I-105/I-405 ICM Project

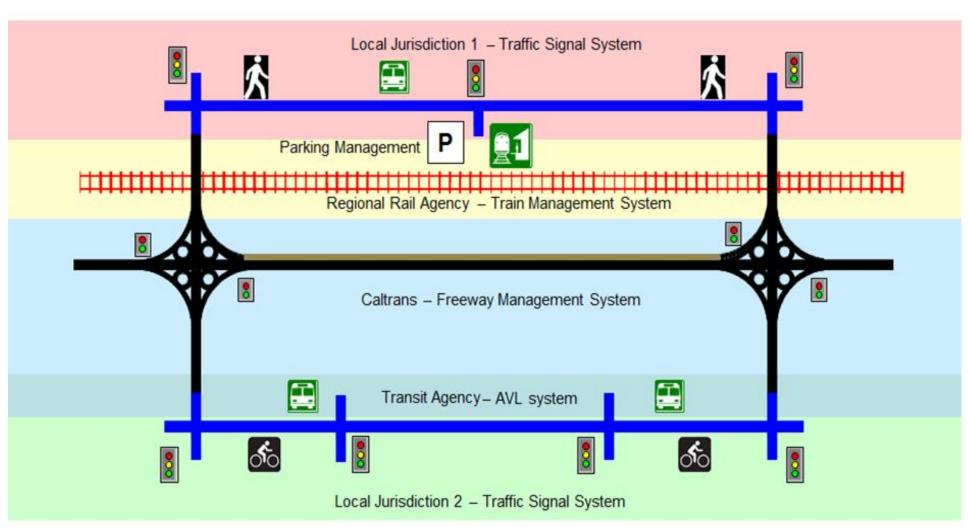
SBCCOG IWG February 8, 2023





WHAT IS INTEGRATED CORRIDOR MANAGEMENT?





ICM is an approach to improving transportation by integrating various networks together, so that partner agencies can manage the transportation corridor as a unified system.



PROJECT TEAM



PROJECT LEAD



Metro Project Manager – Shrota Sharma

Partner Agencies





















Kimley » Horn



Consultant Project Manager – Jim Roldan























HOW WILL I-105/I-405 ICM ADDRESS PROJECT NEEDS?





IMPROVE

operational capabilities of partner agencies



INTEGRATE

systems across jurisdictional boundaries for seamless operations



DEVELOP

incident response plans for improved efficiencies



AUTOMATE

system operations for rapid response



OPERATIONAL

ONLY when needed for incidents



I-105 ICM SOLUTION - BENEFITS

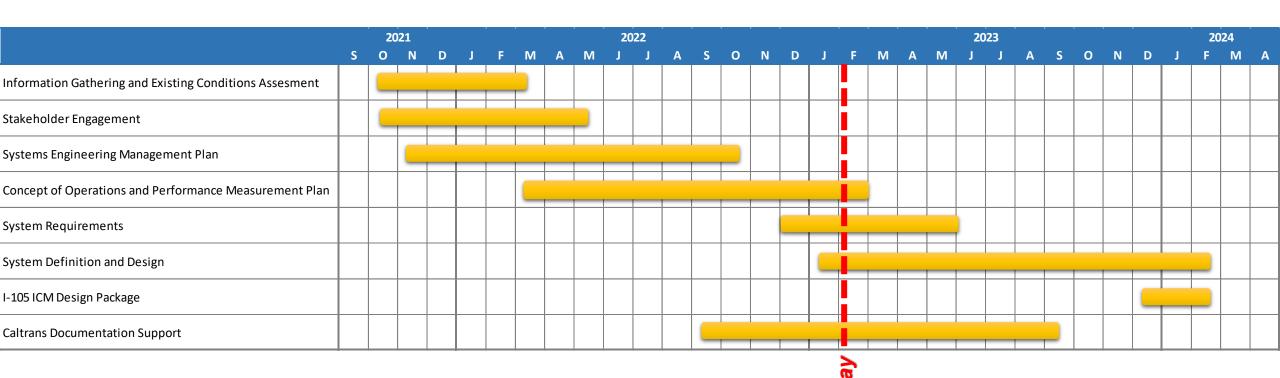


- Unified vision for cooperation, innovation and integration
- Optimize corridor operations
- Make travel safer and more efficient
- Minimize the impact of traffic incidents
- Improve travel throughout the whole corridor
- Build multi-jurisdictional partnership
- Improved environment



PROJECT STATUS

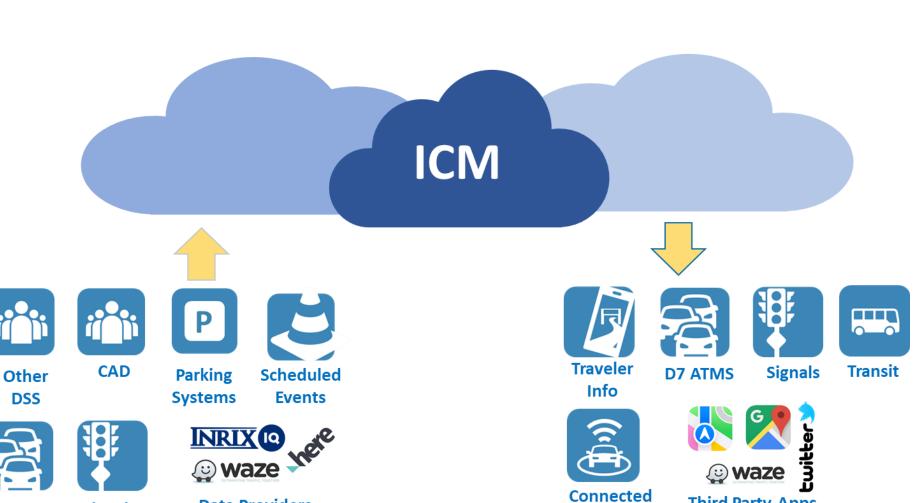








Summary of Concept of Operations





Signals

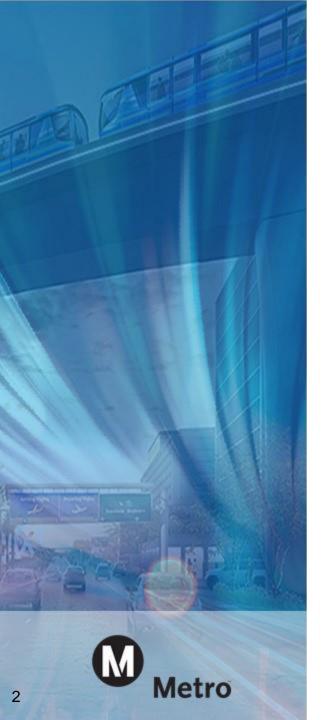
D7 ATMS

Data Providers

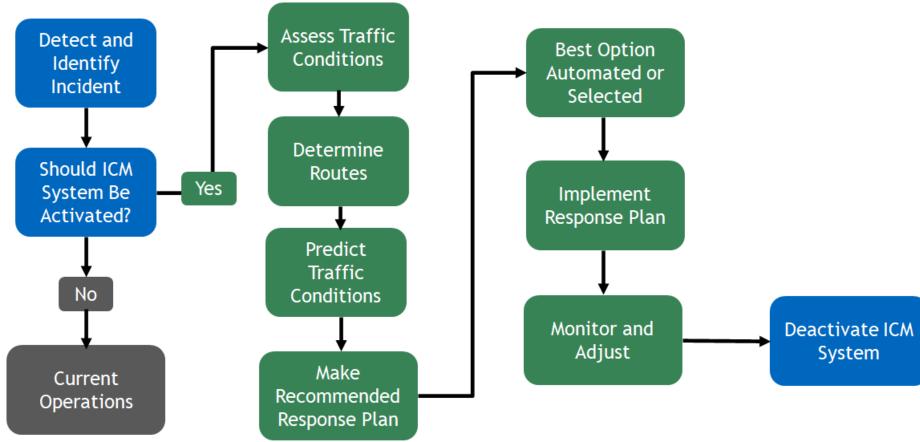


Third Party Apps

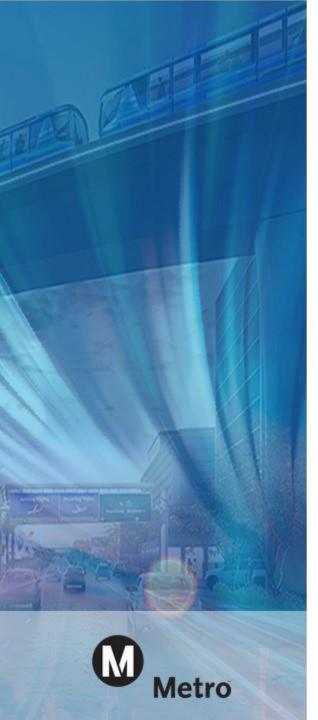
Vehicles



Summary of Concept of Operations







Summary of Concept of Operations

Incident Scenarios

- Freeway major incident/event (all lanes closed)
- 2. Freeway moderate incident (partial lane closure multiple lanes closed)
- 3. Freeway off-ramp incident/event (ramp closed)
- 4. Arterial street major incident (all lanes blocked in any direction)
- 5. Arterial street moderate incident (partial or all lanes blocked)
- 6. Evacuation of LAX
- 7. Incident while LAWA DSS is managing an incident
- 8. Evacuation venue or major employment center
- 9. Concurrent incident and planned event
- 10. Concurrent incident on I-105 and I-405



RESPONSE PLANS



- 1. Multiple traffic signal flush plans options
 - pre-determined from workshops
 - pre-approved by agencies and loaded onto the controllers
- Ramp metering ICM plans
- 3. Information dissemination (agencies, 511, FSP, law enforcement, transit operators, others)
 - alerts
 - notifications
- 4. Traveler information (traffic enroute, third party ISP, websites, Metro trip planning, others)
 - CMS/DMS (traffic enroute)

POTENTIAL ICM FEATURES



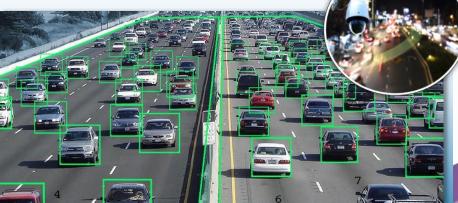
- Signal upgrades
- Communication upgrades
- Advanced ramp metering
- Vehicle detection
- Travel time systems

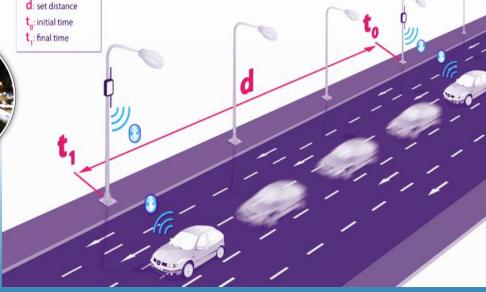
Environmental monitoring

- Traveler information
- Corridor management system
- Systems integration
- CCTV cameras

Data hub





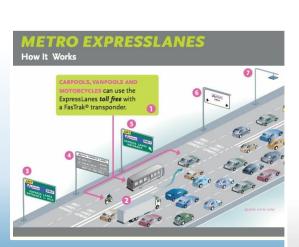


POTENTIAL ICM FEATURES



- Transit
- Parking and shuttle management
- LAMP/CONRAC Integration
- Connected Vehicles

- Safety Enhancements
- Express Lane Integration
- Third-Party App Integration
- Inglewood Event Management











Performance Measurement Plan

- 1. Normal Conditions Performance Monitoring for Incident Detection and ICM Activation Determination (Before ICM)
- 2. ICM Activation DSS Response Plan Selection Analysis (During ICM)
- 3. ICM Operations Performance Evaluation (After ICM)



Next Steps



- Stakeholder Review of ConOps
 - Comments received from Stakeholders
- Performance Measurement Plan
 - Draft released to Stakeholders
- Equity Outreach
- Project Charter
- System Requirements
- High Level Design
- Detailed Design







THANK YOU!

Contact:

Shrota Sharma

sharmas@metro.net

