TRIANGLE REGION INTELLIGENT TRANSPORTATION SYSTEMS PLAN UPDATE

CAMPO-DCHC MPO Joint Meeting

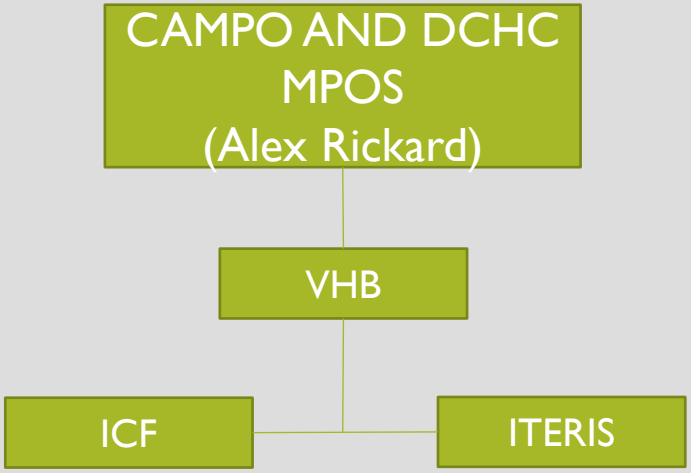
October 31, 2018

CAMPO
NC Capital Area Metropolitan Planning Organization

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

DURHAM - CHAPEL HILL - CARRBORO
DCHC
Metropolitan Planning Organization
Planning Tomorrow's Transportation

STUDY TEAM

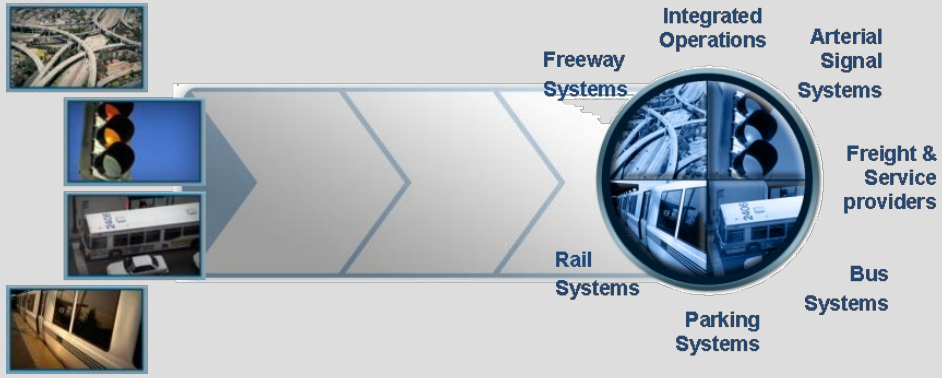


STUDY OVERVIEW

- Schedule – All services completed by June 30, 2019
- Objectives – Update to current architecture and standards, identify gaps and opportunities. Include state-of-the-art systems for managing current and emerging traffic including implementation of transit management technologies
- Deliverables– Report document, web-based architecture outputs, recommended projects for future deployment with estimate costs for deployment

ITS BENEFITS

- Improved transportation efficiency
- Reduced delays and crashes
- Improved system reliability

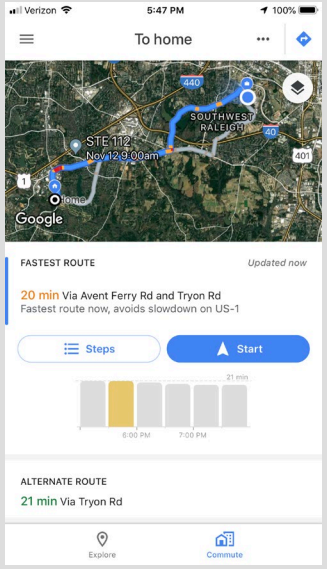


WHAT IS ITS?

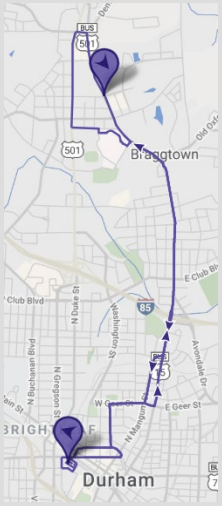
- Intelligent Transportation Systems is the advancement of transportation safety and mobility and enhancement of productivity through integration of advanced communications technologies into transportation infrastructure and into vehicles. ITS encompasses a broad range of wireless and traditional communications-based information and electronic technologies.

EVERYDAY ITS

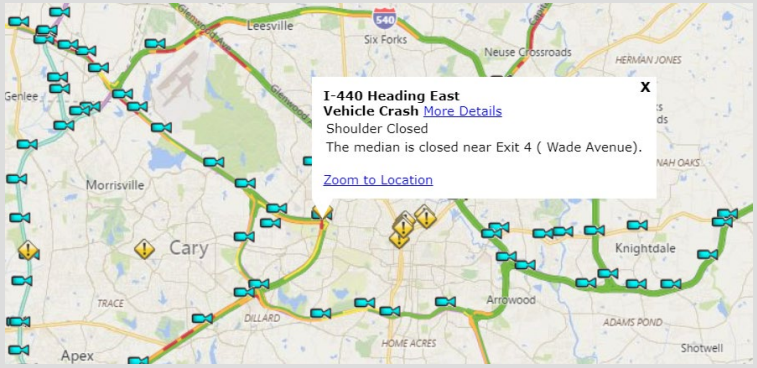
- Technology examples include CCTV cameras, speed sensors, preemption receivers and emitters and mobile phone applications for navigation



EVERYDAY ITS

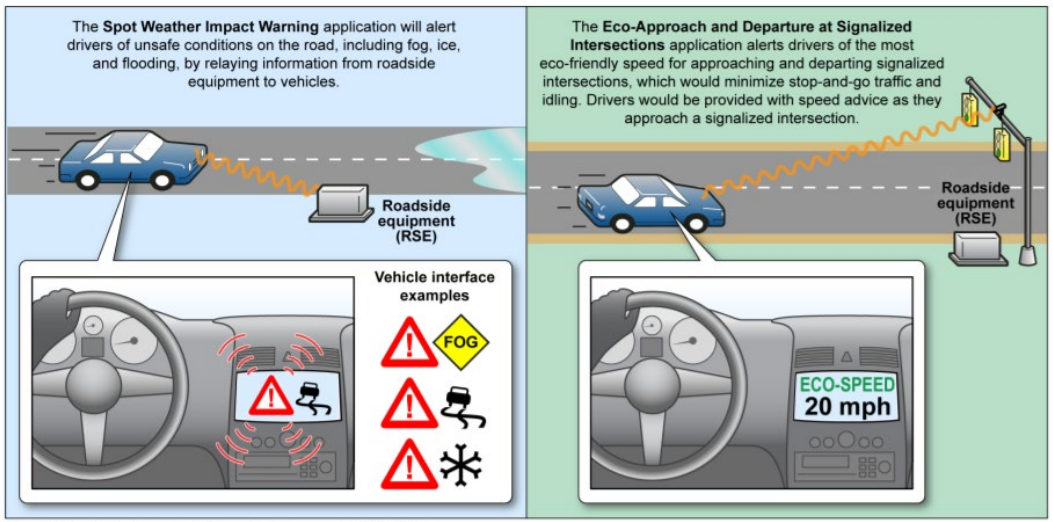


- Operational examples include improved sharing of information; traffic signal preemption for emergency and transit vehicles; automatic identification of incidents to improve incident clearance times; cross-jurisdictional cooperation to provide seamless operations along corridors; real-time bus location, and automatic toll payment.



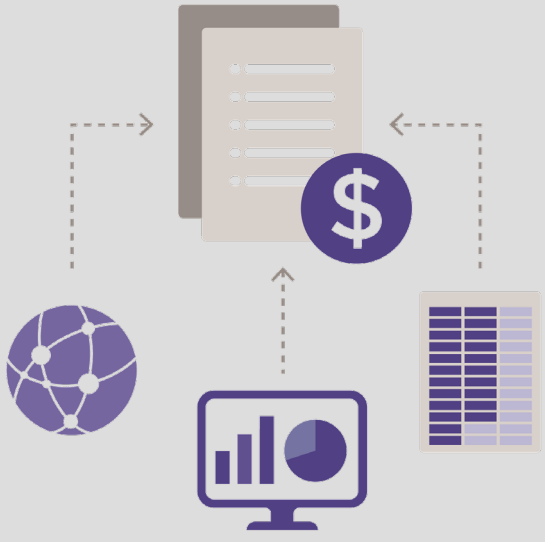
UPCOMING ITS

- Connected vehicles (vehicle to vehicle and vehicle to infrastructure) and autonomous vehicles



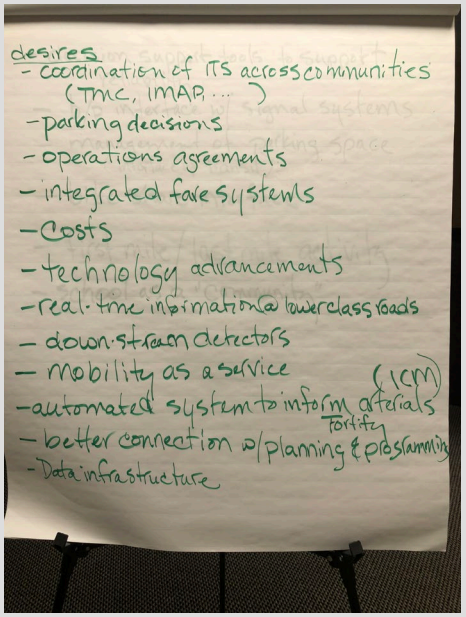
STUDY SUMMARY

- Last updated in 2010
- Project Components
  - Assessing existing conditions and identifying gaps
  - Evaluation of new ITS strategies
  - Updating the Triangle ITS architecture
  - Develop regional architecture use and maintenance plan
  - Develop methodology to prioritize ITS projects for funding
  - Prepare regional ITS deployment plan



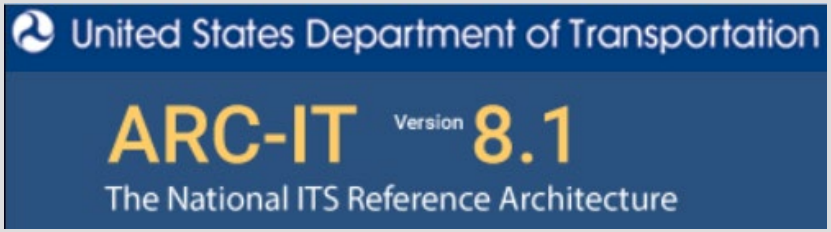
STUDY SUMMARY

- Project Timeline
  - Notice to proceed – April 2018
  - Kick-off with stakeholders – May 2018
  - First stakeholder workshop – July 2018
  - Small group stakeholder interviews – October-November 2018
  - Final stakeholder workshop – Winter 2019
  - Anticipated completion date – June 30, 2019



INTENDED STUDY OUTCOME

- Updated architecture (FHWA Rule 940 and ARC-IT 8.1)



INTENDED STUDY OUTCOME

- Updated status of previously planned and implemented projects
- Identification of new technologies and strategies for implementation

What's been done?

What's to come?

INTENDED STUDY OUTCOME

- Estimated costs of new initiatives
- Methodology for prioritizing ITS projects for funding

What's it going cost?

How does an ITS project rank against others?

INTENDED STUDY OUTCOME

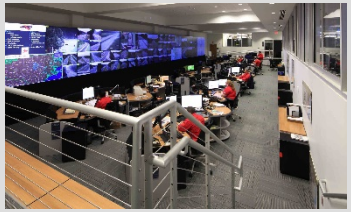
- Coordination of ITS planning with other regional and statewide planning and programming efforts

Connect 2045
The Metropolitan Transportation Plan
for the
Capital Area Metropolitan Planning Organization
and the
Durham-Chapel Hill-Carrboro Metropolitan Planning Organization

State Transportation Improvement Program

EARLY FINDINGS

- Region is actively implementing ITS infrastructure
- Many success stories – FORTIFY is a great example
- Strong desire for regional cooperation
- Some gaps already identified
- Operational strategies are key to fully realize ITS benefits
- Plan should be updated on a cycle similar to other regional planning documents



UPCOMING

- Complete stakeholder interviews and complete gap assessment
  - DCHC, City of Durham, Town of Chapel Hill, and Town of Carrboro
  - NCDOT Division Traffic Engineers
  - Transit operators
  - NC Turnpike Authority
- Complete architecture update

QUESTIONS?

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