

Burnsville Aging Signals Study

City of Burnsville Council Work Session

September 13, 2016

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- Sarah Tracy, Dakota County Transportation
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Burnsville Aging Signals Study



Purpose

Existing signals at three intersections are at the end of their service life:

- CSAH 5 & Burnsville Parkway (37 years old)
- CSAH 5 & 136th Street (27 years old)
- CSAH 11 & Burnsville Parkway (30 years old)



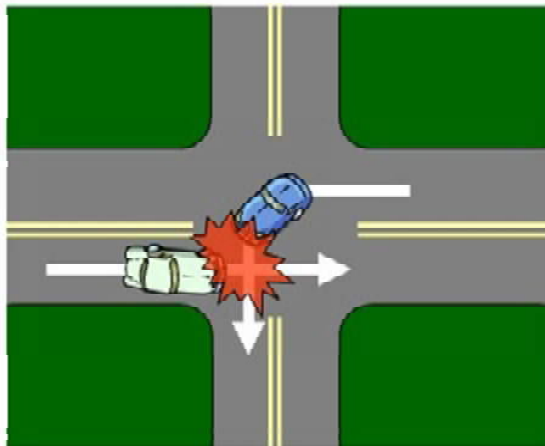
Existing Conditions



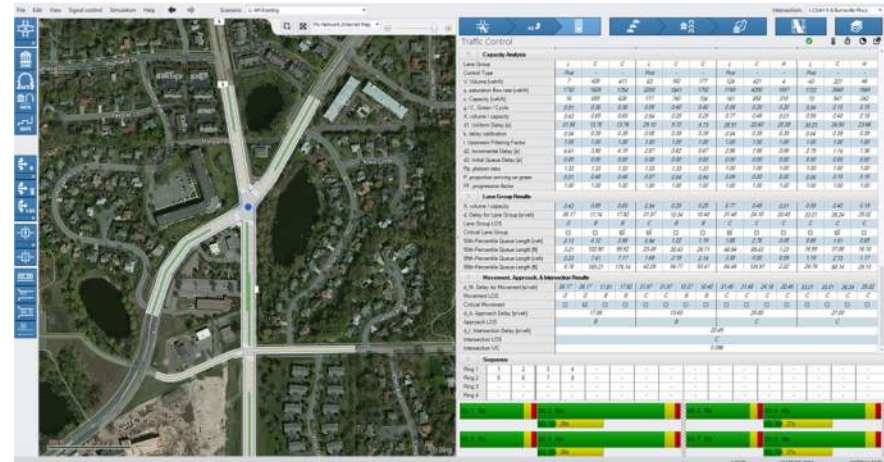
Traffic Counts



Observe Operations & Conditions



Crash History



Analyses



Burnsville Aging Signals Study

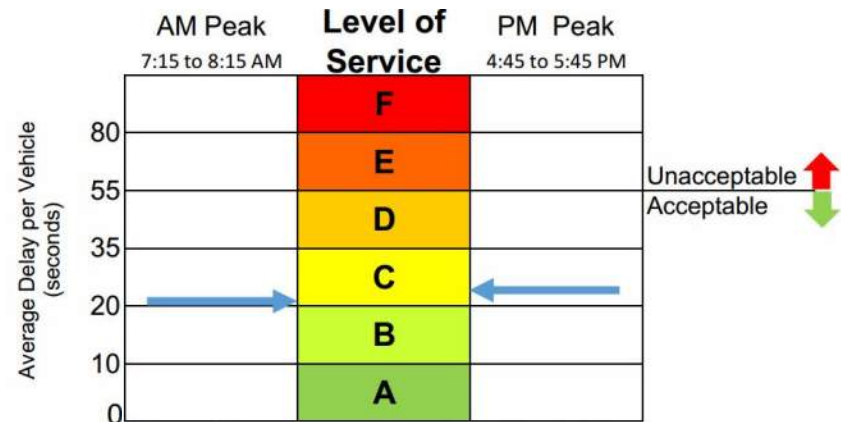


Existing Conditions

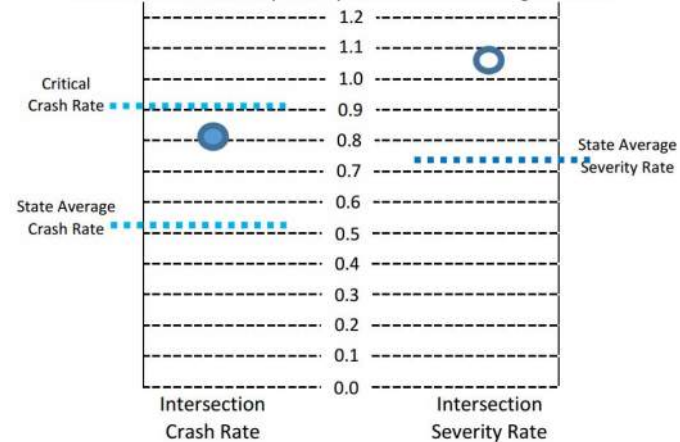
CSAH 5 & Burnsville Parkway

General Comments:

- Volumes justify a traffic signal
- Operates without significant delay during the peak hours
- Crash history higher than average, but not critical



Crash Rate & Severity Rate per Million Entering Vehicles

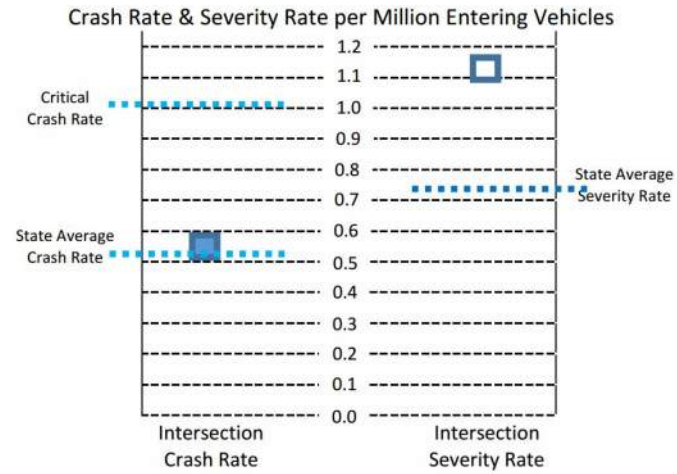
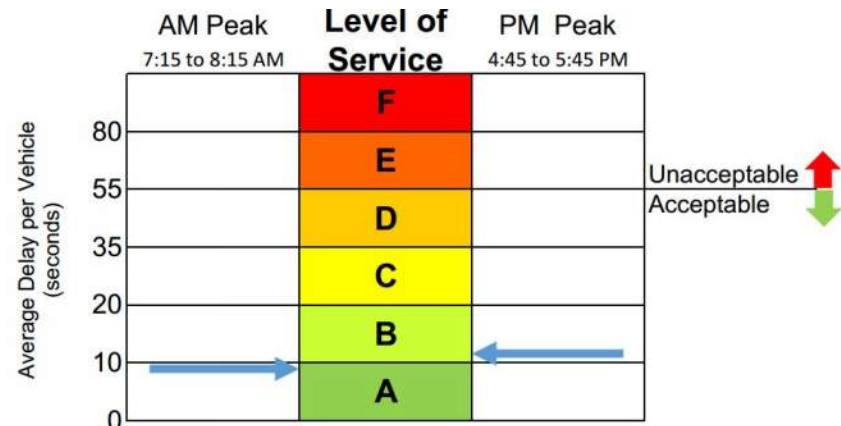


Existing Conditions

CSAH 5 & 136th Street

General Comments:

- Volumes minimally meet peak hour traffic signal warrant
- Over 25 locations in County have higher need
- Operates with minimal delay during the peak hours
- About average in terms of crash history

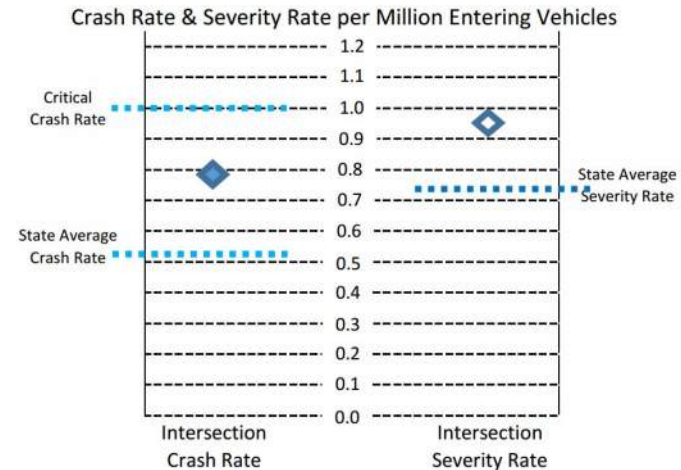
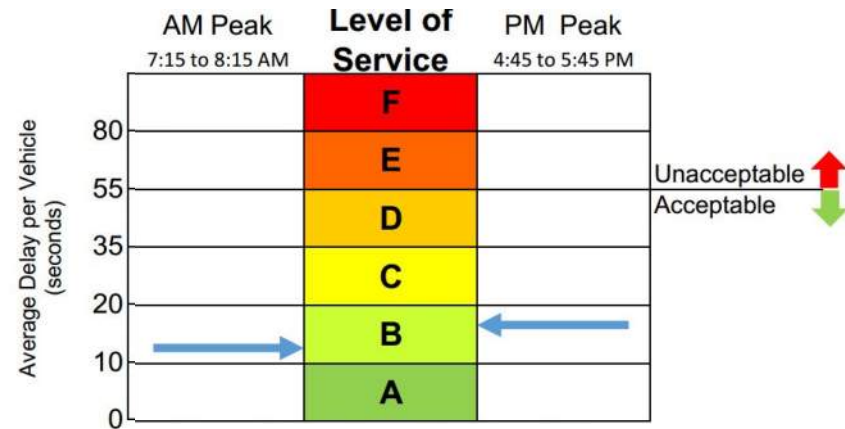


Existing Conditions

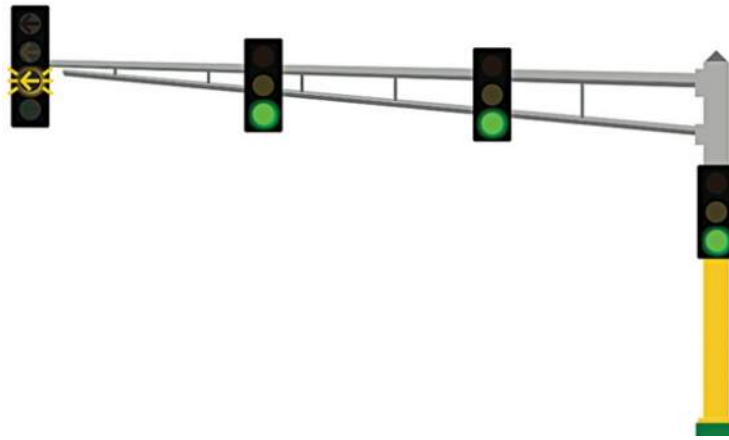
CSAH 11 & Burnsville Parkway

General Comments:

- Volumes meet peak hour traffic signal warrants
- Operates with minimal delay during peak hours
- Crash history higher than average, but not critical



Potential Alternatives



When to Use:

- High volume corridors
- Major arterial corridors

Downside/Risk:

- Higher delays compared to some other types of traffic control
- Rear end crashes
- Red light running
- Potential for higher injury and fatal crashes

Potential Alternatives

Example: CSAH 16 (McColl Drive) and Lynn Avenue/Glendale Road in Savage, Minnesota



When to Use:

- Intersections with balanced traffic
- Provide greater mobility compared to All-Way Stop or Traffic Signal control
- Reduce risk of serious injury and fatal crashes

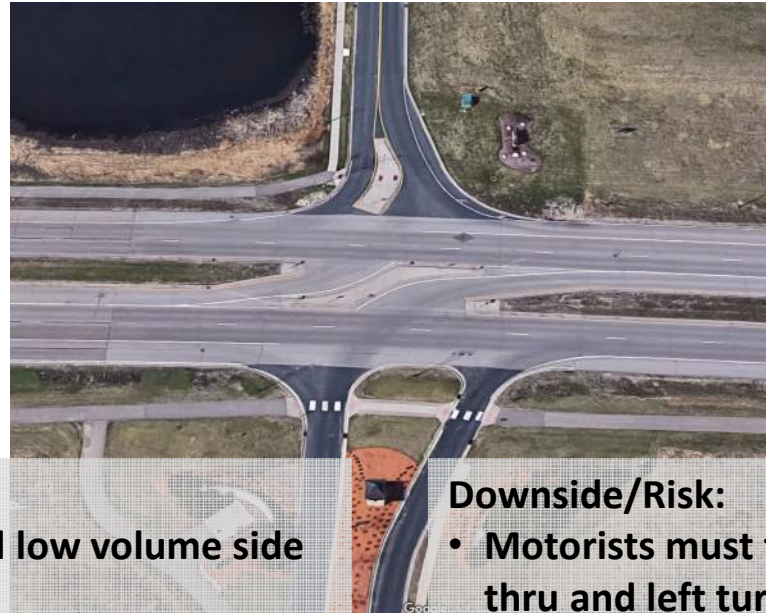
Downside/Risk:

- Often has higher right-of-way needs
- Often has higher construction costs
- Potential for greater property damage crashes

Potential Alternatives

(CSAH 5 & 136th Street Only)

Example: CSAH 42 (140th St) and Shepards Path/Fountain Hills Rd in Prior Lake, Minnesota



When to Use:

- High volume mainline and low volume side street
- Improves mainline mobility
- Other routes available
- Reduce risk of serious injury and fatal crashes

Downside/Risk:

- Motorists must find alternate routes (for thru and left turn movements)
- Change for pedestrian crossings (re-route or two-stage crossing)

Open House

Held September 7, 2016:

- 49 People Signed-In (over 50 attended)
- 57 Comments Received
 - 37 written from meeting
 - 17 emails
 - 3 phone calls

Common Themes:

- Concerns regarding roundabouts
- Need to address 'cut-through' traffic
- Desire for left turn treatment (Flashing Yellow Arrow)
- Concerns regarding pedestrian/bicycle crossings
- Desire for right turn lanes



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Open House

CSAH 5/Burnsville Parkway:

- Top Comment – Roundabout Concerns
- Traffic Signal Support > Roundabout Support

CSAH 5/136th Street:

- Top Comment - Limited Access Concerns
- About Equal Support
(Traffic Signal, Roundabout, Limited Access)
- Roundabout Concern > Traffic Signal Concern

CSAH 11/Burnsville Parkway:

- Top Comment – Roundabout Support
- Roundabout Concern > Traffic Signal Support



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Next Steps

- Alternatives Evaluation
- Open House #2 in mid-October
- Preliminary Layout
- Recommendations presented to City Council & County Board
- Design and Construction (Future Projects)



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