

APPENDIX A
I-405 Corridor Program
Major Elements of Alternatives

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Appendix A

I-405 CORRIDOR PROGRAM

MAJOR ELEMENTS OF ALTERNATIVES

The Major Elements are described below. Specific projects included in each Major Element are provided in Appendix B.

1. TRANSPORTATION DEMAND MANAGEMENT

TDM Package Core Assumptions

- Existing TDM programs will continue (public & private sector).
- Existing public TDM programs will be expanded to meet new market demand.
- Implementation of trip reduction targets will be supported by new interlocal or sub-regional agreements.
- Strategies are flexible and are monitored and adjusted as needed over time (includes tracking trends for Internet, e-commerce).
- Funding is provided for demonstration projects, plus some ongoing funding for new TDM strategies found effective.

Focus of TDM Package

SOV and other trip reduction through the use of:

- Incentives
- Increasing access to alternative modes
- Public information, education, and promotion
- Land use strategies

Strategies in the TDM Package

VANPOOLING

- Maximize vanpooling in the corridor (minimum of a five-fold increase)
 - * Intensive marketing of vanpooling, including start-up subsidies
 - * Use of new "value-added" incentives (e.g., frequent flyer miles for vanpoolers)
 - * Acquisition of vans
 - * 25% fare subsidy
 - * Provide sufficient infrastructure (e.g., small park-and-ride lots)
 - * Owner-operated vanpool promotion

PUBLIC INFORMATION, EDUCATION & PROMOTION PROGRAMS

- Establish ongoing public education and awareness program specific to the corridor (focus on issues and transportation alternatives).
- Provide traveler information system(s), including interactive ridematch and transit information.

- Provide personalized trip planning assistance, including for transit.

EMPLOYER-BASED PROGRAMS

- Increase work choices such as:
 - * Telecommuting, flextime, compressed work schedules, multiple shifts
 - * Proximate commuting (assigning employees to work sites close to home)
 - * Incentives to employers to offer work choices (e.g., tax credits)
- For current Commute Trip Reduction Program – new incentives and resources to help CTR-affected employers obtain CTR goals (e.g., grants, tax credits, staff support)
- Expanded CTR-like program aimed at smaller employers plus those larger ones not affected by CTR laws (non-regulatory, voluntary based)
- Support development and core operations of transportation management associations (TMAs)
- Parking cash-out program incentives

LAND USE AS TDM

Compact, mixed-use, non-motorized and transit friendly (re)development in target areas (urban centers, suburban clusters, key arterials, transit station areas, transit centers, park-and-ride lots)

- Transit-oriented development (TOD)
- Code changes, streamlining processes, local connectivity retrofitting projects to support (re)development
- Programs (code assistance, design review support) to help jurisdictions and developers implement compact (re)development
- New parking management programs

OTHER MISCELLANEOUS TDM PROGRAMS

Innovative transit and vanpool fare media, incentives, demonstrations, matching funds, etc. [e.g., area-wide “Smart Card” (FlexPass) programs for Eastgate, downtown Bellevue, north Renton industrial area, Bothell business parks, Redmond, downtown Kirkland, Tukwila]

- Non-commute trips TDM programs (research and demonstrations)
- Other miscellaneous incentives (local and state tax credit programs, developer incentives)

Expanded TDM Package

Includes consideration of the range of regional pricing strategies being evaluated by the PSRC. These strategies include the following:

- Region-wide congestion pricing (RCP);
- Fuel taxes (revenue = RCP);
- Fuel taxes (revenue = 50% RCP);
- Mileage charge (revenue = RCP);
- Parking charges;
- High occupancy toll lanes.

Pricing strategies are examined at the regional level in the context of the I-405 corridor.

2. TRANSIT EXPANSION WITHIN STUDY AREA

No Action Alternative: Transit service levels would be increased by 20 percent compared to the current King County 6-year plan, assumed to be in place by 2007.

Alternatives 1, 2, 3, and the Preferred Alternative: Transit service levels would be increased by up to 100 percent compared to the current King County 6-year plan, assumed to be in place by 2007. Transit service coverage and design would also be revised to more closely match travel patterns within the study area. These revisions could include more center-to-center movements, connections between neighborhoods and centers, and development of an appropriate 'grid' transit system within the study area.

Alternative 4: Transit service levels would be increased by 50 percent compared to the current King County 6-year plan, assumed to be in place by 2007.

3. HIGH-CAPACITY TRANSIT (HCT)

Include a high-capacity transit solution for the I-405 corridor. The exact technology of this solution would be determined in later studies, but could include bus rapid transit, monorail, or similar mode that could operate at speeds of up to 60 - 70 mph. The HCT alignment would generally follow the I-405, SR 520, and I-90 freeway corridors in existing freeway, arterial, or railroad right-of-way. The key characteristic of this solution would be that it would have a dedicated alignment, removing it from congestion-induced delays. Bus service would be reconfigured to provide maximum accessibility to the HCT system.

Alternatives 1 and 2 assume a fixed-guideway rail system within the corridor. Alternative 1 also includes a transit variation that would provide for a commuter rail operation among the BNSF from Tukwila north to Kirkland. Alternative 3 and the Preferred Alternative assume a bus rapid transit (BRT) concept, building on the existing freeway HOV system. Alternative 4 has no HCT system.

4. ADD ARTERIAL HOV AND TRANSIT PRIORITY

Create HOV lanes, intersection queue jumps, and signals that provide priority to HOVs and transit on major arterials in the study area.

5. HOV EXPRESS ON I-405 WITH DIRECT ACCESS RAMPS

Complete the series of ramps connecting arterials and freeways directly to HOV lanes on I-405. This allows carpools, vanpools, and buses to use the HOV lanes without weaving across other traffic. HOV direct-access ramps have already been designed by Sound Transit in downtown Bellevue and Kirkland, and design studies are starting for HOV ramps in downtown Renton.

6. ADD PARK-AND-RIDE CAPACITY TO MEET DEMAND

Provide additional park-and ride capacity at existing locations and create selected new lots based on forecasted transit and carpool demand. A total of 4,500 to 5,000 additional spaces were identified throughout the corridor.

7. ADD TRANSIT CENTER CAPACITY TO MEET DEMAND

Expand existing transit centers and create new transit centers to accommodate increased transit service. Alternatives 1, 2, and 3, and the Preferred Alternative require transit center capacity to accommodate a significant increase in transit service at designated HCT stations and at feeder bus connections.

8. BASIC I-405 IMPROVEMENTS

Fixes existing bottlenecks and locations with safety deficiencies along I-405.

9. ADD 1 GENERAL-PURPOSE LANE EACH DIRECTION ON I-405

Add up to 1 general-purpose lane to I-405 through widening of the existing freeway.

10. ADD 2 GENERAL-PURPOSE LANES EACH DIRECTION ON I-405

Add up to 2 general-purpose lanes to I-405 through widening of the existing freeway. A design option is to create collector-distributor lanes in selected corridor segments (See Element 11).

11. PROVIDE COLLECTOR DISTRIBUTOR LANES ON I-405

Add collector-distributor lanes and auxiliary lanes to address capacity and safety needs at selected locations in the corridor.

This is being considered as a design option to handle the addition of one or two general purpose lanes in each direction along I-405 in certain sections

12. ADD TWO EXPRESS LANES EACH DIRECTION ON I-405

Create a four-lane express facility designed to operate with limited interchanges along the length of I-405. The express lanes would be physically separated from the rest of I-405 through the use of barriers. Certain segments could operate within the median of I-405, while other segments would need to be elevated, in tunnel, or on separate alignments.

The express lanes could operate as a general-purpose facility or as a managed facility, such as a 'high-occupancy toll' (i.e., HOT) lane. Certain users could be allowed to use the express lanes for free, while other users could be allowed to "buy in" to available capacity. The capacity would be priced depending upon demand.

13. WIDEN SR 167 BY 1 LANE EACH DIRECTION TO KENT (STUDY AREA BOUNDARY)

SR 167 would be widened by one lane in each direction to accommodate additional demands due to growing demands and the effects of improvements at the I-405/SR 167 interchange. The widening in Alternatives 3 and 4 was assumed to extend at least to the study area boundary in Kent. The Preferred Alternative considered the potential to add a total of two lanes in each direction to SR 167 from I-405 to the 180th interchange; widening further to the south would be subject to a future SR 167 study. This element does not presume that SR 167 would be redesignated as I-405, although each of these improvements would be compatible with such a redesignation if it occurs.

14. SR 167/I-405 INTERCHANGE IMPROVEMENTS

The SR 167 interchange would be redesigned to provide directional ramps for major traffic movements.

15. IMPROVE CONNECTING FREEWAY CAPACITY TO I-405

Enhance the capacity of connecting freeways by one lane in each direction (for a distance of approximately ½ to 1 mile on both sides of I-405) to avoid bottlenecks at connections to I-405.

16. IMPLEMENT PLANNED ARTERIAL IMPROVEMENTS

Implement several improvements called for in local agency plans and the Eastside Transportation Program (ETP). The ETP has been an ongoing process by regional, county, and local governments to coordinate transportation planning and funding in East King County. Many of the ETP projects have already been examined in detail by the agencies involved and have been determined to be effective in addressing a variety of transportation Issues.

17. EXPAND CAPACITY ON NORTH-SOUTH ARTERIALS

Expand arterial capacity to provide connected north-south travel.

18. UPGRADE ARTERIAL CONNECTIONS TO I-405

Provides for upgrading arterial connections to I-405. These projects are intended to improve operations at on- and off-ramps as well as on the arterials. Improvements included an additional lane in each direction or intersection improvements in the vicinity of I-405.

19. CORRIDOR PEDESTRIAN AND BICYCLE IMPROVEMENTS

Non-motorized improvements include two types of treatments: (1) crossings of I-405 and (2) regional trail connections. This could include connections to transit centers.

20. I-405 CORRIDOR INTELLIGENT TRANSPORTATION SYSTEM (ITS) ENHANCEMENTS

Provides ITS enhancements to facilitate more reliable traffic flow.

21. I-405 CORRIDOR FREIGHT ENHANCEMENTS

Provides improvements specific to freight movements. Note that freight will benefit as well from general-purpose traffic expansion described in other elements.