

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

<b>AGENDA TITLE:</b>	Motion to Authorize the City Manager to Increase the Johansen Excavating Contract Contingency by \$367,610 for a Total Contract Contingency of \$1,189,365 for the Aurora Corridor Improvement Project from N 185th to 192nd Streets
<b>DEPARTMENT:</b>	Public Works
<b>PRESENTED BY:</b>	Mark Relph, Public Works Director Kirk McKinley, Transportation Services Manager John Vicente, Capital Projects Manager
<b>ACTION:</b>	<input type="checkbox"/> Ordinance <input type="checkbox"/> Resolution <input checked="" type="checkbox"/> Motion <input type="checkbox"/> Discussion

**PROBLEM/ISSUE STATEMENT:**

The Aurora Corridor Improvement Project (N 185th Street – N 192nd Street) is currently being constructed by Johansen Excavating, Inc. The original contingency of \$821,755 (10% of the original contract amount) is requested to be increased by \$367,610 to allow for anticipated changes to the project, which include moving work from other phases of Aurora to this contract, general additions to the project scope and unforeseen conditions encountered during construction.

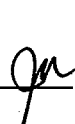
Change orders in the amount of \$815,495.14 have been executed to date. Additional change order work in the amount of \$223,870 is pending the authorization of this contingency request. Staff also anticipates that additional changes in the amount of \$150,000 could be required prior to the completion of the project. Therefore, the total amount of project contingency would increase \$367,610, from \$821,755 to \$1,189,365. This would bring the total authorized contract with Johansen Excavating, Inc. to \$9,406,913. The Aurora Corridor budget has sufficient funds for this request.

**RECOMMENDATION**

Staff recommends that Council authorize the City Manager to increase the project contingency of the Johansen Excavating Contract for the Aurora Corridor Project from 185th to 192nd by \$367,610 for a total contract contingency of \$1,189,365,

Approved By:

City Manager



City Attorney



**BACKGROUND:**

On December 13, 2010, Council authorized the City Manager to execute a construction contract with Johansen Excavating, Inc. (JEI) for the Aurora Corridor Improvement Project (N 185th – N 192nd Streets). The authorized contract amount was \$8,217,548, plus an additional \$821,754 (10%) contingency. The engineer's estimate for the construction contract at bid opening was \$9,100,000. The JEI contract includes Aurora construction to be paid by Shoreline, Seattle City Light (SCL) for power system undergrounding, and Seattle Public Utilities (SPU) for water system work. Notice to proceed was given to JEI on January 24, 2011.

To date, all underground utility civil infrastructure is installed, the curb/gutter/sidewalk has been installed on the west side of Aurora, and the east side is currently under construction. The majority of construction is estimated to be complete in February 2012, with final paving and striping occurring thereafter pending favorable weather conditions.

**PROJECT ISSUES:**

Several issues have impacted the project and required use of the project contingency. These issues are outlined below.

**Additional Sidewalks on 192nd Street:** The original project plan was to include a sidewalk connection on the south side of 192nd Street from Aurora Avenue N to the Interurban Trail. This plan was removed from the 185th – 192nd Street segment during the design phase to avoid impacts to Aurora Rents currently leasing the property at the southeast corner of Aurora Ave N and N 192nd Street. The sidewalk work was to be incorporated into the Aurora 192nd – 205th Street segment after Aurora Rents relocated to their new location at N 175th Street and Aurora. During construction, it was decided to incorporate the sidewalk along the south side as part of the 185th-192nd segment. Discussions with the property owner and Aurora Rents indicated that the sidewalk impacts to the business were not of concern, as Aurora Rents planned to relocate at the end of 2011. Cost of this additional work is approximately \$205,000 and includes 6-foot sidewalk with 4-foot amenity zone, curb and gutter, new storm drainage, landscaping, street illumination, and new driveways.

**SCL Transmission ROW:** The old James Allen Salon Building (originally located at the NE corner of 185th and Aurora) was demolished to construct sidewalks along Aurora as part of the Aurora 165th-185th project. This land is within the SCL transmission corridor and SCL planned to pave the area and leave it unused. The adjacent property owner had no interest in utilizing this space. The City decided to take advantage of the opportunity during the Aurora construction and add landscaping and wall improvements to this area as it lies within the City's Town Center Sub-Area. This work was originally planned as a change order to the Aurora 165th-185th segment but the final design took longer than expected and the work was added to the Aurora 185th-192nd segment. Cost for the work is approximately \$82,000.

**Aurora/185th Transition:** With construction of the Aurora Project 165th-185th segment nearly complete and work ongoing with the Aurora Project 185th-192<sup>nd</sup> segment, it was determined that moving some construction work from the 165th-185th segment to the 185th-192nd segment would prevent removal of newly placed improvements and replacement. Cost for the work is approximately \$45,000.

**Traffic Control:** The City has spent more resources managing traffic and pedestrians than anticipated on the project. There are a significant number of pedestrians within the corridor and especially with the Metro Park and Ride at the N 192nd Street intersection, the 500+ unit apartment complex and the YMCA just north of the intersection. Also, the steep slope driveway at the Department of Licensing created sight distance issues with drivers which, along with higher than anticipated traffic access needs, increased the need for additional traffic control during construction. To address safety and accommodate access concerns from pedestrians and vehicles (particularly in relation to the Park and Ride), additional traffic control personnel were added to the project. Staff continually looks for ways to be efficient with traffic control; however, safety is the contractor's top priority. The additional traffic control costs are projected to be \$342,000 by the end of construction.

Traffic control needs are difficult to predict during the design phase and estimates were based upon length of project, access to and from Aurora, and duration of construction. With one intersection and few driveways, traffic control needs were not expected to be above typical needs. Below is a table that illustrates the traffic control expense in relation to the total contract amount for the previous corridor projects that the City has completed.

Project	Total Traffic Control Amount	Total Contract Amount	Percent of Total Contract Amount
North City Business District	\$676,400	\$6,920,600	9.8%
Aurora 145th – 165th	\$775,000	\$21,974,800	3.5%
Aurora 165th – 185th	\$1,276,000	\$21,901,693	5.8%
Aurora 185th – 192nd	\$508,000	\$9,406,913	5.4%

The cost of traffic control for the Aurora 185<sup>th</sup> -192nd segment in relation to the total construction cost is in alignment to what we have seen on previous projects. SPU and SCL together will pay approximately 10% of these costs. Staff will look closer at the traffic control needs for the last segment of Aurora and will estimate traffic control needs that closely reflect the trends we are seeing from previous projects.

**Joint Utility Trench Infrastructure:** Several unforeseen issues have been encountered during the construction of the joint utility trench (JUT). Some of the issues encountered include: Higher than expected water table, causing difficulties in excavation and subsequent higher volumes of soil displacement and labor needed to secure the site; and other utility conflicts with gas, storm drainage, and sanitary sewer requiring relocation or adjustments to the JUT. These issues have resulted in an estimated \$110,000 of additional cost. Some of these costs will be reimbursed by SCL.

**Changes in the Structural Codes:** The project plan called for a block retaining wall to be installed along Aurora Ave N adjacent to the Metro Park and Ride. Walls of this type are designed by the manufacturer of the blocks and provided at the time of construction. The City's design engineer referenced structural codes that were in effect at the time of design to determine the work necessary to build the block wall. After bid opening, the structural codes were modified, which resulted in additional structural needs for the block

wall. This resulted in additional excavation, structural support elements, and a relocation of the existing water line. Total cost for this change was \$105,300.

**Traffic Control Equipment Between 145th and 165th:** To improve traffic flow along Aurora, additional traffic control equipment is proposed to be added to the signals along Aurora between N 145th and N 165th Streets. This equipment will provide additional information to better time the existing signals and increase efficiency of the corridor. Total reimbursement cost for this is \$55,000.

**Miscellaneous Changes:** There were several miscellaneous impacts encountered during construction. These impacts are estimated to total \$75,165. Also, with the impacts listed above, the Contractor has requested 12 additional contract working days to mediate the impacts to the schedule. These additional days add financial impacts to the contractor (job trailer rental and other extended overhead expenses). Total reimbursement cost for the added days is \$19,900.

Adding this work to the contract does not represent a substantial or material departure from the original specifications; the work was either unforeseen at the time of the original bidding or was transferred from the 165<sup>th</sup>-185<sup>th</sup> segment to the 185<sup>th</sup>-192<sup>nd</sup> to better coordinate with the project segments (and to avoid duplicate work).

#### **FINANCIAL IMPACT:**

The table below demonstrates the original project amount by schedule, the "cost to complete" projection (New Contract Amount), and the percentage the projection is over the current contract amount. Schedules B and C include the reimbursable cost from SCL and SPU for Schedule A work.

	Original Contract	Change Order Amount	New Contract Amount	Percent Over Total Original Contract
Schedule A – Aurora	\$ 7,170,071	\$ 1,122,201	\$ 8,292,272	15.6%
Schedule B – SCL	\$ 897,406	\$ 59,099	\$ 956,505	6.6%
Schedule C – SPU	\$ 115,039	\$ 8,065	\$ 123,104	7.0%
Schedule D – King County	\$ 35,032	\$ 0.00	\$ 35,032	0.0%
<b>Total</b>	<b>\$ 8,217,548</b>	<b>\$ 1,189,365</b>	<b>\$ 9,406,913</b>	<b>14.5%</b>

A large portion of the Change Order Amount is work that has been redirected from Aurora 165th – 185th and the Aurora 192nd – 205th segments. These costs have been taken into account within the total Aurora Corridor budget. Below is a table demonstrating the costs from other segments of Aurora and those directly related to Aurora 185th – 192nd.

	A	B	C	D
	Aurora 145th – 165th Work	Aurora 165th – 185th Work	Aurora 185th – 192nd Work	Aurora 192nd – 205th Work
Added Traffic Control Equipment	\$55,000			
Aurora/185th Transition		\$ 45,000		
SCL Transmission ROW		\$ 82,000		
192nd Street Sidewalks				\$ 205,000
Flagging and Traffic Control			\$ 342,000	
JUT Infrastructure			\$ 110,000	
Structural Code Changes			\$ 105,300	
Miscellaneous Changes			\$ 95,065	
Anticipated Additional Change Orders			\$150,000	
<b>Segment Total</b>	<b>\$55,000</b>	<b>\$ 127,000</b>	<b>\$ 802,365</b>	<b>\$ 205,000</b>
<b>Total Change Order Amount (Segment A + Segment B + Segment C + Segment D):</b>				
<b>\$1,189,365</b>				

The Council approved contingency is \$821,755. The total change orders directly related to the Aurora 185th – 192nd work is \$652,365 and within the approved contingency. Staff anticipates that an additional \$150,000 of contingency should be adequate to cover any additional utility or City costs. The additional \$150,000 contingency will keep this segment within its original approved contingency amount \$821,755.

### **RECOMMENDATION**

Staff recommends that Council authorize the City Manager to increase the project contingency of the Johansen Excavating Contract for the Aurora Corridor Project from 185th to 192nd by \$367,610 for a total contract contingency of \$1,189,365.

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