## WEDNESDAY, November 1, 2017

### 11:30AM – 12:00PM

<table>
<thead>
<tr>
<th>Audit Committee</th>
<th></th>
<th>Room 160</th>
</tr>
</thead>
</table>

### 12:00PM – 1:00PM

**BREAK**

### 1:00PM – 2:00PM

**WORK SESSION – FULL BOARD ATTENDANCE**  
**ROOM 150**

<table>
<thead>
<tr>
<th>History of Transportation Update</th>
<th>Walter Turner, NC Transportation Museum Foundation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fee Study</td>
<td>Tim Little</td>
</tr>
<tr>
<td>Chief Financial Officer Update</td>
<td>Chairman Fox</td>
</tr>
<tr>
<td>Product Evaluation Awareness</td>
<td>Chairman Fox</td>
</tr>
</tbody>
</table>

### 2:00PM – 2:10PM

**BREAK**

### 2:10PM – 3:30PM

<table>
<thead>
<tr>
<th>Highway Committee</th>
<th>Room 150</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multi-Modal Committee</td>
<td>EIC</td>
</tr>
</tbody>
</table>

### 3:30PM – 3:40PM

**BREAK**

### 3:40PM – 5:00PM

<table>
<thead>
<tr>
<th>Economic Development/Intergovernmental Relations (EDIR) Committee</th>
<th>Room 150</th>
</tr>
</thead>
<tbody>
<tr>
<td>Funding Appropriations and Strategies (FAST) Committee</td>
<td>EIC</td>
</tr>
</tbody>
</table>

### 5:00PM

**ADJOURN**
THURSDAY, November 2, 2017 9:00AM  Location: Room 150

NORTH CAROLINA BOARD OF TRANSPORTATION MEETING

- Call to Order
- Ethics Statement
- Approval of October 5, 2017 Board Meeting Minutes
- Road and Bridge Naming Honorary Designation
- Secretary’s Remarks

Chairman Fox
Chairman Fox
Chairman Fox
Secretary Trogdon

INFORMATION AND DELEGATED AUTHORITY

(Item C) Award of Highway Construction Contracts from October 2017 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) 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

Secretary Trogdon

North Carolina Beyond the Connected Age
Michael Walden, Ph.D.
NC State University

DMV Update
Commissioner Torre Jessup

ACTION
Chairman Fox

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 K) North Carolina Highway Trust Funds
(Item M) Funds for Specific Federal-Aid Projects
(Item N) Revisions to the 2016-2017 STIP
(Item O) Municipal and Special Agreements
(Item R) Right of Way Resolutions and Ordinances
(Item T) Submission of Comprehensive Transportation Plans for Mutual Adoption by the Board of Transportation

Committee Reports
Committee Chairs

Other Business
Chairman Fox

Adjourn
Chairman Fox
Delegated Authority ................................................................. Secretary Trogdon

(Item C) Award of Highway Construction Contracts from October 2017 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 Fox

(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 now replaces Item J)

(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 (No Item this month)

(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) (No Item this month)
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.
FF-0012(064)
DARE
F-5700
10/03/2017

PROPOSAL LENGTH 0 MILES
TYPE OF WORK CONSTRUCT 183'-7" X 46' X 10'-6" PASSENGER/VEHICLE FERRY.
LOCATION NC-12

EST CONST PROGRESS.... FY-2018..64% OF BID
FY-2019..36% OF BID

RPN 001 6 BIDDER(S) DBE GOAL %

DATE AVAILABLE OCT 30 2017
FINAL COMPLETION MAR 01 2019

$ TOTALS % DIFF

* BOLLINGER SHIPYARDS LOCKPORT LLC LOCKPORT, LA 9,726,019.19 -20.9
* IMPROPER BID BOND FORM
* ATTY ATTEST NOT MARKED THROUGH
* STEINER SHIPYARD, INC. BAYOU LA BATRE, AL 10,490,000.00 -14.7
* LUMP SUM PRICE OMITTED
* IMPROPER BID BOND FORM
* LUMP SUM OMITTED. ATTY ATTEST NOT MARKED THROUGH.
SOUTHWEST SHIPYARD, L. P. HOUSTON, TX 10,750,000.00 -12.6
GULF ISLAND SHIPYARDS LLC HOUMA, LA 11,073,893.07 -10.0
CONRAD SHIPYARD LLC MORGAN CITY, LA 12,506,877.00 +1.7
* V T HALTER MARINE INC PASCAGOULA, MS 13,914,373.00 +13.1
* LUMP SUM PRICE OMITTED
* IMPROPER BID BOND FORM
* LUMP SUM OMITTED. ATTY ATTEST NOT MARKED THROUGH. IMPROPER DATE.

* DENOTES IRREGULAR BID
HIGHWAY LETTING
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH N.C.
OCTOBER, 2017
DIVISION 00003

C204090
2018CPT.03.05.10711, 2018CPT.03.05.20711, 2018CPT.03.05.20712, 3.107111

STATE FUNDED
PENDER
10/17/2017

PROPOSAL LENGTH 35.563 MILES
TYPE OF WORK MILLING, RESURFACING, AND SHOULDER CONST & RECONST.
LOCATION 1 SECTION OF US-17, 1 SECTION OF NC-50, 1 SECTION OF NC-210, AND 36 SECTIONS OF SECONDARY ROADS.

EST CONST PROGRESS... FY-2018..72% OF BID
FY-2019..28% OF BID

RPN 003 3 BIDDER(S) MBE GOAL 3.00% WBE GOAL 3.00%
ESTIMATE 4,346,981.99

DATE AVAILABLE DEC 04 2017
INTER COMPLETION MAY 18 2018 COMPLETE ALL WORK REQUIRED ON MAPS #1, AND ON #21 THRU #25.
NO WORK ALLOWED FROM 3/26/2018 UNTIL 4/05/2018.
AUG 10 2018 COMPLETE ALL WORK REQUIRED ON MAPS #4 AND #20. NO WORK ALLOWED WHEN SCHOOLS ARE IN SESSION.
AUG 10 2018 COMPLETE ALL WORK REQUIRED ON MAPS #16 AND #17.

FINAL COMPLETION DEC 01 2018

$ TOTALS % DIFF
S T WOOTEN CORPORATION WILSON, NC 3,672,560.25 -15.5
BARNHILL CONTRACTING COMPANY ROCKY MOUNT, NC 3,929,401.68 -9.6
HIGHLAND PAVING COMPANY LLC FAYETTEVILLE, NC 4,539,183.07 +4.4
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH N.C.
OCTOBER, 2017
DIVISION  00004

53022.3.1

C203977

3 of 7

HIGHWAY LETTING

ITEM  C

DIVISION 00004

RALEIGH N.C.
OCTOBER, 2017

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH N.C.
OCTOBER, 2017
DIVISION 00004

C203977
53022.3.1

NHPIM-0040(050)
JOHNSTON
I-5781
10/17/2017

PROPOSAL LENGTH 16.34 MILES
TYPE OF WORK SIGNALS, PAVEMENT AND BRIDGE REHABILITATION.
LOCATION I-40 FROM SR-1010 (CLEVELAND ROAD) TO WEST OF SR-1211 (MORGAN ROAD).

EST CONST PROGRESS.... FY-2018..50% OF BID
FY-2019..50% OF BID
RPN 004  5 BIDDER(S)  DBE GOAL  6.00 %

DATE AVAILABLE NOV 27 2017
FINAL COMPLETION JUL 01 2019

ESTIMATE 10,176,546.15

$ TOTALS % DIFF
PENHALL COMPANY LOS ANGELES, CA 10,176,915.77 +0.0
INTERSTATE IMPROVEMENT, INC. FARBIAULT, MN 10,374,070.06 +1.9
S T WOOTEN CORPORATION WILSON, NC 11,421,690.93 +12.2
ARCHER WESTERN CONSTRUCTION LLC ATLANTA, GA 11,506,499.34 +13.1
DIAMOND SURFACE, INC. ROGERS, MN 11,958,391.92 +17.5
C204091  
2018CPT.05.06.10921.1,  2018CPT.05.06.20921.1

STATE FUNDED  
WAKE  
10/17/2017

PROPOSAL LENGTH  23.07  MILES  
TYPE OF WORK  MILLING, RESURFACING, AND SHOULDER RECONSTRUCTION.  
LOCATION  1 SECTION OF NC-55 AND 11 SECTIONS OF SECONDARY ROADS.

<table>
<thead>
<tr>
<th>RPN</th>
<th>2 BIDDER(S)</th>
<th>MBE GOAL</th>
<th>WBE GOAL</th>
<th>ESTIMATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>005</td>
<td></td>
<td>3.00 %</td>
<td>5.00 %</td>
<td>3,557,752.63</td>
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</table>

DATE AVAILABLE  FEB 01 2018  
INTER COMPLETION  AUG 26 2018 COMPLETE ALL WORK REQUIRED ON MAPS #7 AND #8.  
FINAL COMPLETION  NOV 15 2018

<table>
<thead>
<tr>
<th>BIDDER(S)</th>
<th>EST</th>
<th>% DIFF</th>
</tr>
</thead>
<tbody>
<tr>
<td>THE LANE CONSTRUCTION CORPORATION  CHESHIRE, CT</td>
<td>3,667,043.80</td>
<td>+3.1</td>
</tr>
<tr>
<td>FSC II LLC DBA FRED SMITH COMPANY  RALEIGH, NC</td>
<td>3,772,819.39</td>
<td>+6.0</td>
</tr>
</tbody>
</table>

$ TOTALS  % DIFF

THE LANE CONSTRUCTION CORPORATION  CHESHIRE, CT  3,667,043.80 +3.1  
FSC II LLC DBA FRED SMITH COMPANY  RALEIGH, NC  3,772,819.39 +6.0
C204013
53088.3.1

HSIP-0074(170)
ROBESON
R-5752
10/17/2017

PROPOSAL LENGTH 1.487 MILES
TYPE OF WORK GRADING, DRAINAGE, PAVING, AND STRUCTURE.

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

RPN 006 2 BIDDER(S) DBE GOAL 11.00 %

DATE AVAILABLE NOV 27 2017 THRU MAR 15 2018
INTER COMPLETION COMPLETE ALL WORK EXCEPT PLANTING, REFORESTATION, OR PERMANENT VEGETATION ESTABLISHMENT 575 DAYS AFTER START DATE
FINAL COMPLETION 755 DAY(S) AFTER START DATE

$ TOTALS % DIFF
C. M. LINDSAY & SONS, INC. LUMBERTON, NC 7,512,104.74 -15.5
BMCO CONSTRUCTION, INC. LUMBERTON, NC 7,832,822.03 -11.9

ESTIMATE 8,887,147.69
STATE FUNDED
MONTGOMERY, MOORE
B-5362
10/17/2017

PROPOSAL LENGTH 0.082 MILES
TYPE OF WORK GRADING, DRAINAGE, PAVING, AND STRUCTURE.
LOCATION BRIDGE #53 OVER DROWNING CREEK ON NC-73.

EST CONST PROGRESS.... FY-2018..100% OF BID
RPN 007 7 BIDDER(S) MBE GOAL 1.00 % WBE GOAL 3.00%
ESTIMATE 1,159,251.87
DATE AVAILABLE NOV 27 2017 THRU MAR 15 2018
INTER COMPLETION COMPLETE ALL WORK EXCEPT PLANTING, REFORESTATION, OR PERMANENT VEGETATION ESTABLISHMENT 150 DAYS AFTER START DATE
FINAL COMPLETION 330 DAY(S) AFTER START DATE

<table>
<thead>
<tr>
<th>Contractor</th>
<th>$ TOTALS</th>
<th>% DIFF</th>
</tr>
</thead>
<tbody>
<tr>
<td>DELLINGER, INC. MONROE, NC</td>
<td>1,012,976.54</td>
<td>-12.6</td>
</tr>
<tr>
<td>SLOAN CONSTRUCTION A DIVISION OF REEVES CONSTRUCTION COMPANY</td>
<td>1,059,598.52</td>
<td>-8.6</td>
</tr>
<tr>
<td>SMITH-ROKE, LLC MOUNT AIRY, NC</td>
<td>1,092,540.40</td>
<td>-5.8</td>
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<tr>
<td>S T WOOTEN CORPORATION WILSON, NC</td>
<td>1,121,288.54</td>
<td>-3.3</td>
</tr>
<tr>
<td>LEE CONSTRUCTION COMPANY OF THE CAROLINAS, INC. PINEVILLE, NC</td>
<td>1,135,627.95</td>
<td>-2.0</td>
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<tr>
<td>EXTREME CONCRETE CUTTING OF GAFFNEY, LLC GAFFNEY, SC</td>
<td>1,190,335.92</td>
<td>+2.7</td>
</tr>
<tr>
<td>DANE CONSTRUCTION INC MOORESVILLE, NC</td>
<td>1,255,850.75</td>
<td>+8.3</td>
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</table>
STATE FUNDED
BUNCOMBE
10/17/2017

PROPOSAL LENGTH 105.89 MILES
TYPE OF WORK MILLING, RESURFACING, AND SHOULDER RECONSTRUCTION.
OF SECONDARY ROADS.
EST CONST PROGRESS.... FY-2018..30% OF BID
FY-2019..67% OF BID
FY-2020..03% OF BID
RPN 008 2 BIDDER(S) MBE GOAL 1.00 % WBE GOAL 4.00%
ESTIMATE 11,958,857.96
DATE AVAILABLE MAR 15 2018
INTER COMPLETION AUG 03 2018 COMPLETE ALL WORK REQUIRED ON MAP #8.
FINAL COMPLETION AUG 01 2019

<table>
<thead>
<tr>
<th>BIDDER NAME</th>
<th>BID TOTAL</th>
<th>% DIFF</th>
<th>EST TOTAL</th>
</tr>
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<tbody>
<tr>
<td>HARRISON CONSTRUCTION COMPANY DIVISION OF APAC-ATLANTIC INC</td>
<td>12,792,512.72</td>
<td>+7.0</td>
<td>52,387,986.79</td>
</tr>
<tr>
<td>ROGERS GROUP INC</td>
<td>15,525,022.23</td>
<td>+29.8</td>
<td>52,387,986.79</td>
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</tbody>
</table>

ESTIMATE TOTAL 52,387,986.79
LETTER TOTAL 48,560,133.01 -7.3
C204039
34243.3.2
STATE FUNDED
POLK
I-4729A

PROPOSAL LENGTH 0.679 MILES
TYPE OF WORK GRADING, DRAINAGE, PAVING, SIGNING, AND STRUCTURES.
LOCATION I-26/US-74/NC-108 INTERCHANGE MODIFICATION IN THE TOWN OF COLUMBUS.

EST CONST PROGRESS....FY-2018..92% OF BID
                    FY-2019..08% OF BID
RPN 009               7 BIDDER(S)   MBE GOAL 3.00 %   WBE GOAL 4.00%
ESTIMATE 22,897,599.51

DATE AVAILABLE OCT 30 2017
INTER COMPLETION AUG 17 2018 COMPLETE ALL WORK EXCEPT PLANTING, REFORESTATION, OR PERMANENT VEGETATION ESTABLISHMENT
FINAL COMPLETION FEB 13 2019

<table>
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<tr>
<th>Contractor</th>
<th>Estimate</th>
<th>% Diff</th>
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<tbody>
<tr>
<td>VECCELLIO &amp; GROGAN INC SHARPE BROTHERS BECKLEY, WV</td>
<td>19,088,383.95</td>
<td>-16.6</td>
</tr>
<tr>
<td>GLF CONSTRUCTION CORPORATION MIAMI, FL</td>
<td>19,871,926.89</td>
<td>-13.2</td>
</tr>
<tr>
<td>FLATIRON CONSTRUCTORS INC MORRISVILLE, NC</td>
<td>20,693,890.26</td>
<td>-9.6</td>
</tr>
<tr>
<td>SLOAN CONSTRUCTION A DIVISION OF REEVES CONSTRUCTION COMPANY</td>
<td>22,379,490.13</td>
<td>-2.3</td>
</tr>
<tr>
<td>NHM CONSTRUCTORS, LLC ASHEVILLE, NC</td>
<td>23,761,371.45</td>
<td>+3.8</td>
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<tr>
<td>BLYTHE DEVELOPMENT CO. CHARLOTTE, NC</td>
<td>24,573,781.02</td>
<td>+7.3</td>
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<tr>
<td>CHARLES BLALOCK &amp; SONS, INC. SEVIERVILLE, TN</td>
<td>28,438,720.48</td>
<td>+24.2</td>
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<tr>
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<tbody>
<tr>
<td>ESTIMATE TOTAL</td>
<td>68,568,892.74</td>
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<tr>
<td>LETTING TOTAL</td>
<td>65,369,416.88</td>
</tr>
</tbody>
</table>
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

Chief Operating Officer

Chief Engineer

Field Support

Structures Management
After careful evaluation of the workload and schedules of the work that can be accomplished by our staff, it was determined necessary to employ private firms for Planning and Engineering Services on an as needed basis for various federal-aid and state funded projects to support the Structures Management Unit. These contracts will expire two (2) years after the date of execution or after the contract amount has been depleted, whichever occurs first. Our staff has completed the actions for employing private firms in accordance with the policies and procedures adopted by the Board on May 7, 2009. This is for information only.

STATEWIDE
Description of Work: 2017 Structures Management Support LSC
Firm: AECOM Technical Services of North Carolina Inc, Chicago, IL
Maximum Engineering Fee: $7,000,000.00
SPSF Utilization: 0%

Description of Work: 2017 Structures Management Support LSC
Firm: Alfred Benesch & Company, Charlotte, NC
Maximum Engineering Fee: $1,000,000.00
SPSF Utilization: 0%

Description of Work: 2017 Structures Management Support LSC
Firm: Alpha & Omega Group PC, Raleigh, NC
Maximum Engineering Fee: $3,000,000.00
SPSF Utilization: 100%

Description of Work: 2017 Structures Management Support LSC
Firm: AMEC Foster Wheeler Environment & Infrastructure Inc, Chicago, IL
Maximum Engineering Fee: $3,000,000.00
SPSF Utilization: Progressive Design Group, Inc.
5% / $150,000.00

SPSF Utilization: Carolina Land Acquisition Inc
5% / $150,000.00
Description of Work: 2017 Structures Management Support LSC
Firm: Arete Engineers, PLLC, Boone, NC
Maximum Engineering Fee: $3,000,000.00
SPSF Utilization: 100%

Description of Work: 2017 Structures Management Support LSC
Firm: ATCS, P.L.L.C., Raleigh, NC
Maximum Engineering Fee: $3,000,000.00
SPSF Utilization: TGS Engineers
25% / $750,000.00

Description of Work: 2017 Structures Management Support LSC
Firm: Calyx Engineers and Consultants, Raleigh, NC
Maximum Engineering Fee: $3,000,000.00
SPSF Utilization: 100%

Description of Work: 2017 Structures Management Support LSC
Firm: Carolina Transportation Engineers & Associates, PC, Belmont, NC
Maximum Engineering Fee: $1,000,000.00
SPSF Utilization: 100%

Description of Work: 2017 Structures Management Support LSC
Firm: CDM Smith Inc, Raleigh, NC
Maximum Engineering Fee: $5,000,000.00
SPSF Utilization: 0%

Description of Work: 2017 Structures Management Support LSC
Firm: Dewberry Engineers Inc, Raleigh, NC
Maximum Engineering Fee: $3,000,000.00
DBE/WBE/SPSF Utilization: CH Engineering PLLC
4% / $120,000.00

Description of Work: 2017 Structures Management Support LSC
Firm: DRMP Inc, Charlotte, NC
Maximum Engineering Fee: $7,000,000.00
SPSF Utilization: 0%

Description of Work: 2017 Structures Management Support LSC
Firm: Gannett Fleming Inc, Philadelphia, PA
Maximum Engineering Fee: $5,000,000.00
SPSF Utilization: 0%
Description of Work: 2017 Structures Management Support LSC
Firm: Hardesty & Hanover, LLP, New York, NY
Maximum Engineering Fee: $1,000,000.00
SPSF Utilization: 0%

Description of Work: 2017 Structures Management Support LSC
Firm: HDR Engineering Inc of the Carolinas, Chicago, IL
Maximum Engineering Fee: $7,000,000.00
SPSF Utilization: 0%

Description of Work: 2017 Structures Management Support LSC
Firm: HNTB of North Carolina PC, Raleigh, NC
Maximum Engineering Fee: $5,000,000.00
SPSF Utilization: Axiom Environmental, Inc.
1% / $50,000.00
SPSF Utilization: Environmental Services Inc
2% / $100,000.00
DBE/MBE/SPSF Utilization: MA Engineering Consultants Inc
1% / $50,000.00

Description of Work: 2017 Structures Management Support LSC
Firm: ICE of Carolinas PLLC, North Charleston, SC
Maximum Engineering Fee: $3,000,000.00
SPSF Utilization: 0%

Description of Work: 2017 Structures Management Support LSC
Firm: Infrastructure Engineers Inc, Lakewood, CO
Maximum Engineering Fee: $3,000,000.00
DBE/MBE/SPSF Utilization: 100%

Description of Work: 2017 Structures Management Support LSC
Firm: Johnson, Mirmiran & Thompson, Inc., Hunt Valley, MD
Maximum Engineering Fee: $1,000,000.00
SPSF Utilization: 0%

Description of Work: 2017 Structures Management Support LSC
Firm: Kisinger Campo & Associates Corp, Tampa, FL
Maximum Engineering Fee: $7,000,000.00
DBE/WBE/SPSF Utilization: Dovetail Cultural Resource Group I Inc
1% / $70,000.00
DBE/WBE/SPSF Utilization: Ecological Engineering LLP
4% / $280,000.00
SPSF Utilization: Mattern & Craig Inc
1% / $70,000.00
DBE/WBE/SPSF Utilization: Three Oaks Engineering
6% / $420,000.00
Description of Work: 2017 Structures Management Support LSC
Firm: KCI Associates of North Carolina PA, Baltimore, MD
Maximum Engineering Fee: $7,000,000.00
DBE/WBE/SPSF Utilization: Planning Communities, LLC
5% / $350,000.00

Description of Work: 2017 Structures Management Support LSC
Firm: The Kercher Group Inc, Newark, DE
Maximum Engineering Fee: $1,000,000.00
SPSF Utilization : 100%

Description of Work: 2017 Structures Management Support LSC
Firm: Kimley-Horn and Associates, Inc, Raleigh, NC
Maximum Engineering Fee: $3,000,000.00
SPSF Utilization: 0%

Description of Work: 2017 Structures Management Support LSC
Firm: The Louis Berger Group Inc, Morristown, NJ
Maximum Engineering Fee: $1,000,000.00
SPSF Utilization : 0%

Description of Work: 2017 Structures Management Support LSC
Firm: Mead & Hunt Inc, Raleigh, NC
Maximum Engineering Fee: $3,000,000.00
SPSF Utilization: 0%

Description of Work: 2017 Structures Management Support LSC
Firm: MI Engineering, PLLC, Raleigh, NC
Maximum Engineering Fee: $7,000,000.00
DBE/SPSF Utilization : 100%

Description of Work: 2017 Structures Management Support LSC
Firm: Michael Baker Engineering, Inc., Cary, NC
Maximum Engineering Fee: $7,000,000.00
SPSF Utilization : Sungate Design Group PA
10% / $700,000.00

Description of Work: 2017 Structures Management Support LSC
Firm: Modjeski and Masters, Inc., Mechanicsburg, PA
Maximum Engineering Fee: $3,000,000.00
SPSF Utilization: 0%

Description of Work: 2017 Structures Management Support LSC
Firm: Moffatt & Nichol Inc, Los Angeles, CA
Maximum Engineering Fee: $7,000,000.00
DBE/WBE/SPSF Utilization : Falcon Engineering Inc
7.5% / $525,000.00
Description of Work: 2017 Structures Management Support LSC
Firm: Mott MacDonald I&E LLC, Iselin, NJ
Maximum Engineering Fee: $3,000,000.00
SPSF Utilization: Axiom Environmental, Inc.
  1% / $30,000.00
DBE/WBE/SPSF Utilization: Ecological Engineering LLP
  1% / $30,000.00
DBE/WBE/SPSF Utilization: Falcon Engineering Inc
  1% / $30,000.00
SPSF Utilization: The Kercher Group Inc
  1% / $30,000.00
DBE/MBE/SPSF Utilization: Simpson Engineers & Associates PC
  1% / $30,000.00

Description of Work: 2017 Structures Management Support LSC
Firm: ms Consultants Inc, Youngstown, OH
Maximum Engineering Fee: $7,000,000.00
SPSF Utilization: Arete Engineers, PLLC
  5% / $350,000.00

Description of Work: 2017 Structures Management Support LSC
Firm: Parrish and Partners of North Carolina, PLLC, Greensboro, NC
Maximum Engineering Fee: $3,000,000.00
SPSF Utilization: 100%

Description of Work: 2017 Structures Management Support LSC
Firm: Parsons Transportation Group, Raleigh, NC
Maximum Engineering Fee: $1,000,000.00
SPSF Utilization: 0%

Description of Work: 2017 Structures Management Support LSC
Firm: Rummel Klepper & Kahl LLP, Raleigh, NC
Maximum Engineering Fee: $7,000,000.00
DBE/MBE/SPSF Utilization: Accelerate Engineering PLLC
  3% / $210,000.00
DBE/MBE/SPSF Utilization: MM/I and Associates LLC
  1% / $70,000.00

Description of Work: 2017 Structures Management Support LSC
Firm: RS&H Architects-Engineers-Planners, Inc., Jacksonville, FL
Maximum Engineering Fee: $5,000,000.00
SPSF Utilization: 0%

Description of Work: 2017 Structures Management Support LSC
Firm: Simpson Engineers & Associates PC, Cary, NC
Maximum Engineering Fee: $7,000,000.00
DBE/MBE/SPSF Utilization: 100%
<table>
<thead>
<tr>
<th>Description of Work:</th>
<th>2017 Structures Management Support LSC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Firm:</td>
<td>Stewart, Philadelphia, PA</td>
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<tr>
<td>Maximum Engineering Fee:</td>
<td>$3,000,000.00</td>
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<tr>
<td>SPSF Utilization:</td>
<td>100%</td>
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</table>

<table>
<thead>
<tr>
<th>Description of Work:</th>
<th>2017 Structures Management Support LSC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Firm:</td>
<td>Summit Design and Engineering Services, PLLC, Hillsborough, NC</td>
</tr>
<tr>
<td>Maximum Engineering Fee:</td>
<td>$3,000,000.00</td>
</tr>
<tr>
<td>SPSF Utilization:</td>
<td>100%</td>
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<table>
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<th>Description of Work:</th>
<th>2017 Structures Management Support LSC</th>
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<tbody>
<tr>
<td>Firm:</td>
<td>TGS Engineers, Shelby, NC</td>
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<table>
<thead>
<tr>
<th>Description of Work:</th>
<th>2017 Structures Management Support LSC</th>
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</thead>
<tbody>
<tr>
<td>Firm:</td>
<td>Vaughn &amp; Melton Consulting Engineers Inc, Asheville, NC</td>
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<tr>
<td>Maximum Engineering Fee:</td>
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<td>SPSF Utilization:</td>
<td>3%  /  $210,000.00</td>
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<tr>
<td>DBE/WBE/SPSF Utilization :</td>
<td>Three Oaks Engineering</td>
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<td>SPSF Utilization:</td>
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<td>DBE/WBE/SPSF Utilization :</td>
<td>Ecological Engineering LLP</td>
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<td>SPSF Utilization:</td>
<td>3%  /  $210,000.00</td>
</tr>
<tr>
<td>DBE/WBE/SPSF Utilization :</td>
<td>G &amp; A Consulting Engineers, PLLC</td>
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<tr>
<td>SPSF Utilization:</td>
<td>3%  /  $210,000.00</td>
</tr>
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<td>Description of Work:</td>
<td>2017 Structures Management Support LSC</td>
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<tr>
<td>----------------------</td>
<td>----------------------------------------</td>
</tr>
<tr>
<td>Firm:</td>
<td>VHB Engineering NC PC, Watertown, MA</td>
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<td>Maximum Engineering Fee:</td>
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<td>SPSF Utilization:</td>
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<table>
<thead>
<tr>
<th>Description of Work:</th>
<th>2017 Structures Management Support LSC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Firm:</td>
<td>Volkert Inc, Birmingham, AL</td>
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<tr>
<td>Maximum Engineering Fee:</td>
<td>$5,000,000.00</td>
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<tr>
<td>SPSF Utilization:</td>
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</table>

<table>
<thead>
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<th>Description of Work:</th>
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</thead>
<tbody>
<tr>
<td>Firm:</td>
<td>Wetherill Engineering, Inc., Raleigh, NC</td>
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<tr>
<td>Maximum Engineering Fee:</td>
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<td>DBE/WBE/SPSF Utilization:</td>
<td>100%</td>
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<table>
<thead>
<tr>
<th>Description of Work:</th>
<th>2017 Structures Management Support LSC</th>
</tr>
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<tbody>
<tr>
<td>Firm:</td>
<td>WSP USA Inc, Raleigh, NC</td>
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<tr>
<td>Maximum Engineering Fee:</td>
<td>$7,000,000.00</td>
</tr>
<tr>
<td>SPSF Utilization:</td>
<td>0%</td>
</tr>
</tbody>
</table>

**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 private firms to provide Right of Way services 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. These are for information only.

**DIVISION 12**

**Project:** 50134.2.1 (I-5717) and 37944.2.4 & 37944.2.5 (R-2307B) Iredell County I-77 and the NC 150 Interchange Construct Interchange Improvements, (Combined with R-2307B) & NC 150 from SR 1902 (Harvel Road) in Catawba County to I-77 in Iredell County (Combined w/ I-5717)

**Scope of Work:** Right of Way acquisition, negotiations, legal, appraisal and relocation assistance.

<table>
<thead>
<tr>
<th>Estimated Construction Cost:</th>
<th>$124,200,000.00</th>
</tr>
</thead>
<tbody>
<tr>
<td>Firm:</td>
<td>Professional Property Services Inc, Cornelius, NC</td>
</tr>
<tr>
<td>Maximum Engineering Fee:</td>
<td>$2,315,343.00</td>
</tr>
<tr>
<td>SPSF Utilization:</td>
<td>0%</td>
</tr>
</tbody>
</table>
DIVISION 13

Project: 34400.2.5 (R-2233BB) Rutherford County
US 221 South of US 74 Business (Charlotte Road) to North of SR 1366 (Roper Loop Road)

Scope of Work: Right of Way acquisition, negotiations, legal, appraisal and relocation assistance.

Estimated Construction Cost: $81,400,000.00

Firm: Telecommunication & Industrial Consulting Services Corp, Pineville, NC

Maximum Engineering Fee: $2,670,093.98

SPSF Utilization: 0%

Highway Operations

Pavement Management System

The following are supplemental contracts to previous contracts approved by the Board with the same engineering firms. These supplemental contracts were necessary due to approved additional work that was unknown at the inception and is required of the firms 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. These are for information only.

STATEWIDE

Project: High Speed Data Collection of Interstate and Primary Pavements

Scope of Work: High speed data collection on sections of both asphalt and concrete surfaced pavements covering all of the interstate and primary routes.

Estimated Construction Cost: N/A

Firm: Pathway Services, Inc., Tulsa, Oklahoma

Original Engineering Fee: $2,100,000.00

Previous Supplemental Fee: $4,200,000.00

Supplemental Fee: $17,500,000.00

Supplemental Work: Continued high speed data collection on Interstate and Primary Pavements and addition of data collection on the secondary system pavements.

SPSF Utilization: 0%

Project: Quality Assurance for High Speed Data Collection and Processing

Scope of Work: Sample, verify, and report on the quality of pavement distress data collected as part of the High Speed Data Collection and Processing

Estimated Construction Cost: N/A

Firm: Morian Properties LLC, Conneaut Lake, PA

Original Engineering Fee: $300,000.00

Previous Supplemental Fee: $600,000.00

Supplemental Fee: $600,000.00 and two (2) year extension

Supplemental Work: Continued Quality Assurance for High Speed Data Collection and Processing

SPSF Utilization: 100%
Transportation Asset Analytics

The following are supplemental contracts to previous contracts approved by the Board with the same engineering firms. These supplemental contracts were necessary due to approved additional work that was unknown at the inception and is required of the firms 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 Highway Asset Inventory and Assessments Contract
Firm: A. Morton Thomas & Associates Inc, Raleigh, NC
Original Engineering Fee: $500,000.00
Supplemental Fee: $800,000.00
SPSF Utilization: 0%

Description of work: 2016 Highway Asset Inventory and Assessments Contract
Firm: Mattern & Craig Inc, Asheville, NC
Original Engineering Fee: $500,000.00
Supplemental Fee: $1,100,000.00
SPSF Utilization: 100%

Description of work: 2016 Highway Asset Inventory and Assessments Contract
Firm: SEPI Engineering & Construction Inc., Raleigh, NC
Original Engineering Fee: $2,000,000.00
Supplemental Fee: $500,000.00
SPSF Utilization: 0%

Description of work: 2016 Highway Asset Inventory and Assessments Contract
Firm: Summit Design and Engineering Services, PLLC, Hillsborough, NC
Original Engineering Fee: $500,000.00
Supplemental Fee: $900,000.00
SPSF Utilization: 100%
Divisions

Divisions 1-4 and 6

The following are supplemental contracts to previous contracts approved by the Board with the same engineering firms. These supplemental contracts were necessary due to approved additional work that was unknown at the inception and is required of the firms 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. These are for information only.

DIVISIONS 1 - 4, and 6
Description of Work: 2015 Eastern Region Divisions 1, 2, 3, 4, & 6 LSC
Firm: HNTB of North Carolina PC, Raleigh, NC
Original Engineering Fee: $3,000,000.00
Previous Supplemental Fee: $9,000,000.00
Supplemental Fee: $2,000,000.00
SPSF Utilization: Carolina Land Acquisitions Inc
5% / $100,000.00
SPSF Utilization: Environmental Services Inc
5% / $100,000.00
DBE/MBE/SPSF Utilization: MA Engineering Consultants Inc
5% / $100,000.00
DBE/SPSF Utilization: MI Engineering, PLLC
5% / $100,000.00

Description of Work: 2015 Eastern Region Divisions 1, 2, 3, 4, & 6 LSC
Firm: Calyx Engineers and Consultants, Raleigh, NC
Original Engineering Fee: $3,000,000.00
Previous Supplemental Fee: $5,000,000.00
Supplemental Fee: $2,000,000.00
SPSF Utilization: 100%

Description of Work: 2015 Eastern Region Divisions 1, 2, 3, 4, & 6 LSC
Firm: RS&H Architects-Engineers-Planners, Inc., Charlotte, NC
Original Engineering Fee: $3,000,000.00
Previous Supplemental Fee: $5,000,000.00
Supplemental Fee: $2,000,000.00
SPSF Utilization: Carolina Ecosystems Inc
2.5% / $50,000.00
DBE/WBE/SPSF Utilization: Planning Communities, LLC
5% / $100,000.00
SPSF Utilization: Commonwealth Heritage Group Inc
2% / $40,000.00
Technical Services

Roadway
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.

DIVISION 7
Project: 34900.1.4 (U-3109A) Alamance County NC 119 Relocation from I-40/I-85 to North of SR 1921 (Mebane Rogers Road/Stage Coach Road)
Scope of Work: Roadway, Hydraulics, and Traffic Control Design
Estimated Construction Cost: $49,400,000.00
Firm: Michael Baker Engineering, Inc., Cary, NC
Original Engineering Fee: $434,547.18
Previous Supplemental Fee: $ 34,293.13
Supplemental Fee: $ 95,979.78
Supplemental Work: Request to incorporate an early opening ICT into the TMP design and provide quantities for the roadway pay items in the ICT, revise Y20 to eliminate stream impacts and remove Y20DET, develop a functional design and provide a preliminary estimate for U-3109B, extend -Y10- and revise to a C&G section, and add median break and left turns on -L- at approx. 130+30
SPSF Utilization: Sungate Design Group PA 31% / $29,504.60
SPSF Utilization: Progressive Design Group, Inc. 36% / $34,400.40

Geotechnical Engineering Unit
The following are supplemental contracts to previous contracts approved by the Board with the same engineering firms. These supplemental contracts were necessary due to approved additional work that was unknown at the inception and is required of the firms 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. These are for information only.

STATEWIDE
Description of work: 2014 Geotechnical LSC
Firm: Catlin Engineers and Scientists, Wilmington, NC
Original Engineering Fee: $5,000,000.00
Previous Supplemental Fee: $1,500,000.00
Supplemental Fee: $ 500,000.00
SPSF Utilization: 100%
<table>
<thead>
<tr>
<th>Description of work:</th>
<th>2014 Geotechnical LSC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Firm:</td>
<td>Froehling &amp; Robertson Inc, Raleigh, NC</td>
</tr>
<tr>
<td>Original Engineering Fee:</td>
<td>$3,000,000.00</td>
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<tr>
<td>Previous Supplemental Fee:</td>
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<td>$500,000.00</td>
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<td>SPSF Utilization:</td>
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<thead>
<tr>
<th>Description of Work:</th>
<th>2014 Geotechnical LSC</th>
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<tbody>
<tr>
<td>Firm:</td>
<td>Kleinfelder Inc, Los Angeles, CA</td>
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<tr>
<td>Original Engineering Fee:</td>
<td>$3,000,000.00</td>
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<td>Previous Supplemental Fee:</td>
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<td>Supplemental Fee:</td>
<td>$750,000.00</td>
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<td>SPSF Utilization:</td>
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<table>
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<tr>
<th>Description of Work:</th>
<th>2014 Geotechnical LSC</th>
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</thead>
<tbody>
<tr>
<td>Firm:</td>
<td>ECS Southeast LLP, Charlotte, NC</td>
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<tr>
<td>Original Engineering Fee:</td>
<td>$1,000,000.00</td>
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<td>Previous Supplemental Fee:</td>
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<td>$500,000.00</td>
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<td>SPSF Utilization:</td>
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</tbody>
</table>

**Project Development**

The following is a supplement 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.

**DIVISION 6**

<table>
<thead>
<tr>
<th>Description of work:</th>
<th>2014 Statewide Bridge Group I</th>
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</thead>
<tbody>
<tr>
<td>Firm:</td>
<td>Ramey Kemp &amp; Associates, Inc., Raleigh, NC</td>
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<tr>
<td>Original Engineering Fee:</td>
<td>$750,000.00</td>
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<td>Supplemental Fee:</td>
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<td>SPSF Utilization:</td>
<td>100%</td>
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</table>
Photogrammetry Unit
After careful evaluation of the workload and schedules of the work that can be accomplished by our staff, it was determined necessary to employ private firms for Aerial Imagery Acquisition Services on an as needed basis for various federal-aid and state funded projects to support the Photogrammetry Unit. These contracts will expire three (3) years after the date of execution or after the contract amount has been depleted, whichever occurs first. Our staff has completed the actions for employing private firms in accordance with the policies and procedures adopted by the Board on May 7, 2009. This is for information only.

STATEWIDE
Description of Work: 2017 Aerial Imagery Acquisition Services LSC
Firm: MA Engineering Consultants Inc, Cary, NC
Maximum Engineering Fee: $500,000.00
DBE/MBE/SPSF Utilization: 100%

Description of Work: 2017 Aerial Imagery Acquisition Services LSC
Firm: Spatial Data Consultants Inc., High Point, NC
Maximum Engineering Fee: $500,000.00
SPSF Utilization: 100%

Description of Work: 2017 Aerial Imagery Acquisition Services LSC
Firm: The Sanborn Map Company Inc, Charlotte, NC
Maximum Engineering Fee: $500,000.00
SPSF Utilization: 0%

Photogrammetry Unit
After careful evaluation of the workload and schedules of the work that can be accomplished by our staff, it was determined necessary to employ private firms for Photogrammetric Mapping Services on an as needed basis for various federal-aid and state funded projects to support the Photogrammetry Unit. These contracts will expire three (3) years after the date of execution or after the contract amount has been depleted, whichever occurs first. Our staff has completed the actions for employing private firms in accordance with the policies and procedures adopted by the Board on May 7, 2009. This is for information only.

STATEWIDE
Description of Work: 2017 Photogrammetric Mapping Services LSC
Firm: Avioimage Mapping Services Inc, Charlotte, NC
Maximum Engineering Fee: $900,000.00
SPSF Utilization: 100%

Description of Work: 2017 Photogrammetric Mapping Services LSC
Firm: ESP Associates PA, Charlotte, NC
Maximum Engineering Fee: $600,000.00
SPSF Utilization: 0%

November 2, 2017
Description of Work: 2017 Photogrammetric Mapping Services LSC
Firm: GeoData Corp, Zebulon, NC
Maximum Engineering Fee: $1,200,000.00
SPSF Utilization: 100%

Description of Work: 2017 Photogrammetric Mapping Services LSC
Firm: GPI Geospatial Inc, Charlotte, NC
Maximum Engineering Fee: $1,200,000.00
SPSF Utilization: 0%

Description of Work: 2017 Photogrammetric Mapping Services LSC
Firm: GRW Engineers Inc, Lexington, KY
Maximum Engineering Fee: $900,000.00
SPSF Utilization: 0%

Description of Work: 2017 Photogrammetric Mapping Services LSC
Firm: MA Engineering Consultants Inc, Cary, NC
Maximum Engineering Fee: $1,500,000.00
DBE/MBE/SPSF Utilization: 100%

Description of Work: 2017 Photogrammetric Mapping Services LSC
Firm: So Deep Sam NC Inc, Raleigh, NC
Maximum Engineering Fee: $900,000.00
SPSF Utilization: 0%

Description of Work: 2017 Photogrammetric Mapping Services LSC
Firm: Spatial Data Consultants Inc., High Point, NC
Maximum Engineering Fee: $1,500,000.00
SPSF Utilization: 100%

Description of Work: 2017 Photogrammetric Mapping Services LSC
Firm: Surdex Corporation, Chesterfield, MO
Maximum Engineering Fee: $900,000.00
SPSF Utilization: 0%

Description of Work: 2017 Photogrammetric Mapping Services LSC
Firm: The Sanborn Map Company Inc, Charlotte, NC
Maximum Engineering Fee: $1,200,000.00
SPSF Utilization: 0%

Description of Work: 2017 Photogrammetric Mapping Services LSC
Firm: Triangle Aerial Surveys, Inc., Raleigh, NC
Maximum Engineering Fee: $600,000.00
DBE/MBE Utilization: 100%

Description of Work: 2017 Photogrammetric Mapping Services LSC
Firm: WSP USA Inc, Raleigh, NC
Maximum Engineering Fee: $900,000.00
SPSF Utilization: 0%
Turnpike Authority

The following are supplemental contracts to previous contracts approved by the Board with the same engineering firms. These supplemental contracts were necessary due to approved additional work that was unknown at the inception and is required of the firms 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. These are for information only.

**STATEWIDE**

<table>
<thead>
<tr>
<th>Description of work:</th>
<th>2015-2018 Toll Operation Services LSC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Firm:</td>
<td>Atkins North America Inc, Raleigh, NC</td>
</tr>
<tr>
<td>Original Engineering Fee:</td>
<td>$3,000,000.00</td>
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<tr>
<td>Previous Supplemental Fee:</td>
<td>$1,000,000.00</td>
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<tr>
<td>Supplemental Fee:</td>
<td>$2,000,000.00</td>
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<tr>
<td>SPSF Utilization:</td>
<td>0%</td>
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<table>
<thead>
<tr>
<th>Description of work:</th>
<th>2015-2018 Toll Operation Services LSC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Firm:</td>
<td>RS&amp;H Architects-Engineers-Planners, Inc., Charlotte, NC</td>
</tr>
<tr>
<td>Original Engineering Fee:</td>
<td>$3,000,000.00</td>
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<tr>
<td>Supplemental Fee:</td>
<td>$2,000,000.00</td>
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<tr>
<td>SPSF Utilization:</td>
<td>Forge Communications LLC</td>
</tr>
<tr>
<td></td>
<td>5% / $100,000.00</td>
</tr>
</tbody>
</table>

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**

<table>
<thead>
<tr>
<th>Description of work:</th>
<th>2015 NCTA Toll Operations LSC</th>
</tr>
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<tbody>
<tr>
<td>Firm:</td>
<td>HNTB of North Carolina PC, Raleigh, NC</td>
</tr>
<tr>
<td>Original Engineering Fee:</td>
<td>$3,000,000.00</td>
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<tr>
<td>Previous Supplemental Fee:</td>
<td>$4,000,000.00</td>
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<td>Supplemental Fee:</td>
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<td>SPSF Utilization:</td>
<td>Asset Management Associates PLLC</td>
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<td>20% / $600,000.00</td>
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</table>
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.

<table>
<thead>
<tr>
<th>Div / County</th>
<th>SR No. / Road Name</th>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Div 4 Halifax</td>
<td>Road in Lake Shores Subdivision</td>
<td>Upgrade to Minimum Standards for Addition Property owner participation 4C.042076</td>
<td>$9,000.00</td>
</tr>
<tr>
<td>Div 7 Guilford</td>
<td>SR 2020 UNION GROVE ROAD</td>
<td>GDB&amp;P Increase Funds 7C.041241</td>
<td>$36,169.34</td>
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<tr>
<td>Div 7 Guilford</td>
<td>SR 2809 Blue Lantern Rd</td>
<td>GDB&amp;P Establish Funds 7C.041258</td>
<td>$129,913.15</td>
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<tr>
<td>Div 7 Guilford</td>
<td>SR1620 Sunnyvale Rd</td>
<td>GDB&amp;P Establish Funds 7C.041259</td>
<td>$100,000.00</td>
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<tr>
<td>Div 7 Guilford</td>
<td>SR 2125 (Rhondan Drive)</td>
<td>GDB&amp;P Increase Funds 7C.041228</td>
<td>$35,338.47</td>
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<tr>
<td>Div 9 Rowan</td>
<td>SR 1349 Turkey Road</td>
<td>GDB&amp;P Establish Funds 9C.080128</td>
<td>$50,000</td>
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<tr>
<td>Div 11 Alleghany</td>
<td></td>
<td>Countywide Spot Improvements Increase Funds 11C.003011</td>
<td>$90,059.00</td>
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<tr>
<td>Div 11 Wilkes</td>
<td>SR 11 Maintenance Operations Increase Funds 1DOT.1.1.1.11.1</td>
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<td>$2,451,908.88</td>
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Closings:

<table>
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<tr>
<th>Div / County</th>
<th>SR No. / Road Name</th>
<th>Description</th>
<th>Amount</th>
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</thead>
<tbody>
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<td>Div 7 Guilford</td>
<td>SR 2945 (Carmon Loop)</td>
<td>GDB&amp;P Increase &amp; Close 7C.041213</td>
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### Road Additions:

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Summary:  
Number of Roads Petitioned for Addition – 17  
Number of Roads Petitioned for Abandonment – 4

Road Renaming:  
Division 1 – Currituck County requests renaming SR 1530, Terminal Road to Airport Road.

Corrections:  
Division 10 – Cabarrus County Petition 20753 added SR 2490 for 0.20 miles. The correct mileage should be 0.23 miles.

Division 12 – Iredell County Petition 51413 abandoned SR 1379 for 0.22 miles. The correct mileage to abandon should be 0.34 miles. This petition should have also included abandoning SR 2790 for 0.12 miles.

Division 12 – Iredell County Petition 51406 added SR 2790 for 0.72 miles. The correct mileage should be 0.82 miles.

Division 12 – Iredell County Petition 48325 correction listed on the July 2017 BOT Agenda should not have been listed.
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.

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<tr>
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<td>Div 1</td>
<td>Northampton Hillcrest Lane. Upgrade to minimum construction standards for Pre-1975 route in conjunction with addition to the State Highway System WBS 80050</td>
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<td>Northampton Squire Lane. Upgrade to minimum construction standards for Pre-1975 route in conjunction with addition to the State Highway System WBS 80051</td>
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<td>Div 4</td>
<td>Nash City of Rocky Mount – Replace chain link safety fence around detention ponds at County Club Road and Jeffrey’s Road WBS 80053</td>
<td>Contingency</td>
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<td>$32,000.00</td>
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<td>Div 4</td>
<td>Wayne City of Mount Olive – Road widening for continuation of center turn lane along NC 55 as well as increased shoulder width to improve safety along the corridor. WBS 80054</td>
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<td>Div 14</td>
<td>Macon Drainage Improvements along West Palmer Street (SR 1442) WBS 44780 – Increase funds and close</td>
<td>Small Construction</td>
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### 5310 Elderly & Disabled

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<tr>
<td>18-ED-909</td>
<td>Granville County Senior Services</td>
<td>will use the funds to continue purchasing transportation services from the Kerr Area Rural Transportation Authority on a public transit route within the city limits of Oxford that includes (16) stops at senior apartment complexes, Senior Center, hospital, pharmacies, Department of Social Services, and grocery stores. (Capital)</td>
<td>Total: $161,000, Federal: $128,800, State: $16,100, Local: $16,100</td>
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</table>

**18-ED-934 Alexander County** will use funds to purchase additional transportation services for Alexander County seniors or disabled individuals to congregate meal programs within Alexander County. Also, this funding will help any supplemental activities related to the congregate programs five days per week, for those who would otherwise not be able to attend due to lack of transportation. (Capital) | Total: $100,000, Federal: $80,000, State: $10,000, Local: $10,000 |

### 5311 Community Transportation

<table>
<thead>
<tr>
<th>Division</th>
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<tr>
<td>18-CT-025</td>
<td>Hyde County Non-Profit Private Transportation</td>
<td>use the additional Admin funds that resulted from the consolidation with Tyrrell County to provide transportation services to residents of Tyrrell county. The funds will support a part-time office employee, office supplies, and other administrative expenses that will occur with expanding service to Tyrrell county. (Admin)</td>
<td>Total: $134,444, Federal: $107,554, State: $6,721, Local: $20,169</td>
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### 5317 New Freedom

<table>
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<tr>
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<tbody>
<tr>
<td>18-NF-030</td>
<td>Kerr Area Transportation Authority (operating as Kerr Area Rural Transportation Authority in Franklin, Granville, Vance and Warren Counties)</td>
<td>will use funds to conduct facility improvements in compliance with the Americans with Disabilities Act. (Capital)</td>
<td>Total: $134,444, Federal: $107,554, State: $6,721, Local: $20,169</td>
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</table>

**Item I - 1, 4 Project(s), Total Federal/State Funds $390,915**

*STI projects funded through the Highway Trust Fund are approved by the BOT on Item K*
## ADDITIONS to the Transit 2018-2027 STIP

<table>
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<tr>
<th>STIP #</th>
<th>Transit Partner</th>
<th>DESCRIPTION</th>
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<tbody>
<tr>
<td>TD-5289</td>
<td>Go Raleigh</td>
<td>Add Compressed Natural Gas (CNG) fueling station to GoRaleigh’s Poole Road Bus Maintenance Facility Add additional local funding from Wake Transit Plan (PE)</td>
<td>STPDA</td>
<td>STBGDA</td>
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<tr>
<td>TD-5289</td>
<td>Go Raleigh</td>
<td>Add Compressed Natural Gas (CNG) fueling station to GoRaleigh’s Poole Road Bus Maintenance Facility Add additional local funding from Wake Transit Plan (PE)</td>
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## MODIFICATIONS to the Transit 2018-2027 STIP

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## ADMINISTRATIVE MODIFICATIONS to the Transit 2016-2025 STIP

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November 2, 2017
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November 2, 2017
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Deletions to the Transit 2017-2025 STIP

Item I-1A, 37 Projects, Total Federal/State funds $88,725,000
<table>
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<tr>
<th>Town/County Division</th>
<th>Project Description</th>
<th>Estimated Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Statewide 80000.1.2.1</td>
<td>The Rail Division requests reallocation of Freight Rail &amp; Rail Crossing Safety Improvement (FRRCSI) funds from the Rail Crossing “No Trespassing” Signs (project complete) to the Track &amp; Infrastructure Program Management in the FRRCSI fund. This program management includes administration, engineering, and inspections for track and rail access improvements. Additional funds are needed to support these efforts. The total estimated cost to the Department is $68,802. FRRCSI ID: F14199</td>
<td>$68,802</td>
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<tr>
<td>Statewide 80000.2.4.1</td>
<td>The Rail Division requests reallocation of Freight Rail &amp; Rail Crossing Safety Improvement (FRRCSI) funds from crossing number 465 303U (NC 37 - Main Street), crossing number 465 298A (SR 1101 - Bear Swamp Road), and crossing number 465 371V (NC 343) to Crossing Safety &amp; Signals Improvements Program Management in the FRRCSI fund (due to a railroad request no to compete). This program management is for the administration and engineering for crossing safety studies. The total estimated cost to the Department is $127,000. FRRCSI ID: F14299</td>
<td>$127,000</td>
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**ITEM I-2 SUMMARY – 2 PROJECTS – $195,802 (TOTAL FEDERAL AND STATE)**
There will be no items presented for approval at the November 2, 2017 Board of Transportation meeting.

ITEM I-3 SUMMARY – NO PROJECTS
<table>
<thead>
<tr>
<th>Town/County Division</th>
<th>Project Description</th>
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</table>
| **Division 03**      | **GA Apron Expansion And Hangar Sites**  
| Ellis Airport        | Project designs and constructs a southern expansion of the GA Apron, sites for hangars a connector taxilane, associated roadways and utilities. This project will expand the existing GA apron to permit additional aircraft parking, improved circulation and facilitate development of additional hangars. This is a cash flow project using FY18 and FY19 entitlement state commercial service funds with $864,708 from each Fiscal Year. [3770] |
| Onslow County        |                     |
| **Division 03**      | **Air Traffic Control Tower**  
| Ellis Airport        | Construct an Air Traffic Control Tower to the Albert J Ellis Airport in Onslow County. Additional funding required supplementing the SFY2016 Legislative entitlement as a result of bid costs higher than original estimates. |
| Onslow County        |                     |
| **Division 04**      | **State match to NPE for SIB loan.** |
| Halifax-Northampton  |                     |
| Airport              |                     |
| **Division 08**      | **Lighting Rehabilitation**  
| Siler City Municipal | Rehabilitate airfield lighting system in order to enhance safe operations at this airport. [3417] |
| Airport              |                     |
| **Division 07**      | **Airport Perimeter Fencing – Phase II**  
| Burlington Alamance  | Installation of 10’ chain link fence with three strands of barb wire as a wildlife deterrent in order to improve security and safety by minimizing wildlife incursions on the active airfield. Additional fencing is required to prevent wetlands disruption. Construction bids were higher due to additional fence and market price. These funds are in addition to the original award from the January 2016 BOT. |
| Regional Airport     |                     |
| **Division 10**      | **Lighting and Beacon Rehabilitation**  
| Charlotte Monroe     | Rehabilitate airfield lighting system, including the airfield beacon in order to enhance safe operations at this airport. [3812,3330] |
| Executive Airport    |                     |
Runway Strengthening – Construction
Strengthen runway to support current commercial airline traffic.
This project is primarily funded with grant from FAA in the amount of approximately $6M, and the airport will be using the FY18 and FY19 entitlement state commercial services funds as their local match. This is a cash flow project with $586,901 from FY18 and estimated $70,000 from FY19 budget years. [3573]

ITEM I-4 SUMMARY – 5 PROJECTS – (TOTAL STATE and FEDERAL COST) $ 5,064,000
**Project selection and approval for award. Cost is estimated. Only eligible cost within the project scope of work will be reimbursed.
# NCDOT November 2017 Board of Transportation Agenda
## Approval of State Highway Trust Funds - Strategic Transportation Investments

<table>
<thead>
<tr>
<th>Town/County Division</th>
<th>Project Description</th>
<th>Estimated Cost</th>
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<tbody>
<tr>
<td>Perquimans Co. Div. 1</td>
<td><strong>US 17 Business / NC 37 from east of Perquimans River Bridge to NC 37. Initial funds are requested for full right of way and utilities.</strong></td>
<td><strong>$1,030,000.00</strong></td>
</tr>
<tr>
<td>Perquimans Co. Div. 1</td>
<td><strong>US 17 Business / NC 37 from east of Perquimans River Bridge to NC 37. Initial funds are requested for construction based on the estimate from the 12 month Tentative Letting List published October 10, 2017. This is a Cash Flow project with $16,100,000.00 in SFY 18, SFY 19 and SFY 20.</strong></td>
<td><strong>$48,300,000.00</strong></td>
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<tr>
<td>Lenoir Co. Div. 2</td>
<td><strong>US 70 (Kinston Bypass). $4,799,338.00 has previously been approved for preliminary engineering. Additional funds are requested to complete the Draft EIS. This project has previously been identified as a Trust Fund Intrastate System project.</strong></td>
<td><strong>$2,000,000.00</strong></td>
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<tr>
<td>Lenoir Co. Div. 2</td>
<td><strong>NC 148 (Harvey Parkway) from NC 58 to NC 11. Initial funds are requested for construction based on the estimate from the 12 month Tentative Letting List published October 5, 2017. This is a Cash Flow project with $28,833,333.33 in SFY 18 and SFY 19 and $28,833,333.34 in SFY 20.</strong></td>
<td><strong>$86,500,000.00</strong></td>
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<tr>
<td>New Hanover/Pender Cos. Div. 3</td>
<td><strong>US 17 Hampstead Bypass from US 17 to US 17 north of Hampstead. $47,201.00 has previously been approved for project mitigation. Additional funds are requested using Regional Tier funding.</strong></td>
<td><strong>$150,000.00</strong></td>
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## Approval of State Highway Trust Funds - Strategic Transportation Investments

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<th>Town/County Division</th>
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<tr>
<td>New Hanover Div. 3</td>
<td>WBS 34932.2.4 SR 1175 (Kerr Avenue) Interchange at US 74 (Martin Luther King Jr. Parkway). Initial funds are requested for right of way and Map Act appraisals.</td>
<td>$100,000.00</td>
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<tr>
<td>New Hanover Div. 3</td>
<td>WBS 40191.3.3 SR 1409 (Military Cutoff Road Extension) from Lendire Road west of US 17 Business (Market Street) to US 17 Business (Market Street)/ SR 1403 (Middle Sound Loop Road). $975,000.00 has previously been approved for construction. Additional funds are needed to cover expenditures that have or will exceed the previously authorized budget.</td>
<td>$210,000.00</td>
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<tr>
<td>Onslow Co. Div. 3</td>
<td>WBS 50116.1.2 NC 24 at US 258 (Richlands Highway) intersection. $650,000.00 has previously been approved for preliminary engineering. Additional funds are requested.</td>
<td>$1,500,000.00</td>
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<tr>
<td>Onslow Co. Div. 3</td>
<td>WBS 44361.2.1 NC 53 (Western Boulevard) at SR 2714 (Jacksonville Parkway). Initial funds are requested for full right of way and utilities.</td>
<td>$1,075,000.00</td>
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<td>Johnston Co. Div. 4</td>
<td>WBS 50472.2.1 SR 1003 (Buffalo Road) from US 70 to SR 1934 (Old Beulah Road). Initial funds are requested for full right of way and utilities.</td>
<td>$627,000.00</td>
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### Approval of State Highway Trust Funds - Strategic Transportation Investments

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<th>Town/County Division</th>
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<tr>
<td>Durham Co. Div. 5 P-5728</td>
<td>REGIONAL</td>
<td>WBS 47607.1.1</td>
<td>Norfolk Southern H Line. Construct grade separation at Neal Road. Initial funds are requested for preliminary engineering.</td>
<td>$600,000.00</td>
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<td>Durham Co. Div. 5 U-5934</td>
<td>STATEWIDE</td>
<td>WBS 45929.1.1</td>
<td>NC 147 (Durham Freeway) from I-40 to future I-885 (East End Connector) in Durham. Initial funds are requested for preliminary engineering.</td>
<td>$300,000.00</td>
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<td>Statewide</td>
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<td>WBS 46404.1.4</td>
<td>South Eastern Extension of I-540 - Map Act Lawsuit.</td>
<td>$195,000.00</td>
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<td>Wake Co. Div. 5 P-5729</td>
<td>REGIONAL</td>
<td>WBS 47608.1.1</td>
<td>Gresham Lake Road. Construct grade separation at SR 2013 (Gresham Lake Road). Initial funds are requested for preliminary engineering.</td>
<td>$1,100,000.00</td>
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<td>Wake Co. Div. 5 U-5518B</td>
<td>REGIONAL/STATEWIDE</td>
<td>WBS 43612.2.3</td>
<td>US 70 (Glenwood Avenue) at SR 3067 (T.W. Alexander Drive). $25,000,000.00 has previously been approved for appraisal of a specific parcel using Regional Tier funding. Additional funds are requested for advanced acquisition of Specific Parcel 900 (Property of Southbridge Fellowship Church) for $3,550,000.00 using Statewide Tier funding.</td>
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<td>Town/County Division PROJ. CATEGORY</td>
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<td>Cumberland Co. Div. 6 U-2519AB</td>
<td>WBS 34817.2.28 Fayetteville Outer Loop from south of SR 1118 (Parkton Road) to south of SR 1003 (Camden Road). Initial funds are requested for full right of way and utilities.</td>
<td>$22,400,000.00</td>
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<td>Cumberland/Robeson Co. Div. 6 U-2519AA</td>
<td>WBS 34817.2.27 Fayetteville Outer Loop from I-95 to south of SR 1118 (Parkton Road) in Robeson County. Initial funds are requested for full right of way and utilities.</td>
<td>$6,200,000.00</td>
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<td>Guilford Co. Div. 7 R-4707</td>
<td>WBS 36599.1.5 US 29; SR 4771 (Reedy Fork Parkway); and SR 2526 (Summit Avenue) from north of SR 2641 (Bryan Park Road) to US 29 / SR 4771 (Reedy Fork Parkway) interchange in Greensboro. $900,000.00 has previously been approved for preliminary engineering. Additional funds are needed to cover expenditures that have or will exceed the previously authorized budget.</td>
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<td>Guilford Co. Div. 7 R-5725</td>
<td>WBS 50474.1.1 NC 68 at NC 150 intersection in Oak Ridge. Intersection improvements. $250,000.00 has previously been approved for preliminary engineering. Additional funds are requested.</td>
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<td>Guilford Co. Div. 7 TA-6678</td>
<td>WBS 47591.1.1 PART - Airport area hub shuttle service LTV #1 FY 16 expansion fleet vehicle. Initial funds are requested for preliminary engineering.</td>
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<tr>
<td>Greensboro/ Guilford Co. Div. 7 U-2525B STATEWIDE</td>
<td>WBS 34821.3.S6 Greensboro Eastern Loop from north of US 70 to US 29 north of Greensboro. $129,108,603.00 has previously been approved for construction. Additional funds are needed to cover work for supplemental agreements. <strong>This is a Strategic Transportation Investments Transition project.</strong></td>
<td>$9,900,000.00</td>
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<td></td>
</tr>
<tr>
<td>Greensboro/ Guilford Co. Div. 7 U-2525B STATEWIDE</td>
<td>WBS 34821.2.3 Greensboro Eastern Loop from north of US 70 to US 29 north of Greensboro. $37,485,740.00 has previously been approved for right of way and utilities. Additional funds are needed to cover settlement of condemnation claims. <strong>This is a Strategic Transportation Investments Transition project. This project has previously been identified as a Trust Fund Urban Loop project.</strong></td>
<td>$1,335,000.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Guilford/ Randolph Cos. Divs. 7/8 U-5864A DIVISION</td>
<td>WBS 46389.1.2 SR 1595 / SR 4053 (Surret Drive) from I-85 in Trinity to SR 1300 (West Fairfield Road) in High Point. Initial funds are requested for preliminary engineering.</td>
<td>$400,000.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Orange Co. Div. 7 I-3306AC REGIONAL</td>
<td>WBS 34178.1.6 I-40 at NC 86. Initial funds are requested for preliminary engineering.</td>
<td>$1,000,000.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Randolph Co. Div. 8 R-22220DA REGIONAL</td>
<td>WBS 34394.1.4 US 64 from SR 1409 (Lake Park Road) to Asheboro Bypass. Initial funds are requested for preliminary engineering.</td>
<td>$1,045,000.00</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### NCDOT November 2017 Board of Transportation Agenda

**Approval of State Highway Trust Funds - Strategic Transportation Investments**

<table>
<thead>
<tr>
<th>Town/County</th>
<th>Division</th>
<th>WBS</th>
<th>Project Description</th>
<th>Estimated Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Davidson Co. Div. 9</td>
<td>P-5731</td>
<td>47610.1.1</td>
<td>East 7th Avenue. Initial funds are requested for preliminary engineering.</td>
<td>$1,000,000.00</td>
</tr>
<tr>
<td>Davidson Co. Div. 9</td>
<td>P-5732</td>
<td>47611.1.1</td>
<td>Yadkin Valley Station in Lexington. Initial funds are requested for preliminary engineering.</td>
<td>$1,800,000.00</td>
</tr>
<tr>
<td>Forsyth Co. Div. 9</td>
<td>AV-5738</td>
<td>46332.1.1</td>
<td>Smith Reynolds Airport (INT). Acquire land and clear terrain obstructions east of runway 15-33 to drain and grade material in place. $172,000.00 has previously been approved for right of way and utilities. Additional funds are requested.</td>
<td>$19,000.00</td>
</tr>
<tr>
<td>Forsyth Co. Div. 9</td>
<td>AV-5738</td>
<td>46332.2.1</td>
<td>Smith Reynolds Airport (INT). Acquire land and clear terrain obstructions east of runway 15-33 to drain and grade material in place. $154,400.00 has previously been approved for preliminary engineering. Additional funds are requested.</td>
<td>$17,600.00</td>
</tr>
<tr>
<td>Winston-Salem/Forsyth Co. Div. 9</td>
<td>R-2247CB</td>
<td>34409.2.7</td>
<td>Winston-Salem Northern Beltway from north of the US 421 Interchange to SR 1314 (Robinhood Road). $1,224,497.00 has previously been approved for specific parcels. Funds are requested for appraisal of Specific Parcel 900. <strong>This project has previously been identified as a Trust Fund Urban Loop project.</strong></td>
<td>$25,000.00</td>
</tr>
</tbody>
</table>

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**November 2, 2017**
<table>
<thead>
<tr>
<th>Town/ County Division</th>
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</thead>
<tbody>
<tr>
<td>Forsyth Co. Div. 9 TA-6680 REGIONAL</td>
<td>WBS 47593.1.1 PART - Airport area hub shuttle service. Purchase one expansion light transit vehicle. Initial funds are requested for preliminary engineering.</td>
<td>$8,000.00</td>
</tr>
<tr>
<td>Winston-Salem/ Forsyth Co. Div. 9 U-2579E STATEWIDE</td>
<td>WBS 34839.2.8 Winston-Salem Northern Beltway (Eastern Section) from SR 2211 (Baux Mountain Road) to NC 8. $3,703,666.00 has previously been approved for appraisal and advanced acquisition of specific parcels. Additional funds are requested for advanced acquisition of Specific Parcel 902 (Property of Mr. Raymond Lineberry and wife Linda). This project has previously been identified as a Trust Fund Urban Loop project.</td>
<td>$108,643.00</td>
</tr>
<tr>
<td>Rowan Co. Div. 9 P-5726 REGIONAL</td>
<td>WBS 47604.1.1 Norfolk Southern Main track. Construct track improvements, second platform, pedestrian underpass, sitework retaining wall and signaling equipment. Initial funds are requested for preliminary engineering.</td>
<td>$700,000.00</td>
</tr>
<tr>
<td>Rowan Co. Div. 9 P-5733 DIVISION</td>
<td>WBS 47612.1.1 Norfolk Southern mainline. Upgrade station building, waiting space expansion and surface parking. Initial funds are requested for preliminary engineering.</td>
<td>$300,000.00</td>
</tr>
<tr>
<td>Forsyth/ Surry Co. Div. 9/11 TA-6681 REGIONAL</td>
<td>WBS 47594.1.1 Piedmont Authority Regional Transportation (PART) - Purchase expansion fleet vehicle to expand service on PART Surry Express #1. Initial funds are requested for preliminary engineering.</td>
<td>$47,000.00</td>
</tr>
<tr>
<td>Town/ County</td>
<td>Division</td>
<td>PROJ.</td>
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<tr>
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</tr>
<tr>
<td>Anson Co. Div. 10</td>
<td>R-5708</td>
<td>WBS 46380.3.1</td>
</tr>
<tr>
<td>Cabarrus Co. Div. 10</td>
<td>P-5725</td>
<td>WBS 47603.1.1</td>
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<tr>
<td>Cabarrus Co. Div. 10</td>
<td>U-5806</td>
<td>WBS 44378.1.D1</td>
</tr>
<tr>
<td>Cabarrus Co. Div. 10</td>
<td>U-5806</td>
<td>WBS 44378.2.1</td>
</tr>
<tr>
<td>Mecklenburg Co. Div. 10</td>
<td>P-5702</td>
<td>WBS 46396.1.1</td>
</tr>
</tbody>
</table>
## Approval of State Highway Trust Funds - Strategic Transportation Investments

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<tbody>
<tr>
<td>Mecklenburg Co.</td>
<td>Norfolk Southern Railroad. Extend Clanton Road to Wilkinson Boulevard (US 29 &amp; US 74) with grade separation of the Norfolk Southern Railroad. Close the Donald Ross crossing at the Norfolk Southern Railroad (Crossing #716178E). Initial funds are requested for preliminary engineering.</td>
<td>$2,000,000.00</td>
</tr>
<tr>
<td>Mecklenburg Co.</td>
<td>NC 51 (Matthews Township Parkway) from SR 3356 (Sardis Road) to SR 1010 (East John Street/Monroe Road).</td>
<td>$800,000.00</td>
</tr>
<tr>
<td>Stanly Co.</td>
<td>Norfolk Southern N Line, milepost 27.5 to 29.6. Initial funds are requested for preliminary engineering.</td>
<td>$300,000.00</td>
</tr>
<tr>
<td>Stanly Co.</td>
<td>NC 24 - 27 from Bird Road in Albemarle to west of the Pee Dee River. $2,904,231.00 has previously been approved for preliminary engineering. Additional funds are needed to cover expenditures that have or will exceed the previously authorized budget. <strong>This project has previously been identified as a Trust Fund Intrastate System project.</strong></td>
<td>$320,000.00</td>
</tr>
<tr>
<td>Caldwell/ Watauga Cos.</td>
<td>US 321 from SR 1500 (Blackberry Road) to US 221 at Blowing Rock. $81,256,360.00 has previously been approved for construction. Additional funds are requested to cover contract costs. <strong>This project has previously been identified as a Trust Fund Intrastate System project. This is a Strategic Transportation Investments transition project.</strong></td>
<td>$1,000,000.00</td>
</tr>
<tr>
<td>Town/County Division</td>
<td>PROJ. CATEGORY</td>
<td>Project Description</td>
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</tr>
<tr>
<td>Iredell Co. Div. 12</td>
<td>REGIONAL</td>
<td>US 21 - NC 115 from Cedar Lane Avenue in Troutman to SR 1336 (Barium Loop Road) in Barium Springs. $500,000.00 has previously been approved for preliminary engineering. Additional funds are needed to cover expenditures that have or will exceed the previously authorized budget.</td>
</tr>
<tr>
<td>Madison/ Yancey Cos. Div. 13</td>
<td>STATEWIDE</td>
<td>Wetland mitigation on US 19 from I-26 to SR 1336 (Jacks Creek Road). $2,492,141.00 has previously been approved for wetland mitigation. Additional funds are needed for wetland mitigation. <strong>This project has previously been identified as a Trust Fund Intrastate System project.</strong></td>
</tr>
<tr>
<td>Clay Co. Div. 14</td>
<td>DIVISION</td>
<td>NC 175 from Georgia State Line to US 64, upgrade roadway. $858,893.00 has previously been approved for preliminary engineering. Additional funds are requested.</td>
</tr>
<tr>
<td>Graham Co. Div. 14</td>
<td>DIVISION</td>
<td>US 129 (Rodney Orr Bypass) to Robinsville Highschool and Middle School. Construct new route including bridge over Cheoah River. $170,000.00 has previously been approved for full right of way and utilities. Additional funds are requested.</td>
</tr>
<tr>
<td>Polk Co. Div. 14</td>
<td>DIVISION</td>
<td>NC 108 from I-26 to US 176. Widen roadway. $100,000.00 has previously been approved for preliminary engineering. Additional funds are needed to cover expenditures that have or will exceed the previously authorized budget.</td>
</tr>
</tbody>
</table>
## Approval of State Highway Trust Funds - Strategic Transportation Investments

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Statewide M-0360 WBS 36824.1.2</td>
<td>Design Services, statewide, preliminary engineering for miscellaneous projects. $2,000,000.00 has previously been approved for preliminary engineering. Additional funds are requested using 30% Statewide ($390,000.00) / 30% Regional ($390,000.00) / 40% Division ($520,000.00) Tier funding.</td>
<td>$1,300,000.00</td>
</tr>
<tr>
<td>Statewide R-9999WM WBS 34634.4.3</td>
<td>Mitigation for Yadkin 01. Initial funds are requested to purchase private mitigation bank credits.</td>
<td>$26,000,000.00</td>
</tr>
<tr>
<td>Statewide R-9999WM WBS 34634.4.4</td>
<td>Mitigation for Cape Fear 02. Initial funds are requested to purchase private mitigation bank credits.</td>
<td>$10,000,000.00</td>
</tr>
<tr>
<td>Statewide F-5703 WBS 47256.1.1</td>
<td>Replacement vessel (Support Fleet) for tugs and barges. Initial funds are requested for preliminary engineering.</td>
<td>$900,000.00</td>
</tr>
<tr>
<td>Statewide M-0479 WBS 46314.1.S1</td>
<td>Statewide project development and environmental analysis, preliminary engineering for miscellaneous projects. $2,530,000.00 has previously been approved for preliminary engineering. Additional funds are requested for additional design work. Additional funds are requested using 40% Statewide ($2,800,000.00) / 30% Regional ($2,100,000.00) / 30% Division ($2,100,000.00) Tier funding.</td>
<td>$7,000,000.00</td>
</tr>
</tbody>
</table>
***Correction and resubmission from October 5, 2017 Board Approval (Page K-3)

Sampson/         WBS 45883.1.1
Pender/         I-40 from SR 1725 (Milemarker 352) in Sampson County to
Duplin Cos.      SR 1501 (Milemarker 388) in Pender County. Initial funds are
Div. 3            requested for preliminary engineering.
I-5940
STATEWIDE

***The correct description should be:
(No funding change is requested)

Pender/         WBS 45883.1.1
Duplin/ Cos.     I-40 from east of Sampson County Line (Milemarker 360)
Div. 3           to east of SR 1318 (Camp Kirkwood Road) (Milemarker 393)
I-5940           in Pender County. Initial funds are requested for preliminary
STATEWIDE        engineering.

***Correction and resubmission from October 5, 2017 Board Approval (Page K-29)

Avery Co.        WBS 35574.1.3
Div. 11          US 19E – NC 194 from multi-lanes east of Spruce Pine in
R-2520A          Mitchell County to SR 1106 (Mullin Hill Road) Initial funds are
DIVISION         requested for preliminary engineering.

***Please remove Mitchell County from Description….should read as:
(No funding change is requested)
Avery Co.        WBS 35574.1.3
Div. 11          US 19E – NC 194 from multi-lanes east of Spruce Pine
R-2520A          to SR 1106 (Mullin Hill Road) Initial funds are requested
DIVISION         for preliminary engineering.

STATEWIDE STRATEGIC TRANSPORTATION INVESTMENTS 12 PROJECTS $52,598,643.00
REGIONAL STRATEGIC TRANSPORTATION INVESTMENTS 24 PROJECTS $172,680,659.42

November 2, 2017
<table>
<thead>
<tr>
<th>Category</th>
<th>Projects</th>
<th>Amount</th>
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<tbody>
<tr>
<td>Division Strategic Transportation Investments</td>
<td>15</td>
<td>$9,963,600</td>
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<tr>
<td>Regional/Statewide Strategic Transportation Investments</td>
<td>2</td>
<td>$3,700,000</td>
</tr>
<tr>
<td>Statewide/Regional/Division Strategic Transportation Investments</td>
<td>2</td>
<td>$8,300,000</td>
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<tr>
<td>Strategic Transportation Investments</td>
<td>55</td>
<td>$247,242,902.42</td>
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</table>
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.

<table>
<thead>
<tr>
<th>Town/County</th>
<th>Division</th>
<th>PROJ.</th>
<th>CATEGORY</th>
<th>Project Description</th>
<th>Estimated Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Robeson Co.</td>
<td>Div. 6</td>
<td>SS-4906DI</td>
<td>WBS 47702.3.1</td>
<td>SR 1002 (Old Allenton Rd) at SR 2104 (7th Street). Initial Spot Safety construction funds are needed for All Way Stop installation. File 06-17-48582C</td>
<td>$9,500.00</td>
</tr>
<tr>
<td>Robeson Co.</td>
<td>Div. 6</td>
<td>SS-4906DI</td>
<td>WBS 47702.2.1</td>
<td>SR 1002 (Old Allenton Rd) at SR 2104 (7th Street). Initial Spot Safety right of way and utilities funds are needed for All Way Stop installation. File 06-17-48582R</td>
<td>$2,000.00</td>
</tr>
</tbody>
</table>

**ITEM L SUMMARY**

2 PROJECTS  
$11,500.00
### Division 1

#### Safety

<table>
<thead>
<tr>
<th>Town/County/PROJ</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Perquimans SS-4901BD REGIONAL</td>
<td>47641.1.1, HSIP-0017(164) US 17 Business (Edenton Street) at SR 1338 (Wynne Fork Road) and SR 1107 (Ballahack Road). Funds are needed for preliminary engineering.</td>
<td>$2,000.00 Cost $1,800.00 Fed. $200.00 State</td>
</tr>
<tr>
<td>Washington SS-4901BC STATEWIDE</td>
<td>47640.1.1, HSIP-0064(195) US 64 at NC 32 and SR 1357 (Washington Street). Funds are needed for preliminary engineering.</td>
<td>$5,000.00 Cost $4,500.00 Fed. $500.00 State</td>
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</table>
## NCDOT November 2017 Board of Transportation Agenda
### Approval of Funds for Specific Federal - Aid Projects

### Division 2
#### Safety

<table>
<thead>
<tr>
<th>Town/County/PROJ</th>
<th>Project Description</th>
<th>Estimated Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Carteret Co.</strong></td>
<td>44848.2.5, HSIP-0070(209) US 70 at SR 1124 (Howard Avenue / Nine Foot Road); US 70 at SR 1140 (Roberts Road); US 70 at SR 1141 (Hibbs Road). Funds are needed for full right of way and utilities.</td>
<td>$5,000.00 Cost</td>
</tr>
<tr>
<td><strong>Kinston/Lenoir Co.</strong></td>
<td>47642.1.1, HSIP-0070(214) US 70 (West Vernon Avenue) at SR 1548 (Hill Farm Road) / Sussex Street. Funds are needed for preliminary engineering.</td>
<td>$25,000.00 Cost</td>
</tr>
<tr>
<td><strong>Lenoir Co.</strong></td>
<td>47644.1.1, HSIP-0011(038) NC 11 at SR 1121 (Gray Branch Church Road / Davis Mill Road). Funds are needed for preliminary engineering.</td>
<td>$7,000.00 Cost</td>
</tr>
<tr>
<td><strong>Lenoir Co.</strong></td>
<td>44848.2.6, HSIP-0011(037) NC 11 at SR 1161 (Albrittons Road/Greene Haynes Road). Funds are needed for full right of way and utilities.</td>
<td>$61,400.00 Cost</td>
</tr>
<tr>
<td><strong>Kinston/Lenoir Co.</strong></td>
<td>47642.1.1, HSIP-0070(214) US 70 (West Vernon Avenue) at SR 1548 (Hill Farm Road) / Sussex Street. Funds are needed for preliminary engineering.</td>
<td>$22,500.00 Fed. $2,500.00 State</td>
</tr>
<tr>
<td><strong>Lenoir Co.</strong></td>
<td>47644.1.1, HSIP-0011(038) NC 11 at SR 1121 (Gray Branch Church Road / Davis Mill Road). Funds are needed for preliminary engineering.</td>
<td>$6,300.00 Fed. $700.00 State</td>
</tr>
<tr>
<td><strong>Lenoir Co.</strong></td>
<td>44848.2.6, HSIP-0011(037) NC 11 at SR 1161 (Albrittons Road/Greene Haynes Road). Funds are needed for full right of way and utilities.</td>
<td>$55,260.00 Fed. $6,140.00 State</td>
</tr>
<tr>
<td><strong>Lenoir Co.</strong></td>
<td>47642.1.1, HSIP-0070(214) US 70 (West Vernon Avenue) at SR 1548 (Hill Farm Road) / Sussex Street. Funds are needed for preliminary engineering.</td>
<td>$25,000.00 Fed. $2,500.00 State</td>
</tr>
</tbody>
</table>

November 2, 2017
### Division 2 (Continued)

#### Rural

<table>
<thead>
<tr>
<th>Town/ County/PROJ CATEGORY</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Newport/ Carteret Co.</td>
<td>44912.3.11, TAP-0220(089) ADA (Americans with Disabilities Act) Curb Ramps at various locations with a population &lt;5000. Construction funds are needed to install or upgrade ADA Ramps.</td>
<td>$106,000.00</td>
</tr>
<tr>
<td></td>
<td>$84,800.00 Fed.</td>
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<tr>
<td></td>
<td>$21,200.00 State</td>
<td></td>
</tr>
<tr>
<td>Beaufort/ Carteret Co.</td>
<td>44912.3.12, TAP-0220(090) ADA (Americans with Disabilities Act) Curb Ramps at various locations with a population &lt;5000. Construction funds are needed to install or upgrade ADA Ramps.</td>
<td>$163,000.00</td>
</tr>
<tr>
<td></td>
<td>$130,400.00 Fed.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$32,600.00 State</td>
<td></td>
</tr>
<tr>
<td>Atlantic/ Carteret Co.</td>
<td>44912.3.13, TAP-0220(091) ADA (Americans with Disabilities Act) Curb Ramps at various locations with a population &lt;5000. Construction funds are needed to install or upgrade ADA Ramps.</td>
<td>$60,000.00</td>
</tr>
<tr>
<td></td>
<td>$48,000.00 Fed.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$12,000.00 State</td>
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</tbody>
</table>
Division 2 (Continued)

**Rural**

<table>
<thead>
<tr>
<th>Town/County/PROJ CATEGORY</th>
<th>Project Description</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Havelock/ Craven Co. R-5782H Division 44912.3.9, TAP-0220(087)</td>
<td>Construct ADA (Americans with Disabilities Act) compliant curb ramps on city streets in Havelock with population &gt;5000. Funds are needed for construction to construct or upgrade ADA ramps.</td>
<td>$50,000.00 Cost, $40,000.00 Fed., $10,000.00 State</td>
</tr>
<tr>
<td>Craven Co. R-5782I Division 44912.3.10, TAP-0220(088)</td>
<td>ADA (Americans with Disabilities Act) Curb Ramps at various locations with a population &gt;5000. Construction funds are needed to install or upgrade ADA Ramps.</td>
<td>$107,000.00 Cost, $85,600.00 Fed., $21,400.00 State</td>
</tr>
<tr>
<td>Greenville/ Pitt Co. R-5782D Division 44912.3.5, TAP-0220(084)</td>
<td>ADA (Americans with Disabilities Act) ramps at various locations with population &gt;5000. Funds are needed for construction to construct or upgrade ADA ramps.</td>
<td>$930,000.00 Cost, $744,000.00 Fed., $186,000.00 State</td>
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</table>
# Approval of Funds for Specific Federal-Aid Projects

## Division 3
### Urban

<table>
<thead>
<tr>
<th>Town/County/PROJ CATEGORY</th>
<th>Project Description</th>
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</tr>
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<tbody>
<tr>
<td>New Hanover Co./Wilmington U-5534G DIVISION</td>
<td>Hooker Road from Wrightsville Avenue to Mallard Drive / Rose Avenue intersection. $80,000.00 has previously been approved for preliminary engineering. Additional funds are needed for design contract fees.</td>
<td>$10,905.00 Cost</td>
</tr>
<tr>
<td>New Hanover Co./Wilmington U-5534H DIVISION</td>
<td>Hinton Avenue from Park Avenue to Greenville Avenue. $80,000.00 has previously been approved for preliminary engineering. Additional funds are needed for design contract fees.</td>
<td>$10,275.00 Cost</td>
</tr>
</tbody>
</table>

## Safety

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<tr>
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<tbody>
<tr>
<td>New Hanover Co. SS-4903DF REGIONAL</td>
<td>NC 133 (Castle Hayne Road) at SR 1329 (Oakley Road). Funds are needed for preliminary engineering.</td>
<td>$61,000.00 Cost</td>
</tr>
<tr>
<td>Wilmington/New Hanover Co. SS-4903DH STATEWIDE</td>
<td>US 117 / NC 132 (College Road) and SR 2313 (Wilshire Boulevard). Funds are needed for preliminary engineering.</td>
<td>$14,525.00 Cost</td>
</tr>
<tr>
<td>Onslow Co. SS-4903DG STATEWIDE</td>
<td>US 258 / NC 24 and SR 1238 (Koonce Fork Road) and Richlands Primary School. Funds are needed for preliminary engineering.</td>
<td>$7,500.00 Cost</td>
</tr>
</tbody>
</table>
## Approval of Funds for Specific Federal - Aid Projects

### Division 3 (Continued)

### Safety

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<thead>
<tr>
<th>Town/County/PROJ CATEGORY</th>
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</tr>
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<tbody>
<tr>
<td>Sampson Co. W-5703B</td>
<td>44849.3.2, HSIP-0040(054)</td>
<td>$250,000.00 Cost</td>
</tr>
<tr>
<td>STATEWIDE</td>
<td>I-40 between Johnston County Line and mile marker 344 in Sampson County. Funds are needed for construction for safety improvements.</td>
<td>$25,000.00 State</td>
</tr>
</tbody>
</table>
## NCDOT November 2017 Board of Transportation Agenda
### Approval of Funds for Specific Federal-Aid Projects

#### Division 4

#### National Highway

<table>
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<tr>
<th>Town/County/PROJ CATEGORY</th>
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<tbody>
<tr>
<td>Wayne Co. U-5958 REGIONAL</td>
<td>45871.2.1, NHP-0070(206) US 70 at SR 1719 (Beston Road). Funds are needed for full right of way and utilities.</td>
<td>$370,000.00 Cost $296,000.00 Fed. $74,000.00 State</td>
</tr>
<tr>
<td>Johnston Co. W-5601DO REGIONAL</td>
<td>50138.2.120, HSIP-0301(037) US 301 between US 70 in Selma and US 70 Business (Market Street) in Smithfield. Funds are needed for full right of way and utilities.</td>
<td>$10,000.00 Cost $9,000.00 Fed. $1,000.00 State</td>
</tr>
<tr>
<td>Johnston Co. W-5704A REGIONAL</td>
<td>44850.3.1, HSIP-0070(204) US 70 Business between SR 1004 (Main Street) and the crossover just east of Wildwood Drive (Combined with W-5704B: US 70 Business between SR 1553 (Shotwell Road) and NC 42 west / SR 1756 (Lombard Street) interchange). Funds are needed for construction based on the estimate from the 12-Month Tentative Letting List published September 12, 2017.</td>
<td>$1,680,000.00 Cost $1,512,000.00 Fed. $168,000.00 State</td>
</tr>
<tr>
<td>Nash Co. SS-4904EJ REGIONAL</td>
<td>47648.1.1, HSIP-0058(019) NC 58 at SR 1004 (Taylor's Store Road). Funds are needed for preliminary engineering.</td>
<td>$3,000.00 Cost $2,700.00 Fed. $300.00 State</td>
</tr>
</tbody>
</table>

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November 2, 2017
## Division 5

### Urban

<table>
<thead>
<tr>
<th>Town/County/PROJ CATEGORY</th>
<th>Project Description</th>
<th>Estimated Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wake Co. U-5515</td>
<td>SR 1930 (Stadium Drive) 1933 (West North Avenue) from Capital Boulevard to SR 1954 (North Wingate Street). Funds are needed for construction for complete streets improvements.</td>
<td>$712,000.00 State</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$3,560,000.00 Cost</td>
</tr>
<tr>
<td></td>
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<td>$2,848,000.00 Fed.</td>
</tr>
<tr>
<td>Morrisville/Wake Co. U-5618</td>
<td>SR 3014 (Morrisville-Carpenter Road) from SR 1613 (Davis Drive) to west of NC 54. Funds are needed for utilities.</td>
<td>$270,000.00 State</td>
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<tr>
<td></td>
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<td>$900,000.00 Cost</td>
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<tr>
<td></td>
<td></td>
<td>$630,000.00 Fed.</td>
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<td>$60,000.00 State</td>
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### Safety

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<thead>
<tr>
<th>Town/County/PROJ CATEGORY</th>
<th>Project Description</th>
<th>Estimated Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Durham Co. W-5601EH</td>
<td>SR 1118 (Fayetteville Road) at Cook Road. Construction funds are needed for safety improvements.</td>
<td>$6,500.00 State</td>
</tr>
<tr>
<td></td>
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<td>$58,500.00 Fed.</td>
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<tr>
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<td>$65,000.00 Cost</td>
</tr>
<tr>
<td>Vance Co. SS-4905FE</td>
<td>SR 1148 (Vanco Mill Road) at SR 1538 (Garrett Road) / US 1 Northbound Ramp. Funds are needed for preliminary engineering.</td>
<td>$500.00 State</td>
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<tr>
<td></td>
<td></td>
<td>$4,500.00 Fed.</td>
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<tr>
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<td>$5,000.00 Cost</td>
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</tbody>
</table>
NCDOT November 2017 Board of Transportation Agenda
Approval of Funds for Specific Federal - Aid Projects

Division 5 (Continued)

Safety

<table>
<thead>
<tr>
<th>Town/County/PROJ</th>
<th>Project Description</th>
<th>Estimated Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cary/ Wake Co.</td>
<td>47666.1.1, HSIP-1624(003)</td>
<td>$5,000.00 Cost</td>
</tr>
<tr>
<td></td>
<td>SR 1624 (Carpenter Fire Station Road) at Yates Store Road.</td>
<td>$4,500.00 Fed.</td>
</tr>
<tr>
<td></td>
<td>Funds are needed for preliminary engineering.</td>
<td>$500.00 State</td>
</tr>
<tr>
<td>Raleigh/ Wake Co.</td>
<td>47667.1.1, HSIP-1839(002)</td>
<td>$3,500.00 Cost</td>
</tr>
<tr>
<td></td>
<td>SR 1839 (Leesville Road) at SR 1840 (Hickory Grove Church Road). Funds are needed for preliminary engineering.</td>
<td>$3,150.00 Fed.</td>
</tr>
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Rail Program

<table>
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<th>Town/County/PROJ</th>
<th>Project Description</th>
<th>Estimated Cost</th>
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<tbody>
<tr>
<td>Wake Co.</td>
<td>42801.3.F2, CMS-000S(781)</td>
<td>$6,140,000.00 Cost</td>
</tr>
<tr>
<td>P-2918 EXEMPT</td>
<td>Carolinian / Piedmont between Charlotte and Raleigh continued operation of 3rd daily run. $15,341,000.00 has previously been approved for construction. Additional funds are needed for the continued operation of the 3rd daily frequency run.</td>
<td>$4,912,000.00 Fed. $1,228,000.00 State</td>
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</table>
### Division 6

#### Urban

<table>
<thead>
<tr>
<th>Town/County/PROJ CATEGORY</th>
<th>Project Description</th>
<th>Estimated Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cumberland Co. U-2519AB</td>
<td>Loop from I-95 to south of SR 1118 (Parkton Road) in Robeson County. Funds are needed for construction based on the estimate from the 12-Month Tentative Letting List published September 12, 2017. This is a fifteen (15) year GARVEE BOND project with $10,296,000.00 Federal Funds in FY18-FY32, and a three (3) year Cash Flow of $13,333,000.00 in FY 18; $13,333,000.00 in FY 19 and $13,334,000.00 in FY 20 for State Match. This is a three (3) year Cash Flow project with $8,333,333.00 in FY 18; $8,333,333.00 in FY 19; and $8,333,334.00 in FY 20 in NHPP funds. <strong>This is a Design-Build Project.</strong></td>
<td>$185,000,000.00 Cost</td>
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<td>$140,000,000.00 Fed.</td>
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<td>$45,000,000.00 State</td>
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<tr>
<td>Bladen Co. SS-4906DD</td>
<td>NC 41 and NC 410. Funds are needed for preliminary engineering.</td>
<td>$1,000.00 Cost</td>
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<tr>
<td></td>
<td></td>
<td>$900.00 Fed.</td>
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<td>$100.00 State</td>
</tr>
<tr>
<td>Columbus Co. SS-4906DE</td>
<td>US 74 at SR 1506 (Old Boardman Road / Macedonia Church Road). Funds are needed for preliminary engineering.</td>
<td>$1,000.00 Cost</td>
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<tr>
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<td>$900.00 Fed.</td>
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<td>$100.00 State</td>
</tr>
<tr>
<td>Columbus Co. SS-4906DG</td>
<td>SR 1002 (Old Lumberton Road) at SR 1005 (Peacock Road). Funds are needed for preliminary engineering.</td>
<td>$1,000.00 Cost</td>
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<tr>
<td></td>
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<td>$900.00 Fed.</td>
</tr>
<tr>
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<td>$100.00 State</td>
</tr>
<tr>
<td>Fayetteville/Cumberland Co. SS-4906DF</td>
<td>NC 24 / 87 (Bragg Boulevard) at Mike Street and Johnson Street. Funds are needed for preliminary engineering.</td>
<td>$15,000.00 Cost</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$13,500.00 Fed.</td>
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<td>$1,500.00 State</td>
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### Safety

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<tr>
<td></td>
<td></td>
<td>$1,000.00 Cost</td>
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<tr>
<td></td>
<td></td>
<td>$900.00 Fed.</td>
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<td>$100.00 State</td>
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<tr>
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<td></td>
<td>$1,000.00 Cost</td>
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<td>$900.00 Fed.</td>
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<td>$100.00 State</td>
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<td></td>
<td>$15,000.00 Cost</td>
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<td>$13,500.00 Fed.</td>
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<td>$1,500.00 State</td>
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## Division 6 (Continued)

### Safety

<table>
<thead>
<tr>
<th>Town/County/PROJ CATEGORY</th>
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<th>Estimated Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cumberland</td>
<td>50138.2.172, HSIP-1831(006) SR 1831 (Baywood Road) at SR 1832 (Murphy Road). Funds are needed for full right of way and utilities.</td>
<td>$360,000.00 Cost</td>
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<tr>
<td></td>
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<td>$324,000.00 Fed.</td>
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<td>$36,000.00 State</td>
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<tr>
<td>Cumberland</td>
<td>44852.2.1, HSIP-1400(010) SR 1400 (Cliffdale Road) from SR 1410 (Bunce Road) westward past Reilly Road to the existing grass median, in Fayetteville. Funds are needed for full right of way and utilities.</td>
<td>$100,000.00 Cost</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$90,000.00 Fed.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$10,000.00 State</td>
</tr>
<tr>
<td>Erwin/ Harnett Co.</td>
<td>47674.1.1, HSIP-0421(092) US 421 (E. Jackson Boulevard) at SR 1703 (Red Hill Church Road / Masonic Road). Funds are needed for preliminary engineering.</td>
<td>$5,000.00 Cost</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$4,500.00 Fed.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$500.00 State</td>
</tr>
<tr>
<td>Robeson Co.</td>
<td>46874.3.1, HSIP-1340(011) SR 1340 (North Odum Street / Prospect Street) from SR 1566 (Corinth Street) to NC 711 (Third Street). Funds are needed for construction for safety improvements.</td>
<td>$2,077,000.00 Cost</td>
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<tr>
<td></td>
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<td>$1,836,600.00 Fed.</td>
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<tr>
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<td>$240,400.00 State</td>
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</table>
NCDOT November 2017 Board of Transportation Agenda
Approval of Funds for Specific Federal - Aid Projects

Division 7

Congestion Mitigation

<table>
<thead>
<tr>
<th>Town/County/PROJ CATEGORY</th>
<th>Project Description</th>
<th>Estimated Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chapel Hill/Orange Co. C-5179 EXEMPT</td>
<td>46240.2.1, CMS-0703(025) SR 1750 (North Estes Drive) from NC 86 (Martin Luther King, Jr. Boulevard) to Caswell Drive, Construct five foot sidewalks and five foot bike lanes; from NC 86 (Martin Luther King, Jr. Boulevard) to Elliott Road, construct ten foot multi-use path; intersection improvements at NC 86 (Martin Luther King, Jr. Boulevard) in Chapel Hill. Funds are needed for full right of way and utilities.</td>
<td>$635,000.00 Cost</td>
</tr>
<tr>
<td>Alamance Co. SS-4907CB DIVISION</td>
<td>47675.1.1, HSIP-1530(006) SR 1530 (Birch Bridge Road) at SR 1515 (Flora Avenue) north of Burlington. Funds are needed for preliminary engineering.</td>
<td>$5,000.00 Cost</td>
</tr>
<tr>
<td>Guilford Co. SR-5001CE DIVISION</td>
<td>40924.3.81, SRS-0710(034) Safe Routes to School-Oak Hill Elementary, Fairview Elementary, John Street Global Studies, Triangle Lake Montessori and Shadybrook Elementary Schools. Funds are needed for construction for sidewalk installation in the vicinity of five schools within the city limits of High Point.</td>
<td>$500,000.00 Cost</td>
</tr>
</tbody>
</table>

Safety

<table>
<thead>
<tr>
<th>Town/County/PROJ CATEGORY</th>
<th>Project Description</th>
<th>Estimated Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alamance Co. SS-4907CB DIVISION</td>
<td>47675.1.1, HSIP-1530(006) SR 1530 (Birch Bridge Road) at SR 1515 (Flora Avenue) north of Burlington. Funds are needed for preliminary engineering.</td>
<td>$5,000.00 Cost</td>
</tr>
<tr>
<td>Guilford Co. SR-5001CE DIVISION</td>
<td>40924.3.81, SRS-0710(034) Safe Routes to School-Oak Hill Elementary, Fairview Elementary, John Street Global Studies, Triangle Lake Montessori and Shadybrook Elementary Schools. Funds are needed for construction for sidewalk installation in the vicinity of five schools within the city limits of High Point.</td>
<td>$500,000.00 Cost</td>
</tr>
<tr>
<td>High Point/Guilford Co. SS-4907CC DIVISION</td>
<td>47676.1.1, HSIP-1193(009) SR 1193 (Baker Road) at East Springfield Road (non-system) in High Point. Funds are needed for preliminary engineering.</td>
<td>$10,000.00 Cost</td>
</tr>
</tbody>
</table>

November 2, 2017
**Division 8**

**Surface Transportation**

<table>
<thead>
<tr>
<th>Town/County/PROJ CATEGORY</th>
<th>Project Description</th>
<th>Estimated Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moore Co.</td>
<td>ER-5600HG Medians of NC 211 and US 15-501 in Pinehurst. Funds are needed for construction for tree planting.</td>
<td>$122,150.00 Cost $97,720.00 Fed. $24,430.00 State</td>
</tr>
<tr>
<td></td>
<td>REGIONAL</td>
<td>$80,000.00 Cost $72,000.00 Fed. $8,000.00 State</td>
</tr>
<tr>
<td></td>
<td>W-5708E NC 211 at SR 1219 (Army / Plank Road). Funds are needed for preliminary engineering.</td>
<td>$6,000.00 Cost $5,400.00 Fed. $600.00 State</td>
</tr>
<tr>
<td></td>
<td>REGIONAL</td>
<td>$150,000.00 Cost $135,000.00 Fed. $15,000.00 State</td>
</tr>
</tbody>
</table>

**Safety**

<table>
<thead>
<tr>
<th>Town/County/PROJ CATEGORY</th>
<th>Project Description</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Hoke Co.</td>
<td>44854.1.7, HSIP-0401(290) US 401 at SR 1411 (North Park Church Road) and SR 1413 (Pittman Grove Church Road) Funds are needed for preliminary engineering.</td>
<td>$150,000.00 Cost $135,000.00 Fed. $15,000.00 State</td>
</tr>
</tbody>
</table>
## Division 8 (Continued)

### Safety

<table>
<thead>
<tr>
<th>Town/County/PROJ</th>
<th>Project Description</th>
<th>Estimated Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sanford/Lee Co.</td>
<td>47678.1.1, HSIP-0421(093)</td>
<td>$32,500.00 Cost</td>
</tr>
<tr>
<td></td>
<td>US 421 Business / NC 87 (Homer Boulevard) from SR 1140 (McDougald Road / Frank Wicker Road) to US 1. Funds are needed for preliminary engineering.</td>
<td>$29,250.00 Fed.</td>
</tr>
<tr>
<td></td>
<td>$3,250.00 State</td>
<td></td>
</tr>
<tr>
<td>Montgomery Co.</td>
<td>44854.1.6, HSIP-0073(048)</td>
<td>$2,000.00 Cost</td>
</tr>
<tr>
<td></td>
<td>I-73 / I-74 / US 220 at several median bridge pier locations in Montgomery County. Funds are needed for preliminary engineering.</td>
<td>$1,800.00 Fed.</td>
</tr>
<tr>
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<td>$200.00 State</td>
<td></td>
</tr>
<tr>
<td>Moore Co.</td>
<td>44854.2.2, HSIP-0002(100)</td>
<td>$90,000.00 Cost</td>
</tr>
<tr>
<td>W-5708B REGIONAL</td>
<td>NC 2 (Midland Road) at US 1 and NC 2 (Midland Road) at NC 22 (Central Drive). Funds are needed for full right of way and utilities.</td>
<td>$81,000.00 Fed.</td>
</tr>
<tr>
<td></td>
<td>$9,000.00 State</td>
<td></td>
</tr>
<tr>
<td>Randolph Co.</td>
<td>47677.1.1, HSIP-2114(002)</td>
<td>$1,000.00 Cost</td>
</tr>
<tr>
<td>SS-4908BP DIVISION</td>
<td>SR 2114 (Providence Church Road) at SR 2116 (New Salem Road). Funds are needed for preliminary engineering.</td>
<td>$900.00 Fed.</td>
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<td>$100.00 State</td>
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</table>
### Division 9

#### Safety

<table>
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<tr>
<th>Town/County/PROJ CATEGORY</th>
<th>Project Description</th>
<th>Estimated Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forsyth Co.</td>
<td>47679.1.1, HSIP-0158(068)</td>
<td>$10,000.00 Cost</td>
</tr>
<tr>
<td>SS-4909CB</td>
<td>US 158 at SR 2014 (Vance Road) and intersection of US 158 at SR 1965 (Belews Creek Road). Funds are needed for preliminary engineering.</td>
<td>$9,000.00 Fed.</td>
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<tr>
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<td>REGIONAL</td>
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<td>$1,000.00 State</td>
</tr>
<tr>
<td>Rowan Co.</td>
<td>50138.3.193, HSIP-0601(024)</td>
<td>$500,000.00 Cost</td>
</tr>
<tr>
<td>W-5601GJ</td>
<td>US 601 between the municipal limits of Salisbury and the Davie County Line, north of Salisbury. Funds are needed for construction for safety improvements.</td>
<td>$450,000.00 Fed.</td>
</tr>
<tr>
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<td>REGIONAL</td>
<td>$50,000.00 State</td>
</tr>
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</table>
# NCDOT November 2017 Board of Transportation Agenda

**Approval of Funds for Specific Federal - Aid Projects**

**Division 10**

**Congestion Mitigation**

<table>
<thead>
<tr>
<th>Town/County/PROJ CATEGORY</th>
<th>Project Description</th>
<th>Estimated Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mecklenburg Co. C-5538 DIVISION</td>
<td>51008.2.1, CMS-1003(154) Charlotte-Intersection of Tuckaseegee / Berryhill / Thrift Roads Funds are needed for full right of way and utilities.</td>
<td>$662,000.00 Cost $529,600.00 Fed. $132,400.00 Local</td>
</tr>
<tr>
<td>Anson Co. W-5710W STATEWIDE</td>
<td>44856.1.23, HSIP-0074(208) US 74 from Richmond County line to milepost 11.80; from milepost 1642 to Union County Line. Funds are needed for preliminary engineering.</td>
<td>$30,000.00 Cost $27,000.00 Fed. $3,000.00 State</td>
</tr>
<tr>
<td>Charlotte/Mecklenburg Co. SS-4910DB STATEWIDE</td>
<td>47681.1.1, HSIP-000S(901) Systemic Smart Crash Cushion Project - I-277, I-77 and US 74. Funds are needed for preliminary engineering.</td>
<td>$1,000.00 Cost $900.00 Fed. $100.00 State</td>
</tr>
<tr>
<td>Charlotte/Mecklenburg Co. SS-4910DD STATEWIDE</td>
<td>47683.1.1, HSIP-0074(210) US 74 (Independence Boulevard) and Wendover Road. Funds are needed for preliminary engineering.</td>
<td>$5,000.00 Cost $4,500.00 Fed. $500.00 State</td>
</tr>
</tbody>
</table>

**Safety**

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<tr>
<td>Charlotte/Mecklenburg Co. SS-4910DB STATEWIDE</td>
<td>47681.1.1, HSIP-000S(901) Systemic Smart Crash Cushion Project - I-277, I-77 and US 74. Funds are needed for preliminary engineering.</td>
<td>$1,000.00 Cost $900.00 Fed. $100.00 State</td>
</tr>
<tr>
<td>Charlotte/Mecklenburg Co. SS-4910DD STATEWIDE</td>
<td>47683.1.1, HSIP-0074(210) US 74 (Independence Boulevard) and Wendover Road. Funds are needed for preliminary engineering.</td>
<td>$5,000.00 Cost $4,500.00 Fed. $500.00 State</td>
</tr>
</tbody>
</table>
## Division 10 (Continued)

### Safety

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</thead>
<tbody>
<tr>
<td>Mecklenburg Co.</td>
<td>44856.1.22, HSIP-1102(016) SR 1102 (Youngblood Road) and SR 1105 (Zoar Road) and</td>
<td>$100,000.00 Cost</td>
</tr>
<tr>
<td>W-5710V</td>
<td>SR 1106 (Hamilton Road). Funds are needed for preliminary engineering.</td>
<td>$90,000.00 Fed.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$10,000.00 State</td>
</tr>
<tr>
<td>Stanly Co.</td>
<td>44856.1.20, HSIP-1494(003) SR 1494 (West Main Street) from US 52 to Railroad Street</td>
<td>$5,000.00 Cost</td>
</tr>
<tr>
<td>W-5710T</td>
<td>in Albemarle. Funds are needed for preliminary engineering.</td>
<td>$4,500.00 Fed.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$500.00 State</td>
</tr>
<tr>
<td>Union Co.</td>
<td>44856.1.21, HSIP-1315(020) SR 1315 (New Town Road) and SR 1319 (Ennis Road /</td>
<td>$50,000.00 Cost</td>
</tr>
<tr>
<td>W-5710U</td>
<td>Broomes Old Mill Road) near Weddington. Funds are needed for preliminary engineering.</td>
<td>$45,000.00 Fed.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$5,000.00 State</td>
</tr>
</tbody>
</table>
### Division 11

#### Safety

<table>
<thead>
<tr>
<th>Town/County/PROJECT</th>
<th>Project Description</th>
<th>Estimated Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Divisionwide</td>
<td>50138.3.205, HSIP-000S(845)</td>
<td>$400,000.00 Cost</td>
</tr>
<tr>
<td>W-5601GV</td>
<td>Upgrade guardrail end units at various locations. $1,600,000.00 has previously been approved for construction. Additional funds are needed for safety improvements.</td>
<td>$400,000.00 Fed. $360,000.00 State</td>
</tr>
<tr>
<td>Surry Co. W-5601GW</td>
<td>50138.3.206, HSIP-000S(844)</td>
<td>$200,000.00 Cost</td>
</tr>
<tr>
<td>Watauga Co. SS-4911AY</td>
<td>US 321 between SR 1209 (Rush Branch Road) and SR 1128 (Kellersville Road / Andy Hicks Road). Funds are needed for preliminary engineering.</td>
<td>$200.00 State</td>
</tr>
</tbody>
</table>

#### Bicycle and Pedestrian

<table>
<thead>
<tr>
<th>Blowing Rock/ Watauga Co. EB-5527 DIVISION</th>
<th>Project Description</th>
<th>Estimated Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>50043.3.FD1, STPEB-1103(027)</td>
<td>Middle Fork Greenway, Phase I, from Tweetsie Railroad to Sterling Creek Park in Blowing Rock. $375,000.00 has previously been approved for construction. Additional funds are needed for relocation of storm water pipe.</td>
<td>$25,000.00 Cost $20,000.00 Fed. $5,000.00 State</td>
</tr>
</tbody>
</table>
## Division 12
### Congestion Mitigation

<table>
<thead>
<tr>
<th>Town/County/PROJ CATEGORY</th>
<th>Project Description</th>
<th>Estimated Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gaston Co. C-5622</td>
<td>Highland Branch Greenway, Phase II. Funds are needed for construction for a 10 foot wide greenway trail.</td>
<td>$420,000.00 Cost, $336,000.00 Fed., $84,000.00 Local</td>
</tr>
<tr>
<td>Cleveland Co. SS-4912CH</td>
<td>NC 216 (Battleground Avenue) at SR 2245 (Bethlehem Road). Funds are needed for preliminary engineering.</td>
<td>$5,000.00 Cost, $4,500.00 Fed., $500.00 State</td>
</tr>
<tr>
<td>Dallas/ Gaston Co. SS-4912CI</td>
<td>NC 275 / NC 279 (Trade Street) at SR 1001 (Oakland Street). Funds are needed for preliminary engineering.</td>
<td>$5,000.00 Cost, $4,500.00 Fed., $500.00 State</td>
</tr>
</tbody>
</table>

### Safety

<table>
<thead>
<tr>
<th>Town/County/PROJ CATEGORY</th>
<th>Project Description</th>
<th>Estimated Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alexander Co. SS-4912CK</td>
<td>US 64 at SR 1005 (Old Mountain Road). Funds are needed for preliminary engineering.</td>
<td>$5,000.00 Cost, $4,500.00 Fed., $500.00 State</td>
</tr>
<tr>
<td>Cleveland Co. SS-4912CH</td>
<td>NC 216 (Battleground Avenue) at SR 2245 (Bethlehem Road). Funds are needed for preliminary engineering.</td>
<td>$5,000.00 Cost, $4,500.00 Fed., $500.00 State</td>
</tr>
</tbody>
</table>
## Safety

<table>
<thead>
<tr>
<th>Town/County/PROJ</th>
<th>Project Description</th>
<th>Estimated Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gastonia/</td>
<td>47688.1.1, HSIP-0321(042)</td>
<td>$5,000.00 Cost</td>
</tr>
<tr>
<td>Gaston Co.</td>
<td>US 321 NB Couplet (York Street) at NC 7 (Long Avenue).</td>
<td>$4,500.00 Fed.</td>
</tr>
<tr>
<td>SS-4912CJ</td>
<td>Funds are needed for preliminary engineering.</td>
<td>$500.00 State</td>
</tr>
</tbody>
</table>

November 2, 2017
## Division 13

### Appalachian

<table>
<thead>
<tr>
<th>Town/County/PROJ CATEGORY</th>
<th>Project Description</th>
<th>Estimated Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Madison Co. R-5779 EXEMPT</td>
<td>SR 1631 (Crossroads Parkway) to SR 1632 (Calvin Edney Road) in Madison County. Funds are needed for full right of way and utilities.</td>
<td>$900,000.00 Cost $900,000.00 Fed.</td>
</tr>
</tbody>
</table>
## Approval of Funds for Specific Federal - Aid Projects

### Division 14

#### Safety

<table>
<thead>
<tr>
<th>Town/ COUNTY/PROJ CATEGORY</th>
<th>Project Description</th>
<th>Estimated Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Haywood Co.</td>
<td>47691.1.1, HSIP-0019(059)</td>
<td>$5,000.00 Cost</td>
</tr>
<tr>
<td>SS-4914DK REGIONAL</td>
<td>US 19 (Dellwood Road) at US 276 (Russ Avenue) (East Intersection) near Lake Junaluska. Funds are needed for preliminary engineering.</td>
<td>$4,500.00 Fed. $500.00 State</td>
</tr>
<tr>
<td>Henderson Co.</td>
<td>47690.1.1, HSIP-1171(059)</td>
<td>$5,000.00 Cost</td>
</tr>
<tr>
<td>SS-4914DJ DIVISION</td>
<td>SR 1171 (Willow Road) at SR 1172 (Hebron Road) in Hendersonville. Funds are needed for preliminary engineering.</td>
<td>$4,500.00 Fed. $500.00 State</td>
</tr>
</tbody>
</table>

#### Bicycle and Pedestrian

<table>
<thead>
<tr>
<th>Town/ COUNTY/PROJ CATEGORY</th>
<th>Project Description</th>
<th>Estimated Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Macon Co.</td>
<td>50433.1.1, TAP-1729(004)</td>
<td>$10,000.00 Cost</td>
</tr>
<tr>
<td>EB-5756 DIVISION</td>
<td>SR 1729 (Depot Street) from US 441 Business (East Main Street) to SR 1667 (Wayah Street). Funds are needed for preliminary engineering.</td>
<td>$8,000.00 Fed. $2,000.00 State</td>
</tr>
</tbody>
</table>
REVISIONS TO THE 2016-2025 AND 2018-2027 STIPS
HIGHWAY PROGRAM
STIP ADDITIONS

DIVISION 8
* EB-5871
CHATHAM
PROJ. CATEGORY
DIVISION
SR 1107 (EAST THIRD STREET), NORTH 5TH AVENUE TO US 64 (EAST 11TH STREET) IN SILER CITY.
PROGRAMMED FOR PLANNING AND ENVIRONMENTAL STUDY ONLY TO EXPEDITE DELIVERY OF NEW STI PROJECT [16-25 STIP].

DIVISION 10
* B-5688
ANSON
PROJ. CATEGORY
DIVISION
WADESBORO, REPLACE BRIDGE 030316 ON BURNS STREET OVER CREEK.
ADD RIGHT-OF-WAY AND CONSTRUCTION NOT PREVIOUSLY PROGRAMMED.

* EB-5929
MECKLENBURG
PROJ. CATEGORY
DIVISION
CHARLOTTE, BELK GREENWAY CONNECTOR PHASE ONE. EAST STONEWALL STREET AT SOUTH DAVIDSON STREET TO SOUTH KINGS DRIVE.
ADD PROJECT AT REQUEST OF MPO.

* EB-5931
UNION
PROJ. CATEGORY
DIVISION
INDIAN TRAIL, NORTH INDIAN TRAIL ROAD. SOUTH FORK ROAD TO LIBERTY LANE.
ADD PROJECT AT REQUEST OF MPO.

* EB-5933
MECKLENBURG
PROJ. CATEGORY
DIVISION
DAVIDSON, KINCAID MULTIUSE PATH. EUGENIA STREET AND SPRING STREET TO SOUTH PRONG ROCKY RIVER GREENWAY NEAR DAVIDSON ELEMENTARY.
ADD PROJECT AT REQUEST OF MPO.

* INDICATES FEDERAL AMENDMENT
Thursday, November 02, 2017
### STIP ADDITIONS

**DIVISION 12**

<table>
<thead>
<tr>
<th>Proj. Category</th>
<th>Project Description</th>
<th>Division</th>
<th>Year</th>
<th>Amount</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>* EB-5930</td>
<td>TROUTMAN, DOWNTOWN SIDEWALK IMPROVEMENTS.</td>
<td>IREDELL</td>
<td>ENGINEERING FY 2019</td>
<td>$55,000</td>
<td>STBGDA</td>
</tr>
<tr>
<td></td>
<td>RUMPLE STREET FROM US 21/NC 115 TO THOMAS STREET; WAGNER STREET FROM US 21/NC 115 TO WEST AVENUE; TALLEY STREET FROM US 21/NC 115 TO WEST AVENUE.</td>
<td></td>
<td>FY 2019</td>
<td>$14,000</td>
<td>L</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>FY 2019</td>
<td>$72,000</td>
<td>STBGDA</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>FY 2019</td>
<td>$18,000</td>
<td>L</td>
</tr>
<tr>
<td><strong>ADD PROJECT AT REQUEST OF MPO.</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>* EB-5932</td>
<td>TROUTMAN, RICHARDSON GREENWAY SOUTH. US 21/NC 115 (SOUTH MAIN STREET) FROM TROUTMAN ELEMENTARY SCHOOL TO JACOBS WOODS SUBDIVISION.</td>
<td>IREDELL</td>
<td>CONSTRUCTION FY 2020</td>
<td>$792,000</td>
<td>STBGDA</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>FY 2020</td>
<td>$198,000</td>
<td>L</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$990,000</td>
<td></td>
</tr>
<tr>
<td>* I-5992</td>
<td>I-77, MILE MARKER 11 TO MILE MARKER 20 AND MILE MARKER 24.5 TO MILE MARKER 37. REHABILITATE PAVEMENT.</td>
<td>MECKLENBURG</td>
<td>CONSTRUCTION FY 2018</td>
<td>$11,600,000</td>
<td>NHPIM</td>
</tr>
<tr>
<td></td>
<td></td>
<td>STATEWIDE</td>
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</table>

**DIVISION 5**

<table>
<thead>
<tr>
<th>Proj. Category</th>
<th>Project Description</th>
<th>Division</th>
<th>Year</th>
<th>Amount</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>* U-5501A</td>
<td>SR 1650 (REEDY CREEK ROAD), NORTH HARRISON AVENUE TO 600 FT. SOUTH OF WATTS POND LANE.</td>
<td>WAKE</td>
<td>RIGHT-OF-WAY FY 2018</td>
<td>$540,000</td>
<td>STBGDA</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>FY 2018</td>
<td>$135,000</td>
<td>L</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>FY 2018</td>
<td>$200,000</td>
<td>STBGDA</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>FY 2018</td>
<td>$50,000</td>
<td>L</td>
</tr>
<tr>
<td><strong>TO REFLECT TOWN'S LATEST PROJECT DELIVERY SCHEDULE, DELAY RIGHT-OF-WAY FROM FY 17 TO FY 18</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>* U-5501B</td>
<td>SR 1650 (REEDY CREEK ROAD), 600 FT. SOUTH OF WATTS POND LANE TO NE MAYNARD ROAD.</td>
<td>WAKE</td>
<td>RIGHT-OF-WAY FY 2018</td>
<td>$484,000</td>
<td>STBGDA</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>FY 2018</td>
<td>$121,000</td>
<td>L</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>FY 2018</td>
<td>$250,000</td>
<td>L</td>
</tr>
<tr>
<td><strong>TO REFLECT TOWN'S LATEST PROJECT DELIVERY SCHEDULE, DELAY RIGHT-OF-WAY FROM FY 17 TO FY 18</strong></td>
<td></td>
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</tr>
</tbody>
</table>

* Indicates Federal Amendment

Thursday, November 02, 2017
## REVISIONS TO THE 2016-2025 AND 2018-2027 STIPS
### HIGHWAY PROGRAM
#### STIP MODIFICATIONS

**DIVISION 7**

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td><em>EL-4828A</em></td>
<td>MORGAN CREEK GREENWAY, PHASE 1</td>
<td>TO ALLOW TOWN ADDITIONAL TIME FOR SECURING PERMITS, DELAY CONSTRUCTION FROM FY 17 TO FY 18 [16-25 STIP] / ADD CONSTRUCTION IN FY 18 NOT PREVIOUSLY PROGRAMMED [18-27 STIP].</td>
<td>FY 2018 - $298,000 (STBGDA)</td>
<td>FY 2018 - $74,000 (L)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>FY 2018 - $372,000</td>
<td></td>
</tr>
<tr>
<td><em>EL-5101</em></td>
<td>VARIOUS, PEDESTRIAN AND BICYCLE PROJECTS IN THE GREENSBORO URBAN AREA METROPOLITAN PLANNING ORGANIZATION (GUAMPO).</td>
<td><strong>ADD CONSTRUCTION IN FY 18 AND FY19 NOT PREVIOUSLY PROGRAMMED AT REQUEST OF MPO.</strong></td>
<td>FY 2018 - $2,106,000 (CMAQ)</td>
<td>FY 2018 - $4,180,000 (STBGDA)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>FY 2018 - $400,000 (TAP)</td>
<td>FY 2018 - $1,671,000 (L)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>FY 2019 - $4,130,000 (STBGDA)</td>
<td>FY 2019 - $1,033,000 (L)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>$13,520,000</strong></td>
<td></td>
</tr>
<tr>
<td><em>P-2918</em></td>
<td>PIEDMONT CORRIDOR, TRAIN 74 / 75 OPERATIONS BETWEEN CHARLOTTE AND RALEIGH, EQUIPMENT AND CAPITAL YARD MAINTENANCE FACILITY.</td>
<td><strong>ADD OPERATIONS FUNDING IN FY 18 NOT PREVIOUSLY PROGRAMMED. STATE MATCHING FUNDS ARE STATE RAIL FUNDS.</strong></td>
<td>FY 2018 - $10,069,764 (CMAQ)</td>
<td>FY 2018 - $2,517,441 (S(E))</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>FY 2018 - $2,517,441 (S(E))</td>
<td>$12,587,205</td>
</tr>
</tbody>
</table>

*INDICATES FEDERAL AMENDMENT*  

Thursday, November 02, 2017
SUMMARY: There are a total of 30 agreements for approval by the Board of Transportation.

Statewide

Piedmont & Northern Railway 42893
This Master Rail Agreement covers the installation, upgrades, or replacement of automatic railway-highway grade crossing signals, gates, and traffic control devices at various locations throughout the State. The Master Agreement shall streamline engineering and construction authorizations by eliminating the drafting and executing of individual project agreements. Notification by the Department to the Railroad shall be by an executed authorization for Construction, providing the necessary information as to each project. The Railroad shall be responsible for all maintenance of the devices. The estimated cost shall be determined on the basis of individual projects authorized by the Department.

Division 2

City of New Bern Craven County 49027
This Agreement consists of the abandonment of SR 1111 (Old Airport Road) from a point 0.57 miles north of SR 1116 to a point 0.99 miles south of SR 1116, for a total length of 1.56 miles and all of SR 1997 (Old Airport Road) from Brice Creek to County Line Road, for a total length of 0.55 miles including Bridge #10, and the City of New Bern adding these sections of Old Airport Road to their system in consideration for the Department providing $687,000 for the resurfacing and/or repair of the specified route. Upon adoption of these sections of Old Airport Road, onto their system, the Municipality shall be responsible for all future maintenance of these sections of Old Airport Road, including Bridge #10. This agenda item supersedes the item that was approved by the BOT on October 5, 2017.

Division 4

Town of Smithfield Johnston County U-3334B 34929.3.3
This Project consists of roadway improvements on SR 1923 (Booker Dairy Road) from SR 1003 (Buffalo Road) to US 301. The Department shall prepare the environmental and/or planning document, project plans and specifications, construct the project, and acquire any needed right of way. The Municipality shall relocate and adjust any municipally-owned utilities. At the request of the Municipality, the Department shall include in its contract the construction of sidewalk along both sides of Booker Dairy Road between Buffalo Road and Bradford Street. The Municipality shall reimburse the Department 30% of the actual cost of the work. The estimated reimbursement from the Municipality is $56,040.
Division 4, cont.

**Town of Selma**
**Johnston County**
**U-5795**
**44366.3.1**

This Project consists of roadway improvements on SR 2302 (Ricks Road) from US 70 to US 301 to widen to three lanes. The Department shall prepare the environmental and/or planning document, project plans and specifications, construct the project, and acquire any needed right of way. The Municipality shall relocate and adjust any municipally-owned utilities. At the request of the Municipality, the Department shall include in its contract the construction of sidewalk along the east and west side of Ricks Road. The Municipality shall reimburse the Department 20% of the actual cost of the work. The estimated reimbursement from the Municipality is $26,200.

**Town of Weldon**
**CSX Transportation, Inc. (CSXT)**
**Halifax County**
**Y-5500DB**
**45533.1.5**

This Rail Agreement is a Crossing Closure Agreement for the permanent closure of the railroad at-grade crossing on the municipal maintained Caroline Avenue (Crossing No. 629 652L, Milepost A, 83.57) in the Municipality. The work will include, but not be limited to, the installation of red diamond “end of road” signage, barricades, landscaping, and the widening and paving of Caroline Avenue from the crossing closure to County Club Road (SR 1641) as defined by project plans. The estimated cost to the Department is $200,000.

Division 5

**City of Raleigh**
**Wake County**
**C-5604OE**
**43714.2.12**
**43714.3.12**

This Project consists of a two-way separated bike facility on Gorman Street, connecting the Reedy Creek Greenway Trail at Ligon and Sullivan to the Rocky Branch Trail at Hillsborough and Clark Street in Raleigh. The Municipality is responsible for all aspects of the project. The Department shall reimburse 80% of eligible expenses from CMAQ funds up to $260,000. The Municipality shall provide the 20% non-federal match ($65,000) for the federal funds authorized and all costs that exceed the total available funding.

**Town of Stem**
**Granville County**
**C-5610D**
**43732.1.5**
**43732.2.5**
**43732.3.5**

This Project consists of the construction of sidewalks along Tally Ho Street, Franklin Street, Main Street and Creedmoor Road in Stem. The Municipality is responsible for all aspects of the project. The Department shall reimburse 80% of eligible expenses from CMAQ funds up to $216,000. The Municipality shall provide the 20% non-federal match ($54,000) for the federal funds authorized and all costs that exceed the total available funding.
Division 5, cont.

North Carolina State University (NCSU)
NC Department of Agricultural & Consumer Services (NCDA&CS)
Wake County
W-5522
50143.3.1

This Project consists of construction of a pedestrian tunnel and installation of additional amenities and landscaping on SR 1656 (Trinity Road) at SR 1658 (Youth Center Drive) intersection in Raleigh in order to connect properties owned by the State of North Carolina. The Department is responsible for all phases of the work and will be responsible for maintenance of the tunnel. NCSU and NCDA&CS will be responsible for maintenance of the tunnel amenities and improvements outside the right of way and the operation, cleanup, repairs and security for the tunnel and the related improvements.

National Railroad Passenger Corporation (AMTRAK)
Wake County
P-5500
44092

This Sublease Rail Agreement covers the terms and conditions by which the Department shall lease to AMTRAK approximately 7,850 square feet of space in the Raleigh Union Station (RUS). AMTRAK will also have access to the common areas and facilities that will include, but not be limited to, rail tracks, passenger concourse, and platform. The Department will provide electricity, water and sewer service, insurance, and maintenance for the property. The lease period will be for ten (10) years, with the option to extend for two (2) additional ten (10) year terms. The annual fee will be $50,000 and will be adjusted after each 5 year period, starting from the commencement date. This adjustment will be no more than 2% based on the Consumer Price Index (CPI) from each of the preceding 5 years. AMTRAK will receive credit towards the first annual fee for expenses incurred while moving to the new RUS. A separate lease from the City of Raleigh to the Department must be approved concurrently, so the two can be executed simultaneously.

City of Raleigh
Wake County
P-5500
44092

This Rail Lease Agreement covers the terms and conditions by which the Department shall lease from the City of Raleigh approximately 21,384 square feet of space in the Raleigh Union Station. The Department will also have access to common areas and facilities that will include waiting area, rail tracks, passenger concourse and platform. The Department will provide electricity, water and sewer service, insurance and maintenance for the property. The lease period will be for ten (10) years, with the option to extend for two (2) additional ten (10) year terms. The initial annual fee will be $223,250. A separate sublease from the Department to AMTRAK must be approved concurrently, so the two can be executed simultaneously.
Division 5, cont.

National Railroad Passenger Corporation (AMTRAK)
Wake, Durham, Alamance and Guilford Counties
P-2918
42801

This Rail Agreement covers the terms under which AMTRAK would implement Passenger Information Display Systems (PIDS) at the Cary, Burlington, and Durham stations. This Agreement was previously approved by the Board of Transportation on September 8, 2016, but due to a funding change, it is being re-submitted as noted below. AMTRAK’s responsibilities shall include preparing construction documents, procuring the software, hardware and infrastructure, installation, and confirming integration of hardware and software with AMTRAK’s real time data system. The Department, utilizing State Funds, shall reimburse AMTRAK 100% of the cost to procure, install, and integrate the PIDS. The estimated cost of the AMTRAK PIDS scope is $1,260,816. In addition, the Department, through State Funds, shall reimburse AMTRAK monthly operating costs estimated to be up to $11,067.

North Carolina Wildlife Resource Commission (NCWRC)
Wake County

This Interagency Agreement is to establish a Non-Game Aquatic Species Program at the Yates Mill Aquatic Conservation Center (YMACC) in the Historic Yates Mill County Park in Raleigh. The Department is providing funding to the NCWRC for the operation and maintenance of the program. The current anticipated funding amount from the Department is $3,042,000.

Wake County

This Interagency Agreement is to construct an addition and renovations to the Yates Mill Aquatic Conservation Center (YMACC) at the A.E. Finley Center and Park. The County will administer the Project. The Department will provide reimbursement for the actual cost of the addition and renovations. The estimated cost to the Department is $1,958,000.

Division 6

CSX Transportation, Inc. (CSXT)
Town of Pembroke
Robeson County
P-3309S
32268

This Rail Agreement covers the preparation of a Traffic Separation Study (TSS) within the Municipality along CSXT’s A line corridor from Corinth Road (SR 1566, Crossing #629 599C, milepost A 240.73) to Deep Branch Road (SR 1339, Crossing #629 603P, milepost A 242.32), and on the SE line corridor from University Road (SR 1561, Crossing #630 991M, milepost SE 284.88) to Jones Road (SR 1571, Crossing #631 011E, milepost SE 285.79). The Department will be responsible for preparing the study in partnership with the Municipality and CSXT. The Department will pay for the study. The estimated cost of the study is $150,000.
Division 7

Town of Jamestown
Guilford County
C-5609F
43731.1.3
43731.2.3
43731.3.3
This Project consists of the construction of approximately 2,800 linear feet of sidewalk between Chimney Court and Jamestown Oaks Drive. The Municipality is responsible for all aspects of the project. The Department shall reimburse 80% of eligible expenses from CMAQ funds up to $540,000. The Municipality shall provide the 20% non-federal match ($135,000) for the federal funds authorized and all costs that exceed the total available funding.

City of Greensboro
Guilford County
EL-5101DJ
41823.1.2
41823.3.13
This Project consists of the design and construction of the Phase 2 portion of the Downtown Greenway from Gate City Boulevard to Greene Street in Greensboro. The Municipality is responsible for all aspects of the project. This Supplemental Agreement is to increase funding for the project. The Department’s original participation was $693,000. The Department agrees to reimburse the Municipality 80% of eligible expenses with additional STP-DA and TAP funds up to $7,331,815. The Municipality shall provide the 20% non-federal match ($1,832,954) for the federal funds authorized and all costs that exceed the total available funding.

Town of Chapel Hill
Orange County
U-5543
50109.1.F1
50109.3.1
This Project consists of variable message signs for traffic management on major corridors in Chapel Hill. The Municipality is responsible for all aspects of the project. This Supplemental Agreement is to add the construction phase and increase the funding for the project. The Department shall reimburse an additional 80% of eligible expenses from STBG-DA funds up to $851,800. The Municipality shall provide the additional 20% non-federal match ($212,950) for the new federal funds authorized and all costs that exceed the total available funding. The total available funding from the Department is $926,800.

Division 8

Town of Ellerbe
Richmond County
15RE.32
This Project consists of the operation of the Rest Area on US 220 in Richmond County. The General Assembly has provided funding for a two-year pilot project to reopen the rest area to be managed and maintained by the Town of Ellerbe. The Department shall provide $200,000 in operating costs over a two-year period for Fiscal Years 2017–2019. The Town shall be responsible for all operation and maintenance activities at the rest area.
CSX Transportation, Inc. (CSXT)  
Scotland County  
C-5600B  
50061.1.3

On October 2, 2009, the Department and CSXT entered into a Railroad Master Construction Agreement which detailed the terms and conditions by which CSXT would construct various rail safety improvements within the State of North Carolina. This Addendum No.12 to the Master Construction Agreement covers the grading and construction of bridge and track work needed to support the extension of the Dixie Storage Siding to improve the operational efficiency for CSXT freight trains. In addition to the Dixie Storage Siding extension, the project shall also include improvements to radio controlled switches and track upgrades on the Bladenboro and East Arcadia Sidings. CSXT will perform all of the utility and construction work for the project. The Department will reimburse CSXT all actual eligible costs. The total estimated cost to the Department is $12,500,000.

Norfolk Southern Railway (NSR)  
Chatham County  
Y-5500HA  
45533.1.14

This Rail Agreement covers the permanent closure of the at-grade highway-railroad crossing at Beal Road (SR 2141, Crossing #721 039U, milepost CF 120.48). For mitigation of the crossing closure, crossing surface improvements will be made at Alton King Road (SR 2140, Crossing #721 038M, milepost CF 120.50), Fayetteville Road (SR 2144, Crossing #721 041V, milepost CF 120.48), and Gulf Road (SR 2139, Crossing #721 042C, milepost CF 120.48); along with crossing surface improvements, removal of existing abandoned track section, and roadway repair at Gulf Road (SR 2139, Crossing #465 957C, milepost CF 120.60). Work will be performed by NSR and the Department. NSR will reimburse the Department $4,000 towards the cost of the crossing closure. The Department will pay NSR 100% of the actual material cost for the crossing surface improvements, estimated to be $25,000. The total estimated cost of the project is $75,000.

Greensboro-Randolph Megasite Foundation, Inc.  
Randolph County  
47606

This Project consists of completion of the planning and environmental documentation specific to transportation improvements needed for the Greensboro-Randolph Megasite. The Department's original participation was $500,000. This Supplemental Agreement is to reimburse the County an additional $500,000 of Contingency funds.
Division 9

**Town of Landis, Rowan County**

EB-5813 44665.1.1

This Project consists of greenway construction beginning at Ryder Avenue and finishing at Lake Corriher Wilderness Park in Landis. The Municipality is responsible for all aspects of the project. The Department shall reimburse 80% of eligible expenses from TAP funds up to $136,000. The Municipality shall provide the 20% non-federal match ($34,000) for the federal funds authorized and all costs that exceed the total available funding.

**City of Salisbury, Rowan County**

C-5603D 43713.1.4 43713.2.4 43713.3.4

This Project consists of construction of sidewalks along Old Concord Road from Ryan Street to Jake Alexander Blvd in Salisbury. The Municipality is responsible for all aspects of the project. The Department shall reimburse 80% of eligible expenses from CMAQ funds up to $331,200. The Municipality shall provide the 20% non-federal match ($82,800) for the federal funds authorized and all costs that exceed the total available funding.

**City of Winston-Salem, Forsyth County**

44610

This Project consists of pedestrian improvements on Cloverdale Avenue and Miller Street in Winston-Salem. The Department’s original participation was $1,250,000.00. This Supplemental Agreement is to reimburse the Municipality an additional $250,000 of Contingency funds.

Division 10

**Town of Cornelius, Mecklenburg County**

EB-5817 44837.1.1 44837.3.1

This Project consists of construction of the McDowell Creek Greenway. The Municipality is responsible for all phases of the project. This Supplemental agreement is to increase funding and to change the source of funding. The Department shall participate in an additional amount not to exceed $200,000 (80%) in STBG-DA funds. The Municipality will be responsible for providing $50,000 (20%) as their local match. With the additional funding, the Department will reimburse a total of $1,400,000 in STBG-DA funding (in lieu of TAP-DA funding originally provided) and the Municipality shall provide a 20% match, or $350,000, and all costs that exceed the total estimated cost of $1,750,000.

**City of Charlotte, Mecklenburg County**

U-5803 44375.2.2 44375.3.2

This Project consists of intersection improvements on SR 2490 (Eastway Drive) and Shamrock Drive. The Municipality is responsible for all phases of the project. The Department shall participate in the actual costs of the project in an amount not to exceed $8,000,000. Costs which exceed that amount shall be borne by the Municipality.
Division 12

Gaston County

C-5606J

This Project consists of construction of sidewalk along Main Street/Lowell Spencer Mountain Road from existing sidewalk at the Lowell Municipal limits to the entrance of Poston Park. The County is responsible for all phases of the project. The Department shall reimburse 80% of approved eligible costs from CMAQ funds allocation, not to exceed $334,379. The County will be responsible for providing the 20% ($83,595) non-federal match for the CMAQ funds authorized and all costs that exceed the total estimated cost of $417,974.

Gaston County

C-5606K

This Project consists of construction of a greenway from Rankin Lake Park along Long Creek to Gastonia Technology Parkway. The County is responsible for all phases of the project. The Department shall reimburse 80% of approved eligible costs from CMAQ funds allocation, not to exceed $757,478. The County will be responsible for providing the 20% ($189,369) non-federal match for the CMAQ funds authorized and all costs that exceed the total estimated cost of $946,847.

Division 14

City of Brevard

Transylvania County

EB-5858

This Project consists of the design and installation of a pedestrian bridge over the Davidson River approximately 0.1 miles north of NC 280/US 64. The Bridge will connect pedestrian foot traffic from US 276 to the greenway. The Department is responsible for all phases of the project. The Municipality shall provide a 20% ($80,000) non-federal match to the federal funds authorized and all costs that exceed the total estimated cost of $400,000.

Great Smoky Mountains

Haywood County

C-5612A

This Project is for the implementation of the Transportation Choices Public Education Campaign. The Agency shall provide educational programs on the impacts of air pollution on park resources in the Great Smoky Mountains National Park and for limiting those impacts by making wiser transportation choices. The Department shall reimburse 80% of eligible expenses from CMAQ funds allocation not to exceed $80,000. The Agency shall provide the 20% ($20,000) non-federal match and all costs that exceed the total estimated cost.
SUMMARY: There are a total 22 of agreements for informational purposes only.

Division 2

Town of Beaufort Carteret 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.

Division 3

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

Circle K Stores, Inc. New Hanover County 36249.3840
This Project consists of review and inspection of a traffic signal upgrade at the intersection at US 117/NC 132 (North College Road) and SR 1322 (Bavarian Lane/Murrayville Road) [SIN 03-0303]. The Developer shall reimburse the Department 100% of the cost of the Department’s review and inspection of the signals. The estimated reimbursement is $2,000.

New Hanover County 36249.3837
This Project consists of review and inspection of a traffic signal installation at SR 1219 (South 17th Street) and Greenfield Street related to the New Hanover County Health and Human Services Development. The County shall reimburse the Department 100% of the cost of the Department’s review and inspection of the signals. The estimated reimbursement is $10,000.

S & H Centre Development Corporation New Hanover County 36249.3838
This Project consists of review and inspection of a traffic signal upgrade at US 17 Business (Market Street) and US 117/NC 132 (North College Road)/Gingerwood Drive. 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.
## Division 4

**North Carolina Department of Natural and Cultural Resources, Division of Parks and Recreation, Halifax County 4.204211**

This Project consists of the Installation of pipe culvert for crossline at Medoc Mountain State Park. The Department shall be responsible for all phases of the project. The Agency shall reimburse the Department 100% of the cost of the work performed by the Department. The estimated reimbursement from the Agency is $7,400.11.

**City of Wilson, Wilson County U-5935 44795.1.1 44795.2.1 44795.3.1**

This Project will construct multimodal facilities along the U.S. 301 corridor, including sidewalk gap filling on connecting streets, road resurfacing and rehabilitation, storm water improvements, improvements to major intersections. This Supplemental Agreement is to clarify that the Municipality shall comply with the reporting provisions included in the FHWA FY 2015 TIGER Grant No. 13 agreement approved on August 8, 2017.

## Division 5

**City of Durham, Durham County EB-5514 50030.3.1**

This Project consists of construction of bicycle lanes and/or sidewalk along University Drive (SR 2220, NC 751, SR 1183) from SR 2220 (Old Chapel Hill Road) to SR 1158 (W. Cornwallis Road) in Durham. The Municipality is responsible for all aspects of the project. This Supplemental Agreement is to extend the completion date of the Project. The Municipality shall complete the Project by 11/30/2020 in lieu of 6/30/2016.

**Barnett Properties, Wake County 36249.3729**

This Project consists of the installation of a new traffic signal on Cary Parkway at proposed Tesoro Site Driveway/Parkway Office Court in Wake County. The Department will review the traffic signal plans and inspect the traffic signal installation. The Developer shall reimburse the Department 100% of the actual cost of all work performed by the Department. The estimated cost is $5,000.

**WM. G. Daniel & Associates, PA, Wake County 36249.3824**

This Project consists of one new traffic signal installation and upgrades to two existing traffic signals at 4 locations in Apex. The Department will review the traffic signal plans and inspect the traffic signal installation. The Developer shall reimburse the Department 100% of the actual cost of all work performed by the Department. The estimated cost is $7,500.
Division 7

Town of Elon
Alamance County
R-5787B
44917.3.3

This Project consists of upgrading pedestrian curb ramps to current ADA Standards at the intersection of E. Haggard Avenue and O'Kelly Avenue in Elon. The Department is responsible for all phases of the work. Upon completion of the work, the Municipality shall reimburse the Department 20% of the actual cost of the work performed by the Department and shall be responsible for maintenance. The estimated reimbursement from the Municipality is $6,000.

City of High Point
Guilford County
SS-4907BV
44950.3.1

This Project consists of safety improvements at the intersection of SR 1552 (Tarrant Road) and SR 1541 (Wendover Avenue) in High Point. The improvements will include the installation of new sidewalk and curb ramps along the western side of Tarrant Road. The Department shall be responsible for all phases of the work. The Municipality shall reimburse the Department a fixed cost of $110,000 towards the cost of the project and shall be responsible for maintenance of the sidewalk.

Division 8

Village of Pinehurst
Moore County
ER-5600HG
46305.3.41

This Project consists of installing landscape plantings in the median of NC 211 from Page Road (SR 1208) to NC 5 in Pinehurst. The Department is responsible for all phases of the work. At the end of the one year establishment period, the Municipality shall assume responsibility for all maintenance and replacement of the landscape materials.

Division 9

University of North Carolina School of the Arts (UNCSA)
Forsyth County
36249.3831

This Project consists of relocating UNCSA Directional Signs to the new interchange located at US 52/ Research Parkway in Winston-Salem. The existing signs located at US 52 Sprague/Waughtown Street will be removed. UNCSA shall reimburse the Department a fixed cost of $7,972.36 for the work performed by the Department.
Division 10

ELM Partners2, LLC
Cabarrus County
36249.3833
This Project consists of the modification of an existing traffic signal located at Kannapolis Parkway (SR 1430) and Glen Afton Boulevard. 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 12

Ingles Markets
Iredell County
I-3819
34192.2.GV4
This Project consists of the construction of a roundabout at US 21 and Free Nancy Avenue for access to the Ingles Development. The Department is responsible for all phases of the project. The Developer shall reimburse the Department 100% of all work performed by the Department. The estimated reimbursement is $872,126.74.

Alcove-Langtree Properties
Iredell County
36249.3835
This Project consists of a proposed traffic signal at SR 1206 (Alcove Road) and Foundation Court (Main Site Entrance) in Mooresville. 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 13

City of Asheville
Buncombe County
47340.3.1
This Project consists of the installation of sidewalk and pedestrian crossings on US 74A (Fairview Road) from Bleachery Boulevard to NC 81 (Swannanoa River Road) in Asheville. The Department is responsible for all phases of the project. The Municipality shall reimburse the Department $450,000 towards the costs of the project. The $450,000 payment shall be considered the Municipality’s full and complete payment for its participation in the project.

Town of Spindale
Rutherford County
ER-5600MB
46305.3.42
This Project consists of landscaping plantings at the interchange of US 74A and SR 2169 (Oakland Road) in the Town of Spindale. The Department shall develop the landscape design, prepare plans and site and install the plantings. At the end of the one year establishment period, the Municipality shall assume responsibility for all maintenance and replacement of the landscape materials.
NCDOT November 2017 Board of Transportation Agenda

Approval of Municipal Street System Changes

There will be no municipal street system changes presented for approval at the November 2017 Board meeting.
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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 Branch 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 Branch to acquire right of way on the below projects either by negotiation or by condemnation through the Attorney General's Office.

(Division 2)

Lenoir County; I.D. No. W-5702F; Project No. 44848.2.6:
NC 11 at SR 1161 (Albrittons Road/Greene Haynes Road)

Carteret County; I.D. No. W-5702E; Project No. 44848.2.5:
US 70 at SR 1124 (Howard Avenue/Nine Foot Road); US 70 at SR 1140 (Roberts Road) and US 70 at SR 1141 (Hibbs Road)

(Division 4)

Johnston County; I.D. No. W-5601DO; Project No. 50138.2.120:
US 301 between US 70 in Selma and US 70 Business (Market Street) in Smithfield

Wayne County; I.D. No. U-5958; Project No. 45871.2.1:
US 70 to SR 1719 (Beston Road)

Johnston County; I.D. No. R-5817; Project No. 46989.2.1:
NC 210 at SR 1162 (Black Creek Road)

Wayne County; I.D. No. U-5938; Project No. 45888.2.1:
US 13 (Berkeley Boulevard) at SR 1003 (New Hope Road)
Preliminary Right of Way Plans (continued)

(Division 4) (continued)

Johnston County; I.D. No. U-5999; Project No. 47117.2.1:
Kellie Drive from North of SR 1923 (Booker Dairy Road) to SR 1103 (Buffalo Road)

(Division 5)

Person County; I.D. No. B-5145; Project No. 42306.2.1:
Bridge No. 50 over South Hyco Creek on SR 1343

Wake County; I.D. No. B-5161; Project No. 42336.2.1:
Bridge No. 362 over Beaver Creek on SR 1162

Wake County; I.D. No. U-5501B; Project No. 45488.2.4:
Cary – SR 1650 (Reedy Creek Road) from 600 feet South of Watts Pond Lane to NE Maynard Road

Granville County; I.D. No. B-5320; Project No. 46034.2.1:
Bridge No. 96 over the Tar River on SR 1139

Wake County; I.D. No. U-5618; Project No. 47167.2.1:
SR 3014 (Morrisville-Carpenter Road) from SR 1613 (Davis Drive) to West of NC 54 in Morrisville

(Division 6)

Cumberland County; I.D. No. W-5601FO; Project No. 50138.2.172:
SR 1831 (Baywood Road) at SR 1832 (Murphy Road)

Cumberland County; I.D. No. W-5706A; Project No. 44852.2.1:
SR 1400 (Cliffdale Road) from SR 1410 (Bunce Road) westward past Reilly Road to the existing grass median in Fayetteville

Robeson County; I.D. No. B-5706; Project No. 45660.2.1:
Bridge No. 135 over Aaron Swamp on SR 2519 (South Robeson Road)

(Division 7)

Guilford County; I.D. No. B-5351; Project No. 46065.2.1:
Bridge No. 237 and Bridge No. 242 over Deep River in High Point

Rockingham County; I.D. No. B-4805; Project No. 38575.2.1:
Bridge No. 9 over a prong of Troublesome Creek on SR 2406

Guilford County; I.D. No. B-4958; Project No. 40150.2.1:
Bridge No. 106 over Reedy Fork Creek on SR 2128
Preliminary Right of Way Plans (continued)

(Division 7) (continued)
Orange County; I.D. No. C-5179; Project No. 46240.2.1:
Construct a ten foot pathway, five foot sidewalks and four foot bike lane – North Estes Drive in Chapel Hill

(Division 8)
Lee County; I.D. No. R-3830; Project No. 38887.2.3:
NC 42 from US 421 to SR 1579 (Broadway Road) in Sanford and SR 1579 from NC 42 to SR 1538 (East Harrington Avenue)

Hoke County; I.D. No. W-5708D; Project No. 44854.2.4:
US 401 Business at SR 1406 (Rockfish Road)

Moore County; I.D. No. W-5708B; Project No. 44854.2.2:
NC 2 (Midland Road) at US 1 and NC 2 (Midland Road) at NC 22 (Central Drive)

Hoke County; I.D. No. W-5708A; Project No. 44854.2.1:
US 15-501 at SR 1225 (Ashemont Road)

(Division 10)
Cabarrus County; I.D. No. W-5710C; Project No. 44856.2.3:
SR 2180 (Lane Street/Jackson Park Road) from US Main Street to a point just West of I-85 Ramps

Mecklenburg County; I.D. No. C-5538; Project No. 51008.2.1:
Charlotte – intersection of Tuckasseegee/Berryhill/Thrift Roads

Stanly County; I.D. No. W-5710D; Project No. 44856.2.4:
NC 24/27 and SR 1258 (Newt Road) near Albemarle

(Division 12)
Cleveland County; I.D. No. U-5775; Project No. 50186.2.1:
US 74 Business (Marion Street) at intersection of US 74 Business (Marion Street) and NC 150 (Cherryville Road)

(Division 13)
Madison County; I.D. No. R-5779; Project No. 44834.2.1:
Extend SR 1631 (Crossroads Parkway) to SR 1632 in Madison County
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. 46018.2.1; Pender County; I.D. No. B-5304:
Grading, drainage, paving and structure on Bridge No. 203 over Sill’s Creek on SR 1324 (Crooked Run Road) with the right of way indicated upon the final plans for said project.

(Division 7)
Project No. 46061.2.1; Alamance County; I.D. No. B-5347:
Grading, drainage, paving and culvert on Bridge No. 170 over a prong of Big Alamance Creek on SR 1145 (Pond Road) with the right of way indicated upon the final plans for said project.

(Division 10)
Project No. 32638.2.2; Anson County; I.D. No. B-2506:
Structure, grading, paving and drainage on Bridge No. 08 over Brown Creek on SR 1627 with the right of way indicated upon the final plans for said project.

(Division 11)
Project No. 39897.2.1; Wilkes County; I.D. No. B-4978:
Grading, drainage, paving and structure on Bridge No. 28 over South Prong Lewis Fork Creek on SR 1154 (Mt. Pleasant Road) with the right of way indicated upon the final plans for said project.
Final Right of Way Plans (continued)

(Division 14)

Project No. 38376.2.1; Cherokee County; I.D. No. B-4462:
Drainage, grading, paving and structure on Bridge No. 148 over Persimmon Creek on
SR 1127 (Bell Hill Road) with the right of way indicated upon the final plans for said
project.
Revisions of the Final Right of Way Plans

Right of way acquisition in accordance with the final right of way plans for the following projects has been determined to be necessary and authorized by the Board. Plans are on file at the Office of the Secretary to the Board of Transportation as an addendum to the minutes of the meetings hereinafter indicated.

Certain changes in right of way, construction and drainage easements, and control of access have been necessitated by alterations in the construction plans of these projects. Amended plan sheets for these projects have been prepared which provide for changes of certain right of way areas, construction and drainage easements and control of access.

The Board finds that the revised areas of right of way, construction and drainage easements and control of access, as shown on the amended plan sheets hereinafter set out, are for a public purpose and are necessary for the construction of projects.

The right of way, construction and drainage easements and control of access are hereby revised as shown on the plan sheets incorporated herein as an addendum, said projects, date of original final approval, and revised right of way, easements and access being as follows:

(Division 6)

Project No. 36492.2.2; I.D. No. U-4444B; Cumberland County:
Final Right of Way plans approved on the minutes of the November 8, 2012 Board of Transportation Meeting. Revised additional right of way, easements or control of access shown on plan sheet(s) 9A as presented at the November 2, 2017 Board of Transportation Meeting.
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 10)
Project 8.U671607, Parcel 011, Valleydale Road and Fred D. Alexander Blvd
Mecklenburg County
Conveyance of an approximate 1.890-acre residue area to the City of Charlotte, for $66,500.00.
Advance Acquisition of Highway Right of Way

Upon recommendation of the Manager of the Right of Way Unit, the Board has been requested to authorize the acquisition of the following properties through negotiation or condemnation for purposes of highway construction in order to prevent undue hardship on property owners or to protect the right of way corridor from development prior to regular project approval. The Board finds such acquisitions to be necessary, and hereby authorizes the Right of Way Branch to acquire said properties either by negotiation or by condemnation through the Office of the Attorney General.

Division 2
Property of Mary W. Faircloth
I.D. No. R-2511, Parcel #900
WBS 35494.2.1, F. A. Project N/A,
County of Beaufort

Division 8
Property of Cedar Grove Baptist Church
I.D. No. R-5726, Parcel 900
WBS 50218.2.1, F. A. Project N/A,
County of Moore

Division 9
Property of Thim Setty a/w Shanta
I.D. No. R-2247CB, Parcel #900,
WBS 34409.2.7, F. A. Project N/A,
County of Forsyth

Property of Jeffrey Wall a/w Amber
I.D. No. U-5760, Parcel #900,
WBS 46381.2.1, F. A. Project N/A,
County of Forsyth

Property of Stephania Lovette Bell
I.D. No. U-2579AB, Parcel #925,
WBS 34839.2.4, F. A. Project N/A,
County of Forsyth

APPROVAL OF ADVANCE ACQUISITION FOR HIGHWAY RIGHT OF WAY 5 PROJECT(S) $0.00

R-ITEM SUMMARY 41 PROJECT(S) TOTAL: $66,500.00
October 17, 2017

MEMORANDUM TO: Board of Transportation

FROM: Transportation Planning Division

SUBJECT: Submission of an Amendment to the Burlington-Graham MPO Comprehensive Transportation Plan for Mutual Adoption by the Board of Transportation

The Transportation Planning Division has worked cooperatively with the Burlington-Graham MPO on an amendment to their Comprehensive Transportation Plan (CTP). The plan was adopted by the Burlington-Graham MPO on October 17, 2017.

The plan is based on an analysis of existing and projected travel and land use, public involvement and field investigations of recommended improvements. It is located on the internet at:


The Transportation Planning Division recommends the mutual adoption of the amended Burlington-Graham MPO Comprehensive Transportation Plan as shown on the attached map, with a recommendation date of October 18, 2017.

Sincerely,

Jamal Alavi, P.E.
Director, Transportation Planning Division

Attachment

November 2, 2017
There is no Pedestrian Map included in this plan. Mapping revised to reflect the official MPO Boundary. No changes to elements of plan - April 12, 2011.

This CTP has been amended to reflect:
1. Removal of the Southern Alamanca Loop from NC 49 (Marc Avenue) to Cherry Lane Road (SR 2123).
2. Cherry Lane (SR 2123) has been changed from "Needs Improvement" Expressway designation to Existing Minor Thruway/Freeway from Jimmie Kerr Road (SR 1928) to the proposed I-40 interchange.

BGMPO original CTP adoption: October 19, 2010
TPB original CTP recommendation: October 26, 2010
NCDOT original adoption: December 9, 2010

Adopted by:
Burlington-Graham MPO
Date: October 17, 2017

NCDOT
Date:

Recommended by:
Transportation Planning Branch
Date: October 18, 2017

NOTES:

Burlington-Graham MPO Comprehensive Transportation Plan
Plan date: September 2, 2010
Revision date: August 24, 2017

Refer to CTP document for more details
MEMORANDUM TO: Board of Transportation

FROM: Transportation Planning Division

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

The Transportation Planning Division has worked cooperatively with Wilkes County on the development of a Comprehensive Transportation Plan (CTP). The plan was adopted by Wilkes County on September 19, 2017, the Town of Wilkesboro on September 11, 2017, the Town of North Wilkesboro on September 5, 2017, and the Town of Ronda on September 12, 2017. It is pending endorsement by the High Country RPO in December 2017.

The plan is based on an analysis of existing and projected travel and land use, public involvement and field investigations of recommended improvements. It is located on the web at:

https://connect.ncdot.gov/projects/planning/Pages/CTP-Details.aspx?study_id=Wilkes County

The Transportation Planning Division recommends the mutual adoption of the Wilkes County Comprehensive Transportation Plan as shown on the attached map, with a recommendation date of October 6, 2017.

Sincerely,

[Signature]

Jamal Alavi, P.E.
Director, Transportation Planning Division

Attachment

November 2, 2017
There will be no Item V submitted to the Board for approval at the November 2017 Board meeting.
RESOLUTION FOR
L. TODD COOK

WHEREAS, L. Todd Cook was a Davidson County Deputy Sheriff who was killed in the line of duty on January 27, 2000; and

WHEREAS, it is the desire of the Davidson County community and the family of Deputy Cook to honor his sacrifice and service by naming a bridge in his honor; and

WHEREAS, this effort to name a bridge in honor of Deputy Cook has his family’s full support; and

WHEREAS, it is the desire of the family and the community that the bridge named in his honor be in close proximity of the newly erected Sheriff’s Office as a remembrance to Deputy Cook and reminder to all law enforcement to “always have your guard up and be ever vigilant”; and

WHEREAS, the Abbots Creek Bridge #123, on U.S. Hwy 64 is already constructed and located less than a mile from the Sheriff’s Office; and

WHEREAS, the Abbots Creek Bridge #123, on U.S. Hwy 64 is a prominent artery through the county and is not formally named; and

WHEREAS, the Davidson County community strongly supports the naming of this bridge as the Deputy Todd Cook Bridge; and

WHEREAS, the Davidson County Board of Commissioners passed a resolution by unanimous decision as part of the application process as an illustration of public support; and

WHEREAS, the Davidson County Board of Commissioners respectfully requested that the North Carolina Board of Transportation name Abbots Creek Bridge #123, on U.S. Hwy 64 as the Deputy Todd Cook Bridge.

NOW, THEREFORE, BE IT RESOLVED:

That the North Carolina Board of Transportation names the Abbots Creek Bridge #123 on U.S. Hwy 64 as the Deputy Todd Cook Bridge.

That appropriate signs will be erected at a suitable time.

Adopted this the 2nd day of November 2017 by the North Carolina Board of Transportation.

Michael S. Fox
Chairman

John H. Smith
Secretary of Transportation
Financial Update
As of September 2017

David Tyeryar, Chief Financial Officer

November 1, 2017
# Financial Update

**SFYTD 2018 as compared SFYTD 2017**

<table>
<thead>
<tr>
<th>Dollars in Millions</th>
<th>Month over Month</th>
<th>Year to Date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>September '17</td>
<td>September '16</td>
</tr>
<tr>
<td>Collections</td>
<td>$ 442</td>
<td>$ 540</td>
</tr>
<tr>
<td>Expenditures</td>
<td>523</td>
<td>554</td>
</tr>
<tr>
<td>Net Change</td>
<td>$(81)</td>
<td>$(14)</td>
</tr>
</tbody>
</table>

| Cash Balances:      |                  |              | September '17 | September '16 |
|---------------------|------------------|--------------|
| Trust Fund          | $ 1,722          | $ 1,448      |
| Highway Fund*       | 325              | 296          |
| Totals              | $ 2,047          | $ 1,744      |

*Excludes bond proceeds held by Trustee & GARVEE Debt Service Reserve*
## Revenue Summary September 2017
($ in Millions)

<table>
<thead>
<tr>
<th>State &amp; Federal Collections:</th>
<th>September 2017</th>
<th>September 2016</th>
<th>Year Over Year</th>
<th>SFY Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highway Fund *</td>
<td>$ 191.1</td>
<td>$ 202.0</td>
<td>$ 552.2</td>
<td>$ (12.0)</td>
</tr>
<tr>
<td>Highway Trust Fund *</td>
<td>129.9</td>
<td>132.3</td>
<td>387.8</td>
<td>384.5</td>
</tr>
<tr>
<td>Total State Funds</td>
<td>321.0</td>
<td>334.3</td>
<td>940.0</td>
<td>948.7</td>
</tr>
<tr>
<td>Federal Funds/Participation **</td>
<td>106.7</td>
<td>154.8</td>
<td>332.7</td>
<td>365.5</td>
</tr>
<tr>
<td>GARVEE Reimbursement/NCTA</td>
<td>14.4</td>
<td>50.7</td>
<td>82.9</td>
<td>141.0</td>
</tr>
<tr>
<td>Total</td>
<td>$ 442.1</td>
<td>$ 539.9</td>
<td>$ 1,355.6</td>
<td>$ 1,455.2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>* Memo</th>
<th>September 2017</th>
<th>September 2016</th>
<th>Year Over Year</th>
<th>SFY Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highway Fund &amp; Trust Fund Details</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Motor Fuel Taxes</td>
<td>$ 186.3</td>
<td>$ 177.7</td>
<td>$ 514.5</td>
<td>$ 13.2</td>
</tr>
<tr>
<td>Highway Use Tax</td>
<td>64.8</td>
<td>68.6</td>
<td>200.4</td>
<td>200.3</td>
</tr>
<tr>
<td>DMV/Other Revenue</td>
<td>67.7</td>
<td>86.3</td>
<td>220.6</td>
<td>243.8</td>
</tr>
<tr>
<td>Investment Income</td>
<td>2.2</td>
<td>1.8</td>
<td>4.5</td>
<td>3.3</td>
</tr>
<tr>
<td>Total</td>
<td>$ 321.0</td>
<td>$ 334.3</td>
<td>$ 940.0</td>
<td>$ 948.7</td>
</tr>
</tbody>
</table>

**Estimated Federal Revenue including the FAST ACT is $1,160 million**
## Expenditure Summary September 2017

($ in millions)

<table>
<thead>
<tr>
<th>State &amp; Federal Funded Programs:</th>
<th>September-17</th>
<th>September-16</th>
<th>2017-2018 Actual</th>
<th>2016-2017 Actual</th>
<th>$</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction</td>
<td>$228.3</td>
<td>$216.0</td>
<td>$655.1</td>
<td>$671.8</td>
<td>$(16.7)</td>
<td>-2%</td>
</tr>
<tr>
<td>Maintenance</td>
<td>137.3</td>
<td>128.0</td>
<td>410.9</td>
<td>380.4</td>
<td>30.5</td>
<td>8%</td>
</tr>
<tr>
<td>Public Transportation</td>
<td>7.6</td>
<td>14.4</td>
<td>31.0</td>
<td>27.2</td>
<td>3.8</td>
<td>14%</td>
</tr>
<tr>
<td>Other Modal/Other Programs</td>
<td>15.8</td>
<td>17.7</td>
<td>35.9</td>
<td>43.2</td>
<td>(7.3)</td>
<td>-17%</td>
</tr>
<tr>
<td>Administration</td>
<td>21.4</td>
<td>24.2</td>
<td>(4.9)</td>
<td>4.2</td>
<td>(9.1)</td>
<td>NA</td>
</tr>
<tr>
<td>Municipal Aid</td>
<td>73.8</td>
<td>73.6</td>
<td>73.7</td>
<td>73.6</td>
<td>0.2</td>
<td>0%</td>
</tr>
<tr>
<td>Transfers to Other Agencies</td>
<td>0.3</td>
<td>3.8</td>
<td>13.9</td>
<td>11.1</td>
<td>2.8</td>
<td>NA</td>
</tr>
<tr>
<td>Total Expenditures</td>
<td>$484.5</td>
<td>$477.6</td>
<td>$1,215.6</td>
<td>$1,211.4</td>
<td>$4.2</td>
<td>0%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SFY Annual Budget</th>
<th>2017-2018 Budget</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>$2,319.7</td>
<td>28%</td>
<td></td>
</tr>
<tr>
<td>1,353.5</td>
<td>30%</td>
<td></td>
</tr>
<tr>
<td>131.8</td>
<td>24%</td>
<td></td>
</tr>
<tr>
<td>246.2</td>
<td>15%</td>
<td></td>
</tr>
<tr>
<td>322.7</td>
<td>-2%</td>
<td></td>
</tr>
<tr>
<td>147.5</td>
<td>50%</td>
<td></td>
</tr>
<tr>
<td>61.0</td>
<td>23%</td>
<td></td>
</tr>
<tr>
<td>$4,582.4</td>
<td>27%</td>
<td></td>
</tr>
</tbody>
</table>

### GARVEE/NCTA/Special Initiatives

<table>
<thead>
<tr>
<th></th>
<th>2017-2018 Actual</th>
<th>2016-2017 Actual</th>
<th>$</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>GARVEE/NCTA/Special Initiatives</td>
<td>$38.4</td>
<td>$76.7</td>
<td>$178.7</td>
<td>$195.0</td>
</tr>
</tbody>
</table>

### Total

<table>
<thead>
<tr>
<th></th>
<th>2017-2018 Actual</th>
<th>2016-2017 Actual</th>
<th>$</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>$522.9</td>
<td>$554.3</td>
<td>$1,394.3</td>
<td>$1,406.4</td>
</tr>
</tbody>
</table>
# Revenue and Expenditure Variances
## as of September 2017

### EXPENDITURES

<table>
<thead>
<tr>
<th>Programs</th>
<th>Variance &gt;5%</th>
<th>Reason for Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other Modal/Other Programs</td>
<td>&lt;10%</td>
<td>Aviation expenditures are down due to the non disbursement of new funding provided for capital improvements to commercial airports.</td>
</tr>
<tr>
<td>Administration</td>
<td>&lt;27%</td>
<td>Admin is down due to the IT carryforward. FY17 IT carryforward was $67.8M.</td>
</tr>
</tbody>
</table>
NCDOT Revenue Sources SFY2018 - $4.8 Billion
(Excludes Receipt Supported Funding of $0.1B)

Motor Fuel Tax
$1,961.8 41.0%

Highway Use Tax
$820.8 17.2%

DMV Registrations
$601 12.6%

Federal Grants/ARRA
$75 1.6%

Federal $969.1 20.3%

Licenses $132.5 2.8%

Title Fees & Other $222 4.5%

*Estimated Federal Revenue including the FAST ACT is $1,160 million
Uses of 2017-18 NCDOT Appropriations
Total Funding = $4.8 Billion
(Excludes Receipt Supported Funding of $0.1B)

Construction – $2,319.7
*STI TIP Construction 2,229.1
Other Construction 90.6

Maintenance - $1,353.5

Other Modes - $348.9
Aviation 120.5
Rail 47.9
Public Transit 131.8
Ferries 48.0
Bike .7

Admin & Other - $351.8

State Agency Transfers - $208.5
State Ports Authority 45.0
Other Agencies 16.0
Municipal Aid 147.5

Debt Service – $200.6
GO Bonds 52.2
GARVEE Bonds 99.4
NCTA 49.0

($ in millions)
SFY2018 NCDOT Sources and Uses
Total Funding = $4.9 Billion

Federal $1.045
Motor Fuel Tax $1.397
DMV Registrations $501
Licenses $133
Other $60
FHWA $969
Grants/ARRA $76

Highway Fund $3.236
Motor Fuels Tax $1.045
DMV Fees/Other $555
Highway Use Tax $821

Transfers $61
State Ports Auth $45
GP Agencies $16

DOT Spending $2.183
Maintenance $1.072
Bridge Program $281
Construction $91
Powell Bill $152
Modal $287
DMV $130
Admin $159
Other $15

Highway Trust Fund $1.547
Motor Fuels Tax $565
Highway Use Tax $821
Title Fees & Other $193

Strategic Transportation Investment Construction $1.412
STI - NCTA $6
STI - Bike $1

Total $11 = $2,229

Debt Service:
GO Bond $32
NCTA $69
Administration $84

Rail - Federal $4
Airports - Federal $20
Transit - Federal $38
GARVEE Debt Service $99
GSPF - Federal $14

Other $310

Transfer to OSBM for DPI $50
DMV - Tag & Tax, & Other $12
NCTA Debt Service & Other $12
Ferries Capital Improvements $3

($ in Millions)

Unaudited Financial Report
NCDOT Expenditures
SFY2018 as of September 30, 2017

External Payments: 80.8%

- Construction Contracts: 48.7%
- Right of Way Purchases: 4.4%
- Grants to Other Entities: 11.3%
- Powell Bill: 8.8%
- Material Purchases: 1.4%
- Professional Engineering & Consultant Contracts: 6.2%

Miscellaneous Service Contracts: 1.0%
Vendor Payments: 2.8%
Equipment Purchases: 1.5%
Debt Service: 2.8%
Transfers to Other Agencies: 1.1%
DOT Labor (Internal Costs): 9.9%
North Carolina Department of Transportation  
Transportation Program Management Unit - Value Management  
Innovative Technologies and Products Awareness Report  
November 1, 2017

PRODUCT INNOVATION – ACOUSTASHIELD

Carsonite’s AcoustaShield™ Sound Barrier System is a noise abatement product for use along transportation corridors. NCDOT considers noise abatement when traffic noise impacts are identified on projects that build on new location, add new lanes, add interchanges, or re-align a road. Feasible and reasonable (and in some cases, practicable) abatement, usually in the form of noise walls, is then incorporated into project design. Noise walls help reduce the noise levels experienced by homes, schools, parks, and other noise-sensitive land uses adjacent to a highway project. This product is a lightweight composite material that can be stacked and installed by a small crew without heavy lifting equipment. The planks stay in place through a tongue-and-groove system and can be cut in the field. AcoustaShield™ product's lightweight design can facilitate its use on bridges. These innovative characteristics save the Department time and money.

This sound barrier can be customized to fit the sound absorption needs by using unfilled or filled planks with fiberglass insulation. When planks include a fiberglass screen, the screen prevents insects from nesting inside the plank and causing degradation. The composite material is made of continuous glass fiber reinforcement and is resistant to the elements, UV rays, and freeze-thaw cycles. The unfilled version of this product is accepted for use as a field trial and is being reviewed for use as a part of the Greensboro Urban Loop project in Guilford County.

For more information visit: http://www.carsonite.com/products/sound-barriers.

TECHNOLOGY HIGHLIGHT – ANYRISK

ANYRISK is a new safety program that was developed by NCDOT to improve worker safety. Any NCDOT employee or contractor can anonymously report on a hazard, near miss, or at-risk behavior. The submitted information can be done from a computer, tablet, or smart phone and can be called in through the 24-hour hotline.

Once the ticket has been submitted, it is immediately sent to the Safety Supervisor for that Division or Business Unit. The Safety Supervisor can then share the ticket with the more immediate staff closest to the issue and the problem can be solved in a quick and decisive way. ANYRISK is NCDOT’s first true offline-capable mobile responsive tool. ANYRISK submitters in rural, low connectivity, areas won’t have to worry about losing their information when submitting forms – ANYRISK will hold it until the user gets enough signal to send it in. This tool does not replace workplace injury reporting – it is an enhancement to the Department’s safety program. The data collected from the ANYRISK program will inform the Department where hazards are continuously present in terms of geographical area, type of work, time of day, and type of injury. By collecting this information, the Department can make positive changes that may prevent these hazards from reoccurring which will improve the safety in the Department while also saving time and money. It is projected to have a Return on Investment of 5 (five) years. It is being rolled-out to all employees this month, November 2017.

For more information visit: https://connect.ncdot.gov/anyrisk/Pages/default.aspx.

This innovation was developed internally within the Department by NCDOT employees, spearheaded by Rob Barfield and Jarvis Gray. Visit https://connect.ncdot.gov/anyrisk/Pages/default.aspx.

Contact the NCDOT Product Evaluation Program at 919-707-4808 productevaluation@ncdot.gov connect.ncdot.gov/resources/products
# Economic Development and Intergovernmental Relations Meeting Minutes

**DATE:** 10/4/17  
**TIME:** 3:40 pm  
**LOCATION:** 150

**MEETING CALLED BY**  
Chairwoman Valerie Jordan

**BOARD ATTENDEES**  
Hugh Overholt, Andy Perkins, Cullie Tarleton, John Pope, Terry Hutchens, Tracy Dodson

## Agenda Topics

### 1. Meeting Call to Order and Approval of September 6th Minutes – Chairwoman Valerie Jordan

**Discussion Summary**  
Chairwoman Jordan called the committee to order, presented roll call, and asked for a motion to approve the minutes as distributed.

**Actions Taken**  
A motion to approve the September 6th 2017 EDIR committee meeting minutes as distributed was made by Ms. Jordan, motion was moved and seconded. The committee approved unanimously.

### 2. Overview of Global Transpark (GTP) – Allen Thomas, Global Transpark Director

**Discussion Summary**  
Mr. Thomas gave an update highlighting GTP's mission and how their division operates by air, land and sea. He discussed their participation with the Rail Division and discussed the Transload distribution Center to be built this year that will assist with getting supplies delivered quicker and assist with retention.

**Actions Taken**  
No action taken.

### 3. Overview of Economic Development Partnership of North Carolina (EDPNC) – John Loyack, Global Business Services VP

**Discussion Summary**  
Mr. Loyack discussed how EDPNC connects with NCDOT. He highlighted their five focus areas of the business. EDPNC collaborates with NCDOT, NCDEQ, NCCCS, NC commerce and NC Works Regional Operations. He highlighted the regional managers assigned to each prosperity zone and mentioned how DOT has impacted some of those companies. He highlighted two recent project expansions. One expansion was Revlon in Granville County and Fibertex personal Care in Randolph County, which is a Danish company that moved to the US because of our transportation logistics. Mr. Loyack gave an overview showing the company's performance and how well they are doing because of the collaboration with DOT partners.

**Actions Taken**  
No action taken.

### 4. Overview of the NC Department of Commerce – William Miller, Deputy Secretary

**Discussion Summary**  
Mr. Miller gave an update on three departments that report directly to the Department of Commerce (Employment Security, Economic Development, Workforce Solutions) Together they work to create better jobs and get better skills and assistance with placing citizens in better paying jobs. Their upcoming projects include working with grade school and college students to explore what their interests are in the workforce and develop a strategy that would assist them with finding employment when they are ready. Their two main priorities are education and infrastructure. There has been collaboration in the past with DOT and the Transportation Secretary on infrastructure needs and job recreation.

**Actions Taken**  
No action taken
### 5. Facilitated Discussion – Chair Valerie Jordan, Vice Chair Hugh Overholt and Chief Deputy Secretary David Howard

<table>
<thead>
<tr>
<th>DISCUSSION SUMMARY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hugh Overholt expressed having the GTP and EDPNC’s presentation presented before the full board. Hugh Overholt mentioned that there is need for a cultural change and better jobs. This should be done in consideration of what is needed in the industry.</td>
</tr>
<tr>
<td>William Miller expressed that some of their challenges come from not having enough natural gas that will allow them to do manufacturing in certain areas.</td>
</tr>
<tr>
<td>Allen Thomas suggested inviting students to the GTP site to see how they operate as a way to assist with preparation for future jobs. Mr. Thomas also suggested connecting with the military on job assistance as a way of keeping jobs in NC. Allen Thomas mentioned that DOT must work on having a reputation of moving quickly in emergency cases.</td>
</tr>
<tr>
<td>Cullie Tarleton mentioned that NC has the first Community College System in the Country that assists with creating specific training to help with job placement.</td>
</tr>
<tr>
<td>John Pope mentioned that there is a need for skilled people in trades.</td>
</tr>
<tr>
<td>Tracy Dodson asked how often is inadequate infrastructure a part of the process and how difficult is it to overcome.</td>
</tr>
<tr>
<td>John Loyack suggested having a full needs assessment of the type of infrastructure is needed.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ACTIONS TAKEN</th>
</tr>
</thead>
<tbody>
<tr>
<td>No action taken</td>
</tr>
</tbody>
</table>

Adjourned 5:00
# Economic Development and Intergovernmental Relations (EDIR) Agenda

## Board of Transportation

**November 1, 2017**

**Time: 3:40**

**Location: Room 150**

<table>
<thead>
<tr>
<th>Topic</th>
<th>Presenter</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Call to Order</td>
<td></td>
<td>3:40-3:45</td>
</tr>
<tr>
<td>Roll Call</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Declaration of Quorum</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approval of October 4, 2017 Meeting Minutes</td>
<td>Chair, Valerie Jordan</td>
<td></td>
</tr>
<tr>
<td>Introduction of panel discussion – The Future of Advanced Technology and Transportation</td>
<td>Chief Deputy Secretary, David Howard</td>
<td>3:45-3:50</td>
</tr>
<tr>
<td>Turnpike Authority Presentation</td>
<td>Beau Memory, Executive Director</td>
<td>3:50-4:20</td>
</tr>
<tr>
<td>SAS Presentation</td>
<td>Eric Hunley, Senior Manager</td>
<td>4:20-4:50</td>
</tr>
<tr>
<td>Comments and Wrap up</td>
<td>Chair, Valerie Jordan</td>
<td>4:50-4:55</td>
</tr>
<tr>
<td>Adjourn</td>
<td>Chair, Valerie Jordan</td>
<td>4:55-5:00</td>
</tr>
</tbody>
</table>
SAS History

In the beginning
• USDA Research Grants (1966)
• National Institute of Heath (analyze agriculture data)
• Statistical Analysis Software
• Incorporated in 1976

Today and into the Future
• Data for Good
• Internet of Things
• Event Stream Processing
• Smart Cities/Counties/States
• The SAS Platform
SAS customers represent 90% of Fortune Global 500® companies.

3+ Billion 2016 REVENUE
Customers in 149 countries at 83,000 sites

35% MARKETSHARE

4 DECADES OF EXPERIENCE
SAS Government Customers
All 50 US state governments
90%+ of the US federal agencies

SAS Advanced Analytics Lab for Government
over 400 high level SAS experts

Reinvestment of 2016 REVENUE

26%
SAS

12.5%
Industry Average
Data for Good
Analytics helping humanity
Focus on Education
New era of information processing
NEW ERA OF INFORMATION PROCESSING

MOVE ANALYSIS TO DATA SOURCE

ANALYZE BEFORE DATA IS STORED – KEEP WHAT IS RELEVANT
Internet of Things

- Smart Cities and Homes
- Connected Customer
- Communications
- Surveillance
- Building Management
- Agriculture
- Insurance
- Connected Car/Transportation
- Energy
- Healthcare
- Retail
- Manufacturing
- Communications
- Connected Customer
- Surveillance
- Building Management
- Agriculture
- Insurance
- Connected Car/Transportation
- Energy
- Healthcare
- Retail
- Manufacturing
<table>
<thead>
<tr>
<th>Connected Car</th>
<th>Connected Customer</th>
<th>Connected Health</th>
<th>Connected Factory</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Volvo" /> Predict issues in the fleet before failures occur and provide new value added services. SAS for IoT Analytics uses data from vehicle sensors and customer information to develop and deploy models that provide proactive information leading to better customer service.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><img src="image" alt="Connected" /> Provide your customers with the right content and offers in real time. SAS for IoT Analytics leverages data from connected devices to predict customer preferences, in real time. The result is timely suggestions and offers customers are more likely to accept.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><img src="image" alt="Connected Health" /> Improve patient care and drive better patient outcomes. SAS for IoT Analytics allows health care organizations to leverage electronic medical recorders with health sensors to establish optimal care and monitor conditions in real-time to minimize risks.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><img src="image" alt="Connected Factory" /> Identifies hidden patterns that predict failures improving production yield and product quality. SAS for IoT Analytics leverages equipment sensor and tag data to develop and deploy early warning models.</td>
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</tbody>
</table>

Global Telecommunications Company

Geneia

WD
SAS® Event Stream Processing
Fast — Millions of events/second – sub-millisecond latency on commodity hardware

Agile — From lightweight embedded technology to cloud distributed architecture

Flexible — Flow Based programming Modeling for fast adaptation to change

High End Analytics — SAS® most advanced analytics and machine learning

Analytics at the Edge — Brings analytics at the closest of the event source.

Enterprise Class — Seamless integration with existing IT architecture and open source
"Detect when event A is followed by event B and not Event C in a 3min time frame"

Build complex network of events using temporal conditions
Multiple events in can produce one event out
SAMPLE USE CASES

E-Commerce Optimization
- Clickstream analysis
- Optimize user experience
- Real-time marketing and advertising

Connected Devices (IoT)
- Real-time sensors survey
- Real-time anomaly detection
- Critical asset monitoring
- Activity triggers & instruction

Decision Management
- Real-time governed operational decisions
- Real-time tactical directives to systems and employees

Fraud Detection
- Real-time transaction analysis
- User behavior detection
- Customer profile correlation
- Real-time alerts and case management

Telecommunications
- Real-time transaction analysis
- User behavior detection
- Customer profile correlation
- Real-time alerts and case management

Capital Markets
- Continuous calculations & risk monitoring
- Reduce time from trading to reporting

Fraud Detection

Telecommunications

Capital Markets
Real-time contextual marketing

BUSINESS ISSUE

• Needed a solution for real-time campaign management (anytime, anywhere market challenges)
• Current process was extremely manual and resulted in high-latency reporting
• Lacked advanced analytical capabilities and was limited in terms of real-time capabilities

RESULTS

• Contextual real-time analysis of the streaming call data records (CDRs) - 20,000+ requests per second
• The right offer at the right time with the right channel
• Enhanced the accuracy of predictions and decisions
Predictive Asset maintenance

BUSINESS CHALLENGE

• Predict maintenance needs of individual trucks before failures occur
• Proactively service trucks at opportune time
• Provide new service offering with high fleet SLA

SOLUTION

• Now monitoring data from 60+ sensors / truck
• Integrated data with product details, warranty claims, and related data sources
• Analytic models predict the likelihood of specific failures within 30 days with 90% accuracy
• Better root cause insight led to higher productivity
Smart Initiatives
Sensors Everywhere – Leverage or not???
The SAS Platform
Inside the SAS Platform
SAS® Viya™ Product Suite

- SAS Visual Analytics
- SAS Visual Statistics
- SAS Visual Data Mining & Machine Learning
- SAS Visual Investigator
- SAS Visual Forecasting
- Others
SAS® Visual Analytics

- Data Preparation
- Visual Exploration
- Self-Service Analytics
- Collaboration & Info Sharing
- Location Analytics
- Interactive Reporting
Data Preparation

- Access to different data sources
- Table and column profiling
- Filter data and column transformations
- Visual joins
Visual Exploration

- Discover relationships, trends, outliers
- Smart autocharting
- Analytics driven visualizations
- Publish any visualization as a report object.
Self-Service Analytics

- Descriptive statistics
- Forecasting and scenario analysis
- Decision trees
- Text analytics
Interactive Reporting

- Responsive and precise layouts
- Dashboard creation
- Filter and prompt controls, report formatting for user interactivity
- Distribute and share
Location Analytics

- Geographical Maps
- Drive-time analysis
- Drive-distance analysis

This map shows seismological disturbances along the San Francisco valley in the last 30 days. The size of the bubbles indicates the magnitude of the seismological disturbance, whether an earthquake, explosion, ice quake, quarry blast, or other.
Transportation Customers
SAS in Transportation – US Government
SAS in Transportation - International
Economic Development & Intergovernmental Relations

Beau Memory

November 1, 2017
Topics

- Autonomous Vehicles
- Tri-Protocol Technology
- Wrong-Way Driver Detection & Prevention
Autonomous Vehicles
Why Autonomous Vehicles?

Overall: It’s about safety

**Improved road safety**
- 90% of accidents today occur due to human error
- Reduction in accidents by 70% is feasible if self-driving vehicles represent a considerable share of the car fleet

**Decrease in pollution**
- Better fuel efficiency of ~20% can lower overall pollution (absent an increase in mileage)
- Even higher decrease of emissions possible with electrification

**Freed up space**
- Need for parking space in the city can be reduced by up to 60%

**Increased traffic efficiency**
- Traffic congestion can be improved by ~70% due to smoother traffic flow and fewer cars on the road

**Reduced public transport spending**
- Reduction in losses from often non-profitable public transport service in lower density areas

**Less waiting time**
- Seamless, multi-modal end-to-end mobility can be offered to consumers

**Productivity boost**
- Over 1.2B hours of pure driving time savings over 10 years possible

**Decreased cost of mobility**
- Cost savings of up to 50% per km for ride shared self-driving taxi service vs. traditional car ownership

**Equitable access to mobility**
- Elderly, children and people with disabilities can make use of new end-to-end mobility options

---

1. After 10 years; Note: Potential rewards calculated for a model city of ~5M inhabitants; Source: International Organisation for Road Accident Prevention, European Parking Association, UCS, World Economic Forum; BCG analysis
Triangle Expressway

- Advertisement 11/22/2016
- Proposal submitted 12/19/2016
- One of ten sites chosen
- 64 proposals received

Why pursue?

- Safety of our customers is paramount
- Support our customer base
- We have the infrastructure to support this technology
TriEx as a Testing Ground

• Triangle Expressway is an ideal testing ground
  – Second All-Electronic Toll facility in US
  – First new toll road designed as AET from inception
  – 18.8 mi, six-lane, 70 mph full access, controlled facility
  – 10 interchanges and 18 AET tolling points
  – Parallel facility creates loop & a Connected Corridor (NC 55)

Morrisville Parkway, Veridea Parkway, and future Complete 540 are also ideal, adding to the overall attractiveness of North Carolina.
Turnpike Readiness

- Ability to test
- Ability to share data
- Designated Safety Officer and Systems currently in place
- Community Engagement
- Diverse research partnerships

Research & Partnerships

- North Carolina Center for Automotive Research (NCCAR)
- ITRE
- UNC Charlotte
- Regional Transportation Alliance
Next Steps

- Memorandum of Agreement with USDOT
- Develop a proposal to attract auto industry testing in North Carolina
- Developing marketing plan and materials to attract Autonomous Vehicle testing to North Carolina
Tri-Protocol Technology
MONTHLY TRANSPONDERS SOLD

FY 2012 | FY 2013 | FY 2014 | FY 2015


J | A | S | O | N | D | J | F | M | A | M | J | A | S | O

MONTHLY TRANSPONDERS SOLD
MONTHLY TRANSPONDERS SOLD
Leading up to March 2015…

- Reader Protocols: TDM (E-ZPass) & SeGo

- Customer Price vs. Cost to NCTA
  - Sticker Transponder: $5.00 (Cost: $9.37)
  - Hard Case Transponder: $20.00 (Cost: $23.67)
  - Exterior Transponder: $25.00 (Cost: $24.68)

- Transponder sales: 3,471 per month average
The Process

- Request for Information (October 2015)
- Request for Proposals
  - Accelerated Development, 3 categories
    - Tri-Protocol Reader Equipment
    - E-ZPass Transponder
    - Low Cost Transponder
- Procurement (August – February)
- Execution
  - Back Office System Modifications
  - Roadside Toll Collection Systems Modifications
  - Customer Service Center & Communications Modifications
Results

- New equipment on Triangle Expressway
- Offer free and low-cost transponder options
- Increased transponder sales and penetration
  - Over 10,000 sold in September
- Tri-Protocol reader ability
  - TDM, SeGo, now 6C
  - First in the nation

Lower transponder prices!

$5 NOW FREE! WORKS IN 3 STATES

$20 NOW $7.40 + tax WORKS IN 18 STATES

Open an account: nccount.com
Wrong-Way Driver (WWD) Detection & Prevention
Triangle Expressway Program

- All-electronic tolling facility
- Average Weekday Traffic = 49,800 at busiest section
- 18 Toll Zones
  - All equipped to detect wrong-way drivers
  - Uses roadside tolling system
- Average of 3 wrong-way drivers detected monthly
- No wrong-way driving crash since opening
Triangle Expressway Program

- Detected at toll zone 5-2
  - Toll NC-540 Southbound
  - North of Green Level West interchange

- Point of origin Green Level West interchange
Triangle Expressway Program

Wrong-Way Driver Detected
- Loop detectors (part of roadside toll system)

Control Room Notification
- E-mail notification sent to operators

Operators Verify Notification
- Roadside Overview Cameras
- Closed-circuit TV cameras

NCSHP Notified, Operators Track
- Phone call to NCSHP dispatcher

Work Order #: 125972
Request Date: 1/7/2017 7:45:01 AM
Priority: 1
Alarm ID: AVC Reversing Vehicle
Asset: 7-1 (T0301) NC 540 EB Ramp to NB Triangle Parkway Lane 1
Text: AVC reverse vehicle error set
Lessons Learned to Date

• Notification time
  – 90+ seconds for control room notification email to arrive

• Notification sources
  – Tolling and ITS networks are not integrated
  – Notification source is limited to e-mail only

• Manual verification required
  – No visual data in initial notification
Potential Solutions for Monroe Expressway

- Similar greenfield project to Triangle Expressway
- All-Electronic Tolling Facility
- 19.8 miles long
- 14 mainline Toll Zones
  - Currently set up to detect wrong-way drivers with roadside toll system
Potential Solutions for Monroe Expressway

Wrong-Way Driver Detected
- Loop detectors at mainline toll zones AND radar at ramps

Wrong-Way Alert to Driver
- Wrong-way signs light up to alert wrong-way driver

Control Room Notification & Verification
- E-mail, pop-ups, & video notification sent to all responders and to video screens
- Review video to confirm location and vehicle type and vehicle behavior

Operators Monitor Situation Until Resolved
- Visual Tracking
- DMS updated

*Monroe Expressway conceptual detection and notification system flowchart
Potential Solutions for Monroe Expressway

Mainline & Ramp Treatments

- 14 Mainline sites

- 12 Ramp/Loop sites
Program Implementation

• In process of selecting test sites on Triangle Expressway based on wrong-way driving data
• Proceeding with design of program for Monroe Expressway in parallel
• Procure and deploy Triangle Expressway test sites in 2017
• Take lessons learned and revise Monroe Expressway and Triangle Expressway plans/program
• Deploy Monroe Expressway program in 2018
• Deploy Triangle Expressway (entire) and Complete 540 program in 2019-2021
Thank You
### Agenda Topics

#### 1. Risk Management – Robin Barfield

Robin Barfield provided an update on the Safety Management System Pilot Project that began a few months ago. He discussed how the Department needs a central collection/suppository location to track all OSHA items, identify strengths and weaknesses, provide interface, good for accountability and timeliness. Keep up with safety meeting agenda, meetings, etc. This is a 24-month project that is expected to save money and help standardize the way we do business.

He provided an update on Workers Compensation claims in the Department. He noted that in 2011 the length of time for a case was capped at up to 500 weeks. An attorney is now on board to help settle more cases. The Department currently has $10 million in old cases -- essentially dealing with $4 million a year in cases.

Robin Barfield also provided an update/overview of Safety Risk Management (SRM), which provides safety engineering, administrative, training, and consultative services across the Department. SRM identifies and analyzes accidents, injuries, and identifies trends and practices. SRM manages the claims of NCDOT injured employees to include return to work and incident reduction initiatives.

He noted that John Taylor is the new Industrial Hygiene Consultant.

He discussed the Hazard Alert System – Accident and injury information to poison management. If we see a trend or something serious, we send to all Division Engineers and safety staff.

Robin Barfield also discussed the Return to Work Program and the Incident Reduction Committees.

**DISCUSSION SUMMARY**

**ACTIONS TAKEN**

N/A

#### 2. Cash Management Model Program – Michelle Overby

Michelle Overby provided an update concerning the Cash Management Program. In 2002, SB 1005 created financial management policy taking us from pay as you go to cash flow. The Cash model was originally developed in 2003. Originally only had a 12-month outlook. Enhancements have a 3-5-10 year outlook. In 2014, rules and legislative restraints were
updated and now have a 15-20% per cash target of total appropriations from Highway Fund and Highway Trust Fund including Powell Bill.

She noted that the Department reports annually to the JLTOC. In 2014 a new balance ceiling of $1B was put into place. The Law specifies that if the cash balance exceeds the ceiling, the Department must report its compliance plans with the General Assembly and Fiscal Research.

She discussed Cash flow vs Budget – Can start three projects at once, pay as you go. This helps reduce costs by considering construction inflation, provides flexibility to substitute projects, and stabilizes construction contract award schedules, and provides greater control over timing. This helps avoid significant costs. North Carolina is one of the first states to have a cash flow budgeting system. In 2014, the Department hired SAS to further enhance our cash model.

Current projects consists of four main factors: Baseline billing amount, seasonality factor, trend factor, and reconciliation constant.

The NC Comprehensive Plan is in place, which gives economic indicators that lead into the NC Transportation Plan. The Department is looking ahead to 2040 and working on the 2050 plan, which covers a 30-year period. The STIP is a 10-year plan and updated every two years.

| ACTIONS TAKEN | N/A |

### 3. Transportation Funding – Burt Tasaico

Burt Tasaico provided a Transportation Funding Update. He noted that the House Select Committee is studying long-range transportation funding needs. Secretary Trogdon laid out his long-term vision.

Chairman Lathrop noted that he forwarded an article to Burt Tasaico’s published in the Wall Street Journal where China will move ahead with electric vehicles. China’s plans to have all electric vehicle sales by 2025 or 2030.

Burt Tasaico noted that the Federal Government has not figured out how to keep up with this demand for transportation needs and fuel consumption. The President’s 10-year outlook includes a quick solution where there would be 40% reduction in Federal Funding (which is $400m to NC). He noted that the purchasing power from the federal gas tax, which has not been changed since 2003, has decreased over time. This is using the consumer price index, and if we match this to the construction cost index the loss will be much greater.

The current program consists of 80% federal funding and 20% state funding. There is a possibility that this could be changed to 20% Federal Funded and 80% State Funded.

A typical driver pays $395 in federal and state gas taxes per year, per vehicle. He noted the need for more transportation revenues.
### ACTIONS TAKEN

<table>
<thead>
<tr>
<th>4. JULY 2017 MEETING MINUTES</th>
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<tbody>
<tr>
<td>DISCUSSION SUMMARY</td>
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<td>ACTIONS TAKEN</td>
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### ACTIONS TAKEN

<table>
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<tr>
<th>5. MEETING ADJOURNED – CHAIR TONY LATHROP</th>
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<tr>
<td>DISCUSSION SUMMARY</td>
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<td>ACTIONS TAKEN</td>
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**FUNDING APPROPRIATIONS STRATEGIES (FAST) COMMITTEE AGENDA**

**BOARD OF TRANSPORTATION**

**NOVEMBER 1, 2017**

**TIME:** 3:40pm-5:00pm

**LOCATION:** EIC

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>PRESENTER</th>
<th>TIME</th>
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<tbody>
<tr>
<td>Call to Order</td>
<td>Tony Lathrop, Chair</td>
<td>3:40pm</td>
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<tr>
<td>Roll Call</td>
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<td>Declaration of Quorum</td>
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<tr>
<td>Approval of October 2017 FAST Meeting Minutes</td>
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<tr>
<td>Quarterly Financial Report for September 2017</td>
<td>David Tyeryar</td>
<td>3:50pm</td>
</tr>
<tr>
<td>TIP Program Development</td>
<td>Van Argabright</td>
<td>4:00pm</td>
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<tr>
<td>Adjourn</td>
<td>Tony Lathrop, Chair</td>
<td>5:00pm</td>
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</tbody>
</table>
DATE: 10-4-2017  TIME: 2:10 PM – 3:30 PM  LOCATION: Room 150

**MEETING CALLED BY**  Chairman Tarleton

**BOARD ATTENDEES**  Committee: Chairman Cullie Tarleton, Vice-Chairman John Pope, Landon Zimmer, Grady Hunt, Gus Tulloss, Terry Hutchens, Patrick Molamphy, Jack Debnam

## AGENDA TOPICS

### 1. **APPROVAL OF SEPTEMBER MINUTES**

**DISCUSSION SUMMARY**  Motion to approve made by Board Member Pope, seconded by Board Member Zimmer.

**ACTIONS TAKEN**  Motion to approve minutes as written passed unanimously.

### 2. **PROJECT SPOTLIGHT: US 221 IN ASHE AND WATAUGA COUNTIES – MICHAEL PETTYJOHN, P. E., NCDOT DIVISION 11 ENGINEER**

**DISCUSSION SUMMARY**  Mr. Michael Pettyjohn, Division 11 Engineer, provided a presentation on the US 221 widening projects in Ashe and Watauga Counties. The improvements to US 221 include widening the existing two-lane facility to a four-lane divided highway from US 421 in Deep Gap to US 221 Business/NC 88 in Jefferson. The total length of the US 221 projects is 16.1 miles. The corridor improvements are anticipated to improve traffic flow, increase capacity, reduce crashes, and improve connectivity to the area. Ashe County is the largest Christmas tree producer in the United States. It is also home to the only cheese factory in North Carolina. Ashe County also has a GE Aviation plant. The improvements to US 221 are anticipated to improve economic development in Ashe County. From an environmental perspective, the US 221 improvements used a best fit design in order to minimize environmental impacts. There will be an interchange added at US 421 and US 221 in order to increase safety due to an environmental issue with dense fog. Much of the corridor widening involves smoothing out curves and reducing grade inclines, which will provide greater sight distance. The projects feature a large amount of grading work.

The US 221 projects are key to the High Country and connecting Boone with Jefferson. It is the main corridor for Ashe County commuters and commercial vehicles.

**ACTIONS TAKEN**  N/A

### 3. **NCDOT’S UTILIZATION OF RAMP METERING – JOEY HOPKINS, P. E., NCDOT DIVISION 5 ENGINEER**

**DISCUSSION SUMMARY**  Division 5 Engineer, Mr. Joey Hopkins presented information on NCDOT’s first installation of on-ramp signals (ramp metering). In September, NCDOT implemented on-ramp signals along I-540 westbound in Division 5. The on-ramp signals were installed at the following interchanges:

- Falls of the Neuse Road
- Six Forks Road
- Creedmoor Road
- Leesville Road
Prior to the on-ramp signal installation, NCDOT outreached to the public through brochures, web sites, an informational video, and public meetings.

In 2013, a Ramp Metering Feasibility Study was performed for Durham and Wake Counties. Seventy-seven sites were identified as part of the study, with 21 of the sites being identified as suitable for on-ramp signals. In March 2014, an operational analysis to the feasibility study was performed for 4 locations along westbound I-540.

Benefits of on-ramp signals include: more reliable travel times, reduced congestion, fewer collisions, and emission reduction. In other cities, the on-ramp signal installations have shown decreased travel time, crash rates and crash frequencies while travel speed and vehicle volumes have increased.

For the I-540 installations, NCDOT anticipates a 20% reduction in annual delay which equates to 14,000+ vehicle hours and an annual financial benefit to motorists of $300,000.

Concerns with on-ramp signals include: uncertainty about operation, traffic back-ups onto side streets, traffic diversions to side streets, and negative impacts to travel time. Solutions to these concerns include public outreach efforts, signing, design and signal timing, and ongoing monitoring.

**ACTIONS TAKEN**

N/A

### 4. Preparing for Autonomous Vehicles, Pavement Markings – Kevin Lacy, P. E., State Traffic Engineer, NCDOT

Transportation Mobility and Safety

Mr. Kevin Lacy, NCDOT State Traffic Engineer, provided a presentation about preparing for autonomous vehicles with pavement markings. Autonomous vehicles use various navigation technology including: High Resolution Mapping, Machine Vision, GPS and other signals, Road Fingerprinting, Crowd Sourcing and Connected AV Infrastructure. Machine Vision technology includes LiDAR, cameras, sensors, etc. NCHRP 20-102 was implemented to study the Impacts of Connected Vehicles and Automated Vehicles on State and Local Transportation Agencies. Task Order 20-102(06) focused on Road Markings for Machine Vision. This includes the development of minimum performance levels for pavement marking (retroreflectivity), use of LiDAR/Camera system, study of pavement marking lines, and tests in wet, dry, day and night conditions with varying types of markers, pavement uniformity, vehicle speed and other impacts.

Based on a 2017 audit, NCDOT’s pavement markings indicate that overall 46.3% of NCDOT’s routes pass the minimum retroreflectivity of 100. On interstate routes, 90.5% of the routes are passing. On primary routes, 80.5% are passing. On the secondary routes, 27.1% pass the minimum reflectivity of 100. Roughly 12,000 to 15,000 miles of the total state system is not marked due to subdivision streets or unpaved roadways.

NCDOT has reviewed the cost and service life of different pavement marking types. NCDOT is also considering how pavement marking items of work are incorporated into contracts such as larger standalone contracts for pavement markings versus line items in resurfacing contracts.

Current efforts to address this issue include: HB 469 established the Fully Autonomous Vehicle Committee, the establishment of better guidelines through the NCHRP research.

**ACTIONS TAKEN**

N/A
| DISCUSSION SUMMARY | Mr. Patrick Norman, Director of Highway Operations, discussed the 2017 Legislative requirement for the Board to study the fee structure for services performed by the Division of Highways (Section 34.14 of S.L.2017-257). The study is due January 1, 2018. The study will identify the number of times each service was performed, the amount of fees that were charged or could have been charged, the cost incurred by the Department for performing the services and, if applicable, the reason for not charging fees. During the December Board meeting, the study will be presented with topics discussed as needed prior to voting on the study. A timeline to complete the study and the similar study from 2014 were distributed to the committee members. Additional information will be distributed to members of the Board regarding this study. |
| ACTIONS TAKEN | N/A |
**Board of Transportation**  
**November 1, 2017**

**Time:** 2:10 PM – 3:30 PM  
**Location:** 150

<table>
<thead>
<tr>
<th>Topic</th>
<th>Presenter</th>
<th>Time</th>
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| Call to Order  
Roll Call  
Declaration of Quorum  
Approval of October 4, 2017 Meeting Minutes | Cullie Tarleton, Chair | 2:10 pm |
| Division 1 – Outerbanks Bridge Projects | Jerry Jennings, P. E., Division Engineer, Division 1 | 2:15 pm |
| Innovative Intersection Design | Joseph Hummer, P. E., State Traffic Management Engineer, Transportation Mobility and Safety | 2:45 pm |
| Study Fee Structure for Services Performed by the Division of Highways | Tim Little, P. E., Chief Engineer | 3:05 pm |
| Other Discussion | Cullie Tarleton, Chair | 3:20 pm |
| Adjourn | All | 3:30 pm |
Alternative Intersections and Interchanges

Joe Hummer, PhD, PE
State Traffic Management Engineer
November 1, 2017
What Should We Do?

- Median?
- Bypass?
- Widen?
- Interchanges?
- Traffic eng.?
- ITS?
- Transit?
- Demand management?
Alternative Designs

- Published
- Installed somewhere
- Researched
- Supported by FHWA
- Starting to appear in professional manuals
Why They Work--Theory

1. Minimize conflict points
2. Separate conflict points
3. Favor through movement
4. Use half signals
5. Minimize signal phases
Fewer Phases Better

- More arrows = More phases = Less time for Main Through Movement

- "1" phase (no signal) 100%
- 2 Phase 70%
- 3 Phase 50%
- "8" Phase 30%

<table>
<thead>
<tr>
<th>% Green</th>
<th>Time Available for Main Through Movement</th>
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<tbody>
<tr>
<td>100%</td>
<td>100% (no signal)</td>
</tr>
<tr>
<td>90%</td>
<td>30%</td>
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<td>80%</td>
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<td>30%</td>
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Time that Main Through Movement sees red and cannot go

Time that Main Through Movement sees green and can go

More arrows = More phases = Less time for Main Through Movement
Where Arterial Meets Minor Street--Superstreet

- Signals on one side of arterial are independent of signals on other side
- Arterial traffic no different than conventional intersection
- Cross street through traffic turns right
- Cross street left turn traffic moves through
- Cross street traffic must turn right
- Cross street left turn and through traffic makes a U-turn in the wide median
Superstreet Flexibility

- Add crossovers
- Move crossovers
- Add signals
- Emergency or farm vehicle crossovers
- Allow left turn from side street
  - If well spaced
- Allow full movement signal
  - If well spaced
Where Two Arterials Meet—Median U-Turn

- Good capacity
- Excellent safety record
- Good for pedestrians

Weakness: Needs low left turn demand
Where Two Arterials Meet—Quadrant Roadway

- Excellent capacity
- Good for pedestrians
- Good for business access

Weakness: Potential driver confusion
Where Two Arterials Meet—Continuous Flow Intersection
Continuous Flow Intersection Capacity

• Highest of any at-grade design
  – Comparable to grade-separated solutions
• Example NC-54 at Cary Parkway
  – Conventional v/c = 1.27
  – Median u-turn v/c = 1.01
  – Quadrant v/c = 0.89
  – CFI v/c = 0.72
  – Grade-separated intersection v/c = 0.6 to 0.7

Weaknesses: Pedestrians, business access
Where Two Arterials Meet—Variable Number of Left Turn Lanes

- Reduce delay in off-peak times
- Only where permissive left turns can be made safely
Where Two Arterials Meet—Grade-Separated Intersections

• We usually use interchanges
Problems with Interchanges In These Spots

- High speed
- No metering
- Progression
- Too much ROW
Grade-Separated Intersections
Quadrant Roadway
Grade-Separated Intersections
Echelon
Grade-Separated Intersections
Double Contraflow
Where a Freeway Meets an Arterial—Parclo B Interchange
Where a Freeway Meets an Arterial—Folded Interchange
Where a Freeway Meets an Arterial—FRE Interchange
Where a Freeway Meets an Arterial—Synchronized Interchange
Where a Freeway Meets an Arterial—Milwaukee B Interchange
Summary

• Alternative designs offer hope in tough places
  – Theoretical support
  – Empirical evidence
• None is perfect or universal
• Intersections
  – Superstreets for major-minor junction
  – Median u-turn, quadrant, or CFI for major-major
  – Variable number of left turn lanes
Summary

• Grade-separated intersections
  – Where arterial meets arterial
  – Where we need a bridge
  – Avoid problems caused by interchanges
  – Lots of good options

• Interchanges
  – Where freeway meets arterial
  – Parclo B best standard solution
  – Lots of new ideas
Thank You!

• We appreciate your support as we try to match the right design to the right spot

• Joe Hummer
  – 919-814-5040, jehummer@ncdot.gov
Outer Banks Project Updates:
Bonner Bridge, Pea Island and Rodanthe

Jerry D. Jennings, PE - Division Engineer
November 1, 2017
B-2500
Project Locations
Rodanthe Bridge

- Historical “hot spot”
- Breach formed during Hurricane Irene in August 2011
- Roadway reconstructed and sandbags placed
- Further damage from Hurricane Sandy in October 2012
- Beach nourishment completed September 2014
Rodanthe Bridge
Rodanthe Bridge
Rodanthe Bridge

- Planning for long term solution has been underway for several years
- Preferred alternative selected in June 2015
- Record of Decision approved in December 2015
- Includes 2.4 mile long “jug handle” design
Rodanthe Bridge
Rodanthe Bridge

• Design-build contract awarded to Flatiron Constructors in January 2017
• RK&K is the lead design firm
• Contract amount of $145 million
• Design and preliminary work underway
• Onsite construction to begin in early 2018
• Completion in 2020
Pea Island (Phase IIA)
Pea Island Bridge

• Historical area of “New Inlet”
• Breach formed during Hurricane Irene in August 2011
• 660 ft. temporary steel bridge constructed
• Further damage from Hurricane Sandy in October 2012
Pea Island Bridge
Pea Island Bridge
Pea Island Bridge

- Contract awarded to T. A. Loving Co. in November 2015
- Bid was $14.3 million
- Includes 1/2 mile long interim concrete structure
- Department to pursue interim bridge and reevaluate long term solution as part of Bonner settlement agreement
- Onsite construction began in March 2016
Pea Island Bridge
Pea Island Bridge
Pea Island Bridge
Pea Island Bridge

• Status:
  – 74% Complete
  – Traffic should be placed on new bridge by early Nov.
  – Demolition of existing bridge to follow
  – Project completion by end of year
  – Will be the “Captain Richard Etheridge Bridge”
Bonner Bridge Replacement Timeline:

- Bonner Bridge opened in 1963.
- Many projects to maintain & protect existing bridge.
- Design-build contract for replacement was awarded to PCL Civil Constructors, Inc., in July 2011.
- HDR Engineering, Inc. of the Carolinas- lead design firm.
- Settlement agreement reached in 2015.
- Total revised contract amount of $250 million.
Bonner Bridge Replacement
## Comparison of Existing Bridge to the New Bridge

<table>
<thead>
<tr>
<th></th>
<th>Old</th>
<th>New</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bridge length (miles)</td>
<td>2.4</td>
<td>2.8</td>
</tr>
<tr>
<td>Number of bents</td>
<td>207</td>
<td>83</td>
</tr>
<tr>
<td>Number of spans in navigation zone</td>
<td>3</td>
<td>11</td>
</tr>
<tr>
<td>Navigation zone width (ft.)</td>
<td>502</td>
<td>3550</td>
</tr>
<tr>
<td>Navigation channel width (ft.)</td>
<td>130</td>
<td>300</td>
</tr>
<tr>
<td>Design lifespan (years)</td>
<td>30</td>
<td>100</td>
</tr>
</tbody>
</table>
Design Visualization Becoming Reality

- Onsite Activities Begin: March 2016.
- Total Contract Expenditures to Date: $149.7 Million; Approx. 60% Complete
  - Includes design, construction support, and materials fabrication.
- Construction Activities Approx. 50% Complete.
- Substantial Completion: November 2018.
Work Areas of Project

- **Approaches:** 71 spans 160 ft. to 182 ft. wide.
  - 72 bents: 2 styles of foundations: 54” cylinder pile with precast cap & 36” square pile with cast in place footing, precast columns & cap.
  - Concrete girders and cast in place deck.
- **Navigation Zone:** 11 spans 200 ft. to 350 ft. wide.
  - 11 bents: 36” square pile with cast in place footing and precast columns.
  - Precast box segments
Pile Driving: 36” Square Precast Prestressed Piles In Navigation Zone & Transition Approaches

- 338 of 532 piles installed to date. Avg. Length 130 ft. (weigh 60 - 65 tons or approx. 1,050lbs/LF)
- 17 of 37 bents completed with 10 to 30 piles/bent.
- 68,000 ft. of these piles used (~13 miles)
Pile Driving: 54” Cylinder Precast Prestressed Piles In Approaches to High Rise.

- 86 of 138 piles installed to date.
- 110 to 130 ft. long.
- 28 of 44 bents completed.
- 18,800 ft. of these piles used (~3.5 miles)
Girders: Approaches

Prestressed Precast Concrete Girders:
- 106 of 303 girders set.
- 26 of 71 spans set.
- 96” tall.
- 160 to 182 ft. long.
- 100 tons (requires two cranes to set)
- Delivered by truck and barge.
- 46,700 ft. used (~9 miles)
Cast In Place Decks: Approaches

- 23 of 71 decks cast; stainless reinforcing steel
- Approx. 225 CY per deck  (Total 18,000 CY of concrete in decks)
- Cast In Place Deck Area = 480,950 SF or 11.04 acres.
Cast In Place Decks: Approaches

- Clear deck is 40 ft. wide: Two 12 ft. lanes and two 8 ft. shoulders.
- Bridge rail is bicycle safe: 54” tall.
Cast In Place Footings: Navigation Zone

- 14 of 37 footings cast.
- Up to 640 CY of concrete in each.
- Up to 8 ft. thick.
- Largest approx. 50ft x 50ft
- Utilize stainless steel reinforcing.
- Concrete delivered to existing bridge deck and discharged into 8CY bucket.
- Ocean water circulated inside concrete to cool the mass.
- Up to 16 hours to place concrete.
Columns: Navigation Zone & Approaches

- Cast in place stub
- Precast sections:
  - 4Ft to 12 Ft tall
  - Post tensioned with 2.5 inch diameter stainless steel bars.
- 23 of 48 sections set.
Box Segments: Navigation Zone

- 90 of 264 box segments set. Segments cast in Chesapeake VA.
- 8 to 19 ft. tall; 5 to 14 ft. long; about 100 tons each
- Two bearings assemblies per bent.
Box Segments: Navigation Zone

- Initial segments set with crane to form Pier Table.
Box Segments: Navigation Zone

- Segment lifters positioned on Pier Table.
- Shuttle barge positioned below lifter, segment is lifted & connected to alternating sides.
- Balanced Cantilever Erection.
Box Segments: Navigation Zone

- Permanent threaded rods and cables (i.e. Tendons) installed at each pair of segments.
Box Segments: Navigation Zone

- Tendons installed though all segments @ each stage
- 18 to 22 5/8” diameter strand bundled into a Tendon.
- Tendons are stressed to approx. 900,000 lbs. – post tensioning.
Box Segments: Navigation Zone

- Cantilevers placed with an approx. 4ft gap for cast in place closure pour.
Time Lapse Video
Channel Width: Navigation Zone

- Seven spans with horizontal & vertical clearances for navigation.
Box Segments: Navigation Zone
Box Segments: Navigation Zone
Drone Video
Questions?
# Multi-Modal Transportation Committee Meeting Minutes

**DATE:** 10/4/2017  
**TIME:** 2:10  
**LOCATION:** EIC

<table>
<thead>
<tr>
<th>MEETING CALLED BY</th>
<th>Chairman Andrew Perkins</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOARD ATTENDEES</td>
<td>Tracy Dodson, Tony Lathrop, Hugh Overholt, Nina Szlosberg-Landis, Valerie Jordan</td>
</tr>
</tbody>
</table>

## Agenda Topics

### 1. Meeting Call to Order and Approval of September 6, 2017 Minutes

<table>
<thead>
<tr>
<th>DISCUSSION SUMMARY</th>
<th>Chairman Perkins called the committee to order, presented roll call and asked for a motion to approve the minutes as distributed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACTIONS TAKEN</td>
<td>A motion to approve the September 6, 2017 Multi-Modal Transportation committee meeting minutes as distributed was made by Ms. Nina Szlosberg-Landis and seconded by Ms. Tracy Dodson. The committee approved unanimously.</td>
</tr>
</tbody>
</table>

### 2. Funding Items (Aviation, Public Transportation, Rail)

<table>
<thead>
<tr>
<th>DISCUSSION SUMMARY</th>
<th>Information was presented by Transit Directors for the Committee’s approval.</th>
</tr>
</thead>
</table>
| ACTIONS TAKEN      | • Motion to approve Aviation Funding Item was made by Ms. Tracy Dodson and seconded by Mr. Anthony Lathrop.  
• Motion to approve Public Transportation Funding Item was made by Mr. Anthony Lathrop and seconded by Ms. Nina Szlosberg-Landis.  
• Motion to approve Rail Funding Item was made by Ms. Nina Szlosberg-Landis and seconded by Mr. Anthony Lathrop.  

All approved unanimously.
### 3. Multi-Modal Transportation Updates – Julie White

<table>
<thead>
<tr>
<th>DISCUSSION SUMMARY</th>
<th>Deputy Secretary White updated the committee on:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Goals of the Committee were discussed with Chair Perkins and Vice Chair Dodson to increase funding for the Public Transportation and Bicycle and Pedestrian Divisions, and to increase awareness for all modes.</td>
</tr>
<tr>
<td></td>
<td>Ms. White announced that Aldea Douglas is acting Director for the Bicycle and Pedestrian Division until a new director is hired.</td>
</tr>
<tr>
<td></td>
<td>Allan Paul is the acting Director for Rail until a new director is hired. Gave a great tour of the Raleigh Union Station to the House Select Committee on Strategic Transportation Planning and Long Term Funding Solutions.</td>
</tr>
<tr>
<td></td>
<td>Public Transportation had their Annual Conference which was extremely well done and offered tremendous training opportunities.</td>
</tr>
<tr>
<td></td>
<td>Ferry Division evacuated 898 people and 495 vehicles during Hurricane Irma. They provided Ms. White and two legislative fiscal research members a tour of operations and facilities; the NCGA Program Evaluation Division provided a review of the division that was very favorable.</td>
</tr>
<tr>
<td></td>
<td>Ms. Nina Szlosberg-Landis requested to hear from some of the Division Engineers on input with regard to Bicycle and Pedestrian and Public Transportation gaps and needs and would like Chief Engineer Little to canvas the divisions and to discuss how we are doing with the Complete Streets plan.</td>
</tr>
<tr>
<td></td>
<td>Mr. Hugh Overholt encouraged Public Transportation to improve branding and Ms. Collins concurred</td>
</tr>
</tbody>
</table>

| ACTIONS TAKEN | N/A |

### 4. Ferry Presentation – “Hatteras to Ocracoke Passenger Ferry” by Ed Timoney

<table>
<thead>
<tr>
<th>DISCUSSION SUMMARY</th>
<th>Mr. Thomas opened the presentation with a high level review of the passenger ferry program.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mr. Timoney presented a comprehensive program detailing the timeline, plans, and progress of the new Passenger Ferry services.</td>
</tr>
<tr>
<td></td>
<td>Jed Dixon reported on development of a Stakeholder Committee with a first meeting planned for 10/18/17 and will continue on a bi-monthly schedule.</td>
</tr>
<tr>
<td></td>
<td>Concerns regarding ADA compliance were expressed as well as sidewalks, ROW acquisition, and how to provide for the influx of pedestrians once they arrive on the island.</td>
</tr>
</tbody>
</table>

| ACTIONS TAKEN | N/A |
5. Comments and Wrap-Up

| DISCUSSION SUMMARY | Ms. Nina Szlosberg-Landis requested a moment for Lisa Riegel of BikeWalk NC to promote the upcoming Summit that will be held in Wilmington, NC on the weekend of November 3-4. |
| ACTIONS TAKEN     | N/A |

Adjourned: 3:40
## BOARD OF TRANSPORTATION

### NOVEMBER 1, 2017

**TIME:** 2:10

**LOCATION:** EIC

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>PRESENTER</th>
<th>TIME</th>
</tr>
</thead>
<tbody>
<tr>
<td>Call to Order</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Roll Call</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Declaration of Quorum</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approval of October 4, 2016 Meeting Minutes</td>
<td>Chairman Perkins</td>
<td>2:10 - 2:15</td>
</tr>
<tr>
<td>Funding Items (Aviation, PTD, Rail)</td>
<td>Multi-Modal Transportation Directors</td>
<td>2:15 – 2:20</td>
</tr>
<tr>
<td>Multi-Modal Transportation Update</td>
<td>Julie White</td>
<td>2:20 – 2:25</td>
</tr>
<tr>
<td>Rail Division Presentation – “Rail Division Report to the Multi-Modal Committee”</td>
<td>Allan Paul</td>
<td>2:25 - 3:20</td>
</tr>
<tr>
<td>Adjourn</td>
<td>Chairman Perkins</td>
<td>3:20 – 3:30</td>
</tr>
</tbody>
</table>
MULTI MODAL COMMITTEE
AVIATION DIVISION REPORT
SUBMITTED BY: BOBBY WALSTON

BOARD OF TRANSPORTATION
NOVEMBER 1, 2017

PROJECTS (Provide status/update for top 3-5 projects in respective mode)

- Aviation Funding – Beginning October 30 through November 15, NCDOT leadership will be meeting with each NC Commercial Service Airport to discuss FY18 & FY19 entitlement funds. There are 10 Commercial Service airports in our state. If a Board Member has any CS Airport in their division, they will receive an invite to attend the meeting.
- Aircraft Fleet Plan Study – The Division is currently reviewing the draft executive report. Final Report will be released this month. This information will be used in the overall analysis to determine the appropriate aircraft fleet.
- Per direction of the General Assembly, the Sikorsky S-76 is being actively marketed by a contracted aircraft broker.
- Aviation Safety & Education – Partnered with RDU to host the largest single aviation event in the history of the Division – Wings of Freedom Tour, October 19-22. There was a B-17, B-24, B-25, and a P-51 on display and providing rides along with several aviation displays. This event was a huge success! Over 11,000 people attended over the four day event.
- The unmanned aircraft systems (UAS) Program Office completed regional drone workshops in Charlotte, Asheville, Wilmington, and the Triad area. The focus of the events are to educate the public of the beneficial uses of drones while highlighting the rules and regulations around safe use. The workshops attracted over 500 participants from a variety of backgrounds including government, commercial, and hobbyist. The workshop series will continue in the beginning of 2018 at new locations, to include Raleigh and Elizabeth City.
- The UAS Program Office has issued over 2,000 NC UAS Operator permits.

BUDGET UPDATES (Provide budget reporting pertinent to respective mode)

- Aviation's STI program has converted from a 90/10 (State/Local) match program to 100% State funded program. We have reimbursed nearly $400k in local match funds across completed or open Aviation STI projects.
- Rising construction costs are affecting many of our projects requiring us to add additional funding to existing grants.

ANNOUNCEMENTS
(Share updates on announcements/upcoming events in respective mode)

<table>
<thead>
<tr>
<th>NEW</th>
<th>UPCOMING</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Upcoming Commercial Service Airport Tours:</strong></td>
<td></td>
</tr>
<tr>
<td>October 30 – Charlotte-Douglas</td>
<td></td>
</tr>
<tr>
<td>November 6 – Wilmington</td>
<td></td>
</tr>
<tr>
<td>November 7 – Raleigh-Durham</td>
<td></td>
</tr>
<tr>
<td>November 8 – Concord, Asheville</td>
<td></td>
</tr>
<tr>
<td>November 9 – Greensboro</td>
<td></td>
</tr>
<tr>
<td>November 15 – Pitt-Greenville, New Bern, Jacksonville</td>
<td></td>
</tr>
<tr>
<td>TBD – Fayetteville</td>
<td></td>
</tr>
<tr>
<td>Construction is beginning this week at Rutherford County airport on major airfield pavement improvements. It's important as a gateway to the 2018 World Equestrian Games.</td>
<td></td>
</tr>
<tr>
<td>Executing the new airport safety inspection contract to complete critical inspections on behalf of FAA. Each year the division completes 1/3 of the State's airports.</td>
<td></td>
</tr>
<tr>
<td>November 15 – Wildlife at Airports Hazard Training at Rocky Mount-Wilson Airport</td>
<td></td>
</tr>
</tbody>
</table>
## MEETINGS ATTENDED (List any key meetings attended this month)

Presentations were made at the following meetings:

- **October 10** – Attended and supported a State Bureau of Investigation workshop in Charlotte to provide UAS expertise to attendees.
- **October 11** – Attended and supported the North Carolina Aviation and Aerospace Workforce Summit held at the Carolina’s Aviation Museum in Charlotte.
- **October 12** – Held our fourth and final UAS Workshop of the year in Thomasville at Davidson Community College. Workshop covered more on drone use and requirements for surveying and construction related applications.
- **Attended and provided updates at three North Carolina Airports Association Region meetings across the state** – October 13 - Johnston County Airport, October 20 - Washington-Warren Field, October 27 – Concord Regional.
PROJECTS (Provide status/update for top 3-5 projects in respective mode)

- 2018 Bicycle and Pedestrian Planning Grant Initiative. – Applications are now being accepted. The deadline for application, to be submitted electronically, is Thursday, Nov. 9 at 5 p.m. Award recipients will be notified by March 2018
- Collaborative Approach to Advance Complete Streets – Initial kick off meeting held 10/10/17
- Isothermal Regional Bike Plan – This plan will produce a bicycle plan for the four county region consisting of Cleveland, McDowell, Polk and Rutherford Counties. The study area also include the communities served by the Isothermal Planning and Development Commission and will improve local and regional bicycle transportation in the area. The 3rd steering committee meeting was held in October in Spindale.

BUDGET UPDATES (Provide budget reporting pertinent to respective mode)

- No new updates

ANNOUNCEMENTS
(Share updates on announcements/upcoming events in respective mode)

<table>
<thead>
<tr>
<th>NEW</th>
<th>UPCOMING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Helmet Initiative – Applications will be accepted in late October to receive bicycle helmets. In 2017, 85 applicants received over 4,100 helmets throughout the state.</td>
<td>Bike/Walk NC Summit – Nov 2-4, 2017</td>
</tr>
<tr>
<td>Safety City – Watch For Me NC has a presence at the NC State Fair again this year.</td>
<td></td>
</tr>
</tbody>
</table>

MEETINGS ATTENDED (List any key meetings attended this month)

Presentations were made at the following meetings:

- Southeast Greenways and Trails Summit – Oct 1-3, 2017
- Walk to School Day - October 4, 2017

Key meetings attended

- NC STIC and National STIC Network Meeting – Oct 19
- Vision Zero Task Force – Oct 26
- ARTS & Health Matters Collaborative – Oct 31, 2017
<table>
<thead>
<tr>
<th>CLOSING THOUGHTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>.</td>
</tr>
</tbody>
</table>
PROJECTS (Provide status/update for top 3-5 projects in respective mode)

- Passenger Ferry Project
  - Boats: Armstrong Marine ordered the major equipment (engines and water jets). Detailed engineering is 85% complete. Delivery date established for 1 June 2018
  - Terminals:
    - Construction Re-Bid planned for the passenger shelter, parking and bathrooms. Initial Bid opening on 9.20.17 saw only one submission, significantly higher than the engineer estimate
    - CAMA, USACE, DWQ permits expected mid-October.
    - Floating Dock design complete
  - Transit: Tram procurement IFB set for advertisement in Oct. Manufacturing estimated at 90-120 days
- Platen #5 Project
  - Concrete Deck structural design 75% complete. Stormwater, electrical and compressed air design 50% complete. Design plans due 30 November 17

BUDGET UPDATES (Provide budget reporting pertinent to respective mode)

- FY 18
  - Period Expenditures $10,220,229.66
  - Vessel Replacement Accounts Balance Forward $ 9,555748.58
  - Shipyard Improvement Account Balance Forward $ 1,059004.39

ANNOUNCEMENTS
(Share updates on announcements/upcoming events in respective mode)

NEW

- Bollinger Shipyard awarded contract for new class ferry for $9.7 million

UPCOMING

- 

MEETINGS ATTENDED (List any key meetings attended this month)

Presentations were made at the following meetings:

- Dare County Waterways meeting 10/9, Senior management meeting 10/10, Ped exit conference 10/3, Passenger Ferry Stakeholder meeting 10/18 and Carteret County Tourism meeting 10/17

CLOSING THOUGHTS
Ridership (Vehicles)

<table>
<thead>
<tr>
<th>Ferry Routes</th>
<th>Sep 2017</th>
<th>Sep 2016</th>
<th>DELTA</th>
<th>FY17 YTD</th>
<th>FY16 YTD</th>
<th>DELTA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Currituck - Knotts Island</td>
<td>1,842</td>
<td>2,037</td>
<td>-9.6%</td>
<td>3,036</td>
<td>3,112</td>
<td>-2.4%</td>
</tr>
<tr>
<td>Hatteras - South Dock</td>
<td>23,214</td>
<td>38,276</td>
<td>-39.4%</td>
<td>88,336</td>
<td>108,424</td>
<td>-18.5%</td>
</tr>
<tr>
<td>Swan Quarter - Ocracoke</td>
<td>3,257</td>
<td>4,081</td>
<td>-20.2%</td>
<td>8,203</td>
<td>8,796</td>
<td>-6.7%</td>
</tr>
<tr>
<td>Cedar Island - Ocracoke</td>
<td>4,105</td>
<td>6,312</td>
<td>-35.0%</td>
<td>11,030</td>
<td>13,328</td>
<td>-17.2%</td>
</tr>
<tr>
<td>Aurora - Bayview</td>
<td>3,895</td>
<td>4,509</td>
<td>-13.6%</td>
<td>8,438</td>
<td>9,089</td>
<td>-7.2%</td>
</tr>
<tr>
<td>Cherry Branch - Minnesott</td>
<td>16,135</td>
<td>19,671</td>
<td>-18.0%</td>
<td>40,260</td>
<td>41,345</td>
<td>-2.6%</td>
</tr>
<tr>
<td>South Port - Fort Fisher</td>
<td>17,877</td>
<td>24,274</td>
<td>-26.4%</td>
<td>47,953</td>
<td>51,202</td>
<td>-6.3%</td>
</tr>
<tr>
<td>Emergency Ferry Rt.</td>
<td>N/A</td>
<td>N/A</td>
<td></td>
<td>N/A</td>
<td>N/A</td>
<td></td>
</tr>
</tbody>
</table>

- Monthly Total: 70,325
- Schedule Maintained: 94.9%

Budget (Operations & Maintenance)

<table>
<thead>
<tr>
<th>Departments</th>
<th>FY2017 Spending Plan</th>
<th>Expenditures through Sep 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reservations &amp; Tolls</td>
<td>$356,074.00</td>
<td>$80,929.07</td>
</tr>
<tr>
<td>District 1 - Ferry Ops</td>
<td>$10,398,483.00</td>
<td>$3,539,988.04</td>
</tr>
<tr>
<td>District 2 - Ferry Ops</td>
<td>$8,049,597.00</td>
<td>$2,433,925.26</td>
</tr>
<tr>
<td>Ferry Equipment Maint</td>
<td>$13,270,111.00</td>
<td>$3,172,526.20</td>
</tr>
<tr>
<td>District 1 Field Maint</td>
<td>$409,097.00</td>
<td>$140,519.53</td>
</tr>
<tr>
<td>Marine Maint</td>
<td>$1,238,433.00</td>
<td>$87,057.37</td>
</tr>
<tr>
<td>Computer Network</td>
<td>$344,000.00</td>
<td>$108,352.83</td>
</tr>
<tr>
<td>Ferry Div. Compliance</td>
<td>$1,188,495.00</td>
<td>$402,125.03</td>
</tr>
</tbody>
</table>

- Ferry Division TOTAL: $36,326,852.00

Status of Capital Reserves Funds

<table>
<thead>
<tr>
<th>Routes</th>
<th>WBS</th>
<th>WBS Balance as of Sep 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>FER Syst Cptl All Routes</td>
<td>16SP.501.1</td>
<td>$273,746.50</td>
</tr>
<tr>
<td>FER D1 Currituck-Knotts Island Cap Res</td>
<td>16SP.511.1</td>
<td>$29,349.54</td>
</tr>
<tr>
<td>FER D1 Hatteras Inlet Cap Reserve</td>
<td>16SP.512.1</td>
<td>$258,165.31</td>
</tr>
<tr>
<td>FER D1 Swan Quarter - Ocracoke Island Cap Res</td>
<td>16SP.513.1</td>
<td>$1,792,423.86</td>
</tr>
<tr>
<td>FER D1 Ocracoke Island of OI-Cedar Island Cap Res</td>
<td>16SP.514.1</td>
<td>$1,604,642.62</td>
</tr>
<tr>
<td>FER D2 Pamlico River Route Cap Reserve</td>
<td>16SP.521.1</td>
<td>$32,771.92</td>
</tr>
<tr>
<td>FER D2 Cherry Branch - Minnesott Beach Cap Res</td>
<td>16SP.522.1</td>
<td>$168,085.63</td>
</tr>
<tr>
<td>FER D2 Cedar Island of OI - Cedar Island Cap Res</td>
<td>16SP.523.1</td>
<td>$1,604,672.64</td>
</tr>
<tr>
<td>FER D3 South Port - Fort Fisher Cap Res</td>
<td>16SP.531.1</td>
<td>$3,791,890.56</td>
</tr>
<tr>
<td>FER Shipyard Capital Reserve</td>
<td>16SP.43</td>
<td>$1,059,004.38</td>
</tr>
<tr>
<td>Total</td>
<td>$10,614,752.96</td>
<td></td>
</tr>
</tbody>
</table>

Missed Trips Summary for Month Reporting

<table>
<thead>
<tr>
<th>Ferry Routes</th>
<th>Scheduled</th>
<th>Missed</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>Expenditures</th>
<th>Sep 2017</th>
<th>Cumulative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Currituck - Knotts Island</td>
<td>342</td>
<td>28</td>
<td>26</td>
<td>2</td>
<td></td>
<td></td>
<td>16SP.43.1</td>
<td>$4,700.31</td>
<td>$76,977.08</td>
</tr>
<tr>
<td>Hatteras - South Dock</td>
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<td>146</td>
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<td>South Port - Fort Fisher</td>
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<td>40</td>
<td>24</td>
<td>2</td>
<td>14</td>
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<td>Monthly Total</td>
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<td>529</td>
<td>139</td>
<td>195</td>
<td>0</td>
<td>195</td>
<td></td>
<td>$10,614,752.96</td>
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</table>

Shipyard Capital Reserve Brief

<table>
<thead>
<tr>
<th>Commitment Line Items</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Updates or Comments

Other Missed Trips: HURR Maria-HIO(144), SQ(8), CIO(15), SW(16); Crew Shortage-SQ(2)
VS$I Transport-SP(40); Personnel CKI(2)
Passenger Ferry Project: Terminal construction to be re-bid. Permits expected this month
Platen #5 Project: Concrete structural design 75% complete

Total Commitments: $0.00

Pending Receipts

<table>
<thead>
<tr>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>$0.00</td>
</tr>
</tbody>
</table>

Planned Projects

- Water tower restoration: $500,000.00
- Replace 30 year old chiller & boiler system: $200,000.00

North Carolina Ferry System
Introduction to NCDOT’s Rail Division

Allan Paul, Acting Director, Rail Division

November 1, 2017
Rail Division Mission

Established in 1977, the NCDOT Rail Division’s mission is the safe and efficient movement of people and goods on North Carolina’s railroads through freight, passenger and safety programs, supporting job creation and economic growth.

Staff includes:
43 State Employees
51 Consultants
23 Mechanical Contract Personnel
22 NCDOT Station Attendants
139 Employees
Rail Division State Funding Sources – SFY 2018

Total: $43,659,362

- Freight Rail & Rail Crossing Safety Fund, $17,500,000
- Contracted Services, $11,097,200
- Rail Capital & Safety, $3,428,007
- Maintenance of Rail Infrastructure, $2,050,000
- Planning & Development, $1,156,667
- Engineering & Safety, $1,826,667
- Operations & Facilities, $1,336,464
- Administrative Budget, $621,357
- Locomotive Overhaul, $2,321,500
- Railcar Overhaul, $2,321,500
Federal Funding Sources

**Section 130**
Annual allocation, public rail/highway at-grade crossing projects

**CMAQ** (Congestion Mitigation & Air Quality Improvement)
Improvement projects, passenger service

**HSIP** (Highway Safety Improvement Program)
Crossing Safety Projects based on selection

**SP&R** (State Planning and Research Funds)
Studies, modeling and crossing safety database

**INFRA** (Infrastructure for Rebuilding America)
Rail infrastructure improvements, competitive grants

**TIGER** (Transportation Investment Generating Economic Recovery)

**New Federal Railroad Administration Grants**

**CRISI**
(Consolidated Rail Infrastructure & Safety Improvements)

**Fed-State Partnership for State of Good Repair**

**Restoration & Enhancement**
Rail Division Federally Funded Projects

CMAQ
- *Piedmont* Operations & Capital Improvements $6M-$15M/year
- Queen City Express service improvement @ Laurinburg $13.9M

TIGER
- Raleigh Union Station $38M
- Charlotte Gateway Station $30M

Section 130
- Many projects per year $6M+/year

SP&R
- Many studies per year (specific project budgets vary) $1M-$2M/year
Rail Division Federal Funding Opportunities

**USDOT Flexible Funding**

- **TIGER: Transportation Investments Generating Economic Recovery**
  - Includes flexible applicant and project structure terms
  - Typical grant is $5M-$25M
  - NCDOT applied for 3 projects in 2017, totaling $57M in Federal funds
  - FFY 2017: $500M, FFY 2018: proposed at $0 (US House) or $500M (US Senate)

- **INFRA: USDOT Multimodal Freight Investment program**
  - New guidance for FFY 2017 grants, applications due 11/2/2017
  - Formerly ‘FASTLANE’ in FFY 2016

- Identifying project matching funds outside of STI process results in application readiness challenges
Rail Division Federal Funding Opportunities

FHWA State Formula Funding
• 23 U. S. C. 130: “Section 130”
  – Funds for elimination of hazards at railway-highway crossings
  – Rail Division prioritizes projects and cooperates with railroads to improve or close crossings
  – Highway Trust Fund provides match

• Highway Safety Improvement Program (HSIP)
  – NCDOT Transportation Mobility and Safety prioritizes projects
  – NCDOT Rail Division identifies and submits projects for potential HSIP funding

• Surface Transportation Block Grants – Directly Attributable (STBGDA)
  – Funds are distributed directly to Metropolitan Planning Organizations (MPOs). Each MPO may designate funds to projects of local interest.
    • Example: Charlotte Gateway Station Phase 1 ($15M STBGDA)
Rail Division Federal Funding Opportunities

FRA FAST Act Grant Funds
• Consolidated Rail Infrastructure and Safety Improvements (CRISI)
• Federal-State Partnership for State of Good Repair (SOGR)
• Restoration and Enhancement Grants

Funding levels:

<table>
<thead>
<tr>
<th></th>
<th>FFY 2017</th>
<th>FFY 2018 House</th>
<th>FFY 2018 Senate</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRISI</td>
<td>$68M</td>
<td>$25M</td>
<td>$92.5M</td>
</tr>
<tr>
<td>SOGR</td>
<td>$25M</td>
<td>$500M*</td>
<td>$26M</td>
</tr>
<tr>
<td>Restoration &amp; Enhancement</td>
<td>$10M</td>
<td>$0</td>
<td>$5M</td>
</tr>
</tbody>
</table>

*SOGR 2018 House proposal directed to NY/NJ Gateway

FRA Notice of Funding Opportunity (NOFO)
• These programs were funded in FFY 2017, but a NOFO or other specific criteria information has yet to be published.
• Grant funds may be designated to particular projects: New York/New Jersey ‘Gateway’ program and Gulf Coast service restoration
Major Improvement Programs & Initiatives

- Southeast High Speed Rail Designation
  - Charlotte to Washington, DC
- Passenger Safety Program
- Sealed Corridor Program
- North Carolina Railroad Improvement Program (NCRRIP)
- ARRA Award Piedmont Improvement Program (PIP)
- Strategic Transportation Investments (STI)
- Freight Rail and Rail Crossing Safety Improvement Fund (FRRCSI)

Timeline:
- 1990: Carolinian service resumed after 5-year hiatus
- 1992: First crossing closed
- 1993: CLT-RGH 4 hours 20 minutes
- 1994: Effort began to signalize passenger route crossings
- 1995: CLT-RGH 3 hours 10 minutes
- 2002: Piedmont service begins
- 2009: First Traffic Separation Study
- 2010: Piedmont mid-day added (3rd frequency)
- 2013: CLT Gateway Station Phase I construction begins
- 2014: Sugar Creek Grade Separation underway
- 2015: Raleigh Union Station construction begins
- 2016: CCX opens
- 2017: Piedmont (4th frequency)
- 2018: TBD
- 2019: Piedmont (5th frequency)
Rail Division’s #1 Priority is Safety
Focus on Grade Crossing Safety and Public Education

- Sealed Corridor Program on high volume, high speed routes
- Crossing Warning Device improvements and new technology
- Traffic Separation Studies
- Crossing Closures and Consolidations – closed over 300 to date
- Safety education through BeRailSafe program
Crossing Improvements make Highways and Railroads Safer

Train-Motor Vehicle Collisions
Grade crossing incidents have declined in North Carolina as NCDOT improves crossing safety

* Does not include trespasser fatalities.
Piedmont Corridor – Part of Federal Southeast Corridor

1992 – Federal Railroad Administration designated Piedmont Corridor between Charlotte and Raleigh as part of Southeast High Speed Rail Corridor

- NC By Train Service
- Important Freight Corridor
- Portion of North Carolina Railroad Company Corridor

This designation opened the door to substantial funding opportunities such as ARRA, Congestion Mitigation and CMAQ
S-Line Acquisition Critical for Growth of Passenger and Freight Service in Southeast

S and SA-Lines owned by CSX

- NCDOT and CSXT will negotiate the acquisition of S-Line and SA-Line; CSXT will retain freight rights
- NCDOT appraisal for NC portion of S-Line is complete – $807K; SA-Line – $1.3M
- NCDOT is working with CSXT on an option agreement to formalize next steps
- VA is pursuing phased framework agreement with CSXT with the donation of the corridor to be CSXT’s match for infrastructure improvements
$520 Million ARRA Grant Award Funds Piedmont Improvement Program

2010 – NCDOT awarded $520 million in FRA ARRA grants

- Largest single improvement to NC rail infrastructure in modern times
- Targeted capacity and safety projects based on application for funding
- Funding required all work be completed and reimbursed by September 30, 2017
- Began capacity modeling to confirm number of round trip passenger trains
  - Integrated freight and passenger needs
  - Projected current and future traffic
  - New passenger service minimizes impact to existing and future freight operations
  - 2 additional round trips possible
Piedmont Improvement Program (PIP)
2010-2017

30 Distinct Projects

• 27 miles second main track and 5 miles passing sidings
• 12 grade separations
• Over 40 at-grade crossings closed
• Over 30 curves improved for increased operating speeds
• Additional passenger equipment
• Improved stations, platforms
PIP NC By Train Fleet and Station/Platform Projects
PIP Track Improvements/Grade Separations
Raleigh Union Station opens February 2018

NCDOT and City of Raleigh aligned needs, plans and funding

• Multimodal facility in downtown Raleigh’s Warehouse District
• Will accommodate current and future demand for intercity passenger rail, commuter rail, buses, taxis, bicycles and other forms of transportation
• Moves passenger operations off freight mainline, improving freight operations
• North Carolina’s first fully-ADA compliant high level platform
Charlotte Gateway Station (CGS)

- Busiest station in NC with 200,000+ passengers/year
- City is pursuing two-phase approach to advance the project and relocate Amtrak service to uptown by 2024
- Funding partners:
  - USDOT
  - NCDOT Strategic Transportation Investment (STI)
  - City of Charlotte
  - P3 procurement – city seeking private development partners to design and construct the permanent passenger/multi-modal station
Charlotte Gateway Station  
*Phase I Construction begins 2018*

**Phase I Project Elements:**

- Build four new bridges at West 4th, Trade, 5th and 6th Streets
- Build two 2,000 foot station tracks, separating passenger from freight operations
- Build a high-level boarding platform and canopy
- Improve freight traffic flow to the Intermodal Facility at Charlotte Douglas International Airport

**Phase 1 Status and Timeline:**

- Engineering / Approvals / Agreements – Underway
- Complete Utility Relocations – Early 2018
- Phase 1 Construction –
  - Contract Bids - February 2018
  - Begin Construction – April 2018
  - Complete Construction – 2021

**Phase II Station 3P construction:**
Begin Spring/Summer 2018
Charlotte Junction Improvement Project
Another Critical Component for CGS

- Construction of connection track at Charlotte Junction
- Result of capacity modeling for CGS
- Eliminates time-consuming and inefficient movements for intermodal/freight trains from NS R-Line to NS Intermodal Facility at Charlotte Douglas International Airport
- Allows for the turning of Carolinian terminating in Charlotte from the NCDOT Locomotive and Railcar Maintenance Facility
- Construction – Begins late 2018
- Completion – 2019
Sugar Creek Road Grade Separation

- Improves efficiency, safety and mobility on one of North Carolina’s busiest rail corridors
- Eliminates busiest at-grade crossing on the NCRR between Charlotte and Raleigh
  - 30+ NS freight trains per day
  - Eight Amtrak trains per day
- Creates a safe way for pedestrians and motorists to access CATS Blue Line Extension Sugar Creek Station
- Cost: $40.4M
- Status: Completion Spring 2018
Strategic Transportation Investments (STI)  
*Rail Projects*

- 2013 State Law changed transportation funding formulas
- Allows NCDOT to use its funding more efficiently and effectively
- Data driven process
- Funding available to projects on Class 1 railroads
- Funded projects include:
  - Terminals
  - Passing sidings
  - Connection Tracks
  - Grade separations
  - Stations
- $455M Funded Projects in 4.0
Strategic Transportation Investments (STI)

Projects are submitted by local planning organizations (MPOs/RPOs) and NCDOT Highway Divisions for 2018-2027 funding commitment.

Passed in 2013, the Strategic Transportation Investments law (STI) allows NCDOT to use its funding more efficiently and effectively to enhance the state’s infrastructure, while supporting economic growth, job creation and a higher quality of life.
Carolina Connector Intermodal Terminal (CCX)

- $270M state-of-art terminal and freight rail infrastructure – will pull together various NC transportation systems and serve as a global logistics resource
- Improves access to domestic and international markets
- Scheduled to open late 2019
- STI contribution: $100M

Visualization of future CCX facility in Rocky Mount, NC

149
Terminal Jobs

8,000 to 20,000
Induced Jobs in Region

Up to 1,500 Jobs
Directly Related to Terminal

The project has a Benefit-Cost Ratio of 7.7:1.
North Carolina Ports has secured reliable and cost-competitive intermodal service at the Port of Wilmington

**The Queen City Express offers:**
- Daily shuttle service between Wilmington and Charlotte to create a reduced cost for cargo destined for/or originating in the Greater Charlotte region
- Best-in-class transit times: Wilmington to/Charlotte overnight
- Direct, future access to CCX hub
Queen City Express in Operation

• The Service consists of:
  - Double-stacked containers moved daily
  - Rail movement between Port – CSX’s Charlotte Intermodal Terminal – Port’s Charlotte Intermodal Terminal

• The Service reduces:
  - Truck-miles traveled
  - Emissions

• Additional Service Improvements to the rail infrastructure submitted into STI P5.0 include:
  - Hoskins Road Grade Separation in Charlotte
  - Hovis Road Crossing Improvement in Charlotte
  - Wilmington Beltline Rail Speed Improvement
  - Monroe Connector
Pembroke Connector Track

Construction Underway

- 2.4-mile railroad connection between CSX’s main north-south line and line serving Wilmington industries and the port
- Provides direct moves for trains between north and east
Freight Rail & Rail Crossing Safety Improvement Fund (FRRCSI)

- Short Line and Industrial Access Projects
- Freight Projects – improve track, rehabilitate bridges for 286K carloads
- Economic Development Projects – add carloads to NC’s rail network (diverting from highways) and develop industrial infrastructure
- Safety Projects – consolidate and improve crossings, eliminate rail-highway hazards, implement new technology
- Track and transload improvements to support capacity at NC’s ports
Since the General Assembly authorized* and funded FRRCSI in 2014, the Rail Division has been able to deliver:

- $15.968M in Track & Infrastructure Improvements
- $18.826M in Crossing Safety & Signal Improvements
- $8.659M in Rail Access Improvements
- $43.453M Total FRRCSI Investment Statewide

Program Goals:
- Improve safety
- Modernize infrastructure
- Increase freight capacity
- Support economic development
- Divert freight to rail

---

*Senate Bill 402 and utilizes dividends from the North Carolina Railroad Company, appropriated to NCDOT.
Rail Industrial Access Program & Short Line Infrastructure Assistance Program Projects
Crossing Consolidation & Assistance and Crossing Surface Projects

![Map of North Carolina showing locations of crossing consolidation and assistance projects. The map is color-coded by project year: 2014, 2015, 2016, and 2017.]
Looking Ahead – Next Steps and Opportunities

As we continue working to fulfill our mission – the safe and efficient movement of people and goods on North Carolina’s railroads through freight, passenger and safety programs, supporting job creation and economic growth – the Rail Division will:

• Maximize benefits of state funding and current/upcoming federal grant resources
• Progress work on Southeast Corridor S-Line acquisition working with Virginia, FRA and railroads
• Continue to improve/grow state passenger service in the Piedmont Corridor
  – PIP complete, RUS opens February 2018, additional Piedmont frequency begins May 2018
  – CGS track and structure construction begins 2018, laying groundwork for relocation of Charlotte station to uptown
• Strengthen freight corridors in our state and our connections to the national freight network
  – Progress CCX construction, Port improvements, projects identified to improve Queen City Express
  – Utilize FRRCSI and other grant programs for Rail Industrial Access Program, Short Line projects, and crossing and other safety improvements
• Work with railroads, state, federal and local partners to identify rail improvements and opportunities
• Provide long-range planning for increased freight and passenger service throughout the state
### Ridership

<table>
<thead>
<tr>
<th></th>
<th>FFY17 AUG</th>
<th>FFY16 AUG</th>
<th>Δ</th>
<th>FFY17 YTD</th>
<th>FFY16 YTD</th>
<th>Δ</th>
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</thead>
<tbody>
<tr>
<td>Carolinian</td>
<td>26,633</td>
<td>26,879</td>
<td>-1%</td>
<td>258,747</td>
<td>265,809</td>
<td>-3%</td>
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<tr>
<td>Piedmont</td>
<td>12,630</td>
<td>11,486</td>
<td>10%</td>
<td>135,117</td>
<td>139,302</td>
<td>-3%</td>
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<tr>
<td><strong>Total</strong></td>
<td>39,263</td>
<td>38,365</td>
<td>2%</td>
<td>393,864</td>
<td>405,111</td>
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### Number of Trains

<table>
<thead>
<tr>
<th></th>
<th>FFY17 AUG</th>
<th>FFY16 AUG</th>
<th>Service</th>
<th>FFY17 AUG</th>
<th>FFY16 AUG</th>
<th>Δ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carolinian</td>
<td>62</td>
<td>58</td>
<td>430</td>
<td>463</td>
<td>-7%</td>
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</tr>
<tr>
<td>Piedmont</td>
<td>124</td>
<td>116</td>
<td>102</td>
<td>99</td>
<td>3%</td>
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</table>

### Revenue

<table>
<thead>
<tr>
<th></th>
<th>FFY17 AUG</th>
<th>FFY16 AUG</th>
<th>Δ</th>
<th>FFY17 YTD</th>
<th>FFY16 YTD</th>
<th>Δ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carolinian</td>
<td>$1,789,926</td>
<td>$1,852,687</td>
<td>-3%</td>
<td>$16,504,963</td>
<td>$16,889,866</td>
<td>-2%</td>
</tr>
<tr>
<td>Piedmont</td>
<td>$262,355</td>
<td>$234,777</td>
<td>12%</td>
<td>$2,879,421</td>
<td>$2,935,823</td>
<td>-2%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$2,052,281</td>
<td>$2,087,464</td>
<td>2%</td>
<td>$19,384,384</td>
<td>$19,825,689</td>
<td>-2%</td>
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</table>

### Amenities & Vending

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<tr>
<th>Service</th>
<th>FFY17 AUG</th>
<th>FFY16 AUG</th>
<th>Δ</th>
<th>FFY17 YTD</th>
<th>FFY16 YTD</th>
<th>Δ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mo. Surcharge + Vending Income</td>
<td>$18,494</td>
<td>$4,008</td>
<td>-2%</td>
<td>$1,789,926</td>
<td>$1,852,687</td>
<td>-3%</td>
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</tbody>
</table>

August 2017 service modifications impacted 2 Piedmont trains. On August 31, Train 73 was cancelled between Burlington and Charlotte and Train 74 was cancelled between Charlotte and Raleigh due to downed power lines across the tracks north of Greensboro, however alternate transportation was provided for both Trains. Average gasoline prices remained low in August 2017 but were $0.18 per gallon higher than in August 2016.

### On-time Performance

- **Carolinian Delays**
  - FTI: 13%
  - PTI: 15%
  - PAX: 15%
  - C&M: 16%
  - DISP: 14%

- **Piedmont Delays**
  - FTI: 14%
  - PTI: 15%
  - PAX: 9%
  - C&M: 11%
  - DISP: 14%

*Carolinian and Piedmont delays were 8,016 and 2,789 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

<table>
<thead>
<tr>
<th></th>
<th>FFY17 JULY</th>
<th>FFY16 YEAR-END</th>
<th>Δ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carolinian</td>
<td>61%</td>
<td>75%</td>
<td>-14%</td>
</tr>
<tr>
<td>Piedmont</td>
<td>92%</td>
<td>90%</td>
<td>2%</td>
</tr>
</tbody>
</table>

*The customer satisfaction index (eCSI) is calculated from rider survey data conducted online 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 2017 were 75% for the Carolinian and 90% for the Piedmont. Overall July eCSI for all Amtrak services was 77.*
## North Carolina City Pairs with Largest Ridership

<table>
<thead>
<tr>
<th>#</th>
<th>Carolinian City Pairs</th>
<th>Piedmont City Pairs</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Raleigh - Washington</td>
<td>Charlotte - Raleigh</td>
</tr>
<tr>
<td>2</td>
<td>Charlotte - Raleigh</td>
<td>Charlotte - Cary</td>
</tr>
<tr>
<td>3</td>
<td>Charlotte - New York</td>
<td>Charlotte - Durham</td>
</tr>
<tr>
<td>4</td>
<td>New York - Raleigh</td>
<td>Charlotte - Greensboro</td>
</tr>
<tr>
<td>5</td>
<td>Charlotte - Durham</td>
<td>Greensboro - Raleigh</td>
</tr>
<tr>
<td>6</td>
<td>Greensboro - Washington</td>
<td>Cary - Greensboro</td>
</tr>
<tr>
<td>7</td>
<td>Charlotte - Washington</td>
<td>Durham - Greensboro</td>
</tr>
<tr>
<td>8</td>
<td>Cary - Washington</td>
<td>Charlotte - HighPoint</td>
</tr>
<tr>
<td>9</td>
<td>Durham - Washington</td>
<td>Cary - Durham</td>
</tr>
<tr>
<td>10</td>
<td>New York - Wilson</td>
<td>Durham - Raleigh</td>
</tr>
</tbody>
</table>

*Of the ten city pairs with the highest ridership, from the previous FFY month Cary - Washington had the largest increase of 31% and Charlotte - New York the largest decrease of 29% for the Carolinian; Durham - Raleigh had the largest increase of 76% for the Piedmont with none of the top ten Piedmont city pairs showing a decrease in ridership. Highlights indicate increased ridership from August 2016 for the station pairs.

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

<table>
<thead>
<tr>
<th>Station</th>
<th>FFY17 AUG</th>
<th>FFY16 AUG</th>
<th>Δ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Charlotte</td>
<td>12,818</td>
<td>12,145</td>
<td>6%</td>
</tr>
<tr>
<td>Raleigh</td>
<td>9,715</td>
<td>9,087</td>
<td>7%</td>
</tr>
<tr>
<td>Greensboro</td>
<td>8,381</td>
<td>7,437</td>
<td>13%</td>
</tr>
<tr>
<td>Durham</td>
<td>6,255</td>
<td>5,737</td>
<td>9%</td>
</tr>
<tr>
<td>Cary</td>
<td>5,331</td>
<td>4,942</td>
<td>8%</td>
</tr>
<tr>
<td>Wilson</td>
<td>2,806</td>
<td>3,056</td>
<td>-8%</td>
</tr>
<tr>
<td>High Point</td>
<td>2,165</td>
<td>2,222</td>
<td>-3%</td>
</tr>
<tr>
<td>Burlington</td>
<td>1,862</td>
<td>1,840</td>
<td>1%</td>
</tr>
<tr>
<td>Rocky Mount</td>
<td>1,780</td>
<td>2,219</td>
<td>-20%</td>
</tr>
<tr>
<td>Salisbury</td>
<td>1,690</td>
<td>1,471</td>
<td>15%</td>
</tr>
<tr>
<td>Kannapolis</td>
<td>1,487</td>
<td>1,450</td>
<td>3%</td>
</tr>
<tr>
<td>Selma-Smithfield</td>
<td>787</td>
<td>943</td>
<td>-17%</td>
</tr>
</tbody>
</table>

*The values represent passenger on 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

<table>
<thead>
<tr>
<th>Train Host Volunteer Hours</th>
<th>FFY17 AUG</th>
<th>FFY17 YTD</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>879</td>
<td>9,706</td>
</tr>
</tbody>
</table>

*Go. Reconnect.*
# Multi Modal Committee

**Public Transportation Division Report**

Submitted By: Debbie Collins

## Board of Transportation

**November 1, 2017**

### Projects

(Provide status/update for top 3-5 projects in respective mode)

- **STI Scoring** – STI projects were submitted for scoring and are being reviewed. Cambridge Systematics will be reviewing for accuracy and consistency. The Feasibility Studies Unit will review costs for all transit Bus, Rapid Transit, Commuter Rail, and Light Rail projects. PTD staff will review for accuracy and reasonableness.
- **TIGER Grant** – PTD submitted a TIGER grant to support building six (6) rural administrative facilities in Duplin, Hoke, Anson, Johnston, Iredell and Macon counties. These facilities will greatly improve the working conditions and operations of these organizations.

### Budget Updates

(Provide budget reporting pertinent to respective mode)

- The budget plan for FY19 applications due 11/3/2017 is being prepared. PTD has implemented a new process this year of predicting the useful life of vehicles to replace them earlier. It may take 1-2 years to be able to fund all of the needs.

### Announcements

(Share updates on announcements/upcoming events in respective mode)

<table>
<thead>
<tr>
<th>New</th>
<th>Upcoming</th>
</tr>
</thead>
<tbody>
<tr>
<td>ConCPT coordination and consolidation grants submitted to us by October 20, 2017.</td>
<td>Strategic Technical and Executive Committees – November 7, 2017</td>
</tr>
</tbody>
</table>

### Meetings Attended

(List any key meetings attended this month)

Presentations were made at the following meetings:

- Strategic Plan Community meetings - weeks of October 3rd and 16th
- Statewide Locally Coordinate Plan meetings - mornings of Strategic Plan meetings
- NC Association of RPOs – October 27
**PROJECTS** (Provide status/update for top 3-5 projects in respective mode)

- **CCX Intermodal Terminal**
  - CSX is progressing the project design for the terminal and associated double track project with oversight from the Design & Construction Branch. Plans for the double track project are 90% complete and plans for the terminal are approximately 60% complete. CSX anticipates construction beginning in first quarter of 2018, subject to permitting.
  - NCDOT continues to coordinate with State Historic Preservation Officers (SHPO) and CSX in reaching agreement on the final mitigation measures to be included in the memorandum of agreement necessary under section 106 of the National Historic Preservation Act. Currently awaiting additional study work to be submitted to SHPO in order to determine the project's impact on archeology resources. NCDOT will ask to be a party to the MOA associated with the Section 106 Historic Resources mitigation.

- **CCX Freight & Transportation Master Plan**
  - Dewberry is currently working on developing data that will support potential projects along important highway corridors. The Strategic Plan should be finished soon (this month) with the Master Plan following within a month.

- **Charlotte Gateway Station**
  - Design of the Phase 1 Track, Structures, Signals, Canopy and Platform is underway and is being coordinated with the City of Charlotte and Norfolk Southern. The design includes an iconic cable-stayed platform canopy design. The Design & Construction Branch is coordinating with the Contracts Office on the project contract which is currently in the February 2018 central letting. The project team is monitoring a right of way relocation issue (the Greyhound property) for its possible effect on the project phasing and schedule.

- **STI P5.0 Project Submittals**
  - The deadline for project submittals to the Strategic Transportation Prioritization (SPOT) office for P5.0 projects was September 29th. The Rail Division anticipates receiving a minimum of 113 projects consisting of grade separations, track capacity improvements, and passenger stations/facilities throughout rail corridors across the State. Under P4.0, the project submittals totaled 83 projects of which 33 were programmed in the approved STIP totaling over $450 million.

**BUDGET UPDATES** (Provide budget reporting pertinent to respective mode)

- **No Updates.**

**ANNOUNCEMENTS** (Share updates on announcements/upcoming events in respective mode)
NEW

• INFRA Grants
  o The Rail Division submitted INFRA applications for the following projects. Rail Improvements from Charlotte to Wilmington, Weldon Double Track and Second Roanoke River Bridge, and Southeast Corridor Grade Crossing Improvements and Grade Separations.
  o With NCDOT Rail getting one of the NCDOT INFRA slots, the Weldon Double Track and Charlotte to Wilmington Improvements will be combined into one application from NCDOT.

• TIGER Grants
  o NCDOT Rail Division submitted TIGER grant applications for the following projects - a subset of the grade separation and crossing improvements along the Southeast Corridor, the Weldon Double Track and Second Bridge Project ($67M) and a Passenger Station in Weldon.

• Southeast Corridor Coordination
  o The next Compact meeting will have to be held after the NC members are all re-appointed.
  o Currently, Representative Brawley and Representative Dollar have been re-appointed; a Senate Bill is anticipated to be voted on in October that will include the Senate appointments to the Compact (currently anticipated to be Senators Tom McInnis and Jim Davis).

UPCOMING

• Southeast Regional Rail Plan
  o The next stakeholders’ meeting has been scheduled for November 13th -14th in the Board Room
  o The Rail Division has proposed a tour of the Raleigh Union Station and is awaiting confirmation from the FRA team.
## Meetings Attended
(List any key meetings attended this month)

Presentations were made at the following meetings:

- *No updates.*

## Closing Thoughts

- *No updates.*
Tanzanian Mayor Rides the Piedmont

Over the years, many interesting passengers have ridden our trains. Most are North Carolinians or from neighboring states, but occasionally we have passengers from halfway around the globe. That was the case on Sept. 5 when the mayor of Arusha, Tanzania, the Honorable Kalisti Bukay, rode Piedmont Train 73 from Durham to Greensboro. He was accompanied by one of our regular passengers, Bennett College Professor Gwenn Bookman. The two were enroute to Greensboro to speak to Professor Bookman’s class after visiting with Mayor Bill Bell in Durham.

While on board, Professor Bookman took some time and introduced Mayor Bukay to Amtrak staff and train hosts.

“It was a pleasure to have met the mayor as the experience was one of significance,” said Conductor O.T. Salley.

Arusha is located in northern Tanzania, and has a population of nearly half a million people. It is near the Serengeti National Park and Mount Kilimanjaro.

Short Line Infrastructure Program Applications Received

On Sept. 29, the application period for state fiscal year 2018 closed for the Short Line Infrastructure Program, which is funded through the Freight Rail & Rail Crossing Safety Improvement Program. The Rail Division received a total of 12 applications seeking approximately $6.1 million in matching funds. The submitted applications include a variety of projects to improve bridge structures, replace rail, construct transload facilities, harden the railroad, and facilitate freight diversion. The approved projects will be announced later in November.

Strategic Transportation Investments P5.0 Project Submission Window Closes

On Sept. 29, the project submission window closed for the Strategic Transportation Investments for Prioritization 5.0. MPOs, RPOs, and the Highway Division Offices submitted 123 rail projects, totaling approximately $2.0 billion.

The Rail Division has begun collecting the data necessary to score these projects, which is due to the Strategic Prioritization Office (SPOT) on November 9. Once received, the SPOT office will review and transmit this data to the MPOs, RPOs, and Highway Division Offices in late November, and these groups will have about five weeks to review the scoring data and provide comments back to the SPOT Office. Projects submitted in the Rail category include a number of grade separations that eliminate at-grade crossing conflicts, passenger station facilities and construction of additional track capacity.

Two Crossings Closed in the Town of Fremont

The NCDOT Rail Division recently closed the at-grade rail–highway crossings at North Street and South Street in Fremont in Wayne County as part of the crossing closure program. These two humped crossings resulted in low-bed trailers getting stuck on one of the crossings on average every six weeks.

As is common practice, towns may receive financial incentives for closing problematic or unsafe crossings. Funds received from railroads do not have use restrictions, however funding from NCDOT, which must follow federal guidelines, must be used for traffic safety purposes. In this case, the Town chose to use both CSX and NCDOT funds towards the purchase of a new, much-needed police cruiser, which satisfied the NCDOT safety requirement.
Northeastern North Carolina Rail Improvement TIGER Project Update

The Northeastern North Carolina Rail Improvement project was awarded to the N.C. Department of Transportation in federal fiscal year 2014 from the Federal Railroad Administration for improvements to the North Carolina & Virginia Railroad in North Carolina in the amount of $5.8 million. NCDOT is contributing $2.6 million towards the project, while NCVA is responsible for the remaining costs of the $11.631 million project. The cooperative agreement was signed on August 10, 2016. The scope of the project includes:

- Replacement of approximately 17,700 ties, including surfacing and ballast;
- Replacement of 17 miles of 100-pound jointed-rail with 115-pound rail, or heavier, continuous welded-rail;
- Replacement and/or repair of 11 turnouts;
- Improvement of eight at-grade highway-railroad crossings; and
- Improvements to the Meherrin River Bridge.

In addition to the replacement of 17 miles of rail, FRA recently approved NCDOT to add an 3.2 miles of rail replacement due to cost savings in the materials procurement process.

Construction began in July 2017 on the Meherrin River Bridge and that portion of the project was completed in August. Construction of the line of road work began in July 2017. As of September 29, 87,920 feet of rail has been installed, 13,600 cross ties have been replaced, four of seven turnouts have been completed, two at-grade highway-railroad crossings have been improved, 4,000 tons of ballast has been dumped and over five miles of surfacing has been finished.

Improvements to the line will allow for greater efficiency for the line’s largest customer, Nucor Steel in Cofield.

In addition to Nucor Steel, 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.
NCDOT and Blue Ridge Southern Railroad Make Safety Improvements at Crossings

NCDOT Division 14, the Rail Division, and the Blue Ridge Southern Railroad worked together to improve crossing surfaces on railroad crossings in Henderson and Haywood counties. The first crossing improved was Berkeley Road, SR 1511 in Henderson County. This crossing was an asphalt surface with narrow shoulders. Trucks making a right turn at the crossing were running off the crossing surface and over the track. The new surface is a concrete tub with a wider crossing surface that allows trucks making the right turn to stay on the crossing surface. The highway shoulder on the right side was also widened.

The second crossing improved was Blackwell Drive, NC 215 in Haywood County. This crossing consisted of rubber panels that were wearing out and in need of replacement. Also the asphalt around the crossing was deteriorating resulting in a bumpy ride. The new crossing surface is a concrete tub providing a long lasting, smooth surface for this crossing.
In August, members of the NCDOT Rail Planning Unit met with Roadmaster Tom Falcon of the Great Smoky Mountain Railroad to review completed and pending state funded infrastructure improvement projects along with discussing future maintenance needs. Located in Bryson City, GSMR offers scenic and themed passenger excursions within the heart of the Great Smoky Mountains. The railroad operates on 53 miles of track, two tunnels, 25 bridges and one of the few remaining turntables in the state. This popular attraction served nearly 200,000 passengers last year and ridership continues to grow annually.

Between 2015 and 2016, NCDOT provided more than $395,000 in matching Freight Rail and Rail Crossing Safety Improvements (FRRCSI) funds to restore inactive track, rehabilitate bridges and replace worn cross ties. Through the Short Line Infrastructure Assistance Program (SIAP), matching FRRCSI funds of $478,839 have been committed in 2017 to continue maintenance, upgrades and restoration of the GSMR rail infrastructure. These ongoing efforts improve the safety and efficiency of rail operations while supporting economic development in the state and the longevity of this beloved passenger experience.

Ridership & Revenue on NC By Train Service – *August 2017 vs. 2016

<table>
<thead>
<tr>
<th></th>
<th>RIDERSHIP</th>
<th>% +/-</th>
<th>REVENUE</th>
<th>% +/-</th>
</tr>
</thead>
<tbody>
<tr>
<td>Piedmont</td>
<td>12,630</td>
<td>11,486</td>
<td>$262,355</td>
<td>$234,777</td>
</tr>
<tr>
<td>Carolinian</td>
<td>26,633</td>
<td>26,879</td>
<td>$1,789,926</td>
<td>$1,852,687</td>
</tr>
</tbody>
</table>

August 2017 service modifications impacted two Piedmont trains. On Aug. 31, Train 73 was cancelled between Burlington and Charlotte and Train 74 was cancelled between Charlotte and Raleigh due to downed power lines across tracks north of Greensboro, however alternate transportation was provided for both trains. Average gasoline prices remained low in Aug. 2017, but were 18¢ per gallon higher than in Aug. 2016.
Celebrate the Holidays by Riding NC By Train with Santa Claus

Families can celebrate the holidays by getting on board NC By Train’s popular Santa Train with routes between Charlotte and Raleigh on Saturday, Dec. 2. For one day only, come make some memories on this fun-filled trip featuring Mrs. Claus, carolers, refreshments, and Santa Claus himself!

Tickets are limited and sell out quickly, so book early to reserve your seats! Passengers can board the Santa Train at any of the stops listed below.

To participate in Santa Train, tickets must be purchased as round trip:

From Raleigh: (station code RGH), Cary (CYN), Durham (DNC) or Burlington (BNC), book your round trip ticket on Train #75 to Greensboro (GRO), returning on Train #74

From Charlotte: (CLT), Kannapolis (KAN), Salisbury (SAL), book your round trip ticket on Train #74 to High Point (HPT), returning on Train #75

Tickets can be purchased online by visiting NCByTrain.org or calling 800-298-7246.

Out and About with NC By Train

Above: Amtrak and NC By Train sponsored the Youth Stage at World of Bluegrass, Sept. 30 - Oct. 1. Alison Boswell (right) from the Rail Division Customer Service Team, along with N.C. Train Host Association President Robert ‘Bob’ Warner, were on hand to spread the word about NC By Train service.

Score a Touchdown by Riding NC By Train to Panther Games

Passengers headed to the 1 p.m. Sunday games on the dates listed below can take Piedmont Train 73 from any of the eight stations along the corridor to Charlotte 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. Passengers can request a transit pass from the conductor to travel from the Charlotte train station to the transportation center. The pass is valid for one ride and one transfer.

Nov. 5, Dec. 10, Dec. 17, Dec. 24

Tickets can be purchased online at NCByTrain.org.

Customer Service Team Member Timothy McHugh (right) shares info about NC By Train and upcoming events accessible by train, such as the Wide Open Bluegrass Festival, the State Fair stop, the Lexington BBQ Festival and Santa Train with fans at the Charlotte Knights Game.

NC By Train table in Exhibit Hall

Chatham County Line sings “The Carolinian”
Raleigh Union Station Construction Photos

Raleigh skyline from inside station looking east
U.S. Rep. David Price (far right) touring Raleigh Union Station
Chief Deputy Secretary David Howard and members of the House Select Committee on Transportation tour Raleigh Union Station
Rep. John Torbett, (far right) Chairman of the House Select Committee on Transportation, addresses the RUS tour group
Mezzanine level, future office rental space
Passenger Concourse

November Railroad Trivia Answer: The first was the Charlotte and South Carolina Railroad which built a 110-mile line from Charlotte to Columbia in 1852. The first C&SC passenger train left Charlotte for Columbia on March 25, 1852. The second was the North Carolina Railroad whose first passenger train arrived in Charlotte from Greensboro (94 miles) on January 30, 1856. Today, both railroads are operated by Norfolk Southern.
**ROAD/BRIDGE/FERRY NAMING COMMITTEE**  
AGENDA  

**BOARD OF TRANSPORTATION**  
**OCTOBER 4, 2017**

**TIME:** 11:00 AM  
**LOCATION:** Room 160

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>PRESENTER</th>
<th>TIME</th>
</tr>
</thead>
<tbody>
<tr>
<td>Call to Order</td>
<td>Mike Fox, Chair</td>
<td>11:00 AM</td>
</tr>
<tr>
<td>Roll Call</td>
<td>Mike Fox, Chair</td>
<td>11:00 AM</td>
</tr>
<tr>
<td>Declaration of Quorum</td>
<td>Mike Fox, Chair</td>
<td>11:00 AM</td>
</tr>
<tr>
<td>Non-Conflict Statement</td>
<td>Mike Fox, Chair</td>
<td>11:00 AM</td>
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<tr>
<td>Approval of September 2017 Road/Bridge/Ferry Naming Committee Meeting Minutes</td>
<td>Mike Fox, Chair</td>
<td>11:00 AM</td>
</tr>
<tr>
<td>Championship Sign Discussion</td>
<td>Kevin Lacy</td>
<td>11:05 AM</td>
</tr>
<tr>
<td>Logo Panel Discussion</td>
<td>Kevin Lacy</td>
<td>11:15 AM</td>
</tr>
<tr>
<td>Adjourn</td>
<td>All</td>
<td>11:30 AM</td>
</tr>
</tbody>
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