

# Study Goals

## Study Goal:

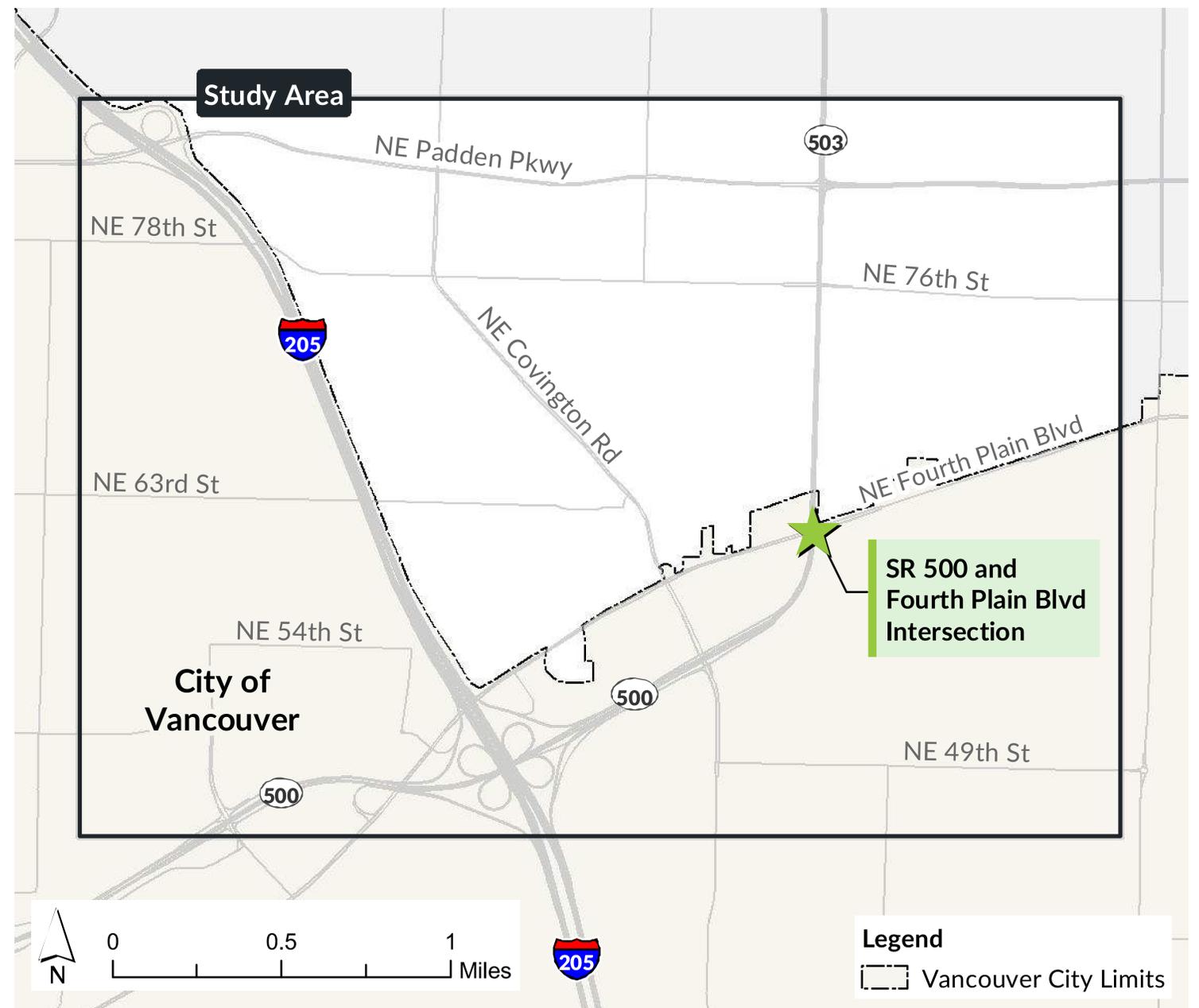
To identify a list of cost-effective strategies/projects to reduce congestion, increase safety and improve travel reliability at the intersection of SR 500/NE Fourth Plain Blvd.

## Study Methodology:

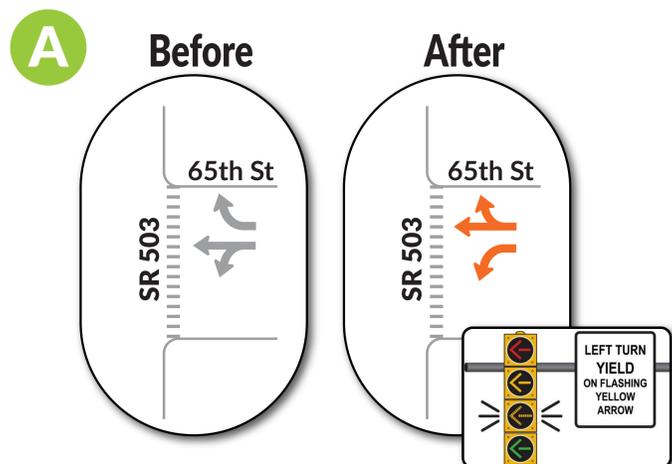
The study is analyzing factors that affect:

- **Safety** - The safe movement of vehicles, bicycles, pedestrians, and other non-motorized travelers.
- **Mobility** - The ability to move through the intersection.
- **Reliability** - The ability to predict how long trips will take during peak periods.

## Study Area

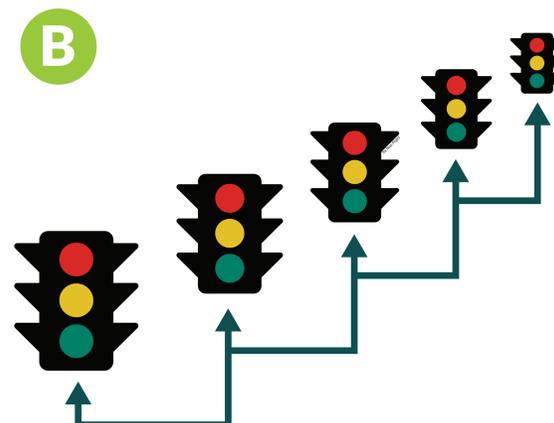


## Standalone Strategies



Restripe the westbound approach of SR 503/ 65th St to provide a dedicated westbound left-turn lane and shared through/right-turn lane. Implement flashing yellow arrows on 65th St.

**Cost Estimate** **\$10,000-\$20,000**  
Preliminary cost ranges for planning purposes only



Improve signal timing at all traffic lights on Fourth Plain Blvd and SR 500/SR 503 within the study area.

**Cost Estimate** **\$50,000-\$150,000**  
Preliminary cost ranges for planning purposes only

**TRAVEL TIME TO**

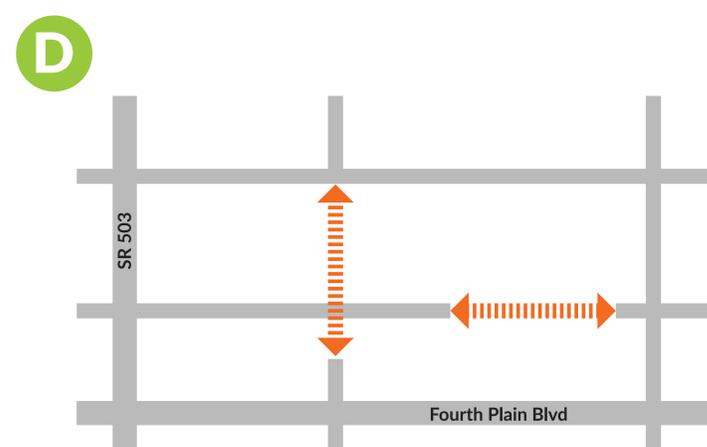
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VIA PADDEN PKWY **10** MIN

VIA **14** MIN

Add real-time travel signs north of Padden Pkwy to give drivers heading to I-205 travel time comparisons. Add additional static signs to guide travelers to I-205.

**Cost Estimate** **\$1-2 Million**  
Preliminary cost ranges for planning purposes only



Connect or extend local roadways to provide parallel routes for local traffic to access SR 500 and Fourth Plain Blvd.

**Cost to be determined when roadway connections are identified.**

### Package Summary

This package provides a collection of standalone improvements that may be implemented regardless of which corridor package is preferred. The standalone strategies can be implemented separately from each other as funding becomes available.

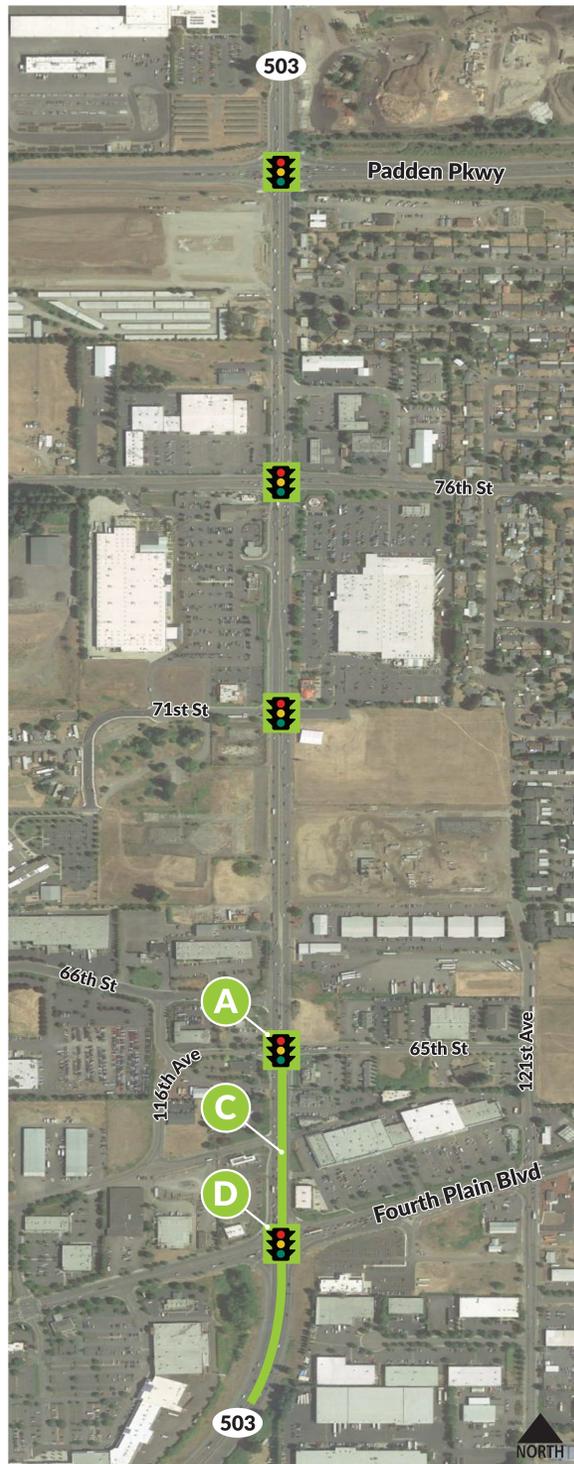
### Benefits

- Reduces driver delay at SR 503/65th St during peak commute hours
- Improves travel time reliability and driver expectation along SR 503 and Fourth Plain Blvd
- Improves driver expectation traveling to I-205
- Allows for increased mobility during incidents, roadwork, and peak commute times

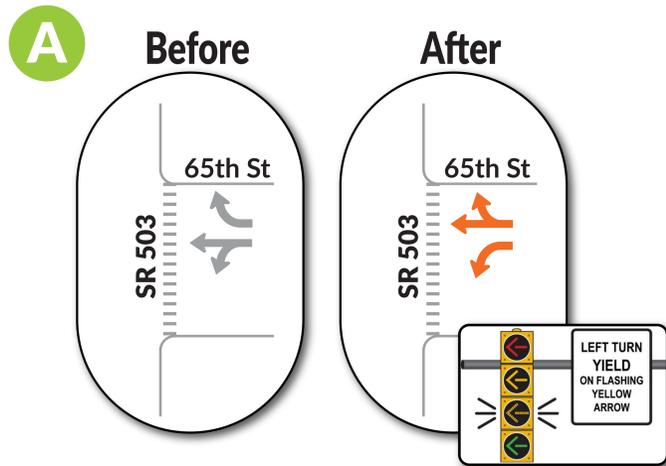
### Impacts

- Requires additional right of way, signage, and striping
- Requires maintenance and integrated systems for real-time information

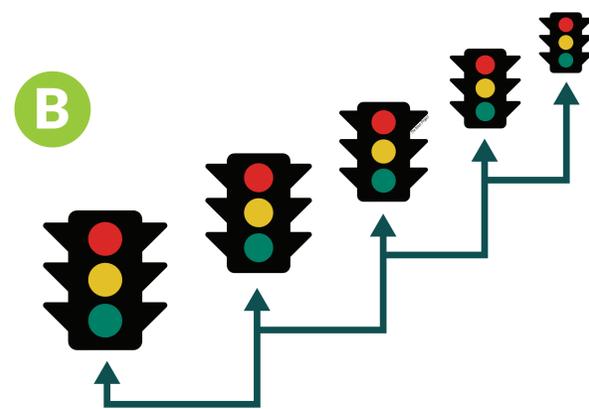
## SR 500/503 Full Grade Separation Corridor Improvement Package



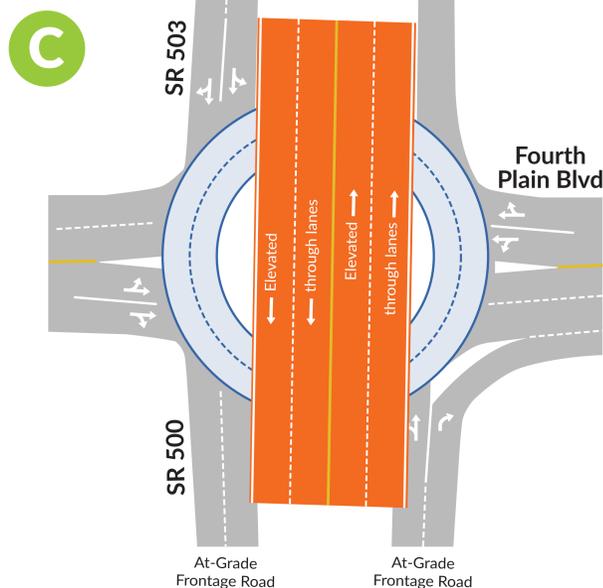
### Proposed Improvements



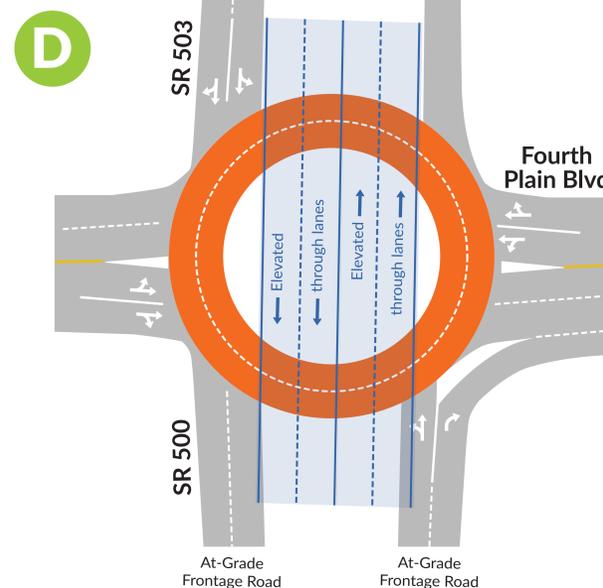
Restripe westbound NE 65th St at the intersection with SR 503 to provide a westbound left-turn lane and a shared through/right-turn lane. Add yellow flashing arrows for travelers turning left onto SR 503 to yield to oncoming traffic.



Improve signal timing at all traffic lights on Fourth Plain Blvd and SR 500/SR 503 within the study area.



Convert the northbound and southbound through movements at SR 500/Fourth Plain Blvd to an elevated flyover. Frontage roads will maintain access to a reconfigured at-grade intersection (see improvement D).



Construct a roundabout at the at-grade intersection of Fourth Plain Blvd at SR 500/SR 503. Roundabouts may also be considered at the intersections of 65th St/SR 503 and 121st Ave/Fourth Plain Blvd.

### Package Summary

This corridor package combines full grade separation of both northbound and southbound directions of SR500/SR 503 at Fourth Plain Blvd, and capacity improvements at SR 500/Fourth Plain Blvd and SR 503/65th St.

### Benefits

- Grade separation of SR 500/SR 503 provides safety benefits to northbound and southbound through movements.
- Improves travel time reliability on SR 500 and SR 503
- Reduces queuing back-up from vehicles turning left from Fourth Plain Blvd westbound to SR 500 southbound
- Reduces driver delay at SR 500/Fourth Plain Blvd and SR 503/65th St during peak commute hours

### Impacts

- Fourth Plain Blvd benefits are limited by the congestion at the 121st Ave intersection
- Turn restrictions may be needed at northbound SR 503
- May impact property access along Fourth Plain Blvd

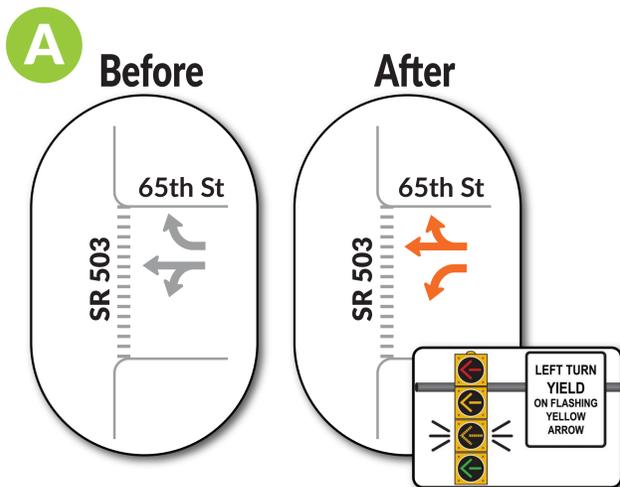
### Cost Estimate

# \$55-70 Million

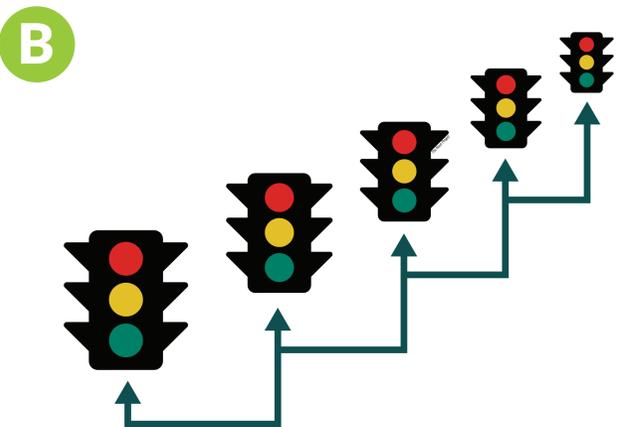
Preliminary cost ranges for planning purposes only

# Fourth Plain Blvd Flyover Ramp Corridor Improvement Package

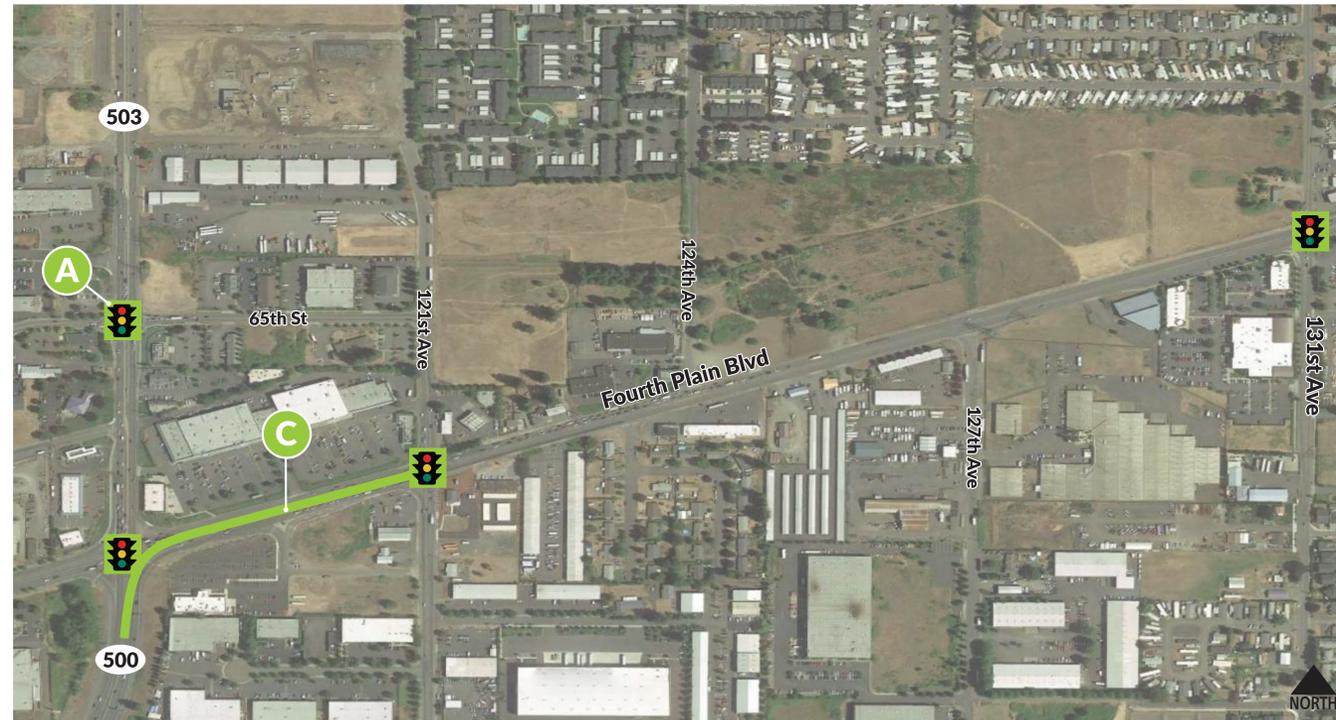
## Proposed Improvements



Restripe westbound NE 65th St at the intersection with SR 503 to provide a westbound left-turn lane and a shared through/right-turn lane. Add yellow flashing arrows for travelers turning left onto SR 503 to yield to oncoming traffic.



Improve signal timing at all traffic lights on Fourth Plain Blvd and SR 500/SR 503 within the study area.



Convert the westbound left-turn from Fourth Plain Blvd onto SR 500 southbound to an elevated flyover, facilitating movement independent of the signal.

## Package Summary

This corridor package combines a westbound left turn flyover ramp from Fourth Plain Blvd to SR 500 with capacity improvements at SR 503/65th St.

## Benefits

- Improves safety by eliminating left-turn conflicts at SR 500/Fourth Plain Blvd
- Reduces driver delays for all movements at SR 500/Fourth Plain Blvd
- Eliminates congestion back-up from vehicles turning left from Fourth Plain Blvd westbound to SR 500 southbound
- Could be combined with added (second) right-turn lane for northbound SR 500 to eastbound Fourth Plain Blvd

## Impacts

- Fourth Plain Blvd benefits are limited by the congestion at the 121st Ave intersection
- May require additional analysis to determine impacts to accesses in order to accommodate flyover structure
- May impact property access along Fourth Plain Blvd

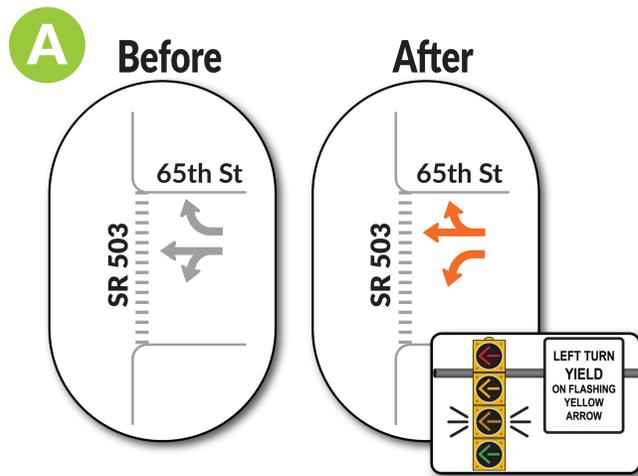
## Cost Estimate

**\$20-30 Million**

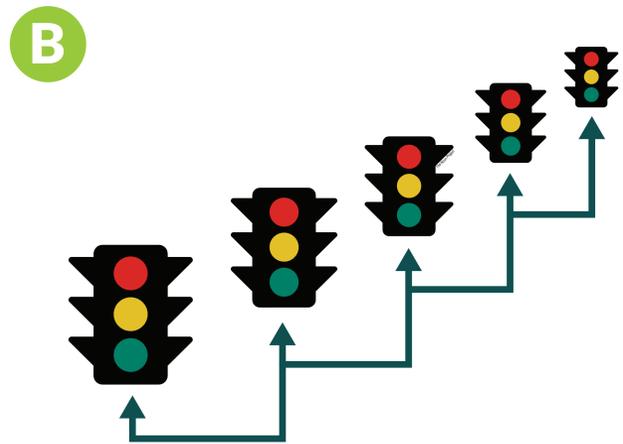
Preliminary cost ranges for planning purposes only

## Fourth Plain Blvd Eastbound Widening Corridor Improvement Package

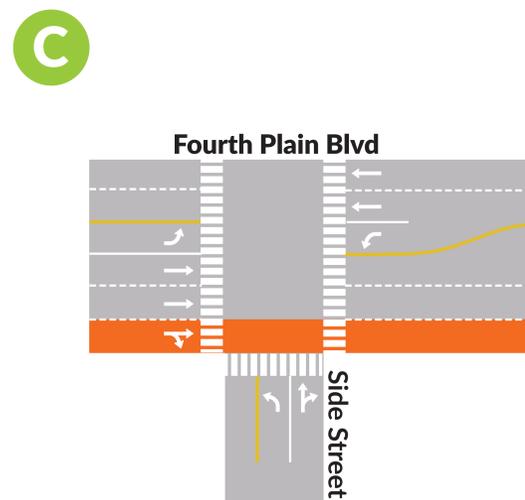
### Proposed Improvements



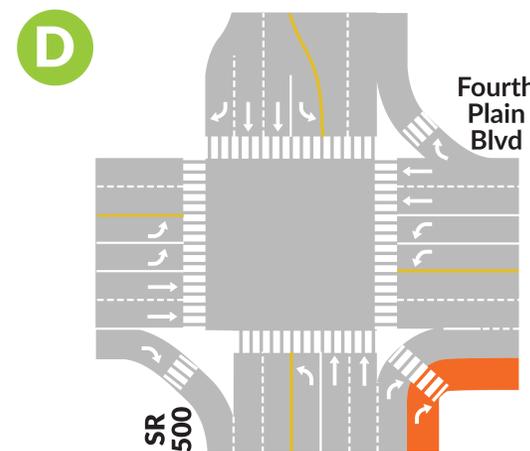
Restripe westbound NE 65th St at the intersection with SR 503 to provide a westbound left-turn lane and a shared through/right-turn lane. Add yellow flashing arrows for travelers turning left onto SR 503 to yield to oncoming traffic.



Improve signal timing at all traffic lights on Fourth Plain Blvd and SR 500/SR 503 within the study area.



Connect the existing eastbound right-turn lanes on Fourth Plain between SR 500 and 131st Ave to provide a third eastbound lane.



Widen SR 500 to provide dual northbound right-turn lanes onto eastbound Fourth Plain Blvd.

### Package Summary

This corridor package combines constructing a third eastbound travel lane on Fourth Plain Blvd with additional capacity improvements at the SR 500/Fourth Plain Blvd and SR 503/65th St intersections.

### Benefits

- Improves travel time reliability on Fourth Plain Blvd for both the AM and PM peak commute hours
- Eases back-ups on Fourth Plain Blvd between SR 500 and 121st Ave
- Reduces driver delay at SR 500/Fourth Plain Blvd, 121st Ave/Fourth Plain Blvd, and 131st Ave/Fourth Plain Blvd during peak commute hours

### Impacts

- Requires purchasing additional right of way; added signing and striping
- Increases pedestrian crossing distance of Fourth Plain Blvd
- May impact property access along Fourth Plain Blvd

### Cost Estimate

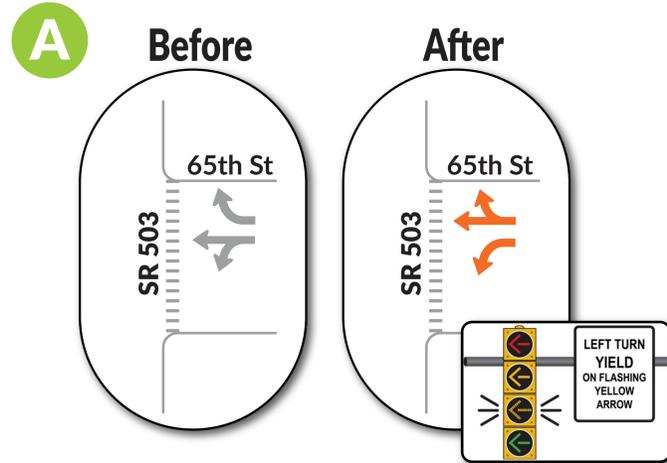
# \$20-30 Million

Preliminary cost ranges for planning purposes only

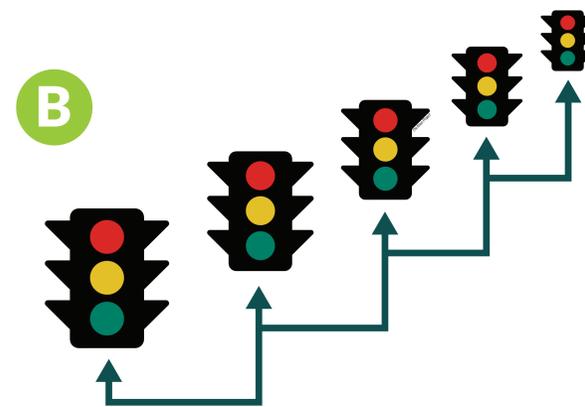
# SR 503 Northbound Widening Corridor Improvement Package



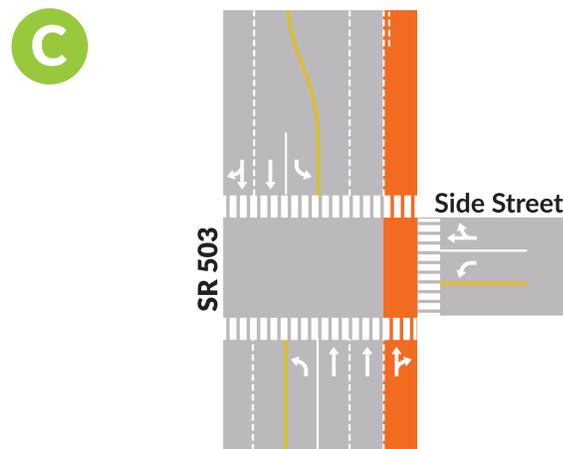
## Proposed Improvements



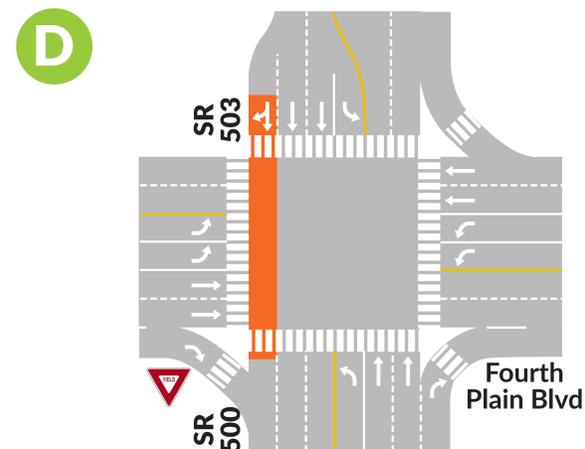
Restripe westbound NE 65th St at the intersection with SR 503 to provide a westbound left-turn lane and a shared through/right-turn lane. Add yellow flashing arrows for travelers turning left onto SR 503 to yield to oncoming traffic.



Improve signal timing at all traffic lights on Fourth Plain Blvd and SR 500/SR 503 within the study area.



Add a third northbound lane to SR 503 between Fourth Plain Blvd and Padden Pkwy. Convert the northbound right-turn only lanes at 65th St and 76th St to shared through/right-turn lanes.



Convert the southbound right-turn lane at SR 500/Fourth Plain Blvd to a shared through/right-turn lane to provide a third southbound through lane at the intersection.

## Package Summary

This package combines constructing a third northbound travel lane on SR 503 between Fourth Plain Blvd and Padden Pkwy with additional capacity improvements at the SR 500/Fourth Plain Blvd and SR 503/65th St intersections.

## Benefits

- Reduces driver delay at SR 500/Fourth Plain Blvd during peak commute hours
- Reduces driver delay on 65th St during peak commute hours
- Improves travel time reliability along SR 503
- Reduces back-ups on SR 503 northbound between Fourth Plain Blvd and 65th St

## Impacts

- Requires purchasing additional right of way; added signing and striping
- Increases pedestrian crossing distance of SR 503
- May impact property access along SR 503

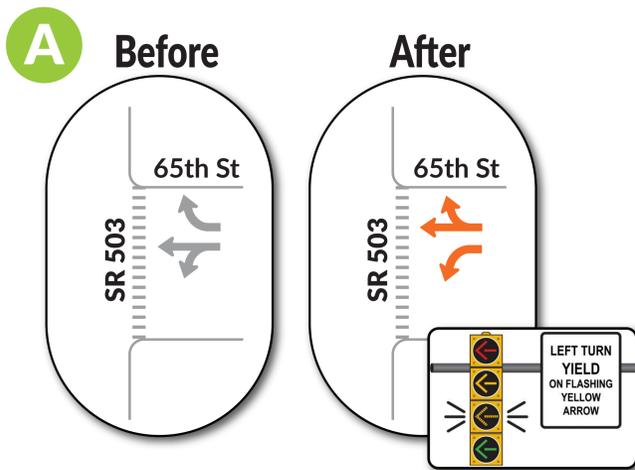
## Cost Estimate

**\$15-25 Million**

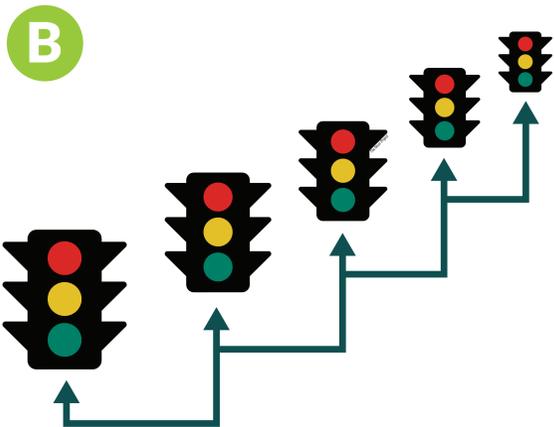
Preliminary cost ranges for planning purposes only

## Fourth Plain Blvd Displaced Left Corridor Improvement Package

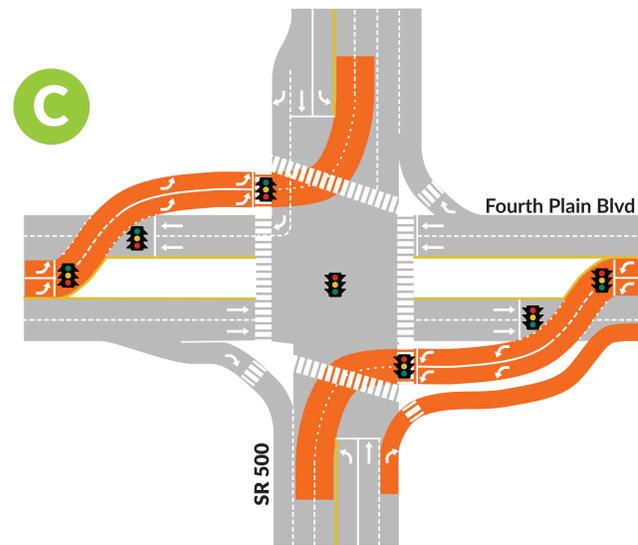
### Proposed Improvements



Restripe westbound NE 65th St at the intersection with SR 503 to provide a westbound left-turn lane and a shared through/right-turn lane. Add yellow flashing arrows for travelers turning left onto SR 503 to yield to oncoming traffic.



Improve signal timing at all traffic lights on Fourth Plain Blvd and SR 500/SR 503 within the study area.



Convert the westbound and eastbound left turns from Fourth Plain Blvd to displaced left turns. Drivers wishing to turn left onto SR 500/SR 503 would move into two left-turn lanes on Fourth Plain Blvd at traffic lights before they get to the main intersection with SR 500/SR 503.

### Additional Considerations for Displaced Left Turn

- Users would need to learn this new configuration, not currently used in the region
- May require more detailed analysis to refine signal timing and confirm queue conditions within the crossover section

### Package Summary

This corridor package combines modifications to the westbound and eastbound left turns at SR 500/Fourth Plain Blvd with additional capacity improvements at SR 503/65th St.

### Benefits

- Significantly increases westbound left-turn capacity at SR 500/Fourth Plain Blvd, improving westbound travel time reliability
- Provides benefits to both eastbound and westbound left turns on Fourth Plain Blvd
- Improves safety and reduces driver delays at the intersection of Fourth Plain Blvd and SR 500/SR 503

### Impacts

- Increases congestion and driver delays on 121st Ave
- Fourth Plain capacity constrained by congestion at the 121st Ave intersection
- May require purchasing additional right of way for the relocated SR 500 right-turn lane to eastbound Fourth Plain Blvd
- May impact property access along Fourth Plain Blvd

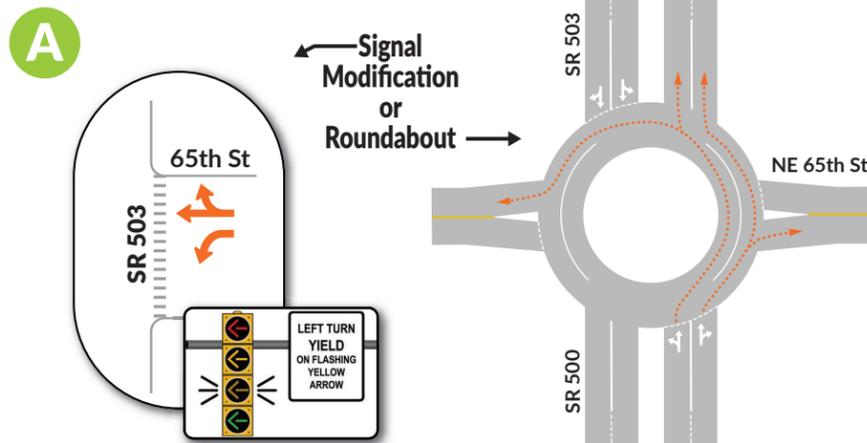
### Cost Estimate

# \$7-10 Million

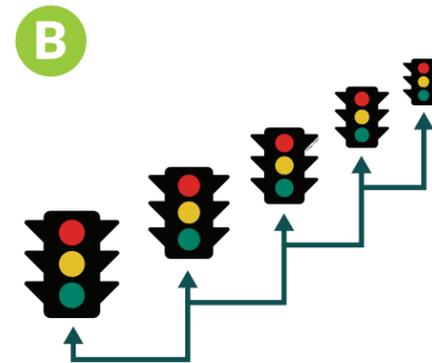
Preliminary cost ranges for planning purposes only

# Recommended Corridor Improvement Package Fourth Plain Blvd Displaced Left Plus Intersection Improvements

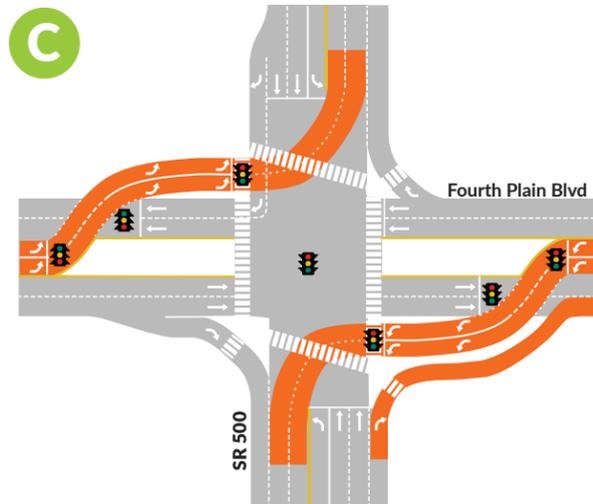
## Proposed Improvements



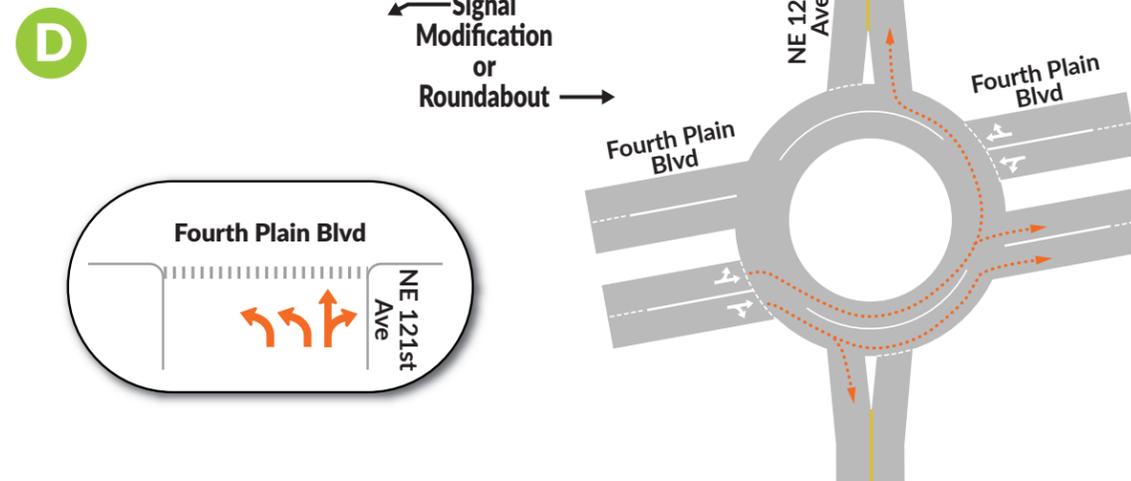
Evaluate traffic control options for the intersection of NE 65th St/SR 503: Restripe westbound to provide a left-turn lane and a shared through/right-turn lane or multi-lane roundabout with two travel lanes northbound/southbound and a single travel lane eastbound/westbound.



Improve signal timing at all traffic lights on Fourth Plain Blvd and SR 500/SR 503 within the study area.



Convert the westbound and eastbound left turns from Fourth Plain Blvd to displaced left turns. Drivers wishing to turn left onto SR 500/SR 503 would move into two left-turn lanes on Fourth Plain Blvd at traffic lights before they get to the main intersection with SR 500/SR 503.



Evaluate traffic control options for the intersection of NE 121st Ave/Fourth Plain Blvd: Add second northbound left turn lane or construct a multi-lane roundabout at the intersection of NE 121st Ave/Fourth Plain Blvd. Provide a single lane for the northbound and southbound movements. Provide two travel lanes for the eastbound and westbound movements.

## Package Summary

This corridor package combines modifications to the westbound and eastbound left turns at SR 500/Fourth Plain Blvd with additional capacity improvements at NE 65th St/SR 503 and NE 121st Ave/Fourth Plain Blvd.

## Benefits

- Significantly increases westbound left-turn capacity at SR 500/Fourth Plain Blvd, improving westbound travel time reliability
- Provides benefits to both eastbound and westbound left turns on Fourth Plain Blvd
- Improves safety and reduces driver delays at the intersection of Fourth Plain Blvd and SR 500/SR 503

## Impacts

- Requires more detailed analysis to confirm signal or roundabout options
- May require purchasing additional right of way for the relocated SR 500 right-turn lane to eastbound Fourth Plain Blvd
- May impact property access along Fourth Plain Blvd
- Users would need to learn this new configuration

## Cost Estimate

**\$13-17 Million**

Preliminary cost ranges for planning purposes only