Today’s Roadmap

• STI Prioritization Process
• Building the STIP
• P5.0 Public Transportation Scoring
• Looking to P6.0
“Article 14B.
Strategic Prioritization Funding Plan for Transportation Investments.

The following definitions apply in this Article:

- **Statewide Mobility**
- **Regional Impact**
- **Division Needs**
STI Prioritization Process

STRATEGIC TRANSPORTATION INVESTMENTS
Smart decisions to keep North Carolina moving.
Strategic Transportation Investments (STI) Law

Overwhelming support

Prioritizes Capital Expenditures across all modes (Mobility/Expansion + Modernization)

Needs-based

Directly ties funding to prioritization results

Funding (HTF and Federal-Aid)

(h) Improvement of Prioritization Process. – The Department shall endeavor to continually improve the methodology and criteria used to score highway and non-highway projects pursuant to this Article, including the use of normalization techniques, and methods to strengthen the data collection process. The Department is directed to continue the use of a workgroup process to develop improvements to the prioritization process.
How STI Works

**Statewide Mobility**

- **Focus → Address Significant Congestion and Bottlenecks**
  - Selection based on 100% Data
  - Projects Programmed prior to Local Input Ranking

**Regional Impact**

- **Focus → Improve Connectivity within Regions**
  - Selection based on 70% Data & 30% Local Input
  - Funding based on population within Region (7)

**Division Needs**

- **Focus → Address Local Needs**
  - Selection based on 50% Data & 50% Local Input
  - Funding based on equal share for each Division (14) = ~$50M / yr

Estimated $28B in Funds for SFY 2020-2029
regions & divisions
### STI Law Eligibility Definitions

<table>
<thead>
<tr>
<th>Mode</th>
<th>Statewide Mobility</th>
<th>Regional Impact</th>
<th>Division Needs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Highway</strong></td>
<td>• Interstates (existing &amp; future)</td>
<td>• Other US and NC Routes</td>
<td>• All County (SR) Routes</td>
</tr>
<tr>
<td></td>
<td>• NHS routes (July 1, 2012)</td>
<td></td>
<td>• Federal-Aid Eligible Local Roads</td>
</tr>
<tr>
<td></td>
<td>• STRA H NET</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• ADHS Routes</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Uncompleted Intrastate projects</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Designated Toll Facilities</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Aviation</strong></td>
<td></td>
<td>• Other Commercial Service airports not in Statewide ($300K cap)</td>
<td>All Airports without Commercial Service (General Aviation) ($18.5M cap)</td>
</tr>
<tr>
<td><strong>Bicycle-Pedestrian</strong></td>
<td></td>
<td>• N/A</td>
<td>All projects ($0 state funds)</td>
</tr>
<tr>
<td><strong>Public Transportation</strong></td>
<td></td>
<td>• Service spanning two or more counties (10% cap)</td>
<td>All other service, including terminals and stations</td>
</tr>
<tr>
<td><strong>Ferry</strong></td>
<td>• N/A</td>
<td>• Vessel or infrastructure expansion</td>
<td>Replacement vessels</td>
</tr>
<tr>
<td><strong>Rail</strong></td>
<td>• Freight Service on Class I Railroad Corridors</td>
<td>• Rail service spanning two or more counties not in Statewide</td>
<td>All other service, including terminals and stations (no short lines)</td>
</tr>
</tbody>
</table>
## STI Law Highway Scoring Overview

<table>
<thead>
<tr>
<th>Mode</th>
<th>Statewide Mobility</th>
<th>Regional Impact</th>
<th>Division Needs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eligible Projects</td>
<td>• Statewide</td>
<td>• Statewide • Regional</td>
<td>• Statewide • Regional • Division</td>
</tr>
<tr>
<td>Overall Weights</td>
<td>100% Quantitative Data</td>
<td>70% Quantitative Data / 30% Local Input</td>
<td>50% Quantitative Data / 50% Local Input</td>
</tr>
<tr>
<td>Quant. Criteria</td>
<td>• Benefit-Cost • Congestion • Economic Comp. • Safety • Freight • Multimodal • Pavement Condition • Lane Width • Shoulder Width</td>
<td>• Benefit-cost • Congestion • Safety • Freight • Multimodal • Pavement Condition • Lane Width • Shoulder Width • Accessibility and connectivity to employment centers, tourist destinations, or military installations</td>
<td>• Benefit-cost • Congestion • Safety • Freight • Multimodal • Pavement Condition • Lane Width • Shoulder Width • Accessibility and connectivity to employment centers, tourist destinations, or military installations</td>
</tr>
<tr>
<td>Notes:</td>
<td>Projects Selected Prior to Local Input</td>
<td>Quant. Criteria can be different for each Region</td>
<td>Quant. Criteria can be different for each Division</td>
</tr>
</tbody>
</table>

Notes:
- Projects Selected Prior to Local Input
- Quant. Criteria can be different for each Region
- Quant. Criteria can be different for each Division
Non-Highway Criteria

Separate prioritization processes for each mode

- Minimum of 4 quantitative criteria
- Criteria based on 0-100 point scale with no bonus points
Quantitative Score Building Blocks

SCORE
Required by STI Law

CRITERIA
• Names predefined by STI Law for Highway Projects
• Minimum quantity defined for Non-Highway Projects
• Weights est. by Workgroup

MEASURES
• Established by Workgroup
• Formulas used to generate criteria scores

DATA
• Identified by Workgroup
• Existing inputs used in formulas to generate measure values
Local Input Points

Use in Regional Impact & Division Needs → All Modes

# of Points per Area = Base of 1,000 points
+ 100 additional points for every 50,000 in pop.

- Max 2,500 points per area
- Same allocation for REG and DIV
- 100 point max per project per category

MPOs, RPOs, & Divisions required to have approved methodology for point assignment
### Total Score Building Blocks

<table>
<thead>
<tr>
<th>DATA</th>
<th>MEASURES</th>
<th>CRITERIA</th>
<th>QUANT. SCORE</th>
<th>TOTAL SCORE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

- **Division Local Input Points**
- **MPO/ RPO Local Input Points**
## P5.0 Highway Criteria & Weights (Default)

<table>
<thead>
<tr>
<th>Funding Category</th>
<th>QUANTITATIVE</th>
<th>LOCAL INPUT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Data</td>
<td>Division</td>
</tr>
<tr>
<td><strong>Statewide Mobility</strong></td>
<td></td>
<td>100%</td>
</tr>
<tr>
<td></td>
<td>Congestion = 30%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Benefit-Cost = 25%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Freight = 25%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Safety = 10%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Economic Comp. = 10%</td>
<td></td>
</tr>
<tr>
<td><strong>Regional Impact</strong></td>
<td></td>
<td>70%</td>
</tr>
<tr>
<td></td>
<td>Congestion = 20%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Benefit-Cost = 20%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Safety = 10%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Accessibility/Connectivity = 10%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Freight = 10%</td>
<td></td>
</tr>
<tr>
<td><strong>Division Needs</strong></td>
<td></td>
<td>50%</td>
</tr>
<tr>
<td></td>
<td>Congestion = 15%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Benefit-Cost = 15%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Safety = 10%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Accessibility/Connectivity = 5%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Freight = 5%</td>
<td></td>
</tr>
</tbody>
</table>

Note: Region A and Divisions 1, 5, 6, 7, 8, 11, 13, and 14 use Area-Specific Criteria Weights
Building the STIP
Prioritization feeds the STIP

Prioritization 1.0 and 2.0 prior to STI Law passing

Prioritization 3.0 (P3.0) $\rightarrow$ 2016-2025 STIP

P4.0 $\rightarrow$ 2018-2027 STIP (Current Adopted STIP)

P5.0 $\rightarrow$ is feeding 2020-2029 STIP
Projects Submitted

Statewide Mobility

- Data reviewed
- Quantitative scores calculated
- Projects programmed based on quant. score

Regional Impact

- Local input points assigned
- Total scores calculated
- Projects programmed

Division Needs

- Local input points assigned
- Total scores calculated
- Projects programmed
STIP Development – 3 Iterations

- Funding Category Allocations
- Priority Ranking & Normalization
- Project Development Time
- STI Law Provisions
- Committed Projects
STI Legislation Funding Caps and Restrictions Impacting Programming

Statewide Mobility corridor cap

Funding limit on light rail and commuter rail projects

Funding limits on Regional Impact transit projects

Prohibition on using state funds to match federal-aid for independent bicycle and pedestrian projects

Funding limits on airport projects in all categories
P5.0 Public Transportation Scoring
Public Transportation in P5.0

- Project eligibility based on STI law

<table>
<thead>
<tr>
<th>Public Transportation</th>
<th>Statewide</th>
<th>Regional</th>
<th>Division</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N/A</td>
<td>“Service spanning two or more counties and serving more than one municipality” (based on route and not provider)</td>
<td>“Service not included in Regional”; “Multimodal terminals and stations serving passenger transit systems” (includes all facilities)</td>
</tr>
</tbody>
</table>

- Minimum total project cost = $40,000 (same as P4.0)
- Replacement vehicles funded through other methods
- Allowed to request between 10% and 90% of total project cost (up to legislative cap)
- Project entry requirements (per PTD)
Public Transportation in P5.0

STI Legislative Caps

- Funding limits on Regional Impact projects: amount of funds programmed to Public Transportation projects cannot exceed 10% of any Region’s allocation (includes commuter rail, intercity rail, and light rail)

- Funding limit on light rail and commuter rail projects: total state funding for a project cannot exceed 10% of the estimated (submitted) project cost
Project Categories for P5.0

- Projects are scored in 3 separate categories:
  - Mobility (Route-Specific)
  - Demand-Response
  - Facility
- Project measures will be scaled within each criteria, separately within each project category

<table>
<thead>
<tr>
<th></th>
<th>Mobility</th>
<th>Demand-Response</th>
<th>Facility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impact</td>
<td>Scale</td>
<td>Scale</td>
<td>Scale</td>
</tr>
<tr>
<td>Demand/Density</td>
<td>Scale</td>
<td>Scale</td>
<td>Scale</td>
</tr>
<tr>
<td>Efficiency</td>
<td>Scale</td>
<td>Scale</td>
<td>Scale</td>
</tr>
<tr>
<td>Cost Effectiveness</td>
<td>Scale</td>
<td>Scale</td>
<td>Scale</td>
</tr>
</tbody>
</table>
Public Transportation Scoring: Mobility

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Measure</th>
<th>Regional Impact (70%)</th>
<th>Division Needs (50%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impact</td>
<td>Number of trips affected by project</td>
<td>15%</td>
<td>10%</td>
</tr>
<tr>
<td>Demand/Density</td>
<td>Total Trips / Service population</td>
<td>20%</td>
<td>10%</td>
</tr>
<tr>
<td>Efficiency</td>
<td>Total trips / Total revenue seat hours</td>
<td>10%</td>
<td>10%</td>
</tr>
<tr>
<td>Cost Effectiveness</td>
<td>Additional trips / (Cost to NCDOT / Lifespan of project)</td>
<td>25%</td>
<td>20%</td>
</tr>
</tbody>
</table>

Project Types:
- Route-specific vehicles (new or expansion only)
  - Fixed guideway vehicles, fixed route vehicles, deviated fixed route vehicles
- Corridors
  - Fixed guideway (commuter rail, intercity rail, light rail)
  - Bundle of vehicle + other (ex. stops / shelters, park and rides, bus pullouts)
  - Bus Rapid Transit (BRT)
  - Bus on Shoulder System (BOSS) / Busway
### Public Transportation Scoring: Demand Response

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Measure</th>
<th>Regional Impact (70%)</th>
<th>Division Needs (50%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impact</td>
<td>Number of trips affected by project</td>
<td>10%</td>
<td>10%</td>
</tr>
<tr>
<td>Demand/Density</td>
<td>Total hours with the project in place / Service population</td>
<td>20%</td>
<td>15%</td>
</tr>
<tr>
<td>Efficiency</td>
<td>Vehicle Utilization Ratio</td>
<td>15%</td>
<td>10%</td>
</tr>
<tr>
<td>Cost Effectiveness</td>
<td>Additional trips / (Cost to NCDOT / Lifespan of project)</td>
<td>25%</td>
<td>15%</td>
</tr>
</tbody>
</table>

**Project Types:**
- Demand Response vehicles (expansion only)
  - No facilities – either submit Demand Response facilities under Facility category or under Mobility category if bundled with a vehicle
## Public Transportation Scoring: Facilities

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Measure</th>
<th>Division Needs (50%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impact</td>
<td>Number of trips affected by project</td>
<td>15%</td>
</tr>
<tr>
<td>Demand/Density</td>
<td>Ridership Growth Trend for the Previous 5 Years</td>
<td>10%</td>
</tr>
<tr>
<td>Efficiency</td>
<td>Efficiency Score</td>
<td>10%</td>
</tr>
<tr>
<td>Cost Effectiveness</td>
<td>Additional trips / (Cost to NCDOT / Lifespan of project)</td>
<td>15%</td>
</tr>
</tbody>
</table>

### Project Types:
- Passenger stations
- Individual or bundled stops/shelters
- Individual or bundled park and ride lots
- Administrative / Maintenance buildings
Looking to P6.0
P5.0 Takeaways

<table>
<thead>
<tr>
<th></th>
<th>Submitted Projects (#)</th>
<th>Submitted ($) – Cost to NCDOT</th>
<th>Submitted ($) – Total Cost</th>
<th>Funded (#)</th>
<th>Funded ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>P5.0</td>
<td>106</td>
<td>$1.6B</td>
<td>$12.9B</td>
<td>January</td>
<td>January</td>
</tr>
<tr>
<td>P4.0</td>
<td>114</td>
<td>$42M</td>
<td>$247M</td>
<td>39</td>
<td>$4.9M</td>
</tr>
</tbody>
</table>

P5.0 had much better communication, coordination, and education.

Average and mean P5.0 scores were ~20% higher than P4.0.

Encouragement to continue on this path.
**P5.0 Schedule**

**Key Dates:**
- June 20, 2017: BOT approves P5.0 Criteria & Weights
- July 5, 2017: SPOT Online opens for testing, entering, and submitting projects (closes Sept. 20th)
- August 25, 2017: Existing Project Deletions due for receiving extra new submittals (one out, one in)
- Existing Project Modifications due
- September 29, 2017: Alternate Weights due
- SPOT Online closes for submitting projects
- April 2, 2018: Quantitative scores for all projects released
  - Draft list of Programmed Statewide Mobility projects released
  - Regional Impact Local Input Point window opens for 4 months
  - Deadline for Approval of Local Input Point Assignment Methodologies
- End of August 2018: Draft list of Programmed Regional Impact Projects released
- September 3, 2018: Division Needs Local Input Point window opens for 3 months
- January 2019: 2020-2029 Draft STIP released

Notes:
- Blue Box = Approval of P5.0 Scoring
- Yellow Box = MPO/RPO/Division Input

**SPOT Reviews and Calculates Quant. Scores for All Projects (Existing + New)**
- Includes review period of all data & costs to be used for scoring (by MPOs, RPOs, Divisions, and DOT staff)

**TIP Unit Programs Statewide Mobility Projects**

**MPOs, RPOs, & Divisions assign Regional Impact Local Input Points (with option to assign Division Needs Local Input Points)**

**SPOT finalizes Regional scores and TIP Unit programs Regional projects**

**MPOs, RPOs, & Divisions assign Division Needs Local Input Points**

**SPOT finalizes Div Needs Scores & TIP Unit programs Div Needs projects**

**NCDOT releases Draft STIP**

**NCDOT Provides Report to JLTCC**
### P5.0 Key Dates

<table>
<thead>
<tr>
<th>Date</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>September – November 2018</strong></td>
<td>Division Needs Local Input Point window opens for 3 months (closes Thursday, November 29)</td>
</tr>
<tr>
<td><strong>December 2018</strong></td>
<td>NCDOT calculates Division Needs total scores and programs Division Needs projects</td>
</tr>
<tr>
<td><strong>January 2019</strong></td>
<td>2020-2029 Draft STIP released</td>
</tr>
</tbody>
</table>
Looking to P6.0

Get involved, communicate, and advocate!
- Work with submittal partners
- Understand data needs, scoring process, and local input points

Elements of a good project description:
- Transit system name
- Route name and endpoints
- Specific information about improvements
  - Ex. new or expansion of existing route, number and type of vehicles being requested, how many stops are being improved, type of stop improvements, size of facility expansion

P6.0 Workgroup is starting up
Who Do You Need to Know

MPOs, RPOs, and Divisions are the only project submitters
- Metropolitan and Rural Planning Organizations
- NCDOT Corridor Development Engineers
- NCDOT Division Planning Engineers

- Sarah Lee, SPOT Office
- Debbie Collins, NCDOT PTD
Resources

NCDOT Prioritization Resources:
https://connect.ncdot.gov/projects/planning/Pages/PrioritizationResources.aspx

NCDOT State Transportation Improvement Program:
www.ncdot.gov/sti

SPOT Contact Information:
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(919) 707-4742
selee@ncdot.gov