Statewide Model Application Using the Texas SAM

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Presentation Outline

– Brief Model Description
– Study Objective
– Project Description
– Model Application
Model Description

- TransCAD Software
- Completed in 2003 by TxDOT
- 1998 Base Year/2025 Forecast Year
- Freight Demand based on 1998 Reebie Transearch Data (Global Insights)
- Passenger Demand (by trip purpose) utilizes an in-house trip generation program based on HH stratification curves adopted from Texas MPO models.
- Trip distribution based on in-house model (similar to gravity model) using trip length frequency curves from urban models and national HH surveys.
- Mode Choice (passenger and freight)
- Traffic Assignment is a User Equilibrium MMMC
Texas Statewide Analysis Model Application

Study Objective

- Identify Improvements for I-35
- Identify Opportunities for PPP’s
Project Description

- Deliver EIS with Reasonable Corridor Alternative
- Evaluate Private Sector Concept
Texas Statewide Analysis Model Application

Model Application

- Identify Study Area
- Identify and Evaluate Preliminary Corridor Alternatives (~10 miles wide)
- Identify Reasonable Corridor Alternative for NEPA
- Evaluate Private Sector Concept
- Develop Corridor Demand Tool for evaluation of modal and route alignment alternatives to support NEPA.
Texas Statewide Analysis Model Application

Preliminary & Reasonable Corridor Alternatives
Texas Statewide Analysis Model Application

Evaluation of Private Sector Concept
Developed Sketch Level Toll Diversion Component

• Used to evaluate traffic and revenue potential, and
• Identify cross finance opportunities.
TTC-35 SWM Applications

- IH-35 Corridor Model
  - IH-35 Origin-Destination Survey

- IH-35 Freight Corridor Study
  - IH-35 Freight Transport Survey
Origin-Destination Survey

• Specific to I-35 Corridor Travel
• Included Car and Truck Surveys
• Types of Surveys:
  – Roadside Interviews
  – Mailout/Mailback Survey
  – License Plate Matching
• Completed in July 2008
Origin-Destination Surveys
Origin-Destination Survey

• Survey data will support a variety of needs for TxDOT:
  – Tier II Need and Purpose
  – Updates to Private Sector Concept
  – Corridor Model Development
  – Freight Corridor Study

• MPOs gain better understanding of the characteristics of through traffic.
IH-35 Corridor Model

- Focus Along the IH-35 Corridor
- Model System Overview
  - Incorporates existing MPO models in urban areas
  - Supplemented with SAM model in rural areas
  - Interaction between urban and rural areas calibrated / validated with OD Survey

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IH-35 Corridor Model
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IH-35 Corridor Model
IH-35 Freight Users Survey

- Focus Along the IH-35 Corridor
- Survey Overview
  - Understand how shippers make transport decisions
  - Develop Revealed and Stated Preference Questionnaires
  - Conduct Focus Groups and Interviews
  - Report Findings
- Anticipated Completion in February 2009
IH-35 Freight Corridor Study

– Analysis of Freight Modal Options
– Identification and Evaluation of:
  • Preliminary Corridors
  • Preliminary Modal Options
  • Modal Options
  • Cost/Benefit of Modal Options
  • Freight User Survey
– Preferred Corridor and Modal Options will be identified
– Anticipated Completion Date of May 2009
TTC-35 Planning Initiatives Summary

COST/BENEFIT ANALYSIS
- Sum Up Travel Efficiencies
- Sum Up Costs of Improvements
- Sum Up Public/Private Benefits

Planning Decisions

Freight Surveys
- Shippers
- Manufacturers
- Logistics

Highway Network
- I-20
- I-35
- I-45

Rail Network
- BNSF
- KCS
- UP
Discussion

• Question and Answer Session
• Need More Information?
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