



## City of Spruce Grove: Offsite Levy Review

**Version 4 (FINAL)**  
**February 9<sup>th</sup>, 2018**

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## 1 DOCUMENT INFORMATION

| Version |                                  |  |
|---------|----------------------------------|--|
| Number  | Revision Date                    | Summary of Changes and Author              |
| 1.0     | September 1 <sup>st</sup> , 2017 | DRAFT: Created by CORVUS Business Advisors |
| 2.0     | October 5 <sup>th</sup> , 2017   | DRAFT: Reviewed with Project Team          |
| 3.0     | December 5 <sup>th</sup> , 2017  | DRAFT: City Amendments to Areas            |
| 4.0     | February 9 <sup>th</sup> , 2018  | Final: Reviewed with Council and Public    |

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## 3 INTRODUCTION

### 3.1 Introduction

Bylaw C788-11, established by the City of Spruce Grove ("the City") in 2011 defines offsite levy charges pertaining to water, sanitary and transportation offsite infrastructure for the municipality. The City wishes to update this bylaw, adding additional offsite infrastructure in alignment with the City's latest capital/master plans, and ensuring updated costs and development forecasts are reflected fairly and equitably in new rates, thereby ensuring a financially sustainable community.

This report outlines the methodology and information used in establishing transportation, water, and sanitary offsite levy rates for the City, as well as other key findings and recommendations.

### 3.2 Methodology

The City of Spruce Grove has various infrastructure capital/master plans, and these plans have been used by City staff as a start point for developing key information for this offsite levy rate review. City staff reviewed existing plans and identified offsite projects for transportation, water, and sanitary infrastructure<sup>1&2</sup>. The City's assessment also included determination of benefits to existing development, future development, and benefiting areas.

Support provided by CORVUS Business Advisors included:

- Provision of the CORVUS offsite levy model, including configuration, priming, and data loading.
- Facilitation of a workshop to determine offsite levy area boundaries.
- Incorporation of offsite levy area measurements and land development forecasts (provided by City staff).
- Incorporation of infrastructure costs and allocation percentages for existing development, new development, and other parties (provided by City staff).
- Establishment of offsite levy reserve opening balances (historical reconciliations provided by City staff).
- Development of transportation, water, and sanitary offsite levy rates.
- Presentation of offsite levy rates and background information to Administration, Council, and the public.

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<sup>1</sup> It was not within CORVUS' scope of work to review the City's capital/master plans. Plans were reviewed and refined by City staff.

<sup>2</sup> Currently, all stormwater infrastructure in the City is "onsite" in nature and, therefore, was not included in the scope of this analysis. Should the City add offsite stormwater infrastructure to its capital plans in the future, the offsite levy model and bylaw can be amended during one of the annual updates to include stormwater charges.

Offsite levy rates within the CORVUS offsite levy model are forecast using a rolling 25-year review period. During this review, a cut-off date of December 31<sup>st</sup>, 2016 was established, and so the review period stems from **2017 to 2041**. The cut-off date coincides with the City's most recent year-end when the project started. Project expenditures, offsite levy receipts etc. were gathered as "actuals" from the City's financial records up to the cut-off date. Beyond the cut-off date, all financial details are estimates. When the City completes its next rate update, information from January 1<sup>st</sup>, 2017 up to the new cut-off date will be converted from estimates to actuals.

Costs that benefit development prior to and within the 25-year review period are included in rates. Costs that benefit development beyond the review period (called "financial oversizing") are excluded from rates. In future years, when rates are updated and the rolling 25-year period moves further out, offsite infrastructure costs beyond 2041 will gradually be included in rates.

## 4 KEY FINDINGS

Key findings pertaining to the establishment of City offsite levy rates are as follows:

- Offsite infrastructure costs to be included in the offsite levy bylaw total approximately **\$158.97 million** (2017 dollars). An overview of offsite infrastructure costs and maps is provided in Appendices B1, C1, and D1.

Before determining how the infrastructure costs will be allocated to parties that benefit (e.g., existing development, new development, other municipalities etc.), financing provided by way of special ear-marked grants and other contributions are deducted from offsite infrastructure costs. For this review, the City has identified approximately **\$1.31 million** in grants and contributions. An overview of grants and contributions and resulting net costs is provided in Appendices B2, C2, and D2.

The share of costs which benefits existing development (the City's share) is **\$0.00**; and, the share of costs which benefits other stakeholders (e.g., neighbouring municipalities) is **\$0.00**.

The share of costs which benefits future development totals approximately **\$157.65 million** and is based on the allocations shown in Appendices B4, C4, and D4. However, a portion of the cost which benefits future development is beyond the 25-year review period (called "financial oversizing"). Financial oversizing is determined based on the anticipated year of construction (construction staging) which is provided in Appendices B3, C3, and D3.

Of the **\$157.65 million** in total offsite infrastructure costs which benefits future development, the portion that is included in rates today (the offsite levy share) is approximately **\$105.28 million**, as shown in the table below. A complete summary of offsite infrastructure net cost "flow-thru" is provided in Appendices B6, C6, and D6.

Summary of Infrastructure Costs & Allocations<sup>3</sup>

| Infrastructure | Special Grants & Contributions | Muni Share of Costs | Other Stakeholders' Share of Costs | Developer Cost Beyond 25 Yrs (Financial Oversizing) | Developer Costs (In Rates) | Total Costs           |
|----------------|--------------------------------|---------------------|------------------------------------|---|----------------------------|-----------------------|
| Transportation | \$ 151,961                     | \$ -                | \$ -                               | \$ 51,277,032                                       | \$ 68,275,215              | \$ 119,704,208        |
| Water          | \$ -                           | \$ -                | \$ -                               | \$ 316,800  | \$ 18,406,372              | \$ 18,723,172         |
| Sanitary       | \$ 1,163,038                   | \$ -                | \$ -                               | \$ 781,009  | \$ 18,598,428              | \$ 20,542,475         |
| Stormwater     | \$ -                           | \$ -                | \$ -                               | \$ -  | \$ -                       | \$ -                  |
| <b>Total</b>   | <b>\$ 1,314,999</b>            | <b>\$ -</b>         | <b>\$ -</b>                        | <b>\$ 52,374,841</b>                                | <b>\$ 105,280,015</b>      | <b>\$ 158,969,855</b> |

Before allocating infrastructure costs to benefitting lands, offsite levy costs must be reduced by the amount of levies collected to date. Up to December 31<sup>st</sup>, 2016, the City has collected **\$34.53 million** as shown in Appendices B5, C5, and D5.

- To facilitate the allocation of infrastructure costs to those lands that benefit from the infrastructure, the City is parsed into **11** offsite levy areas. The area boundaries, numbering schema, and area measurements are described in Appendix A along with an offsite levy map; and, an overview of offsite infrastructure allocations to each benefitting area is provided in Appendices B7, C7, and D7.
- To calculate offsite levy rates, it is necessary to forecast the amount of land that will develop during the 25-year review period. Land development forms the denominator of the rate calculation. A larger denominator reduces rates, but could potentially result in under-collection thereby placing an increased burden on tax payers. A smaller denominator increases rates, but could potentially result in over-collection thereby placing an increased burden on future development. Accordingly, land development forecasts need to be (a) reasonable and reflect current planning assumptions including the current pace of development in the community, and (b) updated regularly.

For this review, the City is forecasting development of approximately **799 ha.** over the 25-year review period (approximately **32 ha.** per year on average). The land development forecast and underpinning assumptions are shown in Appendix A.

- **Offsite Levy Reserves.** The City is currently managing offsite levy receipts and withdrawals via three reserves/accounts (i.e., one reserve/account for each infrastructure type), and this in alignment with MGA requirements. The reason this is a requirement is because offsite levies can only be used for the type of infrastructure for which they were collected (e.g., water levies can only be used to construct water offsite infrastructure, not sanitary infrastructure etc.). During the project, the City staff identified several amendments to historical information. Accordingly, the City's offsite levy reserve balances require amendment as shown in Appendices B8, C8, D8, and E.
- **Interest.** Offsite levy reserves/accounts (both actual and forecast) are impacted by interest. Actual reserve inflows and forecast reserve balances that are in a positive position earn interest (as required by the MGA). Actual reserve outflows and forecast

<sup>3</sup> Moving forward, assuming project costs, anticipated year of construction, and development staging remain unchanged, each year when rates are updated an average of approximately **\$4 million** will "shift" from financial oversizing to rates. All financial oversizing will be included in rates within 15 years.

reserve balances that are in a negative position are charged interest (forecast balances that are negative indicate that front-ending will be required).

An overview of reserve/account interest rates and forecast balances over the 25-year review period is shown in Appendices B9, C9, and D9.

- **Front-ending.** Front-ending is an extremely important concept that underpins rigorous management of offsite levies. Front-ending represents debts owed by future development to the municipality for past construction undertaken by the municipality on behalf of future development—i.e., a municipality will often pay for its share of an offsite infrastructure project in addition to that portion of the project which benefits future development when offsite levy reserve balances are insufficient to pay for future development's share of the project.

Because front-ending balances represent debts owed to the municipality, they need to be clearly reflected in official municipal documents such as levy account/reserve balances, financial statements (e.g., front-ending notes), or accounts receivables, etc. This documentation enables the municipality to collect on these debts as future development occurs, and offsite levies are collected.

At end 2016, City documentation reflected a front-ending balance of approximately **\$7.53 million** in the transportation reserve. However, after adjustments (discussed above), the new front-ending balance in the transportation reserve will be approximately **\$4.50 million** at the end of 2016.

At end 2016, City documentation reflected a front-ending balance of **\$0.00**, and a surplus of approximately **\$2.85 million** in the water reserve. After adjustments, the new front-ending balance will remain at **\$0.00**, but the surplus will be adjusted to approximately **\$2.53 million** at the end of 2016.

At end 2016, City documentation reflected a front-ending balance of approximately **\$7.09 million** in the sanitary reserve. After adjustments, the new front-ending balance in the sanitary reserve will be approximately **\$6.76 million** at the end of 2016.

In total, the front-ending balance across all three reserves is being adjusted from approximately **\$14.63 million** to approximately **\$11.26 million** at the end of 2016.

A complete reconciliation of reserve balances for each of the 3 reserves/accounts the City needs to maintain is provided in Appendices B8, C8, D8, and E.

## 5 RATES

For future development to pay for its share of the **\$158.97 million** infrastructure costs in the City, rates are approximately **\$86,500** per net hectare on a weighted average basis, as shown in table below. This rate is lower compared to other municipalities of similar size in Alberta (a comparison of rates to other municipalities is outlined in Appendix F). Most importantly, these rates reflect the actual cost of infrastructure required to facilitate development in the City.



Offsite Levy Rates: Highs, Lows, and Averages<sup>4</sup>

|                  | Transportation Levies (/Net Ha.) | Water Levies (/Net Ha.) | Sanitary Levies (/Net Ha.) | Total (/Net Ha.) |
|------------------|----------------------------------|-------------------------|----------------------------|------------------|
| High             | \$ 59,983                        | \$ 20,643               | \$ 53,336                  | \$ 133,961       |
| Low              | \$ 59,983                        | \$ 6,505                | \$ -                       | \$ 66,487        |
| Weighted Average | \$ 59,983                        | \$ 9,404                | \$ 17,110                  | \$ 86,497        |

Summary of Offsite Levies by Area

| Area # | Transportation Levies | Water Levies | Sanitary Levies | Total      |
|--------|-----------------------|--------------|-----------------|------------|
| 1.0    | \$ 59,983             | \$ 6,505     | \$ -            | \$ 66,487  |
| 2.0    | \$ 59,983             | \$ 6,505     | \$ 18,980       | \$ 85,467  |
| 3.0    | \$ 59,983             | \$ 6,505     | \$ 18,980       | \$ 85,467  |
| 4.0    | \$ 59,983             | \$ 6,505     | \$ 1,906        | \$ 68,393  |
| 5.0    | \$ 59,983             | \$ 6,505     | \$ 1,906        | \$ 68,393  |
| 6.0    | \$ 59,983             | \$ 6,505     | \$ -            | \$ 66,487  |
| 7.0    | \$ 59,983             | \$ 6,505     | \$ -            | \$ 66,487  |
| 8.0    | \$ 59,983             | \$ 20,643    | \$ -            | \$ 80,625  |
| 9.0    | \$ 59,983             | \$ 6,505     | \$ -            | \$ 66,487  |
| 10.0   | \$ 59,983             | \$ 20,643    | \$ 53,336       | \$ 133,961 |
| 11.0   | \$ 59,983             | \$ 20,643    | \$ 53,336       | \$ 133,961 |

## 6 RECOMMENDATIONS

CORVUS recommends the following:

1. Implement the offsite levy rates outlined in Section 5.
2. Ensure the offsite levy bylaw reflects the requirement for an annual update of offsite levy rates and delivery of an annual update report to Council. In addition to enabling compliance with MGA requirements, regular updates ensure offsite levy rates do not “decay”, and Council is apprised regularly of the status of changes, reserves balances, etc.
3. Amend the opening balances of each reserve as reflected in Appendices B8: \$2,527,299, C8: \$(6,759,569), and D8: \$(4,496,792).
4. Establish sub-ledgers for each reserve/account to track amounts owed to each front-ending party (the City may not be the only front-ending party in the future).
5. During the reconciliation of future reserve balances, ensure the interest earning and charge rates that underpin the offsite levy bylaw for that time period are used to

<sup>4</sup> Highs, Lows, and Averages are shown for information purposes only. Developers pay the actual rate applicable to their specific development area and development type.

determine reserve interest impacts. This is outlined in the offsite levy model user guide and instructions for the annual rate update.

6. Develop an offsite levy policy framework to aide in effective implementation of the bylaw. There are about a dozen policy areas for which the MGA provides no guidance, but the City will require clarity on to effectively implement the bylaw.
7. Undertake a water and sanitary utility rates study to enable sustainable funding of the City's share of offsite infrastructure projects. Current utility rates should be brought current and in alignment with offsite levy financing summarized in this report.
8. Recent changes to the MGA enable municipalities to charge separately for offsite levies (i.e., transportation vs. water vs. sanitary vs stormwater). Accordingly, the City should maintain accurate records to reflect which properties pay which offsite levies, and build this into the City's administrative procedures.

## 7 ACKNOWLEDGEMENTS

CORVUS Business Advisors would like to thank all City of Spruce Grove staff from Engineering, Planning, and Finance, who supported the work of this review.

## 8 DISCLAIMER

CORVUS Business Advisor has relied upon the City of Spruce Grove and its engineering advisors to provide all the data and information used to construct the offsite levy model and create the rates, such as planning data and assumptions, development forecasts and assumptions, infrastructure costs and costs estimates, allocations to benefitting parties, allocation to benefitting areas, and other assumptions etc. As such, CORVUS Business Advisors makes no guarantee as to the accuracy of the input data and information provided by these groups or the results that stem from this data and information.

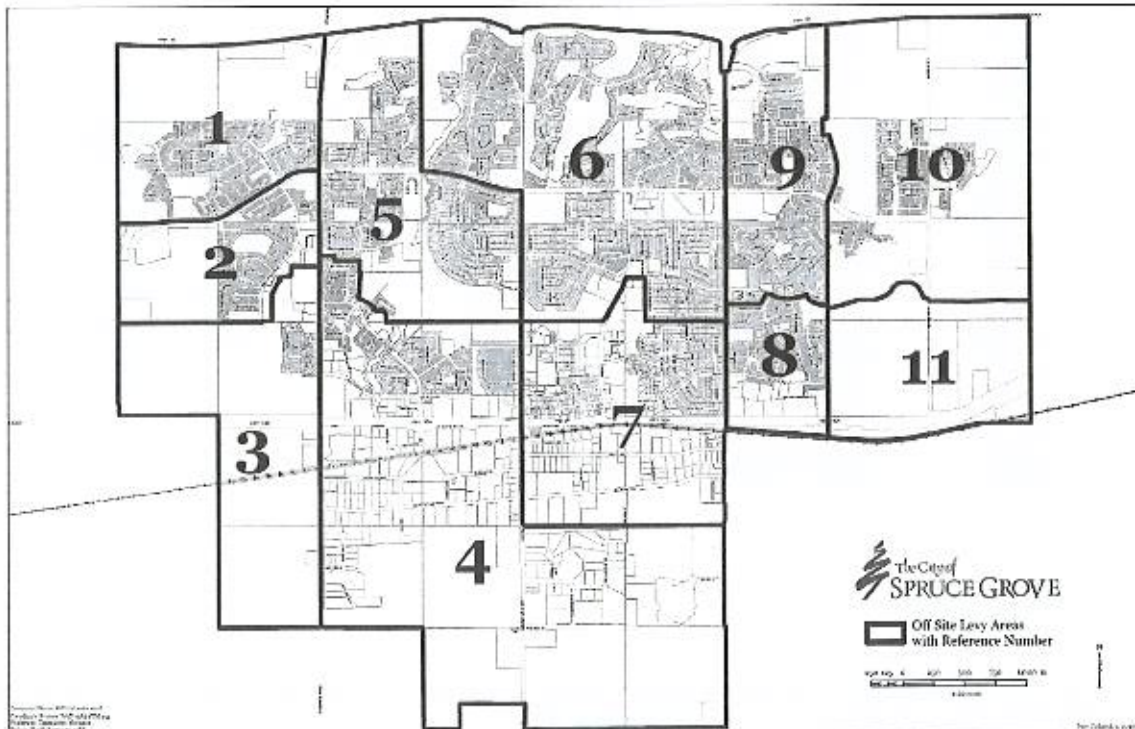
Offsite levy rates are not intended to stay static; they are based upon educated assumptions and the best available information of the day. Planning assumptions, cost estimates etc. can change each year. Accordingly, the Municipal Government Act requires that offsite levy rates be updated with the most available information on a regular basis (usually annually). When information changes, it will be reflected in a future update, and rates adjusted accordingly.

## APPENDIX A: OFFSITE LEVY AREAS AND STAGING

### A1. Offsite Levy Areas

The City is parsed into 11 offsite levy areas, as shown in the map below. This is a change from Bylaw C788-11. The change was made to ensure all developing lands were contained within an offsite levy area, and levy areas account for the location of infrastructure basins. The 11 offsite levy areas take into consideration existing/planned infrastructure basins (i.e., transportation, water, sanitary, and stormwater basins) as well as natural and man-made barriers (e.g., rivers, highways, etc.). All offsite levy infrastructure costs are allocated to one or more areas.

Offsite Levy Areas



Total net development area, the amount of land available for development across all offsite levy areas, is approximately **799 net ha**. In calculating net development area only those lands remaining to be developed that have not previously paid offsite levies have been considered (as required by legislation/regulation). Further, allowances have been made to net development area calculations for environmental reserves, municipal reserves, and arterial road right of way.

Offsite Levy Net Development Area<sup>5</sup>

| Area Ref. # | Development Area Location | Land Use           | Gross Area (ha.) | Environmental Reserves (ha.) | Sub-total | Municipal Reserves | Arterial Right of Way | Net Development Area (ha.) |
|-------------|---------------------------|--------------------|------------------|------------------------------|-----------|--------------------|-----------------------|----------------------------|
| 1.1         | See Map                   | Commercial         | 0.53             | -                            | 0.53      | 0.05               | -                     | 0.48                       |
| 1.2         | See Map                   | Industrial         | -                | -                            | -         | -                  | -                     | -                          |
| 1.3         | See Map                   | Residential - Low/ | 117.67           | 23.65                        | 94.02     | 9.40               | -                     | 84.62                      |
| 1.4         | See Map                   | Residential - High | 1.22             | -                            | 1.22      | 0.12               | -                     | 1.10                       |
| 1.5         | See Map                   | Other              | -                | -                            | -         | -                  | -                     | -                          |
| 2.1         | See Map                   | Commercial         | -                | -                            | -         | -                  | -                     | -                          |
| 2.2         | See Map                   | Industrial         | -                | -                            | -         | -                  | -                     | -                          |
| 2.3         | See Map                   | Residential - Low/ | 47.99            | 0.93                         | 47.06     | 4.71               | 2.40                  | 39.95                      |
| 2.4         | See Map                   | Residential - High | 3.85             | -                            | 3.85      | 0.39               | -                     | 3.47                       |
| 2.5         | See Map                   | Other              | -                | -                            | -         | -                  | -                     | -                          |
| 3.1         | See Map                   | Commercial         | 98.53            | 4.37                         | 94.16     | 9.42               | -                     | 84.74                      |
| 3.2         | See Map                   | Industrial         | -                | -                            | -         | -                  | -                     | -                          |
| 3.3         | See Map                   | Residential - Low/ | 114.07           | 4.37                         | 109.70    | 10.97              | -                     | 98.73                      |
| 3.4         | See Map                   | Residential - High | 6.91             | -                            | 6.91      | 0.69               | -                     | 6.22                       |
| 3.5         | See Map                   | Other              | 11.84            | -                            | 11.84     | 1.18               | -                     | 10.66                      |
| 4.1         | See Map                   | Commercial         | -                | -                            | -         | -                  | -                     | -                          |
| 4.2         | See Map                   | Industrial         | 248.00           | -                            | 248.00    | 24.80              | 3.20                  | 220.00                     |
| 4.3         | See Map                   | Residential - Low/ | 2.93             | -                            | 2.93      | 0.29               | -                     | 2.64                       |
| 4.4         | See Map                   | Residential - High | -                | -                            | -         | -                  | -                     | -                          |
| 4.5         | See Map                   | Other              | -                | -                            | -         | -                  | -                     | -                          |
| 5.1         | See Map                   | Commercial         | -                | -                            | -         | -                  | -                     | -                          |
| 5.2         | See Map                   | Industrial         | -                | -                            | -         | -                  | -                     | -                          |
| 5.3         | See Map                   | Residential - Low/ | 54.06            | 1.19                         | 52.87     | 5.29               | -                     | 47.58                      |
| 5.4         | See Map                   | Residential - High | 2.71             | -                            | 2.71      | 0.27               | -                     | 2.44                       |
| 5.5         | See Map                   | Other              | -                | -                            | -         | -                  | -                     | -                          |

<sup>5</sup> The City's offsite levy model has been configured to include 5 potential land use types: (1) commercial (X.1), (2) industrial (X.2), (3) residential low/medium density (X.3), (4) residential high density (X.4), and (5) other (X.5).

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| Area Ref. # | Development Area Location | Land Use           | Gross Area (ha.) | Environmental Reserves (ha.) | Sub-total     | Municipal Reserves | Arterial Right of Way | Net Development Area (ha.) |
|-------------|---------------------------|--------------------|------------------|------------------------------|---------------|--------------------|-----------------------|----------------------------|
| 6.1         | See Map                   | Commercial         | -                | -                            | -             | -                  | -                     | -                          |
| 6.2         | See Map                   | Industrial         | -                | -                            | -             | -                  | -                     | -                          |
| 6.3         | See Map                   | Residential - Low  | 5.80             | -                            | 5.80          | 0.58               | -                     | 5.22                       |
| 6.4         | See Map                   | Residential - High | 2.13             | -                            | 2.13          | 0.21               | -                     | 1.92                       |
| 6.5         | See Map                   | Other              | -                | -                            | -             | -                  | -                     | -                          |
| 7.1         | See Map                   | Commercial         | -                | -                            | -             | -                  | -                     | -                          |
| 7.2         | See Map                   | Industrial         | -                | -                            | -             | -                  | -                     | -                          |
| 7.3         | See Map                   | Residential - Low  | -                | -                            | -             | -                  | -                     | -                          |
| 7.4         | See Map                   | Residential - High | -                | -                            | -             | -                  | -                     | -                          |
| 7.5         | See Map                   | Other              | -                | -                            | -             | -                  | -                     | -                          |
| 8.1         | See Map                   | Commercial         | 4.52             | -                            | 4.52          | 0.45               | -                     | 4.07                       |
| 8.2         | See Map                   | Industrial         | -                | -                            | -             | -                  | -                     | -                          |
| 8.3         | See Map                   | Residential - Low  | -                | -                            | -             | -                  | -                     | -                          |
| 8.4         | See Map                   | Residential - High | -                | -                            | -             | -                  | -                     | -                          |
| 8.5         | See Map                   | Other              | -                | -                            | -             | -                  | -                     | -                          |
| 9.1         | See Map                   | Commercial         | 14.75            | -                            | 14.75         | 1.48               | -                     | 13.28                      |
| 9.2         | See Map                   | Industrial         | -                | -                            | -             | -                  | -                     | -                          |
| 9.3         | See Map                   | Residential - Low  | 11.67            | -                            | 11.67         | 1.17               | -                     | 10.50                      |
| 9.4         | See Map                   | Residential - High | 1.57             | -                            | 1.57          | 0.16               | -                     | 1.41                       |
| 9.5         | See Map                   | Other              | -                | -                            | -             | -                  | -                     | -                          |
| 10.1        | See Map                   | Commercial         | -                | -                            | -             | -                  | -                     | -                          |
| 10.2        | See Map                   | Industrial         | -                | -                            | -             | -                  | -                     | -                          |
| 10.3        | See Map                   | Residential - Low  | 128.29           | 9.19                         | 119.10        | 11.91              | 1.35                  | 105.84                     |
| 10.4        | See Map                   | Residential - High | 10.65            | -                            | 10.65         | 1.07               | -                     | 9.59                       |
| 10.5        | See Map                   | Other              | -                | -                            | -             | -                  | -                     | -                          |
| 11.1        | See Map                   | Commercial         | 26.60            | 10.00                        | 16.60         | 1.66               | -                     | 14.94                      |
| 11.2        | See Map                   | Industrial         | -                | -                            | -             | -                  | -                     | -                          |
| 11.3        | See Map                   | Residential - Low  | 43.38            | 12.00                        | 31.38         | 3.14               | 9.37                  | 18.87                      |
| 11.4        | See Map                   | Residential - High | -                | -                            | -             | -                  | -                     | -                          |
| 11.5        | See Map                   | Other              | 21.69            | 10.00                        | 11.69         | 1.17               | -                     | 10.52                      |
|             |                           | <b>Total</b>       | <b>981.35</b>    | <b>75.70</b>                 | <b>905.66</b> | <b>90.57</b>       | <b>16.32</b>          | <b>798.77</b>              |

Summary of Offsite Levy Net Development Area

| Description              | ha.    |
|--------------------------|--------|
| Gross Development Area   | 981.35 |
| Less Environment Reserve | 75.70  |
| Less Municipal Reserve   | 90.57  |
| Less ROW Allowance       | 16.32  |
| Net Development Area     | 798.77 |

\*Note: 1 Hectare (ha.) = ~2.47 Acres

Net development area definitions will be applied in determining offsite levy obligations of developers on application for subdivision or development within the City of Spruce Grove. Net development area is defined as follows:

- Gross Area – The area of lands to be developed in hectares that have not previously paid an offsite levy.
  - Less: Any environmental reserves (undevelopable land) contained within the development area.
  - Less: A 10% allowance for Municipal Reserves.
  - Less: Arterial road right of way that bisects the development lands.
- Equals: Net Developable Area, which is the area subject to offsite levies.

## A2. Development Staging

A rate planning period of 25-years underpins the offsite levy model and rate calculations. Many municipalities use this planning period as it provides a reasonable timeframe to recoup the costs associated with offsite levy infrastructure construction, and it aligns with the timeframes of many municipal capital planning and construction cycles.

Of the 872 net ha. of development area available across all offsite levy development areas, planners estimate that approximately **799 ha. (100%)** will develop during the next 25-years (the rate planning period) as shown in the tables below.

Summary of Anticipated Development during the 25-year Rate Planning Period

|                            |        |        |
|----------------------------|--------|--------|
| Developed In Next 25 Years | 798.79 | 100.0% |
| Developed Beyond 25 Years  | -      | 0.0%   |
| Net Development Area       | 798.79 |        |

\*Though all current lands in Spruce Grove are anticipated to develop within the 25-year review period, staff have advised that annexation of additional municipal lands is very likely during the next 5 years. Accordingly, additional lands will be included in the staging forecast during future rate updates.



## APPENDIX B: WATER OFFSITE INFRASTRUCTURE

### B1. Water Offsite Infrastructure Costs

To support future growth, water offsite infrastructure is required. The estimated cost of this infrastructure is based upon: (a) actual construction costs to the cut-off date, (b) debenture interest associated with financing, and (c) future cost estimates. Total cost is approximately **\$18.72 million** as outlined in the table below. Actual costs, debenture interest (if any), and cost estimates were provided by City staff. It is important to note that these costs represent "gross" costs, of which only a portion will go to support future development during the 25-year review period. The remainder of this section outlines how the "net" costs for future development are determined.

#### Summary of Water Offsite Infrastructure

| Item | Project Description  | Cost of Completed Work | Debenture Interest | Estimated Cost of Work Yet to be Completed | Total Project Estimated Cost |
|------|--|------------------------|--------------------|--|------------------------------|
| 1    | Campsite Watermain Loop (41-99-17)                                     | \$ 328,202             | \$ -               | \$ -                                       | \$ 328,202                   |
| 2    | Campgrounds Watermain  | \$ 776,587             | \$ -               | \$ -                                       | \$ 776,587                   |
| 3    | New Growth Water Reservoir (CP_DP186)                                  | \$ 7,239,634           | \$ -               | \$ 7,738,749                               | \$ 14,978,382                |
| 4    | Water Main 400mm - 1200m from Century Rd to Pioneer Rd (along Hwy 16A) | \$ -                   | \$ -               | \$ 2,640,000                               | \$ 2,640,000                 |
|      |  | \$ 8,344,423           | \$ -               | \$ 10,378,749                              | \$ 18,723,172                |

\*Costs are based on 2017 estimates.

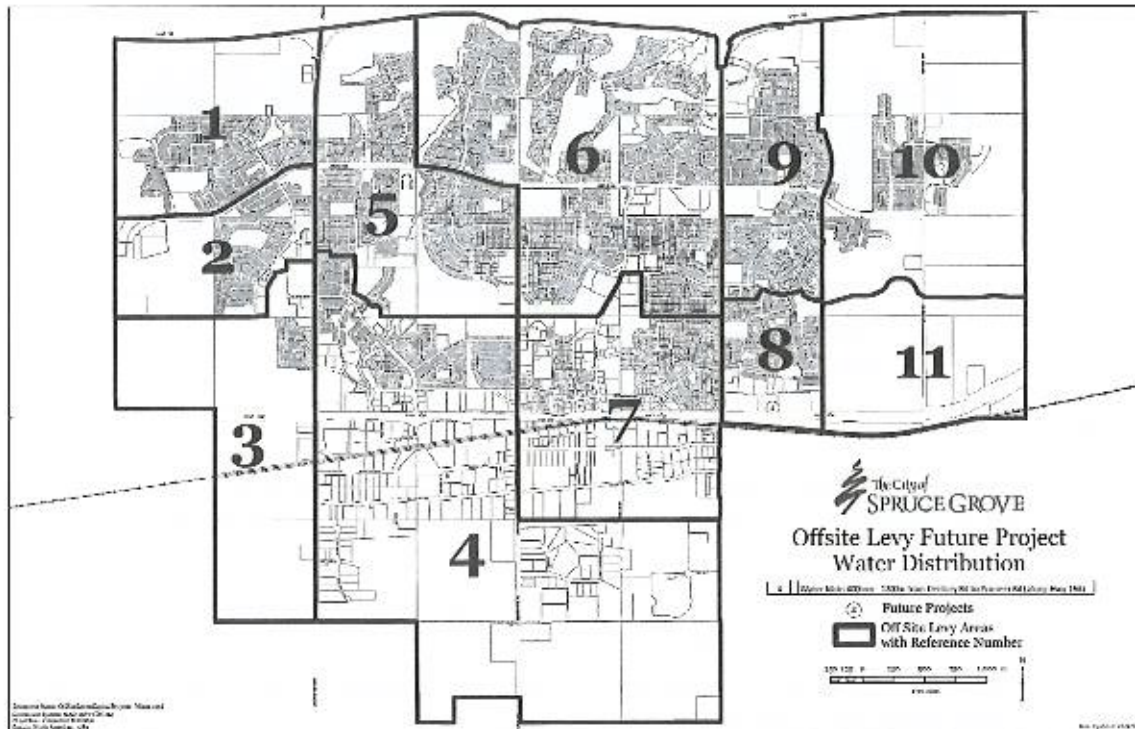
\*\*Estimates include engineering costs and contingencies.

\*\*\*Offsite levy project details, source, allocation rationale, etc. are summarized in Appendix G.



A map showing the location of this infrastructure is shown below.

Location of Water Offsite Infrastructure



**B2. Water Offsite Infrastructure Grants & Contributions to Date**

The MGA enables the City to allocate the costs of offsite infrastructure to future development, other than those costs that have been provided by way of special grant or contribution (i.e., contributed infrastructure). The City of Spruce Grove has/will receive **\$0.00** in special grants and contributions for water offsite levy infrastructure as shown in the table below (note, if the City receives other grants or contributions in the future, it will be reflected in one of the annual updates and rates adjusted accordingly). The result is that the total reduced project estimated cost is **\$18.72 million**.

Special Grants and Contributions for Water Offsite Infrastructure

| Item | Project Description  | Total Project Estimated Cost | Special Provincial Grants | Developer Agreement Contributions | Other Contributions | Reduced Project Estimated Cost |
|------|--|------------------------------|---------------------------|-----------------------------------|---------------------|--------------------------------|
| 1    | Campsite Watermain Loop (41-99-1/7)                                    | \$ 326,202                   | \$ -                      | \$ -                              | \$ -                | \$ 326,202                     |
| 2    | Carrageons Wleminian   | \$ 776,587                   | \$ -                      | \$ -                              | \$ -                | \$ 776,587                     |
| 3    | New Growth Water Reservoir (CP DP186)                                  | \$ 14,978,382                | \$ -                      | \$ -                              | \$ -                | \$ 14,978,382                  |
| 4    | Water Main 400mm - 1200m from Century Rd to Pioneer Rd (along Hwy 16A) | \$ 2,640,000                 | \$ -                      | \$ -                              | \$ -                | \$ 2,640,000                   |
|      |  | <b>\$ 18,723,172</b>         | <b>\$ -</b>               | <b>\$ -</b>                       | <b>\$ -</b>         | <b>\$ 18,723,172</b>           |

**B3. Water Infrastructure Staging**

The timing of construction is used to determine the impact of inflation on cost, the impact of forecast reserve balances, and the estimate of financial oversizing (described in the Section

that follows). The City anticipates construction of offsite infrastructure as outlined in the table below. Note, if this schedule is adjusted in the future, it will be reflected in one of the City's annual rate/bylaw updates.

Water Infrastructure Staging

| Item | Project Description  | Construction Start Year |
|------|--|-------------------------|
| 1    | Campsite Watermain Loop (41-99-17)                                     | 2003                    |
| 2    | Campgrounds Watermain  | 2012                    |
| 3    | New Growth Water Reservoir (CP_DP186)                                  | 2014                    |
| 4    | Water Main 400mm - 1200m from Century Rd to Pioneer Rd (along Hwy 16A) | 2020                    |

\*Projects anticipated for construction beyond the 25-year review period are shown as "2041"

\*\*The share of projects constructed beyond the 25-year review period are not included in rates today (see financial oversizing in next section).

\*\*\*Project costs are inflated by 3% per annum to the year of construction.

**B4. Water Offsite Infrastructure Benefiting Parties**

The water offsite infrastructure previously outlined will benefit various parties to varying degrees as determined by City's staff. Four potential benefiting parties were identified including:

- City of Spruce Grove – a portion of the water infrastructure which is required to service existing residents.
- Other Stakeholders – other parties (such as neighboring municipalities) that benefit from the infrastructure.
- City of Spruce Grove Future Development (Financial Oversizing) - that portion of cost which benefits future development beyond the 25-year review period.
- City of Spruce Grove Future Development (In Rates) – all growth related infrastructure (i.e., levyable water infrastructure costs) during the 25-year rate planning period.

The table below outlines the allocation of water offsite levy infrastructure costs to benefiting parties. Project allocations were determined by City staff.

Allocation of Water Infrastructure to Benefiting Parties

| Item | Project Description  | Reduced Project Estimated Cost | Muni Share % | Other Stakeholder Share | Developer Share Beyond 25 Yrs (Financial Oversizing %) | OSL / Developer Share % |
|------|--|--------------------------------|--------------|-------------------------|--|-------------------------|
| 1    | Campsite Watermain Loop (41-99-17)                                     | \$ 326,202                     |              |                         | 0.0%   | 100.0%                  |
| 2    | Campgrounds Watermain  | \$ 775,587                     |              |                         | 0.0%   | 100.0%                  |
| 3    | New Growth Water Reservoir (CP_DP186)                                  | \$ 14,978,382                  |              |                         | 0.0%   | 100.0%                  |
| 4    | Water Main 400mm - 1200m from Century Rd to Pioneer Rd (along Hwy 16A) | \$ 2,840,000                   |              |                         | 12.0%  | 88.0%                   |
|      |  | \$ 18,723,172                  |              |                         |  |                         |

\*Allocations were determined by the City (see Appendix G).

\*\*Financial oversizing is determined by separating out the pro rata portion of developer cost beyond the 25-year review period, in comparison with the anticipated year of construction. As the years move forward and rates are updated, these additional developer costs will be included in rate calculations.

\*\*\*As noted in Appendix A2, though all current lands in Spruce Grove are anticipated to develop within the 25-year review period, staff have advised that annexation of additional municipal lands is very likely during the next 5 years. Accordingly, additional lands will be included in the staging forecast during future rate updates, just as

additional costs (currently classified as "financial oversizing") will be included in future rate updates.

### B5. Existing Receipts & Adjusted Levy Cost

Using the offsite levy share percentages shown in the previous section and applying those percentages to project costs results in an offsite levy cost of approximately **\$18.41 million**. However, prior to allocating these costs to benefiting areas, existing offsite levy receipts collected from developers need to be considered in determining the residual/net costs to developers. The City has collected **\$10.87 million** in offsite levies to date. This results in an adjusted offsite levy cost of approximately **\$7.53 million**.

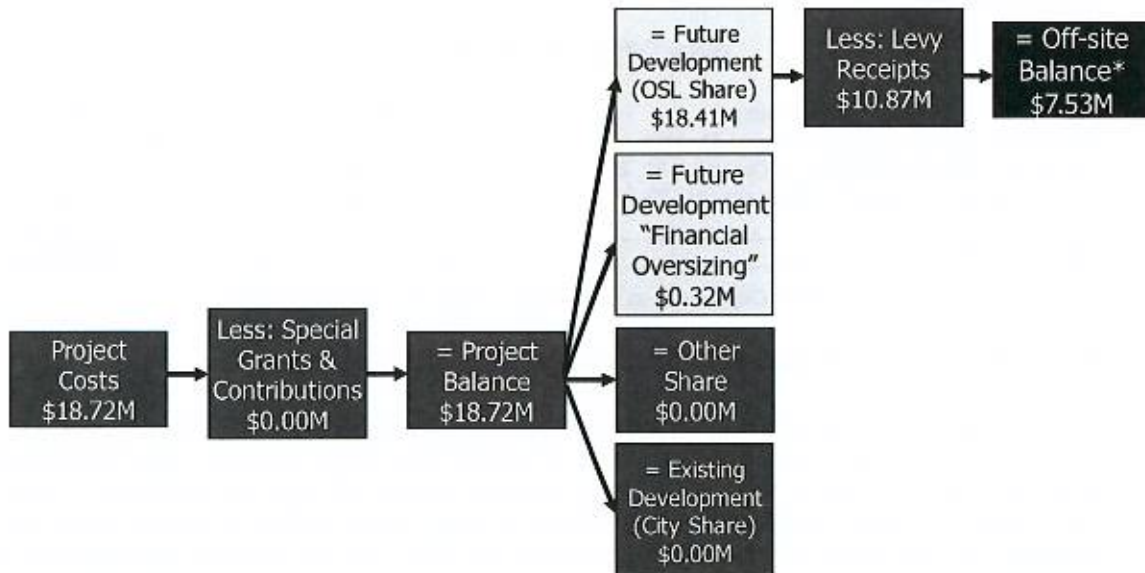
Offsite Levy Funds Collected to Date & Adjusted Levy Cost

| Item | Project Description  | OSL / Developer Cost | Offsite Levy Funds Collected to Dec 31, 2016 | Offsite Levy Funds Collected Starting Jan 1, 2017 | Adjusted Developer (Levy) Cost |
|------|--|----------------------|--|---|--------------------------------|
| 1    | Campsite Watermain Loop (41-59-17)                                     | \$ 328,202           | \$ 328,202                                   | \$ -  | \$ -                           |
| 2    | Campgrounds Watermain  | \$ 778,587           | \$ 778,587                                   | \$ -  | \$ -                           |
| 3    | New Growth Water Reservoir (CP_DP186)                                  | \$ 14,978,382        | \$ 9,766,932                                 | \$ -  | \$ 5,211,450                   |
| 4    | Water Main 400mm - 1200m from Century Rd to Pioneer Rd (along Hwy 16A) | \$ 2,323,200         | \$ -   | \$ -  | \$ 2,323,200                   |
|      |  | \$ 18,406,372        | \$ 10,871,722                                | \$ -  | \$ 7,534,650                   |

### B6. Summary of Water Offsite Levy Cost Flow-through

As shown in the figure below, the total cost for water infrastructure that forms the basis of the rate is approximately **\$7.53 million**. The cost allocations to each benefiting party are based on the benefiting percentages shown in Section B4. The offsite levy balance (due from developers) is allocated to various benefiting areas (as described in the next section).

Total Water Offsite Levy Costs



### B7. Water Infrastructure Benefiting Areas

Net developer costs for each project have been allocated to multiple benefiting offsite levy area (see tables below). Allocations are denoted with a "1" below applicable area numbers. Benefiting areas were determined by City staff and their engineering advisors. The lands anticipated to develop over the 25-years in each offsite levy benefiting area are used to determine rates.

**Benefiting Areas for Water Offsite Infrastructure**

| Item | Developer Cost | 1.1 | 1.2 | 1.3 | 1.4 | 1.5 | 2.1 | 2.2 | 2.3 | 2.4 | 2.5 | 3.1 | 3.2 | 3.3 | 3.4 | 3.5 | 4.1 | 4.2 | 4.3 | 4.4 | 4.5 | 5.1 | 5.2 | 5.3 | 5.4 | 5.5 |
|------|----------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1    | \$ -           | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   |
| 2    | \$ -           |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | 1   | 1   | 1   | 1   | 1   |     |     |     |     |
| 3    | \$ 5,211,450   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   |
| 4    | \$ 2,323,200   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|      | \$ 7,534,650   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |

| Item | Developer Cost | 6.1 | 6.2 | 6.3 | 6.4 | 6.5 | 7.1 | 7.2 | 7.3 | 7.4 | 7.5 | 8.1 | 8.2 | 8.3 | 8.4 | 8.5 | 9.1 | 9.2 | 9.3 | 9.4 | 9.5 | 10.1 | 10.2 | 10.3 | 10.4 | 10.5 | 11.1 | 11.2 | 11.3 | 11.4 | 11.5 |
|------|----------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|
| 1    | \$ -           |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |
| 2    | \$ -           |     |     |     |     |     | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   |     |     |     |     |     |      |      |      |      |      | 1    | 1    | 1    | 1    | 1    |
| 3    | \$ 5,211,450   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| 4    | \$ 2,323,200   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |
|      | \$ 7,534,650   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |

**B8. Reserve Balance**

At December 31<sup>st</sup>, 2016, the balance of the City’s water reserve is **\$ \$2,527,298.67**, as shown in the table below. This amount takes into consideration expenditures up to end-2016.

The City also needs to establish a set of “sub-ledgers” to track the amounts due to front-ending parties, including interest impacts in accordance with the interest rates underpinning the bylaw.

**Water Offsite Levy Reserve Balance**

| Description   | Dr              | Cr              | Balance                |
|---|-----------------|-----------------|------------------------|
| Offsite Levy Expenditures to December 31, 2016        |                 | \$ 8,344,423.23 | \$ (8,344,423.23)      |
| Offsite Levy Receipt Allocations to December 31, 2016 | \$ 8,344,423.23 |                 | \$ -                   |
| Unused Receipts & Interest to December 31, 2016       | \$ 2,527,298.67 |                 | \$ 2,527,298.67        |
| <b>Opening Balance</b>                                |                 |                 | <b>\$ 2,527,298.67</b> |

\*A complete reconciliation of the City’s existing reserve/account is shown in Appendix E.

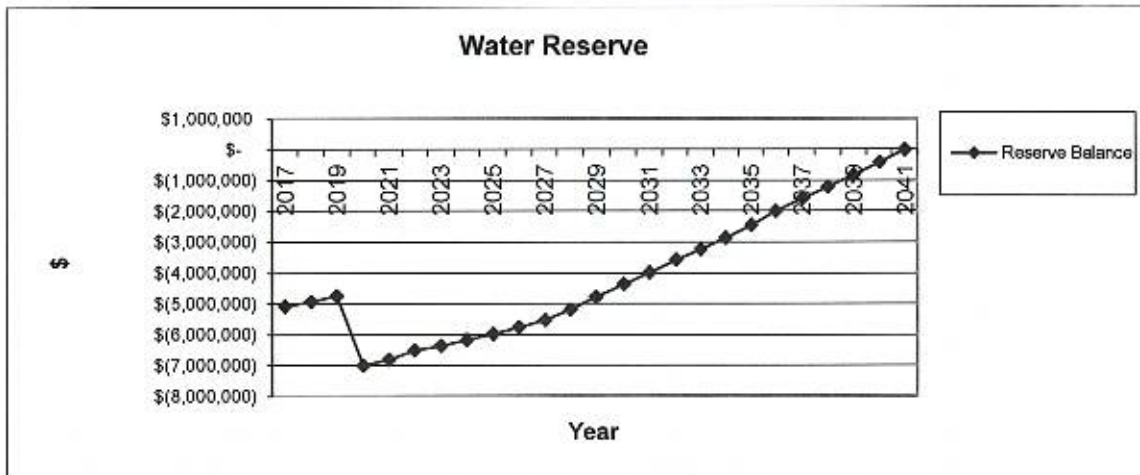
**B9. Development and Water Infrastructure Staging Impacts**

Water offsite infrastructure will be constructed in staged fashion over the 25-year review period. We have reviewed the availability of offsite levy funds to meet these construction requirements and found that offsite levy reserve funds will not be sufficient to pay for construction of water infrastructure from time to time—front ending of infrastructure will be required. A front-ender is the party that constructs and pays up front for infrastructure that benefits other parties.

To compensate parties for capital they provide in front-ending offsite infrastructure construction, a 2.71%<sup>7</sup> interest allowance has been charged to the reserve when it is forecast to be in a negative balance. Further, a 0.85% interest credit has been provided to the reserve when it is forecast to be in a positive balance. The graph and table below outline the forecast water levy reserve balances over the 25-year development period.

If necessary, an interest staging adjustment has been applied to rates (slightly positive or slightly negative) to ensure that the forecast reserve balance at the end of the 25-year review period always returns to break-even (i.e., developers are not charged too much thereby providing a windfall to the City, nor are they charged too little thereby placing an unequitable burden on taxpayers).

Anticipated Water Offsite Levy Reserve Balances



<sup>7</sup> The 20-year debenture rate at the Alberta Capital Finance Authority at the time of writing was ~2.71%.

Anticipated Water Offsite Levy Reserve Balances

| Year | Receipts   | Expenditure  | Opening Balance |                |
|------|------------|--------------|-----------------|----------------|
|      |            |              | Interest        | Balance        |
|      |            |              | \$              | 2,527,299      |
| 2017 | \$ 295,106 | \$ 7,788,759 | \$ (134,638)    | \$ (5,100,992) |
| 2018 | \$ 307,596 | \$ -         | \$ (129,949)    | \$ (4,923,346) |
| 2019 | \$ 313,748 | \$ -         | \$ (124,966)    | \$ (4,734,564) |
| 2020 | \$ 364,811 | \$ 2,465,161 | \$ (185,295)    | \$ (7,020,209) |
| 2021 | \$ 375,755 | \$ -         | \$ (180,131)    | \$ (6,824,585) |
| 2022 | \$ 472,358 | \$ -         | \$ (172,209)    | \$ (6,524,437) |
| 2023 | \$ 333,966 | \$ -         | \$ (167,824)    | \$ (6,358,294) |
| 2024 | \$ 343,985 | \$ -         | \$ (163,048)    | \$ (6,177,356) |
| 2025 | \$ 350,388 | \$ -         | \$ (157,969)    | \$ (5,984,937) |
| 2026 | \$ 357,394 | \$ -         | \$ (152,563)    | \$ (5,780,105) |
| 2027 | \$ 369,840 | \$ -         | \$ (146,672)    | \$ (5,556,938) |
| 2028 | \$ 508,226 | \$ -         | \$ (136,871)    | \$ (5,185,582) |
| 2029 | \$ 511,353 | \$ -         | \$ (126,718)    | \$ (4,800,948) |
| 2030 | \$ 525,350 | \$ -         | \$ (115,911)    | \$ (4,391,509) |
| 2031 | \$ 484,840 | \$ -         | \$ (105,910)    | \$ (4,012,579) |
| 2032 | \$ 508,553 | \$ -         | \$ (94,994)     | \$ (3,599,020) |
| 2033 | \$ 449,259 | \$ -         | \$ (85,390)     | \$ (3,235,151) |
| 2034 | \$ 458,180 | \$ -         | \$ (75,284)     | \$ (2,852,255) |
| 2035 | \$ 471,926 | \$ -         | \$ (64,531)     | \$ (2,444,860) |
| 2036 | \$ 486,124 | \$ -         | \$ (53,101)     | \$ (2,011,837) |
| 2037 | \$ 475,055 | \$ -         | \$ (41,662)     | \$ (1,578,444) |
| 2038 | \$ 403,458 | \$ -         | \$ (31,854)     | \$ (1,206,840) |
| 2039 | \$ 397,888 | \$ -         | \$ (21,931)     | \$ (830,882)   |
| 2040 | \$ 409,825 | \$ -         | \$ (11,415)     | \$ (432,472)   |
| 2041 | \$ 432,472 | \$ -         | \$ 0            | \$ 0           |

## APPENDIX C: SANITARY OFFSITE INFRASTRUCTURE

### C1. Sanitary Offsite Infrastructure Costs

To support future growth, sanitary offsite infrastructure is required. The estimated cost of this infrastructure is based upon: (a) actual construction costs to the cut-off date, (b) debenture interest associated with financing, and (c) future cost estimates. Total cost is approximately **\$20.54 million** as outlined in the table below. Actual costs, debenture interest (if any), and cost estimates were provided by City engineering staff. It is important to note that these costs represent "gross" costs, of which only a portion will go to support future development during the 25-year review period. The remainder of this section outlines how the "net" costs for future development are determined.

#### Summary of Sanitary Offsite Infrastructure

| Item | Project Description   | Cost of Completed Work | Debenture Interest | Estimated Cost of Work Yet to be Completed | Total Project Estimated Cost |
|------|---|------------------------|--------------------|--|------------------------------|
| 1    | West Trunk Sanitary Sewer (42-99-12-06) - W of Campsite Rd to S Industrial Lands* | \$ 3,772,950           | \$ -               | \$ -                                       | \$ 3,772,950                 |
| 2    | Pioneer Road Trunk Sewer (42-99-16-09)  | \$ 2,964,966           | \$ -               | \$ -                                       | \$ 2,964,966                 |
| 3    | Pioneer Road Sanitary Sewer Extension (41-01-01-14)                               | \$ 1,553,981           | \$ -               | \$ -                                       | \$ 1,553,981                 |
| 4    | Pioneer Trunk Sewer Extension DP138   | \$ 2,877,628           | \$ -               | \$ 952,302                                 | \$ 3,829,930                 |
| 5    | Campsite West Trunk Sanitary Sewer (42-99-09)                                     | \$ 1,358,031           | \$ -               | \$ -                                       | \$ 1,358,031                 |
| 6    | Boundary Trunk Sewer  | \$ 157,818             | \$ -               | \$ 5,104,800                               | \$ 5,262,618                 |
| 7    | Pioneer Trunk Sewer Extension (McLeod to CNR)                                     | \$ -                   | \$ -               | \$ 1,800,000                               | \$ 1,800,000                 |
|      |   | <b>\$ 12,685,373</b>   | <b>\$ -</b>        | <b>\$ 7,857,102</b>                        | <b>\$ 20,542,475</b>         |

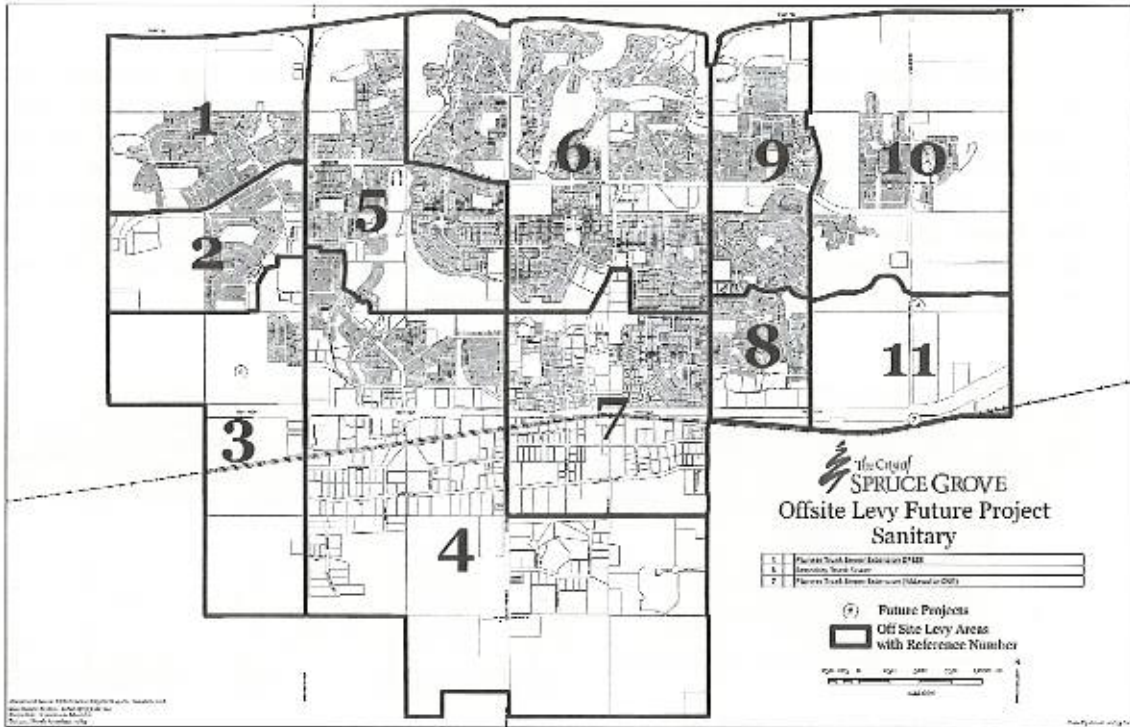
\*Costs are based on 2017 estimates.

\*\*Estimates include engineering costs and contingencies.

\*\*\*Offsite levy project details, source, allocation rationale, etc. is summarized in Appendix G.

A map showing the location of this infrastructure is shown below.

Location of Sanitary Offsite Infrastructure



**C2. Sanitary Offsite Infrastructure Grants & Contributions to Date**

The MGA enables the City to allocate the costs of offsite infrastructure to future development, other than those costs that have been provided by way of special grant or contribution (i.e., contributed infrastructure). The City of Spruce Grove has/will receive approximately **\$1.16 million** in special grants and contributions for sanitary offsite levy infrastructure as shown in the table below (note, if the City receives additional grants or contributions in the future, it will be reflected in one of the annual updates and rates adjusted accordingly). The result is that the total reduced project estimated cost is **\$19.38 million**.

Special Grants and Contributions for Sanitary Offsite Infrastructure

| Item | Project Description   | Total Project Estimated Cost | Special Grants      | Developer Agreement Contributions | Other Contributions | Reduced Project Estimated Cost |
|------|---|------------------------------|---------------------|-----------------------------------|---------------------|--------------------------------|
| 1    | West Trunk Sanitary Sewer (42-99-12-06) - W of Campsite Rd to S Industrial Lands* | \$ 3,772,950                 | \$ -                | \$ -                              | \$ -                | \$ 3,772,950                   |
| 2    | Pioneer Road Trunk Sewer (42-88-16-09)  | \$ 2,964,968                 | \$ 1,163,038        | \$ -                              | \$ -                | \$ 1,801,928                   |
| 3    | Pioneer Road Sanitary Sewer Extension (41-01-01-14)                               | \$ 1,553,981                 | \$ -                | \$ -                              | \$ -                | \$ 1,553,981                   |
| 4    | Pioneer Trunk Sewer Extension DP138   | \$ 3,829,930                 | \$ -                | \$ -                              | \$ -                | \$ 3,829,930                   |
| 5    | Campsite West Trunk Sanitary Sewer (42-99-06)                                     | \$ 1,358,031                 | \$ -                | \$ -                              | \$ -                | \$ 1,358,031                   |
| 6    | Boundary Trunk Sewer  | \$ 5,262,618                 | \$ -                | \$ -                              | \$ -                | \$ 5,262,618                   |
| 7    | Pioneer Trunk Sewer Extension (McLead to CNR)                                     | \$ 1,800,000                 | \$ -                | \$ -                              | \$ -                | \$ 1,800,000                   |
|      |   | <b>\$ 20,542,475</b>         | <b>\$ 1,163,038</b> | <b>\$ -</b>                       | <b>\$ -</b>         | <b>\$ 19,379,437</b>           |



### C3. Sanitary Infrastructure Staging

The timing of construction is used to determine the impact of inflation on cost, the impact of forecast reserve balances, and the estimate of financial oversizing (described in the Section that follows). The City anticipates construction of offsite infrastructure as outlined in the table below. Note, if this schedule is adjusted in the future, it will be reflected in one of the City's annual rate/bylaw updates.

Sanitary Infrastructure Staging

| Item | Project Description   | Construction Start Year |
|------|---|-------------------------|
| 1    | West Trunk Sanitary Sewer (42-99-12-06) - W of Campsite Rd to S Industrial Lands* | 2006                    |
| 2    | Pioneer Road Trunk Sewer (42-99-16-09)  | 2009                    |
| 3    | Pioneer Road Sanitary Sewer Extension (41-01-01-14)                               | 2012                    |
| 4    | Pioneer Trunk Sewer Extension DP138   | 2015                    |
| 5    | Campsite West Trunk Sanitary Sewer (42-99-09)                                     | 2000                    |
| 6    | Boundary Trunk Sewer  | 2019                    |
| 7    | Pioneer Trunk Sewer Extension (McLeod to CNR)                                     | 2022                    |

\*Projects anticipated for construction beyond the 25-year review period are shown as "2041"

\*\*The share of projects constructed beyond the 25-year review period are not included in rates today (see financial oversizing in next section).

\*\*\*Project costs are inflated by 3% per annum to the year of construction.

### C4. Sanitary Offsite Infrastructure Benefiting Parties

The sanitary offsite infrastructure previously outlined will benefit various parties to varying degrees as determined by the City's staff. Four potential benefiting parties were identified including:

- City of Spruce Grove – a portion of the sanitary infrastructure which is required to service existing residents.
- Other Stakeholders – other parties (such as neighboring municipalities) that benefit from the infrastructure.
- City of Spruce Grove Future Development (Financial Oversizing) - that portion of cost which benefits future development beyond the 25-year review period.
- City of Spruce Grove Future Development (In Rates) – all growth related infrastructure (i.e., levyable sanitary infrastructure costs) during the 25-year rate planning period.

The table below outlines the allocation of sanitary offsite levy infrastructure costs to benefiting parties. Project allocations were determined by City staff.

Allocation of Sanitary Infrastructure to Benefiting Parties

| Item | Project Description   | Reduced Project Estimated Cost | Muni Share % | Other Stakeholder Share | Developer Share Beyond 25 Yrs (Financial Oversizing %) | OSL / Developer Share % |
|------|---|--------------------------------|--------------|-------------------------|--|-------------------------|
| 1    | West Trunk Sanitary Sewer (42-99-12-06) - W of Campsite Rd to S Industrial Lands* | \$ 3,772,950                   |              |                         | 0.0%   | 100.0%                  |
| 2    | Pioneer Road Trunk Sewer (42-99-16-09)  | \$ 1,801,928                   |              |                         | 0.0%   | 100.0%                  |
| 3    | Pioneer Road Sanitary Sewer Extension (41-01-01-14)                               | \$ 1,553,981                   |              |                         | 0.0%   | 100.0%                  |
| 4    | Pioneer Trunk Sewer Extension DP138   | \$ 3,829,930                   |              |                         | 0.0%   | 100.0%                  |
| 5    | Campsite West Trunk Sanitary Sewer (42-99-09)                                     | \$ 1,358,031                   |              |                         | 0.0%   | 100.0%                  |
| 6    | Boundary Trunk Sewer  | \$ 5,282,818                   |              |                         | 8.0%   | 92.0%                   |
| 7    | Pioneer Trunk Sewer Extension (McLeod to CNR)                                     | \$ 1,800,000                   |              |                         | 20.0%  | 80.0%                   |
|      |   | <b>\$ 19,379,437</b>           |              |                         |  |                         |

\*Allocations were determined by the City (see Appendix G).

\*\*Financial oversizing is determined by separating out the pro rata portion of developer cost beyond the 25-year review period, in comparison with the anticipated year of construction. As the years move forward and rates are updated, these additional developer costs will be included in rate calculations.

\*\*\*As noted in Appendix A2, though all current lands in Spruce Grove are anticipated to develop within the 25-year review period, staff have advised that annexation of additional municipal lands is very likely during the next 5 years. Accordingly, additional lands will be included in the staging forecast during future rate updates, just as additional costs (currently classified as "financial oversizing") will be included in future rate updates.

**C5. Existing Receipts & Adjusted Levy Cost**

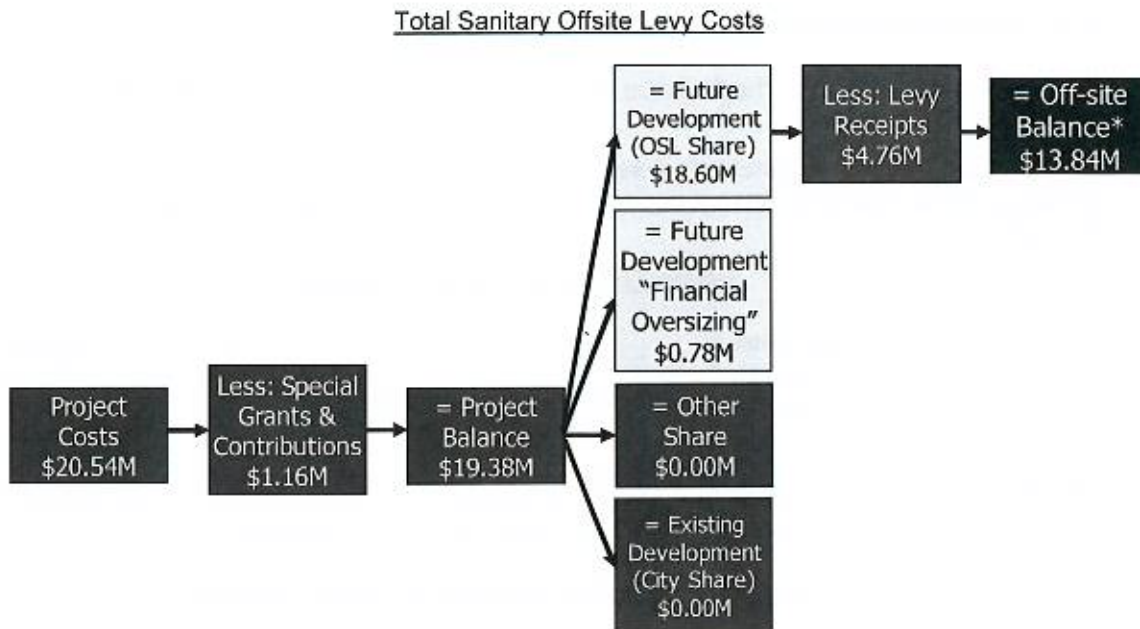
Using the offsite levy share percentages shown in the previous section and applying those percentages to project costs results in an offsite levy cost of approximately **\$18.60 million**. However, prior to allocating these costs to benefiting areas, existing offsite levy receipts collected from developers need to be considered in determining the residual/net costs to developers. The City has collected **\$4.76 million** in offsite levies to date. This results in an adjusted offsite levy cost of approximately **\$13.84 million**.

Offsite Levy Funds Collected to Date & Adjusted Levy Cost

| Item | Project Description   | OSL / Developer Cost | Offsite Levy Funds Collected to Dec 31, 2016 | Offsite Levy Funds Collected Starting Jan 1, 2017 | Adjusted Developer (Levy) Cost |
|------|---|----------------------|--|---|--------------------------------|
| 1    | West Trunk Sanitary Sewer (42-99-12-06) - W of Campsite Rd to S Industrial Lands* | \$ 3,772,950         | \$ 3,246,918                                 | \$ -  | \$ 526,032                     |
| 2    | Pioneer Road Trunk Sewer (42-99-16-09)  | \$ 1,801,928         |  | \$ -  | \$ 1,801,928                   |
| 3    | Pioneer Road Sanitary Sewer Extension (41-01-01-14)                               | \$ 1,553,981         |  | \$ -  | \$ 1,553,981                   |
| 4    | Pioneer Trunk Sewer Extension DP138   | \$ 3,829,930         |  | \$ -  | \$ 3,829,930                   |
| 5    | Campsite West Trunk Sanitary Sewer (42-99-09)                                     | \$ 1,358,031         | \$ 1,358,031                                 | \$ -  | \$ -                           |
| 6    | Boundary Trunk Sewer  | \$ 4,841,608         | \$ 157,818                                   | \$ -  | \$ 4,683,791                   |
| 7    | Pioneer Trunk Sewer Extension (McLeod to CNR)                                     | \$ 1,440,000         | \$ -   | \$ -  | \$ 1,440,000                   |
|      |   | <b>\$ 18,698,428</b> | <b>\$ 4,762,766</b>                          | <b>\$ -</b>                                       | <b>\$ 13,835,662</b>           |

**C6. Summary of Sanitary Offsite Levy Cost Flow-through**

As shown in the figure below, the total costs for sanitary infrastructure that forms the basis of the rate is approximately **\$13.24 million**. The cost allocations to each benefiting party are based on the benefiting percentages shown in Section C4. The offsite levy balance (due from developers) is allocated to various benefiting areas (as described in the next section).



### C7. Sanitary Infrastructure Benefiting Areas

Net developer costs for each project have been allocated to multiple benefiting offsite levy area (see tables below). Allocations are denoted with a "1" below applicable area numbers. Benefiting areas were determined by City staff. The lands anticipated to develop over the 25-years in each offsite levy benefiting area are used to determine rates.

Benefiting Areas for Sanitary Offsite Infrastructure

| Item | Developer Cost | 1.1 | 1.2 | 1.3 | 1.4 | 1.5 | 2.1 | 2.2 | 2.3 | 2.4 | 2.5 | 3.1 | 3.2 | 3.3 | 3.4 | 3.5 | 4.1 | 4.2 | 4.3 | 4.4 | 4.5 | 5.1 | 5.2 | 5.3 | 5.4 | 5.5 |
|------|----------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1    | \$ 526,032     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   |
| 2    | \$ 1,801,928   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 3    | \$ 1,553,981   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 4    | \$ 3,829,930   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 5    | \$ -           |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | 1   | 1   | 1   | 1   | 1   |     |     |     |     |     |
| 6    | \$ 4,683,791   |     |     |     |     |     | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   |     |     |     |     |     |     |     |     |     |     |
| 7    | \$ 1,440,000   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|      | \$ 13,835,662  |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |

| Item | Developer Cost | 6.1 | 6.2 | 6.3 | 6.4 | 6.5 | 7.1 | 7.2 | 7.3 | 7.4 | 7.5 | 8.1 | 8.2 | 8.3 | 8.4 | 8.5 | 9.1 | 9.2 | 9.3 | 9.4 | 9.5 | 10.1 | 10.2 | 10.3 | 10.4 | 10.5 | 11.1 | 11.2 | 11.3 | 11.4 | 11.5 |
|------|----------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|
| 1    | \$ 526,032     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |
| 2    | \$ 1,801,928   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| 3    | \$ 1,553,981   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| 4    | \$ 3,829,930   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| 5    | \$ -           |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |
| 6    | \$ 4,683,791   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |
| 7    | \$ 1,440,000   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
|      | \$ 13,835,662  |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |

### C8. Reserve Balance

At December 31<sup>st</sup>, 2016, the balance of the City's sanitary reserve is **\$(6,759,568.82)**, as shown in the table below.

The City also needs to establish a set of "sub-ledgers" to track the amounts due to front-ending parties, including interest impacts in accordance with the interest rates underpinning the bylaw.

#### Sanitary Offsite Levy Reserve Balance

| Description   | Dr              | Cr              | Balance                  |
|---|-----------------|-----------------|--------------------------|
| Offsite Levy Expenditures to December 31, 2016        |                 | \$11,522,334.96 | \$ (11,522,334.96)       |
| Offsite Levy Receipt Allocations to December 31, 2016 | \$ 4,762,766.14 |                 | \$ (6,759,568.82)        |
|   |                 |                 | \$ (6,759,568.82)        |
|   |                 |                 | \$ (6,759,568.82)        |
| <b>Opening Balance</b>                                |                 |                 | <b>\$ (6,759,568.82)</b> |

\*A complete reconciliation of the City's existing reserve/account is shown in Appendix E.

### C9. Development and Sanitary Infrastructure Staging Impacts

Sanitary offsite infrastructure will be constructed in staged fashion over the 25-year development period. We have reviewed the availability of offsite levy funds to meet these construction requirements and found that offsite levy reserve funds will not be sufficient to pay for construction of sanitary infrastructure from time to time—front ending of infrastructure will be required. A front-ender is the party that constructs and pays up front for infrastructure that benefits other parties.

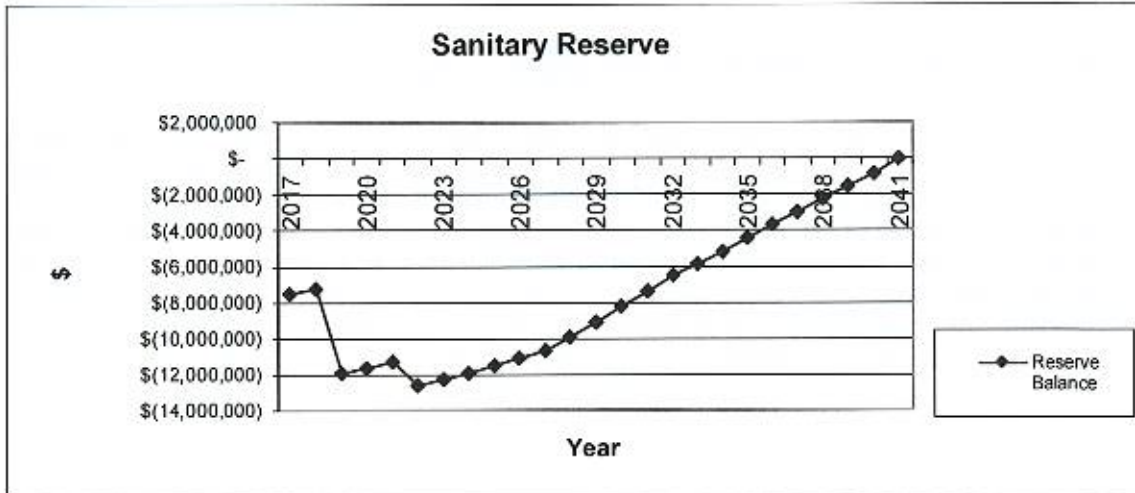
In order to compensate parties for capital they provide in front-ending offsite infrastructure construction, a 2.71%<sup>8</sup> interest allowance has been charged to the reserve when it is forecast to be in a negative balance. Further, a 0.85% interest credit has been provided to the reserve when it is forecast to be in a positive balance. The graph and table below outline the forecast water levy reserve balances over the 25-year development period.

If necessary, an interest staging adjustment has been applied to rates (slightly positive or slightly negative) to ensure that the forecast reserve balance at the end of the 25-year review period always returns to break-even (i.e., developers are not charged too much thereby providing a windfall to the City, nor are they charged too little thereby placing an unequitable burden on taxpayers).

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<sup>8</sup> The 20-year debenture rate at the Alberta Capital Finance Authority at the time of writing was ~2.71%.

Anticipated Sanitary Offsite Levy Reserve Balances



Anticipated Sanitary Offsite Levy Reserve Balances

| Year | Receipts     | Expenditure  | Interest     | Opening Balance | Balance |
|------|--------------|--------------|--------------|-----------------|---------|
|      |              |              |              | \$ (6,759,569)  |         |
| 2017 | \$ 408,341   | \$ 957,483   | \$ (198,139) | \$ (7,506,850)  |         |
| 2018 | \$ 469,881   | \$ -         | \$ (190,772) | \$ (7,227,741)  |         |
| 2019 | \$ 479,279   | \$ 4,838,190 | \$ (314,114) | \$ (11,900,766) |         |
| 2020 | \$ 590,456   | \$ -         | \$ (306,623) | \$ (11,616,933) |         |
| 2021 | \$ 608,169   | \$ -         | \$ (298,448) | \$ (11,307,212) |         |
| 2022 | \$ 632,929   | \$ 1,621,047 | \$ (333,326) | \$ (12,628,656) |         |
| 2023 | \$ 664,796   | \$ -         | \$ (324,340) | \$ (12,288,201) |         |
| 2024 | \$ 684,739   | \$ -         | \$ (314,570) | \$ (11,918,031) |         |
| 2025 | \$ 692,802   | \$ -         | \$ (304,316) | \$ (11,529,545) |         |
| 2026 | \$ 702,414   | \$ -         | \$ (293,524) | \$ (11,120,655) |         |
| 2027 | \$ 724,038   | \$ -         | \$ (281,852) | \$ (10,678,469) |         |
| 2028 | \$ 1,039,749 | \$ -         | \$ (261,306) | \$ (9,900,026)  |         |
| 2029 | \$ 1,070,941 | \$ -         | \$ (239,356) | \$ (9,068,441)  |         |
| 2030 | \$ 1,099,947 | \$ -         | \$ (216,026) | \$ (8,184,520)  |         |
| 2031 | \$ 1,002,170 | \$ -         | \$ (194,714) | \$ (7,377,064)  |         |
| 2032 | \$ 1,059,706 | \$ -         | \$ (171,264) | \$ (6,488,621)  |         |
| 2033 | \$ 799,406   | \$ -         | \$ (154,235) | \$ (5,843,450)  |         |
| 2034 | \$ 823,388   | \$ -         | \$ (136,094) | \$ (5,156,156)  |         |
| 2035 | \$ 848,090   | \$ -         | \$ (116,792) | \$ (4,424,858)  |         |
| 2036 | \$ 873,662   | \$ -         | \$ (96,273)  | \$ (3,647,469)  |         |
| 2037 | \$ 773,834   | \$ -         | \$ (77,904)  | \$ (2,951,539)  |         |
| 2038 | \$ 769,802   | \$ -         | \$ (59,147)  | \$ (2,240,884)  |         |
| 2039 | \$ 736,584   | \$ -         | \$ (40,782)  | \$ (1,545,081)  |         |
| 2040 | \$ 758,682   | \$ -         | \$ (21,319)  | \$ (807,719)    |         |
| 2041 | \$ 807,719   | \$ -         | \$ 0         | \$ 0            |         |

## APPENDIX D: TRANSPORTATION OFFSITE INFRASTRUCTURE

### D1. Transportation Offsite Infrastructure Costs

To support future growth, transportation offsite infrastructure is required. The estimated cost of this infrastructure is based upon: (a) actual construction costs to the cut-off date, (b) debenture interest associated with financing, and (c) future cost estimates. Total cost is approximately **\$119.70 million** as outlined in the table below. Actual costs, debenture interest (if any), and cost estimates were provided by City staff. It is important to note that these costs represent "gross" costs, of which only a portion will go to support future development during the 25-year review period. The remainder of this section outlines how the "net" costs for future development are determined.

Summary of Transportation Offsite Infrastructure

| Item | Project Description  | Cost of Completed Work | Debenture Interest  | Estimated Cost of Work Yet to be Completed | Total Project Estimated Cost |
|------|--|------------------------|---------------------|--|------------------------------|
| 1    | Campsite Road Twinning   | \$ 137,529             | \$ -                | \$ -                                       | \$ 137,529                   |
| 2    | Grove Drive - Century Road to Greystone  | \$ 56,771              | \$ -                | \$ -                                       | \$ 56,771                    |
| 3    | Traffic Signals - Campsite Road and McLeod Ave                                   | \$ 203,441             | \$ -                | \$ -                                       | \$ 203,441                   |
| 4    | Traffic Signals - Campsite Road and Grove Drive                                  | \$ 104,864             | \$ -                | \$ -                                       | \$ 104,864                   |
| 5    | Grove Drive Twinning/Widening - Campsite to Century                              | \$ 5,828,599           | \$ -                | \$ -                                       | \$ 5,828,599                 |
| 6    | TLC Signalization  | \$ 262,197             | \$ -                | \$ -                                       | \$ 262,197                   |
| 7    | Century Road Widening/Landscaping  | \$ 1,872,896           | \$ -                | \$ -                                       | \$ 1,872,896                 |
| 8    | Grove Drive East/West  | \$ 3,130,734           | \$ -                | \$ -                                       | \$ 3,130,734                 |
| 9    | Traffic Signals - Jennifer Hail Way and Hawthorne Gate Intersection              | \$ 200,970             | \$ -                | \$ -                                       | \$ 200,970                   |
| 10   | Century Road South of Diamond Ave.   | \$ 1,474,213           | \$ -                | \$ -                                       | \$ 1,474,213                 |
| 11   | Traffic Signals - Highway 16A/Century Crossing                                   | \$ 376,862             | \$ -                | \$ -                                       | \$ 376,862                   |
| 12   | Century Road/ Grove Drive Intersection   | \$ 1,546,798           | \$ -                | \$ -                                       | \$ 1,546,798                 |
| 13   | Grove Drive East Extension   | \$ 1,650,188           | \$ -                | \$ -                                       | \$ 1,650,188                 |
| 14   | Traffic Signals - (1) Grove Dr and Greystone, and (2) Grove Dr and Harvest Ridge | \$ 370,210             | \$ -                | \$ -                                       | \$ 370,210                   |
| 15   | Pioneer Rd - Grove Dr to Highway 16A with roundabout at McLeod Ave and Grove Dr  | \$ 3,302,424           | \$ 2,015,670        | \$ 5,857,251                               | \$ 11,175,344                |
| 16   | South Industrial Arterial - Tamarack Drive                                       | \$ 760,710             | \$ -                | \$ -                                       | \$ 760,710                   |
| 17   | Traffic Signals - Grove Drive and Deer Park                                      | \$ 261,976             | \$ -                | \$ -                                       | \$ 261,976                   |
| 18   | Widening Jennifer Hail Road/Campsite Rd from McLeod Ave to south of the CN rail  | \$ 2,005,719           | \$ 540,789          | \$ -                                       | \$ 2,546,508                 |
| 19   | Tamarack Drive 2LAUD - 200m from Golden Spike Rd east                            | \$ -                   | \$ -                | \$ 732,000                                 | \$ 732,000                   |
| 20   | Tamarack Drive 2LAUD - 1400m from existing to Century Rd                         | \$ -                   | \$ -                | \$ 5,124,000                               | \$ 5,124,000                 |
| 21   | Tamarack Drive 4LAUD - 1600m from Golden Spike Rd to Century Rd                  | \$ -                   | \$ -                | \$ 5,856,000                               | \$ 5,856,000                 |
| 22   | Tamarack Drive 2LAUD - 90m from Golden Spike Rd west                             | \$ -                   | \$ -                | \$ 329,400                                 | \$ 329,400                   |
| 23   | Tamarack Drive 2LAUD - 1500m from existing to Campsite Rd                        | \$ -                   | \$ -                | \$ 5,490,000                               | \$ 5,490,000                 |
| 24   | Tamarack Drive 4LAUD - 1600m from Golden Spike Rd to Campsite Rd                 | \$ -                   | \$ -                | \$ 5,856,000                               | \$ 5,856,000                 |
| 25   | Pioneer Road 2LAUD - 400m south of Hwy 16A                                       | \$ -                   | \$ -                | \$ 1,464,000                               | \$ 1,464,000                 |
| 26   | Pioneer Road 4LAUD - 400m south of Hwy 16A                                       | \$ -                   | \$ -                | \$ 1,464,000                               | \$ 1,464,000                 |
| 27   | Pioneer Road 4LAUD - 1400m Hwy 16A to Grove Dr                                   | \$ -                   | \$ -                | \$ 5,124,000                               | \$ 5,124,000                 |
| 28   | Century Road 2LAUD - 2400m Hwy 16A to south boundary                             | \$ -                   | \$ -                | \$ 8,784,000                               | \$ 8,784,000                 |
| 29   | Century Road 4LAUD - 2400m Hwy 16A to south boundary                             | \$ -                   | \$ -                | \$ 8,784,000                               | \$ 8,784,000                 |
| 30   | Grove Drive East 4LAUD - 1000m to Pioneer Rd                                     | \$ -                   | \$ -                | \$ 3,660,000                               | \$ 3,660,000                 |
| 31   | Grove Drive West 2LAUD - 600m to Boundary Rd                                     | \$ -                   | \$ -                | \$ 2,196,000                               | \$ 2,196,000                 |
| 32   | Grove Drive West 4LAUD - 1400m to Boundary Rd                                    | \$ -                   | \$ -                | \$ 5,124,000                               | \$ 5,124,000                 |
| 33   | Campsite Road 2LAUD - 1300m from CN to south boundary                            | \$ -                   | \$ -                | \$ 4,758,000                               | \$ 4,758,000                 |
| 34   | Campsite Road 4LAUD - 1300m from CN to south boundary                            | \$ -                   | \$ -                | \$ 4,758,000                               | \$ 4,758,000                 |
| 35   | Golden Spike Road 2LAUD - 1400m to south boundary                                | \$ -                   | \$ -                | \$ 5,124,000                               | \$ 5,124,000                 |
| 36   | Golden Spike Road 4LAUD - 1400m to south boundary                                | \$ -                   | \$ -                | \$ 5,124,000                               | \$ 5,124,000                 |
| 37   | Boundary Road 2LAUD - 1200m to Hwy16A  | \$ -                   | \$ -                | \$ 4,392,000                               | \$ 4,392,000                 |
| 38   | Traffic Signals - Boundary @ McLeod  | \$ -                   | \$ -                | \$ 360,000                                 | \$ 360,000                   |
| 39   | Traffic Signals - Hwy 16A - between Boundary & Campsite                          | \$ -                   | \$ -                | \$ 360,000                                 | \$ 360,000                   |
| 40   | Traffic Signals - Campsite - between Grove Dr & Hwy 16                           | \$ -                   | \$ -                | \$ 360,000                                 | \$ 360,000                   |
| 41   | Traffic Signals - Campsite @ Diamond   | \$ -                   | \$ -                | \$ 360,000                                 | \$ 360,000                   |
| 42   | Traffic Signals - Campsite @ Tamarack  | \$ -                   | \$ -                | \$ 360,000                                 | \$ 360,000                   |
| 43   | Traffic Signals - Golden Spike @ Diamond   | \$ -                   | \$ -                | \$ 360,000                                 | \$ 360,000                   |
| 44   | Traffic Signals - Golden Spike @ Tamarack  | \$ -                   | \$ -                | \$ 360,000                                 | \$ 360,000                   |
| 45   | Traffic Signals - Century @ Diamond  | \$ -                   | \$ -                | \$ 360,000                                 | \$ 360,000                   |
| 46   | Traffic Signals - Century @ Tamarack   | \$ -                   | \$ -                | \$ 360,000                                 | \$ 360,000                   |
| 47   | Traffic Signals - Grove Dr @ Greenbury Blvd                                      | \$ -                   | \$ -                | \$ 360,000                                 | \$ 360,000                   |
|      |  | <b>\$ 23,547,098</b>   | <b>\$ 2,556,459</b> | <b>\$ 93,600,651</b>                       | <b>\$ 119,704,208</b>        |

\*Costs are based on 2017 estimates.

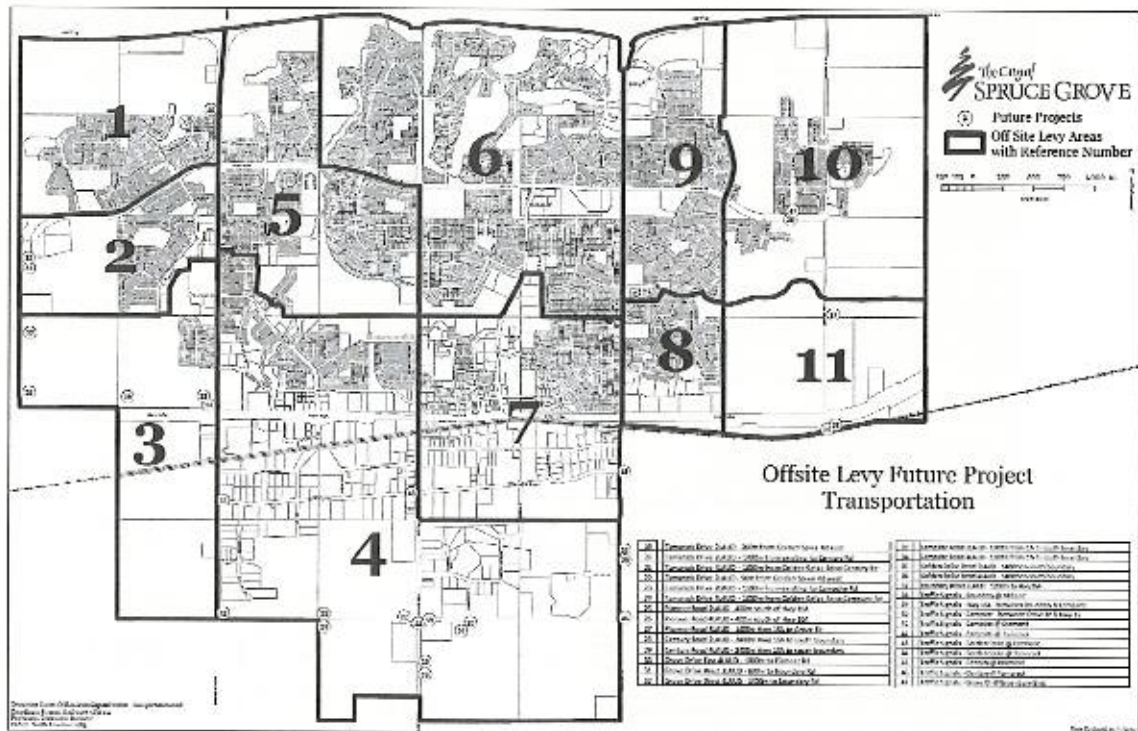
\*\*Estimates include engineering costs and contingencies.

\*\*\*Offsite levy project details, source, allocation rationale, etc. is summarized in Appendix G.

\*\*\*\*Debenture interest shown for Projects 15 and 18 reflects only future debenture interest. Historical debenture interest is included in historical expenditures.

A map showing the location of this infrastructure is shown below.

Location of Transportation Offsite Infrastructure



## D2. Transportation Offsite Infrastructure Grants & Contributions to Date

The MGA enables the City to allocate the costs of offsite infrastructure to future development, other than those costs that have been provided by way of special grant or contribution (i.e., contributed infrastructure). The City of Spruce Grove has/will receive **\$0.15 million** in special grants and contributions for transportation offsite levy infrastructure as shown in the table below (note, if the City receives other grants or contributions in the future, it will be reflected in one of the annual updates and rates adjusted accordingly). The result is that the total reduced project estimated cost is **\$119.55 million**.



Special Grants and Contributions for Transportation Offsite Infrastructure

| Item | Project Description  | Total Project Estimated Cost | Special Provincial Grants | Developer Agreement Contributions | Other Contributions | Reduced Project Estimated Cost |
|------|--|------------------------------|---------------------------|-----------------------------------|---------------------|--------------------------------|
| 1    | Campsite Road Twinning   | \$ 137,529                   | \$ -                      | \$ -                              | \$ -                | \$ 137,529                     |
| 2    | Grove Drive - Century Road to Greystone  | \$ 58,771                    | \$ -                      | \$ -                              | \$ -                | \$ 58,771                      |
| 3    | Traffic Signals - Campsite Road and McLeod Ave                                   | \$ 203,441                   | \$ -                      | \$ -                              | \$ -                | \$ 203,441                     |
| 4    | Traffic Signals - Campsite Road and Grove Drive                                  | \$ 104,864                   | \$ -                      | \$ -                              | \$ -                | \$ 104,864                     |
| 5    | Grove Drive Twinning/Widening - Campsite to Century                              | \$ 5,828,599                 | \$ -                      | \$ -                              | \$ -                | \$ 5,828,599                   |
| 6    | TLC Signalization  | \$ 262,197                   | \$ -                      | \$ -                              | \$ -                | \$ 262,197                     |
| 7    | Century Road Widening/Landscaping  | \$ 1,872,898                 | \$ -                      | \$ -                              | \$ -                | \$ 1,872,898                   |
| 8    | Grove Drive East/West  | \$ 3,130,734                 | \$ -                      | \$ -                              | \$ -                | \$ 3,130,734                   |
| 9    | Traffic Signals - Jennifer Hill Way and Hawthorne Gate Intersection              | \$ 200,970                   | \$ -                      | \$ -                              | \$ -                | \$ 200,970                     |
| 10   | Century Road South of Diamond Ave.   | \$ 1,474,213                 | \$ 151,961                | \$ -                              | \$ -                | \$ 1,322,252                   |
| 11   | Traffic Signals - Highway 16A/Century Crossing                                   | \$ 378,882                   | \$ -                      | \$ -                              | \$ -                | \$ 378,882                     |
| 12   | Century Road/ Grove Drive Intersection   | \$ 1,546,798                 | \$ -                      | \$ -                              | \$ -                | \$ 1,546,798                   |
| 13   | Grove Drive East Extension   | \$ 1,650,186                 | \$ -                      | \$ -                              | \$ -                | \$ 1,650,186                   |
| 14   | Traffic Signals - (1) Grove Dr and Greystone, and (2) Grove Dr and Harvest Ridge | \$ 370,210                   | \$ -                      | \$ -                              | \$ -                | \$ 370,210                     |
| 15   | Pioneer Rd - Grove Dr to Highway 16A with roundabout at McLeod Ave and Grove Dr  | \$ 11,175,344                | \$ -                      | \$ -                              | \$ -                | \$ 11,175,344                  |
| 16   | South Industrial Arterial - Tamarack Drive                                       | \$ 760,710                   | \$ -                      | \$ -                              | \$ -                | \$ 760,710                     |
| 17   | Traffic Signals - Grove Drive and Deer Park                                      | \$ 261,876                   | \$ -                      | \$ -                              | \$ -                | \$ 261,876                     |
| 18   | Widening Jennifer Hill Road/Campsite Rd from McLeod Ave to south of the CN rail  | \$ 2,546,508                 | \$ -                      | \$ -                              | \$ -                | \$ 2,546,508                   |
| 19   | Tamarack Drive 2LAUD - 200m from Golden Spike Rd east                            | \$ 732,000                   | \$ -                      | \$ -                              | \$ -                | \$ 732,000                     |
| 20   | Tamarack Drive 2LAUD - 1400m from existing to Century Rd                         | \$ 5,124,000                 | \$ -                      | \$ -                              | \$ -                | \$ 5,124,000                   |
| 21   | Tamarack Drive 4LAUD - 1600m from Golden Spike Rd to Century Rd                  | \$ 5,856,000                 | \$ -                      | \$ -                              | \$ -                | \$ 5,856,000                   |
| 22   | Tamarack Drive 2LAUD - 90m from Golden Spike Rd west                             | \$ 329,400                   | \$ -                      | \$ -                              | \$ -                | \$ 329,400                     |
| 23   | Tamarack Drive 2LAUD - 1500m from existing to Campsite Rd                        | \$ 5,490,000                 | \$ -                      | \$ -                              | \$ -                | \$ 5,490,000                   |
| 24   | Tamarack Drive 4LAUD - 1600m from Golden Spike Rd to Campsite Rd                 | \$ 5,856,000                 | \$ -                      | \$ -                              | \$ -                | \$ 5,856,000                   |
| 25   | Pioneer Road 2LAUD - 400m south of Hwy 16A                                       | \$ 1,464,000                 | \$ -                      | \$ -                              | \$ -                | \$ 1,464,000                   |
| 26   | Pioneer Road 4LAUD - 400m south of Hwy 16A                                       | \$ 1,464,000                 | \$ -                      | \$ -                              | \$ -                | \$ 1,464,000                   |
| 27   | Pioneer Road 4LAUD - 1400m Hwy 16A to Grove Dr                                   | \$ 5,124,000                 | \$ -                      | \$ -                              | \$ -                | \$ 5,124,000                   |
| 28   | Century Road 2LAUD - 2400m Hwy 16A to south boundary                             | \$ 8,784,000                 | \$ -                      | \$ -                              | \$ -                | \$ 8,784,000                   |
| 29   | Century Road 4LAUD - 2400m Hwy 16A to south boundary                             | \$ 8,784,000                 | \$ -                      | \$ -                              | \$ -                | \$ 8,784,000                   |
| 30   | Grove Drive East 4LAUD - 1000m to Pioneer Rd                                     | \$ 3,680,000                 | \$ -                      | \$ -                              | \$ -                | \$ 3,680,000                   |
| 31   | Grove Drive West 2LAUD - 600m to Boundary Rd                                     | \$ 2,196,000                 | \$ -                      | \$ -                              | \$ -                | \$ 2,196,000                   |
| 32   | Grove Drive West 4LAUD - 1400m to Boundary Rd                                    | \$ 5,124,000                 | \$ -                      | \$ -                              | \$ -                | \$ 5,124,000                   |
| 33   | Campsite Road 2LAUD - 1300m from CN to south boundary                            | \$ 4,758,000                 | \$ -                      | \$ -                              | \$ -                | \$ 4,758,000                   |
| 34   | Campsite Road 4LAUD - 1300m from CN to south boundary                            | \$ 4,758,000                 | \$ -                      | \$ -                              | \$ -                | \$ 4,758,000                   |
| 35   | Golden Spike Road 2LAUD - 1400m to south boundary                                | \$ 5,124,000                 | \$ -                      | \$ -                              | \$ -                | \$ 5,124,000                   |
| 36   | Golden Spike Road 4LAUD - 1400m to south boundary                                | \$ 5,124,000                 | \$ -                      | \$ -                              | \$ -                | \$ 5,124,000                   |
| 37   | Boundary Road 2LAUD - 1200m to Hwy16A  | \$ 4,392,000                 | \$ -                      | \$ -                              | \$ -                | \$ 4,392,000                   |
| 38   | Traffic Signals - Boundary @ McLeod  | \$ 360,000                   | \$ -                      | \$ -                              | \$ -                | \$ 360,000                     |
| 39   | Traffic Signals - Hwy 16A - between Boundary & Campsite                          | \$ 360,000                   | \$ -                      | \$ -                              | \$ -                | \$ 360,000                     |
| 40   | Traffic Signals - Campsite - between Grove Dr & Hwy 16                           | \$ 360,000                   | \$ -                      | \$ -                              | \$ -                | \$ 360,000                     |
| 41   | Traffic Signals - Campsite @ Diamond   | \$ 360,000                   | \$ -                      | \$ -                              | \$ -                | \$ 360,000                     |
| 42   | Traffic Signals - Campsite @ Tamarack  | \$ 360,000                   | \$ -                      | \$ -                              | \$ -                | \$ 360,000                     |
| 43   | Traffic Signals - Golden Spike @ Diamond   | \$ 360,000                   | \$ -                      | \$ -                              | \$ -                | \$ 360,000                     |
| 44   | Traffic Signals - Golden Spike @ Tamarack  | \$ 360,000                   | \$ -                      | \$ -                              | \$ -                | \$ 360,000                     |
| 45   | Traffic Signals - Century @ Diamond  | \$ 360,000                   | \$ -                      | \$ -                              | \$ -                | \$ 360,000                     |
| 46   | Traffic Signals - Century @ Tamarack   | \$ 360,000                   | \$ -                      | \$ -                              | \$ -                | \$ 360,000                     |
| 47   | Traffic Signals - Grove Dr @ Greenbury Blvd                                      | \$ 360,000                   | \$ -                      | \$ -                              | \$ -                | \$ 360,000                     |
|      |  | \$ 119,704,208               | \$ 151,961                | \$ -                              | \$ -                | \$ 119,552,247                 |

D3. Transportation Infrastructure Staging

The timing of construction is used to determine the impact of inflation on cost, the impact of forecast reserve balances, and the estimate of financial oversizing (described in the Section that follows). The City anticipates construction of offsite infrastructure as outlined in the table below. Note, if this schedule is adjusted in the future, it will be reflected in one of the City's annual rate/bylaw updates.

**Transportation Infrastructure Staging**

| Item | Project Description  | Construction Start Year |
|------|--|-------------------------|
| 1    | Campsite Road Twinning   | 2006                    |
| 2    | Grove Drive - Century Road to Greystone  | 2006                    |
| 3    | Traffic Signals - Campsite Road and McLeod Ave                                   | 2006                    |
| 4    | Traffic Signals - Campsite Road and Grove Drive                                  | 2008                    |
| 5    | Grove Drive Twinning/Widening - Campsite to Century                              | 2008                    |
| 6    | TLC Signalization  | 2008                    |
| 7    | Century Road Widening/Landscaping  | 2009                    |
| 8    | Grove Drive East/West  | 2009                    |
| 9    | Traffic Signals - Jennifer Hill Way and Hawthorne Gate Intersection              | 2010                    |
| 10   | Century Road South of Diamond Ave.   | 2011                    |
| 11   | Traffic Signals - Highway 16A/Century Crossing                                   | 2011                    |
| 12   | Century Road/ Grove Drive Intersection   | 2013                    |
| 13   | Grove Drive East Extension   | 2013                    |
| 14   | Traffic Signals - (1) Grove Dr and Greystone, and (2) Grove Dr and Harvest Ridge | 2013                    |
| 15   | Pioneer Rd - Grove Dr to Highway 16A with roundabout at McLeod Ave and Grove Dr  | 2016                    |
| 16   | South Industrial Arterial - Tamarack Drive                                       | 2015                    |
| 17   | Traffic Signals - Grove Drive and Deer Park                                      | 2015                    |
| 18   | Widening Jennifer Hill Road/Campsite Rd from McLeod Ave to south of the CN rail  | 2015                    |
| 19   | Tamarack Drive 2LAUD - 200m from Golden Spike Rd east                            | 2028                    |
| 20   | Tamarack Drive 2LAUD - 1400m from existing to Century Rd                         | 2028                    |
| 21   | Tamarack Drive 4LAUD - 1600m from Golden Spike Rd to Century Rd                  | 2040                    |
| 22   | Tamarack Drive 2LAUD - 90m from Golden Spike Rd west                             | 2024                    |
| 23   | Tamarack Drive 2LAUD - 1500m from existing to Campsite Rd                        | 2024                    |
| 24   | Tamarack Drive 4LAUD - 1600m from Golden Spike Rd to Campsite Rd                 | 2034                    |
| 25   | Pioneer Road 2LAUD - 400m south of Hwy 16A                                       | 2038                    |
| 26   | Pioneer Road 4LAUD - 400m south of Hwy 16A                                       | 2042                    |
| 27   | Pioneer Road 4LAUD - 1400m Hwy 16A to Grove Dr                                   | 2030                    |
| 28   | Century Road 2LAUD - 2400m Hwy 16A to south boundary                             | 2028                    |
| 29   | Century Road 4LAUD - 2400m Hwy 16A to south boundary                             | 2040                    |
| 30   | Grove Drive East 4LAUD - 1000m to Pioneer Rd                                     | 2021                    |
| 31   | Grove Drive West 2LAUD - 600m to Boundary Rd                                     | 2020                    |
| 32   | Grove Drive West 4LAUD - 1400m to Boundary Rd                                    | 2038                    |
| 33   | Campsite Road 2LAUD - 1300m from CN to south boundary                            | 2031                    |
| 34   | Campsite Road 4LAUD - 1300m from CN to south boundary                            | 2042                    |
| 35   | Golden Spike Road 2LAUD - 1400m to south boundary                                | 2026                    |
| 36   | Golden Spike Road 4LAUD - 1400m to south boundary                                | 2038                    |
| 37   | Boundary Road 2LAUD - 1200m to Hwy16A  | 2020                    |
| 38   | Traffic Signals - Boundary @ McLeod  | 2040                    |
| 39   | Traffic Signals - Hwy 16A - between Boundary & Campsite                          | 2020                    |
| 40   | Traffic Signals - Campsite - between Grove Dr & Hwy 16                           | 2021                    |
| 41   | Traffic Signals - Campsite @ Diamond   | 2029                    |
| 42   | Traffic Signals - Campsite @ Tamarack  | 2030                    |
| 43   | Traffic Signals - Golden Spike @ Diamond   | 2023                    |
| 44   | Traffic Signals - Golden Spike @ Tamarack  | 2029                    |
| 45   | Traffic Signals - Century @ Diamond  | 2024                    |
| 46   | Traffic Signals - Century @ Tamarack   | 2041                    |
| 47   | Traffic Signals - Grove Dr @ Greenbury Blvd                                      | 2021                    |

\*Projects anticipated for construction beyond the 25-year review period are shown as "2041"

\*\*The share of projects constructed beyond the 25-year review period are not included in rates today (see financial oversizing in next section).

\*\*\*Project costs are inflated by 3% per annum to the year of construction.

**D4. Transportation Offsite Infrastructure Benefiting Parties**

The transportation offsite infrastructure previously outlined will benefit various parties to varying degrees as determined by the City. Four potential benefiting parties were identified including:

- City of Spruce Grove – a portion of the transportation infrastructure which is required to service existing residents.
- Other Stakeholders – other parties (such as neighboring municipalities) that benefit from the infrastructure,
- City of Spruce Grove Future Development (Financial Oversizing) - that portion of cost which benefits future development beyond the 25-year review period.
- City of Spruce Grove Future Development (In Rates) – all growth related infrastructure (i.e., levyable transportation infrastructure costs) during the 25-year rate planning period.

The table below outlines the allocation of transportation offsite levy infrastructure costs to benefiting parties. Project allocations were determined by City staff.

Allocation of Transportation Infrastructure to Benefiting Parties

| Item | Project Description  | Reduced Project Estimated Cost | Muni Share % | Other Stakeholder Share | Developer Share Beyond 25 Yrs (Financial Oversizing %) | OSL / Developer Share % |
|------|--|--------------------------------|--------------|-------------------------|--|-------------------------|
| 1    | Campsite Road Twinning   | \$ 137,529                     |              |                         | 0.0%   | 100.0%                  |
| 2    | Grove Drive - Century Road to Greystone  | \$ 58,771                      |              |                         | 0.0%   | 100.0%                  |
| 3    | Traffic Signals - Campsite Road and McLeod Ave                                   | \$ 203,441                     |              |                         | 0.0%   | 100.0%                  |
| 4    | Traffic Signals - Campsite Road and Grove Drive                                  | \$ 104,884                     |              |                         | 0.0%   | 100.0%                  |
| 5    | Grove Drive Twinning/Widening - Campsite to Century                              | \$ 5,828,588                   |              |                         | 0.0%   | 100.0%                  |
| 6    | TLC Signalization  | \$ 262,197                     |              |                         | 0.0%   | 100.0%                  |
| 7    | Century Road Widening/Landscaping  | \$ 1,872,886                   |              |                         | 0.0%   | 100.0%                  |
| 8    | Grove Drive East/West  | \$ 3,130,734                   |              |                         | 0.0%   | 100.0%                  |
| 9    | Traffic Signals - Jennifer Heil Way and Hawthorne Gate Intersection              | \$ 200,970                     |              |                         | 0.0%   | 100.0%                  |
| 10   | Century Road South of Diamond Ave.   | \$ 1,322,252                   |              |                         | 0.0%   | 100.0%                  |
| 11   | Traffic Signals - Highway 16A/Century Crossing                                   | \$ 376,862                     |              |                         | 0.0%   | 100.0%                  |
| 12   | Century Road/ Grove Drive Intersection   | \$ 1,548,798                   |              |                         | 0.0%   | 100.0%                  |
| 13   | Grove Drive East Extension   | \$ 1,850,188                   |              |                         | 0.0%   | 100.0%                  |
| 14   | Traffic Signals - (1) Grove Dr and Greystone, and (2) Grove Dr and Harvest Ridge | \$ 370,210                     |              |                         | 0.0%   | 100.0%                  |
| 15   | Pioneer Rd - Grove Dr to Highway 16A with roundabout at McLeod Ave and Grove Dr  | \$ 11,175,344                  |              |                         | 0.0%   | 100.0%                  |
| 16   | South Industrial Arterial - Tamarack Drive                                       | \$ 750,710                     |              |                         | 0.0%   | 100.0%                  |
| 17   | Traffic Signals - Grove Drive and Deer Park                                      | \$ 281,976                     |              |                         | 0.0%   | 100.0%                  |
| 18   | Widening Jennifer Heil Road/Campsite Rd from McLeod Ave to south of the CN rail  | \$ 2,546,508                   |              |                         | 0.0%   | 100.0%                  |
| 19   | Tamarack Drive 2LAUD - 200m from Golden Spike Rd east                            | \$ 732,000                     |              |                         | 44.0%  | 56.0%                   |
| 20   | Tamarack Drive 2LAUD - 1400m from existing to Century Rd                         | \$ 5,124,000                   |              |                         | 44.0%  | 56.0%                   |
| 21   | Tamarack Drive 4LAUD - 1800m from Golden Spike Rd to Century Rd                  | \$ 5,856,000                   |              |                         | 92.0%  | 8.0%                    |
| 22   | Tamarack Drive 2LAUD - 90m from Golden Spike Rd west                             | \$ 329,400                     |              |                         | 28.0%  | 72.0%                   |
| 23   | Tamarack Drive 2LAUD - 1500m from existing to Campsite Rd                        | \$ 5,490,000                   |              |                         | 28.0%  | 72.0%                   |
| 24   | Tamarack Drive 4LAUD - 1800m from Golden Spike Rd to Campsite Rd                 | \$ 5,856,000                   |              |                         | 68.0%  | 32.0%                   |
| 25   | Pioneer Road 2LAUD - 400m south of Hwy 16A                                       | \$ 1,464,000                   |              |                         | 64.0%  | 16.0%                   |
| 26   | Pioneer Road 4LAUD - 400m south of Hwy 16A                                       | \$ 1,464,000                   |              |                         | 100.0%   | 0.0%                    |
| 27   | Pioneer Road 4LAUD - 1400m Hwy 16A to Grove Dr                                   | \$ 5,124,000                   |              |                         | 52.0%  | 48.0%                   |
| 28   | Century Road 2LAUD - 2400m Hwy 16A to south boundary                             | \$ 8,784,000                   |              |                         | 44.0%  | 56.0%                   |
| 29   | Century Road 4LAUD - 2400m Hwy 16A to south boundary                             | \$ 8,784,000                   |              |                         | 92.0%  | 8.0%                    |
| 30   | Grove Drive East 4LAUD - 1000m to Pioneer Rd                                     | \$ 3,660,000                   |              |                         | 16.0%  | 84.0%                   |
| 31   | Grove Drive West 2LAUD - 800m to Boundary Rd                                     | \$ 2,196,000                   |              |                         | 12.0%  | 88.0%                   |
| 32   | Grove Drive West 4LAUD - 1400m to Boundary Rd                                    | \$ 5,124,000                   |              |                         | 76.0%  | 24.0%                   |
| 33   | Campsite Road 2LAUD - 1300m from CN to south boundary                            | \$ 4,758,000                   |              |                         | 56.0%  | 44.0%                   |
| 34   | Campsite Road 4LAUD - 1300m from CN to south boundary                            | \$ 4,758,000                   |              |                         | 100.0%   | 0.0%                    |
| 35   | Golden Spike Road 2LAUD - 1400m to south boundary                                | \$ 5,124,000                   |              |                         | 36.0%  | 64.0%                   |
| 36   | Golden Spike Road 4LAUD - 1400m to south boundary                                | \$ 5,124,000                   |              |                         | 84.0%  | 16.0%                   |
| 37   | Boundary Road 2LAUD - 1200m to Hwy16A  | \$ 4,392,000                   |              |                         | 12.0%  | 88.0%                   |
| 38   | Traffic Signals - Boundary @ McLeod  | \$ 360,000                     |              |                         | 92.0%  | 8.0%                    |
| 39   | Traffic Signals - Hwy 16A - between Boundary & Campsite                          | \$ 360,000                     |              |                         | 12.0%  | 88.0%                   |
| 40   | Traffic Signals - Campsite - between Grove Dr & Hwy 16                           | \$ 360,000                     |              |                         | 16.0%  | 84.0%                   |
| 41   | Traffic Signals - Campsite @ Diamond   | \$ 360,000                     |              |                         | 48.0%  | 52.0%                   |
| 42   | Traffic Signals - Campsite @ Tamarack  | \$ 360,000                     |              |                         | 52.0%  | 48.0%                   |
| 43   | Traffic Signals - Golden Spike @ Diamond   | \$ 360,000                     |              |                         | 24.0%  | 76.0%                   |
| 44   | Traffic Signals - Golden Spike @ Tamarack  | \$ 360,000                     |              |                         | 48.0%  | 52.0%                   |
| 45   | Traffic Signals - Century @ Diamond  | \$ 360,000                     |              |                         | 28.0%  | 72.0%                   |
| 46   | Traffic Signals - Century @ Tamarack   | \$ 360,000                     |              |                         | 96.0%  | 4.0%                    |
| 47   | Traffic Signals - Grove Dr @ Greenbury Blvd                                      | \$ 360,000                     |              |                         | 16.0%  | 84.0%                   |
|      |  | \$ 119,552,247                 |              |                         |  |                         |

\*Allocations were determined by the City (see Appendix G).

\*\*Financial oversizing is determined by separating out the pro rata portion of developer cost beyond the 25-year review period, in comparison with the anticipated year of construction. As the years move forward and rates are updated, these additional developer costs will be included in rate calculations.

\*\*\*As noted in Appendix A2, though all current lands in Spruce Grove are anticipated to develop within the 25-year review period, staff have advised that annexation of additional municipal lands is very likely during the next 5 years. Accordingly, additional lands will be included in the staging forecast during future rate updates, just as additional costs (currently classified as "financial oversizing") will be included in future rate updates.

**D5. Existing Receipts & Adjusted Levy Cost**

Using the offsite levy share percentages shown in the previous section and applying those

percentages to project costs results in an offsite levy cost of approximately **\$68.28 million**. However, prior to allocating these costs to benefiting areas, existing offsite levy receipts collected from developers need to be considered in determining the residual/net costs to developers. The City has collected **\$18.90 million** in offsite levies to date. This results in an adjusted offsite levy cost of approximately **\$49.38 million**.

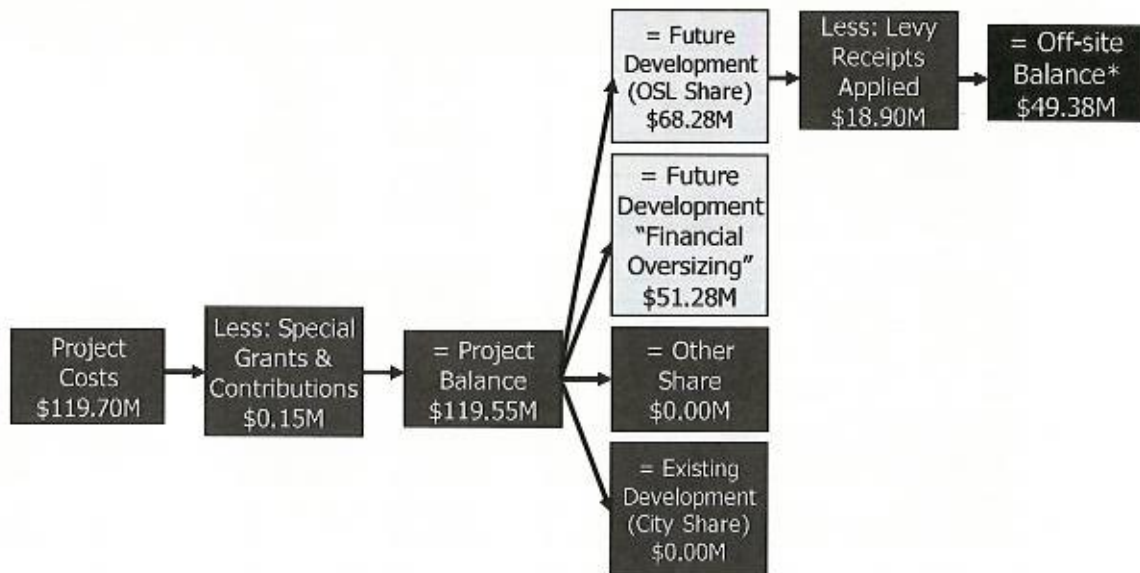
Offsite Levy Funds Collected to Date & Adjusted Levy Cost

| Item | Project Description  | OSL / Developer Cost | Offsite Levy Funds Collected to Dec 31, 2016 | Offsite Levy Funds Collected Starting Jan 1, 2017 | Adjusted Developer (Levy) Cost |
|------|--|----------------------|--|---|--------------------------------|
| 1    | Campsite Road Twinning   | \$ 137,529           | \$ 137,529                                   | \$ -  | \$ -                           |
| 2    | Grove Drive - Century Road to Greystone  | \$ 56,771            | \$ 56,771                                    | \$ -  | \$ -                           |
| 3    | Traffic Signals - Campsite Road and McLeod Ave                                   | \$ 203,441           | \$ 203,441                                   | \$ -  | \$ -                           |
| 4    | Traffic Signals - Campsite Road and Grove Drive                                  | \$ 104,864           | \$ 104,864                                   | \$ -  | \$ -                           |
| 5    | Grove Drive Twinning/Widening - Campsite to Century                              | \$ 5,828,599         | \$ 5,828,599                                 | \$ -  | \$ -                           |
| 6    | TLC Signalization  | \$ 262,197           | \$ 262,197                                   | \$ -  | \$ -                           |
| 7    | Century Road Widening/Landscaping  | \$ 1,872,896         | \$ 1,872,896                                 | \$ -  | \$ -                           |
| 8    | Grove Drive East/West  | \$ 3,130,734         | \$ 3,130,734                                 | \$ -  | \$ -                           |
| 9    | Traffic Signals - Jennifer Heil Way and Hawthorne Gate Intersection              | \$ 200,970           | \$ 200,970                                   | \$ -  | \$ -                           |
| 10   | Century Road South of Diamond Ave.   | \$ 1,322,252         | \$ 1,322,252                                 | \$ -  | \$ -                           |
| 11   | Traffic Signals - Highway 16A/Century Crossing                                   | \$ 376,862           | \$ 376,862                                   | \$ -  | \$ -                           |
| 12   | Century Road/ Grove Drive Intersection   | \$ 1,546,798         | \$ 1,546,798                                 | \$ -  | \$ -                           |
| 13   | Grove Drive East Extension   | \$ 1,650,186         | \$ 1,650,186                                 | \$ -  | \$ -                           |
| 14   | Traffic Signals - (1) Grove Dr and Greystone, and (2) Grove Dr and Harvest Ridge | \$ 370,210           | \$ 370,210                                   | \$ -  | \$ -                           |
| 15   | Pioneer Rd - Grove Dr to Highway 16A with roundabout at McLeod Ave and Grove Dr  | \$ 11,175,344        | \$ -   | \$ -  | \$ 11,175,344                  |
| 16   | South Industrial Arterial - Tamarack Drive                                       | \$ 760,710           | \$ -   | \$ -  | \$ 760,710                     |
| 17   | Traffic Signals - Grove Drive and Deer Park                                      | \$ 261,976           | \$ 137,529                                   | \$ -  | \$ 124,447                     |
| 18   | Widening Jennifer Heil Road/Campsite Rd from McLeod Ave to south of the CN rail  | \$ 2,546,508         | \$ 1,686,507                                 | \$ -  | \$ 860,001                     |
| 19   | Tamarack Drive 2LAUD - 200m from Golden Spike Rd east                            | \$ 409,920           | \$ -   | \$ -  | \$ 409,920                     |
| 20   | Tamarack Drive 2LAUD - 1400m from existing to Century Rd                         | \$ 2,869,440         | \$ -   | \$ -  | \$ 2,869,440                   |
| 21   | Tamarack Drive 4LAUD - 1600m from Golden Spike Rd to Century Rd                  | \$ 468,480           | \$ -   | \$ -  | \$ 468,480                     |
| 22   | Tamarack Drive 2LAUD - 90m from Golden Spike Rd west                             | \$ 237,168           | \$ -   | \$ -  | \$ 237,168                     |
| 23   | Tamarack Drive 2LAUD - 1500m from existing to Campsite Rd                        | \$ 3,952,800         | \$ -   | \$ -  | \$ 3,952,800                   |
| 24   | Tamarack Drive 4LAUD - 1600m from Golden Spike Rd to Campsite Rd                 | \$ 1,873,920         | \$ -   | \$ -  | \$ 1,873,920                   |
| 25   | Pioneer Road 2LAUD - 400m south of Hwy 16A                                       | \$ 234,240           | \$ -   | \$ -  | \$ 234,240                     |
| 26   | Pioneer Road 4LAUD - 400m south of Hwy 16A                                       | \$ -                 | \$ -   | \$ -  | \$ -                           |
| 27   | Pioneer Road 4LAUD - 1400m Hwy 16A to Grove Dr                                   | \$ 2,459,520         | \$ -   | \$ -  | \$ 2,459,520                   |
| 28   | Century Road 2LAUD - 2400m Hwy 16A to south boundary                             | \$ 4,919,040         | \$ -   | \$ -  | \$ 4,919,040                   |
| 29   | Century Road 4LAUD - 2400m Hwy 16A to south boundary                             | \$ 702,720           | \$ -   | \$ -  | \$ 702,720                     |
| 30   | Grove Drive East 4LAUD - 1000m to Pioneer Rd                                     | \$ 3,074,400         | \$ -   | \$ -  | \$ 3,074,400                   |
| 31   | Grove Drive West 2LAUD - 600m to Boundary Rd                                     | \$ 1,932,480         | \$ -   | \$ -  | \$ 1,932,480                   |
| 32   | Grove Drive West 4LAUD - 1400m to Boundary Rd                                    | \$ 1,229,760         | \$ -   | \$ -  | \$ 1,229,760                   |
| 33   | Campsite Road 2LAUD - 1300m from CN to south boundary                            | \$ 2,093,520         | \$ -   | \$ -  | \$ 2,093,520                   |
| 34   | Campsite Road 4LAUD - 1300m from CN to south boundary                            | \$ -                 | \$ -   | \$ -  | \$ -                           |
| 35   | Golden Spike Road 2LAUD - 1400m to south boundary                                | \$ 3,279,360         | \$ -   | \$ -  | \$ 3,279,360                   |
| 36   | Golden Spike Road 4LAUD - 1400m to south boundary                                | \$ 819,840           | \$ -   | \$ -  | \$ 819,840                     |
| 37   | Boundary Road 2LAUD - 1200m to Hwy16A  | \$ 3,864,960         | \$ -   | \$ -  | \$ 3,864,960                   |
| 38   | Traffic Signals - Boundary @ McLeod  | \$ 28,800            | \$ -   | \$ -  | \$ 28,800                      |
| 39   | Traffic Signals - Hwy 16A - between Boundary & Campsite                          | \$ 316,800           | \$ -   | \$ -  | \$ 316,800                     |
| 40   | Traffic Signals - Campsite - between Groves Dr & Hwy 16                          | \$ 302,400           | \$ -   | \$ -  | \$ 302,400                     |
| 41   | Traffic Signals - Campsite @ Diamond   | \$ 187,200           | \$ -   | \$ -  | \$ 187,200                     |
| 42   | Traffic Signals - Campsite @ Tamarack  | \$ 172,800           | \$ -   | \$ -  | \$ 172,800                     |
| 43   | Traffic Signals - Golden Spike @ Diamond   | \$ 273,600           | \$ -   | \$ -  | \$ 273,600                     |
| 44   | Traffic Signals - Golden Spike @ Tamarack  | \$ 187,200           | \$ -   | \$ -  | \$ 187,200                     |
| 45   | Traffic Signals - Century @ Diamond  | \$ 259,200           | \$ -   | \$ -  | \$ 259,200                     |
| 46   | Traffic Signals - Century @ Tamarack   | \$ 14,400            | \$ -   | \$ -  | \$ 14,400                      |
| 47   | Traffic Signals - Grove Dr @ Greenbury Blvd                                      | \$ 302,400           | \$ -   | \$ -  | \$ 302,400                     |
|      |  | <b>\$ 68,275,215</b> | <b>\$ 18,898,345</b>                         | <b>\$ -</b>                                       | <b>\$ 49,376,870</b>           |

### D6. Summary of Transportation Offsite Levy Cost Flow-through

As shown in the figure below, the total cost for transportation infrastructure that forms the basis of the rate is approximately **\$49.38 million**. The cost allocations to each benefiting party are based on the benefiting percentages shown in Section D4. The offsite levy balance (due from developers) is allocated to various benefiting areas (as described in the next section).

Total Transportation Offsite Levy Costs



### D7. Transportation Infrastructure Benefiting Areas

Net developer costs for each project have been allocated to multiple benefiting offsite levy area (see tables below). Allocations are denoted with a "1" below applicable area numbers. Benefiting areas were determined by City staff. The lands anticipated to develop over the 25-years in each offsite levy benefiting area are used to determine rates.

**Benefiting Areas for Transportation Offsite Infrastructure**

| Item | Developer Cost | 1.1 | 1.2 | 1.3 | 1.4 | 1.5 | 2.1 | 2.2 | 2.3 | 2.4 | 2.5 | 3.1 | 3.2 | 3.3 | 3.4 | 3.5 | 4.1 | 4.2 | 4.3 | 4.4 | 4.5 | 5.1 | 5.2 | 5.3 | 5.4 | 5.5 |  |
|------|----------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| 1    | \$ -           | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   |  |
| 2    | \$ -           | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   |  |
| 3    | \$ -           | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   |  |
| 4    | \$ -           | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   |  |
| 5    | \$ -           | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   |  |
| 6    | \$ -           | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   |  |
| 7    | \$ -           | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   |  |
| 8    | \$ -           | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   |  |
| 9    | \$ -           | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   |  |
| 10   | \$ -           | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   |  |
| 11   | \$ -           | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   |  |
| 12   | \$ -           | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   |  |
| 13   | \$ -           | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   |  |
| 14   | \$ -           | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   |  |
| 15   | \$ 11,175,344  | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   |  |
| 16   | \$ 760,710     | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   |  |
| 17   | \$ 124,447     | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   |  |
| 18   | \$ 850,001     | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   |  |
| 19   | \$ 409,920     | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   |  |
| 20   | \$ 2,869,440   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   |  |
| 21   | \$ 468,480     | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   |  |
| 22   | \$ 237,168     | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   |  |
| 23   | \$ 3,952,800   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   |  |
| 24   | \$ 1,873,920   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   |  |
| 25   | \$ 234,240     | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   |  |
| 26   | \$ -           | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   |  |
| 27   | \$ 2,459,520   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   |  |
| 28   | \$ 4,919,040   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   |  |
| 29   | \$ 702,720     | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   |  |
| 30   | \$ 3,074,400   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   |  |
| 31   | \$ 1,932,480   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   |  |
| 32   | \$ 1,229,780   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   |  |
| 33   | \$ 2,093,520   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   |  |
| 34   | \$ -           | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   |  |
| 35   | \$ 3,279,360   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   |  |
| 36   | \$ 819,840     | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   |  |
| 37   | \$ 3,864,960   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   |  |
| 38   | \$ 28,800      | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   |  |
| 39   | \$ 316,800     | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   |  |
| 40   | \$ 302,400     | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   |  |
| 41   | \$ 187,200     | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   |  |
| 42   | \$ 172,800     | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   |  |
| 43   | \$ 273,600     | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   |  |
| 44   | \$ 187,200     | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   |  |
| 45   | \$ 259,200     | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   |  |
| 46   | \$ 14,400      | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   |  |
| 47   | \$ 302,400     | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   |  |
|      | \$ 49,376,870  |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |

City of Spruce Offsite Levy Review

| Item | Developer Cost | 6.1 | 6.2 | 6.3 | 6.4 | 6.5 | 7.1 | 7.2 | 7.3 | 7.4 | 7.5 | 8.1 | 8.2 | 8.3 | 8.4 | 8.5 | 9.1 | 9.2 | 9.3 | 9.4 | 9.5 | 10.1 | 10.2 | 10.3 | 10.4 | 10.5 | 11.1 | 11.2 | 11.3 | 11.4 | 11.5 |
|------|----------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|
| 1    | \$ -           | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| 2    | \$ -           | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| 3    | \$ -           | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| 4    | \$ -           | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| 5    | \$ -           | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| 6    | \$ -           | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| 7    | \$ -           | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| 8    | \$ -           | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| 9    | \$ -           | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| 10   | \$ -           | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| 11   | \$ -           | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| 12   | \$ -           | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| 13   | \$ -           | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| 14   | \$ -           | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| 15   | \$ 11,175,344  | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| 16   | \$ 760,710     | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| 17   | \$ 124,447     | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| 18   | \$ 850,001     | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| 19   | \$ 409,920     | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| 20   | \$ 2,869,440   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| 21   | \$ 468,480     | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| 22   | \$ 237,168     | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| 23   | \$ 3,952,800   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| 24   | \$ 1,873,920   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| 25   | \$ 234,240     | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| 26   | \$ -           | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| 27   | \$ 2,459,520   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| 28   | \$ 4,919,040   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| 29   | \$ 702,720     | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| 30   | \$ 3,074,400   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| 31   | \$ 1,932,480   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| 32   | \$ 1,229,760   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| 33   | \$ 2,093,520   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| 34   | \$ -           | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| 35   | \$ 3,279,360   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| 36   | \$ 819,840     | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| 37   | \$ 3,864,960   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| 38   | \$ 28,800      | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| 39   | \$ 318,800     | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| 40   | \$ 302,400     | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| 41   | \$ 187,200     | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| 42   | \$ 172,800     | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| 43   | \$ 273,600     | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| 44   | \$ 187,200     | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| 45   | \$ 259,200     | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| 46   | \$ 14,400      | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| 47   | \$ 302,400     | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
|      | \$ 49,378,870  |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |

\*The City has indicated that transportation offsite infrastructure is a single "system", and has therefore allocated future infrastructure costs to all areas.

**D8. Reserve Balance**

At December 31<sup>st</sup>, 2016, the balance of the City's transportation reserve is **\$(4,496,792.05)**,



as shown in the table below.

The City also needs to establish a set of "sub-ledgers" to track the amounts due to front-ending parties, including interest impacts in accordance with the interest rates underpinning the bylaw.

Transportation Offsite Levy Reserve Balance

| Description   | Dr              | Cr              | Balance                  |
|---|-----------------|-----------------|--------------------------|
| Offsite Levy Expenditures to December 31, 2016        |                 | \$23,395,137.23 | \$(23,395,137.23)        |
| Offsite Levy Receipt Allocations to December 31, 2016 | \$18,898,345.18 |                 | \$ (4,496,792.05)        |
|   |                 |                 | \$ (4,496,792.05)        |
|   |                 |                 | \$ (4,496,792.05)        |
| <b>Opening Balance</b>                                |                 |                 | <b>\$ (4,496,792.05)</b> |

\*A complete reconciliation of the City's existing reserve/account is shown in Appendix E.

### **D9. Development and Transportation Infrastructure Staging Impacts**

Transportation offsite infrastructure will be constructed in staged fashion over the 25-year review period. We have reviewed the availability of offsite levy funds to meet these construction requirements and found that offsite levy reserve funds will not be sufficient to pay for construction of transportation infrastructure from time to time—front ending of infrastructure will be required. A front-ender is the party that constructs and pays up front for infrastructure that benefits other parties.

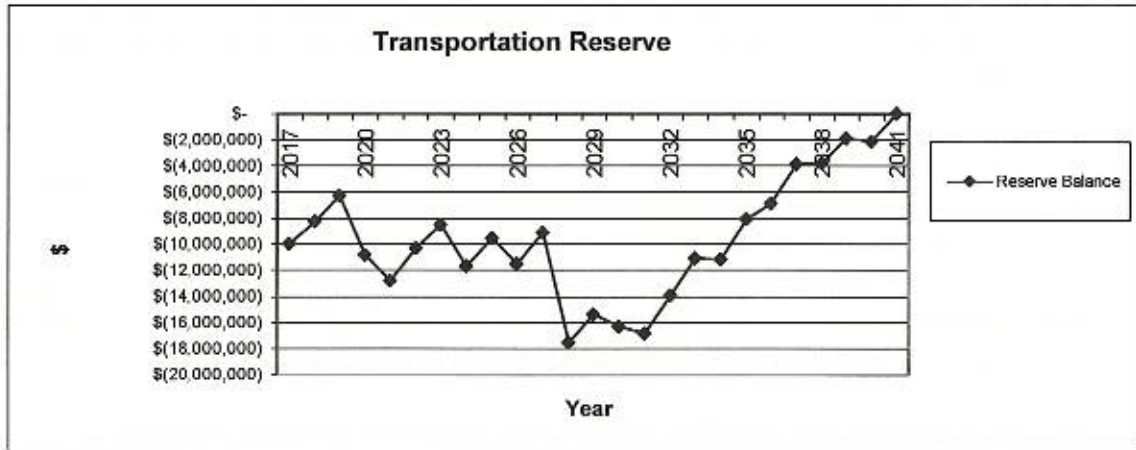
In order to compensate parties for capital they provide in front-ending offsite infrastructure construction, a 2.71%<sup>9</sup> interest allowance has been charged to the reserve when it is forecast to be in a negative balance. Further, a 0.85% interest credit has been provided to the reserve when it is forecast to be in a positive balance. The graph and table below outline the forecast transportation levy reserve balances over the 25-year development period.

If necessary, an interest staging adjustment has been applied to rates (slightly positive or slightly negative) to ensure that the forecast reserve balance at the end of the 25-year review period always returns to break-even (i.e., developers are not charged too much thereby providing a windfall to the City, nor are they charged too little thereby placing an unequitable burden on taxpayers).

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<sup>9</sup> The 20-year debenture rate at the Alberta Capital Finance Authority at the time of writing was ~2.71%.

Anticipated Transportation Offsite Levy Reserve Balances



Anticipated Transportation Offsite Levy Reserve Balances

| Year | Receipts     | Expenditure   | Reserve Balance | Interest     | Balance         |
|------|--------------|---------------|-----------------|--------------|-----------------|
| 2017 | \$ 1,912,809 | \$ 7,152,220  | \$ (263,948)    | \$ (263,948) | \$ (10,000,152) |
| 2018 | \$ 2,019,931 | \$ -          | \$ (216,344)    | \$ (216,344) | \$ (8,196,565)  |
| 2019 | \$ 2,060,330 | \$ -          | \$ (166,353)    | \$ (166,353) | \$ (6,302,588)  |
| 2020 | \$ 2,267,771 | \$ 6,487,857  | \$ (285,270)    | \$ (285,270) | \$ (10,807,944) |
| 2021 | \$ 2,335,804 | \$ 4,021,142  | \$ (338,693)    | \$ (338,693) | \$ (12,831,974) |
| 2022 | \$ 2,779,027 | \$ -          | \$ (272,535)    | \$ (272,535) | \$ (10,325,482) |
| 2023 | \$ 2,350,746 | \$ 317,239    | \$ (224,795)    | \$ (224,795) | \$ (8,516,770)  |
| 2024 | \$ 2,421,269 | \$ 5,313,571  | \$ (309,300)    | \$ (309,300) | \$ (11,718,372) |
| 2025 | \$ 2,457,778 | \$ -          | \$ (251,055)    | \$ (251,055) | \$ (9,511,649)  |
| 2026 | \$ 2,499,167 | \$ 4,155,002  | \$ (302,750)    | \$ (302,750) | \$ (11,470,234) |
| 2027 | \$ 2,590,047 | \$ -          | \$ (240,742)    | \$ (240,742) | \$ (9,120,928)  |
| 2028 | \$ 3,104,527 | \$ 11,020,103 | \$ (461,860)    | \$ (461,860) | \$ (17,498,364) |
| 2029 | \$ 3,085,857 | \$ 518,358    | \$ (404,776)    | \$ (404,776) | \$ (15,335,641) |
| 2030 | \$ 3,173,736 | \$ 3,753,788  | \$ (431,474)    | \$ (431,474) | \$ (16,347,167) |
| 2031 | \$ 3,072,198 | \$ 3,075,002  | \$ (443,248)    | \$ (443,248) | \$ (16,793,218) |
| 2032 | \$ 3,237,369 | \$ -          | \$ (367,499)    | \$ (367,499) | \$ (13,923,348) |
| 2033 | \$ 3,163,227 | \$ -          | \$ (291,707)    | \$ (291,707) | \$ (11,051,828) |
| 2034 | \$ 3,216,095 | \$ 3,007,675  | \$ (293,965)    | \$ (293,965) | \$ (11,137,373) |
| 2035 | \$ 3,312,577 | \$ -          | \$ (212,130)    | \$ (212,130) | \$ (8,036,926)  |
| 2036 | \$ 3,412,329 | \$ 2,093,991  | \$ (182,141)    | \$ (182,141) | \$ (6,900,729)  |
| 2037 | \$ 3,120,325 | \$ -          | \$ (102,487)    | \$ (102,487) | \$ (3,882,891)  |
| 2038 | \$ 2,097,071 | \$ 1,904,155  | \$ (100,035)    | \$ (100,035) | \$ (3,790,010)  |
| 2039 | \$ 1,996,958 | \$ -          | \$ (48,610)     | \$ (48,610)  | \$ (1,841,663)  |
| 2040 | \$ 2,056,866 | \$ 2,299,771  | \$ (56,513)     | \$ (56,513)  | \$ (2,141,080)  |
| 2041 | \$ 2,169,505 | \$ 28,425     | \$ (0)          | \$ (0)       | \$ (0)          |

**APPENDIX E: OFFSITE LEVY RESERVE RECONCILIATION**

The 3 tables below (Transportation reserve, Water reserve, and Sanitary reserve) were prepared by City staff, drawing information from the City's financial system. The tables provide a summary of all historical revenues, expenditures, interest adjustments, and closing balances in the reserve from 1999 to 2016 for the Water and Sanitary reserves, and from 2006 to 2016 for the Transportation reserve. The balance highlighted in 'yellow' aligns with the results reflected in the City's 2016 financial statements. The balance highlighted in 'green' reflects the new adjusted balance, based on the analysis undertaken by staff during this project.

Continuity Schedule - Transportation Reserve

|   | 2006                | 2007                | 2008                | 2009                | 2010                | 2011                  | 2012                  | 2013                  | 2014                  | 2015                | 2016                |
|---|---------------------|---------------------|---------------------|---------------------|---------------------|-----------------------|-----------------------|-----------------------|-----------------------|---------------------|---------------------|
| <b>Offsite Levies Roads</b>                     |                     |                     |                     |                     |                     |                       |                       |                       |                       |                     |                     |
| Opening Balance                                 | -                   | 531,250.67          | (776,515.99)        | (928,576.96)        | (790,200.25)        | (790,200.25)          | (790,200.25)          | (790,200.25)          | (2,978,105.73)        | (5,099,676.71)      | 6,066,752.00        |
| Revenue - Developer Contributions               | (697,845.85)        | (1,307,755.66)      | (667,403.83)        | (355,487.00)        | (882,848.05)        | (456,773.00)          | (7,418,774.15)        | (7,565,364.42)        | 11,714,441.49         | -                   | (490,621.75)        |
| Deferred Revenue - Developer Contributions      | -                   | -                   | -                   | -                   | -                   | -                     | -                     | -                     | (2,053,697.85)        | (3,626,050.06)      | -                   |
| Grants - Gas Tax                                | -                   | -                   | -                   | -                   | -                   | -                     | (151,861.70)          | -                     | -                     | -                   | -                   |
| Interest (Income Earned) Paid on Long-Term Debt | -                   | -                   | -                   | -                   | -                   | -                     | -                     | -                     | (37,572.58)           | (45,508.20)         | 11,288.00           |
| Long-Term Debt                                  | -                   | -                   | -                   | -                   | -                   | -                     | -                     | -                     | -                     | -                   | (4,000,000.00)      |
| Project Expenditures                            | 75,977.00           | -                   | 315,341.83          | 435,787.60          | 114,284.00          | -                     | (5.55)                | 2,145,607.82          | 1,421,586.16          | 696,761.40          | 5,022,630.00        |
| Historical Projects Reassigned                  | 5,695,755.00        | 511,778.00          | -                   | 2,332,769.00        | 1,513,006.00        | 1,639,803.00          | 215,805.00            | -                     | -                     | -                   | -                   |
| <b>Closing Balance</b>                          | <b>5,769,781.00</b> | <b>511,778.00</b>   | <b>315,341.83</b>   | <b>2,272,598.89</b> | <b>1,727,290.00</b> | <b>1,832,863.00</b>   | <b>215,994.41</b>     | <b>2,145,607.82</b>   | <b>1,421,586.16</b>   | <b>696,761.40</b>   | <b>5,022,630.00</b> |
| <b>2013 Reconciliation</b>                      |                     |                     |                     |                     | 785,665.05          | 208,385.00            | 1,923,775.18          | (2,898,832.21)        |                       |                     |                     |
| Repay internal borrowing                        | 940,574.47          | -                   | -                   | -                   | -                   | -                     | -                     | -                     | -                     | -                   | -                   |
| Transfer to operating                           | -                   | -                   | -                   | 4,993.65            | -                   | -                     | (292,544.80)          | -                     | -                     | -                   | -                   |
| Adjustment for historical projects reassigned   | (9,895,755.00)      | (511,778.00)        | -                   | (2,332,769.00)      | (1,513,006.00)      | (1,639,803.00)        | (215,805.00)          | -                     | -                     | 12,823,437.00       | -                   |
| Adjustment for cost reallocations               | -                   | -                   | -                   | -                   | -                   | 292,387.00            | 937,501.59            | 1,228,883.33          | 293,154.84            | 328,224.60          | 301,900.00          |
| <b>Closing Balance</b>                          | <b>631,250.67</b>   | <b>(776,515.99)</b> | <b>(928,576.96)</b> | <b>(790,200.25)</b> | <b>(790,200.25)</b> | <b>(790,200.25)</b>   | <b>(790,200.25)</b>   | <b>(2,978,105.73)</b> | <b>(5,099,676.71)</b> | <b>6,066,752.00</b> | <b>7,532,098.26</b> |
| <b>Ending Deficit (Surplus)</b>                 | <b>531,250.67</b>   | <b>(776,515.99)</b> | <b>(928,576.96)</b> | <b>(790,200.25)</b> | <b>(790,200.25)</b> | <b>(790,200.25)</b>   | <b>(790,200.25)</b>   | <b>(2,978,105.73)</b> | <b>(5,099,676.71)</b> | <b>6,066,752.00</b> | <b>7,532,098.26</b> |
| <b>Total</b>                                    | <b>531,250.67</b>   | <b>(776,515.99)</b> | <b>(928,576.96)</b> | <b>(790,200.25)</b> | <b>(790,200.25)</b> | <b>(790,200.25)</b>   | <b>(790,200.25)</b>   | <b>(2,978,105.73)</b> | <b>(5,099,676.71)</b> | <b>6,066,752.00</b> | <b>7,532,098.26</b> |
| <b>Adjusted Ending Balance</b>                  |                     |                     |                     |                     |                     | (732,387.00)          | (937,501.59)          | (1,228,883.33)        | (293,154.84)          | (328,224.60)        | (301,900.00)        |
| Adjustment for cost reallocations               | -                   | -                   | -                   | (4,993.65)          | -                   | -                     | 292,544.80            | -                     | -                     | -                   | -                   |
| Transfer to operating                           | -                   | -                   | -                   | -                   | -                   | -                     | -                     | -                     | -                     | -                   | -                   |
| <b>Ending Deficit (Surplus)</b>                 | <b>531,250.67</b>   | <b>(776,515.99)</b> | <b>(928,576.96)</b> | <b>(795,193.90)</b> | <b>(795,193.90)</b> | <b>(1,025,588.90)</b> | <b>(1,673,543.69)</b> | <b>(5,090,132.55)</b> | <b>(7,504,835.32)</b> | <b>3,353,345.79</b> | <b>4,495,792.05</b> |
| <b>Total</b>                                    | <b>531,250.67</b>   | <b>(776,515.99)</b> | <b>(928,576.96)</b> | <b>(795,193.90)</b> | <b>(795,193.90)</b> | <b>(1,025,588.90)</b> | <b>(1,673,543.69)</b> | <b>(5,090,132.55)</b> | <b>(7,504,835.32)</b> | <b>3,353,345.79</b> | <b>4,495,792.05</b> |

# City of Spruce Offsite Levy Review

| Category                                   | 1988         | 2000         | 2001         | 2002         | 2003         | 2004         | 2005         | 2006         | 2007           | 2008           | 2009           | 2010           | 2011           | 2012           | 2013         | 2014           | 2015         | 2016          | 2017 | 2018 |   |
|--|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|----------------|----------------|----------------|----------------|----------------|----------------|--------------|----------------|--------------|---------------|------|------|---|
| <b>Citywide Schedule - Major Revenue</b>   |              |              |              |              |              |              |              |              |                |                |                |                |                |                |              |                |              |               |      |      |   |
| <b>Offsite Levy Water</b>                  |              |              |              |              |              |              |              |              |                |                |                |                |                |                |              |                |              |               |      |      |   |
| PROPERTY TAX                               | -            | -            | \$22         | (78,428.84)  | (27,211.72)  | (152,388.09) | (28,382.74)  | (779,327.61) | (7,781,318.37) | (7,703,548.47) | (8,476,471.64) | (8,672,714.90) | (8,657,715.56) | -              | 0.00         | 11,424,995.29  | 8,755,123.24 | 19,281,612.14 |      |      |   |
| SALES TAX                                  | -            | -            | -            | -            | -            | -            | -            | -            | -              | -              | -              | -              | -              | -              | -            | -              | -            | -             | -    | -    |   |
| STREETS TAX                                | 288,188.24   | 322,428.88   | (14,270.71)  | -            | -            | 282,704.81   | 343,714.11   | (287,714.11) | -              | -              | -              | -              | -              | -              | -            | -              | -            | -             | -    | -    |   |
| Utilities                                  | 177.17       | (1,883.79)   | (1,883.79)   | (1,883.79)   | (5,368.59)   | (9,448.79)   | (15,544.71)  | -            | -              | -              | -              | -              | -              | -              | -            | -              | -            | -             | -    | -    |   |
| Revenue - Developer Contributions          | (288,348.00) | (281,158.87) | (191,914.85) | (244,781.14) | (175,484.50) | (274,543.47) | (441,466.55) | (381,127.54) | (629,572.50)   | (7,751,488.58) | (109,716.78)   | (999,311.58)   | (1,723,020.00) | (1,698,784.21) | -            | (4,742,420.00) | (111,588.82) | (220,428.88)  | -    | -    |   |
| Interest Revenue - Developer Contributions | -            | -            | -            | -            | -            | -            | -            | -            | -              | -              | -              | -              | -              | -              | -            | -              | -            | -             | -    | -    |   |
| Police Payments                            | -            | -            | -            | -            | 137,074.89   | -            | -            | -            | -              | -              | -              | -              | -              | 128,910.00     | 127,787.00   | -              | -            | -             | -    | -    |   |
| 2015 Elections                             | -            | -            | -            | -            | -            | -            | -            | -            | -              | -              | -              | -              | -              | 458,465.00     | 8,458,364.75 | 2,048,414.75   | -            | -             | -    | -    |   |
| Over-Allocations                           | -            | -            | (1,953.03)   | 1,953.03     | -            | -            | -            | -            | (770,817.75)   | 703,888.40     | 2,703.17       | 346,728.94     | 658,465.00     | 8,458,364.75   | 419.91       | (782.54)       | -            | -             | -    | -    |   |
| ADJUSTMENTS TO OFFSITE LEVY                | -            | -            | -            | -            | -            | -            | -            | -            | -              | -              | -              | -              | -              | -              | -            | -              | -            | -             | -    | -    |   |
| ADJUSTMENTS TO OFFSITE LEVY                | -            | -            | \$22         | (78,428.84)  | (27,211.72)  | (152,388.09) | (28,382.74)  | (779,327.61) | (7,781,318.37) | (7,703,548.47) | (8,476,471.64) | (8,672,714.90) | (8,657,715.56) | -              | 0.00         | 11,424,995.29  | 8,755,123.24 | 19,281,612.14 |      |      |   |
| <b>Offsite Levy Sewer</b>                  |              |              |              |              |              |              |              |              |                |                |                |                |                |                |              |                |              |               |      |      |   |
| PROPERTY TAX                               | -            | -            | \$22         | (78,428.84)  | (27,211.72)  | (152,388.09) | (28,382.74)  | (779,327.61) | (7,781,318.37) | (7,703,548.47) | (8,476,471.64) | (8,672,714.90) | (8,657,715.56) | -              | 0.00         | 11,424,995.29  | 8,755,123.24 | 19,281,612.14 |      |      |   |
| SALES TAX                                  | -            | -            | -            | -            | -            | -            | -            | -            | -              | -              | -              | -              | -              | -              | -            | -              | -            | -             | -    | -    |   |
| STREETS TAX                                | 288,188.24   | 322,428.88   | (14,270.71)  | -            | -            | 282,704.81   | 343,714.11   | (287,714.11) | -              | -              | -              | -              | -              | -              | -            | -              | -            | -             | -    | -    |   |
| Utilities                                  | 177.17       | (1,883.79)   | (1,883.79)   | (1,883.79)   | (5,368.59)   | (9,448.79)   | (15,544.71)  | -            | -              | -              | -              | -              | -              | -              | -            | -              | -            | -             | -    | -    |   |
| Revenue - Developer Contributions          | (288,348.00) | (281,158.87) | (191,914.85) | (244,781.14) | (175,484.50) | (274,543.47) | (441,466.55) | (381,127.54) | (629,572.50)   | (7,751,488.58) | (109,716.78)   | (999,311.58)   | (1,723,020.00) | (1,698,784.21) | -            | (4,742,420.00) | (111,588.82) | (220,428.88)  | -    | -    |   |
| Interest Revenue - Developer Contributions | -            | -            | -            | -            | -            | -            | -            | -            | -              | -              | -              | -              | -              | -              | -            | -              | -            | -             | -    | -    |   |
| Police Payments                            | -            | -            | -            | -            | 137,074.89   | -            | -            | -            | -              | -              | -              | -              | -              | 128,910.00     | 127,787.00   | -              | -            | -             | -    | -    | - |
| 2015 Elections                             | -            | -            | -            | -            | -            | -            | -            | -            | -              | -              | -              | -              | -              | 458,465.00     | 8,458,364.75 | 2,048,414.75   | -            | -             | -    | -    |   |
| Over-Allocations                           | -            | -            | (1,953.03)   | 1,953.03     | -            | -            | -            | -            | (770,817.75)   | 703,888.40     | 2,703.17       | 346,728.94     | 658,465.00     | 8,458,364.75   | 419.91       | (782.54)       | -            | -             | -    | -    |   |
| ADJUSTMENTS TO OFFSITE LEVY                | -            | -            | \$22         | (78,428.84)  | (27,211.72)  | (152,388.09) | (28,382.74)  | (779,327.61) | (7,781,318.37) | (7,703,548.47) | (8,476,471.64) | (8,672,714.90) | (8,657,715.56) | -              | 0.00         | 11,424,995.29  | 8,755,123.24 | 19,281,612.14 |      |      |   |
| <b>Adjusted Ending Balance</b>             |              |              |              |              |              |              |              |              |                |                |                |                |                |                |              |                |              |               |      |      |   |
| Beginning Balance                          | -            | -            | -            | -            | -            | -            | -            | 26,124.54    | -              | -              | -              | -              | -              | -              | -            | -              | -            | -             | -    | -    |   |
| Ending Balance                             | -            | -            | -            | -            | -            | -            | -            | -            | -              | -              | -              | -              | -              | -              | -            | -              | -            | -             | -    | -    |   |
| <b>ADJUSTMENTS TO OFFSITE LEVY</b>         | -            | -            | \$22         | (78,428.84)  | (27,211.72)  | (152,388.09) | (28,382.74)  | (779,327.61) | (7,781,318.37) | (7,703,548.47) | (8,476,471.64) | (8,672,714.90) | (8,657,715.56) | -              | 0.00         | 11,424,995.29  | 8,755,123.24 | 19,281,612.14 |      |      |   |
| <b>Citywide Schedule - Minor Revenue</b>   |              |              |              |              |              |              |              |              |                |                |                |                |                |                |              |                |              |               |      |      |   |
| <b>Offsite Levy Sewer</b>                  |              |              |              |              |              |              |              |              |                |                |                |                |                |                |              |                |              |               |      |      |   |
| PROPERTY TAX                               | -            | -            | \$22         | (78,428.84)  | (27,211.72)  | (152,388.09) | (28,382.74)  | (779,327.61) | (7,781,318.37) | (7,703,548.47) | (8,476,471.64) | (8,672,714.90) | (8,657,715.56) | -              | 0.00         | 11,424,995.29  | 8,755,123.24 | 19,281,612.14 |      |      |   |
| SALES TAX                                  | -            | -            | -            | -            | -            | -            | -            | -            | -              | -              | -              | -              | -              | -              | -            | -              | -            | -             | -    | -    |   |
| STREETS TAX                                | 288,188.24   | 322,428.88   | (14,270.71)  | -            | -            | 282,704.81   | 343,714.11   | (287,714.11) | -              | -              | -              | -              | -              | -              | -            | -              | -            | -             | -    | -    |   |
| Utilities                                  | 177.17       | (1,883.79)   | (1,883.79)   | (1,883.79)   | (5,368.59)   | (9,448.79)   | (15,544.71)  | -            | -              | -              | -              | -              | -              | -              | -            | -              | -            | -             | -    | -    |   |
| Revenue - Developer Contributions          | (288,348.00) | (281,158.87) | (191,914.85) | (244,781.14) | (175,484.50) | (274,543.47) | (441,466.55) | (381,127.54) | (629,572.50)   | (7,751,488.58) | (109,716.78)   | (999,311.58)   | (1,723,020.00) | (1,698,784.21) | -            | (4,742,420.00) | (111,588.82) | (220,428.88)  | -    | -    |   |
| Interest Revenue - Developer Contributions | -            | -            | -            | -            | -            | -            | -            | -            | -              | -              | -              | -              | -              | -              | -            | -              | -            | -             | -    | -    |   |
| Police Payments                            | -            | -            | -            | -            | 137,074.89   | -            | -            | -            | -              | -              | -              | -              | -              | 128,910.00     | 127,787.00   | -              | -            | -             | -    | -    | - |
| 2015 Elections                             | -            | -            | -            | -            | -            | -            | -            | -            | -              | -              | -              | -              | -              | 458,465.00     | 8,458,364.75 | 2,048,414.75   | -            | -             | -    | -    |   |
| Over-Allocations                           | -            | -            | (1,953.03)   | 1,953.03     | -            | -            | -            | -            | (770,817.75)   | 703,888.40     | 2,703.17       | 346,728.94     | 658,465.00     | 8,458,364.75   | 419.91       | (782.54)       | -            | -             | -    | -    |   |
| ADJUSTMENTS TO OFFSITE LEVY                | -            | -            | \$22         | (78,428.84)  | (27,211.72)  | (152,388.09) | (28,382.74)  | (779,327.61) | (7,781,318.37) | (7,703,548.47) | (8,476,471.64) | (8,672,714.90) | (8,657,715.56) | -              | 0.00         | 11,424,995.29  | 8,755,123.24 | 19,281,612.14 |      |      |   |
| <b>Adjusted Ending Balance</b>             |              |              |              |              |              |              |              |              |                |                |                |                |                |                |              |                |              |               |      |      |   |
| Beginning Balance                          | -            | -            | -            | -            | -            | -            | -            | 26,124.54    | -              | -              | -              | -              | -              | -              | -            | -              | -            | -             | -    | -    | - |
| Ending Balance                             | -            | -            | -            | -            | -            | -            | -            | -            | -              | -              | -              | -              | -              | -              | -            | -              | -            | -             | -    | -    | - |
| <b>ADJUSTMENTS TO OFFSITE LEVY</b>         | -            | -            | \$22         | (78,428.84)  | (27,211.72)  | (152,388.09) | (28,382.74)  | (779,327.61) | (7,781,318.37) | (7,703,548.47) | (8,476,471.64) | (8,672,714.90) | (8,657,715.56) | -              | 0.00         | 11,424,995.29  | 8,755,123.24 | 19,281,612.14 |      |      |   |

## APPENDIX F: BENCHMARK COMPARISONS

The table below compares the weighted average offsite levy rate in the City to rates in other municipalities.

| Municipality / Area                        | Average Per Ha. |
|--|-----------------|
| Town of Stony Plain (2007)                 | \$69,000        |
| Town of Calmar*                            | \$71,000        |
| City of Lacombe*                           | \$72,500        |
| Sturgeon County Industrial Park*           | \$80,700        |
| Town of Peace River*                       | \$83,400        |
| City of Spruce Grove*                      | \$86,497        |
| Red Deer County (Gasline Alley)            | \$96,500        |
| Town of Redcliff*                          | \$109,200       |
| Leduc County* (2009)                       | \$106,300       |
| Town of Devon*                             | \$116,200       |
| City of Leduc* (update coming)             | \$117,500       |
| Town of High River                         | \$130,000       |
| City of Cold Lake* (in process)            | \$140,530       |
| City of Chestermere* (in process)          | \$145,524       |
| Town of Beaumont* (update coming)          | \$161,000       |
| City of Red Deer                           | \$203,300       |
| City of Lethbridge                         | \$249,000       |
| City of Medicine Hat* (subsidy)            | \$250,000       |
| City of Lloydminster* (in process)         | \$281,800       |
| City of St. Albert*                        | \$290,000       |
| City of Edmonton                           | +\$300,000      |
| City of Calgary (incl rec & stabilization) | +\$350,000      |

\*CORVUS Clients

## APPENDIX G: PROJECT DETAILS

The following information was provided by the City. It summarizes the details of all offsite levy projects, source, allocations, etc.

### Water<sup>10</sup>:

| O&L Project #      | Project Name / Description  | Historical Expenditures (Up to Dec 31, 2018) |                                      |                                |                                     |  |                             | Future Expenditures (From Jan 1, 2019) |                       |                     |                 |                     | Total Project Cost (2018+2019-21) |
|--------------------|---|--|--------------------------------------|--------------------------------|-------------------------------------|--|-----------------------------|--|-----------------------|---------------------|-----------------|---------------------|-----------------------------------|
|                    |   | Expenditures to Dec 31, 2018 (A)             | Historical Expenditure Incentive (B) | Special Incentive Received (C) | Non-Levy Contributions Received (D) | Offsite Levy Rates Withdrawn / Allocations (E) | Pre-existing (F)(A+B+C+D-E) | Future Incentive Incentive (G)         | Construction Cost (H) | Contingency (I)     | Engineering (J) | Land (K)            |                                   |
| 1                  | Kenosha Wastewater Loop (K4-60-L1)  | \$ 228,202                                   | \$ -                                 | \$ -                           | \$ -                                | \$ 228,202                                     | \$ -                        | \$ -                                   | \$ -                  | \$ -                | \$ -            | \$ -                | \$ 228,202                        |
| 2                  | Kenosha Wastewater  | \$ 796,502                                   | \$ -                                 | \$ -                           | \$ -                                | \$ 796,502                                     | \$ -                        | \$ -                                   | \$ -                  | \$ -                | \$ -            | \$ -                | \$ 796,502                        |
| 3                  | New Growth Water Treatment (G7-DF183)                                     | \$ 2,228,241                                 | \$ -                                 | \$ -                           | \$ -                                | \$ 2,228,241                                   | \$ -                        | \$ 2,418,964                           | \$ 412,246            | \$ 813,286          | \$ -            | \$ 3,219,218        | \$ 14,979,822                     |
| 4                  | Water Main Offsets - 1000's from Century Rd to Pioneer Rd (along Hwy 163) | \$ -   | \$ -                                 | \$ -                           | \$ -                                | \$ -   | \$ -                        | \$ 2,200,000                           | \$ 223,000            | \$ 220,000          | \$ -            | \$ 2,443,000        | \$ 2,443,000                      |
| <b>Total Water</b> |   | <b>\$ 3,252,945</b>                          | <b>\$ -</b>                          | <b>\$ -</b>                    | <b>\$ -</b>                         | <b>\$ 3,252,945</b>                            | <b>\$ -</b>                 | <b>\$ 4,637,964</b>                    | <b>\$ 635,246</b>     | <b>\$ 1,033,286</b> | <b>\$ -</b>     | <b>\$ 6,307,518</b> | <b>\$ 10,175,172</b>              |

| O&L Project #      | Project Name / Description  | Construction Staging | Special Grants Anticipated (M) | Contributions Anticipated (N) | Benefiting Parties                              |  |   |                  | Developer Cost (2018+2019-21) (O) | Benefiting Offsite Levy Areas | Source of Project, Source of Estimate, Date of Estimate |   |
|--------------------|---|----------------------|--------------------------------|-------------------------------|---|--|---|------------------|-----------------------------------|-------------------------------|---|---|
|                    |   |                      |                                |                               | Allocation to Existing Development (City Share) | Allocation to County / Other Stakeholder | Allocation to Future Development (Offsite Levy) (P) | Total Allocation |                                   |                               |   |   |
| 1                  | Kenosha Wastewater Loop (K4-60-L1)  | Completed 2012       | \$ -                           | \$ -                          | 0%  | 0%                                       | 100%  | 200%             | OK                                | \$ 228,202                    | 1, 2, 3, 4, 5   |   |
| 2                  | Kenosha Wastewater  | Completed 2012       | \$ -                           | \$ -                          | 0%  | 0%                                       | 100%  | 200%             | OK                                | \$ 796,502                    | 4, 7, 8, 11   |   |
| 3                  | New Growth Water Treatment (G7-DF183)                                     | New 100% 2017-2020   | \$ -                           | \$ -                          | 0%  | 0%                                       | 100%  | 300%             | OK                                | \$ 4,278,282                  | All   | 2015 Water Plan Update                                  |
| 4                  | Water Main Offsets - 1000's from Century Rd to Pioneer Rd (along Hwy 163) | 2019                 | \$ -                           | \$ -                          | 0%  | 0%                                       | 100%  | 200%             | OK                                | \$ 2,443,000                  | \$ 20, 11   | 2015 Water Plan Update; cost from 2015 project transfer |
| <b>Total Water</b> |   |                      | <b>\$ -</b>                    | <b>\$ -</b>                   |   |  |   |                  |                                   | <b>\$ 7,875,706</b>           |   |   |

<sup>10</sup> The City's water supply is purchased from the City of Edmonton through the Capital Region Parkland Water Services Commission (CRPWSC). The treated water is distributed by the City to its customers through its waterworks system consisting of water storage reservoirs and pumping facilities, primary feeder mains and distribution mains. The City divides its water network into two zones.

The City's philosophy regarding its waterworks system improvements has been that development is responsible, at their cost, the construction of all new distribution mains up to and including 300 mm diameter in size. Primary feeder mains (water mains larger than 300 mm diameter), treated water storage reservoirs, pumping facilities and water quality monitoring stations, on the other hand, benefit the entire water distribution system and thus, the City has assumed responsibility for their construction. The cost of such facilities is then assessed proportionately against all benefiting lands through a Water Offsite Levy Charge.

Capital improvements to the water supply system are the responsibility of the CRPWSC of which the City of Spruce Grove is a member. The costs of such improvements are assessed proportionately against the City through the Commission's water utility rate structure and hence these costs are not included in the City's Water Offsite Levy Charge.

**Sanitary<sup>11</sup>:**

| SMA Project #       | Project Name / Description   | Historical Expenditures (up to Dec 31, 2015) |                                  |   |                                      |   |                                   | Future Expenditures (from Jan 1, 2017) |                        |                   |                   |              |                           | Total Project Cost (\$'000-\$'000) |
|---------------------|--|--|----------------------------------|---|--------------------------------------|---|-----------------------------------|--|------------------------|-------------------|-------------------|--------------|---------------------------|------------------------------------|
|                     |  | Expenditures to Dec 31, 2015 (\$)            | Historical Debtors Interest (\$) | Special Car Market Grants Received (\$) | Non-Levy Contributions Received (\$) | Offsite Levy Revenue Withholds / Allocations (\$) | Profit-making Projects/CDP's (\$) | Primary Delivery System (\$)           | Construction Cost (\$) | Contingency (\$)  | Engineering (\$)  | Levy (\$)    | Sub-Total (\$'000-\$'000) |                                    |
| 1                   | West Trunk Sanitary Sewer (12-88-24-00) - W of Campbell St to Environmental Level <sup>1</sup> | \$ 5,779,900                                 | \$ -                             | \$ -                                    | \$ -                                 | \$ 2,465,000                                      | \$ 115,000                        | \$ -                                   | \$ -                   | \$ -              | \$ -              | \$ -         | \$ 1,772,000              |                                    |
| 2                   | Recess East Trunk Sanitary (12-11-24-00)   | \$ 2,594,260                                 | \$ -                             | \$ 1,353,000                            | \$ -                                 | \$ -  | \$ 1,800,000                      | \$ -                                   | \$ -                   | \$ -              | \$ -              | \$ -         | \$ 2,664,000              |                                    |
| 3                   | Recess Road Sanitary Sewer (20-07-24-00-01-00-01)  | \$ 1,161,800                                 | \$ -                             | \$ -                                    | \$ -                                 | \$ -  | \$ 1,433,000                      | \$ -                                   | \$ -                   | \$ -              | \$ -              | \$ -         | \$ 1,653,000              |                                    |
| 4                   | Recess Trunk Sewer Pedestals (21-18)   | \$ 2,677,520                                 | \$ -                             | \$ -                                    | \$ -                                 | \$ -  | \$ -                              | \$ 251,500                             | \$ 99,800              | \$ 79,800         | \$ -              | \$ 427,100   | \$ 2,828,400              |                                    |
| 5                   | Sub-area West Trunk Sanitary's Street (42-22-20)   | \$ 1,060,000                                 | \$ -                             | \$ -                                    | \$ -                                 | \$ 1,155,000                                      | \$ -                              | \$ -                                   | \$ -                   | \$ -              | \$ -              | \$ -         | \$ 1,155,000              |                                    |
| 6                   | Boundary Trunk Sewer   | \$ 157,810                                   | \$ -                             | \$ -                                    | \$ -                                 | \$ 19,700   | \$ -                              | \$ 254,000                             | \$ 671,000             | \$ 179,400        | \$ -              | \$ 5,554,000 | \$ 6,468,400              |                                    |
| 7                   | Recess Trunk Sewer Catchment (20-08-24-00)   | \$ -   | \$ -                             | \$ -                                    | \$ -                                 | \$ -  | \$ -                              | \$ 1,000,000                           | \$ 100,000             | \$ 100,000        | \$ -              | \$ 1,800,000 | \$ 1,800,000              |                                    |
| <b>Total Expend</b> |  | <b>\$ 17,881,810</b>                         | <b>\$ -</b>                      | <b>\$ 1,353,000</b>                     | <b>\$ -</b>                          | <b>\$ 4,784,700</b>                               | <b>\$ 6,338,500</b>               | <b>\$ -</b>                            | <b>\$ 8,187,000</b>    | <b>\$ 861,100</b> | <b>\$ 861,100</b> | <b>\$ -</b>  | <b>\$ 20,541,610</b>      |                                    |

<sup>11</sup> The sanitary sewerage collection system in the City of Spruce Grove is comprised of a series of lateral (local), collector and trunk underground conduits intercepting wastewater from the various individual contributors and conveying this wastewater to a point(s) of discharge for treatment and ultimate disposal. The point(s) of discharge for the City sanitary sewerage is the Alberta Capital Region Wastewater Commission (ACRWC) Transmission Line, which conveys the wastewater to the Region Wastewater Treatment Plant, located south east of the City of Fort Saskatchewan, where the sewage is treated to the required standards and the effluent discharges to the North Saskatchewan River. Capital improvements to the Regional Treatment Plant and Transmission Line are the responsibility of the ACRWC of which the City of Spruce Grove is a member. The costs of such capital improvements are assessed proportionately against the City through the Commission's sewage utility rate structure and hence are not included in the City's Sanitary Sewer Offsite Levy calculations. Should ACRWC, at a future date, implement a charge for infrastructure for developing areas, the City will adjust the levy charges accordingly.

Taking advantage of the overall topography of the City, which generally slopes from south to north, the City's existing sanitary sewer systems have been developed as gravity systems. Based on the Sanitary Sewer Master Plan completed for the City by Associated Engineering in 1990, except for a few localized low areas which may require a sewage lift station, the City's sanitary sewerage systems can continue to be developed as gravity systems. The Master Plan also identified four (4) sanitary sewer catchment areas within the present corporate boundaries of the City, namely, East Trunk, Central Trunk, West Trunk and Boundary Trunk Sanitary Sewers.

Sanitary sewer systems typically have a hierarchical classification based primarily upon the size of diameter of pipe and the area they serve. In the case of the sanitary sewer system in the City of Spruce Grove, laterals (locals) are typically 200 mm and 250 mm diameter in size, collectors are 300 mm and 375 mm diameter in size, and trunks are sewer pipe systems greater than 375 mm in diameter. Trunks greater than 375 mm in diameter benefit the entire wastewater distribution system and thus, the cost of such facilities is then assessed proportionately against all benefiting lands through a Sewer Offsite Levy Charge. Development shall be fully responsible for the construction of laterals and collectors for the sanitary sewer system at their entire cost.

City of Spruce Offsite Levy Review

| OSL Project #      | Project Name / Description  | Construction Credits | Special Grants Anticipated (%) | Contributions Anticipated (%) | Sanctuary Fees                                  |  |   |                  | Developer Cost (2016-C-15-017) | Sanctuary Office Levy Fees | OSL Review / Account Balance Dec 31, 2015 | Status of Project, Source of Offsets, Date of Offsets      |
|--------------------|---|----------------------|--------------------------------|-------------------------------|---|--|---|------------------|--------------------------------|----------------------------|---|--|
|                    |   |                      |                                |                               | Allocation to Existing Development (City Share) | Allocation to County / Other Stakeholder | Allocation to Permit Development (City Share) | Total Allocation |                                |                            |   |  |
| 1                  | 15401 1/2 W. Military Lane (14-08-01-06) - W of Commerce Rd in "Industrial Lands" |                      | \$ -                           | \$ -                          | 0%  | 0%                                       | 100%  | 100%             | OK                             | \$ 5,722,550               | \$ 5                                      | 2012 Master Plan Update                                    |
| 2                  | Peace Road Transit Station (12-05-05-05)  |                      | \$ -                           | \$ -                          | 0%  | 0%                                       | 100%  | 100%             | OK                             | \$ 1,801,908               | \$ 11                                     | 2012 Master Plan Update                                    |
| 3                  | Peace Road Transit Station General Location (12-05-05-01)                         |                      | \$ -                           | \$ -                          | 0%  | 0%                                       | 100%  | 100%             | OK                             | \$ 1,455,781               | \$ 11                                     | 2012 Master Plan Update                                    |
| 4                  | Peace Road Transit Station (12-05-05-01)  | 2012                 | \$ -                           | \$ -                          | 0%  | 0%                                       | 100%  | 100%             | OK                             | \$ 2,818,940               | \$ 11                                     | 2012 Master Plan Update                                    |
| 5                  | Commerce Road Transit Station (14-09-05)  | 2012                 | \$ -                           | \$ -                          | 0%  | 0%                                       | 100%  | 100%             | OK                             | \$ 1,818,771               | \$ -                                      | 2012 Master Plan Update                                    |
| 6                  | 15410 1/2 W. Military Lane  | 2012                 | \$ -                           | \$ -                          | 0%  | 0%                                       | 100%  | 100%             | OK                             | \$ 5,252,654               | \$ 3                                      | 2012 Master Plan Update, 2012 Industrial Area Re-eval Plan |
| 7                  | Peace Road Transit Station (12-05-05-01)  | 2012                 | \$ -                           | \$ -                          | 0%  | 0%                                       | 100%  | 100%             | OK                             | \$ 1,801,908               | \$ 11                                     | 2012 Master Plan Update                                    |
| <b>Total Items</b> |   |                      | \$ -                           | \$ -                          |   |  |   |                  |                                | \$ 19,679,491              |   |  |





City of Spruce Offsite Levy Review

| ID#<br>Project #            | Project Name / Description  | Construction Timing   | Special District Anticipated (SI) | Contributor Anticipated (CI) | Benefiting Parties                              |  |  |                  | Developer Cost (CIP-CO-CO-CY-F) | Benefiting District Levy Area | Source of Project, Source of Offsite, Date of Release |  |
|-----------------------------|---|-----------------------|-----------------------------------|------------------------------|---|--|--|------------------|---------------------------------|-------------------------------|---|--|
|                             |   |                       |                                   |                              | Allocation to Matching Development (City Share) | Allocation to County / Other Stakeholder | Allocation to Public Development (Offsite Levy) (PI) | Total Allocation |                                 |                               |   |  |
| <b>Transportation</b>       |   |                       |                                   |                              |   |  |  |                  |                                 |                               |   |  |
| 1                           | Camden Road Turnpike  | Completed 2005        | \$ -                              | \$ -                         | 0%  | 0%                                       | 100%   | 100%             | 0%                              | \$ 137,532                    | All   |  |
| 2                           | Down River - Century Road to Conquest   | Completed 2006        | \$ -                              | \$ -                         | 0%  | 0%                                       | 100%   | 100%             | 0%                              | \$ 48,271                     | All   |  |
| 3                           | Traffic Signal - Century Road and Moore Ave   | Completed 2006        | \$ -                              | \$ -                         | 0%  | 0%                                       | 100%   | 100%             | 0%                              | \$ 154,441                    | All   |  |
| 4                           | Traffic Signal - Century Road and Grove Drive                                       | Completed 2006        | \$ -                              | \$ -                         | 0%  | 0%                                       | 100%   | 100%             | 0%                              | \$ 18,364                     | All   |  |
| 5                           | Grove Drive Turnpike/overpass - Century to Century                                  | Completed 2006/07     | \$ -                              | \$ -                         | 0%  | 0%                                       | 100%   | 100%             | 0%                              | \$ 5,888,589                  | All   |  |
| 6                           | PLC Roundabouts   | Completed 2006        | \$ -                              | \$ -                         | 0%  | 0%                                       | 100%   | 100%             | 0%                              | \$ 263,187                    | All   |  |
| 7                           | Century Road West side/overpass   | Completed 2007/08     | \$ -                              | \$ -                         | 0%  | 0%                                       | 100%   | 100%             | 0%                              | \$ 2,072,296                  | All   |  |
| 8                           | Down River 2017/2018  | Completed 2007/08     | \$ -                              | \$ -                         | 0%  | 0%                                       | 100%   | 100%             | 0%                              | \$ 4,148,241                  | All   |  |
| 9                           | Traffic Signal - Waterloo Mill Way and Hawthorne Gate intersection                  | Completed 2009        | \$ -                              | \$ -                         | 0%  | 0%                                       | 100%   | 100%             | 0%                              | \$ 200,910                    | All   |  |
| 10                          | Century Road South of Diamond Ave.  | Completed 2011        | \$ -                              | \$ -                         | 0%  | 0%                                       | 100%   | 100%             | 0%                              | \$ 1,332,152                  | All   |  |
| 11                          | Traffic Signal - Highway 16A/Century Crossing                                       | Completed 2011        | \$ -                              | \$ -                         | 0%  | 0%                                       | 100%   | 100%             | 0%                              | \$ 376,872                    | All   |  |
| 12                          | Century Road/Down River Intersection  | Completed 2011        | \$ -                              | \$ -                         | 0%  | 0%                                       | 100%   | 100%             | 0%                              | \$ 1,448,296                  | All   |  |
| 13                          | Down River 2012 Interchange   | Completed 2011/12     | \$ -                              | \$ -                         | 0%  | 0%                                       | 100%   | 100%             | 0%                              | \$ 2,043,184                  | All   |  |
| 14                          | Traffic Signal - 101 Grove Dr and Conquest, and 101 Grove Dr and Waterloo Rd        | Completed 2012        | \$ -                              | \$ -                         | 0%  | 0%                                       | 100%   | 100%             | 0%                              | \$ 222,120                    | All   |  |
| 15                          | Down River - Section 18 to Highway 16A with roundabout at Millbrook Ave and Down Dr | Phase 1/2/3/4/5/6/7/8 | \$ -                              | \$ -                         | 0%  | 0%                                       | 100%   | 100%             | 0%                              | \$ 11,176,488                 | All   | 2012 Master Plan update/functional plan, cost from 2010 project tender |
| 16                          | New Industrial District - Tamarack Blvd   | Completed 2013/14     | \$ -                              | \$ -                         | 0%  | 0%                                       | 100%   | 100%             | 0%                              | \$ 283,218                    | All   |  |
| 17                          | Traffic Signal - Down River and Down Road   | Completed 2014/15     | \$ -                              | \$ -                         | 0%  | 0%                                       | 100%   | 100%             | 0%                              | \$ 287,976                    | All   |  |
| 18                          | Watering can/overpass/200' x 200' Rd from Millbrook Ave to south of the Oval        | Completed 2015/16     | \$ -                              | \$ -                         | 0%  | 0%                                       | 100%   | 100%             | 0%                              | \$ 2,125,222                  | All   |  |
| 19                          | Tamarack Blvd ALIAD - 200' from Waterloo Gate Roundabout                            | 2008                  | \$ -                              | \$ -                         | 0%  | 0%                                       | 100%   | 100%             | 0%                              | \$ 2,212,682                  | All   | 2012 Transportation Master Plan, 2017 Levy review (4-Term)             |
| 20                          | Tamarack Drive ALIAD - 200m from easting to Century Rd                              | 2008                  | \$ -                              | \$ -                         | 0%  | 0%                                       | 100%   | 100%             | 0%                              | \$ 5,145,029                  | All   | 2012 Transportation Master Plan, 2017 Levy review (4-Term)             |
| 21                          | Tamarack Drive ALIAD - 200m from Golden Solis Rd to Century Rd                      | 2040                  | \$ -                              | \$ -                         | 0%  | 0%                                       | 100%   | 100%             | 0%                              | \$ 5,822,000                  | All   | 2012 Transportation Master Plan, 2017 Levy review (4-Term)             |
| 22                          | Tamarack Drive ALIAD - 20m from Golden Solis Rd to 200'                             | 2024                  | \$ -                              | \$ -                         | 0%  | 0%                                       | 100%   | 100%             | 0%                              | \$ 323,400                    | All   | 2012 Transportation Master Plan, 2017 Levy review (4-Term)             |
| 23                          | Tamarack Drive ALIAD - 140m from easting to Conquest Rd                             | 2014                  | \$ -                              | \$ -                         | 0%  | 0%                                       | 100%   | 100%             | 0%                              | \$ 4,470,818                  | All   | 2012 Transportation Master Plan, 2017 Levy review (4-Term)             |
| 24                          | Tamarack Drive ALIAD - 240m from Waterloo Gate to Waterloo Rd                       | 2014                  | \$ -                              | \$ -                         | 0%  | 0%                                       | 100%   | 100%             | 0%                              | \$ 4,028,029                  | All   | 2012 Transportation Master Plan, 2017 Levy review (4-Term)             |
| 25                          | Pioneer Road ALIAD - 600' south of Hwy 16A  | 2048                  | \$ -                              | \$ -                         | 0%  | 0%                                       | 100%   | 100%             | 0%                              | \$ 5,781,088                  | All   | 2012 Transportation Master Plan, 2017 Levy review (4-Term)             |
| 26                          | Pioneer Road ALIAD - 400' south of Hwy 16A  | 2042                  | \$ -                              | \$ -                         | 0%  | 0%                                       | 100%   | 100%             | 0%                              | \$ 4,464,000                  | All   | 2012 Transportation Master Plan, 2017 Levy review (4-Term)             |
| 27                          | Pioneer Road ALIAD - 1400' Hwy 16A to Down Dr                                       | 2030                  | \$ -                              | \$ -                         | 0%  | 0%                                       | 100%   | 100%             | 0%                              | \$ 5,124,000                  | All   | 2012 Transportation Master Plan, 2017 Levy review (4-Term)             |
| 28                          | Century Road 21000 - 2400m Hwy 16A to south boundary                                | 2008                  | \$ -                              | \$ -                         | 0%  | 0%                                       | 100%   | 100%             | 0%                              | \$ 4,254,029                  | All   | 2012 Transportation Master Plan, 2017 Levy review (4-Term)             |
| 29                          | Century Road 21000 - 1800m Hwy 16A to south boundary                                | 2009                  | \$ -                              | \$ -                         | 0%  | 0%                                       | 100%   | 100%             | 0%                              | \$ 4,255,029                  | All   | 2012 Transportation Master Plan, 2017 Levy review (4-Term)             |
| 30                          | Down River East ALIAD - 1000m to Pioneer Rd   | 2021                  | \$ -                              | \$ -                         | 0%  | 0%                                       | 100%   | 100%             | 0%                              | \$ 4,444,029                  | All   | 2012 Transportation Master Plan, 2017 Levy review (4-Term)             |
| 31                          | Grove Drive West ALIAD - 2400m to Boundary Rd                                       | 2020                  | \$ -                              | \$ -                         | 0%  | 0%                                       | 100%   | 100%             | 0%                              | \$ 2,126,000                  | All   | 2012 Transportation Master Plan, 2017 Levy review (4-Term)             |
| 32                          | Grove Drive West ALIAD - 2400m to Boundary Rd                                       | 2025                  | \$ -                              | \$ -                         | 0%  | 0%                                       | 100%   | 100%             | 0%                              | \$ 5,124,000                  | All   | 2012 Transportation Master Plan, 2017 Levy review (4-Term)             |
| 33                          | Camden Road 21000 - 1300m from 16A to south boundary                                | 2021                  | \$ -                              | \$ -                         | 0%  | 0%                                       | 100%   | 100%             | 0%                              | \$ 4,258,000                  | All   | 2012 Transportation Master Plan, 2017 Levy review (4-Term)             |
| 34                          | Camden Road 21000 - 1400m from 16A to south boundary                                | 2041                  | \$ -                              | \$ -                         | 0%  | 0%                                       | 100%   | 100%             | 0%                              | \$ 4,258,000                  | All   | 2012 Transportation Master Plan, 2017 Levy review (4-Term)             |
| 35                          | Golden Solis Road 21000 - 1400m to south boundary                                   | 2026                  | \$ -                              | \$ -                         | 0%  | 0%                                       | 100%   | 100%             | 0%                              | \$ 4,255,029                  | All   | 2012 Transportation Master Plan, 2017 Levy review (4-Term)             |
| 36                          | Golden Solis Road 21000 - 1400m to south boundary                                   | 2030                  | \$ -                              | \$ -                         | 0%  | 0%                                       | 100%   | 100%             | 0%                              | \$ 4,255,029                  | All   | 2012 Transportation Master Plan, 2017 Levy review (4-Term)             |
| 37                          | Boundary Road ALIAD - 1200m to Hwy 16A  | 2030                  | \$ -                              | \$ -                         | 0%  | 0%                                       | 100%   | 100%             | 0%                              | \$ 4,322,000                  | All   | 2012 Transportation Master Plan, 2017 Levy review (4-Term)             |
| 38                          | Traffic Signal - Boundary @ Millbrook   | 2040                  | \$ -                              | \$ -                         | 0%  | 0%                                       | 100%   | 100%             | 0%                              | \$ 360,000                    | All   | 2012 Transportation Master Plan, 2017 Levy review (4-Term)             |
| 39                          | Traffic Signal - Hwy 16A - Waterloo Boundary @ Conquest                             | 2020                  | \$ -                              | \$ -                         | 0%  | 0%                                       | 100%   | 100%             | 0%                              | \$ 480,000                    | All   | 2012 Transportation Master Plan, 2017 Levy review (4-Term)             |
| 40                          | Traffic Signal - Conquest - Waterloo Boundary @ Conquest                            | 2021                  | \$ -                              | \$ -                         | 0%  | 0%                                       | 100%   | 100%             | 0%                              | \$ 480,000                    | All   | 2012 Transportation Master Plan, 2017 Levy review (4-Term)             |
| 41                          | Traffic Signal - Conquest @ Pioneer Rd & Hwy 16                                     | 2026                  | \$ -                              | \$ -                         | 0%  | 0%                                       | 100%   | 100%             | 0%                              | \$ 480,000                    | All   | 2012 Transportation Master Plan, 2017 Levy review (4-Term)             |
| 42                          | Traffic Signal - Conquest @ Tamarack  | 2020                  | \$ -                              | \$ -                         | 0%  | 0%                                       | 100%   | 100%             | 0%                              | \$ 200,000                    | All   | 2012 Transportation Master Plan, 2017 Levy review (4-Term)             |
| 43                          | Traffic Signal - Golden Solis @ Diamond   | 2023                  | \$ -                              | \$ -                         | 0%  | 0%                                       | 100%   | 100%             | 0%                              | \$ 300,000                    | All   | 2012 Transportation Master Plan, 2017 Levy review (4-Term)             |
| 44                          | Traffic Signal - Golden Solis @ Tamarack  | 2020                  | \$ -                              | \$ -                         | 0%  | 0%                                       | 100%   | 100%             | 0%                              | \$ 300,000                    | All   | 2012 Transportation Master Plan, 2017 Levy review (4-Term)             |
| 45                          | Traffic Signal - Century @ Boundary   | 2024                  | \$ -                              | \$ -                         | 0%  | 0%                                       | 100%   | 100%             | 0%                              | \$ 480,000                    | All   | 2012 Transportation Master Plan, 2017 Levy review (4-Term)             |
| 46                          | Traffic Signal - Century @ Tamarack   | 2021                  | \$ -                              | \$ -                         | 0%  | 0%                                       | 100%   | 100%             | 0%                              | \$ 480,000                    | All   | 2012 Transportation Master Plan, 2017 Levy review (4-Term)             |
| 47                          | Traffic Signal - Down River @ Waterloo Blvd   | 2021                  | \$ -                              | \$ -                         | 0%  | 0%                                       | 100%   | 100%             | 0%                              | \$ 480,000                    | All   | 2012 Transportation Master Plan, 2017 Levy review (4-Term)             |
| <b>Total Transportation</b> |   |                       | <b>\$ -</b>                       | <b>\$ -</b>                  | <b>0%</b>                                       | <b>0%</b>                                | <b>100%</b>  | <b>100%</b>      | <b>0%</b>                       | <b>\$ 118,532,347</b>         |   |  |