Advanced Technology Task Force

Meeting Notes – March 5, 2009

The meeting was called to order at 9:30 AM at the CMAP Offices, 233 South Wacker Drive, Suite 800, Chicago, Illinois. Those present at the meeting were:

Attendees

David Zavattero, Chairman and Gerry Tumbali, Co-Chair

Members:	Steve Peters	*IDOT*	Taqhi Mohammed	*Pace*
	J. Dillenburg	*UIC*	John Benda	*ISTHA*
	Chris DiPalma	*FHWA*	Martin Anderson	*IDOT*
	Jon Nelson	Lake County DOT	Chuck Sikaras	IDOT
	Ellen Partridge	*CTA*	Andy Hynes	*City of Naperville*
Interested Parties:				
	Steve Travia	*IDOT*	Russ Bautch	*HNTB*
	Jerry Hron	*IDOT*	Kevin O'Neill	*URS*
	Ken Glassman	*Jacobs Engr.*	Matt Letourneau	*Jacobs Engr.*
	Austin Provost	*Meade*	Steve Kimble	*Telvent*
	Jeff Galas	*IDOT*	Jason Stribiak	*Telvent*
	Jeff Hochmuth	*WSA*	Joseph Brahm	*Delcan*
	Brian Plum	*Traffic Control Corp*	Mark Rinnan	*Jacobs Engr.*
	Mitch Bright	*Traffic Control Corp*	Duana Love	*FTA*
CMAP Staff:	Claire Bozic	Dan Rice	Tom Murtha	Todd Schmidt
	Jose Rodriguez	Bob Dean		

SUMMARY OF COMMENTS:

1. **Introductions**

   Mr. Zavattero requested that everyone introduce themselves.

2. **Approval of meeting notes from December 4th, 2008 Task Force meeting.**

   The notes were approved with corrections Mr. Sikaras had suggested before the meeting.

3. **Scenario Development** *(Bob Dean, CMAP)*

   This agenda item was added after the official agenda was distributed. Mr. Dean discussed how test scenarios would be developed to support the GO TO 2040 long range regional planning process. At this point, CMAP staff intends to develop four scenarios : one representing heavy investment in Operations and Management, another with a focus on infrastructure investment, the third focused on ITS, pricing and technology and the last a "reference scenario" which will be used for comparison purposes.

   The ITS/technology scenario will be developed starting with information from the regional ITS architecture. The region's project architectures will be reviewed and an expanded "system" of such projects will be included in the scenario. For example, a

system of smart corridors could be evaluated. Assumptions about scale, cost, and benefits in general terms will be required, but this exercise is not intended to be a rigorous cost/benefit analysis. It will just provide some understanding of the impacts in the order of magnitude. The region has come to an understanding that although the long range transportation plan has to include a list of major capital projects, a system of lower capital intensity improvements can also have a large impact. Mr. Dean went on to say that they will not be referring to the ITS improvements as "ITS." Since this effort is in large part directed towards average citizens, acronyms and jargon will be avoided.

Mr. Benda said that one problem with ITS is that people are not educated about what it is and how it impacts them each day. He suggested that instead of avoiding using the term ITS, CMAP should instead take this as an opportunity to try to educate the public about what it is.

Mr. Zavattero asked whether there was a relationship between the scenarios and the evaluation measures that had been presented to the committee at an earlier meeting. He also thought that operations and management should be woven through all the scenarios, because it should be happening that way in actuality. Mr. Dean said that the purpose of the scenarios was to provide some comparisons and select various strategies from them, not to choose an individual scenario. For that reason, it was necessary to limit application of some improvements so the comparisons between the scenarios would be more revealing.

Mr. Sikaras added that the plan will be focused on 2040, and that calling ITS "innovation" was perhaps an incorrect label since ITS is a common practice and should be considered a normal project component. For example, electronic tolling, which provides a way to implement pricing, is no longer an innovation. It is a common technique and if we build a new tollway, we wouldn't consider building it without electronic toll technology.

Mr. Benda said that the Tollway was spending $5-$6 billion on electronic tolling, pricing, and ITS but this doesn't really get any attention. The functionality of ITS should be woven into all projects. We need to change how we design projects and judiciously deploy devices to manage traffic while ensuring flexibility for future changes.

Mr. DiPalma asked whether, in the context of integrating ITS, is there a discussion of using technology to provide information for the regional indicators, by leveraging technology to produce the information you require. Mr. Dean said they assumed that much of the data needed to track indicators would come from technology that had been deployed. The 2040 staff have not talked about how ITS would be used to collect indicator data.

 Mr. Dean concluded by saying that CMAP will be relying on members of the ATTF committee to provide information about ITS investment to support the planning process.

4. **Traffic Data Integration – TDI** *(Matt Letourneau, Jacobs Engineering)*

Mr. Letourneau introduced Mike Jones, Joel Marcusen, and Shaleen Srivastava, the developers of the Jacobs Engineering TDI Product who gave a presentation from London and Arizona via the internet.

This product was initially developed to solve a traffic problem in Maidstone, England. The city is between London and the coast with two expressways running nearby. When incidents occur on the expressways, travelers divert their trips through Maidstone. Most travelers are familiar with alternate Maidstone routes, including small streets, because incidents are frequent on the expressway. The result is that Maidstone often suffers from severe congestion.

Unfortunately, traffic sensors cover a limited number of locations on major arterials even though many of the local roadways also become congested. The Traffic Data Integration product collects movement information from GPS enabled cell phones and combines it with sensor data and an underlying geodata database using various algorithms to produce virtual sensor coverage for the entire city. The data is collected continuously and fed into a web-accessible travel information software that is used by operations personnel and the general public for trip planning. The system is multimodal and creates information for auto, bus, rail, bicycle and pedestrian travel.

The data is also integrated into a multimodal modeling system, which saves Maidstone from relying on more expensive types of data collection normally used for modeling purposes.

The information can be used for real time short term and also for long term planning. Real time origin/destination, speed and flow information is fed into a traffic simulation platform for short term forecasting.

The benefits of TDI are a vast, accurate, and dynamic data acquisition system whose data can be fed directly into a microsimulation. This system has been used for Maidstone flood evacuation planning, and provides the ability to direct traffic to multiple roadways instead of just one best route. They can see when a route will begin to be too congested and begin directing traffic to another route in real time.

In terms of emergency evacuation, Mr. Murtha asked, what happens if you lose your cell phone service? The consultants responded that in this case, you must rely on your detectors.

Mr. Zavattero asked what level of detail was accounted for in terms of traffic control devices. The consultants said that right now the software relied on the existing signal plan, which was retrieved every five minutes. They hope to have signal information flow the other way in the future by using the simulation data to implement adaptive signal control.

5. **American Recovery and Reinvestment Act** (*Chris DiPalma, FHWA)*

Mr. DiPalma presented information, referring to an information packet he had assembled and distributed. There is no set-aside for ITS, but all ITS activities are eligible for ARRA funding. These funds are 100% federal with no local match required. ITS projects are good potential projects because they normally don't require much right-of-way or environmental clearances. They also have a high benefit/cost ratio. Unlike the concrete/asphalt projects, ITS projects engage the high-tech employment sector. Since asphalt/concrete type contractors will be in high demand, we may experience shortages and employing other sectors will meet the intent of the program. Potential ITS projects can be stand-alone projects, or they can be integrated into existing projects. Work zone ITS would be an especially good focus, since once the ARRA projects are underway

we'll need ways to manage work zones for safety and traffic flow. The first funding provided to the state must be federally obligated within 120 days. This means that FHWA has signed off and agreed to participate in the project. The sub-allocation that goes to large urban areas must be obligated within 1 year. Funding is subject to rescission if the projects are not obligated within the time limits. The required project reporting has also been increased so the public can watch what is happening with their tax dollars.

Duana Love from FTA added that most of the transit funding would be distributed through the formula programs. Funding would also be added to the rail New Starts program and to a new $1.5 billion discretionary program, which they don't have information for yet. Transit agencies have 180 days to obligate the transit funds. If the funds are not obligated within the timeframe, they will be withdrawn and redistributed to other agencies. She reiterated the need for more detailed reporting than is normally required. Mr. Murtha reminded the committee that CMAP's executive director sends out a weekly email with information about CMAP's response to the ARRA program.

Mr. Zavattero said that he'd seen the ARRA project list under consideration by the MPO Policy Committee, and it seemed to include only IDOT projects. Mr. Murtha agreed, saying the local projects are currently still in the selection process. Mr. Zavattero continued by asking the group whether the Advanced Technology Task Force or the Regional Transportation Operations Coalition has a role to play in the ARRA and what it might be, for example evaluating or developing projects. Even short term resurfacing projects could be revised to include signal upgrades. Mr. Mohammed said he thought committee members ought to encourage their respective agencies to consider and include these components in their project submittals. Mr. DiPalma pointed out that so far the state's list of projects is the official list and the committee should review it to see if some projects would benefit from ITS components. He also said that even though there was a suballocation to large metropolitan areas, the state would select all the final projects and manage them. The committee members should get in touch with decision makers about the projects if they wanted to suggest additional components.

Mr. Benda asked whether additional components would be funded with additional funds, or whether the additional costs would come out of the current budget. Mr. DiPalma said the apportionments had already been made and the state has the funds, so it would come from the existing apportionment.

Mr. Hynes (Naperville) pointed out that the difficulty in getting projects designed and ready to go in the time frame specified by ARRA. Implementers still have to go through the same review processes, and no regulations have been relaxed to speed things up. Mr. Zavattero said that operations and management projects are categorical exclusions and that would at least save time with the environmental process part of project development. He asked whether Naperville had signals that needed upgrading or timing that could be submitted.

Mr. Murtha mentioned that Illinois was also going to develop a new capital bill at some time in the near future, and any project development work for the ARRA would also be useful for the capital bill. Committee members should stay engaged in the process for that reason.

Mr. Zavattero suggested assembling a small group of people to generate operations and maintenance projects and to write a short white paper regarding what types of projects should be focused on. It would have to be gathered together quickly this week to identify the vital few projects and to keep this topic on the front burner. John Benda, Taqhi Mohammed, Dave Zavattero and Tom Szabo volunteered for this effort.

5. Regional Transportation Operations Coalition *(Tom Murtha, CMAP Staff)*

Mr. Murtha began by saying the group planning for the RTOC has met a number of times, and that Chris DiPalma had volunteered to chair/facilitate this effort to develop the group. Staff desires to move forward by working on these three areas: getting the lines of communication open between operations staff at various agencies, working with partner groups (freight committee and bike/pedestrian task force) whose interests should be coordinated, and to develop any necessary documents. CMAP is envisioning that in the long run the RTOC will become the main group, and the other committees will end up reporting to it as subcommittees. A number of areas for short term projects have already been identified: Gateway system improvements, Regional Data Archive development, expand instrumentation on the expressways, recommend standard ITS components for all roadway projects, and to work on TSP, scheduling, and monitoring of transit.

In the long run, we'll need an agreement to accomplish anything with this group. Mr. Zavattero has brought up with staff the possibility of a framework agreement. Mr. Zavattero agreed that it was necessary and asked how work on this would be staffed. Mr. Murtha said it should come out of the congestion management process grant.

Mr. Zavattero said he had spoken to other committee members last week and they agreed that there should be two parts to the agreement 1) it should outline general principles for coordination; 2) it should outline general principles to share information and perform tasks when needed, for example in the area of incident management. Procedures would be agreed to in general. The framework would provide housing and context for making specific agreements. To move this forward would require discussion with CMAP leadership and staff. A small group should be formed to address this. Chuck Sikaras, John Benda, Gerry Tumbali, Ellen Partridge, Dave Zavattero, Taqhi Mohammed, and Chris DiPalma volunteered to work on this.

Mr. DiPalma said that this agreement could form a skeleton, and as specific topics came up, agreements could be generated to address them and reside in an appendix to the general agreement.

6. Other Business

Claire Bozic said that the construction coordination meeting had been held and was a success. Many implementers attended and the information they provided has been added to a draft map. She said that another meeting had been suggested to discuss the ARRA projects that will now be under construction. Mr. Sikaras suggested adding them to a map and distributing that so people could take a look and see where coordination issues might arise. He leaned towards having another meeting, but this one would be focused on the mapped projects and might be shorter than the original meeting.

Ms. Love mentioned the NTI ITS course that CMAP will be hosting. Right now there isn't any specific registration material available, but FTA asked for any volunteers who

thought they had something interesting to tour. Mr. Murtha said formal registration material would be available on March 6th.

Mr. Benda said that ITS Midwest, along with the Consulting Engineer Council of Illinois, was hosting a seminar to train about design, construction and deployment of ITS devices. This should be helpful to contractors and consultants.

7. **Next meeting**
    The next meeting will be in June but the date was not set.