



# Citizen's Advisory Committee Meeting #2

July 24, 2019



# Agenda

Introductions

Achieving Project Goals

Parking Lot Q & A and Data  
Updates

Concept Updates



# Achieving Project Goals



BILLINGS   
AIRPORT ROAD  
& MAIN STREET  
*Concept*

# Traffic Will Continue to Increase



**In 20 years: From 63,500 to 92,500 ADT\***

- Main St Annual Growth Rate: 1.0-1.4%
- Airport Annual Growth Rate: 1.8%

\*This assumes the Billings Bypass is built.

A roadway that serves all users by:

- Improving Mobility (reduces congestion & delay)
- Improving Safety (fewer crashes)
- Minimizing Impacts to Adjacent Properties

# In Your Words: Project Success

Meets Project  
Goals

Bicycle &  
Pedestrian  
Facilities/Crossings

Safer

Improved  
Operations

Efficient

Ease of Access

Connectivity

Balanced Impacts

Convenient

# In Your Words: What Can Be Improved

Congestion

Signal Timing

Pedestrian/Bicycle  
Environment

Bottlenecks

Snow Removal

Rush Hour Flows



# Parking Lot Q&A and Data Updates



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AIRPORT ROAD  
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*Concept*



# Floodplain

## Status of the floodplain?

Goal: Not increase the flood plain elevation

- Survey, modeling and Hydraulics Report during final design
  - Define needs for culvert sizing, extensions & permitting

# Pedestrian & Bicycle Safety

**Pedestrians and bicyclist crashes at the Airport/Main intersection (from 2010 to 2017)?**

- 2013: 1

**Low crashes due to low usage**

- Uninviting conditions
- Perception of unsafe environment

# Bench Boulevard- Did it reduce traffic on Main Street

Traffic shifted to Bench Boulevard but still increased on Main Street.

- **Bench Boulevard (south of Airport Road)**
  - 2016 – 10,000 ADT
- **Main Street (actual counts)**
  - 2014 – 46,000 ADT
  - 2015 – 38,500 ADT (- 7500)
  - 2016 – 42,000 ADT (+3500)

## Slide 11

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**WW40**

Expected CAC questions ? Did Bench open in 2016? Do we know why traffic declined since 2014? Why don't we have more recent counts

Wende Wilber, 7/22/2019

**JS3**

Our study was done in 2016, thus the most recent numbers. I don't know about the others

Jason Simmers, 7/23/2019

# Without the By-Pass Airport & Main Traffic Counts

Add 7,500 vehicles to Airport & Main in 2035

**2012 Bypass Report:** 7,500 less vehicles at Airport/Main in 2035  
with By-Pass

# Truck Traffic

## How much truck traffic will use the By-Pass/Belt Loop? WW41

### ➤ Inner Belt Loop

- ✓ Will divert very little truck traffic from the Airport & Main
- ✓ Provides an additional connection between the Heights and Highway 3, mostly residential in nature
- ✓ Truck volumes estimated at 2%

### ➤ By-Pass

- ✓ Will carry 13,000 to 18,500 vehicles per day in 2040
- ✓ Daily truck percentages: Approximately 20% between US 87/Main St/Hwy 312 and the Trailhead Commerce Park access in Lockwood.
- ✓ Heavy truck percentages are expected to increase to approximately 30% around the Johnson Lane/Bypass Arterial interchange
  - Trailhead Commerce Park development
  - Future development of the TEDD
  - Johnson Lane interchange

**Slide 13**

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**WW41**

CAC questions is how much will it pull from Airport/Main/Aronson - This reads it will likely increase because of future development, correct?

Wende Wilber, 7/22/2019

# Truck Traffic

## On Aronson Avenue





# U-Turns

- Are they allowed? Yes

WW33

- Safety - Three Studies Reviewed

- Right turns followed by U-turns at signalized intersection movements were safer than the direct left turns movements.
- Severities of the right turns followed by U-turns movements were less than direct left turns movements.
- One study focused on operational and safety effects of increased U-turns on divided facilities.  
WW42
  - 65 out of 78 sites had no collisions related to U-turns.
  - U-turn collisions at the remaining 13 sites ranged from 0.33 to 3.0 collisions per year.
- Average conflict rate for right turns followed by U-turns: 39% lower than that of direct left turns movements.

## Slide 15

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**WW33** They will likely want to know what the stats are for left turns

Wende Wilber, 7/18/2019

**WW42** Volumes?

Wende Wilber, 7/22/2019

# Alternate Access





# Concept Updates



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& MAIN STREET  
*Concept*

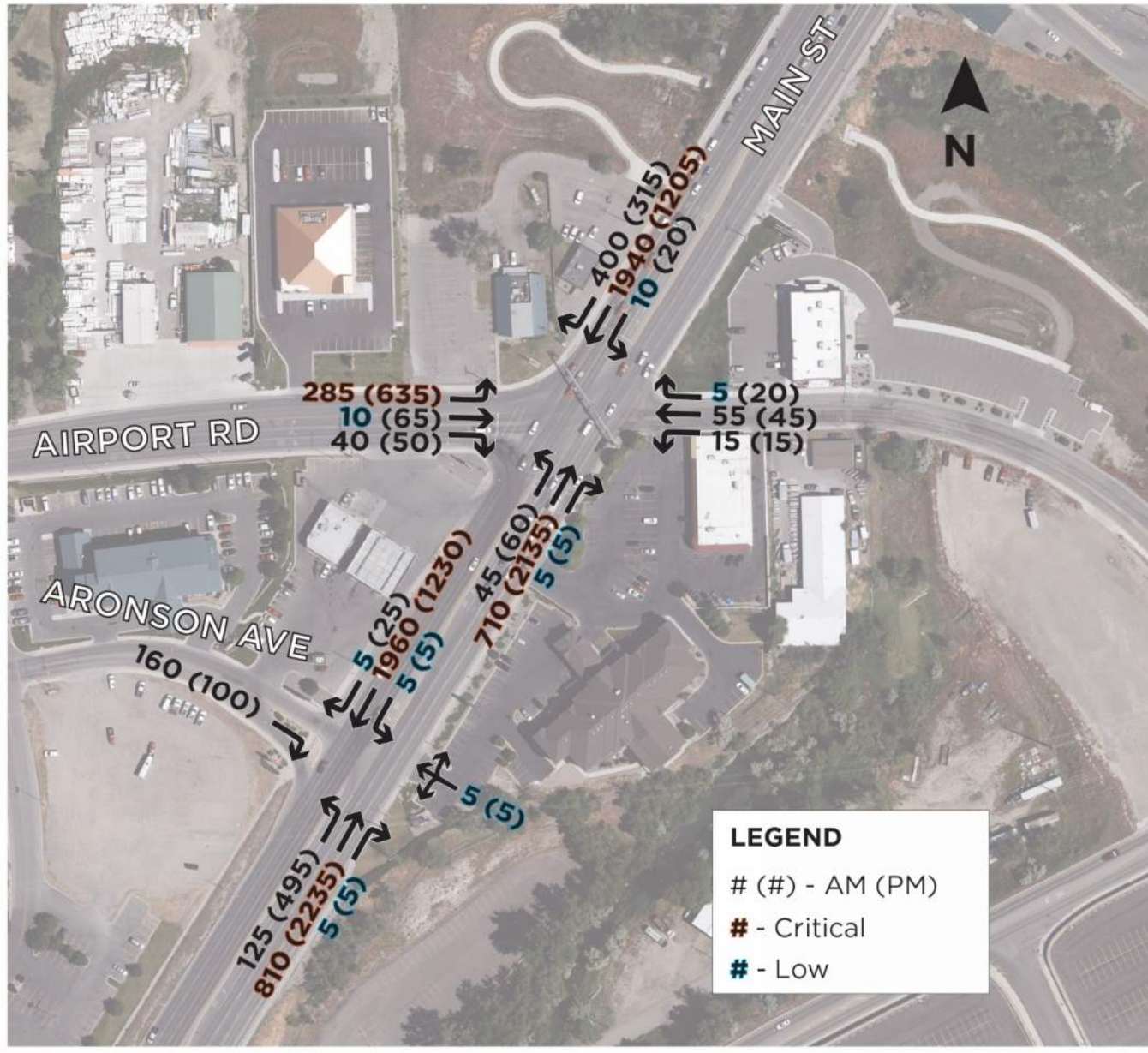
# Key Challenges

- ✓ Northbound lefts are the biggest issue to the Heights area
- ✓ Limited space
- ✓ Growth will happen
- ✓ Have to use data driven best engineering practices
- ✓ Responsibility to the travelling public.

# No Build Alternatives:

Existing (2016) Peak Hour Volumes

WW20  
WW36



## Slide 19

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**WW29**

Need to tell in layperson terms...

Wende Wilber, 7/17/2019

**WW36**

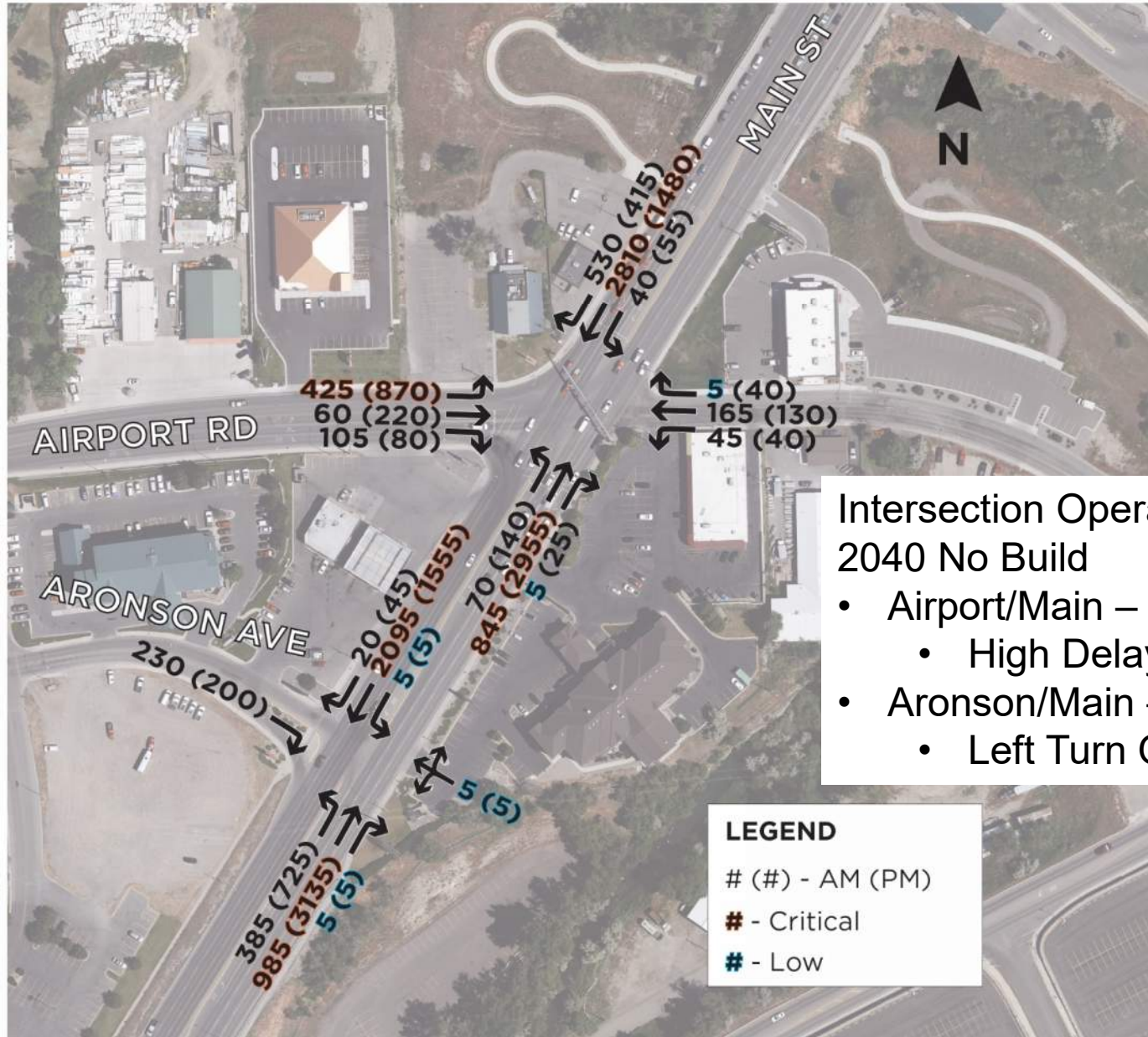
Its a lot easier to maintain something than try to fix it when is has completley broken down.

Wende Wilber, 7/18/2019

# No Build Alternatives:

Future 2040 Peak Hour Volumes with No Build

WW20  
WW36



- Intersection Operations  
2040 No Build
- Airport/Main – Failing
    - High Delay Times
  - Aronson/Main – Failing
    - Left Turn Over Capacity

**LEGEND**

- # (#) - AM (PM)
- # - Critical
- # - Low



## Slide 20

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**WW29** Need to tell in layperson terms...

Wende Wilber, 7/17/2019

**WW36** Its a lot easier to maintain something than try to fix it when is has completley broken down.

Wende Wilber, 7/18/2019

# Thinking Outside the Box

- Private property impacts
- 8 foot elevation change
- 5-6% grade
- Adds intersections



# Airport Road/Main Street Dual Eastbound Lefts Dual North Bound Lefts

## The Good

- ✓ Improves southbound Right Turn
- ✓ Improves westbound Through Movement
- ✓ Southbound Left Turn remains

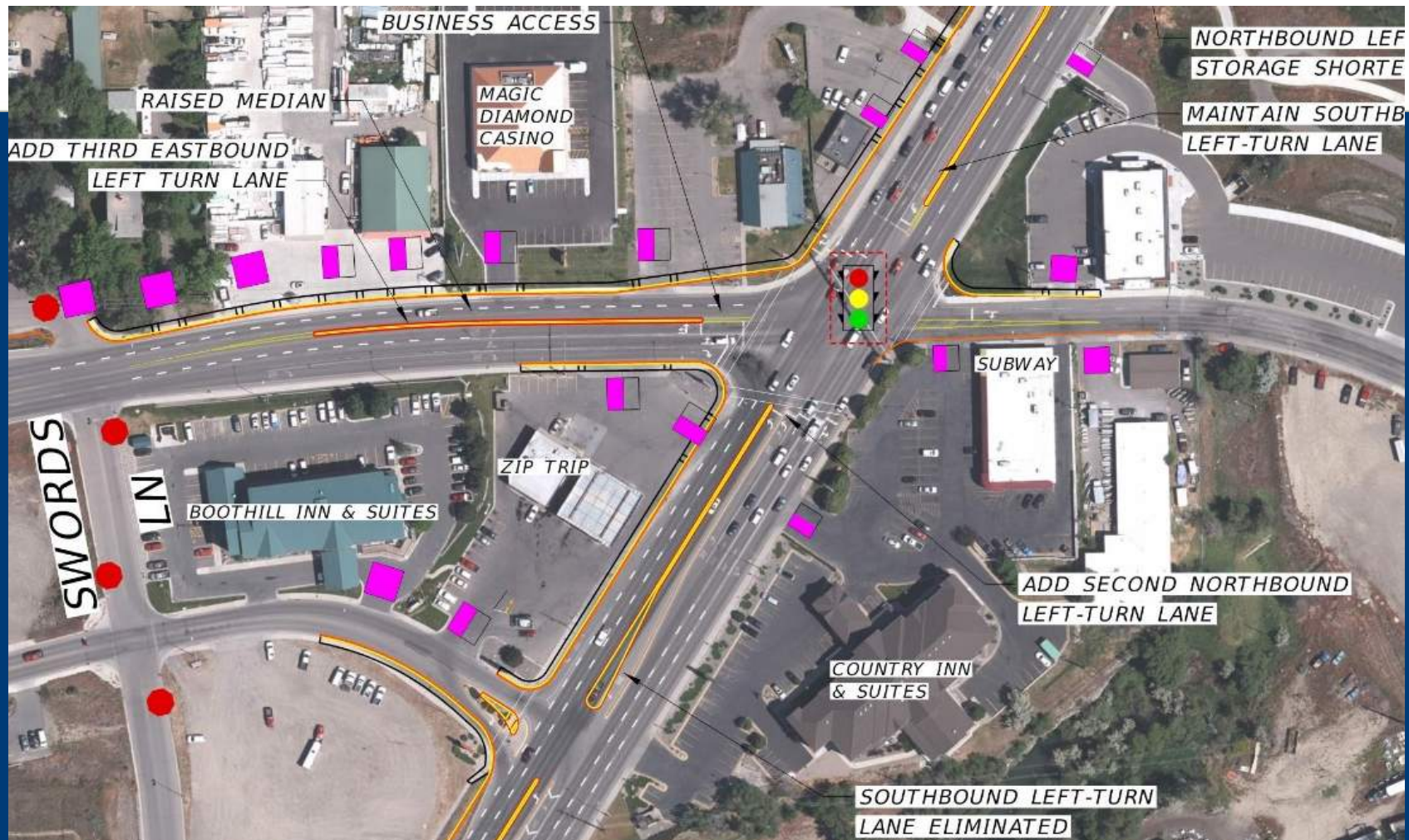
## The Not So Good

- ✓ Doesn't help northbound Left Turns
- ✓ Significant Private Property Impacts
- ✓ Reduces Lake Elmo NB Left Turn Storage
- ✓ Assume 50% of Aronson northbound Left Turns go to Airport
  - Airport Road Intersection delay is worse than doing nothing
- Aronson fails
  - Removes southbound Left Turn into Country Inn
  - Aronson is not signalized

# Airport Road/Main Street Dual Eastbound Lefts Dual North Bound Lefts

WW29

WW



## Slide 23

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**WW29**

Need to refine bullets

Wende Wilber, 7/17/2019

**WW37**

describe safety impact better

Wende Wilber, 7/18/2019

# Airport Road/Main Street Triple Eastbound Lefts Dual North Bound Lefts

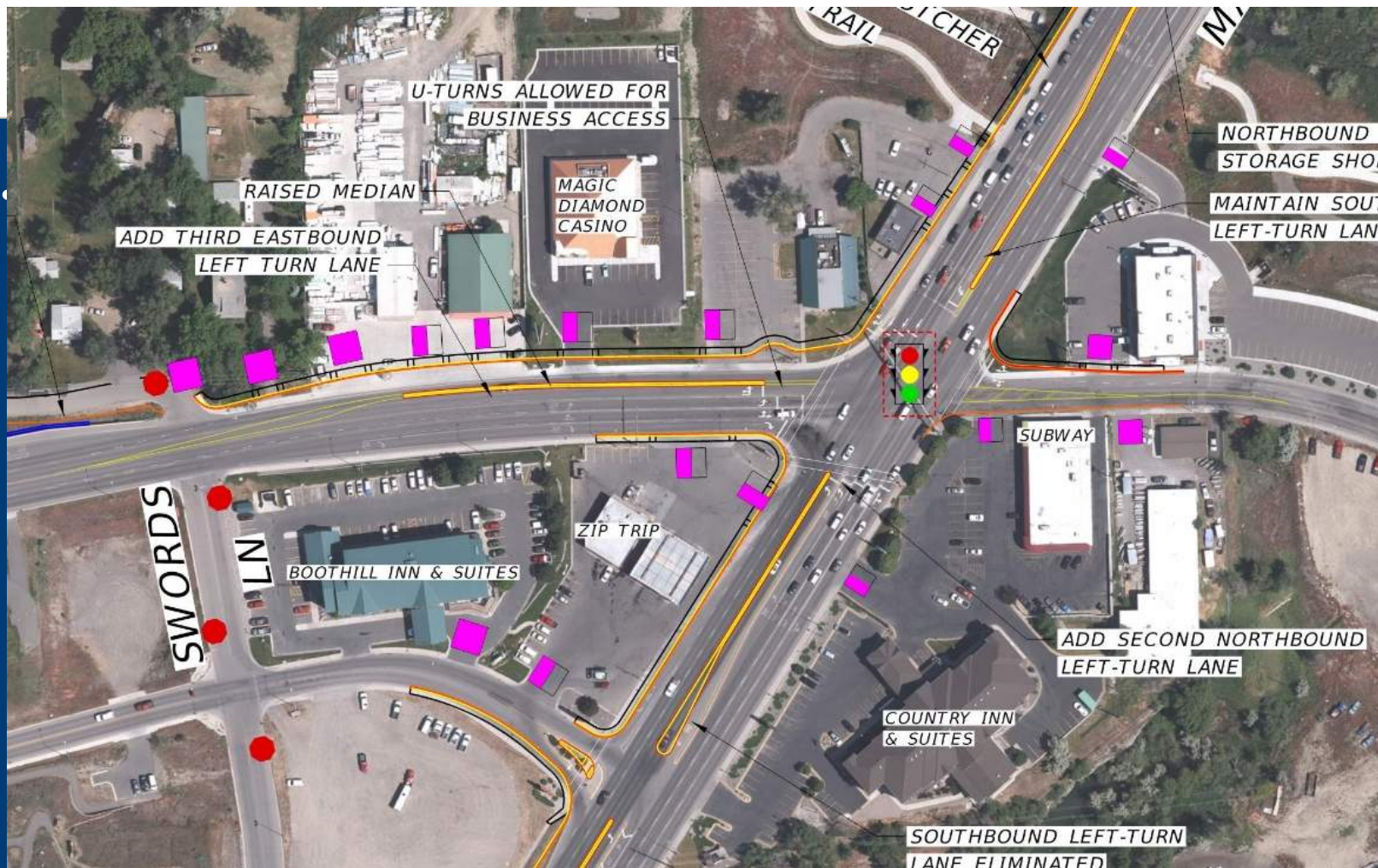
## The Good

- ✓ Improves eastbound Left Turn
- ✓ Improves northbound and southbound Through Movement
- ✓ SB Left Turn Remains

## The Not So Good

- ✓ Doesn't help northbound Left Turns
- ✓ Significant Private Property Impacts
- ✓ Reduces Lake Elmo NB Left Storage
- ✓ Assume 50% of Aronson northbound Left Turns go to Airport
  - Airport Road Intersection delay is about the same as doing nothing
- Aronson fails
  - Removes southbound Left Turn into Country Inn
  - Aronson is not signalized

# Airport Road/Main Street Triple Eastbound Lefts Dual North Bound Lefts



# Airport Road/Main Street Triple Eastbound Lefts Single North Bound Left

## The Good

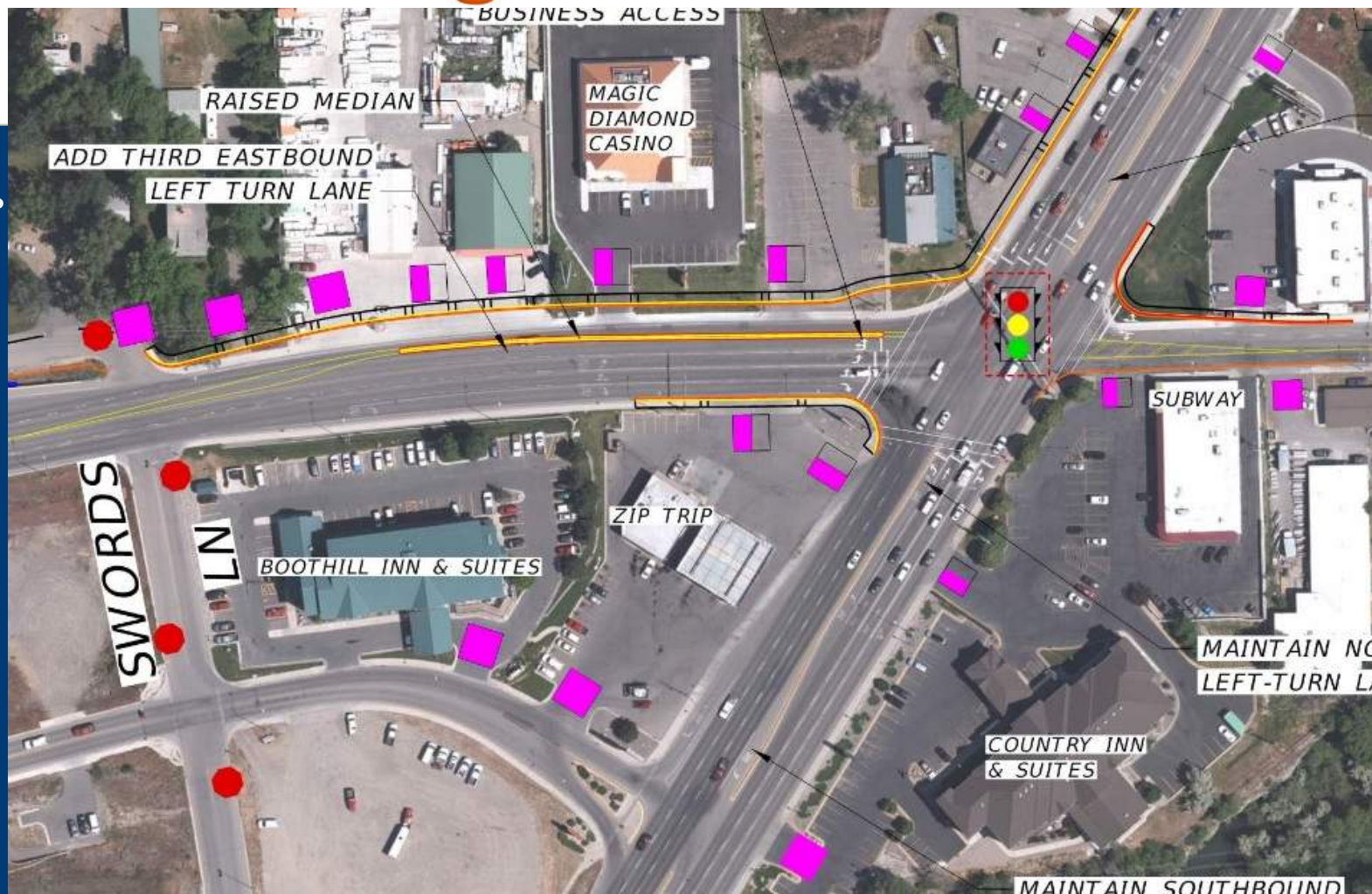
- ✓ Improves eastbound Left Turn
- ✓ Improves northbound and southbound Through Movement
- ✓ Southbound left turns at Airport and at Aronson remain

## The Not So Good

- ✓ Reduces Lake Elmo NB Left Turn Storage
- ✓ Private Property Impacts
- ✓ Assume Aronson northbound Left Turns do not go to Airport
  - Airport Road Intersection delay is improved
- Aronson fails significantly
  - Aronson is not signalized



# Airport Road/Main Street Triple Eastbound Lefts Single North Bound Left



# It Brings us Back to the Southwest Quadrant

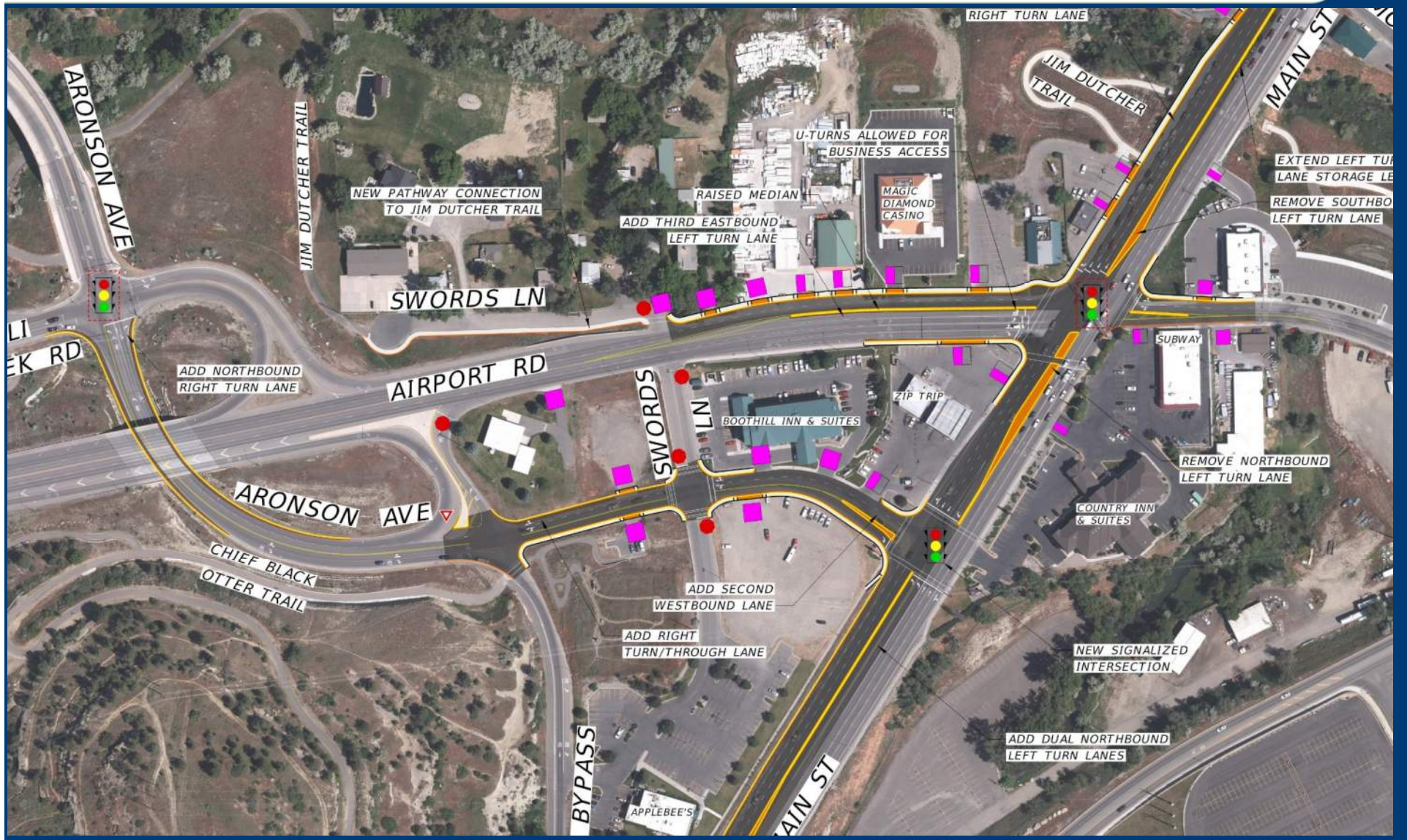
## The Good

- ✓ Improves both intersection operations
- ✓ Airport Road Intersection Delay is significantly better than No Build
- ✓ Aronson Ave Intersection operation is significantly improved from other alternatives
- ✓ Increases Lake Elmo NB Left Turn storage

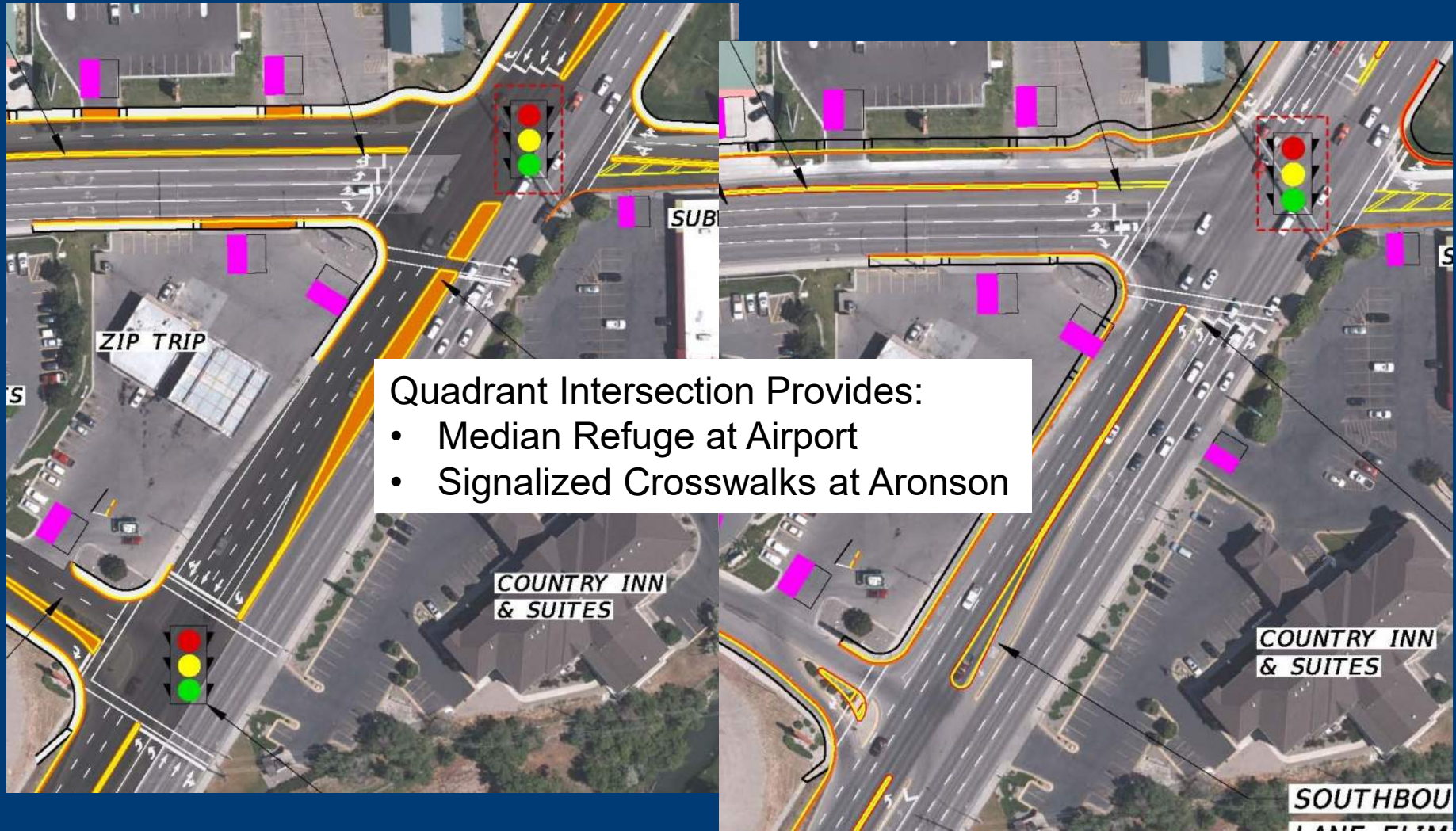
## The Not So Good

- Reroutes NB Left Turn traffic
- Private Property Impacts
- Aronson Avenue Intersection IS signalized
  - Still No Eastbound Left Turn at Aronson
- Access to southeast properties is through alternate routes
  - U-turns for passenger cars
  - Lake Elmo route for trailers and RVs

# Southwest Quadrant



# Pedestrian and Bicycle Improvements





# Next Steps



Refine Concepts  
Homework  
CAC Meeting #3

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*Concept*