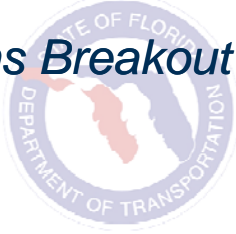



## *Operations Breakout Debrief*



Jim Sturrock, FHWA  
Andrew Velasquez, URS Corporation  
David Stroud, PB America




## *Focus Areas*

- Identify current practice and desired approaches
- Discuss activities, basic issues, products, and data for operational analyses through each development phase
  - Planning
  - PD&E
  - Design
- Discuss situational aspects for operational modeling
- Recommendations for standard of practice in multi-resolution model

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## FDOT Process and Policy Q&A

- What Measure Of Effectiveness (MOE) criteria and values confirm the Express Lanes are feasible/viable? If not viable, how should the future implementation of tolled managed lanes be preserved? e.g., implement HOV?
  - Traffic Engineering – Throughput, Speed, Travel Times, Corridor Reliability
  - Financial - Price, Revenue
  - MOEs should be tied back to purpose and need of the project
  
  - If not viable,
    - ♦ Consider designating as managed lane but not operating as such
    - ♦ Possibility for general purpose to managed lane conversion, refer to DOT policy and MAP 21


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## FDOT Process and Policy Q&A

- When do operations get involved with determining feasible access points?
  - Early on - Evaluate in the planning process and refine through project development
  - Sketch Planning Techniques – Lane Change Requirement, Market Share, Bottleneck Avoidance, Multimodal Connections, Municipality Access
  - PD&E, Design – Use simulation tools to evaluate operational performance

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## FDOT Process and Policy Q&A

- Data Requirements - In what project development step is it desirable to have Origin and Destination Survey data? Stated Preference Survey data? Other data?
  - Begin up to one year prior to initiating project development
  - New Techniques – GPS Assisted Route Data, Cell Phone Probe Data (AirSage)
  - Behavioral OD has longer shelf life, than trip based OD
  - Repository of FDOT Stated Preference Survey
  - Continuous smaller sample size OD survey instead of one large effort

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## FDOT Process and Policy Q&A

- What should be the demand inputs for express lane operational analysis using micro-simulation?
  - Depends on the robustness of the demand model for the region.
  - Priority Order –
    - Activity Based Demand Model (ABM) with DTA
    - Trip Based Demand Model, DTA – Improve route choice in demand model then apply static demand to DTA
    - Trip Based Demand Model, non-DTA – Corridor Time of Day Model, Micro-Simulation Based Lane Choice Model

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## FDOT Process and Policy Q&A

- Would you recommend FDOT establish a life-cycle travel demand model and micro-simulation model philosophy? e.g models created for tolled-managed lanes in the project development planning step pass-on for enhancement and use in subsequent project development steps?
  - District recognize the importance of warehousing data and models
  - Consider data accuracy and time spans
  - Recommendation is for multi-resolution modeling in Florida

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## FDOT Process and Policy Q&A

- Which pricing policy should be analyzed in the operational model PD&E and Design levels i.e. revenue maximization, traffic maximization? How do we address pricing policy?
  - Revenue Maximization – Less traffic in express lanes and more traffic in general purpose lanes.
  - Traffic Maximization – More traffic in express lanes and less traffic in general purpose lanes
  - Both matter for operational analysis

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