Financial Analysis
of the
Blatchford Development Scenarios

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1. Purpose of the report

The purpose of the report is to analyze the five Blatchford development scenarios using the applicable component of Integrated Infrastructure Management Planning (IIMP) analysis framework and compare the different scenarios in terms of their land use differences and associated financial impacts.

2. IIMP Purpose

IIMP is a process of gathering, synthesis, presentation and use of data related to the provision of infrastructure for the three remaining Urban Growth Areas (UGAs). It provides Council information about the infrastructure required for the development of a neighbourhood, and its potential implication to the city's operations. The IIMP analysis does not look into an economic or feasibility analysis.

3. Context to Blatchford

This report is responding to a Council motion made on March 26, 2014. The motion is as follows:

> That the March 26, 2014, Sustainable Development reports on the Blatchford development, CR_142rev and CR_1123, be referred back to Administration for a new public report to be provided at the June 11, 2014, City Council meeting, including public information in these reports and with additional information on:
>
> a. more robust information about the positives, negatives, and risks of all five scenarios,
> b. information on the integrated infrastructure management planning analysis for the scenarios showing the up-front and operating costs for each scenario.

This report is designed to respond to the second part of the motion. Infrastructure & Funding Strategies (IFS), as the owners of the IIMP framework, were tasked to perform the analysis.

The IIMP framework was designed to analyze the cost and revenues associated with development in the urban growth areas. The nature of Blatchford's five scenarios, i.e. infill development, does not lend itself to a "typical" IIMP analysis. By using applicable components/parameters of IIMP, the report will focus on the drivers that differentiate the 5 scenarios, namely land use. Costs and revenues resulting from drivers that are identical in the scenarios, such as population (with the exception of scenario 4), are not examined. Therefore, the costs and revenues depicted in this report only represent a portion of what could be expected. The purpose of the analysis is to merely highlight the differences in the scenarios, modeling how these differences affect expected costs and revenues.

4. Scenario analysis - highlights of scenarios

Main features of all the five scenarios are as follows in table1.

	Main features
Scenario 1 **Blatchford Recommended Scenario**	1) Gross area – 215.89 hectares 2) Municipal Reserve – 18.8% (49.59 ha of Parks) 3) Commercial area – 26.21ha 4) Circulation area– 27.28ha 5) Total length of roads – 30.8 lane km 6) % of total residential units • Row Housing – 16% • Low-rise/Medium Density Housing – 55% • Medium to High Density Housing – 29% 7) % Non Res: 6.48%
Scenario 2 **Blatchford Concept Plan (Perkins+Will)**	1) Gross area – 217 hectares 2) Municipal Reserve – 28.7% (53.29 ha of Parks and 8.9ha of school) 3) Commercial area - 19.40 4) Circulation area – 46.33ha 5) Total length of roads – 52.1 lane km 6) % of total residential units • Row Housing – 4% • Low-rise/Medium Density Housing – 44 % • Medium to High Density Housing – 53% 7) % Non Residential : 4.8%
Scenario 3 **Blatchford Concept with reduced Sustainability Features**	1) Gross area – 215.89 hectares 2) Municipal Reserve – 15% (32.39 ha of Parks) 3) Commercial area – 27.26 4) Circulation area – 28.06 ha 5) Total length of roads – 31.7 lane km 6) % of total residential units • Row Housing – 16% • Low-rise/Medium Density Housing – 55% • Medium to High Density Housing – 29% 7) % Non Residential : 6.49 %

Scenario 4 **Suburban Development Concept**	1) Gross area – 217 hectares 2) Municipal Reserve - 10% (20.24 ha of Parks) 3) Commercial area – 9.29 ha 4) Circulation area– 35.75 ha 5) Total length of roads – 44.8 lane km 6) % of total residential units • Single / Semi detached – 38% • Row Housing – 18% • Low-rise/Medium Density Housing – 36% • Medium to High Density Housing – 8% 7) % Non Residential : 4.4 %
Scenario 5 **2009 Airport Infill Development Study (Pre-Vision)**	1) Gross area – 217 hectares 2) Municipal Reserve – 15% (32.55 ha of Parks) 3) Commercial area – 23.30ha 4) Circulation area – 21.70 ha 5) Total length of roads – 30.7 lane km 6) % of total residential units • Single / Semi detached – 3% • Row Housing – 41% • Low-rise/Medium Density Housing – 37% • Medium to High Density Housing – 19% 7) % Non Residential : 5.9%

Table 1: Main features of the proposed Blatchford scenarios

5. Detailed scenario analysis

5.1 City Expenditures

All the scenarios have similarities and differences as specified in table 1. In terms of the analysis, the only City capital costs considered for all the scenarios are parks related infrastructure. It is assumed that Blatchford development area will not acquire any capital costs in terms of other infrastructure (e.g. Fire, Police, Library and Recreation Centres) as the surrounding existing facilities are sufficient to service the Blatchford development areas in all scenarios. Furthermore, as the costs and revenues expected from the development of the Blatchford lands are considered in a separate report, these also are not included in the analysis.

Cummulative @ 50 years	Buildout	Capital Cost	O&M	Renewal Cost	Total Cost
Scenario 1	25	42.0	159.3	59.5	260.8
Scenario 2	35	62.1	167.9	65.7	295.7
Scenario 3	25	33.5	118.6	55.9	208.0
Scenario 4	25	22.3	159.7	80.6	262.7
Scenario 5	25	33.5	162.4	87.5	283.4

Table 2: City expenditures for the proposed Blatchford Development scenarios

Scenario 2 has the highest percentage of land dedicated towards roads and parks, resulting in the highest total cost of $296 M when compared to the other scenarios. Generally speaking, the more roads and parks there are, the more costs are incurred to build/maintain/operate those assets.

It should be noted that scenario 2's costs and revenues are somewhat attenuated by the fact that it's overall build out is 35 years, contrasted with 25 years used for the other scenarios. This results in the other 4 scenarios carrying the full operational costs of the development for an additional 10 years.

Scenario 4 costs would appear similar to the other scenarios, however this must be taken into context. Scenario 4 serves less than half of the population served in the other 4 scenarios.

5.2 City Revenues

For the purpose of the Blatchford Development analysis, only revenues from residential and commercial properties were considered. Residential tax revenues are based on the relationship between the distribution of residential units and the market value tax assessment for those units. Commercial tax revenues are also based on the relationship between the land dedicated for commercial area and the market value tax assessment for the area. The calculation of the total revenues for the Blatchford development scenarios are shown in the table 3.

Cummulative @ 50 years	Buildout	Revenues from residential taxes	Revenues from commercial taxes	Total revenues
Scenario 1	25	806.9	92.6	899.5
Scenario 2	35	769.9	68.5	838.4
Scenario 3	25	830.1	96.3	926.3
Scenario 4	25	395.8	32.8	428.6
Scenario 5	25	777.1	82.3	859.4

Table 3: City revenues for the proposed Blatchford Development scenarios

Scenario 3 has the highest tax revenues followed by Scenario 1. It should be noted that Scenario 1 has a higher portion of land dedicated towards Municipal reserve (Parks) which reduces the available land for residential use, resulting in fewer units and less taxable assessment. In addition, scenario 3 has more land dedicated towards non residential use than any other scenario – which results in higher tax revenues. One can conclude that increased density (more residential units in the same area of land) and a greater percentage of area devoted to non-residential increases tax revenue.

Scenario 4 shows significantly less revenue as there is significantly less residential units, resulting in a smaller assessment base compared with the other scenarios. It also has the smallest amount of non-residential land use.

The overall balance of residential and non-residential land in the City of Edmonton is important in a number of ways. Residential areas provide places for people to live and build community. Non-residential areas provide employment, services, and amenities among other things. Both contribute to and are an essential part of the fabric of the City. Maintaining a healthy balance between them is critical. It is therefore important to consider how proposed development, in any form, contributes to the overall balanced growth of the City of Edmonton. Generally, residential neighbourhoods have less than 25 % of their assessment base as non-residential, and the proposed Blatchford development scenarios are projected to have 4.5% - 6.49 % of its assessment as non-residential. In Blatchford development scenarios, scenario 3, with 6.49%, has the highest non-residential assessment in compared to other scenarios.

6 Assumptions

The analysis presented in this report involves the combination of modeling using the Development Infrastructure Impact Model, coupled with area specific analysis performed by the business units responsible for both the infrastructure and the provision of service. The gathering and analysis was performed by the Infrastructure and Funding Strategies, with assistance from different branches within the City.

6.1 Area Specific Assumptions

With respect to the area being analyzed, the following was assumed:

- Assessment averages were calculated using 2014 tax assessment information.
- The Blatchford area is already covered in the response time for Police and Fire; new infrastructure for these services will not be located in the study area.
- Waste Services has reported that no additional infrastructure would be required for scenarios 1, 3, 4 and 5.
- In all 5 scenarios, it is planned to have a Blatchford LRT station as part of the new Metro line that will eventually run through the community. As this is a common element of all 5 scenarios, its costs were not included in the analysis.

6.2 Assumptions for the Development Infrastructure Impact Model (DIIM)

As with any analytical procedure, the results of a model are dependent on the accuracy of the input data, and the strength of its underlying assumptions. In order to achieve a consistent corporate approach, certain assumptions were made to ensure that all neighbourhood development-related infrastructure is compared on the same basis. The following describes some of the assumptions used in the Development Infrastructure Impact Model that are not already mentioned in the report.

- Operation, Maintenance and Service Delivery Costs are calculated based on the City of Edmonton 2014 Operating Budget specific to each Asset as follows:
    - Linear assets (roads and drainage) - $ per kilometer
    - Parks - $ per hectare
    - Transit - annual costs provided by ETS
    - Major rehabilitation and renewal costs are asset specific and are based on typical lifecycle costs and timetables.

7. IIMP Background

The tax revenue generated by any new area is not meant to pay for the municipal programs and services associated with those neighbourhoods. Property taxation is a tax on wealth as represented by the assessment of residential and non-residential properties under regulations set by the Province. Industrial areas exist to provide employment and wealth generation for the city and residential areas exist to provide for housing and community amenities.

Residential neighbourhoods exist to provide for housing and community amenities. Other areas of the city, such as industrial areas and commercial nodes, exist to provide employment and wealth generation. The amount of revenue the City needs from property taxation is determined for the City as a whole and takes into consideration the balance between residential and non-residential assessment. A residential neighbourhood is not a microcosm of the entire City and property taxes are not calculated on a neighbourhood basis.

It is difficult to capture all of the indirect costs and benefits that are attributable in whole or in part to new residential neighbourhoods. For example, the City collects dividends from EPCOR, earnings from its investments, and a substantial amount of non-residential tax revenue from dense commercial nodes including West Edmonton Mall, the Downtown core, and South Edmonton Common. These sources all help fund services provided to all neighbourhoods, but are difficult to include in a neighbourhood or area specific analysis. Additionally, secondary benefits accrue from the expenditures of those individuals deriving income directly or indirectly from the development industry. Economic impacts can be estimated by calculating expenditure multipliers. An expenditure multiplier estimates the final value of an incremental dollar spent once the direct and follow-on effects are included. By way of illustration, Alberta's economic multiplier for construction is 1.61. This means that a dollar of construction activity generates a gross gain of $1.60 of economic activity for Alberta once direct and follow-on impacts are included. For the Riverview Area Structure Plan, this equates to approximately $2.7 Billion dollars over the construction time of the development, based on a $1.7 Billion investment in public infrastructure (See Table 2). Private investment in housing and commercial areas is over and above this.

The challenges facing the City are in balancing development costs with the strategic benefits of sustainable growth, in order to achieve an appropriate balance of residential to commercial/industrial development. Although the City of Edmonton has achieved some success in diversifying its revenue base, property tax remains the largest component of City revenue. The long term sustainability of cities in Canada will depend on a combination of smart, resource efficient growth mixed with a progressive form of revenue generation that provides for the services being enjoyed by the citizenry in the long term, without providing undue burden to any particular stakeholder.