Report



City of Fort Saskatchewan

Light / Medium Industrial Area Levy Report

Schedule "D" to Bylaw C14-17

June 2017



City of Fort Saskatchewan: Light/Medium Industrial Area Offsite Levy Review

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1 DOCUMENT INFORMATION

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3 INTRODUCTION

3.1 Introduction

Bylaw C1-14, established by the City of Fort Saskatchewan ("the City") in 2014, defines offsite levy rates for the City's Light/Medium Industrial Area. The bylaw includes an offsite levy rate of \$68,568 per net hectare (Water \$23,999 + Sanitary \$17,379 + Transportation \$3,051 + Stormwater \$24,139), which is based on infrastructure cost estimates of approximately \$34.90 million (\$51.05 million including inflation) and land development of 745 ha. The 2014 rate is applied uniformly across all areas and does not make any accommodation for actual benefitting areas, infrastructure staging impacts, development staging impacts, specific payback periods, or reserve interest impacts, etc.

The City wishes to facilitate growth in the Light/Medium Industrial Area by updating transportation, water, sanitary, and stormwater offsite infrastructure requirements to ensure they meet the needs of development in the Light/Medium Industrial Area, and also ensure that accompanying charges are fair and equitable, comply with legislative and regulatory requirements, and recover the full cost of the infrastructure in order to ensure a financially sustainable community.

This report outlines the methodology and information used in updating transportation, water, sanitary, and stormwater offsite levy rates for the Light/Medium Industrial Area, as well as other key findings and recommendations.

3.2 Methodology

The City of Fort Saskatchewan has created various infrastructure master plans, and these plans have been used as key inputs into this offsite levy rate review. City staff reviewed existing plans and identified offsite projects for transportation, water, sanitary, and stormwater infrastructure¹. Each project was assessed for benefiting areas using the offsite levy areas identified in this report. The City's assessment also included determination of benefits to existing development and future development.

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 planning staff).
- Incorporation of infrastructure costs and allocation percentages for existing development, new development, and other parties (provided by City engineering staff).

¹ It was not within CORVUS' scope of work to review the City's master plans.

- Establishment of offsite levy reserve opening balances (details provided by City staff).
- Development of transportation, water, sanitary, and stormwater offsite levy rates for each offsite levy area.
- Presentation of offsite levy rates and background information to Administration, Council, and the public.

Offsite levy rates are forecast using a rolling 25-year review period. During this review, a cutoff date of December 31st, 2015 was established, and so the review period stems from 2016 to 2040. Costs that benefit development prior to and within the 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 2040 will gradually find their way into rates.

The cut-off date coincides with the City's most recent year-end. 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 1st, 2016 up to the new cut-off date will be converted from estimates to actuals.

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 \$29.09 million (2016 dollars), a decrease of 17% from 2014 (a decrease in infrastructure costs places downward pressure on rates). An overview of offsite infrastructure costs and maps is provided in Appendices B1, C1, D1, and E1.

Before determining how the infrastructure costs will be allocated to parties that benefit (e.g., existing development, new development, other municipalities etc.), offsite infrastructure costs are always reduced by special ear-marked grants and development contributions. An overview of grants and contributions and resulting net costs is provided in Appendices B2, C2, D2, and E2.

Financial oversizing (the amount of cost which is allocated to future development beyond the 25-year review period) is based on the anticipated year of construction. An overview of construction staging is provided in Appendices B3, C3, D3, and E3.

That portion of cost which is allocated to future development (versus existing development and other allocations) is provided in Appendices B4, C4, D4, and E4.

Before allocating infrastructure costs to benefitting lands, offsite levy costs must be reduced by amounts collected to date. An overview of offsite levies that have been collected by the City is provided in Appendices B5, C5, D5, and E5.

Of the \$29.09 million in total offsite infrastructure costs, the share allocated to future development that is included in rates today (the offsite levy share) is \$21.72 million, as shown in the table below. The share allocated to future development that is

beyond the 25-year review period (financial oversizing) is \$6.29 million. The share allocated to existing development (the City's share) is \$0.21 million; and, the share allocated to other stakeholders (e.g., Strathcona County) is \$0.00. A complete summary of offsite infrastructure net cost "flow-thru" is provided in Appendices B6, C6, D6, and E6.

Infrastructure	Mu	ini Share of Costs	Ot (e.	her's Share .g., County)	Developer Cost (Fin Oversizing)			eveloper Costs (In Rates)	Total Costs		
Transportation	\$	207,000	\$	-	\$	1,697,951	\$	5,771,242	\$	7,676,193	
Water	\$	-	\$	-	\$	2,762,362	\$	6,095,746	\$	9,741,028	
Sanitary	\$	-	\$	-	\$	1,155,505	\$	8,121,015	\$	9,276,519	
Stormwater	\$	-	\$	-	\$	672,000	\$	1,728,000	\$	2,400,000	
Total	\$	207,000	\$	-	\$	6,287,818	\$	21,716,002	\$	29,093,740	

Summary of Infrastructure Costs & Allocations

- Lands do not necessarily benefit from all offsite levy infrastructure. In order to equitability facilitate the allocation of infrastructure costs to those lands that benefit from the infrastructure, the Light/Medium Industrial Area is parsed into several smaller 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 which offsite infrastructure has been allocated to each area is provided in B7, C7, D7, and E7.
- 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 in the Light/Medium Industrial Area of approximately 226 ha. over the 25-year review period (approximately 9.0 ha. per year on average). This is a decrease of 70% from the 2014 bylaw (a decrease in land development places upward pressure on rates). 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 a single reserve/account. However, the MGA requires that offsite levy monies be managed separately (i.e., one reserve/account for each infrastructure type). The reason this is a requirement is because offsite levies collected 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). To facilitate the establishment of 4 reserves/accounts, a reconciliation of the exiting reserve activity is shown in Appendix G, and an overview of opening balances for the new reserves/accounts is shown in Appendices B8, C8, D8, and E8.
- 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 reserve balances that are in a negative position are charged interest (negative forecast balances 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, D9, and E9.

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 infrastructure.

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.

5 RATES

For future development to pay for its share of the \$29.09 million infrastructure costs in the Light/Medium Industrial Area, rates range from \$36,650 to \$97,219 per net hectare (depending on location), with the weighted average offsite levy rate being \$72,739 per net hectare, as shown in tables below. The average rate is generally lower than 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's Light/Medium Industrial Area.

	Transportation Charges (\$/Net Ha)			ater Charges (\$/Net Ha)	Sanitary Charges (\$/Net Ha)	Sto	orm Charges (\$/Net Ha)	Total
High	\$	21,541	\$	21,128	\$ 45,328	\$	9,221	\$ 97,219
Low	\$	21,541	\$	11,494	\$ -	\$	-	\$ 36,650
Weighted Average	\$	21,541	\$	16,610	\$ 30,630	\$	3,958	\$ 72,739

Weighted Averages

*Weighted averages are shown above are for information purposes only. Developers pay the offsite levy rate specific to their offsite levy area, as shown in the table below.

Area Ref. #	Transportatio Charges (\$/Net Ha)	Transportation Charges (\$/Net Ha)Water Charges (\$/Net Ha)Sanitary Charges (\$/Net Ha)			Total (\$/Net Ha)
1.0	\$ 21,54	1 \$ 15,108	\$ -	\$-	\$ 36,650
2.0	\$ 21,54	1 \$ 15,108	\$ 3,887	\$-	\$ 40,536
3.0	\$ 21,54	1 \$ 21,128	\$ 3,887	\$-	\$ 46,556
4.0	\$ 21,54	1 \$ 21,128	\$ 45,328	\$-	\$ 87,997
5.0	\$ 21,54	1 \$ 21,128	\$ 45,328	\$ 9,221	\$ 97,219
6.0	\$ 21,54	1 \$ 11,494	\$ 45,328	\$ 9,221	\$ 87,584
7.0	\$ 21,54	1 \$ 11,494	\$ 45,328	\$-	\$ 78,363

Summary of Offsite Levies by Area

6 RECOMMENDATIONS

CORVUS recommends the following:

- 1. Implement the offsite levy rates outlined in Section 5.
- Ensure the offsite levy bylaw reflects the requirement for an annual update of offsite levy rates and delivery of an <u>annual update report to Council</u>. 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. Establish <u>4 separate offsite levy reserves/accounts</u> as required by the MGA—one for each infrastructure type (i.e., transportation, water, sanitary, and stormwater), with <u>opening balances</u> as reflected in Appendices B8, C8, D8, and E8.
- 4. Establish <u>sub-ledgers</u> for each reserve/account to track amounts owed to frontending parties.
- 5. Update offsite levy <u>reserve/account balances</u> annually (and financial statements, and other internal documentation) to reflect the "true" balance, including front-ending.
- 6. During the reconciliation of future reserve balances, the <u>interest earning and charge</u> rates that underpin the offsite levy bylaw for that time period should be used to determine reserve interest impacts. This is outlined in the offsite levy model user guide and instructions for the annual rate update.
- 7. Develop an offsite levy <u>policy framework</u> to aide in effective implementation of the bylaw.
- 8. Undertake a <u>water and sewer utility rates study</u> to enable sustainable funding of the City's share of offsite infrastructure projects. Current utility rates should be brought current and in alignment with current master plans and offsite levy financing summarized in this report, etc.
- 9. Implement a long term financial sustainability assessment model that provides Council with confidence that the City is on a <u>financially sustainable path</u>, contains reasonable tax impacts, and includes the impact of the City's share of various

development costs plus any front-ending that will be required on behalf of various offsite levy reserves.

10. Recent changes to the MGA will enable municipalities to charge separately for offsite levies (i.e., transportation vs. water vs. sewer vs stormwater). Accordingly, the City should <u>maintain accurate records</u> 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 Fort Saskatchewan staff and advisors from Engineering, Planning, and Finance, who supported the work of this review.

8 **DISCLAIMER**

CORVUS Business Advisor has relied upon City of Fort Saskatchewan to provide all of 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 <u>annually</u>). 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

In order to equitably facilitate the allocation of infrastructure to benefiting lands, the City's Light/Medium Industrial Area is parsed into 7 offsite levy areas, as shown in the map below. These areas are generally about a quarter section in size but also 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 553 net ha. In calculating net development area only those lands remaining to be developed within the area <u>that have not previously paid offsite levies</u> 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.

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.)
1.0	Exisiting Light	Industrial	26.56		26.56	2.66		23.90
2.0	Existing Light and Medium	Industrial	62.43		62.43	6.24		56.19
3.0	Future Medium Full Servicing	Industrial	6.74		6.74	0.67		6.07
4.0	Future Medium Full Servicing	Industrial	111.06		111.06	11.11	2.75	97.20
5.0	Future Medium Full Servicing	Industrial	79.06		79.06	7.91	0.53	70.62
6.0	Future Medium Reduced Servicing	Industrial	219.26		219.26	21.93	14.57	182.76
7.0	Future Medium Reduced Servicing	Industrial	153.39	10.13	143.26	14.33	12.95	115.98
		Total	658.50	10.13	648.37	64.84	30.80	552.73

Offsite Levy Net Development Area

Summary of Offsite Levy Net Development Area

Description	ha.
Gross Development Area	658.50
Less Environment Reserve	10.13
Less Municipal Reserve	64.84
Less ROW Allowance	30.80
Net Development Area	552.73

*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 City of Fort Saskatchewan. 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 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. This planning period is used by many municipalities as it provides a reasonable time frame 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 553 net ha. of development area available across all offsite levy development areas, planners estimate that approximately 226 ha. (41%) of this land will develop during the next 25-years (the rate planning period) as shown in the tables below.

Area Ref. #	Area Develope d in Next 25 years	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
1.0	23.000	-	-	-	-	-	-	-	-	-	2.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	-	-	-	-	-	-	-	-
2.0	49.000	1.00	2.00	1.00	5.00	6.00	6.00	6.00	6.00	6.00	4.00	3.00	3.00	-	-	-	-	-	-	-	-	-	-	-	-	-
3.0	6.000	-	-	6.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4.0	51.000	-	-	-	1.00	4.00	4.00	4.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	3.00	3.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
5.0	36.000	-	-	-	-	-	-	-	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
6.0	61.000	-	-	-	-	-	-	-	-	-	-	-	-	3.00	3.00	2.00	2.00	3.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
7.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	226.00	1.00	2.00	7.00	6.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00

Anticipated Development During the 25-year Rate Planning Period²

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

Developed In Next 25 Years	226.00	40.9%
Developed Beyond 25 Years	326.73	59.1%
Net Development Area	552.73	

² Assumptions:

- In general, Areas 2, 3, and 4 will experience new development before the other areas.
 TAG lands will be developed before Busse lands in Area 1.
- 3. New development will concentrate near Highway 15 and will progress southeast.
- 4. Lower than average development activity is expected for 2016-2019.
- 5. The annual absorption rate will be approximately 10 ha.

APPENDIX B: WATER OFFSITE INFRASTRUCTURE

B1. Water Offsite Infrastructure Costs

In order 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 \$9.74 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.

Summarv	of Water	Offsite	Infrastructure

ltem	Project Description	C	Cost of ompleted Work	Debenture Interest	Est of be	timated Cost Work Yet to Completed	To Est	otal Project imated Cost
1	400mm Watermain Along 118 St.	\$	-	\$ -	\$	879,046	\$	879,046
2	450mm Watermain to Area 2	\$	2,784,799	\$ -	\$	-	\$	2,784,799
3	450mm watermain along Josephburg Road to Area 5	\$	-	\$ -	\$	969,803	\$	969,803
4	450mm watermain along Josephburg Road to 125 St.	\$	-	\$ -	\$	1,019,324	\$	1,019,324
5	450mm Watermain Area 3	\$	-	\$ -	\$	560,898	\$	560,898
6	450mm Watermain Area 3 to DOW	\$	-	\$ -	\$	622,130	\$	622,130
7	450mm Watermain Dow to 125 St.	\$	-	\$ -	\$	1,345,968	\$	1,345,968
8	400mm Watermain Along 125 St.	\$	-	\$ -	\$	1,559,060	\$	1,559,060
		\$	2,784,799	\$ -	\$	6,956,229	\$	9,741,028

*Costs are based on 2015/16 estimates.

**Estimates include engineering (10%) and contingencies (10%).



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 Fort Saskatchewan received \$0.88 million 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 \$8.86 million.

ltem	Project Description	Total Project Estimated Cost	Special Provincial Grants	Developer Agreement Contributions	Reduced Project Estimated Cost
1	400mm Watermain Along 118 St.	\$ 879,046	\$-	\$-	\$ 879,046
2	450mm Watermain to Area 2	\$ 2,784,799	\$-	\$ 464,397	\$ 2,320,401
3	450mm watermain along Josephburg Road to Area 5	\$ 969,803	\$-	\$-	\$ 969,803
4	450mm watermain along Josephburg Road to 125 St.	\$ 1,019,324	\$-		\$ 1,019,324
5	450mm Watermain Area 3	\$ 560,898	\$-	\$ 92,823	\$ 468,075
6	450mm Watermain Area 3 to DOW	\$ 622,130	\$-	\$ 102,956	\$ 519,174
7	450mm Watermain Dow to 125 St.	\$ 1,345,968	\$ -	\$ 222,744	\$ 1,123,224
8	400mm Watermain Along 125 St.	\$ 1,559,060	\$ -	\$	\$ 1,559,060
		\$ 9,741,028	\$-	\$ 882.920	\$ 8.858.107

Special Grants and Contributions for Water Offsite Infrastructure

*\$882,920 grant received from Dow Chemical allocated to various benefitting projects.

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

ltem	Project Description	Construction Start Year
1	400mm Watermain Along 118 St.	2020
2	450mm Watermain to Area 2	2014
3	450mm watermain along Josephburg Road to Area 5	2020
4	450mm watermain along Josephburg Road to 125 St.	2034
5	450mm Watermain Area 3	2017
6	450mm Watermain Area 3 to DOW	2019
7	450mm Watermain Dow to 125 St.	2025
8	400mm Watermain Along 125 St.	2036

*The share of projects constructed beyond the 25-year review period (2040) are not included in rates today (see financial oversizing in next Section).

B4. Water Offsite Infrastructure Benefiting Parties

The water offsite infrastructure previously outlined will benefit various parties to varying degrees. During this review three potential benefiting parties were identified including:

- City of Fort Saskatchewan a portion of the water infrastructure which is required to service existing residents.
- Other Stakeholders and Financial Oversizing other parties (such as neighboring municipalities) that benefit from the infrastructure, as well as that portion of cost which benefits future development beyond the 25-year review period ("financial oversizing").
- City of Fort Saskatchewan Future Development 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 engineering staff.

ltem	Project Description	F	Reduced Project nated Cost	Muni Share %	Other Stakeholder Share & Financial Oversizing %	OSL / Developer Share %
1	400mm Watermain Along 118 St.	\$	879,046		16.0%	84.0%
2	450mm Watermain to Area 2	\$	2,320,401		0.0%	100.0%
3	450mm watermain along Josephburg Road to Area 5	\$	969,803		16.0%	84.0%
4	450mm watermain along Josephburg Road to 125 St.	\$	1,019,324		72.0%	28.0%
5	450mm Watermain Area 3	\$	468,075		4.0%	96.0%
6	450mm Watermain Area 3 to DOW	\$	519,174		12.0%	88.0%
7	450mm Watermain Dow to 125 St.	\$	1,123,224		36.0%	64.0%
8	400mm Watermain Along 125 St.	\$	1,559,060		80.0%	20.0%
		\$	8,858,107			

Allocation of Water Infrastructure to Benefiting Parties

*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. Oversizing shown as 100% reflects projects constructed entirely beyond the 25-year review period.

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 \$6.10 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 \$2.66 million in offsite levies to date. This results in an adjusted offsite levy cost of approximately \$3.43 million.

ltem	Project Description	Developer Cost (Leviable Costs)		C Fui to	Offsite Levy Funds Collected to Dec 31, 2015		ffsite Levy Ids Collected arting Jan 1, 2016	Adjusted Developer (Levy) Cost	
1	400mm Watermain Along 118 St.	\$	738,399	\$	240,285	\$	-	\$	498,114
2	450mm Watermain to Area 2	\$	2,320,401	\$	761,217	\$	-	\$	1,559,184
3	450mm watermain along Josephburg Road to Area 5	\$	814,634	\$	265,093	\$	-	\$	549,541
4	450mm watermain along Josephburg Road to 125 St.	\$	285,411	\$	278,629	\$	-	\$	6,781
5	450mm Watermain Area 3	\$	449,352	\$	153,320	\$	-	\$	296,032
6	450mm Watermain Area 3 to DOW	\$	456,873	\$	170,057	\$	-	\$	286,815
7	450mm Watermain Dow to 125 St.	\$	718,863	\$	367,917	\$	-	\$	350,947
8	400mm Watermain Along 125 St.	\$	311,812	\$	426,165	\$	-	\$	(114,353)
		\$	6,095,746	\$	2,662,683	\$	-	\$	3,433,063

Offsite Levy	y Funds	Collected	to Date	& Ad	justed	Levy	/ Cost

*Offsite levies collected to Dec. 31st, 2015 were allocated to projects based on the pro rata proportion of total estimated project cost.

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 \$3.43 million. The cost allocations to each benefitting party are based on the benefitting percentages shown in Section B4. The offsite levy balance (due from developers) is allocated to various benefitting 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 the City engineering staff. The lands anticipated to develop over the 25-years in each offsite levy benefitting area are used to determine rates.

	ltem	Project Description	0	Developer Cost		2.0	3.0	4.0	5.0	6.0	7.0
	1	400mm Watermain Along 118 St.	\$	498,114	1	1					
[2	450mm Watermain to Area 2	\$	1,559,184	1	1	1	1	1	1	1
	3	450mm watermain along Josephburg Road to Area 5	\$	549,541			1	1	1	1	1
	4	450mm watermain along Josephburg Road to 125 St.	\$	6,781			1	1	1	1	1
	5	450mm Watermain Area 3	\$	296,032			1	1	1		
	6	450mm Watermain Area 3 to DOW	\$	286,815			1	1	1		
	7	450mm Watermain Dow to 125 St.	\$	350,947			1	1	1		
	8	400mm Watermain Along 125 St.	\$	(114,353)			1	1	1		
Ĩ			\$	3.433.063							

Benefiting Areas for Water Offsite Infrastructure

B8. Reserve Balance

In accordance with the MGA, 4 reserves/accounts need to be created (one each for transportation, water, sanitary, and stormwater). At December 31st, 2015, the balance of the City's Light/Medium industrial Area water reserve is \$0, as shown in the table below. A reconciliation of activities from the exiting reserve and allocation to the new reserves is provided in Appendix G.

The City also needs to establish a set of "sub-ledgers" to track the amounts due to frontending 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, 2015		\$ 2,784,798.82	\$ (2,784,798.82)
Offsite Levy Receipt Allocations to December 31, 2015	\$ 2,662,683.06		\$ (122,115.76)
Interest Accrued to December 31, 2015	\$ 122,115.76		\$ (0.00)
Unallocated Receipts to December 31, 2015			\$ (0.00)
Opening Balance			\$ (0.00)

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.

In order to compensate parties for capital they provide in front-ending offsite infrastructure construction, a 2.9%³ interest allowance has been charged to the reserve when it is forecast to be in a negative balance. Further, a 1% 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.

³ The 20-year debenture rate at the Alberta Capital Finance Authority is currently ~2.9%.

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).





				Ор	ening Balance	\$ (0)
Year	Receipts	E	Expenditure		Interest	Balance
2016	\$ 15,108	\$	-	\$	151	\$ 15,259
2017	\$ 31,123	\$	462,833	\$	(12,077)	\$ (428,527)
2018	\$ 150,518	\$	-	\$	(8,062)	\$ (286,072)
2019	\$ 105,634	\$	499,237	\$	(19,711)	\$ (699,385)
2020	\$ 197,148	\$	1,747,952	\$	(65,256)	\$ (2,315,446)
2021	\$ 203,062	\$	-	\$	(61,259)	\$ (2,173,643)
2022	\$ 209,154	\$	-	\$	(56,970)	\$ (2,021,459)
2023	\$ 215,429	\$	-	\$	(52,375)	\$ (1,858,405)
2024	\$ 221,891	\$	-	\$	(47,459)	\$ (1,683,973)
2025	\$ 228,548	\$	937,953	\$	(69,408)	\$ (2,462,786)
2026	\$ 235,405	\$	-	\$	(64,594)	\$ (2,291,975)
2027	\$ 242,467	\$	-	\$	(59,436)	\$ (2,108,944)
2028	\$ 234,280	\$	-	\$	(54,365)	\$ (1,929,030)
2029	\$ 241,308	\$	-	\$	(48,944)	\$ (1,736,665)
2030	\$ 263,121	\$	-	\$	(42,733)	\$ (1,516,277)
2031	\$ 271,014	\$	-	\$	(36,113)	\$ (1,281,376)
2032	\$ 263,684	\$	-	\$	(29,513)	\$ (1,047,205)
2033	\$ 253,671	\$	-	\$	(23,012)	\$ (816,546)
2034	\$ 261,281	\$	485,893	\$	(30,194)	\$ (1,071,351)
2035	\$ 269,120	\$	-	\$	(23,265)	\$ (825,496)
2036	\$ 277,193	\$	563,167	\$	(32,233)	\$ (1,143,703)
2037	\$ 285,509	\$	-	\$	(24,888)	\$ (883,081)
2038	\$ 294,074	\$	-	\$	(17,081)	\$ (606,088)
2039	\$ 302,897	\$	-	\$	(8,793)	\$ (311,984)
2040	\$ 311,984	\$	-	\$	0	\$ 0

Anticipated Water Offsite Levy Reserve Balances

APPENDIX C: SANITARY OFFSITE INFRASTRUCTURE

C1. Sanitary Offsite Infrastructure Costs

In order 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 \$9.28 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.

ltem	Project Description	Cost of Completed Work	Debenture Interest	Estimated Cost of Work Yet to be Completed	Total Project Estimated Cost
1	450mm Forcemain Along CNR Right of Way to 119 St Intersection	\$-	\$-	\$ 1,541,610	\$ 1,541,610
2	900mm Sanitary Trunk Along Josephburg Rd	\$-	\$-	\$ 2,056,483	\$ 2,056,483
3	Ross Creek Trunk Twinning	\$-	\$-	\$ 998,426	\$ 998,426
4	Sanitary Lift Station at 119 St	\$-	\$-	\$ 4,680,000	\$ 4,680,000
		\$ -	\$ -	\$ 9,276,519	\$ 9,276,519

Summary of Sanitary Offsite Infrastructure

*Costs are based on 2015/16 estimates.

**Estimates include engineering (10%) and contingencies (10%).



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

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 Fort Saskatchewan has not received any special grants or 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 \$9.28 million.

ltem	Project Description	Total Project Estimated Cost	Special Grants	Developer Agreement Contributions	Reduced Project Estimated Cost
1	450mm Forcemain Along CNR Right of Way to 119 St Intersection	\$ 1,541,610	\$-	\$-	\$ 1,541,610
2	900mm Sanitary Trunk Along Josephburg Rd	\$ 2,056,483	\$-	\$-	\$ 2,056,483
3	Ross Creek Trunk Twinning	\$ 998,426	\$-	\$-	\$ 998,426
4	Sanitary Lift Station at 119 St	\$ 4,680,000	\$-	\$-	\$ 4,680,000
		\$ 9,276,519	\$-	\$-	\$ 9,276,519

Special Grants and Contributions for Sanitary Offsite Infrastructure

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

ltem	Project Description	Construction Start Year
1	450mm Forcemain Along CNR Right of Way to 119 St	
	Intersection	2019
2	900mm Sanitary Trunk Along Josephburg Rd	2020
3	Ross Creek Trunk Twinning	2018
4	Sanitary Lift Station at 119 St	2019

*The share of projects constructed beyond the 25-year review period (2040) are not included in rates today (see financial oversizing in next Section).

C4. Sanitary Offsite Infrastructure Benefiting Parties

The sanitary offsite infrastructure previously outlined will benefit various parties to varying degrees. During this review three potential benefiting parties were identified including:

• City of Fort Saskatchewan – a portion of the sanitary infrastructure which is required to service existing residents.

- Other Stakeholders and Financial Oversizing other parties (such as neighboring municipalities) that benefit from the infrastructure, as well as that portion of cost which benefits future development beyond the 25-year review period ("financial oversizing").
- City of Fort Saskatchewan Future Development 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 engineering staff.

ltem	Project Description	Reduced Project Estimated Cost	Muni Share %	Other Stakeholder Share & Financial Oversizing %	OSL / Developer Share %
1	450mm Forcemain Along CNR Right of Way to 119 St	\$ 1,541,610		12.0%	88.0%
	Intersection				
2	900mm Sanitary Trunk Along Josephburg Rd	\$ 2,056,483		16.0%	84.0%
3	Ross Creek Trunk Twinning	\$ 998,426		8.0%	92.0%
4	Sanitary Lift Station at 119 St	\$ 4,680,000		12.0%	88.0%
		\$ 9,276,519			

Allocation of Sanitary Infrastructure to Benefiting Parties

*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. Oversizing shown as 100% reflects projects constructed entirely beyond the 25-year review period.

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 \$8.12 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 \$1.11 million in offsite levies to date. This results in an adjusted offsite levy cost of approximately \$7.01 million.

ltem	Project Description	Developer Cost (Leviable Costs)	Offsite Levy Funds Collected to Dec 31, 2015	Offsite Levy Funds Collected Starting Jan 1, 2016	Adjusted Developer (Levy) Cost
1	450mm Forcemain Along CNR Right of Way to 119 St Intersection	\$ 1,356,617	\$ 184,948	\$-	\$ 1,171,669
2	900mm Sanitary Trunk Along Josephburg Rd	\$ 1,727,446	\$ 246,717	\$-	\$ 1,480,729
3	Ross Creek Trunk Twinning	\$ 918,552	\$ 119,782	\$-	\$ 798,770
4	Sanitary Lift Station at 119 St	\$ 4,118,400	\$ 561,462	\$ -	\$ 3,556,938
		\$ 8,121,015	\$ 1,112,909	\$-	\$ 7,008,106

Offsite Levy Funds Collected to Date & Adjusted Levy Cost

*Offsite levies collected to Dec. 31st, 2015 were allocated to projects based on the pro rata proportion of total estimated project cost.

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 \$7.01 million. The cost allocations to each benefitting party are based on the benefitting percentages shown in Section C4. The offsite levy balance (due from developers) is allocated to various benefitting areas (as described in the next section).



Total Sanitary Offsite Levy Costs

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 the City engineering staff. The lands anticipated to develop over the 25-years in each offsite levy benefitting area are used to determine rates.

Benefiting Areas for Sanitar	y Offsite Infrastructure

Item	Project Description	Developer Cost		2.0	3.0	4.0	5.0	6.0	7.0
1	450mm Forcemain Along CNR Right of Way to 119 St Intersection	\$ 1,171,669				1	1	1	1
2	900mm Sanitary Trunk Along Josephburg Rd	\$ 1,480,729				1	1	1	1
3	Ross Creek Trunk Twinning	\$ 798,770		1	1	1	1	1	1
4	Sanitary Lift Station at 119 St	\$ 3,556,938				1	1	1	1
		\$ 7,008,106							

C8. Reserve Balance

In accordance with the MGA, 4 reserves/accounts need to be created (one each for transportation, water, sanitary, and stormwater). At December 31st, 2015, the balance of the City's Light/Medium industrial Area sanitary reserve is \$1,163,949.02, as shown in the table below. A reconciliation of activities from the exiting reserve and allocation to the new

reserves is provided in Appendix G.

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

Description	Dr	Cr	Balance
Offsite Levy Expenditures to December 31, 2015		\$-	\$ -
Offsite Levy Receipt Allocations to December 31, 2015	\$ 1,112,908.89		\$ 1,112,908.89
Interest Accrued to December 31, 2015	\$ 51,040.14		\$ 1,163,949.02
Unallocated Receipts to December 31, 2015			\$ 1,163,949.02
Opening Balance			\$ 1,163,949.02

Sanitary Offsite Levy Reserve Balance

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 2.9%⁴ interest allowance has been charged to the reserve when it is forecast to be in a negative balance. Further, a 1% 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).

⁴ The 20-year debenture rate at the Alberta Capital Finance Authority is currently ~2.9%.



Anticipated Sanitary Offsite Levy Reserve Balances

Anticipated Sanitary Offsite Levy Reserve Balances

			0	ning Balance	\$ 1,163,949	
Year	Receipts	Ех	penditure		Interest	Balance
2016	\$ 3,887	\$	-	\$	11,678	\$ 1,179,514
2017	\$ 8,006	\$	-	\$	11,875	\$ 1,199,396
2018	\$ 28,863	\$	974,492	\$	2,538	\$ 256,305
2019	\$ 70,766	\$	5,982,699	\$	(164,013)	\$ (5,819,641)
2020	\$ 230,314	\$	1,944,256	\$	(218,474)	\$ (7,752,057)
2021	\$ 237,223	\$	-	\$	(217,930)	\$ (7,732,764)
2022	\$ 244,340	\$	-	\$	(217,164)	\$ (7,705,588)
2023	\$ 251,670	\$	-	\$	(216,164)	\$ (7,670,082)
2024	\$ 259,220	\$	-	\$	(214,915)	\$ (7,625,776)
2025	\$ 256,854	\$	-	\$	(213,699)	\$ (7,582,621)
2026	\$ 259,337	\$	-	\$	(212,375)	\$ (7,535,659)
2027	\$ 267,117	\$	-	\$	(210,788)	\$ (7,479,330)
2028	\$ 452,386	\$	-	\$	(203,781)	\$ (7,230,725)
2029	\$ 465,957	\$	-	\$	(196,178)	\$ (6,960,946)
2030	\$ 479,936	\$	-	\$	(187,949)	\$ (6,668,959)
2031	\$ 494,334	\$	-	\$	(179,064)	\$ (6,353,689)
2032	\$ 509,164	\$	-	\$	(169,491)	\$ (6,014,016)
2033	\$ 749,199	\$	-	\$	(152,680)	\$ (5,417,497)
2034	\$ 771,675	\$	-	\$	(134,729)	\$ (4,780,551)
2035	\$ 794,825	\$	-	\$	(115,586)	\$ (4,101,312)
2036	\$ 818,670	\$	-	\$	(95,197)	\$ (3,377,839)
2037	\$ 843,230	\$	-	\$	(73,504)	\$ (2,608,113)
2038	\$ 868,527	\$	-	\$	(50,448)	\$ (1,790,034)
2039	\$ 894,583	\$	-	\$	(25,968)	\$ (921,420)
2040	\$ 921,420	\$	-	\$	(0)	\$ (0)

APPENDIX D: TRANSPORTATION OFFSITE INFRASTRUCTURE

D1. Transportation Offsite Infrastructure Costs

In order 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 \$7.68 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.

ltem	Project Description	Cost of Completed Work Debenture Interest		Estimated Cost of Work Yet to be Completed	Total Project Estimated Cost
1	119 St & Hwy 15 Intersection	\$-	\$-	\$ 1,800,000	\$ 1,800,000
2	Dow Main Gate & Hwy 15 Intersection	\$-	\$-	\$ 1,620,000	\$ 1,620,000
3	Josephburg Road and 1st Road Intersection	\$-	\$-	\$ 360,000	\$ 360,000
4	Josephburg Road and Unamed Road Intersection	\$-	\$-	\$ 360,000	\$ 360,000
5	Josephburg Road and RR 221 Intersection	\$-	\$-	\$ 360,000	\$ 360,000
6	Josephburg Road from Highway to 1st Intersection	\$-	\$-	\$ 795,605	\$ 795,605
7	Josephburg Road from 1st Intersection to 2nd Intersection	\$-	\$-	\$ 1,332,927	\$ 1,332,927
8	Josephburg Road-Finish up to RR 221	\$-	\$-	\$ 929,359	\$ 929,359
9	Josephburg Road North ASP	\$ 118,301	\$-	\$ -	\$ 118,301
		\$ 118,301	\$ -	\$ 7,557,892	\$ 7,676,193

Summary of Transportation Offsite Infrastructure

*Costs are based on 2015/16 estimates.

**Estimates include engineering (10%) and contingencies (10%).



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 Fort Saskatchewan has not received any special grants or 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 \$7.68 million.

Item	Project Description	Total Project Estimated Cost		Special Provincial Grants		Developer Agreement Contributions		Reduced Project Estimated Cost	
1	119 St & Hwy 15 Intersection	\$	1,800,000	\$	-	\$	-	\$	1,800,000
2	Dow Main Gate & Hwy 15 Intersection	\$	1,620,000	\$	-	\$	-	\$	1,620,000
3	Josephburg Road and 1st Road Intersection	\$	360,000	\$	-	\$	-	\$	360,000
4	Josephburg Road and Unamed Road Intersection	\$	360,000	\$	-	\$	-	\$	360,000
5	Josephburg Road and RR 221 Intersection	\$	360,000	\$	-	\$	-	\$	360,000
6	Josephburg Road from Highway to 1st Intersection	\$	795,605	\$	-	\$	-	\$	795,605
7	Josephburg Road from 1st Intersection to 2nd Intersection	\$	1,332,927	\$	-	\$	-	\$	1,332,927
8	Josephburg Road-Finish up to RR 221	\$	929,359	\$	-	\$	-	\$	929,359
9	Josephburg Road North ASP	\$	118,301	\$	-	\$	-	\$	118,301
		\$	7.676.193	\$	-	\$	-	\$	7.676.193

Special Grants and Contributions for Transportation Offsite Infrastructure

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

ltem	Project Description	Construction Start Year
1	119 St & Hwy 15 Intersection	2017
2	Dow Main Gate & Hwy 15 Intersection	2020
3	Josephburg Road and 1st Road Intersection	2020
4	Josephburg Road and Unamed Road Intersection	2023
5	Josephburg Road and RR 221 Intersection	2037
6	Josephburg Road from Highway to 1st Intersection	2017
7	Josephburg Road from 1st Intersection to 2nd Intersection	2020
8	Josephburg Road-Finish up to RR 221	2034
9	Josephburg Road North ASP	2010

*The share of projects constructed beyond the 25-year review period (2040) are not included in rates today (see financial oversizing in next Section).

D4. Transportation Offsite Infrastructure Benefiting Parties

The transportation offsite infrastructure previously outlined will benefit various parties to varying degrees. During this review three potential benefiting parties were identified including:

- City of Fort Saskatchewan a portion of the transportation infrastructure which is required to service existing residents.
- Other Stakeholders and Financial Oversizing other parties (such as neighboring municipalities) that benefit from the infrastructure, as well as that portion of cost which benefits future development beyond the 25-year review period ("financial oversizing").
- City of Fort Saskatchewan Future Development 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 engineering staff.

ltem	Project Description	i Esti	Reduced Project mated Cost	Muni Share %	Other Stakeholder Share & Financial Oversizing %	OSL / Developer Share %
1	119 St & Hwy 15 Intersection	\$	1,800,000	11.5%	3.5%	85.0%
2	Dow Main Gate & Hwy 15 Intersection	\$	1,620,000		16.0%	84.0%
3	Josephburg Road and 1st Road Intersection	\$	360,000		16.0%	84.0%
4	Josephburg Road and Unamed Road Intersection	\$	360,000		28.0%	72.0%
5	Josephburg Road and RR 221 Intersection	\$	360,000		84.0%	16.0%
6	Josephburg Road from Highway to 1st Intersection	\$	795,605		4.0%	96.0%
7	Josephburg Road from 1st Intersection to 2nd Intersection	\$	1,332,927		16.0%	84.0%
8	Josephburg Road-Finish up to RR 221	\$	929,359		72.0%	28.0%
9	Josephburg Road North ASP	\$	118,301		0.0%	100.0%
		\$	7,676,193			

Allocation of Transportation Infrastructure to Benefiting Parties

*Municipal share of Project #1 established by City staff utilizing TIA traffic volumes.

**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. Oversizing shown as 100% reflects projects constructed entirely beyond the 25-year review period.

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 \$5.77 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 \$0.84 million in offsite levies to date. This results in an adjusted offsite levy cost of approximately \$4.93 million.

ltem	Project Description	Dev (Lev	Developer Cost (Leviable Costs)		er Cost Costs) Offsite Levy Funds Collected to Dec 31, 2015		Offsite Levy Funds Collected Starting Jan 1, 2016		Adjusted Developer Levy) Cost
1	119 St & Hwy 15 Intersection	\$	1,529,280	\$	196,223	\$	-	\$	1,333,057
2	Dow Main Gate & Hwy 15 Intersection	\$	1,360,800	\$	176,601	\$	-	\$	1,184,199
3	Josephburg Road and 1st Road Intersection	\$	302,400	\$	39,245	\$	-	\$	263,155
4	Josephburg Road and Unamed Road Intersection	\$	259,200	\$	39,245	\$	-	\$	219,955
5	Josephburg Road and RR 221 Intersection	\$	57,600	\$	39,245	\$	-	\$	18,355
6	Josephburg Road from Highway to 1st Intersection	\$	763,781	\$	86,731	\$	-	\$	677,050
7	Josephburg Road from 1st Intersection to 2nd Intersection	\$	1,119,659	\$	145,306	\$	-	\$	974,353
8	Josephburg Road-Finish up to RR 221	\$	260,221	\$	101,312	\$	-	\$	158,909
9	Josephburg Road North ASP	\$	118,301	\$	12,896	\$	-	\$	105,405
		\$	5,771,242	\$	836,803	\$	-	\$	4,934,438

Offsite Lev	y Funds	Collected	to Date	& Ad	justed	Levy	/ Cost

*Offsite levies collected to Dec. 31st, 2015 were allocated to projects based on the pro rata proportion of total estimated project cost.

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 \$4.93 million. The cost allocations to each benefitting party are based on the benefitting percentages shown in Section D4. The offsite levy balance (due from developers) is allocated to various benefitting 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 the City engineering staff. The lands anticipated to develop over the 25-years in each offsite levy benefitting area are used to determine rates.

ltem	Project Description	Dev	eloper Cost	1.0	2.0	3.0	4.0	5.0	6.0	7.0
1	119 St & Hwy 15 Intersection	\$	1,333,057	1	1	1	1	1	1	1
2	Dow Main Gate & Hwy 15 Intersection	\$	1,184,199	1	1	1	1	1	1	1
3	Josephburg Road and 1st Road Intersection	\$	263,155	1	1	1	1	1	1	1
4	Josephburg Road and Unamed Road Intersection	\$	219,955	1	1	1	1	1	1	1
5	Josephburg Road and RR 221 Intersection	\$	18,355	1	1	1	1	1	1	1
6	Josephburg Road from Highway to 1st Intersection	\$	677,050	1	1	1	1	1	1	1
7	Josephburg Road from 1st Intersection to 2nd Intersection	\$	974,353	1	1	1	1	1	1	1
8	Josephburg Road-Finish up to RR 221	\$	158,909	1	1	1	1	1	1	1
9	Josephburg Road North ASP	\$	105,405	1	1	1	1	1	1	1
		\$	4,934,438							

Benefiting Areas for Transportation Offsite Infrastructure

D8. Reserve Balance

In accordance with the MGA, 4 reserves/accounts need to be created (one each for transportation, water, sanitary, and stormwater). At December 31st, 2015, the balance of the City's Light/Medium industrial Area transportation reserve is \$759,879.62, as shown in the table below. A reconciliation of activities from the exiting reserve and allocation to the new reserves is provided in Appendix G.

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

Transportation Onsite Levy Reserve Dalance
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Description	Dr	Cr	Balance
Offsite Levy Expenditures to December 31, 2015		\$ 118,301.24	\$ (118,301.24)
Offsite Levy Receipt Allocations to December 31, 2015	\$ 836,803.45		\$ 718,502.21
Interest Accrued to December 31, 2015	\$ 38,377.41		\$ 756,879.62
Unallocated Receipts to December 31, 2015	\$-		\$ 756,879.62
Opening Balance			\$ 756,879.62

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 2.9%⁵ interest allowance has been charged to the reserve when it is forecast to be in a negative balance. Further, a 1% interest credit has been provided to the reserve

⁵ The 20-year debenture rate at the Alberta Capital Finance Authority is currently ~2.9%.

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).



Anticipated Transportation Offsite Levy Reserve Balances

				Re	eserve Balance	\$ 756,880
Year	Receipts	E	Expenditure		Interest	Balance
2016	\$ 21,541	\$	-	\$	7,784	\$ 786,205
2017	\$ 44,375	\$	2,361,853	\$	(44,407)	\$ (1,575,680)
2018	\$ 159,971	\$	-	\$	(41,056)	\$ (1,456,764)
2019	\$ 141,232	\$	-	\$	(38,150)	\$ (1,353,682)
2020	\$ 242,448	\$	3,132,132	\$	(123,058)	\$ (4,366,424)
2021	\$ 249,722	\$	-	\$	(119,384)	\$ (4,236,087)
2022	\$ 257,213	\$	-	\$	(115,387)	\$ (4,094,261)
2023	\$ 264,930	\$	318,783	\$	(120,295)	\$ (4,268,410)
2024	\$ 272,878	\$	-	\$	(115,870)	\$ (4,111,403)
2025	\$ 281,064	\$	-	\$	(111,080)	\$ (3,941,419)
2026	\$ 289,496	\$	-	\$	(105,906)	\$ (3,757,828)
2027	\$ 298,181	\$	-	\$	(100,330)	\$ (3,559,978)
2028	\$ 307,126	\$	-	\$	(94,333)	\$ (3,347,184)
2029	\$ 316,340	\$	-	\$	(87,894)	\$ (3,118,739)
2030	\$ 325,830	\$	-	\$	(80,994)	\$ (2,873,903)
2031	\$ 335,605	\$	-	\$	(73,611)	\$ (2,611,909)
2032	\$ 345,673	\$	-	\$	(65,721)	\$ (2,331,956)
2033	\$ 356,043	\$	-	\$	(57,301)	\$ (2,033,214)
2034	\$ 366,725	\$	443,008	\$	(61,175)	\$ (2,170,673)
2035	\$ 377,726	\$	-	\$	(51,995)	\$ (1,844,942)
2036	\$ 389,058	\$	-	\$	(42,221)	\$ (1,498,105)
2037	\$ 400,730	\$	107,153	\$	(34,931)	\$ (1,239,459)
2038	\$ 412,752	\$	-	\$	(23,975)	\$ (850,682)
2039	\$ 425,134	\$	-	\$	(12,341)	\$ (437,888)
2040	\$ 437,888	\$	-	\$	(0)	\$ (0)

Anticipated Transportation Offsite Levy Reserve Balances

APPENDIX E: STORMWATER OFFSITE INFRASTRUCTURE

E1. Stormwater Offsite Infrastructure Costs

In order to support future growth, stormwater 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 \$2.40 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 Stormwater Offsite Infrastructure

ltem	Project Description	Cost of Completed Work	Debenture Interest	Estimated Cost of Work Yet to be Completed	Total Project Estimated Cost
1	Real Time Control System	\$	\$-	\$ 2,400,000	\$ 2,400,000
		\$ -	\$ -	\$ 2,400,000	\$ 2,400,000

*Costs are based on 2015/16 estimates.

**Estimates include engineering (10%) and contingencies (10%).



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

Location of Stormwater Offsite Infrastructure

E2. Stormwater 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 Fort Saskatchewan has not received any special grants or contributions for stormwater 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 \$2.40 million.

ltem	Project Description	Total Project Estimated Cost	Special Provincial Grants	Developer Agreement Contributions	Reduced Project Estimated Cost
1	Real Time Control System	\$ 2,400,000	\$-	\$-	\$ 2,400,000
		\$ 2,400,000	\$ -	\$ -	\$ 2,400,000

Special Grants and Contributions for Stormwater Offsite Infrastructure

E3. Stormwater 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.

Stormwater Infrastructure Staging



*The share of projects constructed beyond the 25-year review period (2040) are not included in rates today (see financial oversizing in next Section).

E4. Stormwater Offsite Infrastructure Benefiting Parties

The stormwater offsite infrastructure previously outlined will benefit various parties to varying degrees. During this review three potential benefiting parties were identified including:

- City of Fort Saskatchewan a portion of the stormwater infrastructure which is required to service existing residents.
- Other Stakeholders and Financial Oversizing other parties (such as neighboring municipalities) that benefit from the infrastructure, as well as that portion of cost which benefits future development beyond the 25-year review period ("financial oversizing").
- City of Fort Saskatchewan Future Development all growth related infrastructure

(i.e., levyable stormwater infrastructure costs) during the 25-year rate planning period.

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

ltem	Project Description	Reduced Project Estimated Cost	Muni Share %	Other Stakeholder Share & Financial Oversizing %	OSL / Developer Share %
1	Real Time Control System	\$ 2,400,000		28.0%	72.0%
		\$ 2,400,000			

Allocation of Stormwater Infrastructure to Benefiting Parties

*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. Oversizing shown as 100% reflects projects constructed entirely beyond the 25-year review period.

E5. 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 \$1.73 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 \$0.90 million in offsite levies to date. This results in an adjusted offsite levy cost of approximately \$0.82 million.

|--|

ltem	Project Description	Developer Cost (Leviable Costs)	Offsite Levy Funds Collected to Dec 31, 2015	Offsite Levy Funds Collected Starting Jan 1, 2015	Adjusted Developer (Levy) Cost
1	Real Time Control System	\$ 1,728,000	\$ 903,900	\$-	\$ 824,100
		\$ 1,728,000	\$ 903,900	\$-	\$ 824,100

*Offsite levies collected to Dec. 31st, 2015 were allocated to projects based on the pro rata proportion of total estimated project cost.

E6. Summary of Stormwater Offsite Levy Cost Flow-through

As shown in the figure below, the total cost for stormwater infrastructure that forms the basis of the rate is approximately \$0.82 million. The cost allocations to each benefitting party are based on the benefitting percentages shown in Section D4. The offsite levy balance (due from developers) is allocated to various benefitting areas (as described in the next section).

Total Stormwater Offsite Levy Costs



E7. Stormwater 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 the City engineering staff. The lands anticipated to develop over the 25-years in each offsite levy benefitting area are used to determine rates.

Benefiting Areas for Stormwater Offsite Infrastructure

Item	Project Description	De	eveloper Cost	1.0	2.0	3.0	4.0	5.0	6.0	7.0
1	Real Time Control System	\$	824,100					1	1	
		\$	824,100							

E8. Reserve Balance

In accordance with the MGA, 4 reserves/accounts need to be created (one each for transportation, water, sanitary, and stormwater). At December 31st, 2015, the balance of the City's Light/Medium industrial Area stormwater reserve is \$945,354.79, as shown in the table below. A reconciliation of activities from the exiting reserve and allocation to the new reserves is provided in Appendix G.

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

|--|

Description	Dr	Cr	Balance
Offsite Levy Expenditures to December 31, 2015		\$-	\$ -
Offsite Levy Receipt Allocations to December 31, 2015	\$ 903,900.20		\$ 903,900.20
Interest Accrued to December 31, 2015	\$ 41,454.60		\$ 945,354.79
Unallocated Receipts to December 31, 2015	\$ -		\$ 945,354.79
Opening Balance			\$ 945,354.79

E9. Development and Stormwater Infrastructure Staging Impacts

Stormwater 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 stormwater 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 2.9%⁶ interest allowance has been charged to the reserve when it is forecast to be in a negative balance. Further, a 1% 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 stormwater 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).

⁶ The 20-year debenture rate at the Alberta Capital Finance Authority is currently ~2.9%.



Anticipated Stormwater Offsite Levy Reserve Balances

Anticipated Stormwater Offsite Levy Reserve Balances

		Opening Balance				\$ 945,355
Year	Receipts	Ex	penditure		Interest	Balance
2016	\$ -	\$	-	\$	9,454	\$ 954,808
2017	\$ -	\$	-	\$	9,548	\$ 964,356
2018	\$ -	\$	-	\$	9,644	\$ 974,000
2019	\$ -	\$	-	\$	9,740	\$ 983,740
2020	\$ -	\$	-	\$	9,837	\$ 993,577
2021	\$ -	\$	-	\$	9,936	\$ 1,003,513
2022	\$ -	\$	-	\$	10,035	\$ 1,013,548
2023	\$ 22,683	\$	2,125,222	\$	(31,581)	\$ (1,120,572)
2024	\$ 23,363	\$	-	\$	(31,819)	\$ (1,129,028)
2025	\$ 24,064	\$	-	\$	(32,044)	\$ (1,137,008)
2026	\$ 24,786	\$	-	\$	(32,254)	\$ (1,144,477)
2027	\$ 25,529	\$	-	\$	(32,449)	\$ (1,151,397)
2028	\$ 65,738	\$	-	\$	(31,484)	\$ (1,117,143)
2029	\$ 67,710	\$	-	\$	(30,434)	\$ (1,079,866)
2030	\$ 55,793	\$	-	\$	(29,698)	\$ (1,053,771)
2031	\$ 57,467	\$	-	\$	(28,893)	\$ (1,025,197)
2032	\$ 73,989	\$	-	\$	(27,585)	\$ (978,793)
2033	\$ 121,934	\$	-	\$	(24,849)	\$ (881,708)
2034	\$ 125,592	\$	-	\$	(21,927)	\$ (778,044)
2035	\$ 129,359	\$	-	\$	(18,812)	\$ (667,497)
2036	\$ 133,240	\$	-	\$	(15,493)	\$ (549,750)
2037	\$ 137,237	\$	-	\$	(11,963)	\$ (424,476)
2038	\$ 141,354	\$	-	\$	(8,211)	\$ (291,332)
2039	\$ 145,595	\$	-	\$	(4,226)	\$ (149,963)
2040	\$ 149,963	\$	-	\$	0	\$ 0

APPENDIX F: BENCHMARK COMPARISONS

The table below compares the weighted average offsite levy rate in the City's Light/Medium Industrial Area to rates in other municipalities.

Municipality / Area	Average Rate Per Net Ha.			
Parkland County* (Acheson)	\$42,169			
MD of Peace (Westhill)	\$63,378			
City of Fort Saskatchewan (LMIA Current)	\$68,568			
City of Fort Saskatchewan* (LMIA Updated)	\$72,739			
Sturgeon County Industrial Park*	\$80,668			
Town of Peace River*	\$83,355			
Town of Rocky Mountain House*	\$90,716			
Red Deer County (Gasoline Alley)	\$96,458			
Leduc County*	\$106,255			
Town of Devon*	\$116,178			
City of Leduc*	\$117,509			
Town of Beaumont*	\$160,900			
City of Lacombe* (in process)	\$149,401			
Strathcona County* (N of Yellowhead)	\$181,022			
City of Medicine Hat	+\$250,000			
City of St Albert*	+\$250,000			
City of Edmonton	+\$300,000			

*CORVUS Clients

APPENDIX G: RESERVE RECONCILIATION

The table below, provided by City staff, summarizes details associated with reserve activity for the Light Medium Industrial Area from 2008 to 2015. Details include: contributions, drawdowns, and interest impact. Moving forward, the City will need to manage reserve funds via 4 separate accounts, in accordance with the MGA. Accordingly, the table below also summarizes the allocations to the 4 new accounts, including 2016 opening balances.

	2008	2009	2010	2011	2012	2013	2014	2015	Total	Water Systems	Sanitary	Transportation	Stormwater Management 16.39%	Total
Beginning Balance, Jan 1	-	(37,655)	(16,727)	895,554	909,811	2,159,367	2,335,375	4,863,375	rotai	40.2770	20.1770	13.1770	10.5570	10070
Contributions														
Fort Industrial Estates Ltd Stage 2 DA-2009-02 Addendum No. 1		71,311	71,311						142,621	68,843	28,774	21,635	23,370	142,621
Fort Industrial Estates Ltd Stage 3 DA-2009-02 Addendum No. 2			159,763						159,763	77,117	32,232	24,236	26,179	159,763
Fort Industrial Estates Ltd Stage 1 DA-2009-02			706,250						706,250	340,903	142,486	107,136	115,726	706,250
Fort Industrial Estates - Stage 4 DA-2009 Addendum No. 3					1,221,882				1,221,882	589,795	246,514	185,355	200,218	1,221,882
Fort Industrial Estates Stage 5						292,785			292,785	141,326	59,069	44,415	47,976	292,785
Fort Industrial Estates Stage 1							1,748,484		1,748,484	843,983	352,755	265,239	286,507	1,748,484
Fort Industrial Estates Stage 6							1,244,509		1,244,509 - -	600,717	251,079	188,788	203,925	1,244,509
Total Contributions		71,311	937,325	-	1,221,882	292,785	2,992,993	-	- 5,516,296	2,662,683	1,112,909	836,803	903,900	5,516,296
Drawdowns														
Josephburge ASP	(37,655)	(50,383)	(30,263)						(118,301)			(118,301)		(118,301)
12800 Medium Industrial Secondary Water Supply Line					(21,403)				(21,403)	(21,403)				(21,403)
13009 Medium Industrial Secondary Water Supply Line						(157,531)	(534,645)	(2,071,221)	(2,763,396)	(2,763,396)				(2,763,396)
Tabl Davidance	(27.055)	(50.202)	(20.202)		(21,402)	(457 524)	(524 645)	(2.071.221)	(2 002 100)	(2 704 700)		(110.201)		-
	(37,055)	(50,383)	(30,263)	-	(21,403)	(157,531)	(534,045)	(2,0/1,221)	(2,903,100)	(2,/84,/99)	-	(118,301)	-	(2,903,100)
Balance Before Interest	(37,655)	(16,727)	890,334	895,554	2,110,290	2,294,621	4,793,724	2,792,154	2,613,196	(122,116)	1,112,909	718,502	903,900	2,613,196
Interest	-		5,220	14,257	49,077	40,754	69,651	74,029	252,988	122,116	51,040	38,377	41,455	252,988
Ending Balance, Dec 31	(37,655)	(16,727)	895,554	909,811	2,159,367	2,335,375	4,863,375	2,866,183	2,866,183	-	1,163,949	756,880	945,355	2,866,183
Interest Rate			1.20%	1.59%	1.83%	1.83%	1.954%	1.93%						

Light/Medium Industrial Area Reserve Reconciliation