

Understanding Express Lane Roadway Operational Needs

By: Patrick Vu, PE

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What Does It Mean To “Operate?”

- Unique to Express Lane is the need to maintain reliable travel
- Pricing and communicating toll rates are key



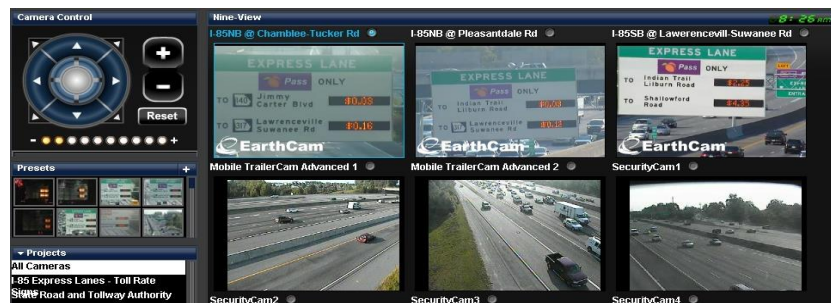
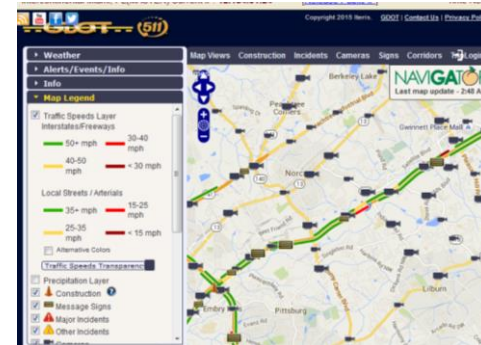
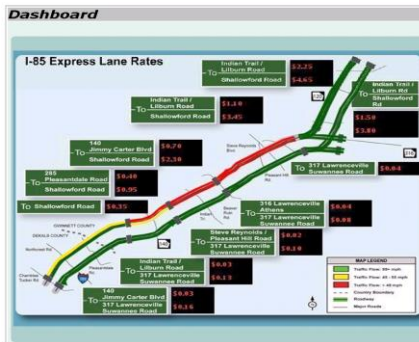
Express Lane Roadway Operations

- Beyond maintaining the physical roadway
- 3 main unique operational needs:
 - **Dynamic Pricing** – setting proper toll rates
 - **Traffic Incident** - traffic incident/closure impacts
 - **Toll Collection System** – ensure toll systems work



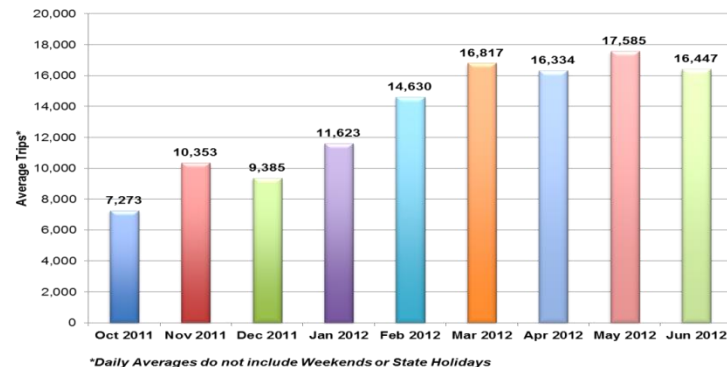
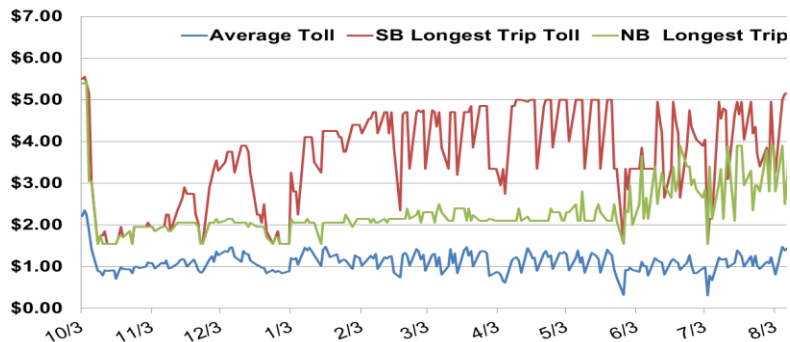
Rush Hour Operational Workload

- Check CCTV for bottlenecks and incidents
- Ensure toll rates manage traffic conditions
- Assess and react to roadway incidents in EL and in GP
- Assess if toll system issues affect real-time operations



Non-Rush Hour Operational Workloads

- Monitoring toll system and maintenance work
- Close out traffic and system incidents during tolling hours
- Run daily reports and check for accuracy
- Support the Customer Service Center
- Support special projects/performance monitoring



Items To Support

- Policies, procedures, and communication plan
- Specific tools to support roadway operations
 - Dashboards
 - CCTV
- Staffing needs
 - Coverage during rush hour and off peak
 - Skillsets
 - In-house staff or contract staff
- Space: co-locate EL roadway operations with other roadway operators or separately

Express Lanes with Joint Operations

- Regions with joint TMC/ toll operations
 - Seattle: WSDOT (SR 167 Express Lanes, SR 520 Bridge, future I-405 Express Lanes)
 - Houston: TxDOT and Metro (IH 45 South, IH 45 North, US 59 South, US 59 North, US 290)
 - San Diego: Caltrans D11 (I-15 Express Lanes)
 - Miami: FDOT (I-95 Express Lanes)
 - Minneapolis: MnDOT (I-394 and I-35W)
 - D.C. Transurban (I-495 and I-95)



Houston TranStar 2012



San Diego Caltrans D11

Express Lanes with Separate Operation Centers

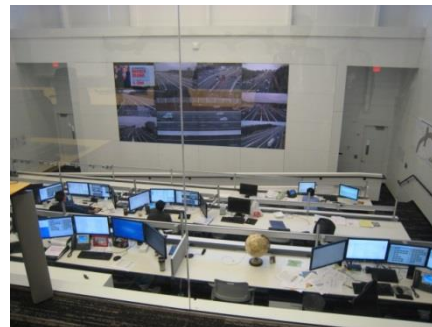
- Regions with separate TMC/ toll operations
 - LA: LA Metro (I-110/I-10)
 - Alameda County: JPA (I-680)
 - Orange County: OCTA (SR 91)
 - San Jose: VTA (SR 237)
 - D.C. Transurban (I-495 and I-95)
 - Atlanta : SRTA (I-85) but moving to GDOT TMC



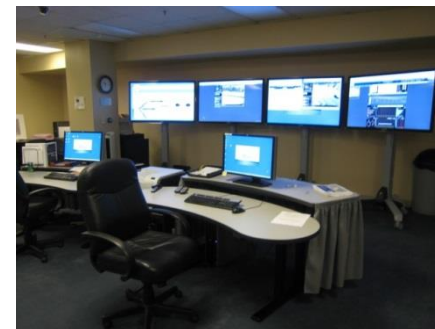
LA Metro I-110/I-10



Orange County OCTA SR 91



D.C. Transurban I-495/I-95

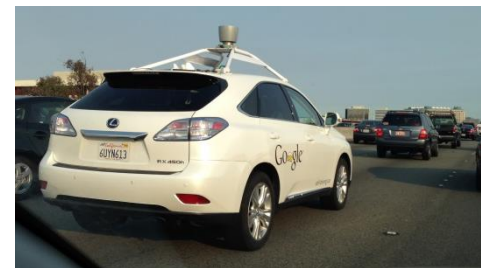


Alameda JPA I-680 in 2011

Future Considerations



- Scaling up for networks of Express Lanes
- Coordination with ramp metering, lane reversals, dynamic speed limits, dynamic lane use, dynamic shoulder lanes, and transit services
- Autonomous vehicles and other technologies



Any Questions?

Contact Information:

Patrick Vu

patrick.vu@tticonsulting.com

650-515-5330