investments Transition project.</b>	\$500,000.00
Statewide M-0479 SW/REG/DIV	WBS 46314.1.S1 Statewide project development and environmental analysis, preliminary engineering for miscellaneous projects. \$1,220,000.00 has previously been approved for preliminary engineering. Additional funds are needed to cover expenditures that have exceeded the previously authorized budget. Additional funds are requested using 40% Statewide (\$64,000.00) / 30% Regional (\$48,000.00) / 30% Division (\$48,000.00) Tier funding.	\$160,000.00
STATEWIDE STRATEGIC TRANSPORTATION INVESTMENTS	10 PROJECTS	-\$9,827,243.46
REGIONAL STRATEGIC TRANSPORTATION INVESTMENTS	7 PROJECTS	\$27,170,046.36
DIVISION STRATEGIC TRANSPORTATION INVESTMENTS	5 PROJECTS	\$3,501,621.00

**November 3, 2016**

STATEWIDE/REGIONAL/DIVISION STRATEGIC TRANSPORTATION INVESTMENTS	1 PROJECT	\$160,000.00
BONUS ALLOCATION STRATEGIC TRANSPORTATION INVESTMENTS	1 PROJECT	\$150,000.00
<b>STRATEGIC TRANSPORTATION INVESTMENTS</b>	<b>24 PROJECTS</b>	<b>\$21,154,423.90</b>



**NCDOT November 2016 Board of Transportation Agenda  
Approval of State Highway Trust Funds - Intrastate System  
(For projects previously identified as Intrastate Trust Fund projects)**

<b>Town/ County Division PROJ. CATEGORY</b>	<b>Project Description</b>	<b>Estimated Cost</b>
Beaufort Co. Div. 2 R-2510A STATEWIDE	WBS 34440.2.2 US 17 from south of SR 1127 (Possum Track Road) to south of SR 1149 (Price Road). \$6,928,732.00 has previously been approved for right of way and utilities. Funds need to be decreased (\$455,000.00). WBS will be closed. <b>This is a Strategic Transportation Investments Transition project.</b>	-\$455,000.00
Craven Co. Div. 2 R-2301B STATEWIDE	WBS 34414.1.4 US 17 (New Bern Bypass) from US 70 to US 17 north of New Bern. \$100,000.00 has previously been approved for preliminary engineering. Funds need to be decreased (\$99,222.09). WBS will be closed. <b>This is a Strategic Transportation Investments Transition project.</b>	-\$99,222.09
Columbus/ Robeson Cos. Div. 6 R-0513WM STATEWIDE	WBS 34336.4.1 US 74 (future I-74) from US 74 (Maxton Bypass) to NC 41. \$6,040,171.00 has previously been approved for wetland mitigation. Funds need to be decreased (\$186,906.66). WBS will be closed. <b>This is a Strategic Transportation Investments Transition project.</b>	-\$186,906.66
Montgomery Co. Div. 8 R-2527 STATEWIDE	WBS 35572.1.1 NC 24 - 27 from NC 73 to the Troy Bypass. \$2,574,165.00 has previously been approved for preliminary engineering. Additional funds are needed to cover expenditures that have or will exceed the previously authorized budget.	\$295,000.00
<b>TRUST FUND INTRASTATE SUMMARY</b>	<b>4 PROJECTS</b>	<b>-\$446,128.75</b>

**NCDOT November 2016 Board of Transportation Agenda  
Approval of State Highway Trust Funds - Urban Loops**

**K-7**

<b>Town/ County Division PROJ. CATEGORY</b>	<b>Project Description</b>	<b>Estimated Cost</b>
Winston-Salem/ Forsyth Co. Div. 9 U-2579C SW/REG	WBS 34839.2.6 Winston-Salem Northern Beltway (Eastern Section) from US 158 to US 311. \$4,205,090.00 has previously been approved for appraisal and advanced acquisition of specific parcels. Additional funds are needed to cover expenditures that have exceeded the previously authorized budget using Regional Tier funding.	\$175,000.00
<b>TRUST FUND URBAN LOOP</b>	<b>1 PROJECT</b>	<b>\$175,000.00</b>
<b>STRATEGIC TRANSPORTATION INVESTMENTS</b>	<b>24 PROJECTS</b>	<b>\$21,154,423.90</b>
<b>TRUST FUND INTRASTATE SUMMARY</b>	<b>4 PROJECTS</b>	<b>-\$446,128.75</b>
<b>TRUST FUND URBAN LOOP</b>	<b>1 PROJECT</b>	<b>\$175,000.00</b>
<b>SUMMARY OF FUNDS</b>	<b>29 PROJECTS</b>	<b>\$20,883,295.15</b>

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FYI: Funding for Transition Period projects is excluded from the Transportation Investment Strategy Formula.

**November 3, 2016**

**NCDOT November 2016 Board of Transportation Agenda  
Approval of Funds for Specific Spot Safety Improvement Projects**

L-1

**According to Executive Order No. 2 and G.S. 143B-350(g) the Board is requested to  
concur with staff recommendations and delegate authority to the Secretary to approve  
Funds for Specific Spot Safety Improvement Projects**

<b>Town/ County Division PROJ. CATEGORY</b>	<b>Project Description</b>	<b>Estimated Cost</b>
Powellsville/ Bertie Co. Div. 1 SS-4901AP	WBS 44256.3.1 SR 1315 (Sally Freeman Road) between structure #29 and NC 42. \$40,000.00 in construction funds has previously been approved for skid treatment overlay and pavement marking revisions. Additional funds are needed due to an increase in construction costs. File 01-13-23548-1	\$10,000.00
Fayetteville/ Cumberland Co. Div. 6 SS-4906CN	WBS 44753.3.1 US 401 (Raeford Road) between Wildwood Drive and US 401 (Skibo Road). \$76,500.00 in construction funds has previously been approved for channelization improvements. Funds need to be decreased. Due to a substantial increase in construction costs, the project will be deleted and WBS will be closed. File 06-15-36444-1	-\$76,500.00
<b>ITEM L SUMMARY</b>	<b>2 PROJECTS</b>	<b>-\$66,500.00</b>

**November 3, 2016**

**NCDOT November 2016 Board of Transportation Agenda  
Approval of Funds for Specific Federal - Aid Projects**

**M-1**

**Division 1**

**Interstate**

<b>Town/ County/PROJ CATEGORY</b>	<b>Project Description</b>	<b>Estimated Cost</b>	
Northampton Co. I-5839 STATEWIDE	53045.1.1, NHPIM-0095(036) I-95 from the Halifax County Line to SR 1201 (Macon Price Road). Funds are needed for preliminary engineering.	\$10,000.00 \$8,000.00 \$2,000.00	Cost Fed. State

**Bridge**

Dare Co. B-2500B REGIONAL	32635.2.10, BRNHF-0012(056) Rodanthe on NC 12 long term improvements, Phase II. Funds are needed for right of way. <b>This is a Design-Build Project.</b> Project is subject to FHWA Approval.	\$840,000.00 \$672,000.00 \$168,000.00	Cost Fed. State
Dare Co. B-2500B REGIONAL	32635.3.10, BRNHF-0012(056) Rodanthe on NC 12 long term improvements, Phase II. Funds are needed for construction based on the estimate from the 12-Month Tentative Letting List published on July 19, 2016. This is a three (3) year <b>Cash Flow</b> project with \$58,134,000.00 in FY17, \$58,134,000.00 in FY18 and \$58,132,000.00 in FY 19. <b>This is a Design-Build Project.</b> Project is subject to FHWA approval.	\$174,400,000.00 \$139,520,000.00 \$34,880,000.00	Cost Fed. State

**Rail Program**

Garysburg/ Northampton Co. Z-5400AH DIVISION	43600.3.91, STPRR-0113(005) Railway-Highway Grade Crossing Safety Project. School Road at CSX Crossing #630 120E in Garysburg. Funds are needed for construction.	\$210,000.00 \$189,000.00 \$21,000.00	Cost Fed. State
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**November 3, 2016**

**NCDOT November 2016 Board of Transportation Agenda  
Approval of Funds for Specific Federal - Aid Projects**

**M-2**

**Division 2**

**Safety**

<b>Town/ County/PROJ CATEGORY</b>	<b>Project Description</b>	<b>Estimated Cost</b>	
Craven Co. W-5601BE DIVISION	50138.3.58, HSIP-1004(060) SR 1167 (Kelso / Williams Road) west of SR 1175 (Aviation Drive) toward SR 1004 (Madame Moore Lane). \$40,000.00 has previously been approved for construction. Additional funds are requested.	\$11,000.00 \$9,900.00 \$1,100.00	Cost Fed. State
Craven Co. W-5601EQ DIVISION	50138.3.148, HSIP-1309(014) SR 1309 (Glenburnie Road) at Elizabeth Avenue. Funds are needed for construction for safety improvements.	\$35,000.00 \$31,500.00 \$3,500.00	Cost Fed. State
Greene Co. W-5702A REGIONAL	44848.2.1, HSIP-0013(064) US 13 at SR 1151 (Burrellfield Road) and SR 1202 (Corbett Town Road). Funds are needed for preliminary engineering.	\$9,600.00 \$8,640.00 \$960.00	Cost Fed. State
Pamlico Co. W-5702C DIVISION	44848.1.3, HSIP-1005(043) SR 1005 (Neuse Road) between 0.9 mile west of SR 1108 (Scotts Store Road) and 0.3 mile east of SR 1100 (Scott Town Road). Funds are needed for preliminary engineering.	\$90,000.00 \$81,000.00 \$9,000.00	Cost Fed. State

**November 3, 2016**

**NCDOT November 2016 Board of Transportation Agenda  
Approval of Funds for Specific Federal - Aid Projects**

**M-3**

**Division 2 (Continued)**

**Rail Program**

<b>Town/ County/PROJ CATEGORY</b>	<b>Project Description</b>	<b>Estimated Cost</b>	
Carteret Co. Z-5400BF DIVISION	43600.3.90, HSIP-0230(003) Railway-Highway Grade Crossing Safety Project. Main Street at Norfolk Southern Transportation Tracks; Crossing #722 663B in Newport. Funds are needed for construction for flashers and gates.	\$295,000.00 \$265,500.00 \$29,500.00	Cost Fed. State

**November 3, 2016**

**NCDOT November 2016 Board of Transportation Agenda  
Approval of Funds for Specific Federal - Aid Projects**

**M-4**

**Division 3**

**Urban**

<b>Town/ County/PROJ CATEGORY</b>	<b>Project Description</b>	<b>Estimated Cost</b>
Jacksonville/ Onslow Co. U-5508 STATEWIDE	50015.1.1, STP-0024(055) NC 24 (Lejeune Boulevard) at NC53 (Western Boulevard). \$300,000.00 has previously been approved for preliminary engineering. Reduce funds. Project is now state funded, WBS 50015.1.1 to be closed.	-\$300,000.00 Cost -\$240,000.00 Fed. -\$60,000.00 State

**November 3, 2016**

**NCDOT November 2016 Board of Transportation Agenda  
Approval of Funds for Specific Federal - Aid Projects**

**M-5**

**Division 4**

**Interstate**

<b>Town/ County/PROJ CATEGORY</b>	<b>Project Description</b>	<b>Estimated Cost</b>	
Johnston Co.	53022.1.1, NHPIM-0040(050)	\$100,000.00	Cost
I-5781	I-40 from SR 1010 (Cleveland Road) to west of SR 1211	\$80,000.00	Fed.
STATEWIDE	(Morgan Road). Funds are needed for preliminary engineering.	\$20,000.00	State

**Congestion Mitigation**

Edgecombe Co.	50061.3.9, CMAQ-0445(002)	\$1,116,893.00	Cost
C-5600H	US 64 Nash-Edgecombe Counties ITS Project. Funds are	\$893,514.00	Fed.
EXEMPT	needed for construction.	\$223,379.00	State

**Urban**

Goldsboro/ Wayne Co.	38979.1.FR1, NHP-0117(033)	-\$1,000,000.00	Cost
U-2714	US 117 Alternate from US 70 Bypass to SR 1306 (Fedelon	-\$800,000.00	Fed.
REGIONAL	Trail) in Goldsboro. \$1,000,000.00 has previously been	-\$200,000.00	State
	approved for preliminary engineering. Reduce funds. Project is		
	now state funded, WBS 38979.1.FR1 to be closed.		

**Bridge**

Johnston Co.	38410.2.1, BRZ-2143(002)	\$192,000.00	Cost
B-4562	Replace Bridge #216 over Little Buffalo Creek on SR 2143	\$153,600.00	Fed.
DIVISION	(Combined with B-5654, Bridge # 141 over White Oak Creek on	\$38,400.00	State
	SR 1550), (Combined with B-5656, Bridge #133 over Yellow		
	Swamp on SR 1127), (Combined with B-5659, Bridge #432 over		
	Cattail Creek on SR 1738). Funds are needed for full right of		
	way and utilities.		

**November 3, 2016**



**NCDOT November 2016 Board of Transportation Agenda  
Approval of Funds for Specific Federal - Aid Projects**

**M-6**

**Division 4 (Continued)**

**Bridge**

<b>Town/ County/PROJ CATEGORY</b>	<b>Project Description</b>	<b>Estimated Cost</b>	
Johnston Co. B-4562 DIVISION	38410.3.1, BRZ-2143(002) Replace Bridge #216 over Little Buffalo Creek on SR 2143 (Combined with B-5654, Bridge # 141 over White Oak Creek on SR 1550), (Combined with B-5656, Bridge #133 over Yellow Swamp on SR 1127), (Combined with B-5659, Bridge #432 over Cattail Creek on SR 1738). Funds are needed for construction based on the estimate from the 12-Month Tentative Letting List published on September 15, 2016. <b>This is a Design-Build project.</b>	\$3,150,000.00 \$2,520,000.00 \$630,000.00	Cost Fed. State

**Safety**

Wayne Co. W-5601BS REGIONAL	50138.2.72, HSIP-0013(044) US 13 at SR 1127 (Herring Road). Funds are needed for full right of way.	\$100,000.00 \$90,000.00 \$10,000.00	Cost Fed. State
Johnston Co. W-5601BV REGIONAL	50138.2.75, HSIP-0039(010) NC 39 at NC 42. Funds are needed for full right of way and utilities.	\$43,000.00 \$38,700.00 \$4,300.00	Cost Fed. State
Johnston Co. W-5601BZ DIVISION	50138.2.79, HSIP-1720(003) SR 1720 (Thanksgiving Fire Road) between approximately 0.1 mile south and approximately 0.1 mile north of SR 1943 (New Creech Road). Funds are needed for full right of way and utilities.	\$125,000.00 \$112,500.00 \$12,500.00	Cost Fed. State

**November 3, 2016**

**NCDOT November 2016 Board of Transportation Agenda  
Approval of Funds for Specific Federal - Aid Projects**

**M-7**

**Division 4 (Continued)**

**Safety**

<b>Town/ County/PROJ CATEGORY</b>	<b>Project Description</b>	<b>Estimated Cost</b>	
Johnston Co. W-5704A REGIONAL	44850.1.1, HSIP-0070(204) US 70 Business between SR 1004 (Main Street) and the crossover just east of Wildwood Drive. Funds are needed for preliminary engineering.	\$100,000.00 \$90,000.00 \$10,000.00	Cost Fed. State
Johnston Co. W-5704B DIVISION	44850.1.2, HSIP-1553(007) SR 1553 (Shotwell Road) and NC 42 west / SR 1756 (Lombard Street) interchange. Funds are needed for preliminary engineering.	\$75,000.00 \$67,500.00 \$7,500.00	Cost Fed. State

**Bicycle and Pedestrian**

Wilson Co. EB-5507 DIVISION	50023.3.FD1, STPEB-1184(005) SR 1184 (Tarboro Street) from Fairview Avenue to Vinson- Bynum School in Wilson. Funds are needed for construction for sidewalks. <b>This is a Strategic Transportation Investments Transition project.</b>	\$195,000.00 \$156,000.00 \$39,000.00	Cost Fed. State
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**November 3, 2016**

**NCDOT November 2016 Board of Transportation Agenda  
Approval of Funds for Specific Federal - Aid Projects**

**M-8**

**Division 5**

**Congestion Mitigation**

<b>Town/ County/PROJ CATEGORY</b>	<b>Project Description</b>	<b>Estimated Cost</b>	
Durham Co. C-4928 EXEMPT	44028.1.F1, CMS-0505(021) SR 1317 (Morreene Road) in Durham from Neal Road to Erwin Road. Funds are needed for preliminary engineering.	\$994,415.00 \$795,532.00 \$198,883.00	Cost Fed. Local
Franklin Co. C-5604QA EXEMPT	43714.1.9, CMAQ-0531(008) Town of Youngsville Main Street improvements. Funds are needed for preliminary engineering.	\$82,500.00 \$66,000.00 \$16,500.00	Cost Fed. Local
Wake Co. C-5163 EXEMPT	46228.3.1, CMS-0503(017) Cary - Crabtree Creek Greenway. Funds are needed for construction for greenway.	\$4,538,000.00 \$3,630,400.00 \$907,600.00	Cost Fed. Local

**Safety**

Vance Co. W-5515 DIVISION	44101.3.1, HSIP-1518(005) SR 1518 (Stewart Farm Road) in Henderson City Limit to SR 1515 (South Cokesbury Road). \$1,350,000.00 has previously been approved for construction. Additional funds are requested.	\$150,000.00 \$135,000.00 \$15,000.00	Cost Fed. State
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**November 3, 2016**

**NCDOT November 2016 Board of Transportation Agenda  
Approval of Funds for Specific Federal - Aid Projects**

**M-9**

**Division 5 (Continued)**

**Safety**

<b>Town/ County/PROJ CATEGORY</b>	<b>Project Description</b>	<b>Estimated Cost</b>	
Wake Co. W-5205K REGIONAL	45335.3.FR11, HRRR-0042(052) NC 42 at SR 2740 (Mt. Pleasant Road) / SR 2739 (Barber Bridge Road). \$397,000.00 has previously been approved for construction. Additional funds are requested.	\$150,000.00 \$135,000.00 \$15,000.00	Cost Fed. State
Wake Co. W-5601G DIVISION	50138.1.FD9, HSIP-1007(029) SR 1007 (Poole Road) at SR 2967 (New Hope Road). \$200,000.00 has previously been approved for preliminary engineering. Additional funds are requested.	\$25,000.00 \$22,500.00 \$2,500.00	Cost Fed. State
Wake Co. W-5601Z REGIONAL	50138.1.FR27, HSIP-0401(265) US 401 at SR 1446 (Manor Ridge Road)/SR 2857 (Brookwood Drive). \$77,000.00 has previously been approved for preliminary engineering. Additional funds are requested.	\$40,000.00 \$36,000.00 \$4,000.00	Cost Fed. State

**Bicycle and Pedestrian**

Durham Co. U-4724 DIVISION	39083.1.F1, STP-0505(024) SR 1158 (Cornwallis Road) from south Roxboro Road to SR 1183 (University Drive). Funds are needed for preliminary engineering. <b>This is a Strategic Transportation Investments Transition project.</b>	\$856,035.00 \$684,828.00 \$171,207.00	Cost Fed. Local
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**November 3, 2016**

**NCDOT November 2016 Board of Transportation Agenda  
Approval of Funds for Specific Federal - Aid Projects**

**M-10**

**Division 5 (Continued)**

**Bicycle and Pedestrian**

<b>Town/ County/PROJ CATEGORY</b>	<b>Project Description</b>	<b>Estimated Cost</b>	
Durham Co. U-4726HN DIVISION	36268.1.31, STPDA-0505(081) Hillandale Road in Durham. Funds are needed for preliminary engineering.	\$465,105.00 \$372,084.00 \$93,021.00	Cost Fed. Local
Durham Co. U-4726HO DIVISION	36268.1.32, STPDA-0505(073) Carpenter-Fletcher Road from Woodcroft Parkway (City Maintained) to SR 1945 (Alston Avenue). Funds are needed for preliminary engineering.	\$716,895.00 \$573,516.00 \$143,379.00	Cost Fed. Local
Wake Forest/ Wake Co. EL-5100AE DIVISION	41821.3.F41, STPDA-0527(016) Dunn Creek Greenway Downtown Connector in Wake Forest. \$285,880.00 has previously been approved for construction. Additional funds are requested.	\$600,000.00 \$300,000.00 \$300,000.00	Cost Fed. Local

**November 3, 2016**

**NCDOT November 2016 Board of Transportation Agenda  
Approval of Funds for Specific Federal - Aid Projects**

**M-11**

**Division 6**

**Safety**

<b>Town/ County/PROJ CATEGORY</b>	<b>Project Description</b>	<b>Estimated Cost</b>	
Cumberland Co. W-5206U DIVISION	45336.3.FD21, HRRR-2238(001) SR 2238 (Sand Hill Road) at SR 2252 (Chicken Foot Road). Funds are needed for construction for safety improvements.	\$4,010,000.00	Cost
		\$3,260,200.00	Fed.
		\$749,800.00	State
Cumberland Co. W-5601EO REGIONAL	50138.2.146, HSIP-0401(273) US 401 (Ramsey Street) from SR 1615 (Stacy Weaver Drive) to Wal-Mart entrance. Funds are needed for full right of way and utilities.	\$30,500.00	Cost
		\$27,450.00	Fed.
		\$3,050.00	State
Cumberland Co. W-5601FW STATEWIDE	50138.2.180, HSIP-0024(077) NC 24 / 87 (Bragg Boulevard) from Odell Road to McKenzie Road. Funds are needed for full right of way and utilities.	\$30,000.00	Cost
		\$27,000.00	Fed.
		\$3,000.00	State
Cumberland Co. W-5601FX DIVISION	50138.3.181, HSIP-1605(007) SR 1605 (Johnson Farm Road) from SR 1600 (McCarthur Road) to SR 1606 (Elliot Farm Road). Funds are needed for construction of safety improvements.	\$760,000.00	Cost
		\$684,000.00	Fed.
		\$76,000.00	State

**November 3, 2016**

**NCDOT November 2016 Board of Transportation Agenda  
Approval of Funds for Specific Federal - Aid Projects**

**M-12**

**Division 6 (Continued)**

**Safety**

<b>Town/ County/PROJ CATEGORY</b>	<b>Project Description</b>	<b>Estimated Cost</b>	
Cumberland Co. W-5601FY STATEWIDE	50138.1.182, HSIP-0401(277) US 401 (Raeford Road) at SR 1104 (Strickland Bridge Road). Funds are needed for construction for safety improvements.	\$218,000.00 \$196,200.00 \$21,800.00	Cost Fed. State
Lumberton/ Robeson Co. W-5601DC DIVISION	50138.2.108, HSIP-1527(009) SR 1527 (Pine Log) at SR 1528 (Carthage Road) near the City of Lumberton. Funds are needed for full right of way and utilities.	\$115,000.00 \$103,500.00 \$11,500.00	Cost Fed. State

**Bicycle and Pedestrian**

Harnett Co. U-5530PA DIVISION	44111.1.17, STPDA-0210(037) Highway 210 from Walgreens to Fish Drive and south along Park Street from Highway 210 to West Lillington Street. Funds are needed for preliminary engineering.	\$77,000.00 \$61,600.00 \$15,400.00	Cost Fed. Local
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**November 3, 2016**

**NCDOT November 2016 Board of Transportation Agenda  
Approval of Funds for Specific Federal - Aid Projects**

**M-13**

**Division 7**

**Congestion Mitigation**

<b>Town/ County/PROJ CATEGORY</b>	<b>Project Description</b>	<b>Estimated Cost</b>	
Guilford Co. C-5600F EXEMPT	50061.3.7, CMAQ-0708(081) Intelligent Transportation System (ITS) for Triad Region to Triangle Region Center to Center Connection. Funds are needed for construction of Intelligent Transportation System.	\$950,035.00 \$760,028.00 \$190,007.00	Cost Fed. State

**Urban**

Guildford U-5326 DIVISION	45484.3.1, STPDA-0708(045) SR 1008 (Market Street) and SR 1546 (College Road). Funds are needed for construction of intersection improvements.	\$7,100,000.00 \$5,680,000.00 \$1,420,000.00	Cost Fed. State
High Point/ Guilford Co. U-3615B DIVISION	34962.2.3, STP-1820(005) SR 1820 (Skeet Club Road) from west of SR 1818 (Johnson Street) to NC 68 (Eastchester Drive). \$13,953,593.00 has previously been approved for right of way. Additional funds are requested.	\$2,000,000.00 \$1,600,000.00 \$400,000.00	Cost Fed. State
Greensboro/ Guilford Co. U-5842 DIVISION	54042.1.1, STP-0708(088) Pisgah Church Road at North Elm Street in Greensboro. Funds are needed for preliminary engineering.	\$100,000.00 \$80,000.00 \$20,000.00	Cost Fed. Local

**November 3, 2016**



**NCDOT November 2016 Board of Transportation Agenda  
Approval of Funds for Specific Federal - Aid Projects**

**M-14**

**Division 7 (Continued)**

**Safety**

<b>Town/ County/PROJ CATEGORY</b>	<b>Project Description</b>	<b>Estimated Cost</b>	
Alamance Co.	50138.3.240, HSIP-000S(864)	\$585,000.00	Cost
W-5601IE	Multiple routes in Division 7. Funds are needed for construction	\$526,500.00	Fed.
DIVISION	of pavement marking improvements.	\$58,500.00	State

**November 3, 2016**

**NCDOT November 2016 Board of Transportation Agenda  
Approval of Funds for Specific Federal - Aid Projects**

**M-15**

**Division 8**

**Congestion Mitigation**

<b>Town/ County/PROJ CATEGORY</b>	<b>Project Description</b>	<b>Estimated Cost</b>	
Scotland Co. C-5600B EXEMPT	50061.1.3, CMAQ-000S(868) CSXT NC service improvement and grade separation project. Dixie Storage Track Segment. Funds are needed for preliminary engineering.	\$3,635,200.00 \$2,908,160.00 \$727,040.00	Cost Fed. State

**Urban**

Moore Co. U-3628 REGIONAL	44672.1.1, STP-0024(078) NC 24 / NC 27 Courthouse West of NC 22 (McNeill Street) to US 15 / US 501 in Carthage. \$200,000.00 has previously been approved for preliminary engineering. Reduce funds. Project is now state funded, WBS 44672.1.1 to be closed.	-\$200,000.00 -\$160,000.00 -\$40,000.00	Cost Fed. State
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**Safety**

Moore Co. W-5601FH REGIONAL	50138.2.165, HSIP-0005(803) NC 5 from SR 1103 (Sand Pit Road) to just past Habitat For Humanity. Funds are needed for full right of way and utilities.	\$210,000.00 \$189,000.00 \$21,000.00	Cost Fed. State
Moore Co. W-5601FI REGIONAL	50138.2.166, HSIP-0005(804) NC 5 at SR 1115 (Linden Road). Funds are needed for full right of way and utilities.	\$100,000.00 \$90,000.00 \$10,000.00	Cost Fed. State

**November 3, 2016**

**NCDOT November 2016 Board of Transportation Agenda  
Approval of Funds for Specific Federal - Aid Projects**

**M-16**

**Division 8 (Continued)**

**Safety**

<b>Town/ County/PROJ CATEGORY</b>	<b>Project Description</b>	<b>Estimated Cost</b>
Moore Co.	44854.1.2, HSIP-0002(100)	\$95,000.00 Cost
W-5708B	NC 2 (Midland Road) at US 1 and NC 2 (Midland Road) at	\$85,500.00 Fed.
REGIONAL	NC 22 (Central Drive). Funds are needed for preliminary engineering.	\$9,500.00 State

**Rural**

Moore Co.	38835.1.FD1, STP-0073(038)	-\$300,000.00 Cost
R-2807	NC 73 from NC 211 Bypass of West End. \$300,000.00 has	-\$240,000.00 Fed.
DIVISION	previously been approved for preliminary engineering. Reduce funds. Project is now state funded, WBS 38835.1.FD1 to be closed.	-\$60,000.00 State

**November 3, 2016**

**NCDOT November 2016 Board of Transportation Agenda  
Approval of Funds for Specific Federal - Aid Projects**

**M-17**

**Division 9**

**Rail Program**

<b>Town/ County/PROJ CATEGORY</b>	<b>Project Description</b>	<b>Estimated Cost</b>	
Davidson Co.	43600.3.64, RR-1714(006)	\$260,000.00	Cost
Z-5400IE	Railway-Highway Grade Crossing Safety Project at SR 1714	\$234,000.00	Fed.
STATEWIDE	(E. Eller Drive) Winston-Salem Southbound Railway; Crossing #836 98F. Construction funds are needed for safety improvements.	\$26,000.00	State

**November 3, 2016**

**NCDOT November 2016 Board of Transportation Agenda  
Approval of Funds for Specific Federal - Aid Projects**

**M-18**

**Division 10**

**Interstate**

<b>Town/ County/PROJ CATEGORY</b>	<b>Project Description</b>	<b>Estimated Cost</b>	
Mecklenburg Co. I-5960 STATEWIDE	44797.3.1, NHP-0485(044) I-485 from Mile Marker 35.80 to SR 2802 (Rocky River Road) to Mile Marker 39.70 SR 2808 (Camp Stewart Road). Funds are needed for construction based on the estimate from the 12-Month Tentative Letting List published September 15, 2016.	\$4,200,000.00 \$3,360,000.00 \$840,000.00	Cost Fed. State

**Congestion Mitigation**

Mecklenburg Co. C-5600G EXEMPT	50061.3.8, CMAQ-1229(016) I-85 Gaston-Mecklenburg Counties Intelligent Transportation System Project. \$900,000.00 has previously been approved for construction. Additional funds are requested.	\$132,000.00 \$105,600.00 \$26,400.00	Cost Fed. State
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**Safety**

Charlotte/ Mecklenburg Co. W-5710A DIVISION	44856.1.1, HSIP-2939(001) SR 2939(Old Concord Road) at Suther Road in Charlotte. Funds are needed for preliminary engineering.	\$35,000.00 \$31,500.00 \$3,500.00	Cost Fed. State
Union Co. W-5710B STATEWIDE	44856.1.2, HSIP-0074(192) US 74 from a point just east of Old Pageland-Monroe Road eastward for approximately 0.64 mile. Funds are needed for preliminary engineering.	\$58,000.00 \$52,200.00 \$5,800.00	Cost Fed. State

**November 3, 2016**

**NCDOT November 2016 Board of Transportation Agenda  
Approval of Funds for Specific Federal - Aid Projects**

**M-19**

**Division 10 (Continued)**

**Bicycle and Pedestrian**

<b>Town/ County/PROJ CATEGORY</b>	<b>Project Description</b>	<b>Estimated Cost</b>
Mecklenburg Co. EB-5010 DIVISION	41124.3.FD1, STPEB-1005(029) Cornelius Greenway Trail - Cornelius Open Space to Bailey Road Park. \$2,150,000.00 has previously been approved for construction. Additional funds are requested. <b>This is a Strategic Transportation Investments Transition project</b>	\$1,264,421.00 Cost \$1,011,537.00 Fed. \$252,884.00 Local

**November 3, 2016**

**NCDOT November 2016 Board of Transportation Agenda  
Approval of Funds for Specific Federal - Aid Projects**

**M-20**

**Division 12**

**Congestion Mitigation**

<b>Town/ County/PROJ CATEGORY</b>	<b>Project Description</b>	<b>Estimated Cost</b>	
Gaston Co. C-5606I EXEMPT	43728.1.9, CMAQ-0027(017) Highway 27 in Lincolnton. Funds are needed for preliminary engineering.	\$40,800.00 \$32,640.00 \$8,160.00	Cost Fed. Local
Iredell Co. C-5529 EXEMPT	51043.2.F1, CMS-1226(018) Intersection of NC 115 and Faith Road / Campus Lane in Mooresville. \$81,750.00 has previously been approved for right of way and utilities. Additional funds are requested.	\$474,585.00 \$355,939.00 \$118,646.00	Cost Fed. Local

**Safety**

Catawba Co. W-5712E REGIONAL	44858.1.5, HSIP-0016(061) NC 16 at the I-40 westbound ramps. Funds are needed for preliminary engineering.	\$5,000.00 \$4,500.00 \$500.00	Cost Fed. State
Cleveland Co. W-5712G STATEWIDE	44858.1.7, HSIP-0085(029) I-85 Pavement marking improvements. Funds are needed for preliminary engineering.	\$5,000.00 \$4,500.00 \$500.00	Cost Fed. State

**November 3, 2016**

**NCDOT November 2016 Board of Transportation Agenda  
Approval of Funds for Specific Federal - Aid Projects**

**M-21**

**Division 12 (Continued)**

**Safety**

<b>Town/ County/PROJ CATEGORY</b>	<b>Project Description</b>	<b>Estimated Cost</b>
Divisionwide W-5712F REGIONAL	44858.1.6, HSIP-000S(866) Snowplowable marker installations and revisions on various routes in Division 12. Funds are needed for preliminary engineering.	\$5,000.00 Cost \$4,500.00 Fed. \$500.00 State

**November 3, 2016**



**NCDOT November 2016 Board of Transportation Agenda  
Approval of Funds for Specific Federal - Aid Projects**

**M-22**

**Division 13**

**Bicycle and Pedestrian**

<b>Town/ County/PROJ CATEGORY</b>	<b>Project Description</b>	<b>Estimated Cost</b>
Asheville/ Buncombe Co. EB-5547 DIVISION	51045.1.F1, STPDA-1302(062) New route from existing Flat Creek Greenway Trailhead near State Street and Charlotte Street to existing Riverside Greenway near Riverside Park and extension west of NC 9 near existing culvert. \$102,400.00 has previously been approved for preliminary engineering. Additional funds are requested.	\$21,154.00 Cost \$16,923.00 Fed. \$4,231.00 Local

**November 3, 2016**

**NCDOT November 2016 Board of Transportation Agenda  
Approval of Funds for Specific Federal - Aid Projects**

**M-23**

**Division 14**

**Urban**

<b>Town/ County/PROJ CATEGORY</b>	<b>Project Description</b>	<b>Estimated Cost</b>	
Haywood Co. U-4412 DIVISION	35022.3.FD1, STP-1184(004) SR 1184 (Howell Mill Road) from US 276 to US 23 Business. \$13,763,701.00 has previously been approved for construction. Additional funds are requested.	\$1,100,000.00 \$880,000.00 \$220,000.00	Cost Fed. State
Henderson Co. U-5105 REGIONAL	41903.2.FR1, STP-0025(022) US 25 / SR 1164 (Erkwood Drive) / SR 1779 (Shepherd Street). Funds are needed for full right of way. <b>This is a Strategic Transportation Investments Transition project</b>	\$200,000.00 \$160,000.00 \$40,000.00	Cost Fed. State

**November 3, 2016**

**NCDOT November 2016 Board of Transportation Agenda  
Approval of Funds for Specific Federal - Aid Projects**

**M-24**

**Statewide**

**Congestion Mitigation**

<b>Town/ County/PROJ CATEGORY</b>	<b>Project Description</b>	<b>Estimated Cost</b>	
Statewide C-4902A EXEMPT	44002.1.2, CMS-000S(732) North Carolina State University - NC Solar Clean Fuel Advanced Technology Program-Phase III. \$4,652,000.00 has previously been approved for preliminary engineering. Additional funds are requested.	\$1,610,275.00 \$1,288,220.00 \$322,055.00	Cost Fed. State
Statewide C-5600J EXEMPT	50061.3.11, CMAQ-000S(852) Rebuild two additional Cab Control Units (CCU's) for Piedmont Passenger Rail Service. \$1,835,403.00 has previously been approved for construction. Additional funds are requested.	\$458,011.00 \$366,409.00 \$91,602.00	Cost Fed. State

**Bicycle and Pedestrian**

Statewide EB-5542 DIVISION	55062.1.4, STPEB-000S(867) Watch 4 Me NC 2016-2017 Bike and Pedestrian Program. Funds are needed for preliminary engineering.	\$130,000.00 \$104,000.00 \$26,000.00	Cost Fed. State
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**ITEM M SUMMARY - 67 PROJECT(S) - (TOTAL FEDERAL AND STATE) \$215,680,513.00**

Funding for Transition Period projects is excluded from the Transportation Investment Strategy Formula.

**November 3, 2016**

# REVISIONS TO THE 2016-2025 STIP

## HIGHWAY PROGRAM STIP ADDITIONS

### DIVISION 2

\* U-5952 GREENVILLE, GREENVILLE SIGNAL SYSTEM.  
PITT PROGRAMMED FOR PLANNING AND ENVIRONMENTAL  
PROJ.CATEGORY STUDY ONLY.  
REGIONAL

### DIVISION 3

R-3300B US 17, NC 210 TO US 17 NORTH OF HAMPSTEAD.  
PENDER PROGRAMMED FOR PRELIMINARY ENGINEERING FOR  
PROJ.CATEGORY DESIGN.  
REGIONAL

### DIVISION 6

\* EB-5541 BIG CROSS CREEK GREENWAY, LITTLE CROSS CREEK  
CUMBERLAND TO SMITH LAKE IN FORT BRAGG. CONSTRUCT MULTI-  
PROJ.CATEGORY USE TRAIL.  
DIVISION PROGRAMMED FOR PLANNING AND ENVIRONMENTAL  
STUDY ONLY

### DIVISION 13

* EB-5821	REEMS CREEK GREENWAY, CONSTRUCT MULTI-USE	ENGINEERING	FY 2018 -	\$480,000	(STBGDA)
BUNCOMBE	PATH ALONG REEMS CREEK CORRIDOR FROM		FY 2018 -	\$120,000	(L)
PROJ.CATEGORY	WESTERN EDGE OF TOWN OF WEAVERVILLE TO			\$600,000	
DIVISION	KARPEN SOCCER FIELDS				
	<u>PROJECT ADDED AT REQUEST OF MPO.</u>				

* EB-5822	NORTH RAD GREENWAY, CONSTRUCT MULTI-USE	ENGINEERING	FY 2018 -	\$240,000	(STBGDA)
BUNCOMBE	PATH ALONG RIVERSIDE DRIVE FROM HILL STREET		FY 2018 -	\$60,000	(L)
PROJ.CATEGORY	TO US 19/23/70 AT BROADWAY			\$300,000	
DIVISION	<u>PROJECT ADDED AT REQUEST OF MPO.</u>				

* EB-5823	BENT CREEK GREENWAY, CONSTRUCT MULTI-USE	ENGINEERING	FY 2018 -	\$320,000	(STBGDA)
BUNCOMBE	PATH FROM HOMINY CREEK RIVER PARK TO		FY 2018 -	\$80,000	(L)
PROJ.CATEGORY	WESTERN NC FARMER'S MARKET			\$400,000	
DIVISION	<u>PROJECT ADDED AT REQUEST OF MPO.</u>				

\* INDICATES FEDERAL AMENDMENT

Thursday, November 03, 2016

## REVISIONS TO THE 2016-2025 STIP

HIGHWAY PROGRAM  
STIP ADDITIONS

## DIVISION 13

* EB-5824	HOMINY CREEK GREENWAY, CONSTRUCT MULTI-USE	ENGINEERING	FY 2018 -	\$320,000	(STBGDA)
BUNCOMBE	PATH FROM HOMINY VALLEY PARK AND ENKA HIGH		FY 2018 -	\$80,000	(L)
PROJ.CATEGORY	SCHOOL TO EAST OF SAND HILL ROAD			\$400,000	
DIVISION	<u>PROJECT ADDED AT REQUEST OF MPO.</u>				

## DIVISION 14

* R-4430	SR 1783 (UPWARD ROAD), US 176 TO SR 1006	CONSTRUCTION	FY 2017 -	\$25,000	(T)
HENDERSON	(HOWARD GAP ROAD). WIDEN AND IMPROVE			\$25,000	
PROJ.CATEGORY	ROADWAY.				
TRANSITION	<u>ADD CONSTRUCTION IN FY 17 NOT PREVIOUSLY PROGRAMMED. FUNDING NEEDED TO CORRECT DRAINAGE ISSUE CREATED BY PROJECT.</u>				

* R-5734B	US 23/US 441, SR 1652 (WIDE HORIZON DRIVE)/SR 1152				
MACON	(BELDEN CIRCLE) TO SR 1649 (PRENTISS BRIDGE				
PROJ.CATEGORY	ROAD).				
REGIONAL	<u>PROGRAMMED FOR PLANNING AND ENVIRONMENTAL STUDY ONLY</u>				

* R-5799	US 64, US 276, NC 280, US 64, US 276, NC 280 AND US				
TRANSYLVANIA	64. CONSTRUCT INTERSECTION IMPROVEMENTS.				
PROJ.CATEGORY	<u>PROGRAMMED FOR PLANNING AND ENVIRONMENTAL</u>				
REGIONAL	<u>STUDY ONLY</u>				

* R-5800	US 64, US 276, FORTUNE COVE ROAD TO US 64				
TRANSYLVANIA	BUSINESS (NORTH CALDWELL STREET). CONSTRUCT				
PROJ.CATEGORY	MEDIAN AND ACCESS CONTROL MEASURES.				
REGIONAL	<u>PROGRAMMED FOR PLANNING AND ENVIRONMENTAL STUDY ONLY</u>				

\* INDICATES FEDERAL AMENDMENT

Thursday, November 03, 2016

## REVISIONS TO THE 2016-2025 STIP

HIGHWAY PROGRAM  
STIP MODIFICATIONS

## DIVISION 7

* I-5812 GUILFORD PROJ.CATEGORY STATEWIDE	I-40 / BUSINESS 85, EAST OF SR 3037 / SR 4240 (EAST GATE CITY BOULEVARD) TO I-85; I-85 NORTH OF SR 3000 (MCCONNELL ROAD) TO I-40; I-40 / I-85, WEST OF SR 3048 (MOUNT HOPE CHURCH ROAD) TO EAST OF SR 3056 (ROCK CREEK DAIRY ROAD). PAVEMENT REHABILITATION.  <u>REVISE TERMINI AND COST BASED ON DIVISION REVIEW (COST INCREASE EXCEEDING \$2 MILLION AND 25% THRESHOLDS)</u>	CONSTRUCTION	FY 2017 -	\$7,200,000	(NHPIM)
				\$7,200,000	
* U-5543 DURHAM ORANGE PROJ.CATEGORY REGIONAL	VARIOUS, VARIABLE MESSAGE SIGNS FOR TRAFFIC MANAGEMENT ON MAJOR CORRIDORS IN CHAPEL HILL.  <u>AT THE REQUEST OF THE MPO, ADD CONSTRUCTION IN FY 17 NOT PREVIOUSLY PROGRAMMED.</u>	CONSTRUCTION	FY 2017 -	\$419,000	(STBGDA)
			FY 2017 -	\$105,000	(L)
				\$524,000	

U-5843 ALAMANCE PROJ.CATEGORY DIVISION	US 70 (CHURCH STREET), SR 1817 (GRAHAM-HOPEDALE ROAD) IN BURLINGTON. INTERSECTION IMPROVEMENTS.  <u>TO ALLOW ADDITIONAL TIME FOR PLANNING AND DESIGN, DELAY RIGHT-OF-WAY FROM FY 16 TO FY 17</u>	RIGHT-OF-WAY CONSTRUCTION	FY 2017 -	\$225,000	(T)
			FY 2018 -	\$938,000	(T)
				\$1,163,000	

## DIVISION 8

U-5706 RICHMOND PROJ.CATEGORY DIVISION	VARIOUS, US 74 BUSINESS TO SR 1426 (ABERDEEN ROAD). CONSTRUCT TWO LANE FACILITY UTILIZING SECTIONS OF SR 1923 (BROAD STREET), SR 1641 (CLEMMER ROAD) AND SR 1645 (MT. OLIVE CHURCH ROAD), REMAINDER ON NEW LOCATION.  <u>REVISE SOUTHERN TERMINUS AT REQUEST OF PRECONSTRUCTION BASED ON SCOPE REVIEW.</u>	RIGHT-OF-WAY UTILITIES CONSTRUCTION	FY 2020 -	\$1,294,000	(T)
			FY 2020 -	\$155,000	(T)
			FY 2021 -	\$4,560,000	(T)
				\$6,009,000	

## DIVISION 9

AV-5749 DAVIDSON PROJ.CATEGORY DIVISION	DAVIDSON COUNTY AIRPORT (EXX), INSTALL RUNWAY 6 MEDIUM INTENSITY APPROACH LIGHTING SYSTEM WITH RUNWAY ALIGNMENT INDICATOR LIGHTS ACROSS I-85, INCLUDING INTERCHANGE LIGHTING.  <u>ACCELERATE RIGHT-OF-WAY FROM FY 19 TO FY 17 AT REQUEST OF DIVISION OF AVIATION, TO REFLECT AIRPORT'S DELIVERY SCHEDULE.</u>	RIGHT-OF-WAY CONSTRUCTION	FY 2017 -	\$611,000	(T)
			FY 2017 -	\$67,000	(L)
			FY 2020 -	\$2,154,000	(T)
			FY 2020 -	\$239,000	(L)
				\$3,071,000	

\* INDICATES FEDERAL AMENDMENT

## REVISIONS TO THE 2016-2025 STIP

HIGHWAY PROGRAM  
STIP MODIFICATIONS

## DIVISION 9

* B-5007	WEST FIRST STREET, REPLACE BRIDGE 330296 OVER	RIGHT-OF-WAY	FY 2019 -	\$56,000	(STPOFF)
FORSYTH	NORFOLK SOUTHERN RAILWAY IN WINSTON-SALEM.		FY 2019 -	\$14,000	(L)
PROJ.CATEGORY	<u>TO ALLOW ADDITIONAL TIME TO COMPLETE</u>	CONSTRUCTION	FY 2021 -	\$560,000	(STPOFF)
DIVISION	<u>PRELIMINARY ENGINEERING, DELAY RIGHT-OF-WAY</u>		FY 2021 -	\$140,000	(L)
	<u>FROM FY 17 TO FY 19 AND CONSTRUCTION FROM FY</u>			\$770,000	
	<u>18 TO FY 21</u>				

## DIVISION 10

AV-5732	CONCORD REGIONAL AIRPORT (JQF), COMMERCIAL	CONSTRUCTION	FY 2017 -	\$300,000	(T)
CABARRUS	SERVICES TERMINAL (DESIGN & CONSTRUCTION)		FY 2017 -	\$2,500,000	(O)
PROJ.CATEGORY	<u>ACCELERATE CONSTRUCTION FROM FY 19 TO FY 17</u>			\$2,800,000	
REGIONAL	<u>AT THE REQUEST OF THE DIVISION OF AVIATION.</u>				

U-3440	NC 3, PROPOSED WEST SIDE BYPASS (U-2009) TO SR	CONSTRUCTION	FY 2017 -	\$24,200,000	(T)
CABARRUS	1691 (LOOP ROAD) IN KANNAPOLIS. WIDEN TO A			\$24,200,000	
PROJ.CATEGORY	FOUR-LANE DIVIDED FACILITY.				
TRANSITION	<u>TO ALLOW ADDITIONAL TIME FOR PLANNING, DELAY</u>				
	<u>CONSTRUCTION FROM FY 16 TO FY 17</u>				

* U-5905	SR 2112 (LAKEVIEW ROAD), REAMES ROAD TO NC	RIGHT-OF-WAY	FY 2017 -	\$100,000	(BA)
MECKLENBURG	115. UPGRADE ROADWAY.	CONSTRUCTION	FY 2018 -	\$8,900,000	(BA)
PROJ.CATEGORY	<u>CHANGE PROJECT LIMITS AT THE REQUEST OF</u>			\$9,000,000	
EXEMPT	<u>DIVISION 10 AND THE CITY OF CHARLOTTE.</u>				
	<u>WESTERN PROJECT LIMIT MOVES FROM US 21 TO</u>				
	<u>REAMES ROAD.</u>				

## DIVISION 13

B-5882	SR 1151 (BIG PINE ROAD), REPLACE BRIDGE 560145	RIGHT-OF-WAY	FY 2018 -	\$25,000	(HFB)
MADISON	OVER BIG PINE CREEK.	CONSTRUCTION	FY 2019 -	\$300,000	(HFB)
PROJ.CATEGORY	<u>TO ALLOW ADDITIONAL TIME FOR DESIGN, DELAY</u>			\$325,000	
HWY FUNDS	<u>RIGHT-OF-WAY FROM FY 17 TO FY 18 AND</u>				
	<u>CONSTRUCTION FROM FY 18 TO FY 19</u>				

\* INDICATES FEDERAL AMENDMENT

Thursday, November 03, 2016

## REVISIONS TO THE 2016-2025 STIP

HIGHWAY PROGRAM  
STIP MODIFICATIONS

## DIVISION 13

* EB-5547	NEW ROUTE, CONSTRUCT NEW MULTI-USE PATH	ENGINEERING	FY 2016 -	\$120,000	(STBGDA)
BUNCOMBE	FROM EXISTING FLAT CREEK GREENWAY TRAILHEAD		FY 2016 -	\$30,000	(L)
PROJ.CATEGORY	NEAR STATE STREET AND CHARLOTTE STREET TO		FY 2017 -	\$22,000	(STBGDA)
DIVISION	EXISTING RIVERSIDE GREENWAY NEAR RIVERSIDE		FY 2017 -	\$6,000	(L)
	PARK AND EXTENSION WEST OF NC 9 NEAR EXISTING	RIGHT-OF-WAY	FY 2018 -	\$80,000	(STBGDA)
	CULVERT.		FY 2018 -	\$20,000	(L)
	<u>INCREASE FUNDING FOR ENGINEERING AND ADD</u>	CONSTRUCTION	FY 2019 -	\$1,385,000	(STBGDA)
	<u>RIGHT-OF-WAY IN FY 18 AND CONSTRUCTION IN FY 19</u>		FY 2019 -	\$346,000	(L)
	<u>NOT PREVIOUSLY PROGRAMMED AT THE REQUEST</u>			\$2,009,000	
	<u>OF THE MPO.</u>				
* EB-5790	ASHEVILLE, ON-STREET CROSSINGS AND	ENGINEERING	FY 2016 -	\$96,000	(TAPDA)
BUNCOMBE	CONNECTIONS FOR BICYCLISTS AND PEDESTRIANS		FY 2016 -	\$24,000	(L)
PROJ.CATEGORY	IN ASHEVILLE'S EAST OF THE RIVERWAY.		FY 2017 -	\$114,000	(TAPDA)
DIVISION	<u>INCREASE FUNDING FOR ENGINEERING AND ADD</u>		FY 2017 -	\$29,000	(L)
	<u>CONSTRUCTION IN FY 19 NOT PREVIOUSLY</u>	CONSTRUCTION	FY 2019 -	\$840,000	(TAPDA)
	<u>PROGRAMMED AT THE REQUEST OF THE MPO.</u>		FY 2019 -	\$210,000	(L)
				\$1,313,000	

## DIVISION 14

C-5151	EASTERN BAND OF CHEROKEE INDIANS (EBCI),	CONSTRUCTION	FY 2017 -	\$177,000	(CMAQ)
HAYWOOD	GREAT SMOKIES NATIONAL PARK. CONSTRUCT A		FY 2017 -	\$65,000	(L)
SWAIN	MIXED-USE PATHWAY.			\$242,000	
PROJ.CATEGORY	<u>TO ALLOW ADDITIONAL TIME FOR PLANNING, DELAY</u>				
EXEMPT	<u>CONSTRUCTION FROM FY 16 TO FY 17</u>				
C-5203	EASTERN BAND OF CHEROKEE INDIANS (EBCI), BIG	ENGINEERING	FY 2016 -	\$39,000	(CMAQ)
SWAIN	COVE MIXED USE PATH, CHEROKEE CENTRAL		FY 2016 -	\$10,000	(L)
PROJ.CATEGORY	SCHOOL NORTHWARD ON BOTH SIDES OF THE	RIGHT-OF-WAY	FY 2017 -	\$77,000	(CMAQ)
EXEMPT	OCONALUFTEE RIVER TO THE EXISTING BIG COVE		FY 2017 -	\$19,000	(L)
	ROAD MIXED USE TRAIL. CONSTRUCT PEDESTRIAN	CONSTRUCTION	FY 2017 -	\$77,000	(CMAQ)
	AND BIKE PATH, PHASES 3 AND 4.		FY 2017 -	\$19,000	(L)
	<u>TO ALLOW ADDITIONAL TIME FOR PLANNING, DELAY</u>			\$241,000	
	<u>RIGHT-OF-WAY FROM FY 16 TO FY 17 AND</u>				
	<u>CONSTRUCTION FROM FY 16 TO FY 17</u>				
* EB-5757	BROWN AVENUE, US 23 BUSINESS (SOUTH MAIN	ENGINEERING	FY 2017 -	\$40,000	(STBGDA)
HAYWOOD	STREET) TO BELLE MEADE DRIVE. REDUCE		FY 2017 -	\$10,000	(L)
PROJ.CATEGORY	ROADWAY LANES TO THREE AND CONSTRUCT BIKE		FY 2021 -	\$40,000	(TAP)
DIVISION	LANES.		FY 2021 -	\$10,000	(L)
	<u>ADD ADDITIONAL ENGINEERING FUNDING IN FY 17 AT</u>	CONSTRUCTION	FY 2023 -	\$80,000	(TAP)
	<u>THE REQUEST OF THE MPO.</u>		FY 2023 -	\$20,000	(L)
				\$200,000	

\* INDICATES FEDERAL AMENDMENT



## REVISIONS TO THE 2016-2025 STIP

## HIGHWAY PROGRAM

## STIP MODIFICATIONS

## DIVISION 14

* R-5771	SR 1690 (BROADPOINTE DRIVE), IMPROVE EXISTING	ENGINEERING	FY 2016 -	\$306,000	(APD)
HENDERSON	SR 1690 (BROADPOINTE DRIVE) TO 24 FEET PAVED	RIGHT-OF-WAY	FY 2017 -	\$295,000	(APD)
PROJ.CATEGORY	ROADWAY AND REPLACE BRIDGE 440107.	CONSTRUCTION	FY 2017 -	<u>\$1,230,000</u>	(APD)
EXEMPT	<u>ADD RIGHT-OF-WAY IN FY 17 NOT PREVIOUSLY PROGRAMMED.</u>			\$1,831,000	

## STIP DELETIONS

## DIVISION 14

* I-5834	I-40, MILE MARKER 27 TO MILE MARKER 34. PAVEMENT	CONSTRUCTION	FY 2019 -	<u>\$7,400,000</u>	(NHPIM)
HAYWOOD	REHABILITATION.			\$7,400,000	
PROJ.CATEGORY	<u>DELETE AT THE REQUEST OF DIVISION. WORK TO BE ACCOMPLISHED IN I-5776.</u>				
STATEWIDE					

## STATEWIDE

* B-9000DIV	VARIOUS, BRIDGE INSPECTION PROGRAM	IMPLEMENTATIO	FY 2017 -	\$3,300,000	(STBG)
STATEWIDE	<u>DELETE PROJECT. IT HAS BEEN DETERMINED THAT</u>		FY 2018 -	\$3,300,000	(STBG)
PROJ.CATEGORY	<u>EXISTING STIP PROJECT B-9999 WILL CONTINUE TO</u>		FY 2019 -	\$3,300,000	(STBG)
DIVISION	<u>BE USED FOR BRIDGE INSPECTIONS.</u>		FY 2020 -	<u>\$3,300,000</u>	(STBG)
				\$13,200,000	

* B-9000REG	VARIOUS, BRIDGE INSPECTION PROGRAM	IMPLEMENTATIO	FY 2017 -	\$3,300,000	(STBG)
STATEWIDE	<u>DELETE PROJECT. IT HAS BEEN DETERMINED THAT</u>		FY 2018 -	\$3,300,000	(STBG)
PROJ.CATEGORY	<u>EXISTING STIP PROJECT B-9999 WILL CONTINUE TO</u>		FY 2019 -	\$3,300,000	(STBG)
REGIONAL	<u>BE USED FOR BRIDGE INSPECTIONS.</u>		FY 2020 -	<u>\$3,300,000</u>	(STBG)
				\$13,200,000	

* B-9000SW	VARIOUS, BRIDGE INSPECTION PROGRAM	IMPLEMENTATIO	FY 2017 -	\$4,400,000	(STBG)
STATEWIDE	<u>DELETE PROJECT. IT HAS BEEN DETERMINED THAT</u>		FY 2018 -	\$4,400,000	(STBG)
PROJ.CATEGORY	<u>EXISTING STIP PROJECT B-9999 WILL CONTINUE TO</u>		FY 2019 -	\$4,400,000	(STBG)
STATEWIDE	<u>BE USED FOR BRIDGE INSPECTIONS.</u>		FY 2020 -	<u>\$4,400,000</u>	(STBG)
				\$17,600,000	

\* INDICATES FEDERAL AMENDMENT

Thursday, November 03, 2016

## REVISIONS TO THE 2016-2025 STIP

## HIGHWAY PROGRAM

ITEM N SUMMARY

ADDITIONS	11	PROJECTS	\$1,725,000
MODIFICATIONS	16	PROJECTS	
DELETIONS	4	PROJECTS	\$51,400,000
	31	PROJECTS	(\$49,675,000)

\* INDICATES FEDERAL AMENDMENT

Thursday, November 03, 2016

NCDOT November 3, 2016 Board of Transportation Agenda

SUMMARY: There are a total of 35 Agreements for approval by the Board of Transportation

Statewide

RPC Leasing

The Rail Division has awarded a contract to RPC Leasing in response to an RFP seeking a partnership for a vendor to provide on-board services on NC ByTrain's Piedmonts. RPC Leasing will provide gourmet coffee, food, beverages, bicycle rentals, etc. on Piedmont Trains a minimum of three days per week. This contract is for a six month pilot with the option to renew. There is no cost to the Department.

Division 1

U.S. Geological Survey (USGS),  
South Atlantic Water Science  
Center, United States  
Department of Interior  
R-2576  
34470.1.TA1

This Agreement is for the Water Resource Investigations Characterization of Baseline Water Quality Conditions in Currituck Sound prior to the Mid-Currituck Bridge Construction. The USGS shall be responsible for all phases of the Project. The Department shall participate in the amount of \$370,000 and the USGS in the amount of \$145,000. The funding will extend until October 30, 2018.

Division 2

City of Greenville  
Pitt County  
2.1074SM

This Municipal Operations Agreement (Schedule D) provides for the operation of the computerized traffic signal system as indicated in the Agreement. The Municipality shall be responsible for timing traffic signals and other traffic control devices on the State Highway System Streets located within the Municipality. The Department shall be invoiced for the approved cost of the traffic signal control system installation, maintenance, and administrative costs as per the Agreement.

Division 4

Carolina Coastal Railway, Inc.  
(CLNA)  
Nash County  
80000.3.3.21

This Rail Industrial Access Agreement covers the approval of Freight Rail and Rail Crossing Safety Improvement funds to assist CLNA with the construction of a 4,400 foot siding using 100 lb rail around milepost ABA 131.2. The newly constructed siding will become the main line track, and the existing main line, which has 85 lb rail, will be used as a siding by PCS Phosphate. CLNA will be responsible for performing the work. The Department will participate in the total cost of the project up to \$175,000. The estimated cost of the project is \$569,721.50.

NCDOT November 3, 2016 Board of Transportation Agenda

Division 4, cont.

City of Rocky Mount  
Nash County  
C-5548  
51018.1.1  
51018.3.1

This Project consists of the construction of sidewalk along Barnes Street, Benvenue Road, Tarboro Street, Falls Road, Franklin Street, Leggett Country Club Road and Church Street. The Department's original participation amount was \$375,200 and the Municipal match was \$93,800. This Supplemental Agreement is for the Department to provide additional funding of \$356,000 from Congestion Mitigation and Air Quality funds, the Municipality match is \$89,000. Costs which exceed the revised maximum amount of \$731,200 shall be borne by the Municipality. The Project completion date is extended for (5) years from the authorization of Federal funding or February 16, 2021.

Division 5

City of Durham (GoDurham)  
Durham County  
44976

This Rail Agreement is a "Last Mile Agreement" wherein the Department's Rail Division agrees to reimburse fares for passengers to use GoDurham, the local transit provider. The reimbursement is for one transit trip from the passenger's destination train station to their final destination. This agreement is one of ten agreements with various local transit providers with a total program cost to the Department of \$25,000.

Town of Apex  
Wake County  
U-5118AF  
42379.1.31  
42379.2.31  
42379.3.31

This Project consists of the addition of turn lanes at the intersection of Kelly Road at Olive Chapel Road and the extension of sidewalk along the west side of Kelly Road from Evening Star Drive to Olive Chapel Road. The Project also includes construction of southbound right turn and left turn lanes as well as a northbound right turn lane on Kelly Road and a westbound right turn lane on Olive Chapel Road. This Supplemental Agreement is to increase the funding for the Project. The Department's original participation was \$400,000. The Department agrees to reimburse the Municipality an additional \$130,000 of STP-DA funds for a total amount of \$530,000. The Municipality will provide an additional \$130,000 as their local match.

Town of Fuquay Varina  
Wake County  
U-5118GB  
42379.1.37  
42379.3.37

This Project consists of the construction of intersection operational improvements at the Sunset Lake Road/Purfoy Road intersections on US 401, relocation of pedestrian signal, traffic signal revisions, and installation of raised concrete medians. The Municipality is responsible for all phases of the Project. This Supplemental Agreement is to add the PE Phase to the Project.

NCDOT November 3, 2016 Board of Transportation Agenda

Division 5, cont.

Research Triangle Regional  
Public Transportation Authority  
(GoTriangle)  
Wake County  
44976

This Rail Agreement is a “Last Mile Agreement” wherein the Department’s Rail Division agrees to reimburse fares for passengers to use GoTriangle, the local transit provider. The reimbursement is for one transit trip from the passenger’s destination train station to their final destination. This agreement is one of ten agreements with various local transit providers with a total program cost to the Department of \$25,000.

City of Raleigh (GoRaleigh)  
Wake County  
44976

This Rail Agreement is a “Last Mile Agreement” wherein the Department’s Rail Division agrees to reimburse fares for passengers to use GoRaleigh, the local transit provider. The reimbursement is for one transit trip from the passenger’s destination train station to their final destination. This agreement is one of ten agreements with various local transit providers with a total program cost to the Department of \$25,000.

Town of Cary (GoCary)  
Wake County  
44976

This Rail Agreement is a “Last Mile Agreement” wherein the Department’s Rail Division agrees to reimburse fares for passengers to use GoCary, the local transit provider. The reimbursement is for one transit trip from the passenger’s destination train station to their final destination. This agreement is one of ten agreements with various local transit providers with a total program cost to the Department of \$25,000.

Division 6

County of Columbus  
Columbus County  
44972

This Rail Agreement provides for the commitment of funding by Columbus County for the preparation of a conceptual study to establish a rail connection between R.J. Corman Carolina Lines to the Port of Wilmington via CSX. The County’s participation in the cost of the study is \$19,600. The total estimated cost of the study is \$66,218.20.

Fort Bragg Military Reservation  
Cumberland County  
U-2519CB  
34817.3.S8

This Project consists of construction of the Fayetteville Outer Loop from south of SR 1400 (Cliffdale Road) to east of SR 1007 (All American Freeway). At the request of Fort Bragg Military Reservation, included in the construction will be the installation of interchange lighting at the interchanges of the Fayetteville Outer Loop and the All American Freeway, and the Fayetteville Outer Loop and Canopy Lane. This Supplemental Agreement is to transfer the ownership of said lighting to the Military upon completion of the project. The Military will be responsible for ownership and maintenance of the lighting.

NCDOT November 3, 2016 Board of Transportation Agenda

Division 6, cont.

Fort Bragg Military Reservation  
Cumberland County  
X-0002CC  
35196.3.FS22

This Project consists of construction of the Fayetteville Outer Loop from east of SR 1007 (All American Freeway) to east of US 401 (Ramsey Street). At the request of Fort Bragg Military Reservation, included in the construction of the Outer Loop will be the installation of interchange lighting at the interchange of the Fayetteville Outer Loop and Bragg Blvd. This Supplemental Agreement is to transfer the ownership of said lighting to the Military upon completion of the project. The Military will be responsible for ownership and maintenance of the lighting.

CSX Transportation Inc. (CSXT)  
Robeson County  
B-4616  
33798.1.1

This Rail Project consists of replacing the NC 211 bridge beginning at Station 16+00.00 -L- running in a northeasterly direction over the tracks of CSXT to Station 46+00.00 -L- in Robeson County, including construction of a structure at separated grades and appurtenant works across the Railroad's right of way, tracks and other facilities near Railroad Milepost A-234.82 and Highway Survey Station 31+55.47 -L- in accordance with plans and specifications prepared by the Department and approved by the Railroad.

Division 7

Town of Haw River  
Alamance County  
3607.3.08

This Project consists of construction of curb and gutter and sidewalk along NC 49 (Main Street) between Lang Street and Stone Street. This Supplemental Agreement is to increase the funding and extend the completion date for the Project. The Department's original participation was \$125,000. The Department agrees to reimburse the Municipality an additional \$150,000 (\$75,000 Small Construction and \$75,000 Contingency funds). The Municipality is responsible for all costs which exceed the total Project cost of \$275,000. The Municipality shall complete all work by November 15, 2017, in lieu of November 24, 2012.

City of Greensboro  
Guilford County  
EL-5101DL  
41823.1.3  
41823.2.F15

This Project consists of 15.5 miles of sidewalk projects along English Street, Pisgah Church Road/Lees Chapel Road, West Friendly Avenue and Yanceyville Street in Greensboro. This Supplemental Agreement is to revise the scope to contain the following locations: English Street from Phillips Avenue to Florida Street; Pisgah Church /Lees Chapel Road from Battleground Avenue to Brightwood School Road; West Friendly Avenue from West Market Street to Francis King Street; and Yanceyville Street from Bessemer Avenue to Lees Chapel Road.

NCDOT November 3, 2016 Board of Transportation Agenda

Division 7, cont.

City of Greensboro  
Guilford County  
44976

This Rail Agreement is a “Last Mile Agreement” wherein the Department’s Rail Division agrees to reimburse fares for passengers to use Greensboro Transit Authority, the local transit provider. The reimbursement is for one transit trip from the passenger’s destination train station to their final destination. This agreement is one of ten agreements with various local transit providers with a total program cost to the Department of \$25,000.

City of High Point  
Guilford County  
44976

This Rail Agreement is a “Last Mile Agreement” wherein the Department’s Rail Division agrees to reimburse fares for passengers to use the High Point Transit System, the local transit provider. The reimbursement is for one transit trip from the passenger’s destination train station to their final destination. This agreement is one of ten agreements with various local transit providers with a total program cost to the Department of \$25,000.

Piedmont Authority for Regional  
Transportation (PART)  
Guilford County  
44976

This Rail Agreement is a “Last Mile Agreement” wherein the Department’s Rail Division agrees to reimburse fares for passengers to use PART, the local transit provider. The reimbursement is for one transit trip from the passenger’s destination train station to their final destination. This agreement is one of ten agreements with various local transit providers with a total program cost to the Department of \$25,000.

Division 9

Davidson County Community  
College  
Davidson County  
R-5737  
50195.3.1

This Project consists of construction of a grade-separated interchange at US 29/70/Business 85 and SR 1798 (Old Greensboro Road). The Department is responsible for all phases of the work. The College shall donate all right-of-way and easements within their property boundary as required for the project and shall participate in the project costs up to a maximum amount of \$1,000,000.

City of Salisbury  
Rowan County  
44976

This Rail Agreement is a “Last Mile Agreement” wherein the Department’s Rail Division agrees to reimburse fares for passengers to use the City of Salisbury Transit System, the local transit provider. The reimbursement is for one transit trip from the passenger’s destination train station to their final destination. This agreement is one of ten agreements with various local transit providers with a total program cost to the Department of \$25,000.

NCDOT November 3, 2016 Board of Transportation Agenda

Division 10

Intertape Polymer Corporation  
(IPC)  
Aberdeen Carolina & Western  
Railway  
Cabarrus County  
80000.3.1.7

This agenda item supersedes an agenda item to assist IPC with the construction of 3 rail spur tracks to serve a proposed manufacturing facility approved at the June 30, 2016 Board of Transportation Meeting, due to the addition of ACWR as a Party to the Agreement. All other provisions of the Agreement approved at the June 30, 2016 Board of Transportation meeting will remain the same.

City of Charlotte  
Mecklenburg County  
2017CPT.10.04.20601.01

This Project consists of the resurfacing and/or repair of the roads in Research Park and for the abandonment of those roads to the Municipality upon completion of the Project. The Municipality shall be responsible for all phases of the Project. The Department shall be responsible for resurfacing SR 2746 (Claude Freeman Drive) and for the resurfacing/repair of SR 2725 (Governor Hunt Road) in Research Park. The Department shall participate in the costs of the project up to a maximum amount of \$675,005. The estimated cost of the Project is \$700,000.

City of Charlotte  
(Charlotte Area Transit)  
Mecklenburg County  
44976

This Rail Agreement is a "Last Mile Agreement" wherein the Department's Rail Division agrees to reimburse fares for passengers to use the Charlotte Area Transit System (CATS), the local transit provider. The reimbursement is for one transit trip from the passenger's destination train station to their final destination. This agreement is one of ten agreements with various local transit providers with a total program cost to the Department of \$25,000.

City of Charlotte  
Mecklenburg County

This Memorandum of Understanding constitutes a statement of intent between the Department and the Municipality for preparation of an environmental study associated with the Charlotte North Yard Lead project within the Municipality. The Department will prepare the study. The Municipality will reimburse the Department for all costs associated with the study. The estimated cost to the Municipality is \$300,000.

Mecklenburg County  
C-5536B  
51006.3.2

This Project consists of implementation of a sub grant award program to reduce aging diesel engines in the affected air quality area. The County is responsible for all phases of the Project. The Department shall reimburse 80% of approved eligible costs from the CMAQ funds allocation, not to exceed \$500,000. The County shall provide the non-federal match for the STPDA funds authorized and all costs that exceed the total estimated cost.



NCDOT November 3, 2016 Board of Transportation Agenda

Division 10, cont.

Norfolk Southern Railway  
Company (NS)  
Mecklenburg County  
P-5705B  
44475

This agenda item supersedes the NS agenda item for the development of preliminary track, signal, and structure plans for the proposed Charlotte Gateway Station, which was approved at the Board of Transportation meeting on February 4, 2016. Due to an increase in the scope of work to accommodate completion of final design plans, the Agreement has been modified to reflect an increase in the cost of the Department's participation from \$300,000 to \$950,000. All other provisions of the Agreement will remain the same.

Rider Transit Center (CK Rider)  
Mecklenburg County  
44976

This Rail Agreement is a "Last Mile Agreement" wherein the Department's Rail Division agrees to reimburse fares for passengers to use CK Rider, the local transit provider. The reimbursement is for one transit trip from the passenger's destination train station to their final destination. This agreement is one of ten agreements with various local transit providers with a total program cost to the Department of \$25,000.

City of Monroe  
Union County  
EB-5011  
41125.1.1  
41125.3.1

This Project consists of the construction of the Bearskin Creek Greenway. This Supplemental Agreement modifies the scope of work that will consist of the construction of approximately 1.1 miles of 10' wide paved greenway with 2' wide gravel shoulders from Icemorelee Street to Johson Street and from Charlotte Avenue at I.B. Shive Drive to Don Griffin Park to include grading, drainage, erosion control, retaining wall, bridge, road crossing improvements and signing and allows additional time for the Municipality to complete the Project by the completion date of 11/20/2018.

Division 11

Watauga County  
17BP.11.R.18

This Project consists of the replacement of Bridge No. 940136 on SR 1533 (Aho Road) over the Middle Fork South Fork New River. At the request of the County, the bridge span will be lengthened to provide a greenway crossing underneath SR 1533. NCDOT's design will provide an 8-ft vertical clearance and a 12-ft wide turf bench underneath the bridge. The Department shall be responsible for all Phases of the Project. The County shall participate in the costs of the Project in the amount of \$160,000.

NCDOT November 3, 2016 Board of Transportation Agenda

Division 12

CSX Transportation Inc. (CSXT)  
Cleveland County  
R-2707C  
34497.1.2

This Rail Project consists of construction of the US 74 Bypass on new location beginning at Station 382+00.00 -L- running in a easterly direction over the tracks of CSX Transportation, Inc. to Station 635+00.00 -L- and replace the existing bridge on NC 180 over CSXT at station 32+31.41 –Y11, in Cleveland County, including structures at separated grades and appurtenant works across the Railroad's right of way, tracks and other facilities near Railroad Milepost SF-380.86 in accordance with plans and specifications prepared by the Department and approved by CSXT.

Gaston-Cleveland-Lincoln MPO  
Gaston County  
EB-5749  
44843.10.6

This Project consists of feasibility study for the evaluation of various alternatives aimed at improving bicycle and pedestrian access across and on both sides of the Catawba River in South Central North Carolina. The location of the study area is situated between Mount Holly, Gaston County and across the Catawba River to Mecklenburg County within the Charlotte Metropolitan Region. The Agency shall be responsible for all phases of the Project. The Department shall reimburse 100% of eligible expenses incurred by the Agency up to a maximum amount of \$125,000. The Agency shall be responsible for all costs that exceed the total estimated cost of \$125,000.

Division 14

Southwestern Commission  
Swain County  
EB-5797  
46867.1.1

This Project consists of a feasibility study for bicycle and/or pedestrian access along East and West Deep Creek Rd (SR 1337) from Bryson City to the Great Smoky Mountain National Park. The Commission is responsible for all phases of the Project. The Department shall reimburse 80% of approved eligible costs from the Federal Lands Access Program (FLAP) funds allocation, not to exceed \$44,000. The Commission will be responsible for providing the 20% (\$11,000) non-federal match for the FLAP funds authorized and all costs that exceed the total estimated cost.

Great Smoky Mountain Railroad,  
LLC (GSMR)  
Swain and Jackson Cos.  
44246

This Rail Freight Assistance Agreement covers approval of State Rail Funds to assist GSMR with bridge repairs located at mileposts T 49.3, 50.7, and 53.6; and the installation of crossties between mileposts T 47 and 87. GSMR will be responsible for performing the work. The Department will participate in the cost of the project up to \$137,944.48. The estimated cost of the project is \$318,155.

NCDOT November 3, 2016 Board of Transportation Agenda

SUMMARY: There are a total of 20 Agreements for informational purposes only

Division 1

Town of Southern Shores  
Dare County

This Agreement is to allow Disaster Related Debris Removal by the Municipality during a State of Disaster or Imminent Threat of Disaster and/or a State of Emergency. The Municipality shall remove and dispose of disaster related debris on all released State Routes. The Municipality shall apply directly to FEMA for reimbursement of eligible debris removal costs.

Desert Wind Farm, LLC  
Pasquotank County  
36249.3694

This Project consists of the resurfacing SR 1352 (Brothers Lane). The Department shall be responsible for all phases of the Project. The Developer shall reimburse the Department 100% of the actual cost of all work performed by the Department. The estimated reimbursement is \$168,000.

Division 3

Sampson County Regional  
Medical Center  
Sampson County  
36249.3687

This Project consists of the installation crosswalk pavement markings on SR 1831 (Beaman Street) at the Sampson County Regional Medical Center driveway, approximately north of SR 1852 (E. Johnson Street). The Department shall be responsible for all phases of the Project. The Developer shall reimburse the Department 100% of the actual cost of all work performed by the Department. The estimated reimbursement is \$2,250.

City of Wilmington  
New Hanover County  
42534

This Project consists of the construction of curb extensions, traffic calming devices and concrete sidewalks on SR 1219 (17th Street) beginning at SR 1148 (Wrightsville Ave) to Chestnut Street (non-system). This Supplemental Agreement extends the completion date for the Project to May 31, 2018.

City of Jacksonville  
Onslow County  
3.106715  
3.206715

This Project consists of mowing along various state roadways in the Municipality. The Department shall reimburse the Municipality for the actual cost for labor and equipment not to exceed a maximum amount of \$13,105.92 for a minimum of (4) routine mowing cycles and (2) cleanup cycles or Six (6) cycles per year. This Agreement supersedes the prior board approval on August 4, 2016.

NCDOT November 3, 2016 Board of Transportation Agenda

Division 3, cont.

City of Wilmington  
New Hanover County  
3CR.20651.162

This Project consists of 2" milling and resurfacing of 17th Street (SR 2817) from Wrightsville Avenue (non-system) to Princess Place Drive (SR 1301). Work includes, but is not limited to replacement of signal loops, pavement markings, upgrade ADA items as needed. This Supplemental Agreement extends the completion date for the Project to May 31, 2018.

Division 7

Lidl US Operations, LLC  
Alamance County  
36249.3699

This Project consists of review and inspection of traffic signal upgrades at the intersection of SR 1226 (University Drive) and SR 1300 (Rural Retreat Road) in Burlington. The Developer shall reimburse the Department 100% of the cost of the Department's review and inspection of the signal. The estimated reimbursement is \$5,000.

Walker Holdings Group, LLC  
Alamance County  
36249.3695

This Project consists of review and inspection of traffic signal upgrades at the intersection of US 70 (South Church Street) and Delaney Drive in Burlington. The Developer shall reimburse the Department 100% of the cost of the Department's review and inspection of the signals. The estimated reimbursement is \$5,000.

Walker Holdings Group, LLC  
Alamance County  
36249.3697

This Project consists of review and inspection of traffic signal upgrades at the intersection of SR 1716 (Graham-Hopedale Road) and North Mebane Street in Burlington. The Developer shall reimburse the Department 100% of the cost of the Department's review and inspection of the signals. The estimated reimbursement is \$5,000.

MORCOR, LLC  
Guildford County  
36249.3698

This Project consists of review and inspection of a traffic signal installation at the intersection of SR 2523 (Yanceyville Road) and Loraine Street in Guildford County. The Developer shall reimburse the Department 100% of the cost of the Department's review and inspection of the signal. The estimated reimbursement is \$5,000.

NCDOT November 3, 2016 Board of Transportation Agenda

Division 7, cont.

NR Edge Property Owner, LLC  
Orange County  
36249.3630

This Project consists of review and inspection of traffic signal modification at the intersection of NC 86 and SR 1727 (Eubanks Road) and traffic signal installations at the intersection of SR 1727 (Eubanks Road) and Site Driveway #1 and Site Driveway #2. The Developer shall reimburse the Department 100% of the cost of the Department's review and inspection of the signals. The estimated reimbursement is \$15,000.

Division 8

Carolina Commercial  
Contractors  
Lee County  
36249.3689

This Project consists of the design review and inspection of the installation of a traffic signal at the intersection of NC 87 and Commerce Drive in Lee County. The Developer shall reimburse the Department 100% of the cost of the Department's review and inspection of the signal. The estimated reimbursement is \$5,000.

Division 9

Town of Kernersville  
Forsyth County  
36249.3696

This Project consists of the relocation, fabrication and installation of Hospital Directional signs at the Macy Grove/US 421 Interchange in Kernersville. The Municipality will pay a lump sum payment of \$8,000 and the Department agrees to cover any costs that exceed this amount. No funds will be returned to the Municipality.

Division 10

City of Concord  
Cabarrus County  
10.101315  
10.201315

This Agreement consists of routine mowing maintenance along six designated routes within the City of Concord for a combined total of 43.63 miles. The Department shall reimburse the Municipality for the actual cost of labor and equipment not to exceed a maximum amount of \$7,055.00 per year.

Town of Huntersville  
Mecklenburg County

This Project consists of modifications to the existing signal equipment at the intersection of NC 115 and Gilead Road (SR 2136) in Huntersville to provide generator back-up capacity. The Municipality shall be responsible for all phases of the Project and shall assume maintenance of the back-up generators.

NCDOT November 3, 2016 Board of Transportation Agenda

Division 10, cont.

Triangle, Inc  
Mecklenburg County  
36249.3700

This Project consists of the installation of a new traffic signal at the intersection of Salome Church Road (SR 2469) and Morehead Road/Ridge Road (SR 2467) in Charlotte. The Developer shall reimburse the Department 100% of the Department's review and inspection of the new signal. The estimated reimbursement is \$5,000.

Charlotte-Mecklenburg Utilities  
Mecklenburg County  
U-5008  
57500.3.FRA01T4A

This Project consists of an at grade separation on SR 2975 (East Sugar Creek Road) over Norfolk Southern (NS)/North Carolina Railroad (NCRR) Crossing No. 715 352H in Mecklenburg County. This Supplemental Agreement is for the Agency to reimburse the Department an additional \$55,667.32 for the additional design work on the Project. The total estimated reimbursement from the Agency is \$145,285.42.

Division 13

North Carolina Department of  
Cultural Resources, Division of  
Historic Site  
Buncombe County  
E-5504  
44115.1.FD1  
44115.3.FD1

This Project consists of the renovations of the Visitor Center at the Vance Birthplace State Historic Site on Reems Creek Road in Buncombe County. This Supplemental Agreement is to allow additional time for the Agency to close-out the Project. The Department will extend the completion date to 12/31/2016 in lieu of 7/1/2016.

Division 14

City of Hendersonville  
Henderson County  
EB-5537  
50052.1.FD1  
50052.3.FD1

This Project consists of the construction of the 3rd phase of the Oklawaha Greenway. This Supplemental Agreement extends the completion date for the Project to March 31, 2017 in lieu of September 30, 2016.

Town of Sylva  
Jackson County  
36249.3693

This Project consists of the design and installation of a Pedestrian Activated Rectangular Rapid Flash Beacon (RRFB) on Mill Street at Landis Street. The Department shall be responsible for all phases of the Project. The Municipality shall reimburse the Department 100% of the actual cost of all work performed by the Department. The estimated reimbursement is \$13,000.

**NCDOT November 2016 Board of Transportation Agenda**

**Approval of Municipal Street System Changes**

**Deletions from the State Highway System**

<b>Division</b>	<b>County</b>	<b>Municipality</b>	<b>Road</b>	<b>Termini</b>	<b>Length</b>
10	Union 2016_11_M001	Village of Marvin	SR 2836	To delete Belmont Lane (SR 2836)	0.77
			SR 2841	To delete Rock Water Court (SR 2841)	0.11
			SR 2840	To delete Streamside Lane (SR 2840)	0.21
			SR 2839	To delete Clearwood Court (SR 2839)	0.06
			SR 2838	To delete Pondview Court (SR 2838)	0.05
			SR 2835	To delete Canterfield Drive (SR 2835)	0.06

**Total Miles= 1.26 Miles**

## **NCDOT November 2016 Board of Transportation Agenda**

<b><u>No.</u></b>		<b><u>Enacted Page No.</u></b>
<b>1</b>	<b>Preliminary Right of Way Plans</b>	<b>R - 1 and R - 2</b>
<b>2</b>	<b>Final Right of Way Plans</b>	<b>R - 3</b>
<b>3</b>	<b>Approval of Conveyance of Wetland Mitigation Site</b>	<b>R - 4</b>
<b>4</b>	<b>Approval of Conveyance of Highway Right of Way Residues</b>	<b>R - 5</b>
<b>5</b>	<b>Approval of Conveyance of Surplus Highway Right of Way</b>	<b>R - 6</b>
<b>6</b>	<b>Release Easement Part Settlement R/W Claim</b>	<b>R - 7</b>
<b>7</b>	<b>Approval of Private Bridge on Highway Right of Way</b>	<b>R - 8</b>



### **Preliminary Right of Way Plans**

The Preliminary Right of Way Plans for the below projects, including Secondary Roads and Industrial Access Roads, provide for the construction, design, drainage and control of access as shown on the respective plans.

Based upon the recommendations of the Manager of the Right of Way Unit, the Board finds that such rights of way as shown on these preliminary plans and drawings, including existing public dedicated right of way, are for a public use and are necessary for the construction of said projects.

The rights of way for the location, construction, relocation, and control of access of highways embraced in the below projects shall be as shown in detail on the preliminary right of ways plans and drawings for said projects on file in the Right of Way Unit in the Department of Transportation in Raleigh.

The Board finds such right of way acquisition to be necessary and hereby authorizes the Right of Way Unit to acquire right of way on the below projects either by negotiation or by condemnation through the Attorney General's Office.

#### **(Division 4)**

**Halifax County; I.D. No. B-5665; Project No. 45620.2.1:**  
Bridge No. 138 over Little Fishing Creek on SR 1309 (Spruils Bridge Rd)

#### **(Division 6)**

**Cumberland County; I.D. No. W-5601FW; Project No. 50138.2.180:**  
NC 24/87 (Bragg Boulevard) from Odell to McKenzie

**Harnett County; I.D. No. W-5601CC; Project No. 50138.2.82:**  
Safety Improvements: SR 1229 (McDougal Rd) curve with culvert located East of SR 1251

**Cumberland County; I.D. No. U-2519BB; Project No. 34817.2.FR15:**  
Fayetteville Outer Loop from South of SR 1104 (Strickland Bridge Rd) to South of US 401

#### **(Division 7)**

**Rockingham County; I.D. No. B-4807; Project No. 38577.2.2:**  
Bridge No. 6 over the Haw River on SR 2426 (Cunningham Mill Road) Utilities only

Preliminary Right of Way Plans (continued)

(Division 8)

**Moore County; I.D. No. W-5601FH; Project No. 50138.2.165:**

NC 5 from SR 1103 (Sand Pit Road) to just past Habitat for Humanity

(Division 9)

**Davidson County; I.D. No. W-5601CF; Project No. 50138.2.85:**

Safety Improvements: I-85 Business from SR 1797 (Evans Rd) to SR 1963 (Moose Lodge Rd)

**Rowan County; I.D. No. B-4808; Project No. 38578.2.2:**

Bridge No. 141 over South Second Creek on SR 1004 (Stokes Ferry Road) Utilities only

(Division 10)

**Mecklenburg County; I.D. No. U-5114; Project No. 42376.2.1:**

Intersection of US 21 and Gilead Road

**Final Right of Way Plans**

Right of way acquisition in accordance with the preliminary right of way plans on file in the Right of Way Unit has been determined to be necessary for public use and was authorized by the Board. Certain changes in the right of way have necessitated alteration of the preliminary right of way plans. Final plans have been prepared and provide for the construction, design, drainage and control of access for these projects. The Board finds that such rights of way and control of access as shown on the final plans are for a public use and are necessary for construction. The sections of roads which were shown on the preliminary plans as sections of roads to be abandoned are hereby abandoned and removed from the State Highway System for Maintenance upon the completion and acceptance of the project.

The rights of way for the location, design and construction of highways embraced in the following projects shall be as shown in detail on the final plans for said projects as follows:

**(Division 3)****Project No. 17BP.3.R.28; New Hanover County; I.D. No. N/A:**

Grading, drainage, paving and culvert on Greenfield Lake Culvert with the right of way indicated upon the final plans for said project.

**(Division 7)****Project No. 46057.2.1; Rockingham County; I.D. No. B-5343:**

Grading, drainage, paving and structure on Bridge No. 169 pver Cascade Creel pm IS 311/NC 770 with the right of way indicated upon the final plans for said project.

**(Division 11)****Project No. 34518.2.FR3; Ashe County; I.D. No. R-2915C:**

Grading, drainage, paving, culverts and retaining walls on US 221 from North of South Fork New River to South of NC 194 with the right of way indicated upon the final plans for said project.

**Approval of Conveyance of Wetland Mitigation Site**

It is hereby resolved, based upon the recommendation of the Manager of the Right of Way Unit that the following highway right of way conveyances are approved:

**(Division 3)**

**Project 40237.2.1, R-3300 925, 926, and 927**

**Project 40191.2.1, U-4751**

**Hampstead Mitigation Site**

**Pender County**

The Department received a request for the disposal of a mitigation site of approximately 81.648 acres. The NC Wildlife Resources Commission (NCWRC) has requested that the Department transfer this property to them for the incorporation into the Holly Shelter Game Lands (HSGL). The NC Wildlife Resources Commission has agreed to this conveyance for no monetary consideration.

**Approval of conveyance of Highway Right of Way Residues**

It is hereby resolved, based upon the recommendation of the Manager of the Right of Way Unit that the following highway right of way conveyances are approved:

**(Division 2)**

**Project 34528.2.2, Parcel R-3307 059Z, US 70 from Four Lanes at Radio Island to US 70 North of Beaufort near SR 1429 (Olga Road)**

**Carteret County**

Conveyance of an approximate 26.468-acre landlocked residue area to Simpson Family Properties, LLC, the only interested adjacent owner, for the appraised value of \$24,500.00.

**(Division 6)**

**Project 34994.2.2, Parcels U-3849 060 and 902, SR 1363 (Elk Mill Road) from SR 1132 (Legion Road) to US 301/I-95 Business**

**Cumberland County**

Conveyance of an approximate 0.400-acre residue area to Dennis Craig Williams and spouse, Lynn B. Williams; and Charles Stuart Williams and spouse, Theresa M. Williams as part settlement for no monetary consideration.

**(Division 7)**

**Project 34802.2.3, Parcel U-2412B 117, SR 1486/SR 1421 (High Point Road) from SR 4228 (Vickrey Chapel Road) to SR 1424 (Hilltop Road)**

**Guilford County**

Conveyance of an approximate 0.501-acre residue area to Group Sedgefield, LLC, the highest bidder after advertisement, for the high bid amount of \$230,000.00.

**(Division 11)**

**Project 35015.2.1, Parcel U-4020 069, US 421 (King Street) from US 321 (Hardin Street) to East of NC 194 (Jefferson Road) in Boone**

**Watauga County**

Conveyance of an approximate 0.512-acre residue area to Dale & James Greene Investments, LLC, the highest bidder after advertisement, for the high bid amount of \$303,720.00.

**(Division 13)**

**Project 8.2890404, Parcel U-2711 010, SR 2170 (Oak Street Extension) from Young Street to US 221A (S. Broadway Street)**

**Rutherford County**

Conveyance of an approximate 0.310-acre residue area to Howard Clay Smith and wife, Robin Freeman Smith, the only interested adjacent owner, for the appraised value of \$600.00.

**Approval of conveyance of Surplus Highway Right of Way**

It is hereby resolved, based upon the recommendation of the Manager of the Right of Way Unit that the following highway right of way conveyances are approved:

**(Division 1)**

**Project 8.11233, Parcel 071, US 158 and First Street (SR 1172)**

**Dare County**

Abandonment of an approximate 0.487-acre permanent drainage easement area to Mildred H. Roughton for no monetary consideration.

**(Division 4)**

**Project 8.1311801, Southeastern Quadrant of I-95 and NC 50 East**

**Johnston County**

Abandonment of an approximate 0.084-acre permanent easement area to Leath Company, LLC, a Virginia Limited Liability Company; for no monetary consideration.

**(Division 10)**

**Project 8.1672402, Parcel 050, US 521 (Johnston Road) at Intersection with Providence Road West in Charlotte**

**Mecklenburg County**

Conveyance of an approximate 0.610-acre surplus right of way area to 521 Partners, LLC for the enhancement value of \$360,000.00.

**(Division 12)**

**Project 6.821016, Parcel 004, SR 1245 (Medical Park Road)**

**Iredell County**

Conveyance of an approximate 0.810-acre surplus right of way area and the abandonment of a 0.060-acre permanent drainage easement for the enhancement value of \$137,100.00.

**Release Easement Part Settlement R/W Claim**

It is hereby resolved, based upon the recommendation of the Manager of the Right of Way Unit that the following highway right of way conveyances are approved:

**(Division 13)**

**Project R-2519A WBS Element 35609.2.1 Yancey County:**

The Department has agreed to release 0.020 ac existing easement to Wilson Family Partnership, LTD., the original and underlying fee owners as part settlement of their Right of Way claim with the Department. Therefore, this is to request authority for Manager of Right of Way to execute appropriate instrument.

**Approval of Private Bridge on Highway Right of Way**

It is hereby resolved, based upon the recommendation of the Manager of the Right of Way Unit, that the following highway conveyance be approved:

**(Division 3)****SR 1219 (17<sup>th</sup> Street), Wilmington, New Hanover County:**

In accordance with G. S. 136-18(37), the Board of Transportation authorizes the Department to permit an Encroachment of the right of way for the construction of a private bridge across SR 1219 (17<sup>th</sup> Street) located in Wilmington in New Hanover County. This pedestrian overpass will be used as a connection between a newly-constructed parking deck on the west side of 17<sup>th</sup> Street to the existing New Hanover Regional Medical Center facilities on the east side of 17<sup>th</sup> Street. Locations, plans, and specifications for the bridge shall be approved by the Department and the encroachment shall not unreasonable interfere with or obstruct the public use of SR 1219 (17<sup>th</sup> Street) and shall be subject to all rules, regulations, and conditions of the Department for encroachments and including all conditions mandated under G. S. 136-18(37).

**APPROVAL OF PRIVATE BRIDEG ON HIGHWAY RIGHT OF WAY 1 PROJECT(S) \$0.00**

**R-ITEM SUMMARY                      24 PROJECT(S)                      TOTAL: \$1,055,920.00**



**NORTH CAROLINA BOARD OF TRANSPORTATION  
RECOMMENDED ALLOCATION OF HIGHWAY MAINTENANCE APPROPRIATIONS  
FISCAL YEAR 2016 - 2017**

There will be no Maintenance Allocation submitted to the Board for approval at the November 2016 Board meeting.

October 17, 2016

MEMORANDUM TO: Board of Transportation

FROM: Transportation Planning Branch

SUBJECT: Submission of the Nash County Comprehensive Transportation Plan for Mutual Adoption by the Board of Transportation

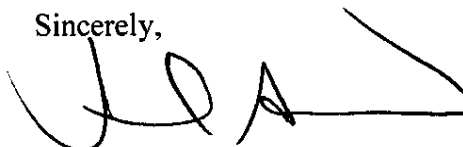
The Transportation Planning Branch has worked cooperatively with Nash County, as well as the affected municipalities, on an amendment to the Nash County Comprehensive Transportation Plan (CTP). The plan was adopted by Nash County on March 3, 2016, the Town of Dortches on March 14, 2016, the Town of Middlesex on March 7, 2016 and the Town of Red Oak on July 11, 2016. The Coastal Plain RPO endorsed the plan on January 27, 2016.

This plan amendment is based on an analysis of existing and projected travel and land use, public involvement and field investigations of recommended improvements. This amendment includes recommended upgrades to US 64, improvements to NC 43, and makes technical corrections to the pedestrian recommendations from the 2012 Nash County CTP. Maps and documentation for the amendment are located on the web at:

[https://connect.ncdot.gov/projects/planning/Pages/CTP-Details.aspx?study\\_id=Nash County](https://connect.ncdot.gov/projects/planning/Pages/CTP-Details.aspx?study_id=Nash%20County)

The Transportation Planning Branch recommends the mutual adoption of the Nash County Comprehensive Transportation Plan as shown on the attached map, with a recommendation date of October 13, 2016.

Sincerely,

A handwritten signature in black ink, appearing to read 'Jamal Alavi', with a long horizontal stroke extending to the right.

Jamal Alavi, P.E.  
Manager, Transportation Planning Branch

Attachment

November 3, 2016

## Adopted by:

Town of Bailey	Town of Red Oak
Date: 09/19/2011	Date: 07/11/2016
Town of Castalia	Town of Sharpsburg
Date: 09/06/2011	Date: 10/04/2011
Town of Dortches	Town of Spring Hope
Date: 03/14/2016	Date: 09/12/2011
Town of Middlesex	Town of Whitakers
Date: 03/07/2016	Date: 09/12/2011
Town of Momeyer	Nash County
Date: 09/12/2011	Date: 03/07/2016
	NCDOT
	Date:

## Endorsed by:

Upper Coastal Plain RPO  
Date: 11/09/2011  
Revision:

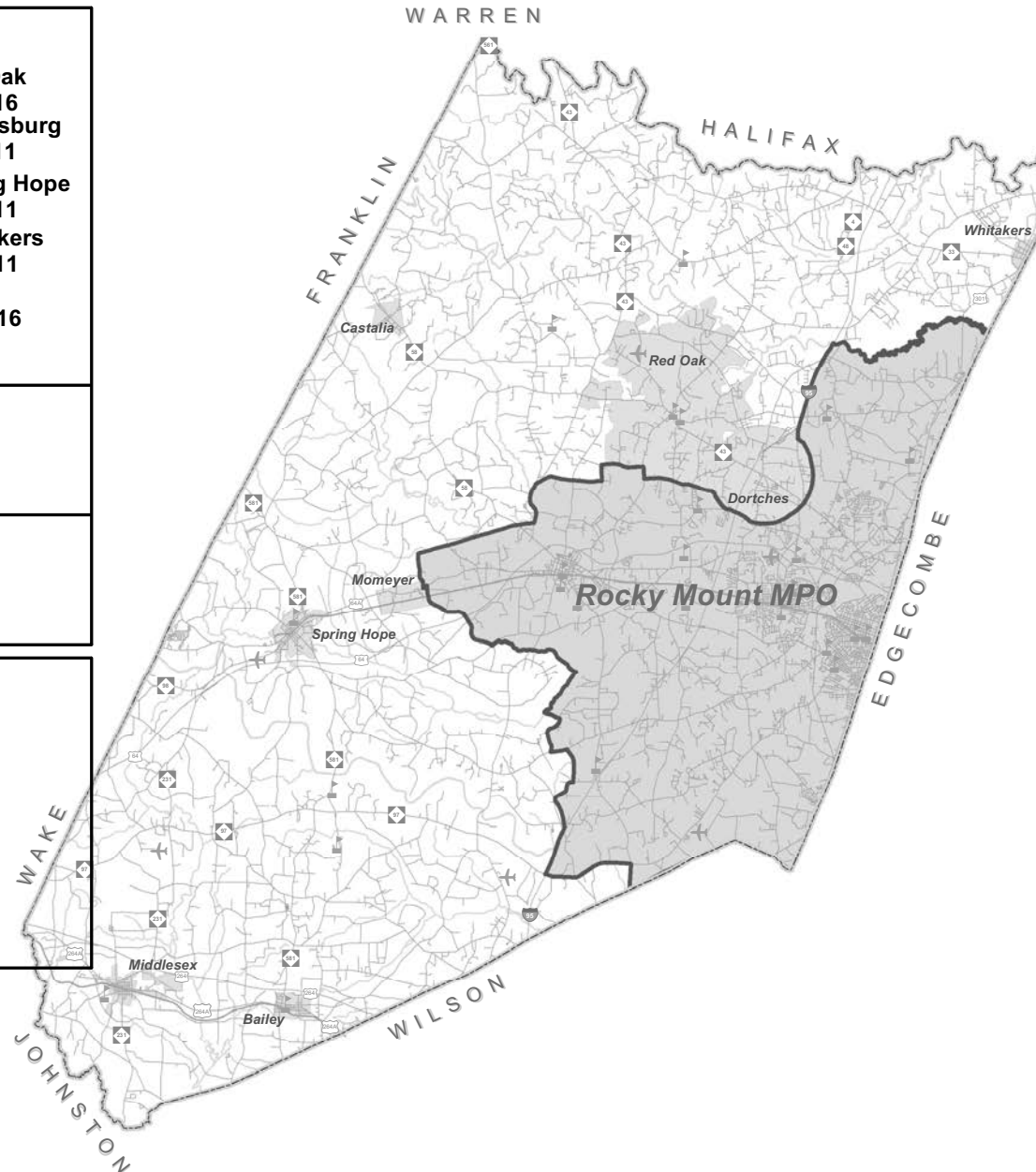
## Recommended by:

Transportation Planning Branch  
Date: 11/10/2011  
Revision:

## NOTES:

Revision of August 30, 2011 Plan  
Adopted by:  
Town of Dortches  
Town of Red Oak  
Town of Middlesex  
Nash County  
NCDOT

Sharpsburg now a member of  
Rocky Mount MPO



## Adoption Map



## Nash County Comprehensive Transportation Plan

RECOMMENDED

Revision: August 10, 2015

- Sheet 1 Adoption Sheet  
Sheet 2 Highway Map  
Sheet 3 Public Transportation and Rail Map  
Sheet 4 Bicycle Map  
Sheet 5 Pedestrian Map

## Legend

- County Boundary
- Rocky Mount MPO
- Municipal Boundary
- Roads
- Railroad
- Schools
- Rivers and Streams
- Airports

Miles  
0 1.25 2.5 5

Figure 1, Sheet 1 of 5

Base map date: November 2010



**NCDOT November 2016 Board of Transportation Agenda  
Approval of Mobility Funds for Construction Projects**

<b>Town/ County Division PROJ. CATEGORY</b>	<b>Project Description</b>	<b>Estimated Cost</b>
Davidson Co. Div. 9 I-2304AD STATEWIDE	WBS 34156.3.6 I-85 from north of NC 150 to US 29-52-70/I-85 Business. \$75,316,335.00 has previously been approved for construction using NC Mobility Funds. Funds need to be decreased (\$3,399,198.39). WBS will be closed. <b>This is a Strategic Transportation Investments Transition project.</b>	-\$3,399,198.39
<b>ITEM V SUMMARY</b>	<b>1 PROJECT</b>	<b>-\$3,399,198.39</b>

*These items are for informational purposes only and subject to future NC Board of Transportation approval. It is anticipated that these items will be considered for NC Board of Transportation approval in 30 days.*

**ADDITIONS to the Transit 2016-2025 STIP**

STIP #	Transit Partner	DESCRIPTION	match	FUND	FY16 (000)	FY17 (000)	FY18 (000)	FY19 (000)	FY20 (000)	FY21 (000)	FY22 (000)
TG-6179	City of Salisbury	AVL System	FBUS	5339	224						
			Local	L	56						
TD-5279	City of Greensboro	Renovation of ticketing, call center, and waiting areas of the J. Douglas Galyon Bus Depot	FBUS	5339		960					
			Local	L		240					

**MODIFICATIONS to the Transit 2016-2025 STIP**

STIP #	Transit Partner	DESCRIPTION	match	FUND	FY16 (000)	FY17 (000)	FY18 (000)	FY19 (000)	FY20 (000)	FY21 (000)	FY22 (000)
TO-5149	Iredell County	Operating Assistance for the Iredell County Area Transportation System (ICATS)	FUZ	5307	200	210	210	210	210		
			Local	L	200	210	210	210	210		
TO-5135	City of Salisbury	Operating	FUZ	5307	285	285	285	285	285	285	285
			State	SMAP	215	215	215	215	215	215	215
			Local	L	160	160	160	160	160	160	160
		CONTINUED			<b>FY23 (000)</b>						
			FUZ	5307	285						
			State	SMAP	215						
			Local	L	160						
TG-5260	City of Salisbury	Routine Capital – ADA Services	FUZ	5307	63	63	63	63	63	63	63
			Local	L	16	16	16	16	16	16	16
		CONTINUED			<b>FY23 (000)</b>						
			FUZ	5307	63						
			Local	L	16						
TG-5232	City of Salisbury	Preventive Maintenance – Bus Facilities	FUZ	5307	334	334	334	334	334	334	334
			Local	L	83	83	83	83	83	83	83
		CONTINUED			<b>FY23 (000)</b>						
			FUZ	5307	334						
			Local	L	83						

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TG-5233	City of Salisbury	Bus Stop Shelters, Benches, Shop Equipment, Spare Parts, Engines, Farebox, Service Vehicles, etc.	FUZ	5307	224	224	224	224	224	224	224
			Local	L	56	56	56	56	56	56	56
		CONTINUED			FY23 (000)						
			FUZ	5307	224						
			Local	L	56						
TS-5133	City of Salisbury	Safety & Security Min. 1% set aside	FUZ	5307	7	7	7	7	7	7	7
		CONTINUED			FY23 (000)						
			FUZ	5307	7						
			Local	L	7						
TP-5150	City of Salisbury	Planning Assistance - 5303	FMPL	5303	30	30	30	30	30	30	30
			State	S	4	4	4	4	4	4	4
			Local	L	4	4	4	4	4	4	4
		CONTINUED			FY23 (000)						
			FUZ	5307	30						
			State	S	4						
			Local	L	4						
TA-5181	City of Salisbury	Replacement Buses	FUZ	5307	1464	1464	1464	1464			
			State	S	183	183	183	183			
			Local	L	183	183	183	183			
TO-5139	City of Salisbury	Operating – Free Fare	FUZ	CMAQ	34	34	34	34	34	34	34
			Local	L	8	8	8	8	8	8	8
		CONTINUED			FY23 (000)						
			FUZ	CMAQ	34						
			Local	L	8						
TA-5182	City of Salisbury	Expansion Vehicle	FBUS	5339	44	44					
			Local	L	11	11					

Item I-1B, 12 Projects, Total Federal/State funds \$18,468,000

REVISIONS TO THE 2016-2025 STIP  
HIGHWAY PROGRAM  
STIP ADDITIONS

**DIVISION 10**

* EB-5829 MECKLENBURG PROJ.CATEGORY DIVISION	MATTHEWS, CONSTRUCT FOUR MILE CREEK GREENWAY CROSSING UNDER SR 3448 (SOUTH TRADE STREET) <u>ADD PROJECT AT REQUEST OF MPO</u>	CONSTRUCTION	FY 2017 - \$1,114,000 (STBGDA) FY 2017 - \$279,000 (L) \$1,393,000
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* U-5987 UNION PROJ.CATEGORY DIVISION	INDIAN TRAIL, UNIONVILLE-INDIAN TRAIL ROAD AND SARDIS ROAD. CONSTRUCT INTERSECTION IMPROVEMENTS. <u>ADD PROJECT AT REQUEST OF MPO</u>	RIGHT-OF-WAY  CONSTRUCTION	FY 2017 - \$270,000 (STBGDA) FY 2017 - \$90,000 (L) FY 2018 - \$1,680,000 (STBGDA) FY 2018 - \$560,000 (L) \$2,600,000
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**DIVISION 11**

* R-5805 CALDWELL PROJ.CATEGORY DIVISION	CAJAH'S MOUNTAIN, INTERSECTION OF CONNELLY SPRINGS ROAD AND CAJAH'S MOUNTAIN ROAD. CONSTRUCT LEFT TURN LANE. <u>ADD PROJECT AT REQUEST OF MPO.</u>	UTILITIES  CONSTRUCTION	FY 2017 - \$80,000 (STBGDA) FY 2017 - \$20,000 (S(M)) FY 2017 - \$620,000 (STBGDA) FY 2017 - \$155,000 (S(M)) \$875,000
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**DIVISION 12**

* EB-5825 CATAWBA PROJ.CATEGORY DIVISION	NEWTON, CONSTRUCT WEST A STREET BIKE AND PEDESTRIAN IMPROVEMENTS. <u>PROJECT ADDED AT REQUEST OF MPO.</u>	CONSTRUCTION	FY 2018 - \$1,520,000 (STBGDA) FY 2018 - \$380,000 (L) \$1,900,000
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* EB-5826 CATAWBA PROJ.CATEGORY DIVISION	HICKORY, MAIN AVENUE NE/NW, LENOIR-RYHNE BOULEVARD TO 9TH STREET NW. CONSTRUCT PEDESTRIAN WALKWAY AND BRIDGE OVER NC 127. <u>PROJECT ADDED AT REQUEST OF MPO.</u>	CONSTRUCTION	FY 2018 - \$3,600,000 (STBGDA) FY 2018 - \$900,000 (L) \$4,500,000
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* EB-5828 CATAWBA PROJ.CATEGORY DIVISION	CLAREMONT, CENTENNIAL BOULEVARD, NORTH OXFORD STREET TO NORTH LOOKOUT STREET. CONSTRUCT SIDEWALK. <u>PROJECT ADDED AT REQUEST OF MPO.</u>	CONSTRUCTION	FY 2018 - \$458,000 (STBGDA) FY 2018 - \$115,000 (L) \$573,000
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\* INDICATES FEDERAL AMENDMENT

**REVISIONS TO THE 2016-2025 STIP  
HIGHWAY PROGRAM  
STIP ADDITIONS**

**DIVISION 12**

* I-3819C	BROOKDALE DRIVE-US 21 CONNECTOR	RIGHT-OF-WAY	FY 2018 -	\$1,063,000	(STBGDA)
IREDELL	<u>ADD PROJECT AT REQUEST OF MPO.</u>		FY 2018 -	\$477,000	(L)
PROJ.CATEGORY		CONSTRUCTION	FY 2018 -	\$820,000	(STBGDA)
DIVISION			FY 2018 -	\$368,000	(L)
				\$2,728,000	

**DIVISION 13**

* EB-5827	FONTA FLORA TRAIL, FONTA FLORA STATE TRAIL,	ENGINEERING	FY 2017 -	\$160,000	(STBGDA)
BURKE	INTERSECTION OF LAUREL RIDGE COURT AND NORTH		FY 2017 -	\$84,000	(L)
PROJ.CATEGORY	POWERHOUSE ROAD TO THE PROPOSED HARRIS	RIGHT-OF-WAY	FY 2018 -	\$410,000	(STBGDA)
DIVISION	WHISNANT TRAILHEAD AT THE INTERSECTION OF		FY 2018 -	\$216,000	(L)
	HARRY WHISNANT ROAD AND COBB ROAD.			\$870,000	
	CONSTRUCT BICYCLE AND PEDESTRIAN FACILITY.				
	<u>PROJECT ADDED AT REQUEST OF MPO.</u>				

**STIP MODIFICATIONS****DIVISION 2**

B-4863	SR 1335 (ISLAND ROAD), REPLACE LIFT SPAN ON	RIGHT-OF-WAY	FY 2018 -	\$1,325,000	(T)
CARTERET	BRIDGE 150073 AND BRIDGE 150096 OVER THE	UTILITIES	FY 2018 -	\$191,000	(T)
PROJ.CATEGORY	STRAITS AT HARKERS ISLAND.	CONSTRUCTION	FY 2020 -	\$11,167,000	(T)
DIVISION	<u>TO ALLOW ADDITIONAL TIME FOR PLANNING AND</u>		FY 2021 -	\$11,167,000	(T)
	<u>DESIGN, DELAY RIGHT-OF-WAY FROM FY 17 TO FY 18.</u>		FY 2022 -	\$11,166,000	(T)
				\$35,016,000	

**DIVISION 3**

U-5508	NC 24 (LEJEUNE BOULEVARD), NC 53 (WESTERN	RIGHT-OF-WAY	FY 2019 -	\$420,000	(T)
ONslow	BOULEVARD) IN JACKSONVILLE. UPGRADE	CONSTRUCTION	FY 2021 -	\$2,400,000	(T)
PROJ.CATEGORY	INTERSECTION AND DRAINAGE.			\$2,820,000	
STATEWIDE	<u>TO COMBINE SCHEDULE WITH STIP PROJECT U-5736,</u>				
	<u>DELAY RIGHT-OF-WAY FROM FY 17 TO FY 19 AND</u>				
	<u>CONSTRUCTION FROM FY 18 TO FY 21.</u>				

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\* INDICATES FEDERAL AMENDMENT

Thursday, November 03, 2016



**REVISIONS TO THE 2016-2025 STIP  
HIGHWAY PROGRAM  
STIP MODIFICATIONS**

**DIVISION 4**

* EB-5507 WILSON PROJ.CATEGORY TRANSITION	WILSON, SR 1184 (TARBORO STREET), FAIRVIEW AVENUE TO VINSON-BYNUM SCHOOL. ADD SIDEWALK. <u>TO ALLOW ADDITIONAL TIME FOR PLANNING AND DESIGN BY THE CITY. DELAY CONSTRUCTION FROM FY 16 TO FY 17.</u>	CONSTRUCTION	FY 2017 - \$225,000 (TAP) \$225,000
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**DIVISION 5**

B-4750 FRANKLIN PROJ.CATEGORY HWY FUNDS	SR 1719 (BRANNON ROAD), REPLACE BRIDGE 340090 OVER NORRIS CREEK. <u>ACCELERATE RIGHT-OF-WAY FROM FY 19 TO FY 17 AND CONSTRUCTION FROM FY 20 TO FY 18 PER LATEST DIVISION SCHEDULE.</u>	RIGHT-OF-WAY CONSTRUCTION	FY 2017 - \$120,000 (HFB) FY 2018 - \$1,200,000 (HFB) \$1,320,000
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B-5102 PERSON PROJ.CATEGORY HWY FUNDS	US 158, REPLACE BRIDGE 720011 OVER SOUTH HYCO CREEK. <u>TO ALLOW ADDITIONAL TIME FOR R/W ACQUISITION, DELAY CONSTRUCTION FROM FY 17 TO FY 18</u>	CONSTRUCTION	FY 2018 - \$2,200,000 (HFB) \$2,200,000
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B-5130 WAKE PROJ.CATEGORY DIVISION	SR 1321 (AVENT FERRY ROAD), REPLACE BRIDGE 910318 OVER LAKE JOHNSON IN RALEIGH. <u>TO ALLOW COORDINATION WITH B-5556 CITY LET SCHEDULE, DELAY RIGHT OF WAY FROM FY 16 TO FY 17 AND CONSTRUCTION FROM FY 17 TO FY 18.</u>	RIGHT-OF-WAY CONSTRUCTION	FY 2017 - \$314,000 (STPON) FY 2018 - \$4,200,000 (STPON) \$4,514,000
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B-5145 PERSON PROJ.CATEGORY HWY FUNDS	SR 1343 (JOHN BREWER ROAD), REPLACE BRIDGE 720050 OVER SOUTH HYCO CREEK. <u>TO ALLOW ADDITIONAL TIME TO COMPLETE THE DESIGN PHASE, DELAY RIGHT-OF-WAY FROM FY 17 TO FY 18. PROJECT TO BE LET WITH B-5322.</u>	RIGHT-OF-WAY CONSTRUCTION	FY 2018 - \$300,000 (HFB) FY 2018 - \$3,000,000 (HFB) \$3,300,000
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B-5556 WAKE PROJ.CATEGORY DIVISION	LAKE DAM ROAD, REPLACE BRIDGE 910490 OVER WALNUT CREEK IN RALEIGH. <u>TO ALLOW ADDITIONAL TIME FOR THE CITY TO COMPLETE THE DESIGN PHASE, DELAY RIGHT-OF- WAY FROM FY 16 TO FY 17.</u>	RIGHT-OF-WAY CONSTRUCTION	FY 2017 - \$60,000 (STPOFF) FY 2017 - \$15,000 (L) FY 2017 - \$600,000 (STPOFF) FY 2017 - \$150,000 (L) \$825,000
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\* INDICATES FEDERAL AMENDMENT

REVISIONS TO THE 2016-2025 STIP  
HIGHWAY PROGRAM  
STIP MODIFICATIONS

**DIVISION 5**

B-5677 GRANVILLE PROJ.CATEGORY HWY FUNDS	SR 1724 (NORTHSIDE ROAD), REPLACE BRIDGE 380042 OVER LEDGE CREEK. <u>TO ALLOW ADDITIONAL TIME FOR PLANNING AND DESIGN, DELAY CONSTRUCTION FROM FY 17 TO FY 18.</u>	RIGHT-OF-WAY CONSTRUCTION	FY 2017 - \$80,000 (HFB) FY 2018 - \$775,000 (HFB) \$855,000
B-5682 GRANVILLE PROJ.CATEGORY HWY FUNDS	SR 1400 (GRASSY CREEK - VIRGILINA ROAD), REPLACE BRIDGE 380129 OVER BEECH CREEK. <u>TO ALLOW ADDITIONAL TIME FOR PLANNING AND DESIGN, DELAY CONSTRUCTION FROM FY 17 TO FY 18.</u>	RIGHT-OF-WAY CONSTRUCTION	FY 2017 - \$75,000 (HFB) FY 2018 - \$720,000 (HFB) \$795,000
B-5687 WARREN PROJ.CATEGORY HWY FUNDS	SR 1620 (LICKSKILLET ROAD), REPLACE BRIDGE 920043 OVER SHOCCO CREEK. <u>TO ALLOW ADDITIONAL TIME FOR PLANNING AND DESIGN, DELAY CONSTRUCTION FROM FY 17 TO FY 18.</u>	RIGHT-OF-WAY CONSTRUCTION	FY 2017 - \$115,000 (HFB) FY 2018 - \$1,150,000 (HFB) \$1,265,000
C-5163 WAKE PROJ.CATEGORY EXEMPT	CRABTREE CREEK GREENWAY, CONSTRUCT A CONNECTOR BETWEEN CAPITAL AREA GREENWAY SYSTEM AND THE MORRISVILLE GREENWAY SYSTEM IN CARY. <u>TO ALLOW ADDITIONAL TIME FOR PROCESSING OF FUNDING AUTHORIZATION REQUEST, DELAY CONSTRUCTION FROM FY 16 TO FY 17.</u>	CONSTRUCTION	FY 2017 - \$3,630,000 (CMAQ) FY 2017 - \$908,000 (L) \$4,538,000
* C-5183B DURHAM PROJ.CATEGORY EXEMPT	SR 1945 (S. ALSTON AVE.), SR 1171 (RIDDLE RD.) TO CAPPS ST. <u>AT REQUEST OF TRANSPORTATION PLANNING BRANCH AND MPO ADD RIGHT-OF-WAY IN FY 17 NOT PREVIOUSLY PROGRAMMED, AND DELAY CONSTRUCTION FROM FY 17 TO FY18.</u>	RIGHT-OF-WAY CONSTRUCTION	FY 2017 - \$79,000 (CMAQ) FY 2017 - \$20,000 (L) FY 2018 - \$565,000 (CMAQ) FY 2018 - \$141,000 (L) \$805,000
C-5569 GRANVILLE PROJ.CATEGORY EXEMPT	VARIOUS, CITY OF OXFORD. CONSTRUCT SIDEWALK AND CROSSWALK ENHANCEMENTS AT VARIOUS LOCATIONS. <u>TO ALLOW TOWN ADDITIONAL TIME FOR RIGHT-OF- WAY ACQUISITION, DELAY CONSTRUCTION FROM FY 16 TO FY 17.</u>	CONSTRUCTION	FY 2017 - \$184,000 (CMAQ) FY 2017 - \$46,000 (L) \$230,000

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\* INDICATES FEDERAL AMENDMENT

**REVISIONS TO THE 2016-2025 STIP  
HIGHWAY PROGRAM  
STIP MODIFICATIONS**

**DIVISION 5**

* I-5700	I-40, SR 3015 (AIRPORT BOULEVARD). REVISE	RIGHT-OF-WAY	FY 2019 -	\$920,000	(NHP)
WAKE	INTERCHANGE AND CONSTRUCT AUXILIARY LANE ON I-	CONSTRUCTION	FY 2020 -	\$2,875,000	(NHP)
PROJ.CATEGORY	40 WESTBOUND FROM SR 3015 (AIRPORT		FY 2021 -	\$2,875,000	(NHP)
STATEWIDE	BOULEVARD) TO I-540.			\$6,670,000	

REVISE DESCRIPTION TO ADD AUXILIARY LANE ON I-40 WESTBOUND AT REQUEST OF PRECONSTRUCTION.

I-5819	I-85, NORTH OF NC 56 IN GRANVILLE COUNTY TO US	CONSTRUCTION	FY 2017 -	\$1,000,000	(NHPIM)
GRANVILLE	158 IN VANCE COUNTY. DRAINAGE REHABILITATION.			\$1,000,000	
VANCE	<u>TO ALLOW ADDITIONAL TIME FOR PLANNING AND</u>				
PROJ.CATEGORY	<u>DESIGN, DELAY CONSTRUCTION FROM FY 16 TO FY 17</u>				
STATEWIDE					

I-5843	I-85, NORTH OF NC 56 IN GRANVILLE COUNTY TO US	CONSTRUCTION	FY 2017 -	\$2,000,000	(NHPIM)
GRANVILLE	158 IN VANCE COUNTY. STRUCTURE AND SIGNING			\$2,000,000	
VANCE	REHABILITATION.				
PROJ.CATEGORY	<u>TO ALLOW ADDITIONAL TIME TO COMPLETE</u>				
STATEWIDE	<u>STRUCTURE PLANS, DELAY CONSTRUCTION FROM FY 16 TO FY 17.</u>				

**DIVISION 7**

R-4707	US 29; SR 4771 (REEDY FORK PARKWAY); SR 2526	RIGHT-OF-WAY	FY 2019 -	\$3,220,000	(T)
GUILFORD	(SUMMIT AVENUE), NORTH OF SR 2641 (BRYAN PARK	UTILITIES	FY 2019 -	\$982,000	(T)
PROJ.CATEGORY	ROAD) TO US 29 / SR 4771 (REEDY FORK PARKWAY)			\$4,202,000	
REGIONAL	INTERCHANGE IN GREENSBORO. IMPROVE ROADWAY,				
	MODIFY INTERCHANGE AND REPLACE BRIDGE 400360.				

REVISE SOUTHWEST TERMINUS AND ROUTE DESCRIPTION TO REFLECT CORRECT PLANNING/ENVIRONMENTAL SCOPE.

Y-4807B	LOWDERMILK STREET SYKES AVENUE, PINE STREET	RIGHT-OF-WAY	FY 2017 -	\$800,000	(STBGDA)
GUILFORD	CROSSING CLOSURE AND LOWDERMILK STREET /		FY 2017 -	\$160,000	(L)
PROJ.CATEGORY	SYKES AVENUE REALIGNMENT IN GREENSBORO.	CONSTRUCTION	FY 2018 -	\$1,100,000	(O)
DIVISION	<u>AT REQUEST OF CITY AND RAIL DIVISION, DELAY</u>			\$2,060,000	
	<u>RIGHT-OF-WAY FROM FY 16 TO FY 17 AND</u>				
	<u>CONSTRUCTION FROM FY 17 TO FY 18.</u>				

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It is anticipated that these items will be considered for NC Board of Transportation approval in 30 days.

\* INDICATES FEDERAL AMENDMENT

REVISIONS TO THE 2016-2025 STIP  
HIGHWAY PROGRAM  
STIP MODIFICATIONS

**DIVISION 8**

EB-5521	NC 134 (NORTH MAIN STREET); SR 1005 (SOUTH MAIN, SR 1323 (OKEEWEMEE ROAD) TO BARNHILL STREET IN TROY. CONSTRUCT SIDEWALKS.	CONSTRUCTION	FY 2017 -	\$595,000	(STPEB)
MONTGOMERY				\$595,000	
PROJ.CATEGORY	<u>TO ALLOW ADDITIONAL TIME FOR TOWN TO DECIDE</u>				
TRANSITION	<u>WHETHER TO RE-LET PROJECT, DELAY</u>				
	<u>CONSTRUCTION FROM FY 16 TO FY 17.</u>				

**DIVISION 10**

C-5503	US 601 NC 24/NC 27, US 601 AND NC 24/NC 27 IN MIDLAND. CONSTRUCT SIDEWALKS.	ENGINEERING	FY 2017 -	\$11,000	(CMAQ)
CABARRUS			FY 2017 -	\$3,000	(L)
PROJ.CATEGORY	<u>TO ALLOW ADDITIONAL TIME FOR PLANNING, DELAY</u>	CONSTRUCTION	FY 2017 -	\$101,000	(CMAQ)
EXEMPT	<u>CONSTRUCTION FROM FY 16 TO FY 17</u>		FY 2017 -	\$25,000	(L)
				\$140,000	
C-5533	CHARLOTTE, SR 5469 (SHOPTON ROAD) AND SR 1156 (BEAM ROAD) IN CHARLOTTE. CONSTRUCT ROUNDABOUT.	RIGHT-OF-WAY	FY 2017 -	\$129,000	(CMAQ)
MECKLENBURG			FY 2017 -	\$300,000	(STBGDA)
PROJ.CATEGORY	<u>TO ALLOW ADDITIONAL TIME FOR RIGHT-OF-WAY</u>	CONSTRUCTION	FY 2017 -	\$121,000	(L)
DIVISION	<u>ACQUISITION, DELAY RIGHT-OF-WAY FROM FY 16 TO</u>		FY 2018 -	\$867,000	(CMAQ)
	<u>FY 17 AND CONSTRUCTION FROM FY 17 TO FY 18</u>		FY 2018 -	\$384,000	(STBGDA)
			FY 2018 -	\$482,000	(L)
				\$2,283,000	
C-5538	CHARLOTTE, INTERSECTION OF TUCKASEEGEE-BERRYHILL-THRIFT ROADS IN CHARLOTTE. CONSTRUCT A TRAFFIC CIRCLE.	ENGINEERING	FY 2017 -	\$240,000	(L)
MECKLENBURG		RIGHT-OF-WAY	FY 2017 -	\$50,000	(CMAQ)
PROJ.CATEGORY	<u>TO ALLOW ADDITIONAL TIME FOR RIGHT-OF-WAY</u>		FY 2017 -	\$250,000	(STBGDA)
DIVISION	<u>ACQUISITION, DELAY RIGHT-OF-WAY FROM FY 16 TO</u>	CONSTRUCTION	FY 2017 -	\$98,000	(L)
	<u>FY 17 AND CONSTRUCTION FROM FY 17 TO FY 18</u>		FY 2018 -	\$1,797,000	(CMAQ)
			FY 2018 -	\$1,053,000	(STBGDA)
			FY 2018 -	\$712,000	(L)
				\$4,200,000	
C-5543	SUNSET ROAD, SUNSET ROAD, I-77 TO STATESVILLE ROAD IN CHARLOTTE. CONSTRUCT SIDEWALKS ON SOUTH SIDE AND INSTALL SIDEWALK ON THE I-77 OVERPASS.	CONSTRUCTION	FY 2017 -	\$1,073,000	(CMAQ)
MECKLENBURG			FY 2017 -	\$358,000	(L)
PROJ.CATEGORY	<u>TO ALLOW ADDITIONAL TIME FOR RIGHT OF WAY,</u>			\$1,431,000	
EXEMPT	<u>DELAY CONSTRUCTION FROM FY 16 TO FY 17</u>				

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\* INDICATES FEDERAL AMENDMENT

**REVISIONS TO THE 2016-2025 STIP  
HIGHWAY PROGRAM  
STIP MODIFICATIONS**

**DIVISION 10**

EB-4717 STANLY PROJ.CATEGORY TRANSITION	LOCUST, CONSTRUCT BIKE/PEDESTRIAN TRAIL ALONG TOWN SEWER EASEMENTS IN LOCUST. <u>TO ALLOW ADDITIONAL TIME FOR PLANNING DELAY CONSTRUCTION FROM FY 16 TO FY 17</u>	CONSTRUCTION	FY 2017 - \$250,000 (STPEB) \$250,000
EB-5783 MECKLENBURG PROJ.CATEGORY DIVISION	MATTHEWS, SAM NEWELL ROAD MULTI-USE PATH, RICE ROAD TO CROWN POINT ELEMENTARY SCHOOL. CONSTRUCT GREENWAY. <u>TO ALLOW ADDITIONAL TIME FOR PLANNING PER REQUEST FROM MPO. DELAY RIGHT-OF-WAY FROM FY 17 TO FY 18 AND CONSTRUCTION FROM FY 18 TO FY 19</u>	RIGHT-OF-WAY  CONSTRUCTION	FY 2018 - \$107,000 (STBGDA) FY 2018 - \$27,000 (L) FY 2019 - \$213,000 (STBGDA) FY 2019 - \$53,000 (L) \$400,000
* P-5705B MECKLENBURG PROJ.CATEGORY REGIONAL	CHARLOTTE, CHARLOTTE GATEWAY STATION <u>ADD PRELIMINARY ENGINEERING IN FY 17 AND CONSTRUCTION IN FY 17 NOT PREVIOUSLY PROGRAMMED AT THE REQUEST OF THE MPO</u>	ENGINEERING CONSTRUCTION	FY 2017 - \$9,500,000 (STBGDA) FY 2017 - \$25,000,000 (DP) FY 2017 - \$5,500,000 (STBGDA) FY 2017 - \$27,000,000 (T) \$67,000,000
* R-3329 MECKLENBURG UNION PROJ.CATEGORY TRANSITION	US 74 BYPASS, I-485 (CHARLOTTE OUTER LOOP) TO PROJECT R-2559 (US 74 MONROE BYPASS). MULTI- LANE FREEWAY ON NEW LOCATION. <u>MODIFY PROJECT FUNDING TO REFLECT UPDATED PLAN OF FINANCE. FUNDING REPRESENTS \$114 M IN REVENUE BONDS AND \$166.5 M IN TIFIA LOAN.</u>	CONSTRUCTION	FY 2017 - \$280,500,000 (BOND R) \$280,500,000
U-5703 UNION PROJ.CATEGORY STATEWIDE	US 74 (ROOSEVELT BLVD), SR 1514 (ROCKY RIVER ROAD) INTERSECTION. RECONFIGURE TO SUPERSTREET. <u>TO ALLOW ADDITIONAL TIME FOR DESIGN AT REQUEST OF THE CITY OF MONROE DELAY CONSTRUCTION FROM FY 17 TO 18</u>	RIGHT-OF-WAY CONSTRUCTION	FY 2017 - \$400,000 (T) FY 2018 - \$1,750,000 (T) \$2,150,000

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**REVISIONS TO THE 2016-2025 STIP  
HIGHWAY PROGRAM  
STIP MODIFICATIONS**

**DIVISION 11**

* R-5775	GRANITE FALLS, INTERSECTION OF US 321 AND SR	ENGINEERING	FY 2017 -	\$120,000	(STBGDA)
CALDWELL	1109 (PINWOODS ROAD EXTENSION). CONSTRUCT		FY 2017 -	\$30,000	(S(M))
PROJ.CATEGORY	INTERSECTION IMPROVEMENTS.	RIGHT-OF-WAY	FY 2017 -	\$280,000	(STBGDA)
EXEMPT	<u>ADD ENGINEERING AND RIGHT-OF-WAY IN FY 17 NOT</u>		FY 2017 -	\$70,000	(S(M))
	<u>PREVIOUSLY PROGRAMMED. DELAY CONSTRUCTION</u>	CONSTRUCTION	FY 2018 -	\$800,000	(STBGDA)
	<u>FROM FY 16 TO FY 18.</u>		FY 2018 -	\$200,000	(S(M))
				\$1,500,000	

**DIVISION 12**

C-5529	MOORESVILLE, INTERSECTION OF NC 115 AND FAITH	CONSTRUCTION	FY 2018 -	\$996,000	(CMAQ)
IREDELL	ROAD-CAMPUS LANE IN MOORESVILLE. REALIGN		FY 2018 -	\$750,000	(STBGDA)
PROJ.CATEGORY	FAITH ROAD TO TIE INTO EXISTING NC 115/CAMPUS		FY 2018 -	\$1,148,000	(L)
EXEMPT	LANE INTERSECTION AND CONSTRUCT DEDICATED			\$2,894,000	
	TURN LANES ON FAITH ROAD AND CAMPUS LANE				
	APPROACHES TO THE INTERSECTION.				
	<u>TO ALLOW ADDITIONAL TIME FOR RIGHT-OF-WAY</u>				
	<u>ACQUISITION, DELAY CONSTRUCTION FROM FY 17</u>				
	<u>TO FY 18</u>				
EB-5803	CONOVER, 1ST AVENUE AREA BICYCLE AND	CONSTRUCTION	FY 2017 -	\$561,000	(STBGDA)
CATAWBA	PEDESTRIAN IMPROVEMENTS.		FY 2017 -	\$141,000	(L)
PROJ.CATEGORY	<u>TO ALLOW ADDITIONAL TIME FOR PLANNING AND</u>			\$702,000	
DIVISION	<u>DESIGN, DELAY CONSTRUCTION FROM FY 16 TO FY 17</u>				
EB-5808	HICKORY, UPGRADE CURRENT PEDESTRIAN SIGNALS	CONSTRUCTION	FY 2017 -	\$322,000	(STBGDA)
BURKE	AND INSTALL NEW PEDESTRIAN SIGNALS.		FY 2017 -	\$80,000	(L)
CALDWELL	<u>TO ALLOW ADDITIONAL TIME FOR PLANNING AND</u>			\$402,000	
CATAWBA	<u>DESIGN, DELAY CONSTRUCTION FROM FY 16 TO FY 17</u>				
PROJ.CATEGORY					
DIVISION					

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\* INDICATES FEDERAL AMENDMENT

REVISIONS TO THE 2016-2025 STIP  
HIGHWAY PROGRAM  
STIP MODIFICATIONS

**DIVISION 12**

U-4700A	US 321, NORTH OF US 70 IN HICKORY TO US 321A	RIGHT-OF-WAY	FY 2018 -	\$21,500,000	(NHP)
BURKE	<u>ADD STBGDA AND LOCAL MATCH FUNDING IN FY 18</u>		FY 2019 -	\$21,500,000	(NHP)
CALDWELL	<u>NOT PREVIOUSLY PROGRAMMED AT THE REQUEST</u>	UTILITIES	FY 2018 -	\$2,000,000	(NHP)
CATAWBA	<u>OF THE MPO. FUNDS ARE DESIGNATED FOR US 321</u>	CONSTRUCTION	FY 2018 -	\$9,614,000	(HP)
PROJ.CATEGORY	<u>BRIDGE ENHANCEMENTS.</u>		FY 2018 -	\$19,486,000	(NHP)
STATEWIDE			FY 2018 -	\$2,800,000	(STBGDA)
			FY 2018 -	\$700,000	(L)
			FY 2019 -	\$29,100,000	(NHP)
			FY 2020 -	\$29,100,000	(NHP)
			FY 2021 -	\$29,100,000	(NHP)
				\$164,900,000	

**DIVISION 13**

EB-5807	MORGANTON, MORGANTON DOWNTOWN GREENWAY	CONSTRUCTION	FY 2017 -	\$1,335,000	(STBGDA)
BURKE	CONNECTOR.		FY 2017 -	\$334,000	(L)
PROJ.CATEGORY	<u>TO ALLOW ADDITIONAL TIME FOR PLANNING AND</u>			\$1,669,000	
DIVISION	<u>DESIGN, DELAY CONSTRUCTION FROM FY 16 TO FY 17</u>				

**DIVISION 14**

R-5207C	SR 1006 (HOWARD GAP ROAD), SR 1539 (JACKSON	RIGHT-OF-WAY	FY 2017 -	\$100,000	(T)
HENDERSON	ROAD) TO US 25 IN FLETCHER	CONSTRUCTION	FY 2018 -	\$850,000	(T)
PROJ.CATEGORY	<u>TO ALLOW ADDITIONAL TIME FOR DESIGN, DELAY</u>			\$950,000	
TRANSITION	<u>RIGHT-OF-WAY FROM FY 16 TO FY 17 AND</u>				
	<u>CONSTRUCTION FROM FY 17 TO FY 18</u>				

W-5506	NC 191, SR 1381 (MOUNTAIN ROAD) TO NORTH OF SR	RIGHT-OF-WAY	FY 2017 -	\$1,028,000	(STBG)
HENDERSON	1365 (NORTH RUGBY ROAD). CONSTRUCT A THREE-	CONSTRUCTION	FY 2017 -	\$1,975,000	(HSIP)
PROJ.CATEGORY	LANE SECTION BETWEEN N/S RUGBY AND COUNTRY		FY 2017 -	\$2,500,000	(STBG)
REGIONAL	ROAD, EXTEND RIGHT TURN LANE INTO WEST			\$5,503,000	
	HENDERSON SCHOOL, REVISE AND INSTALL				
	GUARDRAIL AT VARIOUS LOCATIONS, CONSTRUCT				
	ENTRANCE TO RUGBY MIDDLE SCHOOL ON NEW				
	LOCATION, AND CONSTRUCT PAVED SHOULDERS.				
	<u>TO ALLOW ADDITIONAL TIME FOR UTILITY PLANS</u>				
	<u>DELAY RIGHT-OF-WAY FROM FY 16 TO FY 17</u>				

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\* INDICATES FEDERAL AMENDMENT

REVISIONS TO THE 2016-2025 STIP  
HIGHWAY PROGRAM  
STIP DELETIONS

**DIVISION 12**

\* EB-5805

CATAWBA

PROJ.CATEGORY

DIVISION

HICKORY, CITYWALK - PHASE I. CONSTRUCT MULTI-  
PURPOSE PEDESTRIAN AND BICYCLE PATH.

ENGINEERING

FY 2016 - \$800,000 (STBGDA)

FY 2016 - \$200,000 (L)

\$1,000,000

DELETE AT THE REQUEST OF MPO.

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\* INDICATES FEDERAL AMENDMENT

Thursday, November 03, 2016



**DBE/MB/WB LETTING SUMMARY****Federal Contract Awards Summary****Oct 2016 let through Oct 2016 let  
Begin Federal Fiscal Year 2016/2017**

	Value Of Contract	DBE Goals Set		DBE Participation Submitted		DBE Participation Split			
						MB		WB	
	\$	\$	%	\$	%	\$	%	\$	%
<b>Monthly</b>	<b>16,584,066.44</b>	<b>756,471.99</b>	<b>4.6</b>	<b>829,352.90</b>	<b>5.0</b>	<b>0.00</b>	<b>0.0</b>	<b>829,352.90</b>	<b>5.0</b>
<b>FY to Date</b>	<b>16,584,066.44</b>	<b>756,471.99</b>	<b>4.6</b>	<b>829,352.90</b>	<b>5.0</b>	<b>0.00</b>	<b>0.0</b>	<b>829,352.90</b>	<b>5.0</b>

**State Contract Awards Summary****Jul 2016 let through Oct 2016 let  
State Fiscal Year 2016/2017**

	Value Of Contract	MB Goals Set		MB Participation Submitted		WB Goals Set		WB Participation Submitted	
	\$	\$	%	\$	%	\$	%	\$	%
<b>Monthly</b>	<b>26,900,287.08</b>	<b>843,887.98</b>	<b>3.1</b>	<b>791,831.50</b>	<b>2.9</b>	<b>1,210,366.59</b>	<b>4.5</b>	<b>1,936,318.90</b>	<b>7.2</b>
<b>FY to Date</b>	<b>160,603,377.66</b>	<b>3,763,502.29</b>	<b>2.3</b>	<b>4,426,359.10</b>	<b>2.8</b>	<b>6,092,208.63</b>	<b>3.8</b>	<b>8,556,757.20</b>	<b>5.3</b>

Letting Date(s): October 18, 2016

Award Date: Nov 03. 2016

Award Subject to BOT's Approval



## *Emergency Express Design-Build Bridge Replacement*

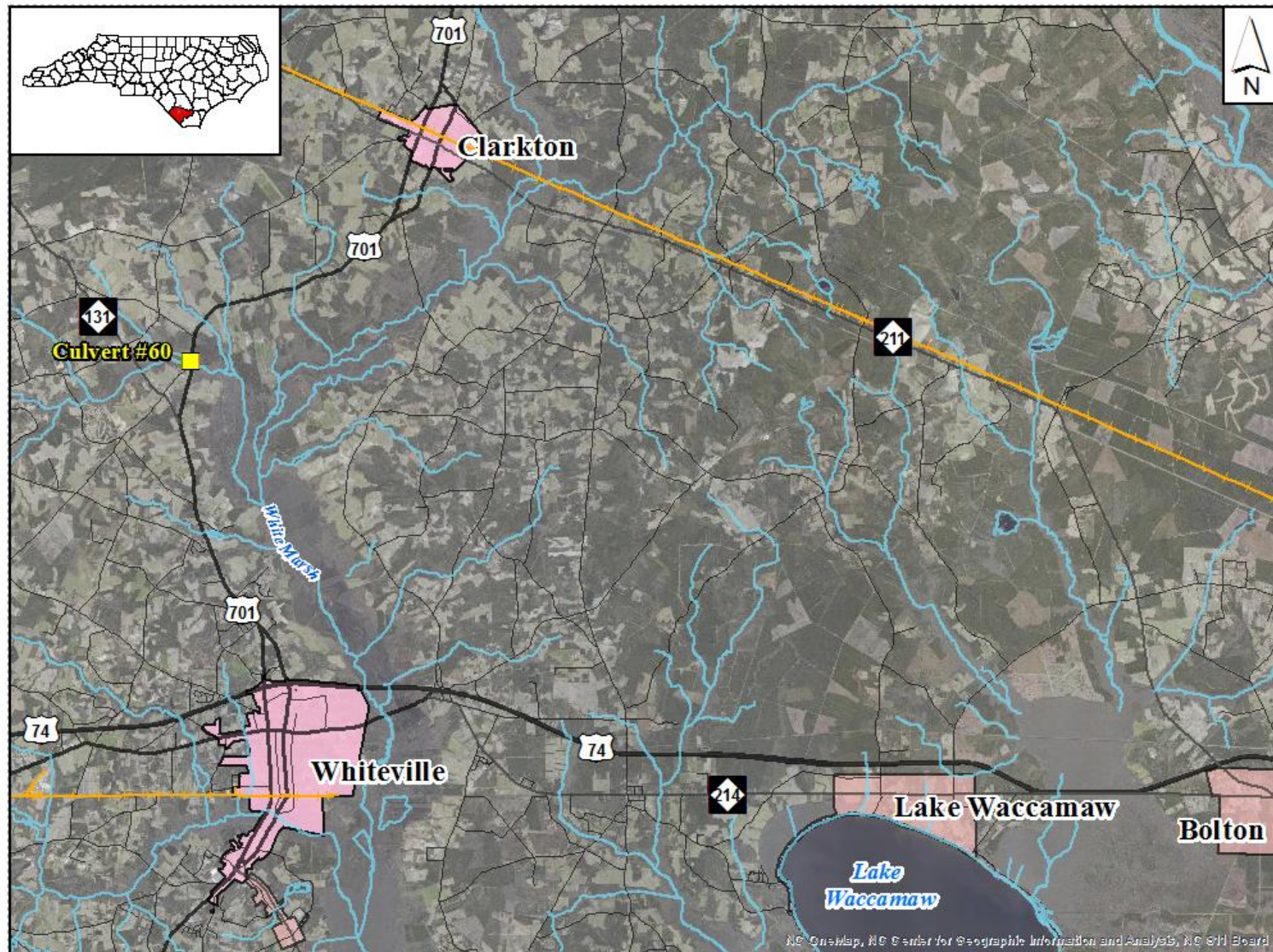
*NC Board of Transportation  
November 2, 2016*

Virginia Mabry, Manager  
Priority Projects Unit





# *Emergency Express Design-Build Replacement of Culvert 60 in Columbus County*



# *Columbus County Culvert 60 Before Hurricane Matthew*

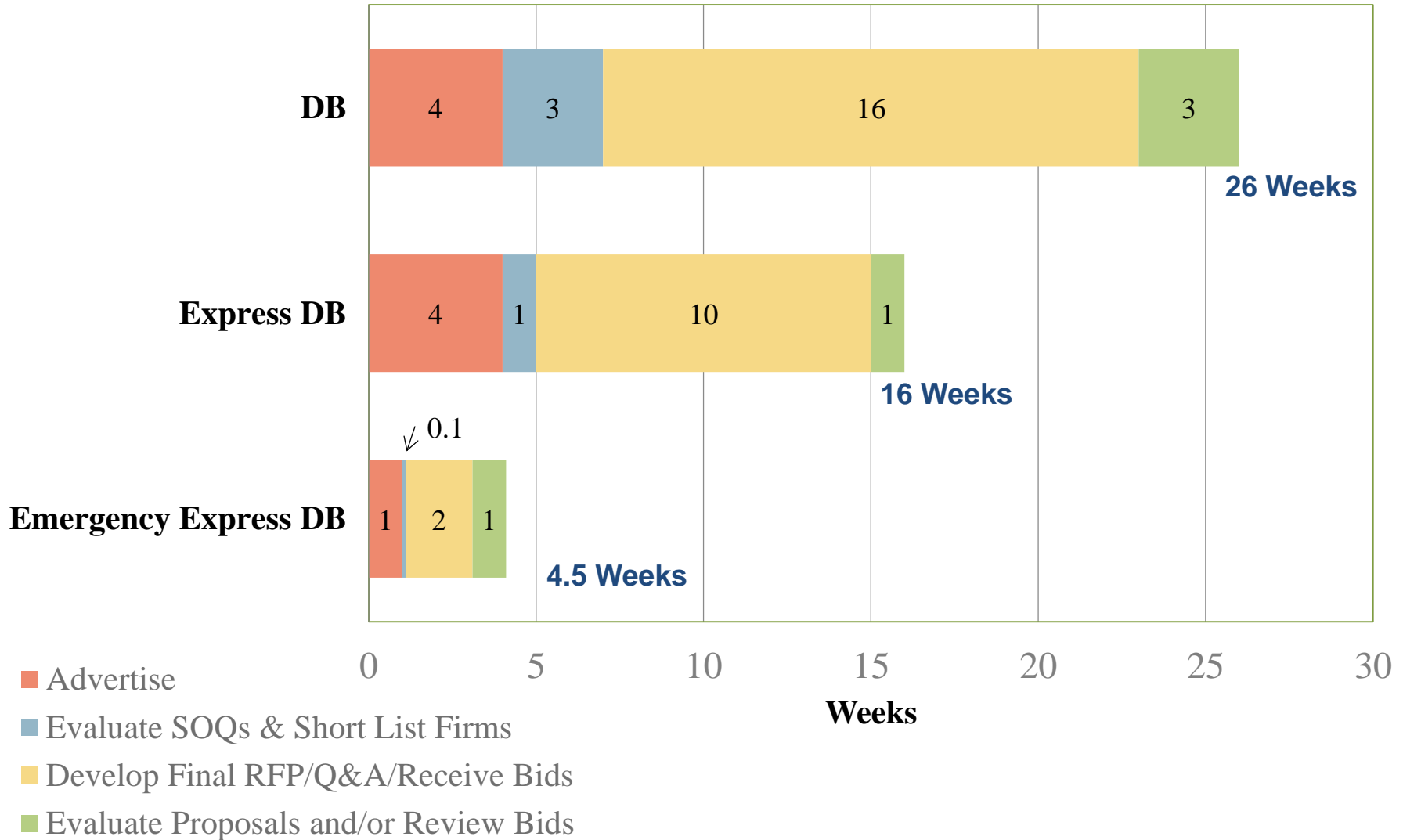




# *Columbus County Culvert 60 After Hurricane Matthew*



# Contract Development Timelines for Types of Design Build Projects



# *Procurement Timeline for Emergency Express Design-Build Culvert 60 in Columbus County*

Activity	Date
Project Advertised	October 25, 2016
Statements of Qualifications Due Back from Prospective Design-Build Teams	November 2, 2016
Announce Shortlisted Teams	November 3, 2016
Issue Industry Draft Request for Proposals	November 3, 2016
Meet with Short-listed Teams (Q&A)	November 9, 2016
Issue Final Request for Proposals	November 14, 2016
Price Proposals Due	November 22, 2016
Open Price Proposals	November 22, 2016

# *Express Design-Build*

- No Technical Proposals or Technical Presentations required
- Low bid, as opposed to best value
- To mitigate risk, pay items were developed for the Team to bid:
  - Bridge length (per foot)
  - Foundation length (per foot)
  - Interior bent caps (per each)
  - End bents (per each)
  - Right of way acquisition services (per parcel)
  - Design and construction for bridges (lump Sum)
  - Optional Alternate Lump Sum for multi-span bridges





## *Sample Express Design-Build Bridge Scope Table*

Structure Number	Site Description	Out- Out Width (ft)	Fill Face to Fill Face Length (ft)	# of Spans	End Bent #1 Foundation Length (ft)	End Bent #2 Foundation Length (ft)	Interior Bent Foundation Length (ft)	Foundation Type
770026	SR 1955 over Ten Mile Swamp	33	125	2	85	85	90	Steel H-Piles @ End and Interior Bents
770223	SR 1303 over Gum Swamp	33	85	2	80	80	85	Steel H-Piles @ End and Interior Bents
770413	SR 1323 over Little Ramp Swamp	33	55	1	70	70	N/A	Steel H-Piles @ End
770414	SR 1323 over Little Ramp Swamp	33	85	2	80	80	85	Steel H-Piles @ End and Interior Bents
770432	SR 1157 over Back Swamp Canal	33	85	2	80	80	85	Steel H-Piles @ End and Interior Bents
770433	SR 1160 over Back Swamp	33	90	3	70	70	75	Steel H-Piles @ End and Interior Bents

# *Express Design-Build Advantages*

- Single point of contact for program management
- Rapid procurement
- Far less investment by contractors and firms pre-bid (less risky business model)
- Can move quickly, with all pre-bid activities completed and procurement within 9 months of identifying a site.



**After**

**After**



50 contracts awarded to date  
with 3 more to be let in  
November, representing:

- 379 Bridges
- 90 Culverts



# *Questions?*







November 2, 2016

*Financial Update  
As of September 2016*

David Tyeryar, Chief Financial Officer



# Financial Update

## SFYTD 2017 as compared SFYTD 2016

Dollars in Millions	<u>September 16</u>	<u>September 15</u>	Year to Date		
			<u>September 16</u>	<u>September 15</u>	<u>\$ Change</u>
Revenue Collections	\$ 540	\$ 508	\$ 1,455	\$ 1,295	\$ 160
Expenditures	<u>554</u>	<u>450</u>	<u>1,406</u>	<u>1,254</u>	<u>152</u>
Net Change	\$ (14)	\$ 58	\$ 49	\$ 41	\$ 8
	<u>September 16</u>	<u>September 15</u>			
Cash Balances:					
Trust Fund	\$ 1,448	\$ 1,170			
Highway Fund*	<u>296</u>	<u>307</u>			
Totals	<u>\$ 1,744</u>	<u>\$ 1,477</u>			

\*Excludes bond proceeds held by Trustee & GARVEE Debt Service Reserve



Unaudited Financial Report

Transportation

# Revenue Summary September 2016

## (\$ in Millions)

	September 2016	September 2015	Year Over Year				SFY Budget	
			2016-2017 Actual	2015-2016 Actual	\$	%	Annual Budget	%
<b>State &amp; Federal Receipts:</b>								
Highway Fund *	\$ 202.0	\$ 174.4	\$ 564.2	\$ 523.6	\$ 40.6	8%	2,048.7	28%
Highway Trust Fund *	132.3	114.8	384.5	343.0	41.6	12%	1,371.3	28%
Total State Funds	334.3	289.2	948.8	866.5	82.2	9%	\$ 3,420.0	28%
Federal Funds/Participation	154.8	215.8	365.5	392.4	(27.0)	-7%	1,257.7	29%
GARVEE Reimbursement/NCTA	50.7	3.0	141.0	35.8	105.2			
Total	\$ 539.9	\$ 508.0	\$ 1,455.3	\$ 1,294.8	\$ 160.5	12%	\$ 4,677.7	31%
	September 2016	September 2015	Year Over Year				SFY Budget	
			2016-2017 Actual	2015-2016 Actual	\$	%	Annual Budget	%
<b>* Memo</b>								
<b>Highway Fund &amp; Trust Fund Details</b>								
Motor Fuel Taxes	\$ 175.5	\$ 174.0	\$ 499.2	\$ 507.4	\$ (8.2)	-2%	\$ 1,782.8	28%
Highway Use Tax	68.6	61.9	200.3	183.9	16.3	9%	659.8	30%
DMV/Other Revenue	88.9	52.7	246.7	174.0	72.8	42%	974.4	25%
Investment Income	1.3	0.6	2.5	1.2	1.3	110%	3.0	85%
Total	\$ 334.3	\$ 289.2	\$ 948.8	\$ 866.5	\$ 82.2	9%	\$ 3,420.0	28%



# Expenditure Summary September 2016

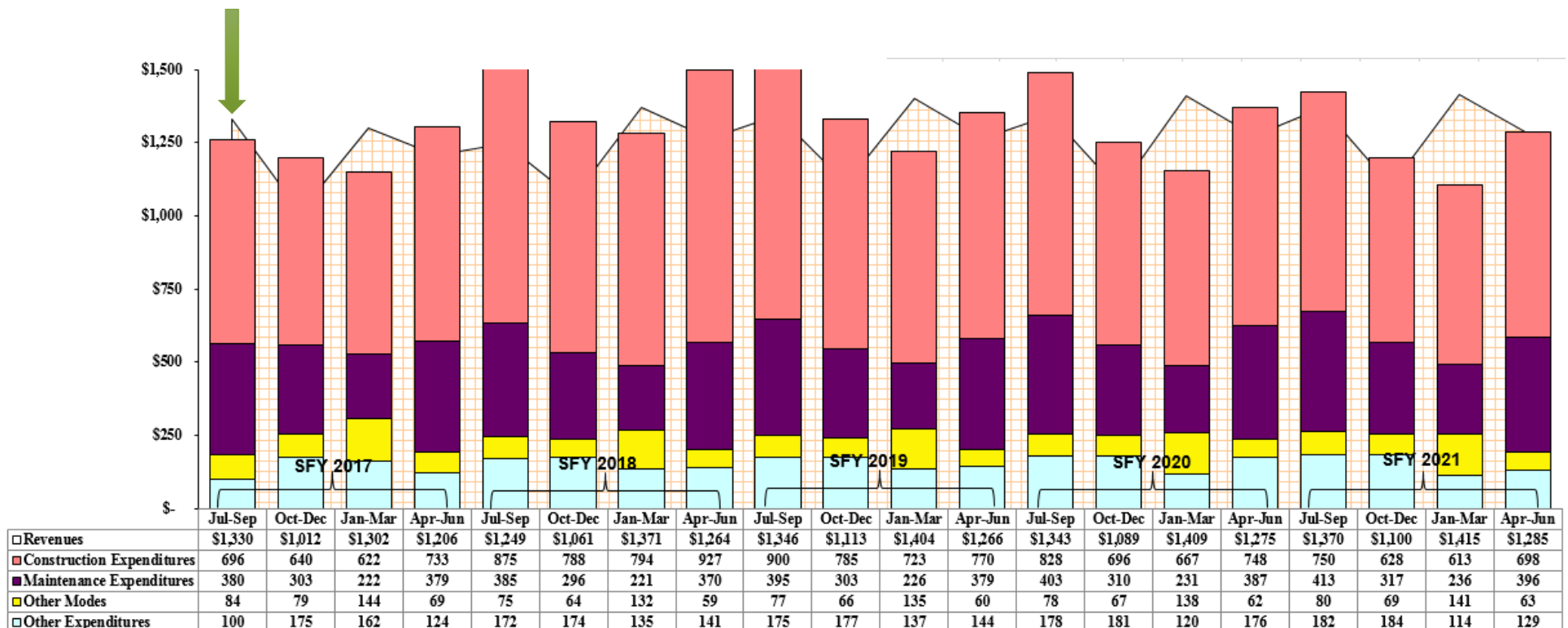
(\$ in millions)

			Year Over Year				SFY Annual Budget	
	Sep-16	Sep-15	2016-2017 Actual	2015-2016 Actual	\$	%	2016-2017 Budget	%
<b>State &amp; Federal Funded Programs:</b>								
Construction	\$ 216.0	\$ 182.6	\$ 671.8	\$ 571.6	\$ 100.2	18%	\$ 2,304.7	29%
Maintenance	128.0	120.7	380.4	359.4	21.0	6%	1,293.0	29%
Public Transportation	14.4	7.3	27.2	20.8	6.4	31%	126.9	21%
Other Modal/Other Programs	17.7	9.2	43.2	32.5	10.7	33%	231.9	19%
Administration	24.2	22.0	4.2	22.9	(18.7)	NA	316.9	1%
Municipal Aid	73.6	73.9	73.6	73.9	(0.3)	0%	147.5	50%
Transfers to Other Agencies	3.8	0.9	11.1	2.4	8.7	NA	47.3	23%
Total Expenditures	\$ 477.6	\$ 416.6	\$ 1,211.4	\$ 1,083.4	\$ 128.0	12%	\$ 4,468.2	27%
GARVEE/NCTA/Special Initiatives	\$ 76.7	\$ 33.7	\$ 195.0	\$ 170.8	\$ 24.2		209.4	



# 60 Month Cash Model

## Revenue & Expenditure Projections as of September 2016

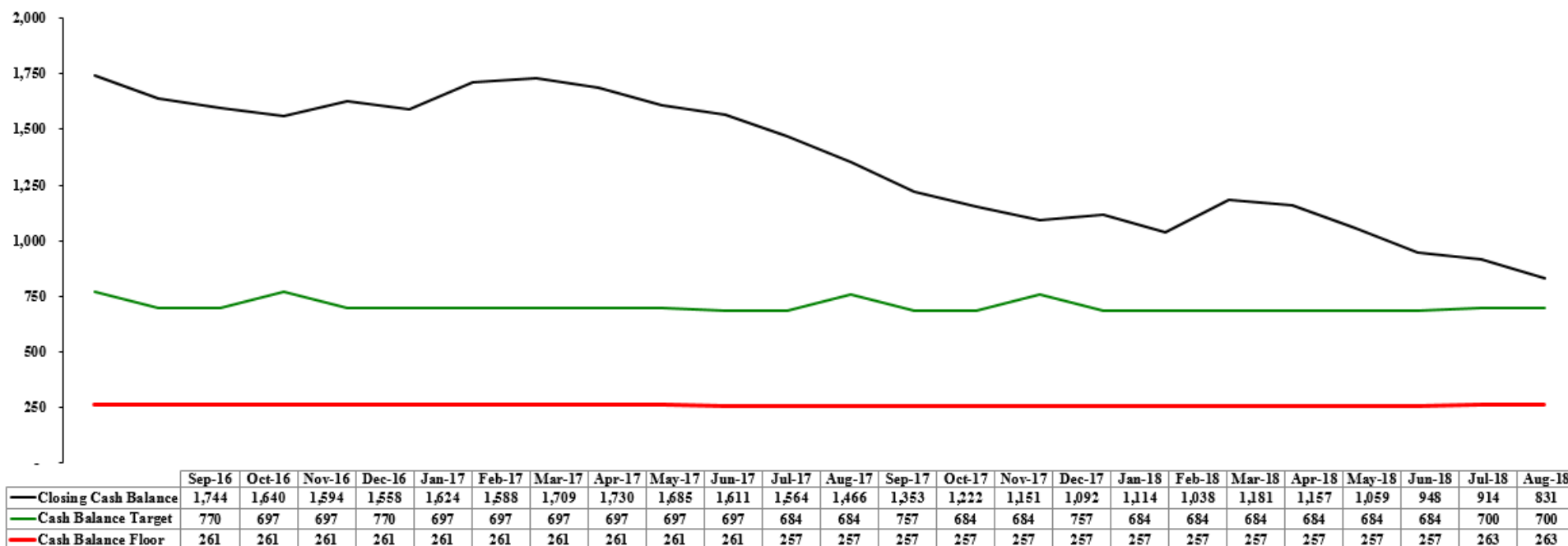


Unaudited Financial Report  
Transportation



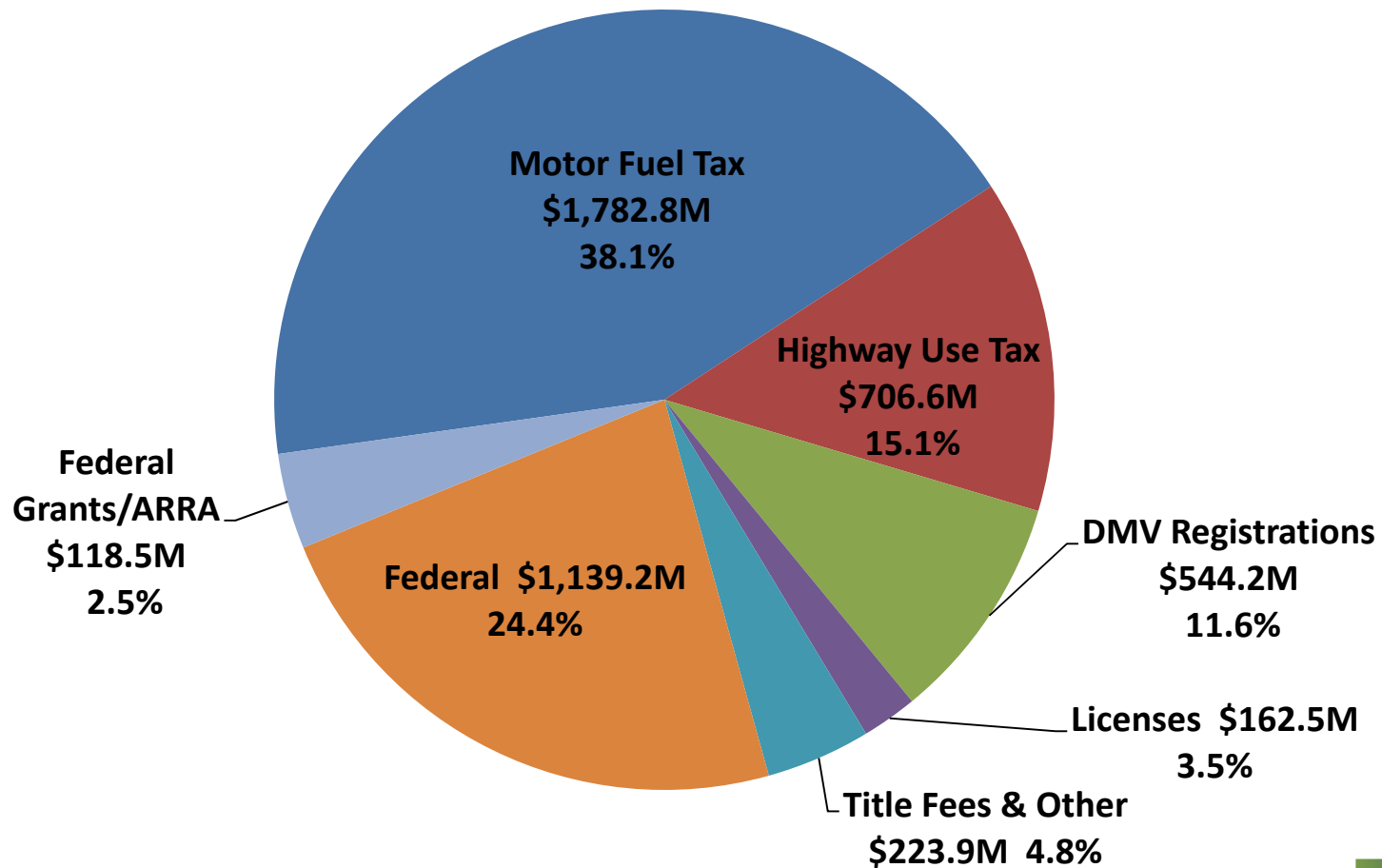
# 24 Month Cash Model

## Cash Projections as of September 2016



# NCDOT Revenue Sources

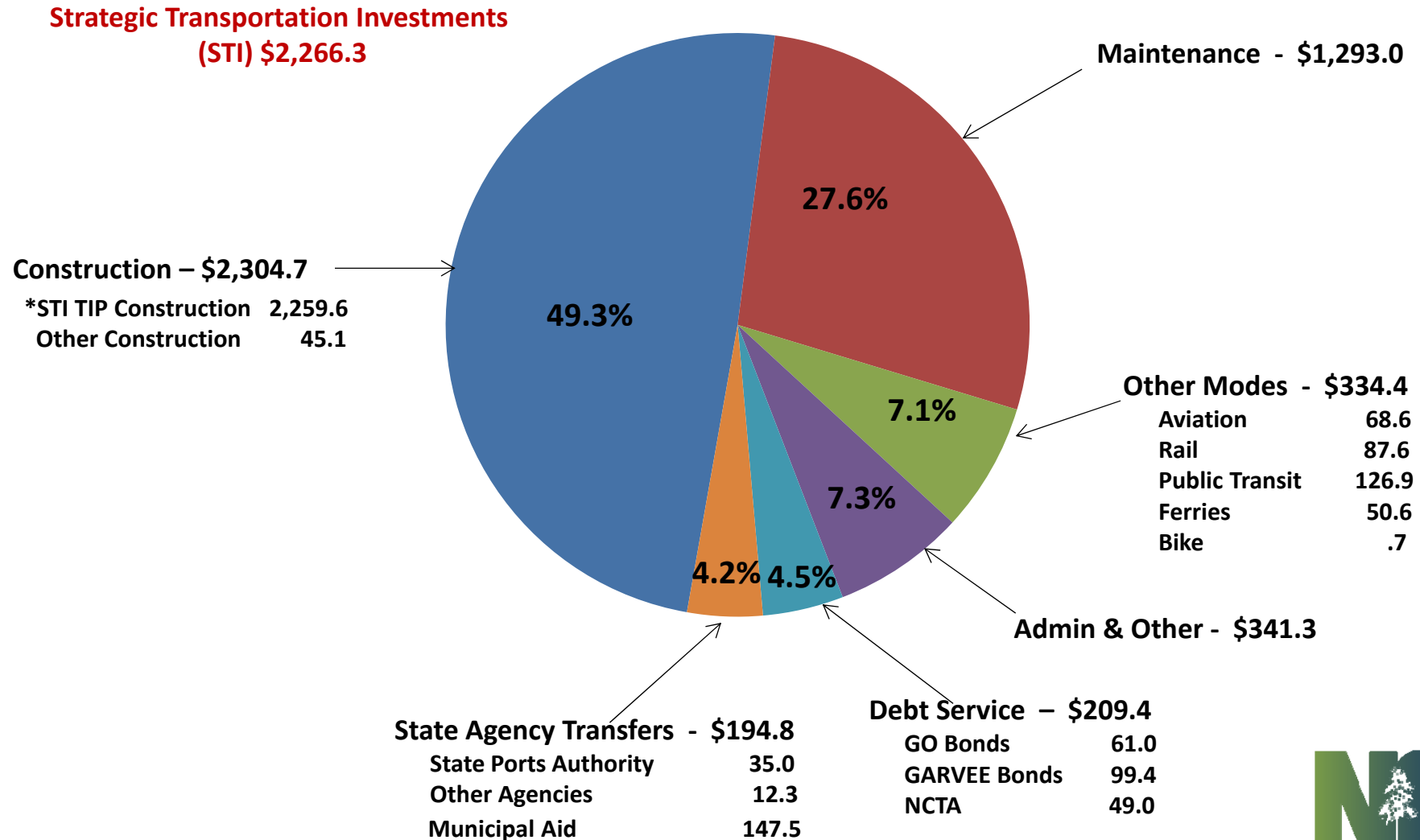
## SFY2017 - \$4.7 Billion



# Uses of 2016-17 NCDOT Appropriations

## Total Funding = \$4.7 Billion

(Excludes Receipt Supported Funding of \$0.1B)



(\$ in millions)

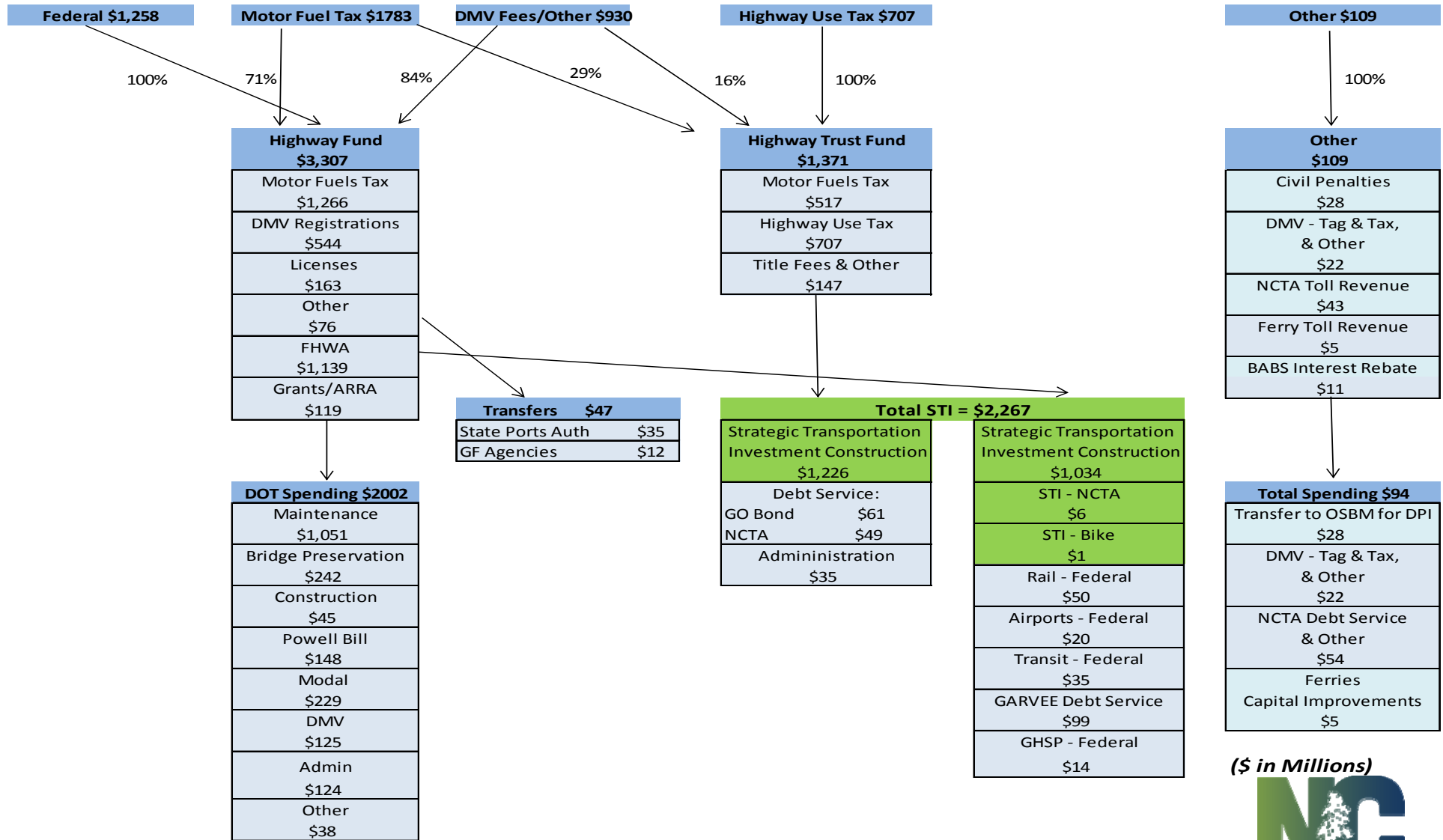


Unaudited Financial Report

Transportation

# SFY2017 NCDOT Sources and Uses

## Total Funding = \$4.8 Billion



(Includes Receipt Supported Funding of \$0.1B)



Unaudited Financial Report  
Transportation



Board of Transportation November 2, 2016

*Product Evaluation Program Awareness*

Ben Johnson, PE

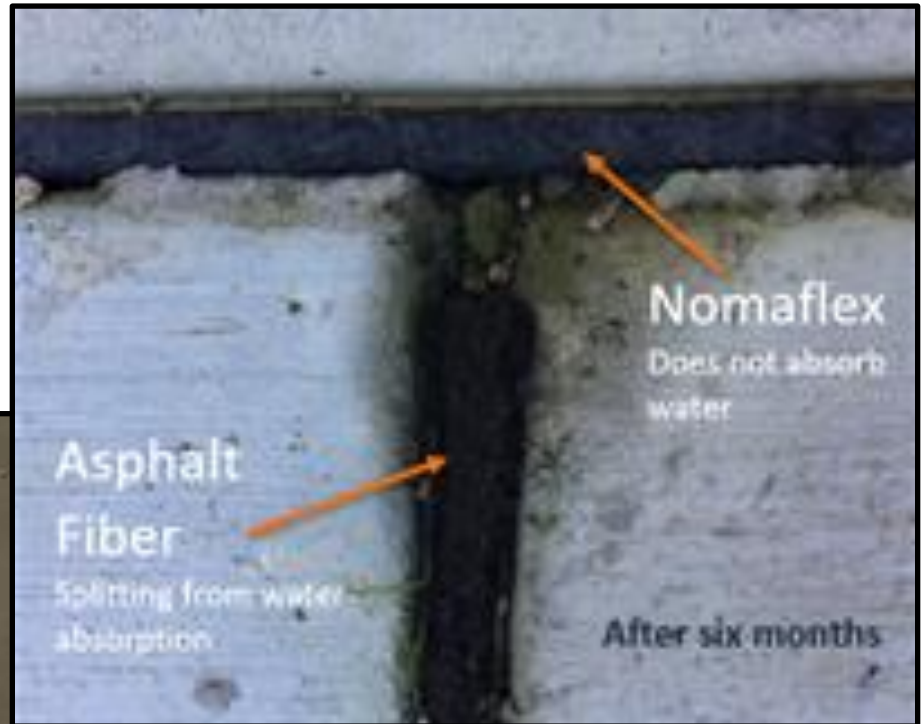


## *Product Highlight* *Nomaflex®*

- Closed-cell polypropylene expansion joint filler
- Provides many benefits compared to Asphalt Impregnated Fiber Board
- Easy to transport and install
- Can be used with hot-pour and cold applied sealants
- Manufactured in NC and 100% recyclable



# *Product Highlight* *Nomaflex®*





## *Technology Highlight*

### *MOBA Pave-IR Scanner*

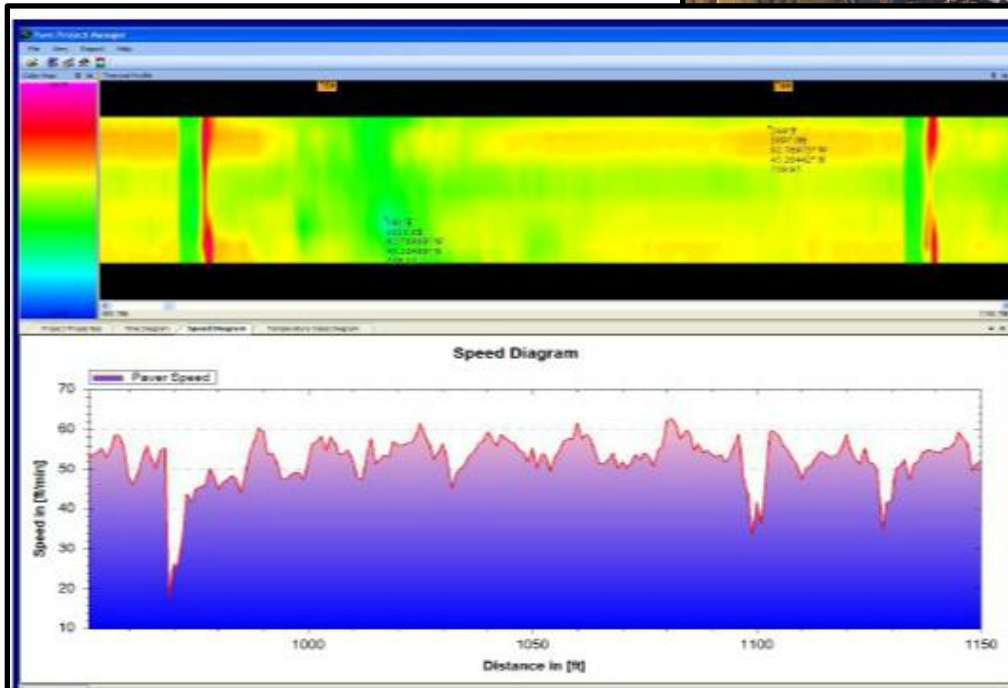
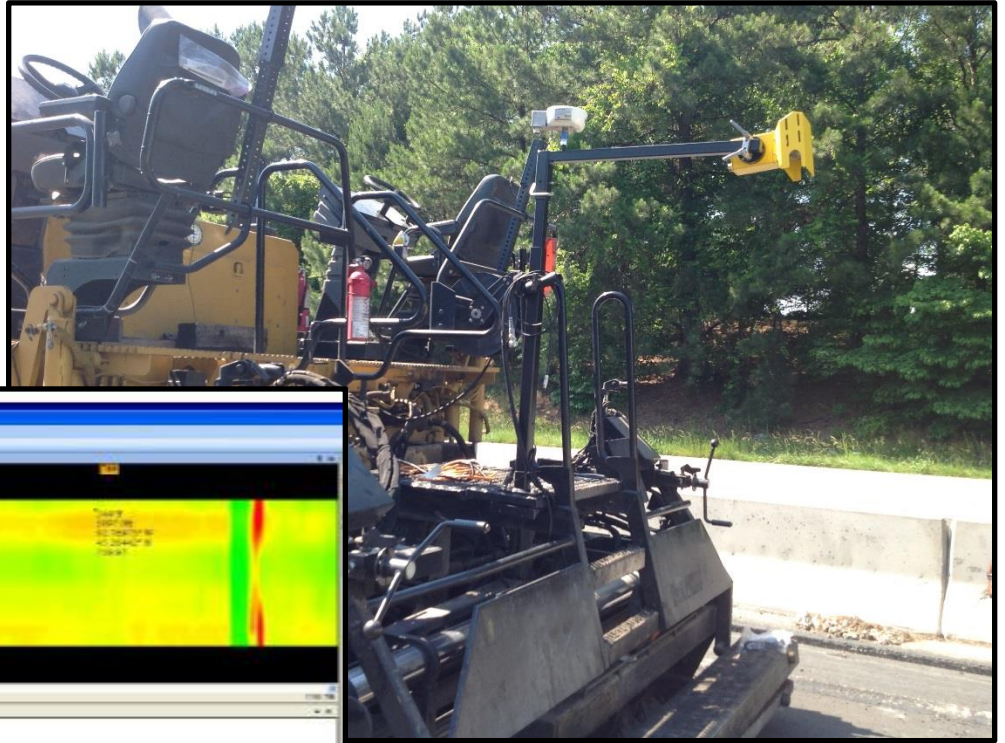
- Paver-Mounted IR camera
- Provides real time paving data including thermal image of pavement
- Allows for quick identification and correction of problem areas
- Provided through SHRP2 Research Grant
- Utilized on FORTIFY





# Technology Highlight

## MOBA Pave-IR Scanner





November 2, 2016

## *Autonomous Vehicles*

Kevin Lacy and Charles HW Edwards



# *Outline*

- E-Commerce – Driving Use of Automation
- Changes in Supply Chain Architecture
- Impacts of the Changing Transportation – Logistics Architecture
- Robots in Distribution
- Degrees of Vehicle Automation and Current Limits
- Semi-Autonomous Trucks
- Remote Controlled Railroad Locomotives
- Automated Ports and Ocean Freighters
- Unmanned Transport Aircraft
- Impact of Autonomous Vehicles
- Some Planning and Policy Issues



## *E-Commerce(B2B+B2C) ► Driving Use of Automation*

Estimate of B2B + B2C e-Commerce Sales (US\$, Bn)					
Category	2016	2017	2018	2019	2020
B2B	\$ 855	\$ 928	\$ 999	\$ 1,066	\$ 1,132
B2C	\$ 327	\$ 352	\$ 378	\$ 406	\$ 437
Combined	\$ 1,182	\$ 1,280	\$ 1,377	\$ 1,472	\$ 1,569

### Typical Products:

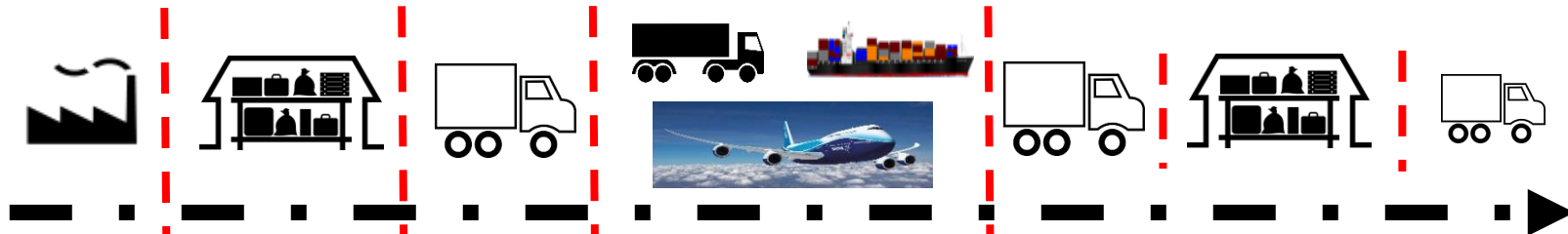
- **Business 2 Business** – construction materials, repair components, cleaning supplies, packaging materials, raw and finished textiles, furniture, etc.
- **Business 2 Consumer** – clothing and footwear, electronics, white goods, furniture and housewares, books and media, jewelry, etc.

Robotics keep costs down and deliver goods quickly

# The Changing Transportation – Logistics Architecture

Make      Hold      Deliver      Long-Haul      Deliver      Distribute      Final Mile

## TRADITIONAL



## THE INTEGRATOR APPROACH (1980s)



## THE AMAZON / MODEL



Breaking down the supply chain silos






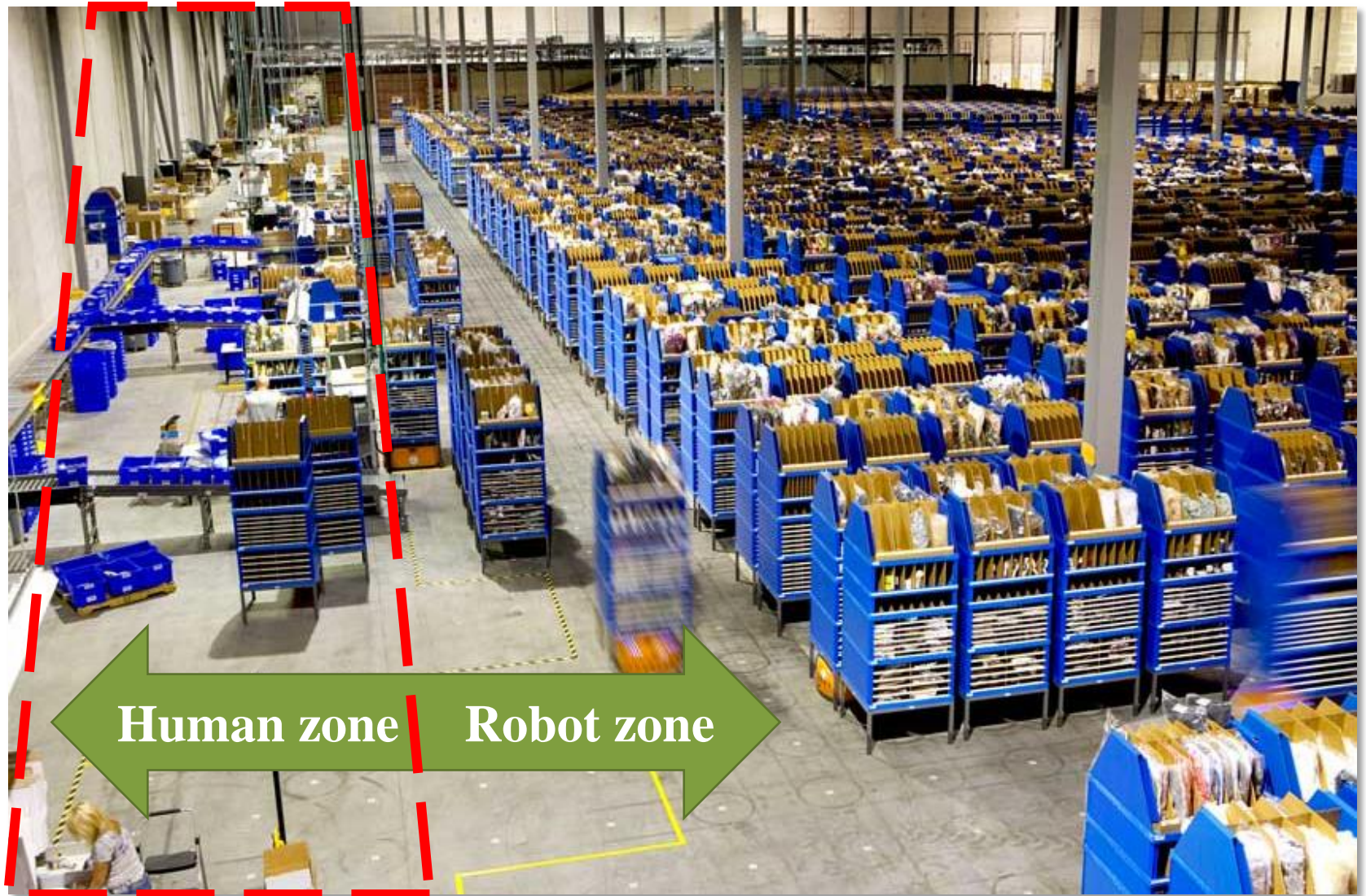
# *Impacts of the changing transportation – logistics architecture*

- The changing logistics paradigm:



- Destroying old business models / Creating new barriers to entry
- Focus on geographic niches and specialized services
- Increased digitization employment and role (Internet of Things)
- Artificial Intelligence  Increased use of robots
- New education / training systems and services
- New transportation service purchasing and operations
- New supply chain facility location, design and operation

## *Robots in Distribution*





## *Semi-Autonomous Trucks*



Freightliner  
Trucks  
operating in  
Nevada

OTTO (Uber) truck  
(operating in California  
and Colorado)





# *Current Limits of Automated Trucks*

## What it can do

- ▶ Read lane markings
- ▶ Detect vehicles in front
- ▶ Steer through curves and turns
- ▶ Let drivers text, or talk on the phone, or watch YouTube
- ▶ Coordinate “platoons” of trucks for better fuel economy
- ▶ Start a countdown when the driver needs to take the wheel

Detachable tablet in the dash can be used by truckers while self-driving is engaged



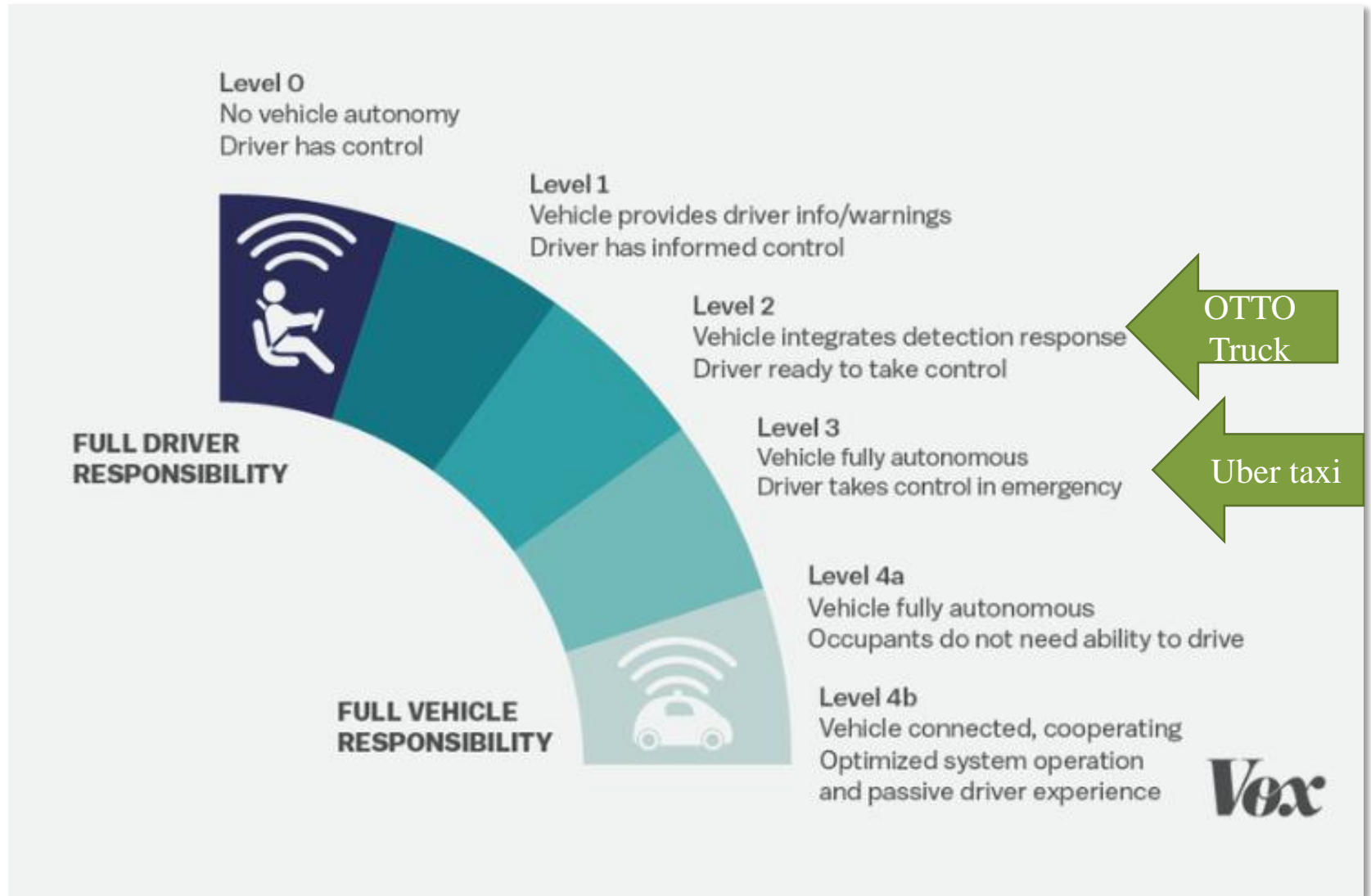
COURTESY DAIMLER

## What it can't do

- ▶ Overtake slower cars
- ▶ Change lanes
- ▶ Exit highways
- ▶ Park
- ▶ Work on roads with insufficient markings
- ▶ Work in cities

(Daimler)

# *Degrees of vehicle automation*



# Remote Controlled Railway Locomotives



**REMOTE CONTROL  
LOCOMOTIVE OPERATIONS**

**RCL-1**

**EFFECTIVE: NOVEMBER 30, 2007**



In operation at  
Linwood Yard –  
Salisbury (NC)

Figure 2. Front view of an RCD  
Courtesy of Cattron-Theimeg, Inc. 2004. Reprinted with permission.)



# *Automated Ports*



Europe Container Terminals BV

# *Autonomous Ocean Freighters*

Rolls Royce-Blue Ocean Project



Norway – dedicated area to  
test autonomous ships

# *Unmanned Transport Aircraft – now and into the near future*



DHL – delivering  
medical supplies to  
off-shore islands in  
Germany (2015)

Concept of medium  
sized cargo plane





# *Impact of Semi- an Fully- Autonomous Vehicles*

- Opportunities
  - Reduce costs
  - Increased capacity utilization / productivity
  - Minimize impact of worker and driver shortages
  - Scale operations rapidly to traffic flows
  - Reduced infrastructure investment
- Challenges
  - New training and education paradigm
  - Reduced lower-skill / entry-level job opportunities
  - Increased cybersecurity threat
  - Political and social backlash
  - New legal issues

## *Some Planning and Policy Issues*

- Traffic Mix and Volumes
- Changes in Truck Size and Travel Patterns
- Transition from Analogue to Digital Vehicles
- Road Designs / Traffic Management
- Liability - Operations / Cybersecurity / etc.
- Vehicle Ownership and Fee Generation
- Adapting safety standards and regulations
- Establishing an international agreement on rules and regulations
- Integrating autonomous vehicles with other road users
- Code of ethics in the event of an unavoidable accident
- Authorizing police and law enforcement agencies to intercept and remotely stop self-driving vehicles





*We plan for freight flows that never stop!*



Questions ?





# JOINT COMMITTEE MEETING (FAST/EDIR)

## MEETING MINUTES

DATE: 10/5/2016 TIME: 1:15 LOCATION: 150

MEETING CALLED BY	FAST Committee Chairwoman Cheryl McQueary
BOARD ATTENDEES	FAST Committee Chairwoman Cheryl McQueary, FAST Committee Vice Chairman Jim Crawford, Mr. David Brown, BOT Chairman Ned Curran, Ms. Tracy Dodson, Mr. Jack Debnam, Mr. Jim Palermo, Mr. Hugh Overholt, Mr. Gus Tulloss, Mr. Jeff Sheehan, Mr. Lou Wetmore, Mr. David Tyeryar (staff), Mr. Sebastian Montagne (Staff)

### AGENDA TOPICS

1. MEETING CALL TO ORDER AND APPROVAL OF SEPTEMBER EDIR MINUTES – CHAIRWOMAN MCQUEARY	
DISCUSSION SUMMARY	Motion: Mr. Crawford, Second: Mr. Debnam
ACTIONS TAKEN	Approved unanimously
2. REMNANT PROPERTY – GREG PERFETTI	
DISCUSSION SUMMARY	Presentation on the current state of the remnant properties owned by NCDOT. Discussed the difficulties in the disposition process and proposed changes to make it easier. Mr. Overholt asked about Ports property. It was explained this briefing concerned only Right of Way properties. Non-ROW, Ports and GTP have their own rules and processes.
ACTIONS TAKEN	Information only. No action taken.
3. TELECOMMUNICATIONS PROGRAM - GREG PERFETTI	
DISCUSSION SUMMARY	Presentation on the plan to use NCDOT's real property to extend broadband coverage to parts of North Carolina. This applies to buildings only, not Right of Way properties. Modest revenue generation is expected, but this revenue will go to the General Fund not NCDOT.
ACTIONS TAKEN	Information only. No action taken.
4. MAP ACT LITIGATION UPDATE – J. CARR McLAMB, JR.	
DISCUSSION SUMMARY	Presentation on the 1987 law to protect transportation corridors which resulted in lawsuits against NCDOT. Includes 26 maps in 20 counties. Current litigation involves 391 cases as of 9/26/16. Most are consolidated by county. NCDOT is represented by outside counsel and the Attorney General's office. NC Supreme Court held restraints constitute a taking and just compensation must be determined on a property-by-property basis. Passing of HB959 allows payment of litigation costs from STI and rescinded all corridor maps. It also changed the interest rate to prime. Potential of 4400 parcels may have claims. Plan to have a dedicated senior appraiser to oversee corridor appraisals.
ACTIONS TAKEN	Information only. No action taken.

# JOINT COMMITTEE MEETING (FAST/EDIR)

## MEETING MINUTES

### 5. FACILITIES MANAGEMENT – LEASES – STERLING BAKER

<b>DISCUSSION SUMMARY</b>	Presentation on the 130 leases held by NCDOT. The branch/unit identifies the need for lease space, the DOA State Property Office manages the transactions and maintains the inventory and DOA SPO Attorney General reviews/approves leases above \$25K. Leases are regulated by NC Administrative Codes with anything over \$5,000 executed by SPO. Department will continue processing lease extensions and initiating new leases while archiving and organizing according to current policies. Work will continue on creating/updating an electronic database and maintaining a 6-9 month look-ahead on leases. Future initiatives include evaluating organization structure and staffing as well as software needs for a more proactive approach.
<b>ACTIONS TAKEN</b>	Information only. No action taken.

Adjourned: 2:19



# JOINT COMMITTEE MEETING (FAST/EDIR) AGENDA

## BOARD OF TRANSPORTATION NOVEMBER 2, 2016

TIME: 2:00 – 3:00 p.m.

LOCATION: Room 150

TOPIC	PRESENTER
Call to Order - Approval of October EDIR minutes	C. McQueary, Chairwoman FAST T. Hutchens, Chairman EDIR
CTP 2.0 and STIP Mapping Efforts	Jamal Alavi and David Wasserman
Damage Claims Recovery Project Update	Doug Cox
Comments and Wrap Up	C. McQueary, Chairwoman FAST





# *Damage Claims Recovery Project Phase Two Results*

Doug Cox



# *Initial Damage Claims Recovery Project*

## **Initial focus was upon:**

- Examining the damage claims recovery process and recommend ways to:
  - *Shorten the cycle time to recover damages*
  - *Increase the amount NCDOT recovers for damages*

## **Findings revealed that:**

- Cycle time from accident/incident to submitting invoice was just 38 days on average
- Percentage of write-offs of “recoverable” damage has been in single digits since 2011



# *At Issue*

## Having a better understanding of “unrecoverable” damage:

- Damage to guardrail/cable is charged to specific WBS elements within the divisions
  - *When these damages are unrecoverable, there is documentation that indicates the number and extent of damages*
- However, when unrecoverable damage occurs to all other NCDOT facilities, it is less clear the frequency of these damages and the financial impact
  - *Non-guardrail damages do not have a specific WBS element to which they are charged*



# *Damage Claims Recovery – Phase Two*

## **Purpose:**

- Examine unrecoverable damages to determine:
  - *The type of damage*
  - *The cost to NCDOT*
  - *To which WBS element the damage is charged*

## **Method:**

- Collect damage data in Divisions 2 and 5
- Data collection period of 6 months (March to September)
- Quantify unrecoverable damage characteristics

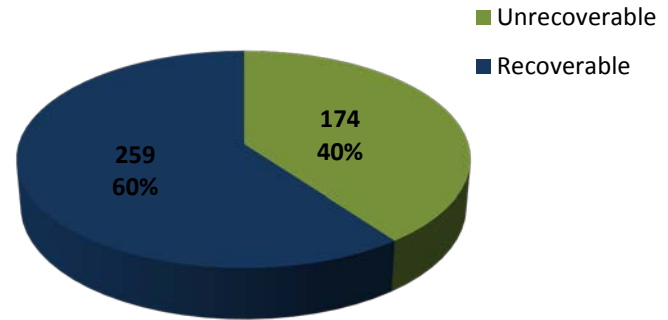
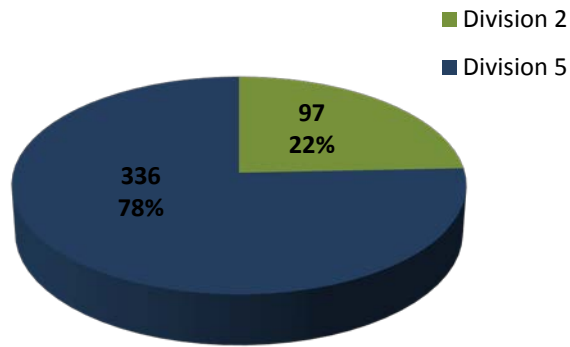




# Results

For the 6-month data collection period:

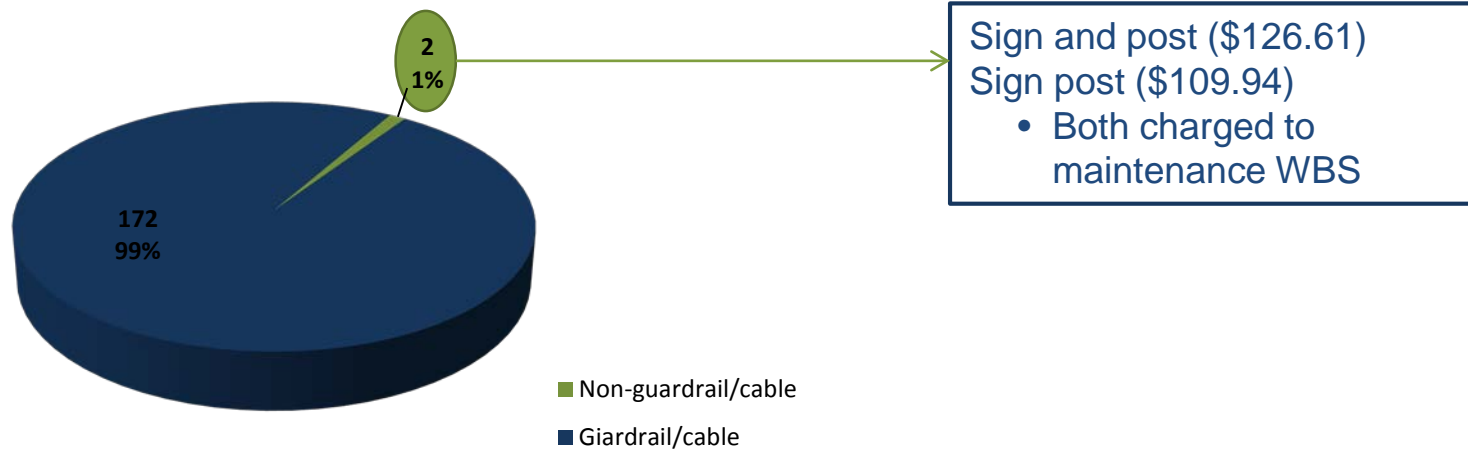
- 433 accidents/incidences were documented
- 40% were unrecoverable damages



# *Results (continued)*

Among the 174 unrecoverable accidents/incidences:

- 172 were damages to guardrail/cable
- Only 2 were non-guardrail damage



# *Characteristics of Damage*

## **Distribution (N=433)**

•Guardrail/cable	68.6%
•Sign/sign post	27.2%
•Signal	2.1%
•Shoulder	< 1%
•Bridge	< 1%
•Other	< 1%

## **Average Cost (N=433)**

•Recoverable	\$1269.71
•Unrecoverable	\$1567.78
•Guardrail/cable	\$1752.99
•Sign/sign post	\$ 184.10
•Signal	\$1655.89
•Shoulder	\$ 633.66
•Bridge	\$9624.10
•Other	\$2124.38



# Conclusions

## The results of this pilot study suggest:

- A very strong majority of unrecoverable damages occur to guardrail/cable facilities
  - *A specific WBS element for this type of damage allows NCDOT to know the financial impact and frequency of these damages*
- Projecting these results to all damages statewide indicates that only about  $\frac{4}{10}$  of 1% of damage to NCDOT facilities will be unrecoverable non-guardrail/cable damage...
  - *...the type of damage we will never know much about in the absence of a specific WBS element*
  - *Due to its infrequent occurrence, this may not be a huge deal*



# *Questions*



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Doug Cox



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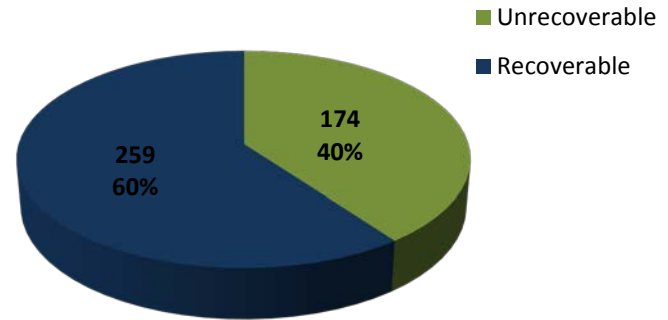
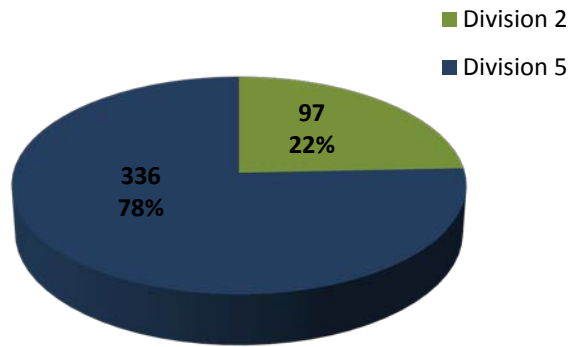
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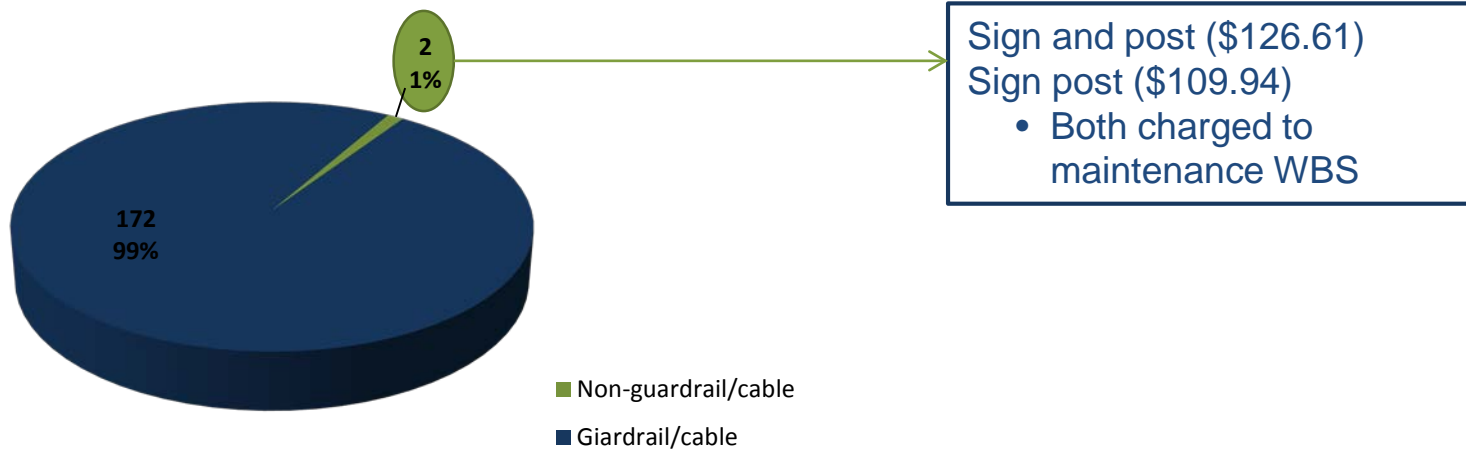
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# *Questions*





# HIGHWAYS COMMITTEE MEETING MINUTES

DATE: 10-5-2016 TIME: 10:30 AM – 12:00 PM LOCATION: 150

MEETING CALLED BY	Jim Crawford
BOARD ATTENDEES	Committee: Brown, Crawford, Debnam, Overholt, Palermo Others: Curran

## AGENDA TOPICS

1. APPROVAL OF SEPTEMBER MINUTES	
DISCUSSION SUMMARY	
ACTIONS TAKEN	Minutes were approved as written.

2. TECHNOLOGY AND ROADSIDE MANAGEMENT – DON LEE, CPESC	
DISCUSSION SUMMARY	<p>The Department implemented the use of technology in roadside management. The roadside vegetation management operations include mechanical and herbicide control, mapping work accomplished, litter management and utilizing alternatives to mowing and herbicides. By using precision agricultural technology, vegetation management operations can be mapped allowing managers to plan work better, evaluate performance and improve efficiency. The Department already has the GIS mapping capabilities so the cost is \$2,500/mowing contract, which includes five mowing tractors and one supervisor vehicle over two counties. Recently, Division 10 required GPS in their 2016 mowing contracts in order to monitor and track the location of the tractors. The technology allows the Division staff to see if and where a tractor is running in real time. Benefits to this technology include verifying routes have been mown for billing purposes, more timely response to citizen requests, verification of damage claims, easier route comparisons, and efficiency can be gauged for planning purposes. Additionally, the Department is currently upgrading the Adopt-A-Highway (AAH) website to develop a more comprehensive statewide litter management system. The new statewide litter management system that is currently under development will include GIS mapping features with real time tracking of AAH, Sponsor-A-Highway, Litter Removal Contracts and NCDOT Forces for event cleanups.</p>
ACTIONS TAKEN	

# HIGHWAYS COMMITTEE MEETING MINUTES

3. GEOSYNTHETIC REINFORCED SOIL (GRS) INTEGRATED BRIDGE SYSTEM PILOT PROJECT – LOUIS MITCHELL, PE	
DISCUSSION SUMMARY	<p>Geosynthetic reinforced soil (GRS) is not new technology however applying it to the highway system is. As a Department, the goal is reduce the number of Structural Deficient (SD) bridges across the state and as such, approximately 300 SD bridges are replaced each year. One of those bridges being Anson County Bridge number 201. Built in 1958, this SD bridge on Rocky Mounty Church Rd. over Big Branch had a sufficiency rating of approximately 20% out of a possibly 100% and was up for replacement. The traditional substructure method of pile foundations was considered but it was ultimately decided to use GRS in order to reduce construction time and cost. The bridge met the candidate selection criteria for GRS as it was on a sub-regional tier route, single span, had low ADT volume, there was no potential for scour, had a shallow foundation and has perpendicular channel alignment. NCDOT received the Accelerated Innovation Deployment (AID) Grant through the Technology Innovation Deployment Program (TIDP) for the GRS bridge replacement project. The AID Grant awarded to the Department was \$400,000 to offset the cost associated with the deployment risk that the agency assumes to incorporate an innovation into the design. One of the key design features of GRS is that it eliminates the “bump” in the approach caused by long term settlement. Additionally, GRS materials are not adversely affected by adverse weather that can cause construction delays. These materials can be locally supplied with the work being performed with small staff of construction works and minimal equipment. The downside to this technology is the foundation construction requirements. The foundations were large (40 feet across by 10.5 feet back into the roadway with variable depths) and required solid rock. However, the upside was the elimination of concrete and steel material and the minimal personnel required to construct the foundations. In summary, the Department is pleased with the construction of this GRS pilot project and does not foresee signification issues with future maintenance needs. However, more opportunities and pilot projects will need to be deployed prior to concluding predictable savings in time and cost. NCDOT will continue to identify candidate bridge replacements and plans to use this technology on suitable sites to collect baseline data to allow assessment of benefits and identify any possible issues.</p>
ACTIONS TAKEN	

# HIGHWAYS COMMITTEE MEETING MINUTES

4. UPDATE ON LOGO DISCUSSION – KEVIN LACY, PE	
DISCUSSION SUMMARY	<p>An update on the logo program was discussed covering fiscal items, revenue generation, the size and number of panels allowed. The fees are set based upon the cost to administer the program, design, install and maintain the signs. Currently, the base cost is \$300 per sign and a standard interchange will have 4 signs resulting in \$1,200 per year. Each year, we receive approximately \$4M in fees and spend approximately \$2.9M on the program. (Not all maintenance of the logo signs is charged to the program.) By law, the Logo program is revenue neutral. There have been some discussions during legislative sessions to change it to become a revenue generating program but it has not moved forward. The primary concern being the impact of the cost to small businesses. Each Logo panel on the main line is 3'x4' and the overall size for a six panel sign is 15'x10'. Ramp panels are 18"x24" with an overall sign size of 7.5'x6'. The Manual of Uniform Traffic Control Devices (MUTC) is the federal document that regulates the number of panels and the number of signs and the State establishes policies and rules for eligibility. The focus of the information on the signs is Motor Services and therefore, logos allowed include gas, food, lodging and camping/attractions. North Carolina was allowed by FHWA to pilot use of 9 panel signs in 2003 at 15 different interchange locations and the Department will not expand that pilot beyond those locations without FHWA approval. NCDOT has conducted a number of research projects concerning this topic and believes there is sufficient evidence that the nine logo panels do not pose any safety hazards to the public. However, the MUTCD office does not concur and are not currently allowing other States to expand the number of panels. NCDOT continues to work with FHWA on this matter.</p>
ACTIONS TAKEN	



# HIGHWAYS COMMITTEE AGENDA

## BOARD OF TRANSPORTATION NOVEMBER 2, 2016

TIME: 10:30 AM – 12:00 PM

LOCATION: 150

TOPIC	PRESENTER	TIME
Piedmont Improvement Program	Mark Freeman, PE	20 min
Truck Restrictions in North Carolina	Kevin Lacy, PE	20 min
High Friction Surface Treatments	Tony Wyatt, PE, PTOE Nilesh Surti, PE	20 min
Other Discussion	Jake Alexander	30 min



Board of Transportation Highways Committee

November 2, 2016

## *High Friction Surface Treatments*



Tony Wyatt, PE, PTOE

Nilesh Surti, PE





## High Friction Surface Treatments (HFST)

High friction surface treatments are pavement overlay systems with exceptional skid resistance not typically provided by conventional paving materials. They involve applying durable aggregates with a polymer binder to provide motorists with better traction at high-crash locations, such as horizontal curves, intersection approaches, upgrades and downgrades.







# *HFST High Friction Surface Treatment*

**NC was one of the original 8 PILOT FHWA Surface Enhancements at Horizontal Curves States (2008)**



**Original NC Installations in D9 and D12 Experienced Complications**



**NC HFST Effort Suspended (2009) One Site Remained in Service (D12) and One Site was Removed (D9)**

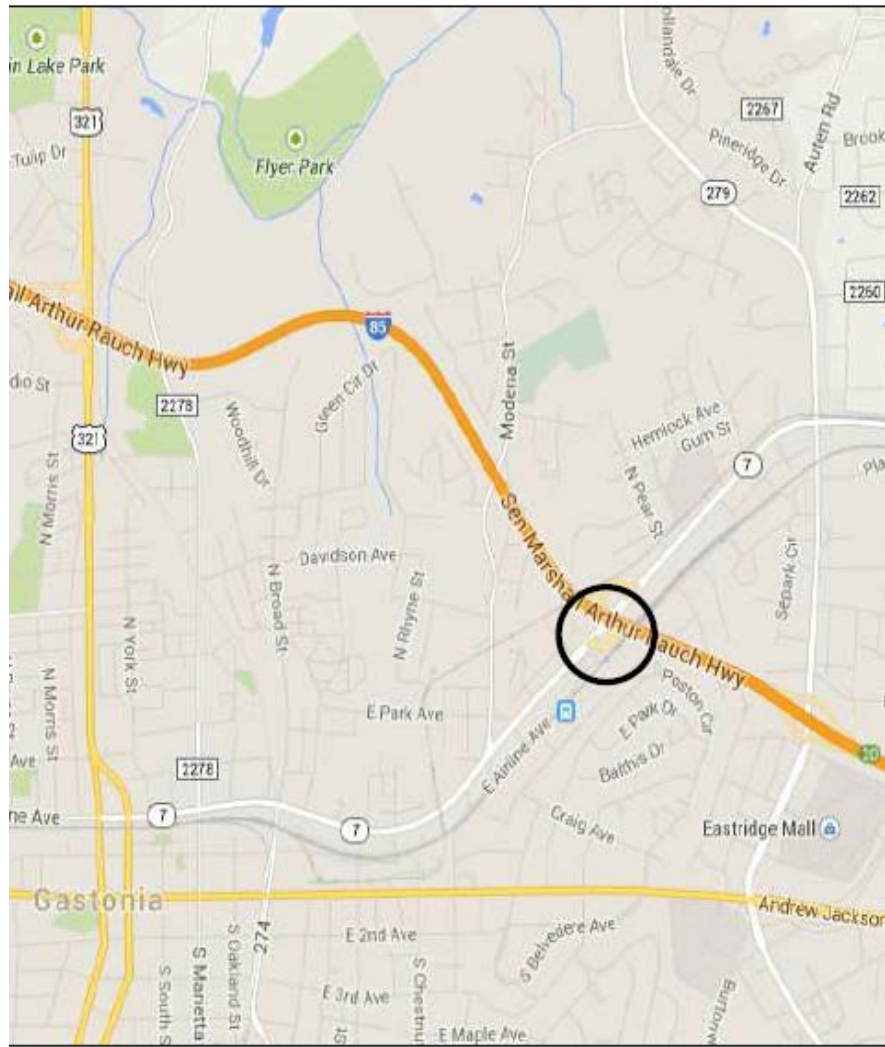


**2013 FHWA Every Day Counts II Initiative - NC Reactivated HFST Efforts (Work Team, Specification and Contract Guidance and Prequalification)**

## *Existing NC HFST Sites (June 2016)*

<b>HFST Location (Existing)</b>	<b>County</b>
<b>EXIT 19 - NC 7 Onto Northbound I-85 in Gastonia, Gaston County</b>	<b>Gaston D12</b>
<b>NB US 1 EXIT 71 onto US 501 (Hawkins Avenue), Sanford, Lee County</b>	<b>Lee D8</b>

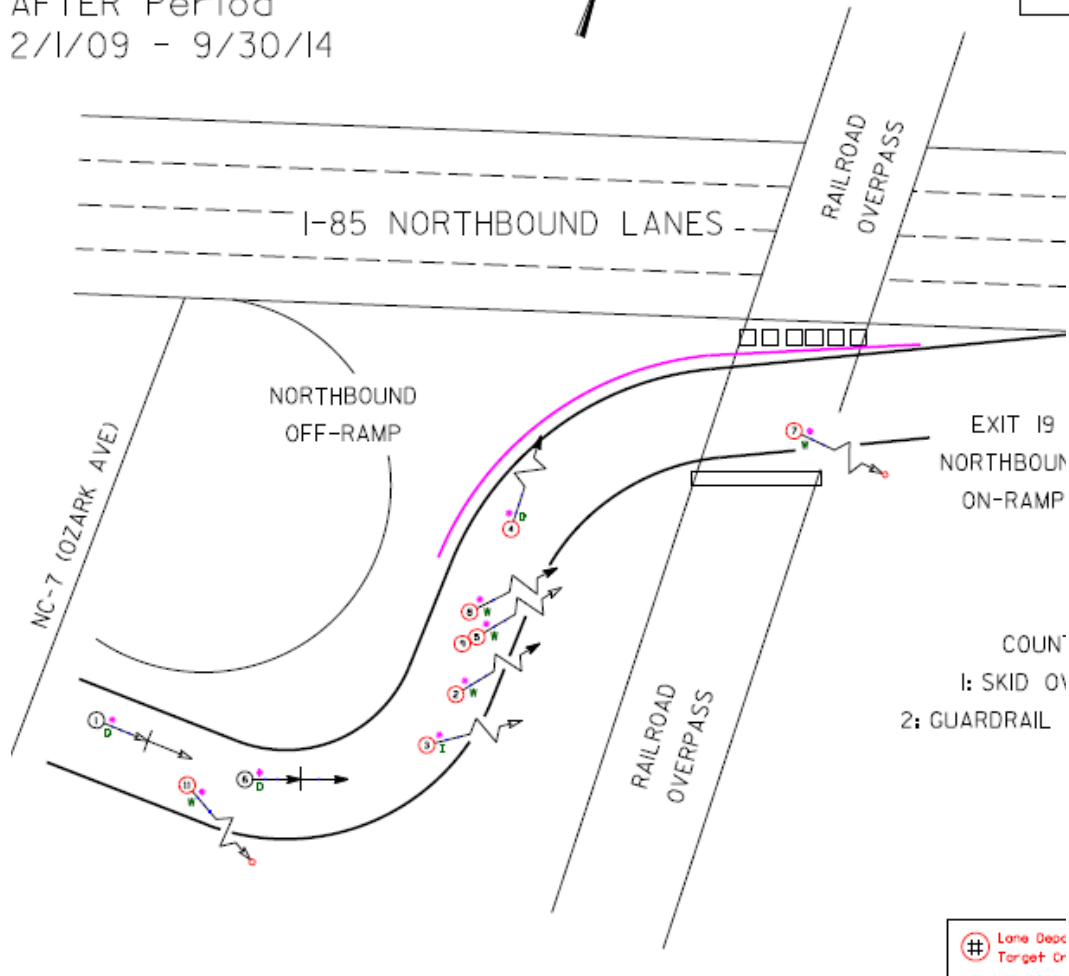
*EXIT 19 East Gastonia  
Gaston County*





# After Treatment

SS# 12-06-209  
Order# 41000032400  
Gaston County  
AFTER Period  
2/1/09 - 9/30/14



Treatment Information	Before	After	Percent Reduction (-) Percent Increase (+)
Total Crashes	50	11	- 78.0 %
Total Severity Index	4.70	2.35	- 50.0 %
Lane Departure Crashes - Target	48	9	- 81.3 %
Lane Departure Crash Severity Index	4.70	2.64	- 43.8%
LD-Wet Crashes (Codes 2-3)	45	7	- 84.4 %
LD-Wet Crash Severity Index	4.78	3.11	- 34.9 %
LD-Winter Crashes (Codes 4-6)	0	1	100.0 %
LD-Winter Crash Severity Index	0.00	1.00	100.0 %
Volume (2005, 2011)	5,700	6,000	5.3 %

Injury Crash Summary	Before	After	Percent Reduction (-) Percent Increase (+)
Fatal injury Crashes	0	0	N/A
Class A injury Crashes	0	0	N/A
Class B injury Crashes	5	0	- 100.0 %
Class C injury Crashes	20	2	- 90.0 %
Property Damage Only	25	9	- 64.0 %

Additional Information	Before	After	Percent Reduction (-) Percent Increase (+)
Night Crashes	10	4	- 60.0 %
Wet Roadway Crashes (Codes 2-3)	45	7	- 84.4 %
Alcohol / Drug Involvement Crashes	0	0	N/A





## *Planned Treatment Sites – Fall 2016*

<b>SR 1167 Kelso-Williams Road Craven County (Just Outside New Bern)</b>	<b>Craven D2</b>
<b>SR 1315 Sallie Freeman Road</b>	<b>Bertie D1</b>
<b>NC 226 (Polkville Road) in Shelby, Cleveland County between Gragg Drive and Lester Lane.</b>	<b>Cleveland D12</b>
<b>SR 1918 (Stanley Lucia Road) in Gaston County at Curve located East of SR 1923 at MilePost 4.5</b>	<b>Gaston D12</b>
<b>US 74 EB loop ramp onto I-40 WB at Exit 27 (2017 Site)</b>	<b>Haywood D14</b>

# *HFST Work Team*

- TEAM MEMBERS:

- Traffic Mobility & Safety
- Construction
- Materials & Tests
- Pavement Management
- Value Management
- Contracts
- Division personnel
- FHWA

- PURPOSE:

- Development of NCDOT HFST Specs
- Determine candidate sites
- Provide guidance to Divisions

- GOAL:

- Safety of travelling public
- Reduce accidents
- Increase friction for vehicles





## *HFST Guidance*

1. Technical Bulletin developed
2. Support for Divisions
3. Division let contracts
4. Keep HFST contracts as stand alone
5. Specialized nature of work
6. Small community of contractors



## *HFST Contracts let by NCDOT*

- Div. 12 let a project on August 25, 2016
- 2 Maps = 6500 SY and 3800 SY
- Engr. Estimate = \$384,465
- Low bid = \$319,066.13 (DeAngelo Bros.)



## *HFST Contracts let by NCDOT*

- Division 1 and 2 let a project on Sept. 14, 2016
- SR 1315 in Bertie County
- SR 1167 in Craven County
- Low bid = \$81,206.50 (Ram Construction)





*Questions?*







Board of Transportation Highways Committee  
November 2, 2016

## *Piedmont Improvement Program*

Mark Freeman, PE



# *Piedmont Improvement Program Background*

- Funded through \$520 Million ARRA grant
- Targeted capacity and safety projects
- One of the largest single improvements to NC rail infrastructure in modern times
- All ARRA funds must be expended by September 30, 2017
- Unique delivery method
  - NCDOT managed all highway and railroad roadbed construction



*NCDOT led safety program – significant number of grade crossing closures*



# *PIP Track and Structures Projects*

- 12 new roadway grade separations
- Closure of 23 public and 16 private at-grade crossings
- 27 miles of second main track
  - Number 24 tangential geometry turnouts
  - Asphalt underlayment
  - 60 mph passenger train diverging speed
- 5 miles of passing sidings
- Approximately 12 miles of roadway construction
- 5 railroad bridge improvements
- Curve improvements to allow speeds of up to 110 mph in the future



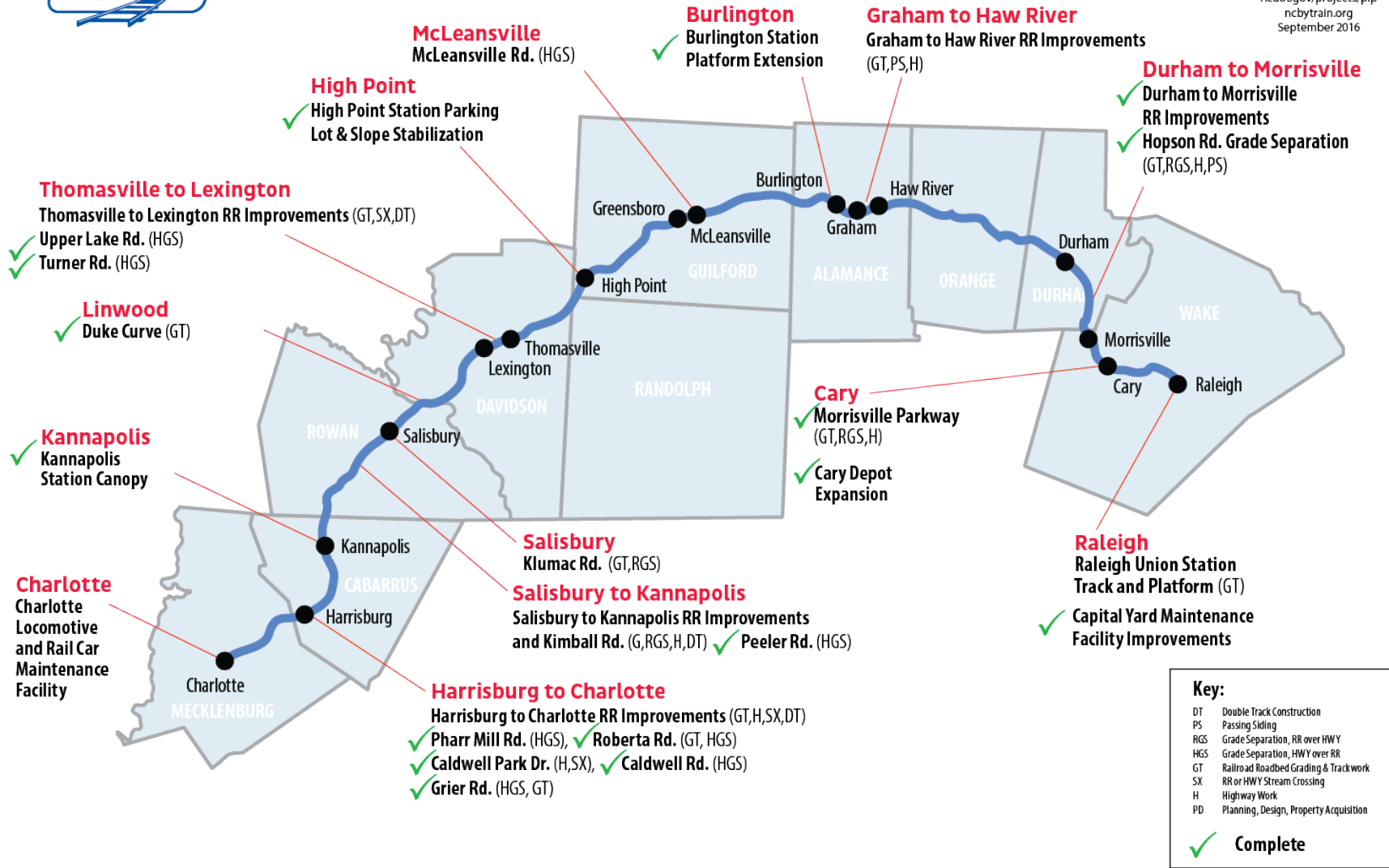




# Piedmont Improvement Program Projects



ncdot.gov/projects/pip  
ncbytrain.org  
September 2016



NC By Train – Piedmont Equipment – 7 Locomotives, 11 Railcars, 2 Cab Control Units



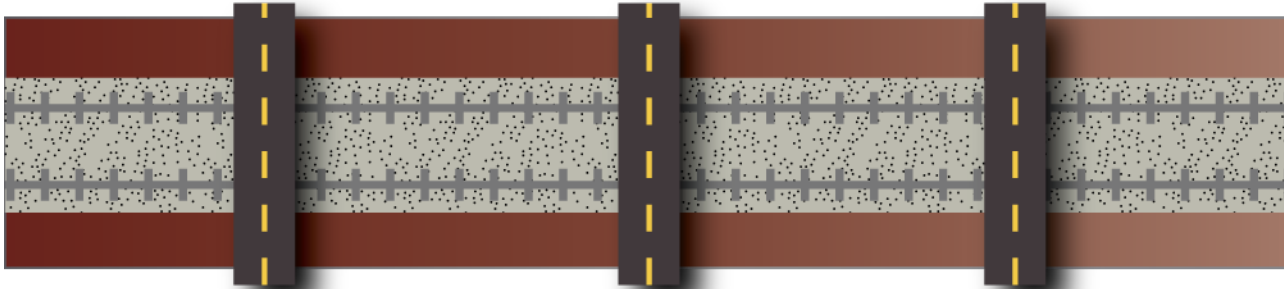


# *Project Delivery*

- Jobs program: provide opportunities to contractors and PEF's
  - Program support
  - Boost NC economy
- NCDOT managed highway and railroad project development together
  - Made extensive highway changes and crossing closures possible
  - Reduced drain on railroad resources
- NCDOT Division of Highways (DOH)
  - Directly managed extensive rail and highway contract work
  - Existing processes and resources in place
  - Utilized existing network of Resident Engineer field offices
  - Delegated authority for permit oversight



# *Project Delivery*



***NCDOT is utilizing a wide range of NC contractors.***



**NCDOT Standard Let**  
Bridge & Road Construction



**NS Let** – *From Ballast up*  
Track & Signals



**NCDOT Let** – *Roadbed Prep*  
Earthwork, Grading & Drainage

# *Morrisville Parkway Grade Separation*

- New bridge over Morrisville Parkway
- Eliminates major four-lane crossing
- 1.5-Mile main line realignment
- Complete in Fall 2016



# *Hopson Road Grade Separation Nelson to Clegg Passing Siding*

- New bridge over Hopson Road
- 2 public crossings eliminated
- 3.3-mile passing siding
- Breaks up 14-mile single track gap
- Complete Spring 2016





# *McLeansville Road Grade Separation*

- Closes 2 public crossings and 1 private crossing
- Eliminates crossings from passing siding
- Complete in Fall 2016



# *Klumac Road Grade Separation*

- Removed Klumac Road crossing
- Culminates extensive program of closures in Salisbury
- Complete in Fall 2016



# *Upper Lake and Turner Road Grade Separations Thomasville to Lexington Double Track*

- 2 highway bridges and 3 public crossing closures
- 4 miles of double track and 3 railroad bridge improvements
- Complete in Fall 2016





# *Peeler and Kimball Road Grade Separations Salisbury to North Kannapolis Double Track*

- 2 highway bridges and 10 crossing closures
- 10 miles of double track, curve improvements, and 1 railroad bridge
- Complete by early 2017





# *Pharr Mill, Roberta, Grier and Caldwell Road Grade Separations – Harrisburg to Charlotte Double Track*

- 4 highway bridges and 8 crossing closures
- 12 miles of double track, curve improvements and 3 railroad bridges
- Complete by early 2017



# Conclusion

- Delivering the PIP was a significant challenge due to the large scope of work, multiple stakeholders and contracts, access issues, and the fixed funding schedule.
- The extreme challenge was worth the effort, as the result is a safe, high capacity and modern infrastructure connecting the key population centers of North Carolina for both freight, passengers and motorists.





# Questions







Board of Transportation Highways Committee

November 2, 2016

## *Truck Restrictions in North Carolina*

Kevin Lacy, PE

State Traffic Engineer



# *Overview*

Requests for Truck Restrictions

Overriding Concepts

Types of Regulations and Restrictions

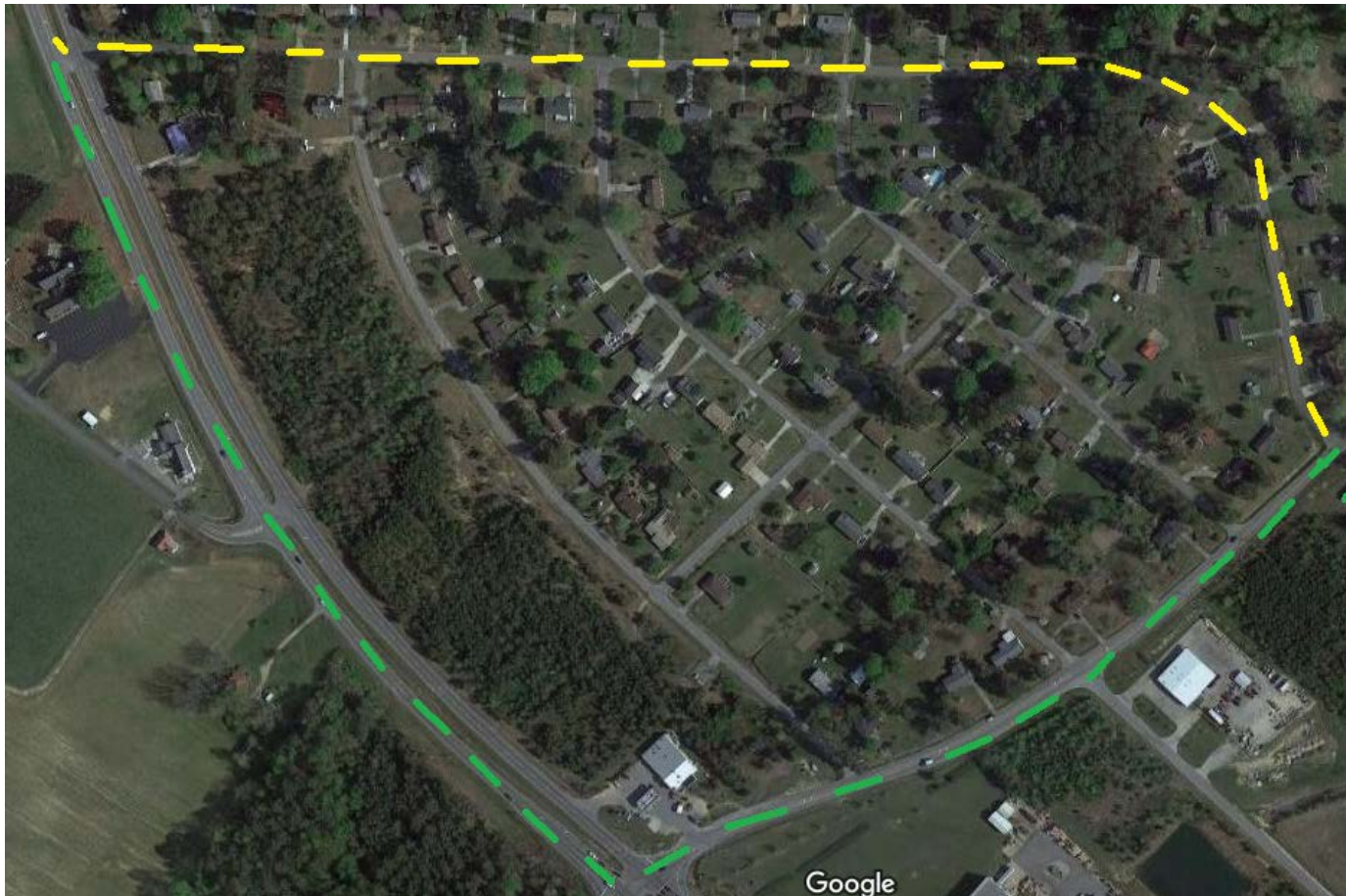
Main Points of Conflict

Notable Examples



# *Requests for Truck Restrictions*

Typically, requests come from citizens concerned about large trucks on their neighborhood roads.





# *Requests for Truck Restrictions*

Some municipalities request to restrict trucks in central business districts.



# *Requests for Truck Restrictions*

Requests are received because of physical and operational constraints.

Examples:

- “The road is too narrow to allow large vehicles.”
- “The intersections will not allow the vehicles to make the turns.”
- “The roadway just isn’t strong enough to carry these heavy vehicles.”





# *Overriding Concepts*

- Public roadways are owned and paid for by the public.
- There are both federal and state laws that regulate how the Department can restrict access to certain vehicles.
- The laws and regulations are complicated and not easily explained.

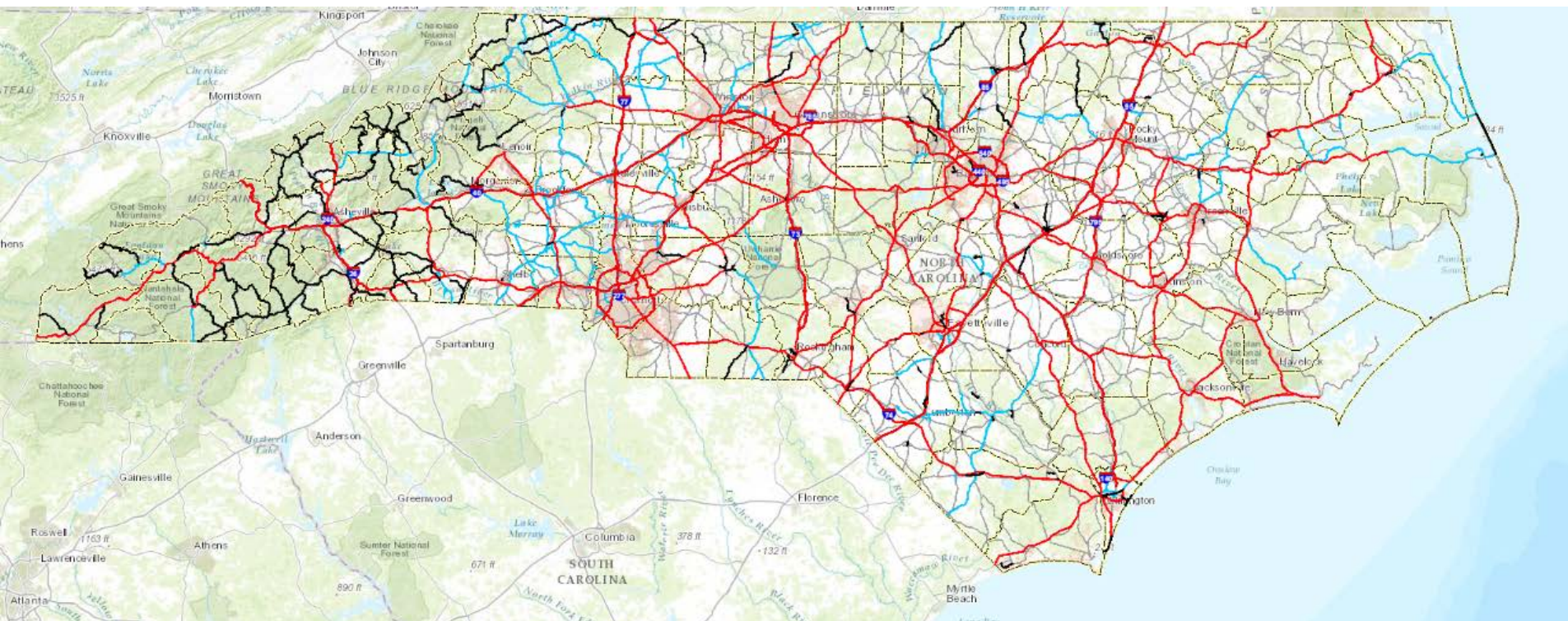


## *Federal Regulations*

- There are many federal regulations around trucking, this will only cover the ability to limit access.
- The Surface Transportation Assistance Act (STAA) of 1982 created the National Truck Network and limited the states abilities to restrict trucks on this network.
- The National Truck Network (NTN) included all Interstate Highways and any other highway that the state added through the process established.
- The states could not restrict access to the National Truck Network and had to allow reasonable access to and from the NTN. That distance of reasonable access could not be less than one mile. (North Carolina allows 3 miles)
- While there are several STAA dimensioned vehicles, the primary vehicles of concern are the twin trailers. In the past, these allowances also covered 53' trailers and 48' long and 102" wide tractor trailers.



# North Carolina Truck Network



RED – The North Carolina Truck Network

Blue – Reasonable Access beyond the 3 mile distance to specific terminals

Black – Restricted routes



# *North Carolina Laws*

The legal length trailer in North Carolina as of 2008 is 53-feet and 102-inches wide. These trailers are allowed on all roads except for the roadways that have specific restrictions. (Black Lines)

Twin trailers are 28 ½ feet in length each and are allowed only on the roadways where they have been specifically allowed (Red Lines and Blue Lines). They are also allowed up to 3 miles from all North Carolina Truck Network Routes (Red Lines) for purposes such as food, services, deliveries, etc.

There are several laws that permit the NCDOT to restrict trucks on state maintained roadways.



# *North Carolina Laws*

## **§ 136-18 (5). Powers of Department of Transportation to Regulate trucks etc.**

- This is a general power of the Department; however, if a general power is further defined then we must follow the more specific laws.

## **§ 20-118 (b) (4). Light Traffic Roads.**

- Penalty: ... shall assess a civil penalty against the owner or registrant of the vehicle in accordance with the following schedule: for the first 1,000 pounds or any part thereof, four cents (4¢) per pound; for the next 1,000 pounds or any part thereof, six cents (6¢) per pound; and for each additional pound, ten cents (10¢) per pound.

## **§ 20-116(h) Designated Truck Routes with a Restricted Route**

- This law allow NCDOT to establish Truck Routes and restrict thru trucks on an alternate route. There is some discretion here, but often requires redirecting trucks to roads similar to the one that is being restricted.

## **§ 20-115.1(b) NCDOT May Restrict Vehicle Combinations**

- This law applies to combination vehicles (Truck Tractors pulling trailers, but does not apply to single unit vehicles, Dump Trucks). It also requires notifying the Legislature and requires documenting the safety and capacity reasons the road cannot handle the vehicle combinations.
- A lot of misunderstanding about this law. There is confusion as to which vehicles this law applies. COMBINATION VEHICLES.










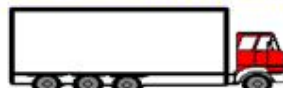
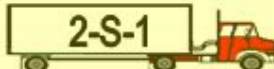


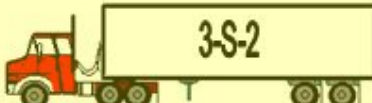
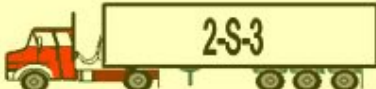
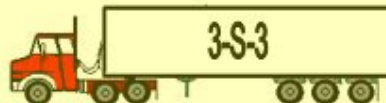
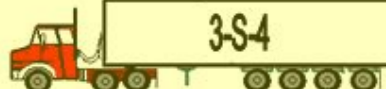








# Not All Trucks are the Same

Some people equate all trucks the same, but there are rules and regulations dependent upon the type of truck, what is the load, where it is going and from where.

Classification of Vehicles by the Federal Highway Administration

<b>CLASS 1</b> Motorcycles	<b>CLASS 2</b> Passenger Cars	<b>CLASS 3</b> Pick-ups, Vans	<b>CLASS 4</b> Buses	
				
<b>CLASS 5</b> 2D - Two Axle, 6-Tire Single Units			<b>CLASS 6</b> Three Axle Single Units	<b>CLASS 7</b> Four or More Axles, Single Units
  				
<b>CLASS 8</b> 3-4 Axles, Single Trailers		<b>CLASS 9</b> Five Axle Single Trailers		<b>CLASS 10</b> Six or More Axles, Single Trailers
  		 		 
<b>CLASS 11</b> Five or Less Axles, Multi-Trailers		<b>CLASS 12</b> Six Axles, Multi-Trailers		<b>CLASS 13</b> Seven or More Axles, Multi-Trailers
		 		

Trucking rules and regulations have many more complications, it depends on intra-vs interstate, what they are hauling. From restriction we attempt to make it easier, length, weight, or number of axles.

## *Notable Examples of Request*

Traffic pattern changes due to road work or incidents

Trucks trying to avoid delays along a congested corridor

Trucks trying to avoid traffic signals

Trying to avoid detection by law enforcement

Request to restrict and limit trucks to the State Port

Request to restrict trucks to a production facility

If you get questions or requests around truck restrictions or reasonable access, send them to the State Traffic Engineer.



# *Questions*







Transportation

# MULTIMODAL COMMITTEE MEETING MINUTES

DATE: 10/5/16 TIME: 10:30am LOCATION: EIC

MEETING CALLED BY	Andy Perkins
BOARD ATTENDEES	Andy Perkins, Tracy Dodson, Cheryl McQueary, Jeff Sheehan, Gus Tulloss, Lou Wetmore, Ned Curran

## AGENDA TOPICS

<b>1. SEPTEMBER MINUTES APPROVAL – Andy Perkins</b>	
DISCUSSION SUMMARY	Approval of October Minutes.
ACTIONS TAKEN	Motion to approve was made by Cheryl McQueary and seconded by Tracy Dodson. Motion was approved.

<b>2. FUNDING ITEMS –PTD STIP AMENDMENT</b>	
DISCUSSION SUMMARY	Information was presented by Tammy Montanez for the Committee's approval
ACTIONS TAKEN	Motion to approve was made by Lou Wetmore and seconded by Cheryl McQueary. Motion was approved

<b>3. TRANSIT UPDATE – KEITH WEATHERLY</b>	
DISCUSSION SUMMARY	<p>Mr. Weatherly reported that the Communications Department was in the process of hiring an officer for Multi-Modal activities. The National Walk to School Day occurred earlier in the day. The Bicycle and Pedestrian Division's local event was attended by Secretary Tennyson and Chief Deputy Gray among other officials, media, parents, and children. Hurricane Matthew is being monitored closely and the Ferry Division has ongoing conference calls to keep information current.</p> <p>Paul Worley is currently attending the AASHTO conference as a presenter in Chicago, and Debbie Collins is in Asheville presenting at a national conference on Public Transportation.</p>
ACTIONS TAKEN	Informational

# MULTIMODAL COMMITTEE MEETING MINUTES

## 4. BICYCLE AND PEDESTRIAN – ED JOHNSON

<b>DISCUSSION SUMMARY</b>	<p>Mr. Johnson echoed Mr. Weatherly's praise for the Walk to School Day event. He reported that on Dec 1<sup>st</sup> a new rear reflector safety law will take effect. He provided budget information that had been requested at a prior meeting and discussed the request for an expansion to the budget for safety program planning.</p> <p>Cheryl McQueary inquired about Greensboro's receipt of a national award for their Bicycle and Pedestrian plans and asked if Mr. Johnson could arrange for someone within that group to come and make a presentation at the working lunch for the full board sometime in the future, she offered to participate as liaison.</p>
<b>ACTIONS TAKEN</b>	Informational

## 5. RAIL – KEITH WEATHERLY FOR PAUL WORLEY

<b>DISCUSSION SUMMARY</b>	Amtrak is providing two stops daily at the State Fair from 10/14 – 10/23.
<b>ACTIONS TAKEN</b>	Informational

## 6. FERRY – STERLING BAKER FOR ED GOODWIN

<b>DISCUSSION SUMMARY</b>	<p>Ocracoke Island started evaluation procedures due to Hurricane Matthew, they have already moved 128 people, 73 cars and have 50 in line for the next run. Dare and Hyde County are determining what level of evacuation they will be requiring sometime later in the day. Visitors must evacuate, residents remain at their own risk. Governor McCrory already declared a State of Emergency. Private Engineering Firms met Monday night to start plans on the Passenger Ferry Project.</p>
<b>ACTIONS TAKEN</b>	Informational

# MULTIMODAL COMMITTEE MEETING MINUTES

## 7. PUBLIC TRANSPORTATION – TAMMY MONTANEZ

### DISCUSSION SUMMARY

The Public Transportation Division held a one day training event in Winston-Salem. There were 130 in attendance. Performance and retirement awards were presented.

### ACTIONS TAKEN

Informational

## 8. AVIATION – BOBBY WALSTON (UPDATE AND “DIVISION OF AVIATION QUARTERLY BRIEFING”

### DISCUSSION SUMMARY

Mr. Walston attended the National Aviation Association Conference in San Antonio, TX representing the southern states. In the area of Unmanned Aircraft Systems, North Carolina is leading the nation with training and plans for registering and tracking the ever increasing drones in use. Our fleet usage is up this year with 785 hours so far in 2016. The Aviation Division provides service to the entire catalog of state agencies not just DOT. The quarterly briefing was presented providing information on many of the upgrades and ongoing projects at local level airports.

### ACTIONS TAKEN

Informational

Meeting adjourned at 11:17



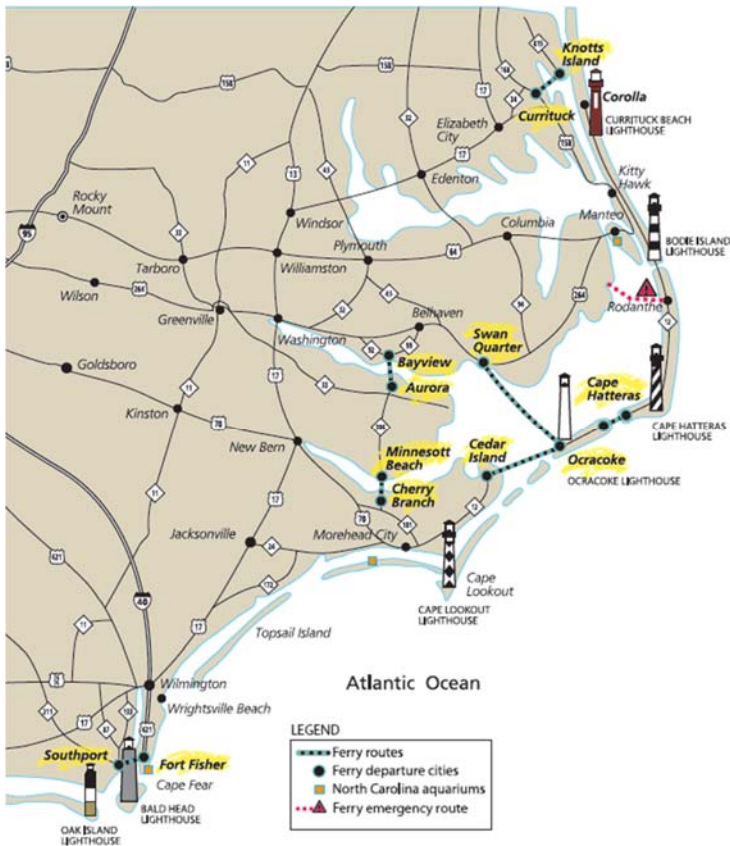
# MULTIMODAL COMMITTEE AGENDA

## BOARD OF TRANSPORTATION NOVEMBER 2, 2016

TIME: 10:30am

LOCATION: EIC

TOPIC	PRESENTER	TIME
Call to Order	Chairman Perkins	10:30
Approval of Minutes	Chairman Perkins	10:30-10:35
Funding Items (PTD, Rail, Aviation)	Transit Directors	10:35-10:40
Transit Update	Keith Weatherly	10:40-10:45
Public Transportation Update	Debbie Collins	10:45-10:50
Rail Update	Paul Worley	10:50-10:55
Bicycle and Pedestrian Update	Ed Johnson	10:55-11:05
Aviation Update	Bobby Walston	11:05-11:15
Ferry Update	Ed Goodwin/Jed Dixon	11:15-11:25
Shallow Water Surveying with Sonar in North Carolina (Mapping Underwater Surfaces)	Keith Honeycutt	11:25-12:00
Adjourn	Chairman Perkins	12:00



## NCDOT FERRY DIVISION HURRICANE MATTHEW BRIEF OVERVIEW 10/13/16

### Storm Response Teleconferences

- Provide updates on storm
- Reminders and direction for preparations, securing assets, suspension of service
- Unit updates
- Resource requests
- Initial teleconference 10/3/16 2pm
- Final teleconference 10/11/16 9am

### Safe Harbor

- Movement of vessels and equipment as proactive measure to sustain minimal damage
- Fully implemented 10/8/16 1pm
- Last route secured Currituck – Knotts Island

### Secured day of storm 10/8/16

### Evacuations

- Non-Resident Mandatory Evacuation of Ocracoke: 1,383 people
  - Via Sound Routes - 581
  - Via Hatteras – 802

### Damages (None reported for vessels)

- Most locations reported building with lost shingles
- Currituck – Knotts Island
  - Pedestrian gantry and tie up slip
  - Picnic area: debris removal not to be replaced
- Hatteras
  - 2 HVAC units: total loss
  - Bulkhead washed out
  - Fuel equipment
- Ocracoke – lost shingles only
- Swan Quarter reported no damage
- Cedar Island
  - Ramp and cluster
- Cherry Branch – Minnesott reported no damages
  - Privately owned dock damaged during vessel relocation – repairs being addressed
- Southport – Fort Fisher had shingles lost
  - Heavy debris
- Shipyard
  - Commercial lights on yard
  - Water tower
  - Berm surrounding spoil site
  - Multiple buildings missing shingles

**NORTH CAROLINA DEPARTMENT OF TRANSPORTATION**  
**FERRY DIVISION MONTHLY UPDATE REPORT FOR SEPTEMBER 2016**

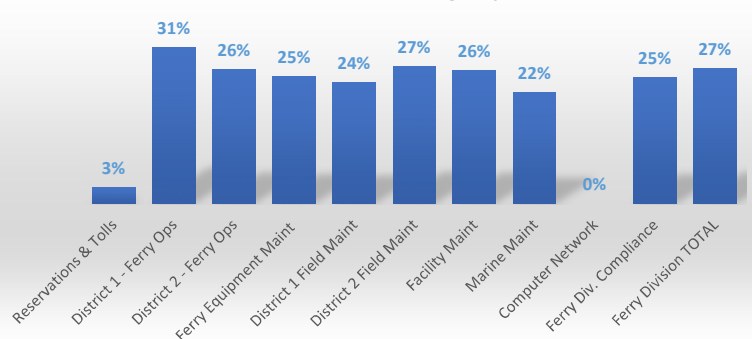
**Ridership (Vehicles)**

Ferry Routes	CY16 SEP	CY15 SEP	DELTA	FY17 YTD	FY16 YTD	DELTA
Currituck - Knotts Island	1,724	1,947	-11.5%	5,682	6,399	-11.2%
Hatteras - South Dock	29,018	30,464	-4.7%	108,424	110,217	-1.6%
Swan Quarter - Ocracoke	3,111	3,428	-9.2%	11,907	12,723	-6.4%
Cedar Island - Ocracoke	5,195	5,404	-3.9%	18,523	18,863	-1.8%
Aurora - Bayview	4,350	3,948	10.2%	13,439	13,433	0.0%
Cherry Branch - Minnesott	16,922	15,479	9.3%	58,267	57,290	1.7%
South Port - Fort Fisher	18,753	17,436	7.6%	69,955	69,374	0.8%
Emergency Ferry Rt.	N/A	N/A	N/A	N/A	N/A	N/A
Monthly Total	79,073	78,106	1.2%	286,197	288,299	-0.7%

**Budget (Operations & Maintenance)**

Departments	FY2017 Spending Plan	FY17 Expenditures through SEP 2016
Reservations & Tolls	\$ 560,435.00	\$ 17,689.95
District 1 - Ferry Ops	\$ 11,089,827.00	\$ 3,407,829.39
District 2 - Ferry Ops	\$ 8,688,190.00	\$ 2,284,198.65
Ferry Equipment Maint	\$ 13,301,461.00	\$ 3,320,609.75
District 1 Field Maint	\$ 582,121.00	\$ 138,061.59
District 2 Field Maint	\$ 486,418.00	\$ 130,873.04
Facility Maint	\$ 487,614.00	\$ 127,771.24
Marine Maint	\$ 1,200,432.00	\$ 261,796.24
Computer Network	\$ 3,757.00	\$ -
Ferry Div. Compliance	\$ 1,637,137.00	\$ 404,947.66
Ferry Division TOTAL	\$ 38,037,392.00	\$ 10,093,777.51

**Percent of Planned Budget Spent**



**Status of Capital Reserves Funds**

Routes	WBS	WBS Balance as of	SEP 2016
FER Shipyard Capital Reserve	16SP.43	\$	1,388,217.06
FER Sys Cptl All Routes	16SP.501.1	\$	226,244.00
FER D1 Currituck-Knotts Island Cap Reserve	16SP.511.1	\$	23,953.79
FER D1 Hatteras Inlet Cap Reserve	16SP.512.1	\$	167,427.88
FER D1 Swan Quarter - Ocracoke Island Cap Reserve	16SP.513.1	\$	1,404,080.50
FER D1 Ocracoke Island of OI-Cedar Island Cap Reserve	16SP.514.1	\$	1,291,116.57
FER D2 Pamlico River Route Cap Reserve	16SP.521.1	\$	26,713.81
FER D2 Cherry Branch - Minnesott Beach Cap Reserve	16SP.522.1	\$	134,722.56
FER D2 Cedar Island of OI - Cedar Island Cap Reserve	16SP.523.1	\$	1,291,116.59
FER D2 South Port - Fort Fisher Cap Reserve	16SP.531.1	\$	2,863,983.03
Total		\$	8,817,575.79

**Updates or Comments**

Traffic impacts H. Hermine, primary travel dates impacted were Labor Day week-end.  
 Planned budget adjusted to incorporate legislative increases.



# PIEDMONT & CAROLINIAN PERFORMANCE SNAPSHOT

NCDOT RAIL DIVISION for the Month of AUGUST 2016

## Ridership

	FFY16 AUG	FFY15 AUG	Δ	FFY16 YTD	FFY15 YTD	Δ
<b>Carolinian</b>	26,879	27,845	-3%	265,809	277,266	-4%
<b>Piedmont</b>	11,486	12,948	-11%	139,302	149,190	-7%
<b>Total</b>	38,365	40,793	-6%	405,111	426,456	-5%

### Number of Trains

### Average Number of Passengers per Train

FFY16 AUG	FFY15 AUG	Service	FFY16 AUG	FFY15 AUG	Δ
62	62	Carolinian	434	449	-3%
116	122	Piedmont	99	106	-7%

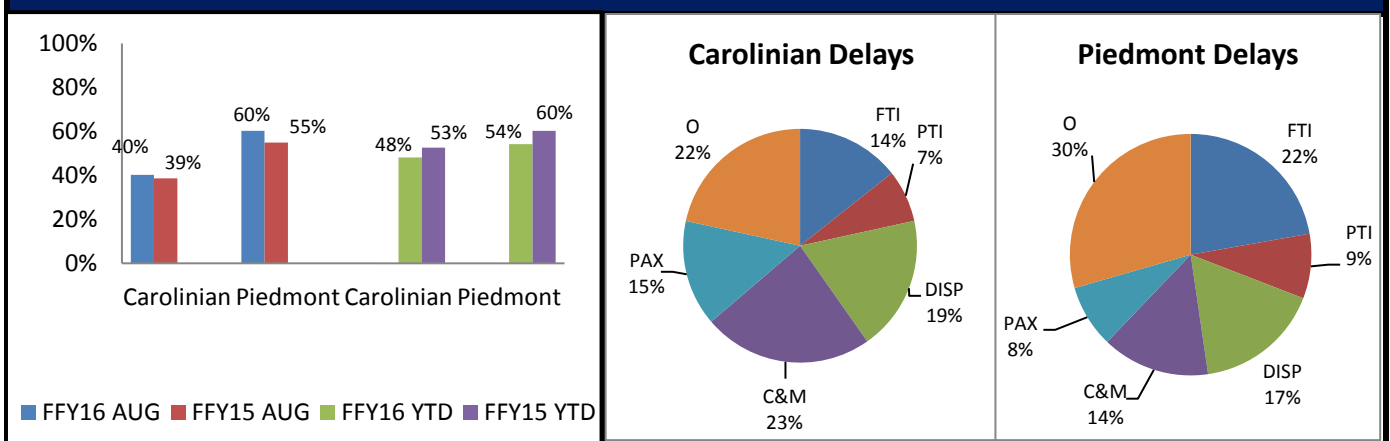
## Revenue

	FFY16 AUG	FFY15 AUG	Δ	FFY16 YTD	FFY15 YTD	Δ
<b>Carolinian</b>	\$1,852,687	\$1,897,949	-2%	\$16,889,866	\$17,896,625	-6%
<b>Piedmont</b>	\$234,777	\$256,499	-8%	\$2,935,823	\$3,045,455	-4%
<b>Total</b>	\$2,087,464	\$2,154,448	-3%	\$19,825,689	\$20,942,080	-5%

<b>Amenities &amp; Vending</b>	Mo. Surcharge + Vending Income	\$18,275	Mo. Expense	\$3,714	Mo. Surplus	\$14,560
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**August 2016 service modifications and annulments impacted eight Piedmont trains and four Carolinian trains.** On August 8 and August 15, all Piedmont trains were annulled and Carolinian trains operated between New York and Raleigh only to accommodate PIP project work. Additional disruptions for PIP project work will continue to occur as necessary through completion of the project. Average gasoline prices were \$0.32/gallon lower in August 2016 than in August 2015 (EIA Weekly Retail Gasoline for Lower Atlantic region).

## On-time Performance



\*Carolinian and Piedmont delays were 7,321 and 3,812 minutes, respectively. FTI - Freight Train Interference; PTI - Passenger Train Interference; DISP - Dispatch Related; C&M - Construction, Maintenance; PAX - Any Passenger Related; O - All Other Delays (e.g. weather, mechanical). Carolinian trains arriving within 20 minutes and Piedmont trains within 10 minutes of schedule are considered on time.

## Overall Customer Satisfaction

	FFY16 JULY	FFY15 YEAR-END	Δ
<b>Carolinian</b>	68%	75%	-7%
<b>Piedmont</b>	92%	90%	2%

\*The customer satisfaction index (eCSI) is calculated from rider survey data conducted on line and is for one month prior to the current report month. Overall satisfaction is defined as average scores greater than or equal to 80. Customer satisfaction goals for FFY 2015 were 79% for the Carolinian and 90% for the Piedmont; and for FFY 2016 are 77% for the Carolinian and 91% for the Piedmont. Overall July eCSI for all Amtrak services was 81%.



## North Carolina City Pairs with Largest Ridership

	Carolinian	Piedmont
1	Raleigh - Washington	Charlotte - Raleigh
2	Charlotte - New York	Charlotte - Cary
3	Charlotte - Raleigh	Charlotte - Durham
4	New York - Raleigh	Charlotte - Greensboro
5	New York - Wilson	Greensboro - Raleigh
6	Charlotte - Washington	Cary - Greensboro
7	Durham - Washington	Durham - Greensboro
8	Charlotte - Durham	Charlotte - HighPoint
9	Washington - Wilson	Cary - Durham
10	New York - Rocky Mount	Burlington - Cary

\*Of the ten city pairs with the highest ridership, from the previous FFY month Washington - Wilson had the largest increase of 34% and Charlotte - Raleigh the largest decrease of 21% for the Carolinian; Burlington - Cary had the largest increase of 7% and Charlotte - High Point the largest decrease of 33% for the Piedmont.

## Carolinian and Piedmont Total Ons-Offs at North Carolina Stations

	FFY16 AUG	FFY15 AUG	Δ
Charlotte	12,145	13,482	-10%
Raleigh	9,087	9,958	-9%
Greensboro	7,437	8,600	-14%
Durham	5,737	6,884	-17%
Cary	4,942	5,193	-5%
Wilson	3,056	2,944	4%
High Point	2,222	2,679	-17%
Rocky Mount	2,219	1,838	21%
Burlington	1,840	2,178	-16%
Salisbury	1,471	1,811	-19%
Kannapolis	1,450	1,605	-10%
Selma-Smithfield	943	739	28%

\*The values represent passenger ons and offs at North Carolina stations for only state-supported routes and do not include those of other Amtrak services. The values should not be construed as total ridership.

## North Carolina Train Host Association

	FFY16 AUG	FFY16 YTD
Train Host Volunteer Hours	947	11,502

# Go. Reconnect.





## Public Transportation Division

### New Organization Assignments

The Public Transportation Division (PTD) is blessed to have a dynamic group made up of individuals who are willing to provide technical assistance and expertise to our sub recipients. Our strategy breaks the organization into two functions. Administrative Assistance – finance, planning, compliance, grant making, and procurement led by Deputy Director Tammy Montanez. Agency Assistance – Mobility Development Specialists (MDS) led by Assistant Directors Cheryl Leonard and Phillip Vereen.

PTD is fully staffed and ready to share our organizational goals for the Agency Assistance function. First, we want to share travel time across all staff by assigning smaller clusters of systems in each area of the state, one with less travel than the other. Second, we want to help new staff become successful by bringing them in so they learn the rural programs while having growth opportunities to take on additional programs. We will have staff assigned in rural, small urban and large urban categories, a change that took effect October 2016. Each community transportation system's working agreements will continue with the newly assigned staff.

#### NCDOT /PTD MDS STAFF ASSIGNMENTS



### PTD Welcomes New Employees

PTD is excited to announce the arrival of two new employees. Terry Stanberry, Safety and Security Specialist, joins us as an NCDOT transfer from the Transportation, Mobility and Safety Division. Jason Wimmer is a new Mobility Development Specialist in the Agency Assistance section. He joins us from the N.C. Department of Commerce where he served as an Employment and Training Specialist.

### PTD Activities Underway

#### October 2016 Activities

##### Training:

- TRB Paratransit and Intercity Bus Conference – Asheville Oct. 2-5
- Staff Retreat
- Americans with Disabilities Act
- Contracting for Construction and Design Services
- Transportation Leadership Development

##### Meetings Attended:

- Transportation Advisory Board Meetings
- Joint Legislative Transportation Oversight Committee presentation
- NC Association of RPOs
- Office of Rural Health Statewide HealthNet Transition Grants & Community Health Grants Meeting
- Division of Public Health, Chronic Disease and Injury Section
- NCDOT ADA Committee

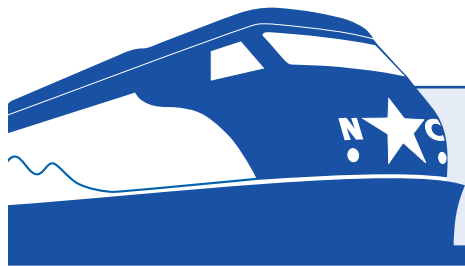
##### Upcoming:

- State Management Review training
- Triennial Review training
- Staff retreat

#### PTD Success Plan Posted

The Plan is available [here online](#) under the Transit Providers tab.





## Passenger and Freight Services in NC Feel the Effects of Hurricane Matthew

A very alert train crew and a downed tree kept *Carolinian* Train 79 from running into a washout due to heavy rains from Hurricane Matthew. On Saturday, October 8, shortly after departing the Selma station, Train 79 hit a tree that had fallen onto the tracks. The crew stopped to inspect for damage, made a minor repair to an air valve, then proceeded slowly with caution. After crossing the Neuse River Bridge, the engineer saw the track ahead appeared unsafe. He stopped the train again, and within minutes a culvert washed out under the tracks. The crew immediately notified Norfolk Southern (NS) of the situation and returned to the Selma station where passengers were loaded on three buses for their final destination. The Rail Division staff worked long hours through the storm to ensure safe operation of the state-sponsored passenger trains and local stations in partnership with the NC State Emergency Management Office, Dept. of Homeland Security, FEMA, Amtrak, CSX and NS. "Safety remains our top priority as we work to address the damage caused by major flooding on railroads," said Transportation Secretary Nick Tennyson.

All North Carolina trains ran on Saturday with the exception of Train 76 which was canceled after Train 74 experienced a three-hour delay getting to Raleigh because of multiple trees on the tracks between Durham and Raleigh. Although power was out, the Cary and Durham stations were open, powered by generators purchased as part of the Piedmont Improvement Program American Recovery and Reinvestment Act funds.

All trains were annulled on Sunday. Partial service resumed on Monday, and by Tuesday NC BY TRAIN service was back on schedule.

The Rail Division has received reports of bridge damage and track washouts on the North Carolina & Virginia, Carolina Coastal, Clinton Terminal and RJ Corman Carolina lines. The Rail Division will be coordinating with all railroads in the coming weeks and months to provide support in the wake of Hurricane Matthew.



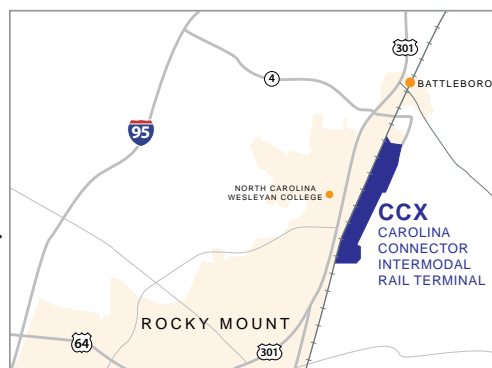
*Flooded track on the Carolina Coastal Railway near Chocowinity.*

## Work Progresses on the Carolina Connector Intermodal Hub Project

### CSX Visualization of Future Intermodal Hub



CSX and NCDOT are partnering to build the Carolina Connector (CCX) Intermodal Rail Terminal in Edgecombe County. An aggressive schedule is being pursued so permits can be obtained, construction can begin in late 2017, and the facility can be open for operations in late 2019. Funding for the project is anticipated to be included in the Draft 2018-2027 State Transportation Improvement Program in fiscal year 2018.



Preliminary engineering agreements were executed in September. CSX is leading design, environmental documentation, and the United States Army Corps of Engineers' (USACE) permitting efforts. CSX initiated field studies following execution of the preliminary engineering agreements in September. NCDOT will provide project oversight by reviewing the environmental documentation and designs.

Initial public information sessions were held in Edgecombe and Nash Counties in July, the week following Governor McCrory's announcement of the site. Additional public involvement meetings are anticipated to be held as designs are developed.

NCDOT is also working with the Carolinas Gateway Partnership and others to initiate a study to identify important transportation links between CCX and other freight nodes in North Carolina. The study will identify potential projects to be prioritized for funding under the Strategic Transportation Investments law.



## Southeast Regional Rail Plan Study

The Federal Railroad Administration (FRA) is leading the preparation of a multi-state rail planning study to develop a long-term vision for high performance passenger rail in the Southeast. The study will build on the work that has already been done on the Southeast Corridor, but will look at the potential for high performance rail within a broader market. States participating in the study include Florida, Georgia, South Carolina, North Carolina, Virginia and Tennessee. The District of Columbia is also participating in the study. Alabama and West Virginia will be informed of the study's progress. FRA and its consultant will use a model known as the Connect Model to evaluate potential markets, corridors, ridership and costs to create a high performance network. The study will help prioritize corridors for development and recommend a governance model to implement the system within the Southeast. One model being considered is the expansion of the existing Virginia-North Carolina Interstate High Speed Rail Compact to include other southeastern states.

FRA has established a Stakeholder Advisory Group to help guide the study. The first meeting was held on September 20 in Columbia,



**Rep. William Brawley speaks to the Stakeholder Advisory Group**

South Carolina, where FRA presented the purpose of the study and outlined the approach. North Carolina representatives in the Stakeholder Advisory Group included Representative William Brawley, Co-Chair of the Virginia-North Carolina Interstate High Speed Rail

Compact; Paul Worley, NCDOT Rail Division Director; Jeff Mann, General Manager, GoTriangle; Jim Kessler, Vice President, North Carolina Railroad Company; Robert Cook, Charlotte Regional Transportation Planning Organization; Tim Gibbs, Charlotte Department of Transportation; and Jay McArthur, Amtrak. Additional meetings will be held throughout the study, which is anticipated to be complete in September 2017.

For more information, please contact Eddie McFalls, PE, Strategic Initiatives Consultant at (919) 707-4727 or [ebmcfalls@ncdot.gov](mailto:ebmcfalls@ncdot.gov).

## FRRCSI Funds Improve Sanford Rail Crossing

Motorists will have a much smoother ride when crossing the railroad tracks on Weatherspoon Street in Sanford. A new 68-foot concrete tub style crossing replaced the rough and deteriorated asphalt crossing. The new concrete crossing will last many years with little anticipated maintenance expense. NCDOT Division 8 provided the asphalt work, resulting in a smooth approach to both sides of the crossing. This project was completed on September 13 using \$54,303 in Freight Rail and Rail Crossing Safety Improvement Funds.

The crossing is located on the Atlantic & Western Railway, an operating unit of Genesee & Wyoming Inc. Genesee & Wyoming operates short line railroads in the United States, Australia and Europe.



## North Carolina & Virginia Railroad Improvements Underway



On September 16, Rail Division staff visited the North Carolina & Virginia Railroad (NCVA) to review ongoing improvements to its line. The railroad is continuing a program to upgrade its infrastructure to support current and new customers. NCVA has

partnered with NCDOT who has partially funded the upgrades through the use of remaining Mobility funds. This project includes a series of improvements to 12 timber-pile bridges and five culverts. Construction this summer focused on the replacement of bridge decks, stringers and posts on five timber structures. The overall project construction is expected to be completed by the end of this year. NCVA's primary customer is NUCOR Steel in Cofield, NC. In addition to NUCOR, NCVA also provides service to Berry Plastics, Commercial Ready Mix, Eddie Kane Steel and Resinall, among others. Short line railroads like the NCVA are valuable to freight logistics and economic development efforts throughout the state.



## Pembroke Connector Track in Robeson County will Expedite Freight and Intermodal Service in Eastern NC

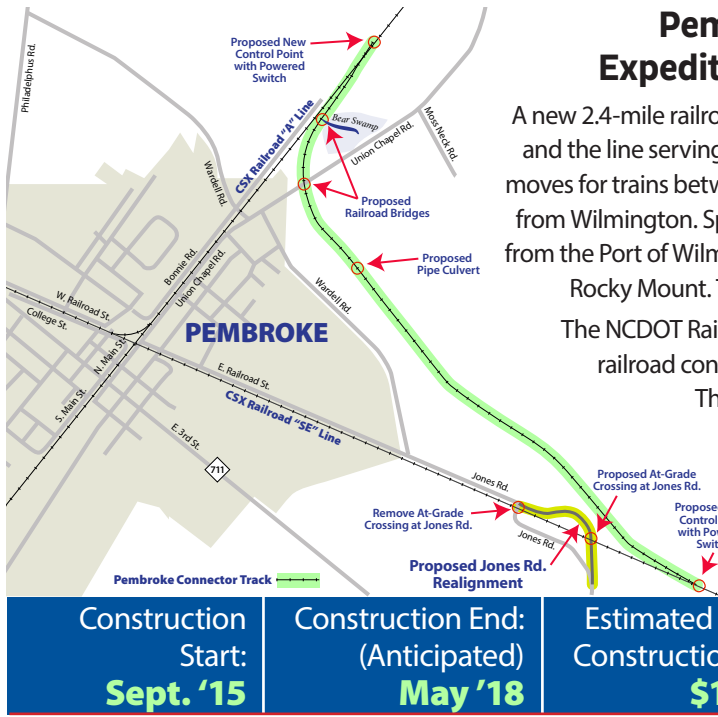
A new 2.4-mile railroad connection is being constructed between CSX's main north-south line and the line serving Wilmington industries and the port. The new connection provides direct moves for trains between the north and east and will reduce transit times for shipments to and from Wilmington. Specifically, the new connection track will expedite intermodal train service from the Port of Wilmington to the new Carolina Connector (CCX) east coast intermodal hub in Rocky Mount. The connection will be in service prior to the opening of the CCX terminal.

The NCDOT Rail Division is administering the grading contract and overseeing the overall railroad construction. The NCDOT contractor for the grading is C.M. Lindsay and Sons. The grading project is on schedule and approximately 50 percent complete.

Railroad bridge construction over Union Chapel Road began this month and is the next major construction item. CSX will administer the railroad track and signal construction, which is expected to begin in 2017.

As part of the project, Jones Road is being relocated as depicted on the map to reduce crossing blockages by trains and improve roadway safety and railroad crossing geometry.

This project element is being administered by NCDOT's Division 6.



## Train Service to Carolina Panthers Games

Passengers headed to 1 p.m. Sunday games on Nov. 13, Dec. 11 or Dec. 24 can take *Piedmont* Train 73 from Raleigh at 6:45 a.m. or board at one of the other seven stations along the way and return on *Piedmont* Train 76 at 5:15 p.m.

The Charlotte Area Transit System is picking up passengers at the Charlotte station and dropping them off a few blocks from Bank of America Stadium. ([View a map.](#)) The fare is \$2.20 for one-way service and \$4.40 for round-trip service.

**For info and to purchase tickets: [www.ncbytrain.org](http://www.ncbytrain.org)**

## The Rail Division continues to be an Industry Leader in Reducing Air Pollution

Locomotive 1859 was recently retrofitted with a specialized selective catalytic reduction system, known as a Blended Aftertreatment System (BATS). The BATS system is designed to treat locomotive engine exhaust with chemicals prior to being released to the environment, which significantly lessens air pollution levels from the locomotive. Initial testing of the BATS was completed in late September and confirmed that the locomotive's emissions levels are now nearly compliant with, and in some cases, better than the EPA's most stringent requirements for air pollution.

NCDOT is the only passenger rail agency in the country to have successfully implemented a retrofit emissions reduction system that meets such stringent levels, and it intends to have its remaining F59PH locomotives retrofitted with BATS systems by late 2018.

**Air pollution levels have been reduced by up to 95% vs. prior to BATS installation.**

The Rail Division sincerely thanks NCDEQ, the NCSU Clean Tech Center and EE Department, Rail Propulsion Systems, EF&EE, and RailPlan, Inc., for their efforts in successfully implementing the BATS emissions reduction system.



## Enhanced Wi-Fi Service Available on the Raleigh - Charlotte Piedmont Trains

The NCDOT Rail Division is now offering enhanced premium Wi-Fi service onboard the *Piedmont* trains.

Passengers have three Wi-Fi options – Bronze, Silver and Gold plans. The 30-minute Bronze plan is included in the purchase of a ticket, and now there is the added option of Silver and Gold plans. These new tiered Wi-Fi services provide passengers with higher speeds and additional media streaming options, and can be purchased on an hourly basis for occasional riders and a monthly fee for regular riders of the *Piedmont*.

## Out and About with NC BY TRAIN

Alison Boswell, Customer Service Agent, shares info and schedules with bluegrass fans at Wide Open Bluegrass in Downtown Raleigh, September 30 and October 1.

Look for the NC BY TRAIN tent at the Whirligig Festival in Wilson on November 5 and 6.





# All Aboard the Santa Train!

Enjoy pictures with Santa, refreshments and Christmas carolers on Saturday, **December 3.**



**NC**  
BY TRAIN

**Departs from Charlotte, Kannapolis, Salisbury,  
Raleigh, Cary, Durham or Burlington**

## Santa Train Raleigh

Travel to Greensboro and back with a brief layover. To get on board, book a seat on the Piedmont #75 departing from Raleigh, Cary, Durham or Burlington.

### Raleigh to Greensboro

DEPARTS	TRAIN 75	Fares As Low As
RALEIGH	11:45 AM	\$14.50
CARY	11:58 AM	\$12.50
DURHAM	12:19 AM	\$11.50
BURLINGTON	12:55 AM	\$6.00

### Greensboro to Raleigh

DEPARTS	TRAIN 74	Fares As Low As
GREENSBORO	1:42 PM	
BURLINGTON	2:03 PM	\$6.00
DURHAM	2:42 PM	\$11.50
CARY	3:03 PM	\$12.50
RALEIGH	3:21 PM	\$14.50

## Santa Train Charlotte

Travel to High Point and back with a brief layover. To get on board, book a seat on the Piedmont #74 departing Charlotte, Kannapolis or Salisbury.

### Charlotte to High Point

DEPARTS	TRAIN 74	Fares As Low As
CHARLOTTE	12:00 PM	\$16.50
KANNAPOLIS	12:27 PM	\$11.00
SALISBURY	12:44 PM	\$8.50

### High Point to Charlotte

DEPARTS	TRAIN 75	Fares As Low As
HIGH POINT	1:38 PM	
SALISBURY	2:14 PM	\$8.50
KANNAPOLIS	2:31 PM	\$11.00
CHARLOTTE	3:04 PM	\$16.50

*Kids 2-12 ride half price with paid adult. Discounts for AAA members, seniors, college students and military. Reservations required, book early for best fares. Seating is limited. Please arrive early for parking. For more information, visit [ncbytrain.org](http://ncbytrain.org) or call 1-800-BY-TRAIN.*

## Ridership & Revenue on NC's Amtrak Service – \*August 2016 vs. 2015

	RIDERSHIP			REVENUE		
	2016	2015	% +/-	2016	2015	% +/-
<b>Piedmont</b>	11,486	12,948	-11%	\$234,777	\$256,499	-8%
<b>Carolinian</b>	26,879	27,845	-3%	\$1,852,687	\$1,897,949	-2%

**947**

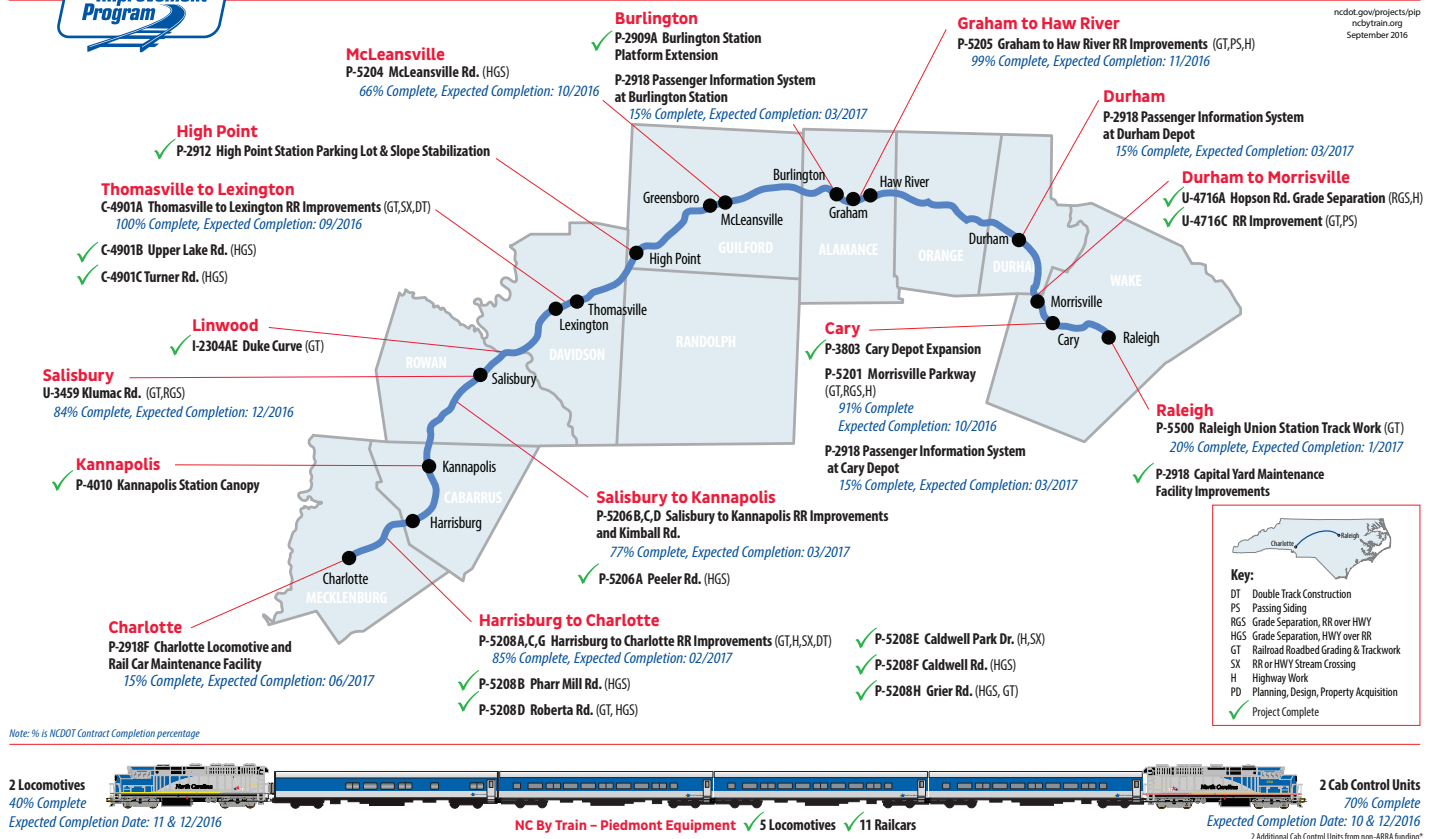


Hours Volunteered by N.C. Train Hosts in August, supporting NC BY TRAIN onboard and at events.

August 2016 service modifications and annulments impacted eight *Piedmont* trains and four *Carolinian* trains. On August 8 and August 15, all *Piedmont* trains were annulled and *Carolinian* trains operated between New York and Raleigh only to accommodate Piedmont Improvement Program (PIP) project work. Additional disruptions for PIP project work will continue to occur as necessary through completion of the project. Average gasoline prices were \$0.32/gallon lower in August 2016 than in August 2015 (EIA Weekly Retail Gasoline for Lower Atlantic region).



## Piedmont Improvement Program – September 2016 Status Report



## Piedmont Improvement Program Milestones

**Haw River** - The siding at Haw River (*below*) was placed in service on September 19 on the new alignment. Remaining work on the project includes putting the main track in service on its permanent alignment, anticipated to occur in October, and completing minor grading items.



**Charlotte** - On September 19, a temporary detour alignment south of CP Junker was removed, establishing a portion of the final alignment for main track 1. Removing the temporary alignment allows for the final stages of completion of the double track at the south end of the Haydock to Junker project (*right*).

## Spent to Date of \$520M (eff. 9/30/2016)

Component	Expenditure
PD&A/ROW	\$ 53,270,996
Equipment Procurement & Rebuild	\$31,092,387
Stations & Facilities	\$46,256,517
Track & Structures	\$297,950,929
CRISP	\$2,180,376
<b>Program Totals</b>	<b>\$430,760,205</b>

Two new contracts totaling \$18,320 were awarded in September.

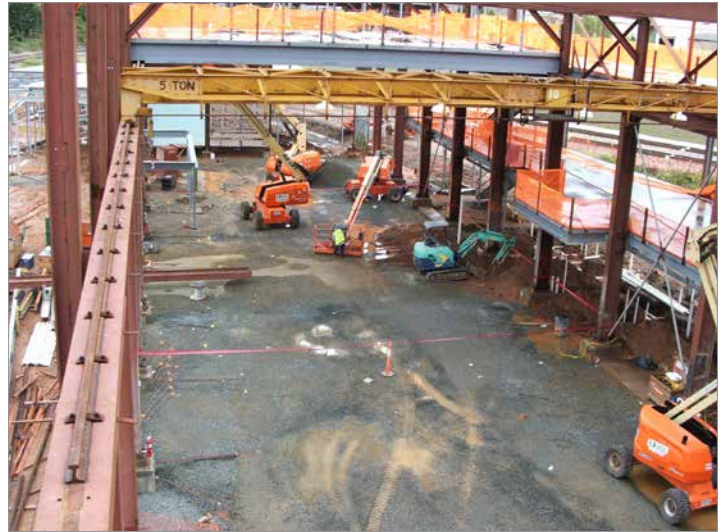




## Piedmont Improvement Program – Project Photos – September 2016



P-5500 Raleigh Union Station, roadbed construction



P-5500 Raleigh Union Station, station construction



P-5201 Morrisville Parkway, open to traffic



P-5205 Graham to Haw River Passing Siding construction



P-5204 McLeansville Road, final grading



C-4901 Bowers to Lake, Rich Fork bridge completed



## Piedmont Improvement Program – Project Photos – September 2016



U-3459 Klumac Road, roadway paving



P-5206 Reid to North Kannapolis, track construction



P-5206 Reid to North Kannapolis, track surfacing



P-5208 Haydock to Junker, track construction



P-5208 Haydock to Junker, track construction



P-5208 Haydock to Junker, Coddle Creek bridge construction



NCDOT Location and Surveys Unit

Keith Honeycutt, PE, PLS  
Eastern Regional Locating Engineer

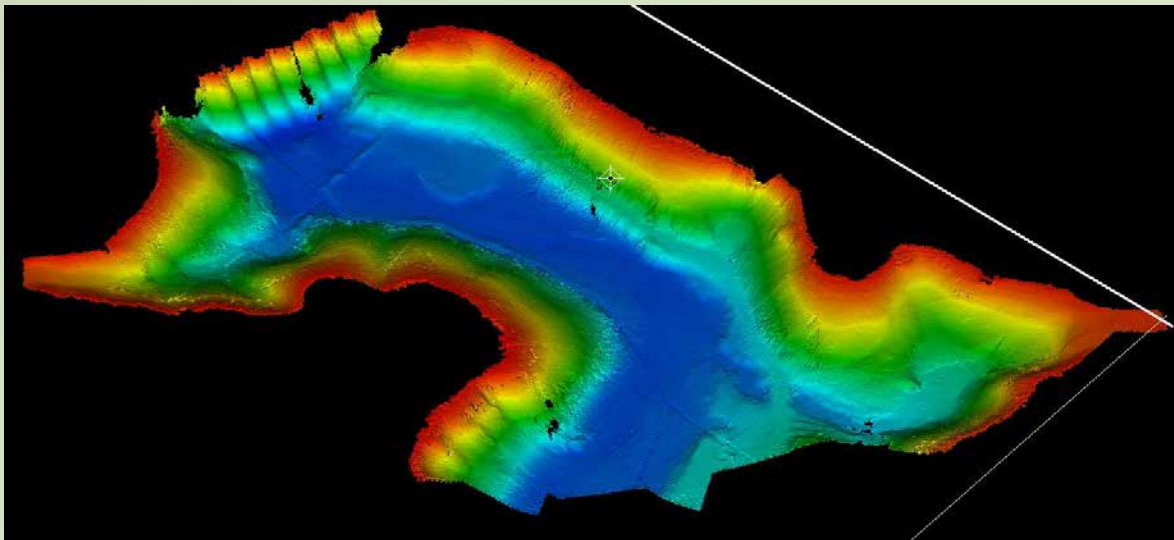
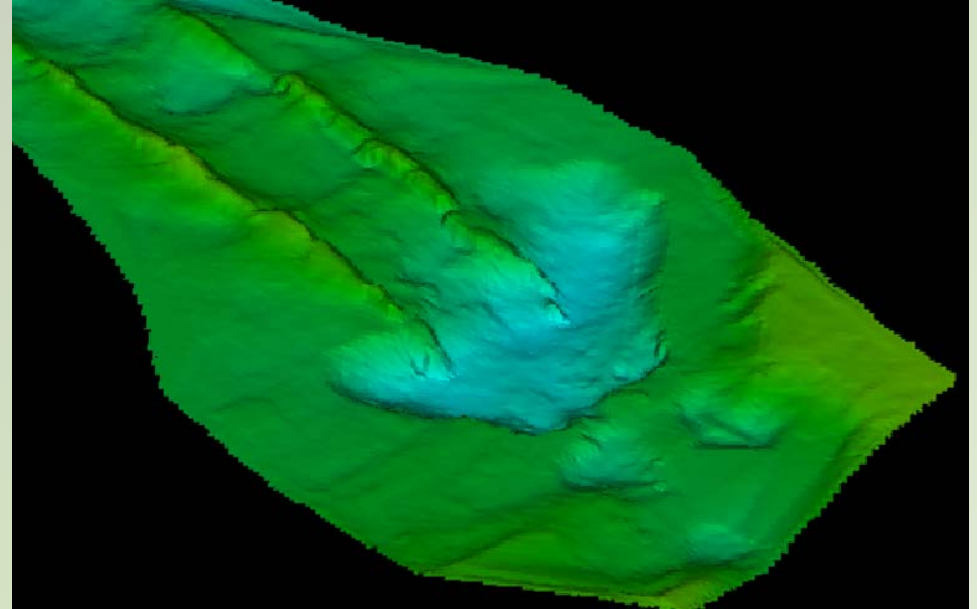
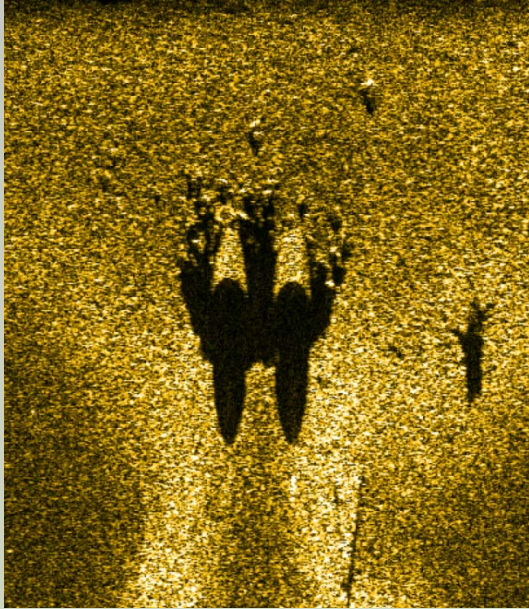


*Shallow Water Surveying  
with Sonar in North Carolina  
(Mapping Underwater Surfaces)*



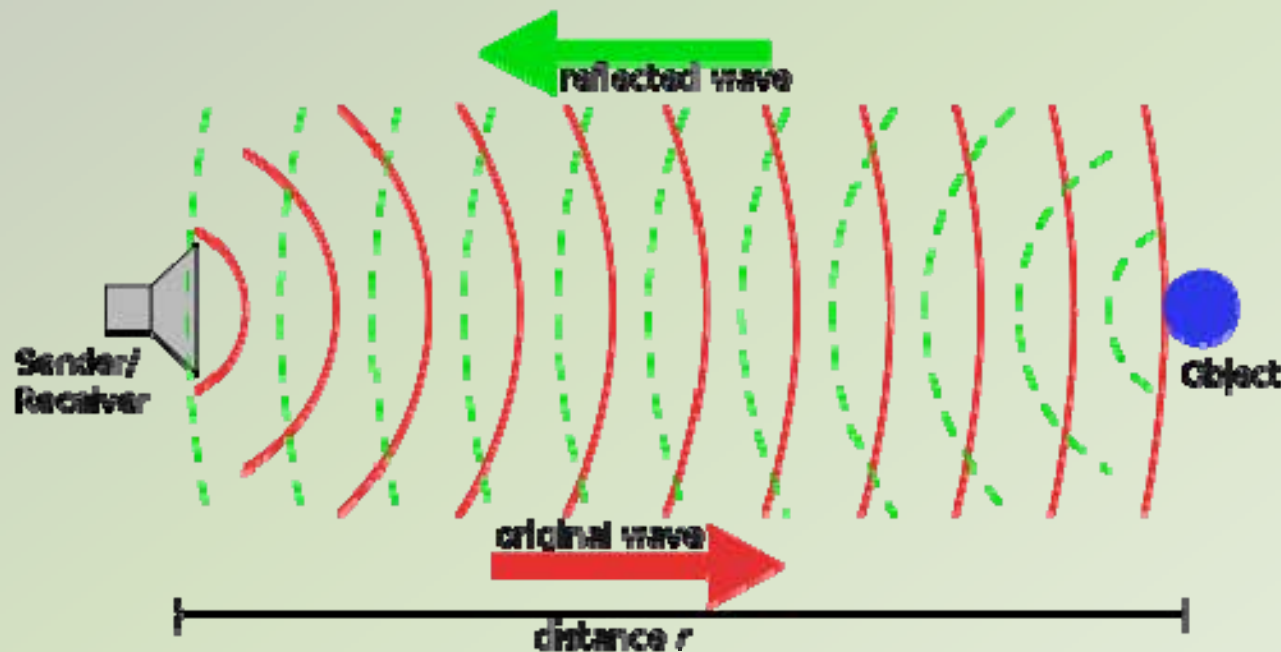
# *Collecting Subsurface Data*

*(Mapping the underwater surfaces)*



# *SOund Navigation And Ranging (Sonar)*

is a technique that uses sound propagation to detect objects on or under the surface of the water.



Reference : Georg Wiora ([Dr. Schorsch](#))



*Transportation*



# Applications for Sonar Surveying

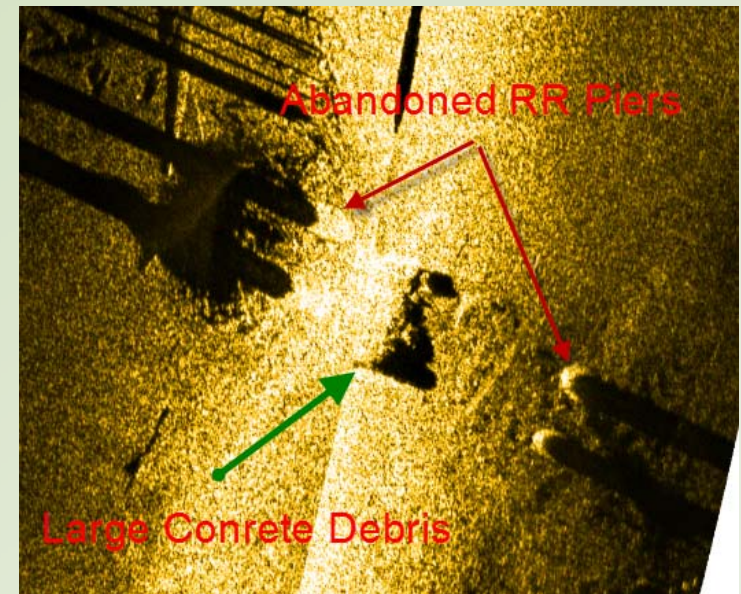
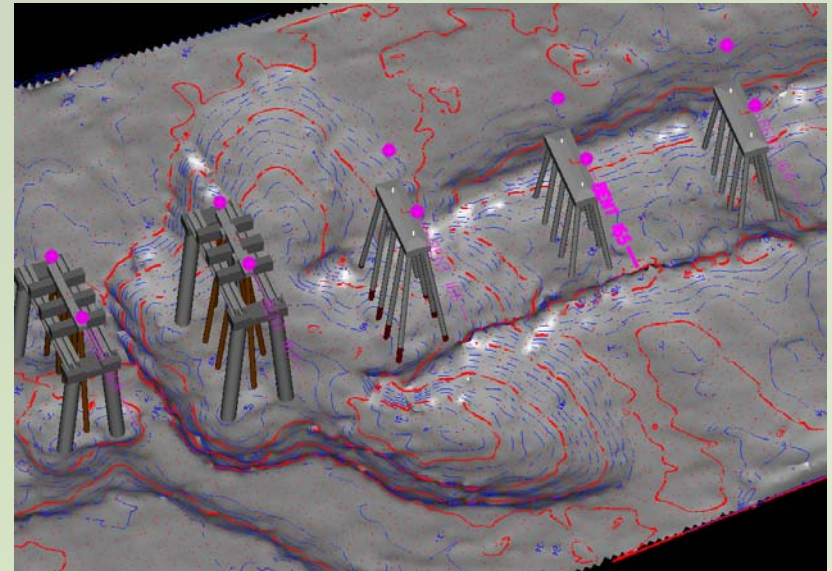
Scour monitoring around structures

Channel Mapping for dredge operations

Locating submerged features

Submerged aquatic vegetation mapping

Volume computations of ferry channels and borrow pits



# *Location and Surveys Unit Sonar Equipment*

25' Parker



Edgetech 6205  
on pole davit



Laptop



Trimble BX 982



Edgetech topside



Coda MRU





# *Private Engineering Partnership Limited Service Contracts*

Wade Lynn Geospatial LLC.



ESP Associates, P.A.



McKim And Creed



*Transportation*

# *Location and Surveys Unit*

## *Sonar Operations Group*

### **Mission**

We perform a minimum of one survey a month at Bonner Bridge (Oregon Inlet). Bi-weekly surveys when Bonner Bridge was closed in 2013.

NCDOT's 13 ferry channels/basins are surveyed a minimum of once a year. Some of these are surveyed more than once a year.

We also perform STIP project surveys around bridges and causeways.

### **Other Assignments**

We are routinely asked to do surveys to look for new channels near some of our inlets. (Hatteras and Ocracoke)

Port Authority survey for barge mooring area.



# Scour Monitoring

## *Bonner Bridge (Oregon Inlet) Mission*



***Bonner Bridge 1996***



Herbert C. Bonner Bridge

***Bonner Bridge 2014***



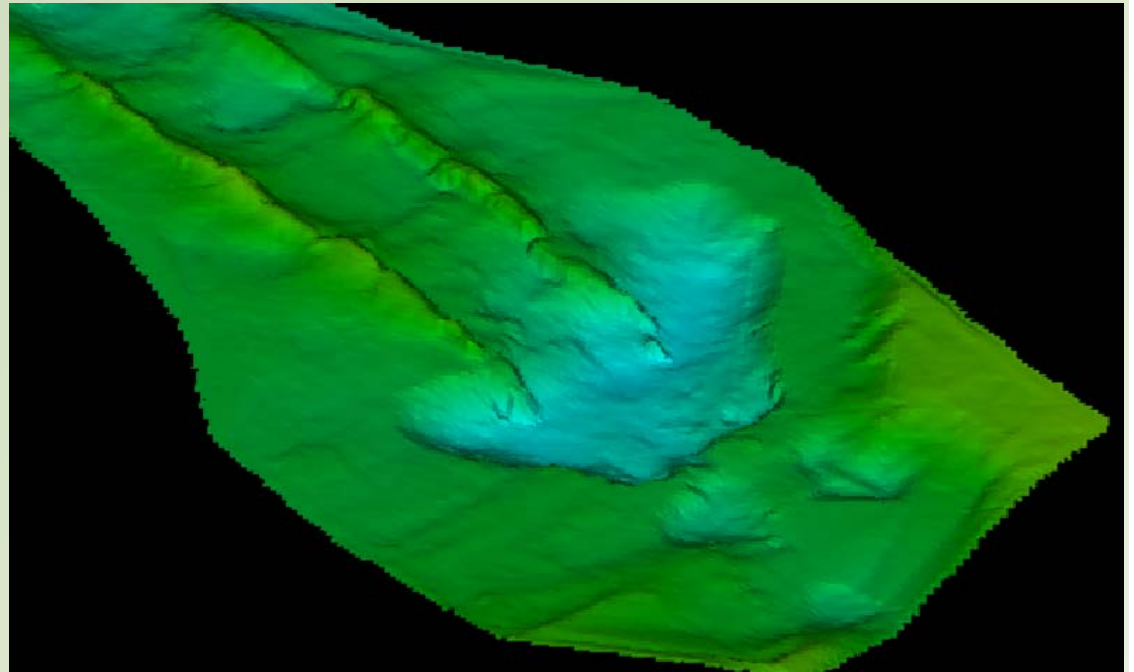
# *Scour Monitoring at Bonner Bridge*



*Fixed Single Beam*

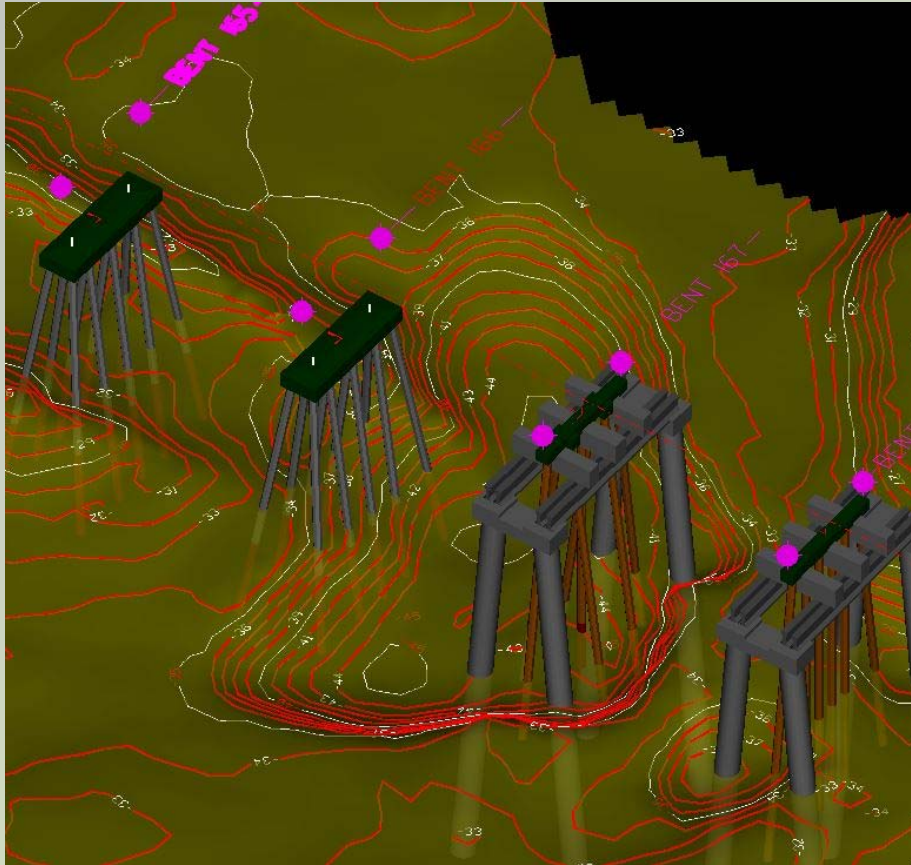


*Multi-beam System*

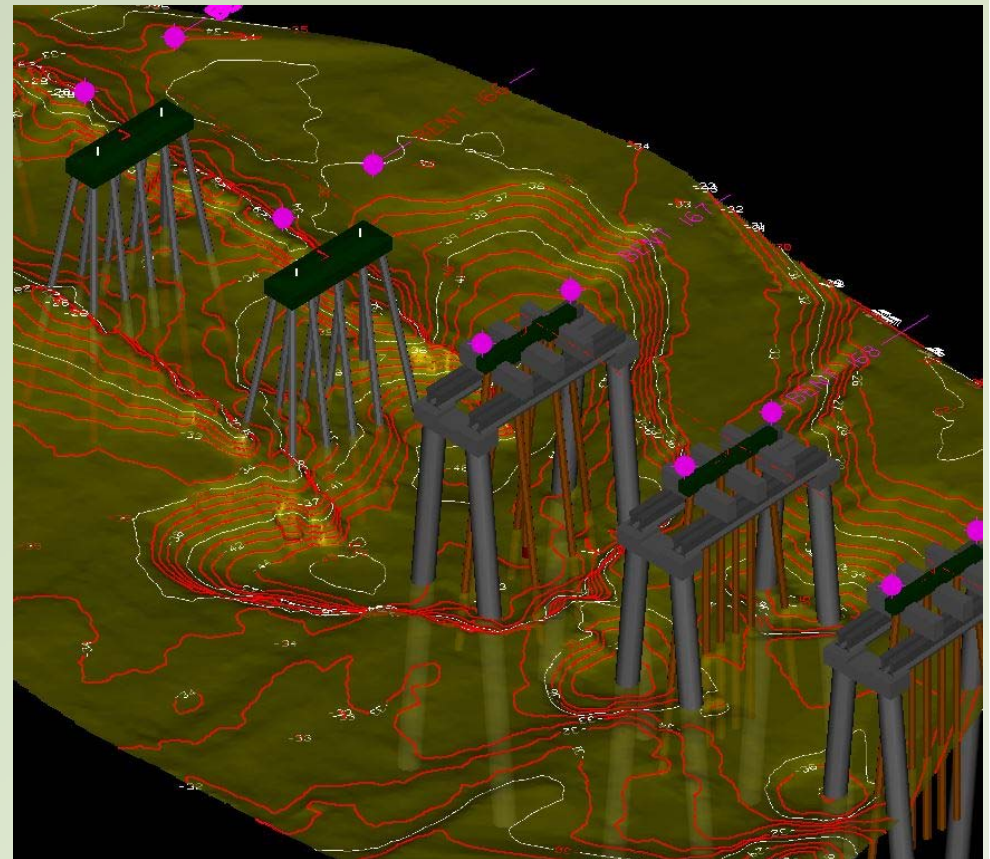


# *Scour Develops at Bent 166 - 167*

*August 22, 2013*



*September 11, 2013*





# *Scour Develops at Bent 166 - 167*

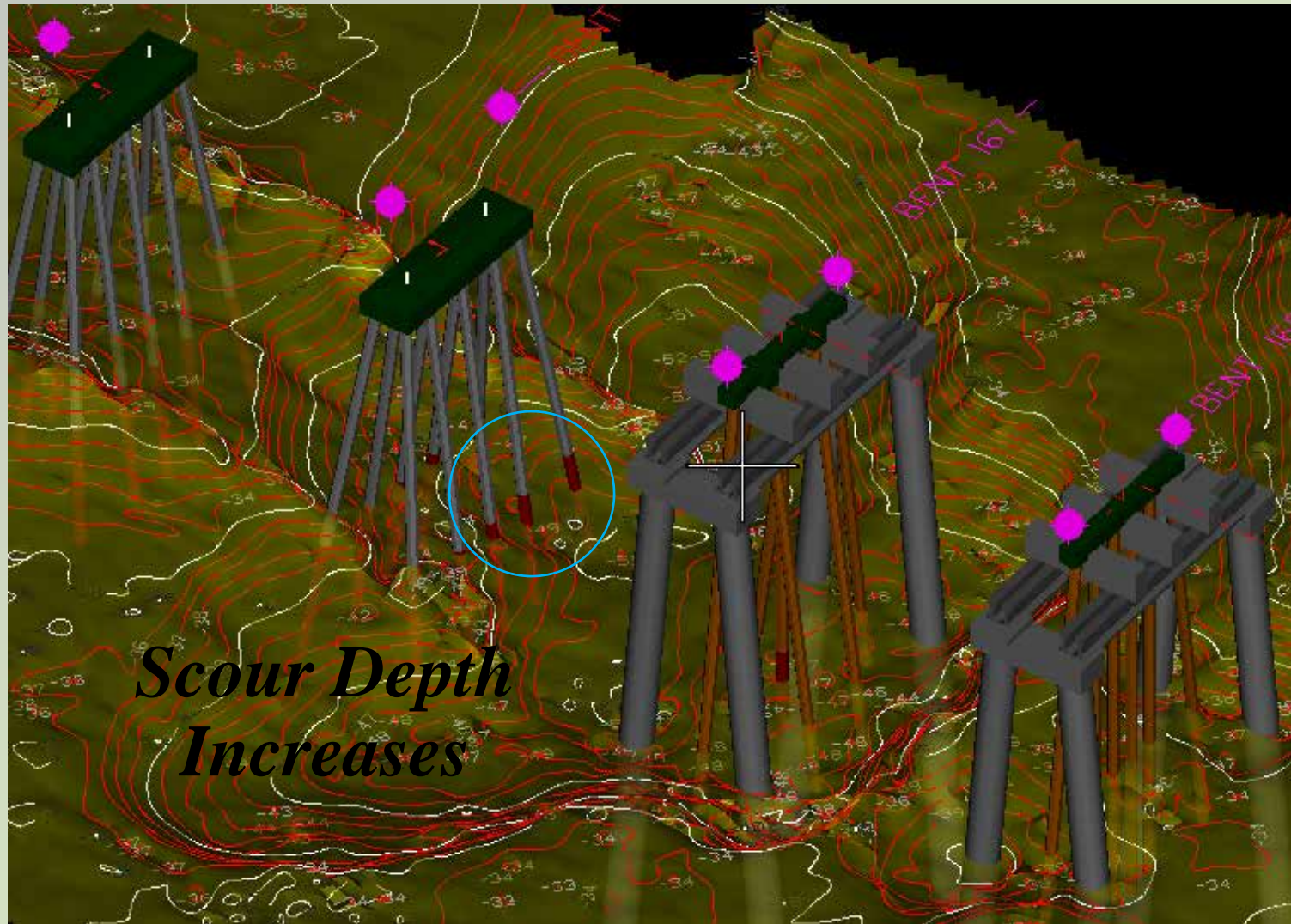
*October 16, 2013*





# *Scour Develops at Bent 166 - 167*

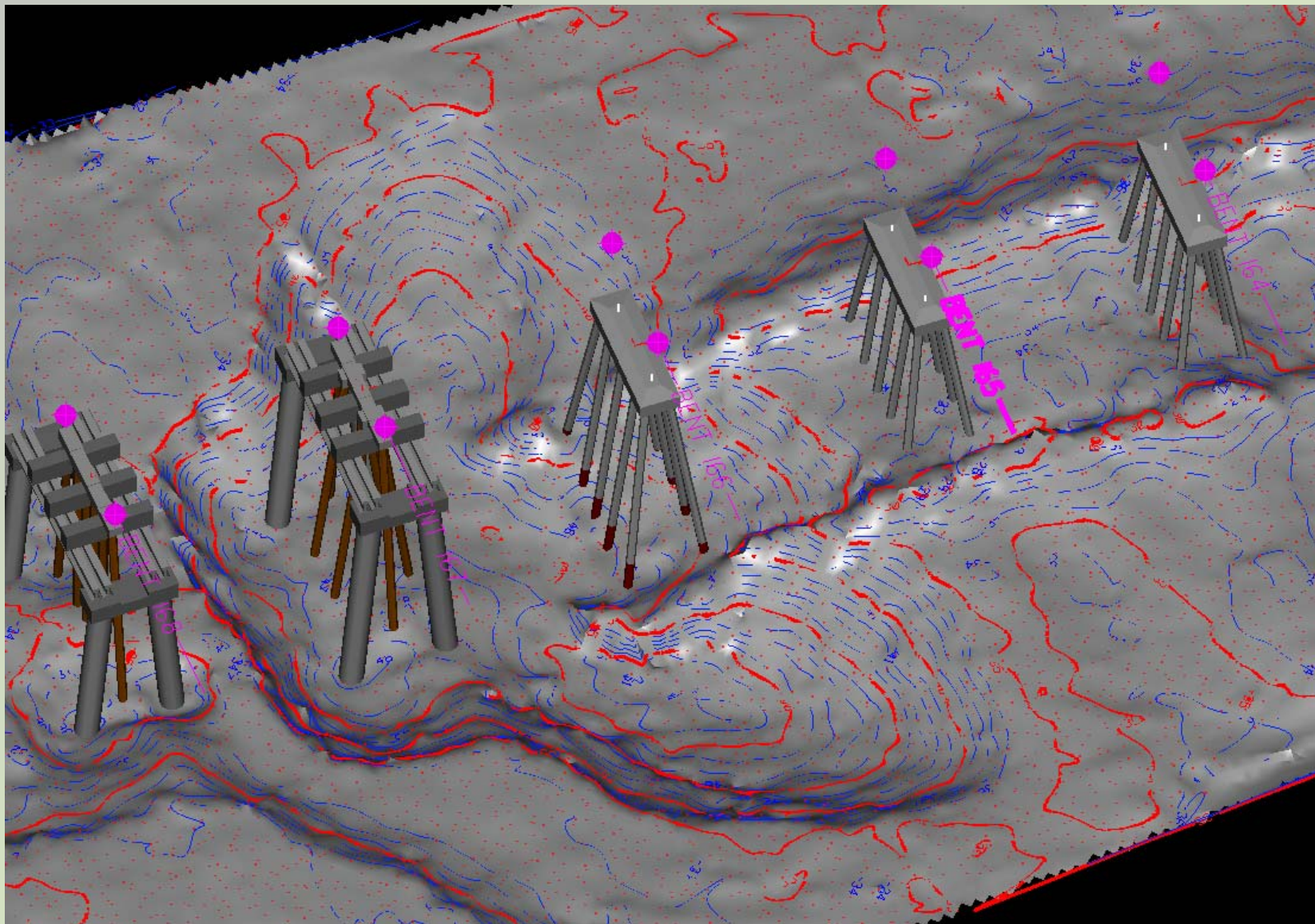
*November 21, 2013*





# *Bonner Bridge Closed*

## *December 3, 2013*





# *December 9, 2013*

## *Dredge Sand Pumping Operation Completed*



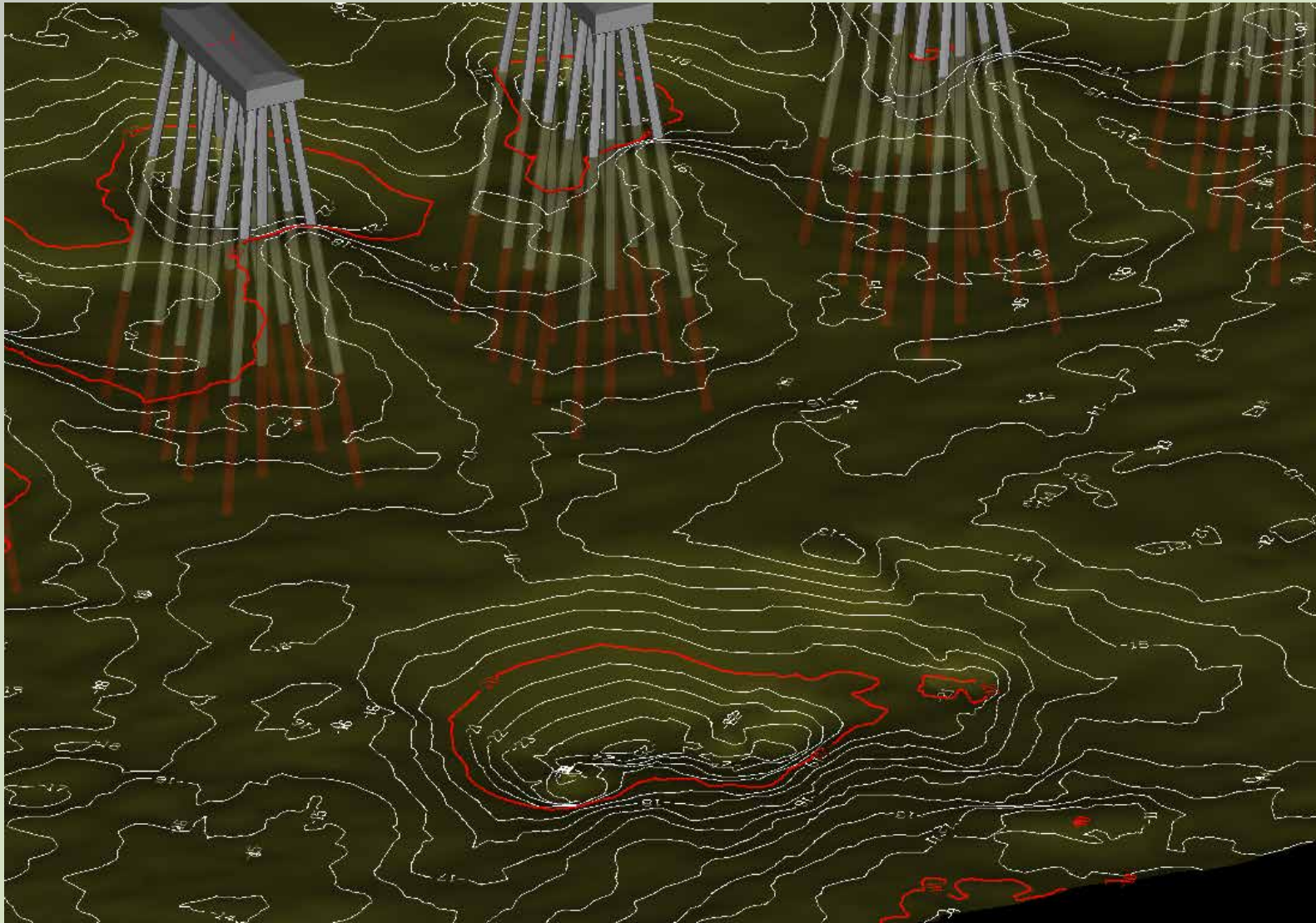
# *New Bridge Construction*





# *New Bridge Construction*

*New Piles*





# *Ferry Channel Maintenance*

- 13 Ferry Channels

- Currituck
- Knotts Island
- Stumpy Point
- Southport
- Fort Fisher

- Cherry Branch
- Minnesott Beach
- South Dock
- Manns Harbor
- Swan Quarter

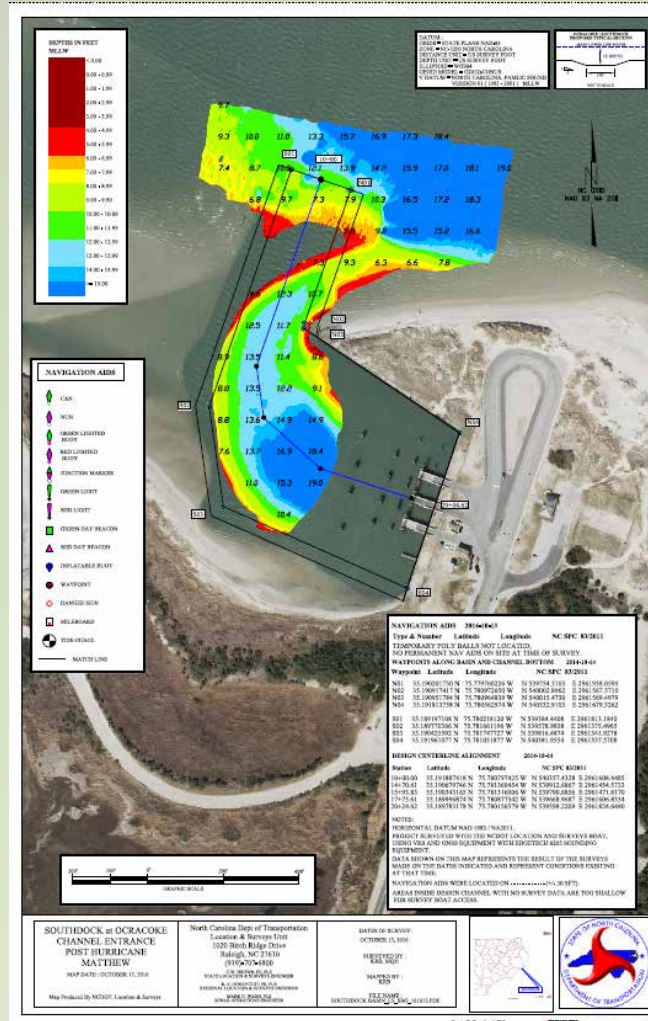
- Cedar Island
- Aurora
- Bayview



Silver Lake Ocracoke



## October 13, 2016 Post Matthew





# *STIP Projects*

## *Lake Lure Dam*





## *Lake Lure Dam*



## *Lake Lure Dam*



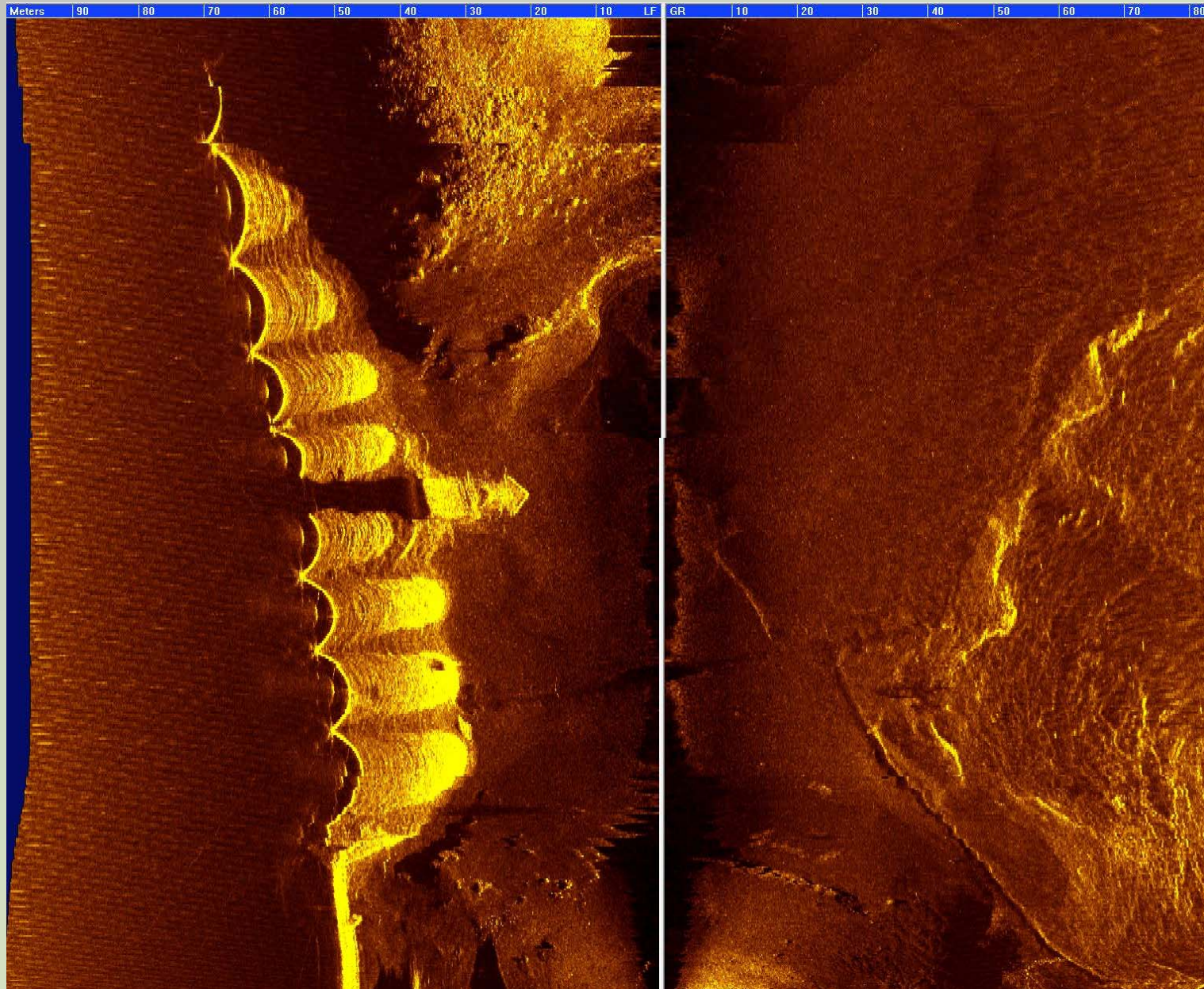


## *Lake Lure Dam*





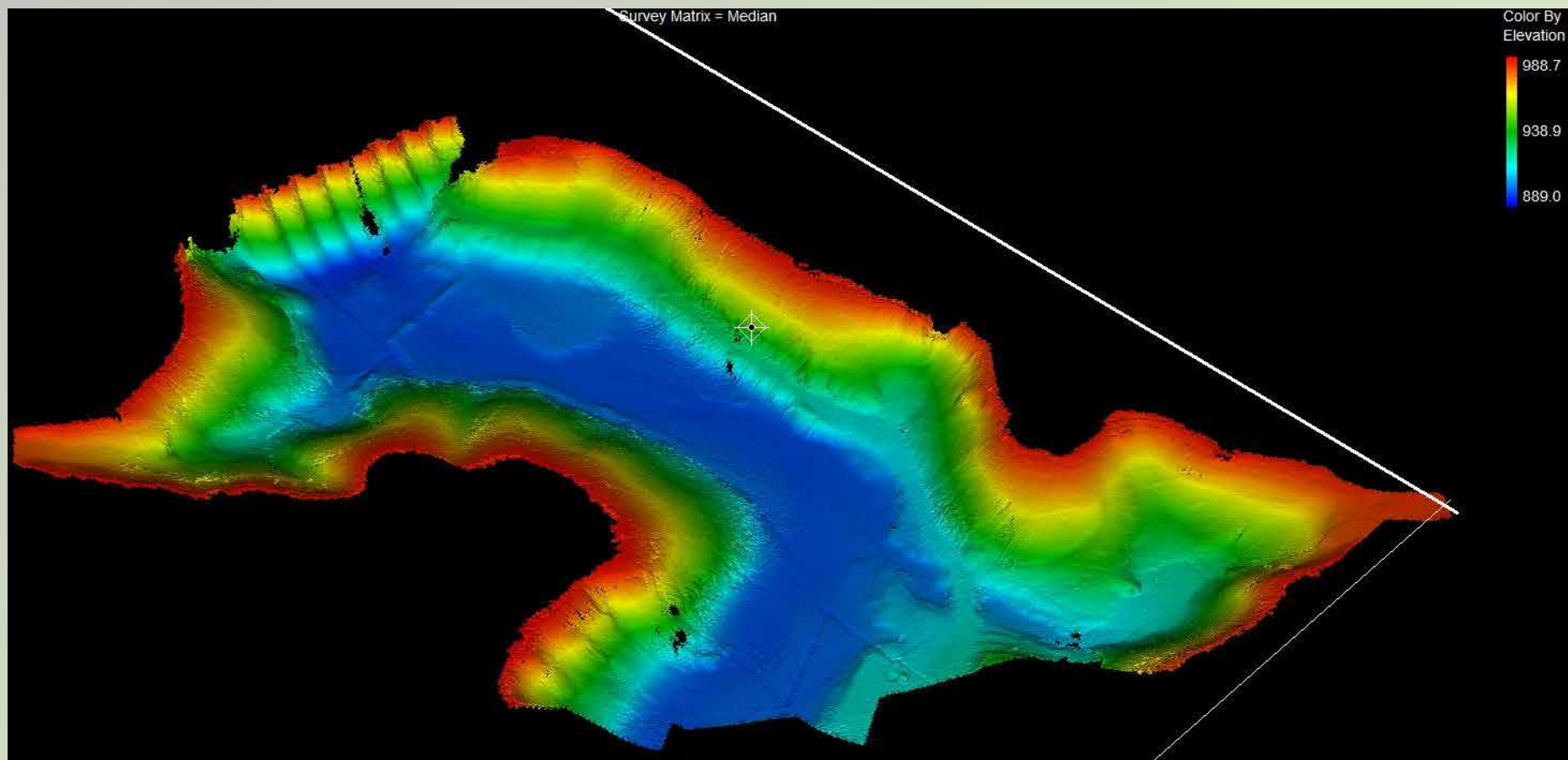
# *Lake Lure Dam Imagery*





# *Lake Lure Dam*

## *Bathymetry Survey*

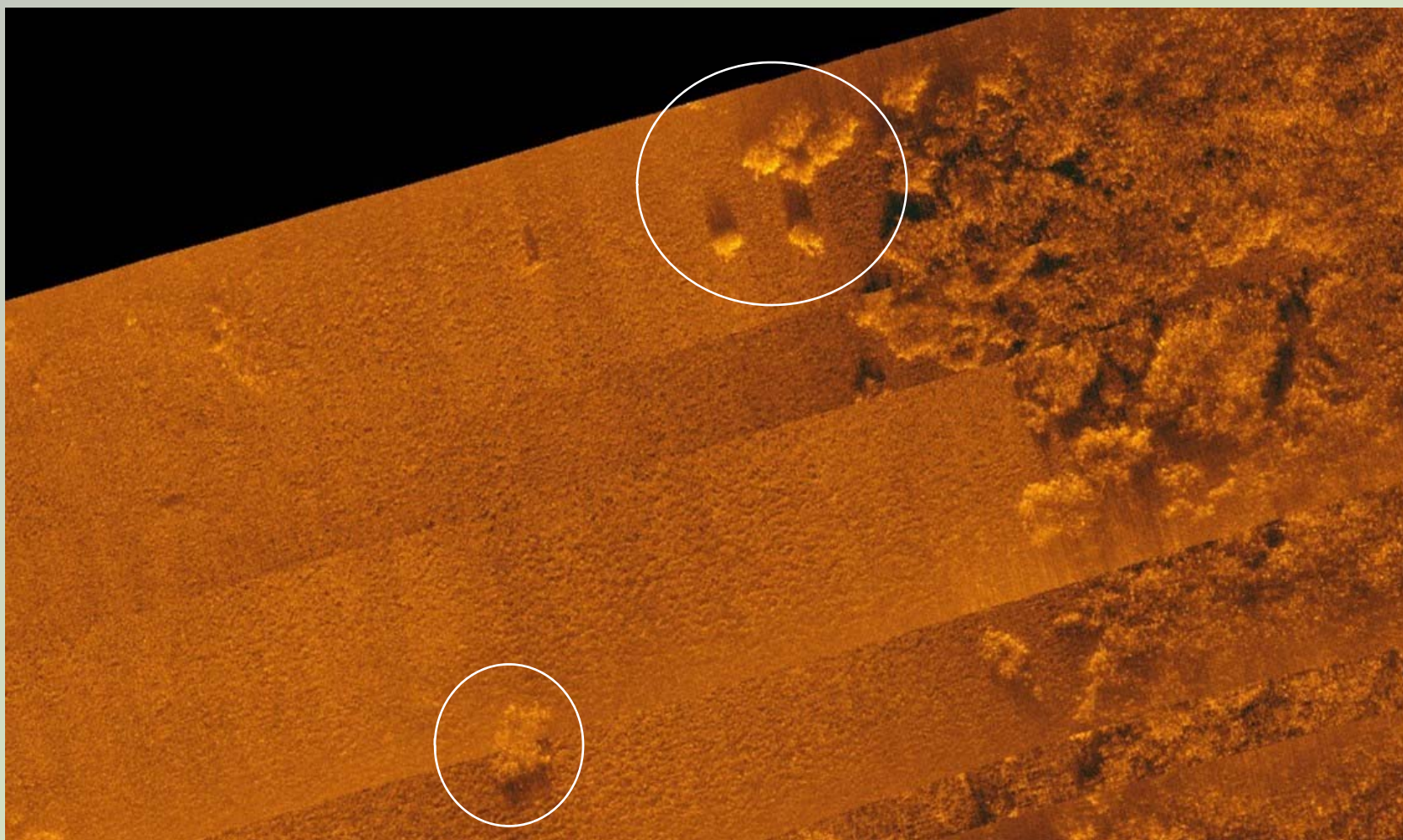


*STIP Project  
Mid-Currituck Bridge  
Submerged Aquatic Vegetation Survey*





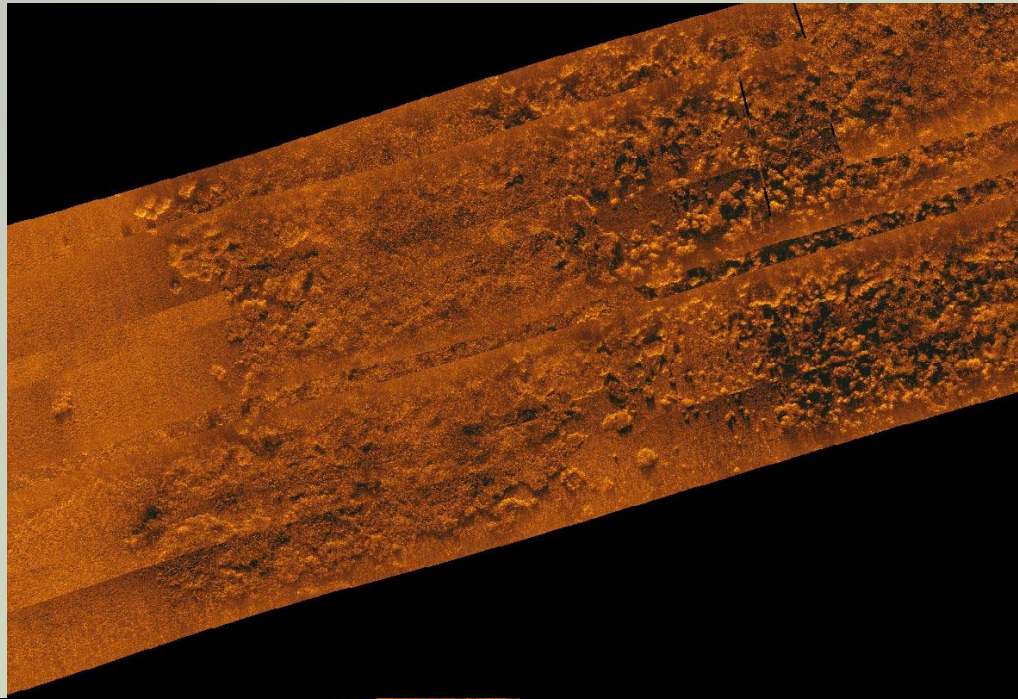
*STIP Project  
Mid-Currituck Bridge  
Submerged Aquatic Vegetation Survey*



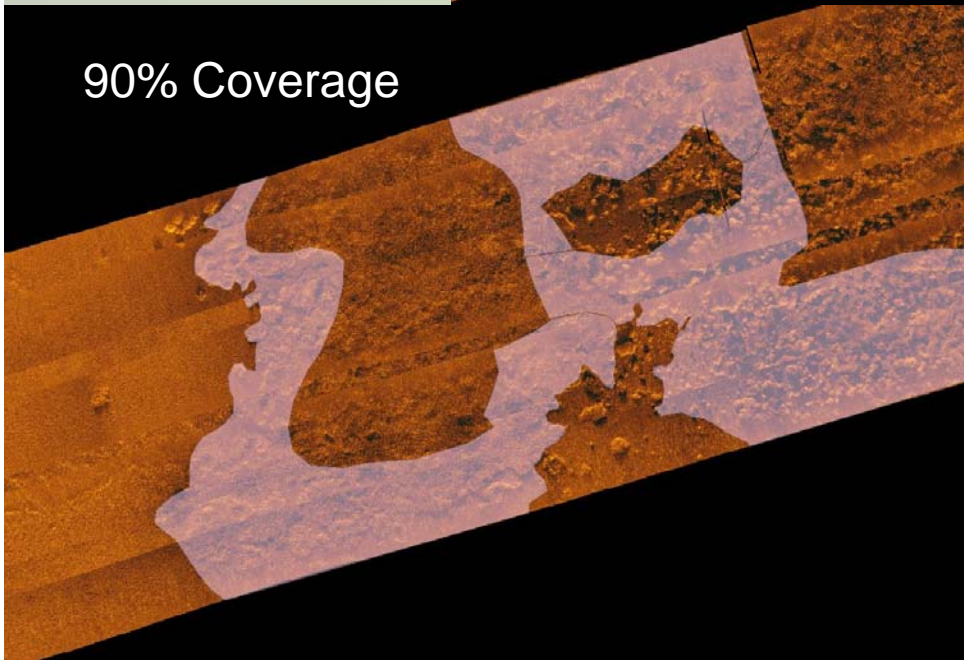


**STIP Project  
Mid-Currituck  
Bridge  
Submerged  
Aquatic  
Vegetation  
Survey**

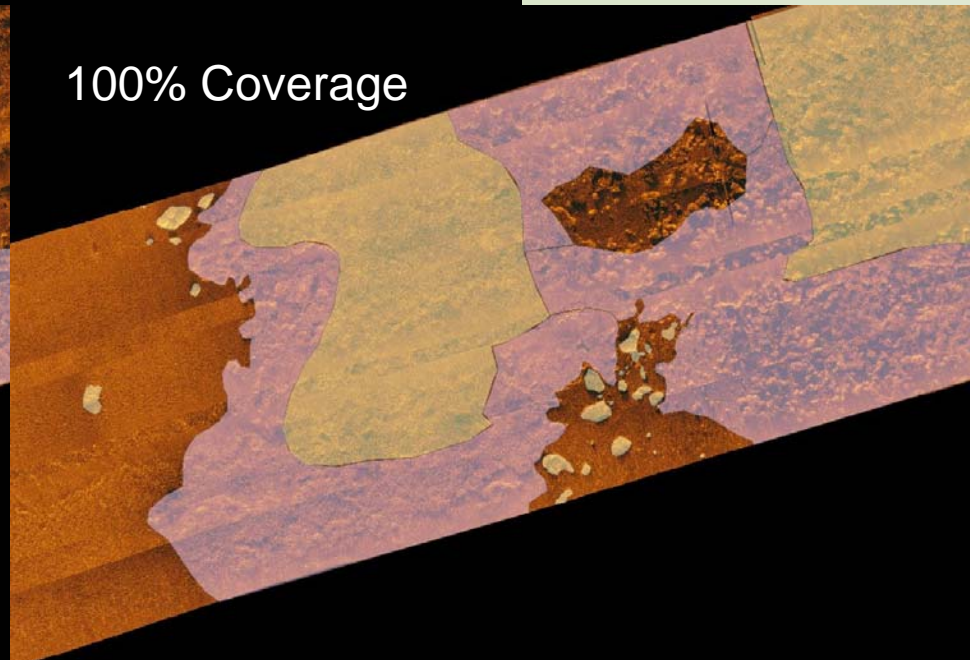
**Side Scan  
Imagery**



90% Coverage

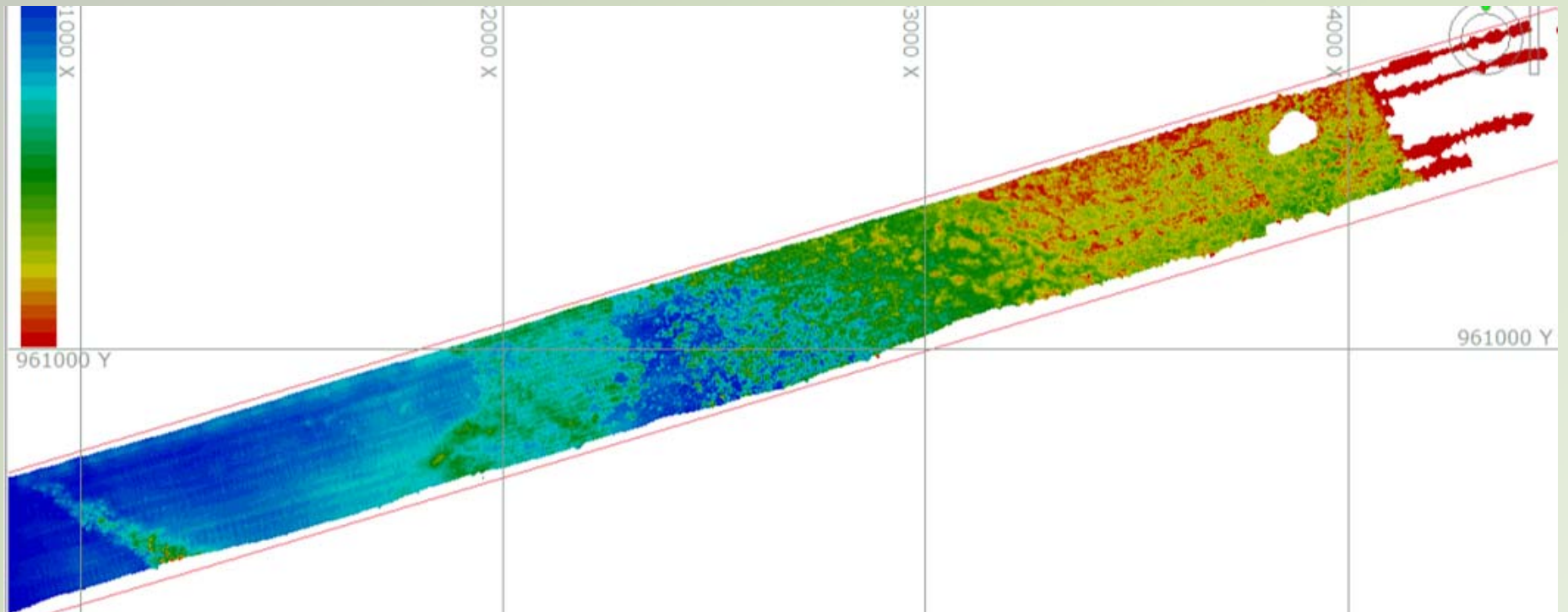


100% Coverage



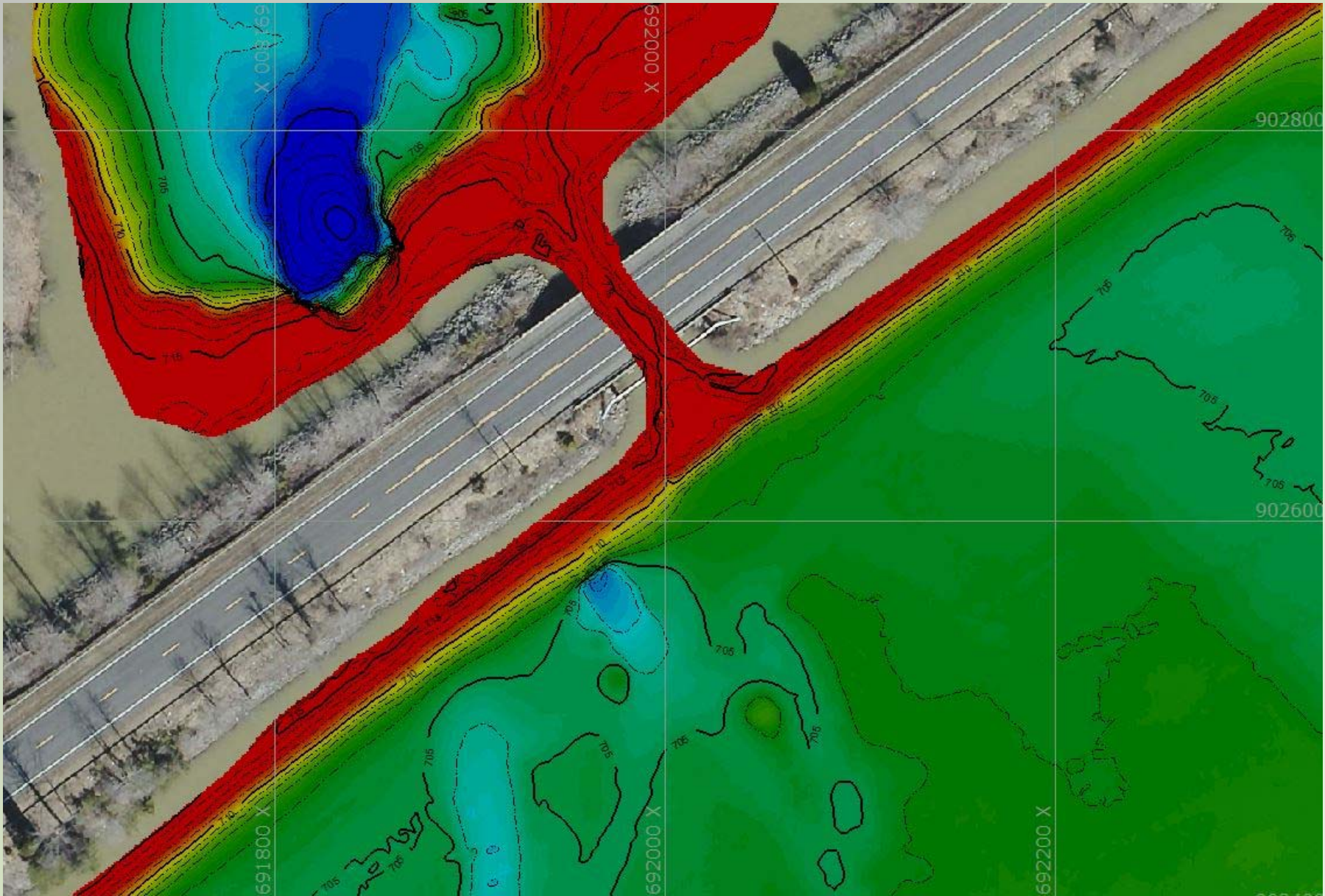
# *STIP Project Mid-Currituck Bridge Submerged Aquatic Vegetation*

*Bathymetry Data*





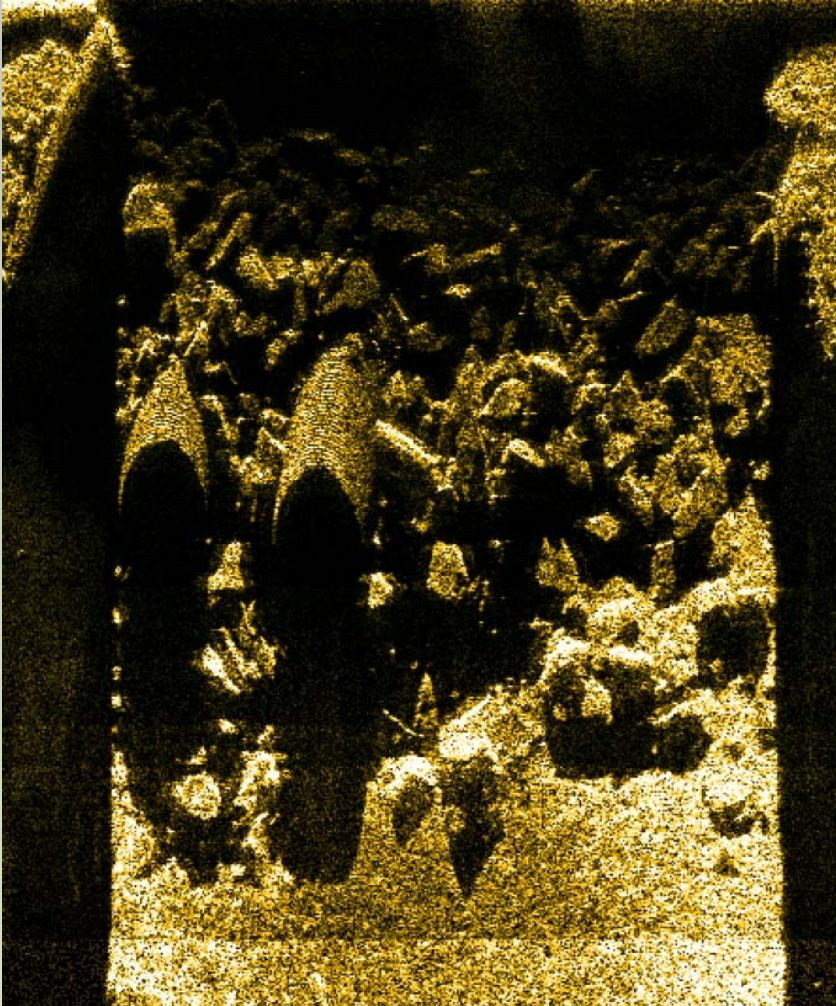
***STIP Project R-2577***  
***Belews Lake in Forsyth Co.***



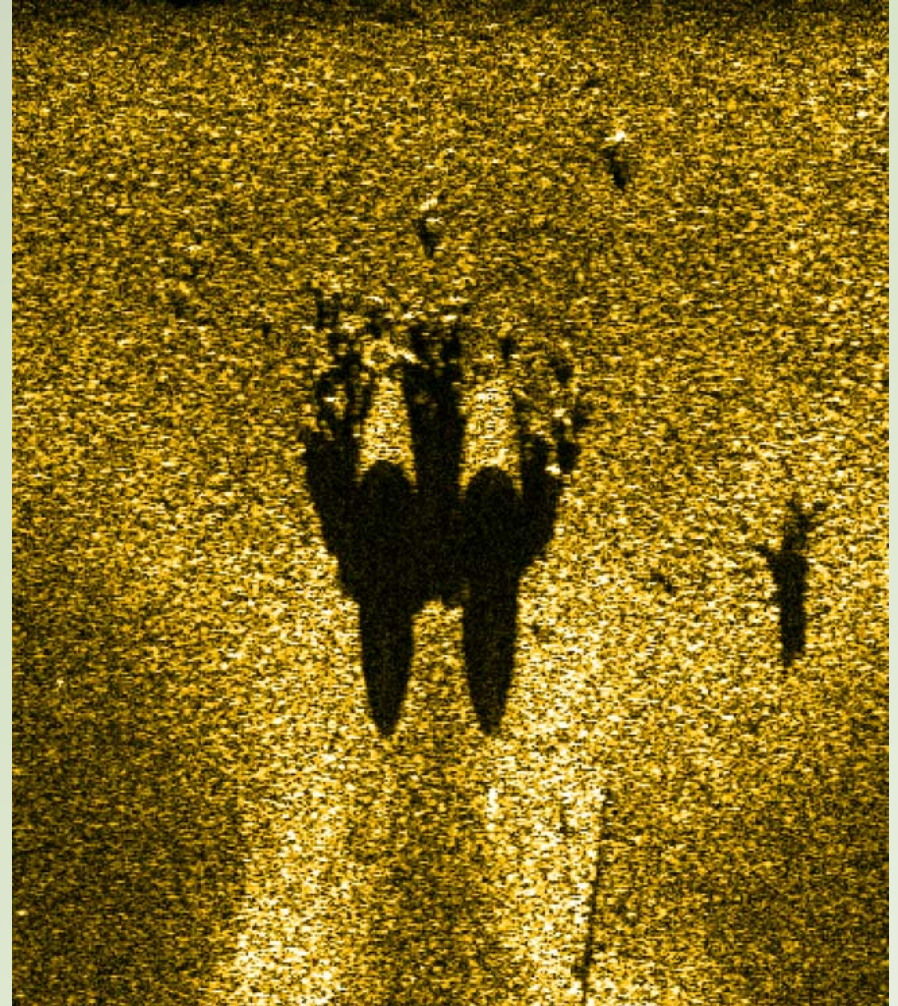


*STIP Project R-2577  
Belews Lake in Forsyth Co.*

*North side*



*South side*





## *Sonar Operations Group*

2013 total 532 acres surveyed.

2014 total 588 acres surveyed.

2015 total 1060 acres surveyed.



The first 3 quarters of 2016, 32 missions have been completed totaling 1532 acres surveyed.



# *North Carolina Dept. of Transportation*

## *Location and Surveys Unit*

### *Sonar Operations*



Herbert C. Bonner Bridge

**Thank You**  
**Questions?**



*Transportation*



# ROAD/BRIDGE/FERRY NAMING COMMITTEE AGENDA

## BOARD OF TRANSPORTATION NOVEMBER 2, 2016

TIME: 3:30 PM

LOCATION: 160

TOPIC	PRESENTER	TIME
<b>Trooper Dustin R. Bowick</b> – Bridge on Cedar Square Road over I-74, Randolph County, Division 8 (Molamphy)	Leigh Wing	5 min
<b>Corporal Jesse A. Lunsford</b> – US 158 (Oxford Road) from Ivey Day Road to Thomas Store Road, Person County, Division 5 (Sheehan)	Leigh Wing	5 min
<b>J. Howard Coble</b> – I-85 from I-40 to Alamance Church Road, Guilford County, Division 7 (McQueary)	Leigh Wing	5 min
<b>Blue Star Highway Extension</b>	Leigh Wing	5 min
<b>Policy Update</b>	Leigh Wing	5 min
<b>Other Business</b>	Leigh Wing	5 min