

Tennessee Consortium Series

Next steps recommendations report



Executive Summary

The Nashville Area Metropolitan Planning Organization (Nashville Area MPO), Knoxville Regional Transportation Planning Organization (Knoxville Regional TPO), and Chattanooga – Hamilton County / North Georgia Transportation Planning Organization (Chattanooga TPO) collaboratively applied for and won an award for the first ever Complete Streets Consortium Series, a technical assistance program funded by the U.S. Environmental Protection Agency (EPA) and executed by the National Complete Streets Coalition (NCSC), a program of Smart Growth America. The program brings together three jurisdictions from the same state to identify shared challenges, barriers, and opportunities for Complete Streets implementation and develop better strategies for collaborating with their state department of transportation and implementing, funding, and supporting Complete Streets.

Each organization assembled a team of ten participants composed of local, regional, and state staff from engineering, planning, public works, transit agencies, and elected bodies. Between September 2017 and January 2018, the NCSC conducted three workshops and three webinars with the teams from Tennessee. This report summarizes lessons learned from this technical assistance. It also provides the following recommendations based on goals established by the participants over the course of the Consortium Series.

Recommendations for all three regions

Goal: Advance Complete Streets implementation

Strategy 1: Develop a Complete Streets implementation plan

Tactic 1.1: Review all of the recommendations in this report and assign priority levels, responsibilities, and deadlines for each task

Tactic 1.2: Create a Complete Streets implementation action plan that includes the following:

- Review and revise guidance, standards, manuals, policies, and other documents
- Offer ongoing training
- Designate a committee to oversee implementation
- Create a community engagement plan
- Measure performance
- Provide directions on how to work with other departments
- Assign the “who” and the “when”

Goal: Establish better working relationships with the Tennessee Department of Transportation (TDOT) to advance Complete Streets projects

Strategy 1: Get involved with state resurfacing projects earlier in the project development process

Tactic 1.1: Request upcoming resurfacing schedules from TDOT at least three years in advance

Tactic 1.2: Identify resurfacing projects with a high potential for Complete Streets improvements and conduct public outreach to identify multimodal priorities for those streets

Tactic 1.3: Collaborate with TDOT from the onset of projects to incorporate Complete Streets improvements into upcoming resurfacing projects where appropriate

Strategy 2: Coordinate with TDOT to implement new Multimodal Project Design Guidance

Tactic 2.1: Work with TDOT to formalize the review of TDOT projects by October 1, 2018.

Tactic 2.2: Conduct trainings in collaboration with TDOT to familiarize local and regional staff with how to use new guidance

Tactic 2.3: Revise internal design guidance and project selection processes to coincide with state guidance

Recommendations for the Chattanooga TPO

Goal: Improve staff capacity to implement Complete Streets

Strategy 1: Institutionalize regional coordination on Complete Streets implementation

Tactic 1.1: Establish a multi-jurisdictional working group -- including possible representatives from AARP, the National Association of REALTORS, the Urban Land Institute, and other local and statewide agencies -- to report to the Chattanooga TPO’s Multimodal Advisory Committee to oversee regional coordination of Complete Streets implementation

Tactic 1.2: In collaboration with the working group, consolidate and collect data on crashes and transportation infrastructure to inform data-driven planning at the local and regional levels

Strategy 2: Identify outside champions to advocate for investment in Complete Streets

Tactic 2.1: Work with Bike Walk Chattanooga to engage with groups, such as AARP, the National Association of REALTORS, the Urban Land Institute, and other local and statewide agencies, on Complete Streets and advocate for funding local bicycle and pedestrian coordinator positions

Tactic 2.2: Provide trainings for developers, elected officials, and community members on the return on investment for Complete Streets and on strategies for implementation

Goal: Support economic development and enhance sense of place throughout the region

Strategy 1: Develop guidance to integrate land use with Complete Street network connectivity

Tactic 1.1: Conduct a regional connectivity study

Tactic 1.2: Conduct trainings with municipal staff on how to integrate land use context in Complete Streets design guidance and manuals

Recommendations for the Nashville Area MPO

Goal: Incrementally extend pedestrian and transit connectivity between downtown Nashville and the surrounding region

Strategy 1: Educate decision makers and implementers on importance of Complete Streets to a growing region

Tactic 1.1: Conduct presentations on the benefits of Complete Streets for elected officials in surrounding municipalities

Tactic 1.2: Conduct trainings on best practices for first mile/last mile connections for planners and engineers in surrounding municipalities

Strategy 2: Offer resources and technical assistance to direct strategic investment in data-driven multimodal projects and first mile/last mile improvements

Tactic 2.1: Provide resources and technical assistance to local jurisdictions to support performance measurement for Complete Streets projects

Tactic 2.2: Update project selection and funding criteria to prioritize first mile/last mile connections

Recommendations for the Knoxville region¹

Goal: Work with the City of Knoxville to improve coordination across departments and jurisdictions

Strategy 1: The Knoxville TPO should work with the City of Knoxville to establish a cross-departmental committee to oversee Complete Streets implementation

Tactic 1.1: Schedule regular meetings with designated representatives from planning, engineering, police, and other related departments to coordinate Complete Streets implementation

Tactic 1.2: Coordinate with adjacent jurisdictions and regional agencies on Complete Streets projects and best practices

Strategy 2: Revise processes to institutionalize commitment to Complete Streets

Tactic 2.1: Develop and adopt checklists to ensure Complete Streets implementation as a matter of routine in transportation planning and operations

Tactic 2.2: Work with the City of Knoxville to review, and possible revise, their project selection criteria and design guidance to support Complete Streets implementation

Goal: Increase density to support accessibility in the Knoxville region

Strategy 1: Support the City of Knoxville's ongoing initiative to adopt a new zoning code

Tactic 1.1: Review zoning code specifications to ensure compatibility with Complete Streets principles and objectives

Tactic 1.2: Educate the public on importance and benefits of building compact, mixed-use communities to support Complete Streets

Strategy 2: Maximize effectiveness of zoning code implementation by educating various stakeholders on code content and processes

Tactic 2.1: Educate transportation and administrative staff on contents of the code and how to properly apply it in public and private projects

Tactic 2.2: Educate elected leaders on the importance of the code including their role in the review process for projects

Tactic 2.3: Educate developers on code standards and review processes to maximize transparency and compliance in private projects

¹ The Knoxville TPO selected a cohort primarily composed of representatives from the City of Knoxville.

Overview of Workshops

The Complete Streets Consortium Series is a technical assistance grant opportunity for communities run by the NCSC. The Consortium Series is funded by a Building Blocks for Sustainable Communities grant from the EPA's Office of Sustainable Communities in partnership with the Centers for Disease Control and Prevention. The Nashville Area MPO, Knoxville Regional TPO, and Chattanooga TPO collaboratively applied for and won an award to receive the technical assistance through the Complete Streets Consortium Series.

NCSC designed the Consortium Series to bring together three jurisdictions working with the same state department of transportation. The program was designed so that these communities would be able to identify shared challenges, barriers, and opportunities to Complete Streets implementation and develop similar strategies for implementing, funding, and supporting Complete Streets. In addition, NCSC believe that the in-person trainings would help to develop a statewide network of people trained in implementation, which would help build the capacity of communities across the state to deliver Complete Streets.

The Nashville Area MPO, Knoxville Regional TPO, and Chattanooga TPO each assembled teams of ten to participate in the Complete Streets Consortium Series. These teams included staff from local, regional, and state agencies specializing in a variety of disciplines including engineering, planning, public works, transit, economic development, community engagement, public health, and law enforcement. For a full list of participants, refer to the Appendix.

Curriculum

Between September 2017 and January 2018, NCSC conducted three workshops and three webinars with the teams from Tennessee focused on building the skills necessary to move Complete Streets forward from a policy commitment to implementation. This includes strategies such as community engagement, collaboration across sectors and jurisdictions, and revising project design, development, and performance measurement and evaluation processes to make Complete Streets a routine part of transportation planning. Modules at the workshops and webinars covered the following topics:

- Active transportation design
- Balancing priorities
- Communicating Complete Streets
- Complete Streets implementation in Tennessee
- Curbside management
- Funding sources for Complete Streets
- Health and Complete Streets
- Inclusive project development process
- Land use and urban design
- Linking transit to Complete Streets
- Performance measures and prioritization
- Smart cities and automated vehicles
- Working with developers on Complete Streets
- Working with multiple jurisdictions
- Working with TDOT on multimodal projects

In addition to modules on various topics, each workshop also included interactive sessions to give the teams the opportunity to practice new and improved skills, as well as foster better working relationships with participants from other departments, sectors, and jurisdictions. These included exercises, discussions, and on-the-ground case studies.

Case studies

The second day of each workshop focused on a local case study. After an introductory presentation about a nearby corridor, including current and planned infrastructure, safety concerns, and adjacent land uses, participants visited the case study corridors in person to observe current conditions. NCSC then divided the group into interdisciplinary teams and tasked the teams with brainstorming design solutions and identifying next steps they would need to take to implement those solutions on the ground, including which stakeholders need to be engaged from the community and other agencies as well as which policies, processes, and design guidelines need to be updated. The three case studies focused on how challenges and solutions vary in rural, suburban, and urban contexts. The lessons learned from these case studies also informed the goals set by the participants and the strategies and tactics recommended by NCSC to achieve those goals.

“It was helpful to see the corridors. I see these corridors all the time, not here but in my own community, and I know that these are challenges across the country. It’s helpful to think in a different space with different people than I would normally about what the solutions are. I know the challenges and the day-to-day realities as what’s happening in our community, so thinking about those as barriers to what’s possible.”

Chattanooga area case study: East Brainerd Road and Ooltewah Ringgold Road in unincorporated Hamilton County



This case study highlighted the challenges of implementing Complete Streets in rural contexts. Near the intersection selected for the case study, there are key destinations such as schools, grocery stores, and housing. However, the current land development pattern and street design does not support safe, comfortable, convenient access between these destinations. For example, a lack of sidewalks and crosswalks along the wide, high-speed roads in this neighborhood make it unsafe to walk or bike to these places. Furthermore, the housing subdivisions have very limited connections to the street network, often forcing residents to take indirect, inefficient routes to access destinations where potential straightforward walking and biking connections are missing.

After visiting the case study site, participants proposed design solutions including improving safe access across major roads by installing rapid flashing beacons and refuge medians near school crossings, and connecting schools and grocery stores to housing through off-road facilities such as a greenway or new shared facilities alongside the road. Participants also discussed how updated zoning codes and other land use policies could enhance connectivity for people walking, biking, and riding transit. Participants also recommended introducing transit stops at key destinations and mandating denser development at the site, especially around the major intersection of these two roads, moving forward, with the understanding that improvements to street connectivity and bicycle and pedestrian access would be needed first to support transit service and denser development

Nashville: Charlotte Pike between I-70 and Watts Lane



This case study explored the challenge of balancing the conflicting needs of commuters with the local community on a major suburban arterial. This corridor has major gaps in the sidewalk network, as well as a lack of mid-block crossings at bus stops and entrances to major retail centers. As a state-owned road that passes through multiple communities, the corridor also highlights challenges balancing priorities across jurisdictions.

The teams brainstormed solutions to make sure people walking, biking, and riding transit can safely move through as well as across Charlotte Pike not only today, but following major changes planned for the corridor, including a road widening project and the expansion of Nashville's light rail system. Ideas included introducing a comprehensive sidewalk ordinance to plug in gaps in the sidewalk network, strategically placing mid-block crossings where they are most needed, and encouraging infill development in underutilized parking lots to create a denser, more walkable and transit-friendly corridor. They also discussed the need to collaborate between local, regional, and state agencies to make these changes on a state-owned road that passes through multiple jurisdictions.

Knoxville: Broadway between Hall of Fame Drive and Washington Pike



This case study focused on a major urban corridor in downtown Knoxville with a history of severe or fatal crashes, particularly involving people walking. Frequent curb cuts into parking lots make it unsafe to walk along the sidewalk, and slip lanes and wide turning radii at intersections allow cars to speed around turns, creating safety concerns for people trying to cross the street. Additionally, the corridor has major problems with speeding because the design of the road is inconsistent with the posted speed limit, and outdated zoning ordinances created seas of underutilized parking. Broadway is also a major transit corridor for the city with some of the most popular bus lines and stations, but many of the bus stops lack seating, shelters, and clear signage.

To solve these problems, the teams proposed recoding Knoxville’s zoning ordinance to encourage denser development and introducing traffic calming features, especially near current and planned bus stops, such as bulb outs, landscaped medians, pedestrian refuges, and textured crosswalks. The teams also discussed how to reconfigure intersections to make turn angles sharper so turning drivers are forced to slow down and look for people crossing the street. The participants also discussed the need to consolidate entrances to retail sites and parking lots to make it safer for people to walk and bike along the corridor.

Common challenges

Regions in Tennessee have made progress on implementing Complete Streets, including passing strong Complete Streets policies and introducing successful projects with the support of local elected leaders. However, common challenges and barriers to this work persist, many of which emerged over the course of the Consortium Series through discussions, exercises, and case studies. These include:

- Articulating the benefits of Complete Streets to developers, elected officials, and community members
- Accommodating rapid growth by revising outdated land use and transportation policies to encourage more compact development to mitigate sprawl and support walkability, bikeability, and transit access
- Implementing Complete Streets projects and connections throughout the region, not just in dense downtowns
- Increasing staff capacity to oversee and implement Complete Streets programs, revise existing policies and practices to support Complete Streets, and measure performance
- Improving collaboration across sectors, departments, and jurisdictions, including TDOT

The following section includes recommendations to address many of these challenges and overcome barriers to Complete Streets implementation.

Recommendations

Over the course of the Consortium Series, the teams from the Chattanooga, Nashville, and Knoxville regions established the below goals for Complete Streets implementation through discussions, exercises, and case studies. Although the participants represented a variety of local and regional agencies, the recommendations in this report are specifically for the Chattanooga TPO, Nashville Area MPO, and Knoxville Regional TPO, though they may be carried out in collaboration with other state and local agencies as appropriate. These recommendations outline overarching strategies to overcome common challenges to implementation and achieve the goals set forth by the participants. The recommendations also describe specific tactics to successfully implement these strategies.

Statewide recommendations

Goal: Advance Complete Streets implementation

Strategy 1: Develop a Complete Streets implementation plan

Tactic 1.1: Review all of the recommendations in this report and assign priority levels, responsibilities, and deadlines for each task

NCSC recognizes that these comprehensive recommendations may not all be achievable within the next twelve months. As a first step, the participants in the Consortium Series in collaboration with relevant existing task forces and committees should collectively review all of the recommendations in this report and determine the following:

- Which recommendations are high, medium, and low priorities for the region?
- Who should be primarily responsible for implementing each recommendation?
- When is a realistic deadline for implementation of each recommendation?

Tactic 1.2: Create a Complete Streets implementation action plan





NCSC recommends that each region should create an implementation action plan to institutionalize Complete Streets implementation into their daily operations. The plan should include the following:

- Review and revise guidance, standards, manuals, policies, and other documents: Integrating a Complete Streets approach into the core documents used to guide daily decisions across programs will be a crucial step in successfully aligning each region's practices with the objectives of their Complete Streets policies. Therefore, NCSC recommends that the regions include in their action plans a review of their design policies and guides with revision as needed to reflect the current state of best practices in transportation design. NCSC also recommends that each region offer to work with jurisdictions within their boundaries to review their design policies and guides and to offer technical assistance to help cities revise the aforementioned policies and guides to support Complete Streets.
- Offer ongoing training: A successful Complete Streets initiative is about more than helping engineers learn how to incorporate bicycle and pedestrian facilities into road projects. Planners, engineers, consultants, and other agencies need a thorough understanding of new procedures, and elected officials need ongoing engagement to understand how the general policy goals will be translated into projects on the ground. Therefore, each region should offer Complete Streets trainings for elected officials and practitioners on Complete Streets benefits and implementation. There is individual guidance for each region on trainings within their individual recommendations.

- Designate a committee to oversee implementation. Having a committee oversee implementation ensures that the regions remain accountable to their plans and that implementation occurs across departments and involves the community. The committee should include both external and internal stakeholders as well as representatives from advocacy groups, underinvested communities, and vulnerable populations such as people of color, older adults, children, low-income communities, non-native English speakers, those who do not own or cannot access a car, and those living with disabilities. This recommendation is repeated with additional specificity in the individual recommendations for the Chattanooga and Knoxville regions.
- Create a community engagement plan. Involving the community, including members from disinvested communities, in decision-making ensures that there is more buy-in for implementation. Therefore, NCSC recommends that each region create a community engagement plan for all multimodal projects that targets advocacy organizations and underrepresented communities that could include non-native English speakers, people with disabilities, etc. depending on the local context. This requires the use of outreach strategies such as holding public meetings at easily accessible times and places, collecting input at community gathering spaces, and hosting and attending community meetings and events. Transportation for America and the Nashville MPO's joint work with Conexión America to create recommendations for inclusive development is an excellent example of community-based planning.²

² <http://t4america.org/wp-content/uploads/2018/01/Envision-Nolensville-Pike-II.pdf>

- Measure performance: Creating and using new performance measures for transportation projects and the transportation system is essential. It helps agencies ensure if they are on the right track and helps jurisdictions use a data-driven approach to building a case for future multimodal projects. NCSC recommends using the following performance measures, which NCSC developed for their *Complete Streets for Healthy Equity Report*.³

 Changes to transportation planning processes	 New Complete Streets projects and investments	 New connections and opportunities	 Changes in long-term health trends
<p>Updating documents Master plans, design guidelines, and decision-making frameworks updated to support Complete Streets</p> <p>Training staff Hours, quality, and content of trainings for government engineers, planners, and others</p> <p>Engaging the public Quality and quantity of community engagement, especially in communities of color/low-income communities through meetings, community events, and creative outreach</p>	<p>Complete Streets projects Amount and types/quality of pedestrian, bicycle, and transit facilities, especially relative to race/income of neighborhood residents</p> <p>Exemptions Number of and reasons for exemptions granted to Complete Streets policies</p> <p>Funding Amount and location of investments in projects that include pedestrian, bicycle, and/or transit infrastructure relative to race/income/health status</p> <p>Green infrastructure Number and location of street trees, drainage improvements, and stormwater management infrastructure relative to race/income/respiratory disease rates</p>	<p>Travel behavior Walking, bicycling, and public transit ridership rates by race/income over time</p> <p>Safety Distribution of pedestrian and bicycle injuries and fatalities by race/poverty rate over time</p> <p>Affordability Combined costs of housing and transportation and impacts of improved transportation amenities on housing in low-income communities/communities of color over time</p> <p>Access to resources Gaps in access to employment centers, grocery stores, and other crucial amenities relative to neighborhood income/health status Reductions in local street flooding</p>	<p>Physical activity Rates of meeting physical activity recommendations by race/income/level of education over time</p> <p>Air quality Annual greenhouse gas emissions from transportation over time</p> <p>Health Rates of hypertension, heart attack, diabetes, asthma, and other chronic diseases by race/income over time</p>

- Provide directions on how to work with other departments. Creating a Complete Streets network can also be achieved through interagency coordination between government departments and partner agencies on Complete Streets. NCSC recommends that each action plan include a way to formalize ongoing partnership, particularly when setting performance measures and conducting community outreach, with other departments and agencies, such as the departments of public health, transit, community development, and parks and recreations.
- Assign the “who” and the “when.” To ensure that the action plans are implemented, each region should assign someone to oversee the plan, as well as dates for completing each item within the plan.

Goal: Establish better working relationships with the Tennessee Department of Transportation (TDOT) to advance Complete Streets projects

The need to improve collaboration with TDOT emerged as a key theme of the Consortium Series through interactive discussions. Participants from the Chattanooga, Nashville, and Knoxville regions acknowledged several unresolved challenges to working with TDOT on Complete Streets projects, including TDOT processes that can slow down and increase the cost of constructing smaller projects, conflicting priorities between local desires for better multimodal connectivity and TDOT’s emphasis on congestion mitigation and rapid vehicle throughput, and insufficient

³ <https://smartgrowthamerica.org/resources/complete-streets-for-health-equity/>

communication between agencies on upcoming projects. NCSC recommends the following strategies and tactics to overcome these barriers and improve working relationships with TDOT.

Strategy 1: Get involved with state resurfacing projects earlier in the project development process

Incorporating Complete Streets features into scheduled resurfacing projects is a great opportunity to build out active transportation networks at relatively low cost. However, adding these design features on to existing resurfacing projects after they reach later stages of the design and budgeting processes can create unnecessary barriers to implementation. On the other hand, getting engaged earlier in the process and building Complete Streets into upcoming projects from the onset can make it easier to implement Complete Streets concurrent with repaving as well as give communities more time to explore more intensive changes to street design that improve safety and connectivity, including narrowing or reducing motor vehicle travel lanes and introducing traffic calming measures like curb extension and refuge medians. NCSC believes the following tactics will make it easier for local and regional transportation agencies in Chattanooga, Nashville, and Knoxville to get involved with upcoming state projects at an earlier stage.

Tactic 1.1: Request upcoming resurfacing schedules from TDOT at least three years in advance

TDOT is considering changing the way it publishes its resurfacing schedules from announcing upcoming projects one year in advance to listing resurfacing projects online three years ahead of time. NCSC recommends the Chattanooga TPO, Nashville Area MPO, and Knoxville Regional TPO formally endorse this change as a coalition. These agencies should collaboratively submit letters of support signed by elected officials, board members, and/or departmental leadership directly to the office of the Commissioner as well as to TDOT's Office of Community Transportation. They could also further supplement this effort by preparing template or sign-on letters of endorsement to document support from municipalities within their jurisdictions as well as from other regional transportation agencies throughout the state.

Tactic 1.2: Identify resurfacing projects with a potential for Complete Streets improvements and conduct public outreach to identify multimodal priorities for those streets

Once TDOT announces its upcoming resurfacing schedule, the regions should identify projects with potential for Complete Streets improvements and conduct outreach to determine community priorities for multimodal improvements on these roads. The regions should collaborate with local jurisdictions to hold hearings, table at community events, survey local business owners, and conduct outreach via social media. The regions should document the results of this engagement and share it with TDOT's Office of Community Transportation to build the case for investments in multimodal improvements as part of routine resurfacing projects.

Tactic 1.3: Collaborate with TDOT from the onset of projects to incorporate Complete Streets improvements into upcoming resurfacing projects based on community input and local and regional priorities

TDOT's Bicycle and Pedestrian Coordinator reaches out to local and regional agencies on a case-by-case basis to discuss upcoming plans for Complete Streets improvements on state roads; however, this process is not formally institutionalized.

The Chattanooga TPO, Nashville Area MPO, and Knoxville Regional TPO should designate an individual, task force, or other internal body to routinely review TDOT's upcoming resurfacing schedule as soon as it is made available online. This designated body could be administered collaboratively across the three regions or individually within each region and could include technical transportation staff from local and regional agencies. The review process should include cross-checking the resurfacing schedule for corridors that local and regional agencies have specifically prioritized for future Complete Streets improvements in master plans, that fill in gaps in the pedestrian and bicycle networks, and that community members have identified as priorities through public outreach. As a result of this review process, the Chattanooga TPO, Nashville Area MPO, and Knoxville Regional TPO should proactively communicate with TDOT's Office of Community Transportation and Bicycle and Pedestrian Coordinator about incorporating Complete Streets infrastructure in specific, upcoming resurfacing projects and remain engaged as the projects move through the design process.

Strategy 2: Coordinate with TDOT to implement new Multimodal Project Design Guidance



During the second workshop of the Consortium Series, TDOT Deputy Commissioner Toks Omishakin spoke with participants about TDOT's new Multimodal Project Design Guidance, which summarizes the design process and best practices for flexibly incorporating features to support walking, biking, and riding transit on state-owned roads. Local and regional transportation agencies throughout the state had an opportunity to review and provide feedback on these guidelines, and TDOT also reopened the review process to allow transit agencies to weigh in. This guidance provides justification for incorporating more flexible multimodal improvements along and across state roads. NCSC recommends the following tactics to make the most of these guidelines and put them into practice.

Tactic 2.1: Work with TDOT to formalize the review of TDOT projects by October 1, 2018

Currently, local jurisdictions do not have a formalized way to submit comments on TDOT projects in their communities. The regions should work together to urge TDOT to formalize the review of TDOT projects for local input by October of 2018. By formalizing the process, both TDOT and the jurisdictions will have a common understanding of how locals can register their comments and how TDOT will use local feedback in the decision-making process on state-owned facilities within local boundaries. NCSC recommends that each region's elected leaders write a letter to the Governor and Transportation Commission requesting this process.

Tactic 2.2: Conduct trainings in collaboration with TDOT to familiarize local and regional staff with how to use new guidance

Current plans to roll out the new Multimodal Project Design Guidelines include conducting four internal staff trainings at TDOT regional offices. However, no formalized plan exists to ensure local and regional staff also receive training on the content and application of this new guidance. NCSC recommends the Chattanooga TPO, Nashville Area MPO, and Knoxville Regional TPO collaborate with TDOT to conduct trainings with transportation professionals and decision-makers at local and regional agencies. This could entail inviting local and regional staff to the trainings currently planned for the TDOT regional offices or coordinating with TDOT staff to conduct additional trainings for these professionals.

Tactic 2.3: Revise internal design guidance and project selection processes to coincide with state guidance

NCSC also recommends the Chattanooga TPO, Nashville Area MPO, and Knoxville Regional TPO adopt and/or revise their own internal policies and processes to be compatible with TDOT's Multimodal Project Design Guidelines. This could include updating project selection criteria, design guidance, and project delivery processes to streamline implementation with new state guidance.

Recommendations for the Chattanooga TPO

Goal: Improve staff capacity to implement Complete Streets

Although local agencies have introduced successful multimodal projects, participants in the Consortium Series report cultural barriers to implementation at the local level, including attitudes that Complete Streets is a “bonus” project or a lower priority compared to formally assigned responsibilities. NCSC recommends the following strategies to build staff capacity to implement Complete Streets both by creating new positions for designated multimodal coordinators and by establishing a multi-jurisdictional working group to coordinate regionally on Complete Streets.

Strategy 1: Institutionalize regional coordination on Complete Streets implementation

Bringing together multiple jurisdictions throughout the Chattanooga region for the Complete Streets Consortium Series led to many productive conversations about best practices and ways that communities can share strategies with one another to move their Complete Streets programs forward. NCSC believes the Chattanooga region would benefit from formalizing this regional coordination on Complete Streets implementation moving forward by implementing the following tactics.

“When you’re in the day-to-day, it’s hard to take the time to review other resources and other people’s plans. It was a really helpful reminder that even among our three cities there are a lot of great resources, and we need to take the time to figure out what’s been done and how to incorporate that into our area.”

Tactic 1.1: Establish a multi-jurisdictional working group that reports to the Chattanooga TPO’s Multimodal Advisory Committee to oversee regional coordination of Complete Streets implementation

NCSC recommends the Chattanooga TPO convene a Complete Streets working group that represents multiple jurisdictions and sectors. This working group can draw from the Consortium Series participants as its core group but should also include representatives from a variety of other organizations such as elected bodies, transit agencies, community associations, chambers of commerce, developers, nonprofits and advocates, and local and regional transportation departments. The working group should carry out specific tasks to advance Complete Streets as assigned by the Chattanooga TPO’s Multimodal Advisory Committee at its quarterly meetings. This could include developing local guidance and recommendations based on the Chattanooga TPO’s connectivity study, coordinating trainings on the benefits of Complete Streets and on TDOT’s new Multimodal Project Design Guidance, and identifying successful strategies and best practices in individual jurisdictions that can serve as models for other municipalities throughout the region.

Tactic 1.2: In collaboration with the working group, consolidate and collect data on crashes and transportation infrastructure to inform data-driven planning at the local and regional levels

Another key theme that emerged through discussions was a desire to better incorporate data about multimodal transportation into project prioritization. NCSC recommends that the working group take on responsibility for collaborating with local, regional, and state agencies to update the Chattanooga TPO's facility inventory and pedestrian and bicycle crash data on an annual basis. The working group should also publicize the results of these annual evaluations to help local and regional agencies prioritize multimodal projects where they are most needed to improve safety and fill in missing connections in the walking, biking, and transit network.

Strategy 2: Identify outside champions to advocate for investment in Complete Streets

NCSC recommends collaborating with outside agencies that can help advocate to the state and to the Chattanooga TPO board for additional investment in Complete Streets in terms of both projects and staff capacity. This includes local and statewide advocacy organizations, developers, elected officials, and community members. Specifically, NCSC recommends the following two tactics.

Tactic 2.1: Engage with AARP, the National Association of REALTORS, the Urban Land Institute, and other local and statewide agencies to advocate for funding local bicycle and pedestrian coordinator positions

AARP, the National Association of REALTORS (NAR), and the Urban Land Institute (ULI), among other national agencies with local and statewide chapters, serve as powerful advocates for Complete Streets around the country. These organizations can more effectively sway elected officials to encourage stronger, longer-term financial commitments to Complete Streets.

Tactic 2.2: Provide trainings for developers, elected officials, and community members on the return on investment for Complete Streets and on strategies for implementation

Another route to engage outside stakeholders and promote more investment in Complete Streets is to provide trainings that emphasize the return on investment in Complete Streets in terms of health, safety, economic vitality, and mobility. Emphasizing these benefits can help developers, elected officials, and community members understand the value Complete Streets can bring to their communities and create enthusiasm and demand for more investment in these kinds of projects.

To do this, the TPO could:

- Co-host an event with the local real estate communities, including the local association of REALTORS, the Urban Land Institute and the local home builders association, to create a bidirectional dialogue about the benefits of and how to be active players in creating accessible, sustainable neighborhoods. This even should be tailored to the specific needs of the

community's needs, but could also include findings from Smart Growth America's Fiscal Impact Analysis of Development Patterson prepared for the City of Chattanooga⁴ and the National Complete Streets Coalition's *Safer Streets, Stronger Economies*⁵ report.

- Present to the city council's within the TPO's jurisdiction on the fiscal impacts of development and the return on investment from Complete Streets.

Goal: Support economic development and enhance sense of place throughout the region

Complete Streets can support the Chattanooga region's economic development and placemaking goals by promoting local businesses and creating multimodal connections between the places where people live, work, learn, and shop. However, investing in infrastructure to promote walking and biking, including sidewalks, crosswalks, landscaping, and bike lanes, is only one piece of the puzzle. The following strategy addresses bigger picture questions the Chattanooga TPO should ask to make the most of the economic and placemaking benefits of Complete Streets investments.

Strategy 1: Develop guidance to integrate land use with Complete Street network connectivity

Complete Streets investments are most effective when supported by adjacent land uses and street connectivity. Creating walkable, bikeable places that promote economic development relies not only on availability of safe, comfortable facilities to walk and bike, it also requires a dense, connected transportation network. Shorter block lengths and close, active building façades encourage people to walk and have the added benefit of slowing down drivers. NCSC recommends the Chattanooga TPO employ the following tactics to integrate Complete Streets investments within the broader transportation and land use context of the region.

Tactic 1.1: Conduct a regional connectivity study

Increasing street and path connectivity can reduce travel distances, which is especially important for making walking, biking, and transit viable modes of transportation. Following the first workshop of the Consortium Series, which included a discussion on how land use impacts Complete Streets, the Chattanooga TPO took steps to launch a regional connectivity study of Hamilton County. The study will assess the current level and range of street and path connectivity across Hamilton County, prioritize areas for improving connectivity, and begin to identify potential opportunities for improving connectivity. NCSC recommends the Chattanooga TPO continue this effort and collaborate with Hamilton County and other local jurisdictions to complete this connectivity study. NCSC also recommends the Chattanooga TPO use the results of this study to inform where to prioritize investments in Complete Streets projects and mixed-use development moving forward to maximize economic benefits. Recommendations from the connectivity study should inform current and future initiatives including local and

⁴ <https://smartgrowthamerica.org/app/uploads/2018/06/The-Fiscal-Implications-of-Development-Patterns-Chattanooga-TN.pdf>

⁵ <https://smartgrowthamerica.org/resources/evaluating-complete-streets-projects-a-guide-for-practitioners/>

regional transportation plans, the TPO's community-to-region project selection framework, land use plans, master plans, and zoning code and subdivision regulation updates.

Tactic 1.2: Conduct trainings with municipal staff on how to integrate land use context in Complete Streets design guidance and manuals

Once the Chattanooga TPO completes its regional connectivity study, NCSC recommends the TPO, in collaboration with the multi-jurisdictional working group, hold trainings with municipal staff throughout the region to share the results of the study and discuss the importance of place-based street design. This will include explaining the connections between transportation and land use and highlighting context-sensitive design guidance as a best practice for Complete Streets initiatives. This could include the Chattanooga Complete Streets Manual, currently under development in the City of Chattanooga, which lays out design guidance and street transects by adjacent land use typology. NCSC recommends the Chattanooga TPO work with the city and the working group to finalize this design guidance including vetting the recommendations internally and reviewing them for compatibility with existing context-based Complete Streets initiatives at the regional level, including the community-to-region project selection framework and the county-wide connectivity study.

Recommendations for the Nashville Area MPO

Goal: Incrementally extend pedestrian and transit connectivity between downtown Nashville and the surrounding region

Nashville is experiencing rapid outward growth that puts additional strain on the regional transportation system. Investing in region-wide transit service and first mile/last mile connections to transit is essential to mitigate sprawl and congestion as the region continues to grow. NCSC recommends the following strategies to build support for Complete Streets and promote proactive planning and investment in multimodal connectivity.

Strategy 1: Educate decision makers and implementers on importance of Complete Streets to a growing region

NCSC recommends the Nashville Area MPO conduct trainings with two distinct audiences: elected officials and transportation professionals. These trainings should be tailored to the audience as outlined in the below tactics to build political support for more proactive investment in Complete Streets improvements and to encourage better connectivity between Complete Streets and current and future transit stations.

Tactic 1.1: Conduct presentations on the benefits of Complete Streets for elected officials in surrounding municipalities

The City of Nashville has benefitted from strong leadership from elected officials on Complete Streets, but the Nashville Area MPO has the opportunity to build stronger political support for Complete Streets implementation across the region, particularly in surrounding municipalities, by conducting presentations on the benefits of Complete Streets. These presentations should specifically emphasize the

importance of Complete Streets to mitigate sprawl and congestion as well as promote economic development in a growing region.

Tactic 1.2: Conduct trainings on best practices for first mile/last mile connections for planners and engineers in surrounding municipalities

A specific challenge that emerged through the Nashville case study was lack of safe, pedestrian connections to transit stations, including missing sidewalks and mid-block crossings at major bus stops. NCSC recommends the Nashville Area MPO conduct trainings with planners and engineers throughout the region, particularly in the municipalities surrounding the City of Nashville. These trainings should emphasize the importance of investing in connections for people walking and biking to extend the reach of transit and improve transit ridership. The trainings should also discuss best design practices for first mile/last mile projects.

Strategy 2: Offer resources and technical assistance to direct strategic investment in data-driven multimodal projects and first mile/last mile improvements

NCSC recommends the Nashville Area MPO use the resources at its disposal to take on a more prominent role in supporting local Complete Streets initiatives to build the case for more effective investments in Complete Streets throughout the region and to guide planning efforts. Specifically, NCSC recommends the following actions.

Tactic 2.1: Provide resources and technical assistance to local jurisdictions to support performance measurement for Complete Streets projects

The Nashville Area MPO is a national leader in data-driven transportation planning. For example, the MPO uses the Integrated Transport and Health Impact Modeling Tool (ITHIM) to inform large-scale funding decisions for the region. NCSC recommends the Nashville Area MPO use this expertise and experience to provide technical assistance to its member jurisdictions. This assistance could support performance measurement at the local level by conducting workshops with planners and engineers, reviewing and providing feedback on proposed performance measurements, and assisting with analysis as needed.

Tactic 2.2: Update project selection and funding criteria to prioritize first mile/last mile connections

To ensure the region is making the most of investments in public transit, NCSC also recommends the Nashville Area MPO update its project selection process to incentivize investment in first mile/last mile connections. Specifically, the MPO should prioritize projects that extend the reach of transit by improving safety and multimodal connectivity to current and planned bus and light rail stations. These priorities should be incorporated wherever possible into project selection criteria, calls for projects, and long-term planning efforts throughout the region.

Recommendations for the Knoxville region

Goal: Work with the City of Knoxville to improve coordination across departments and jurisdictions

Over the course of the Consortium Series, staff from various departments at the City of Knoxville and Knoxville Regional TPO engaged in discussions across sectors and jurisdictions. Through these conversations, several common inefficiencies emerged. For example, rather than collaborating on collecting and mapping data, the Knoxville Regional TPO, local police department, and city engineering department all engage in separate, duplicative crash mapping efforts. Additionally, planning and engineering staff within the city both make separate decisions about roadway projects rather than coordinating across departments. As a result of these discussions, the Knoxville cohort set a goal for the City of Knoxville to improve coordination across departments and jurisdictions and has already taken initial steps to achieve this goal. NCSC recommends the following strategies to formalize and supplement these efforts.⁶

Strategy 1: The Knoxville TPO should work with the City of Knoxville to establish a cross-departmental committee to oversee Complete Streets implementation

The participants from the Knoxville Regional TPO and City of Knoxville benefitted greatly from the opportunity to work across silos over the course of the Consortium Series and have continued to meet periodically since the workshops concluded. NCSC recommends evolving these meetings into a formal committee to institutionalize collaboration across sectors and jurisdictions. Additionally, NCSC recommends the committee engage in the following tactics.

Tactic 1.1: Schedule regular meetings with designated representatives from planning, engineering, police, and other related departments to coordinate Complete Streets implementation

The Knoxville Regional TPO should work with the City of Knoxville to help establish a formal Complete Streets committee to share strategies and best practices, as well as serve as an advisory body for Complete Streets implementation across the region. The committee should include representatives from various departments at the City of Knoxville and surrounding jurisdictions, including planning, engineering, law enforcement, public works, and elected officials. It could also include representatives from public health, parks and recreation, housing, economic development, and other departments as appropriate. The committee should also establish a regular, recurring schedule for meetings.

⁶ The Knoxville TPO selected a cohort primarily composed of representatives from the City of Knoxville. Therefore, the recommendations here are directed towards the Knoxville TPO, as the technical assistance recipients, who will work with the City of Knoxville to implement the recommendation.

Tactic 1.2: Coordinate with adjacent jurisdictions and regional agencies to collect performance measures on crashes, displacement, and other performance measures to evaluate Complete Streets

This cross-jurisdictional, cross-disciplinary committee could perform a variety of functions as needed to coordinate implementation across the region. This includes collecting performance measures on crashes on an annual basis as well as serving in an advisory capacity by providing feedback on project selection and regional planning efforts. Additionally, the participants from the Knoxville region in the Consortium Series expressed concern that Complete Streets improvements, as well as implementation of Knoxville's form-based code, could lead to involuntary displacement. To mitigate this, NCSC recommends the committee also develop a strategy to measure displacement, particularly in low-income communities and communities of color, then work with local and regional agencies and community associations as appropriate to track these data before and after projects. This could include conducting surveys in impacted communities, monitoring housing cost increases, or tracking home sales and tenant turnover. Once the committee identifies areas susceptible to involuntary displacement, it should collaborate with community and housing advocates to introduce policies and practices to prevent displacement as projects move forward.

Strategy 2: Revise processes to institutionalize commitment to Complete Streets

Complete Streets implementation in the City of Knoxville and the Knoxville region has benefitted from strong leadership from both elected officials and from city and regional staff. As a matter of practice, the Knoxville Regional TPO routinely considers all users when making decisions about the roadway, but this process is not formally documented. NCSC recommends the following tactics to document and formalize these existing practices to ensure that Complete Streets implementation carries forward in the long term.

Tactic 2.1: Develop and adopt checklists to ensure Complete Streets implementation as a matter of routine in transportation planning and operations

The Knoxville Regional TPO, in collaboration with the Complete Streets committee, should assist the City of Knoxville in an audit of their internal, routine practices, as well as best practices in its member jurisdictions, to record when and how staff currently account for Complete Streets throughout the project planning and delivery process and through routine maintenance and operations. After documenting this information, the committee could review these processes for potential gaps and improvements, then formalize these processes in writing. This could include developing new policies, checklists, decision-trees, project selection or evaluation criteria, and/or project delivery manuals as well as incorporating these processes into existing documents as appropriate.

Tactic 2.2: Work with the City of Knoxville to review, and possibly revise, project selection criteria and design guidance to support Complete Streets implementation

The Knoxville Regional TPO should also work with the city of have the city audit its own existing call for projects and project selection criteria to ensure they prioritize and incentivize Complete Streets objectives using the TPO's recently revised project selection criteria as a model. This could include assigning additional points or weight to projects that include multimodal features or that address gaps in bicycle, pedestrian, and transit networks. Additionally, the TPO, in collaboration with the Complete Streets committee, could compile a list of design guidance in use at the local and regional level and look for opportunities to update or adopt design guidance that supports multimodal projects in a variety of contexts, including downtown, in the suburbs, and in rural areas of the region. The design guidance should also address best practices for providing first mile/last mile connections to public transit stations.

Goal: Increase density to support walkability in the Knoxville region

Investing in Complete Streets infrastructure, including sidewalks, crosswalks, landscaping, and bike lanes, can only go so far to promote active transportation without supportive land use. Specifically, compact, mixed-use is an important aspect of accessibility. The Knoxville region and city have previously launched initiatives to promote density and walkability, including hosting an Active Knox Speaker Series to educate elected officials, business leaders and developers, as well as the general public about the health and economic benefits of compact, walkable places. The city is also in the process of drafting a major update of its code to encourage more compact, mixed-use development moving forward. NCSC recommends the following strategies to further advance these efforts and maximize their effectiveness.

Strategy 1: Support the City of Knoxville's ongoing initiative to adopt a code

The Knoxville Regional TPO has thus far supported the City of Knoxville's initiative to draft and adopt a new code. NCSC recommends the TPO continue to provide guidance for this effort using the following tactics.

Tactic 1.1: Review zoning code specifications to ensure compatibility with Complete Streets principles and objectives

Specifically, the Knoxville TPO should assist the city in working with the Complete Streets committee to make sure the code is consistent with best practices and recommendations to promote walkability by encouraging compact, mixed-use development with active building façades and pedestrian-scale lighting. As part of this review, the Knoxville TPO could also direct its consultants the best practices and award-winning codes highlighted by Smart Growth America's Form-Based Codes Institute (FBCI) to identify opportunities to enhance Knoxville's code.⁷⁻⁹

⁷ <http://fortworthtexas.gov/stockyards/historic-district/fbc-design-guidelines.pdf>

⁸ <http://www.cityofpalmdesert.org/home/showdocument?id=21227>

⁹ <https://ecode360.com/31096422>

Additionally, the TPO could elect to submit Knoxville's code to FBCI for technical review and consideration for awards.

Tactic 1.2: Educate the public on importance and benefits of building compact, mixed-use communities to support Complete Streets

While the public has generally expressed support of walkability as a concept as a result of the Knoxville Regional TPO's and city's collaborative engagement efforts, opposition to high-density housing persists. To overcome these hesitations, NCSC recommends the TPO and the city highlight examples of successful, vibrant mixed-use housing developments, such as The Gulch in Nashville, to help the public envision how these types of land uses could fit into the fabric of the city and region.

Strategy 2: Maximize effectiveness of zoning code implementation by educating various stakeholders on code content and processes

Once Knoxville adopts its code, training various stakeholders who will be impacted by the changes will ensure the code successfully moves forward to implementation. NCSC recommends the Knoxville Regional TPO work with the City of Knoxville and the Complete Streets committee to conduct tailored trainings for the following groups.

Tactic 2.1: Educate transportation and administrative staff on contents of the code and how to properly apply it in public and private projects

City staff from various departments will share primary responsibility for implementing and enforcing Knoxville's new code. The Knoxville Regional TPO should assist the city and the Complete Streets committee to conduct trainings with staff from planning, engineering, public works, and other departments on the content of the code and their role in implementing it. Additionally, the TPO could invite staff from adjacent jurisdictions to participate in these trainings to learn about the benefits and best practices of code so they can emulate similar practices in their own communities and work toward adopting their own code updates as needed.

Tactic 2.2: Educate elected leaders on the importance of the code, including their role in the review process

The Knoxville Regional TPO should work with the city and Complete Streets committee should also educate elected officials on the benefits of the new code as well as their role in the review process for proposed projects. This should include elected officials from the City of Knoxville as well as from adjacent jurisdictions to build political support for adopting code updates throughout the region.

Tactic 2.3: Educate developers on code standards and review processes to maximize transparency and compliance in private projects

Finally, the Knoxville Regional TPO and Complete Streets committee should schedule meetings with developers to familiarize them with the new standards established in the code and their purpose. Lack of transparency and predictability in the review process for private projects is a common frustration for developers and pitfall to implementation when jurisdictions introduce new codes. Proactively collaborating with private developers to discuss the standards and answer

questions will streamline the review process, alleviate developers' frustrations, encourage them to introduce projects that comply with the new standards, and potentially preempt requests for design variances that are counterproductive to the community vision established in the code.

Appendix

Participant list

First name	Last name	Title	Organization
John	Alexander	Alderman	Gallatin City Council and Planning Commission
Eric	Asboe	Public Engagement Coordinator	Chattanooga DOT
Dr. Carol	Berz	City Council Representative, District 6	City of Chattanooga
Beth	Blevins	Healthy Development Coordinator	TN Department of Health
Amanda	Bowers	Community Involvement Coordinator	City of East Ridge
David	Brace	Chief Operating Officer	City of Knoxville
Jeff	Branham	Chief Traffic Engineer	City of Knoxville
Stephanie	Brewer Cook	ADA Coordinator	City of Knoxville
Doug	Burton	Principal Planner	Knoxville Regional TPO
Bill	Cannon	Engineering Coordinator	City of Chattanooga
Rochelle	Carpenter	Senior Policy Analyst	Nashville Area MPO
Ethan	Collier	Chair	Chattanooga-Hamilton County Regional Planning Commission
Sarah	Cook	Transportation Designer	Chattanooga DOT
Joseph	Davidson	Transportation Planner	Northwest Georgia Regional Commission
Ashley	Davies	Healthy Development Coordinator	TN Department of Health
Joe	Deering	Project Development Director	TDOT Region 3
Dawn	Distler	Director of Transit	Knoxville Area Transit
Devin	Doyle	Engineer 1	Metro Nashville Public Works
Nishi	Dsouza	Commissioner's Fellow	TN Department of Health
Dustin	Durham	Intern Architect	East TN Community Design Center
Sara	Elmore	Community Transportation Planner	TDOT Region 2
Lt. Brian	Evans	Traffic Services Coordinator	Knoxville Police Department
Jason	Farmer	Planning Commission Member/Broker	Chattanooga-Hamilton County RPC
Ruth	Gaynor	Senior Engineering Technician	Hamilton County
Cortney	Geary	Senior Multimodal Transportation Planner	Chattanooga-Hamilton County/North Georgia TPO
Jim	Hagerman	Director of Engineering	City of Knoxville
Jeff	Hammond	Director	Nashville DOT
Byron	Head	Transportation Program Monitor	TDOT
Mark	Heinzer	City Transportation Engineer	Chattanooga DOT
Wayon	Hines	City Engineer	City of Collegedale
Sara	Holloway	Healthy Development Coordinator	TN Department of Health
Wesley	Hughen	Project Development Director	TDOT Region 2
Zach	Johnson	Transportation Project Specialist	TDOT Region 2
Jon	Livengood	Alternative Transportation Coordinator	City of Knoxville

Lisa	Maragnano	Executive Director	Chattanooga Area RTA
Whitney	Mason	Bicycle and Pedestrian Coordinator	TDOT
Bill	McCord	Planning Director	City of Gallatin
Scott	Medlin	Project Manager	TDOT Region 2
Leslie	Meehan	Director of Primary Prevention	TN Department of Health
Darrell	Moore	Engineer	Metro Nashville Public Works
Stacy	Morrison	Community Transportation Planner	TDOT Region 2
Ernie	Pierce	Traffic Engineer	City of Knoxville
Andrew	Pieri	Director of Development Services	City of Portland
Cindy	Pionke	Director of Planning & Development	Knox County Engineering & Public Works
Bryan	Price	City Engineer	City of Portland
Philip	Pugliese	Transportation System Planner	Chattanooga Area RTA
Karen	Rennich	Deputy Director/TPO Coordinator	Chattanooga-Hamilton County/North Georgia TPO
Lauren	Rider	City Council Member	Knoxville City Council
Robert	Rodgers	Roadway Specialist Supervisor 2	TDOT Region 2
Jonathan	Russell	Senior Planner	TDOT
Kelley	Segars	Principal Transportation Planner	Knoxville Regional TPO
Jeremy	Sims	CE Manager 2	TDOT Region 2
Randall	Smith	City Manager	City of Red Bank
Albert	Strawther	Municipal-Regional Planning Commissioner	City of Gallatin
Brandon	Sutton	Transportation Design Manager	Chattanooga DOT
Melissa	Taylor	Director of Strategic Long Range Planning	Chattanooga-Hamilton County/North Georgia TPO
Kevin	Teagraden		TDOT
Mike	Thompson	Commissioner's Fellow	TN Department of Health
Nathan	Vatter	Traffic Engineer	TDOT Region 1
Anne	Wallace	Deputy Director of Redevelopment	City of Knoxville
Stacy	Weaver	Civil Engineering Manager	TDOT Region 1
Ethan	White	City Commissioner, Realtor	City of Collegedale
Brice	Wood	Community Planner	Northwest Georgia Regional Commission
Emily	Wood	Principal Planner	CHCRPA Development Services
Belinda	Woodiel- Brill	Director of Communications & Service Development	Knoxville Area Transit
Ellen	Zavisca	Principal Transportation Planner	Knoxville Regional TPO
Abubakr	Ziedan	Transportation System Planning Intern	Chattanooga Area RTA