

Technical Advisory Committee

April 4, 2013

Welcome!

Meeting Goals

- Provide progress report
- Solicit input on updated screening process
- Discuss preliminary transit findings

Agenda

- Introductions
- Project Reminder
 - Purpose and Need
 - Corridor Conditions Report
- Project Activity
 - Sorting and screening process
 - DynusT modeling
 - Preliminary transit results
- Schedule and next steps
- Next meeting

Introductions

Project Reminder

■ Project Purpose

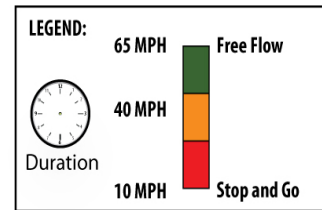
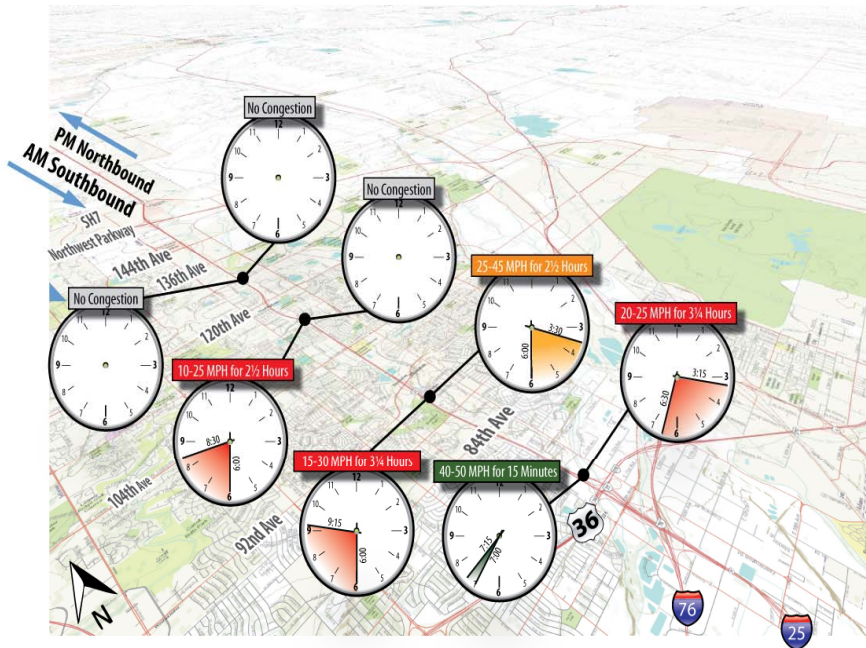
- To reduce congestion and improve safety on I-25 between US 36 and SH 7
- Implement near-term, multi-modal, and cost-effective transportation improvements that are compatible with recently constructed interchange structures

Project Reminder

■ Project Needs

- Mobility Problem: Traffic congestion resulting from high traffic volumes and incidents
- Safety Problem: Higher than expected crashes due to traffic congestion
- Multimodal Problem: Over capacity multimodal facilities

Mobility Problem

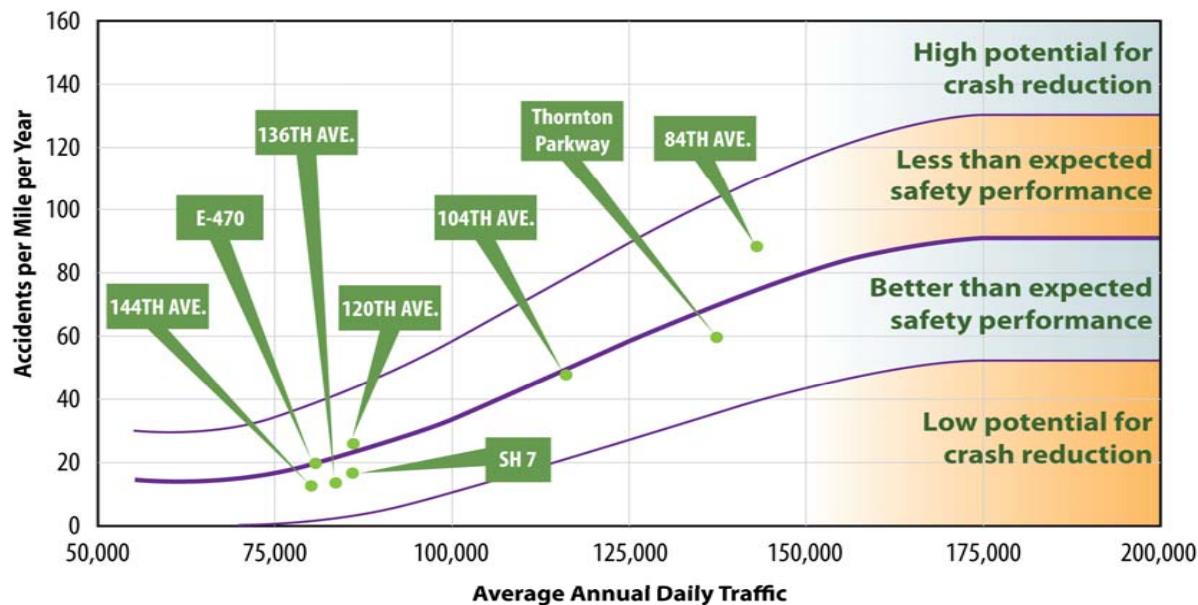


Source: CDOT Doppler Radar Speed Sensor Data

- There is a need to reduce the duration and extent of peak period congestion along the corridor.

Safety Problem

- Higher than expected crashes due to traffic congestion



Multimodal Problem

- Over capacity multimodal facilities
 - Wagon Road park-n-Ride
 - over capacity today
 - 140% increase in demand by 2035
 - Thornton park-n-Ride (eastern side)
 - over capacity today
 - 40% increase in demand by 2035

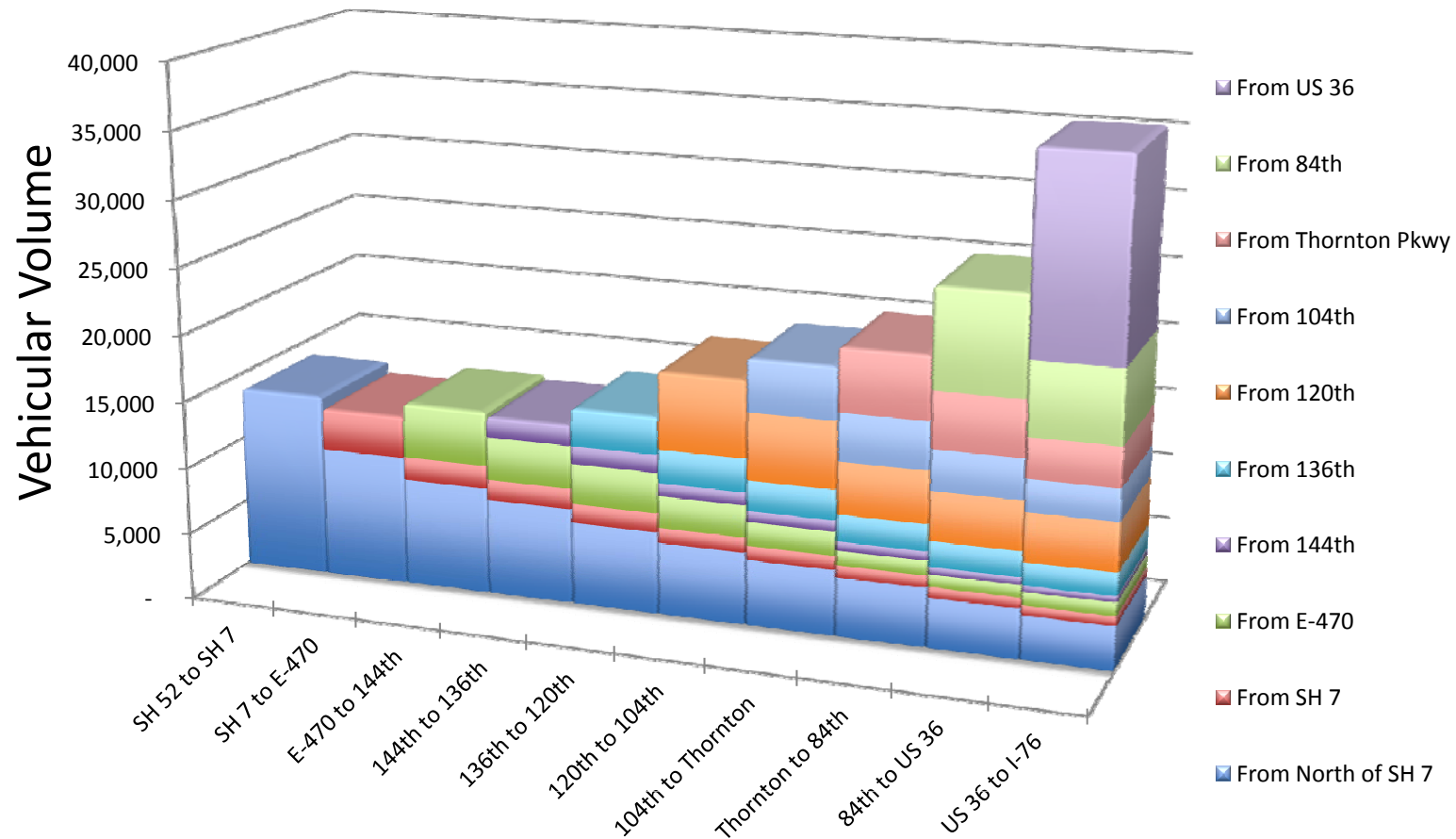


Corridor Conditions Report

- 2035 No-Action Conditions
 - Regional growth incorporated
 - New managed lane in place between US 36 and 120th Avenue
- Tools
 - Regional Travel Demand Model
 - DynusT analysis

Travel Demand Model

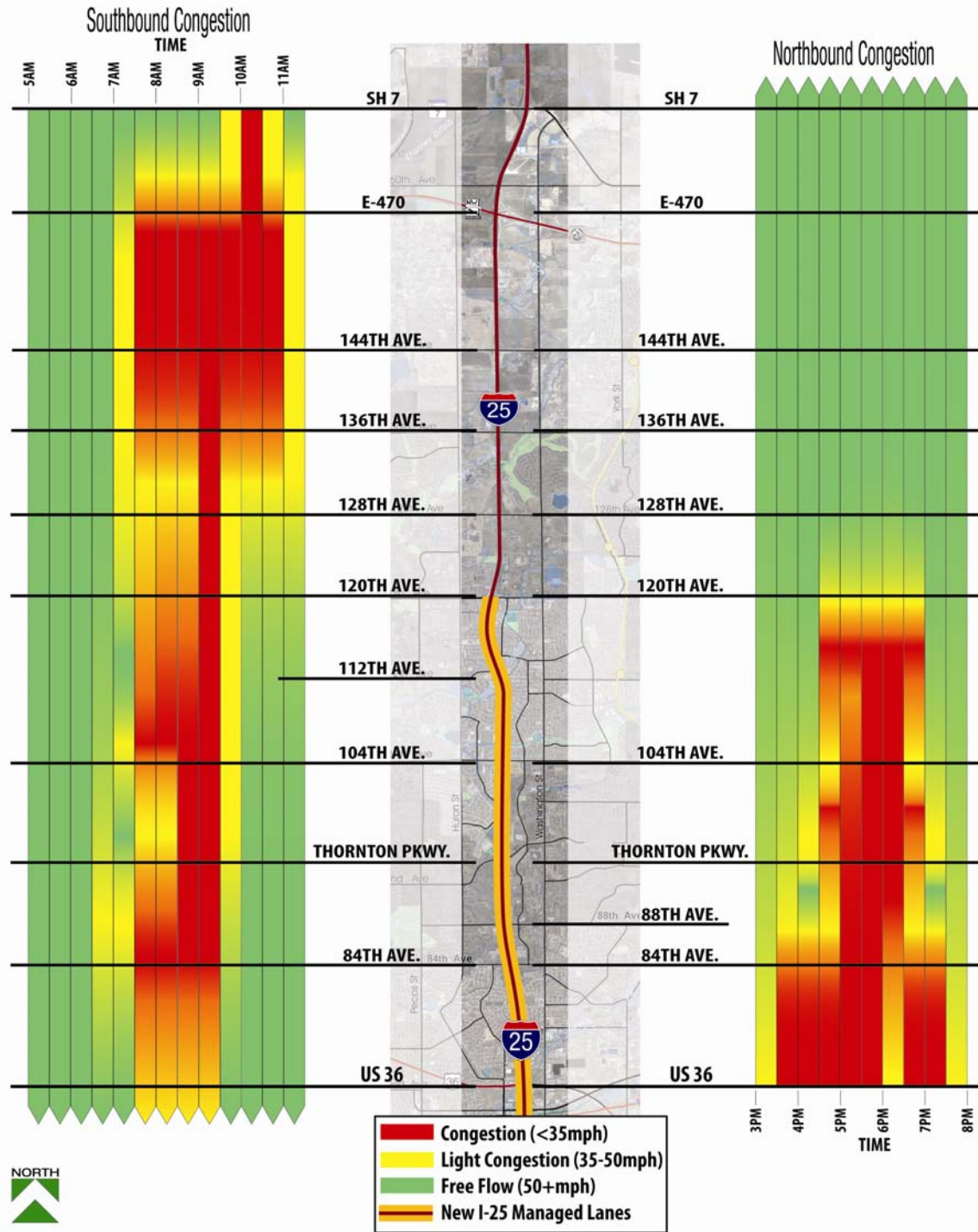
2035 No Action AM Southbound



NORTH I-25 PEL

DynusT Findings

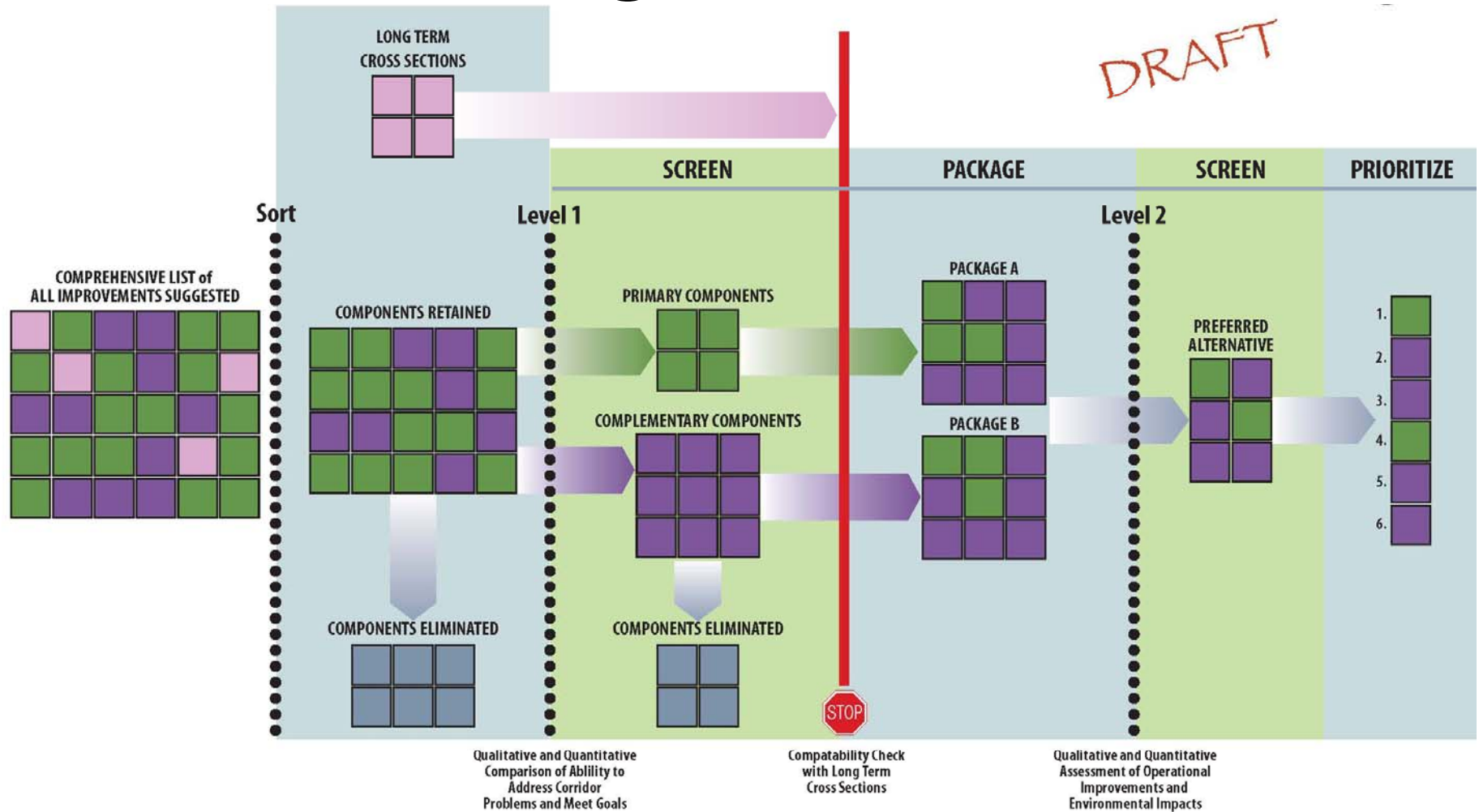
2035 No Action



Summary of Comments Received on Initial Screening

- Don't eliminate long-term options that could meet purpose and need
- Provide better explanation of components eliminated
- Evaluate general purpose lanes
- Feedback on individual components

Screening Process Chart



Updates to Previous Screening

1. Sorting includes 3 categories vs 4
 - Components retained
 - Components eliminated
 - Potential long-term cross sections for future consideration
2. Transition Level 1 screening to sorting
3. Updated description for components eliminated
4. Added two components
 - N.15 general purpose lanes I-270 to Thornton Pkwy
 - S.15 general purpose lanes Thornton Pkwy to I-76

Sorting Handout

Level 1 Evaluation

Example Evaluation Matrix

Purpose and Need			Goals	Resource Impacts	Cost
MOBILITY	SAFETY	MULTIMODAL			

DRAFT

- Mobility
 - Duration of congestion
 - Travel time
 - Safety
 - Potential to reduce crashes
 - Multimodal
 - Ridership
 - Park-n-Ride use
 - Cost
- Goals
 - Expand transportation options
 - Maximize use of existing infrastructure
 - Complement TMO
 - Coordinate with local plans
 - Maximize sustained benefits
 - Minimize throw-away
 - Resource Impacts
 - Semi quantitative assessment

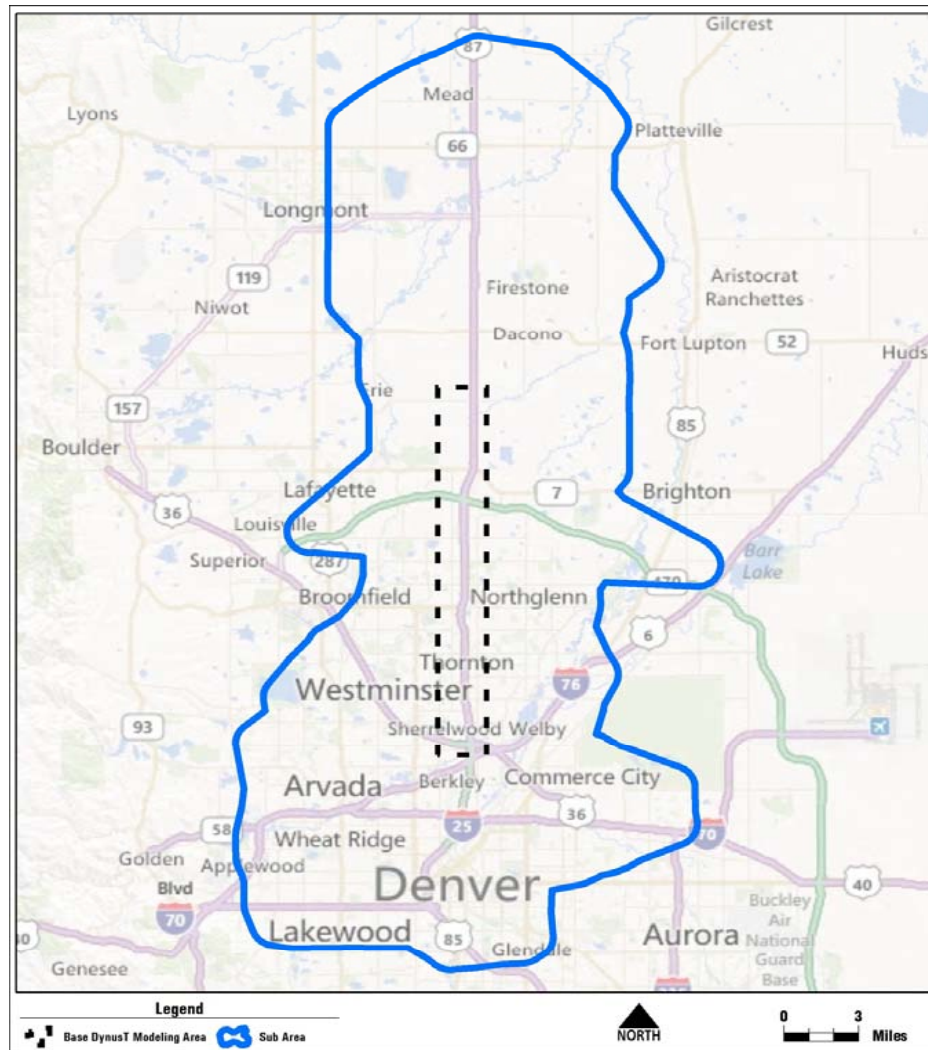
Traffic Analysis/Modeling Update

- Traffic Modeling effort
 - Methods and assumptions
 - 2010 calibrated model
 - 2035 No Action
- Upcoming component evaluation and screening
 - Traffic analysis tools
 - 2035 comparison

Methods and Assumptions

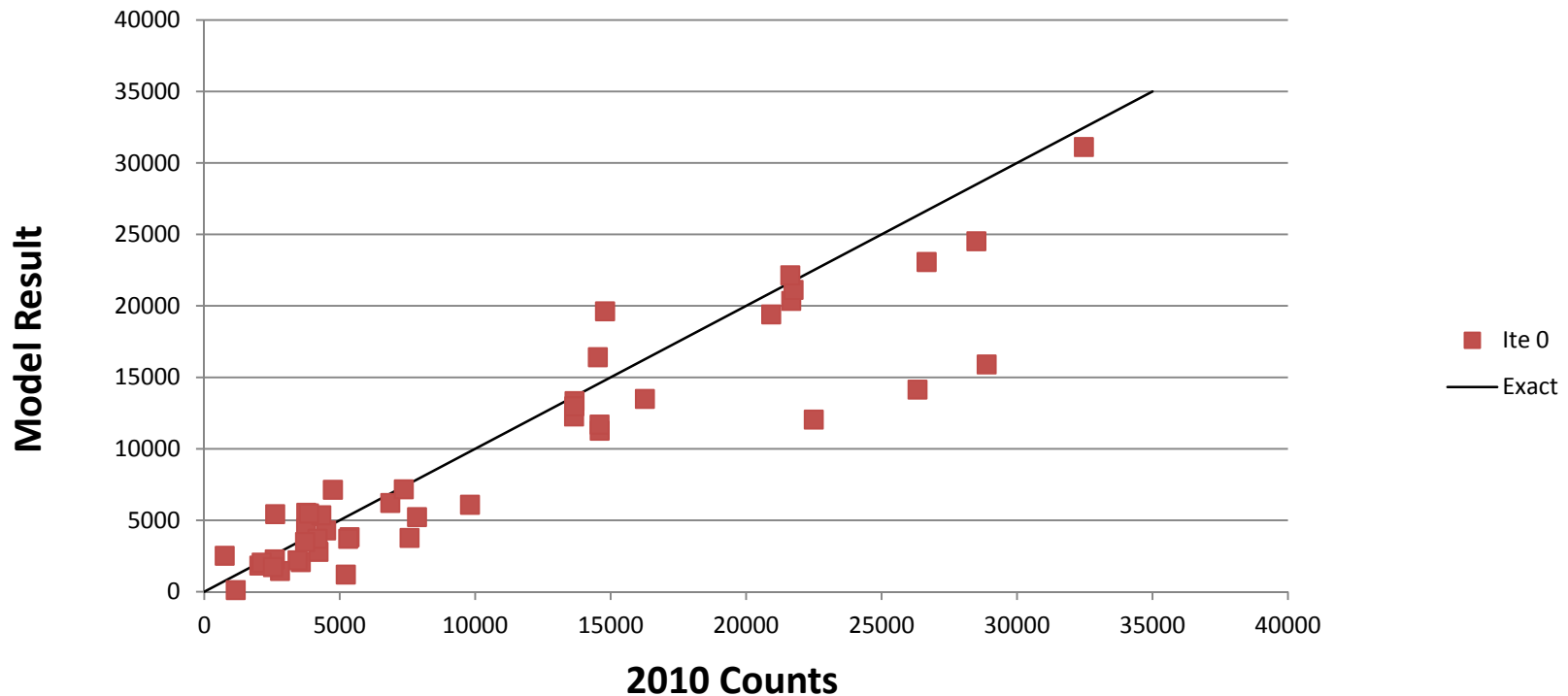
- FHWA-approved document that addresses:
 - Dynamic Traffic Assignment tool - DynusT
 - Modeling time periods
 - AM: 5 AM – 11 AM
 - PM: 2 PM – 9 PM
 - Sub-area development
 - Calibration process
 - Volumes
 - Speeds

PEL Subarea



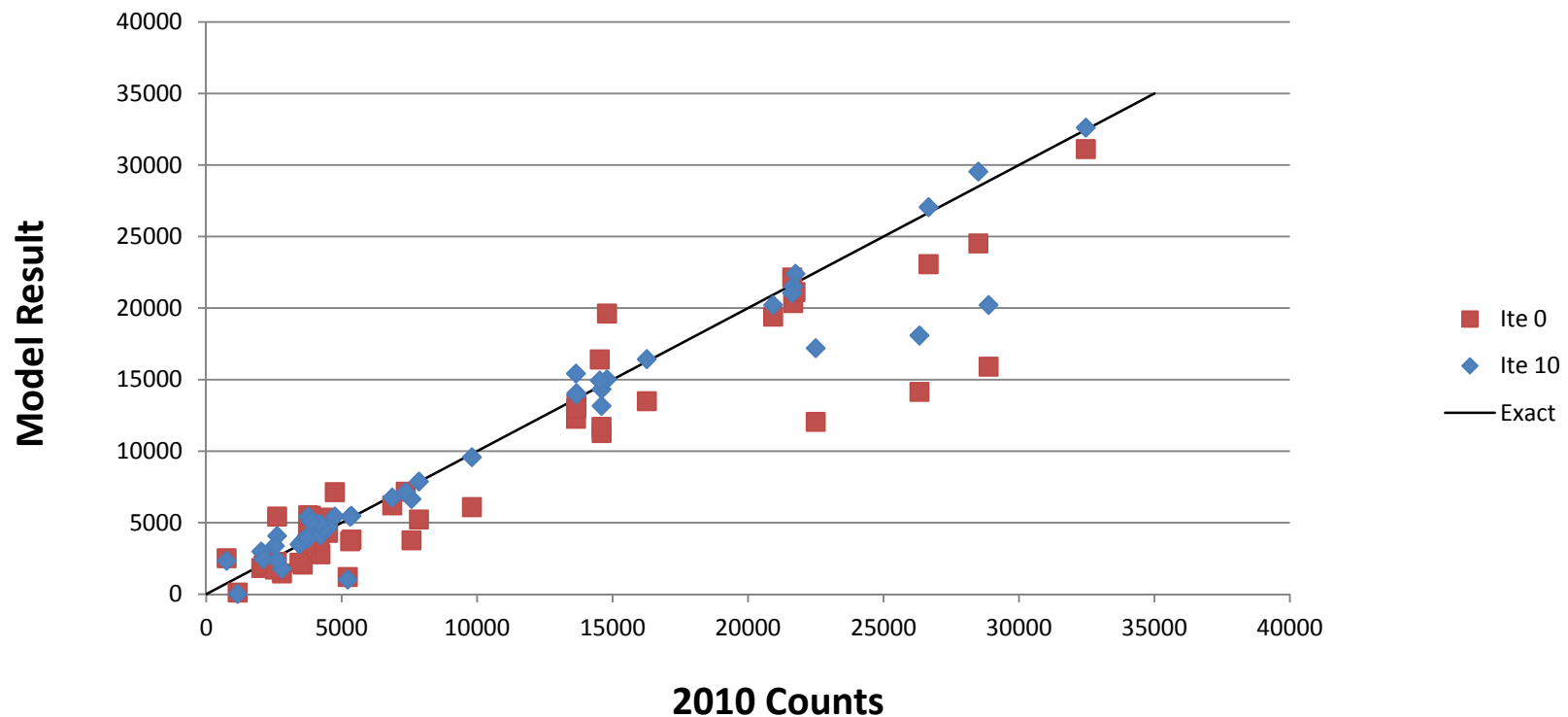
Demand Calibration

- Iterative adjustments to origin destination tables
- Calibrated to Weekday September 2010
- Achieved: 6.5% tolerance at key locations



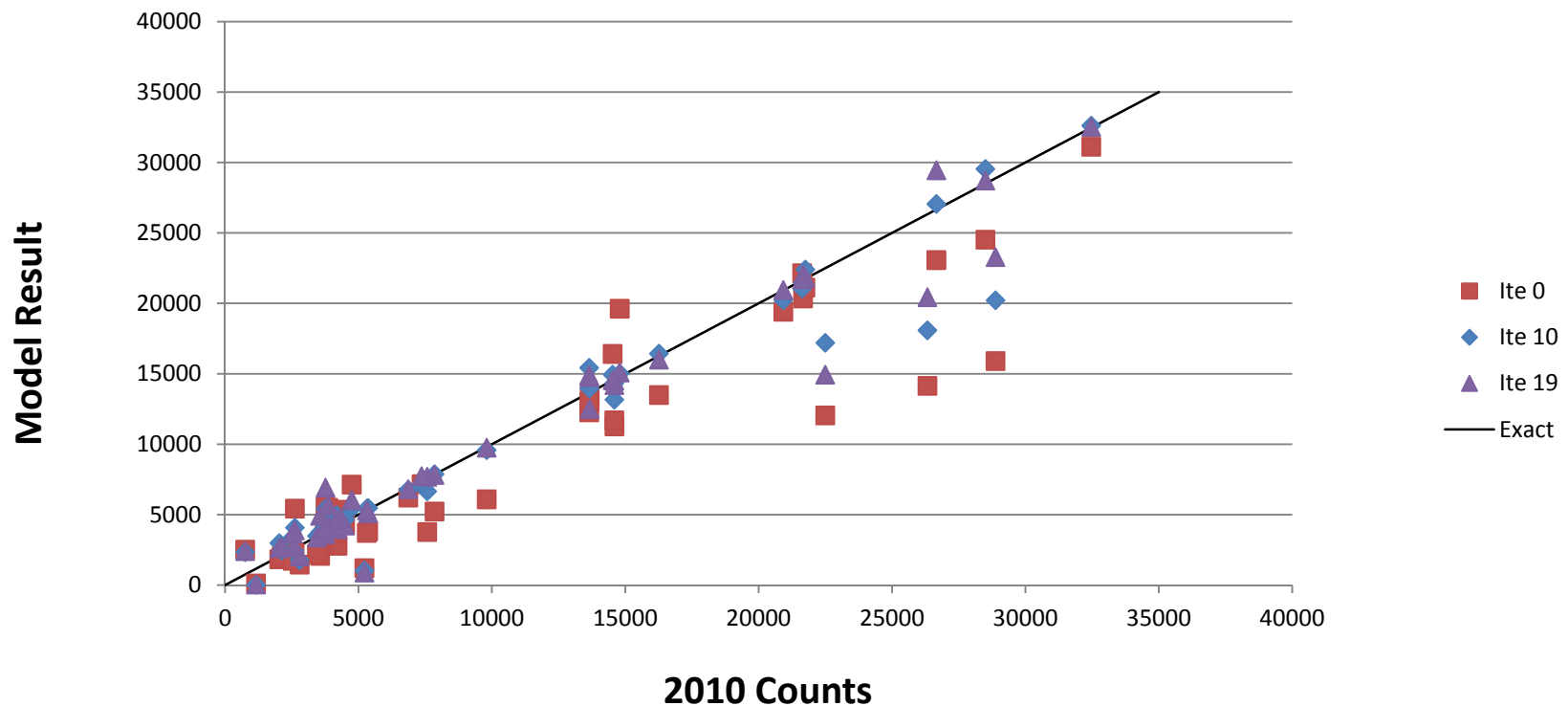
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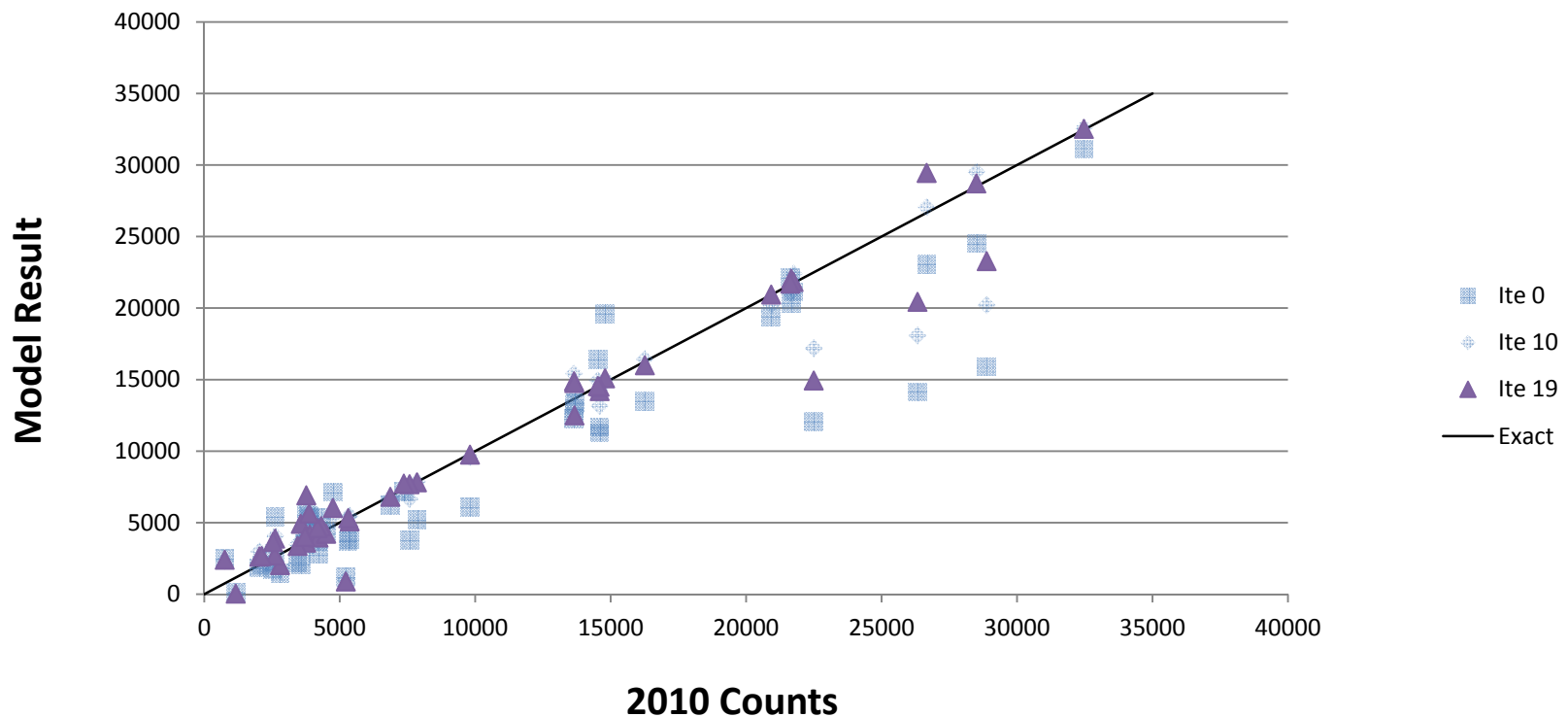
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Demand Calibration

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Preliminary Results

Initial Evaluation of New park-n-Rides

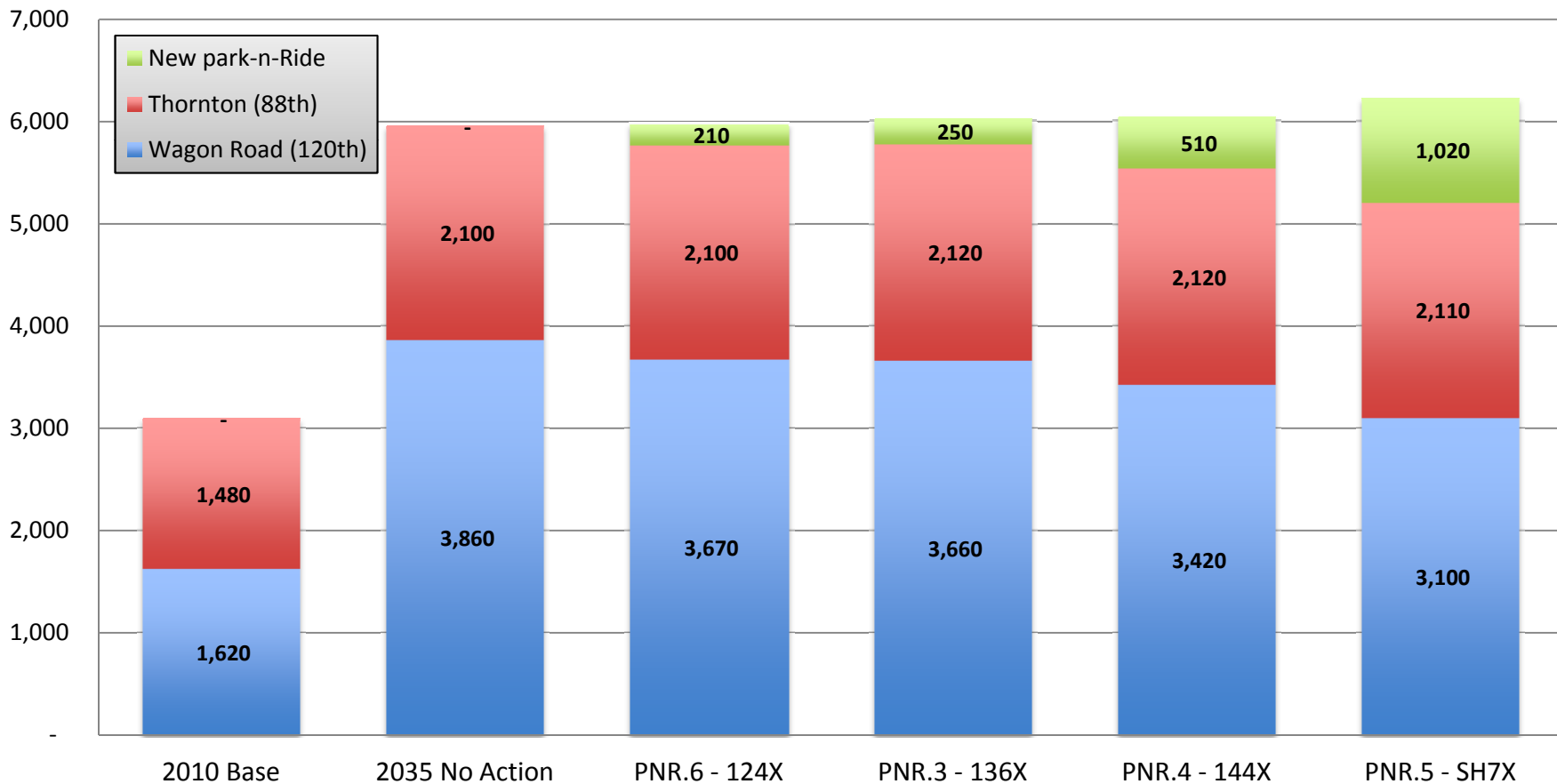
- Evaluating potential transit alternatives using the 2035 DRCOG Regional Travel Demand Model
 - Includes the North Metro Commuter Rail Line to 72nd Avenue

Alternatives considered:

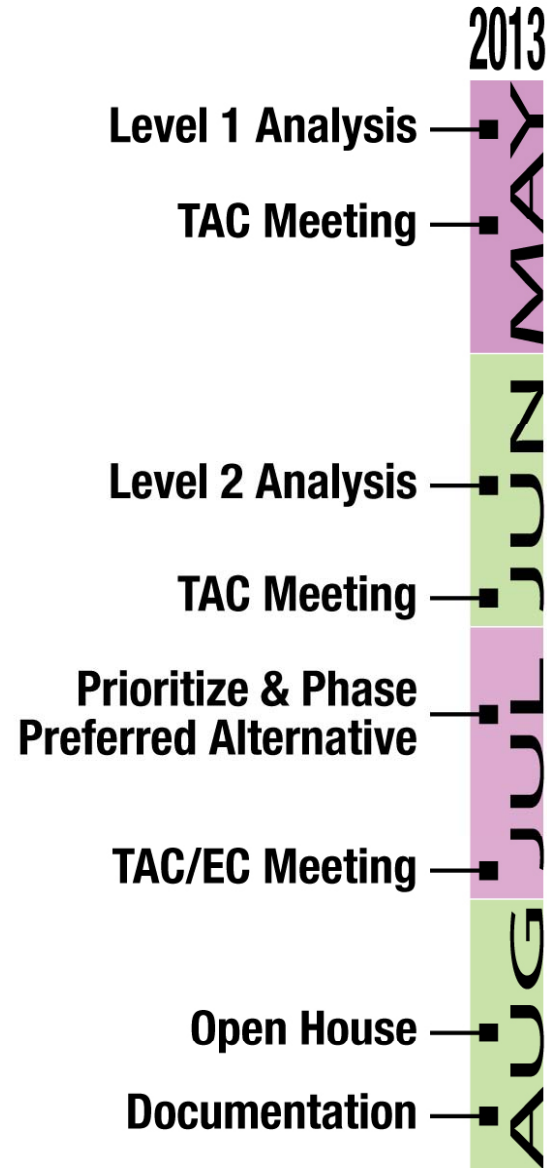
- New park-n-Rides and express bus service at:
 - 124th & Claude Court (PNR.6) (potential North Metro station location)
 - I-25 & 136th Avenue (PNR.3)
 - I-25 & 144th Avenue (PNR.4)
 - I-25 & SH 7 (PNR.5)

Initial Evaluation of New park-n-Rides Results of Travel Demand Modeling

2035 DRCOG Model Daily park-n-Ride Demand



Schedule



Next meeting:
May 15th (tentative)