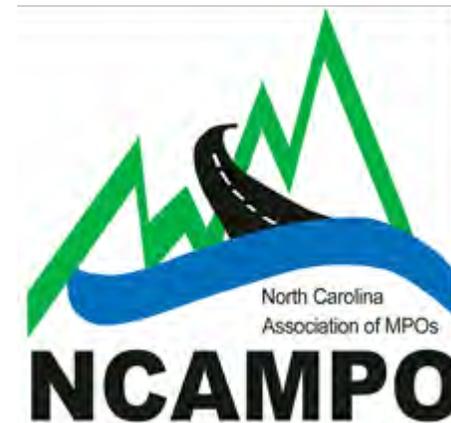
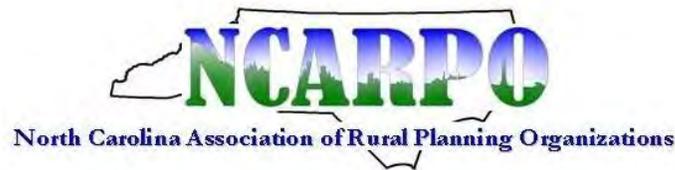


MPO/RPO State of the Practice

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About Transportation Planning Organizations (MPOs & RPOs)

- ▶ There are 18 MPOs and 18 RPOs in North Carolina
- ▶ POs serve a mixture of large urban, small urban, and rural areas
- ▶ MPOs established under federal law to ensure the 3-C planning process (Continuing, Cooperative, and Comprehensive)
- ▶ RPOs established under state law and serve to fulfill federal rural consultation requirements



About Metropolitan Planning Organizations (MPOs)

Five Core Functions:

1. Establish a fair & impartial setting
2. Evaluate transportation alternatives
3. Maintain a Metropolitan Transportation Plan (MTP) & Comprehensive Transportation Plan (CTP)
4. **Develop a Transportation Improvement Program (TIP)**
 - Submitting and prioritizing projects through the Strategic Transportation Investments (STI) prioritization process
5. **Involve the public – residents and key affected sub-groups**

About Rural Planning Organizations (RPOs)

Primary RPO Activities Include:

- ▶ Working cooperatively with NCDOT and local governments to develop Comprehensive Transportation Plans (CTPs)
- ▶ Submitting and prioritizing projects through the Strategic Transportation Investments (STI) prioritization process
- ▶ Participating in and representing local/regional interests in the project development process
- ▶ Participating in other transportation plans/activities in the region (e.g local bicycle/pedestrian plans, county transit agencies, etc.)
- ▶ Sharing information with our members
- ▶ Serving as a technical resource for our members

Urban/Rural Collaboration

- ▶ Committed to continue to work together collaboratively on regional and statewide initiatives
- ▶ Cooperation on planning and prioritizing projects that connect communities/corridors
- ▶ More and more examples of MPO/RPO/Division Engineer collaboration to see success.
 - ▶ Project submissions on behalf of other agencies
 - ▶ Priority point donations
 - ▶ Joint projects

Urban/Rural Collaboration

- ▶ MPO/RPO  Urban/Rural
 - ▶ Wilson, Sanford, and Henderson are in RPOs
 - ▶ Bunn, Simpson, Marshville, and Angier are in MPOs
- ▶ Blurry distinction between Urban and Rural Projects
 - ▶ Many times MPO/RPO priority projects are located in the other. Benefits are often regional.
- ▶ When analyzing outcomes, all levels of STI need to be included to get the full picture.
 - ▶ Regional and Division Needs project selections as well as Statewide Mobility

Major Transportation Challenges Facing North Carolina

- ▶ Competition for limited funding available in STI
 - ▶ Rural projects *generally* have a harder time competing well in STI due to lower congestion, lower volume, etc.
 - ▶ Difficulty of competition varies widely by Division/Region
 - ▶ RPOs, MPOs, and NCDOT are working together to ensure that we submit the most competitive projects possible

Draft State Transportation Improvement Program
STIP



FY 2020 – 2029 2019 January 2019

Major Transportation Challenges Facing North Carolina

- ▶ Major statewide corridors connecting urban areas, ports, and job centers often require improvements in rural areas
 - ▶ Aid in connectivity from rural areas to existing job centers/urban areas
 - ▶ Aid in attracting/retaining jobs and investment in rural areas
 - ▶ Improve connections between urban areas and logistics hubs
- ▶ Important to get regional buy-in for improvement of these corridors and a plan for implementation (including an approach for funding through STI)
- ▶ Opportunity for working together



Major Transportation Challenges Facing North Carolina

- ▶ Identifying ways to fund & build smaller improvements such as:
 - ▶ Modernization of substandard roads
 - ▶ Small projects of local importance
 - ▶ Economic development projects
 - ▶ Bicycle, Pedestrian, and Transit needs
- ▶ Some of these may be possible within existing STI framework, but some may require creative solutions



Transportation Challenges - Today and Tomorrow

- ▶ Currently anticipated resources may not be enough to meet future needs
 - ▶ Population and congestion growth are far outpacing currently available resources
 - ▶ Funding levels in all areas continue to fall short of identified needs.
 - ▶ New solutions / old funding
- ▶ STI & HB 97 state budget changes
 - ▶ Transparent, needs based, data driven approach designed to identify the most cost-effective transportation investments in the state.
 - ▶ Continue to identify projects and programs where the needs are the greatest
- ▶ All revenue options should be looked at to meet our needs
 - ▶ Secure new dependable transportation funding that can be used
 - ▶ Flexible, to support the diverse needs of the state at all levels in the most cost-effective manner

Transportation Challenges - Today and Tomorrow

- ▶ Performance based planning and decision making are the new normal
- ▶ Look to best practices in other states for guidance on continued improvements in North Carolina.
- ▶ Continue to review what the State's transportation priorities are.
 - ▶ Identify other tools that can help where transportation is not the main focus (e.g. economic development)
 - ▶ Minnesota's Transportation Economic Development (TED) program (<http://www.dot.state.mn.us/funding/ted/index.html>)
 - ▶ Competitive, data driven program to identify transportation improvements that are geared toward economic development, particularly in rural areas.
 - ▶ Could have criteria designed by Dept. of Commerce with projects administered by NCDOT
 - ▶ Could be focused on key industry sectors that best align with NC's economic development goals.

Societal Changes/Trends that Impact Transportation Planning

- ▶ Demographic Changes
 - ▶ Increasing growth rates in metro areas
 - ▶ Aging population
 - ▶ Diversifying population
 - ▶ Encroaching urban/suburbanization in some areas (critical/sensitive natural environments, historic/cultural impacts)
 - ▶ *Affects issues such as the ability to keep up with infrastructure/service needs in all modes, changing priorities, Environmental Justice/Title VI*

Societal Changes/Trends that Impact Transportation Planning

- ▶ Demographic Changes
- ▶ Economic Changes
 - ▶ Continued growth into digital/service economy
 - ▶ Increased importance of freight network & logistics chains
 - ▶ Economic engines at all levels becoming the focus
 - ▶ *Affects transportation connectivity and access needs*
 - ▶ *Travelshed/Commuteshed becomes more important*

Societal Changes/Trends that Impact Transportation Planning

- ▶ Demographic Changes
- ▶ Economic Changes
- ▶ System Resiliency
 - ▶ Need to maintain key nodes and links in the transportation network (urban & rural)
 - ▶ Response to natural disasters such as floods and landslides; lack of good alternatives
 - ▶ As the transportation network evolves and ages, maintenance & operations needs will increase
 - ▶ **More “Fortify” type projects are in our future**
 - ▶ Retrofitting/raising flood-prone facilities
 - ▶ *Affects maintenance and modernization needs*
 - ▶ *Connectivity and redundancy needs are amplified*

Societal Changes/Trends that Impact Transportation Planning

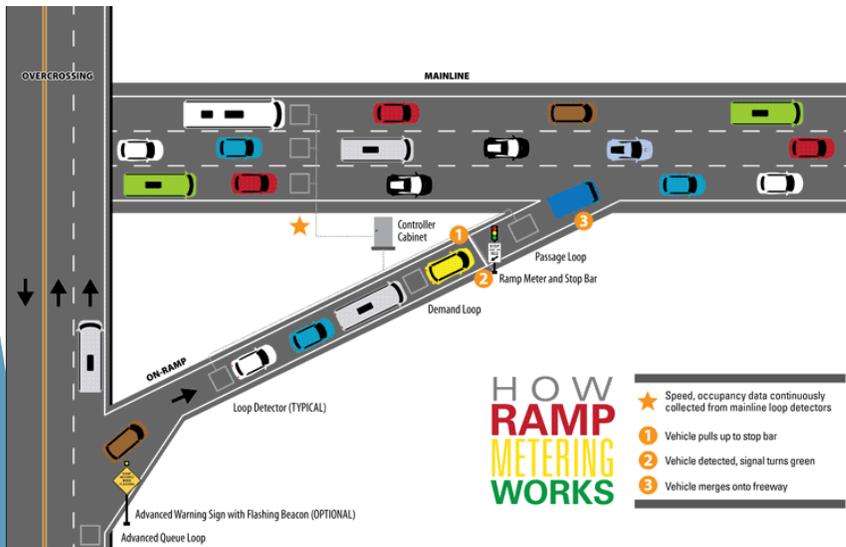
- ▶ Demographic Changes
- ▶ Economic Changes
- ▶ Resiliency to Emergency Situations
- ▶ Technology Changes
 - ▶ Emerging technology - electric vehicles, connected/autonomous vehicles, smart grid
 - ▶ Communitywide Intelligent Transportation Systems, **smart infrastructure, “open source” infrastructure**
 - ▶ Growing understanding of timing and impact on mobility and safety. Backbone investments are key in the short term
 - ▶ Teleworking/Telecommuting
 - ▶ Continues to increase in urban areas but Congestion **“benefits” are overshadowed by growth**
 - ▶ Sustained investment in broadband infrastructure is **needed. Congestion “benefits” overshadowed by growth** in urban areas
 - ▶ Mobility services - ridesharing apps, scooters, bikeshare, autonomous transit, etc.
 - ▶ Already in urban areas. Policy/regulatory environment is playing catch up

Technology Changes - Managed Roadways

- Managed roadways is a multi-faceted solution that involves communications systems, control systems, and optimization strategies on the regional freeway network
- Can significantly reduce delay and increase reliability
- Much cheaper than adding additional lanes
- Can be used in conjunction with managed lanes, toll facilities, and future widening



Image courtesy of VicRoads



- Lane management (variable speed limits, lane control, shoulder running, pricing)
- Incident detection and CCTV surveillance
- Integrated sensors along freeway and surface streets collecting high resolution data
- Ramp improvements to handle additional queuing
- Can include traveler information

Technology Changes - Managed Roadways



Image courtesy of VicRoads



Image courtesy of Transport UK

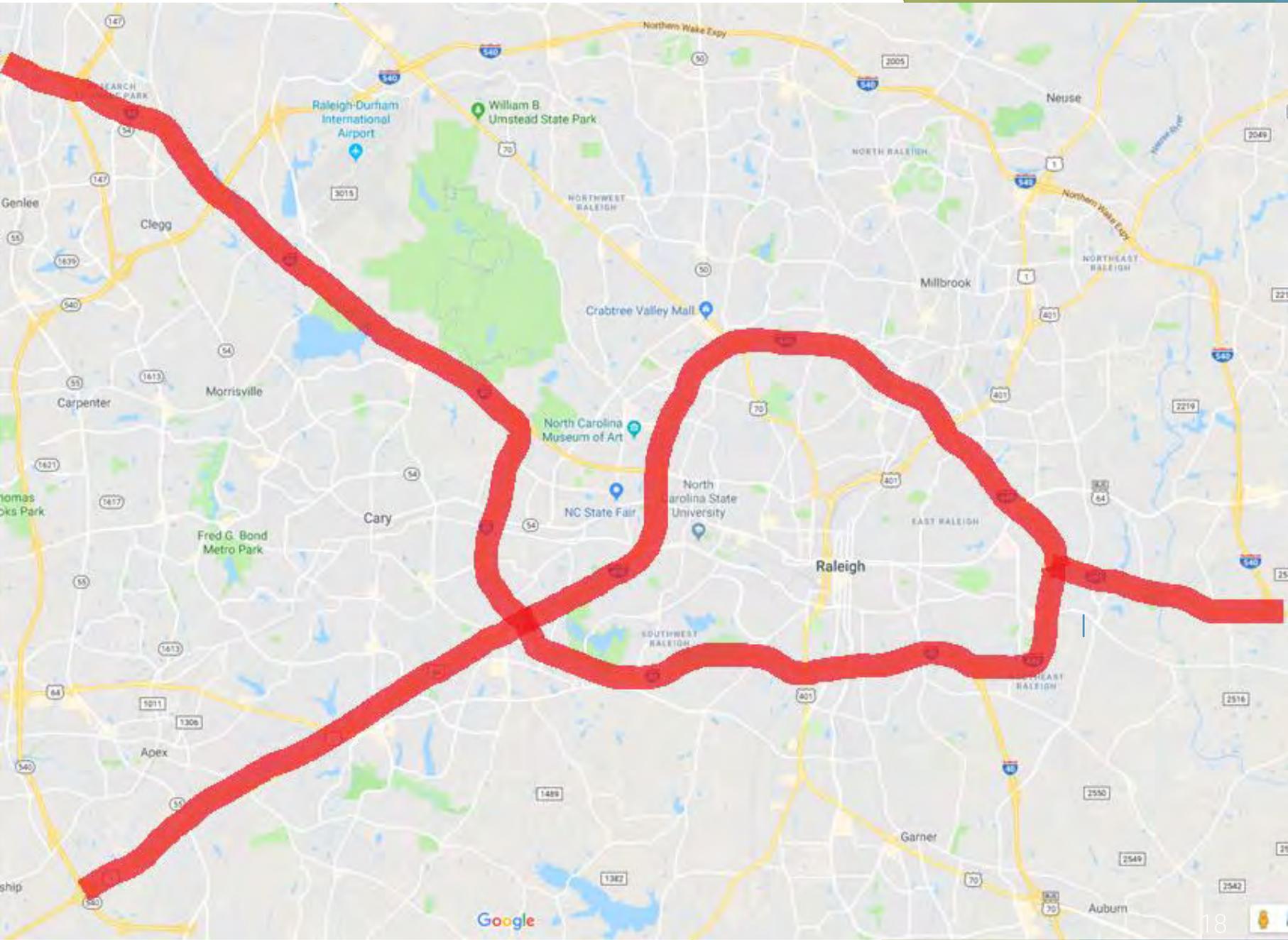
- Synchronizes flow of vehicles entering a freeway to available capacity on the freeway
- Provides real time demand management to manage traffic
- Interchanges coordinate with one another to prevent excessive wait times and queuing for all interchanges, metering rates differ for each ramp
- Future infrastructure to vehicle communications



Image courtesy of VicRoads

Triangle Region - Managed Roadways Phase 1

Project	ROW	CON
I-6006	2025	2025
I-6101	2026	2027



Questions?

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