

ROLES OF TMCS IN INCIDENT MANAGEMENT ON MANAGED LANES

PREPAREDNESS ACTIVITIES

ED ROBERTS
VHB

Preparedness Activities

Preparedness activities are done prior to / in preparation for TIM – they establish the capability to quickly and efficiently identify, respond to and manage incidents.

Katy Freeway, Houston, TX



Source: Wikimedia Commons User Socrate76

- ❑ HOT lanes
- ❑ Two lanes in each direction
- ❑ Separated from the general purpose lanes by flexible “candlestick” barriers and shoulders

Technology and Communications

- ❑ Traffic Monitoring and Management
- ❑ Traveler Information
- ❑ Communications Systems (e.g. CAD) and Protocols
- ❑ Active Traffic Management
- ❑ Data Collection, Systems Management and Performance Measures



Interagency Relations and Coordination

- ❑ Stakeholder/TIM Committee
- ❑ Interagency Agreements
- ❑ Roles and responsibilities
- ❑ Communications Protocols
- ❑ Multi-disciplinary Procedures and Training
- ❑ Public/private operating agreement if appropriate

Enforcement Patrols

- ❑ Roles may include:
 - ❑ Occupancy requirements
 - ❑ Toll payment
 - ❑ Access compliance
 - ❑ TIM



- ❑ Operating/enforcement MOU:
 - ❑ Dedicated/part time patrol
 - ❑ Funding
 - ❑ Operational protocols

TMC Resources

- ❑ Managed lanes may affect TMC resources in a variety of ways:
 - ❑ Staffing levels, Operational funding, System deployment, etc.
- ❑ TMC operations can support or reduce resources needed for some managed lane operations
 - ❑ TIM, data collection, traffic management, etc.
- ❑ Managed lanes toll funding may be able to support TMC and enforcement operations



Design

- ❑ TMCs should be involved early in the managed lane design process to address issues such as:
 - ❑ Monitoring and management systems
 - ❑ Facilitating field maintenance
 - ❑ Issues with managed lane control software
 - ❑ Access and separation treatments that accommodate TIM



Operational Planning

- ❑ TMCs have operational planning experience and processes that can support good managed lane design and operations:
 - ❑ ITS Strategic Plans
 - ❑ ITS Regional Architectures
 - ❑ Systems Engineering Process
 - ❑ Operations and Maintenance Plans
 - ❑ TIM programs
 - ❑ Operational Performance Measures

Checklist for Planning Preparedness Activities



TMC Planning Preparedness Checklist



Technology and Communications

Use and share technology and communications systems

Establish protocols related to incident communications

Develop data sharing agreements among agencies



TIM Operational Considerations are Incorporated into the Design of Managed Lanes

ITS Field System Design and Integration

ITS Field System Maintenance

Managed Lane Control Software

Managed Lane Access and Separation Treatments

Design elements of Project Systems
Engineering Documents and Processes



Interagency Relations and Coordination

Create interagency agreements established by the TMC



TIM Operational Considerations are incorporated in Operational Planning Processes and Documents related to Managed Lanes

ITS Strategic Plans

ITS Regional Architectures

Planning elements of Project Systems Engineering Documents and Processes

System Operations and Maintenance Plans

Local TIM programs

Data Collection, Fusion, Analysis and System Performance Measures



Managed Lane Enforcement Patrols

Ensure enforcement levels and funding for such are adequate

Define roles, responsibilities and protocols



TMC Resources

Share TMC resources

Confirm that sharing agreements are in place

Examine and obtain funding for managed lanes

Checklist for Operators Preparedness Activities



TMC Preparedness— Operator's Checklist



Technology and Communications

Know how to use various technology and communications systems in the TMC

Know what ITS resources are located on the managed lane system, where the devices are, and the design limitations of the devices

Understand policies and protocols for use of different communications tools and ITS devices



Interagency Relations and Coordination

Contact information for all TIM responder agencies

Contact information for other transportation agencies/providers along managed lane corridor

Know TIM responsibilities/jurisdiction of each partner agency

Participate in interagency training exercises that are offered



Managed Lane Enforcement Patrols

Know which agency has primary enforcement jurisdiction

Remember that enforcement patrols are a critical source of TIM information and are typically the first responders on the scene

Understand the general level of motorist compliance with the managed lane operating rules – this may play a role in TIM strategies chosen during an incident



TMC Resources

Understand protocols for the use of shared TMC resources



Design of Managed Lanes

Know location of access and egress points along managed lanes

Have protocols, maps, and response plans for each segment handy

THANK YOU