Freight Mobility Strategic Action Plan

June 2005

SDOT
Seattle Department of Transportation
June 27, 2005

I am pleased to present the City of Seattle's third edition of the annual Freight Mobility Strategic Action Plan which supports Mayor Nickels' goal to Get Seattle Moving. The City's first Freight Mobility Strategic Action Plan was published in November 2002 as part of an initiative of Mayor Nickels' first 100 days in office to develop a plan to protect and improve major freight routes in Seattle. This update of that plan demonstrates Seattle Department of Transportation's (SDOT's) commitment to advancing the priority of freight mobility.

This plan serves as a guide for the Seattle Department of Transportation's freight mobility activities, with both near-term and long-range goals and action items. This Action Plan is an important accountability tool for commitment to the movement of essential goods and service critical to our City and regional economy.

The action plan is divided into seven key areas: Seattle Serves as an Economic Engine, Freight Partnerships, Truck Access, Rail Access, Port of Seattle Container & Cargo Terminals, Freight Access to Manufacturing & Industrial Areas, and Retail Goods Delivery. A new Freight Partnerships section has been added with this year's update to highlight SDOT's strong focus on strengthening freight mobility by building on the important partnerships we have forged with the Freight Mobility Advisory Committee, other City freight forums, and partnering in the region to address our funding challenges. Within each subject area, specific actions and assigned completion dates have been identified. Appendix 1 lists accomplishments and activities since the first Freight Mobility Strategic Action Plan was published. Appendix 2 summarizes the list of the proposed 22 SDOT actions. Appendix 3 includes the City's Comprehensive Plan goals related to freight mobility and the City's Transportation Strategic Plan strategies for moving goods and services. These adopted policies and strategies provide the policy foundation for this Action Plan.

Freight Mobility is an important component of SDOT's family of services to maintain and enhance economic activity in Seattle and the State of Washington. The bottom line is that improvement in freight mobility is critical to our economic competitiveness to maintain jobs, our position as a premier Pacific Rim port of trade, and Seattle as a regional center for goods and services.

SDOT will continue to work with the freight and industrial communities to improve our existing transportation system and maintain a balance that moves goods, freight and people safely and efficiently. For further information on the Action Plan and the City's freight mobility program, please contact Ron Borowski, at (206) 684-8370 and by email at: ron.borowski@seattle.gov or Ann Sutphin at (206) 684-8374 and by email at: ann.sutphin@seattle.gov.

Sincerely,

Grace Crunican, Director
Seattle Department of Transportation
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Seattle Gets Freight Moving

June 2005

The Seattle Department of Transportation (SDOT) is proud to release the third edition of the Freight Mobility Strategic Action Plan. As part of Mayor Nickels 2004 Manufacturing and Maritime Action Plan, SDOT developed this action agenda to protect and grow the industrial job base.

Freight mobility issues are particularly important for Seattle’s two designated manufacturing and industrial centers — the Greater Duwamish Manufacturing and Industrial Center and the Ballard/Interbay/Northend Manufacturing and Industrial Center (BINMIC). Manufacturing and maritime sectors provide:

• more than 121,700 family-wage jobs,
• 24 percent of all jobs in Seattle, and
• almost 40 percent of the city sales tax base.

2005 UPDATE — EXECUTIVE SUMMARY

The action plan includes 22 specific actions that will help get freight moving. The City of Seattle expects to invest more than $58 million during the next two years and up to $331 million over six years in projects that will reduce congestion and increase freight movement. Investments include:

• Bridge Way North and Fremont Circulation,
• Fremont Bridge Approaches,
• SR 519 Surface Improvements at Alaskan Way, and
• Spokane Street Viaduct Widening Project.

The 2005 action plan update reflects changes in the city’s freight program and new funding opportunities. For example, Seattle has dedicated funds in the 2005 budget for projects such as: updating street design for easy truck turning; advancing the long-term strategic program of railroad crossing overpasses; and installing more truck guide signs. This action plan is the department’s progress report to the freight community. It guides our efforts to enhance the movement of goods.

To read the plan in its entirety, visit: www.seattle.gov/transportation/FMSAP.htm
The City of Seattle is investing in improvements to move goods efficiently, create jobs, support businesses and grow the economy.

**Strengthening the Voice Of Industry:**
**The Freight Community Partnership**

In October 2002, the Seattle Freight Mobility Advisory Committee, co-sponsored by SDOT and the Seattle industrial community, was created. This forum offers regular communication with city staff and other agencies and advises on freight needs. The Committee makes sure we know freight’s interests on projects as small as speed bumps to as large as the Alaskan Way Viaduct.

SDOT presents the committee’s recommendations to project sponsors and decision makers, reflecting the interests of constituents both in north and south Seattle to encourage attendance and participation.

**SEATTLE TAKES ACTION - 2004 RESULTS**

Highlights of SDOT’s implementation of the 2004 Freight Mobility Strategic Action Plan and the Manufacturing and Maritime Action Plan include:

**IMPROVING OUR STREETS**

1) Finished design for the SR 519 Alaskan Way Truck and Rail Improvements to increase access to the Central Waterfront, the Port’s Terminal 46 and the BNSF intermodal rail yard;

2) Completed the Leary Way Street Improvements in Ballard and upgraded signals along seven industrial and maritime corridors. As a result delays were reduced by 40 percent and travel times improved 10 to 25 percent in these areas;

3) Solicited freight input on the Alaskan Way Viaduct and Seawall Replacement project on issues such as travel times, grades, and combustible materials. These needs were considered when determining the preferred tunnel alternative.

**IMPROVING RAIL CAPACITY & SPEEDS**

Coordinated with the BNSF Railroad on mainline rail crossing improvements to add a third mainline track south of downtown.

**SUPPORTING MARINE OPERATIONS**

Upgraded the Lower Spokane Swing Bridge mechanical components, thereby ensuring their long term operability and keeping the Duwamish River open for marine traffic.

For further information please contact Ron Borowski, Freight Mobility Program Manager, at (206) 684-8370 or by email at: ron.borowski@seattle.gov
Seattle Serves as an Economic Engine for the Region

*Putting Local Freight Mobility into a Global Context*

The Puget Sound Regional Council reports that the Seattle and Tacoma ports form one of the top three containerized cargo load centers in the Western Hemisphere. Our region is a major North American gateway for trade with Pacific Rim countries and Alaska. Washington State is the fifth largest exporter in the United States, and Japan, Canada, and China are our largest trading partners. One in four jobs in the state is related to international trade and more than $100 billion of international cargo moves through the Puget Sound Region. This not only generates revenue for the region and state, but also for the nation. In fact, 70 percent of our freight is destined for the Midwest and East Coast. Finally, the shift to just-in-time delivery has created a greater emphasis on a reliable transportation system, because it is now being used as a mobile warehouse. Freight mobility within Seattle is crucial to a functioning international trade system.

*Freight Mobility in the Puget Sound Region*

In addition to the Port, Seattle is home to multiple marine-related businesses, including the Pacific Northwest’s and the nation’s premier fishing fleet. Our region is not just a pass-through stop. It’s a destination—65 percent of truck trips originating here are destined to stay in Western Washington.

Freight mobility issues are particularly important for Seattle’s two designated manufacturing and industrial centers—the Duwamish Manufacturing Industrial Center and the Ballard/Interbay Northend Manufacturing Center (BINMIC). These two centers are expected to accommodate at least 10 percent of Seattle’s new employment over the next 20 years—nearly 15,000 new jobs. The manufacturing and maritime sectors already provide more than 121,700 accessible, family-wage jobs, or 24 percent of the jobs in Seattle.

Besides providing a home for the Port of Seattle’s container terminals, the Duwamish area is also home to King County International Airport (KCIA), which is located five miles south of the downtown Seattle. With its two runways (3,710 feet and 10,001 feet in length) and four fixed-base operators, KCIA provides the facilities and services necessary to support jet and propeller-driven aircraft and helicopters. KCIA is an FAA-designated General Aviation (GA) Reliever for SeaTac Airport and averages over 375,000 GA operations per year. KCIA is home base for more than 150 businesses such as the Boeing Company, Galvin...
Seattle Serves as an Economic Engine for the Region

Flying Service and UPS. Tenants include commercial airlines, airfreight companies, aircraft service and repair, flight schools, charter operations and helicopter services. Quick and reliable truck access is essential to the Duwamish and BINMIC areas.

The Mayor’s Action Agenda for Manufacturing and Maritime Sectors

In April 2004, Mayor Greg Nickels released an action agenda to help retain and grow the city’s manufacturing, maritime and related businesses. Recent studies by the Seattle Office of Economic Development (OED) found that manufacturing and maritime industries contribute an estimated $28.5 billion in revenues to the local economy and more than $100 million in tax revenues to the city. The Manufacturing and Maritime Action Plan includes a list of actions the city is committed to taking in response to the four needs identified by industry leaders OED’s study:

• Protect the industrial land base
• Provide user-friendly permitting
• Improve transportation to keep freight moving
• Help businesses not only to stay here, but grow here

Specifically, the Manufacturing and Maritime Action Plan has several elements pertaining to transportation, as follows:

1) Improve freight mobility and transportation in the City’s manufacturing centers:

• Invest $58.7 million in the next two years on five capital projects that will reduce congestion and increase freight movement in both industrial centers (source: Adopted 2005-2010 CIP):
  - Bridge Way North and Fremont Circulation Improvements
  - Duwamish Intelligent Transportation Systems
  - Fremont Bridge Approaches
  - Spokane St Viaduct Widening
  - SR 519 Surface Improvements (at Alaskan Way)

• Invest $331.4 million (of combined regional dollars) into transportation improvements over the next six years in the two manufacturing industrial centers. Besides the above projects, these include:
  - Airport Way structure over the Union Pacific Railroad Argo Intermodal Yard
  - Alaskan Way Viaduct and Seawall Replacement
  - Magnolia Bridge Replacement Project
  - South Lander Street Grade Separation
  - Truck Spot Improvements

• Leverage the regional Freight Action Strategy (FAST) Corridor Project to raise funds for improving Port of Seattle access, railroad operating conditions and alleviate congestion points.
2) **Provide an efficient and predictable permitting process for industrial and maritime businesses.**

- Propose legislation to City Council, authorizing SDOT to issue extended, five-to-ten year term permits for industrial street end use (for currently permitted industrial businesses) to create greater certainty/predictability.

SDOT participates in monthly city meetings coordinated by the OED to implement Mayor Nickels' *Manufacturing and Maritime Action Plan* initiatives.

To learn more about the *Manufacturing and Maritime Action Plan*, visit the Mayor’s web site at:


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**Seattle Keeps Freight Moving!**

The Seattle Department of Transportation (SDOT) is responsible for coordinating freight mobility policy development and implementation. SDOT operates and maintains Seattle’s street system, designates truck routes, and constructs transportation projects. The department’s freight goal is to reduce travel time and improve reliability for the movement of goods and services. SDOT achieves this by:

- articulating freight policies and strategies in planning documents,
- preparing an annual action plan,
- committing freight staff resources to City projects, and
- coordinating with other agencies on projects that impact freight mobility in Seattle.

The City’s *Comprehensive Plan* and *Transportation Strategic Plan* guide SDOT’s freight policy (see Appendix 3 for the adopted *Comprehensive Plan* policies and proposed *Transportation Strategic Plan* strategies). Referencing these two documents, SDOT prepared the first *Freight Mobility Strategic Action Plan* in November 2002. Now updated annually, the plan presents a list of near-term actions to be carried out by SDOT divisions and partners.

SDOT has a dedicated freight mobility staff person to ensure better integration of freight improvement practices in SDOT plans, programs, projects and operating practices. This staff position is the point-of-contact with the freight community and works closely with them to exchange information, obtain input on needs, and gather suggestions.

The city’s primary freight emphasis is on ground transportation, whether it is general truck movement, railroad crossings at city streets, or the streets serving marine and air freight uses. This includes the roads serving the multiple marine uses situated along Puget Sound, the Duwamish River, Lake Union and the Ship Canal which accommodate the Pacific Northwest fishing industry, the Port of Seattle and Alaska bound barge trade. Similarly, city roads serve KCIA located in the south district and flying operations on South Lake Union.

Seattle’s ground transportation system includes a broad range of streets from the West Seattle Freeway, to arterial and local streets and alleys. The system also includes several elevated and underground structures, including tunnels, bridges and retaining walls. Providing access across multiple working waterways, Seattle
operates lift and swing bridges over the Duwamish River and the Ship Canal to allow taller vessels to pass. These bridges must be kept in good condition so as not to negatively affect marine traffic.

The state and interstate highway system provide critical connections between the City of Seattle and other freight destinations. Seattle works with other transportation providers and regional interests to advocate for the inclusion of freight mobility considerations in the design and operation of these facilities.
Strengthening the Voice of Industry: The Freight Mobility Advisory Committee

In October 2002, SDOT and the Seattle Manufacturing Industrial Council (MIC) formed the Seattle Freight Mobility Advisory Committee (FMAC), providing a regular forum for communication with City staff and other agencies. The FMAC represents the interests of various freight transportation providers and operators (including truck, rail and marine transport), and reflects the interests of constituents in both the north and south industrial areas of the city. The Committee meets on a monthly basis alternating meeting locations between the north and south industrial centers to encourage attendance and participation. In addition to the meetings, SDOT is developing a listserv to distribute information on Committees activities. The FMAC provides the following functions:

- Creates a forum for exchange between freight stakeholders and government agency staff on potential freight mobility transportation improvements. In turn, SDOT, the Port of Seattle, and Washington State Department of Transportation (WSDOT) benefit from problem identification and clarification, solution ideas and support with funding efforts.
- Provides advice on potential changes to improve truck and railroad operations and safety.
- Makes recommendations to project sponsors and elected officials.
- Supports the City’s implementation of the Seattle Manufacturing and Maritime Action Plan and the Seattle Freight Mobility Strategic Action Plan.

Other Freight Forums

Besides the FMAC, SDOT participates in several other freight stakeholder groups and uses the World Wide Web to share and gather information. We actively participate in the BINMIC Action Committee, the Port of Seattle Truck Operators Committee, the Regional Freight Mobility Roundtable, and the FAST Corridor Project.
Participating in these various forums ensures that Seattle’s freight policies and strategies are included in regional study and planning efforts and improve our understanding of freight’s role and needs in the region. One way SDOT is doing this is by contributing to the State Office of Freight Strategy and Policy's Draft Freight Movement Report, part of WSDOT’s update of the Washington Transportation Plan, a blueprint for the State’s transportation programs and facilities. Moving freight is a key strategic issue in the update and the freight report is a valuable data resource.

SDOT also maintains a “freight mobility” web page with information on freight operational items, FMAC meeting notes, major construction projects, the Freight Mobility Strategic Action Plan, links to multiple web sites, and opportunities to give input. The web site address is: www.seattle.gov/transportation/fmsap.htm.

**ACTION 1 – Coordinate with the Seattle’s Freight Community**

SDOT will coordinate monthly meetings of the Seattle FMAC during 2005. Committee recommendations will be presented to project sponsors and decision makers. SDOT will participate in appropriate meetings of other freight community interests during 2005.

**The Challenges of Funding**

Long-term freight mobility solutions such as railroad grade separations at track and street crossings are expensive and often involve complex funding partnerships with public and private parties such as the state and federal government, Port of Seattle, King County, and BNSF, and Union Pacific Railroad (UP). These challenges are currently exacerbated by struggling national and regional economies. In an environment of significant local, regional, and state budget reductions, finding funding for projects is difficult. Unfortunately, the challenge is increasing.

There are several important regional forums creating funding partnerships including: the FAST Corridor Project, the state’s Freight Mobility Strategic Investment Board (FMSIB), and the Regional Freight Mobility Roundtable. The FAST Corridor Project is a nationally recognized leader in delivering freight transportation improvements. Since 1996, the FAST Corridor Project has studied freight movement via rails, roads and shipping ports and developed projects that move goods more efficiently and increase safety for cars, trucks and trains. FAST has identified 13 projects valued at $500 million spanning from Everett to Tacoma: six projects are completed and seven are underway. Additional FAST Corridor Projects are in the pipeline for 2005 and 2006.

The FMSIB was created in 1998 when the State Legislature created RCW Chapter 47.06A for the purpose of reviewing, prioritizing, and recommending freight mobility transportation projects of strategic importance to Washington. Recommendations are presented to the Governor and the Legislature and provide the basis for project prioritization and funding allocations. SDOT works with FMSIB, to articulate Seattle’s freight mobility priorities. It was through FMSIB’s recommendation that Seattle received state funding for the Duwamish Intel...
Transportation Systems (ITS) Project. In the 2005-2007 Biennium Budget, the FMSIB recommended funding for a list of projects including the Spokane Street Viaduct Widening Project, the Duwamish Truck Spot Improvement Program, and the Port of Seattle’s East Marginal Way Grade Separation Project (the FMSIB’s current #1 project). The recently adopted 2005 state transportation funding package included the Duwamish ITS Project and East Marginal Way Grade Separation Project.

The Regional Freight Mobility Roundtable is a public-private forum sponsored by the Puget Sound Regional Council (PSRC) and Enterprise Seattle to define and recommend actions serving freight mobility needs in and through central Puget Sound. Private sector participants include rail, marine, air cargo and trucking carriers, and shippers such as Boeing and Weyerhaeuser. Public sector participants include local governments, the ports of Seattle, Tacoma and Everett, state agencies, and federal agencies within the U.S. Department of Transportation (including rail, highway, maritime), and the Department of Defense. The Roundtable coordinates with the FAST Corridor Project. SDOT regularly participates in these forums to elevate support, advocate funding for Seattle area freight mobility needs and create strategic partnerships. State and federal processes assign greater priority to project applications which offer private funding participation.

Although SDOT has identified a number of actions that can be accomplished either within existing resources or at a relatively low cost, it is important to not forget Seattle’s long-term infrastructure needs nor the urgency to make near-term progress on efforts that efficiently move freight and goods. The Alaskan Way Viaduct is one of the heaviest used freight corridors in the Washington State. In 2003, it carried approximately 15.6 million tons of freight transported by truck. BNSF and UP rail lines run within 100 feet of the seawall supporting the Viaduct and connect to the Stevens Pass mainline. Because of the critical function this state route serves, the Alaskan Way Viaduct/Seawall Replacement Project is the City’s highest priority project for funding. Seattle welcomes the freight community’s support in creating private/public-funding partnerships, and communicating the needs and economic importance of freight transport to potential transportation funding entities.

**ACTION 2 – Actively Participate in Regional and State Forums Seeking Freight Funding**

SDOT staff will continue to participate on an ongoing basis in regional forums to support funding for freight and to articulate Seattle’s freight needs and benefits.

Local, state, federal and private partnerships support the City’s actions toward improving movement of goods and services by truck and rail, and support the Port, other marine uses and air freight uses operating within Seattle. See page 15 to learn more about the Paving Partnership Program and Appendix 1 for SDOT’s 2003 and 2004 freight mobility accomplishments.
All of Seattle’s businesses and residents rely on freight shipped via trucks. While light trucks continue to play an important role, the freight industry is moving toward the use of larger trucks. These trucks support manufacturing and industrial businesses, connect ships and railroads, and make regional, interstate, and international trips. In addition to transporting goods, large trucks are also used for emergency services, household moving, and necessary public services like waste collection and recycling. Moving these larger trucks on city streets can be a challenge but accommodations must be made.

The Seattle Comprehensive Plan contains a street classification map with three classifications of arterials and one classification for local streets. All arterials are considered truck routes, which are streets where trucks are allowed and encouraged to travel. In many cases, signing is posted to assist drivers along the route. The intent is to discourage trucks in excess of 10,000 Gross Vehicle Weight (GVW) from using local streets. However, trucks in excess of this weight can use the local street if there is an identifiable trip destination in that area. For example, delivery trucks serving a specific address.

While all arterial streets within Seattle are considered truck routes, the Seattle Comprehensive Plan calls for the designation of a network of Major Truck Streets to serve as primary routes. The network is defined in the Transportation Strategic Plan and is illustrated by the map on page 11. A Major Truck Street is an arterial street that accommodates significant freight movement through the City, and to and from major freight traffic generators. State routes and highways are also included in the network. The designation is an important criterion for street design, traffic management decisions, and pavement design and repair. As arterials are reconstructed, changes are made to accommodate larger vehicles, however, it will take years to address all problem locations.

Arterials also serve cars, buses, pedestrians, and bicyclists. There are circumstances where this can create safety concerns or cause expensive delays for trucks. SDOT works to minimize such conflicts and balance the many needs of our streets.
Review Site-Specific Obstacles to Truck Movements

One of SDOT’s objectives is to institutionalize and fund an annual truck spot improvement program to address restrictive conditions that may exist on major freight corridors. At the current time, a dedicated funding resource has not been allocated.

This program will include improvements such as:

- increasing curb radii on critical corners
- removing on-street parking in key locations
- relocating utility poles that are close to the curb
- installing signs (street name designation and truck directional signage)
- providing truck queue lanes/holding lanes at major access points
- revising intersection signal control to assist truck turning movements that now typically require a long wait for an adequate traffic gap.

**ACTION 3 - Maintain an Updated Inventory of Known Obstacles Identified by the Trucking Community**

In 2005, SDOT will work with the FMAC, Manufacturing and Industrial Council (MIC), the Ballard/Interbay/Northend Manufacturing Industrial Center (BINMIC) Action Committee, and other trucking and shipping groups to develop an inventory of location-specific problem areas and potential solutions. This inventory will be used for further prioritization as funding becomes available and to identify site-specific opportunities that can be considered in design of already funded projects. An updated inventory will be completed by 4th quarter 2005.

**ACTION 4 - Maintain an Inventory of Infrastructure Height Restrictions Facing Trucks Operating in the City**

SDOT will finalize a list of bridges and other structures that present operating restrictions (height limitations) for trucks in 2005. This list will be made available through SDOT's website to the trucking community to assist with route planning by 2nd quarter 2005.

**ACTION 5 - Maintain a List of Truck Weight Restrictions on Seattle Bridges and Other Structures**

SDOT will finalize a list of bridges and other structures on the City street system that are posted with weight and other operating restrictions in 2005. This list will be made available through the Internet to the trucking community to assist with route planning by 2nd quarter 2005.
ACTION 6 - Pursue Funding for Priority Truck Access Projects
SDOT will continue to seek funding for freight mobility projects as opportunities permit. SDOT applied for a FAST Corridor Project grant to implement a multi-year truck mobility spot improvement program addressing identified spot improvements over a six-year period. The FAST Partners will consider federal funds for this project in the future. SDOT applied for a similar grant from the State Freight Mobility Strategic Investment Board (FMSIB) in September 2002. FMSIB had asked the Legislature to approve funding for this project in the 2005 Session. Although FMSIB approved this application, and assigned a priority ranking to this $7.2 million project, State funds have not been allocated this biennium. SDOT will pursue funding in a future grant cycle to install improvements that could include additional directional truck signing, corner radius increases, U-turn restrictions, medians, and left-turn signal revisions in the industrial centers.

Update Street Design and Operational Standards to Address Trucks and Overlegal Vehicles
Implementing street changes for freight is an incremental process based on opportunities and available funding. SDOT continuously reviews standards and modifies them as needed to ensure that when arterials—especially Major Truck Streets—are redesigned and rebuilt, they accommodate truck movements, in coordination with other street use needs. Four examples of where this type of review and modification is occurring are:

• the Alaskan Way Viaduct and the Alaskan Way surface street;
• the approach roads to Port of Seattle container terminals;
• the Elliott/15th West corridor (a Monorail route alignment); and
• the Mercer/Fairview Corridor.

There will always be locations in the Seattle street system where larger trucks are not able to travel. Where space is extremely constrained, other options must be considered. For example, in Neighborhood Commercial Districts with limited street space, smaller trucks are encouraged for local access to constrained curbside loading areas.

Utility poles placed too close to corners and tight turning radii along major truck streets can create obstacles to truck movement.
In addition to identifying Major Truck Streets, SDOT has a program to accommodate the movement of overlegal vehicles within and through the City. Overlegal vehicles are those that are over length, over width, over height or over weight. Examples are trucks carrying Boeing airplane tail assemblies, large cranes, and houses. On a regular basis, the SDOT commercial vehicle enforcement officers issue permits identifying appropriate routes. The Commercial Vehicle Traffic Enforcement Section also works with the movement of hazardous materials in the City.

**ACTION 7 - Incorporate Freight Operational Design Needs For Major Truck Streets and Non-Major Truck Streets into the draft Update of the Right-of-Way (ROW) Improvements Manual**

SDOT has begun the process of updating the *ROW Improvements Manual*. The new manual is scheduled to be completed and available on SDOT’s website in 2005. Staff will work with freight stakeholders to obtain input on technical design standards for incorporation in the final document. Representatives from the freight community will be invited to participate in “external stakeholder team meetings” in 2005. SDOT will also review the standards status with the FMAC. These freight related changes will be drafted by 4th quarter 2005.

**ACTION 8 - Include an Overlegal Vehicle Design Standard in the Update of the ROW Improvement Manual**

SDOT will work to identify a design standard within the *ROW Improvement Manual* to accommodate oversize vehicles. This new standard will supplant the design criteria currently applied to street decisions, if appropriate. For example, it may suggest something akin to the typical 20' high x 20' wide envelope to be applied to work on all Major Truck Streets. Representatives from the freight community will be invited to participate in “external stakeholder team meetings” in 2005. SDOT will also review the standards status with the FMAC. These freight related changes will be drafted by 4th quarter 2005.
**Improve Pavement Conditions on Truck Access Routes**

Truck access routes tend to deteriorate more quickly than other streets because they carry heavier loads and higher volumes. The Major Truck Street designation is one of the criteria used for determining paving priorities. SDOT makes spot repairs to major truck streets as necessary to keep commerce moving, but lacks the funds to reconstruct, improve, or even to perform preventive maintenance on local industrial roads. This is especially noticeable in the industrial areas of SODO, Georgetown and South Park, where the number and weight of industrial vehicles greatly exceeds the pavement capacity.

To help address this need, SDOT uses a portion of its maintenance funds as a match for small, local paving projects suggested and supported by local businesses and property owners. This funding allocation is known as the Paving Partnership Program has been in place since 2002. In several instances, local businesses have coordinated their efforts through a non-governmental, community-based organization, which has applied for additional city matching funds from the Department of Neighborhoods. The addition of the Department of Neighborhoods grants to the partnership has increased the amount of public money available and correspondingly reduced the sum that the businesses have had to contribute. SDOT strongly encourages freight business participation in the Paving Partnership Program.

**ACTION 9 – Review 2006 Paving Priorities with the Freight Community**

SDOT will review 2006 preliminary paving priorities with the Freight Mobility Advisory Committee to identify other needs and priorities. This review will be completed by 3rd quarter, 2005.

**ACTION 10 – Continue to Include Freight Needs as Criteria in Prioritizing Street Pavement Rehabilitation Work**

SDOT uses the condition of critical routes, the designated *Major Truck Streets*, and public input on an on-going basis as important criteria, in coordination with other decision criteria, for determining priorities for street rehabilitation and reconstruction.

Based on these considerations, the candidate list of Manufacturing Industrial Center projects in the 2005 paving season are:

- 16th Avenue (southbound direction) between E. Marginal Way S. and the Duwamish River, in coordination with the City of Tukwila
- 6th Ave S., south of S. Forest Street, repair paving at BNSF track crossing, in partnership with BNSF Railroad
- 4th Ave S. (northbound direction), between S. Holgate Street and S. Massachusetts Street

**ACTION 11 - Solicit Freight Community Involvement in the Paving Partnership Program**

SDOT will review paving partnership opportunities and solicit participation with the freight community in summer 2005.
Grade-Separate Truck Routes at Heavily Used Railroad Crossings

Rail crossings on heavily used truck routes are obstacles for truck movement, especially in the South Downtown area and at Broad Street along the North Waterfront where the BNSF mainline railroad, Amtrak and Sounder Commuter Rail are located. Grade separations are the most effective way to eliminate conflicts and decrease delays. Implementing a program of grade separations is one of the City’s highest freight mobility priorities. Railroad operations also greatly benefit from separations. These overcrossings or under-crossings are extremely expensive and are justifiable only where there is significant traffic on both the truck route and the rail line.

There are approximately 70 train movements on the mainline tracks per day across the east/west arterial streets in the Duwamish area. These train volumes and associated traffic delays are expected to increase in the future. The City has developed a list of potential (new, improved, or replacement) grade separation projects based on the Greater Duwamish Manufacturing and Industrial Center Plan and the Access Duwamish Freight Mobility Implementation Plan. The most recent completed railroad grade separation projects are at Atlantic Street (SR 519, Phase I, a two-way street between 1st Ave S and 4th Ave S where the elevated intersection at 4th provides an eastbound on-ramp connection to Interstate 90) which was opened in November 2003, and the 2001 completion of the Galer Street Flyover (over Elliott Ave W) in Interbay. Both cross the BNSF mainline tracks.

The following projects are currently in various phases of planning and implementation. Project implementation is dependent on obtaining full project funding from the partners and the associated City fund sources.

- **South Spokane Street Viaduct Widening** – City is currently seeking State and Federal funding for widening construction (Phase 1 - West Segment); construction on lower portion of roadway was completed in 2003; of the current estimated total project cost of $135 million, the State FMSIB has recommended $25 million, subject to the state Legislature’s approval; and $5 million of federal funds is identified in the FAST Corridor Project subject to the federal appropriations process. Project implementation is dependent on obtaining full project funding from the partners and the associated City fund sources.

- **East Marginal Way South and South Spokane Street** – The Port of Seattle is lead for this project. They are refining their design for a grade separation over the railroad tracks leading to the Harbor Island and West Seattle terminals, and other industrial area uses. The Port is seeking construction funding through the State’s FMSIB program. SDOT is coordinating with the Port on an acceptable design solution and implementation steps.

ACTION 12 - Pursue Grade-Separation of Key Truck Streets at Heavily Used Railroad Crossings

Continue the development of grade separation projects and seek funding partners for implementation; lobby the State Legislature and United States Congress to obtain state and federal funding.
• **SR 519, Phase 2 Connector to I 90** – Seattle, WSDOT and other partners will refine the project design and expected location for an additional grade separation to address truck and other traffic congestion expected on South Royal Brougham Way and other parallel routes to provide sufficient access to the Duwamish industrial area, Port facilities, South Downtown, and the Central Waterfront. The project was partially funded by the nickel gas tax ($38 million) approved by the Legislature in 2003.

• **South Lander Street Area Grade Separation** – The City completed a Type, Size, and Location Study in June, 2003 with a recommendation for a grade separation on either S. Lander Street or S. Hanford Street; subsequent phases would include environmental review and preliminary engineering. Estimated project cost of $44.5 million; is currently unfunded; and the estimated project completion time is currently the end of the decade, subject to funding allocations.

• **Magnolia Bridge Replacement Project** – The City is performing a Type, Size, and Location Study in conjunction with the environmental process. A Draft Environmental Statement will be published in fall, 2005. Funding for construction is not currently identified. A new bridge will provide opportunities for better connections to the industrial area adjacent to Terminal 90/91. Based on the refined project cost estimates, SDOT will seek future project funding.

Recently, Amtrak and BNSF Railway Company have requested that the City consider the closure of S. Holgate Street between Occidental Avenue and 3rd Avenue South. This request is being made to improve future railroad operations on the mainline as well as accommodate the expansion of the Amtrak Northwest Maintenance Facility. Railroad and passenger rail agencies predict that the combined future growth in daily train movements on the mainline (including the new third mainline track) and improvements at the Amtrak maintenance facility will result in a “de facto” closure on S. Holgate Street. In response to this request, SDOT has agreed to conduct traffic analysis and modeling to examine east-west traffic routes in the area, event traffic, parking and pedestrian movements, emergency vehicle needs and the effects of the Alaskan Way Viaduct / Seawall project construction. The goal of this analysis is to identify a future comprehensive network for the area in the vicinity of the South Downtown railroad corridor. SDOT will perform the initial technical traffic analysis in 2005. The analysis will guide the next steps for future policy decisions on railroad crossing treatments within the area.
Build Capital Improvements Projects to Benefit Freight

Adopted on an annual basis, the City’s Capital Improvement Program (CIP) has several programmed projects to benefit freight. Project schedules and budgets occasionally change due to design changes and funding availability. These changes are reflected in the subsequent year’s CIP.


These projects include SR 519 Surface Street Improvements, Alaskan Way Viaduct/Seawall Project, Mercer Street, Fremont Bridge Approaches, and the South Park Bridge Project (a King County project).

The 2005 CIP and SDOT’s ongoing safety and operational programs include the following projects in the Manufacturing and Industrial Centers. Project implementation is dependent on obtaining full project funding from outside grants and the associated City fund sources:

• **SR 519, Phase I Surface Improvements** - Located at East Marginal Way S., Alaskan Way, Atlantic Street and Royal Brougham Way S., this project includes repaving, curb realignments and other traffic lane rearrangements; a new truck-only access road from Terminal 46’s new gate to the north gate of BNSF Railroad; Seattle International Gateway (SIG) intermodal yard; revised driveway access and a truck queuing lane at the Terminal 46 truck gate; relocation of the BNSF Railway Company lead track to the west side of Alaskan Way; and remote holding space for vehicles using the Washington State Ferries. Construction began this spring and extend through 3rd quarter 2006.

• **Alaskan Way Viaduct and Seawall** – The Draft Supplemental EIS will be prepared this year. SDOT and the State will also develop more detailed construction period traffic plans for the project’s preferred alternative.

• **Seawall** – This year, the City will continue to monitor and assess the condition of the Seawall. These tests will aid State and City decisions in the Viaduct/Seawall design process.

• **Mercer** – SDOT is preparing the federal environmental assessment for public release in late 2005. SDOT is refining the street design, including more detailed attention to truck access and circulation. Mercer is a Major Truck Street, and provides truck connections to Port facilities and multiple marine uses located along Elliott Bay and in the Ballard Interbay/ Northend Industrial Center.

• **Fremont Bridge and Fremont Traffic Circulation** – In 2005, SDOT will begin construction of Fremont Traffic Circulation Project. Improvements include signing, traffic signal upgrades, traffic cameras, and street and traffic lane modifications.

• **Fremont Bridge Approaches Project** – SDOT will reconstruct the roadway approaches for this opening lift bridge over the Ship Canal. Construction is expected to start in June 2005.
• **East Marginal Way Grade Separation Project** - This facility will service Port of Seattle terminals T-5 and T-18 as well as general purpose traffic. The City will continue to work with the Port on design, permitting and utility relocation issues.

• **South Park Bridge** - SDOT continues to participate in the King County South Park Bridge Replacement Project. The County expects to select a preferred alternative in late 2005.

**Minimize Conflicts Between Trucks and Other Transportation Modes**

Most of Seattle’s public rights-of-way are constrained and trade-offs are required to balance the functions of the various transportation modes. A number of possible conflicts can occur between medium- to heavy-truck traffic and other motorized and non-motorized vehicular and pedestrian transportation. The City continually evaluates the safety and operational needs of these different modes. In some cases, evaluation may result in strategies that include: identifying alternative routes, developing separate facilities, and clarifying priorities for specific locations.

**ACTION 14 – Identify Measures to Minimize Conflicts Between Trucks and Other Transportation Modes.**

SDOT will work on an ongoing basis to identify potential measures to minimize conflicts between trucks and other transportation modes, such as truck spot improvements, street design standard revisions, and design specifications for potential large capital projects.
Make the Best Use of What We Already Have

Traffic engineering practices and the application of technology can make more efficient use of our street and signal system. Intelligent Transportation Systems (ITS) is the application of state-of-the-art traffic management, communications and data technologies to provide a sophisticated set of tools to address mobility and safety needs. Seattle has a cutting edge traffic technology program. Our Traffic Management Center became operational in 2003 and is capable of:

- collecting traffic data and camera images
- making remote traffic control system changes
- providing traffic information to the state and the general public via web images, and
- sharing traffic information with emergency services to assist in emergency response.

SDOT plans to implement more technology improvements as funding is available.

ACTION 15 - Continue Implementation of Duwamish Intelligent Transportation Systems (ITS)

The Duwamish ITS Project will add to the City’s technology capabilities, with a special emphasis on freight movement. Techniques include traffic surveillance cameras, improved signal timing and electronic message signs—all intended to reduce travel time and improve safety in the Duwamish Industrial Center. Final design was accomplished for the initial construction phase to be performed in 2005. The estimated total project cost is $7.5 million funded by local funds, private funding, State FMSIB funding of $2.5 million, regional federal funds, and $1.8 million of federal funds from the FAST Corridor Project which was approved in 2003. The initial major construction phase (Phase 2) is expected to be substantially complete by the end of 2005. Completion of continued project implementation is dependent on obtaining project funding from grants, partnerships and other sources.
As part of the Duwamish ITS Project Phase 2 SDOT will install the following equipment:

- traffic cameras at nine locations
- traffic signal controllers upgrades at 25 locations
- electronic variable message signs (with the ability to change messages) at five locations, and
- bridge and rail signal communications interconnects at 10 locations.

ITS traffic technology improvements deliver the following benefits to Duwamish area freight providers and the general public:

- More efficient signal timing to move vehicles in and out of the area—saving time and improving travel reliability.
- Advance notice of traffic blockage on the new electronic variable message signs linked to the Lower Spokane St. Swing Bridge when it is opened for marine traffic, which blocks east/west traffic.
- Real time traffic conditions and rail movements relayed to local employers, shippers and dispatchers, so truck drivers can better avoid congested points, reduce travel time and save on operating costs—the time is money theme.
- A complementary approach to make better use of the existing system, until large capital projects begin to relieve choke points.
- Direct travelers during construction in SDOT right-of-way.
Rail Access and Operations

Efficiently moving containerized cargo shipments is critical to maintaining a healthy, vital economy in the Puget Sound Region. Container freight movement has dramatically increased, especially by rail, for destinations in the Midwest and beyond. This recent growth has been fueled by strong demand for Asian imports and capacity limits at other West Coast Port like Long Beach, California. Seattle is occasionally referred to as the “Port of Chicago” based on the volume of shipments destined to this national inland hub. Seattle provides an operating environment for three railroads. Both the BNSF and Union Pacific railroads have mainline tracks in the city, and the Ballard Terminal Railroad, provides connections between the BNSF mainline and local businesses in the Ballard Industrial area north of the Ship Canal. The Duwamish Industrial Center contains several intermodal rail yards, including the BNSF Seattle International Gateway (SIG) Yard and the Union Pacific Argo Yard. BNSF operates a major maintenance locomotive facility in Seattle’s Interbay industrial area. Both freight and passenger train volumes are projected to increase.

Beyond freight mobility, rail is also an increasingly attractive option for commuters, evidenced by the early success of Sound Transit’s Sounder line between Tacoma and Seattle. Extension of service to Everett began in late 2003 with increased service planned in the future. Amtrak Cascade service had record ridership in 2004 marking the 10th consecutive year of growth. All of this activity strains the operational efficiency of mainline rail/street crossings in the Duwamish and in the north end of the central waterfront.

Railroad crossing locations adjacent to signalized arterial intersections present potential conflicts between modes. Improved signal interconnects coordinate rail and street traffic and to reduce safety problems by stopping or redirecting traffic before it reaches the rail crossing.

SDOT will apply technology improvements on an ongoing basis to the City’s inventory of traffic signals, signage, and other devices. ITS projects can be implemented more quickly than capital-intensive projects, providing interim relief.

The following actions are designed to support the safe and efficient movement of freight and goods by rail.

**ACTION 16 - Initiate Railroad Supportive Elements of Duwamish ITS at the BNSF Railroad Mainline**

As part of its ongoing Duwamish ITS Project, SDOT will implement the following ITS elements to reduce rail-related conflicts: special traffic control strategies in response to changing conditions caused by trains moving through at-grade crossings and bridge raisings; and connections and coordination between railroad crossing signals and adjacent traffic signals. SDOT expects to begin upgrading the traffic signal timing at the east/west BNSF mainline street crossings in the Duwamish by the end of 2005. Project implementation is dependent on obtaining project funding from grants and the associated City fund sources.
Freight and Passenger Rail Enhancements

Sound Transit commuter rail improvements are bringing benefits to both passenger rail and to freight transport. As part of these improvements, key portions of mainline railway tracks will be expanded from two tracks to three tracks and grade crossing improvements will be made to facilitate efficient train movements. Current city law limits train speeds to 20 MPH unless a grade-separated crossing exists. In Fall, 2000, the City Council passed Ordinance 120101 setting conditions for train speeds to be significantly raised when five at-grade track crossing improvements are completed. When completed, these improvements will help relieve some capacity restraints along this important corridor.

Local Rail Access

The City’s existing freight rail network faces challenges from the loss of rail lines, the conversion of rail-accessible land to non-industrial uses, and passenger rail expansions. It is City policy to encourage railroads to maintain rail service. In 1989, the City and BNSF reached an agreement that lead to the preservation of the Ballard industrial corridor and the formation of the Ballard Terminal Railroad. This is one example of how the City can assist in preserving existing rail line track and unused rail line right-of-way for potential future rail operations. The City understands the non-mainline rail access and capacity needs for freight operations and industrial properties.

A comprehensive approach is used to develop and evaluate strategies that preserve rail capacity for freight:
- Maintain existing rail access to active manufacturing and industrial sites.
- Support the short line railroad operators service to customers in the Ballard Industrial District.
- Encourage private sector development of additional short-line railroads where feasible.
- Preserve existing rail corridors in public ownership rather than allowing threatened corridors to be abandoned.
- Encourage improvement to mainline track freight capacity while expanding regional passenger rail.
Port of Seattle Container & Cargo Terminals

The Port of Seattle is one of the largest West Coast cargo centers, serving as the entry and exit point for marine cargo to and from the Pacific Rim, Alaska and Hawaii. The Port of Seattle’s seaport is made up of 1,100 acres of waterfront land and nearby properties. Nearly 600 acres of the Port’s seaport is dedicated to container terminal operations and cargo handling. These facilities include:

- Terminal 5 in West Seattle
- Terminal 18 on Harbor Island
- Terminal 25 on East Marginal Way (The northern portion of the terminal is being redeveloped as a container terminal for domestic freight; operations will begin in summer of 2005. On the south end of the terminal, a new cold storage facility will be completed in 2006.)
- Terminal 30 on East Marginal Way (Currently the central portion is serving as a cruise terminal. The southerly and northerly portions of the terminal are dedicated to supporting container operations at other terminals)
- Terminal 46 on Alaskan Way
- Terminal 115 up the Duwamish River on West Marginal Way

In addition:
- Terminals 90 and 91 in Interbay serve the Pacific Northwest Fishing Fleet. They also provide facilities for the movement of an assortment of cargo demands.
- Terminal 86 operates as a bulk grain terminal on the south end of Interbay.

All Port terminals except T-115 offer access to deep-draft vessels.

Growing trade with Asia and increasing capacity and environmental constraints at Southern California ports are generating rapid growth in international container traffic. In 2004, the Port of Seattle moved a record 1.8 million twenty foot container equivalent units (TEUs), an increase of 20 percent over 2003. The first two months of 2005 showed an increase of 34 percent over 2004. If the growth in trade continues in its rapid pace, the Port may move 2 million TEUs in 2005 and reach 3 million TEUs within the decade. These increases are far beyond the 2004 Marine Cargo Forecast which projected average annual increases of about 4 percent between now and 2025.

Most of the freight is shipped through the port by intermodal containers that are transferred to or from railcars or trucks on the dock. Terminals 5 and 18 include dock rail facilities. Some of the containers are shuttled (called “drayed”) by truck between the BNSF and UP RR intermodal yards. At the intermodal yards, containers are transferred to and from railcars. Truck transport is also an important part of moving cargo to and from Port terminals and the warehousing and distribution centers in the Green River Valley, agricultural centers and other freight generators and manufacturers in Washington.

The success of the Port’s cargo operations is dependent on a well-functioning transportation system that allows for efficient and reliable truck access to intermodal rail facilities, warehouse and distribution centers in the Duwamish, the Green River Valley, the state, and the freeway system.
As identified in the *Transportation Strategic Plan*, the Seaport Highway Connectors map (see page 26) identifies existing routes that provide safe, reliable, efficient and direct access between a Port marine facility and the state highway or interstate system. The Seaport Intermodal Connectors map (see page 27) identifies existing routes that provide direct access between Port terminals and railroad intermodal facilities located in Seattle. See the SDOT freight web site for the color version of these two maps.

These routes have a number of common characteristics: they are on designated arterial streets; have a high frequency of use by freight; provide two-way travel and direct access between Port facilities and the regional highway system; and provide road access to other marine facilities. Some Highway and Intermodal Connectors are located on the same street. Protecting the capacity and functionality of these facilities for truck traffic is critical to the Port of Seattle’s success and related economic growth in the region. Similarly, protecting the capacity and functionality of Major Truck Streets is very important for increasing manufacturing and maritime employment in Seattle.

In late 2003, the Port of Seattle presented the City with their draft “Container Terminal Access Study” that identifies capita; and operational improvements that are proposed to accommodate access to major container terminals (Terminals 5, 18, 46, 115, and 25/30) through 2015. Projects range from small spot improvements to high cost grade separations. The City and the Port have since worked jointly to implement some of these improvements; other projects are in the planning or implementation phase.

**ACTION 18 - Support the Port with Implementing Container Terminals Ground Access Improvements**

SDOT will coordinate with implementation of the feasible and fundable operational and capital improvements supportive of anticipated Port container trade growth on an ongoing basis during the balance of 2005.
Port of Seattle Container & Cargo Terminals

Seaport Intermodal Connectors Map
Working Towards Continued Successes: Freight Access to Manufacturing and Industrial Areas

Protecting and Improving Access

A healthy transportation infrastructure is essential to Seattle’s manufacturing and industrial areas (see page 29 for map of Seattle’s two designated manufacturing/industrial centers). Due to the nature of these businesses in these areas, truck volumes and frequencies are higher than in other areas of the City, and truck access is of paramount importance.

There are several major projects and planning efforts underway that affect access to and within Seattle’s designated industrial areas both during and after construction. These projects include the Alaskan Way Viaduct/Seawall Project (AWV/Seawall), SR 519, the Seattle Monorail Project, the Two-Way Mercer Corridor Project, the Magnolia Bridge Replacement Project, and Interbay land use studies being conducted by the Port of Seattle. SDOT monitors impacts of these projects to freight mobility through the environmental review process. Project managers will continue to present project information and status and solicit input at the monthly FMAC meetings.

To protect and improve freight access to manufacturing and industrial areas, the City is developing strategies to address the following themes:

- Preserve good ground transportation access to manufacturing and industrial sites served by freight carriers and their supportive facilities (rail, airport and marine).
- Improve directional signage between manufacturing and industrial areas and the regional highway system.
- Improve and protect the utility of Major Truck Streets to and from manufacturing and industrial areas. These include key streets such as 15th Avenue West, Elliott Avenue and Western Avenue, and the grade separation projects listed earlier.
- Include local business access in the major capital project planning process for industrial areas.
- Where safe and appropriate, allow loading and maneuvering of trucks on non-arterial access streets in industrial areas.
- Improve pavement conditions on industrial arterial access streets within manufacturing and industrial areas.

### ACTION 19 - Improve Freight Dependent Business Access

SDOT Freight Staff will continue to solicit ideas from the freight community to outline strategies that address issues critical to improving and preserving access to manufacturing and industrial areas on an ongoing basis in 2005.
Map of Duwamish & BINMIC in context of full city
Construction Coordination

ON-GOING CONSTRUCTION MANAGEMENT

Construction activities can present obstacles to accessing businesses and freight destinations. Given the multiple private and public parties doing construction in Seattle’s right-of-way, ongoing and effective coordination is a necessity.

To better manage congestion, SDOT uses several techniques to coordinate major maintenance and roadway improvement projects in and adjacent to Seattle.

AGENCY COORDINATION

Because of its vulnerability, the Alaskan Way Viaduct must be shut down twice a year for inspections to confirm its safety. WSDOT manages the process, but works with SDOT recognizes that inspections shift travelers to surface streets. Far in advance of the closure, both agencies:

• work with the media,
• place information on variable message signs,
• send emails, and
• alert transit agencies and freight organizations

Affected trucks can then allow for extra travel time or plan a different route to avoid congestion. Pooling resources and working together means the two agencies are able to reach a wide audience. This is an example of how, SDOT coordinates with Metro King County, Sound Transit, WSDOT, and other local and regional agencies.

GEOGRAPHICAL INFORMATION SYSTEMS

SDOT is always refining departmental business practices to coordinate street work, minimize disruption to the general public and reduce delay to emergency vehicle vehicle responses. In 2005, we will continue developing a system that uses Geographic Information Systems (GIS) to map SDOT projects, utility work going on, and where people have requested permits for construction in our right-of-way. This visual tool will make sure we have the best management practices in place to minimize disruption of planned construction. It also allows us to request schedule changes if we see contractor’s work can be coordinated. The system will be available on the World Wide Web so that freight operators can access it for updates.

INCENTIVES

SDOT developed incentives to get contractors in and out of our right-of-way as fast as possible. This effort is encouraged whether it is our department, contractors, or other agencies doing the work. Sound Transit is using incentives with the contractors currently constructing Light Rail from Downtown Seattle to Tukwila and ultimately SeaTac Airport. The department’s 2005 street-use fee structure was designed with this in mind.
NOTIFICATION

Timely notification of activities in the right-of-way assists freight operators in planning alternative routes. Currently, SDOT participates in several programs to notify the freight community of construction related traffic changes including SODO email alerts using the SODO Association’s electronic mailing list. SDOT also provides information to the Port of Seattle for their “Truckers Guide” — a handy template for route planning. Finally, information of the status of major projects and a planned construction map is available on the SDOT web site at www.seattle.gov/transportation/2004majorconstructionmap.htm. This map is currently being updated to illustrate 2005 projects.

CENTER CITY CONSTRUCTION COORDINATION — THE “4C” PROGRAM

SDOT has created a Center City Construction Coordination Program to manage scheduling of major projects affecting the downtown area during the next 10 years. This program will consider impacts on freight movement as part of its decision making. A construction schedule is posted at: www.seattle.gov/transportation/centercityprojects and will be updated as more information becomes available.

Preparation for Alaskan Way Viaduct and Seawall (AWVS) Replacement Construction

Approximately 4,000 mid- to large-size trucks use the Alaskan Way Viaduct every day. This demand will increase as the region grows. Age, earthquakes and marine borers have weakened the viaduct and/or seawall along Alaskan Way to the point where each structure must be constantly monitored for safety and in the case of the viaduct weight restrictions applied. As of March 2005, the Viaduct has moved four times in one location. If movement continues major repairs will be necessary. Seattle’s number one transportation priority is replacing these valuable structures. As the City pursues project funding, the Environmental Impact Statement is being finalized and a Construction Transportation Management Plan is being developed. In 2005, the freight community will be asked to provide input on a number of related topics.

ACTION 20 - Continue to Improve Communication Tools for Construction-Related Traffic Impacts

SDOT will coordinate with the industrial area freight and business community on an ongoing basis to identify improved methods to communicate transportation project schedules and construction-related traffic changes via traffic alerts and other techniques.
AWVS EMERGENCY CLOSURE PLAN

The *Emergency Closure Plan* is being enhanced and up to 50 freight interests and businesses located in the industrial areas will be interviewed as a result. Interviewees will be asked to share which routes their trucks commonly use, what their delivery/pickup schedule is, what alternative routes they could use, and what incentives they offer to encourage employees to carpool or take transit. This work will be supplemented with a Speakers’ Bureau sharing and receiving information with organizations like the FMAC, NSIA, MIC, Port of Seattle, etc. Input will help guide SDOT’s management of the street network should the viaduct and/or Alaskan Way surface street be closed in an emergency, as well as identifying alternative routes to use during construction. Outreach will also explain the importance of planning on the businesses part. It is crucial that we all work together during an emergency or major construction.

CONSTRUCTION TRANSPORTATION MANAGEMENT PLAN

This summer, SDOT will ask the freight community to gather with other affected groups to discuss policies guiding mobility priorities during AWVS construction. Considerations will include:

- how to achieve a balance between time- and cost-saving construction techniques and keeping downtown open and moving;
- the trade-offs of prioritizing one transportation mode over another; and
- the best alternative routes based on trip destinations (i.e. regional versus downtown).

Based on feedback, various construction scenarios will be developed. Project staff will consider capital projects (that can be implemented in advance of construction), such as signal upgrades and grade separations in SODO. Other scenario components will include:

- parking changes or restrictions;
- the addition of transit or truck only lanes;
- the implementation of transportation management technology; and
- incentives to keep people from driving alone and decreasing the number of automobiles entering Center City.

Each scenario will be tested with a traffic operation model. The draft scenarios will then be presented for public comment toward the first of 2006 and ultimately included in the Final Environmental Impact Statement. Many changes implemented in anticipation of construction will have the long-term benefits of maintaining mobility in Seattle and keeping freight moving while we accommodate future growth.
Maintaining everyday delivery of goods and services purchased by the general public, businesses, and the government is critical. The City has a role in supporting and managing these activities.

To facilitate the efficient delivery of goods to and from businesses, the City makes the following considerations:

• Encourage after-hour truck access on certain streets.
• Balance the needs for loading zones with on-street parking and other curb use needs.
• Ensure workable truck access and adequate loading berths in the design of new buildings in conjunction with the Department of Planning and Development review practices.
• Retain alleys and ensure they work efficiently for goods delivery. Increase enforcement of illegal parking in alleys to maintain access.
• Provide and encourage the provision of suitable truck layover areas during those periods of time when trucks are restricted from entering certain urban centers.
• Ensure that commercial vehicle loading zones are reserved for freight loading and unloading as intended with appropriate levels of enforcement.

Given the historic development of Seattle’s street network and land use pattern, limited right-of-way and competing use, it is difficult and sometimes impossible to accommodate all sizes of delivery and service trucks in some established areas of the city. To better manage the impacts of goods delivery in adjacent residential areas, the City:

• Supports use of smaller trucks within neighborhood commercial districts.
• Restricts hours of operation for large trucks in neighborhood commercial and residential areas, similar to the current practice with the Seattle Central Business District.

**ACTION 21 - SDOT Will Continue to Work With Business District Representatives and Individual Businesses to Install Commercial/passenger Load Zones, Where Appropriate**

As part of the parking pay station project, existing commercial vehicle zones may be moved to the ends of blocks and consolidated in order to provide better freight access to business in 2005. Changes will be considered in conjunction on an ongoing basis with the range of curb space use needs in the City’s commercial districts.

**ACTION 23 - SDOT Will Continue to Coordinate With the Freight Community and Appropriate City Staff to Outline Strategies that Help Facilitate More Efficient Local Goods Delivery**

SDOT will solicit input from the Freight Mobility Advisory Committee on measures to improve local goods delivery by the 3rd quarter 2005.
Appendix One: Past Accomplishments in Freight Mobility

CITY OF SEATTLE 2004 FREIGHT MOBILITY ACTIONS

The following identify City accomplishments in 2004, based on the 2004 Update of the Freight Mobility Action Plan:

Truck Access

- **Provided Input on Freight Needs for Large Capital Projects.** SDOT staff provided and facilitated freight-related input on planning and design for capital projects including the Alaskan Way Viaduct Project, Monorail Project, SR 519 Surface Project and the Fremont Traffic Circulation Project.

- **Alaskan Way Viaduct** - in 2004, the City and State released the Draft EIS and selected a tunnel as the preferred alternative for the Alaskan Way Viaduct and Seawall Replacement Project. Input on freight mobility concerns (travel times, grades, and combustible materials) for the five alternatives was sought and responses developed to keep freight moving.

- **Seawall** - initiated construction on the Alaskan Way Seawall Riprap Repair Project.

- **Mercer** - completed the Mercer Street Corridor Study and obtained funding approval to initiate the project environmental review. Further details will be developed in response to freight concerns in 2005.

- **Magnolia Bridge** - prepared environmental documentation for the Magnolia Bridge Replacement Project alternatives.

- **West Seattle Swing Bridge** - installed new, more dependable lift cylinders to maintain dependable marine traffic movement.

- **Intelligent Transportation Systems** - completed design for the Duwamish Intelligent Transportation Systems (ITS) Project.

- **Fremont Bridge** - prepared final design plans for Fremont Bridge Approaches Project, including consideration of freight routes and needs.

- **Leary Way** – completed the Leary Way NW Project which improved industrial area access.

- **SR 519** - finalized design plans for the SR 519 Surface Improvement Project on Alaskan Way outside the Port of Seattle’s Terminal 46 Container terminal.

- **East Marginal Way Grade Separation Project** - participated in the design refinement for the Port’s E. Marginal and Spokane St Railroad Overpass Project.

- **South Park Bridge** - participated in the King County South Park Bridge Replacement Project (EIS and preliminary design).

- **Industrial Area New Signal** - installed a new traffic signal at 1st Ave S and Dawson St. to improve access.

- **An inventory of known obstacles to truckers** was conducted in 2004.
• SDOT researched and updated the inventory of height clearance problem locations that could damage trucks. The data will be verified and the list will be refined in 2005 prior to posting on the web.

• SDOT prepared an updated list of bridge weight restrictions and inventoried posted signing. The data will be verified and the list will be refined in 2005 prior to posting on the web.

• Issued construction alerts for route planning on an ongoing basis using SDOT maintained listserver and the associated information distribution service of the SODO Association.

• SDOT actively participated in the development of the Mayor’s Manufacturing and Maritime Action Plan which fosters transportation improvements “to keep freight moving.” The Plan was released in April 2004. SDOT also supported the Maritime Summit with multiple project displays on the transportation projects and actions of benefit to freight movement.

• SDOT posted on the City website travel directions to the north industrial district from the interstate system.

• SDOT implemented an advance permit submittal practice to accelerate the permit approval process.

• Continued the ongoing program for the Commercial Vehicle Enforcement Section.

• SDOT has posted the Freight Mobility Strategic Action Plan, the Port of Seattle Trucker’s Guide and the Major Truck Streets Map on the SDOT web site, along with other information and links of interest to the freight community.

• Signing and other Traffic Operational Improvements:
  • Removed two historic signs from SR 99 that identified a 30’ truck length restriction in advance of the Battery Street Tunnel. Trucks up to 75’ in length were than able to use the tunnel without confusion.
  • Large format street name signs were installed at 6 Avenue S and S Massachusetts Street and Airport Way S and S Massachusetts Street.
  • Street Designation Signs (large overhead street name signs) were installed at:
    - 4 Ave S & S Lander St
    - 6 Ave S & S Lander St
    - Airport Way S & S Lander St
    - 4 Ave S & S Holgate St
    - 6 Ave S & S Holgate St
    - Airport Way S & S Lander St
  • Traffic improvement at 1st Avenue S from S Royal Brougham Way to south of S Atlantic St (completed Nov. ’04). SDOT removed the peak hour restrictions northbound between Atlantic St and S Royal Brougham Way and reduced the length of the right turn only lane. Parking restrictions were installed northbound south of S Atlantic St and a right turn only lane was added for the new access to I-5 and I-90.
  • Improved lane markings for the eastbound direction of the Spokane Street Viaduct exiting to the on-ramp to northbound I 5.
Appendix One: Past Accomplishments in Freight Mobility

Rail Access

- **BNSF continued work on the 3rd BNSF mainline track from Boeing Access Road to Royal Brougham Way S.** This is a part of a larger project that will ultimately result in construction of a 3rd mainline track from Seattle to Tukwila by 2006 and changes in the City’s regulations on rail operating speed limits. SDOT coordinated with the BNSF on the mainline rail crossing improvements to add a third mainline track.

- **E. Marginal and Spokane St**—participated in the design refinement for the Port’s planned E. Marginal and Spokane St Railroad Overpass Project that would allow container trucks to travel over the tracks leading to Terminal 5 in West Seattle, Terminal 18 on Harbor Island and other terminals located along the Duwamish River, and other area industrial uses.

- **Mainline Track Pavement**—the BNSF repaired the pavement at the mainline track crossing at Royal Brougham Way S., in coordination with SDOT.

Freight Access to Manufacturing & Industrial Areas

- **Improved pavement conditions** on the following streets in the respective industrial areas in 2004:

<table>
<thead>
<tr>
<th>Program</th>
<th>Street</th>
<th>From</th>
<th>To</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arterial Major</td>
<td>4 Ave S, south</td>
<td>S Holgate</td>
<td>S Royal Brougham Way</td>
</tr>
<tr>
<td>Maintenance</td>
<td>bound direction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>26th Avenue NW</td>
<td>at NW 54th Street</td>
<td></td>
</tr>
<tr>
<td>Corson Avenue S.</td>
<td></td>
<td>S. Michigan Street</td>
<td></td>
</tr>
<tr>
<td>Leary Way NW Project</td>
<td></td>
<td>15th Ave NW</td>
<td></td>
</tr>
<tr>
<td>Paving Partnerships</td>
<td>2nd Ave S</td>
<td>South of Diagonal</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Street</td>
<td></td>
</tr>
</tbody>
</table>

Port of Seattle Container and Cargo Terminals

- Coordinated with the Port of Seattle on the design refinements for East Marginal Way S and S Spokane Street Grade Separation, and the revised truck access to Terminal 46 and the BNSF Seattle Intermodal Gateway Yard.

*The recently completed Atlantic Street overpass, built between Occidental Street and I-90, takes truck, car and pedestrian traffic over railroad tracks near Safeco Field.*
Continue to secure funding for freight-supportive projects

- SDOT staff continued efforts to secure external funding for freight mobility projects. These included: S. Spokane Street Viaduct Widening, S Lander Street Grade Separation, Duwamish Intelligent Transportation Systems (ITS), and Truck Spot Improvements. SDOT was successful with the following funding processes:
  - Spokane Street - developed more detailed plans for the Spokane Street Widening Project, including a fundable phasing plan. Obtained approximately $7.3 M of additional funding towards completing the Spokane Street Viaduct Widening Project. This included obtaining FAST Corridor Project commitment of $600,000 from FY 04 Federal Earmark Funds for the Spokane Street Viaduct Widening Project and regional funding.
  - Obtained State Legislature approval of a budget commitment of $513,000 for the Duwamish ITS Project in the 2004 Legislative Session.
  - Obtained support for $2.5 million from the federal FY 04 appropriations process for the Intelligent Transportation Systems (ITS) Seattle Center City Access Project.

Improved Permitting Practices

- Street Ends - legislation to allow longer term (10 year plus renewal options) street use permits for three street ends (two for 6th Ave NW for Kvichak Marine and Western Towboat, and one for NW 40th St for Western Towboat) has been drafted and presented to the two affected businesses, prior to submittal for approval by Council. Negotiations on the permit terms are underway.

Emphasized On-Going Communication & Coordination with Freight Community

- SDOT coordinated regular monthly meetings of the Seattle Freight Mobility Advisory Committee (a partnership between the city and the freight community), where issues were raised and solutions were identified in response to freight mobility concerns. These meetings focused on many project briefings and discussion topics of interest to the freight community, including: the Alaskan Way Viaduct and Seawall Project alternatives, Magnolia Bridge, Mercer Corridor Transportation Study, and the W. Marginal Bike Path.
  - Participated in monthly meetings of the Ballard Interbay Northend Manufacturing Industrial Center (BINMIC) Action Committee
  - Participated in monthly meetings of the regional FAST Corridor Project.
  - Prepared budget and descriptive materials for the State Freight Mobility Strategic Investment Board for Seattle area freight projects.
  - Participated in bi-monthly meetings of the Regional Freight Mobility Roundtable.
  - Participated in quarterly meetings of the Port Truck Operators Committee.
  - Participated in other business community meetings such as the NSIA and the South Park Bridge Citizens Advisory Group (CAG).
Appendix One: Past Accomplishments in Freight Mobility

CITY OF SEATTLE 2003 FREIGHT MOBILITY ACTIONS
(As repeated from the Seattle Freight Mobility Strategic Action Plan, April 2004)

The following accomplishments were completed in 2003, after the first Freight Mobility Action Plan was published.

**Truck Access**

- **SR 519 Phase 1 Completed.** The SR 519 Atlantic Street Overpass was opened to traffic on May 17, 2003. This allows traffic from southbound and northbound Fourth Avenue South to go westbound on the new South Atlantic Street overpass. In October 2003 the new on-ramp to eastbound I-90 and both directions of I-5 was completed and opened to traffic by the State. Improvements to the road increase safety by separating the road and rail crossing, improve vehicle and freight access between I-90 and waterfront locations such as the Port and Colman Ferry Dock.

- **Type, Size and Location Study for S. Lander Street Grade Separation.** Published in February 2003.

- **Provided Input on Freight Needs for Large Capital Projects.** SDOT staff provided and facilitated freight-related input on planning for capital projects including the Monorail project, Leary Way Project, SR 519 Intermodal Access Project and the Alaskan Way Viaduct.

- **An inventory of known obstacles to truckers** was conducted.

- **Issued construction alerts** for route planning on an ongoing basis using SDOT maintained listserver and the associated information distribution service of the SODO Association.

- **SDOT assisted with construction coordination with West Marginal Way businesses and BNSF to remove an inactive rail track across West Marginal Way with minimal traffic disruption in the fall of 2003.**

- **Completed Trucker's Survey for the Alaskan Way Viaduct and Seawall Replacement Project.** This survey provides need information on how current freight operators use the existing facility. The survey results are being documented. A Draft Environmental Statement for the entire project was released in March 2004.

- **Continued the ongoing program for the Commercial Vehicle Enforcement Section.** The Freight Mobility Advisory Committee has complimented the quality service provided by the SDOT Commercial Vehicle Enforcement Program in 2003.

- **SDOT has posted the Freight Mobility Strategic Action Plan, the Port of Seattle Trucker’s Guide and the Major Truck Streets Map on the SDOT website.**

- **South Spokane Street Directional Signing Improved** to assist truckers accessing Port of Seattle Terminals 5 and 18. In late 2003, SDOT installed larger-sized directional signage on South Spokane Street on Harbor Island (between SR 99 and the low-level West Seattle Swing Bridge). This new signage is more visible from a distance and provides motorists and truck drivers more time to make decisions about lane choice. These signs will provide great benefit to the 4,000 truck trips per weekday generated by the Port of Seattle’s Terminal 5 and Terminal 18. These signs were commissioned by the Port and installed by the City.
Appendix One: Past Accomplishments in Freight Mobility

Before and After Photos of Spokane Street Signage

Rail Access

• **Galer Street at-grade crossing closed in March 2003.** The Galer Street Flyover, completed in 2001, carries traffic from Port of Seattle Terminal 90/91 and adjacent businesses over the mainline railroad tracks. In 2003, mitigation measures were put in place to enable this last at-grade crossing north of Broad Street to be closed to traffic.

• **Initial work on the 3rd BNSF mainline track from Boeing Access Road to Royal Brougham Way S was initiated.** This is part of a larger project that will ultimately result in construction of a 3rd mainline track from Seattle to Tukwila.

• **Infrastructure Funding**-SDOT participated in a national effort to explore federal legislative changes to provide infrastructure funding for freight rail improvements. Seattle was a participant in a nationally based Rail Infrastructure Coalition.

• **Mainline Track Pavement** - the BNSF repaired the pavement at the mainline track crossing at Broad Street in coordination with SDOT.
Appendix One: Past Accomplishments in Freight Mobility

**Freight Access to Manufacturing & industrial Areas**

- **Improved pavement conditions** on the following streets in the respective industrial areas in 2003:

<table>
<thead>
<tr>
<th>Program</th>
<th>Street</th>
<th>From</th>
<th>To</th>
<th>Paving (lane-miles)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arterial Major</td>
<td>S Hudson</td>
<td>S Ohio Airport Way</td>
<td>1 Ave S Intersection</td>
<td>0.48</td>
</tr>
<tr>
<td>Maintenance</td>
<td>4 Ave S</td>
<td>4 Ave S Airport Way</td>
<td>S Charles St Dead End to S</td>
<td>0.04</td>
</tr>
<tr>
<td>Non-arterial</td>
<td>Poplar Place S</td>
<td>S Dearborn</td>
<td>3 Ave S S Holgate</td>
<td>0.31</td>
</tr>
<tr>
<td>Paving</td>
<td>S Columbus</td>
<td>16 Ave SW DE</td>
<td>Total:</td>
<td>1.32</td>
</tr>
<tr>
<td>Partnerships</td>
<td>SW Lander</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Port of Seattle Container and Cargo Terminals**

- **Physical and operational responses to the Port of Seattle on their access needs for their various terminals.** SDOT installed directional and guide signing on the approaches to Terminal 30— the temporary cruise ship terminal, and to the container terminals at T 5 in West Seattle and T 18 on Harbor Island.

**Continue to secure funding for freight-supportive projects**

SDOT staff continued efforts to secure external funding for freight mobility projects. These included: S. Spokane Street Viaduct Widening, S. Lander Street Grade Separation, Duwamish Intelligent Transportation Systems (ITS), and Truck Spot Improvements. SDOT was successful with the following funding processes:

- Supported Port of Seattle with project proposal and presentations for the E. Marginal Argo Yard Access Crossover Project to the State's Freight Mobility Strategic Investment Board (FMSIB). The Board approved the project application and recommended the project be considered for future funding of $250,000 from the Legislature.

- Obtained FAST Project commitment of $1.8 million from FY 03 Federal Earmark Funds for the Duwamish ITS Project.

- Obtained support for $2.5 million from the federal FY 04 appropriations process for the Intelligent Transportation Systems (ITS) Seattle Center City Access Project.

- Obtained support for $873,500 from the FY 03 Federal Earmark Funds for the Fremont Bridge and Montlake Bridge ITS Projects.
Emphasized On-Going Communication & Coordination with Freight Community

- Regular monthly meetings of the Seattle Freight Mobility Advisory Committee were held and included many project briefings and discussion topics of interest to the freight community. Some of the project briefings included: the Alaskan Way Viaduct and Seawall Project alternatives, S Lander Street Grade Separation, Magnolia Bridge, Mercer Corridor Transportation Study, and the W. Marginal Bike Path.
- Participated in monthly meetings of the BINMIC Action Committee
- Participated in monthly meetings of the regional FAST Project
- Prepared materials for state legislative tour (hosted by the FMSIB) of Seattle freight projects and conducted Seattle portion of South King County tour in summer 2003.
- Participated in bi-monthly meetings of the Regional Freight Mobility Roundtable.
- Participated in quarterly meetings of the Port Truck Operators Committee.
- Participated in other business community meetings such as the NSIA and the South Park Business Council.
Appendix Two: Summary of 2005 Freight Mobility Plan Actions

Action #

1. Coordinate with the Seattle’s Freight Community • Example: through the Freight Mobility Advisory Committee, by maintaining a freight web page, and by SDOT staff participation at other freight related meetings

2. Actively Participate in Regional and State Forums Seeking Freight Funding

3. Maintain an Updated Inventory of Known Obstacles Identified by the Trucking Community

4. Maintain an Inventory of Infrastructure Height Restrictions Facing Trucks Operating in the City

5. Maintain a List of Truck Weight Restrictions on Seattle Bridges & Other Structures

6. Pursue Funding for Priority Truck Access Projects • Examples: Spokane S. Viaduct, Lander S. Grade Separation, Duwamish ITS, and Truck Spot Improvements

7. Incorporate Freight Operation Design Needs for Major Truck Streets and Non-Major Truck Streets into the Update of the Right-of-Way (ROW) Improvement Manual • Example: larger design vehicles where appropriate

8. Include an Overlegal Vehicle Design Standard in the Update of the Right-of-Way (ROW) Improvement Manual • Example: 20’ x 20’ envelope for permitted trucks

9. Review 2006 Paving Priorities with the Freight Community

10. Continue to Include Freight Needs as Criteria in Prioritizing Street Pavement Rehabilitation Work

11. Solicit Freight Community Involvement in the Paving Partnership Program

12. Pursue Grade-Separation of Key Truck Streets at Heavily Used Railroad Crossings • Example: Spokane St, Lander St, E Marginal and Spokane

13. Design and Construct 2005 Capital Improvement Program (CIP) Projects that Benefit Freight • Example: SR 519 Surface Street Project & Fremont Circulation

14. Identify Measures to Minimize Conflicts between Trucks and Other Transportation Modes • Examples: review proposed curb bulbs on arterials and lane narrowing changes

15. Continue Implementation of the Duwamish Intelligent Transportation Systems (ITS) Project

16. Initiate Railroad Supportive Elements of Duwamish ITS at the BNSF Railroad Mainline

17. Support the BNSF Railway Company Third Mainline Track & Signal Improvements in Coordination with Sound Transit

18. Support the Port of Seattle with Implementing Container Terminals Ground Access Improvements

19. Improve Freight Dependent Business Access

20. Continue to Improve Communication Tools for Construction-Related Traffic Impacts

21. SDOT Will Continue To Work With Business District Representatives and Individual Businesses to Install Commercial/passenger Load Zones where Appropriate

22. SDOT Will Continue to Coordinate with the Freight Community and Appropriate City Staff to Outline Strategies that Help Facilitate More Efficient Local Goods Delivery • Example: solicit ideas to share with SDOT and other departments like DPD & SPU
Appendix 3:
City Freight Policies and Strategies from the Adopted Comprehensive Plan and the Draft Transportation Strategic Plan Update

From the Comprehensive Plan Transportation and Neighborhood Elements (Last Updated 12/04)

Goals and Policies

The transport of goods and services is critical to Seattle’s and the region’s economic development. As a major port city, Seattle’s businesses and industries rely on rail, water, and truck transport. These policies, and those in the Economic Development and the Neighborhood Planning elements, support existing businesses and industries, and promote Seattle as a place for economic expansion. Major truck streets are an important part of the freight mobility network and are described in Section B – Make the Best Use of the Streets We Have to Move People and Goods, in this element. The Transportation Strategic Plan has more detailed strategies and street classifications that further support freight mobility in the City of Seattle.

TG19  Preserve and improve mobility and access for the transport of goods and services.

TG20  Maintain Seattle as the hub for regional goods movement and as a gateway to national and international suppliers and markets.

T47  Maintain a forum for the freight community to advise the City and other entities on an ongoing basis on topics of land-based freight transportation facility modifications and enhancements. Coordinate the review of potential operational changes, capital projects and regulations that may impact freight movement. Participate and advocate Seattle’s interests in regional and state forums.

T48  Recognize the importance of the freight network to the city’s economic health when making decisions that affect Major Truck streets as well as other parts of the region’s roadway system.

T49  Support efficient and safe movement of goods by rail where appropriate. Promote continued operation of freight rail lines and intermodal yards that serve industrial properties and the transport of goods. Improve the safety and operational conditions for freight rail transport at the rail track crossings within city streets.

T50  Promote an intermodal freight transportation strategy, including rail, truck, air and water transport and advocate for improved freight and goods movement. Work toward improved multi-modal connections among rail yards, industrial areas, airports, and regional roadways.

T51  Consider the needs for local delivery and collection of goods at businesses by truck when making street operational decisions and when developing and implementing projects and programs for highways, streets, and bridges.
In addition to broad City-wide goals and policies, some of the Neighborhood Planning Element goals and policies for Seattle’s two designated manufacturing/industrial centers, the Ballard Interbay Northend Manufacturing/Industrial Center (BINMIC) and the Greater Duwamish Manufacturing/Industrial Center, provide area-specific statements regarding freight mobility.

**BINMIC Goals and Policies**

**BI-G4** Strive to maintain and enhance intermodal (barge, ship, rail and truck) connections.

**BI-P14** Where practical and appropriate, separate mainline rail traffic from surface street traffic by designing and constructing bridges to improve safety for motorized and non-motorized transportation.

**BI-P17** Support separation of mainline rail traffic from surface street traffic by designing and constructing bridges, where feasible, to improve safety for motorized and non-motorized transportation.

**Greater Duwamish Goals and Policies**

**GD-P14** Maintain shore-side freight access to and from the waterway.

**GD-P29** Strive to maintain waterborne and roadway access to seaport facilities.

**GD-P30** Strive to maintain access for air cargo to the King County International Airport.

**GD-P34** Recognize the importance of intermodal connections for the movement of freight between the state highway system, rail yards, barge terminals, Port terminals, airports and warehouse/distribution centers.

**GD-P37** Consider setting speed limits for trains high enough to limit the length of time trains block streets at grade crossings.

**GD-P38** Encourage railroad operations in which switching and signals enhance the speed and reliability for passenger and freight trains.
**Strategies for Moving Goods and Services**
*(from the Transportation Strategic Plan)*.

*Note: The Update to the Transportation Strategic Plan is anticipated to be adopted by Summer, 2005.*

This section includes strategies that offer direction so that SDOT can support the efficient movement of goods and services. In November 2002, SDOT prepared the City’s first Freight Mobility Strategic Action Plan. That plan presented a list of actions to be implemented by the various SDOT divisions, including railroad grade separations, truck guide signing, street improvements for the benefit of trucks and other modes, and ongoing communication with the Seattle freight community via the Seattle Freight Mobility Advisory Committee and other outreach. SDOT staff updated the Action Plan in 2004 to reflect changes in the freight program; new actions to be done in 2004 in coordination with the freight community; and 2003 accomplishments. Future annual updates to the Freight Mobility Action Plan will be organized by the six overall Transportation Strategy Plan strategies and sub-strategies listed below.

**GS1. Maintain a Street and Highway Network for Trucks.**

**GS1.1. Define and Map a Street Classification to Accommodate Significant Freight Movement within Seattle.**

The TSP “Making the Best Use of the Streets We Have to Move People, Goods and Services” section defines a street classification system to guide the design and operation of the City’s street system, including for significant freight movement. Monitor these streets and other arterials and make operating, design, access and/or service changes, as well as capital investments, to accommodate trucks and to preserve and improve commercial transportation mobility.

**GS1.2. Address Site-Specific Obstacles to Truck Movement.**

Institutionalize an annual truck spot improvement program to address restrictive conditions that may exist on major freight corridors to enhance the ability of trucks to operate on the existing streets. Improvements that support truck movement include:

- increasing curb radii on critical corners
- removing on-street parking in key locations
- relocating utility poles that are too close to the curb
- installing signage (street name designation and truck directional signing)
- providing truck queue lanes/holding lanes at major terminal access points
- revising intersection signal control to assist truck turning movements that now typically require a long wait for an adequate traffic gap

SDOT maintains and augments an inventory of known site-specific obstacles to truck movement on major truck streets to help with prioritization as funding becomes available or for consideration in design of already funded projects.
Appendix 3: City Freight Policies & Strategies

GS1.3. Design Standards for Oversized Vehicles.

As is characteristic of the historic development of Seattle, many City streets were not designed to current standards. Aging infrastructure has also taken its toll on street conditions. Implementing street changes for freight will be an incremental process of improving the physical environment as opportunities and funding permit. Trucking operators have expressed concern that the City’s existing street design standards are not adequate for the larger and heavier trucks that are prevalent today. The City will continue to review current standards and modify them to ensure that when arterials—especially Major Truck Streets (see page 11: Major Truck Streets Map)—are redesigned and rebuilt, they are better able to accommodate truck movements, in coordination with other street use needs.

However, there will continue to be many locations on the Seattle street system where large trucks will not be able to travel. Where space is extremely constrained, other options will need to be considered. For example, in neighborhood business districts with limited street space, consideration will be given to encourage smaller truck usage to allow local access to constrained curbside loading areas.

In addition to identifying a street classification for major freight movement, the City of Seattle has a program to accommodate the movement of overlegal vehicles within and through the city. Overlegal vehicles are those that are over length, over width, over height or over weight. Examples are the shipment of Boeing airplane tail assemblies, large cranes, and houses. On a regular basis, the SDOT Commercial Vehicle Enforcement officers issue permits to identify and specify appropriate routes and to assist individual trips with accomplishing their journey. The standards for oversized and overlegal vehicles are being revised as part of the Right-of-Way Improvements Manual update.

GS1.4. Improve Pavement Conditions on All Routes Used for Truck Access.

Use the street classification designation for freight movement as one of the criteria for determining paving priorities. Roadway surface conditions are also an important factor for truck mobility and access. Truck access routes tend to deteriorate more quickly than other streets because they carry heavier loads and higher volumes.

Some of Seattle’s most important local industrial streets were never formally designed or constructed to city standards. Streets that were never designed for heavy industrial traffic are providing important lifelines for freight and commerce. SDOT makes spot repairs to these streets as necessary to keep commerce moving, but it never has had the funds to reconstruct, improve, or even to perform preventive maintenance on its local industrial streets. The problem of local industrial street maintenance is especially severe in the industrial areas of South Downtown, Georgetown and South Park, where the number and weight of industrial vehicles greatly exceeds the capacity of the local industrial streets.

To help address this need, since 2000, SDOT has set aside a portion of its maintenance funds as a match for small, local paving projects that are suggested and supported by local businesses and property owners. In several instances, the local businesses have coordinated their efforts through a non-governmental, community-based organization, which has applied for additional city matching funds from the Department of Neighborhoods. The addition of the Department of Neighborhoods to the partnerships has increased the amount of public money available for the projects, and correspondingly reduced the sum that the businesses have had
to contribute. SDOT strongly encourages community participation in the Paving Partnership Program.

**GS1.5. Pursue Grade Separation of Key Truck Streets at Heavily Used Railroad Crossings.**

Rail crossings on heavily used truck routes are difficult obstacles for truck movement, especially in the South Downtown area and at Broad Street along the North Waterfront where the BNSF mainline railroad, Amtrak and Sounder commuter rail traverse the area. Grade separations are the most effective way to eliminate these conflicts and implementing a program of grade separations is one of the City's highest freight mobility priorities. Railroad operations also greatly benefit by having a grade separation. These overcrossings or undercrossings are extremely expensive and are justifiable only where there is significant traffic on both the truck route and the rail line.

Grade separations could significantly reduce the typical 8-11 minute delays encountered at current at-grade rail/street crossings of the rail mainline tracks. There are approximately 70 train movements per day across the east/west arterial streets in the Duwamish area. These train volumes and associated traffic delay are expected to increase in the future. The City has developed a list of potential grade separation projects based on the *Greater Duwamish Manufacturing and Industrial Center Plan* and the *Access Duwamish Freight Mobility Implementation Plan*. The most recent completed grade separation projects are at Atlantic Street (SR 519, Phase I where the elevated intersection connects to Interstate 90) which was opened in November 2003 in the Duwamish, and the 2001 completion of the Galer Street Flyover in Interbay. Five other projects are currently in various phases of planning and implementation. Project implementation is dependent on obtaining full project funding from the partners and the associated City fund sources.

**GS1.6. Minimize Conflicts Between Trucks and Other Transportation Modes.**

There are a number of basic conflicts between medium to heavy truck traffic and other motorized, non-motorized, and pedestrian modes of transportation that the City continually needs to evaluate and address. Possible solutions might include identifying alternative routes, developing separate facilities, and clarifying priorities for specific locations.

**GS2. Support Rail Enhancements That Improve Mainline Operations and Critical Non-mainline Connections that Serve Industrial Properties and Goods Transport.**

Efficiently moving containerized cargo shipments is critical to maintaining a healthy, vital economy in the Puget Sound Region. Container freight movement is increasing, especially by rail, for destinations in the Midwest and beyond. Rail is an essential and efficient option for moving freight and goods and provides an alternative to trucks for many industrial and manufacturing businesses. The increasing use of shipping containers on rail is straining the throughput capacity of the region’s railroads. Seattle provides an operating environment for three railroads: both the BNSF and Union Pacific railroad have mainline tracks in the city. A third short line railroad, the Ballard Terminal Railroad, provides connections between the BNSF mainline and the Ballard Industrial area north of the Ship Canal. The Duwamish Industrial Center contains several intermodal rail yards, including the BNSF Seattle International Gateway (SIG) Yard and the Union Pacific Argo Yard. BNSF operates a major maintenance locomotive facility in the Interbay industrial. Both freight and passenger train volumes are projected to increase through the City.
Beyond freight mobility, rail is also an increasingly attractive option for commuters, evidenced by the early success of Sound Transit’s Sounder line between Tacoma and Seattle. Extension of service to Everett began in late 2003 with increased service planned in the future. All of this activity strains the operational efficiency of mainline rail/street crossings in the Duwamish and in the north-end of the central waterfront.

Some railroad crossing locations are adjacent to signalized arterial intersections and present potential conflicts between modes. Improved signal interconnects (communications between control equipment) which coordinate rail and street traffic can reduce safety problems (stopping or redirecting traffic before it reaches the rail crossing). Interactive traffic signs can provide information about waiting times and redirect roadway traffic from closed rail crossings.

Technology improvements will be applied on an ongoing basis to the City’s inventory of traffic signals, signage, and other devices. Such Intelligent Transportation System (ITS) efforts can often be implemented on a quicker timeframe than more capital-intensive projects, providing interim freight mobility relief until the larger, longer-term projects come to fruition.

GS3. Improve Freight Access to Manufacturing and Industrial Areas.

A healthy transportation infrastructure is essential to Seattle’s manufacturing and industrial areas. Reliable, direct connections to water, rail, airport and truck facilities are important to an array of existing businesses, and our region’s ability to attract new businesses. Due to the nature of these businesses, truck volumes and frequencies are higher here than in other areas of the City, and truck access is of paramount importance.

To protect and improve freight access to manufacturing and industrial areas, the City should develop strategies that address the following themes:

• Preserve good ground transportation access to manufacturing and industrial sites served by freight carriers and their supportive facilities (rail, airport and marine).

• Improve directional signage between manufacturing and industrial areas and the regional highway system.

• Improve and protect the utility of Major Truck Streets to and from manufacturing and industrial areas.

• Facilitate efficient movement of goods within the manufacturing and industrial areas.

• Include local business access during construction planning in the major capital project plan process in the industrial areas.

• Where safe and appropriate, allow loading and maneuvering of trucks on non-arterial access streets in industrial areas.

• Improve pavement conditions on industrial arterial access streets within manufacturing and industrial areas.

GS3.1 Define and Map a Street Type to Support Freight Access to Manufacturing and Industrial Areas.

The “Making the Best Use of the Streets We Have to Move People, Goods and Services” section defines a street overlay network to guide street use and design features that support adjacent land uses. This overlay network includes a street type for manufacturing and industrial areas to address freight access.
Appendix 3: City Freight Policies & Strategies

Continue to work with the Port of Seattle and other marine interests to implement transportation and access projects that support continued growth at container and cargo terminals. This includes joint City and Port efforts to implement the Port’s Container Terminal Access Study recommendations.

The Port of Seattle is one of the largest West Coast cargo centers, serving as the entry and exit point for marine cargo to and from the Pacific Rim and Alaska. The Port of Seattle’s seaport is made up of 1,414 acres of waterfront land and nearby properties. Nearly 800 acres of the Port’s seaport is dedicated to container terminal operations and cargo handling. Future container volumes are forecasted to increase. Most of the freight is shipped through the Port by intermodal containers that are transferred to or from railcars or trucks on the dock. Terminals 5 and 18 include on-dock rail facilities. Some of the containers are shuttled by truck (called “drayed”) between BNSF and UPRR intermodal yards. At the intermodal yards, containers are transferred to and from railcars. Therefore, both truck and rail transports are an important part of moving cargo to and from Port terminal.

GS5. Facilitate Efficient Retail and Office Goods Delivery.

GS5.1. Improve Freight-Dependent Business Site Access Through Management of Curb space and Alleys.
Continue to work with business district representatives and individual businesses to install commercial and passenger load zones where appropriate.

GS5.2. Develop and Implement Goods Delivery Strategies.
The everyday delivery of goods and services purchased by the general public, businesses and government is critical to our economy’s success. Explore strategies that address issues of goods delivery and managing operational impacts on adjacent land uses, including:

• Allow after-hour truck access on certain streets.
• Balance the needs for loading zones with other curb use needs.
• Ensure workable truck access and adequate loading berths in the design of new buildings in conjunction with the Department of Planning and Development review practices.
• Retain alleys and ensure they work efficiently for goods delivery.
• Provide and encourage the provision of suitable truck layover areas during those periods of time when trucks are restricted from entering certain urban centers.
• Ensure that loading zones are reserved for freight loading and unloading as intended with appropriate levels of enforcement.

Given the historic development of Seattle’s street network and land use pattern, limited right-of-way and competing uses, it is difficult and sometimes impossible to accommodate all sizes of delivery and service trucks in some established areas of the city. In such cases, the operating environment will require use of smaller trucks to make those deliveries of goods and services. To better manage the negative impacts that goods delivery may have in adjacent residential areas, the City should consider the following:
Appendix 3: City Freight Policies & Strategies

- Support use of smaller trucks within neighborhood commercial districts.
- Restrict hours of operation for large trucks in neighborhood commercial and residential areas, similar to the current practice with the Seattle Central Business District.

GS6. Freight Mobility Coordination and Implementation.

Long-term freight mobility solutions such as railroad grade separations at track and street crossings are expensive and often involve complex funding partnerships with public and private parties including the Federal government, State, Port of Seattle, King County, and Burlington Northern Santa Fe, and Union Pacific Railroads. These challenges are currently exacerbated by struggling national and regional economies. In an environment of significant local, regional, and state budget reductions, finding funding for projects that would provide the greatest relief is a challenge.

Important forums for creating these funding partnerships for freight include the FAST Corridor program, the state’s Freight Mobility Strategic Investment Board, and the Regional Freight Mobility Roundtable. The FAST Program (Freight Action Strategy for Everett-Seattle-Tacoma) is a nationally recognized leader in delivering transportation improvements for freight mobility. Since 1996, the FAST partnership has studied freight movement via rails, roads and shipping ports to develop projects that move freight more efficiently and increase safety for cars, trucks and trains. FAST identified 15 top priority projects from Everett to Tacoma for phase I: seven projects are complete. More FAST phase I and II projects are in the pipeline for 2004 and 2005.

The Freight Mobility Strategic Investment Board (FMSIB) was created in 1998 when the State Legislature created RCW Chapter 47.06A, Freight Mobility and the Board, for the purpose of reviewing, prioritizing, and recommending freight mobility transportation projects that are of strategic importance to the State of Washington. Their recommendations are presented to the Governor and the Legislature to provide a basis for project prioritization and funding allocations. SDOT will continue to work with FMSIB, and the Washington State Department of Transportation through the update to the State Transportation Plan, and will work with other local partners to articulate Seattle’s freight mobility priorities.

The Regional Freight Mobility Roundtable is a public-private forum sponsored by the Puget Sound Regional Council to define and recommend actions serving freight mobility needs in and through central Puget Sound. Private sector participants include rail, marine, air cargo and trucking carriers, and shippers such as Boeing and Weyerhaeuser. Public sector participants include local governments, the ports of Seattle, Tacoma and Everett, state agencies, and federal agencies within the U.S. Department of Transportation (including rail, highway, maritime), and the Department of Defense. The Roundtable is consulted by the FAST Program and provides input into regional and state transportation plans.

SDOT regularly participates in these forums to elevate support and advocate timely funding for Seattle area freight mobility needs. State and federal funding processes assign greater priority to project applications which offer private funding participation. SDOT encourages private funding partnerships where projects benefit the freight community.
Despite funding uncertainty, SDOT has been able to identify a number of actions that can be accomplished either within existing resources or at a relatively low cost. It is important that SDOT lose neither the vision of Seattle’s long-term infrastructure needs nor the urgency to make near-term progress on efforts to more efficiently move freight and goods through our transportation system.

**GS6.1. Build Arterial Street Projects to Benefit Freight.**

The City’s Capital Improvement Program (CIP) has programmed projects to benefit freight. Project schedules and budgets occasionally change due to design changes and funding availability. These changes are reflected in the subsequent year’s CIP. The annual Freight Mobility Strategic Action Plan identifies current CIP projects that benefit freight.

**GS6.2. Make Traffic Engineering and Technology Improvements for Freight.**

Better management of streets through traffic engineering and the application of technology advances can make more efficient use of our street and signal system resources. These technology solutions are called Intelligent Transportation Systems (ITS). ITS is the application of state-of-the-art traffic management, communications and data technologies to provide a sophisticated set of tools to address the transportation mobility and safety needs faced by the driving public. Seattle has a very proactive traffic technology program. Traffic control computers are being upgraded annually. There currently are 19 traffic surveillance cameras providing traffic information to the public via web images. The new Traffic Management Center was put on line in 2003. Traffic data and camera images are collected; traffic control changes are made to the system; the traffic information is provided to the State and general public via web images. SDOT is planning on implementing more improvements as funding is available.

**GS6.3. Maintain the Freight Mobility Advisory Committee.**

In October 2002, the Seattle Freight Mobility Advisory Committee, co-sponsored by SDOT and the Seattle Manufacturing Industrial Council (MIC), was formed to provide a regular forum for communication with City staff and other agencies. This Committee was established to provide a forum for giving input on projects and programs of interest to the freight community and to exchange information. SDOT looks to the citywide Freight Mobility Advisory Committee to represent the interest of various freight transportation providers and operators (including the modes of truck, rail and marine transport), and to reflect the interests of constituents both in the north and south industrial areas of the City. The Committee meets on a monthly basis at the MIC offices located in Georgetown to encourage freight community attendance and participation.

**GS6.4. Develop Funding Partnerships to Promote Projects that Benefit Freight.**

SDOT regularly participates in several regional forums to elevate support and advocate for timely funding for the Seattle area’s freight mobility needs.

**GS6.5. Improve Communication Tools for Construction-Related Traffic Impacts for Freight Mobility and Access.**

Construction activity and major events can present an obstacle to accessing businesses and freight destinations. Given the multiple private and public parties doing construction Seattle’s right-of-way, effective, ongoing coordination is a necessity. To better manage congestion, SDOT coordinates with the WSDOT on
major maintenance and roadway improvement projects scheduled each year in and adjacent to Seattle.

Parallel to this activity, SDOT is continuously refining departmental business practices to coordinate street work and potential disruption via the Street Use permit process and coordination with the Department of Planning and Development. This requires cooperation on construction decisions, and subsequently, effective sharing of construction schedule and traffic information to affected parties.

Timely notification of these activities can assist freight operators in planning for alternative routes. Currently, SDOT participates in several programs to notify the freight community of construction-related traffic changes. This includes South Downtown (SODO) email alerts using the SODO Association’s electronic mailing list. SDOT also provides project input to the Port of Seattle’s “Truckers Guide” – a handy template for route planning. Finally, information of the status of major projects is maintained on the SDOT web site.
Acknowledgements:

Mayor Gregory J. Nickels, Mayor of Seattle

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**Seattle Freight Web site:** http://www.seattle.gov/transportation/fmsap.htm

**Transportation Strategic Plan Web site:**
http://www.seattle.gov/transportation/tsphome.htm