Association of Monterey Bay Area Governments
Regional Travel Demand Model Program

SCCRTC ITAC
September 21, 2023

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• AMBAG GIS Data and Modeling program
• Why Regional Travel Demand Model (RTDM)
• Objectives of RTDM upgrade
• RTDM framework and brief overview
• Land Use Model
• Development Monitoring System
• Stakeholder’s participation and their stake
• Discussion
AMBAG GIS DATA AND MODELING PROGRAM

- Geographic Information Systems (GIS) data: used for land use, transportation, environmental and policy planning

- AMBAG collects, analyzes, and maintains various GIS datasets for planning and policy purpose
  - Census data
  - Regional employment
  - Highway and transit network
  - Active transportation and complete street network
  - Regional economic data for population and housing forecast
  - Environmental data
  - Traffic/truck counts
  - Freight and goods movements

- Provide data support to all stakeholders of Monterey Bay region and Caltrans
- To solicit greater public participation and building consensus
- Better inform policy bodies
WHY REGIONAL TRAVEL DEMAND MODEL?

• Required under Federal Law to:
  ➢ Estimate region’s future travel demand and analyze alternative transportation scenarios
  ➢ Develop region’s Metropolitan Transportation Plan (MTP)
  ➢ Carryout air quality conformity analysis
  ➢ Receive federal funding for major transportation investment projects

• Under SB 375, MPO is required to:
  ➢ Develop Sustainable Community Strategies (SCS) in conjunction with region’s MTP
  ➢ Conduct GHG analysis as recommended by California Air Resource Board (CARB)
OBJECTIVES FOR RTDM UPGRADE

• Develop and apply an innovative modeling approach, ABM or Hybrid Model for AMBAG region:
  ➢ Policy sensitive tools appropriate for Monterey Bay Area
  ➢ More detailed representations of person level travel and activities pursued
  ➢ More sensitive models of non-motorized modes
  ➢ Built on a single software platform- easy to use, maintain and apply
RTDM & LU MODEL STATISTICS

- Traffic Analysis Zones (TAZ): 1,673
- Parcels (County assessor): 237,052
- 2020 Census Geographies
  - 466 Block Groups
  - 184 Tracts
  - 5 PUMAs
- 2020 Base year network
- 2015 Households: 238,862
- 2015 Population: 762,241
- 2015 Group Quarters: 33,889
- 2015 Employment: 377,335
- 2015 Students (K-12): 138,373
- 2015 College Students: 63,365
Data flows between the parcel-based LU Model and AMBAG RTDM
DEVELOPMENT MONITORING TOOL

- Web-based data entry portal open to local jurisdiction planners
- Open-source software customized for AMBAG’s partner agencies
- Developing to gather info about upcoming development projects as well as current/completed projects
DEMO OF CALBUILDS TOOL
LU MODEL AND LAND USE TRACKING SYSTEM TOOL

Development of GIS Database

New + Committed Real Estate Projects

Web-based Development Tracking Portal Data Entry

Scheduled Development

Conditions & Constraints

Parcel-based LUM (i.e. CommunityViz)

Bid-Rent Sub-Model (e.g. mu-Land)

Future Year Control Totals

Parcel-Level Future LU

Accessibility Measures

TAZ input datasets for RTDM

Travel Demand Model (e.g. TransCAD)

LU Scenarios Database

Future Year

Control Totals
MODEL VISUALIZATION

• Custom dashboards, maps and reports to utilize ABM outputs
  ➢ Leverages TransCAD’s GIS capabilities
QUESTIONS?

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