

# **FREEWAY OPERATIONS PROGRAM SUMMARY**

## **Wisconsin Department of Transportation - District 2**

### **Southeastern Wisconsin / Metropolitan Milwaukee**

*Status Report – January 2001*



## **MONITOR FREEWAY TRAFFIC MANAGEMENT SYSTEM (FTMS)**

- \* MONITOR FTMS Public Awareness Program developed and produced outreach information
- \* Direct fiber optic communication link between TOC and Milwaukee County Sheriff's Department implemented and completed.
- \* Video sharing with Village of West Milwaukee designed and finished. Implementation in progress.
- \* Operations and Maintenance Agreement established with Village of West Milwaukee
- \* MONITOR FTMS funding earmark established under TEA-21
- \* Expansion of Interim Traffic Operations Center completed.
- \* Software development initiated 1992, acceptance testing completed 6/98, software upgrade designed. Completed.
- \* MONITOR system upgrade completed for 2000, however the project has not yet been accepted.
- \* MONITOR "2000" initial planning began late 1999, and is currently in progress.

### **MONITOR FTMS Implementation Facts**

<b>Year (Implementation Stage)</b>			
<b>Element</b>	<b>1994-1997 (I, II)</b>	<b>1998 (III)</b>	<b>1999-2001 (IV, V, VI)</b>
Ramp Meters	59	77	114
Variable Message Signs	14	14	32
Closed Circuit Television	26	39	85
Freeway Centerline Miles of Detection	45	80	120
Miles of fiber optic cabling			40



## **TRAFFIC INCIDENT MANAGEMENT ENHANCEMENT (TIME) PROGRAM**

Since its inception, the TIME program has been the catalyst for the implementation of many incident management and ITS strategies ranging from enhanced interagency coordination to implementing various incident management tools and ITS elements to alleviate freeway traffic congestion. The program has included the establishment of a regional Steering Committee to provide direction and support for the permanent and on-going development, implementation, and administration of the regional incident management program.

### **Current and On-Going**

- \* The TIME Freeway Incident Management Team (FIMT) continues to meet on a monthly basis.
- \* The TIME Steering Committee continues to meet on a bi-annual basis. The last TIME Steering Committee Meeting was held on February 28, 2001.
- \* The Inter-CAD and Public Safety Communications User's Group, established as part of the Emergency Services Subcommittee of the FIMT, continues to meet on a bi-monthly basis to discuss inter-agency communications issues.
- \* The first version of the TIME Blueprint or strategic plan was finalized and distributed in mid 1998. An update of the Blueprint has included the formation of a TIME Blueprint Update Task Force, one-on-one contact meetings with representative TIME Steering Committee members, a TIME Blueprint Update Technical Workshop, and other activities.
- \* Initiated development of Wisconsin Emergency Services Communication (WESCom). WESCom is comprised of an independent, ad hoc committee committed to the deployment and integration of an interoperable public safety and transportation communication infrastructure between regional efforts enabled through statewide planning, coordination, and information sharing.
- \* Develop expansion of the Gateway Patrol Pilot Program to Waukesha County. Pilot implementation occurred in December 2000.
- \* Develop a Racine/Kenosha County Maintenance Department staffed Traffic Response Unit (TRU). The TRU will be an on-call service activated by the Racine/Kenosha Sheriff Department or Wisconsin State Patrol. The services provided by the TRU will include the ability to deploy traffic control quickly and provide a safe working environment for responders such as law enforcement, tow agencies, maintenance departments, and other emergency service responders. The TRU operating as of late 2000.
- \* Continue development of a Traffic Incident Management Resource Manual.
- \* Conduct a freeway fire hydrant inventory in Milwaukee County and recommend appropriate location markers.
- \* Continue efforts relating to the Racine/Kenosha County Gateway Patrols and the Milwaukee County Enhanced Freeway Patrol.
- \* Conducted demonstrations and tabletop exercises and debrief incidents.
- \* Develop operations policies for the Integrated Corridor Operations.
- \* Develop a plan for the expansion of the Enhanced Reference Signs to USH 45.
- \* Completed a permanent entrance ramp gate design for use on I-94 in Racine and Kenosha Counties.
- \* Develop a Special Events Operations Manual.
- \* Develop a Special Events Brochure.
- \* Developed a TIME Newsletter to be distributed to the FIMT and TIME Steering Committee on a quarterly basis. Potential sections/articles include education element, project profile, member profile, subcommittee updates, etc.
- \* Provided input and coordination support to the continued development of a Southeastern Wisconsin Regional ITS Architecture.
- \* TIME continues to coordinate its efforts with the Dane County Incident Management Program, the Gary-Chicago ITS Priority Corridor Incident Management Workgroup, and the Institute of Transportation Engineers (ITE) Traffic Incident Management Committee

### **Completed**

- \* Developed and distributed the TIME Annual Report in December 1999.
- \* Conducted a trailblazer inventory and installed temporary entrance ramp gates on I-94 in Racine and Kenosha Counties.
- \* Developed Crash Investigation Site (CIS) Strategic Plan to determine needs and design.
- \* Developed and distributed the TIME Video.
- \* Developed a Ramp Meter and HOV Brochure for inclusion in mailings to the public regarding the start up of new ramp meters.

### **INTEGRATED CORRIDOR OPERATION PROJECT (ICOP)**

- \* Continued to develop a strategic plan for advanced interjurisdictional signal systems integrated with MONITOR FTMS along regional freeway corridors. In Progress.
- \* Developed a concept of operations for integrated corridors to serve as a guideline for the development of corridor specific operations and management plans. Completed, Preparation for the USH 45 Zoo Freeway Corridor.
- \* Revised and updated the integrated corridors ITS technology assessment document to be consistent with the National ITS Architecture and Integration Strategy, and the latest advancements in technological deployments. In Progress.
- \* Revised and updated the integrated corridors project system architecture document to be consistent with the National and Regional ITS Architectures. In Progress
- \* Completed a memorandum that addresses operational scenarios and strategies for a similar and directly related integrated corridor-based management initiative along the USH 45 corridor. This memorandum then provided the foundation for the development of specific operational scenarios and control tactics for the USH 45 corridor traffic management initiative.
- \* Completed and presented a computer slide presentation that summarizes ICOP, the integrated corridor operations concept, and its relationship to the USH 45 corridor traffic management project.
- \* Implementation of Integrated Corridor Test Segment (ICTS) on Layton Avenue in 2001 for operation in 2002. This segment is a cutback of the original ICTS for the airport region. Key element will be application of advanced traffic signal control software for real-time traffic management.

### **FREEWAY SYSTEM OPERATIONAL ASSESSMENT (FSOA) PROJECT**

All activities below are ongoing. The completion date will be pushed to mid 2002 under an upcoming contract amendment. There has been both information delays and methodology development struggles, as well as the introduction of new tasks that have impeded the original schedule. One new task is the re-evaluation of traffic analysis software/tool. The market offers very competitive alternatives to existing CORSIM applications.

- Project to develop a documented FSOA process for ongoing evaluation of the Southeastern Wisconsin freeway system under existing and future traffic conditions, initiated mid 1998
- Integrates safety, traffic volume data and projections, microscopic and macroscopic simulation traffic modeling, and freeway operator and user observations and perceptions to develop performance measures.
- Alternative operational improvements will be evaluated in a system wide context through the FSOA process to develop recommended highway improvement project scopes

- Accommodates comparative analysis of geometric improvements and operational & ITS strategies
- Develop GIS Application to provide stakeholders the opportunity to see operational and safety improvement needs
- Development of micro-simulation of the Downtown Freeway system, 50+ miles
- Completion of a draft process and GIS Application system Technical Report
- Completion of O&D study included over 400 O&D pairs using license plate matching technology. Complete, but will be expanding under amendment.
- Monthly FSOA management team meeting & Advisory group meetings as necessary
- Developing traffic volume projection database for WisDOT District 2

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