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## The Link Between Land Use and Transportation: The South Texas Medical Center in San Antonio

TexITE Summer Meeting  
June 15, 2007







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## Project Team

- Study Oversight Committee
- Consultant Team
  - HDR|WHM
  - Carter Burgess
  - PTV America
  - Cambridge Systematics
  - Bain Medina Bain
  - GRAM







## Study Background

- Previous Study of Medical Center in 2003.
- HDR|WHM working with MPO for additional analysis of Medical Center.



## Study Objectives

- Complete existing (2007) and future (2012) analysis.
- Impact of proposed development projects.
- Develop and analyze improvements.
- Provide recommendations for implementation.



## South Texas Medical Center



## Study Area

**South Texas  
Medical  
Center**





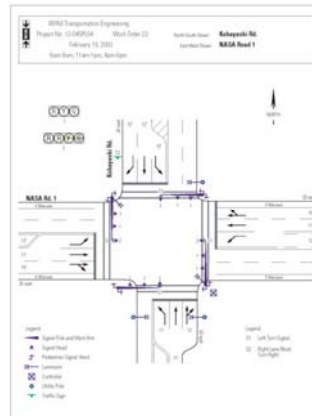
## Data Collection

### From SAMPO/City/TxDOT

- Traffic Signal Timing
- Accident Records
- Development Information
- Transit Service Information
- Existing Traffic Count Information
- Committed Improvements

### Field Data Collection



- Field Observation
- Turning Movement Counts
- 24-hour Tube Counts
- Travel Time Runs
- Roadway/Intersection Geometry



## VIA Transit Service

South Texas Medical Center








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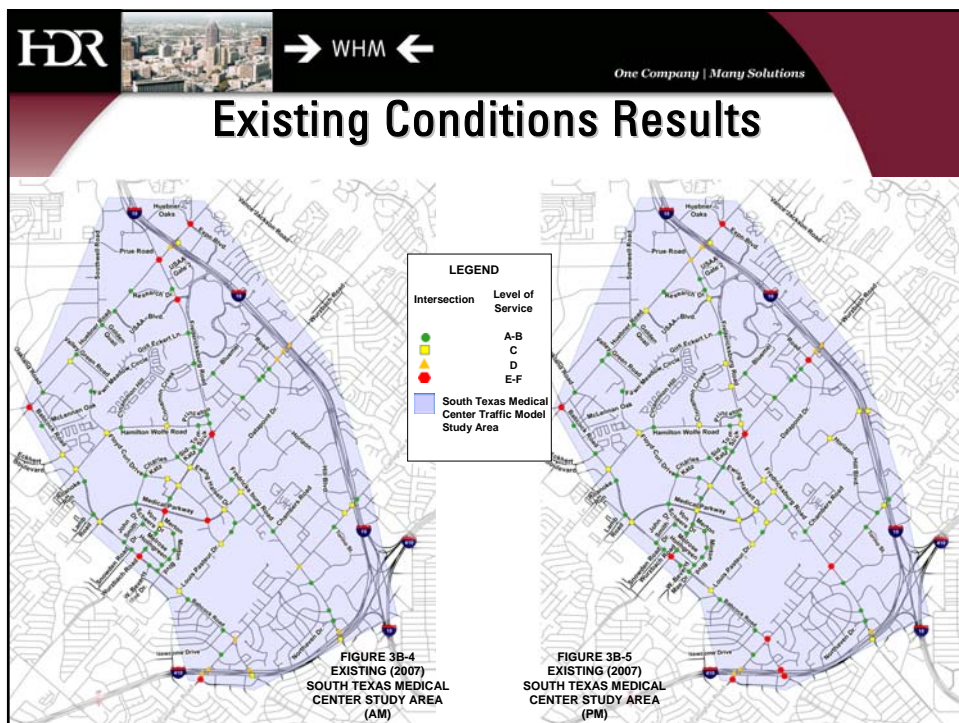
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## Modeling Scenarios

- 2007 Existing Conditions
- 2012 No-Build
- 2012 Alternative 1
- 2012 Alternative 2

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## Locations of Concern

South Texas Medical Center


- Capacity issues at interchanges
- Congested conditions along Wurzbach Road, Fredericksburg Road, Babcock Road, and Medical Drive.
- Fredericksburg Road and Wurzbach Road
- Fredericksburg Road and Medical Drive



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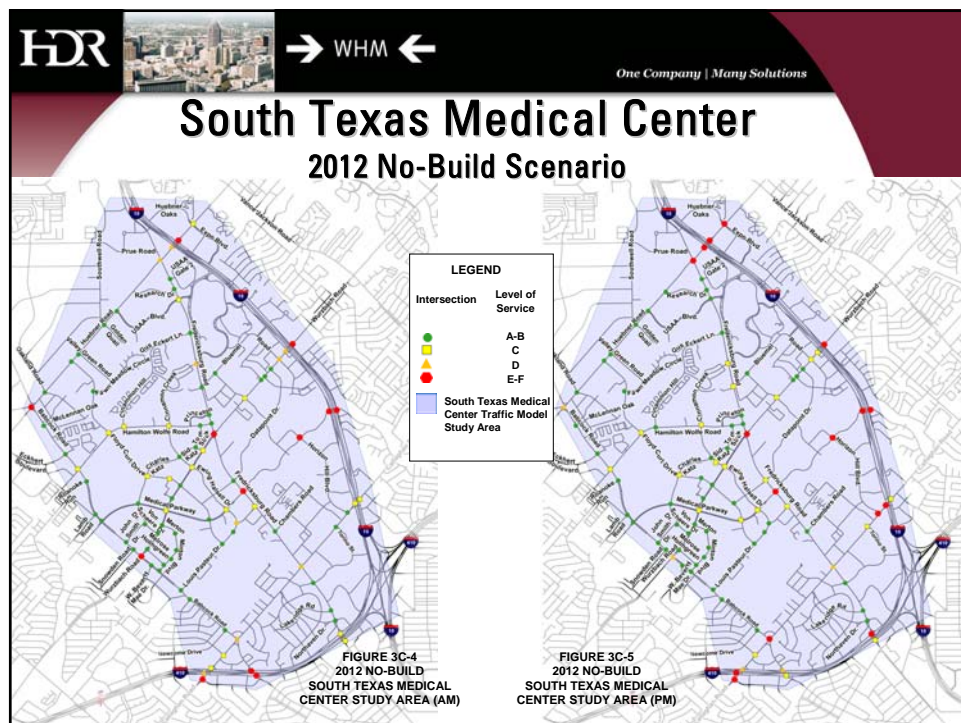
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## South Texas Medical Center

IH 10 and Wurzbach Road



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## Toolbox of Solutions

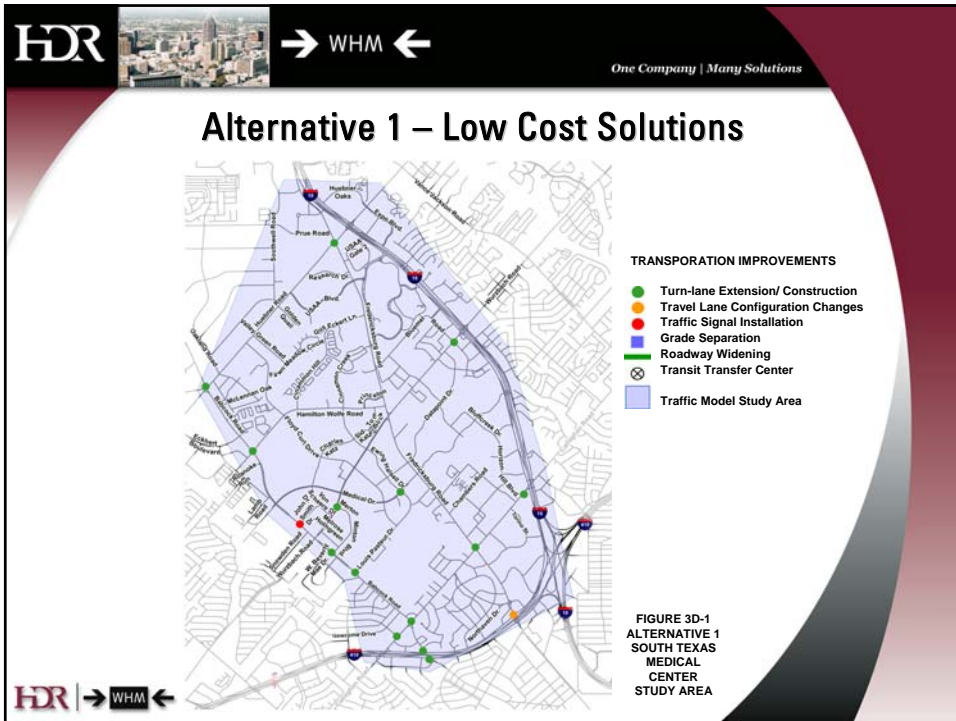
- Signal Timing Optimization
- Restriping
- Improved System Progression
- Turn Storage Provision/Extension
- Adding Through Lanes
- Geometric Improvements
- Signalization
- Signalization Modifications
- Prohibition of Movements
- Parking Removal
- Modification of Driveway Access
- Grade Separation

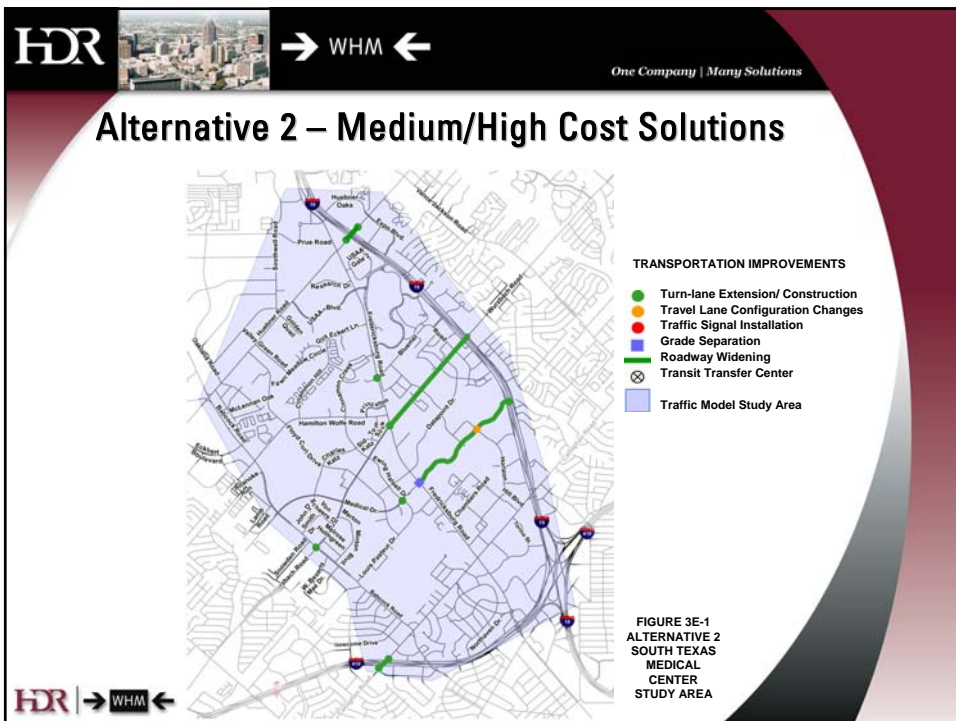



## Alternative Scenarios Development Approach

1. Low Cost/Short Term Improvements
2. Major Expenditure Improvements





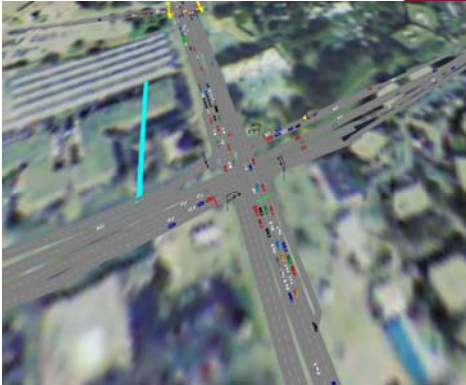






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### Alternative 2 – Medium/High Cost Solutions Medical Drive and Fredericksburg Road





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### Alternative 2 – Medium/High Cost Solutions Medical Drive Roadway Widening





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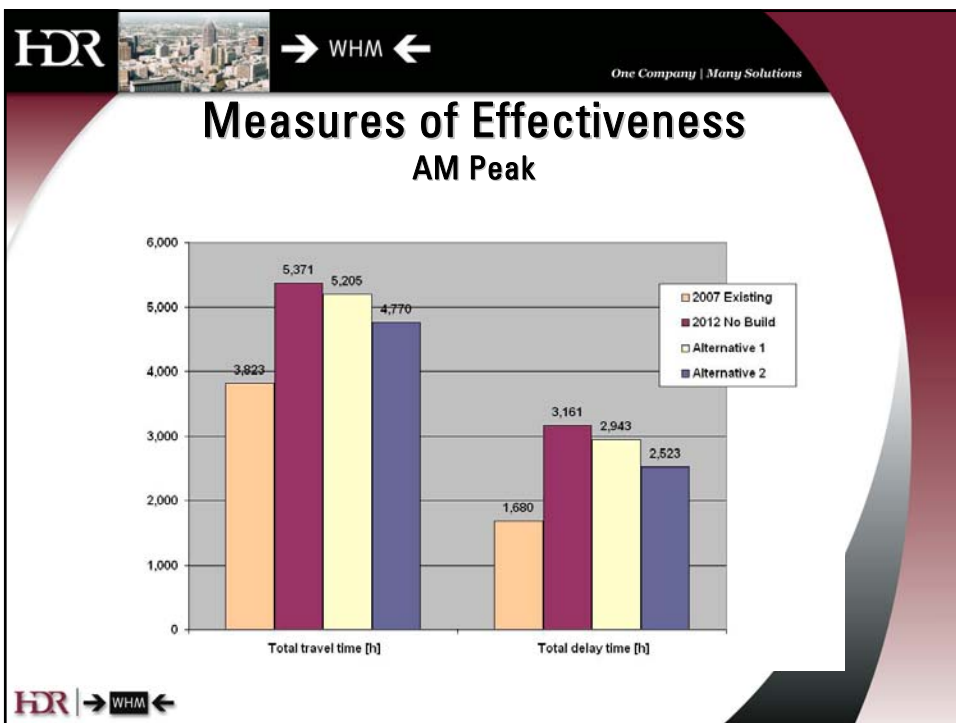
## Alternative 2 – Medium/High Cost Solutions

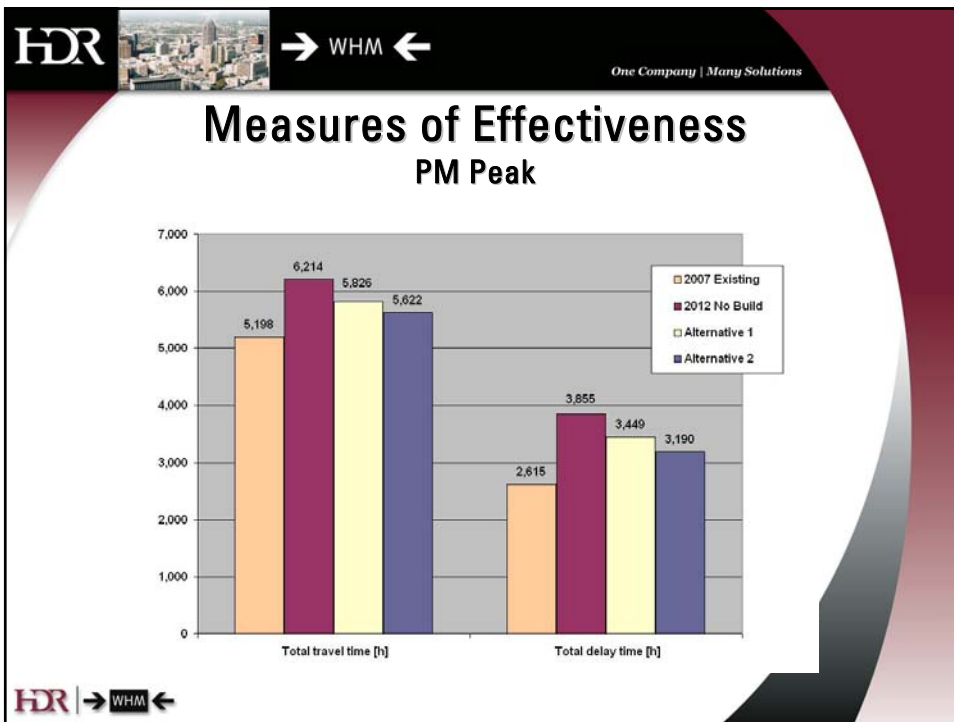
### New Transit Center and Fredericksburg Road BRT




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- ## Next Steps
- Prepare cost/benefit analysis of all proposed improvements.
  - Prioritize improvements and provide recommendations for implementation.
  - Provide all Synchro and VISSIM models to all agencies to be “living tool” for analysis of future projects.
  - VISSIM training
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**QUESTIONS?**

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