

# I. Duwamish M & I Centers

## *A Better Bike Route*

The good news and bad news about non-motorized transportation in the Duwamish is illustrated by conditions that revolve around the intersection of S. Atlantic Street and Alaskan Way.

The intersection is located outside the entrance to Terminal 46, the vast marine cargo yard west of the SODO sports stadiums, and for years it was a chronic hazard for cyclists. Both streets are crossed by railroad tracks. Poor drainage flooded the intersection when it rained. Trucks and freight trains take turns moving through the intersection and cyclists were left to squeeze through the best they could.

Thanks to the new effort to replace the Alaskan Way Viaduct, all those problems are being fixed.

A new drainage system will eliminate the flooding. A new bike path will provide a western bypass of the intersection for cyclists heading north or south, with no railroad tracks to cross or freight trains to worry about. Other improvements will eventually make it easier for cyclists to use the intersection to ride to or from the SODO stadium zone.

The bad news comes south of the intersection.

South of Massachusetts Avenue the Alaskan Way surface road merges with East Marginal Way, a road bound on both sides with bike paths that between them provide the key cycle route between West Seattle and downtown. But both bike lanes are pitted with potholes and mud puddles that are so bad that cyclists ride outside the trails to avoid them, putting the cyclists in traffic lanes that are often full of trucks.

No funds are available to repave these bike lanes. However, the need to fix them finished among the top of the recommendations agreed to by the business, freight, bicycle, and pedestrian advocates who contributed to this report, *Street Smart: Alternatives to Drive-Along Commuting in the Duwamish*.

Recommendations are prioritized to focus is on “next-step” investments that will help implement local bicycle and pedestrian master plans, with an emphasis on better connecting existing bike routes, better connecting Seattle and Tukwila, and improving pedestrian access to bus stops and transit stations.

As illustrated by the large number of recommendations, many challenges now pose barriers to commute trip reduction efforts in the Duwamish. Yet transit options in the Duwamish are often better than perceived.

Carpools, vanpools, and “hybrid” commutes that incorporate bicycling can extend the reach of available bus and light-rail services while reducing the financial, environmental, personal, and societal costs of commuting.

A growing abundance of new information is also available online that can help any Duwamish employer or employee make themselves more street-smart about their alternatives to drive-alone commuting.

## **The Way-finding and Commute Trip Reduction Project**

### ***Project Background & Process***

The report was produced as part of the Way-finding and Commute Trip Reduction (CTR) Project to help research, improve, and promote opportunities for people to walk, ride bikes, and use public transit in the Duwamish and North Tukwila Manufacturing and Industrial Centers (MICs).

The project was cosponsored by King County Metro and the Port of Seattle. Metro is the countywide agency responsible for encouraging the use of public transit and other CTR alternatives to drive-alone commuting. The Port is the countywide government agency responsible for economic development, including freight mobility. Metro and the Port conducted the project in partnership with the city governments of Seattle and Tukwila, the Washington State Department of Transportation (WSDOT), and three nongovernmental organizations – the Duwamish Transportation Management Association (TMA); the Cascade Bicycle Club (CBC), and Feet First (FF). The three nongovernmental organizations worked together with other stakeholders in 2008 to research and recommend solutions to multimodal safety issues for pedestrians, bicyclists, truck drivers, and other motorists along 1st Avenue South in the SODO district of the north Duwamish (see Appendix D).

Outreach for *Street Smart* included interviews with more than 100 businesses, and surveys of hundreds of bicycle riders and pedestrians traveling to and through the Duwamish.

Research also included review of the bicycle and pedestrian master plans adopted by the city governments of Seattle and Tukwila, as well as the adopted public policies for land use and transportation enacted by the Puget Sound Regional Council, King County, and the cities of King County to comply with the Washington State Growth Management Act.

The recommendations highlighted in the main body of this report were agreed to by consensus of the multimodal group. In addition, the Cascade Bicycle Club recommends implementing all aspects of the Seattle and Tukwila bicycle master plans for the Duwamish. The complete list of CBC recommendations is published in full in Appendix C.

### ***Additional Support Activities***

The report was prepared in tandem with, and informed by, efforts by the participants to promote alternatives to drive-alone commuting.

Those efforts included activities to promote CTR alternatives to help mitigate traffic congestion resulting from construction work for the Alaskan Way Viaduct and other major construction projects in the planning area. Participants also worked with King County Metro to conduct “In Motion” campaigns to promote CTR alternatives among the residents and businesses in Georgetown and South Park.

The report was also augmented by firsthand efforts to gauge the safety and effectiveness of Duwamish alternatives to drive-alone commuting. These parts of the project included creation of a video that uses a “bike cam” to show what it’s like to bicycle through the Duwamish, along with passenger-seat perspectives on commuting to the Duwamish. Those parts of the report are available on-line at [www.duwamishtma.org](http://www.duwamishtma.org).

### ***The Landscape***

When referenced together in this report, the two manufacturing-industrial centers in the cities of Seattle and Tukwila are referred to as the greater Duwamish planning area, or simply, the Duwamish. The area runs along the west side of Interstate 5 from downtown Seattle to the Allentown residential area in Tukwila south of King County International Airport (KCIA), also known as Boeing Field.

The centers were designated as regional industrial job centers in 1992 by King County government and the city governments of King County to implement the land use and transportation goals of the Washington State Growth Management Act with the support of the Puget Sound Regional Council.

Nearly 20 years later, the Duwamish remains a major hub for industrial production and logistics in the greater Pacific Northwest. The two centers contain more than 2,000 industrial companies that employ about 100,000 people.

The Duwamish is the historic home base for The Boeing Company and it is a global center for producing the 737 jet liner. In 2010, 376 737s received final delivery services at KCIA after being assembled in neighboring Renton. Year-in, year-out, the 737 and its Duwamish-area support facilities account for about 80% of all airplanes delivered by The Boeing Company.

The area is also home to thousands of other companies engaged in making and distributing goods for the greater Seattle metropolitan area, the western United States, Alaska, western Canada and Asia.

In the north Duwamish, the SODO district includes global headquarters for the Starbucks Coffee Company and two major-league sports stadiums that host more than 100 games and trade shows every year, many of them generating peak traffic loads for pedestrians, cars, and transit traffic.

Industrial zoning prohibits people from living in most of the Duwamish. The major exceptions are the historic communities of Georgetown and South Park, which predate much of the industrial development. Together, these communities are home to more than 5,000 people. Some buildings within the planning area are also allowed to provide housing units on a conditional basis.

### ***Crossroads and Contrasts***

Commensurate with its role in the regional economy, the greater Duwamish is a crossroads for major transportation networks for highway, railroad, air, and marine transportation.

Transportation facilities include Interstate 5, Interstate 90, Interstate 405, State Route 99, State

Route 599, KCIA, major railroad trunk lines and switchyards, light-rail lines, a major regional light-rail maintenance yard, the Duwamish River, and the private and public marine shipping terminals located on the Duwamish, Harbor Island, and the southern rim of Elliott Bay. The area is also crossed by the road and rail network moving commuters and commerce into and out of downtown Seattle from the south.

While this transportation network facilitates large volumes of north-south commercial and commuter traffic, it also creates extended barriers to east-west connections in the Duwamish for all modes of travel.

Because of its value for regional commerce and commuting, the north half of the Duwamish is in the midst of an extraordinary cycle of public-sector improvements with a budget that will eventually reach more than \$2 billion. Major projects include expanding the Spokane Street Viaduct and replacing the Alaskan Way Viaduct, in addition to construction of the State Route 519 interchange and rebuilding the South Park Bridge.

Today, if the Duwamish were viewed through the metaphor of a lunch bucket, it would be difficult to determine if the thermos inside of it was half empty or half full when it comes to public investments in transportation.

## **Findings**

### ***10 Miles of Unpaved Roads***

The City of Seattle estimates the city has 11 miles of unpaved roads with 10 of them in the Duwamish. Many of the roads that are paved in the Duwamish are major arterials designated for truck use, and many of them suffer from poor surface conditions from heavy vehicle use.

Many parts of the Duwamish also have no sidewalks, poor or no street lighting, and poor or no drainage. Heavy rainstorms and prolonged rainy seasons can create epic mud puddles that cover roads, sidewalks, and bus stop zones.

### ***Gaps in Transit Service***

It is difficult for the Duwamish to compete for regional investments in bus service because of the low population density of industrial worksites. In many parts of the Duwamish, it is also hard to overcome the long distances between bus routes, bus stops, and work locations.

Light-rail service came to the Duwamish in 2009. Separated from road congestion, light-rail service is reliable and fast as far as it goes. But in much of the Duwamish light rail doesn't go far enough. The two light-rail stations in the area are located in north SODO, with poor connections to the majority of job sites in the Duwamish. Another light-rail station was once planned for North Tukwila, but it hasn't been built and it remains unfunded. A SODO "shuttle" transit service is sometimes discussed by community organizations to make light-rail service more useful for more workers at more workplaces. But no public funding is available for a shuttle and no private investor appears willing to take the project on.

### ***Barriers to Walking & Cycling***

Modern urban planning places a high value on creating communities where people can walk to work. But that aspiration is a tough fit for the Duwamish except for the relatively small residential communities in Georgetown, South Park, and Allentown near North Tukwila.

The job sites on the Duwamish Valley floor are far removed, by topography and distance, from residential areas. Within the area, walkable crossings are few and far between because of the north-south barriers created by fence-lined industrial facilities such as the airport and the railroad yards. Cyclists can travel farther faster, but also encounter many of the same barriers that pedestrians do, including high speeds on the thoroughfares dominated by cars and trucks and poor surface conditions on side streets, plus the lack of connectivity between existing bike routes and trails.

### ***Unfinished Business***

Frustrations about local government services in the south Duwamish spiked in 2010 when the South Park Bridge was closed between Georgetown and South Park because of a decades-long dispute over how local governments should pay for bridge repairs. But transportation improvements are also an issue in the higher-profile SODO stadium district adjacent to downtown Seattle.

The two stadiums and an adjoining Exhibition Center were built at a combined cost of nearly \$1 billion between 1997 and 2002. These facilities are served by good vehicle and pedestrian access along 1st Avenue South and 4th Avenue South, but non-arterial roads that lead to the stadiums from many parking lots include long stretches with poor road surfaces, crumbling or no sidewalks, and abandoned railroad tracks.

## **Recommendations**

The neighborhood reports that follow include more than 10 dozen recommendations for spot improvements, some of them as small as a recommendation to clean up an outside staircase in South Park.

This overview concludes with findings, suggestions, and recommendations relevant to all four communities, along with a map illustrating the location of proposed improvements.

### ***Information Technology***

The lack of directional signs is a chronic problem throughout the area, and it costs about \$300 per sign to install one. That may sound pricey but it's the cheapest option available when it comes to public-sector solutions, and in poor budget times even signs are hard to come by.

However, a growing volume of helpful information is available online that can help anyone find an option to drive-alone commuting. Government websites include RideshareOnline, Metro, and the city sites for Seattle and Tukwila. The Cascade Bicycle Club and Feet First include lots of good information. If you don't know where to start, just enter a combo of key words into your favorite search engine, such as: Seattle, Tukwila, bicycles. You can also find a copy of the

Seattle Bicycle Map online, as well as trip planning tools such as the Google Maps bike layer and [ridethecity.com/seattle](http://ridethecity.com/seattle).

Online social networking was also incorporated into the “In Motion” campaigns conducted by Metro with residents and business owners in the Georgetown and South Park communities in 2011. Those efforts inspired 324 people to avoid 5,561 drive-alone trips while covering 95,548 miles, saving 4,570 gallons of gasoline, and not releasing more than 92,000 pounds of carbon dioxide. Not bad for the relatively small populations of those communities.

### ***Pursue Resources***

New or improved bus stops, road pavement, and sidewalks are expensive and, presently, they require public resources that are almost impossible to come by. Yet, during this study, curb bulbs and new lane configurations were installed along the historic retail area in Georgetown, and a group of industrial firms between 1st and 4th Avenues were able to get the city to repave six blocks along Fidalgo and Mead Streets by sharing costs with the city.

Even in hard times, public funds can go to those who make the best “ask,” and local business groups are available to support the requests.

### ***Extending Reach***

If you are willing to carpool, vanpool, or ride a bike, it is possible to far extend the range of available bus and light-rail service. Hybrid or multimodal commutes combine transit with bicycling, carpools, or vanpools. Metro offers instruction at several locations about how to load bikes on buses. The Lander Street Light Rail Station in SODO includes 24 secure bike lockers, but only half of them are generally used. Sound Transit is researching new ways to promote light-rail commutes that include bicycles based on research that shows many cyclists are willing to ride three miles to reach a rail station. Information about Sound Transit station bike facilities is available at [www.Soundtransit.org/bicycles](http://www.Soundtransit.org/bicycles).

### ***Bike-Truck-Bus Safety***

Our area could use stronger programs for advising cyclists and/or drivers of the best ways for them to operate when bikes share routes with large trucks or buses. Samples of out-of-town efforts can be viewed at [http://www.ecoact.org/PDF/TrafficSafety\\_Flyer.pdf](http://www.ecoact.org/PDF/TrafficSafety_Flyer.pdf) and at <http://www.youtube.com/watch?v=eXnNOSbhjBY>.

### ***Airport Way Bike Route***

The potential for this route did not become obvious until the four neighborhood efforts were completed and it turned out each of them included recommendations for Airport Way, located along Interstate 5 along the eastern edge of the Duwamish planning area.

Further study is needed to determine if or how a bike route along the roadway can be implemented. The timing is good for a review because the through capacity of Airport Way is now interrupted by reconstruction of the Argo Bridge, a project just north of downtown Georgetown that won't be completed until sometime in 2013.

If the route proves feasible, an Airport Way bike route would serve two top priorities of this planning effort. It would improve safety and mobility for cyclists traveling north-to-south through the Duwamish, and it would help connect bike routes between Seattle and Tukwila.

From north-to-south, it could connect cyclists with the trail systems that emerge from downtown Seattle with the Green River Trail in Tukwila, which extends into south King County. It would also connect with new east-west bike routes that will be established with the new Spokane Street project, connecting with West Seattle, and new east-west routes in Georgetown that will connect with East Marginal Way and the new South Park Bridge.

## **Report Conclusion**

A successful bike route along Airport Way would also require collaboration between the cities of Seattle and Tukwila and King County government, which owns and operates King County International Airport, also known as Boeing Field. Airport Way runs past the airport for a couple of miles, but has poor shoulders. The trucks and cars that use this route can reach very high speeds. The airport could provide an alternative, because cyclists are already allowed to ride on the Perimeter Road that rings the runway.

Government collaboration is a potential growth industry in the Duwamish because the area is such a convergence point for so many public agencies.

Federal agencies are responsible for assuring through traffic on highways, and marine and air routes.

Regional authorities are responsible for light rail, heavy commuter rail, bus service, other CTR services, and management of the general aviation airport services, as well as the marine cargo terminals along the Duwamish River, Harbor Island, and the southern rim of Elliott Bay.

Local governments, such as Seattle and Tukwila, are responsible for local services, including roads, sidewalks, land use, streetlights, and drainage. In recent years, local governments also led efforts to improve bicycle and pedestrian safety.

Improving safety for bicyclists and pedestrians can expand the use of public transit and help mitigate the impacts of drive-alone commuting. In theory, that should help maintain roadways for freight mobility and provide all the government agencies with reasons to support better non-motorized transportation.

Collaboration was the key to the successful effort to revamp the intersection of Alaskan Way and Atlantic, with participation by the Washington State Department of Transportation, the City of Seattle Department of Transportation, and the Port of Seattle, with ongoing input by cycling groups and freight operators.

The success of that effort provides a template for pursuing the opportunities that may exist along Airport Way.