C/CAG

CITY/COUNTY ASSOCIATION OF GOVERNMENTS OF SAN MATEO COUNTY

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1:15 p.m., Thursday, June 15, 2006
San Mateo County Transit District Office[1]
1250 San Carlos Avenue, Second Floor Auditorium
San Carlos, California

TECHNICAL ADVISORY COMMITTEE (TAC) AGENDA

1.	Public comment on items not on the Agenda (presentations are customarily limited to 3 minutes).	McAvoy	No materials.
2.	Issues from the last C/CAG and CMAQ meetings: • Approved – Funding for the 3rd cycle Federal STP Local Streets & Roads program. • Approved – Allocation of Federal Regional Bicycle and Pedestrian Program funding. • Approved – Amendments to the agreements with the cities of Burlingame, East Palo Alto, Foster City, Menlo Park, Millbrae, Brisbane and Daly City to extend the provision of local based shuttle services through June 30, 2007. • Accepted – Caltrans and C/CAG El Camino Real definition and Joint principles for inclusion in the El Camino Real Incentive Program. • Approved – C/CAG 2006/07 program budget and fees review.	Wong	No materials.
3.	Approval of the Minutes from April 20, 2006.	Wong	Pages 1-2
4	Recommendation on approval of the Revised Final Policy on Traffic Impact Analysis (TIA) to determine impacts on the Congestion Management Program (CMP) roadway network resulting from roadway changes, general plan updates, and land use development projects.	Wong	Pages 3-19
5.	Recommendations for the development of a Traffic Incident Management Plan for the US 101 Corridor.	Hoang	Pages 20-23
6.	Measure A Update (Strategic Plan development).	Hurley	Oral Report
7.	Member Reports.	McAvoy	

[1] For public transit access use SamTrans Bus lines 390, 391, 292, KX, PX, RX, or take CalTrain to the San Carlos Station and walk two blocks up San Carlos Avenue. Driving directions: From Route 101 take the Holly Street (west) exit. Two blocks past El Camino Real go left on Walnut. The entrance to the parking lot is at the end of the block on the left, immediately before the ramp that goes under the building. Enter the parking lot by driving between the buildings and making a left into the elevated lot. Follow the signs up to the levels for public parking.

Persons with disabilities who require auxiliary aids or services in attending and participating in this meeting should contact Nancy Blair at 650 599-1406, five working days prior to the meeting date.

2006 TAC Roster and Attendance				
Member	**Agency**	Jan	Mar	Apr
Neil Cullen (Co-Chair)	San Mateo County Engineering	yes	yes	yes
Ian McAvoy (Co-Chair)	SamTrans	yes	yes	yes
April Chan	Peninsula Corridor JPB			
Duncan Jones	Atherton Engineering		yes	yes
Fernando Bravo	East Palo Alto Engineering		yes	
Gene Gonzalo	CalTrans			
George Bagdon	Burlingame Engineering	yes		
Jon Lynch	Redwood City Engineering	yes	yes	yes
Joseph Hurley	SMCTA	yes	yes	yes
Kenneth Folan / M.Roddin	MTC			
Larry Patterson	San Mateo City Engineering	yes	yes	yes
Liz Cullinan	San Carlos Planning	yes	yes	
Mark Duino	San Mateo County Planning	yes	yes	yes
Meg Monroe	Burlingame Planning	yes	yes	
Mo Sharma	Daly City Engineering	yes	yes	yes
Parviz Mokhtari	San Carlos Engineering	yes	yes	yes
Randy Breault	Brisbane Engineering	N/A	yes	
Ray Davis	Belmont Engineering	yes	yes	yes
Ray Towne	Foster City Engineering	yes		yes
Reza (Ray) M. Razavi	South San Francisco Engineering		yes	
Rick Mao	Colma Engineering	yes	yes	
Ruben Nino	Menlo Park Engineering	yes	yes	yes
Sandy Wong	C/CAG CMP	N/A	yes	yes
Tatum Mothershead	Daly City Planning	yes	yes	yes
Van Ocampo	Pacifica Engineering		yes	

TECHNICAL ADVISORY COMMITTEE (TAC)
FOR THE
CONGESTION MANAGEMENT PROGRAM (CMP)

April 20, 2006

MINUTES

The one hundred fifty-nineth (159th) meeting of the Technical Advisory Committee (TAC) was held in the SamTrans Offices, 1250 San Carlos Avenue, San Carlos, Bacciocco Auditorium. Co-Chair Cullen called the meeting to order at 1:16 p.m. on Thursday, April 20, 2006.

TAC members attending the meeting are listed on the Roster and Attendance on the preceding page. Others attending the meeting were: Richard Napier and Walter Martone - C/CAG; Brian Lee – San Mateo County Public Works; Stephen Yokoi, Zachary Chop and Beth Thomas – Caltrans; Jim Bigelow – CMAQ; Dennis Chuck – SSF; Raymund Donguines – Pacificia; Joel Slavit – SamTrans; Pat Dixon – SamTrans CAC.

1. Public comment on items not on the agenda.

None.

2. Issues from the last C/CAG and CMAQ meetings.

As shown on Agenda.

3. Approval of the Minutes from March 16, 2006.

Approved.

4. Acceptance of project application scoring and approval of recommendation on projects to be submitted to the MTC for funding for Third Cycle Federal STP Local Streets and Road Shortfall.

Sandy Wong presented the recommendation from the scoring subcommittee. The subcommittee consisted of Larry Patterson, Mo Sharma, Parviz Mokhtari, Van Ocampo, Brian Lee, and Sandy Wong. They diligently applied the scoring criteria and scored all the applications except for two which were deemed not eligible by the subcommittee.

Comments from TAC members included the consideration of other factors such as average daily trips and bicycle usage, and less heavy weight on the project readiness factor since the funding can be programmed as far out as FY 2008/09.

The TAC unanimously approved the funding recommendation and requested to reconvene the subcommittee to revise the scoring criteria to be used in the next cycle. The TAC also agreed to send a letter to Half Moon Bay providing the reasons for ineligibility of their project.

5. Joint principles for improvements on El Camino Real (between Caltrans and C/CAG).

Richard Napier, Executive Director of C/CAG, presented the revised Joint Principles for Improvements on El Camino Real between Caltrans and C/CAG. First of all, the last paragraph of "Caltrans is partnership with C/CAG and the Ctities and County will develop a Transportation Corridor Concept Report (TCCR)....." as shown in the meeting packet will be deleted at the request of Caltrans.

TAC members suggested these changes: 1) replace "through capacity" with "peak period person capacity". 2) "significant unmitigated impacts" should be defined and reference the Traffic Impact Analysis policy. 3) replace "No elimination of through lanes" with "No elimination of through lanes unless can be demonstrated to the satisfaction of Caltrans and C/CAG that the change will improve capacity".

TAC members unanimously agreed with changes 1 & 2 above. However, with regard to change number 3, there was a split vote with five supporting no change and seven supporting the change.

6. Measure A Update (Strategic Plan development).

Joe Hurley presented the Measure A Strategic Plan proposed Project Evaluation Criteria. The three levels of criteria include screening criteria, core criteria, and supplemental criteria. Screening criteria includes consistency with regional and local plans, and project status/readiness. Core criteria includes congestion relief, cost/benefit, Measure A proportion share, Measure A contribution, and safety. Supplemental criteria includes diversity, economic benefit, environmental impact, geographic equity, system connectivity, and transit-oriented development.

The draft funding criteria will be submitted to the TA Board on May 4, 2006, while the draft Strategic Plan is scheduled for October 5, 2006 to be adopted on December 7, 2006. TAC members made some minor comments on the above presentation. Joe asked that the group to continue on providing comments for one week after this meeting.

7. C/CAG Budget.

Richard Napier presented the draft C/CAG budget. Rich stated that there has been no increase in C/CAG member fee for the last four to five years. This year, there will be a need for 5% increase to keep up with the needs. He also encouraged the jurisdictions to submit invoices to claim the local share of the AB 1546 funds (vehicle license fee for NPDES and Congestion Management).

8. Member Reports.

Rich Napier stated the 2006 State Transportation Improvement Program (STIP) was submitted to the California Transportation Commission (CTC). CTC staff recommendation consisted of $18 million reduction in San Mateo County. With the help from the Metropolitan Transportation Commission (MTC), C/CAG is able to lessen the reduction to $13 million and resubmitted the proposal to the CTC. At the current time, the situation is still subjected to change.

The meeting adjourned at 2:55 p.m.

C/CAG AGENDA REPORT

Date: June 15, 2006

To: CMP Technical Advisory Committee (TAC)

From: Sandy Wong

Subject: Recommendation on approval of the Revised Final Policy on TIA to determine impacts on the Congestion Management Program (CMP) roadway network resulting from roadway changes, general plan updates, and land use development projects.

(For further information or questions contact Sandy Wong at 599-1409)

RECOMMENDATION

That the TAC recommend approval of the revised Final Policy on Traffic Impact Analysis to determine traffic impacts on the CMP roadway network resulting from roadway changes, General Plan Updates, and land use development projects.

FISCAL IMPACT

Included in the adopted C/CAG budget.

SOURCE OF FUNDS

Policy compliance will be monitored by existing C/CAG staff.

BACKGROUND/DISCUSSION

At the December 8, 2005 C/CAG Board meeting, the Board directed staff to distribute the Draft Policy on Traffic Impact Analysis (TIA) to cities/county for comments. Since then, the Draft Policy has been circulated to all City Managers and County Manager for review and comment. Responses were received from the cities of Menlo Park and Redwood City. The TIA Subcommittee met on February 28, 2006 to address the comments received and developed responses to City of Menlo Park and City of Redwood City.

At the March 16, 2006 TAC meeting, the TAC accepted the Subcommittee's responses to comments and recommended to approve the Final Policy on Traffic Impact Analysis. The same recommendation was by the Congestion Management and Air Quality (CMAQ) committee at its March 27, 2006 meeting.

However, just before this item was forwarded to the C/CAG Board for approval, City of Menlo Park submitted further concerns on the policy due to that the city updates its General Plan relatively frequently. As a result, staff has made changes to the policy to accommodate Menlo Park's unique situation. At the mean time, the document has been reformatted for easier reading.

ATTACHMENT

- (Revised Final Draft) Policy on Traffic Impact Analysis (TIA) to Determine traffic impact on the Congestion Management Program (CMP) roadway network.

C/CAG

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Policy on Traffic Impact Analysis to Determine Impacts on the Congestion Management Program (CMP) Roadway Network

June 15, 2006

Section I
INTRODUCTION

As the Congestion Management Agency for San Mateo County, C/CAG is responsible for maintaining the performance and standards of the Congestion Management Program (CMP) roadway network. The CMP roadway network is of countywide significance, and the performance of these roads must be preserved.

Traffic Impact Analysis (TIA) is the term used in the study of the expected effects of projects and land use decisions on transportation facilities. The study's purpose is to determine whether the transportation system can accommodate the traffic generated by the projects or land use decisions. And to help decision makers to make improvements needed to the roadways, bike routes, sidewalks, and transit services affected by the project. This helps decision makers determine whether to approve the project and what conditions to impose on the project.

This document includes the following sections:

- Section I: Introduction
- Section II: Definition & Purpose
- Section III: Policy
  1. Roadway Modification Projects
  2. General Plan and Specific Plans
  3. Land Use Development Projects
- Section IV: Scope and Parameters of Traffic Impact Analysis
- Section V: Definition of CMP Impact

Section II
DEFINITION & PURPOSE

Definition

This document states policy and establishes procedures to determine cumulative capacity impacts on the CMP roadway network (impacts on the quality of traffic services) from the following three types of projects:

1. **Roadway modification projects**:
   a. Projects that change the CMP roadway.
   b. Projects near the CMP roadway and impact the CMP network.
2. **General Plan and Specific Plans**.
   a. New General Plan or General Plan updates which include land use changes that would cause an impact on the CMP roadway network.
   b. Specific Plans, Specific Area Plans, Precise Plans, which include land use changes that would cause an impact on the CMP roadway network.
3. **Land use development project**.

Purpose

The purpose of this policy is to ensure uniform procedures for performing Traffic Impact Analysis to evaluate impacts on the CMP facilities resulting from land use and project decisions in San Mateo County.

The intent of this policy is to preserve acceptable performance on the CMP roadway network, and to establish community standards for consistent system-wide transportation review. Preservation of CMP roadway and intersection performance will require an evaluation of the near and long term impacts of General Plan updates, land use development proposals, as well as proposed roadway modifications that will either reduce the capacity of the CMP network, or cause additional traffic on the CMP network.

It is not intended that the Traffic Impact Analysis guided by this document will provide all information required for California Environmental Quality Act (CEQA) purposes. Traffic impact analysis to determine traffic impacts on the CMP network may be conducted as part of the CEQA process.

This policy will be reviewed and integrated into the 2007 Congestion Management Program for San Mateo County. It will be reviewed subsequently in two years.

Section III
POLICY

This policy provides an avenue to assess the cumulative traffic impacts on the CMP network, of General Plan decisions made by local jurisdictions. It provides clear direction to local jurisdictions on how to analyze CMP impacts resulting from roadway changes or land use decisions, determine feasible and appropriate mitigations.

Land use development proposals and proposed roadway modifications must be consistent with the jurisdiction's adopted General Plan, unless the proposal is to be amended into the General Plan before final approval by the jurisdiction. Local jurisdictions must evaluate traffic impacts of proposed revisions to their jurisdiction-wide General Plans and Specific Area Plans on the CMP network.

1. Roadway Modification Projects

Project sponsor, in consultation with C/CAG staff, shall determine if a roadway modification project on or near a CMP roadway will have potential near-term and long-term traffic impacts on the CMP roadway network. Section 4, *Scope and Parameters of Traffic Impact Analysis*, and more specifically the definition of impacts in Section 5, *Definition of CMP Impacts* should be used in developing initial thresholds (e.g. change in intersection or lane volumes) that can be used as indicators that a significant impact on a CMP roadway as a result of the proposed project is likely.

If initial assessment indicates that significant traffic impact on the CMP network may result from the proposed project, project sponsor must conduct traffic impact analysis consistent with this policy to determine traffic impacts on the CMP roadway system. Moreover, a travel demand forecasting model must be used to determine long-term traffic impacts if the project is to modify the CMP roadway. See "Travel Demand Forecasting" requirements below. For near term analysis, if the travel demand forecasting model does not provide the level of detail desired, then the use of manual assignment models, micro-simulation models or other tools to provide a more detailed and informative analysis of a roadway project is acceptable.

Mitigation:

Proposed roadway changes to the CMP network that are determined to have a CMP impact for current or future years cannot be considered in conformity with the Congestion Management Program unless mitigated to no CMP impact.

CMP traffic impacts could be mitigated through modifications of the proposed project. The level of service analysis or simulation can often be used to identify elements of the project that, if modified, will reduce the project impacts. Mitigation measures may also include roadway improvements, operational changes, or a provision for alternate routes. For example, adding a turn lane at

the intersection, modifying or eliminating on street parking may improve travel times. All mitigation measures shall first be discussed with and reviewed by C/CAG staff.

2. General Plan and Specific Plans

Project sponsor, in consultation with C/CAG staff, shall determine if a General Plan change or a Specific Plan will have potential traffic impacts on the CMP roadway network. Jurisdictions must conduct travel demand forecasting and traffic impact analysis to determine long term cumulative traffic impacts on the CMP roadway system. See "Travel Demand Forecasting" requirements below. For scope and parameters of traffic impact analysis, see Section 4. For definition of traffic impacts on the CMP system, see Section 5. If a jurisdiction makes small and incremental amendments its General Plan to include land use changes, and that each individual land use change would not have CMP traffic impact, then flexibility is provided that the travel demand forecasting model needs to be run every two years to account for the cumulative list of projects and site specific General Plan changes.

Mitigation:
General Plan updates or Specific Plans that are determined to have a CMP impact must consult C/CAG staff to identify feasible mitigations.

Cumulative development traffic impacts identified in the evaluation of a jurisdiction may be mitigated in a variety of ways. Clearly, revising the allowable land use intensities is the most direct way to mitigate traffic impacts to the CMP network. However, it is recognized that this may not be consistent with the jurisdiction's economic development plans. As alternatives, the jurisdiction may adopt a trip reduction policy that requires new development to make measurable reductions in their trip generation. These trip reduction requirements should be incorporated in the standard Conditions of Approval. The local jurisdiction should also implement a plan to monitor or sample actual trip generation to ensure that the trip reduction conditions are being met following project occupancy. Alternatively, jurisdictions may elect to provide capital improvements to reduce the traffic impact of cumulative development. To be viable, this type of mitigation must include a reliable funding mechanism such as a traffic mitigation fee program that includes, at a minimum, partial funding for the impacted CMP roadways. Where the impact is on the freeway system it will usually not be feasible to fully fund a needed improvement through a local fee. However, the fee program should provide a minimum of funding that would meet likely local share requirements, if approved by the jurisdiction.

All mitigation measures shall first be discussed with and reviewed by C/CAG staff before they are included in the report.

3. Land Use Development Projects

Project sponsor shall comply with the "Land Use Impact Analysis Program" guidelines in the latest Congestion Management Program (CMP) for San Mateo County. Project sponsors shall consult C/CAG staff regarding land use development projects that are determined to have traffic impacts on the CMP network.

Mitigations:

Adopted General Plan trip reduction requirements should ultimately be implemented at the project level through Conditions of Approval. As with the General Plan mitigations, the trip reduction program should include some plan for monitoring trip generation and procedures if established targets are met or exceeded. The option to reduce the intensity of a project to eliminate significant impacts to the CMP network should also be considered. If physical mitigation is desired, the jurisdiction should determine whether the project can and should be required to construct the mitigation project or whether funding the project's pro rata share is appropriate.

Travel Demand Forecasting Requirements

It is the intent of this policy that the cumulative traffic impacts to the CMP roadway system be evaluated consistently throughout the County. Toward this end, the C/CAG Countywide Travel Demand Forecasting Model must be used to forecast traffic demand for the analysis of the long-term cumulative traffic impacts of CMP roadway modification projects, General Plan updates, Specific Area Plans, or individual development projects.

Long Term Cumulative Analysis

The long-term cumulative analysis must be based on C/CAG or C/CAG derivative model forecasts. C/CAG will periodically update the model to provide travel demand forecasts under a 15 to 20 year planning horizon. This does not, necessarily require individual cumulative model runs for each land use development project. For example, a project that is consistent with the City's existing General Plan may not require a new model run. Previous General Plan consistent model results can be used. The alternative methods used for near term analysis or individual development projects as described in the next section may be used to modify the existing model results to illustrate conditions with and without the proposed project. If alternative methods are used to modify cumulative model forecasts, comparison must be made with long-range C/CAG model forecasts to ensure consistency. This type of minor adjustments to the C/CAG model results is permitted for individual land use development projects or minor changes to an existing General Plan. However new C/CAG model runs are required at least every two years[1], for Specific Plans and for major General Plan updates. Updating the C/CAG model runs is necessary to ensure that the cumulative impacts both within each jurisdiction as well as from

1 The biennial update of the C/CAG model runs can be postponed until they are needed for the analysis of a development, planning or CMP roadway project. Therefore, in communities with limited development activity, the two-year-old model runs need only be updated when there is a land use or roadway project to be analyzed.

neighboring jurisdictions are represented in the model results.

A C/CAG derivative model that is consistent with the C/CAG model may also be used; however, it must be reviewed and approved by C/CAG staff in advance. Derivative models must be updated periodically to maintain a 15 to 20 year planning horizon. Approval of a C/CAG derivative model includes the demonstration to C/CAG staff that the model yields similar output as the C/CAG model given the same input assumptions. In addition, the land use assumptions and transportation network assumptions incorporated in a C/CAG derivative model must be consistent with the most recent C/CAG model in order to be eligible for consideration. The C/CAG Countywide Travel Demand Forecasting Model runs must be reviewed by C/CAG. C/CAG may hire its travel demand model consultant to conduct the review, and costs incurred will be borne by the project sponsor.

Near Term Analysis

The use of C/CAG Countywide Travel Forecasting Model or a C/CAG derivative model is not mandatory for near term analysis of projects. The use of methodologies that are widely accepted by the traffic engineering profession such as applying established growth factors to existing traffic volumes, manual assignment models (e.g. TRAFFIX) are also allowable for these analysis scenarios. However, alternative methods for near term impact or individual development project analysis do not replace the requirement for a long-term cumulative impact analysis consistent with this Traffic Impact Analysis Policy.

C/CAG Review for Conformance

For roadway modification projects, C/CAG staff shall review for consistency with these TIA guidelines and determine conformity with the CMP.

For General Plan updates, Specific Plans, and land use development projects, C/CAG staff shall review TIA reports for consistency with these TIA guidelines. This review shall not constitute approval or disapproval of the project that is the subject of the report. C/CAG does not have the authority to approve or reject projects. That decision rests with the lead agency. However, the CMP establishes community standards and guidelines for consistent system-wide transportation review and provides comments to the lead agency on the TIA report based on staff review. Compliance with the CMP may be enforced through the withholding of apportionments under Section 2105 of the Streets & Highways Code as well as declaring a local agency ineligible for future transportation funds.

Section IV
SCOPE AND PARAMETERS FOR TRAFFIC IMPACT ANALYSIS (TIA)

Project sponsors must initiate consultation between the lead agency, C/CAG, Caltrans (if applicable), and those preparing the Traffic Impact Analysis (TIA) before commencing work on the study to establish the appropriate traffic impact analysis scope. At a minimum, the TIA should include the following:

A. Boundaries of the TIA

The boundaries of a TIA must not only include the immediate project area but also areas outside of the project area that may be impacted by the project. For example, the boundaries of an arterial segment, for analysis purposes, may be defined as at least one signalized intersection beyond the project limits on either end. If modification to a segment between intersections will affect the up-stream or down-stream intersection, then average travel time or average travel speed for a segment covering the up- and down-stream intersections must be analyzed.

Boundaries of a TIA must be agreed upon by the lead agency and C/CAG before commencing work on the analysis. Consultation with Caltrans is recommended, if applicable. However, if the project proposes to change a State owned facility, then the boundaries of analysis must be agreed upon by Caltrans as well.

B. Traffic Analysis Scenarios

Consultation between the lead agency, C/CAG, Caltrans (if applicable), and those preparing the TIA is recommended to determine the appropriate scenarios for the analysis. The following scenarios should be addressed as a minimum:

- Existing background condition (includes already approved developments and roadway network changes)
- Existing condition plus Project
- Future (15[2] to 20 year horizon) background without Project (no-build)
- Future (20 year horizon) background condition plus project

C. Analysis Period

Consultation between the lead agency, C/CAG, Caltrans (if applicable), and those preparing the TIA is recommended to determine the appropriate analysis periods. The TIA shall include, at a minimum, an analysis of transportation conditions in the AM and PM peak hours.

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2 20-year Model forecasts are assumed to be updated every 5 years so forecast horizon may be as short as 15 years.

D. Facilities To Be Included In the Analysis

1. A CMP intersection shall be included in a TIA if it is expected to be impacted by the proposed project.
2. A non-CMP intersection that is along a CMP segment shall be included in a TIA if it is expected to be impacted by the proposed project.
3. A freeway segment shall be included in a TIA if it is expected to be impacted by the proposed project.
4. A CMP arterial segment shall be included in a TIA if it is expected to be impacted by the proposed project.

E. Report Format

Traffic Impact Analysis reports must present findings for the various analysis scenarios and analysis periods as described above in the following units of measurement:

Intersections:	LOS and delay time
Freeway segments:	LOS and volume-to-capacity ratio
Arterial segments:	LOS and average travel speed

Section V
DEFINITION OF CMP IMPACT

A project is considered to have a CMP impact if it causes one or more of the following:

1. **CMP Intersection currently in compliance with the adopted LOS standard**:

   A. A project will be considered to have a CMP impact if the project will cause the CMP intersection to operate at a level of service that violates the standard adopted in the current Congestion Management Program (CMP).

   B. A project will be considered to have a CMP impact if the cumulative analysis indicates that the combination of the proposed project and future cumulative traffic demand will result in the CMP intersection to operate at a level of service that violates the standard adopted in the current Congestion Management Program (CMP) and the proposed project increases average control delay at the intersection by four (4) seconds or more.

2. **CMP Intersection currently not in compliance with the adopted LOS standard**:

   A project is considered to have a CMP impact if the project will add any additional traffic to the CMP intersection that is currently not in compliance with its adopted level of service standard as established in the CMP.

3. **Freeway segments [3] currently in compliance with the adopted LOS standard:**

   A. A project is considered to have a CMP impact if the project will cause the freeway segment to operate at a level of service that violates the standard adopted in the current Congestion Management Program (CMP).

   B. A project will be considered to have a CMP impact if the cumulative analysis indicates that the combination of the proposed project and future cumulative traffic demand will result in the freeway segment to operate at a level of service that violates the standard adopted in the current Congestion Management Program (CMP) and the proposed project increases traffic demand on the freeway segment by an amount equal to one (1) percent or more of the segment capacity, or causes the freeway segment volume-to-capacity (v/c) ratio to increase by one (1) percent.

4 **Freeway segments currently not in compliance with the adopted LOS standard**:

   A project is considered to have a CMP impact if the project will add traffic demand equal to one (1) percent or more of the segment capacity or causes the freeway segment

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3 Freeway segments are as defined in the Congestion Management Program Monitoring Program and are directional.

volume-to-capacity (v/c) ratio to increase by one (1) percent, if the freeway segment is currently not in compliance with the adopted LOS standard.

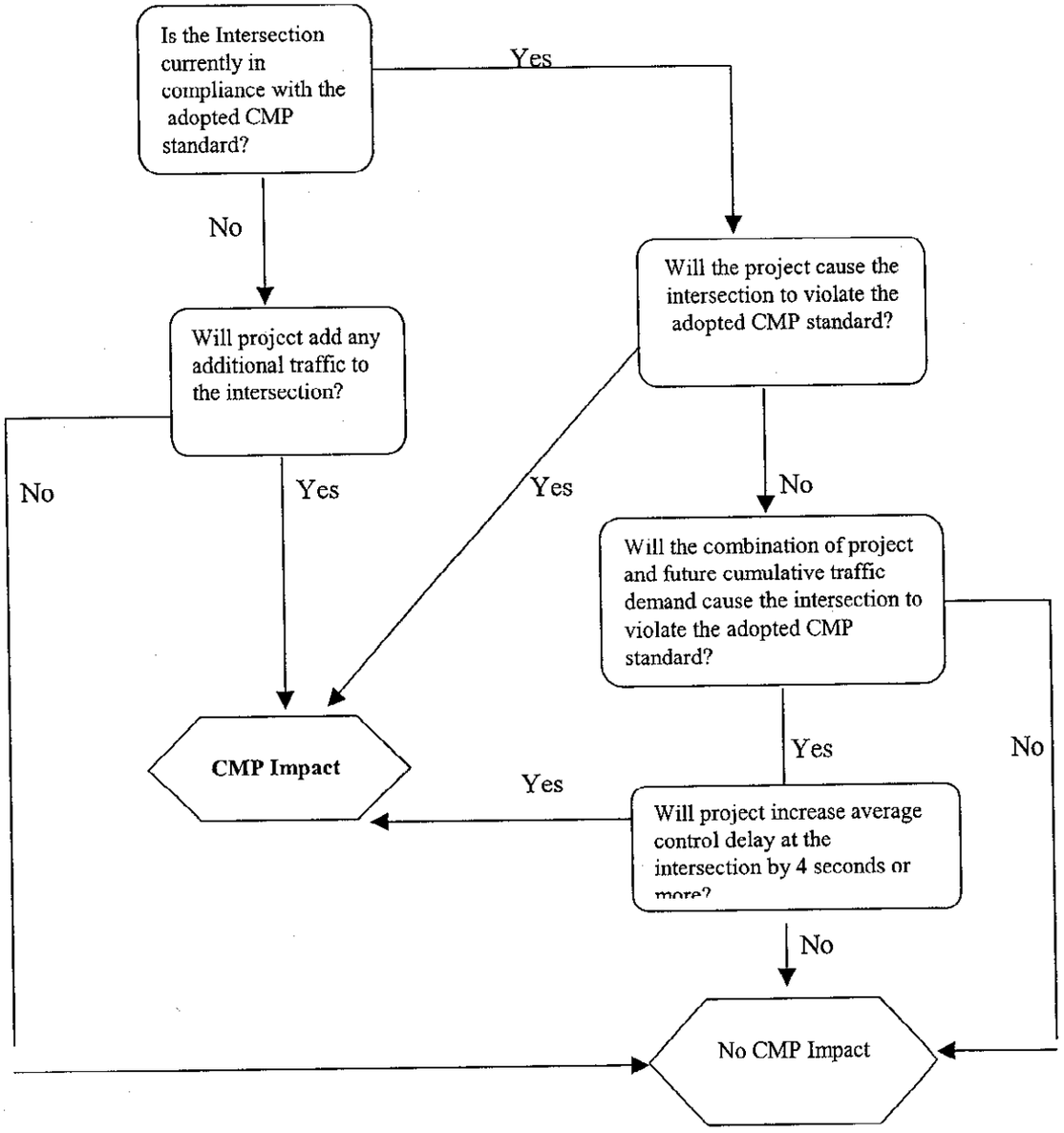
5 **CMP Arterial Segments**:

The analysis of arterial segments is only required when a jurisdiction proposes to reduce the capacity of a CMP designated arterial through reduction in the number of lanes, adding or modifying on-street parking, or other actions that will affect arterial segment performance.

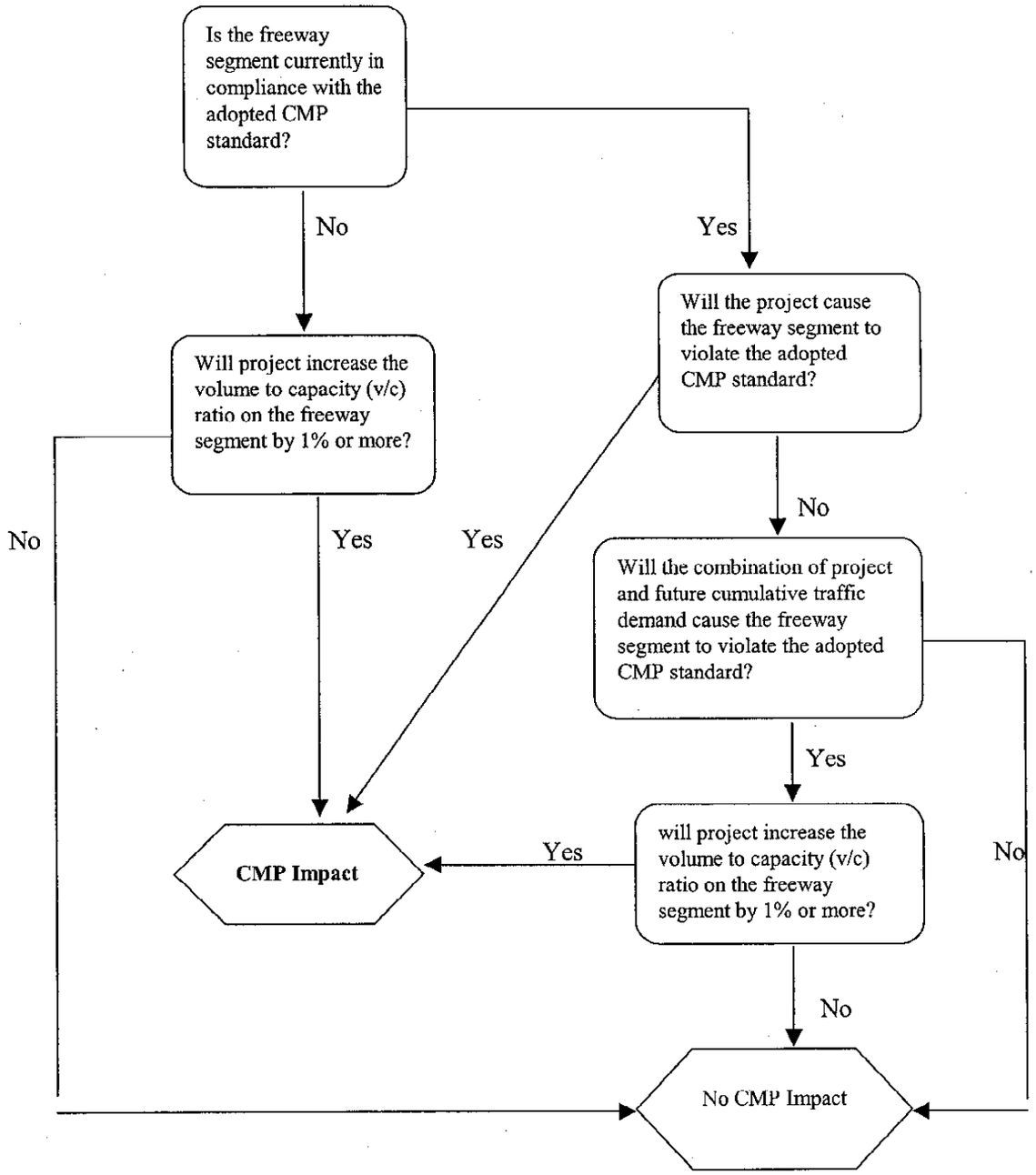
A project is considered to have a CMP impact if it causes mid-block queuing, parking maneuver resulting in delays or other impacts that result in any segment intersection to operate at a level of service that violates the adopted LOS standard set for the nearest CMP intersection.

Analysis of the segment using a calibrated micro-simulation model may be required by C/CAG staff to evaluate non-intersection impacts of the proposed project. CMP impact is determined if, based on the micro-simulation model, the average travel speed for the arterial segment is reduced by 4 miles per hour (mph) or more. Segments with average speeds that indicate LOS E or worse (based on Exhibit 15-2, HCM2000) cannot be modified by local jurisdictions if the proposed modifications would further reduce travel speeds on the segment.

To determine CMP impact on a CMP Intersection

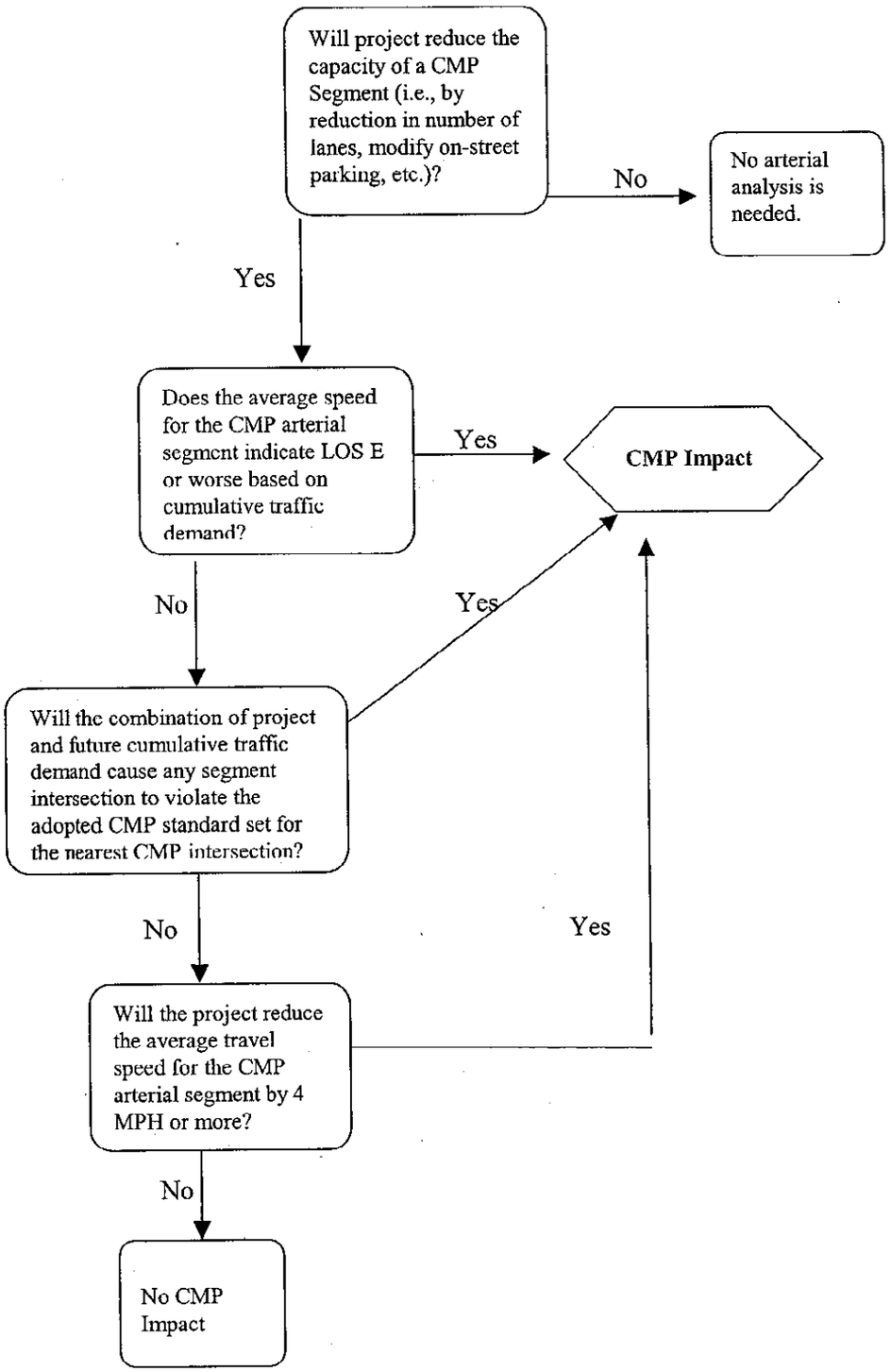


To determine CMP impact on a Freeway Segment



June 15, 2006

To determine CMP impact on Arterial Segment



June 15, 2006

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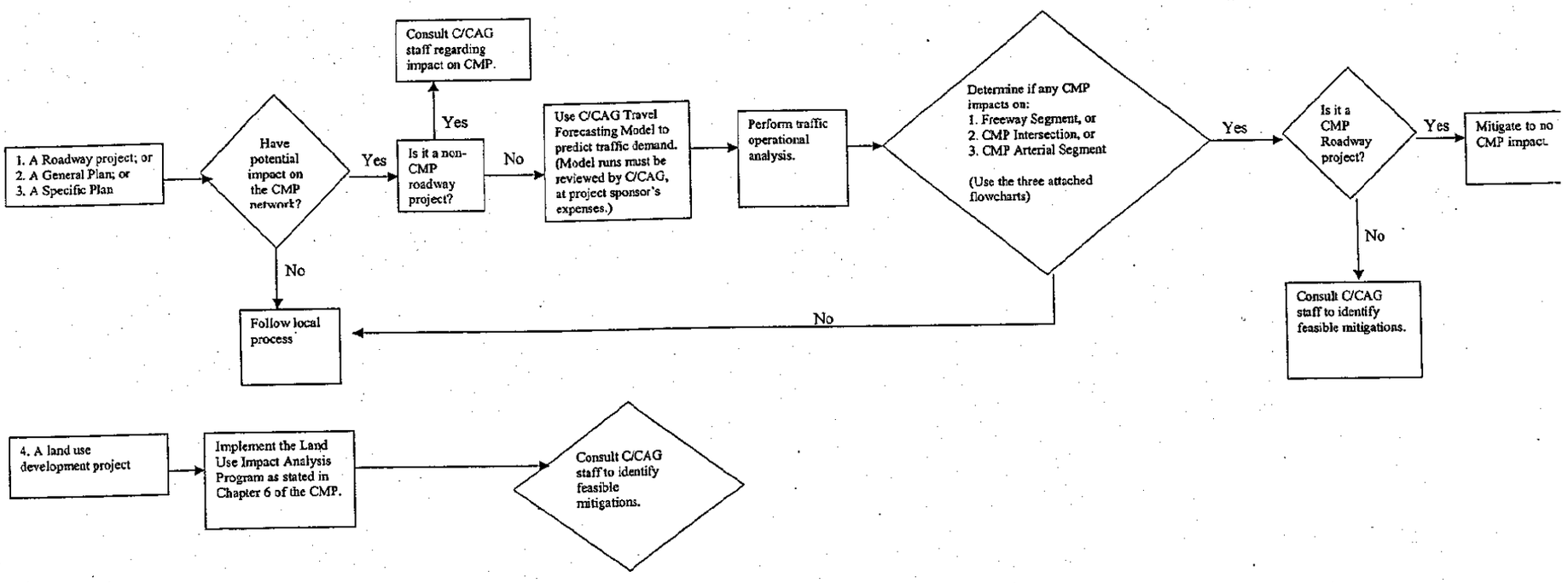
Flow chart for traffic impacts on the congestion management program (CMP) roadway network



C/CAG AGENDA REPORT

Date: June 8, 2006

To: Technical Advisory Committee

From: John Hoang

Subject: RECOMMENDATIONS FOR THE DEVELOPMENT OF A TRAFFIC INCIDENT MANAGEMENT PLAN FOR THE U.S. 101 CORRIDOR

(For further information contact John Hoang at 363-4105)

RECOMMENDATION

That the TAC adopt the process and goals to guide the development of the Traffic Incident Management Plan for the U.S. 101 Corridor.

FISCAL IMPACT

Staff and committee members from public agencies will perform the initial project development stages; therefore, no immediate fiscal impacts are anticipated. If a consultant will be retained for this project, then it is anticipated that there will be up to $200,000 available for the completion of the incident management plan for the U.S. 101 Corridor.

SOURCE OF FUNDS

Funds have been budgeted and will be made available under the Congestion Relief Fund Program.

BACKGROUND/DISCUSSION

The San Mateo County Intelligent Transportation System (ITS) Strategic Plan, which was completed in 2005 and adopted by C/CAG, provides the County with an overall framework for the development, implementation, and integration of ITS project applications. The Strategic Plan identified seven transportation elements each of which identified and prioritized several individual ITS project opportunities and concepts. The seven transportation elements in the Strategic Plan are listed below:

• Freeway/Highway Management	• **Emergency and Incident Management**
• Arterial Management	• Parking Management
• Transit Management	• Supporting Elements
• Traveler Information	

Based on project recommendations by the Strategic Plan, C/CAG staff proposes to pursue the Emergency and Incident Management (or Incident Management) element and initiate a project to develop and implement an Incident Management Plan for the U.S. 101 Corridor. The Strategic Plan identified this project as a "high priority" project.

The development and implementation of the Traffic Incident Management Plan will focus on establishing emergency bypass routes for the US 101 Corridor. For this Plan, it is recommended that the study be separated into two phases. The first phase of the plan will focus specifically between S.R. 92 and the southern boundary at Santa Clara County. This segment of freeway along the U.S. 101 was selected due to the prevalence of high traffic congestion during peak periods and that any major incidents along this segment will significantly delay traffic flow. The second phase limits will be from the San Francisco County Line to S.R. 92.

The project goal is to develop a formalized traffic incident management plan to establish predetermine emergency bypass routes from U.S. 101 Corridor in instances of a major traffic incident occurrence. These routes will be utilized for the duration of the traffic incident and until the freeway segment is reopened to traffic. The development of a combined strategy and implementation plan will improve the ability of local transportation and emergency services agencies to exchange information and coordinate effectively to detect and respond to traffic incidents, which will lower incident clearance times and decrease the time it takes restore traffic services.

To help guide the development of the Incident Management Plan for the U.S. 101 Corridor, it is recommended that a Working Group be established to provide input pertaining to the design and implementation of the Plan and report recommendations to the C/CAG Board for approval. The Working Group will consist primarily of stakeholders including representatives from jurisdictions located along the U.S. 101 corridor. All agencies and jurisdictions will be involved at the Technical Advisory Committee (TAC) level. The following is a list of all jurisdictions and agencies:

• Town of Atherton	• City of Foster City*	• City of Redwood City*
• City of Belmont*	• City of Half Moon Bay	• City of San Bruno*
• City of Brisbane*	• Town of Hillsborough	• City of San Carlos*
• City of Burlingame*	• City of Menlo Park*	• City of San Mateo*
• Town of Colma	• City of Millbrae*	• City of S.S.F*
• City of Daly City	• City of Pacifica	• Town of Woodside
• City of East Palo Alto*	• Town of Portola Valley	• County of San Mateo*
• C/CAG	• SamTrans	• CHP
• SMCTA	• CalTrains	• Caltrans
• County OES (Office of Emergency Services)	• Local ESP (Emergency Service Providers)	• Others TBD

* Cities adjacent to U.S. 101 Corridor

A consultant may be retained to provide technical assistance during the development and

implementation of the Traffic Incident Management Plan. The work plan will be subject to the review and recommendations of the TAC, which will act as the steering committee in the development of this Plan. The work plan will be presented to the C/CAG Board for review and approval.

Proposed Work Plan

The development of the Incident Management Plan for the U.S. 101 requires significant interagency coordination and cooperation. The initial steps will focus on identification of incident emergency bypass routes and transportation agency coordination.

The proposed scope of work for the development and implementation of the San Mateo County Incident Management Plan For U.S. 101 Corridor includes the following tasks:

I. Establish Interagency Cooperation
- Identify key stakeholders/agencies and obtain buy-in
- Define roles and responsibilities

II. Develop Program Concept
- Develop/refine program goals & objectives
- Develop concepts of operations
- Describe current state of incident management efforts
- Review current plans, procedures, and protocols
- Identify incident detection, verification, and response methods

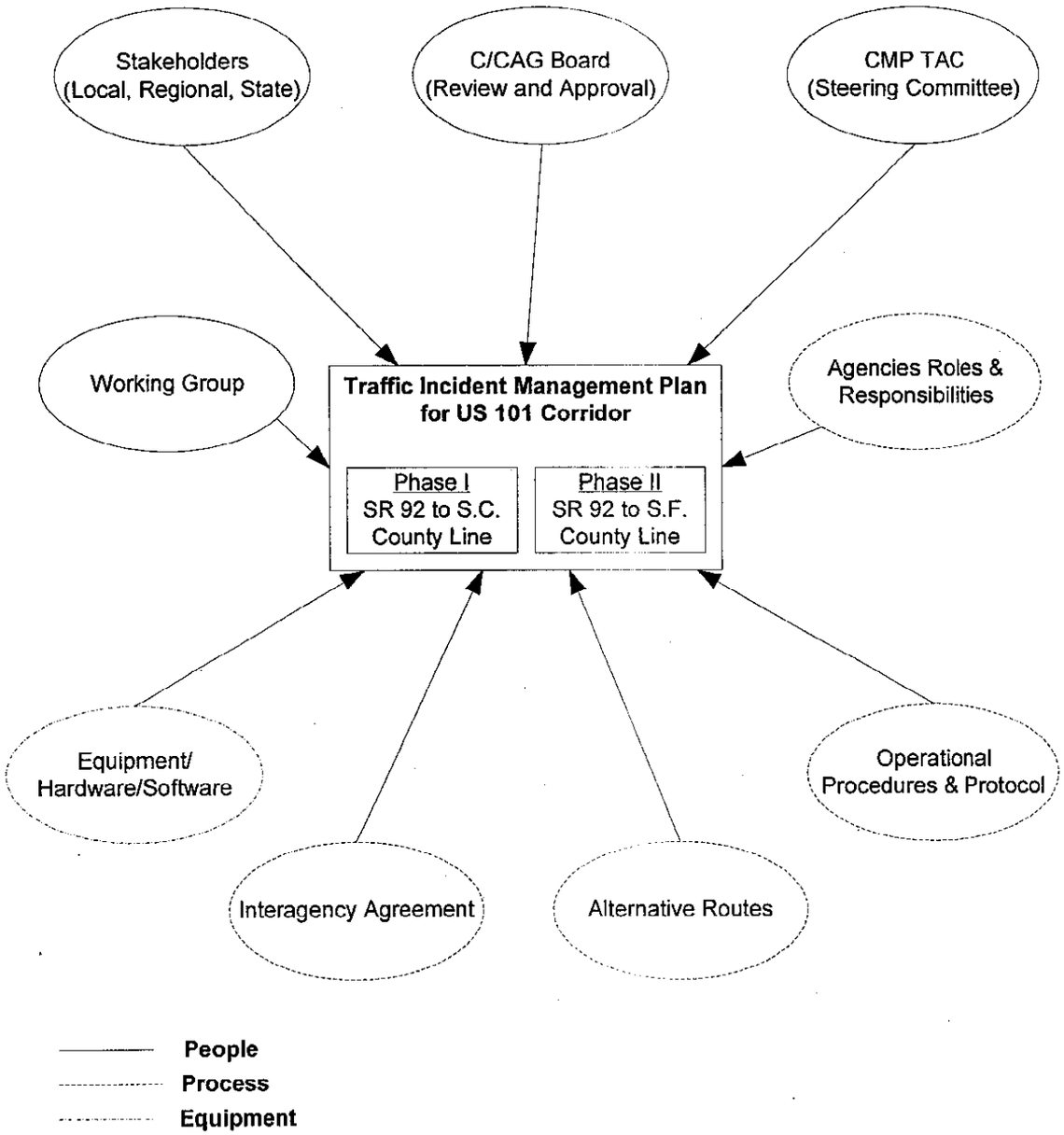
III. Develop Incident Management Plan
- Identify/Develop emergency bypass routes and facilities
- Establish communication protocols
- Develop concepts of operations, procedures, protocol
- Define management strategies and requirements
- Develop performance measures for objectives

IV. Establish Interagency Agreement
- Develop interagency agreements/MOU

Proposed Schedule

C/CAG staff recommends coordinating the Incident Management Plan for U.S.101 Corridor Kick-Off meeting to be held within the next three weeks. From that meeting, a more detailed schedule will be established.

ATTACHMENTS

- Traffic Incident Management for U.S. 101 Corridor Block Diagram

TRAFFIC INCIDENT MANAGEMENT PLAN FOR U.S. 101 CORRIDOR