

The Alaskan Way Viaduct & Seawall Replacement Program



Central Waterfront

**Alaskan Way Viaduct
Stakeholder Advisory Committee**

**Safety Performance Results
December 4, 2008**

Improve public safety.

Guiding Principle 1, Measure 2:

Assess safety performance for users of all modes of travel.

Safety Measure

- Methodology:
 - Reviewed factors that could affect potential for conflicts for bicycles, pedestrians, transit, freight and motor vehicles.
 - Assessed multi-modal safety using passenger and vehicle miles traveled (VMT) by all modes.
 - Reviewed VMT on Center City streets by volume to assess changes in potential conflicts for pedestrians and bicycles.
 - Reviewed several factors along the waterfront, Center City and stadium access route to assess changes by scenarios.

NOTE: Application of industry safety standards in design of streets, highways, intersections, sidewalks and trails can help reduce the potential for conflicts.

Safety Measure

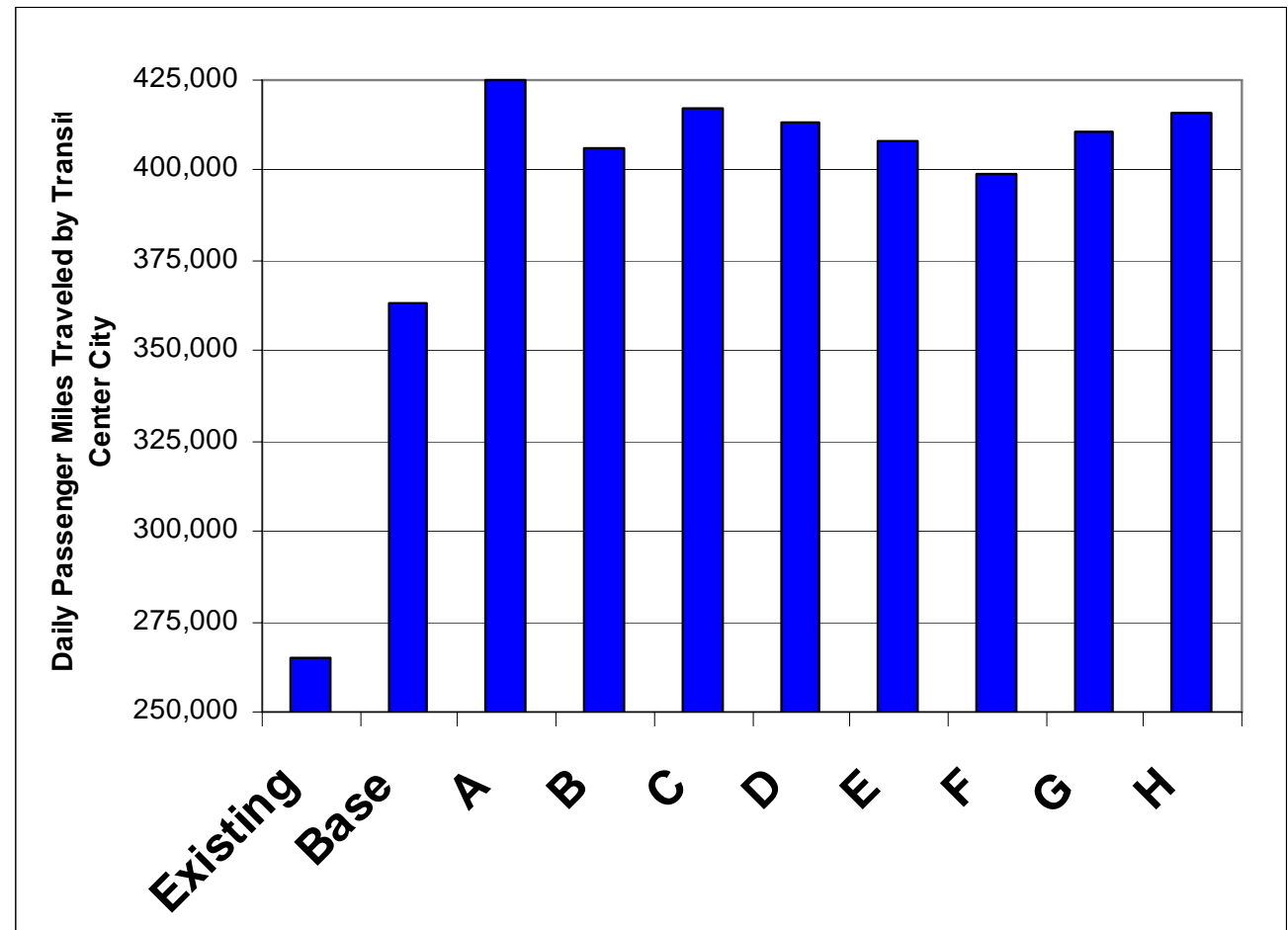
Factors Considered:

- | | |
|---|---|
| <ul style="list-style-type: none">• Collisions – all modes• Changes in street volumes• Speed of vehicles• Modal conflicts• Number of crossings• Traffic signal cycle lengths• Access management | <ul style="list-style-type: none">• Street widths• Perceived security• Bicycle conflicts• Geometric design• On-street parking removal• Active pedestrian areas (stadium, waterfront) |
|---|---|

Safety Findings

Greater person miles traveled using transit improves overall safety.

NOTE: Collision rate for transit in Seattle is less than 0.7 collisions per MPMT while highway collision rates range from 1.2 – 3.0 collisions per MPMT.

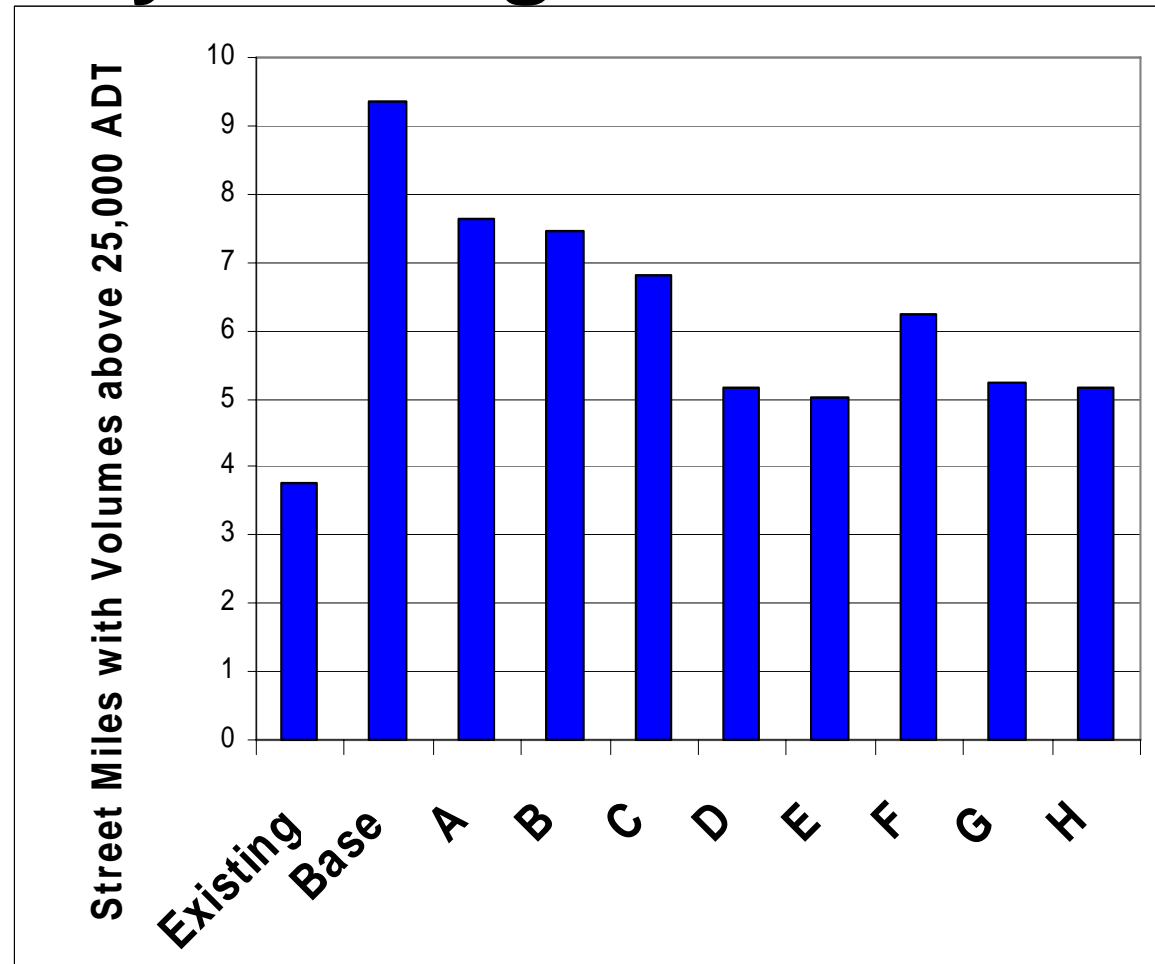


Person Miles Traveled Using Transit
Center City, daily

Safety Findings

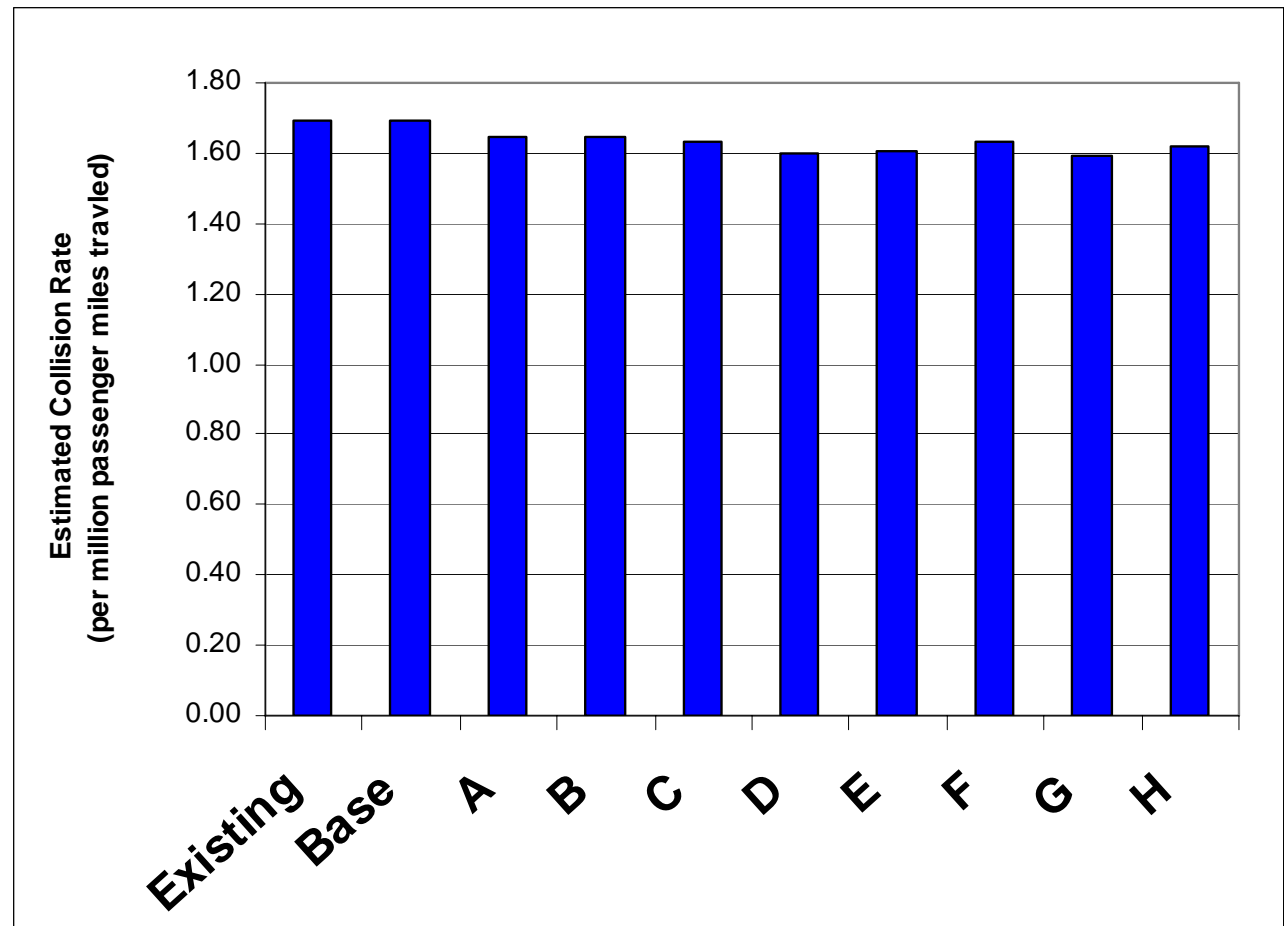
All scenarios improve upon the base condition.

Added Center City surface street volumes in scenarios A, B and C would potentially increase vehicle/pedestrian exposure.



Safety Findings

Considering all factors, collision rates across all modes of travel (including severity) did not vary significantly relative to passenger miles of travel.



Estimated Collision Rate - Center City Area 7

What Did We Learn?

- When considering all 25 safety measures, there are few significant differences in modal safety among scenarios.
- Bypass scenarios would have higher speed facilities which tend to have higher severity when crashes occur while surface scenarios would have greater potential for vehicle/pedestrian/bicycle conflicts which can also be severe when crashes occur.
- Careful design can reduce conflict potential resulting in improved safety conditions in each scenario compared to today, for example features such as shoulders, bicycle lanes, lane widths, and geometric improvements.