



# Flower Street Bus Only Lane

Evaluation



**Metro**

October 2019



# Evaluation: Criteria

Metro Silver Line (Line 910/950) and Blue Line Express Bus Shuttle (Line 860) were analyzed for:

- Overall travel time
- Travel time variability
- Customer and bus operator feedback of Bus Only Lane

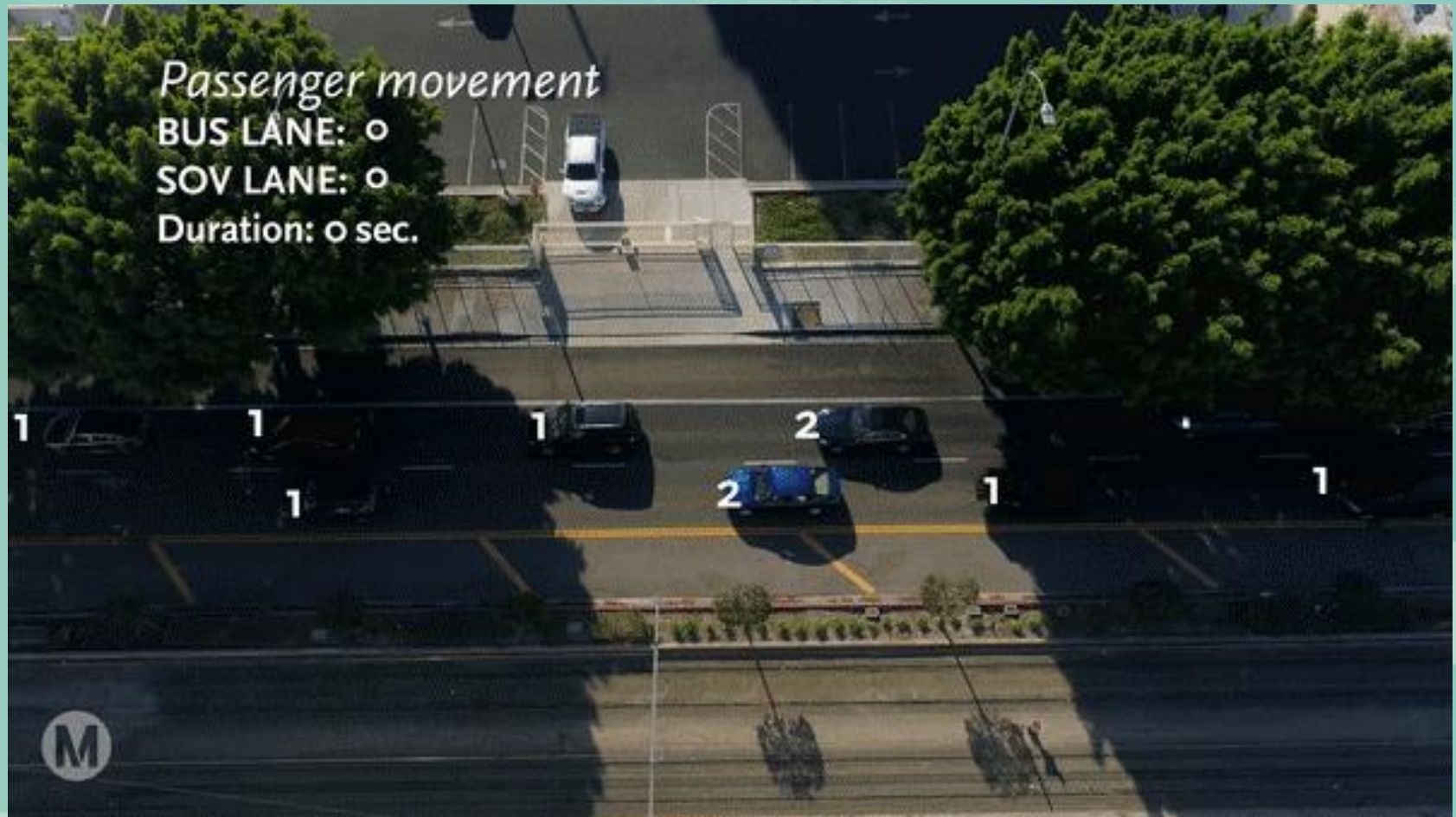


Flower St Bus Only Lane near LATTC/Ortho Institute Station

# Evaluation: Key Events

Key Events Impacting Speed & Reliability			
Before – General Traffic Lane New Blue Phase I: Jan through May 2019		Mid - Initial Bus Only Lane Operation New Blue Phase 2: Jun through mid-Aug 2019	Post - Adjusted Bus Only Lane Operation mid-Aug 2019 through Present
1.	Up to 53 buses per hour	Up to 80 buses per hour	Up to 70 buses per hour
2.		Jun 24, 2019: Expo Line Closure (Added Expo Shuttle Line 856)	Aug 24, 2019: Expo Line Reopens (Expo Shuttle Line 856 cancelled)
3.		Jun 24, 2019: Added 4 additional Silver Line buses to PM peak period	

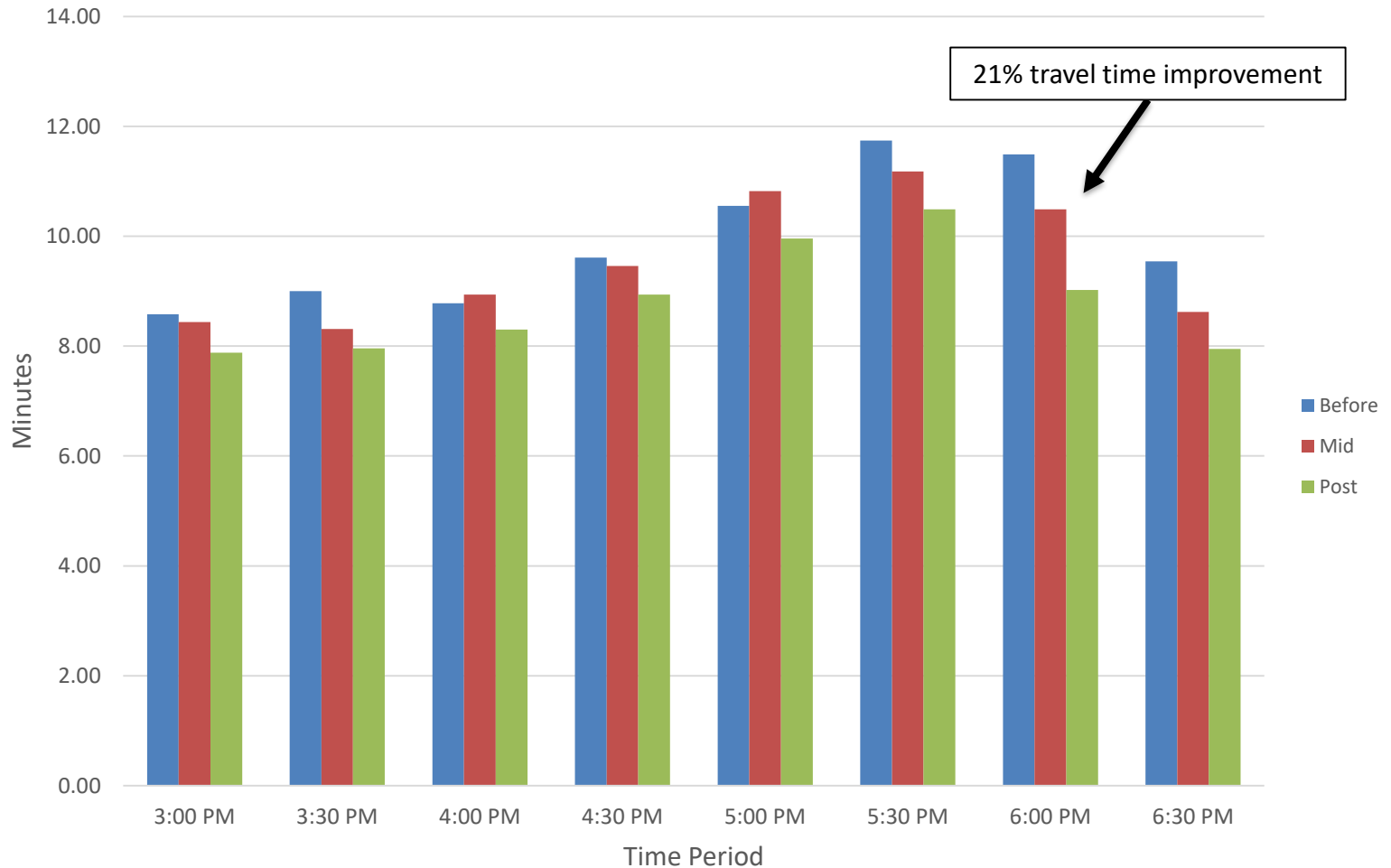
# Travel Time Improvement Results



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# Travel Time Improvement Results (Silver Line)

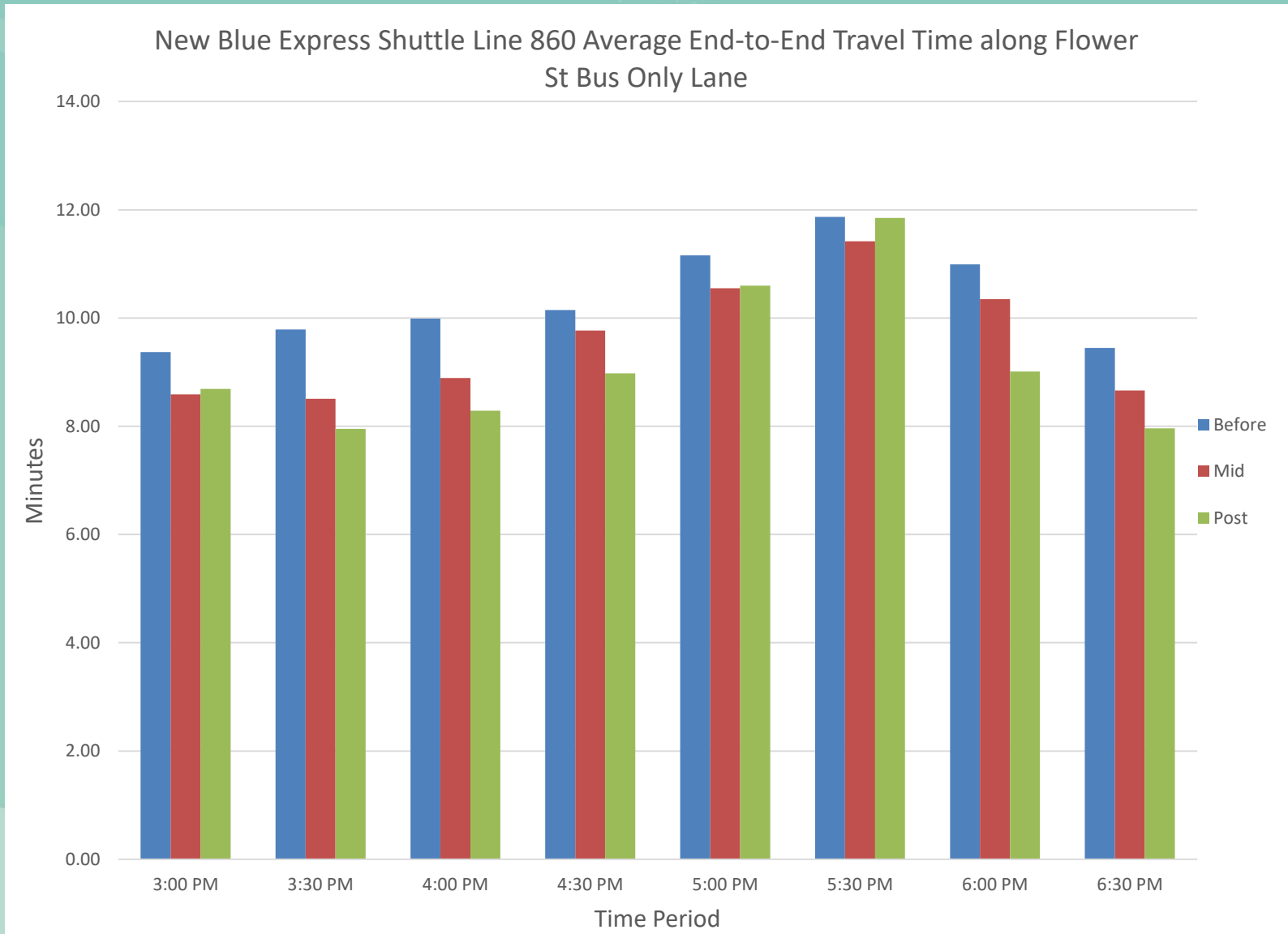
## Silver Line 910/950 Average End-to-End Travel Time along Flower St Bus Only Lane



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Every time period saw an improvement with introduction of bus only lane

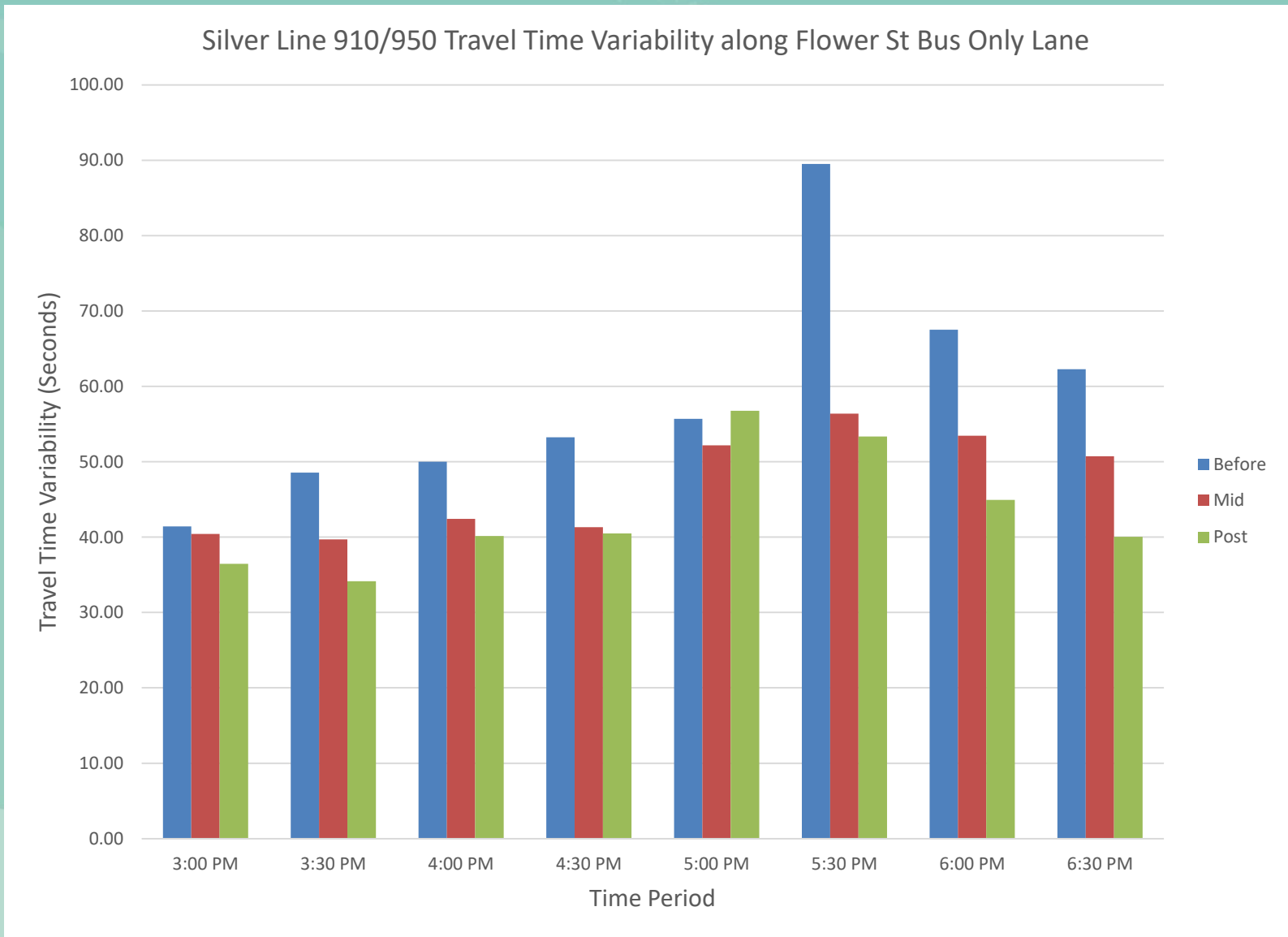
# Travel Time Improvement Results (Line 860)



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20% travel time improvement when comparing "Before" to "Post" periods

# Bus Travel Time Variability Results (Silver Line)



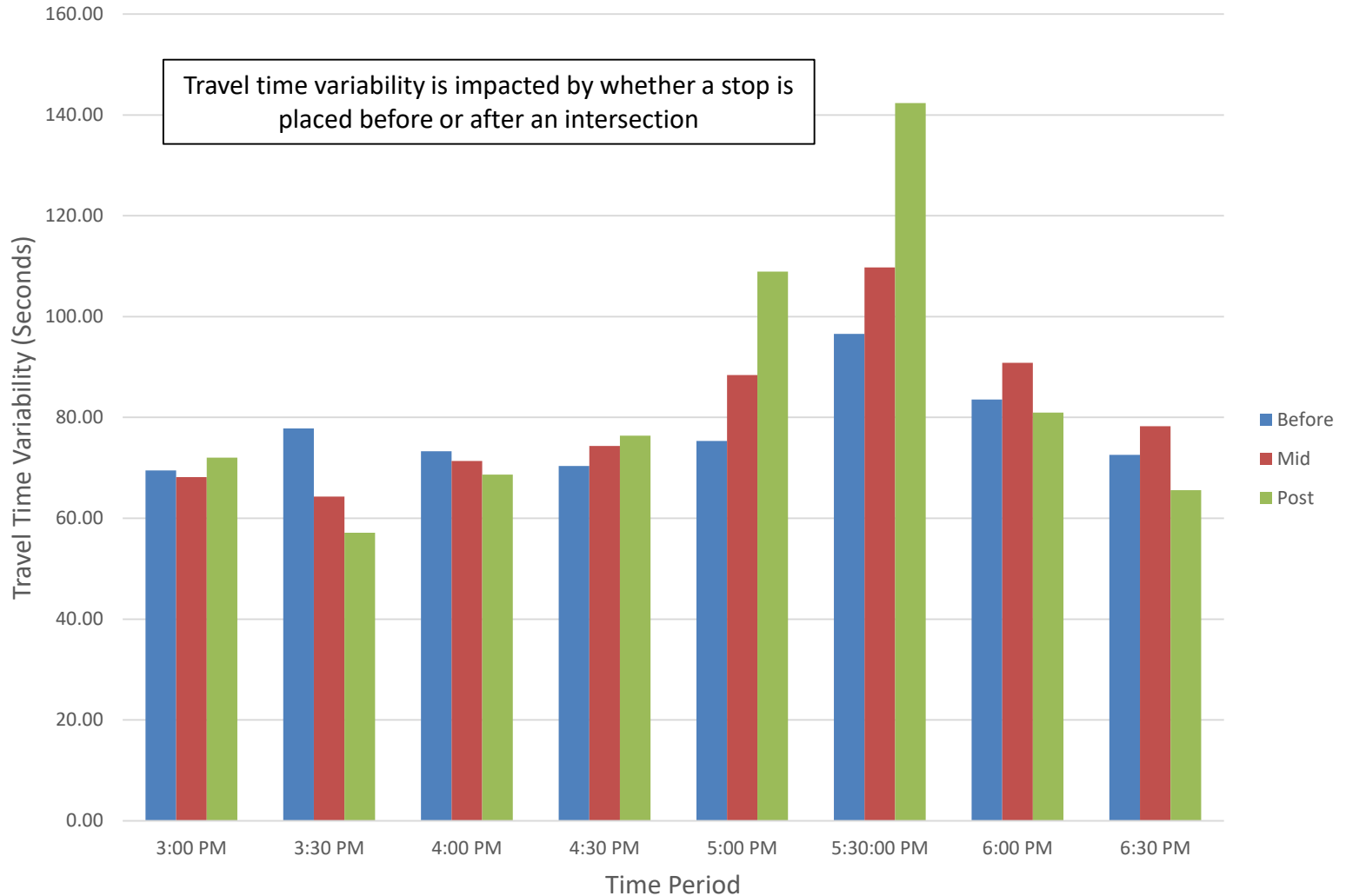
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Consistency of travel time greatly improved with bus lane



# Bus Travel Time Variability Results (Line 860)

New Blue Express Line 860 Travel Time Variability along Flower St Bus Only Lane



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Travel time variability increased in the "Mid" and "Post" periods

# Customer & Operator Survey Results

Customers and Operators responded positively when asked about the Bus Only Lane

More than 1,300 Customers and over 100 bus operators surveyed

- Over 65% of all respondents believe the bus lane speeds up their trip
  - 1/2 of respondents perceived savings up to 5 minutes
  - 1/2 of respondents perceived savings over 5 minutes
- Nearly 75% of all respondents surveyed believe the bus only lane improves reliability



Flower St Bus Only Lane attracted significant media attention

# Lessons Learned (Bus Stop Placement)

- Flower St / Olympic Bl:



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# Lessons Learned

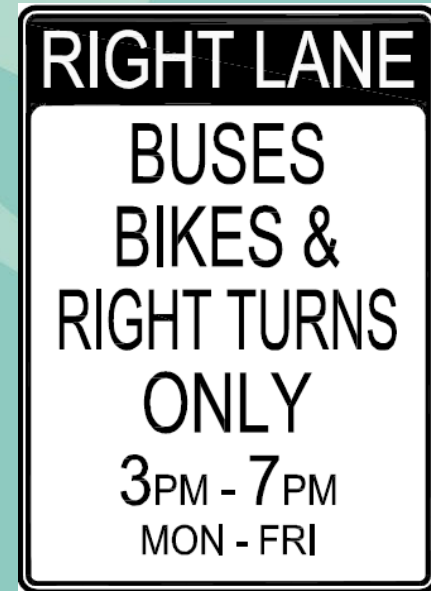
- Optimal volume of buses per hour essential for maximum bus lane performance
  - Too many buses at once can oversaturate the Bus Only Lane as observed during Mid-phase
- Enforcement and compliance is critical to keeping Bus Only Lanes clear of violators and other obstructions
- Relocating bus stops away from general traffic/turning movements and extending bus stop zones improve Bus Only Lane throughput
  - Avoid non-transit traffic congestion
  - Multiple buses can serve customers at the same stop at the same time
- Disjointed segments of Bus Only Lane for construction activities results in diminishing lane performance
  - Bottlenecks negate overall savings attributed to a continuous Bus Only Lane



# Next Steps

## Staff Recommendation

- Extend the Flower St Bus Only Lane through March 2020 for additional Post-condition evaluation
- Continue outreach on the future of Flower St bus only lane





Thank you



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