

Los Angeles County Metropolitan Transportation Authority (Metro)

2009 Transportation Improvement Program
Call for Projects

APPENDIX E

METRO'S INTELLEAGENT TRANSPORTATION SYSTEMS (ITS) POLICY



Metro **Los Angeles Countywide**
Policy and Procedures
Intelligent Transportation Systems (ITS)

RTP&D04

POLICY STATEMENT

Federal regulations (23 CFR Parts 655 and 940 Intelligent Transportation System (ITS) Architecture and Standards; Final Rule) now require ITS projects funded with the Highway Trust Fund to conform to the National ITS Architecture and Standards; be guided by a regional architecture with geographic boundaries defined by stakeholder needs; and use systems engineering analysis on a scale commensurate with the project scope. It is Metro's Policy to abide by the Federal ITS regulations and requirements for those agencies seeking federal funding programmed by Metro for projects subject to this rule. For consistency and to maximize benefits, Los Angeles Countywide ITS Policy and Procedures is also applied to projects with state and local funding sources programmed and administered by the Metro.

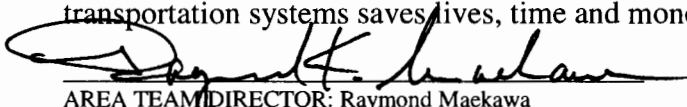
PURPOSE

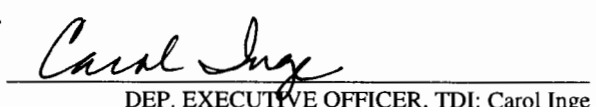
The purpose of this policy is to monitor funding compliance with the Federal Transit Administration (FTA) National ITS Policy and Federal Highway Administration (FHWA) ITS Final Rule.

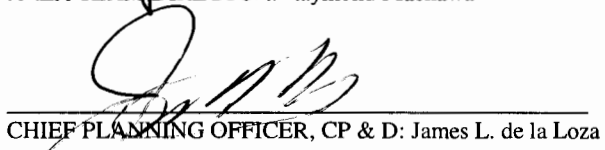
APPLICATION

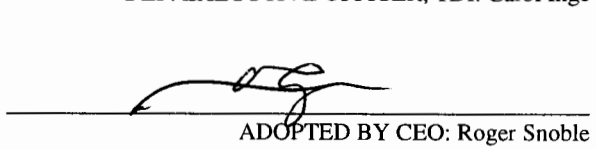
This policy applies to all ITS projects funded from the Highway Trust Fund. This includes funding through the Mass Transit Account and any other funds distributed by the FTA and the FHWA. In addition it applies to all ITS project funds programmed and administered by Metro through the Call For Projects, and Propositions A and C Local Return revenues if they were being used to match state and federal funds.

ITS involves the use of advanced computer, electronic and communications technologies to increase the safety and effectiveness of the surface transportation system. Metro encourages the use of ITS technologies to enhance the productivity of the existing infrastructure and vehicles that carry passengers, goods and services in Los Angeles County (i.e. highways, streets, bridges, mass transit vehicles and tracks). Some examples of transportation systems supported by ITS technologies include: advanced traffic signals; automated bus and maintenance vehicle location systems; electronic fare systems; electronic roadside and transit information signs; automated vehicle control systems and traveler information systems. Adding such technologies to our transportation systems saves lives, time and money.


 AREA TEAM DIRECTOR: Raymond Maekawa


 DEP. EXECUTIVE OFFICER, TDI: Carol Inge


 CHIEF PLANNING OFFICER, CP & D: James L. de la Loza


 ADOPTED BY CEO: Roger Snoble



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1.0 PROCEDURES

1.1 ITS Project Definition

An ITS project is defined as “any project that in whole or in part funds the acquisition of technologies or systems of technologies that provide or significantly contribute to the provision of one or more ITS User Services as defined in the National ITS Architecture.” See attachment A for ITS User Services version 5.0. This definition applies equally to both projects that are internal and external to Metro.

1.2 ITS Project Planning and Development

During project planning and development, all external agency project sponsors and Metro internal departments must certify that the project ITS elements are consistent with the Los Angeles County Regional ITS Architecture by filling out the “Consistency Self-Certification Form” (Attachment B). Failure to meet the requirements of this policy may result in delaying the programming and allocation of federal, state and local funds.

1.3 Los Angeles County Regional ITS Architecture

The purpose of the Los Angeles County Regional ITS Architecture is to maximize the benefits of all of the investments in ITS technology by promoting their integration and following the system engineering process. Integration gives access to data for multiple partners at little or no additional investment. The Regional ITS Architecture for Los Angeles County can be found at www.riits.net. It describes the process and the roles and responsibilities for maintaining the Regional Architecture after it is adopted.

The Los Angeles Regional ITS Architecture is used as the base framework for SCAG’s high level Regional ITS Architecture. This architecture covers the six counties that constitute the SCAG Region, and is also consistent with the California Statewide ITS Architecture and System Plan. Both the SCAG and State ITS architectures will ensure regional and statewide coordination and consistency at all levels and integration within the same communication framework.

The Los Angeles County Regional ITS Architecture provides a framework for ensuring institutional agreement and technical integration of ITS projects or groups of projects. Current or future ITS project sponsors receiving funding programmed and administered by Metro should acquaint themselves with the Los Angeles Regional ITS Architecture and participate in its future development. The Los Angeles County Regional ITS



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Architecture and Plan must also be maintained and be consistent with the region's transportation plans and improvements programs.

To support the need for consistency with the Los Angeles Regional ITS Architecture, the Metro Countywide Planning and Development Department (CP & D) is responsible for:

- Making consistency information available to external agencies and Metro internal departments;
- Reviewing and adding consistency requirements to the Metro Call for Projects requirements;
- Reviewing and adding consistency requirements to Prop A and Prop C funding guidelines;
- Reviewing and adding consistency requirements to Short Range Transit Plan (SRTP) countywide guidelines;
- Coordinating with transportation, transit agencies, emergency service providers and Metro internal Departments to define their ITS projects, their concept of operations and providing assistance to meet the consistency requirements; and developing necessary integration interfaces to the Los Angeles County Regional ITS Architecture;
- Providing support and guidance to transportation, transit agencies and emergency service providers using the Regional ITS Architecture guide book and tools for interface development;
- Participating and ensuring inter-agency system operation and management agreements are executed as appropriate and described in the Los Angeles Regional ITS Architecture;
- Administering the function and expansion of Los Angeles County Regional ITS Architecture; organizing ITS coordination committees and working groups that address technical and institutional issues that are associated with the operation, upgrade and maintenance of the Los Angeles Regional ITS Architecture; and
- Maintaining and updating the Los Angeles Regional ITS Architecture Plan for incorporation into the Southern California Associated Government (SCAG) Regional ITS Plan, Regional Transportation Plan (RTP), and Metro's Long Range Transportation Plan (LRTP) and Short Range Transportation Plan (SRTP).



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1.4 ITS Project Compliance

- 1.4.1 To ensure compliance with the ITS Policy, all ITS project sponsor agencies including Metro internal departments are required to complete the Los Angeles County Regional ITS Architecture Consistency Certification Form (Attachment B) and to self certify that their project's ITS elements in whole or in part are consistent with the Los Angeles County Regional ITS Architecture through the following:
- Identification of ITS systems elements
 - An outline concept of operations for the project;
 - Identification of participating agency roles and responsibilities;
 - A commitment to perform a lifecycle analysis for all ITS system elements;
 - A commitment to maintain and operate the system after the project completion;
 - A commitment to the use of systems engineering either directly by the agency and or their vendors;
 - A commitment to document the systems engineering steps followed at project completion; and,
 - A commitment that the project will address the use of standards in the context of the Los Angeles County Regional ITS Architecture and participate in the configuration management process.

This self-certification should be completed and submitted at the time of the submittal of the project application. As an additional aid to understanding the system engineering process, a major reference resource is the Caltrans Local Assistance Home Page: www.dot.ca.gov/hq/LocalPrograms. The Local Programs Procedures Manual Update LPP 04-04 deals specifically with ITS projects and includes detailed guidelines for compliance with the regulations including discussion of the process and application of systems engineering to ITS projects. Additional federal guidelines will be made available on the Regional ITS Architecture website (www.riits.net) when they are completed.



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REVISION HISTORY

Version No.	Date Submitted	Comments

ATTACHMENTS

A: Elements of National ITS Architecture User Services (Version 5.0)

**B: Los Angeles County Regional ITS Architecture Consistency
Self-Certification Form**



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ATTACHMENT A

Elements of National ITS Architecture User Services (Version 5.0)

- 1. *Travel and Traffic Management***
 - 1.1 Pre-Trip Travel Information
 - 1.2 En-Route Driver Information
 - 1.3 Route Guidance
 - 1.4 Ride Matching & Reservation
 - 1.5 Traveler Services Information
 - 1.6 Traffic Control
 - 1.7 Incident Management
 - 1.8 Travel Demand Management
 - 1.9 Emissions Testing and Mitigation
 - 1.10 Highway Rail Intersection
- 2. *Public Transportation Management***
 - 2.1 Public Transportation Management
 - 2.2 En-Route Transit Information
 - 2.3 Personalized Public Transit
 - 2.4 Public Travel Security
- 3. *Electronic Payment***
 - 3.1 Electronic Payment Services
- 4. *Commercial Vehicle Operations***
 - 4.1 Commercial Vehicle Electronic Clearance
 - 4.2 Automated Roadside Safety Inspection
 - 4.3 On-Board Safety and Security Monitoring
 - 4.4 Commercial Vehicle Administrative Processes
 - 4.5 Hazardous Material Security and Incident Response
 - 4.6 Freight Mobility
- 5. *Emergency Management***
 - 5.1 Emergency Notification and Personal Security
 - 5.2 Emergency Vehicle Management
 - 5.3 Disaster Response and Evacuation
- 6. *Advanced Vehicle Safety Systems***
 - 6.1 Longitudinal Collision Avoidance
 - 6.2 Lateral Collision Avoidance
 - 6.3 Intersection Collision Avoidance
 - 6.4 Vision Enhancement for crash Avoidance
 - 6.5 Safety readiness
 - 6.6 Pre-Crash Restraint Deployment
 - 6.7 Automated Vehicle Operation
- 7. *Information Management***
 - 7.1 Archived Data Function
- 8. *Maintenance and Construction Management***
 - 8.1 Maintenance and Construction Operations



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ATTACHMENT B

**LOS ANGELES COUNTY REGIONAL ITS ARCHITECTURE CONSISTENCY
SELF-CERTIFICATION FORM**

This form should be completed and executed for all ITS projects or projects with ITS elements except for routine maintenance and operation, traffic signal controller replacement, purchase of bus or rolling stock, expansion or enhancement of an existing operation system . The original form should be sent to Metro Countywide Planning and Development (CP & D) for any planned ITS projects or proposed funding involving Local, State or Federal funds programmed or administered through the MTA at the time of submittal of project application.

1. Name of Sponsoring Agency: _____

2. Contact Name: _____

3. Contact Phone: _____

4. Contact Email: _____

5. Project Description:

6. Identify the ITS elements being implemented and the relevant National Architecture User Service(s), see Attachment A.



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7. Outline of the concept of operations for the project.

8. Identify participating agencies roles and responsibilities _____

By signing and self-certifying this form, the agency commits itself to follow the ITS requirements listed below during project design and implementation. Please be advised that your project may be subject to further review and documentation by FHWA or FTA during project design and implementation phases:

- Perform a lifecycle analysis for the ITS project elements and incorporate these costs into the Operations and Maintenance plan as part of the system engineering process,
- Maintain and operate the system according to the recommendations of the Operations and Maintenance plan upon project completion,
- Use the systems engineering process and document the system engineering steps, and
- Use the Los Angeles County Regional ITS Architecture interface standards if required and conform to the regional configuration management process.

Signature:

_____ Date _____

Agency Representative

Please return the original Project Self Certification Form to Metro Department of CP & D, Attention: Ms. Carol Inge, Deputy Executive Officer, Los Angeles County Metropolitan Transportation Authority, One Gateway Plaza, MS 99-22-1, Los Angeles, CA 90012-2952