

**Market Boulevard from
TH 5 (Arboretum
Boulevard) to West 78th
Street Corridor Study**



CITY PROJECT NO. PW236d

City Council Work Session

May 23, 2016



Agenda

- Project Background and Study Area
- Existing Conditions Analysis
- Crash Analysis
- Future Conditions Analysis
- Cost Estimate
- Access Control options
- Next Steps



Project Background

2016 key financial strategy item

Redevelopment projects will increase traffic

Market Boulevard- Current geometrics & Observations

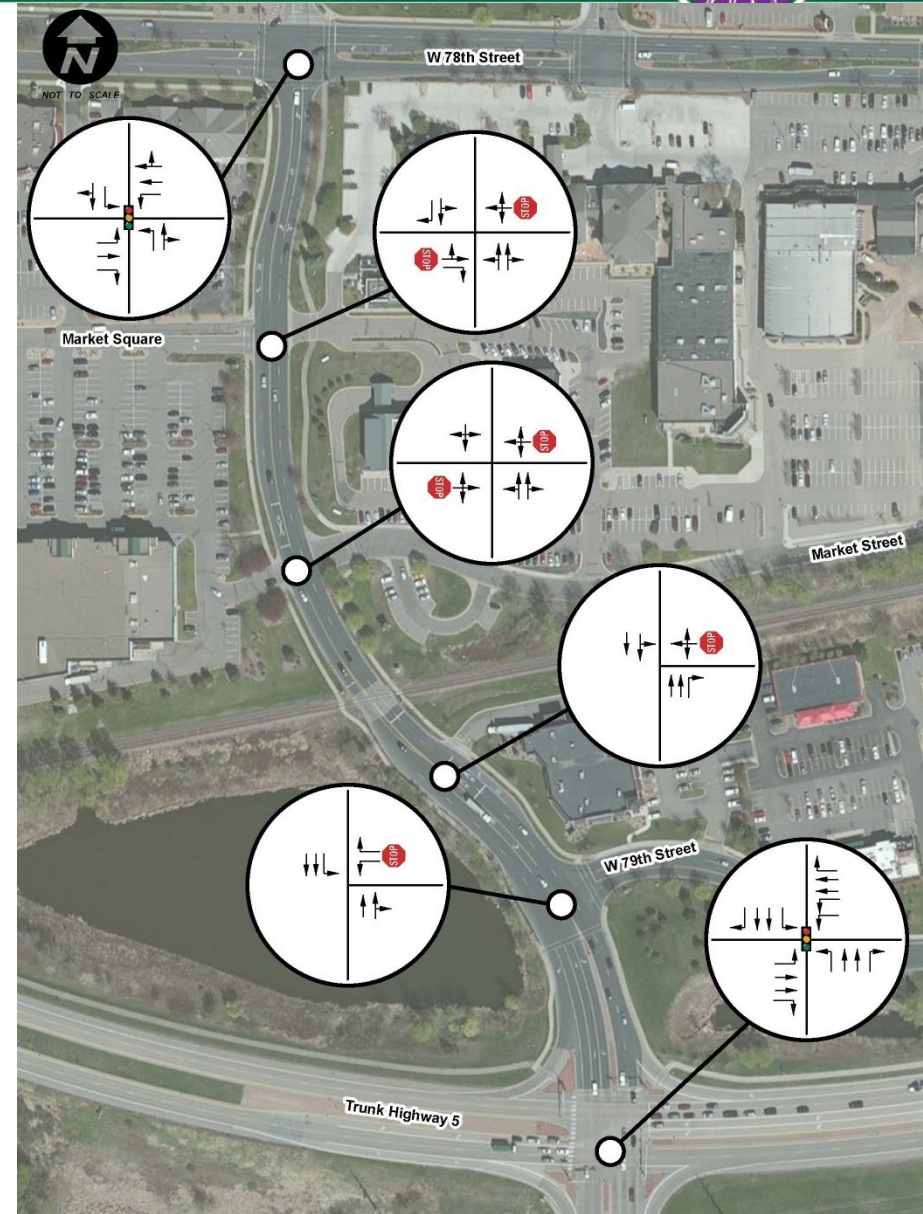
Undivided 2-lane, undivided 4-lane and divided 4-lane

Variable cross-sections and curvature is challenging



Project Study Area

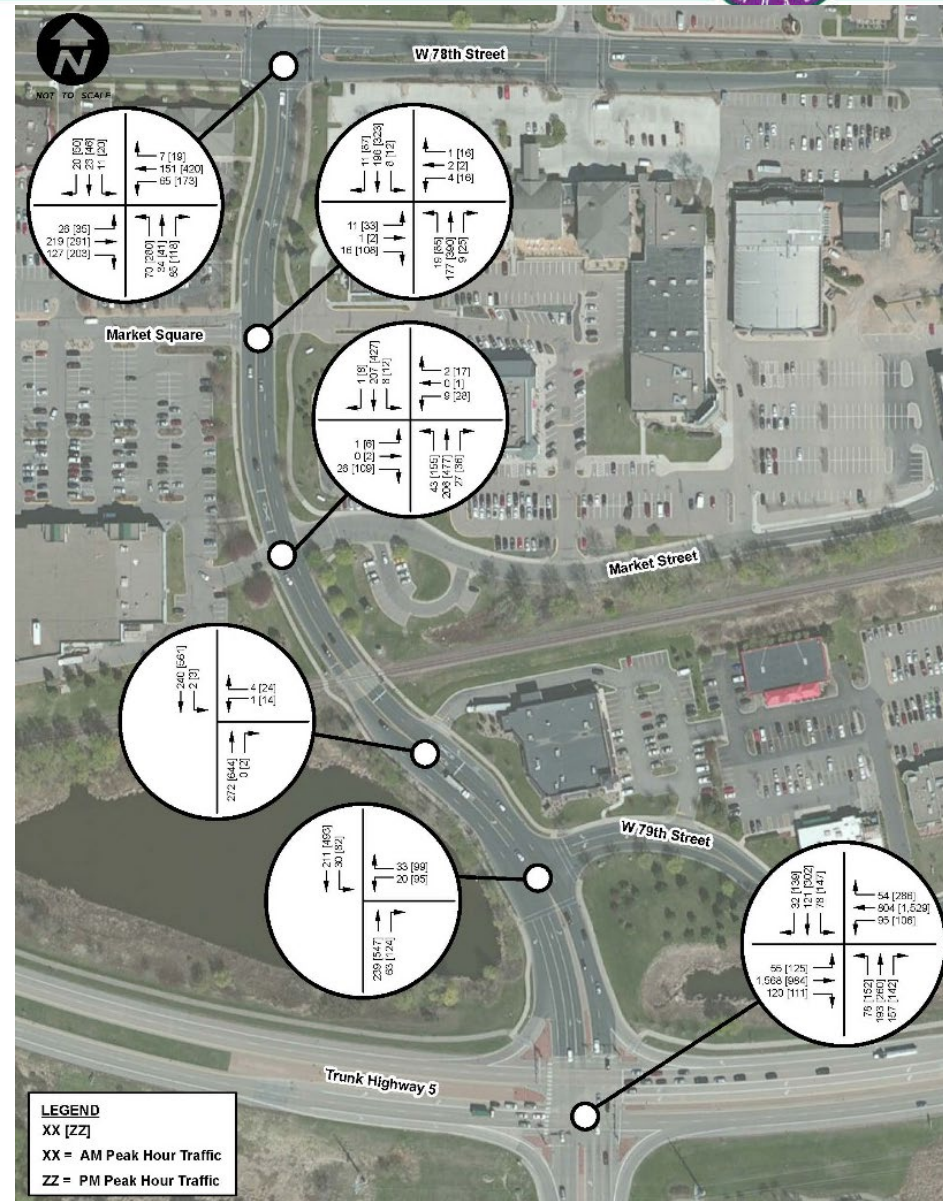
- 1,500 feet long
- 30 MPH Posted Speed
- Study Intersections
 - Trunk Highway 5
 - West 79th Street
 - Walgreen's Driveway
 - Market Street
 - Market Square Driveway
 - West 78th Street
- Off-street pedestrian facilities on both sides
- Twin Cities & Western Railroad





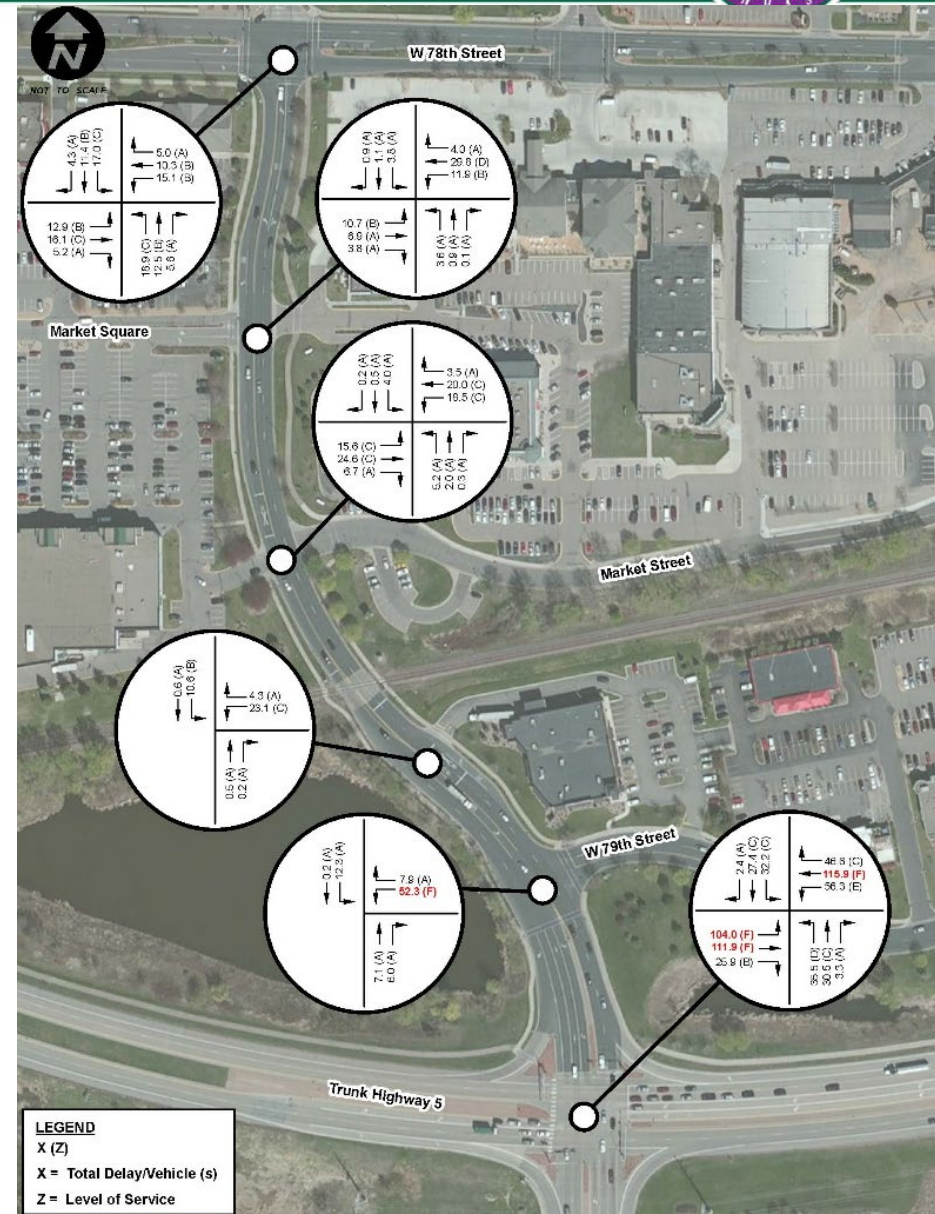
Existing Conditions Analysis

- Traffic Volumes from February 2016
 - ~ 11,000 ADT (South of West 78th Street)
 - ~ 15,000 ADT (North of TH 5)
 - ~ 30,000 ADT TH 5
- PM peak hour volumes control



Existing Conditions Analysis

- All intersection operate at LOS B or better overall except TH 5 (LOS F)
- Critical Movements
 - EB Left at TH 5 (LOS F)
 - EB Through at TH 5 (LOS F)
 - WB Thru at TH 5 (LOS F)
 - WB Left at 79th Street (LOS F)
- Lack of left turn lanes and curvature causes more complexity along corridor





Crash Analysis

- Based on 5-year historic data, 123 total crashes
- Trunk Highway 5 (84 total)
 - Majority (64 of 84) are of rear end crashes
 - Critical Index = 1.57
- West 79th Street (7 total)
 - 3 of 7 were WB left turns failing to yield to NB/SB traffic
 - Critical Index = 0.80
- Market Street (9 total)
 - 6 of 9 were left turn crashes, majority along mainline
 - Critical Index = 0.81
- West 78th Street (17 total)
 - 11 of 17 are right angle and rear end crashes
 - Critical Index = 0.80





Future Year Analysis

- Assumed a 20-year design horizon (2036)
- Volume Forecast (0.5% annual growth plus redevelopment)
 - Minimal growth in MnDOT Historic ADT
 - Demographic growth flat in City's Comp Plan
 - Redevelopment Considered
- Future "No-Action" capacity analysis
- Future "With Project" capacity analysis



Redevelopment Areas

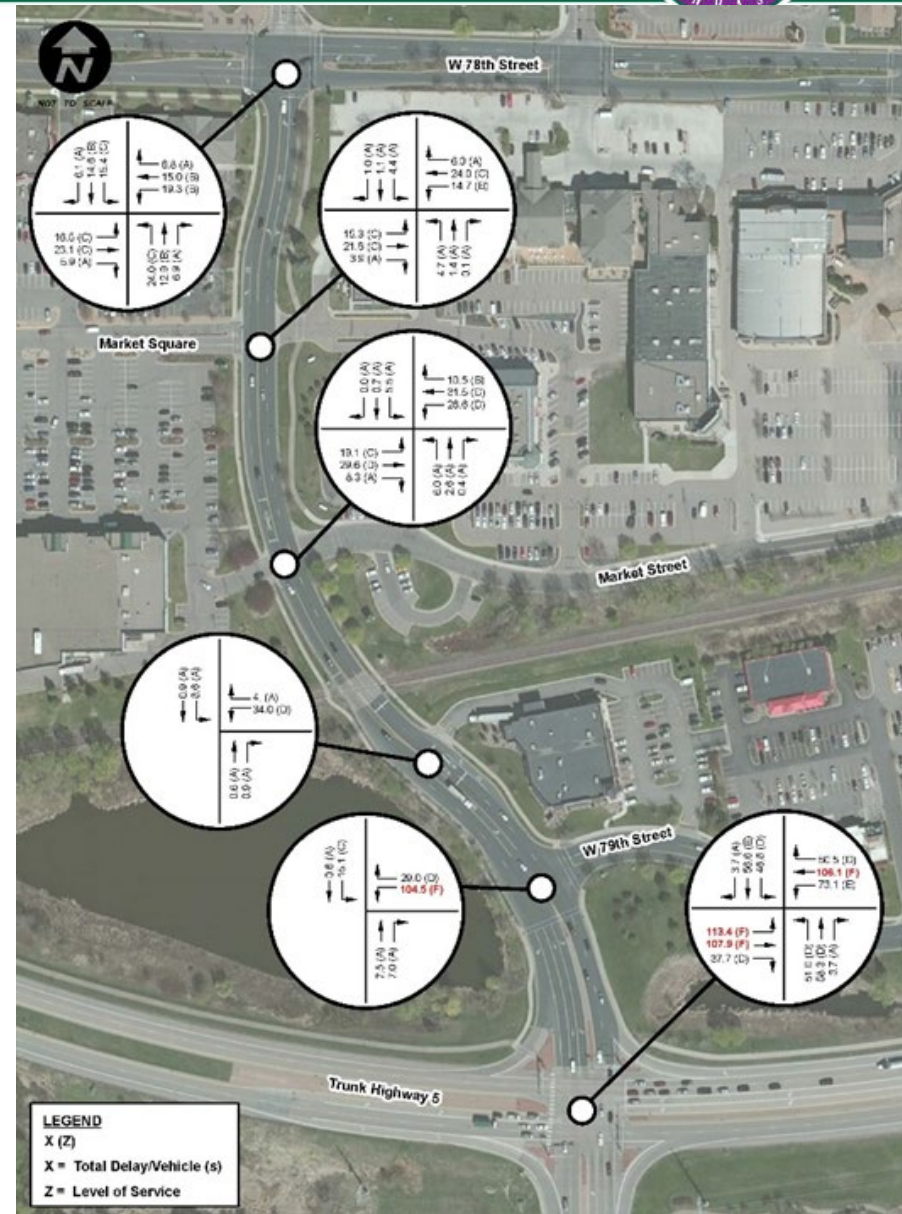
- Next to Dinner Theater
 - Proposed Mixed-Use
 - +/- 120 MF Dwelling Units
 - +/- 20,000 SF Retail
- Along West 79th Street
 - Proposed Chick-Fil-A





Future “No-Action” Analysis

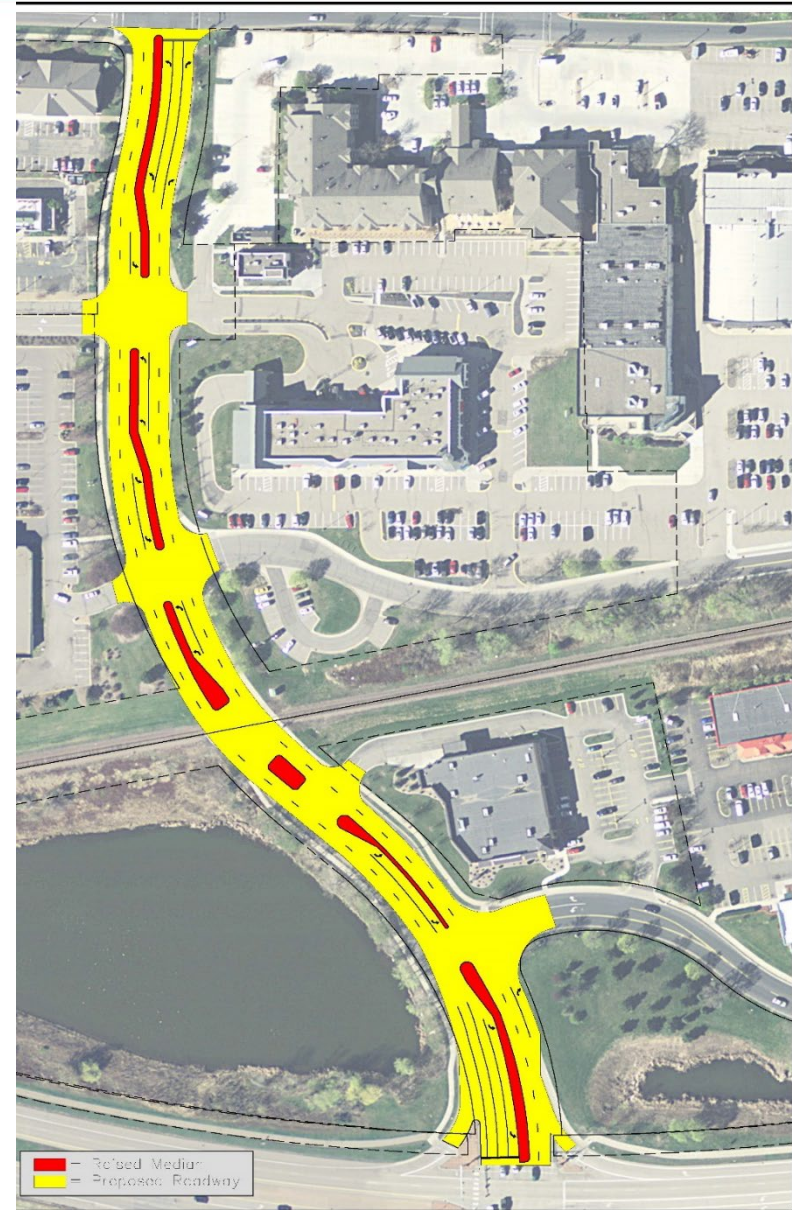
- Similar results to existing conditions
- All intersection operate at LOS B or better overall except TH 5 (LOS F)
- Critical Movements
 - EB Left at TH 5 (LOS F)
 - EB Through at TH 5 (LOS F)
 - WB Thru at TH 5 (LOS F)
 - WB Left at 79th Street (LOS F)



Alternative Alignment

Four-Lane Alternative

- Adds capacity
- Dedicated left-turn lanes increase safety and driver comfort
- Some right-turn lanes provided
- Minimal impact to adjacent properties





Benefits of Alternative Alignment

- Improves overall operations of corridor
- Eliminates inconsistent cross-sections
- Provides safer environment
- Provides safety measures required for railroad quiet zone



Cost Estimate

- Construction Cost - \$3,200,000

Includes 20% Contingency and 25% Indirect Costs



Access Control Recommendations



West 79th Avenue

- Issues
 - WB Left operating at LOS F
 - Potential impacts from SB queue at TH 5
- Recommendation:
 - Option of extending median to prevent WB left movement
 - Need to consider impacts to Great Plains/79th Ave
 - Potentially tied to larger TH 5 improvements
 - Potential for roundabout –needs more study



Access Control Recommendations

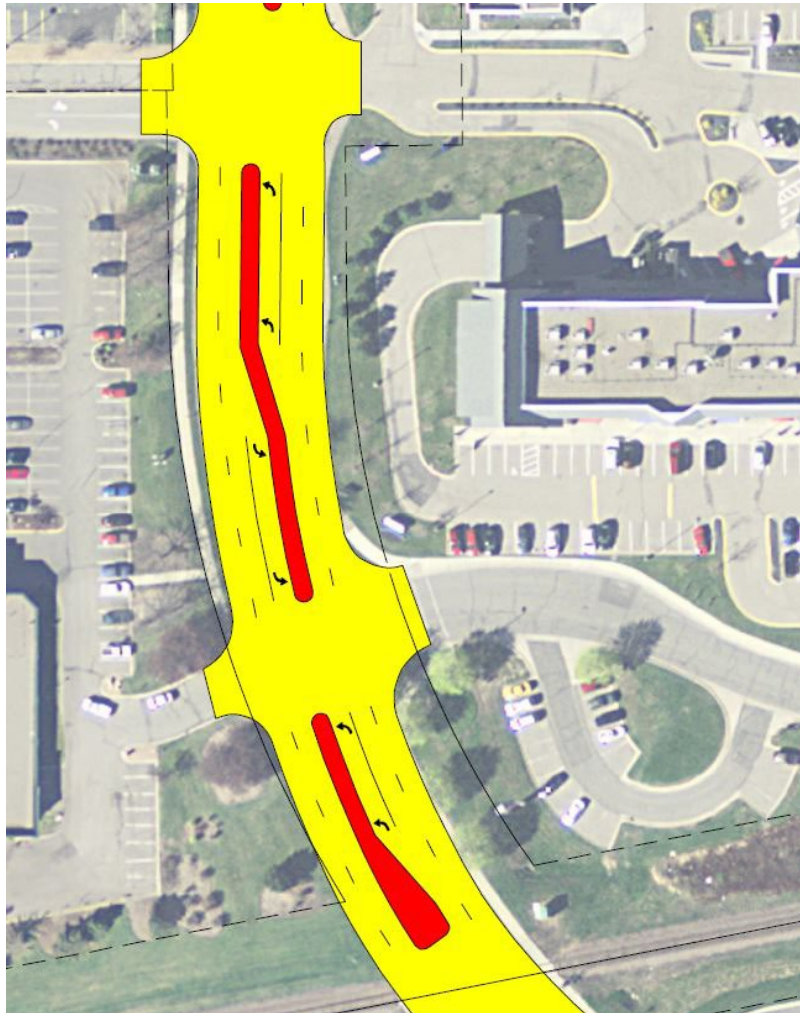


Walgreen's Driveway

- Issues
 - Need for raised median separation to comply with railroad quiet zone improvements
- Recommendation:
 - Convert to right-in/right-out driveway
 - Construct raised median if quiet zone implemented



Access Control Recommendations



Market Street/Market Square

- Issues
 - Crash history trend
 - Minimal turn lane storage for NB left
- Recommendation:
 - Construct raised median and extend NB left turn lane
 - Potential for roundabout –needs more study



Next Steps – If requested

Perform Feasibility Study

- Concept Refinement
- Review Roundabout Feasibility
- Consider Access Control Recommendations
- Identify Right-of-Way and Easement Requirements
- Review Potential Utility Impacts
- Easement Requirements
- Cost Estimate Refinement
- Methods of Financing
- Project Schedule