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Purpose

Pursuant to 23 U.S.C. (i)(5) and 49 U.S.C. 1607, the FHWA and the FTA must certify jointly the metropolitan transportation planning process in Transportation Management Areas (TMAs) at least once every four years. The Winston-Salem Urbanized Area Metropolitan Planning Organization (WSUAMPO) became a TMA, an MPO with a population of at least 200,000 as defined by the United States Census Bureau, with the 2000 decennial census.

Methodology

The review consisted of a desk audit, a public comment session conducted during a Transportation Advisory Committee (TAC) meeting on November 15, 2012, and an on-site review that was conducted November 13 through November 15, 2012. In addition to the formal review, routine oversight, such as attendance at meetings, day-to-day interactions, review of work products, and working with the MPO on past certification review recommendations and corrective actions provide a major source of information upon which to base certification findings. After the on-site review is complete, a report is written to document the findings.

In preparation for the Review, the WSUAMPO and other review participants were provided a survey prepared by FHWA to determine which metropolitan transportation planning areas merited the most discussion.

Statement of Finding

The Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) find that the metropolitan transportation planning process substantially meets Federal requirements and jointly certify the planning process. The review identified noteworthy practices, recommendations, and corrective actions.

Findings

The Federal Review team identified the following corrective actions, noteworthy practices, and recommendations:

Corrective Action:

1. The MPO must demonstrate fiscal constraint of the TIP.
2. As recommended in the 2004 certification review and the 2008 certification review, the MPO has yet to conduct any quantitative analyses in an effort to assess and ensure that the benefits and burdens of its transportation projects and services are equitably distributed. This is despite the future initiative noted in the MPO’s 2008 Environmental Justice Plan, which states that a future initiative of the MPO will be to “Perform travel time studies to determine if there are any inequities for major destinations such as the hospital or key shopping areas.” Although the MPO has conducted qualitative analyses, the MPO must conduct quantitative analyses to ensure that its transportation system does not disproportionately burden minority and low income populations and does not disproportionately benefit non-minority and non-low income populations.

**Noteworthy Practices:**

1. The MPO is to be commended for sponsoring the Piedmont Triad Motor Carriers Survey.

2. The Triad area transportation conformity IC process is working exceptionally well. The WS MPO, the Piedmont Authority for Regional Transportation (PART) and the other State/Federal agency partners are commended for their participation, involvement and due diligence in making this process a success.

3. The MPO is commended on its proactive approach to visualization by developing the video to promote the MTP Update and public involvement process.

4. The MPO is to be commended for its use of Smart Board technology as part of its public outreach effort.

**Recommendations:**

1. It is recommended that the NCDOT provide to the MPO estimates of Federal and State funds available for the metropolitan area on a timely basis for the development of the TIP financial plan.

2. It is recommended that performance measures be included in the Public Involvement Policy (PPP) to help determine its effectiveness.

3. It was noted that the mapping for each of the various EJ populations used different thresholds to depict the distribution of each particular population. While these thresholds (which appear to be determined by default based on the mapping software) may be helpful for internal analysis, they can be a bit misleading visually to the public. This is due to the use of very small thresholds for certain populations, which therefore make those populations look much larger than their actual size in comparison to other
populations. The review team suggested that the MPO specifically select thresholds that visually provide a better comparative picture of each EJ population.

4. It is recommended that the MPO continue to advance its plan to use measured data such as travel time and travel speeds in place of modeled/estimated measures such as level of service (LOS) and volume to capacity ratio (V/C) to measure congestion.

5. It is recommended that the MPO produce biennial evaluation reports as stated in the Congestion Management Process.

6. It is recommended that the MPO coordinate with the FHWA on future updates of the Congestion Management Process.

Certification

The Winston-Salem Urban Area Metropolitan Planning Organization’s planning process is certified for four years from the date of this Report.
Introduction

Purpose

The purpose of the Review is to assess the extent of compliance with the Federal planning requirements, to recognize noteworthy practices, to identify problem areas, and to provide assistance and guidance, as appropriate. The Review consisted of a series of discussions on a variety of transportation planning topics with State and local transportation officials directly involved in highway and transit planning activities of the Metropolitan Planning Organization (MPO). The Review, which was held at the Winston-Salem Department of Transportation in City Hall, included a public involvement meeting on November 15, 2012, to provide the public an opportunity to offer comments on the MPO’s transportation planning process. This report contains the findings and recommendations of the Review Team.

Scope

Pursuant to 23 U.S. C. (i)(5) and 49 U.S.C.1607, the FHWA and the FTA must certify jointly the Federal metropolitan transportation planning process in Transportation Management Areas (TMAs) at least every four years. A TMA is an urbanized area with a population greater than 200,000, as define by the U.S Census Bureau. Certification reviews generally consist of three primary activities: 1), an on-site visit, 2) review of planning products, both prior to, and during the Review, and 3) preparation of a Certification Review Report, which summarizes the Review and contains Findings, including Noteworthy Practices, Recommendations, and Corrective Actions. Certification Reviews address compliance with Federal regulations; and challenges, successes, and experiences of the cooperative relationship between the MPO, State Department of Transportation (DOT), and Transit Operator in the conduct of the continuing, cooperative, and comprehensive (3C) metropolitan planning process. Joint FHWA/FTA certification review guidelines afford agency reviewers flexibility in designing the Review to reflect local issues and circumstances. Consequently, the scope of the Certification Review Reports varies from TMA to TMA.

Methodology

The FHWA North Carolina Division Office and the FTA Region 4 Office conducted a joint Certification Review of the Winston-Salem MPO’s transportation planning process, which included a site visit between November 13th and 15th, 2012. The Review was conducted in accordance with 23 CFR Part 450 and 49 CFR Part 613, which requires FHWA and FTA to review and assess jointly the transportation planning process for all transportation management areas (TMAs) at least once every four years. According to the 2010 Census, the WSUAMPO contains a population of 391,024, which makes it subject to the TMA transportation planning requirements. This is the third Certification Review conducted for this area.

The MPO staff worked with FHWA staff to develop a schedule for the Certification Review process that was compatible with ongoing workloads and the meeting schedules for the TCC and
TAC. A desk audit of the MPO’s planning documents was conducted prior to the on site review. Responses to pertinent questions were provided and reviewed in advance of the review. The preliminary documentation of the MPO’s answers to the questions included in the Certification process was available at all of the usual review locations and on the MPO website. An on line survey was provided to staff at the MPO, North Carolina Department of Transportation (NCDOT), and Federal review team members. Advertisements for the certification review were posted in all newspaper and public service announcement outlets. A public comment period of the MPO’s transportation planning program was held from November 1-30, 2012. A public hearing was held during a TAC meeting as a part of the process for FHWA staff to receive comments on the MPO’s performance.

The topics addressed in this report document the regulatory basis, current status, and findings. These terms are defined below.

**Regulatory Basis** – Defines where information regarding each planning topic can be found in the Code of Federal Regulations (CFR) and/or the United States Code (USC) – the “Planning Regulations” and background information on the planning topic.

**Current Status** – Defines what the Transportation Management Area (TMA) is currently doing with regard to each planning topic.

**Findings** – Statements of fact that define the conditions found during the review which provide the primary basis for determining the corrective actions, recommendations, and/or commendations, if any, for each planning topic.

**Noteworthy Practice** – a process or practice that demonstrates innovative, highly effective procedures for implementing the planning requirements. Elements addressing items that have frequently posed problems nationwide could be cited as commendations. Also, significant improvements and/or resolution of past findings may warrant a commendation.

**Recommendation** – Address technical improvements to processes and procedures that while somewhat less substantial and not regulatory, are still significant enough that FHWA and FTA are hopeful that State and local officials will take action. The expected outcome is change that would improve the process, though there is no Federal mandate, and failure to respond could, but will not necessarily result in a more restrictive certification.

**Corrective Action** – Indicates a serious situation that fails to meet one or more requirements of the transportation planning statutes and regulations, thus seriously impacting the outcome of the overall planning process. The expected outcome is a change that brings the metropolitan planning process into compliance with a planning statute or regulation; failure to respond will likely result in a more restrictive certification.
Team Members

The Federal Review Team consisted of the following individuals:

- Ms. Unwanna Dabney, Planning & Program Development Manager, FHWA NC Division
- Mr. Eddie Dancausse, Air Quality Specialist, FHWA, NC Division
- Ms. Lynise DeVance, Civil Rights Program Manager, FHWA, NC Division
- Mr. Joe Geigle, Congestion Management Engineer, FHWA NC Division
- Ms. Myra Immings, Community Planner, FTA, Region 4
- Mr. Kevin Jones, Planning Intern, FHWA, NE Division
- Mr. Bill Marley, Community Planner, FHWA, NC Division
- Ms. Jill Stark, Community Planner, FHWA, NC Division

Other participants consisted of staff from the Winston-Salem Urban Area MPO, the City of Winston-Salem, and the North Carolina Department of Transportation (NCDOT), including:

- Mr. Andy Bailey, Urban Area Coordinator, NCDOT
- Ms. Margaret Bessette, Transportation Planning Coordinator, City-County Planning Board
- Ms. Connie Curtis, Deputy Director, Winston-Salem DOT
- Mr. Greg Errett, Planning Development Coordinator, Winston-Salem DOT
- Mr. Fredrick Haith, Transportation Engineer, Winston-Salem DOT
- Ms. Toneq’ McCullough, Director, Winston-Salem DOT
- Ms. Wendy Miller, Transportation Planner, Winston-Salem DOT
- Mr. Ryan Newcomb, Transportation Engineer, Winston-Salem DOT
- Mr. Phillip Vereen, North Carolina DOT
- Mr. Kevin Edwards, Transportation Planner, Winston-Salem DOT
- Mr. Matthew Burczyk, Transportation Project Planner, Winston-Salem DOT
- Mr. Art Barnes, Manager, Winston-Salem Transit Authority
- Mr. Scott Rhine, Programs Manager, Piedmont Authority for Regional Transportation
- Ms. Amy Crum, Project Planner, City-County Planning Board
- Mr. Cary Gentry, Meteorologist - Air Quality Specialist, Forsyth County Office of Environmental Assistance and Protection
General Comments

At the beginning of the review, the review team provided a short overview of the Moving Ahead for Progress in the 21st Century (MAP-21) legislation to MPO staff. A power point presentation was shown, which is available at www.fhwa.dot.gov/map21. Emphasis was placed on the performance management report that is due within four years followed by every two years thereafter. This was followed by a question and answer session in which MPO staff asked questions of the review team and offered comments on the federal metropolitan transportation planning requirements and process.

The MPO staff offered a number of comments and observations during the review. The MPO staff would like to know as soon as possible what new performance based planning requirements will be required of them per the MAP-21 legislation. They are concerned about potential cutbacks to PL funding disbursements, and the fact that the State’s Planning Funds (PL) allocation formula has not changed in some time. The MPO appreciates the MAP-21 webinars and the feedback from other MPOs nationally.

The MPO praised the air quality conformity process and the assistance our office provides in this area.

The MPO appreciates the email distribution lists that the FHWA Division office uses.

The MPO commented that the requirement for obtaining new data to meet anticipated MAP-21 performance requirements is at odds with the fact that many data sources such as the U.S. Census American Community Survey (ACS), which was very useful in determining socioeconomic data and planning for boundary expansions, are no longer readily accessible to the public.

The MPO also mentioned that it is pleased at the level of Surface Transportation Program – Direct Allocation (STP-DA) funding.

Winston-Salem Urban Area Metropolitan Planning Organization (WSUAMPO) Background

Current Status

The Winston-Salem MPO TAC includes the following member jurisdictions: Town of Bethania, Town of Bermuda Run, Village of Clemmons, Town of Kernersville, City of King, Town of Lewisville, Town of Midway, Town of Rural Hall, Village of Tobaccoville, Town of Walkertown, Town of Wallburg, City of Winston-Salem, Davidson County, Davie County, Forsyth County, Stokes County, and the North Carolina Department of Transportation. The City of Winston-Salem DOT was formed in 1992, prompted by a lack of coordination between the managers of three previous areas: 1) Transportation Planning, 2) City Traffic Engineering, and 3) the Winston-Salem Transit Authority. The City of Winston-Salem DOT has served as the Lead Planning Agency (LPA) since that time. Prior to that time, the City/County Planning Board
served as the LPA. The Winston-Salem MPO TCC consists of transportation professionals from the member jurisdictions, City/County Planning Board (CCPB), Forsyth County Office of Environmental Assistance and Protection (FCOEAP), Winston-Salem Transit Authority (WSTA), Piedmont Authority for Regional Transportation (PART), Federal and State agencies, Piedmont Triad Regional Council (PTRC), and Smith Reynolds Airport. The TCC reviews materials and forwards recommendations to the TAC for action.

The Memorandum of Understanding (MOU) was last updated in 2008 to include the Town of Midway, comply with the State Open Meetings law, apportion local match for Transportation Planning Funds, and revise the TAC voting structure. In 2013, the MPO will revise its MOU to add to transit agencies as voting members. Other minor changes to the MOU would be incorporated at that time, including changes of names or titles of its membership, new or revised Federal or State legislation affecting transportation planning, or other modifications as needed.

The Winston-Salem MPO is designated as a TMA. The policy board of the MPO is the TAC. Per the MOU signed by all member jurisdictions and the State of North Carolina, the TAC includes voting members and non-voting, advisory members.

Voting members include the following:

- Three elected officials from the City of Winston-Salem, one of whom shall be the Mayor;
- Two elected officials from Forsyth County Board of Commissioners;
- One elected official from each of the following municipalities:
  - Town of Bethania, Town of Bermuda Run, Village of Clemmons, Town of Kernersville, City of King, Town of Lewisville, Town of Midway, Town of Rural Hall, Village of Tobaccoville, Town of Walkertown, and the Town of Wallburg;
  - Municipalities joining the MPO by becoming party to this Agreement and granted voting membership by the TAC;
  - One elected official from each of the following counties: Davidson, Davie, and Stokes, and;
  - One member of the North Carolina Board of Transportation

The MPO acknowledges the MAP-21 requirement for local transit operator(s) to be members of the TAC, and is taking steps to include the Winston-Salem Transit Authority.

The TAC also includes advisory, non-voting members, who represent agencies with an interest in transportation planning for the MPO area. Non-voting, advisory members include the following:

- The Chairman of the City-County Planning Board;
- The Chairman of the Winston-Salem Transit Authority;
- The Division Administrator of the FHWA or his designee;
• The Chairman of the Forsyth County Airport Commission; and
• The Transportation Planning Coordinator of the CCPB, who shall also serve as the TAC Secretary

The MOU designates a TCC to advise the TAC. Per the MOU, the TCC includes a representative, or his/her designee, from each of the following units of government:

• Deputy County Manager, Forsyth County
• Director, Forsyth County Office of Environmental Assistance and Protection (FCOEAP) (formerly Environmental Affairs Department)
• Assistant City Manager for Public Works, City of Winston-Salem
• Director of Transportation, City of Winston-Salem DOT
• Community Planner, North Carolina Division of FHWA
• Urban Area Coordinator, Public Transportation Division, NCDOT
• Division Nine Engineer, NCDOT
• Director, City-County Planning Board
• Planning Development Coordinator, WSDOT
• Transportation Planning Coordinator, CCPB
• The Manager from each of the following municipalities:
  o Town of Bermuda Run, Town of Bethania, Village of Clemmons, Town of Kernersville, City of King, Town of Lewisville, Town of Midway, Town of Rural Hall, Village of Tabaccoville, Town of Walkertown, and the Town of Wallburg; Municipalities added to the MPO
  o The Manager from each of the following counties: Davidson, Davie, and Stokes
• Director, Piedmont Authority for Regional Transportation (PART)
• Planner, Northwest Piedmont Rural Planning Organization (RPO)

The MOU allows for the appointment to the TCC of representatives of major modes of transportation (i.e., trucking firms, railroads, intercity bus, taxi companies, etc.). Currently, the following representatives serve on the TCC:

• Manager of the Winston-Salem Transit Authority (WSTA)
• Airport Director of Smith-Reynolds Airport

Per the MOU, any member jurisdiction may designate an alternate member to serve in the absence of a regular member. For the TAC, such designee shall be an elected official of that unit of government and shall have the same number of votes as the regular member. For the TCC, the designated member may appoint an alternate.

The MOU establishes a combination system of voting for the TAC. Generally, the TAC operates on a one person, one vote system. However, any voting member may invoke the weighted
voting system established in the MOU on any vote. As required by the MOU, a weighted voting schedule is adopted as part of the TAC bylaws. Weighted votes are apportioned based on population as of the most recent decennial census with a minimum of one vote per voting member. The TCC operates on a one person, one vote system at all times.

A quorum is required for the transaction of all business of the TAC, including conducting meetings or hearings, participation in deliberations, or voting upon or otherwise transacting the public business. A quorum consists of fifty-one percent (51%) of the voting members of the TAC, plus as many additional members as may be required to ensure that fifty-one (51%) of the total weighted votes are present. Currently, at least 11 of the 20 members, representing at least 51 of 100 votes, must be present to establish a quorum.

**Metropolitan Planning Area Boundary (MPA)/Census**

**Regulation: 23 CFR 450.312(a):**

The boundaries of a metropolitan planning area (MPA) shall be determined by agreement between the MPO and the Governor. At a minimum, the MPO boundaries shall encompass the entire existing urbanized area (as defined by the Bureau of the Census) plus the contiguous area expected to become urbanized within a 20-year forecast period for the metropolitan transportation plan.

**Regulation: 23 CFR 450.314(a) and (d):**

The MPO, the State, and the public transportation operator(s) shall cooperatively determine their mutual responsibilities in carrying out the metropolitan transportation planning process. The responsibilities shall be clearly identified in a written agreement among the MPO, the State(s) and public transportation operator(s) serving the MPO, and if more than one MPO has been designated to serve an urbanized area, there shall be a written agreement among the MPOs, the State(s) and the public transportation operator(s) describing how the metropolitan transportation planning process will be coordinated to assure the development consistent with metropolitan transportation plans and Transportation Improvement Programs (TIPs) across the MPO boundaries, particularly in cases in which a proposed transportation investment extends across the boundaries of more than one MPA. If any part of the urbanized area is a nonattainment or maintenance area, the agreement also shall include State and local air quality agencies.

**Regulation: 23 CFR 450.321 (a):**

The boundaries of a metropolitan planning area (MPA) shall be determined by agreement between the MPO and the Governor. Art a minimum, the MPO boundaries shall encompass the entire existing urbanized area (as defined by the Bureau of the Census) plus the contiguous area expected to become urbanized within a 20-year forecast period for the metropolitan transportation plan.
Current Status

The Metropolitan Planning Area boundary (MPA), based on the 2000 United States Census, was adopted by the MPO on November 21, 2002, and approved by the Governor on December 15, 2002. The MPA based on the 2010 Census was adopted by the MPO on September 20, 2012, and is awaiting approval by the Governor.

Portions of the Winston-Salem MPO are shared with the adjoining Greensboro and High Point MPOs. Agreements have been made with the Greensboro MPO, but those with the High Point MPO are only verbal at this point. Details, including funding arrangements, are still being negotiated. The MPO is currently negotiating with the adjacent High Point MPO to accept the City of Lexington into its MPA.

Possible future MPA expansions include areas of eastern Yadkin and Surry Counties, as well as additional portions of Stokes County (north of King and Pinnacle and around Walnut Cove), and Davie County (west towards Mocksville and south to Cooleemee). Factors in determining future expansions include population growth, business development, commuting patterns, land use patterns, and arrangements with neighboring MPOs.

No changes in representation of the policy board have been undertaken, other than that the specific number of votes allocated to each locality in the alternate weighted voting structure may be changed. Advisory non-voting representatives of major modes of transportation currently on the Transportation Advisory Committee (TAC) include the Winston-Salem Transit Authority (WSTA) and the Forsyth County Airport Commission. There are no Federal Lands or Indian Tribal lands within the MPA.

The MPO is planning to update its MOA with the adjacent High Point MPO to reflect the area that is shared between the two MPOs. A copy of the MOA used by the Capital Area MPO (Raleigh) and the Durham-Chapel Hill Carrboro (DCHC) is being sent to the MPO.

The City of Lexington became part of the MPO as a result of the latest Census. The Cabarrus-South Rowan MPO, the High Point MPO, and the Winston-Salem MPO have met to agree on boundaries. The City of Lexington and Davidson County agreed to be part of the High Point MPO. The boundary maps were approved by the Winston-Salem MPO in September 2012.

UPWP Development/Regional Planning Agreements

Regulations: 23 CFR 450.308 and 23 CFR 420.111:

Sets forth requirements for each MPO, in cooperation with the State and public transportation operators, to develop a Unified Planning Work Program (UPWP) that documents planning activities, products, funding, roles, and responsibilities, and a timeline for the completion of each activity.
Current Status

The Winston-Salem UPWP is a product of a cooperative approach to development of the region’s transportation program. Most of the work tasks and products in the UPWP are completed on time, despite the changing schedules and priorities of the various Federal, State, and local agencies.

The UPWP development process usually begins in late fall or early winter each year. The member jurisdictions of the MPO are encouraged to identify projects, studies, or work tasks that need to be included in the UPWP for the upcoming fiscal year. The NCDOT Transportation Planning Branch and Public Transportation Division calculate and inform the MPO what Section 104(f) (PL) and Section 5303 transit planning funds are available for programming. The total amount of planning funds plus the required match (typically 20%) are then used in developing a City of Winston-Salem budget for the MPO staff to pay staff salaries and benefits, plus operations charges. The budget is then utilized to identify in general what types and how much work can be accomplished in the fiscal year. The work estimates are developed and reviewed by March. Once the draft UPWP has been reviewed by the member jurisdictions in the MPO, it is sent electronically to NCDOT’s Transportation Planning Branch and Public Transportation Division for review and comment. Any comments or changes are then incorporated into the draft UPWP, and a final UPWP is developed, reviewed, and approved by the TCC and TAC, usually in May. A final letter of approval is then provided to the MPO by NCDOT by July.

Members of the freight, non-motorized transportation, bicycle, pedestrians, and other modal interests are informed of and encouraged to participate in the development of the annual UPWP through their involvement in the MPO’s various subcommittees.

Unified Planning Work Program activities are developed, selected, and prioritized with the input of the MPO member jurisdictions. Staff identifies, selects, and prioritizes the work tasks in the UPWP that need to be and can be accomplished. Planning priorities facing the metropolitan area, and all metropolitan transportation and transportation-related air quality planning activities anticipated within the timeframe (one or two years), are typically included in the required narrative text for each work task.

Activities listed in the UPWP relate to the goals and objectives identified in the MTP via the Prospectus. The UPWP provides for funding of the professional development of the MPO staff through the City budget process, following the City’s policies and procedures.

For the past two years, close to 100% of the PL and Section 5303 funds have been spent. Specialized projects utilizing STP-DA funds are still in various stages of development, and thus have not been completely spent. According to NCDOT’s latest figures, there are some PL funds remaining in the MPO’s account, primarily through increases at the Federal level, or by the reapportionment of PL funds that have not been spent by other MPOs in the state. All of the Section 5303 transit planning funds have been spent, since they do not roll over from year to year. Currently, the MPO’s unobligated PL funds balance is between $100,000 and $200,000.
Agreements and Contracts

Agreements that specify the responsibilities of the State, the MPO, the public transportation operator, and the designated air quality agency are contained in the MOU. The procedures described in the MOU correspond to a genuine 3C process, and the parties to the MOU actually adhere to the process identified in the MOU.

The MOU was last updated in November 2008, with the inclusion of the Town of Wallburg, into the MPO. The MPO will likely update the MOU in 2013 once the revised MPAs are completed as a result of the 2010 United States Census. A minor update to the MOU is anticipated to reflect the changes of names or titles of its membership, any new or revised Federal or State legislation affecting transportation planning, and other modifications as needed.

Roles and responsibilities are defined for development of the MTP, the TIP, the UPWP, conformity-related products, corridor studies, and other major project studies primarily through the adopted Prospectus, UPWP, and MOU as agreed to by various agencies. The MPO conducts its planning process and develops the required plans and documents as it is required to do in those agreements.

Public Transit Planning

Regulation: 49 USC 5303:

It is in the interest of the United States, including its economic interest, to foster the development and revitalization of public transportation systems, in acquiring, constructing, supervising, or inspecting, equipment or a facility for use in public transportation, and to encourage and promote the safe and efficient management, operation, and development of surface transportation systems that will serve the mobility needs of people and freight and foster economic growth and development within and between States and urbanized areas, while minimizing transportation-related fuel consumption and air pollution through metropolitan and statewide transportation planning processes.

Current Status

The Winston-Salem Transit Authority (WSTA) has a fixed route fleet which is comprised of over 50 fixed route buses. Within that fleet, WSTA operates 25 diesel-electric hybrid vehicles. These buses serve 24 day time fixed routes and 7 night time fixed routes in the metropolitan planning area principally within the Winston-Salem metropolitan area. WSTA hours of operation are 5:30 a.m. to 12:00 p.m. Monday through Friday and 6:30 a.m. to 6:30 p.m. Saturdays; Sunday service is currently not provided. Routes service the downtown Clark Campbell Transportation Center located at 100 West 5th Street. Monthly passes and 10-ride passes are available; adult full fare is $1.00 per ride. WSTA currently experiences a 22% fare
box recovery rate. While efforts continue to be made to attract “by choice” riders, WSTA’s riders are currently predominantly transit-dependent riders.

**Regional Commuter Service:** WSTA fixed route service connects with regional service provided by Piedmont Regional Transportation Authority (PART). PART commuter buses connect with WSTA buses at the Clark Campbell Transportation Center. PART uses park and ride lots throughout the Triad (Winston-Salem, High Point, Burlington-Graham, and Greensboro metropolitan areas) to provide service to riders traveling between communities using three discreet bus services (WSTA in Winston-Salem, High Tran in High Point and Greensboro Transit Authority transit (GTA) in Greensboro). In spite of recent (2012) service cuts, current PART commuter service ridership is growing and is expected to continue moderate growth in 2013.

**Trans-AID Para-transit Service:** Complimentary para-transit service is provided by para-transit vans within ¾ mile of fixed route service. Trans-AID accommodates certified-eligible riders with their companions and service animals. Deliberate effort is made to mainstream para-transit eligible riders through education and training programs. The allowable window of performance for pick-up of Trans-AID para-transit riders is forty minutes: 20-minutes prior to the desired pick-up time and 20-minutes after the desired pick-up time).

**MPO/Transit Interactivity Pursuant to Transit Planning:** Transit interests are appropriately addressed in the MTP, UPWP, and TIP development.

The update to the MTP is expected to be delivered to the local MPO board in January 2013, followed by submittal to FHWA with copy to FTA in March 2013. Currently, the MPO leads the effort to update the 2035 Plan.

Conversely, the MPO is included and participates in WSTA short range planning for transit culminating in the Transit Development Plan (TDP). The MPO is involved in the development of the TDP in a secondary role. The TDP is updated every five years.

WSTA and the MPO share planning and FTA grant-making personnel such that a seamless transit planning and grant application process is achieved in Winston-Salem that is atypical of other communities.

Transit is not currently represented in the voting structure of the MPO policy board. The Transportation Advisory Committee is, however, aware of the requirement that transit be represented as a voting member, and is moving to accommodate that change.
**Transit/Transportation Funding:** The MPO and transit operator work together to ensure that FTA funding is appropriately programmed in the TIP/STIP and UPWP. The FTA Section 5303 funding is used by the MPO, and is not passed-through to the WSTA staff. FTA Section 5303 funding is used for general transit planning while FTA Section 5307 funding is used primarily for preventive maintenance (with use for planning limited to planning associated with specific major projects such as the recently completed transit administrative facility).

The Winston-Salem MPO uses FHWA STP-DA funds extensively. STP and Congestion Mitigation Air Quality (CMAQ) funds are routinely passed through to FTA for administration. Effective mechanisms including but not limited to Interagency Consultation Groups (ICG) and Statewide Interagency Consultation Meeting (SICM) are in place for Winston-Salem and other NC TMA coordination; both FTA and FHWA participate regularly in the ICG and SICM processes which examine CMAQ proposed projects in the context of air quality conformity. Differences between FTA and FHWA eligibility criteria pursuant to flexures of Surface Transportation Program capital funds are understood by both the transit operator and the MPO. FTA grant making is undertaken by Ms. Stephanie Poole and supervised by Mr. Art Barnes of WSTA in liaison with Ms. Toneq’ McCullough of City of Winston-Salem Transportation Department in a consistently highly effective and efficient manner.

**Public Involvement for Transit:** Public participation for transit follows the parameters outlined in the current MPO Public Participation Plan and is deemed adequate by FTA, including provisions for addressing needs of Environmental Justice (EJ) at-risk populations, physically-challenged (visually-impaired, hearing-impaired and non-ambulatory) and cognitively-challenged riders. The best outreach vehicle for general planning purposes (such as MTP, UPWP, and TDP development, however, appears to be informal presentations at drop-in meetings as well as going to the public at malls and community events such as athletic events and farmers markets. WSTA and the MPO collect written comments and transcribe orally-input comments into writing, and provide written feedback to each comment as a routine component to their public participation program activities. The transit operator observed that the provision of food, childcare and transportation to meeting is effective in promoting maximum participation; this is consistent with findings throughout the Southeast. The MPO uses an after-action debriefing methodology for effectively evaluating their public participation immediately after occurrence of specific events. FTA requested that the MPO try to expand this qualitative evaluation methodology to incorporate a means of quantification of effectiveness (apart from tabulation of numbers of public involvement/participation meetings, participants, events, etc.). The MPO enjoys robust support from City officials when public endorsement or explanation of the transit operation is needed.
**Transit Marketing:** WSTA bus markings are distinctive and well-designed, providing effective transit branding without use of advertising by means of bus wraps. Hybrid vehicles are marketed by means of distinctive “green” overall painting. Trans-Aid vans are also clearly distinguishable to riders. All vehicles observed by the reviewer were clean and appeared to be in good repair. WSTA uses traditional methods such as advertising on-board buses and printed media, such as general circulation newspapers responsive to English-speaking and Spanish-speaking populations, as a secondary back-up to its more imaginative and engaging public participation efforts. Both the WSTA and MPO websites are complete and informative with respect to transit marketing. Advertising in local motion picture theatres over the upcoming 2012 November-December holiday season were undertaken.

**National Environmental Policy Act (NEPA) Concerns for Transit Projects:** NEPA compliance is not a major hurdle/obstacle for the MPO and/or transit agency. Good cooperation exists between these entities and FTA concerning determination of NEPA Class of Action and processing of documentation to findings by FTA. NEPA documentation is produced both in-house at the MPO and by means of contracted design services in a satisfactory manner. The MPO and transit agency is encouraged to consult with FTA in order to streamline NEPA documentation, bring more NEPA documentation production in-house and thereby lower design contract costs when prudent in the future.

**Transit Association, Metropolitan Planning Association and Transportation University Research Center Interactivity:** Both the transit agency and the MPO participate in both the annual conferences of the North Carolina Public Transportation Association (NCPTA) and the North Carolina Association of Metropolitan Planning Organizations (NCAMPO). Through Mr. Art Barnes’ efforts leading WSTA, Mr. Greg Errett’s efforts at the MPO and the efforts of Ms. Toneq’ McCullough, lead administrator for the City Transportation Department, and others, high levels of interactivity are consistently achieved toward betterment of transit planning in Winston-Salem. The transit agency and MPO collectively participate in North Carolina State University and Institute on Transportation Research and Education (ITRE) activities to good result.

**Federal Training and Information Sources:** The MPO and transit agency participate in National Highway Institute (NHI) and National Transit Institute (NTI) course offerings. The MPO and transit agency report no unmet need in terms of curriculum currently available from NTI and NHI. The transit agency regularly participates in Triennial Review training seminars offered by FTA, and likewise reported no unmet needs in the curriculum established for that training. The MPO and transit agency use FTA online webinar resources such as town hall meetings emanating from Washington and the Transportation Electronic Award and Management (TEAM) system training provided on a quarterly basis.
Recommendations:

1. It is recommended that the NCDOT Public Transit Section provide the MPO an identical project list as that provided by the NCDOT Transportation Planning Branch.

Air Quality

Regulation: 23 CFR 450.322(l):

In nonattainment and maintenance areas for transportation-related pollutants, the MPO, as well as the FHWA and the FTA, must make a conformity determination on any updated or amended transportation plan in accordance with the Clean Air Act and the Environmental Protection Agency (EPA) transportation conformity regulations (40 CFR Part 93).

Regulation: 23 CFR 450.322(e):

The MPO, the State(s), and the public transportation operator(s) shall validate data utilized in preparing other existing modal plans for providing input to the transportation plan.

Current Status

The Triad area transportation conformity Interagency Coordination process is working exceptionally well. The Winston-Salem MPO, the Piedmont Authority for Regional Transportation (PART), and the other State and Federal agency partners are commended for their participation, involvement, and due diligence in making this process a success. PART assists the Triad area transportation partners in the coordination of both the Metropolitan Transportation Plan (MTP) and transportation conformity determinations. PART coordinates the MTP and conformity meetings. They schedule meetings, draft meeting agendas and minutes, draft conformity determination reports, and populate the appendixes. PART also manages the Triad regional model for all of the Triad area MPOs. The Winston-Salem MPO is very diligent and self-starting when it comes to both the preparation and execution of their planning and conformity requirements. They ask the right questions, anticipate roadblocks, and work through problems and issues with minimal involvement or reminders from the Federal and State partners.

The Winston-Salem MPO currently has a conforming 2035 MTP and a 2012-2018 TIP. The United States Department of Transportation (USDOT) made transportation conformity determinations on the Winston-Salem MPO 2035 MTP and the 2012-2018 TIP on December 16, 2011 (for the Particulate Matter (PM2.5) and Carbon Monoxide (CO) standards).

The Winston-Salem MPO 2035 MTP update and transportation conformity determination (PM2.5 and CO) are due on March 6, 2013.
The Triad area (Guilford and Davidson Counties) was designated for the PM 2.5 Standard effective on April 5, 2005 and due to improved air quality monitor readings was designated maintenance on December 19, 2011. This impacted the Winston-Salem MPO because the MPA enters Davidson County.

Work on the Winston-Salem MPO 2035 MTP update and transportation conformity determination is currently underway. The Triad area (including the Winston-Salem MPO) held a kick-off Interagency Consultation (IC) meeting for the transportation conformity process on March 23, 2012, that focused on the 2035 MTP update, transportation conformity schedule and conformity process related tasks to be performed by the WS MPO and the IC agency partners. The WS MPO 2035 LRTP update and conformity determination report is on track to be approved by the USDOT on the March 6, 2013. The Winston-Salem MPO updated their latest planning assumptions in 2008.

**Noteworthy Practice:**

1. The Triad area transportation conformity IC process is working exceptionally well. The WS MPO, the Piedmont Authority for Regional Transportation (PART) and the other State/Federal agency partners are commended for their participation, involvement and due diligence in making this process a success.

**Metropolitan Transportation Plan (MTP)/Planning Factors**

**Regulation: 23 CFR 450.322 and 306:**

Development of a transportation plan addressing no less than a 20-year planning horizon. The transportation plan shall include both long-range and short-range strategies/actions that lead to the development of an integrated multimodal transportation system to facilitate the safe and efficient movement of people and goods in addressing current and future transportation demand. The metropolitan transportation planning process shall be continuous, cooperative, and comprehensive, and provide for consideration and implementation of projects, strategies, and services that will address the 8 planning factors.

**Current Status**

The MTP is supported by a comprehensive and inclusive public involvement effort. The public involvement process complies with Title VI and the Executive Order on Environmental Justice. Public involvement is held during the draft and final review phases of the Transportation Improvement Program (TIP), and in conjunction with the MTP update. Public outreach occurs prior to beginning the update of the MTP, and again during the draft review. Meetings are held in locations that are easily accessible to all populations.

The existing MTP was adopted on January 29, 2009. The draft 2035 MTP Update is currently under review. The concurrence of the MTP Update and the Census designated boundaries forced
the Draft MTP Update to not include these required boundary updates. These boundary updates have since been settled with the adjoining MPOs, and will be accounted for as the MTP Update progresses to adoption.

The MTP is coordinated with the Triad Regional Demand Model for purposes of Air Quality Conformity, and contains horizon years of 2009, 2010, 2012, 2015, 2025, and 2035.

The MPO develops a list of transportation projects and programs through a community-based process with the municipal partners within the planning area. The projects undergo review and prioritization within the MPO, and are submitted to the NCDOT for inclusion in the Strategic Prioritization Process (SPOT) for the 5 and 10 year Work Program, which includes the TIP.

The MTP is based on reasonably expected financial resources over the life of the MTP, and identifies other funding mechanisms where a shortfall exists. The MTP uses the best available data provided by NCDOT projections based on the STIP and other State funding sources. The MPO attempts to anticipate future funding that may be available through new programs such as the Mobility Fund or other public/private opportunities.

With the adoption of the Complete Streets policy by the North Carolina Board of Transportation (BOT) and the incorporation of bicycle and pedestrian accommodations in the road cross-sections, all projects, other than freeways, now have a multi-modal cross-section. There is still work to be done to incorporate bicycle, pedestrian, and transit elements in the projects being built by NCDOT on the urban fringe of the MPO.

NCDOT Statewide Planning, the Division 9 Office, the Winston-Salem Transit Authority, and Piedmont Authority for Regional Transportation have been integrally involved in the evaluation of the existing MTP, and in updating the plans and projects.

**Land Use and Livability**

The MPO strives to integrate land use and transportation planning in a variety of ways. The goals and objectives of the MTP are the same as the goals and objectives of the transportation chapter of *Legacy*, the comprehensive plan adopted by all jurisdictions in Forsyth County. The key component is its Growth Management Plan, which identifies growth areas and growth corridors. Legacy is implemented locally through the small area plan process (all land area in Forsyth County is included in a small area plan area). Each small area plan includes a transportation section and map. Projects already in the MTP and CTP are mapped and factored into land use recommendations. New transportation improvements are identified and incorporated into future transportation plan updates. Land use planners from throughout the MPO participate in development of transportation plans and studies and serve on the TCC and MPO Subcommittees such as the Bicycle and Greenway, and the Sidewalk and Pedestrian Facilities Subcommittees.

The MTP includes an extensive Bicycle and Pedestrian section. The MPO also designates a percentage of federal funding at the MPO level for bicycle and pedestrian projects.
The MPO strives to incorporate bicycle/pedestrian improvements into all TIP projects such as bridge replacement projects, and intersection improvements. They also submit bicycle/pedestrian projects through the Strategic Prioritization on Transportation (SPOT) process for inclusion in the TIP, and set aside a certain amount of federal funding at the MPO level for stand-alone bicycle/pedestrian projects.

The Safe Routes to School (SRTS) program is coordinated with non-motorized planning. Bicycle/pedestrian projects that are near schools receive additional points in the MPO’s ranking process based on whether they are 0.5, 1.0, or 1.5 miles from a school. The highest ranked projects are at the top of the list for receiving federal funding at the MPO level.

Several concepts outside of the traditional transportation planning process are considered, advanced, or supported through the MPO, NCDOT, transit operators, and local jurisdictions. They are listed below.

1) Smart Growth: the Legacy 2030 Plan Update has three themes: a) Fiscal Responsibility, b) Sustainable Growth, and c) Livable Design, which together form the smart growth efforts.

2) Context Sensitive Solutions: the MPO currently utilizes and encourages context sensitive transportation planning. There are specific recommendations in the Legacy Plan Update and the MTP Update related to use of context sensitive approaches.

3) Complete Streets: NCDOT adopted a Complete Streets policy in 2009 and is currently working to implement the policy. The Legacy Plan Update and the MTP Update include recommendations to adopt a complete streets policy and design guidelines. Staff will ask the TAC and local jurisdictions to consider local complete streets policies starting in spring 2013.

4) Transit/Pedestrian-Oriented Development: the Legacy Plan Update includes many recommendations related to transit/pedestrian-oriented development. The MPO chose to add “pedestrian” to the term to make it more palatable and applicable locally. Regulations have been modified, but only minor success in getting local projects to be developed in a transit/pedestrian-oriented manner has been realized. As the economy improves and the pace of development increases, they hope to see more transit/pedestrian-oriented developments.

5) Green Infrastructure: the MPO, the City of Winston-Salem, and Forsyth County all recently adopted the Greenway Plan update. The Winston-Salem/Forsyth County Greenway Planner serves on the Green Infrastructure Working Group of Piedmont Tomorrow, the regional sustainable communities planning project.


The MPO is currently collaborating with the Housing Authority of Winston-Salem (HAWS) on transportation improvements related to the Cleveland Avenue Initiative, a redevelopment of an
area in eastern Winston-Salem, into a mixed-income and mixed use community. The MPO added the City and the County housing departments and the Housing Authority of Winston-Salem to the Resource Agency contact list, and requested review and comment as part of the consultation process, starting in November 2012.

There is an increasing level of local interest by the public and by member jurisdictions about “going green,” and in sustainability. This has had a very positive impact on support for transportation choices, particularly walking, biking, and public transit. The City of Winston-Salem is a Green City. The City hired a Sustainability Director to oversee the City’s sustainability efforts in its own operations. In collaboration with others, the City supports a Sustainability Resource Center to promote and consult on sustainability efforts in the community. The Piedmont Triad Region is currently involved in a Sustainable Communities Planning project branded Piedmont Together. It is funded by a Housing and Urban Development (HUD) Grant and coordinated by regional transportation and planning organizations. Project themes are jobs, housing, and transportation. The goal is to plan a more resilient future for the region. The MPO supports the project by being a consortium member. Many member jurisdictions are also consortium members or process participants.

Freight

The MPO considers and evaluates land use and freight-oriented developments within its metropolitan planning boundary. The involvement of the freight community is an ongoing and collaborative process. The MPO sponsored a Piedmont Triad Motor Carriers Survey in 2010. The survey gave motor carriers an opportunity to help shape the transportation future of the region. Motor carrier personnel with route and highway network knowledge including drivers, route managers, and terminal managers, were encouraged to participate. Between May 13 and June 7, 2010, the Piedmont Roundtable for Logistics and Distribution assisted with the distribution of the Piedmont Triad Motor Carriers Survey. Over 150 invitations were mailed although only twenty-one participants attended, twelve of whom were from the same company. Insofar as the Piedmont Triad region is attempting to become a logistics hub, this survey was timely and productive. The emerging Federal Express hub at Piedmont Triad International Airport, construction of the Heart of the Triad business and industrial park, and the completion of several Interstate loop highways and the I-73/74 Congressionally-designated high priority corridors all support this logistics endeavor.

Coordination between land use plans and future freight-related development needs are addressed through the identification of existing and future industrial collectors as part of a future update of the Collector Street Plan. It requires, through the development process, construction of industrial collectors consistent with plan recommendations.

The MPO does not currently have a process in place to collect traffic data and monitor the system performance and reliability of the regional transportation system with regard to major freight movements. The Piedmont Triad Regional Model Team is formulating a plan to collect traffic data for these purposes.
No freight professional development capacity building or training exercises have been held within the planning area. The MPO has not yet identified freight planning factors.

The MPO hired Piedmont Logistics to write a freight logistics report that was an appendix to the MTP Update. The report identified the opportunity that the Triad region has to become a focal point for freight logistics and infrastructure. It identified key projects to this end.

**Financial Planning**

The MPO’s financial plan is included as an element in the overall MTP. Available financial resources are listed and described in the TIP, and are incorporated into the MTP. New revenue sources for the MTP and TIP are also noted and described. All potential new revenue sources are identified via research through the City’s Budget office, NCDOT’s Program Development and Transportation Planning Branches, Division 9, on the internet, and through interactions with other MPOs around the state and country.

Assumptions and data sources for each revenue source are documented in the financial plan primarily in large spreadsheets and tables with text explaining the assumptions and data sources. A set of financial assumptions and calculations are established that guide the general approach to forecasting future revenues, and are included in the plan. All revenue figures cover consistent timeframes and fiscal years, and consistent dollar values are used and defined.

The MPO consults with both NCDOT and the City’s Engineering Staff to generate the latest project cost estimates. The MPO consults with various NCDOT departments and divisions and the City’s Engineering and Public Works staff to ensure the TIP financial plans within the State are consistent with the STIP. The TIP and STIP are required to match, so they must be consistent with each other. NCDOT provides tables of expenditures by funding categories for the past 20 years or more that assist in preparing conceptual project estimates. Data are adjusted for time (schedule), location, and other project specific conditions on an as needed basis.

Generally, an amount of 10-20% is used for contingencies when estimating a project cost. The MPO uses the TIP conceptual cost estimate in developing the MTP when it is known. Sometimes, similar project types will assist in developing conceptual cost estimates. Usually, when the TIP is being generated, there are comparisons of older estimated figures with current ones. Estimates are sometimes updated when the scope of the project changes significantly, or a significant change in the delivery of the project is anticipated. When new estimates are known, they are updated on an ongoing basis as project development progresses.

NCDOT provides the MPO trend analysis data covering the past 27 years when working in cooperation with the MPO to develop its TIP. Ratios and percentages are applied to base numbers and balanced against project cost estimates.

NCDOT Powell Bill funds have been used for operations and maintenance of the transportation system, and are distributed twice a year.
Environmental Mitigation

For the 2035 MTP, the MPO, in consultation with PART and other Triad MPOs, developed a resource agency contact list that includes agencies responsible for land use management, natural resources, environmental protection, conservation, and historic preservation. The resource agencies were contacted during development of the plan and later when a draft plan was available. All consultations and comments received are summarized. For the 2035 Update, resource agencies were contacted in summer 2012 to update contact, data, and mapping information. The Plan includes mapping with projects and environmental factors and a table with impact areas and potential mitigation measures. As part of the consultation process, resource agencies can review the proposed mitigation measures in the MTP and recommend additional mitigation measures that may be needed.

The Environmental Mitigation Section of the MTP establishes the following sequential mitigation measures: 1) avoidance, 2) minimization, 3) repair/restoration, and 4) reduction over time and compensation. The section also includes a multi-page table that identifies mitigation measures by impact area. Input and comments from resource agencies are used to assess which activities may have the greatest potential to restore, improve, and maintain the environment.

Using mapping and data provided or recommended by the resource agencies, the MPO compiled three Environmental Factors maps to show transportation projects and relevant factors:

1) The Agricultural Factors maps depict Farmland Preservation properties, voluntary agricultural districts, and farmland viability levels;
2) The Natural (previously known as Environmental) Factors map shows rivers, streams, 303D-listed streams, lakes/ponds, floodplains, wetlands, Natural Heritage Areas, and Trust Conservation Properties, Land Managed for Conservation and open space, conservation tax credit properties, and hazardous substances disposal sites;
3) The Cultural Factors Map shows parks, schools, and historic resources

Safety and Security

The safety planning factor is considered in the MPO’s planning process and is applied in a number of ways: 1) as an element of evaluation for street and highway project selection, 2) for traffic calming efforts in neighborhoods, and 3) through the City’s Annual Intersection Safety Report, which identifies and documents efforts to improve the worst intersections.

The City of Winston-Salem and NCDOT work collaboratively in developing safety goals, objectives, performance measures, and strategies for the urban area. The City’s Police Department, Forsyth County Sheriff’s Office, Emergency Management Department, town managers, etc. are also involved. These agencies meet regularly to discuss a variety of issues and concerns regarding safety and security.
The MPO follows the Strategic Highway Safety Plan (SHSP) process closely as funding can be provided through the TIP.

The MPO collects all crash data available from NCDOT as well as from the City of Winston-Salem Police Department. The data collected includes not only vehicular crash data but also those crashes involving bicyclists and pedestrians. The numbers of accidents and their severity are the only basic measures used in the MPO’s planning process in determining whether specific actions or techniques are needed to solve these problems and concerns.

The task “Traffic Accidents” in the annual UPWP regularly programs funds to collect accident data, conduct the necessary analyses, and recommend actions or recommendations. Much of this work is fed into the City’s Annual Traffic Safety Report.

Safety is considered in determining which projects will be included in the MTP and TIP. NCDOT has funds specifically set aside for making safety improvements along roadways such as guardrails, rumble strips, enhanced lighting, turn lanes, better pavement marking and signs, etc. Highway Safety Improvement Program (HSIP) projects located within the MPO are included in the TIP. Most of these projects come from NCDOT and are routinely included in the TIP when project requests are taken.

**Noteworthy Practice:**

1. The MPO is to be commended for sponsoring the Piedmont Triad Motor Carriers Survey.

**Recommendations:**

1. It is recommended that freight professional development capacity building and/or training exercises be held within the planning area.

2. It is recommended that freight planning factors be identified by the MPO.

**STIP/TIP – Development/Approval/Amendment/Project Selection**

**Regulation: 23 CFR 450.324:**

The MPO shall cooperatively develop a TIP that is consistent with the MTP and is financially constrained. The TIP must cover at least a four-year horizon and be updated at least every four years. Additionally, the TIP must list all projects in sufficient detail outlined in the regulations, reflect public involvement, and identify the criteria for prioritizing projects.

**Regulation: 23 CFR 450.332:**

No later than 90 calendar days following the end of the program year, the State, public transportation operator(s), and the MPO shall cooperatively develop and publish a listing of
projects (including investments in pedestrian walkways and bicycle transportation facilities) for which funds under 23 USC or 49 USC Chapter 53 were obligated in the preceding program year.

**Regulation: 23 CFR 450.334:**

Self-certifications and Federal certifications are required for all Metropolitan Planning Areas (MPAs), concurrent with the submittal of the entire proposed TIP to the FHWA and the FTA as part of the STIP approval. The State and TMAs shall certify at least every four years that the metropolitan transportation planning process is being carried out in accordance with all applicable Federal requirements.

**Current Status**

The Winston-Salem MPO TIP is typically developed every two years on a schedule that is compatible with STIP development. The MPO provides a prioritized list of projects to the NCDOT with relevant local data for inclusion in the Strategic Prioritization on Transportation (SPOT) process. The SPOT process involves is a data driven quantitative scoring of projects based on project need, an MPO priority score, and an NCDOT Division priority score. The process focuses on three transportation project types: 1) mobility projects, 2) modernization projects, and 3) safety projects. Last year, the North Carolina State Legislature passed a law requiring each MPO to develop and approve a local prioritization process. The NCDOT SPOT Office is providing oversight of this legislation. The draft STIP is released and the MPO provides a local version of the document for the public’s review using familiar language and street names. Both the NCDOT and the MPO provide opportunities for the public to make comments on the draft STIP/TIP, and public hearings are held.

When the final STIP is released, the TIP must match it. Prior to release of the final STIP, if the TIP does not match the STIP, adjustments to funding and minor time changes may be required. The MPO follows the guidelines of the SPOT process and submits projects that are within the MTP for funding. Point assignments are based on joint consideration of the MPO and Division 9 to maximize the potential for projects to be included in the TIP.

The TIP contains all regionally significant transportation projects regardless of funding source within the five-year STIP Work Plan.

The allocation of STP-DA funds is done exclusively through the MPO with placeholder TIP assignments and amendments to the TIP as needed for different project types such as greenways, bicycle and pedestrian facilities, intersections or small roadway projects, and transit and enhancement projects. Ideally, the STIP matches the time horizons established by the MPO; however, funding priorities of the NCDOT change such as with the new emphasis on bridge and pavement rehabilitation, and the allocation of urban loop funds at the State level. Also, the general lack of funds for sub-regional projects means that many local projects slip into later horizon with each successive STIP. There is a new commitment by NCDOT to provide a higher degree of certainty on project delivery within the first five years of the STIP.
The State DOT and public transit operators provide the MPO with estimates of Federal and State funds available for the metropolitan area; however, there is often a delay in this information. For example, the MPO had to wait for the draft Public Transportation portion of the STIP.

When the MPO produced a new Needs Report as a submission to NCDOT for project incorporation into the STIP, there was public involvement in the process. The MPO has not added any new projects that are not already included in the MTP for several STIP cycles. For projects that are incorporated in the STP-DA project list, a public call for projects and work with the individual municipalities is ongoing and extensive prior to project evaluation and prioritization.

The NCDOT may ask the MPO to modify and/or amend the TIP based on project scope or time changes, and the MPO may modify or amend the TIP for time, project scope, and/or funding changes. The amendment is presented at one meeting of the TAC for information purposes, and is brought back for approval generally at the following meeting. Resolutions and action items are sent to the NCDOT for final approval by the North Carolina Board of Transportation, or vice-versa.

Fiscal constraint of the TIP has been difficult for the MPO. The NCDOT develops the STIP and provides the MPOs with their relevant TIP. With the exception of the STP-DA funds, the NCDOT controls the STIP/TIP program. It was found that the TIP did not include the required financial plan for demonstration of fiscal constraint. The MPO has not demonstrated fiscal constraint of the TIP (23 CFR 450.324(e)), primarily because the NCDOT develops the TIP and gives it to them. The NCDOT Program Development Branch has agreed to work with the MPOs to fulfill this requirement.

**Corrective Action:**

1. The MPO must demonstrate fiscal constraint of the TIP.

**Recommendation:**

1. It is recommended that the NCDOT provide to the MPO estimates of Federal and State funds available for the metropolitan area on a timely basis for the development of the TIP financial plan.

**Public Involvement/Visualization**

**Regulation: 23 CFR 450.316(a):**

The MPO shall develop and use a documented participation plan that defines a process for providing citizens, affected public agencies, representatives of public transportation employees, freight shippers, providers of freight transportation services, private providers of transportation,
representatives of users of public transportation, representatives of users of pedestrian walkways and bicycle transportation facilities, representatives of the disabled, and other interested parties with reasonable opportunities to be involved in the metropolitan transportation planning process.

**Current Status**

The public involvement program, called the Public Participation Policy (PPP), was developed in conjunction with the 2008 MTP and was reviewed by municipal, State, and Federal partners as well as stakeholder groups identified through years of public involvement on plans and projects. The PPP was updated during the spring of 2012 to make the document more user-friendly. The PPP was available for public comment for over 45 days between May 17 and July 2, 2012, with two separate advertisement periods and a public hearing. Public comments received during the public hearing specific to the PPP were incorporated into the document prior to approval on July 19, 2012.

The goals and objectives of the PPP include the following:

- Bring a broad cross-section of the public into the public policy and transportation planning decision-making process
- Make special efforts to increase the opportunities for involvement of groups of citizens who do not generally participate in community affairs, particularly low-income and minority populations
- Provide citizens with opportunities to participate in developing plans and programs for their communities
- Make information on government activities widely available to the public
- Maximize the use of communications technology to facilitate the exchange of information between public officials and citizens, including use of the MPO web site and other electronically accessible formats such as compact diskettes and e-mail
- Ensure that technical information is available in understandable form and that all segments of citizens are afforded access to this information

The MPO’s public involvement program supports participation of traditionally underserved communities through special efforts to provide a day of involvement at the Transit Center and Health Department on the MPO plans. For specific projects, the MPO uses community churches and local venues to provide easier access to information. The MPO will go door to door with informational flyers in both English and Spanish prior to meetings in low income and minority communities. The MPO employs a Spanish language translator to work at public meetings; provides hot line services during public comment periods on the MTP and TIP; and develops Spanish translations of flyers, newsletters, and brochures. The MPO has worked with service providers and minority community leaders to establish the best methods to reach the underserved communities. To assure adequate participation of groups such as low income and minority households, the MPO uses tools such as advisory boards (whose members are either low income
or minority individuals, or represent low income or minority groups), targeted mailing lists, workshops, and public notices in minority or low income targeted media outlets.

The MPO documents its consideration and response to public input. All public comments are responded to, if submitted with return address or email information.

The MPO works closely with the NCDOT when public involvement events are held within the MPO to schedule convenient and appropriate venues. The MPO assists in advertising the meetings and attends all events sponsored by NCDOT.

A three-tier approach was developed for implementing the public participation goals. Some minor items are performed administratively with limited public involvement; these do not require a formal public involvement process outside the regular meeting structure of the MPO. Residents may attend and speak at each TAC meeting upon recognition by the TAC Chair, who may impose a reasonable time limit for speakers.

The effectiveness of public involvement is routinely evaluated. Methods and venues that are successful continue to be a part of the MPO’s ongoing public outreach while activities that generate low turnouts have been minimized. The MPO has found that going where the community is at public functions or events, rather than holding meetings in libraries or town halls, is a more successful way to gather public input. The MPO keeps a record of meeting attendance and takes comments on flip charts or individually to improve in participation and to assist with any limited English or literacy difficulties. Additionally, new methods of reaching the public and underserved populations are brainstormed during each major plan update and involvement period. Feedback on how participants heard about the meeting and the success of the location, time, or material is obtained from the comments taken through public meetings or on-line comments and surveys. Web site hits for pertinent pages are gathered to ascertain how much traffic the online documents receive.

A review of the PPP occurs every three years prior to the update of the MTP. Currently, the PPP does not include specific performance measures. The MPO will benefit from developing performance measures to better gauge the effectiveness of the PPP.

One Planner was assigned to revising the PPP and responding to comments, and a Principal Planner reviewed and revised the updated document. Planning agencies within the municipalities and boards and community groups with an interest in transportation issues such as the Be Healthy Coalition and Forsyth in Motion for the Elderly and Disabled were part of the groups that reviewed the planning documents.

The headline page for the MPO web site, as well as the City of Winston-Salem web site, is where the most current information is displayed. The newsletter, “Moving Times”, is issued at key times to keep citizens and other stakeholders updated on current and upcoming issues involving transportation. Additionally, the Winston-Salem DOT web site is kept up to date with current and upcoming meetings, projects, and events.
The MPO staff works to make the language and concepts in all of its documents more readable and accessible to the public. Glossaries of terms and acronyms are included in all documents and revised continually to include anything new that comes out of Federal and State agencies. MPO staff participates in community activities to promote an understanding of the plans, projects, and programs they work on from Cycling Sunday events, to community fairs and area plan meetings, to setting up at farmer’s markets and stock car races.

Explicit consideration and responsiveness to public and interested parties’ input received during the planning and project development process is provided. Public comments are: 1) acknowledged with a written or emailed receipt message for comments submitted in writing, via email, or through Internet forms; 2) responded to as appropriate, which could include a direct communication to the commenter or a response in the revised document; 3) documented and presented to the MPO’s TCC and TAC in summary form or verbatim before a vote is taken to adopt the plan or document in question; and 4) included in summary form or verbatim with final documentation, if sufficiently succinct.

The MPO’s public involvement process is coordinated with that of NCDOT. The MPO highlights any statewide plans, programs, and workshops that are available for the public. The MPO staff attends all statewide events within a reasonable distance. Information about the statewide programs of importance to the public such as the 2040 State Transportation Plan and the Governor’s Highway Safety Program are included in the appendixes of the MTP document and noted in the text.

**Visualization**

The MPO employs visualization techniques in its public involvement process. Maps, overlays on aerial photography, charts, and photographs of existing sites or similar projects in other parts of the country are routinely used in the MPO documents. Occasionally, visualizations of the future cross-sections have been produced for specific projects. For high profile projects, a model and 3D computer simulations, in addition to graphics before and after images, were produced. When access to the internet is available, the MPO staff will bring the Smart Board to public involvement meetings and show how to access the MPO website, information on the Northern Beltway, and other plans and data are available on line. Extensive use is made of GIS displays and mapping, and conceptual drawings of future transportation scenarios are frequently included in plans. Transportation simulations, such as with Synchro, are sometimes used in analyses. Some initial work has been completed to develop elevation data, which should eventually lead to increased use of 3D models.

The MPO has begun to use creative methods of presenting information through its participation with the Creative Corridors Coalition, a community-based nonprofit organization created to provide a voice and a process for residents of Winston-Salem and Forsyth County, to influence the design and implementation of roadway infrastructure projects in an around the downtown area. The MPO recently provided STP-DA funds to develop images, a physical model, and a
video of the Coalition’s proposed “Twin Arches” bridges to be constructed over US 52 as part of the Salem Creek Connector project.

Provisions for the use of visualization techniques are set forth in the MPO’s public participation plan and include maximizing the use of communications technology to facilitate the exchange of information between public officials and citizens, including use of the MPO’s web site and other electronically accessible formats such as compact disks, email, etc. The plan also ensures that technical information is available in understandable form and that all citizens are afforded access to this information.

The MPO’s Public Participation Policy includes a Visualization Techniques Policy. It states that the MPO shall employ visualization techniques in disseminating information relating to MPO long range transportation plans, TIPs, and other planning programs. The goal of the MPO visualization policy is to help the public and decision makers visualize and interact more effectively with transportation plans and projects, alternatives, large data sets, and land use information. Visualization techniques will vary, and could range from Geographic Information System (GIS) display mapping, and land use/transportation scenario planning tools, to information technology such as three-dimensional digital models, web-based information systems, transportation and urban simulation, and Internet communications.

The MPO makes traditional tables and listings more readable with color annotation and by providing supportive maps, diagrams, and photographs. Maps, tables, charts, diagrams, sketches, photographs, aerial photos, and annotated aerial photos are used as visualization tools in the MPO’s plans, documents, agendas, newsletters, and web site.

The MPO maintains a web site: http://www.cityofws.org/Home/Departments/Transportation/MPO/Articles/MPO that includes administrative information such as rosters, agendas, meeting minutes, bylaws, maps, plans, transportation study/project information, and links to websites, videos, and events. The web site is updated as needed, but at least weekly.

The MPO website does not currently have a searchable project data base, but NCDOT has searchable project options on its website. The MPO is developing a searchable project database that will be available for staff to use in the near future. They have not yet determined whether this database will be made available to the public.

MPO staff has worked with the City’s Marketing and Communications Department to develop public service announcements on bicycle usage and promotion. These announcements have run on City TV 13, on the MPO website, and the City’s You Tube channel and Facebook page. MPO staff recently developed a 30-second video to promote the MTP Update review and public involvement process. The commercial is “tongue and cheek,” using transportation acronym-speak. The video is viewable on You Tube by entering “Winston-Salem 2035 Transportation Plan.” TAC meetings are not currently broadcast.
The MPO uses other media to present information. To promote the review and public involvement process for the MTP Update, they will be running advertisements on movie screens in Winston-Salem.

**Recommendation:**

1. It is recommended that performance measures be included in the Public Involvement Policy (PPP) to help determine its effectiveness.

**Noteworthy Practice:**

1. The MPO is commended on its proactive approach to visualization by developing the video to promote the MTP Update and public involvement process.

**Title VI and Environmental Justice**

**Regulation: 23 CFR 450.316(a)(1)(vii):**

Seeking out and considering the needs of those traditionally underserved by existing transportation systems, such as low-income and minority households, who may face challenges accessing employment and other services.

**Title VI of the Civil Rights Act of 1964:**

No person in the United State shall, on the grounds of race, color or national origin be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance.

**Environmental Justice Executive Order 12898:**

Each Federal agency shall make achieving environment justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations.

**Current Status**

**Demographic Profile**

The Winston-Salem MPO is currently in the process of updating its demographic profile as part of the update to the MTP. Because the update is not yet complete, the demographic profile provided for this review is virtually the same as provided for the 2008 certification review. The 2008 demographic profile is based on 2000 census data and identifies and maps all minority and low income populations by Traffic Analysis Zone (TAZ). The profile also includes overlays of projects dating from 2008 to 2035. Staff stated that the update to the demographic profile will include the identification of Limited English Proficiency (LEP) populations, which has not been
included previously. Staff also added that the MPO will use block groups instead of TAZs as the base unit of geography.

It was noted that the mapping for each of the various EJ populations used different thresholds to depict the distribution of each particular population. While these thresholds (which appear to be determined by default based on the mapping software) may be helpful for internal analysis, they can be a bit misleading visually to the public. This is due to the use of very small thresholds for certain populations which therefore make those populations look much larger than their actual size in comparison to other populations. The review team suggested that the MPO specifically select thresholds that visually provide a better comparative picture of each EJ population.

Similar to the 2008 certification review as well as the 2004 certification review, the MPO still has not yet developed or conducted any quantitative analyses in order to determine the potential impacts of planned projects as well as any potential service inequities on a system wide basis. Per the MPO’s Title VI and Environmental Justice Plan, dated December 2008, page 38, it indicates that a future initiative would be to “Perform travel time studies to determine if there are any inequities for major destinations such as the hospital or key shopping areas.”

Additionally, the Plan states that:

“.. the MPO will consider analyzing the following to determine service equity based on two categories:

**Maintenance**
- Pavement Management System
- Street, sidewalk, and lighting repair Safety Program improvements Percent deficient sidewalk

**New Service**
- Bond project selection process
- Highway vs public transit capital cost
- Percent sidewalk in MLI
- Annual Capital Improvement Program”

So while the MPO has given some thought and consideration to ways it can quantitatively analyze the service equity of its transportation system, it has yet to actually conduct any quantitative analyses. And while the MPO has conducted qualitative analyses, which are very important, the MPO must also conduct quantitative analyses.

Planning Process

As referred to in the previous section, the Winston-Salem MPO has a Title VI and Environmental Justice Plan in place which was developed in 2008. The Plan includes a mission
and policy statement as well compliance and planning process goals. The Plan also contains language for how the MPO will ensure that Title VI and EJ considerations are incorporated in all of the MPO’s planning processes and products including the MTP update, the UPWP, and the TIP. The MPO also considers EJ in its project selection process by including an EJ category to its project ranking table and to the LRTP Street and Highway Table. Overall, the MPO has done a good job of considering EJ in its planning process.

Public Involvement

The MPO employs a variety of methods to actively seek the involvement of minority and low-income populations in the transportation decision making process. The Public Participation Policy, adopted in July 2012, indicates throughout the document the particular efforts that will be used to reach MLI populations as well as disabled persons. The MPO also has an LEP Plan in place which was developed for the Winston-Salem Transit Authority. The MPO also produces a monthly newsletter which it publishes in English and Spanish. One very noteworthy effort of the MPO was the production of a brief video which was shown as a movie trailer at area movie theaters. Overall, the MPO’s public involvement practices have been met with varying success. The MPO must be diligent in its effort to evaluate those practices and to continually make adjustments as necessary.

Corrective Action:

1. As recommended in the 2004 certification review and the 2008 certification review, the MPO has yet to conduct any quantitative analyses in an effort to assess and ensure that the benefits and burdens of its transportation projects and services are equitably distributed. This is despite the future initiative noted in the MPO’s 2008 Environmental Justice Plan, which states that a future initiative of the MPO will be to “Perform travel time studies to determine if there are any inequities for major destinations such as the hospital or key shopping areas.” Although the MPO has conducted qualitative analyses, the MPO must conduct quantitative analyses to ensure that its transportation system does not disproportionately burden minority and low income populations and does not disproportionately benefit non-minority and non-low income populations.

Recommendation:

1. It was noted the mapping for each of the various EJ populations used different thresholds to depict the distribution of each particular population. While these thresholds (which appear to be determined by default based on the mapping software) may be helpful for internal analysis they can be a bit misleading visually to the public. This is due to the use of very small thresholds for certain populations, which therefore make those populations look much larger than their actual size in comparison to other populations. The review team suggested that the MPO specifically select thresholds that visually provide a better comparative picture of each EJ population.
Congestion Management Process (CMP)/Management and Operations (M&O)

**Regulation: 23 CFR 320:**

TMAs shall develop a CMP to address congestion through a process that provides for safe and effective integrated management and operation of the multimodal transportation system, based on a cooperatively developed and implemented metropolitan-wide strategy of new and existing transportation facilities.

**Current Status**

The Winston-Salem MPO’s Congestion Management Process (CMP) follows the 8-Step approach. The recent revision of the CMP for the MTP update resulted in a reorganization of the CMP document to better align with the FHWA CMP Handbook.

The development of the original CMP was a joint effort with NCDOT and other municipalities within the urban area. Since the main congestion issues facing the urban area lie within the City of Winston-Salem on NCDOT roadways, the coordination has been limited to those two and the public transportation providers in the latest update.

The effectiveness of the CMP is evaluated during each biennial report as the progress toward goals is measured, deficient segment data is updated with the latest information, the effectiveness of proposed projects and congestion management strategies is reviewed, and future initiatives are pursued. The CMP is also reevaluated during the MTP update process.

Consideration is given to examining traffic congestion conditions and problems on a regional basis since construction work, crashes, and other incidents along the Interstate highways, other freeways and expressways, and other major roads linking the entire Piedmont Triad in Greensboro and High Point may have impacts on congestion levels within the Winston-Salem MPO boundary, and vice versa.

A Task Force agreed that the CMP should only analyze streets and highways defined as Principal Arterials or higher by the urban area’s Federal Functional Classification system maps provided by NCDOT. Thus, the analysis includes all of the Interstate Highways, Freeways/Expressways, and Other Principal Arterials in the urban area.

The current performance measures in the CMP are Volume to Capacity Ratio (V/C) and Level of Service (LOS). These performance measures provide a generalized analysis of the urban area’s roadway segments and allow for further data collection and analysis if needed. The goals and objectives of the CMP were derived from the goals within the MTP to effectively move vehicular traffic, expand public transportation, and reduce travel demand. The CMP does not currently utilize the regional traffic model or other tools outside of traffic counts and V/C and...
LOS analysis. As such, non-recurring congestion such as events, incidents, or weather are not accounted for in the current CMP.

The major congestion issue in the Winston-Salem Urban Area is vehicular; therefore, the main data source for the CMP is traffic counts. The first step in data collection is the Average Annual Daily Trips (AADT) values provided by NCDOT. If the AADT value and the corresponding V/C ratio show a segment or corridor is congested, additional data collection is called for in the CMP if the segment or corridor contains signalized intersections. In this case, turning movement counts at signalized intersections and travel time/speed studies would be conducted to verify there is an issue on the segment, or to show that level of service values and travel times and speeds are acceptable. This data collection and analysis allows the evaluation of projects and proposed improvements as they are completed during the biennial report process.

The congested locations are all along NCDOT roadways such as Business I-40, US 52, and I-40. Proposed improvements incorporate additional ITS Architecture. In conjunction with the signal system upgrade project, the systems will all be tied to a regional facility for the Piedmont Triad area.

The CMP has influenced the construction and implementation of non-single occupancy vehicle (SOV) projects by engaging the regional and local transit providers in goal-setting and planning in an effort to both expand public transportation options and services, and to reduce travel demand (the intent of expanding public transportation).

As a part of the biennial report, the Strategy Monitoring Table is updated to include proposed project or projects already within the TIP and the related CMP strategies that they are intended to provide to the congested segments. As the projects are completed, the biennial report will include information about the project completion and an evaluation of the segment based on the latest data to determine if the CMP strategies were successful following the project’s completion.

Management and Operation

The MPO’s MTP update includes Operations and Management (O&M) strategies proposed for Federal funding supported by specific goals and measurable objectives. Mechanisms for measuring performance of O&M goals and objectives are being developed as part of the MTP update. Current operating conditions are being assessed to form a baseline as a part of the MTP update.

The Intelligent Transportation Systems (ITS) Regional Architecture contains projects that are consistent with the MTP and are included in the overall planning process. Multimodal approaches such as coordinated signal/bus pre-emption systems, dedicated bus way considerations, and/or Bus Rapid Transit (BRT) projects are being studied as part of the overall traffic signal system upgrade project.

Steps have been taken to ensure that transit operations are discussed on a regular basis in the MPO. WSTA’s operations are reviewed frequently as part of the regular monthly WSTA Board
and staff meetings. WSTA’s transit O&M strategies are being developed through a new strategic plan to improve the performance of existing transportation facilities. This effort is just now beginning. As part of its strategic plan development, it is possible that WSTA will develop a process to track and inform elected officials and the public on progress of the MTP and TIP toward the inclusion and implementation of O&M goals and objectives.

The MTP and TIP do not currently include a documented methodology for assessing the costs associated with maintaining and operating the existing Federal-aid transportation system. The MPO works with NCDOT and the City of Winston-Salem’s Engineering and Streets Department to assess the costs associated with maintaining and operating the existing Federal-aid transportation system.

The MPO region does not currently utilize a Regional Concept for Transportation Operations (RCTO).

**Recommendations:**

1. It is recommended that the MPO continue to advance its plan to use measured data such as travel time and travel speeds in place of modeled/estimated measures such as level of service (LOS) and volume to capacity ratio (V/C) to measure congestion.
2. It is recommended that the MPO produce biennial evaluation reports as stated in the Congestion Management Process.
3. It is recommended that the MPO coordinate with the FHWA on future updates of the Congestion Management Process.

**Consultation and Coordination**

**Regulation: CFR 450.316(b)(c)(d)(e):**

The MPO should develop and document consultation procedures that outline how and when during the development of MTPs and TIPs, the MPO will consult with agencies and officials responsible for other planning activities within the MPA that are affected by transportation (including state and local planned growth, economic development, environmental protection, airport operations, or freight movements) or coordinate its planning process (to the maximum extent practicable) with such planning activities, as well the MPO should also include Indian Tribal Governments, and Federal Public Lands, if applicable.

**Current Status**

The Consultation process for the MTP with the environmental and resource agencies was developed after a FWHA workshop that was held in 2007 to assist MPOs and NCDOT understand the expectation of the consultation process. The MPO worked with its adjacent MPO partners and PART to hold a regional workshop to identify resources and strategies for
notification and consultation with local, State, and Federal agencies. The 2008 MTP was the first effort to develop a comprehensive list of agencies and resource groups to locate data, and create an overlay mapping system to compare MPO projects to identify natural, cultural, and agricultural resources, as well as hazardous conditions. The regional partners worked together to share information and mapping.

Agency consultation is obtained at key decision points in the planning and programming phases of transportation decision-making. The Forsyth County Office of Environmental Assistance and Protection, the Historic Resources Commission, the Division of Air Quality of the North Carolina Department of Environment and Natural Resources, EPA, and all agencies that are consulted during Environmental Assessments (EAs) and NEPA projects are involved during the planning and development of MPO projects.

Agencies are informed by email and personal telephone calls when documents are in the draft or review state, or the agencies are part of the MPO continuous consultation and notification process through the bi-monthly TCC/TAC packets.

Financial and personnel resources are devoted to implementing the consultation process. The GIS planner, the Principal Planner acting as the liaison to the MPO, and other key staff assist as needed with consultation. For Air Quality purposes, the Civil Engineer, Principal Planner, modeler, the Deputy Director at PART, and meteorologists with the Forsyth County Office of Environmental Assistance and Protection all work together on the conformity analysis and determinations.

Air Quality Conformity consultation is a direct feedback with questions posed by the environmental agencies and responses provided by the MPO with corrections to either the TIP or MTP documents, or further explanation of the discrepancies in language between the two documents. The response and coordination between the planning and design phase is iterative in the development of projects. All comments and responses become public record within the environmental documents and assist the MPO in refining its process. The MTP relies on the input of the environmental agencies to update the document with current data, policies, rulemaking, and other issues that may affect or conflict with the content and meaning of the plan.

The Statewide Interagency Consultation Meetings (SICM), as well as the TIP and MTP specific Interagency Consultation meetings held monthly during plan development and review, are well coordinated at the Federal, State, regional, and MPO levels. This process has been very successful in creating a team effort in working through the requirements of Air Quality Conformity. The MTP coordination on other natural and cultural resources is accomplished during the preliminary and draft reviews of the document.

Visualization techniques are used to assist agencies in understanding the transportation plan elements. The overlay maps incorporate all the projects within the time horizons of the MTP and show which resources may be affected by the projects. Any project which has multiple resources within the general corridor or alignment will be noted as having an environmental component in
the project listing table. The overlays are at such a large scale that anything more concrete
would be jointly identified during that process by the resource agencies, NCDOT, and the MPO.
For local projects, the MPO has sponsored historic resource surveys in Forsyth County with the
joint use of identifying properties prior to project alternative selection, and to assist the City-
County Planning Board by providing the resources to inventory and evaluate historic resources
before they are lost.

Smart Board technology is used extensively during public meetings as a part of the MPO’s
public outreach effort. This has proven to be an effective means of obtaining public input and
answering questions of the public.

The MTP is compared with State conservation plans and maps, and with inventories of natural
and historic resources. The MTP projects are overlaid on the mapping of natural and historic
resources culled from numerous sources on the NCOneMap and other agency shared GIS files.

**Noteworthy Practice:**

1. The MPO is to be commended for its use of Smart Board technology as part of its
   public outreach effort.

**Action Plan**

The Federal Highway Administration (FHWA) North Carolina Division Office will work with
the Winston-Salem Metropolitan Planning Organization (MPO) and the North Carolina
Department of Transportation (NCDOT) to address corrective actions and recommendations
identified in this Report.
Appendix A

Certification Review Agenda

**Tuesday, November 13, 2012**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
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<tbody>
<tr>
<td>9:30 – 9:45</td>
<td>Introductions and Purpose of Certification Review</td>
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<tr>
<td>9:45 – 10:45</td>
<td>General Comments and Feedback Regarding the Planning Process</td>
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<tr>
<td>10:45 – 11:15</td>
<td>MAP-21 Overview *</td>
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<td>11:15 – 11:45</td>
<td>Study Organization</td>
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<td>Agreements and Contracts</td>
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<td>Metropolitan Area Boundary (MAB)</td>
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<td>11:45 – 12:45</td>
<td>Lunch</td>
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<tr>
<td>12:45 – 1:45</td>
<td>Metropolitan Transportation Plan (MTP)</td>
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<td>• Environmental Mitigation</td>
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<td>• Financial Planning</td>
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<td>• Bicycle and Pedestrian</td>
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<td>• Freight</td>
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<td>• Livability/Sustainable Communities</td>
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<tr>
<td>1:45 – 2:45</td>
<td>TIP</td>
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<td></td>
<td>• Approval</td>
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<td>• Amendments</td>
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<td>• Project Selection</td>
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<td></td>
<td>• Financial Planning</td>
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<tr>
<td>2:45 – 3:00</td>
<td>Break</td>
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<tr>
<td>3:00 – 5:00</td>
<td>Public Transit</td>
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*Aspects of MAP-21, Public Transit, and Consultation and Coordination will be discussed as appropriate throughout the Review*
Wednesday, November 14, 2012

9:30 – 10:15  Intelligent Transportation Systems (ITS)
  • Management and Operations
  • Congestion Management Program (CMP)
  • Safety and Security

10:15 – 10:45  Planning Factors

10:45 – 11:00  Break

11:00 – 11:30  Travel Demand Models

11:30 – 12:45  Lunch

12:45 – 1:00  Self-Certification

1:00 – 1:30  Air Quality

1:30 – 2:00  FHWA/FTA Review Team Meeting

2:00 – 2:30  Presentation of Preliminary Findings

2:30 – 3:30  Break

3:30 – 4:45  Public Involvement and Outreach
  • Title VI and Related Requirements
  • Visualization

Thursday, November 15, 2012

9:30 – 12:00  Available 15-30 minute appointments for TAC members to meet with FHWA/FTA

12:00 – 1:00  Lunch

2:00 – 3:30  TCC Meeting

3:30 – 4:15  Break

4:15 – 5:30  TAC Meeting, including Public Hearing
Appendix B

Review Findings

Corrective Action:

1. The MPO must demonstrate fiscal constraint of the TIP.

2. As recommended in the 2004 certification review and the 2008 certification review, the MPO has yet to conduct any quantitative analyses in an effort to assess and ensure that the benefits and burdens of its transportation projects and services are equitably distributed. This is despite the future initiative noted in the MPO’s 2008 Environmental Justice Plan, which states that a future initiative of the MPO will be to “Perform travel time studies to determine if there are any inequities for major destinations such as the hospital or key shopping areas.” Although the MPO has conducted qualitative analyses, the MPO must conduct quantitative analyses to ensure that its transportation system does not disproportionately burden minority and low income populations and does not disproportionately benefit non-minority and non-low income populations.

Noteworthy Practices:

1. The MPO is to be commended for sponsoring the Piedmont Triad Motor Carriers Survey.
2. The Triad area transportation conformity IC process is working exceptionally well. The WS MPO, the Piedmont Authority for Regional Transportation (PART) and the other State/Federal agency partners are commended for their participation, involvement and due diligence in making this process a success.

3. The MPO is commended on its proactive approach to visualization by developing the video to promote the MTP Update and public involvement process.

4. The MPO is to be commended on its use of Smart Board technology as part of its public outreach effort.

Recommendations:

1. It is recommended that the NCDOT provide to the MPO estimates of Federal and State funds available for the metropolitan area on a timely basis for the development of the TIP financial plan.
2. It is recommended that performance measures be included in the Public Involvement Process (PPP) to help determine its effectiveness.

3. It was noted that the mapping for each of the various EJ populations used different thresholds to depict the distribution of each particular population. While these thresholds (which appear to be determined by default based on the mapping software) may be helpful for internal analysis, they can be a bit misleading visually to the public. This is due to the use of very small thresholds for certain populations, which therefore make those populations look much larger than their actual size in comparison to other populations. The review team suggested that the MPO specifically select thresholds that visually provide a better comparative picture of each EJ population.

4. It is recommended that the MPO continue to advance its plan to use measured data such as travel time and travel speeds in place of modeled/estimated measures such as level of service (LOS) and volume to capacity ratio (V/C) to measure congestion.

5. It is recommended that the MPO produce biennial evaluation reports as stated in the Congestion Management Process.

6. It is recommended that the MPO coordinate with the FHWA on future updates of the Congestion Management Process.
Appendix C

Public Notices
ANNOUNCEMENT OF PROPOSED REVISIONS TO THE 2014 INDIANA HIGHWAY PERFORMANCE MEASURES DRAFT

This is to announce the availability of the Proposed Revisions of the Indiana Highway Performance Measures (HPMs). The purpose of this document is to provide the public with an opportunity to review and comment on the proposed revisions.

The proposed revisions include changes to the performance measures used to evaluate the state’s highway system. These changes are intended to improve the accuracy and relevance of the measures.

The proposed revisions are available for public review and comment until November 30, 2012. Comments should be submitted in writing to the Indiana Department of Transportation, Attention: Transportation Planning, 200 West Washington Street, Indianapolis, IN 46204. Comments may also be submitted electronically to transportationplanning@indiana.gov.

The proposed revisions will be considered in the development of the final Indiana highway performance measures.

Transportation Planning

November 8, 2012

Approval of Publication

[Signature]
We’re certified
(and we want to stay that way)

The Federal Highway Administration, the Federal Transit Administration and the Environmental Protection Agency want your opinion on whether transportation planning here is continuing, cooperative and comprehensive.

It’s part of a periodic certification of transportation planning and procedures in Winston-Salem, Forsyth County, and the surrounding area, including King, Bermuda Run, and portions of Davie, Davidson and Stokes counties.

If you live in these areas, we encourage you to attend a public meeting at 4:15 p.m., Thursday, Nov. 15 in the Stuart Municipal Building, 100 E. First St., Room 530 in Winston-Salem.*

You may also submit written comments by 5 p.m., Dec. 7.
By mail: Greg Emett, City of Winston-Salem DOT, P.O. Box 2511, Winston-Salem, NC 27102
By fax: (336) 748-3370
By e-mail: gregemett@ci.winston-salem.nc.us

* Persons needing special provisions to attend the meeting should contact Greg Emett at the address listed at least 48 hours in advance.

Questions? 747-6871

Winston-Salem
Appendix D

Public Comments

From: Sherrie McCall [mailto:smccall81@yahoo.com]
Sent: Monday, November 19, 2012 9:36AM
To: Gregory Errett
Cc: mledbetter@villageofclemmons.org; jboast@villageofclemmons.org; mshaffner@ncdot.gov; jgreene@wsjournal.com
Subject: FHA, FTA, EPA OPINION for December 7 Deadline

Dear Mr. Errett,

I would like to suggest that the WSTA extend their existing bus route on Country Club Road to the west in order to serve the Lewisville and Clemmons communities. My suggestion involves a route that would travel west on Country Club Road to south on Styers Ferry Road, continuing south on Lewisville-Clemmons Road to US Hwy 158 (Clemmons Road), then head back to the east on US 158 toward Hanes Mall Boulevard, then west on Hanes Mall Boulevard to north on Jonestown Road, to west on Country Club Road near the current terminus of route 12.

This proposed route would increase opportunities for the elderly, children under the age of 16 without driver's licenses, and single parents as well as families with only one vehicle to have transportation from the Lewisville and Clemmons areas to the many businesses, medical and shopping centers, entertainment venues and Hanes Mall, which this route would serve. This route would help veterans travel to their appointments, increase volunteer opportunities and reduce unemployment in Forsyth County.

Perhaps there is a possibility that funding which has already been received by the Village of Clemmons for their sidewalk from Town Hall to the Yadkin River could be redirected to a purpose which would serve a much higher percentage of the population and reduce commuter traffic on US 421, Lewisville-Clemmons Road and US Hwy 158. (Seriously, is anyone going to actually walk to Tanglewood?)

If this needs to be a P.A.R.T. route, so be it. I think comprehensive transportation needs are greater than having more residents "going around in circles" at all the new roundabouts.

I regret missing the public meeting at 4:15 on November 15 due to prolonged repairs on my vandalized vehicle, so please make my suggestions known to the Federal Highway Administration, the Federal Transit Administration, and the Environmental Protection Agency, as well as the Piedmont Area Regional Transit Authority.

Sincerely,

Sherrie A McCall
Appendix E

Glossary of Acronyms

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AADT</td>
<td>Average Annual Daily Trips</td>
</tr>
<tr>
<td>ADA</td>
<td>Americans with Disabilities Act</td>
</tr>
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<td>Housing and Urban Development</td>
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<td>Interagency Consultation Group</td>
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<td>Institute on Transportation Research and Education</td>
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<td>ITS</td>
<td>Intelligent Transportation Systems</td>
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<td>JARC</td>
<td>Job Access Reverse Commute</td>
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<td>LEP</td>
<td>Limited English Proficiency</td>
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<td>LOS</td>
<td>Level of Service</td>
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<td>Moving Ahead for Progress in the 21st Century Act</td>
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<td>NCDENR</td>
<td>North Carolina Department of Environment and Natural Resources</td>
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</tbody>
</table>
NCDOT - North Carolina Department of Transportation
NCPTA - North Carolina Public Transportation Association
NEPA - National Environmental Policy Act
NHI - National Highway Institute
NTI - National Transit Institute
PART - Piedmont Authority for Regional Transportation
PEA - Planning Emphasis Area
PIP - Public Involvement Policy
PL - Planning Funds
PM - Particulate Matter
PNR - Park-n-Ride Lot
PPD - Planning and Program Development
PPP - Public Participation Policy
PTRC - Piedmont Triad Regional Council
RCTO - Regional Concept for Transportation Operations
RPO - Rural Planning Organization
RTDM - Regional Travel Demand Model
SHSP - Strategic Highway Safety Plan
SICM - Statewide Interagency Consultation Meeting
SIP - State Implementation Plan
SPOT - Strategic Prioritization on Transportation
SRTS - Safe Routes to School Program
STIP - State Transportation Improvement Program
STP-DA - Surface Transportation Program – Direct Allocation
TAC - Transportation Advisory Committee
TAZ - Traffic Analysis Zone
TCC - Technical Coordinating Committee
TEAM - Transportation Electronic Award and Management
TIP - Transportation Improvement Program
TMA - Transportation Management Area
TPB - Transportation Planning Branch
TRB - Transportation Research Board
UDO - Unified Development Ordinance
UPWP - Unified Planning Work Program
USC - United States Code
USDOT - United States Department of Transportation
UZA - Urbanized Area
V/C Ratio - Volume to Capacity Ratio
WSDOT - Winston-Salem Department of Transportation
WSTA - Winston-Salem Transit Authority
WSUAMPO - Winston-Salem Urban Area Metropolitan Planning Organization