TRANSPORTATION MANAGEMENT PLAN

Interstate 5 “Boat Section” Rehabilitation

03-SAC-5-KP 36.4/37.8 (PM 22.6/23.5)
EA 03-0A3601

February 25, 2008
Transportation Management Plan
EA No. 03-043601
Date: February 25, 2008

Prepared By:

[Signature] Jan 2/25/08
DARREN H. TAM, P.E.
TMP Coordinator

Reviewed By:

[Signature] 2/25/08
JOSEPH W. HORTON, P.E.
District 3 TMP Manager
# TABLE OF CONTENTS

1.0 **PURPOSE OF THIS TRANSPORTATION MANAGEMENT PLAN** ........................................ 5

2.0 **PROJECT LOCATION** ................................................................................................. 5

3.0 **PROJECT DESCRIPTION** ............................................................................................. 5-7
   3.1 Background ..................................................................................................................... 5-7
   3.2 Scope of Work .................................................................................................................. 7

4.0 **TRANSPORTATION MANAGEMENT PLAN SUMMARY** ............................................. 7-8

5.0 **ROLES AND RESPONSIBILITIES** .............................................................................. 9-10
   5.1 Resident Engineer (RE) .................................................................................................. 9
   5.2 District Traffic Manager (DTM) ...................................................................................... 9
   5.3 Project Manager (PM) ................................................................................................... 9
   5.4 Public Information Officer (PIO) ................................................................................... 9-10
   5.5 Construction Advisory Team (CAT) .............................................................................. 10

6.0 **MOTORIST INFORMATION STRATEGY** .................................................................. 10-12
   6.1 Portable Changeable Message Signs ............................................................................ 10
   6.2 Fixed Changeable Message Signs ................................................................................ 10-11
   6.3 Ground Mounted Signs ................................................................................................ 11
   6.4 Caltrans Highway Information Network ....................................................................... 11
   6.5 Highway Advisory Radio .............................................................................................. 11-12
   6.6 511 Traveler Information Systems ................................................................................. 12
   6.7 www.FixI-5.com Website .............................................................................................. 12
   6.8 ITS For Traffic Monitoring ........................................................................................... 12
   6.9 Freight Travel Information ........................................................................................... 12

7.0 **INCIDENT MANAGEMENT** ....................................................................................... 12-14
   7.1 Construction Zone Enhanced Enforcement Program .................................................... 13
   7.2 Access of Emergency Service During Closures .......................................................... 13
   7.3 Freeway Service Patrol .................................................................................................. 13
   7.4 Caltrans Transportation Management Center (TMC) .................................................. 13
   7.5 Traffic Surveillance Stations (Loop Detectors and CCTV) ............................................ 13-14

8.0 **CONSTRUCTION TMP STRATEGIES** ................................................................. 14-15
   8.1 Lane Closure Chart ....................................................................................................... 14
   8.2 Incentive Clause/Disincentive Clause .......................................................................... 14
   8.3 Damage Clause ............................................................................................................. 14
   8.4 A+B Bidding ................................................................................................................ 14
   8.5 Project Coordination .................................................................................................... 14-15
9.0 STAKEHOLDER COORDINATION ................................................................. 15-16
9.1 Team Meeting .......................................................................................... 15-16

10.0 CORRIDOR/NETWORK MANAGEMENT STRATEGIES ......................... 16
10.1 Truck Restriction ..................................................................................... 16
10.2 Signal Timing/Coordination Improvements .............................................. 16
10.3 TMP Effectiveness Monitoring ................................................................. 16

11.0 ALTERNATE ROUTE STRATEGIES ......................................................... 17
11.1 Detours .................................................................................................. 17

12.0 PUBLIC INFORMATION/PUBLIC AWARENESS CAMPAIGN ................. 17-18
12.1 Brochures and Mailer .............................................................................. 17
12.2 Press Releases ......................................................................................... 18
12.3 Emergency Hot-line for the Local Public ................................................. 18
12.4 Paid Advertising ...................................................................................... 18

13.0 CONTRACTOR & CALTRANS TRAFFIC EMERGENCY CONTINGENCY
   PLAN .............................................................................................................. 18-19
13.1 Contractor’s Responsibilities ................................................................. 18
13.2 Contingency Plans .................................................................................. 19
13.3 Communication Plan .............................................................................. 19
13.4 TMC Response Protocol ........................................................................ 19

CONTACT INFORMATION ............................................................................. 20

ATTACHMENTS .............................................................................................. 21
1.0 PURPOSE OF THIS TRANSPORTATION MANAGEMENT PLAN

This Transportation Management Plan (TMP) outlines the strategies that will be implemented to minimize impacts to the traveling public during construction of this project. This TMP also lays out the roles and responsibilities of the project stakeholders prior to and during construction.

TMPs are prepared to comply with Deputy Directive No. 60. It requires TMPs to be prepared for all projects on the State Highway System. The purpose of the TMP is to minimize motorist delays associated with project construction without compromising public or worker safety, or the quality of the work. TMPs attempt to achieve this goal by the effective application of traditional traffic mitigation strategies, with a combination of public and motorist information, corridor/network management, incident management, alternate route strategies, construction strategies, and public outreach.

2.0 PROJECT LOCATION

This project is located on Interstate 5 in Downtown Sacramento in Sacramento County from KP 36.4 to KP 37.8 (PM 22.6 to PM 23.5). The project is from 0.5 km south of the R Street underpass to 0.2 km north of the Capitol Mall Separation. This depressed section of the roadway is commonly known as the “Boat Section” due to its inherent profile shape.

3.0 PROJECT DESCRIPTION

3.1 Background

The “Boat Section”, constructed in 1970, is comprised of reinforced concrete substructure topped with a lightly reinforced PCC wearing pavement surface. The substructure consists of two different structure types, a gravity section and a pile section. These sections function to resist the buoyant forces of surrounding groundwater and seal the groundwater for the roadbed. Over time, leaks have developed around the joint seals, which had caused damage to the wearing surface.

The seal slab is sensitive to forces applied by groundwater, which is influenced by the Sacramento River stage elevations. Groundwater elevations are controlled during flood stages by a protective de-watering well system that activates at critical high elevations. It de-activates before subsidence occurs. Surface drainage systems were provided to carry away both infiltrated groundwater and surface water runoff. However, the existing drainage systems had become partly plugged and partly ineffective.
Figures 1 and 2 below illustrate the “Boat Section” submerged in water during a flood event in January of 1980.

**Figure 1**

![Figure 1](image1)

**Figure 2**

![Figure 2](image2)
A variety of repair materials have been utilized, attempting to seal the surface cracks, with no success. The high Average Daily Traffic (ADT) of 190,000 (2006 Traffic Volumes) and reduced shoulders on this section of the roadway make repair work difficult.

The maintenance history for the “Boat Section” seal slab dates back to original construction. Currently Caltrans Sacramento Area Bridge Crew spends approximately 20% of its annual budget on the “Boat Section” seal slab.

3.2 Scope of Work:
The I-5 “Boat Section” Rehabilitation Project proposes to address the chronic wet pavement and deterioration of the wearing surface in the depressed structure.

The project includes the following improvements:

- Remove and replace wearing surface of the seal slab (Bridge No. 24-274M).
- Replace existing de-watering system.
- Repair leaking joints and seals.
- Install instrumentation in the slab to monitor critical pressure.
- Install additional de-watering wells to help reduce buoyant forces on the seal slab due to high groundwater elevations during flood stage events of the Sacramento River.

4.0 TRANSPORTATION MANAGEMENT PLAN SUMMARY

The project may require over 300 working days to complete. A majority of the work will be constructed using a crossover to handle through traffic, while merging traffic and traffic with downtown Sacramento destinations will use two non-diverted lanes. This work will be done on a 24/7 basis. Remainder of project construction will be completed using standard lane closures and the 55-hour weekend lane closures.

The following strategies and elements will comprise the TMP for this project in Sacramento County in the City of Sacramento on Interstate 5 at the "Boat Section".

- Motorists Information Strategies
- Incident Management
- Construction TMP Strategies
- Stakeholder Coordination
- Corridor/Network Management Strategies
- Alternate Route Strategies
- Public Information/Public Awareness Campaign
• Contractor and Caltrans Emergency Contingency Plan

These strategies may be modified, changed, or eliminated as necessary, with consultation from the District Traffic Manager (DTM), to maximize safety and/or to minimize traffic congestion throughout the corridor.

Listed below are TMP measures, responsible party, and action required:

**Table 1**

**TMP Measures and Action Required**

<table>
<thead>
<tr>
<th>Transportation Management Measure</th>
<th>Responsible Party</th>
<th>Action Required</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 COZEEP</td>
<td>CHP, RE</td>
<td>Increase CHP presence during roadway closures</td>
<td>RE to contact CHP to request COZEEP</td>
</tr>
<tr>
<td>2 Ground Mounted Signs</td>
<td>RE</td>
<td>Provide project and warning information to motorists.</td>
<td>Included in PS&amp;E</td>
</tr>
<tr>
<td>3 Freeway Service Patrol</td>
<td>Sacramento Transportation Authority (STA), RE, CHP</td>
<td>Dedicated towing service to remove vehicles involved in an incident</td>
<td>Cooperative Agreement</td>
</tr>
<tr>
<td>4 Portable Changeable Message Signs (CMS)</td>
<td>RE, TMC</td>
<td>Install portable CMS’s announcing reduced speed, delays, detours, and upcoming construction.</td>
<td>Included in PS&amp;E</td>
</tr>
<tr>
<td>5 Fixed Changeable Message Signs</td>
<td>RE, TMC</td>
<td>Use existing fixed CMS</td>
<td>TMC Control</td>
</tr>
<tr>
<td>5 Highway Advisory Radio (HAR)</td>
<td>RE, TMC</td>
<td>Use existing and portable HAR</td>
<td>Units Required during detour or as needed</td>
</tr>
<tr>
<td>6 Press releases, Paid Advertising, Brochures, Mailers, Impact group Notification</td>
<td>PIO</td>
<td>Provide project and construction information through media.</td>
<td>Scope and frequency determined by PIO</td>
</tr>
<tr>
<td>7 Telephone Hotline</td>
<td>RE, PIO</td>
<td>Construction provides real time information.</td>
<td>Public Affairs provide assistance in setting up hotline.</td>
</tr>
<tr>
<td>8 Contingency Plan</td>
<td>RE, CHP, PIO, TMC, TMT</td>
<td>TMC Incident Response Protocol</td>
<td>RE to report Incidents to TMC</td>
</tr>
</tbody>
</table>
5.0 **ROLES AND RESPONSIBILITIES**

5.1 **Resident Engineer (RE)**

The Resident Engineer (RE) will be the point of contact during construction. The RE will ensure full implementation of the Transportation Management Plan in close coordination with the District Traffic Manager (DTM) so that disruption to the traveling public is minimized. The RE will work with the DTM to ensure that project activities conform to the Transportation Management Plan and that contingency plans are implemented if necessary. The RE will coordinate work activities with CHP and other local and regional transportation stakeholders as appropriate. If the City street detours and the CMS’s on these detours need to be modified, the RE will direct the Contractor to make the adjustment. If the Contractor could not make such adjustment in a timely fashion, the City would make the adjustment. But under no circumstance will the City make the adjustment without first notifying the RE.

5.2 **District Traffic Manager (DTM)**

The District Traffic Manager is responsible, along with the RE, Construction Inspectors, and Public Information Officer (PIO) to ensure implementation of the Transportation Management Plan during the conduct of work. The DTM is responsible for the district wide traffic decisions pertaining to traffic impacts from planned construction activities. The DTM will coordinate with the Transportation Management Center (TMC) staff to respond with appropriate measures when significant travel delays occur on the highway system. The DTM facilitates review, approval, modification, or disapproval of planned lane closure requests. The DTM recommends termination or modification of active planned lane closure operations without compromising the safety of the public or workers, when traffic impact becomes significant.

5.3 **Project Manager (PM)**

The Project Manager (PM) identifies needed resources for all Transportation Management Plan measures and activities. The PM encourages the use of innovative construction staging and contracting methods to accelerate project completion when appropriate. The PM coordinates development of Transportation Management Plan with affected local and regional transportation stakeholders as needed.

5.4 **Public Information Officer (PIO)**

The Public Information Officer (PIO) will be the lead on getting the information out to the stakeholders including the following activities:

- Coordinate with transit agencies [Regional Transit (RT), Yolo bus, E-Tran], Amtrak, and Greyhound
- Coordinate with trucking agencies
- The River Cats and the Sacramento Kings
- Send out emails to businesses, State, County, and City agencies
- Establish hotline and web page
- Work with public outreach consultant

5.5 Construction Advisory Team (CAT)
A Construction Advisory Team (CAT) will be formed to facilitate the coordination and communication amongst stakeholders during construction. The team will be used to assist the RE in making decisions during construction. Prior to each stage change or in the event there is an emergency or conflict during construction in which the RE needs input, the team will be assembled.

6.0 MOTORIST INFORMATION STRATEGIES

Critical to the success of this TMP is the Motorist Information System that will be implemented during construction. The main component of this system is the Changeable Message Sign (CMS), Highway Advisory Radios (HAR), and 511 Traveler Information System that will provide real time traffic information to motorists approaching the construction zone. This information will guide and assist the motorists in making alternate route selections to avoid the impacted area. A signing scheme is designed to guide motorists through the various alternate routes. The various motorist information system elements are discussed below:

6.1 Portable Changeable Message Signs (PCMS)
Portable Changeable Message Signs (PCMS) are truck or trailer mounted and may be controlled locally or remotely. These signs will be utilized to provide motorists real time information about expected closures and possible detours, especially prior to the freeway connectors and before the “Boat Section”. PCMS will be part of the TMP for traffic control purposes. Several detours are incorporated as part of this TMP plan requiring more than 30 PCMS. Additional PCMS may be placed and operated as deemed necessary by the RE.

6.2 Fixed Changeable Message Signs (CMS)
Caltrans fixed changeable message signs will also be utilized. The primary use of these signs is to advise motorists of upcoming work zones, anticipated delays, and possible detours long before they approach the impacted area. Also displayed on the CMS’s would be estimated travel time to reach a certain destination, or anticipated delay. With such information accessible to them far in advance, long distance travelers will be able to make informed decisions. The Transportation Management Center (TMC) had identified five CMS dedicated for use during
construction of this project. The five dedicated CMS are listed below by their location:

- On US 50 at 48th Street
- On Highway 99 at Martin Luther King Jr. Blvd.
- On Interstate 80 at Madison Avenue
- On Interstate 80 east of Truxel Road
- On Interstate 5 at 35th Avenue

Travel time will be displayed on these CMS’s by March of 2008. One week prior to beginning of construction, a blitz will be used to announce the upcoming “Boat Section” construction with CMS and HAR.

The RE, in consultation with the CAT, is responsible for monitoring message content on the CMS’s and portable CMS deployment.

6.3 **Ground Mounted Signs**
Roadway guide signs will augment changeable message signs by guiding motorists through various alternate routes. An adequate signing scheme is developed by the Design Engineer for this project to guide motorists through the various alternate routes during the current stages of construction. The Contractor and the RE are responsible to make sure that adequate signing shall be installed to guide motorists.

6.4 **Caltrans Highway Information Network (CHIN)**
Real-time highway conditions are available to the motorist through Caltrans Highway Information Network (CHIN) by dialing 1-800-427-ROAD. The caller will have the option to obtain information on any particular route by selecting the route number.

6.5 **Highway Advisory Radio (HAR)**
Highway advisory radio is recommended in conjunction with the PCMS for Route 5 at the “Boat Section”. HAR allows motorists to receive highway broadcasts with nothing more than an AM radio. At locations where HAR is not available or where the signals are weak, portable HAR will be in place as a supplement. The HAR at the Highway 12/I-5 Junction will target northbound I-5 travelers south of the “Boat Section”. In addition, a portable HAR will be set up at either Elk Grove or the Pocket area in the northbound direction. North of the “Boat Section”, a portable HAR will be in place at the SR-113/I-5 Junction to hit southbound I-5 travelers.
Transportation Management Plan
EA No. 03-0A3601
Date: February 25, 2008

The HAR broadcast message should be succinct yet comprehensive in content. Since HAR broadcast have a range of 2-5 miles, the message should typically be contained within 60 to 90 second duration but no more than 90 seconds in length.

6.6 511 Traveler Information Systems
This element of the TMP provides motorists with system-wide and work zone-related information, both static and real time using wireless technologies such as cell phones and in-vehicle systems. This effort will be coordinated with the Sacramento Area Council of Government (SACOG).

6.7 www.FixI-5.com Website
A new website will be dedicated to provide travelers and truckers with the latest information on an upcoming project to reconstruct Interstate 5 through Downtown Sacramento. The website will feature traffic cameras, detour routes, and the latest project news. To advertise the new website, a 6’ x 16’ banner will be affixed to both sides of the Capitol Mall Drive Overcrossing of Interstate 5.

6.8 Intelligent Transportation System (ITS) for Traffic Monitoring
Intelligent Transportation System (ITS) will be used in the proximity of the work zone to identify areas where traffic flow is impeded so that traveler information can be provided. A work zone ITS deployment uses sensors to detect traffic conditions by registering a vehicle and tracking its course. The information collected will be processed and converted into travel time to be disseminated to the traveling public continuously via CMS.

6.9 Freight Travel Information
Due to the high percentage of freight movement on Interstate 5 through the “Boat Section”, coordination with the freight community (e.g., trucking companies, truck drivers, etc.) is needed to identify work zone information. The work zone information may include, but is not limited to truck restrictions, detours, occurrence of incidents, planned closures, etc.). Such information can be disseminated to central locations via a fax, or email distribution to trucking companies.

Further elements of the Motorist Information System could be referenced in the outreach plan prepared by ProProse, the public outreach consultant providing public information and outreach services for this project.

7.0 INCIDENT MANAGEMENT AND ENFORCEMENT STRATEGIES

On highways under construction, incidents and/or vehicular breakdowns can compound an already congested highway. In order to minimize the impacts of these events, this TMP has
incorporated an incident management element. This element aims to reduce the effects of incidents or vehicular breakdowns on the flow of traffic. The following incident management elements will be utilized:

7.1 Construction Zone Enhanced Enforcement Program (COZEEP)
COZEEP is a program that utilizes California Highway Patrol (CHP) officers during construction to improve the safety of construction work crews and the motoring public. The types of enhanced enforcement that CHP will provide include roving or stationary patrol vehicles for speed enforcement, queue control, and monitoring of traffic control devices. CHP officers may also be utilized for traffic control assignments and provide any needed emergency response support services. Due to the high traffic volumes on Interstate 5, COZEEP is warranted.

7.2 Access of Emergency Services During Closures
In the event that an Emergency vehicle must access a particular segment of a closure, every effort must be made by the Contractor and RE to facilitate the safe access of such vehicles.

7.3 Freeway Service Patrol (FSP)
Freeway Service Patrol (FSP) is a congestion relief program that uses dedicated towing services to remove vehicles involved in an incident. Under the congestion relief program, FSP is operated under the Sacramento Transportation Authority (STA) with funding from Caltrans. During construction, FSP will be provided for incident management under a cooperative agreement with the STA outlining the services provided and the fund transfer. With instructions from the RE, CHP would be in charge of deploying FSP.

7.4 Caltrans Transportation Management Center (TMC)
Caltrans TMC will coordinate and manage road user information. Under the direction of the TMC Manager, the TMC identifies the fixed CMS’s and HAR’s on the State highway system that will be utilized during construction of the “Boat Section” to provide information to the traveling public. Proper signing and radio messages will be broadcasted by the TMC as situations arise. Close coordination between Caltrans TMC and the City of Sacramento’s Traffic Operation Center (TOC) is critical to allow the City to quickly respond to incidents and disseminate information when needed to key City operational stakeholders. The TMC Manager will also coordinate with the adjoining Caltrans Districts for the use of their respective fixed CMS’s and HAR’s, as appropriate.

7.5 Traffic Surveillance Stations (loop detectors and CCTV)
Surveillance equipments such as detector stations or cameras will be used to identify traffic problems and to detect, verify, and respond to incidents. The Senior Electrical
Engineer at the TMC, in cooperation with the TMC Manager, will be responsible to optimize the operation of Traffic Surveillance Stations to make sure that accurate and reliable information are transmitted to the TMC and subsequently to the road users.

8.0 **CONSTRUCTION TMP STRATEGIES**

Construction TMP strategies are measures that are included in the plans and specifications, and performed by the contractor during construction. The objectives of construction TMP strategies are to reduce construction time, minimize traffic disruptions and avoid potential safety problems during construction. The following construction TMP strategy shall apply:

8.1 **Lane Requirement Chart**
Lane requirement charts is standard requirements in the Caltrans Standard Special Provision (SSP) that provide allowable time periods for construction activities. Those charts shall be enforced to minimize traffic impacts.

8.2 **Incentive/Disincentive Clause**
To minimize the duration of extended ramp or connector closures, the project Specifications and SSPs include a monetary bonus that the Contractor could receive if such ramp or connector could be completed and reopened to the public before the maximum allowable period. This is an incentive to the Contractor for completing the work early, and thereby minimizing public inconvenience. Additionally, the SSPs include disincentive clauses to impose monetary damages if such work is not completed on time. This is in addition to any damage clauses.

8.3 **Damage Clause**
The project Specifications and SSPs include a monetary damage levy on the Contractor for late lane closure pickup. This damage clause, in addition to other disincentive clauses, is a disincentive to the late opening of the lane closure, which will be monitored by the RE.

8.4 **A+B Bidding**
With A+B Bidding, the Contractor bids for both the actual item of work (Part A) and the total number of days to complete the work (Part B). The Contractor's payment is Part A. Since the award of contract is determined by not only the bid on the actual items of work but also on the number of days to complete, A+B bidding encourages the Contractor to finish the work in the fewest possible number of working days and thus minimize construction impacts.

8.5 **Project Coordination**
Coordination with other highway projects within the State highway system, as well as non-highway projects is critical in minimizing traffic disruptions.
involves scheduling projects within a corridor to ensure that adequate capacity remains available to accommodate the anticipated travel demand within the corridor by not implementing work zones on parallel roadways, or on detours concurrently. At a minimum, care should be taken in the timing of lane closures to ensure that all projects are coordinated during construction to minimize any interference among the various projects. Prominent projects with known significant impacts have been cited in the Cooperation Clause in the SSPs. For information and updates of periodic street and sidewalk closures resulting from City projects, go to the following website and follow the link to Sacramento County Road & Lane Closures:

http://www.cityofsacramento.org/transportation/street/construction.html

9.0 STAKEHOLDER COORDINATION

Further transportation management measures may be implemented, should unusual and unplanned circumstances warrant. These will be determined on an individual, day-to-day basis. The Construction Advisory Team (CAT) will continuously monitor the project to ensure the safe and efficient movement of traffic. All changes or modifications are to be coordinated through the CAT except in those instances where any delay could cause a degradation of the system or public safety.

9.1 Team Meeting

To facilitate the coordination and communication amongst stakeholders during construction, a Construction Advisory Team (CAT) will be formed. The CAT will be comprised of members from both Caltrans and organizations outside of Caltrans, particularly the City of Sacramento. The primary focus of the team would be to develop a communication plan that would identify all the possible risks that may arise during construction. With each risk identified, the team would identify an action plan to inform the impacted stakeholders and develop a communication plan to resolve the issue. The communication plan shall include a decision tree with clearly defined lines of communication and responsibilities. The CAT will continuously monitor the project to ensure the safe and efficient movement of traffic throughout the execution of the project. At a minimum, seven days prior to any stage change, a meeting shall be called to discuss issues pertaining to the stage. Issues on hand may be, but not limited to the following:

- What messages should be displayed?
- Where Police or CHP should be deployed?
- Where flaggers should be deployed?
- What signs are to be used?
- Which lane, ramp, or connector closure will be involved?
- Whether there will be modifications to the Detour Plans?
See Attachment A for the list of CAT members and the respective unit and organization that they represent.

10.0 CORRIDOR/NETWORK MANAGEMENT STRATEGIES

These strategies intend to optimize traffic flow through the work zone corridor and adjacent roadways using various traffic operations techniques and technologies.

10.1 Truck Restriction
This strategy imposes restrictions on truck travel through the work zone during specific periods. Although trucks account for 9.6% of all traffic through the “Boat Section”, truck traffic north of the Boat Section in Woodland at the Interstate 5 and State Route 113 separation is as high as 24.1%. Imposing restrictions on trucks by diversion or detour will drastically increase roadway capacity for passenger vehicles through the work zone. The Office of Traffic Operations will coordinate the implementation of a truck detour.

10.2 Signal Timing/Coordination Improvements
Coordination efforts between the City and Caltrans will optimize traffic flow within the network. Retiming traffic signals on City streets will be done as needed to increase throughput of the roadways and optimize intersection capacity in and around the work zone.

10.3 TMP Effectiveness Monitoring
During construction, the Office of Freeway Operations, Sacramento, will collect and analyze non-recurring congestion data using tachometer runs during the morning and evening peak periods on a Tuesday, Wednesday, or Thursday on all freeway corridors approaching the project area. Each “tachrun” involves a two-car team, using the “floating car” method. The cars are separated by 15 minutes as they follow one another along the corridor. The process is repeated several times during the course of the peak period.

Non-recurring congestion determined from the tachrun data will be analyzed according to its magnitude, time, and space distribution. The total vehicle-hours of congestion are converted into congestion measuring parameters of congested lane-miles, congestion duration, average speeds, user delay, and user delay cost. These congestion characteristics can then be compared with the pre-construction conditions.
11.0  ALTERNATE ROUTE STRATEGIES

11.1  Detours
Truck drivers, and drivers of other vehicles that choose to divert around the “Boat Section” will have several detour options:

- Long distance southbound Interstate 5 traffic may divert at Woodland using southbound SR 113 to eastbound Interstate 80 to eastbound US 50 to southbound Interstate 5.
- Local southbound Interstate 5 traffic may divert in northern Sacramento using westbound Interstate 80 to eastbound US 50 to southbound 5.
- Local northbound Interstate 5 traffic may divert to westbound US 50 to eastbound Interstate 80 to northbound Interstate 5.
- Long distance northbound Interstate 5 traffic may divert to westbound US 50 to westbound Interstate 80 to northbound SR 113 to northbound Interstate 5.
- Traffic from westbound US 50 that would access NB Interstate 5 may continue westbound on US 50 and access EB Interstate 80 to northbound Interstate 5.

12.0  PUBLIC INFORMATION/PUBLIC AWARENESS CAMPAIGN

Public information is a vital component of this TMP. The objective of the public information campaign is to disseminate timely information related to construction activities. The scope of this campaign includes informing the public about the construction project and its impacts on the traveling public, and to provide information on various measures the traveling public may use to avoid anticipated traffic delays due to construction. The following elements of public information campaign are important facets of the overall TMP:

12.1  Brochures and Mailer
Pamphlets and flyers containing construction information and traffic management activities may be distributed by direct mail or handouts. The local commuters, employers, businesses, planners of special events, and community groups should be targeted for this information. These notices are sent to address their special circumstances, and to present alternative route maps, construction status, and information about the available TMP program. Brochures will be distributed at all truck stops and rest areas on Interstate 5 between Bakersfield and Oregon.

Fact sheets and construction bulletins may be created and available to hand out and/or mail or fax to the public along with the media project scope information, map of the project, and lane closure information may also be available.
12.2 Press Releases
Information to the public of upcoming stages, detours, project information, and construction events will be made through regularly issued press releases. The media will be used to disseminate project information to the motoring public such as information about the project prior to construction; project construction status and TMP program elements during construction. Project bulletins will be periodically given to the media. This can be done through radio and TV news broadcasts or newspaper columns.

District 3 Office of Public Information will send out updates to the media through its electronic system informing the press on traffic updates.

12.3 Emergency Hot-line for the Local Public
An emergency hot line will be available to the public with up to date information about the detours. Such information will include detour directions. The information will also be available in Spanish and be accessible 24 hours a day throughout the duration of the project.

12.4 Paid Advertising
Caltrans has secured a contract with a consulting firm to provide public outreach support. The consultant, ProProse, will provide radio, television, and newspaper advertisement for the project. Refer to the outreach plan prepared by ProProse for additional elements of the public information campaign.

The responsibility to make the project information available to all applicable entities will be held by the Caltrans’ Public Information Office with information provided by the Resident Engineer. The Resident Engineer shall keep the District 3 TMC and DTM well informed and up-to-date on the construction progress, delays, closures, and other information which may assist them in the performance of their duties.

13.0 CONTRACTOR & CALTRANS TRAFFIC EMERGENCY CONTINGENCY PLAN

13.1 Contractor’s Responsibility
The Contractor will be required to submit a traffic control plan at least one week prior to any lane or ramp closures, or the use of any detour plans. The traffic control plan shall contain a detailed contingency plan to ensure opening of the Route by the designated time. During construction activities requiring lane or ramp closures, or the use of any detour plans, the contractor shall provide appropriate personnel to monitor activities and make decisions regarding activation of contingency plans.
13.2 Contingency Plans
The Contractor shall provide contingency plans. These plans identify key operational decision points with a timeline listing the expected completion time of each critical path activity. Clearly defined trigger points shall be identified with each critical path activity to establish when the contingency plan will be activated.

13.3 Communication Plan
A communication plan shall include a decision tree with clearly defined lines of communication. The names, telephone numbers and pager numbers of the Contractor’s Project Manager, Caltrans TMC, Resident Engineer, Caltrans Permit and/or Construction Inspector, CHP Area Commander, and other applicable personnel shall be provided.

13.4 TMC Response Protocol
The Caltrans Traffic Contingency Plan basically follows the TMC major incident response protocol. When a major lane-blocking incident occurs, TMC should receive a report from CHP, Caltrans, or the Contractor field personnel. TMC staff shall take the following actions.

**Beginning of the Report:**
1. Notify Communication Center (DCC)
2. Verify details with CCTV or CHP unit
3. Notify media, 511 and management via Sigalert and/or pager notification
4. Notify/coordinate with adjacent districts’ TMCs, if applicable
5. Notify/coordinate with local TMCs, if applicable
6. Activate HAR and EMS
7. Make an entry on the CHP CAD bulletin board and route to the media, if applicable
8. Coordinate with DTM to have lane closures picked up on alternate routes, if applicable
9. Notify locally affected transit, city police, and traffic engineers for city street congestion, if applicable

**During Incident**
10. Update incident status notifications, if applicable

**End of Incident**
11. Notify DCC and traffic management team when incident is over
12. Deactivate CMS, HAR, and EMS
13. Send final Sigalert and/or pager notification
14. Delete CHP CAD bulletin board entry and route to the media, if applicable
15. Notify adjacent districts’ TMCs, local TMCs, Signal Operations, local transit, city police, and city traffic engineers when incident is over, if applicable
16. Update shift briefing binder, if applicable
## CONTACT INFORMATION

<table>
<thead>
<tr>
<th>Title</th>
<th>Name</th>
<th>Phone Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>CT Design Engineer</td>
<td>Oscar Vasquez</td>
<td>(916) 274-6111</td>
</tr>
<tr>
<td>CT Project Engineer</td>
<td>Melanie Collins</td>
<td>(916) 274-6309</td>
</tr>
<tr>
<td>CT Project Manager</td>
<td>Ken Solak</td>
<td>(916) 274-0654</td>
</tr>
<tr>
<td>CT TMP Manager</td>
<td>Joe Horton</td>
<td>(916) 274-0550</td>
</tr>
<tr>
<td>CT District Traffic Manager</td>
<td>Paul Wilkinson</td>
<td>(916) 859-7978</td>
</tr>
<tr>
<td>CT Area Construction Engineer</td>
<td>Kim Noonan</td>
<td>(916) 263-4913</td>
</tr>
<tr>
<td>CT Construction Resident Engineer</td>
<td>Meshack Okpala</td>
<td>(916) 263-5620</td>
</tr>
<tr>
<td>CT Traffic Design Senior</td>
<td>John Holzhauser</td>
<td>(916) 274-0500</td>
</tr>
<tr>
<td>CT Electrical Systems Senior</td>
<td>Brian Simi</td>
<td>(916) 859-7960</td>
</tr>
<tr>
<td>CT Traffic Management Center</td>
<td>Markus Heiman</td>
<td>(916) 859-7979</td>
</tr>
<tr>
<td>CT Freeway Operations</td>
<td>Jim Calkins</td>
<td>(916) 859-7940</td>
</tr>
<tr>
<td>CT Traffic Operations</td>
<td>Ron Sykes</td>
<td>(530) 741-5747</td>
</tr>
<tr>
<td>City of Sacramento Traffic Engineer</td>
<td>Hector Barron</td>
<td>(916) 808-2669</td>
</tr>
<tr>
<td>Sacramento Transportation Authority</td>
<td>Norman Hom</td>
<td>(916) 323-0894</td>
</tr>
</tbody>
</table>
ATTACHMENTS:

A. Construction Advisory Team (CAT)
B. Detour Sheets
<table>
<thead>
<tr>
<th>Team member</th>
<th>Name</th>
<th>Phone number</th>
</tr>
</thead>
<tbody>
<tr>
<td>CT Resident Engineer (RE)</td>
<td>Meshack Okpala</td>
<td>(916) 263-5620</td>
</tr>
<tr>
<td>CT Structure Rep</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CT Project Manager (PM)</td>
<td>Ken Solak</td>
<td>(916) 274-0654</td>
</tr>
<tr>
<td>CT Design Senior</td>
<td>Oscar Vasquez</td>
<td>(916) 274-6111</td>
</tr>
<tr>
<td>CT Transportation Management Planning Office (TMP)</td>
<td>Joseph Horton</td>
<td>(916) 274-0550</td>
</tr>
<tr>
<td>CT Traffic Management Center (TMC)</td>
<td>Markus Heiman</td>
<td>(916) 859-7979</td>
</tr>
<tr>
<td>CT District Traffic Manager (DTM)</td>
<td>Paul Wilkinson</td>
<td>(916) 859-7978</td>
</tr>
<tr>
<td>California Highway Patrol (CHP)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>City of Sacramento</td>
<td>Hector Barron</td>
<td>(916) 808-2669</td>
</tr>
<tr>
<td>City of West Sacramento</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CT Public Information Office (PIO)</td>
<td>Mark Dinger</td>
<td>(530) 741-4572</td>
</tr>
<tr>
<td>CT Maintenance</td>
<td>Pete Azevedo</td>
<td>(916) 859-7800</td>
</tr>
<tr>
<td>Contractor</td>
<td>C. C. Meyers Inc.</td>
<td>(916) 635-9370</td>
</tr>
</tbody>
</table>
CLOSE Richards Blvd ON RAMP
TO SB ROUTE 5 PER STANDARD PLAN T14.

RICHARDS BLVD ON TO SB ROUTE 5 DETOUR
(VIA RICHARDS BLVD WB ROUTE 5 ON RAMP)

TRAFFIC HANDLING PLAN
DETOUR LAYOUT
RICHARDS BLVD ON RAMP
TO SB ROUTE 5
NO SCALE

DE-12
CLOSE RICHARDS BLVD OFF RAMP
FROM NB ROUTE 5 PER STANDARD PLAN T14.

DETOUR M
RICHARDS BLVD OFF FROM NB ROUTE 5 DETOUR
(VIA GARDEN HIGHWAY SB ON RAMP)

TRAFFIC HANDLING PLAN
DETOUR LAYOUT
RICHARDS BLVD OFF RAMP
FROM NB ROUTE 5
NO SCALE
DE-13

THIS PLAN ACCURATE FOR DETOUR WORK ONLY.
CLOSE SB ROUTE 5 TO HIGHWAY 50 CONNECTOR
PER STANDARD PLAN T14

TRAFFIC HANDLING PLAN
DETOUR LAYOUT
SB ROUTE 5 TO
HIGHWAY 50 CONNECTOR
NO SCALE
DE-16

THIS PLAN ACCURATE FOR DETOUR WORK ONLY.