DKS Associates

TRANSPORTATION SOLUTIONS

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About DKS

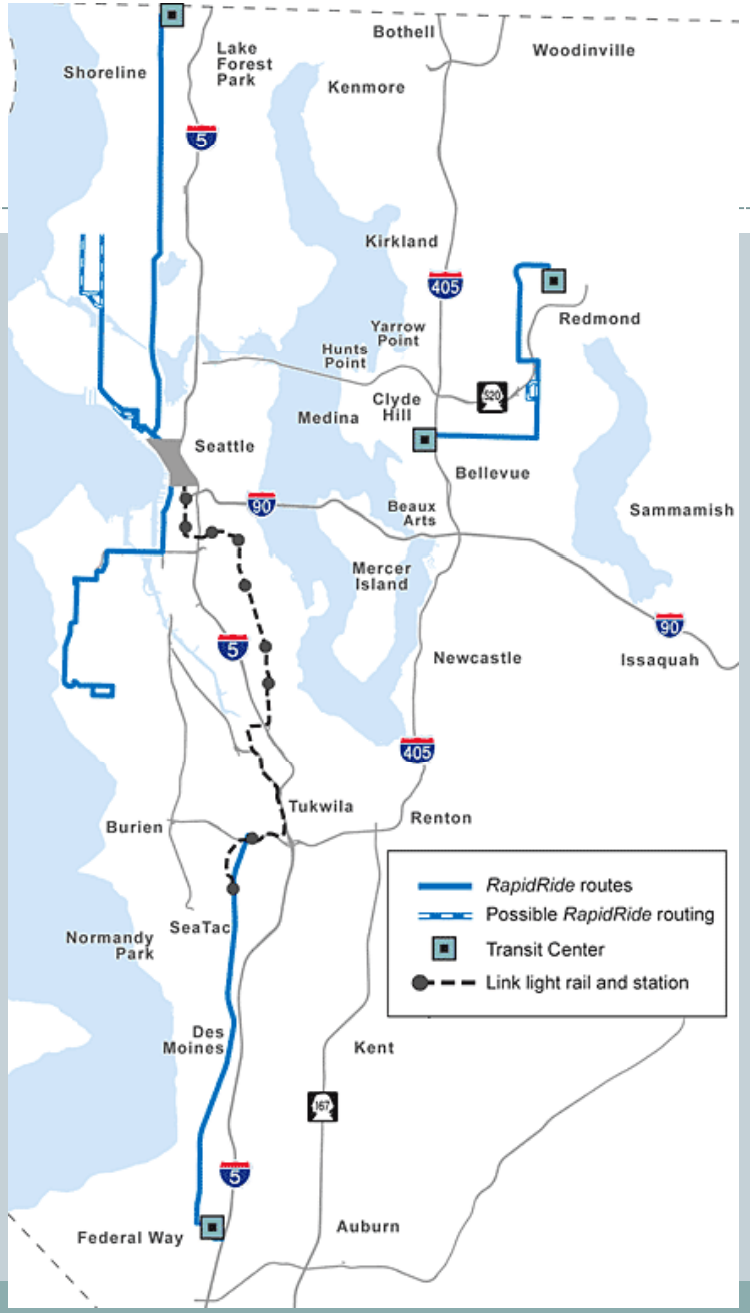
- Specialized Transportation Firm
  - Transportation Planning & Design
  - ITS Design
  - Operational Analysis
- Employee Owned, 150
- Eight Offices Located in Washington, Oregon, California, Texas, and Florida

DKS Seattle

- Work with Public Agencies
  - King County Metro
  - Pierce Transit
  - Sound Transit
  - City of Seattle
  - WSDOT
- Transit Work Includes:
  - Route Studies
  - Transit Treatments
  - Transit Signal Priority
  - Technology Improvements
  - Maintenance Base Operations
  - FCC License

What is RapidRide?

- King County Metro's version of Bus Rapid Transit
- Will add 100,000 service hours of new transit in 5 corridors
- Both buses and the corridors in which they operate are being designed to provide frequent, fast, reliable transit service

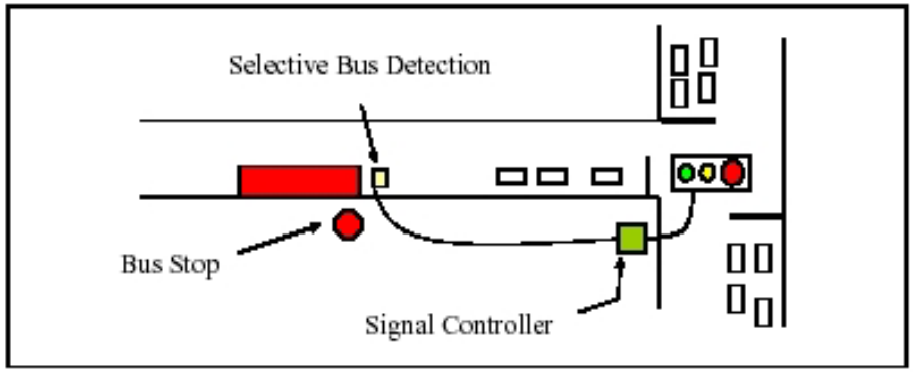


RapidRide Corridor Treatments

- Transit Signal Priority (TSP)
- Transit Queue Jump
- Business Access/Transit (BAT) Lanes
- Signal Timing Optimization
- Curb Extensions/In-lane Bus Stops
- Turn Radius Improvements

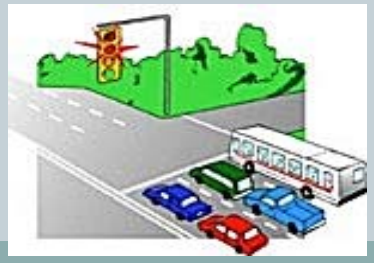
Transit Signal Priority

- Gives approaching buses priority at signalized intersections in order to reduce the delay to transit.
- Signals can either “hold” an approach in green longer, so a bus can pass through without stopping, or
- Signals can truncate the red time for buses to serve the bus movement sooner



Transit Queue Jump

- Requires an Exclusive Bus Lane or Right Turn Only Lane
- Separate signal head and phase for the bus movement



Business Access/Transit Lanes

- Dedicated Lane for Transit Use
- Allows Autos to use the lane for right turns at intersections or into business driveways.

Other Operational Treatments

- Optimizing Signal Timing
  - Decrease signal delays by improving timing for major street
- Curb Extension/In Lane Bus Stop
  - Stopping in lane eliminates the time for buses to merge back into traffic
- Curb Radius Improvements
  - Reduces delay/improves safety by facilitating the bus movement

Bus and Station Amenities

- Bus
  - Smart technology/GPS equipped to communicated to the roadside equipment and relay real-time location and travel time information to the stations
  - 3 doors for loading/unloading passengers
  - Low floor for ADA access
  - Off-board pay stations (ORCA card)
- Station
  - Next Bus Arrival Signs
  - Pay Stations on Platform
  - Raised platform for ADA loading
  - Larger, lit shelters

A-Line RapidRide

- 11.5 mile corridor along SR-99 from International Blvd Light Rail Station to Federal Way Transit Center
- Includes 33 signalized intersections in 4 jurisdictions and 5 agencies
- Operational Analysis began in 2007
- RapidRide Treatments
  - Signal Coordination and Optimization
  - Transit Signal Priority at 17 Intersections
  - HOV Lane Addition

A-Line RapidRide Design

- Design began in summer 2008 and finished this fall.
- Design elements needed to support RapidRide operations:
  - 11.5 Mile of fiber optic cable to support communication between the buses and the roadside equipment
  - Upgrading 21 signal controllers in two agencies to support TSP functionality
  - Installing 32 roadside antennas to enable wireless communication between the buses, signal controllers, and stations
- Construction begins January 2010.