



## Advanced Technology Task Force

### Meeting Notes – September 17, 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:

<b>Attendees</b>		<b>David Zavattero, Chairman and Gerry Tumbali, Co-Chair</b>		
Members:	Tony Khawaja	<i>Lake Count DOT</i>	Marty Anderson	<i>IDOT</i>
	John Benda	<i>ISTHA</i>	Chuck Sikaras	<i>IDOT</i>
	John Loper	<i>DuPage County</i>	Ryan Hicks	<i>NIRPC</i>
	Jon Nelson	<i>Lake County DOT</i>	John Dillenburg	<i>UIC</i>
	Tom Szabo	<i>Kane County DOT</i>	Steve Peters	<i>IDOT</i>
	Chris DiPalma	<i>FHWA</i>		

Interested Parties:

Jim LaMantia	<i>Chicago OEMC</i>	Justin Potts	<i>IDOT</i>
Jerry Hron	<i>IDOT (by phone)</i>	Joe Spedale	<i>TCC</i>
Ken Glassman	<i>Jacobs Engr.</i>	Joseph Brahm	<i>Delcan</i>
Brian Plum	<i>Traffic Control Corp</i>	Abraham Emmanuel	<i>Chicago OEMC</i>
Mitch Bright	<i>Traffic Control Corp</i>	Russ Bautch	<i>HNTB</i>
Mark Minor	<i>RTA</i>	Jim Powell	<i>WSA</i>
Syd Bowcott	<i>URS</i>	Jae Ju	<i>HNTB</i>
Matt Devery	<i>Illinois Tollway</i>	Jessie Slaton	<i>Jacobs Engineering</i>
Andre Santos	<i>Traffic Control Corp.</i>	Duana Love	<i>FTA</i>
Jeff Hochmuth	<i>Wilbur Smith Assoc.</i>		

CMAP

Staff:

Claire Bozic	Dan Rice	Holly Ostdick	Todd Schmidt
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SUMMARY OF COMMENTS:

**1. Introductions**

Mr. Zavattero requested that everyone introduce themselves. Ms Bozic staff mentioned that some members called about not receiving the meeting materials the previous week. Ms. Bozic explained that CMAP was changing the way meeting materials were distributed and that the agency is now using the Constant Contact™ service. She will review the process and make sure all intended recipients are included.

**2. Approval of meeting notes from June 11<sup>th</sup>, 2009 Task Force meeting.**

The notes were approved as presented.

**3. CMAQ (H. Ostdick, CMAP)**

Ms. Hostdick introduced herself at the CMAP CMAQ project manager. This year the call for projects was for a program of about \$200 million, \$ 77 million for 2010 and \$20 million for 2011. The draft program was released for public comment at the end of August and 10 comments were received. Some comments were in support of diesel retrofits and idling technology. There were a few changes made to the draft program and it is moving up the chain of committees for final approval. The changes included removing 4 IDOT intersection improvements and adding instead the expanded instrumentation on I-55.

Ms. Ostdick went on to say that there is an 8.7 billion dollar rescission written into the SAFETEA-LU law. Illinois stands to lose \$280 million, much of which will come out of unobligated project funds such as the CMAQ program. She advised the group that they should get projects obligated before then, if possible.

Mr. Zattero (Chicago OEMC) added that the city of Chicago has had a number of meetings about this subject, and that there seems to be a 50/50 chance of solving the problem. Transit is in a little different position, because all transit money is considered obligated as soon as it is in an FTA grant. Transit agencies don't have outstanding "project phases" which are unobligated until the project reaches that point. He went on to say that this would be a good time to contact your congressional representatives and urge them to cancel the rescission.

Mr. Murtha (CMAP) said that an equally important worry was the potential lapse of \$58 million in funding from FY2007 if the selected projects are not obligated this year.

Ms. Hostdick said that even if we can obligate \$54 million this year, next year the region will have to obligate \$90 million.

Mr. DiPalma asked about changes to programming methods CMAP implemented to try to solve the problem of getting projects obligated and constructed in a timely manner. Ms. Hostdick responded that CMAP had requestors put their programmed projects into reasonable implementation years and started multi-year programming, but that the changes were playing catchup with the backlog of unobligated projects.

Mr. Murtha asked about the IDOT I-55 ITS projects. John Fortman and Steve Travia have worked to make ITS system surveillance a priority, and the match for this project came from the ITS Program Office. Communications infrastructure will be installed from Naperville Road to Lorenzo Road, both wireless and fiber based. It is \$6 million for the fiber installation to Lorenzo Road, but because of funding limitations, CMAQ funded 2.7 million for the project. Brian Carlson has been working to identify additional fund sources.

4. **City of Chicago Traffic Probe Data** (*D. Zattero, Chicago OEMC*)

Mr. Zattero gave a presentation on three probe data test projects underway at the City, one using moving probe vehicles and two using roadway-based sensors.

For the probe vehicle demonstration, the City has just completed an agreement with CTA to use data from the Bus Tracker system to generate speed and congestion estimates for about 300 miles of the city street network. This is a key component of the Arterial Performance Monitoring System and will cover about 300 miles of major arterials. As

access to the data has recently been agreed upon, the development of algorithms that convert bus information to estimated roadway conditions is the next step.

Mr. Hochmuth pointed out that the industry has been talking about using cell phones as a source of probe data for 15 years, and he estimates that it'll be another 15 years before they figure out how to do it. Mr. Zattero said that this was one reason the City is partnering with CTA—they expect that they will be able to develop this into a useful system much more quickly than that, and it will be useful for advanced travel information systems and for CTA operations use.

The second pilot application is using a “next generation” wireless detection system on Cicero Avenue as a part of the Cicero Avenue Smart Corridor. This technology incorporates in-pavement readers which identify a unique magnetic pattern for each passing vehicle. Using the unique pattern, each vehicle can be tracked and used as a probe without any special vehicle equipment. Two units are required for each lane of traffic. The information is transmitted wirelessly to a network access point, usually at a traffic signal controller. Using this information, occupancy, vehicle counts and vehicle speeds can be calculated by traffic lane for a point on a roadway.

The third application is an installation of “Bluetooth” readers along Archer Avenue. In this case, the probe vehicles include all vehicles containing a Bluetooth equipped piece of equipment, for example cell phones or personal digital assistants (pda). The readers are installed roadside and identify specific vehicles as they travel down the road, thereby allowing the calculation of travel times and speeds. Since not all vehicles can be identified, this technology cannot be used to count cars, although working backwards from the speed, congestion levels could be estimated.

5. **Arterial Travel Time** (T. Schmidt, *CMAP*)

Mr. Schmidt presented regional maps showing the region's streets colored by an AM peak travel time index. The information used to create the maps was hourly speed data collected by IDOT. The data was collected over a 24 hour period on one day during 2006/2007. The index is the ratio of AM peak speed to daily average speed.

The maps show more congestion in urban areas than in rural areas, and more in northern Cook County than southern Cook County. There were also more data collection locations in Cook County than in the collar counties. Traffic congestion can change from one day to the next, so the collection of data on only one day may not always give an accurate picture of what is happening on the roadway. The data also needed to be cleaned up a little, as some records showed speeds of over 100 miles/hour. Only travel speeds of less than 71 miles/hour were used in the analysis. Also, the detectors were mainly midway between intersections. If traffic backs up and delay is mainly at the intersection, it won't back up far enough on long links to be measured.

Mr. Khawaja said that speed can often be misleading, so Lake County uses traffic volumes more frequently than speed.

Mr. DiPalma asked whether CMAP intended to start using this sort of information to assist in project programming. Mr. Murtha responded that we've just started generating the information but that we do intend to use it for decision making in the future.

Mr. Szabo offered to provide CMAP with additional data. Kane County collects traffic counts every 2 years.

**6. Illinois Tollway TIGER Application** (*J. Benda, CMAP Staff*)

Mr. Benda distributed a diagram summarizing the TIGER application, which was for a statewide Illinois Travel Enhancement Monitoring System (ITEMS). The project concept includes a north hub, serving northeastern Illinois and south hub, serving the rest of the state. Also included are improvements to the Gateway, and creation of the new Data Archive and Statewide 511 Travel Information System. The application did not reflect any pre-conceived notions about who would run the various parts of the proposed system. The concept in the application was consistent with the regional and statewide ITS architectures. The system would be “open,” meaning it would provide a framework for counties to connect into as they came online. Mr. Hochmuth said the application was put together in a very short time, approximately 5 weeks. He also described the chart on the second side of the handout, which summarized where we are now in terms of statewide ITS integration, and a vision of where we’d like to be in the future.

One of the important aspects of the application was automation of data transfer. Currently, much data is generated but must be re-entered in the Gateway for use on the GCM Travel website. Lane closure data is all entered by Gateway staff. Tasks such as these should be automated to be more accurate and efficient.

The southern hub was assumed to be in Springfield and to be in control of the statewide 511 system. In northern Illinois, the Gateway II would be improvements over the current Gateway system. We’ve come a long way, but improvements are still needed in terms of sending and receiving data, coordinating DMS messages, video sharing, and collection and distribution of incident information. We are still addressing problems via telephone and individual solutions, not with a coordinated system.

The region will know by January whether the grant application is successful. Next month we’ll know whether Chicago will be selected to host the 2016 Olympics. If Chicago is selected, implementation of the system will be more critical and it could also garner support for the application. Unfortunately, other regional agencies declined to provide letters of support to the project. However, ITS International and Iowa were forthcoming with support. If the funding application is not successful, the Tollway will go ahead and try to assemble support and move forward towards the goal in other ways.

**7. Regional Updates**

Mr. Loper briefed the group on DuPage County’s efforts to collect speed data from most arterials in the county. The data is being collected using a floating car method. It will be used to support DuPage County’s impact fee program and for other operational needs. DuPage County will provide the information to committee members upon request.

Mr. Sikaras said that the IDOT ITS Program office continued to offer support for the Army Trail and Maple Avenue queue detection projects.

Mr. Dillenburg said that staff of the Gateway has been increased and now provides 24 hour support. He also informed the group that there was a webpage available to operators where they can enter incident information themselves. You must register first to take advantage of this capability.

Mr. Khawaja said that the Lake County Passage II program continues to progress. The website has been developed in a different format that is compatible with mobile devices. It is simpler and still useful. They are getting close to being able to display very accurate speeds on the Passage website maps. Their detection equipment had experienced some problems with detecting headlights which messed up the speed calculations. Gurnee and Vernon Hills have been added to the computer aided dispatch system, so now those communities are getting access to the county's videos too. Phase II of the signal system development is almost complete, and will cover 250 of the 600 traffic signals. The county is also testing wireless communication equipment on water towers to receive and transmit signal data and camera images. They are waiting for winter to see how successful that is.

Mr. Szabo said that Kane County was developing an Arterial Traffic Management System (ATMS) with central signal system control. They are entering engineering agreements for 3 segments and hope to tap into the fiber network in the eastern part of the county to implement the system.

Mr. DiPalma said that on Tuesday, an Advanced Traveler Information System seminar was being sponsored by FHWA at the IDOT District 1 office. The class is full, but the information resulting from the class will be available to everyone.

Mr. Tumbali said RTA was still working on updating the RTA technology plan.

Mr. Zattero said OEMC has started the procurement process for a mixed fiber/wireless signal system to test how well that works in Chicago.

Mr. Benda said that this year's construction projects all progressed very well due to the excellent weather and should be completed on time. The Tollway continues to look at ramp queue detection and Army Trail ramp may be the first system completed. The work zone ITS worked very well, and the TIMS center has turned out to be central to this in an unexpected way.

## **8. Other Business**

None

## **9. Next meeting**

The next meeting will be in December but the date was not set.