

NO: R226

COUNCIL DATE: November 19, 2018

REGULAR COUNCIL

TO: **Mayor & Council** DATE: **November 15, 2018**

FROM: **General Manager, Engineering** FILE: **4715-0530**
General Manager, Finance

SUBJECT: **Local Area Service – Phase 3 and 4 Areas of the Bridgeview Vacuum Sewer System Replacement Program - Final Costs and Apportionment Bylaw No. 18669**

RECOMMENDATIONS

The Engineering Department and the Finance Department recommend that Council:

1. Approve amendments to *Local Area Service for East Bridgeview Vacuum Sewer Replacement System Phase 3 and Phase 4 [Project # 4715-0530] By-law, 2016, No. 18669* to reflect the final costs of construction of the works and the apportionment thereof across the benefiting properties as shown in Appendix “A” attached to this report; and
2. Authorize the City Clerk to bring forward the necessary amendment Bylaw, a copy of which is attached as Appendix “A” to this report, for the required readings and final adoption.

INTENT

The purpose of this report is to advise Council of the final project costs related to *Local Area Service for East Bridgeview Vacuum Sewer Replacement System Phase 3 and Phase 4 [Project # 4715-0530] By-law, 2016, No. 18669* as illustrated in Appendix “B” attached to this report, and to obtain Council approval to forward an amendment Bylaw to apportion the final costs of construction of the project across the benefiting properties.

DISCUSSION

At its Regular Meeting of December 4, 2006 Council approved the recommendations of Corporate Report No. R251; 2006 (attached as Appendix “C”), thereby adopting a replacement strategy for the Bridgeview Vacuum Sewer System (“VSS”). The replacement strategy in general called for a low-pressure sewer system (“LPS”) to service the industrial and commercial areas and a steep grade gravity sewer system (“SGS”) to service the residential areas. Council at that same time also adopted a moratorium on new connections to the VSS because of overall capacity constraints in the VSS and the excessive maintenance costs of the VSS.

In April 2009 the City received a \$5.67 million grant under the BC Build Canada Infrastructure Program to fund a portion of the cost to complete the VSS replacement.

At its Regular Meeting on July 13, 2009 Council approved the recommendations of Corporate Report No. R119; 2009 and Corporate Report No. R120; 2009 (attached as Appendix "D") thereby approving the use of a Local Area Service ("LAS") initiative as the means by which to finance the construction of a new sanitary sewer system to replace the existing vacuum system in the West Bridgeview area (Phase 1). The construction of the Phase 1 system was subsequently completed in 2012, with benefiting properties being charged 47.38% of the cost of the project, as the grant provided to the City funded 52.62% of the cost of the project.

At its Regular Meeting on May 28, 2012 Council approved the recommendations of Corporate Report No. R101; 2012 (attached as Appendix "E") thereby approving the use of a LAS initiative as the means by which to finance the construction of a new sanitary sewer system to replace the existing vacuum system in the North Bridgeview area (Phase 2). The construction of the Phase 2 system was subsequently completed in 2014, with benefiting properties being charged 47.38% of the cost of the project, with the City providing a subsidy equal to 52.62% of the cost of the project, in order to maintain the same cost apportionment principles used during Phase 1.

At its Regular Meeting of March 7, 2016 Council approved the recommendations of Corporate Report No. R043; 2016 (attached as Appendix "F") thereby approving the use of a LAS initiative as the means by which to finance the construction of a new sanitary sewer system to replace the existing vacuum system in the Bridgeview East area (Phase 3 and Phase 4), as illustrated in Appendix "B" attached to this report. As part of this report, Council approved the use of the same cost apportionment principles used during both Phase 1 and Phase 2.

Following a successful property owner petitioning process, Council approved the LAS by way of Council Resolution No. R15-2377. Subsequently, *Local Area Service for East Bridgeview Vacuum Sewer Replacement System Phase 3 and Phase 4 [Project # 4715-0530] Bylaw, 2016, No. 18669* was given the required readings.

The construction work has now been completed and the final cost of construction has been determined. Based on the Completion Certificate, which is attached as Appendix "G" to this report, the works authorized under Bylaw No. 18669 were completed at a final cost of \$13,269,684.20. As the City does not subsidize development, properties that did not have an active sewer account at the time of construction or properties that did not abut an existing vacuum sewer did not receive a City subsidy of 52.62% and are required to pay 100% of the cost of the work along their frontage.

The total LAS tax component from properties having to pay 100% of the cost is \$793,585.27. The remaining \$12,476,098.93 is broken down into a cost contribution of 52.62% subsidy from the City totaling \$6,564,923.26 with the remaining \$5,911,175.67 to be funded through the LAS tax component.

The final cost of the works was approximately 14% lower than the total estimate of costs for the works. Most of the cost savings were realized in the Phase 4 benefiting area, where the final cost of the works was approximately 18% lower than the estimate that was originally provided to the owners of the properties within the area. The cost of the works in the Phase 3 benefiting area was approximately 2% lower than the estimate that was originally provided to the owners of the properties within the area. Properties in the Phase 3 benefiting area are not able to realize the same savings as those in the Phase 4 area due to the complexities of the private property work that was required to service those in the Phase 3 area.

The LAS tax component, including any accrued financing charges, shall be payable in full by the owner of a parcel within the local service area at the time the owner makes a formal application to the City for one of the following in relation to the parcel:

- i. connection to the sanitary sewer system;
- ii. subdivision;
- iii. consolidation;
- iv. development permit;
- v. development variance permit;
- vi. rezoning;
- vii. temporary use permit; or
- viii. building permit.

Appendix "A" attached to this report details the apportionment of the final costs of the project to the benefiting properties.

SUSTAINABILITY CONSIDERATIONS

The Local Area Service for the Bridgeview East Phase 3 and 4 Vacuum Sewer Replacement Project supports the objectives of the City's Sustainability Charter 2.0 theme of Infrastructure. Specifically this work supports the following Desired Outcomes ("DO") and Strategic Directions ("SD"):

- All Infrastructure DO02: Infrastructure systems provide safe, reliable and affordable services.
- All Infrastructure SD1: • Proactively manage community assets to maintain them over the long-term in a state of good repair.
- All Infrastructure SD2: Develop and manage our assets to adapt to technological change.

CONCLUSION

The Engineering Department and the Finance Department recommend that Council:

1. Approve amendments to *Local Area Service for East Bridgeview Vacuum Sewer Replacement System Phase 3 and Phase 4 [Project # 4715-0530] By-law, 2016, No. 18669* to reflect the final costs of construction of the works and the apportionment thereof across the benefiting properties as shown in Appendix "A" attached to this report; and
2. Authorize the City Clerk to bring forward the necessary amendment Bylaw, a copy of which is attached as Appendix "A" to this report, for the required readings and final adoption.

Fraser Smith, P.Eng., MBA
General Manager,
Engineering

Kam Grewal, CPA, CMA
General Manager,
Finance

- Appendix "A" - Bylaw No. 18669 Amendment that will act to amend *Local Area Service for East Bridgeview Vacuum Sewer Replacement System Phase 3 and Phase 4 [Project # 4715-0530] Bylaw, 2016, No. 18669*
- Appendix "B" - Local Area Service Map
- Appendix "C" - Corporate Report No. R251; 2008
- Appendix "D" - Corporate Report No. R120; 2009
- Appendix "E" - Corporate Report No. R101; 2012
- Appendix "F" - Corporate Report No. R043; 2016
- Appendix "G" - Completion Certificate

APPENDIX "A"

CITY OF SURREY

BY-LAW NO. 18669 Amendment

A by-law to amend the provisions of "Local Area Service for East Bridgeview Vacuum Sewer Replacement System Phase 3 and Phase 4 [Project # 4715-0530] Bylaw, 2016, No. 18669".

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The Council of the City of Surrey, in open meeting assembled, ENACTS AS FOLLOWS:

- 1. "Local Area Service for East Bridgeview Vacuum Sewer Replacement System Phase 3 and Phase 4 [Project # 4715-0530] Bylaw, 2016, No. 18669" is hereby amended as follows:

Appendix II is deleted in its entirety and new Appendix II Engineer's Report, Final Costs & Apportionment, attached hereto and forming a part of this bylaw is inserted in its place.

- 2. This Bylaw shall be cited for all purposes as "Local Area Service for East Bridgeview Vacuum Sewer Replacement System Phase 3 and Phase 4 [Project # 4715-0530] By-law, 2016, No. 18669, Amendment Bylaw, 2018, No. XXXXXX"

PASSED FIRST READING on the _____ day of _____, 2018.

PASSED SECOND READING on the _____ day of _____, 2018.

PASSED THIRD READING on the _____ day of _____, 2018.

RECONSIDERED AND FINALLY ADOPTED, signed by the Mayor and Clerk, and sealed with the Corporate Seal on the _____ day of _____, 2018.

_____ MAYOR

_____ CLERK

CITY OF SURREY

ENGINEER’S REPORT – FINAL COSTS & APPORTIONMENT
 LOCAL AREA SERVICE – BRIDGEVIEW EAST PHASE 3 AND 4
 VACUUM SEWER REPLACEMENT SYSTEM
 On COUNCIL INITIATIVE - SUBJECT TO PETITION AGAINST

Pursuant to Section 213 of the Community Charter, I advise in regard to the following works resolved to be undertaken as a Local Area Service.

Works: Bridgeview East Vacuum Sewer Replacement System Phase 3 and 4 to replace the existing Vacuum Sewer System

Location: Local service area roughly bounded by South Fraser Perimeter Road, King George Boulevard, 126A Street and 132 Street/Bridgeview Drive; as shown outlined in dark outline in Appendix I.

| | Total Cost | LAS Tax Component (at 100% recovery) | LAS Tax Component (at 47.38% recovery) | City Contribution (at 52.62% subsidy) |
|---|------------------------|--------------------------------------|--|---------------------------------------|
| Total Final Cost | \$13,269,684.20 | \$793,585.27 | \$5,911,175.67 | \$6,564,923.26 |
| Area A - LPS | | | | |
| Frontage Tax Component | | | | |
| Total frontage of properties in Area A | | | 759.62 | |
| Cost per linear metre for frontage | | | \$892.81 | |
| Subtotal Cost | \$1,431,397.91 | \$0.00 | \$678,196.33 | \$753,201.58 |
| Pump Connection Tax Component | | | | |
| Number of properties with active sewer accounts | | | 29 | |
| Cost per pump connection | | | \$22,044.28 | |
| Subtotal Cost | \$1,349,269.99 | \$0.00 | \$639,284.12 | \$709,985.87 |
| Sewer Lateral Tax Component | | | | |
| Number of properties in Area A with a new lateral | | 4 | 30 | |
| Cost per sewer lateral | | \$9,779.79 | \$4,633.66 | |
| Subtotal Cost | \$332,512.57 | \$39,119.16 | \$139,009.80 | \$154,383.61 |
| Total Cost for Area A - LPS | \$3,113,180.47 | \$39,119.16 | \$1,456,490.25 | \$1,617,571.06 |
| Area B - SGS | | | | |

| | Total Cost | LAS Tax Component (at 100% recovery) | LAS Tax Component (at 47.38% recovery) | City Contribution (at 52.62% subsidy) |
|---|------------------------|---|---|--|
| System Replacement Tax Component | | | | |
| Total square metre area of properties in Area B | | 14,842.56 | 141,194.77 | |
| Cost per square metre for system replacement | | \$29.71 | \$14.08 | |
| Subtotal Cost | \$4,636,882.89 | \$440,972.46 | \$1,988,022.36 | \$2,207,888.07 |
| Frontage Tax Component | | | | |
| Total Frontage of properties in Area B | | 239.85 | 3,715.61 | |
| Cost per linear metre for frontage | | \$891.50 | \$422.39 | |
| Subtotal Cost | \$3,526,271.43 | \$213,826.28 | \$1,569,436.51 | \$1,743,008.64 |
| Sewer Lateral Tax Component | | | | |
| Number of properties in Area B with a new lateral | | 11 | 209 | |
| Cost per sewer lateral | | \$9,060.67 | \$4,292.95 | |
| Subtotal Cost | \$1,993,349.41 | \$99,667.37 | \$897,226.55 | \$996,455.49 |
| Total Cost for Area B - SGS | \$10,156,503.73 | \$754,466.11 | \$4,454,685.42 | \$4,947,352.20 |

Annual Interest Rate = 5.70%

**Area A – Low Pressure Sewer
Cost Distribution – Base Charge**

| | Address | | PID | Lot Frontage (l.m.) | Frontage Tax Component | Sewer Tax Lateral Component | Pump Connection Tax Component | Total Local Service Tax |
|----|---------|------------------|-------------|---------------------|------------------------|-----------------------------|-------------------------------|-------------------------|
| | House | Road | | | | | | |
| 1 | 11546 | 128 St | 002-083-086 | 15.24 | \$13,606.42 | \$4,633.66 | \$22,044.28 | \$40,284.36 |
| 2 | 12822 | 115B Ave | 001-912-658 | 23.00 | \$20,534.63 | \$4,633.66 | \$22,044.28 | \$47,212.57 |
| 3 | 12836 | 115B Ave | 000-919-331 | 15.24 | \$13,606.42 | \$4,633.66 | \$22,044.28 | \$40,284.36 |
| 4 | 12840 | 115B Ave | 026-244-748 | 15.25 | \$13,615.35 | \$4,633.66 | \$22,044.28 | \$40,293.29 |
| 5 | 12850 | 115B Ave | 018-484-328 | 15.24 | \$13,606.42 | \$4,633.66 | \$22,044.28 | \$40,284.36 |
| 6 | 12854 | 115B Ave | 011-580-071 | 7.62 | \$6,803.21 | \$0.00 | \$0.00 | \$6,803.21 |
| 7 | 12860 | 115B Ave | 010-601-023 | 15.25 | \$13,615.35 | \$4,633.66 | \$22,044.28 | \$40,293.29 |
| 8 | 12866 | 115B Ave | 011-580-127 | 15.24 | \$13,606.42 | \$4,633.66 | \$22,044.28 | \$40,284.36 |
| 9 | 12874 | 115B Ave | 009-097-961 | 15.25 | \$13,615.35 | \$4,633.66 | \$22,044.28 | \$40,293.29 |
| 10 | 12880 | 115B Ave | 002-206-714 | 15.24 | \$13,606.42 | \$4,633.66 | \$22,044.28 | \$40,284.36 |
| 11 | 11545 | 129 St | 005-517-281 | 15.25 | \$13,615.35 | \$4,633.66 | \$22,044.28 | \$40,293.29 |
| 12 | 12877 | 115A Ave | 003-075-516 | 22.88 | \$20,427.49 | \$4,633.66 | \$22,044.28 | \$47,105.43 |
| 13 | 12883 | 115A Ave | 011-580-151 | 15.26 | \$13,624.28 | \$4,633.66 | \$22,044.28 | \$40,302.22 |
| 14 | 11535 | 129 St | 002-682-834 | 15.25 | \$13,615.35 | \$4,633.66 | \$22,044.28 | \$40,293.29 |
| 15 | 11530 | 129 St | 011-588-799 | 30.47 | \$27,203.92 | \$9,779.79 | \$0.00 | \$36,983.71 |
| 16 | 12908 | 115B Ave | 000-777-501 | 15.25 | \$13,615.35 | \$4,633.66 | \$22,044.28 | \$40,293.29 |
| 17 | 12914 | 115B Ave | 003-847-381 | 7.63 | \$6,812.14 | \$4,633.66 | \$22,044.28 | \$33,490.08 |
| 18 | 12914 | 115B Ave | 003-847-357 | 7.62 | \$6,803.21 | \$0.00 | \$0.00 | \$6,803.21 |
| 19 | 12922 | 115B Ave | 011-588-721 | 7.63 | \$6,812.14 | \$0.00 | \$0.00 | \$6,812.14 |
| 20 | 12922 | 115B Ave | 011-588-705 | 7.62 | \$6,803.21 | \$4,633.66 | \$22,044.28 | \$33,481.15 |
| 21 | 12930 | 115B Ave | 011-429-879 | 7.63 | \$6,812.14 | \$0.00 | \$0.00 | \$6,812.14 |
| 22 | 12930 | 115B Ave | 011-429-861 | 7.62 | \$6,803.21 | \$4,633.66 | \$22,044.28 | \$33,481.15 |
| 23 | 12934 | 115B Ave | 011-588-730 | 15.25 | \$13,615.35 | \$4,633.66 | \$22,044.28 | \$40,293.29 |
| 24 | 12950 | 115B Ave | 003-520-510 | 49.57 | \$44,256.59 | \$9,779.79 | \$0.00 | \$54,036.38 |
| 25 | 12968 | 115B Ave | 011-588-764 | 3.81 | \$3,401.61 | \$0.00 | \$0.00 | \$3,401.61 |
| 26 | 12972 | 115B Ave | 011-588-756 | 8.00 | \$7,142.48 | \$9,779.79 | \$0.00 | \$16,922.27 |
| 27 | 12976 | 115B Ave | 027-086-275 | 39.95 | \$35,667.76 | \$0.00 | \$0.00 | \$35,667.76 |
| 28 | 13012 | 115B Ave | 003-133-028 | 7.62 | \$6,803.21 | \$0.00 | \$0.00 | \$6,803.21 |
| 29 | 13018 | 115B Ave | 003-133-061 | 7.63 | \$6,812.14 | \$0.00 | \$0.00 | \$6,812.14 |
| 30 | 13020 | 115B Ave | 003-133-087 | 7.62 | \$6,803.21 | \$0.00 | \$0.00 | \$6,803.21 |
| 31 | 13022 | 115B Ave | 003-133-265 | 7.63 | \$6,812.14 | \$0.00 | \$0.00 | \$6,812.14 |
| 32 | 13032 | 115B Ave | 003-133-311 | 7.62 | \$6,803.21 | \$0.00 | \$0.00 | \$6,803.21 |
| 33 | 13032 | 115B Ave | 003-133-389 | 7.63 | \$6,812.14 | \$4,633.66 | \$22,044.28 | \$33,490.08 |
| 34 | 13040 | 115B Ave | 011-590-360 | 7.62 | \$6,803.21 | \$0.00 | \$0.00 | \$6,803.21 |
| 35 | 13040 | 115B Ave | 011-590-378 | 7.63 | \$6,812.14 | \$4,633.66 | \$22,044.28 | \$33,490.08 |
| 36 | 13050 | 115B Ave | 008-528-209 | 7.63 | \$6,812.14 | \$4,633.66 | \$22,044.28 | \$33,490.08 |
| 37 | 13050 | 115B Ave | 008-528-195 | 7.62 | \$6,803.21 | \$0.00 | \$0.00 | \$6,803.21 |
| 38 | 13056 | 115B Ave | 001-440-110 | 7.62 | \$6,803.21 | \$0.00 | \$0.00 | \$6,803.21 |
| 39 | 13056 | 115B Ave | 001-440-101 | 7.63 | \$6,812.14 | \$4,633.66 | \$22,044.28 | \$33,490.08 |
| 40 | 13064 | 115B Ave | 014-178-516 | 15.25 | \$13,615.35 | \$4,633.66 | \$0.00 | \$18,249.01 |
| 41 | 13066 | 115B Ave | 002-191-709 | 7.63 | \$6,812.14 | \$0.00 | \$0.00 | \$6,812.14 |
| 42 | 13068 | 115B Ave | 011-590-386 | 7.62 | \$6,803.21 | \$0.00 | \$0.00 | \$6,803.21 |
| 43 | 13072 | 115B Ave | 011-602-511 | 15.25 | \$13,615.35 | \$9,779.79 | \$0.00 | \$23,395.14 |
| 44 | 13082 | 115B Ave | 011-590-394 | 7.63 | \$6,812.14 | \$0.00 | \$0.00 | \$6,812.14 |
| 45 | 13082 | 115B Ave | 011-590-408 | 7.62 | \$6,803.21 | \$4,633.66 | \$22,044.28 | \$33,481.15 |
| 46 | 13114 | 115B Ave | 029-658-993 | 15.20 | \$13,570.71 | \$4,633.66 | \$22,044.28 | \$40,248.65 |
| 47 | 13122 | 115B Ave | 001-461-311 | 7.71 | \$6,883.57 | \$0.00 | \$0.00 | \$6,883.57 |
| 48 | 13122 | 115B Ave | 001-461-303 | 7.60 | \$6,785.36 | \$4,633.66 | \$22,044.28 | \$33,463.30 |
| 49 | 12827 | King George Blvd | 008-038-732 | 17.44 | \$15,570.61 | \$0.00 | \$0.00 | \$15,570.61 |
| 50 | 12835 | King George Blvd | 000-862-576 | 18.56 | \$16,570.55 | \$4,633.66 | \$22,044.28 | \$43,248.49 |
| 51 | 12845 | King George Blvd | 011-370-947 | 18.58 | \$16,588.41 | \$0.00 | \$0.00 | \$16,588.41 |
| 52 | 12855 | King George Blvd | 011-370-840 | 37.10 | \$33,123.25 | \$4,633.66 | \$22,044.28 | \$59,801.19 |
| 53 | 12869 | King George Blvd | 011-370-823 | 18.55 | \$16,561.63 | \$0.00 | \$0.00 | \$16,561.63 |
| 54 | 12879 | King George Blvd | 011-370-785 | 18.54 | \$16,552.70 | \$0.00 | \$0.00 | \$16,552.70 |
| 55 | 12885 | King George Blvd | 011-370-751 | 18.58 | \$16,588.41 | \$0.00 | \$0.00 | \$16,588.41 |
| 56 | 12905 | King George Blvd | 011-031-107 | N/A | \$0.00 | \$4,633.66 | \$22,044.28 | \$26,677.94 |
| 57 | 12931 | 112B Ave | 002-040-271 | N/A | \$0.00 | \$4,633.66 | \$22,044.28 | \$26,677.94 |

**Area B – Steep Grade Sewer
Cost Distribution – Base Charge**

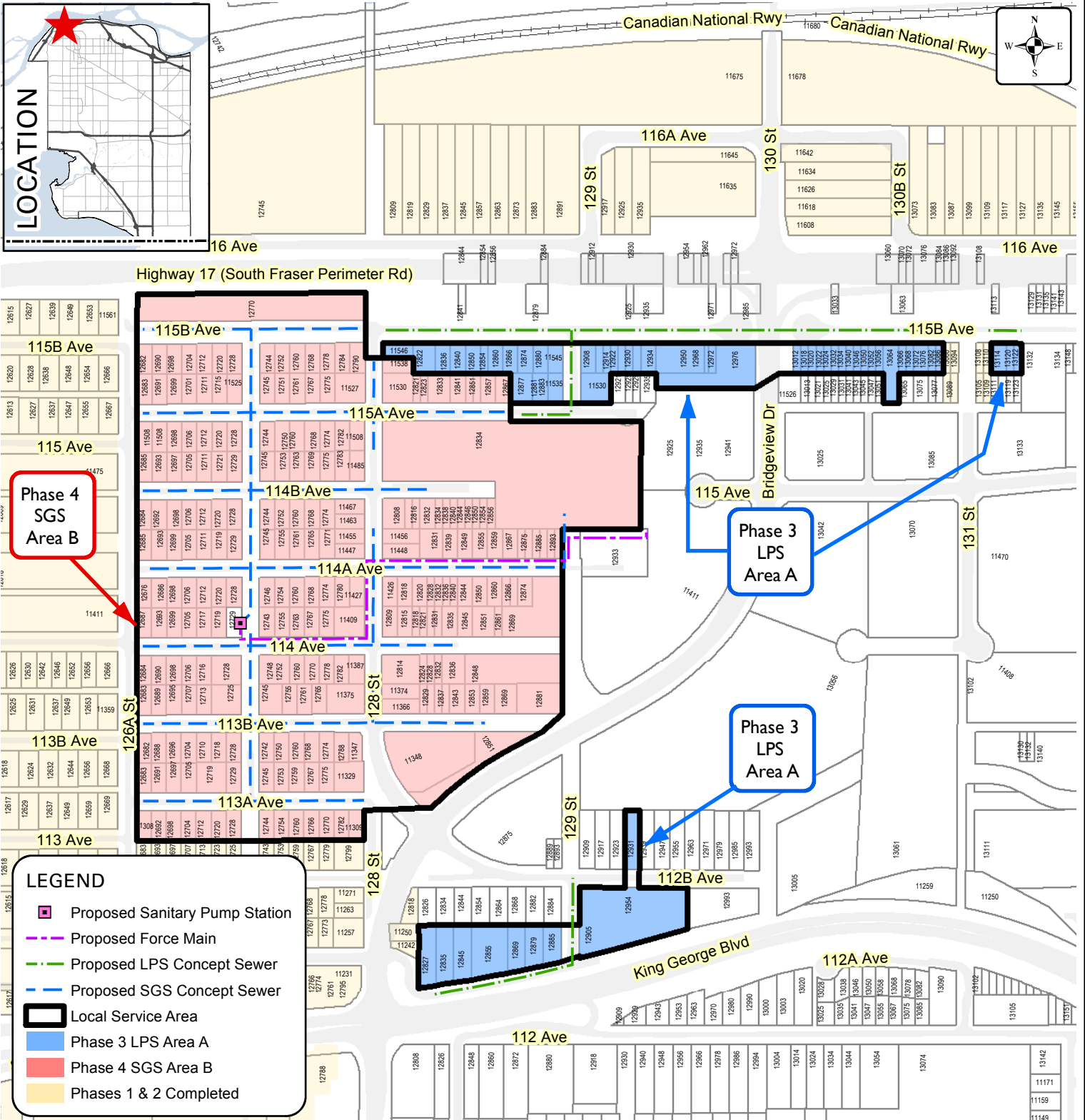
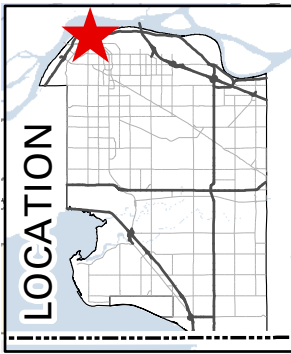
| | Address | | PID | Lot Area (sq.m) | Lot Frontage (l.m.) | Sewer Lateral Tax Component | Frontage Tax Component | System Replacement Tax Component | Total Local Service Tax |
|----|---------|----------|-------------|--------------------|---------------------------|-----------------------------------|------------------------------|---|----------------------------|
| | House | Road | | | | | | | |
| 1 | 12770 | 116 Ave | 005-527-481 | 6,482.74 | 232.26 | \$0.00 | \$207,059.79 | \$192,602.21 | \$399,662.00 |
| 2 | 12682 | 115B Ave | 001-176-412 | 465.40 | 15.28 | \$4,292.95 | \$6,454.12 | \$6,552.83 | \$17,299.90 |
| 3 | 12690 | 115B Ave | 003-671-411 | 465.55 | 15.28 | \$4,292.95 | \$6,454.12 | \$6,554.94 | \$17,302.01 |
| 4 | 12698 | 115B Ave | 011-571-314 | 465.55 | 15.28 | \$4,292.95 | \$6,454.12 | \$6,554.94 | \$17,302.01 |
| 5 | 12704 | 115B Ave | 004-398-408 | 465.55 | 15.28 | \$4,292.95 | \$6,454.12 | \$6,554.94 | \$17,302.01 |
| 6 | 12712 | 115B Ave | 000-450-570 | 465.48 | 15.28 | \$4,292.95 | \$6,454.12 | \$6,553.96 | \$17,301.03 |
| 7 | 12720 | 115B Ave | 011-571-322 | 465.71 | 15.28 | \$4,292.95 | \$6,454.12 | \$6,557.20 | \$17,304.27 |
| 8 | 12728 | 115B Ave | 011-571-357 | 465.64 | 15.28 | \$4,292.95 | \$6,454.12 | \$6,556.21 | \$17,303.28 |
| 9 | 12744 | 115B Ave | 002-269-635 | 465.79 | 15.29 | \$4,292.95 | \$6,458.34 | \$6,558.32 | \$17,309.62 |
| 10 | 12752 | 115B Ave | 011-572-001 | 465.41 | 15.28 | \$4,292.95 | \$6,454.12 | \$6,552.97 | \$17,300.04 |
| 11 | 12760 | 115B Ave | 011-572-027 | 465.56 | 15.28 | \$4,292.95 | \$6,454.12 | \$6,555.08 | \$17,302.15 |
| 12 | 12768 | 115B Ave | 000-877-204 | 465.64 | 15.28 | \$4,292.95 | \$6,454.12 | \$6,556.21 | \$17,303.28 |
| 13 | 12778 | 115B Ave | 011-572-051 | 465.56 | 15.28 | \$4,292.95 | \$6,454.12 | \$6,555.08 | \$17,302.15 |
| 14 | 12784 | 115B Ave | 011-572-086 | 465.71 | 15.28 | \$4,292.95 | \$6,454.12 | \$6,557.20 | \$17,304.27 |
| 15 | 12790 | 115B Ave | 011-572-108 | 465.71 | 15.28 | \$4,292.95 | \$6,454.12 | \$6,557.20 | \$17,304.27 |
| 16 | 12683 | 115A Ave | 011-571-390 | 465.40 | 15.28 | \$4,292.95 | \$6,454.12 | \$6,552.83 | \$17,299.90 |
| 17 | 12691 | 115A Ave | 000-448-559 | 465.40 | 15.27 | \$4,292.95 | \$6,449.90 | \$6,552.83 | \$17,295.68 |
| 18 | 12699 | 115A Ave | 011-571-381 | 465.40 | 15.27 | \$4,292.95 | \$6,449.90 | \$6,552.83 | \$17,295.68 |
| 19 | 12701 | 115A Ave | 001-978-811 | 465.55 | 15.28 | \$4,292.95 | \$6,454.12 | \$6,554.94 | \$17,302.01 |
| 20 | 12711 | 115A Ave | 011-571-373 | 465.25 | 15.27 | \$4,292.95 | \$6,449.90 | \$6,550.72 | \$17,293.57 |
| 21 | 12715 | 115A Ave | 003-594-564 | 465.55 | 15.28 | \$4,292.95 | \$6,454.12 | \$6,554.94 | \$17,302.01 |
| 22 | 11525 | 127A St | 011-571-365 | 465.49 | 15.27 | \$4,292.95 | \$6,449.90 | \$6,554.10 | \$17,296.94 |
| 23 | 12745 | 115A Ave | 011-572-183 | 465.64 | 15.28 | \$4,292.95 | \$6,454.12 | \$6,556.21 | \$17,303.28 |
| 24 | 12751 | 115A Ave | 011-572-175 | 465.41 | 15.27 | \$4,292.95 | \$6,449.90 | \$6,552.97 | \$17,295.82 |
| 25 | 12761 | 115A Ave | 011-572-159 | 465.56 | 15.27 | \$4,292.95 | \$6,449.90 | \$6,555.08 | \$17,297.93 |
| 26 | 12767 | 115A Ave | 011-572-132 | 465.71 | 15.28 | \$4,292.95 | \$6,454.12 | \$6,557.20 | \$17,304.27 |
| 27 | 12775 | 115A Ave | 011-572-124 | 465.41 | 15.27 | \$4,292.95 | \$6,449.90 | \$6,552.97 | \$17,295.82 |
| 28 | 11527 | 128 St | 011-572-221 | 931.13 | 30.47 | \$4,292.95 | \$12,870.22 | \$13,110.31 | \$30,273.48 |
| 29 | 11538 | 128 St | 001-834-622 | 467.63 | 15.25 | \$4,292.95 | \$6,441.45 | \$6,584.23 | \$17,318.63 |
| 30 | 11530 | 128 St | 004-877-985 | 932.36 | 30.46 | \$4,292.95 | \$12,866.00 | \$13,127.63 | \$30,286.58 |
| 31 | 12821 | 115A Ave | 011-580-097 | 232.25 | 7.63 | \$9,060.67 | \$3,222.84 | \$3,270.08 | \$15,553.59 |
| 32 | 12823 | 115A Ave | 011-580-089 | 232.10 | 7.63 | \$0.00 | \$3,222.84 | \$3,267.97 | \$6,490.80 |
| 33 | 12833 | 115A Ave | 011-580-143 | 696.41 | 22.88 | \$4,292.95 | \$9,664.28 | \$9,805.45 | \$23,762.69 |
| 34 | 12841 | 115A Ave | 028-773-314 | 464.32 | 15.25 | \$4,292.95 | \$6,441.45 | \$6,537.63 | \$17,272.02 |
| 35 | 12851 | 115A Ave | 000-457-671 | 232.18 | 7.62 | \$4,292.95 | \$3,218.61 | \$3,269.09 | \$10,780.66 |
| 36 | 12851 | 115A Ave | 000-457-663 | 232.18 | 7.63 | \$0.00 | \$3,222.84 | \$3,269.09 | \$6,491.93 |
| 37 | 12857 | 115A Ave | 001-036-815 | 464.39 | 15.25 | \$9,060.67 | \$6,441.45 | \$6,538.61 | \$22,040.73 |
| 38 | 12867 | 115A Ave | 001-035-860 | 464.35 | 15.25 | \$4,292.95 | \$6,441.45 | \$6,538.05 | \$17,272.45 |
| 39 | 11508 | 126A St | 010-232-150 | 465.25 | 15.27 | \$4,292.95 | \$6,449.90 | \$6,550.72 | \$17,293.57 |
| 40 | 11508 | 126A St | 010-232-176 | 465.33 | 15.27 | \$9,060.67 | \$6,449.90 | \$6,551.85 | \$22,062.41 |
| 41 | 12698 | 115A Ave | 001-684-191 | 465.55 | 15.28 | \$4,292.95 | \$6,454.12 | \$6,554.94 | \$17,302.01 |
| 42 | 12706 | 115A Ave | 000-629-171 | 465.40 | 15.27 | \$4,292.95 | \$6,449.90 | \$6,552.83 | \$17,295.68 |
| 43 | 12712 | 115A Ave | 009-097-899 | 465.40 | 15.27 | \$4,292.95 | \$6,449.90 | \$6,552.83 | \$17,295.68 |
| 44 | 12720 | 115A Ave | 011-577-240 | 465.33 | 15.27 | \$4,292.95 | \$6,449.90 | \$6,551.85 | \$17,294.69 |
| 45 | 12728 | 115A Ave | 011-891-955 | 465.41 | 15.28 | \$4,292.95 | \$6,454.12 | \$6,552.97 | \$17,300.04 |
| 46 | 12744 | 115A Ave | 001-094-343 | 465.41 | 15.27 | \$4,292.95 | \$6,449.90 | \$6,552.97 | \$17,295.82 |
| 47 | 12750 | 115A Ave | 011-572-311 | 465.41 | 15.27 | \$4,292.95 | \$6,449.90 | \$6,552.97 | \$17,295.82 |
| 48 | 12760 | 115A Ave | 011-572-329 | 465.41 | 15.27 | \$4,292.95 | \$6,449.90 | \$6,552.97 | \$17,295.82 |
| 49 | 12768 | 115A Ave | 011-572-353 | 465.49 | 15.28 | \$4,292.95 | \$6,454.12 | \$6,554.10 | \$17,301.17 |
| 50 | 12774 | 115A Ave | 011-572-361 | 465.10 | 15.27 | \$4,292.95 | \$6,449.90 | \$6,548.61 | \$17,291.45 |
| 51 | 12782 | 115A Ave | 002-415-933 | 465.26 | 15.27 | \$4,292.95 | \$6,449.90 | \$6,550.86 | \$17,293.71 |
| 52 | 11508 | 128 St | 000-680-541 | 465.33 | 15.27 | \$4,292.95 | \$6,449.90 | \$6,551.85 | \$17,294.69 |
| 53 | 12834 | 115A Ave | 017-832-993 | 23,140.84 | 60.96 | \$4,292.95 | \$25,748.89 | \$325,823.03 | \$355,864.87 |
| 54 | 12685 | 114B Ave | 011-577-282 | 465.10 | 15.26 | \$4,292.95 | \$6,445.67 | \$6,548.61 | \$17,287.23 |
| 55 | 12693 | 114B Ave | 011-577-274 | 465.25 | 15.27 | \$4,292.95 | \$6,449.90 | \$6,550.72 | \$17,293.57 |
| 56 | 12697 | 114B Ave | 002-668-327 | 465.25 | 15.27 | \$4,292.95 | \$6,449.90 | \$6,550.72 | \$17,293.57 |
| 57 | 12705 | 114B Ave | 000-872-857 | 465.10 | 15.26 | \$4,292.95 | \$6,445.67 | \$6,548.61 | \$17,287.23 |

| | Address | | PID | Lot Area (sq.m) | Lot Frontage (l.m.) | Sewer Lateral Tax Component | Frontage Tax Component | System Replacement Tax Component | Total Local Service Tax |
|-----|---------|----------|-------------|-----------------|---------------------|-----------------------------|------------------------|----------------------------------|-------------------------|
| | House | Road | | | | | | | |
| 58 | 12711 | 114B Ave | 002-411-075 | 465.25 | 15.27 | \$4,292.95 | \$6,449.90 | \$6,550.72 | \$17,293.57 |
| 59 | 12721 | 114B Ave | 011-577-266 | 465.17 | 15.26 | \$4,292.95 | \$6,445.67 | \$6,549.59 | \$17,288.22 |
| 60 | 12729 | 114B Ave | 011-577-258 | 465.41 | 15.27 | \$4,292.95 | \$6,449.90 | \$6,552.97 | \$17,295.82 |
| 61 | 12745 | 114B Ave | 008-479-429 | 465.26 | 15.27 | \$4,292.95 | \$6,449.90 | \$6,550.86 | \$17,293.71 |
| 62 | 12753 | 114B Ave | 011-572-434 | 465.10 | 15.26 | \$4,292.95 | \$6,445.67 | \$6,548.61 | \$17,287.23 |
| 63 | 12763 | 114B Ave | 007-727-861 | 465.25 | 15.27 | \$4,292.95 | \$6,449.90 | \$6,550.72 | \$17,293.57 |
| 64 | 12769 | 114B Ave | 011-572-400 | 465.33 | 15.27 | \$4,292.95 | \$6,449.90 | \$6,551.85 | \$17,294.69 |
| 65 | 12775 | 114B Ave | 009-707-000 | 465.10 | 15.26 | \$4,292.95 | \$6,445.67 | \$6,548.61 | \$17,287.23 |
| 66 | 12783 | 114B Ave | 001-939-599 | 465.41 | 15.27 | \$4,292.95 | \$6,449.90 | \$6,552.97 | \$17,295.82 |
| 67 | 11485 | 128 St | 003-086-470 | 465.26 | 15.26 | \$4,292.95 | \$6,445.67 | \$6,550.86 | \$17,289.48 |
| 68 | 12684 | 114B Ave | 004-514-068 | 464.95 | 15.26 | \$4,292.95 | \$6,445.67 | \$6,546.50 | \$17,285.12 |
| 69 | 12692 | 114B Ave | 000-775-151 | 464.95 | 15.26 | \$4,292.95 | \$6,445.67 | \$6,546.50 | \$17,285.12 |
| 70 | 12698 | 114B Ave | 011-577-291 | 465.11 | 15.27 | \$4,292.95 | \$6,449.90 | \$6,548.75 | \$17,291.59 |
| 71 | 12706 | 114B Ave | 008-157-472 | 465.03 | 15.26 | \$4,292.95 | \$6,445.67 | \$6,547.62 | \$17,286.24 |
| 72 | 12712 | 114B Ave | 011-577-304 | 465.11 | 15.26 | \$4,292.95 | \$6,445.67 | \$6,548.75 | \$17,287.37 |
| 73 | 12720 | 114B Ave | 011-577-312 | 465.26 | 15.27 | \$4,292.95 | \$6,449.90 | \$6,550.86 | \$17,293.71 |
| 74 | 12728 | 114B Ave | 011-577-321 | 465.11 | 15.26 | \$4,292.95 | \$6,445.67 | \$6,548.75 | \$17,287.37 |
| 75 | 12744 | 114B Ave | 000-868-582 | 465.42 | 15.27 | \$4,292.95 | \$6,449.90 | \$6,553.11 | \$17,295.96 |
| 76 | 12752 | 114B Ave | 011-577-339 | 465.11 | 15.26 | \$4,292.95 | \$6,445.67 | \$6,548.75 | \$17,287.37 |
| 77 | 12760 | 114B Ave | 002-381-729 | 465.11 | 15.26 | \$4,292.95 | \$6,445.67 | \$6,548.75 | \$17,287.37 |
| 78 | 12768 | 114B Ave | 011-577-347 | 465.26 | 15.27 | \$4,292.95 | \$6,449.90 | \$6,550.86 | \$17,293.71 |
| 79 | 12774 | 114B Ave | 011-577-355 | 465.19 | 15.26 | \$4,292.95 | \$6,445.67 | \$6,549.88 | \$17,288.50 |
| 80 | 11467 | 128 St | 003-432-840 | 465.34 | 15.24 | \$4,292.95 | \$6,437.22 | \$6,551.99 | \$17,282.16 |
| 81 | 11463 | 128 St | 000-684-147 | 465.26 | 15.24 | \$4,292.95 | \$6,437.22 | \$6,550.86 | \$17,281.03 |
| 82 | 12808 | 114B Ave | 023-993-421 | 697.26 | 22.88 | \$4,292.95 | \$9,664.28 | \$9,817.42 | \$23,774.65 |
| 83 | 12816 | 114B Ave | 011-587-130 | 232.36 | 7.62 | \$0.00 | \$3,218.61 | \$3,271.63 | \$6,490.24 |
| 84 | 12816 | 114B Ave | 011-587-148 | 232.41 | 7.63 | \$4,292.95 | \$3,222.84 | \$3,272.33 | \$10,788.12 |
| 85 | 12832 | 114B Ave | 011-587-202 | 464.96 | 15.25 | \$4,292.95 | \$6,441.45 | \$6,546.64 | \$17,281.03 |
| 86 | 12834 | 114B Ave | 007-276-079 | 232.52 | N/A | \$0.00 | \$0.00 | \$6,908.17 | \$6,908.17 |
| 87 | 12838 | 114B Ave | 007-276-087 | 232.33 | N/A | \$0.00 | \$0.00 | \$6,902.52 | \$6,902.52 |
| 88 | 12840 | 114B Ave | 007-790-252 | 232.37 | N/A | \$0.00 | \$0.00 | \$6,903.71 | \$6,903.71 |
| 89 | 12844 | 114B Ave | 007-790-261 | 232.56 | N/A | \$0.00 | \$0.00 | \$6,909.36 | \$6,909.36 |
| 90 | 12846 | 114B Ave | 007-790-279 | 232.41 | N/A | \$0.00 | \$0.00 | \$6,904.90 | \$6,904.90 |
| 91 | 12850 | 114B Ave | 007-790-287 | 232.56 | N/A | \$0.00 | \$0.00 | \$6,909.36 | \$6,909.36 |
| 92 | 12854 | 114B Ave | 007-790-295 | 232.37 | N/A | \$0.00 | \$0.00 | \$6,903.71 | \$6,903.71 |
| 93 | 12856 | 114B Ave | 007-276-281 | 232.44 | N/A | \$0.00 | \$0.00 | \$6,905.79 | \$6,905.79 |
| 94 | 12685 | 114A Ave | 007-031-068 | 465.11 | 15.26 | \$4,292.95 | \$6,445.67 | \$6,548.75 | \$17,287.37 |
| 95 | 12693 | 114A Ave | 000-513-831 | 465.11 | 15.26 | \$4,292.95 | \$6,445.67 | \$6,548.75 | \$17,287.37 |
| 96 | 12699 | 114A Ave | 004-501-985 | 465.11 | 15.26 | \$4,292.95 | \$6,445.67 | \$6,548.75 | \$17,287.37 |
| 97 | 12705 | 114A Ave | 009-097-902 | 465.03 | 15.26 | \$4,292.95 | \$6,445.67 | \$6,547.62 | \$17,286.24 |
| 98 | 12711 | 114A Ave | 007-680-236 | 464.80 | 15.25 | \$4,292.95 | \$6,441.45 | \$6,544.38 | \$17,278.78 |
| 99 | 12719 | 114A Ave | 000-935-018 | 464.95 | 15.26 | \$4,292.95 | \$6,445.67 | \$6,546.50 | \$17,285.12 |
| 100 | 12729 | 114A Ave | 003-814-271 | 464.96 | 15.26 | \$4,292.95 | \$6,445.67 | \$6,546.64 | \$17,285.26 |
| 101 | 12745 | 114A Ave | 011-429-828 | 465.26 | 15.26 | \$4,292.95 | \$6,445.67 | \$6,550.86 | \$17,289.48 |
| 102 | 12755 | 114A Ave | 011-577-436 | 465.11 | 15.26 | \$4,292.95 | \$6,445.67 | \$6,548.75 | \$17,287.37 |
| 103 | 12761 | 114A Ave | 011-577-428 | 465.11 | 15.26 | \$4,292.95 | \$6,445.67 | \$6,548.75 | \$17,287.37 |
| 104 | 12765 | 114A Ave | 011-577-371 | 464.96 | 15.25 | \$4,292.95 | \$6,441.45 | \$6,546.64 | \$17,281.03 |
| 105 | 12771 | 114A Ave | 011-577-363 | 465.19 | 15.26 | \$4,292.95 | \$6,445.67 | \$6,549.88 | \$17,288.50 |
| 106 | 11455 | 128 St | 011-674-792 | 465.19 | 15.24 | \$4,292.95 | \$6,437.22 | \$6,549.88 | \$17,280.05 |
| 107 | 11447 | 128 St | 011-254-751 | 465.11 | 15.24 | \$4,292.95 | \$6,437.22 | \$6,548.75 | \$17,278.92 |
| 108 | 11456 | 128 St | 002-102-897 | 581.25 | 15.24 | \$4,292.95 | \$6,437.22 | \$8,184.00 | \$18,914.17 |
| 109 | 11448 | 128 St | 004-332-741 | 581.25 | 15.24 | \$4,292.95 | \$6,437.22 | \$8,184.00 | \$18,914.17 |
| 110 | 12831 | 114A Ave | 000-533-840 | 697.45 | 22.88 | \$4,292.95 | \$9,664.28 | \$9,820.10 | \$23,777.33 |
| 111 | 12839 | 114A Ave | 005-828-465 | 464.93 | 15.26 | \$4,292.95 | \$6,445.67 | \$6,546.21 | \$17,284.84 |
| 112 | 12849 | 114A Ave | 000-832-740 | 464.73 | 15.25 | \$4,292.95 | \$6,441.45 | \$6,543.40 | \$17,277.80 |
| 113 | 12855 | 114A Ave | 011-587-199 | 465.11 | 15.26 | \$9,060.67 | \$6,445.67 | \$6,548.75 | \$22,055.09 |
| 114 | 12859 | 114A Ave | 001-319-302 | 465.08 | 15.25 | \$4,292.95 | \$6,441.45 | \$6,548.33 | \$17,282.72 |
| 115 | 12867 | 114A Ave | 011-587-211 | 465.12 | 15.26 | \$4,292.95 | \$6,445.67 | \$6,548.89 | \$17,287.51 |
| 116 | 12875 | 114A Ave | 007-480-733 | 232.52 | 7.63 | \$4,292.95 | \$3,222.84 | \$3,273.88 | \$10,789.67 |
| 117 | 12875 | 114A Ave | 007-480-628 | 232.41 | 7.62 | \$0.00 | \$3,218.61 | \$3,272.33 | \$6,490.94 |
| 118 | 12885 | 114A Ave | 011-587-181 | 232.71 | 7.63 | \$4,292.95 | \$3,222.84 | \$3,276.56 | \$10,792.34 |
| 119 | 12885 | 114A Ave | 011-587-172 | 232.60 | 7.63 | \$0.00 | \$3,222.84 | \$3,275.01 | \$6,497.84 |

| | Address | | PID | Lot Area (sq.m) | Lot Frontage (l.m.) | Sewer Lateral Tax Component | Frontage Tax Component | System Replacement Tax Component | Total Local Service Tax |
|-----|---------|----------|-------------|-----------------|---------------------|-----------------------------|------------------------|----------------------------------|-------------------------|
| | House | Road | | | | | | | |
| 120 | 12893 | 114A Ave | 011-587-164 | 232.79 | 7.63 | \$4,292.95 | \$3,222.84 | \$3,277.68 | \$10,793.47 |
| 121 | 12893 | 114A Ave | 011-587-156 | 232.48 | 7.62 | \$0.00 | \$3,218.61 | \$3,273.32 | \$6,491.93 |
| 122 | 12676 | 114A Ave | 011-304-731 | 464.95 | 15.26 | \$9,060.67 | \$6,445.67 | \$6,546.50 | \$22,052.84 |
| 123 | 12686 | 114A Ave | 011-304-740 | 464.65 | 15.25 | \$9,060.67 | \$6,441.45 | \$6,542.27 | \$22,044.39 |
| 124 | 12698 | 114A Ave | 011-304-766 | 464.80 | 15.26 | \$4,292.95 | \$6,445.67 | \$6,544.38 | \$17,283.01 |
| 125 | 12706 | 114A Ave | 011-304-774 | 464.95 | 15.26 | \$4,292.95 | \$6,445.67 | \$6,546.50 | \$17,285.12 |
| 126 | 12712 | 114A Ave | 011-304-791 | 464.73 | 15.25 | \$4,292.95 | \$6,441.45 | \$6,543.40 | \$17,277.80 |
| 127 | 12720 | 114A Ave | 011-304-804 | 464.95 | 15.26 | \$9,060.67 | \$6,445.67 | \$6,546.50 | \$22,052.84 |
| 128 | 12728 | 114A Ave | 011-304-812 | 465.11 | 15.26 | \$4,292.95 | \$6,445.67 | \$6,548.75 | \$17,287.37 |
| 129 | 12746 | 114A Ave | 011-577-444 | 464.65 | 15.26 | \$4,292.95 | \$6,445.67 | \$6,542.27 | \$17,280.89 |
| 130 | 12754 | 114A Ave | 005-318-416 | 465.04 | 15.26 | \$4,292.95 | \$6,445.67 | \$6,547.76 | \$17,286.38 |
| 131 | 12760 | 114A Ave | 000-607-363 | 464.96 | 15.26 | \$4,292.95 | \$6,445.67 | \$6,546.64 | \$17,285.26 |
| 132 | 12768 | 114A Ave | 011-577-452 | 464.81 | 15.25 | \$4,292.95 | \$6,441.45 | \$6,544.52 | \$17,278.92 |
| 133 | 12774 | 114A Ave | 010-099-387 | 465.11 | 15.26 | \$4,292.95 | \$6,445.67 | \$6,548.75 | \$17,287.37 |
| 134 | 12780 | 114A Ave | 011-577-461 | 464.81 | 15.25 | \$4,292.95 | \$6,441.45 | \$6,544.52 | \$17,278.92 |
| 135 | 11427 | 128 St | 011-577-479 | 464.96 | 15.26 | \$4,292.95 | \$6,445.67 | \$6,546.64 | \$17,285.26 |
| 136 | 11426 | 128 St | 011-587-237 | 465.12 | 15.26 | \$4,292.95 | \$6,445.67 | \$6,548.89 | \$17,287.51 |
| 137 | 12818 | 114A Ave | 010-985-221 | 464.89 | 15.25 | \$4,292.95 | \$6,441.45 | \$6,545.65 | \$17,280.05 |
| 138 | 12820 | 114A Ave | 026-266-458 | 464.85 | 15.26 | \$4,292.95 | \$6,445.67 | \$6,545.09 | \$17,283.71 |
| 139 | 12832 | 114A Ave | 000-967-882 | 232.56 | 7.63 | \$4,292.95 | \$3,222.84 | \$3,274.44 | \$10,790.23 |
| 140 | 12832 | 114A Ave | 000-967-891 | 232.56 | 7.63 | \$0.00 | \$3,222.84 | \$3,274.44 | \$6,497.28 |
| 141 | 12836 | 114A Ave | 011-587-296 | 232.36 | 7.62 | \$0.00 | \$3,218.61 | \$3,271.63 | \$6,490.24 |
| 142 | 12836 | 114A Ave | 011-587-326 | 232.41 | 7.63 | \$4,292.95 | \$3,222.84 | \$3,272.33 | \$10,788.12 |
| 143 | 12844 | 114A Ave | 002-317-877 | 464.96 | 15.26 | \$4,292.95 | \$6,445.67 | \$6,546.64 | \$17,285.26 |
| 144 | 12850 | 114A Ave | 006-646-123 | 464.89 | 15.25 | \$4,292.95 | \$6,441.45 | \$6,545.65 | \$17,280.05 |
| 145 | 12860 | 114A Ave | 001-438-760 | 464.96 | 15.25 | \$4,292.95 | \$6,441.45 | \$6,546.64 | \$17,281.03 |
| 146 | 12866 | 114A Ave | 011-587-407 | 232.52 | 7.63 | \$4,292.95 | \$3,222.84 | \$3,273.88 | \$10,789.67 |
| 147 | 12866 | 114A Ave | 011-587-415 | 232.33 | 7.62 | \$0.00 | \$3,218.61 | \$3,271.21 | \$6,489.82 |
| 148 | 12874 | 114A Ave | 007-122-489 | 464.81 | 15.26 | \$4,292.95 | \$6,445.67 | \$6,544.52 | \$17,283.15 |
| 149 | 12687 | 114 Ave | 002-312-794 | 464.80 | 15.25 | \$4,292.95 | \$6,441.45 | \$6,544.38 | \$17,278.78 |
| 150 | 12693 | 114 Ave | 006-655-122 | 464.65 | 15.25 | \$4,292.95 | \$6,441.45 | \$6,542.27 | \$17,276.67 |
| 151 | 12699 | 114 Ave | 011-282-266 | 464.65 | 15.25 | \$4,292.95 | \$6,441.45 | \$6,542.27 | \$17,276.67 |
| 152 | 12705 | 114 Ave | 000-627-836 | 464.88 | 15.25 | \$4,292.95 | \$6,441.45 | \$6,545.51 | \$17,279.91 |
| 153 | 12717 | 114 Ave | 011-304-839 | 464.73 | 15.25 | \$4,292.95 | \$6,441.45 | \$6,543.40 | \$17,277.80 |
| 154 | 12719 | 114 Ave | 000-539-228 | 464.65 | 15.25 | \$4,292.95 | \$6,441.45 | \$6,542.27 | \$17,276.67 |
| 155 | 12743 | 114 Ave | 011-577-509 | 464.81 | 15.25 | \$4,292.95 | \$6,441.45 | \$6,544.52 | \$17,278.92 |
| 156 | 12755 | 114 Ave | 002-170-990 | 464.88 | 15.25 | \$4,292.95 | \$6,441.45 | \$6,545.51 | \$17,279.91 |
| 157 | 12763 | 114 Ave | 011-577-495 | 464.65 | 15.25 | \$4,292.95 | \$6,441.45 | \$6,542.27 | \$17,276.67 |
| 158 | 12767 | 114 Ave | 001-914-332 | 464.65 | 15.25 | \$4,292.95 | \$6,441.45 | \$6,542.27 | \$17,276.67 |
| 159 | 12775 | 114 Ave | 011-577-487 | 464.88 | 15.25 | \$4,292.95 | \$6,441.45 | \$6,545.51 | \$17,279.91 |
| 160 | 11409 | 128 St | 011-577-517 | 929.61 | 30.48 | \$4,292.95 | \$12,874.45 | \$13,088.91 | \$30,256.31 |
| 161 | 12809 | 114 Ave | 000-557-510 | 465.12 | 15.26 | \$4,292.95 | \$6,445.67 | \$6,548.89 | \$17,287.51 |
| 162 | 12815 | 114 Ave | 000-560-812 | 465.12 | 15.26 | \$4,292.95 | \$6,445.67 | \$6,548.89 | \$17,287.51 |
| 163 | 12821 | 114 Ave | 002-162-245 | 232.41 | 7.63 | \$4,292.95 | \$3,222.84 | \$3,272.33 | \$10,788.12 |
| 164 | 12821 | 114 Ave | 002-177-871 | 232.37 | 7.62 | \$0.00 | \$3,218.61 | \$3,271.77 | \$6,490.38 |
| 165 | 12831 | 114 Ave | 001-775-715 | 232.48 | 7.63 | \$4,292.95 | \$3,222.84 | \$3,273.32 | \$10,789.10 |
| 166 | 12831 | 114 Ave | 001-775-707 | 232.48 | 7.63 | \$0.00 | \$3,222.84 | \$3,273.32 | \$6,496.15 |
| 167 | 12835 | 114 Ave | 002-057-611 | 464.89 | 15.26 | \$4,292.95 | \$6,445.67 | \$6,545.65 | \$17,284.27 |
| 168 | 12845 | 114 Ave | 011-587-695 | 464.96 | 7.59 | \$9,060.67 | \$6,766.49 | \$13,813.96 | \$29,641.12 |
| 169 | 12851 | 114 Ave | 017-241-235 | 697.37 | N/A | \$0.00 | \$0.00 | \$20,718.86 | \$20,718.86 |
| 170 | 12861 | 114 Ave | 011-587-661 | 232.48 | N/A | \$0.00 | \$0.00 | \$6,906.98 | \$6,906.98 |
| 171 | 12869 | 114 Ave | 017-253-276 | 2,789.32 | 30.52 | \$0.00 | \$12,891.34 | \$39,273.63 | \$52,164.97 |
| 172 | 12684 | 114 Ave | 002-394-855 | 464.27 | 15.24 | \$4,292.95 | \$6,437.22 | \$6,536.92 | \$17,267.10 |
| 173 | 12690 | 114 Ave | 009-494-821 | 464.19 | 15.24 | \$4,292.95 | \$6,437.22 | \$6,535.80 | \$17,265.97 |
| 174 | 12698 | 114 Ave | 009-494-839 | 464.27 | 15.24 | \$4,292.95 | \$6,437.22 | \$6,536.92 | \$17,267.10 |
| 175 | 12706 | 114 Ave | 009-494-847 | 464.27 | 15.24 | \$4,292.95 | \$6,437.22 | \$6,536.92 | \$17,267.10 |
| 176 | 12716 | 114 Ave | 009-494-855 | 464.34 | 15.24 | \$4,292.95 | \$6,437.22 | \$6,537.91 | \$17,268.08 |
| 177 | 12728 | 114 Ave | 006-670-971 | 929.61 | 30.51 | \$4,292.95 | \$12,887.12 | \$13,088.91 | \$30,268.98 |
| 178 | 12748 | 114 Ave | 001-564-617 | 928.97 | 30.49 | \$4,292.95 | \$12,878.67 | \$13,079.90 | \$30,251.52 |
| 179 | 12760 | 114 Ave | 011-579-145 | 464.77 | 15.25 | \$4,292.95 | \$6,441.45 | \$6,543.96 | \$17,278.36 |
| 180 | 12770 | 114 Ave | 011-579-153 | 464.46 | 15.24 | \$4,292.95 | \$6,437.22 | \$6,539.60 | \$17,269.77 |
| 181 | 12778 | 114 Ave | 003-427-561 | 464.58 | 15.25 | \$4,292.95 | \$6,441.45 | \$6,541.29 | \$17,275.68 |

| | Address | | PID | Lot Area (sq.m) | Lot Frontage (l.m.) | Sewer Lateral Tax Component | Frontage Tax Component | System Replacement Tax Component | Total Local Service Tax |
|-----|---------|---------------|-------------|-----------------|---------------------|-----------------------------|------------------------|----------------------------------|-------------------------|
| | House | Road | | | | | | | |
| 182 | 12782 | 114 Ave | 000-660-043 | 464.50 | 15.24 | \$4,292.95 | \$6,437.22 | \$6,540.16 | \$17,270.33 |
| 183 | 11387 | 128 St | 000-660-086 | 464.80 | 15.25 | \$0.00 | \$6,441.45 | \$6,544.38 | \$12,985.83 |
| 184 | 12814 | 114 Ave | 011-588-209 | 1,162.10 | 30.48 | \$4,292.95 | \$12,874.45 | \$16,362.37 | \$33,529.77 |
| 185 | 12832 | 114 Ave | 011-587-717 | 232.40 | 7.63 | \$0.00 | \$3,222.84 | \$3,272.19 | \$6,495.03 |
| 186 | 12832 | 114 Ave | 011-587-733 | 232.10 | 7.62 | \$4,292.95 | \$3,218.61 | \$3,267.97 | \$10,779.53 |
| 187 | 12832 | 114 Ave | 011-587-750 | 232.10 | 7.62 | \$0.00 | \$3,218.61 | \$3,267.97 | \$6,486.58 |
| 188 | 12836 | 114 Ave | 005-692-857 | 696.87 | 22.89 | \$4,292.95 | \$9,668.51 | \$9,811.93 | \$23,773.39 |
| 189 | 12848 | 114 Ave | 017-263-433 | 3,017.28 | N/A | \$0.00 | \$0.00 | \$89,643.39 | \$89,643.39 |
| 190 | 12683 | 113B Ave | 011-578-769 | 464.11 | 15.23 | \$4,292.95 | \$6,433.00 | \$6,534.67 | \$17,260.62 |
| 191 | 12689 | 113B Ave | 004-387-554 | 464.04 | 15.24 | \$4,292.95 | \$6,437.22 | \$6,533.68 | \$17,263.86 |
| 192 | 12695 | 113B Ave | 001-645-153 | 464.12 | 15.23 | \$4,292.95 | \$6,433.00 | \$6,534.81 | \$17,260.76 |
| 193 | 12707 | 113B Ave | 001-748-581 | 464.27 | 15.24 | \$4,292.95 | \$6,437.22 | \$6,536.92 | \$17,267.10 |
| 194 | 12713 | 113B Ave | 002-477-009 | 464.27 | 15.24 | \$4,292.95 | \$6,437.22 | \$6,536.92 | \$17,267.10 |
| 195 | 12725 | 113B Ave | 006-655-149 | 929.45 | 30.50 | \$4,292.95 | \$12,882.90 | \$13,086.66 | \$30,262.50 |
| 196 | 12745 | 113B Ave | 003-739-597 | 698.50 | 22.92 | \$4,292.95 | \$9,681.18 | \$9,834.88 | \$23,809.01 |
| 197 | 12755 | 113B Ave | 003-739-601 | 464.08 | 15.23 | \$4,292.95 | \$6,433.00 | \$6,534.25 | \$17,260.20 |
| 198 | 12761 | 113B Ave | 003-739-619 | 464.27 | 15.24 | \$4,292.95 | \$6,437.22 | \$6,536.92 | \$17,267.10 |
| 199 | 12765 | 113B Ave | 003-739-627 | 464.31 | 15.23 | \$4,292.95 | \$6,433.00 | \$6,537.48 | \$17,263.43 |
| 200 | 11375 | 128 St | 009-706-372 | 1,160.26 | 30.48 | \$4,292.95 | \$12,874.45 | \$16,336.46 | \$33,503.86 |
| 201 | 11374 | 128 St | 011-398-434 | 580.86 | 15.23 | \$4,292.95 | \$6,433.00 | \$8,178.51 | \$18,904.46 |
| 202 | 11366 | 128 St | 011-398-442 | 581.05 | 15.24 | \$4,292.95 | \$6,437.22 | \$8,181.18 | \$18,911.36 |
| 203 | 12829 | 113B Ave | 011-641-151 | 232.25 | 7.62 | \$0.00 | \$3,218.61 | \$3,270.08 | \$6,488.69 |
| 204 | 12829 | 113B Ave | 011-641-142 | 232.25 | 7.63 | \$4,292.95 | \$3,222.84 | \$3,270.08 | \$10,785.87 |
| 205 | 12837 | 113B Ave | 000-660-132 | 232.36 | 7.63 | \$0.00 | \$3,222.84 | \$3,271.63 | \$6,494.46 |
| 206 | 12837 | 113B Ave | 000-660-124 | 232.33 | 7.63 | \$4,292.95 | \$3,222.84 | \$3,271.21 | \$10,786.99 |
| 207 | 12843 | 113B Ave | 008-037-337 | 464.50 | 15.25 | \$4,292.95 | \$6,441.45 | \$6,540.16 | \$17,274.56 |
| 208 | 12853 | 113B Ave | 011-588-225 | 464.42 | 15.26 | \$4,292.95 | \$6,445.67 | \$6,539.03 | \$17,277.66 |
| 209 | 12859 | 113B Ave | 011-588-179 | 464.27 | 15.25 | \$4,292.95 | \$6,441.45 | \$6,536.92 | \$17,271.32 |
| 210 | 12869 | 113B Ave | 011-588-187 | 696.26 | N/A | \$0.00 | \$0.00 | \$20,685.88 | \$20,685.88 |
| 211 | 12881 | 113B Ave | 017-258-553 | 1,391.91 | N/A | \$0.00 | \$0.00 | \$41,353.65 | \$41,353.65 |
| 212 | 12682 | 113B Ave | 004-225-473 | 464.42 | 15.25 | \$4,292.95 | \$6,441.45 | \$6,539.03 | \$17,273.43 |
| 213 | 12688 | 113B Ave | 011-300-086 | 464.27 | 15.24 | \$4,292.95 | \$6,437.22 | \$6,536.92 | \$17,267.10 |
| 214 | 12696 | 113B Ave | 000-929-239 | 464.27 | 15.24 | \$4,292.95 | \$6,437.22 | \$6,536.92 | \$17,267.10 |
| 215 | 12704 | 113B Ave | 011-300-094 | 464.50 | 15.24 | \$4,292.95 | \$6,437.22 | \$6,540.16 | \$17,270.33 |
| 216 | 12710 | 113B Ave | 011-300-116 | 464.35 | 15.24 | \$4,292.95 | \$6,437.22 | \$6,538.05 | \$17,268.22 |
| 217 | 12718 | 113B Ave | 011-300-124 | 464.34 | 15.24 | \$4,292.95 | \$6,437.22 | \$6,537.91 | \$17,268.08 |
| 218 | 12728 | 113B Ave | 000-653-691 | 464.20 | 15.24 | \$4,292.95 | \$6,437.22 | \$6,535.94 | \$17,266.11 |
| 219 | 12742 | 113B Ave | 011-324-180 | 464.58 | 15.25 | \$4,292.95 | \$6,441.45 | \$6,541.29 | \$17,275.68 |
| 220 | 12750 | 113B Ave | 011-324-210 | 464.42 | 15.24 | \$4,292.95 | \$6,437.22 | \$6,539.03 | \$17,269.21 |
| 221 | 12760 | 113B Ave | 011-324-252 | 464.42 | 15.24 | \$4,292.95 | \$6,437.22 | \$6,539.03 | \$17,269.21 |
| 222 | 12768 | 113B Ave | 001-131-796 | 464.42 | 15.24 | \$4,292.95 | \$6,437.22 | \$6,539.03 | \$17,269.21 |
| 223 | 12774 | 113B Ave | 011-324-279 | 465.54 | 15.28 | \$4,292.95 | \$6,454.12 | \$6,554.80 | \$17,301.87 |
| 224 | 12788 | 113B Ave | 027-219-607 | 451.40 | 15.24 | \$4,292.95 | \$6,437.22 | \$6,355.71 | \$17,085.89 |
| 225 | 11347 | 128 St | 027-219-615 | 392.65 | 13.40 | \$9,060.67 | \$5,660.03 | \$5,528.51 | \$20,249.21 |
| 226 | 11348 | 128 St | 005-792-118 | 4,333.39 | 67.23 | \$0.00 | \$28,397.28 | \$61,014.13 | \$89,411.41 |
| 227 | 12851 | Bridgeview Dr | 025-257-331 | 2,230.64 | 19.73 | \$0.00 | \$8,333.75 | \$31,407.41 | \$39,741.17 |
| 228 | 12683 | 113A Ave | 011-300-141 | 464.19 | 15.24 | \$4,292.95 | \$6,437.22 | \$6,535.80 | \$17,265.97 |
| 229 | 12691 | 113A Ave | 010-397-868 | 464.19 | 15.24 | \$4,292.95 | \$6,437.22 | \$6,535.80 | \$17,265.97 |
| 230 | 12697 | 113A Ave | 006-157-530 | 464.19 | 15.24 | \$4,292.95 | \$6,437.22 | \$6,535.80 | \$17,265.97 |
| 231 | 12705 | 113A Ave | 007-207-875 | 464.42 | 15.24 | \$4,292.95 | \$6,437.22 | \$6,539.03 | \$17,269.21 |
| 232 | 12719 | 113A Ave | 011-300-167 | 928.61 | 30.48 | \$4,292.95 | \$12,874.45 | \$13,074.83 | \$30,242.23 |
| 233 | 12729 | 113A Ave | 011-300-132 | 463.89 | 15.22 | \$4,292.95 | \$6,428.78 | \$6,531.57 | \$17,253.30 |
| 234 | 12745 | 113A Ave | 000-835-439 | 464.35 | 15.24 | \$9,060.67 | \$6,437.22 | \$6,538.05 | \$22,035.94 |
| 235 | 12753 | 113A Ave | 011-324-368 | 464.35 | 15.24 | \$4,292.95 | \$6,437.22 | \$6,538.05 | \$17,268.22 |
| 236 | 12759 | 113A Ave | 011-324-333 | 464.42 | 15.24 | \$4,292.95 | \$6,437.22 | \$6,539.03 | \$17,269.21 |
| 237 | 12767 | 113A Ave | 011-324-325 | 464.42 | 15.24 | \$4,292.95 | \$6,437.22 | \$6,539.03 | \$17,269.21 |
| 238 | 12775 | 113A Ave | 002-606-348 | 465.11 | 15.24 | \$4,292.95 | \$6,437.22 | \$6,548.75 | \$17,278.92 |
| 239 | 11329 | 128 St | 011-324-295 | 929.31 | 30.46 | \$9,060.67 | \$12,866.00 | \$13,084.68 | \$35,011.35 |
| 240 | 11308 | 126A St | 009-097-937 | 464.12 | 15.24 | \$4,292.95 | \$6,437.22 | \$6,534.81 | \$17,264.98 |
| 241 | 12692 | 113A Ave | 011-579-161 | 464.20 | 15.24 | \$4,292.95 | \$6,437.22 | \$6,535.94 | \$17,266.11 |
| 242 | 12698 | 113A Ave | 011-579-170 | 464.28 | 15.24 | \$4,292.95 | \$6,437.22 | \$6,537.06 | \$17,267.24 |
| 243 | 12704 | 113A Ave | 005-682-428 | 464.05 | 15.23 | \$4,292.95 | \$6,433.00 | \$6,533.82 | \$17,259.77 |

| | Address | | PID | Lot Area (sq.m) | Lot Frontage (l.m.) | Sewer Lateral Tax Component | Frontage Tax Component | System Replacement Tax Component | Total Local Service Tax |
|-----|---------|----------|-------------|-----------------|---------------------|-----------------------------|------------------------|----------------------------------|-------------------------|
| | House | Road | | | | | | | |
| 244 | 12712 | 113A Ave | 008-528-179 | 464.28 | 15.24 | \$4,292.95 | \$6,437.22 | \$6,537.06 | \$17,267.24 |
| 245 | 12720 | 113A Ave | 011-579-188 | 464.27 | 15.24 | \$4,292.95 | \$6,437.22 | \$6,536.92 | \$17,267.10 |
| 246 | 12728 | 113A Ave | 005-694-361 | 464.35 | 15.24 | \$4,292.95 | \$6,437.22 | \$6,538.05 | \$17,268.22 |
| 247 | 12744 | 113A Ave | 001-828-983 | 464.28 | 15.24 | \$4,292.95 | \$6,437.22 | \$6,537.06 | \$17,267.24 |
| 248 | 12754 | 113A Ave | 004-433-751 | 464.43 | 15.24 | \$4,292.95 | \$6,437.22 | \$6,539.17 | \$17,269.35 |
| 249 | 12760 | 113A Ave | 008-158-983 | 464.35 | 15.24 | \$4,292.95 | \$6,437.22 | \$6,538.05 | \$17,268.22 |
| 250 | 12766 | 113A Ave | 005-773-229 | 464.27 | 15.24 | \$4,292.95 | \$6,437.22 | \$6,536.92 | \$17,267.10 |
| 251 | 12770 | 113A Ave | 011-579-218 | 464.50 | 15.24 | \$4,292.95 | \$6,437.22 | \$6,540.16 | \$17,270.33 |
| 252 | 12782 | 113A Ave | 000-764-124 | 464.43 | 15.24 | \$4,292.95 | \$6,437.22 | \$6,539.17 | \$17,269.35 |
| 253 | 11309 | 128 St | 000-764-132 | 464.28 | 15.23 | \$4,292.95 | \$6,433.00 | \$6,537.06 | \$17,263.01 |



Scale: 1:5,500



Local Service Area for Bridgeview Phase 3 & 4 Vacuum Sewer Replacement

ENGINEERING
DEPARTMENT



Corporate Report

APPENDIX "C" CITY MANAGER'S
DEPARTMENT

NO: R251

COUNCIL DATE: Dec. 4/06

REGULAR COUNCIL

TO: Mayor & Council DATE: November 29, 2006
FROM: General Manager, Engineering FILE: 4703-106
5250-20-47
SUBJECT: Bridgeview Vacuum Sewer Replacement Strategy

RECOMMENDATION

The Engineering Department recommends that Council:

1. Adopt the replacement strategy for the Bridgeview Vacuum Sewer System (Option 5) as documented in this report;
2. Adopt the policy that no new connections to the existing Vacuum Sewer System be allowed; and
3. Authorize staff to develop and recommend a financial strategy for implementing the replacement of the Vacuum Sewer System which includes, as the opportunity arises, applying to the Green Infrastructure Fund, or other similar funding sources, for funds to assist in sewer replacement.

INTENT

The purpose of this report is to seek Council approval regarding a replacement strategy for the Bridgeview vacuum sewer system.

BACKGROUND

The City constructed the vacuum sewer system in the late 70s in response to the health concerns arising from the malfunctioning of residential septic systems. Because a conventional gravity sewer was cost prohibitive in this flat area with soft soil conditions, a vacuum sewer system was chosen over a conventional gravity pipe system. However, the vacuum system has been problematic since the mid 1980s. At the time of installation the technology for vacuum sewer system was in its infancy, the supplier of the system has since ceased operations, and the design standards for vacuum sewer systems have changed over time. As a result, the system had become costly to maintain and prone to

service disruptions. The City's data show that on a per connection basis, the vacuum sewer system is approximately 20 times more expensive to operate and maintain than the rest of the City sewer system. Furthermore, the capacity of this type of system is limited. These limitations greatly hinder development and redevelopment in the area, a significant portion of which is industrial land.

Despite attempts to increase the reliability, such as replacing the interface valves with a more reliable product in 1988, the operations and maintenance cost has remained very high. Consequently, in 1990 a plan was developed to replace this system with a steep-grade multi-pump system. However, because this system would require a total of 14 pump stations, each of which is costly, together with the need to construct a new replacement sewer system, overall replacement was uneconomic.

DISCUSSION

In view of the ongoing difficulties, a new study was initiated to re-evaluate the replacement system by considering new technology combined with Low Pressure System (LPS) standards introduced recently and successfully implemented. With regard to new technology, significant advancements have been made in last 15 years in Horizontal Directional Drilling (HDD), a trenchless technology.

Financial Analysis:

The study reviewed various replacement alternatives, and an economic comparison of the alternatives based on net present value is provided in the following table:

| Options | Descriptions | Net Present Value ¹ | Remarks |
|---------|--|--------------------------------|--|
| 1. | Maintain and replace existing system (O&M and replacement cost included) | \$40M | Need to replace the Vacuum Sewer System in the next few years. |
| 2. | Steep Grade Sewer System | \$39M | Requires significant upfront financing |
| 3. | Steep Grade Sewer System with HDD | \$37M | Requires significant upfront financing |
| 4. | Low Pressure System (LPS) | \$36M | Requires 100 mini pump stations |
| 5. | Hybrid LPS with Steep Grade and HDD | \$32M | Is the most practical and most economical option to implement |

Notes:

1. The Net Present Values (NPV) is based on a 50 years life cycle analysis. The NPVs in the table include both the capital costs, and the operations and maintenance costs for each option.

The study concludes that Option 5 – A Hybrid of Low Pressure Sewers (LPS) with Steep Grade and Horizontal Directional Drilling (HDD) is the most economical and practical replacement system for the Vacuum Sewer System. In this option, the steep grade sewer system using HDD technology, a proven system that has been used in Queensborough, will replace the vacuum sewer in the residential areas, while the LPS will replace the vacuum sewer in the industrial/commercial areas, as shown in the attached Appendix 1.

LPS is recommended for the industrial/commercial areas because it facilitates the phasing of developments by deferring the cost until the individual lots are developed. Under this system, the City will own and maintain a system of force mains on City roadways, while the industrial commercial property owners will own and operate their respective on-site pumping facilities.

Implementation Strategy:

To facilitate the decommissioning of the Vacuum Sewer System, it is proposed that no new connections to the existing vacuum system be allowed. Allowing additional ad-hoc connections to this existing system will simply perpetuate the Vacuum Sewer System. This creates a difficult situation where costs would be prohibitive for the City to maintain two parallel systems longer than necessary. Council has previously adopted the policy that no extension to the vacuum sewer system be constructed.

It is proposed that the replacement program would proceed first in the western residential area that is experiencing high inflow and infiltration rates. The eastern residential area would be part of Phase II. After these areas, pre-servicing with LPS force mains would begin in the industrial/commercial areas where there are existing service connections. The industrial property owners would be responsible to install their respective pumping facilities and force mains when they apply for a subdivision plan, strata plan, development permit, building permit, development variance permit, or a new sewer connection. After a grace period of five years, the remaining lots that have not transferred their services to the LPS could be potentially mandated to transfer to the new LPS system.

Financial Approach:

As the replacement system is very expensive, staff will review funding opportunities and cost impacts. One opportunity is to seek funding from the “Green Infrastructure Fund” and other Provincial cost sharing programs. The City will apply for such funding when opportunity arises. This program would be a good candidate for potential selection because the replacement system would reduce the high inflow and offer a proven technical approach as the resolution to an existing problem area.

Recently, the Federal and Provincial Government announced a new Canada-BC Municipal Rural Infrastructure Program (MIRF). The program is primarily targeted at smaller rural municipalities with a minimum of 80% of the funding going to municipalities of less than 250,000 people. We have identified Phase 1 of this Vacuum Sewer Replacement System (estimated at \$6.0 million) to be one of the potential candidates for this MIRF.

Another approach is cost sharing by the property owners through a Council-initiated Local Area Service. Even though most properties are currently serviced by the Vacuum Sewer System, the replacement system will appreciate the property values – by an estimated amount of up to \$100,000 per hectare for industrial and commercial lots, and \$10,000 to \$20,000 per single family residential lot. This increase in value would be realized once the more reliable, flexible and robust replacement sewer system is in place.

As the property owners would benefit from this appreciation, there could be a level of support from property owners to fast track replacement through a Local Area Service charge.

CONCLUSION

It is recommended that a Hybrid Low Pressure System combined with Steep Grade System using HDD technology be implemented as a replacement system for the Vacuum Sewer System in Bridgeview. Such a system will minimize costs and facilitate development of the area. It is also recommended that Council direct that no new connections be allowed to the existing Vacuum Sewer System in order not to burden the system with additional loading, and to reduce the cost to transfer over to a replacement sewer system. This is a refinement of the existing Council policy of no extensions to the vacuum sewer system.

Should Council support the recommendations of this report, staff will seek "green infrastructure" or other Provincial grant program funding and will complete a comprehensive analysis of the financial opportunities and submit a financial strategy for Council's consideration.

Based on a preliminary financial analysis, it is clear that spending a significant amount of money on sewer replacement will save money in the long term through operation and maintenance savings. The added significant benefit of the sewer replacement strategy is that it will facilitate redevelopment of the entire area that has been impaired by the lack of an adequate sewer system.



Paul Ham, P.Eng.
General Manager, Engineering

MD/VL/RL/kd2: rdd

Attachments

Note: Appendices available upon request

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NO: *R120* COUNCIL DATE: *July 13/09*

REGULAR COUNCIL

TO: **Mayor & Council** DATE: **July 9, 2009**
FROM: **General Manager, Engineering** PROJECT FILE: **4709-903**
SUBJECT: **Local Area Service Initiative for Bridgeview West Cell Steep Grade Gravity Sewer System**

RECOMMENDATION

The Engineering Department recommends that Council:

1. Approve a Local Area Service (LAS) initiative as a means to finance the replacement of the existing Vacuum Sewer System (VSS) in the West Bridgeview West Cell with a Steep Grade Gravity Sewer (SGS) System as illustrated in Appendix I at an estimated charge of \$49,000 per acre, which will allow the City to recover its contribution to the project from the benefiting properties; and
2. Authorize staff to initiate the LAS as a Council initiative subject to the counter petitioning process provided in the Community Charter.

INTENT

The purpose of this report is to obtain Council approval to initiate a LAS for the West Bridgeview SGS Area, which will put in place a more reliable sanitary sewer system for area property owners and will allow the City to recover its contribution to the project from the benefiting properties.

BACKGROUND

In 2006, Council adopted a replacement strategy for the Bridgeview Vacuum Sewer System (VSS) after considering Corporate Report No. R251; 2006. The replacement strategy calls for a low-pressure sewer system (LPS) to service the industrial and commercial areas and a steep grade gravity sewer system (SGS) to service the residential areas. Earlier this year Council considered Corporate Report R065; 2009 and approved a policy regarding Interim Sewer Connections in Bridgeview that permits interim connections to allow buildings to be constructed on the few vacant lots that remain in the area.

In April of this year the City received a \$5.67 million grant under the BC Build Canada Infrastructure Program being two-thirds of the estimated cost to build the replacement sewer system in the West Cell of Bridgeview. The City will be contributing one-third of the cost, being \$2.83 million. The schedule for completion of the West Cell SGS is early 2011.

This work is the first stage of the Bridgeview Replacement System and is in line with the replacement strategy adopted by Council. The installation of the replacement system will remove the impediment to new development and/or redevelopment in the area since the existing sewer system does not have capacity to accommodate any new development.

The West Cell Sewer SGS Replacement System is comprised of a pump station and a series of lateral sewer mains, which are constructed at steep grades, deep horizontal direct-drilled sewers, and service connections all as illustrated in Appendix I.

DISCUSSION

Rationale on Cost Sharing

Although the City is receiving a grant for part of the costs of the replacement system, the City will be required to finance approximately a third of the costs. It is proposed that new development and properties for which there are no active connections to the sewer system reimburse on an equitable basis a share of the City's financial contribution to the project. The cost recovery principles are:

1. The City will continue to provide sanitary sewer service to its existing customers without sewer replacement charges being applied irrespective of whether the sanitary system has been improved or replaced, except where new development occurs or where a connection is provided to a property that did not have an active connection.
2. New developments will be required to pay for all necessary engineering servicing infrastructure to service the new development.

New developments include subdivisions, consolidations, development permits, some building permits, development variance permits, temporary use permits, rezonings and new connections to lots where no active connection existed.

Exemptions will be granted to any residential lot where a house is demolished and a new one built. This exemption does not apply to industrial and commercial lots as the replacement system will be relieving the restricted sewage flows that are currently in place on industrial and commercial lots under the *Sanitary Sewer Regulation and Charges By-law* and thus the new replacement system will add value to these lots.

Most of the sanitary service connections in Bridgeview are older than 30 years. The cost for service connection replacement will fall to the owner of each lot, as the *Sanitary Sewer Regulation and Charges By-law* requires the owner to replace the service connection if it is more than 30 years old. This applies to all areas of the City.

Cost Apportionment and Recovery

The cost apportionment, except for the service connections, shall be based on the area of each benefiting lot as the SGS includes a pump station and a series of sewer collection mains where the whole system operates as a single entity. Some of the gravity sewers are duplicated on some of the lot frontages, as header pipes will be installed to provide a shallower depth for the service connections where the primary sewer is too deep for a reasonable connection to be made, making across-the-board frontage cost allocation difficult. The LAS will be set to only recover the amount

of the City contribution for the West Cell SGS, which is one-third of the estimated total construction costs. It is estimated that the LAS charge for a typical new residential lot in Bridgeview will be about \$10,000. Since the majority of the area is already developed, the City will be bearing a large portion of the local component of the project costs. However, on a net present value basis, this option is less expensive than the ongoing costs of the operation of the VSS. The cost of the service connections to each lot will be the responsibility of the lot owner. Charges will be collected at the time of new development or new service connection for lots where there was no prior service connection.

Public Open House

An Open House will be held to explain the proposed sewer replacement work, the LAS imitative and the counter petitioning process and the timing for payment of charges under the LAS. This Open House will be held at the commencement of the counter petitioning period related to the proposed LAS. Feedback from the Open House will be reported to Council at the end of the counter-petitioning period along with appropriate recommendations in relation to the processing of an LAS By-law.

CONCLUSION

The BC Build Canada Infrastructure Program has awarded a grant of \$5.67 million as two-thirds of the cost to construct the Bridgeview West Cell Sewer Replacement. A Council initiated LAS is recommended for the Bridgeview West Cell Sewer Replacement system to recover the City's one-third cost contribution, with the LAS charge to be apportioned by area and collected at the time of new development or new connection.



Vincent Lalonde, P.Eng.
General Manager, Engineering

VL/KDZ/brb
Attachment

Appendix – Bridgeview West Cell Sewer Replacement System LAS Map

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Note: Appendices available upon request

CORPORATE REPORT

NO: **R101** COUNCIL DATE: **May 28, 2012**

REGULAR COUNCIL

TO: **Mayor & Council** DATE: **May 23, 2012**
FROM: **General Manager, Engineering** FILE: **4711-904**
SUBJECT: **Local Area Service Initiative for the Phase 2 Area of the Bridgeview Vacuum Sewer System Replacement Program**

RECOMMENDATIONS

The Engineering Department recommends that Council:

1. Approve a Local Area Service (LAS) initiative as a means to finance the replacement of the existing Vacuum Sewer System (VSS) in the Phase 2 Area of the Bridgeview Low Pressure Sewer system as illustrated in Appendix I at an estimated recovery rate of \$600 per frontage meter, \$2,900 per service lateral and \$23,000 per pump connection;
2. Authorize staff to initiate the LAS as a Council initiative subject to the counter petitioning process as provided in the Community Charter;
3. Approve the compensation formula as outlined in this report for each owner of a property for which the service connection for the property is converted from the VSS system to the Low Pressure Sewer (LPS) system; and
4. Adopt as a policy the mandatory reconnection of each existing private sewer connection within the local service area from the VSS to the new replacement sewer system at the completion of the replacement system.

INTENT

The purpose of this report is to obtain Council's approval to initiate a LAS for Phase 2 Area of the Bridgeview Vacuum Sewer System, which will result in a more reliable sanitary sewer system for the properties in that area and will allow the City to recover its contribution to the project from the owners of properties within the area.

BACKGROUND

In 2006, Council adopted a replacement strategy for the Bridgeview Vacuum Sewer System (VSS) based on the information contained in Corporate Report No. R251; 2006, which addressed that matter. The replacement strategy calls for a low-pressure sewer system (LPS) to service the

industrial and commercial areas and a steep-grade gravity sewer system (SGS) to service the residential areas.

At its Regular meeting on July 13, 2009, Council considered Corporate Report No. R119; 2009, which authorized an LAS initiative as a means to finance the replacement of the existing VSS in the Phase 1 Area (West Bridgeview) of the Bridgeview Low Pressure Sewer Area. Council also approved as policy the mandatory reconnection of each private sewer connection for every property within that local service area from the VSS to the new replacement sewer system by the end of a five-year grace period, which commenced on the date of completion of the replacement system.

Based on a Local Area Service petition process and a \$5.67 million grant under the BC Build Canada Infrastructure Program, the City constructed the replacement sewer system in the Phase 1 area of the West Bridgeview Vacuum Sewer Replacement System. The grant included \$4.67 million for the replacement steep grade gravity sewer system in the residential area and \$1.0 million for the replacement low pressure sewer system in the business area.

The construction of Phase 1 Area system is now complete and the final project costs have now been determined. The final project cost for each of the benefiting properties is generally consistent with the original estimate for each respective property. The final project cost after taking the grant funding into account is \$1,881,561.44, with \$891,483.81, or 47.38%, of the costs to be recovered through a local area service charge. Specifically, the local area service charge for each benefiting property is as follows:

- Cost per linear metre of frontage: \$217.16;
- Cost per sewer lateral: \$2,777.39; and
- Cost per pump connection: \$10,974.19.

South Fraser Perimeter Road (SFPR)

In 2010, Fraser Transportation Group (FTG) was awarded the design and construction of the South Fraser Perimeter Road (SFPR), which is aligned in part through the Bridgeview area. Construction of the SFPR has commenced, and is scheduled to be completed in mid-2014.

As the existing VSS is vulnerable to damage from differential settlement related to the SFPR construction and on this basis it is preferable to undertake the VSS replacement in the Phase 2 Area of Bridgeview before the SFPR is completed with a view to avoiding future repairs to the VSS along the SFPR as these repairs will be expensive due to limitations related to the construction of the SFPR. Recognizing the advantages replacing the VSS in the Phase 2 Area, the FTG has agreed to provide \$152,000 as a contribution towards the project. In addition to the SFPR project, there are several local development interests along Musqueam Drive, which will benefit from an accelerated construction schedule for the sewer replacement in the Phase 2 Area.

Scope of Work

The properties that will benefit directly from the replacement sewer (Phase 2) are illustrated in Appendix I.

The replacement system includes both a LPS system and a small section of SGS to service the area between 126A Street and 128 Street and on 112B Avenue. The fronting sewer on Industrial Road from address 12221 to 114 Avenue for Area A3 is excluded from this LAS as the sewer will be constructed under a separate LAS project, which was adopted by Council on April 2, 2012 under Corporate Report No. Ro61:2012.

Although the LAS appears spatially fragmented, the replacement strategy developed for the Phase 2 Area will allow for the decommissioning of the West Bridgeview Vacuum Sewer Station, which will result in operations and maintenance savings of over \$200,000 per year.

DISCUSSION

Rationale

The construction of the LPS to service the Phase 2 Area of Bridgeview will allow for the decommissioning of both the remaining VSS in West Bridgeview and the West Bridgeview Vacuum Sewer Station. It will also facilitate industrial development along the South Fraser Perimeter Road.

Cost Recovery Principles

It is recommended that payments by the owners of benefiting properties toward the LAS project be based on the following principles:

1. The City will continue to provide sanitary sewer service to its existing customers without sewer replacement charges being applied irrespective of whether the sanitary system has been improved or replaced, except where new development occurs or where a connection is provided to a property that did not have an active connection;
2. The City will contribute its operational and maintenance savings from decommissioning the West Bridgeview Vacuum Sewer Station to help fund the project; and
3. New developments will pay for all remaining costs for the infrastructure being constructed under the LAS to service the area.

New development includes subdivisions, consolidations, development permits, some building permits, development variance permits, temporary use permits, rezonings and new connections to properties where no active connection existed in advance of the LAS project.

Cost Recovery Exemptions

Exemptions will be granted to any residential property where a house is demolished and a new one is constructed that is consistent with the existing zoning on the lot. This exemption does not apply to industrial and commercial properties as the replacement system will be relieving the restrictions on sewage flows that are currently stipulated under the *Sanitary Sewer Regulation and Charges By-law* for industrial and commercial properties, since such a change will add value to these properties.

Most of the sanitary service connections in Bridgeview are older than 30 years. The cost for service connection replacement will fall to the owner of each property based on the *Sanitary*

Sewer Regulation and Charges By-law, which requires the owner to replace the service connection to their property if it is more than 30 years old. This applies across the entire City.

The fronting sewer on Industrial Road from address 12221 to 114 Avenue is being constructed as part of a separate LAS project. Only the cost for the pump connections and service laterals for those properties will be included as part of the LAS to which this report refers.

Under the LAS Policy, the frontage to be used in calculating the share of the costs to be borne by any particular property is based on the minimum frontage stipulated in the Zoning By-laws for the Zone, which is applicable to the property. Since the Industrial (I₄) Zone is considered a “holding” zone to allow for the consolidation of properties for development, it is proposed for any property that falls under the I₄ Zone that actual frontage of the property be used in calculating the LAS charges.

Cost Apportionment and Recovery

The estimated cost to the City of this LPS work is \$9.6 million. The City will be contributing approximately \$5.0 million to the project in recognition of the operational and maintenance savings from decommissioning the West Bridgeview Vacuum Sewer Station. This amount, combined with the contribution received from FTG as referenced above, equates to 52.62% of the total project cost, which is approximately equal to the amount of non-recoverable financial assistance that was provided to the property owners in the Phase 1 Area LAS.

The remaining cost for the LPS work is \$4.6 million. This amount will be apportioned to each property within the local service area based on the length of its frontage in comparison to the total frontage in the area and based on the number of service connections servicing each particular property. The total of the LAS charges across all properties within the Area will allow the City to fully recover the \$4.6 million project cost. LAS charges will be collected at the time of development of any particular property or when a new sewer service connection is provided to a property that did not have a sanitary sewer connection prior to the LAS project.

Based on preliminary calculations, the LAS charge will be approximately \$600 per frontage metre, \$2,900 per service lateral and \$23,000 per pump connection. These costs are higher than the Phase 1 Area costs since a significant number of the properties within the Phase 2 Area front on streets that have private property fronting only one side of the street while most of the Phase 1 Area had private properties fronting both sides of the street, which allowed the cost for the pipe in the street to be shared equally to both sides.

Compensation for Owners Where a Private Pump System is Required

A private pump system will be installed in each fronting property to pump sewage from the property to the new low pressure main. The City will operate and maintain the force main while the owner of such private property will be responsible for operating and maintaining the private pump system located within the property. The LPS system will be much less expensive to operate and maintain for the City than the current VSS. It is reasonable for the City to compensate the owners of those properties on which private pumps will be required a lump sum amount of \$12,500 per property to cover the on-going cost of operation, maintenance and replacement of these private pump systems. These costs are included in the \$9.6 million project cost estimate.

Compensation of \$12,000 per property was provided to owners of properties in the Phase 1 Area that were faced with a similar circumstance.

The conversion of sewer connections from each property to the new LPS system will need to be carried out immediately upon completion of the LPS system due to the schedule for completion of the SFPR. In this regard a notice will be provided to the owner of each property advising that a consent for the service connection to the new LPS must be completed within 3-months of completion of the LPS. This notice will be delivered 4 months before the completion of the LPS system. All benefiting property owners in the Phase 2 Area will also be advised of this requirement as part of the counter petitioning process.

Public Open House

An Open House will be held to explain the proposed sewer replacement work, the LAS initiative, the counter petitioning process, the timing for payment of charges under the LAS, the compensation provisions for transferring the private service connections from the VSS to the LPS, and the schedule for transferring the private service connections from the VSS to the LPS. This Open House will be held at the commencement of the counter petitioning period related to the proposed LAS. Feedback from the Open House will be reported to Council at the end of the counter-petitioning period along with appropriate recommendations in relation to an LAS By-law.

Future Replacement Works in Bridgeview

With the Phase 1 and Phase 2 of the Bridgeview Sewer System Replacement having been addressed, the following table documents the remaining phases of work to complete the replacement of the sewer system in Bridgeview:

| Phase | Description | Schedule |
|--------------|--|---|
| 3 | Replacement of the East Cell vacuum sewer area with a low pressure system on 115A and 115B Avenues | To be considered in the next 5 years or earlier should external funding materialize |
| 4 | Replacement of the remaining East Cell vacuum sewer area with a Steep Grade Sewer System | To be considered in the next 5 years or earlier should external funding materialize |

The areas to which the above-referenced phases apply are illustrated on the map attached as Appendix I to this report.

Staff is attempting to secure funding from other orders of government to accelerate the works related to Phases 3 and 4, respectively.

The completion of Phases 3 and 4 will allow for the decommissioning of the east cell vacuum sewer system, which will result in further annual operational savings for the Sewer Utility.

Sustainability Considerations

The Local Area Service Initiative for the Phase 2 Area of the Bridgeview Vacuum Sewer Replacement will assist in achieving the objectives of the City's Sustainability Charter in relation to:

- Minimizing the operations and maintenance costs for the sewer system in Bridgeview;
- Reducing extraneous inflow into the sewer system, which in turn reduces the energy required to pump and treat the sewage;
- Reducing the sewage flow to Metro Vancouver's trunk system and sewage treatment plant will reduce the need for additional construction resources to build larger conveyance and treatment systems to handle the larger flow; and
- Facilitating industrial developments in the Bridgeview area leading to increased employment in Surrey that will act to support the City's objective of having a balance between local jobs and resident workers in Surrey.

Specifically, the Local Area Service Initiative for the Phase 2 Area of the Bridgeview Vacuum Sewer Replacement Program supports the following goals of the City's Sustainability Charter:

- EC2: Economic Development Strategy and an Employment Land Strategy;
- EC3: Sustainable Infrastructure Maintenance and Replacement;
- EN1: Energy Efficiency;
- EN8: Sustainable Engineering Standards and Practice; and
- EN16: Land, Water and Air Quality Management.

CONCLUSION

Based on the above discussion, it is recommended that Council:

- Approve a Local Area Service (LAS) initiative as a means to finance the replacement of the existing Vacuum Sewer System (VSS) in the Phase 2 Area of the Bridgeview Low Pressure Sewer system as illustrated in Appendix I at an estimated recovery rate of \$600 per frontage meter, \$2,900 per service lateral and \$23,000 per pump connection;
- Authorize staff to initiate the LAS as a Council initiative subject to the counter petitioning process as provided in the Community Charter;
- Approve the compensation formula as outlined in this report for each owner of a property for which the service connection for the property is converted from the VSS system to the Low Pressure Sewer (LPS) system; and
- Adopt as a policy the mandatory reconnection of each existing private sewer connection within the local service area from the VSS to the new replacement sewer system at the completion of the replacement system.



Vincent Lalonde, P.Eng.
General Manager, Engineering

JA/RL/brb

Appendix I - Phase 2 Benefiting Area for Bridgeview Vacuum Sewer Replacement System - Local Service Area Map

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Note: Appendices available upon request

CORPORATE REPORT

NO: **R043**

COUNCIL DATE: **March 7, 2016**

REGULAR COUNCIL

TO: **Mayor & Council**

DATE: **March 1, 2016**

FROM: **General Manager, Engineering**

PROJECT FILE: **4715-053**

SUBJECT: **Local Area Service Bylaw for the Bridgeview East Phase 3 and 4 Vacuum Sewer System Replacement Program**

RECOMMENDATIONS

The Engineering Department recommends that Council:

1. Approve a Local Area Service for the replacement of the existing Vacuum Sewer System in the Phase 3 and 4 areas of Bridgeview as illustrated on the map attached as Appendix "I" at an estimated cost of \$15.5 million and with the final costs of the works to be apportioned to and levied on the properties in the area in accordance with the provisions of Bylaw No. 18669, a copy of which is attached as Appendix "V"; and
2. Authorize the Clerk to bring forward for the required readings of Local Area Service Bylaw, 2016, No. 18669.

INTENT

The purpose of this report is to seek Council approval of a Local Area Service (LAS) Bylaw for the Phase 3 and Phase 4 areas of the Bridgeview Vacuum Sewer System (VSS) replacement which will result in a more reliable sanitary sewer system for the properties in that area and will allow the City to recover the LAS project costs from the owners of properties within the local service area.

BACKGROUND

At its Regular meeting on December 14, 2015, Council adopted the recommendations of Corporate Report No. R236;2015, thereby authorizing staff to initiate an LAS as the means for facilitating the replacement of the existing VSS in the Phase 3 and Phase 4 areas of Bridgeview. The Phase 3 and 4 areas are illustrated on the map attached to this report as Appendix "I".

The replacement of the VSS in the Phase 3 and 4 areas will allow for the decommissioning of the East Bridgeview Vacuum Sewer Station and the vacuum sewer pipes which will result in operations and maintenance savings and eliminate the need to replace major components of the system that are approaching the end of their service life. The new system will provide a more reliable sanitary sewer service to the area and remove one of the servicing constraints for the development community in the benefitting area. The completion of Phase 3 and Phase 4 will result in the completion of the replacement of the VSS in Bridgeview.

The local service area has been subdivided into two areas, Area A and Area B, to reflect differences in servicing strategies and costs.

Area A includes replacing the existing VSS with a Low Pressure Sewer (LPS) system and includes residential and industrial properties along 115A/B Avenues from 128 Street to 132 Street, along King George Boulevard from 128 Street to 129 Street, and two properties on 112B Avenue. The proposed system is similar to the system installed for a portion of Phase 1 and most of Phase 2.

A new Steep Grade Sewer (SGS) system is proposed for Area B which is roughly bound by 126A Street in the west, 129 Street in the east, 113A Avenue in the south and 115B Avenue in the north. The SGS system includes a network of gravity sewers, a sanitary sewer pump station and force-main. The proposed system is similar to the system installed for most of Phase 1.

Cost Recovery Principles

The City will contribute approximately \$8.0 million of the estimated total cost of \$15.5 million for the project. The remaining cost will be recovered through Local Service Taxes from each particular property when it develops.

The City's contribution to this LAS will be recovered under the following principles:

1. The City will continue to provide sanitary sewer service to its existing customers without sewer replacement charges being applied irrespective of whether the sanitary system has been improved or replaced, except where and when development occurs and when a connection is provided to a property that did not previously have an active connection;
2. The City will contribute its operational and maintenance savings from decommissioning the Bridgeview East Vacuum Sewer Station to help fund the project; and
3. Development will pay all remaining costs for the infrastructure being constructed under the LAS to service the area.

Cost Apportionment and Recovery

The Local Service Taxes will be recovered at the time of development of individual parcels of land or when an application for a new connection to any parcel is approved. In general, the City will recover approximately 47.38% of the total project costs through Local Service Taxes, which is consistent with Phase 1 and Phase 2. As the City does not subsidize development, properties that do not have an active sewer account and/or do not abut an existing vacuum sewer will not receive a City subsidy of 52.62% and will pay 100% of the cost.

DISCUSSION

In Area A, the Local Service Tax will be apportioned as follows:

1. The Frontage Tax Component will be apportioned among the parcels within Area A based on the frontage length of each parcel the sewer fronts. The estimated frontage unit cost is \$900 per linear metre.
2. The Pump Connection Tax Component will be apportioned among the parcels within Area A based on the number of parcels with a pump connection. The estimated Pump Connection Tax is \$22,200 per pump connection.

3. The Sewer Lateral Tax Component will be apportioned among the parcels within Area A based on the number of lots within Area A with a Sewer Lateral. The estimated Sewer Lateral Tax is \$5,500 per parcel with an active account, and \$10,100 per parcel without an active account.

In Area B, the Local Service Taxes will be apportioned as follows:

1. The System Replacement Tax Component will be apportioned among the parcels within the Area B local service area based on the area of each parcel. The estimated system replacement unit cost is \$17 per square metre for parcels that abut an existing vacuum sewer and/or have an active account, and \$35 per square metre for parcels without an active sewer account and do not abut an existing vacuum sewer.
2. The Frontage Tax Component shall be apportioned among the parcels within Area B based on the frontage length of each parcel the sewer fronts. The estimated frontage unit cost is \$500 per linear meter for parcels that abut an existing vacuum sewer and/or have an active account, and \$1,100 per linear meter for parcels without an active sewer account and do not abut an existing vacuum sewer.
3. The Sewer Lateral Tax Component shall be apportioned among the parcels within Area B based on the number of lots within Area B with a Sewer Lateral. The estimated Sewer Lateral Tax is \$5,500 per parcel with an active account, and \$11,300 per parcel without an active account.

A summary of the project costs and a breakdown by each property is included in the Engineer's Report attached as Appendix "II".

Cost Recovery Exemptions

As noted in Corporate Report No. R236;2015, payment of the Local Service Tax will be deferred until subsequent development in the following circumstances:

- For single family residential lots having an active sewer account for major renovations in excess of \$100,000 or rebuilds of the existing single family residence, only the Sewer Lateral Tax Component would be payable at the time of renovation or rebuild; and
- In situations where the amount of the Local Service Tax exceeds 20% of the value of the proposed work for a building permit, payment of that portion of the Local Service Tax in excess of 20% will be deferred.

Compensation for Owners Where a Private Pump System is Required

As also noted in Corporate Report No. R236;2015, the City utility will compensate \$13,100 for each owner with existing VSS connections in Area A (serviced by LPS) where private pump systems are required as part of the transfer to the new system. Consent from the owner for each affected property must be completed 90 days before completion of the new system. These service transfers are mandatory and must be carried out immediately to the new system.

Public Open House and Petition Against

Notice as required by the *Community Charter* was given to the affected owners.

An Open House was held on January 27, 2016 to explain the proposed sewer replacement works, the LAS initiative, the counter-petition process, the timing of the Local Service Tax, the compensation model for those lots on which private pumps will be required and the mandatory transfer from the VSS to the new system. 60 owners representing 55 (5 properties in Area A and 50 in Area B) out of a total of 288 properties attended the Open House. Feedback forms were provided at the Open House and 21 completed forms were returned. A summary of the results and comments are provided in Appendix "III".

Staff received about 30 telephone calls and email enquiries from the owners seeking clarifications and more details on the project and LAS process.

The owners of 36 of the lots, 12.5%, in the LAS Area signed a counter petition against the LAS during the counter-petitioning period; however, this number is "insufficient" in relation to terminating the LAS. This compares to 12% signing a counter-petition against Phase 1 of the LAS and 3.5% signing a counter-petition against Phase 2 of the LAS.

The City Clerk's sufficiency certificate is attached as Appendix "IV".

Subject to Council approval of the LAS, the works are expected to be completed by end of 2017.

Legal Services Review

The Legal Services Division has reviewed this report and has no concerns.

Finance & Technology Review

The Finance & Technology Department has reviewed this report and has no concerns.

Sustainability Considerations

The Local Area Service Initiative for Bridgeview East Phase 3 and 4 Vacuum Sewer Replacement Project will assist in achieving the objectives of the City's Sustainability Charter in relation to:

- Minimizing the operations and maintenance cost for the sewer system in Bridgeview;
- Reducing the extraneous inflow into the sewer system, which in turn reduces the energy consumption to pump and treat the sewage;
- Reducing the sewage flow to Metro Vancouver's trunk system and sewage treatment plant will reduce the need for additional construction resources to build larger conveyance and treatment systems to handle the larger flow; and
- Facilitating industrial developments in the Bridgeview area leading to increased employment in Surrey that will act to support the City's objective of having a balance between local jobs and resident workers in Surrey.

The replacement works support the following Charter Scope actions:

- EC2: Economic Development Strategy and an Employment Land Strategy;
- EC3: Sustainable Infrastructure Maintenance and Replacement;

- EN1: Energy Efficiency;
- EN8: Sustainable Engineering Standards and Practice; and
- EN16: Land, Water and Air Quality Management.

CONCLUSION

Based on the above discussion, it is recommended that Council:

- Approve a Local Area Service for the replacement of the existing Vacuum Sewer System in the Phase 3 and 4 areas of Bridgeview as illustrated on the map attached as Appendix "I" at an estimated cost of \$15.5 million and with the final costs of the works to be apportioned to and levied on the properties in the area in accordance with the provisions of Bylaw No. 18669, a copy of which is attached as Appendix "V"; and
- Authorize the Clerk to bring forward for the required readings of Local Area Service Bylaw, 2016, No. 18669.



Fraser Smith, P.Eng., MBA
General Manager, Engineering

JA/MP/clr

- Appendix "I" - Phase 3 and Phase 4 Local Service Areas for Brideview Vacuum Sewer Replacement
- Appendix "II" - Engineer's Report
- Appendix "III" - Feedback Summary
- Appendix "IV" - City Clerk's Certificate
- Appendix "V" - Local Area Service Bylaw, 2016, No. 18669

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Note: Appendices available upon request



COMPLETION CERTIFICATE

Date: November 7, 2018

File: 4715-0530

This is to certify that the Works authorized under the "Local Area Service for East Bridgeview Vacuum Sewer Replacement System Phase 3 and Phase 4 [Project # 4715-0530] By-law, 2016, No. 18669" are complete.

Fraser Smith, P.Eng, MBA
General Manager, Engineering

As required under the "Local Area Service for East Bridgeview Vacuum Sewer Replacement System Phase 3 and Phase 4 [Project # 4715-0530] By-law, 2016, No. 18669", I hereby certify that the final cost of the Works has amounted to \$13,269,684.20.

Kam Grewal, CPA, CMA
General Manager, Finance

- c.c. - City Clerk
- Property Tax Manager
- Local Area Service Clerk