

**CITY COUNCIL AGENDA ITEM
CITY OF SHORELINE, WASHINGTON**

AGENDA TITLE:	Discussion of the Aurora 60% Design
DEPARTMENT:	Public Works
PRESENTED BY:	Mark Relph, Public Works Director Kirk McKinley, Aurora Project Manager Kris Overleese, Capital Projects Manager

PROBLEM/ISSUE STATEMENT:

The purpose of this agenda item is to update Council on the progress of the Aurora Corridor Improvement Project (N 165th to N 185th). The project is at the 60% design milestone, which is an excellent time in the design and acquisition process to share information with the Council on progress to date. We are currently on schedule in the design process, have a 60% cost estimate that is consistent with the project budget and previous estimates, and have met with almost all property owners from which we need to purchase right-of-way and/or acquire easements and other property rights. We are using the Flexible Design Alternative adopted by Council on July 23, 2007 as the base alternative for developing the roadway design, and have been incorporating the adopted Implementation Strategies into the design as well.

The major items for discussion on November 3 will be: status report on right of way acquisition, an overview of stormwater management for the project, review of the urban design palate, schedule, budget, and a discussion of construction duration/working hours for the project.

WHAT IS 60% DESIGN AND WHERE ARE WE IN THE PROCESS?

Sixty percent design is a major milestone in the design process. At this time, we have utility conflict information and have begun design to resolve these conflicts; we also have street cross section design for the project area, pavement design, detailed stormwater structure type and location, plant palate and urban design concepts, irrigation design, property interface design, signal and illumination design, and project staging layout.

The intent of the 60% design review is to give key staff, stakeholders, utilities and others an opportunity to ensure that their comments from the 30% milestone were incorporated into the more detailed 60% plans. The significant design change between the 30% and 60% milestone is a more extensive use of natural stormwater system treatments in the amenity zones, addition of construction staging plans, and considerably more detail on all other project components.

The project Real Estate Acquisition Team (Universal Field Services) has made offers to all but two property owners (one has a conflicting title/boundary line and the other has a design challenge). To date, five property acquisitions have been completed and use rights for three additional properties have been secured. Examples of use rights include temporary construction easements, driveway reconstruction permits, and undergrounding permits to hook up the properties to the underground power from the right-of-way. Negotiation with property owners will continue until all property is purchased and use rights are secured for the project. We anticipate completing the right of way acquisition process (approval from Washington State Department of Transportation) in late March of next year. Staff will be attending Council meetings several times over the next few months to seek approval on the settlement agreements for the higher cost properties (over \$325,000), and on November 17, to pass an ordinance authorizing eminent domain proceedings should negotiations stall on some properties.

Staff continues to coordinate with utility providers. An agreement has been executed between Seattle City Light and the City of Shoreline for design and construction of power undergrounding. Staff is working on similar agreements with other utility providers and the school district. Our consultant (HDR) will be designing a new water line on the west side of Aurora for Seattle Public Utilities as part of the project, and these costs will be reimbursed by SPU. Additionally, the project will include "stub outs" for future water lines so that we can avoid tearing up the roadway to hook up new development projects in the future. (An amendment to the HDR contract to provide this work is also on tonight's agenda).

The next major design step is 90% design, which we are anticipating being issued in January 2009. No significant design changes are anticipated between 60% and 90% design; 90% design will only have additional project details including the specifications document. The final PS&E (the construction plans, specifications and estimate) will be prepared by April 2009 for project advertisement. Construction is anticipated to begin in July 2009.

FINANCIAL IMPACT AND FUNDING:

We have adequate budget/resources to complete the design, acquire property and construction rights, and to construct the project from N 165th to N 185th Street. Staff continues to pursue additional funding to complete the project to N 205th Street. We are pursuing funding at all levels and sources. The next regional competition for federal SAFETEA-LU funds is in the spring of 2009. We will continue to seek special appropriations with the assistance of our federal representatives. We will also continue to pursue additional funding from the Transportation Improvement Board (TIB), and any other state programs that have funding. We are still trying to partner with Seattle and Metro for Federal Transit Authority funding. The Sound Transit 2 proposal that will be voted on November 4 does not have any funds for Aurora.

The table below indicates the budget for the project from N 165th to N 205th Street from the adopted 2009-2014 Capital Improvement Program. The table indicates a shortfall for the last mile of approximately \$43 million. The CIP budget is inflated over the lifetime of the project. We estimate, after construction of the middle mile that we will still

have approximately \$6 million on hand for the last mile. We have recently applied for funding from the Transportation Improvement Board for \$6 million.

Funding Sources	Amount
Roads Capital Fund	\$8,743,421
Federal STP-C	\$7,393,631
SAFETEA-LU	\$855,472
SAFETEA-LU	\$1,368,755
Surface Transportation Program (STP)	\$3,000,000
Surface Transportation Program (STP)	\$3,600,000
STP-U	\$525,361
King County	\$1,401,742
King County	\$1,000,000
Nickel Gas Tax Funding	\$2,100,000
New Gas Tax Funding	\$10,000,000
In Lieu Funds	\$158,689
Transportation Improvement Board (TIB)	\$6,000,000
Regional Mobility Grant	\$2,500,000
Surface Water Funds	\$1,300,000
Future Funding	\$43,068,321
Total	\$93,015,392

As we move through the various stages of design, from 30% to 60% to 90%, we gain more knowledge and have refined cost information to make more realistic cost estimates. The 60% design cost estimate has shown that we continue to be close to our original estimates, which is very encouraging. The 60% construction estimate is \$26,891,430 of which approximately \$6 million would be reimbursable expenses from Seattle City Light and Seattle Public Utilities. The right-of-way estimate is approximately \$10,220,000 which includes purchase of right of way and property rights for construction, relocation costs, and consultant services.

STORMWATER LOW IMPACT DESIGN:

During the planning stages for this project in 2006 and 2007, Council encouraged staff to incorporate low-impact development (LID) elements into the remaining segments of the Aurora Corridor Improvement project. The adopted Implementation Strategies also called for natural storm water treatments. Council has adopted Goal #6, which promotes sustainability citywide. In response to Council and community goals and feedback received at the 30% design milestone, staff added additional natural stormwater features to the design. At a minimum, the project must meet the requirements of the City adopted 1998 King County Surface Water Design Manual and Shoreline Municipal Code stormwater regulations. As the project is reducing impervious surface overall, flow control is not required. Even though the overall amount of

impervious surface is being reduced, over 1,500 square feet of pollution generating surface is being replaced, which requires basic water quality treatment (80% removal of total suspended solids). Oil control is also required at the N 175th and N 185th Street. Aurora Staff believes the project will exceed City requirements with a higher level of flow control and significant water quality improvements will be made.

The natural stormwater elements of this project include: raingardens (planters and swales), ecology embankments, stormwater filters, box filters, and Silva Cells/porous pavers. Please see Attachment A for a description of these tools and where they are proposed in the project.

Construction Hours and Duration

Staff is considering construction alternatives in working hours, working days, and construction duration to minimize impacts on businesses and the traveling public. For example, if the contractor is able to work longer days and evenings, and six days per week, then the construction could likely be completed in a year. If we keep them at five days per week and regular hours, then the construction period may last 14 or more months. Additionally, we have discussed closing the project down between Thanksgiving and New Years, as this is the peak shopping season. If we do this, then again, the construction period will be longer by several months. Contractors prefer to be allowed to work six days a week (Monday through Saturday) and evenings. The more continuous time the contractor is able to work, the more they accomplish, resulting in a shorter project duration. However, longer construction hours can be stressful for the community. Staff intends to seek the input of property owners, business owners, and the Chamber of Commerce, to gain their feedback on the construction hours and duration puzzle over the next few months.

SUMMARY:

Design of the project is going well and on schedule and real estate acquisition is progressing nicely. Consultant expenditures are tracking with work accomplished to date and the project budget.

RECOMMENDATION

There is no official action required.

Approved By:  City Manager ____ City Attorney ____

ATTACHMENT

Attachment A—Aurora Corridor Improvement Project (N 165th – N 185th) Stormwater Elements

Attachment A

Raingarden (planters and swales): These engineered depressions contain plants, mulch, rocks and amended soils. They can be designed with a ponding depth to store water during storm events. They can be used in the amenity zone (raingarden planter) and where additional right of way exists (raingarden swale). Raingardens help control stormwater flows and improve water quality. Staff recommends using them in the 4 foot amenity zones where there are no utility conflicts and where additional right of way exists.

Box filter: box filters are generally used in amenity zones and parking lots. The box contains amended soils that remove pollutants, and the plants (small trees or shrubs) uptake water. Runoff from the street is directed into the box, and filters through the soil to be used by the plants. The water that is not retained by the plants is then sent via an underdrain system to the conventional stormwater system. These also can be used in intersections to replace the need for catchbasin inserts to separate the oil from the water. These are recommended for use at the N 175th and N 185th Street intersections to address oil control, as well as support the "gateway" concept at these two key intersections. Because of the limited "root" capacity of these boxes, shrubs are recommended for installation.

Ecology Embankment: This is a stormwater treatment device developed by the Washington Department of Transportation that can be placed linearly alongside a roadway. It consists of a gravel strip, narrow filter strip, an ecology mix bed, gravel underdrain, and connection to the conventional stormwater system. Water sheet flows off the roadway and into the ecology mix media for treatment. The treated water then flows into the gravel trench to be conveyed offsite. This treatment is approved by the department of Ecology for removal of suspended solids, zinc, and phosphorus (particularly important in the Echo Lake basin). We recommend using this technology on the east side of Aurora from Walgreens to N 185th. Use at this location must be coordinated with Seattle City Light.

Silva Cell/Porous pavers: Silva Cell is a new product that allows for healthier tree growth and stormwater treatment. Trees in the urban environment are confined and the root space and soils often prevent healthy and substantive growth. The Silva Cell system is a network of blocks that hold soil for tree roots to grow into. The Silva Cells provide a structural network that sidewalk can be placed over. Water enters the tree pit from the roadway, filters through the soils and into an underdrain. The water quality is likely improved (similar to a rain garden and box filter), and the trees can use the water for nutrients. Porous pavers can also be used on top of the Silva Cells to provide additional water for the trees. This technology is new and not yet approved by the state Department of Ecology for water quality treatment. Staff recommends utilizing this technology around City Hall frontage and in the town center area where there are trees in amenity zones.

Stormwater filter: Stormwater filters are underground boxes and/or drums that contain filter cartridges to remove oil, sediments, heavy metals and nutrients such as phosphorus. To provide water quality improvements for the first mile of the Aurora Project (N 145th to N 165th Street), three large stormwater filters were installed as part of the conventional stormwater system. In these filters, over 150 cylinders/cartridges were installed for pollutant removal. These filters must be replaced when they become full of contaminants. At this time, there are several stormwater filters planned for the middle mile. At the 60% design milestone, staff continues to look for ways to reduce the number of stormwater filters.