Agenda: December 6, 2007

To: Regional Transportation Commission

From: Grace Blakeslee, Transportation Planner

RE: Central Coast Intelligent Transportation System (CCITS) Implementation Plan

---

RECOMMENDATIONS

Staff recommends that Regional Transportation Commission accept the Central Coast Intelligent Transportation System (CCITS) Implementation Plan.

BACKGROUND

The Central Coast Intelligent Transportation System (CCITS) Coordinating Group composed of stakeholder agencies from the five-county Central Coast Region (Santa Cruz, San Benito, Monterey, San Luis Obispo, Santa Barbara) has been working to produce the CCITS Implementation Plan through a consultant contract managed by the Association of Monterey Bay Area Governments (AMBAG). The 2007 CCITS Implementation Plan is designed to update the CCITS Strategic Deployment Plan completed in 2000 and to ensure our region's compliance with federal requirements for a Regional ITS Architecture. Compliance with federal requirements will ensure that ITS projects and ITS components of projects qualify for federal funds.

ITS encompasses a myriad of devices that capture and/or disseminate information. The information can be categorized as: Traffic Management and Safety, Transit Management, Tourism and Traveler Information and Emergency Management and Enforcement. Expected benefits from ITS include: travel time savings, accident-rate reduction, improved transit customer services and increased roadway efficiency. At its August 16, 2007 Transportation Policy Workshop meeting, the RTC received a report on the draft CCITS Implementation Plan for review and comments.

DISCUSSION

The CCITS Implementation Plan takes a system wide look at the use of Intelligent Transportation System (ITS) to meet transportation challenges and to address opportunities that may enhance the existing system in the five-county Central Coast Region. It provides a framework for integrating ITS projects together and provides materials and products to help each stakeholder agency to better implement, operate, and maintain their ITS project. In many instances ITS applications will need to accommodate linkages to other systems, could require coordination between different agencies and may be able to build upon existing elements rather than developing a new system. The CCITS Implementation Plan also fulfills the federal planning requirements for the deployment of ITS projects in the Central Coast in order for ITS projects to

qualify for federal funds.

Below is a summary of the CCITS Implementation Plan and the associated ITS Architecture. Also, the Introductory Chapter (Attachment 1) provides an overview of the project and examples of ITS and specific sections of the plan are locally significant (Attachment 2). The latter sections identify what and how technologies are being utilized to enhance the transportation system in Santa Cruz County. Important ITS projects deployed or planned in the region include: Changeable Message Signs, Traffic Management Center, Dynamic Curve Warning Sign, Traffic Signal Systems, Closed Circuit Television, Bicycle Detection Systems and Advanced Cross Walks. A compact disc (CD) with the CCITS Implementation Plan is included with this staff report for Commissioners only. The complete CCITS Implementation Plan can be downloaded from the AMBAG website (www.ambag.org/home/ccits.htm). Hard copies have not yet been printed by AMBAG, but a Commissioner wishing a hard copy may request one from staff and it will be printed from the electronic file.

Summary of CCITS Implementation Plan and Architecture

The overall goal of the Plan is to identify and prioritize potential ITS projects in the Central Coast Region based on existing and projected future travel and transportation needs and deficiencies. It is expected that ITS technologies will be increasingly incorporated into the transportation infrastructure over a period of time. Therefore, the Implementation Plan's importance grows as it becomes the framework to assure that all of the ITS pieces will ultimately fit together, not only with each other, but with other types of transportation improvements as well. The Plan:

- Provides a scheme for how ITS may be used to enhance the existing and future transportation system.
- Takes an inclusive approach to ITS projects, to ensure a range of possible applications in the Regional ITS Architecture, even though in some cases a particular application may be many years away.
- Should be viewed as a guide to the CCITS Coordinating Group, not as a mandate with regard to what agencies must do, nor limit what they can do.
- Reinforces the integration of ITS into the mainstream planning process.

(CCITS Implementation Plan, Page 1-4)

The Architecture is a skeletal framework of ITS system elements (planned and existing) in the Central Coast Region. It is a set of rules that facilitate the building of systems and allows systems to communicate and inter-operate. Several components make up the architecture including:

- ITS Inventory which lists projects by stakeholders over a phased timeframe and link each project to a corresponding physical system as defined by the Federal Rules (i.e. Emergency Management, Traffic Management),
- Operational Concepts which define the roles and responsibility of stakeholder,
- Functional Requirements which describe the purpose of the ITS component,
- System Interconnects which identify the links between ITS elements in the inventory; and,
- Data Flows which describe what information is actually being passed between them.

In addition, sample agreements between agencies operating and maintaining ITS elements

provide a tool for agencies implementing ITS elements. Finally, an Architecture Maintenance Plan documents how the Architecture will be kept up to date as required by the Federal Highway Administration. RTC staff will coordinate annual updates with AMBAG to incorporated new technologies and ITS applications in Santa Cruz County.

The RTC staff worked with project sponsors through the Interagency Technical Advisory Committee (ITAC) to ensure that the ITS projects identified in the plan reflected current ITS deployment and planning. In addition, staff reviewed with project sponsors their role in ensuring that new projects are coordinated with the ITS Architecture.

This CCITS Implementation Plan and Architecture should be viewed as living documents. They should be updated as new technology becomes available and implemented and as transportation systems and plans evolve.

Next Steps

RTC staff, working with local jurisdictions, will track ITS project plans and deployment and, in cooperation with AMBAG, will update the CCITS Implementation Plan and Architecture as needed. RTC staff will also continue to coordinate ITS deployment efforts between counties within the Central Coast Region and with local jurisdictions.

In addition, deployment of ITS elements in the region can enhance the transportation system and advance the *2005 Regional Transportation Plan* goals of preserving and maintaining the existing transportation system, emphasizing safety and efficiency and making the most efficient use of limited transportation resources. Therefore, further planning for ITS should be considered in project specific plans and the next RTP update. RTC staff will also continue to seek available ITS funding opportunities for local projects.

SUMMARY

The Central Coast ITS Implementation Plan provides direction for the application of advanced transportation technology in the five-county Central Coast Region. The Plan also ensures compliance with federal requirements and that ITS components of projects qualify for federal funds. The Central Coast ITS Architecture establishes a framework for the deployment of ITS elements in the Region. The Plan and the Architecture will be updated to reflect changes in technologies and transportation systems in Santa Cruz County as needed.

Attachment 1: Chapter 1- Introduction of CCITS Implementation Plan
Attachment 2: Locally Significant Excerpts from the CCITS Implementation Plan