



## MEMORANDUM

### RTTAC Modeling Subcommittee August 4, 2008 Meeting Minutes

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**Date:** August 14, 2008 Project #: 9338.0  
**To:** Wilson Fernandez, RTTAC Modeling Subcommittee Chair  
**From:** Jessica Josselyn, Kittelson & Associates, Inc.  
John Zegeer, PE, Kittelson & Associates, Inc.  
Rob Schiffer, Cambridge Systematics

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The following is a summary of the RTTAC Modeling Subcommittee meeting held on August 4, 2008. Meeting handouts may be found in Attachment A.

#### MEETING TIME AND LOCATION

Florida Department of Transportation, District IV  
First Floor Administration Conference Room  
Fort Lauderdale, Florida

#### MEETING ATTENDEES

1. Ashutosh Kumar, AECOM Consult
2. David Schmitt, AECOM Consult
3. Sung-Ryong Han, BCC Engineering
4. Ed Sirianni, Broward County MPO
5. Lina Kulikowski, Broward County MPO
6. Ossama Al Aschkar, Broward County MPO
7. Rob Schiffer, Cambridge Systematics, Inc.
8. Dan Glickman, Citizen
9. Yongqiang Wu, FDOT Central Office
10. Min-Tang Li, FDOT D4
11. Shi-Chang Li, FDOT D4
12. Phil Steinmiller, FDOT D6
13. Franco Saraceno, Gannett Fleming
14. Myung Sung, Gannett Fleming
15. Kapil Arya, Gannett Fleming
16. Jessica Josselyn, Kittelson & Associates, Inc.
17. John Zegeer, Kittelson & Associates, Inc.
18. Scot Leftwich, Leftwich
19. Arturo Perez, Leftwich
20. Carlos Roa, Miami-Dade MPO
21. Larry Foutz, Miami-Dade MPO
22. Wilson Fernandez, Miami-Dade MPO

23. Nellie Fernandez, Palm Beach MPO
24. Paul Larsen, Palm Beach MPO
25. Vinod Somdanasamy, Palm Beach MPO
26. Srin Varanasi, The Corradino Group
27. Sandeep Obulaveddy, The Corradino Group
28. Sunil Saha, The Corradino Group

## MEETING NOTES

Below is a summary of the key points discussed at the meeting. The comments have been organized by agenda topic.

### I. Call to Order and Introductions

Wilson Fernandez introduced the first RTTAC Modeling Subcommittee meeting.

### II. Socio-Economic Data

Rob Schiffer presented a summary and comparison of socio-economic data received from the three counties. Palm Beach County is concerned with the school file data because the school board does not forecast school locations beyond the year 2015. Thus, the MPO had previously assumed the location of future schools (at 1500 students per school) based on population growth and the availability of vacant land. There could be a 60,000 school student shortfall in the 2035 model if a methodology is not selected for locating new schools. Unless the MPO is aware of plans for the construction of a private school, they do not assume the construction of additional schools. Paul Larsen plans to carry over the school location data that was used for the 2030 plan for the 2035 plan. The assumption used in Broward County considered the school children population by zone in identifying new school locations. **Paul Larsen will make some revisions to the Palm Beach County socioeconomic data (including schools) and submit these revisions to Rob Schiffer this week.**

It is anticipated that a large area around Belle Glade, South Bay, and Pahokee will be purchased by the state from US Sugar. This could result in the loss of 10,000 jobs in the western part of Palm Beach County, resulting in the need for a double set of socio-economic data for projecting growth. Shi-Chiang Li suggested that this second set of data be used for comparison purposes when alternative transportation improvements are being evaluated. Wilson Fernandez suggested that one baseline data set be established for regional coordination and that alternative data sets be used by the individual counties for their own analysis of alternative improvements. Ossama Al-Aschkar said that data that he has submitted for Broward County reflects the existing approved land use plan. Miami-Dade County was told by FHWA to use what the MPO knows today.

**Miami-Dade County auto ownership rate data will be reviewed next week. Revisions will be made and submitted within two weeks.**

### III. 2035 External Trips

Min-Tang and Srin (Corradino Group) prepared 2035 external trip forecasts (E-I, I-E, and E-E trips) based on extrapolating count trends at external stations. These trips were developed using existing growth factors. Two corrections were made: First, the existing model has an error at the SR A1A station in Palm Beach County. The external trip forecasts at this location were revised. Second, at SR 710 (Beeline Highway), a PD&E study projected a 2030 volume that is different from the historic counts. The PD&E projection was used. Rob Schiffer described an independent assessment by Cambridge Systematics staff and found generally similar results overall.

Ossama Al-Aschkar is concerned about the external loading on I-75 west into Collier County. The growth rate appears to be high. In addition, the U.S. 1 increase from 23,000 to over 40,000 south of Miami-Dade County into Monroe County appears to be high and the percentage of E-E trips appears to be high as well. **The Corradino Group will recheck and adjust both of these projections.** Rob Schiffer looked at these two stations and found the suggested 2035 forecast was somewhat higher than the latest traffic count extrapolations from the FDOT CD as calculated by Cambridge Systematics staff. Shi-Chiang Li asked if there was a solution (an alternative methodology) for resolving these two discrepancies. Phil Steinmiller suggested a methodology based on revised count trend analyses (e.g., different number of years, different current year, different count station, etc.) to resolve the US 1 issue into Monroe County. Ossama Al-Aschkar suggested that one paragraph be prepared for each external count station to document the methodology that was used to project future external station traffic. **Srin, Min-Tang, and Rob Schiffer will take another look at the growth trends for each external station and report back to this group by August 11<sup>th</sup>.**

### IV. E+C Project Review and Network Coding Specifications

Jessica thanked the three counties for submitting E+C project data. For Palm Beach County, there are no new transit projects proposed other than the east-west corridor project planned for the year 2013. (The years 2008 – 2013 represent committed projects for the E+C network.) Transit routes are being cut due to budget limitations.

In Broward County, the US 1 bypass inside Port Everglades is not in the TIP. It is not funded. Thus, this project will not be included in the E+C network. **More detail is needed for the I-595 committed projects. FDOT District 4 will provide this additional project description information.** These projects will include reversible lanes and ramp braiding. **Ossama Al-Aschkar will provide Broward County bus route information to KAI by the end of the week.**

In Miami-Dade County, there are some roadway grade-separations and transit BRT projects. For the grade-separations, Carlos Roa will provide a sheet that describes the geometric improvements as a back-up to the E+C network. The SR 826/SR 836 interchange configuration needs to be described for the E+C network.

For BRT routes that operate in mixed-flow conditions with traffic signal priority, the one-mile station spacing on the State Road 7 Breeze service has provided a reduction in travel time by about 25% as compared with local bus service. BRT service could be coded as "local bus" with improved headways or coded as a BRT mode with limited-stop service (with improved travel times). Transit service levels on the E+C network must be based on input from the transit agencies as to the cuts in service that are anticipated.

In late August, FDOT District 4 will begin coding the E+C network. **All E+C projects need to be specified by the counties and submitted to District 4 by August 18<sup>th</sup>.** Larry Foutz cannot guess what other Miami-Dade transit services will be eliminated beyond the service cuts that already have been implemented. By 2013, some of the existing transit service cuts may be restored. Paul Larsen suggested that if a transit agency has reduced service by resolution as of today, then that service should not be reflected in the E+C network. Phil Steinmiller agreed that existing agency cuts should be reflected in the E+C network. He anticipates that the decrease in transit ridership may not be as great as the reduction in service because the least-efficient routes are being reduced or eliminated. The group unanimously agreed that the transit service as it is currently will be used for the E+C network and should any changes occur the E+C network will be amended in 2009 when the updated TIP is adopted.

The 2005 (baseline conditions) model is completed. **The Corradino Group will provide E+C transit project coding (in the form of a set of tables) information to the three counties to confirm its accuracy.**

Shi-Chiang Li raised an issue regarding how to code a posted speed based on the number of lanes and the facility type for a roadway. The signal locations are also important in determining the proper speed to be coded. When a link volume is underreported in model output, this needs to be documented. When links have underreported volumes, the volumes might need to be adjusted "subjectively." All of the posted speeds for the E+C network need to be reviewed by the three counties. **It was agreed that by August 18<sup>th</sup>, The Corradino Group/D4/KAI will receive posted speed assumptions from each of the three counties for the E+C network.**

#### V. **TOD model for Managed Lanes**

Sunil presented a description of the HOT lanes concept. As demand increases, the toll rate increases. SERPM65 is a time-of-day (TOD) model that implements the HOT lanes. Vehicle occupancy (two persons per auto or 3+ persons per auto) is treated as a separate mode. The model uses separate facilities for the HOT lanes – distinguished from General Purpose lanes in the same corridor. It was suggested that the Corradino Group consider data from the State Route 91 Managed Lanes project in Orange County, California to validate the relationship between v/c ratios and speeds. Corradino did not review the Wilbur Smith I-95 revenue studies. The Wilbur Smith toll rates should be used for the SERPM model. The I-95 HOT lanes are not funded

north of the Golden Glades interchange. Thus the HOT lanes will not be considered as an E+C project north of the Golden Glades interchange.

Miami-Dade County sees a need for the LRTP process to use the TOD model rather than a 24-hour model so that any managed lanes project can be properly analyzed. Both the 24-hour model and the time-of-day model have been validated in SERPM. Ossama Al-Aschkar is concerned that the TOD model is based on percentages of 24-hour trip tables and does not accurately represent peak period volumes. Thus, the TOD model does not provide a higher level of accuracy than the 24-hour model. A 24-hour model run takes 12 hours. A TOD model run takes 16 hours. This TOD run-time can be reduced if the number of "feedback loops" is reduced. Miami-Dade County MPO staffs believe that a TOD model is necessary to evaluate HOT lane use since a comparison of the speed in the HOT lanes vs. the General Purpose lanes for different times of the day is needed. Phil Steinmiller says that we have committed to a regional model. It is his understanding that this group has already made a decision to go with a TOD model. Palm Beach County is not certain that the TOD model has been fully validated but will agree to go with a TOD model if that is the desire of this group. Broward County agreed to go with the group decision, albeit with previously stated concern. **Therefore, all subcommittee voting members unanimously agreed that the TOD model would be used.**

**VI. Use of Auto ownership Model**

Due to time constraints, the auto ownership discussion was postponed until the next face-to-face RTTAC Modeling Subcommittee Meeting.

**VII. Capacity and V/C Reporting Issue**

The SERPM 6.5 model uses the FDOT Generalized Tables (in the Quality/Level of Service Handbook) to determine volume-to-capacity ratios. The interrupted and uninterrupted facility types are considered. The capacities in the existing model are based on Level of Service E (not LOS D) threshold service volumes. In the model, the capacities have been reduced to reflect the peak hour factors. Eventually, this group will need to take action to decide whether or not the Level of Service D capacity (service volume) values will be used in determining the adequacy of roadways in the future conditions analysis. **The SERPM65 Model Validation documentation and Users Guide will be provided to the group by The Corradino Group by the end of August.** Rob Schiffer will respond with his thoughts on LOS reporting for consideration. This issue will be discussed in detail at the next meeting.

**VIII. Key LRTP modeling Milestone Dates and Coordination**

Travel Demand Model Milestone #1 (submittal of SE data and E+C project lists) has been completed. Milestone #2 (Regional SE data and coding the E+C network) will be completed by each of the three counties and turned over to FDOT District 4 in one month. (This is consistent with the schedule that was distributed to the meeting attendees.) There is a milestone date for travel demand modeling activities every

month for the next 14 months. LRTP Plan adoption is scheduled for October 2009 in Palm Beach and Miami-Dade Counties and in November 2009 for Broward County. The schedule that is shown for the Goals and Objectives activities will be updated. The Needs Plan activity start date will need to be moved back to October 2008 in the schedule.

**IX. Subcommittee Meeting Coordination / Vice Chair**

It was suggested that either a face-to-face meeting or a teleconference should be held at each major milestone during the travel demand modeling activities. **It was agreed that a teleconference would be held on Tuesday, September 9, 2008 (if needed). In addition, the group agreed to a face-to-face meeting on Tuesday, October 14, 2008 in the FDOT District 4 offices at 1:30 pm.**

Prior to adjournment, it was voted on that Ossama Al Aschkar from Broward County MPO will Vice-Chair the RTTAC Modeling Subcommittee Meeting.