Edmonton City Centre Airport

Recommendation:

1. That the May 15, 2008, Corporate Services Department report 2008COG007 be received for information.
2. That the May 15, 2008, Corporate Services Department report 2008COG007 and presentation remain in in-private pursuant to sections 16, 21, 24 and 25 of the Freedom of Information and Protection of Privacy Act.

Report Summary

The report outlines current challenges and possibilities associated with the Edmonton City Centre Airport (ECCA).

Previous Council/Committee Action

At the January 30, 2008, City Council meeting, the City Manager provided a verbal report on the growing constraints on development being experienced in the city core, due to height restrictions and proximity issues created by the City Centre Airport. In response, the following Council motion was passed:

> That the Administration prepare a report for Council by June 18, 2008 detailing the current challenges and possibilities associated with the Edmonton Municipal Airport as outlined in the January 30, 2008, Office of the City Manager private presentation.

Report

<u>*Summary*</u>

Challenges: The Edmonton City Centre Airport (ECCA) places constraints on development outside the airport lands, including the entire downtown core. Height limitations necessitated by flight paths have prevented several major projects from proceeding and limited the size of development of projects in the core. The presence of an airport near the centre of the city also creates challenges for the development of compact urban communities in adjacent districts due to flight activity.

Possibilities: The airport lands re-developed into a new urban residential and commercial community represent a significant economic and social opportunity for our growing City.

The development of the ECCA land would align with the City's new Vision and its emphasis on smart growth with compact urban form and transportation-oriented development. This change in land management may also stimulate infill growth in adjacent areas.

Economically, re-development is a significant opportunity to generate new finances, at a time when the City has limited revenue sources to support substantial growth demands. Satisfying population growth with residential development in the core would also cost significantly less than meeting growth demand by extending services and infrastructure to new suburban areas.

The revenue to developers and revenue to the City that could be realized by removing constraints on adjacent areas and within ECCA land is far greater than

any potential revenue that could be realized with the continuation or enhancement of the current airport services and associated business/property taxes.

The City could realize up to $95 million in annual property taxes from completed airport land development. Additional revenue from land sales up to $500 million could be realized, plus additional taxes from buildings in the downtown area that have been prevented from proceeding or are now limited in height due to airport proximity restrictions.

Timing of ECCA decision: A decision on the future of the ECCA lands FOIPP 24(1),25(1) would have a major impact on several major planning decisions for the City and other organizations. Pivotal decisions include:

- NAIT expansion plans
- NAIT LRT station location & routing
- Yellowhead "free-flow" planning
- Investment in infrastructure renewal at the City Centre Airport
- Development requests by current leasees at the airport
- Downtown development projects

If a decision was made to change land use for the ECCA, the sooner such a decision was made would expedite access to any new potential property taxes within and adjacent to the lands.

This report focuses on two main areas:

- Part 1 - Land Use Potential and Limitations
- Part 2 - ECCA Operational and Financial Issues

Attachment 1 provides full detail on these two areas, summarized below.

<u>Part 1 - Land Use Potential and Limitations</u>

A) Lease with Edmonton Airports

On October 16, 1995, a public referendum resulted in over 75% of voters supporting moving scheduled air passenger service from the ECCA to the Edmonton International Airport. The referendum changed the role of the ECCA to a general aviation facility. In order to implement the referendum result, on April 1, 1996, the City leased the ECCA (total area of approximately 217 ha) to Edmonton Airports (EA) for a period of 56 years to March 31, 2052.

The effect of the lease is that the City, as the land owner, identifies that the facility be used and maintained as an operating and functional airport for general aviation uses. If the City wishes to change or end the use as a general aviation airport, the City would have to work cooperatively with EA, and with the sub-tenants of EA to negotiate cooperative surrenders of the subleases and deal with issues such as compensation.

The City receives no direct revenue through the lease from ECCA operations, with the only revenue to the City from property and business taxes. In 2007, the City received approximately $890,000 in taxes associated with the ECCA.

In the same year, the ECCA served about 19,060 passengers on scheduled flights (or about 9,530 round-trips) and supported other passengers on non-scheduled flights (and un-tracked by ECCA) for general aviation such as government or corporate charters.

B) ECCA Limits Downtown Growth
The building height restrictions of Edmonton Zoning Bylaw 12800, which follows the federally required Airport Protection Overlay (APO), limit the development potential and growth of significant areas of Edmonton. Building heights, design, form, flexibility, intensity and affordability of uses in and around the Downtown are restrained. Maps in Attachments 2, 3 and 4 detail the 5,640 ha of constrained area in the centre of Edmonton.

Height limits affect development potential, business economics and revenue to the City. For example, for every floor of a high-rise office building that the APO prevents from being built in the Downtown, the City forgoes approximately $110,000 in municipal property tax, each year. Conversely, a 40-floor building allowed without the APO constraint could provide about $440,000 in annual taxes.

Over the past few decades, various development projects have been cancelled before application, due to the zoning height restrictions, or proceeded in smaller scope, as reflected in the flat building skyline and lower building heights, particularly in the core.

Although property owners and developers have regularly abandoned applications or scaled down projects where still feasible, market forces and expressions of Council's desire for intensification have led to exceptions where projects were pursued. Attachment 1 lists more than 15 examples of major past or future projects impacted by the APO.

C) ECCA Constrains NAIT Development

NAIT's preferred development plan is a consolidated operation through the expansion of the Main Campus west onto the ECCA.

FOIPP 24(1),25(1)

D) Potential Development of ECCA
Edmonton is expecting continued strong population and economic growth. The City's new Vision suggests this growth should be accommodated in a more compact, intense urban form, supported by improved public transit. The ECCA site could be a model of successful smart growth and transit oriented development (TOD), with mixed uses and varieties of higher density urban forms. The development could also incorporate benefits such as a heliport for executive and medevac services.

Such a development in the core would produce environmental benefits, such as reduced automobile pressures and mitigated sprawl onto farmland. A new central development would also cost less for extending infrastructure and services to growth development, when compared to the current suburban form.

In response to Council's request for land use possibilities, three concepts illustrate examples potential urban development if ECCA was closed and redeveloped. The three concepts offer alternative combinations of land use for the airport land, surrounding lands and transportation opportunities:

Attachment 5 provides these alternative development concepts:

- Concept Plan 1 – Comprehensive Redevelopment
- Concept Plan 2 – Limited Expansion and Relocation
- Concept Plan 3 – Leave boundaries as is - No NAIT Expansion and Limited Westwood Integrated Facility Expansion.

Because of the size of the site, the physical scale of development is large, with a potential residential population ranging between 32,000 and 37,000 people depending on the Concept.

The Concepts range from providing a nominal net return on the serviced land sales, to a positive net return exceeding $500 million. The wide range of net return reflects different assumptions regarding the relocation or expansion of the City's Westwood Integrated Facility and the extent of NAIT development.

In terms of the property tax, the Concept Plans would provide, at completion, annual municipal property tax revenue between $70 million and $95 million.

E) NAIT LRT Station and North Extension

A change in the land use of the ECCA could have an impact on location and timing of the NAIT LRT station. The current proposal for the Downtown to NAIT line involves a temporary station on 106 Street adjacent Kingsway Ave. and south of Princess Elizabeth Ave. This station is temporary because route options to the north have not been finalized. An expedited decision on the airport lands would be helpful to select route options from the end of the currently proposed line to the northwest, and also to identify the permanent station location at NAIT.

Redevelopment of the ECCA would result in greater flexibility in LRT alignment options north of NAIT and in particular, methods by which the LRT would cross the CN Walker Yard. Due to rail yard operational requirements, the LRT would need to cross the Walker Yard via either a tunnel or continuous span bridge. The existing airport operation precludes the bridge option and also results in considerable increases in the required tunnel distance.

F) Yellowhead Trail

The presence of the ECCA creates considerable engineering challenges to upgrade Yellowhead Trail into a "free flow" facility. Without constraints created by the operations of the airport, more options become available to provide interchanges to replace the at-grade intersections between 107 Street and 127 Street.

G) Environmental Contamination & Brownfield Considerations

An issue with any alternative development concept for ECCA is the implication of possible environmental contamination of the site and buildings. While various assessments and remediation have occurred, further environmental site assessments to meet current standards and requirements would be needed for the airfield. The extent and costs of required remediation would be confirmed if a site assessment proceeds.

Part 2 - ECCA Operational and Financial Issues

A) ECCA's Access Policy
The 2005 ECCA Access Policy allows limited (10 seats or less per aircraft) scheduled passenger service to four northern communities: Fort McMurray, Peace River, Grande Prairie and High Level. However, currently, services are only provided to the ECCA from Peace River and Fort McMurray (Air Mikisew) and at less than authorized levels.

In 2007, ECCA experienced about 19,060 scheduled flight passengers (or roughly 9,530 round-trips). Other kinds of "passengers" on non-scheduled general aviation uses such as corporate or government charters and training are not tracked by ECCA.

In 2007, the Edmonton International Airport experienced 6.1 million passengers, making it Canada's fastest growing major airport, for the second year in a row, with 16.5% growth. This is significantly higher than the 5.4% national average. Limited scheduled air service at ECCA and consolidation at the International has been a significant contributing factor to this unparalleled growth.

B) Growing Competition from Non-Scheduled Air Service Direct to the Industrial Heartland
The impending transfer of some of the energy resource-focused service and passenger volumes to the Josephburg Airport will reduce volume and revenue to the ECCA. There is a potential for further reductions in service at ECCA as the Industrial Heartland expands and Josephburg is used as a base for air service to Calgary and the Fort McMurray area.

A background study for the *Capital Region Integrated Growth Management Plan* suggested a review could "focus on assessing the respective needs and roles of the City Centre Airport and Josephburg Airport and how best to utilize these airport assets in the growing system."

C) Sustainability of ECCA Operations
The limited revenue growth at ECCA to fund capital improvements relative to the expected capital requirements over the next several years is a significant challenge. In accordance with the citizen referendum, EA has pursued general aviation traffic at ECCA. However, consistent with general aviation airports across Canada, general aviation operations will be unlikely to be able to generate revenue sufficient to meet infrastructure investments.

D) "Capital Region Integrated Growth Management Plan – Interim Report on Core Infrastructure: Airports"
A comprehensive review of airports in the Edmonton region was undertaken for the background work for the *Radke Report* in September 2007. Among the key findings of the consultant's report related specifically to ECCA were the following:

i) Growth
ECCA forecast aircraft movements would increase from 82,000 in 2007 to 109,000 by 2012 and forecast passenger volumes would increase from 45,000 to 59,000 by 2012.

ii) 10-Year Infrastructure Needs
Based on the various general aviation strategies and master plans, the consultant identified the following 10-

infrastructure priorities (to 2017) needed to continue ECCA operations:

- Rehabilitate both runways;
- Replace runway electrical systems;
- Rehabilitate most taxiways;
- Rehabilitate all parking aprons;
- Rehabilitate most access and service roads;
- Undertake major storm sewer rehabilitation program;
- Open 6 land parcels for commercial development, and

The relative order of magnitude costs for capital requirements was $35 million over 10 years, based on costs at the time of the report.

iii) Gaps at ECCA

"There are many gaps associated with this airport (ECCA) including but not limited to the following:

- The airport is capable of fulfilling a relatively narrow role which overlaps the roles of other airports;
- The airport has a limited operational capacity which may be reached in the longer term;
- There is no room for runway or other operational expansion;
- The airport is in need of a significant infrastructure investment program;
- It is unclear whether the City or ERAA is responsible for major upgrades;
- There are conflicting zoning guides in place at the City and the ERAA." (page 52)

<u>Conclusion</u>

ECCA faces challenges including its role, competition, capacity for expansion and the need for and financing of infrastructure needs.

There are significant land use possibilities from redevelopment of ECCA. Benefits would include removing height limitations from central Edmonton, including substantially all of downtown, and accommodating NAIT and the Westwood Facility expansion. There is an opportunity for a major Transit Oriented Development supporting LRT and sustainable urban form. There is potential for significant land sales revenue and ongoing property tax revenues.

However, the identified benefits are a general level. There has been no market assessment of the feasibility and risks, including the amount and phasing of growth.

A feasibility assessment of the development concepts would provide more in-depth examination of the benefits, timing, revenues and risks in light of the challenges facing ECCA.

Next Steps

Because several pending major projects could be impacted by ECCA land use changes (LRT, NAIT, downtown development, airport infrastructure investment), and due to the opportunity to generate revenue to help bridge the City's infrastructure funding shortfall, it is prudent for the City to decide the direction of the ECCA land within the next 12 months. To enable this decision, it is recommended that Administration, seeking the cooperation of EA and Capital Health, proceed expeditiously to prepare Council reports for the fall of 2008 on topics as directed by Council, which may include:

- EA analysis of how current ECCA aviation users (flight training, charters, corporate aircraft) could

be accommodated at other aviation facilities in the event of ECCA closure
- Capital Health's description of how medevac and health services would be delivered in the event of ECCA closure
- Legal consideration of potential compensation requirements to surrender head and sub-leases
- Feasibility assessments of the development concepts
- Analysis of development opportunities/gains to the downtown as a result of the closure of ECCA and the removal of building/construction height restrictions

Administration also recommends Council consider releasing this report publicly to support informed debate and discussion, respecting the need to excise any information as required by FOIPP legislation.

Focus Area

Diverse Communities; Build a Business Positive Sustainable Urban Environment

Legal Implications

The head lease between the City and EA cannot be terminated without cause by either the City or EA. Equally, should the City and EA wish to negotiate a surrender of the head lease, those sub-leases between EA and EA's tenants that do not have an early termination provision cannot be terminated without cause by either EA or EA's tenant. Therefore, negotiation of a consensual surrender of the head lease and the sub-leases that were not compatible with a closure of the ECCA would be necessary.

Justification of Recommendation

1. This report responds to Council's motion regarding challenges and possibilities for the Edmonton City Centre Airport.
2. This report deals with material where disclosure would be harmful to the business interests of a third party, harmful to intergovernmental relations or harmful to economic and other related interests of a public body.

Attachments

1. Edmonton City Centre Airport Land Use Opportunities and Limitations, and Airport Operational and Financial Issues, May 15, 2008
2. Neighbourhoods Influenced Map
3. City Centre Airport (YXD) Protection Overlay Map #1 Restricted Building Height Areas
4. City Centre Airport (YXD) Protection Overlay Map #4 Section Through Runway 30 Approach
5. Potential Development Concepts for ECCA

Others Approving this Report

- J. Tustian, Deputy City Manager
- C. Warnock, Chief Financial Officer, Finance and Treasury
- B. Burn, General Manager, Asset Management and Public Works
- G. Klassen, General Manager, Planning and Development
- B. Boutilier, General Manager, Transportation

Edmonton City Centre Airport
Land Use Potential and Limitations, and Airport Operational and Financial Issues

May 15, 2008

INTRODUCTION

As a land use and economic activity in the centre of Edmonton, ECCA through its location, operations and effects on surrounding areas has significant implications for the City's future. There are important possibilities for the development of the ECCA, with implications on other parts of Edmonton. In terms of ECCA activity, issues have arisen in a number of areas, highlighting several new challenges for ECCA. These issues and possibilities are discussed, with conclusions on possible next actions.

Background

Three City reports regarding the ECCA have been prepared over the last several years and were used as background to this report.

- The Office of the City Auditor completed the "Edmonton City Centre Airport Audit" in November 2003 and reported to Audit Committee. The audit provides background and historic material through an analysis of lease compliance, capital program, financial review, business development and economic impact analysis.
- A follow-up report by the Planning and Development Department on the alternative use potential of ECCA was considered by Executive Committee on July 21, 2004.
- A land valuation report on the ECCA was prepared by Asset Management and Public Works and considered by Council in-private on January 30, 2008.

Key features from these reports were extracted and updated, where appropriate, for this report.

This report focuses on two main areas:

- Part 1, Land Use Potential and Limitations
- Part 2, ECCA Operational and Financial Issues

PART 1 LAND USE POTENTIAL AND LIMITATIONS

This part identifies issues and challenges affecting land use at ECCA, as well as ECCA's effect on surrounding areas, including the Downtown. Based on the discussion of the challenges, the report identifies and provides an analysis of the possibility of the large scale redevelopment of ECCA for urban uses.

The ECCA land is Leased, Long Term, to Edmonton Airports for use as a General Aviation Airport

On October 16, 1995, a public referendum resulted in over 75% of voters supporting moving scheduled air passenger service from the ECCA to the Edmonton International Airport. On April 1, 1996, the City leased the ECCA (total area of approximately 217 ha) to Edmonton Airports (EA) for a period of 56 years to March 31, 2052 (the "Head Lease"). This lease and access policy implements the direction of the referendum, which changed the role of the ECCA to a general aviation facility. EA subleases portions of the ECCA to subtenants. There are several significant challenges associated with the long term lease.

Surrender of Head Lease and Subleases

The City cannot unilaterally deprive EA of its right to possession of the ECCA under the Head Lease, nor can EA unilaterally deprive its subtenants of their right to possession under the subleases (unless certain of those subleases have that contractual right given to EA).

If EA were to voluntarily surrender the Head Lease to the City, then the subtenants would continue to enjoy the right to possession under the subleases and the City would become liable for those subleases. Therefore, the City and EA would have to work together to surrender the Head Lease, and with EA's subtenants, to negotiate cooperative surrenders of the subleases.

Further, for each negotiated surrender, the question of quantity of compensation and responsibility for such compensation is relevant. Also relevant is the period of notice to be given for a surrender of the Head Lease and subleases. This would be best addressed through a reasonable, case-by-case assessment and negotiation with the affected party. The length of time for negotiating the cooperative surrenders of the subleases is uncertain.

FOIPP 16(1),25(1)

Aviation and Non-aviation Uses
Under Article 6 of the lease, EA has the obligation to run the ECCA "…continuously, actively and diligently…" as an airport. When aviation/non-aviation uses are proposed that are not compatible, for example airside development and the Edmonton Grand Prix, EA has suggested that if the City favoured the non-aviation uses, an amendment to Article 6 was prudent so that EA was not in breach of this obligation. However, significant non-aviation development at the ECCA, approved by the City, may affect its primary use an airport.

Background on the Head Lease
Key features of the Head Lease include but are not limited to:

- EA's promise to diligently and continuously use and operate the ECCA as an airport
    - EA must use the lands as an airport offering general aviation services. (Article 6.1)
    - Other land uses are allowed which are not incompatible with the operation of an airport. (Section 6.1)
- EA Restriction on Scheduled Air Passenger Service
    - City acknowledged that EA intended to restrict scheduled air passenger service.
- EA Maintains and Invests in the Airport Facilities
    - EA is responsible, at its expense, to "continuously, actively and diligently" keep, operate, maintain and make replacements and improvements to the Airport. (Articles 16.1 and 16.2) Excluded from this responsibility are those utility systems and infrastructure under an easement or utility right of way that are maintained by the City or a third party.
- City Manager Must Approve Non Aviation Land Uses
    - Subleases or licenses for "land use not directly related to or normally ancillary to the operation of airport" must be approved by the City Manager. (Article 25.1.1.4). Aviation related tenants can be approved directly by EA.

The City receives no direct revenue through the lease from airside operations or from EA for the ECCA. Revenue to the City of Edmonton in 2007 from the operation of ECCA consists of approximately $700,000 in property taxes and $190,000 in business taxes.

<u>ECCA Limits Downtown's Growth</u>
The Edmonton Zoning Bylaw 12800, using the Airport Protection Overlay (APO), provides for the safe operation of the ECCA through the federal regulation of building heights and land uses in the vicinity of the Airport and the four runway approaches. Attachment 2, Neighbourhoods Influenced Map, illustrates the area most directly affected by the limitations imposed due to the current airport operations.

In total, approximately 5,640 ha within the centre of Edmonton falls within the airport's area of influence. This area includes approximately 295 ha comprising the airport and associated uses, 725 ha of industrial land, 134 ha in the Downtown neighbourhood, 950 ha under the runway approaches and 3,540 ha of mature and developing neighbourhoods within the Outer Approach Surface.

Building height limitations have an impact on flexibility of designed forms, intensity and therefore affordability to developer and tenants. The feasibility of projects is affected.

Key features of the APO include:

- Building Height Limitation in the Outer Approach Surface
    - The maximum building height within a radius of 4,238 metres from the airport reference point is limited to 45 metres, as confirmed through Transport Canada as an obstacle limitation surface;
- Building Height Limitations on Runway Approaches
    - The two runways have height limits, on the four approaches, with the height limits determined by the distance from the runway and its centerline.
- Building Height Limitation in the Downtown Development Area
    - The maximum building height in the Downtown Development Area is 815.34 m above sea level. The actual height varies within that area, depending on base elevation. For example, the ceiling for the Manulife Building was 147.8 m. At 97Steet, atop the River Valley, 101 Street, and 104 Ave, heights are limited to about 145 metres, which is approximately 40 floors. (Section 810A.3)

The areas affected by either the absolute building height limit or the height limitations on the runway approaches are shown on the Attachment 3 - Restricted Building Height Areas. Attachment 4, Section Through Runway 30 Approach, illustrates the building heights allowed between the airport and the river valley in profile for both the Outer Approach Surface and in the background for the Downtown Development Area.

Constrained Projects
Planning and Development and EA have identified development proposals in and around the Downtown – including City-led projects such as The Quarters – that have been limited, may be uneconomic or will require significant design compromises, as a result of the APO height restrictions.

Although property owners and developers have often abandoned applications for projects limited by the APO height restrictions, market forces and expressions of Council's desire for intensification have led to exceptions where projects were pursued.

Examples of major past or future projects that are impacted by the APO:

Project: Manulife Tower
Location: 101 Street / 102 Avenue
Height: 40 Storeys (APO Max: 147.8 m)
Status: Built

Project: EPCOR Tower
Location: 101 Street / 105 Avenue
Height: 28 Storeys (revised down from 36 Storeys) (APO Max: 147.8m)
Status: Development Permit issued

FOIPP 16(1),25(1)

The following projects could have developed higher were it not for the APO height limitations:

- The AMA Building on 109 Street and 118 Avenue (and future plans for expansion)
- Royal Alexandra Hospital Expansion
- Railtown: two residential towers.
- Aurora Developments – north of 105 Avenue and west of 101 Street.
- Several independent developments around the Kingsway Business Revitalization Area

Planning and Development consider the ECCA a limiting factor on the development of the Downtown. Building heights, design, form and uses in and around the Downtown are being restrained by the APO and its restrictions on height. With the focus on extending LRT to the north from Downtown by the EPCOR Tower and a proposed Downtown sports/entertainment facility, height limits from ECCA on Downtown development are limiting the variety and intensity of uses that can be attracted to the Downtown.

Edmonton's Downtown and all other affected mature and developing neighbourhoods shown on the Neighbourhoods Influenced Map (Attachment 2) would benefit from the removal of the APO by allowing for more intensification of uses, more design creativity regarding height and expansion of uses in adjacent areas.

The height limits on buildings in the Downtown also has financial cost to the City. Every floor of a standard office building generates approximately $110,000 of municipal property tax revenue. If an office project is not feasible because of the height limits, there is a potential of considerable foregone property tax revenue.

ECCA Constrains NAIT's Development

The NAIT Main Campus is located at 11762 – 106 Street, with facilities in nine other locations in the Edmonton area. NAIT accommodates approximately 17,000 full learner equivalents in 2008. NAIT notes that "within the current physical facilities, NAIT has reached it maximum capacity based on enrollment estimates". (NAIT 2007 – 2011 Business Plan, p.31). NAIT has obtained a 61 ha site for a campus south of Ellerslie Road and east of QE2; however, no facility development has occurred at this location.

In terms of NAIT's operation and plans, the President and CEO of NAIT identified the following challenges from ECCA:

FOIPP 24(1),25(1)

- The building height limitations from ECCA have affected the intensity and built form of the Main Campus. Noise from Airport operations can be an issue in the Business Tower.
- Traffic congestion and parking limitations, given the road network in the area, are an ongoing concern.
- North LRT expansion along 106 Street is seen as a positive for improved access to the Main Campus.

FOIPP 24(1),25(1)

They are concerned with proceeding with immediate development of the campus in south Edmonton when there might be an opportunity to relocate expansion needs to the Main Campus if there was a decision to close the ECCA.

FOIPP 24(1),25(1)

Potential Development Concepts for ECCA

Alternative development concepts for the ECCA were prepared as an opportunity assessment for the possibility of converting ECCA to urban uses. This opportunity assessment could identify alternative land concepts for comparison to maintaining ECCA as a general aviation airport.

Edmonton is expecting continued strong population and economic growth. This growth should be accommodated in a more compact, intense urban form, supported by LRT. Diverting growth from more extensive, low density suburban developments to the ECCA site would reduce Edmonton's future land consumption and infrastructure expenditures, and create a growth area close to the downtown employment and transit hub. Redevelopment of the ECCA site could contribute to the sustainability of Edmonton's urban form, and be a model of successful transit oriented development, with mixed uses and varieties of higher density urban uses. Benefits to the environment and some reduction in public infrastructure requirements are anticipated compared to the current suburban form. The caution to these benefits is that the ECCA site would compete with the downtown for these urban uses, contrary to the vision that the Downtown should be the prime focus of employment, retail and residential growth for the City and the region.

These urban considerations set the broad context for an opportunity assessment for the development of ECCA. Three development concepts have been created as examples of urban possibilities. See Attachment 5.

The concepts illustrate the potentials and alternative combinations for the airport land, surrounding lands and transportation opportunities. There is insufficient information to know if these development concepts are completely feasible or if there is sufficient market opportunity.

Key features of the Development Concepts:

- Intensive Urban Uses
    - Given the location and access attributes of the site, high intensity urban uses are appropriate: high and medium density residential, a district park, employment centres (including public utility yards and a potential transportation node) and opportunities for commercial/office/institutional uses.
    - The potential new residential development resulting from these development concepts is estimated to range from approximately 19,000 to 22,000 dwelling units, with associated population increase of 32,000 to 37,000 people – a significant contribution to the City's intensification efforts.
- LRT Service
    - LRT service through the site, using transit oriented development concepts, provides a land use and public transit framework. A change in the land use of the ECCA would have an impact on location and timing of the NAIT LRT station. The current proposal for the Downtown

to NAIT line involves a temporary station on 106 Street adjacent Kingsway Ave. and south of Princess Elizabeth Ave. This station is temporary because route options to the north have not been finalized. A decision on the airport lands would accelerate selection of route options to the northwest, and identify the permanent station location at NAIT. Redevelopment of the ECCA would result in greater flexibility in LRT alignment options north of NAIT and in particular, methods by which the LRT would cross the CN Walker Yard. Due to rail yard operational requirements, the LRT would need to cross the Walker Yard via either a tunnel or continuous span bridge. The existing airport operation precludes the bridge option and also results in considerable increases in the required tunnel distance.

- Yellowhead Trail
  - The presence of the ECCA creates considerable engineering challenges to upgrading Yellowhead Trail to a "free flow" facility. Without this constraint, more options become available to provide interchanges to replace the at-grade intersections between 107 Street and 127 Street.

FOIPP 24(1),25(1)

- Heliport
  - A potential executive/medevac heliport is identified for the site, but needs further assessment because of the implications of its approaches on building heights in the vicinity, and assessment of opportunities with Capital Health.
- Net Revenue Return
  - As the owner and developer of the ECCA lands, the City would receive revenue based on the value of the vacant serviced, less any development costs (e.g. servicing or Westwood Integrated Facility relocation).
  - The net revenue return each of the three concepts is:
    - Concept Plan 1: ($9.0) million
    - Concept Plan 2: $486.0 million
    - Concept Plan 3: $517.0 million
  - Concept Plan 1 has a nominal net return because the assumed relocation of the Westwood Integrated Facility and other facilities would be costly. However, for that the expenditure the City would have the replacement and expansion of the Westwood Integrated Facility and the other agency facilities near Westwood.
- Annual Municipal Property Tax Revenue
  - The City would also receive property tax revenue for the developments
  - The annual municipal property tax revenue, for each of the three concepts, based on an assumed full build out of the ECCA lands is:

- Concept Plan 1: $70.0 million
- Concept Plan 2: $68.0 million
- Concept Plan 3: $95.0 million.

Environmental Contamination/Brownfield Considerations
An issue with any alternative development concept for ECCA is the implication of possible environmental contamination of the site and buildings. An environmental site assessment of ECCA as part of the lease agreement was undertaken around the building sites over 1996 to 1998. At that time, there was appropriate remediation of soil contamination and asbestos in structures, with the exception of two areas where contamination was very localized and remediation was not justified at the time. Other site investigations and remediation have occurred in response to specific development proposals and rezoning applications over the past years.

Further environmental site assessments to meet current standards and requirements will be needed for the airfield, and the extent and costs of possible contamination and required remediation would be confirmed at the time of the site assessments.

Compensation
Redevelopment of ECCA, the ceasing of airport operations and removal of the runways would raise issues of leaseholder compensation.

FOIPP 24(1),25(1)

Compensation issues would have to be addressed as part of the development concept and the negotiations of the cooperative surrender of the subleases. No calculation of compensation requirements were undertaken for this report.

PART 2: ECCA OPERATIONAL AND FINANCIAL ISSUES

Part 2 of this report discusses issues that have arisen and which affect the ECCA operations and finances.

The implementation of the 1995 referendum and consolidation of scheduled traffic at the Edmonton International Airport has contributed to making that facility the fastest-growing major airport in Canada for the last two years, and on pace to repeat in 2008. About 6.1 million passengers used the International in 2007, compared to about 45,000 (or about 22,000 round-trips) who used the ECCA in the same year.

ECCA Access Policy
The 2005 ECCA Access Policy allows limited (10 seats or less per aircraft) scheduled passenger service to four northern communities: Fort McMurray, Peace River, Grande Prairie and High Level. However, the ECCA currently connects only with two

communities, Peace River and Fort McMurray (Air Mikisew). The Edmonton – Peace River service is permitted a maximum of 14 arrivals and 14 departures per week, with current actual service of 8 arrivals and 8 departures per week and passenger demand below the allowable capacity. The Edmonton – Fort McMurray service is permitted 21 arrivals and 21 departures weekly, with actual service of 19 arrivals and 19 departures and passenger demand below the allowable capacity. The most significant passenger volumes from northern communities now fly to the Edmonton International Airport (EIA).

Growing Competition from Non-Scheduled Air Service Direct to the Industrial Heartland

Shell has indicated it plans to move some of its private, non-scheduled air service away from ECCA to the Josephburg Airport in Strathcona County, south of its expanding operations in the Industrial Heartland.

FOIPP 16(1) Other operators in the Industrial Heartland are apparently considering similar initiatives to the private airstrips in the Fort McMurray area.

The reduction of some of the energy resource focused service and passenger volumes will reduce revenue at ECCA. There is a potential for further reductions in service as the Industrial Heartland expands and Josephburg is used as a base for private, non-scheduled air service.

A background study for the Capital Region Integrated Growth Management Plan – Interim Report on Core Infrastructure (discussed further below) noted that as the Josephburg Airport becomes more operationally capable and attractive, it will become more competitive with EA. The report proposed the following role review for ECCA and Josephburg:

> "No new airports are required (in the region) and limited rationalization of general aviation airports might be examined. Such a review might focus on assessing the respective needs and roles of the City Centre Airport and Josephburg Airport and how best to utilize these airport assets in the growing system. Upgrades and improvements might then be rationalized and investment gaps bridged most efficiently for the long term." (Page 54)

The competitive pressure form Josephburg Airport suggests a role review for the ECCA is appropriate.

Sustainability of ECCA Operations

EA's approach is that it "will continue to pursue financial sustainability for all operating, maintenance and capital costs" for ECCA. (5 Year Strategic Plan 2007 – 2011 Executive Summary) Financial sustainability would require cross-subsidization of ECCA by operations at EIA. EA continues to pursue sufficient revenue to cover

operating costs at ECCA. In accordance with the referendum, and as described in the lease between The City of Edmonton and Edmonton Airports, Edmonton Airports continues to work hard to increase general aviation traffic to ECCA, as this is the kind of traffic the airport infrastructure can adequately handle and for which it is ideally suited. This includes corporate aircraft and non-unit toll charters.

In terms of sustainability, the City Auditor report noted that ECCA's "financial challenge is to generate sufficient revenues to meet all current and future obligations including the lease requirement of maintaining the capital infrastructure." The main sources of revenue at ECCA are general aviation airside operations (landing and passenger fees) and property rental. Given the Access Policy, growth in revenue from airside operations would have to occur from higher rates and fees. Land development would remain an important emphasis to generate more revenue, but with the need to balance aviation/non-aviation uses.

A key issue is the funding of capital improvements at ECCA. Under the financial sustainability approach, ECCA would be expected to fund its own capital improvement requirements. In 2003 the City Auditor concluded that ECCA has "insufficient revenues to fund all of its capital improvement needs." EA indicates the issue for funding capital improvements at the ECCA remains challenging. The 2008 – 2012 capital plan for ECCA outlines total expenditures of $14.82m. The three major expenditures would be storm sewer rehabilitation ($6.9m), parkade rehabilitation ($1.75m) in 2011, and runway work ($1.m) in 2008.

The limited revenue growth associated with general aviation use at ECCA to fund capital improvements compared to the expected capital requirements over the next several years is a significant challenge for EA. Ongoing investment will be needed to ensure ECCA remains a functional general airport, but general aviation activity appears insufficient to fund all capital needs. This is consistent with airport operations across Canada: it is extremely difficult for a general aviation airport to generate sufficient revenues for operating *and* capital requirements.

Capital Region Integrated Growth Management Plan – Interim Report on Core Infrastructure: Airports

The most recent comprehensive review of airports in the Edmonton region was undertaken as part of the background work for the Radke report in September 2007. Among the key findings of the consultant's report related specifically to ECCA were the following:

Role

- EA's General Aviation Strategy identified ECCA as a Medium General Aviation (Premium Operations).

Growth

- ECCA forecast aircraft movements would increase from 82,000 in 2007 to 109,000 by 2012 and forecast total passenger volumes would increase from 45,000 to 59,000 by 2012. These passenger estimates in the Radke Report combine tracked passengers in scheduled flights (i.e. 19,063 single-direction passengers in 2007) with estimated passengers using general aviation (corporate and government charters, training, etc.). According to the referendum, lease and Passenger Access Policy, scheduled passenger volumes at ECCA are "constrained by current aircraft size, seat restrictions and destinations which can be served." (page 33)

10 Year Priorities

- Based on the various general aviation strategies and master plans, the consultant identified the following 10 year priorities (to 2017) for ECCA:
    - Rehabilitate both runways
    - Replace runway electrical systems
    - Rehabilitate most taxiways
    - Rehabilitate all parking aprons
    - Rehabilitate most access and service roads
    - Undertake major storm sewer rehabilitation program;
    - Open 6 land parcels for commercial development.
- The relative order of magnitude costs for the capital requirements were $35m over 10 years.

Gaps at ECCA

- "There are many gaps associated with this airport (ECCA) including but not limited to the following:
    - The airport is capable of fulfilling a relatively narrow role which overlaps the roles of other airports;
    - The airport has a limited operational capacity which may be reached in the longer term;
    - There is no room for runway or other operational expansion;
    - The airport is in need of a significant infrastructure investment program;
    - It is unclear whether the City or ERAA is responsible for major upgrades;
    - There are conflicting zoning guides in place at the City and the ERAA." (page 52)

City staff investigated the last two points in the gaps listed above and was unable to confirm the precise basis for the statements. The comment regarding major upgrades may deal with infrastructure located in utility rights of way and which would not be the responsibility of EA. The last point may apply to the effects of the height restrictions from the Airport Protection Overlay in the City's zoning bylaw.

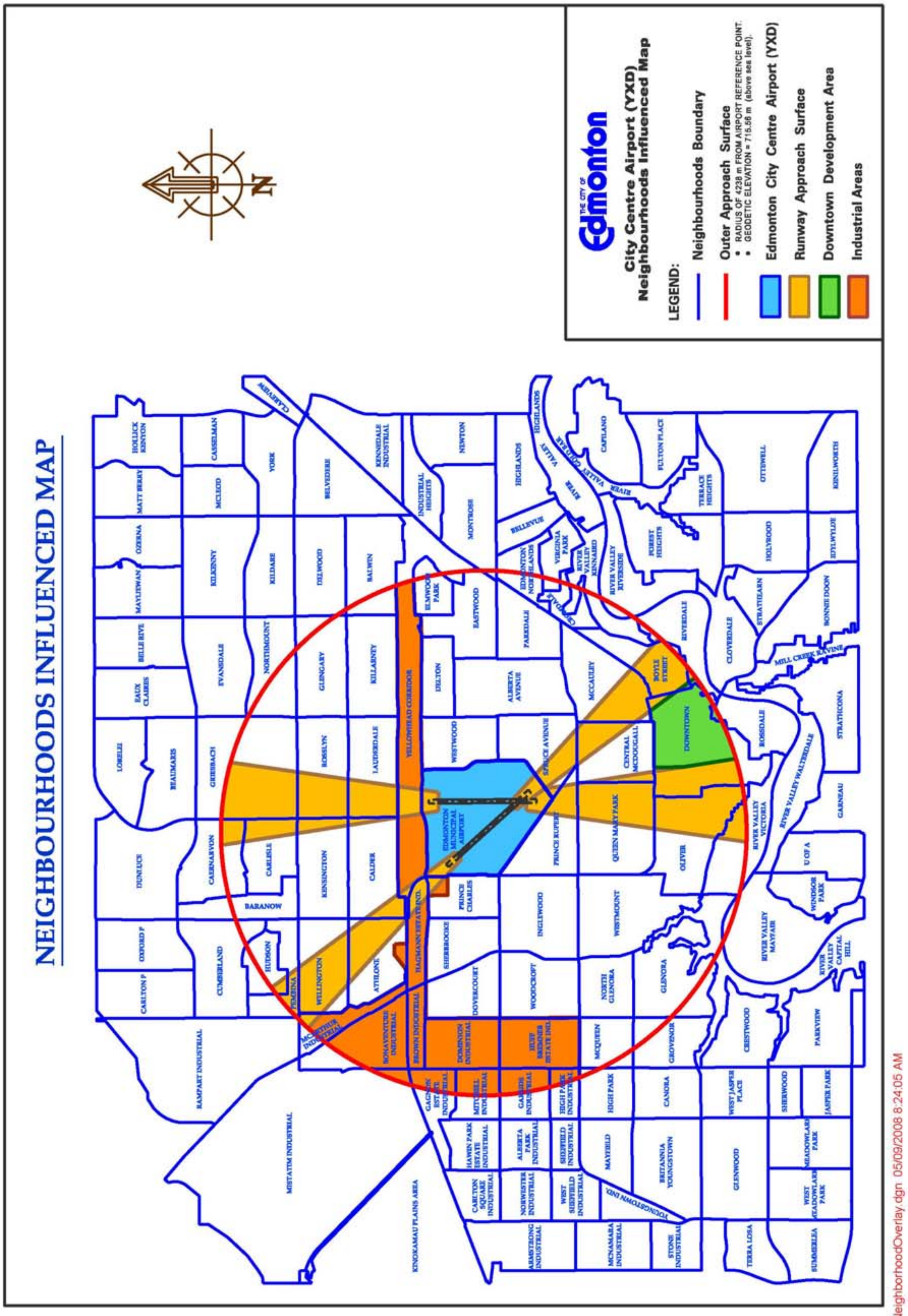
CONCLUSIONS
This report has identified a set of challenges and possibilities for the ECCA. There are issues regarding its role and competitive situation, the lack of capacity for runway or operational expansion, the need for basic infrastructure investment and uncertainty regarding the capacity of ECCA operations to fund the investments.

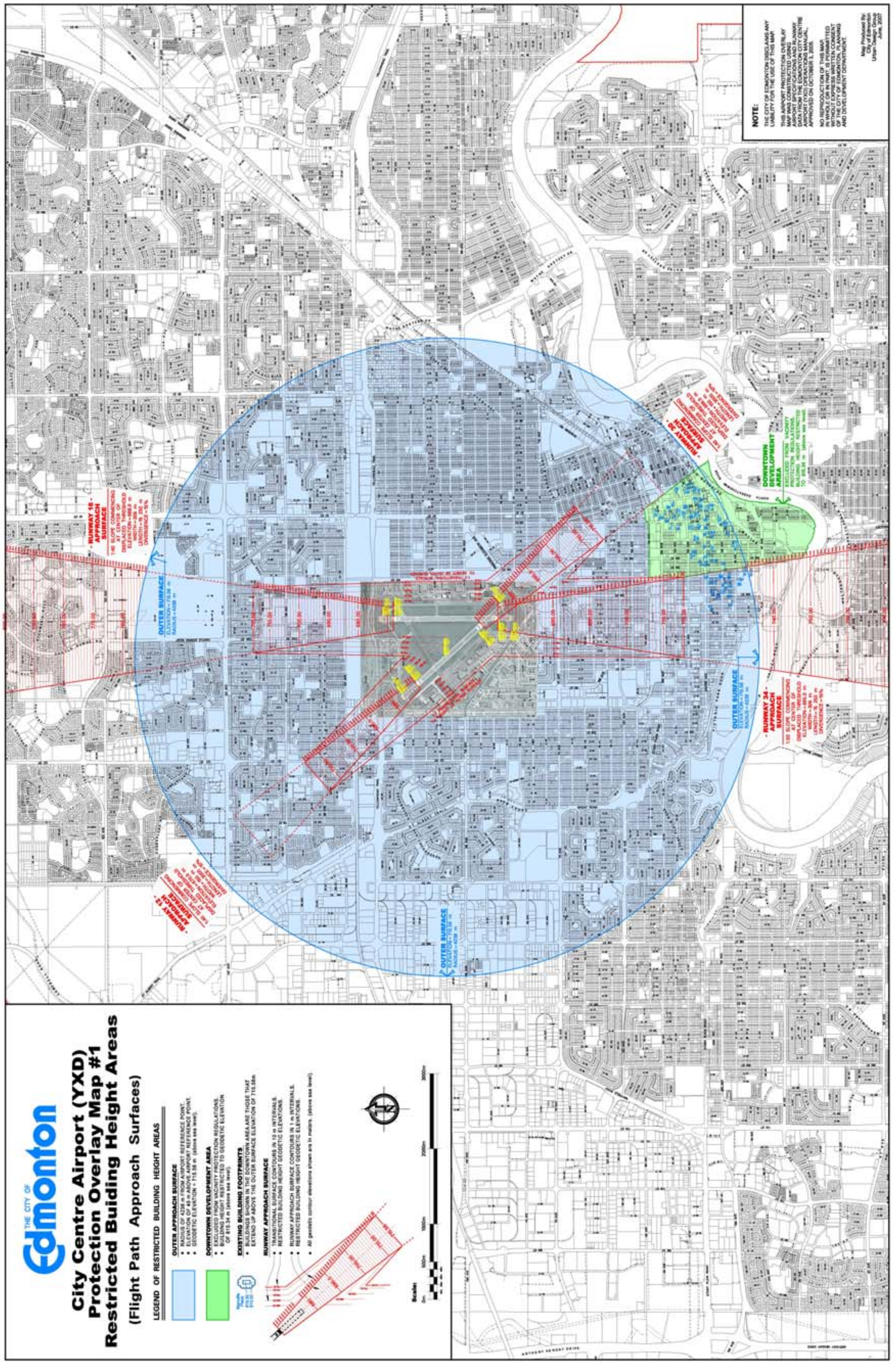
There are significant land use potential possibilities associated with the redevelopment of ECCA. Benefits would include removing height limitations on a large area of central Edmonton, including the Downtown and creating an opportunity for a significant expansion of the main NAIT campus. The redevelopment would create a new urban form of Transit Oriented Development (TOD) supporting LRT and a sustainable form. There is potential for significant revenue to the City that appears far greater than possible through continued operation of a general aviation airport.

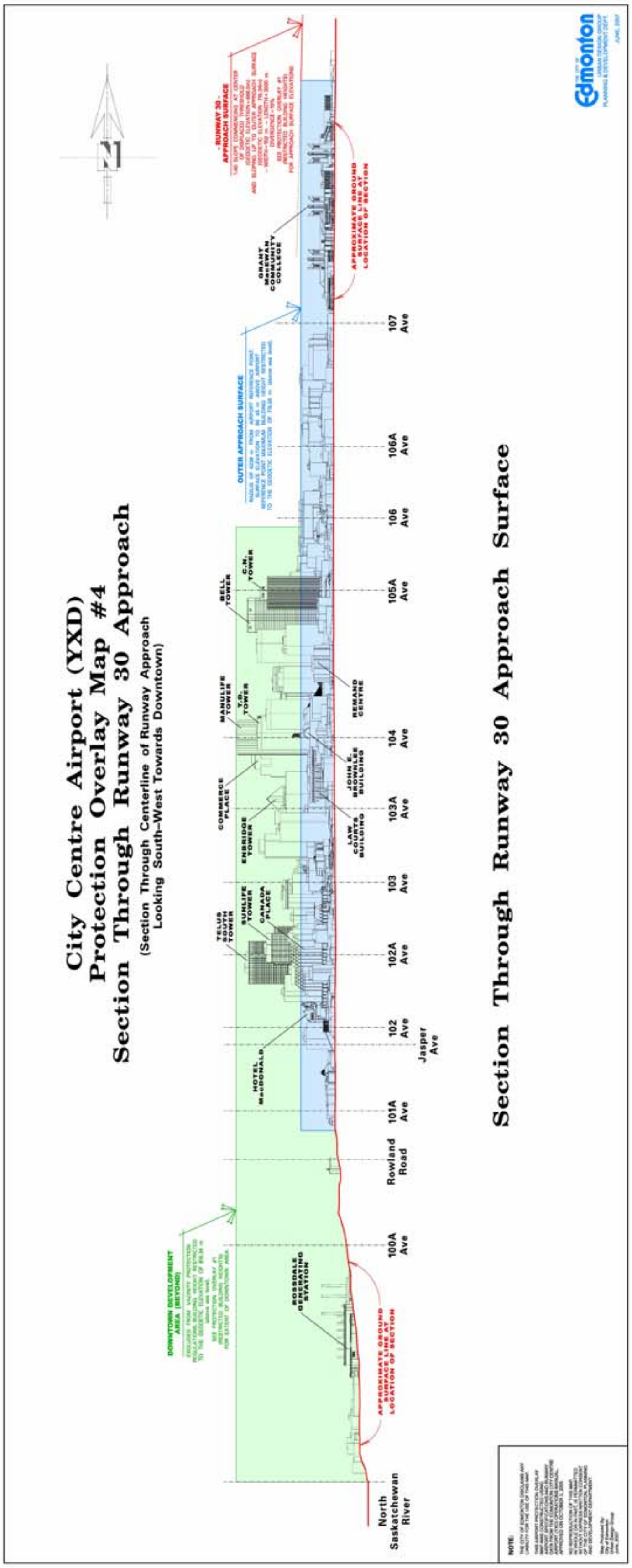
However, the benefits from the redevelopment concepts are at a general level and would need substantial analysis to determine their reasonableness. There has been no market assessment of the feasibility of the concepts, including the potential amount or phasing of development. The scale of the redevelopment activity is very large and this scale creates significant risks for the development concept as well as activity in surrounding areas such as Downtown and across the inner city. Environmental contamination issues will need a site assessment. A heliport may provide important air access, but needs further assessment. As well, there has been no in-depth examination of issues associated with the surrender of the head and sub-leases. A feasibility assessment of the development concepts would allow for a more in-depth examination of the potential benefits, timing, capacity, revenues and risks.

Next Steps
Administration recommends Council consider releasing this report publicly to support informed debate and discussion, respecting the need to excise any information as required by FOIPP legislation.
In addition, because several pending major projects could be impacted by ECCA land use changes (LRT, NAIT, downtown development, airport infrastructure), and due to the opportunity to generate revenue to help bridge the City's infrastructure funding shortfall, it is prudent for the City to decide the direction of the ECCA land within the next 12 months. To enable this decision, it is recommended that Administration work with stakeholders to proceed expeditiously to prepare Council reports for the fall of 2008 on topics as directed by Council, which may include:

- EA analysis of how current ECCA aviation users (flight training, charters, etc.) could be accommodated at other aviation facilities if ECCA closed
- Capital Health's description of how medevac and other health services would be delivered in the event of ECCA closure
- Legal consideration of potential compensation requirements to surrender head and sub-leases
- Feasibility assessments of the development concepts
- Analysis of development opportunities/gains to the downtown as a result of the closure of ECCA and the removal of building/construction height restrictions


NEIGHBOURHOODS INFLUENCED MAP
THE CITY OF Edmonton
City Centre Airport (YXD)
Neighbourhoods Influenced Map
LEGEND:
Neighbourhoods Boundary
Outer Approach Surface
RADIUS OF 4238 m FROM AIRPORT REFERENCE POINT.
GEODETIC ELEVATION = 715.56 m (above sea level).
Edmonton City Centre Airport (YXD)
Runway Approach Surface
Downtown Development Area
Industrial Areas
NeighborhoodOverlay.dgn 05/09/2008 8:24:05 AM


Edmonton
City Centre Airport (YXD)
Protection Overlay Map #1
Restricted Building Height Areas
(Flight Path Approach Surfaces)
LEGEND OF RESTRICTED BUILDING HEIGHT AREAS
OUTER APPROACH SURFACE
DOWNTOWN DEVELOPMENT AREA
EXISTING BUILDING FOOTPRINTS
RUNWAY APPROACH SURFACE
NOTE:
DOWNTOWN DEVELOPMENT AREA
OUTER SURFACE


City Centre Airport (YXD)
Protection Overlay Map #4
Section Through Runway 30 Approach
(Section Through Centerline of Runway Approach
Looking South-West Towards Downtown)
Section Through Runway 30 Approach Surface
North Saskatchewan River
100A Ave
Rowland Road
101A Ave
102 Ave
Jasper Ave
102A Ave
103 Ave
103A Ave
104 Ave
105A Ave
106 Ave
106A Ave
107 Ave

POTENTIAL DEVELOPMENT CONCEPTS FOR ECCA

Concept Plan 1 – Comprehensive Redevelopment

Concept Plan 1 is based on a *Transit Oriented Development* concept (TOD), served by the LRT. Land uses include medium to high density residential development with commercial/institutional uses as employment nodes as well as public utility/light, district park and transportation node uses.

Concept Plan 1 is considered the most comprehensive as it relocates entirely and expands the City's Westwood Integrated Facility, thus tying the eastern portion of the Airport into the residential neighbourhood of Westwood. While representing the best land use planning principles, it would also have the greatest impact on the net sale proceeds as additional lands would have to be acquired and buildings constructed to accommodate the new integrated facility. NAIT would have a significant expansion westward onto the ECCA lands.

Key development assumptions include:

- Westwood Integrated Facility relocated to northwest corner of Airport lands.
- Relocation of the Westwood Facility increases developable medium and high density residential by 40 ha.

FOIPP 24(1),25(1)

- NAIT to expand by 33 ha.
- NAIT lands not discounted for circulation/roadway requirements.
- City owned lands discounted by 15% of area for circulation/roadways
- Residential lands discounted by 15% of area for circulation/roadways
- Residential development assumes 100% build-out as per densities permitted under Edmonton Zoning Bylaw.
- VIA Rail Station relocated to 111 Street/Yellowhead with possibility for Greyhound Bus Depot.
- A heliport site was identified, but needs further assessment because of the implications of its approaches on building heights in the vicinity.
- At 100% build out, the projected population would be 37,000 people.

Sale Revenue
(Based on 2008 Market Value Estimate for Vacant Serviced Land)

Use	Size	Value	Sale ($m)
Low Rise Residential RA7	20 net ha	2400 units@ $25000 per unit	60.0
Medium Rise Residential RA8	27 net ha	6100 units @ $20000 per unit	122.0
High Density Residential RA9	17 net ha	5500 units @ $18000 per unit	99.0
Medium and High Density Residential	34 net ha	7600 units @ $19000 per unit	144.0
Commercial Office along 111 St	23 net ha	$4.0 million/ha	92
Commercial Office south of 118 Ave	27 net ha	$4.0 million/ha	108.0
NAIT	33 net ha	$4.0 million/ha	132.0
Transportation Node	12 net ha	$2.0 million/ha	24.0
		TOTAL	**781.0**

Development Costs ($m)

Servicing Costs for Redeveloped Areas		(160.0)
Relocate Westwood Integrated Services Facility		(600.0)
FOIPP 24(1)		(30.0)
	TOTAL	**(790.0)**

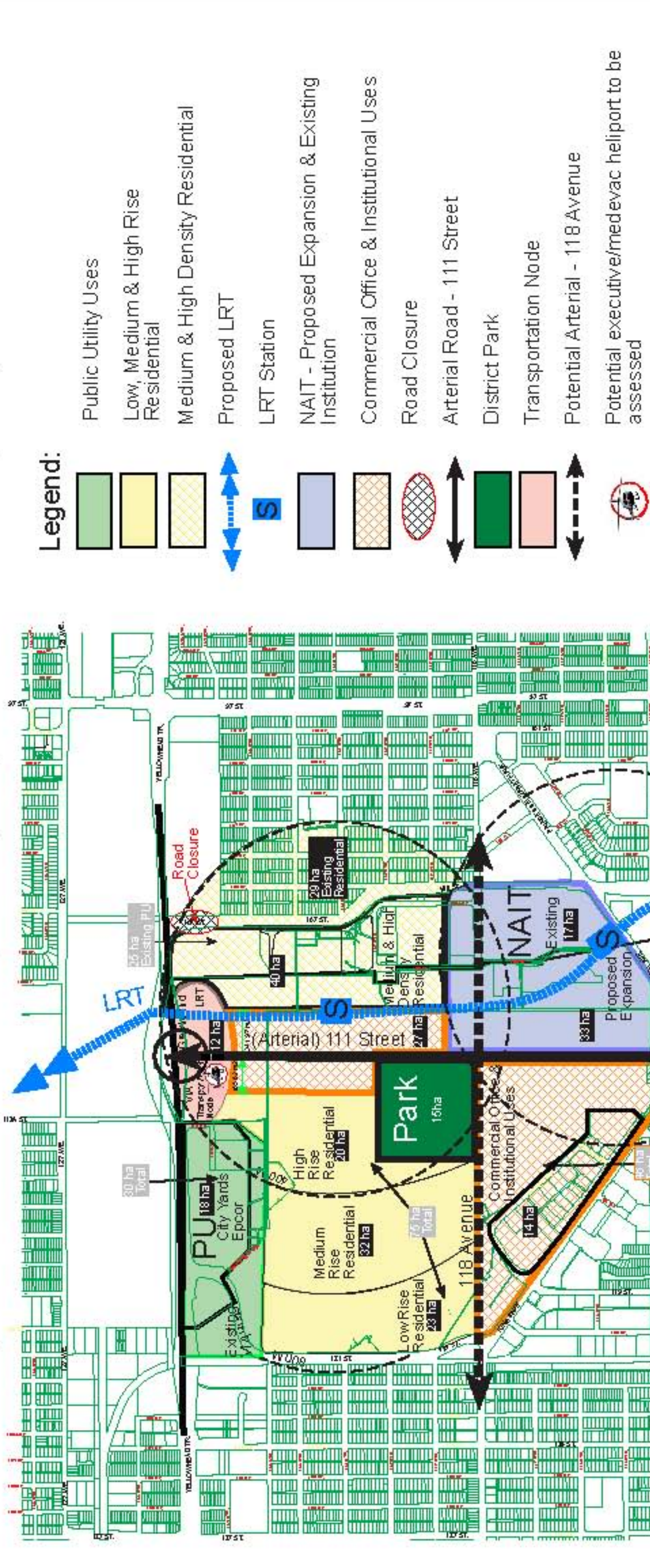
Net Revenue Return ($m)	**TOTAL**	**(9.0)**

Concept Plan 1 has a nominal net return given the cost of the relocation of the Westwood Integrated Services Facility and the other Telus, EPCOR and provincial facilities.

Assumptions
All figures are rounded. All costs are shown in millions of 2008 dollars. Servicing costs include on site utilities including 111 Street and 118 Avenue, plus an allowance for some off site utility upgrades. Costs not included are the LRT construction or modifications to Yellowhead Trail, or any remediation of contaminated soil or groundwater that may be needed. The removal of the existing runways is assumed to be cost neutral as the cost of excavating and processing the pavement structure will be recovered in the value of the recycled aggregate.

Municipal Property Tax Revenue
Concept Plan 1 would generate $70.0 million annually of municipal property tax revenue (assuming full build out, 2007 assessed values and 2008 municipal mill rate).

Edmonton City Centre Concept Plan Proposal 1 (Comprehensive Redevelopment)



	Existing	Proposed Addition	Total
PU	25 Ha	5 Ha	Relocated 30 Ha
Residential	29 Ha	115 Ha	144 Ha
NAIT	17 Ha	33 Ha	50 Ha
Commercial Office & Institution	14 Ha	59 Ha	73 Ha
Park		15 Ha	15 Ha
Transportation Node	3 Ha (VIA)	9 Ha	12 Ha
		236 Ha	324 Ha -29 Ha =295 Ha

Disclaimer: Land Use lots are approximate in size.

Concept Plan 2 – Limited NAIT Expansion and Westwood Integrated Facility Expansion

Concept Plan 2 is based on a *Transit Oriented Development* concept (TOD), served by the LRT. Land uses include medium to high density residential development with commercial/office/institutional uses as employment nodes as well as public utility, district park, light and medium industrial uses and transportation node uses.

Concept 2 does not relocate the Westwood Integrated Complex, but does allow for its expansion by 10 ha. NAIT's expansion is more limited in this plan than Plan 1.

Key development assumptions include:

- NAIT to expand by 12 ha.
- City owned lands discounted by 15% of area for circulation/roadway requirements
- NAIT lands not discounted for circulation/roadway requirements.
- Residential lands discounted by 15% of area for circulation/roadway requirements.
- Residential development assumes 100% build-out as per densities permitted under Edmonton Zoning Bylaw.
- VIA Rail Station relocated to 111 Street/Yellowhead with possibility for Greyhound Bus Depot.
- A heliport site was identified, but needs further assessment because of the implications of its approaches on building heights in the vicinity.
- At 100% build out the projected population would be 32,000 people.

Sale Revenue
(Based on 2008 Market Value Estimate for Vacant Serviced Land)

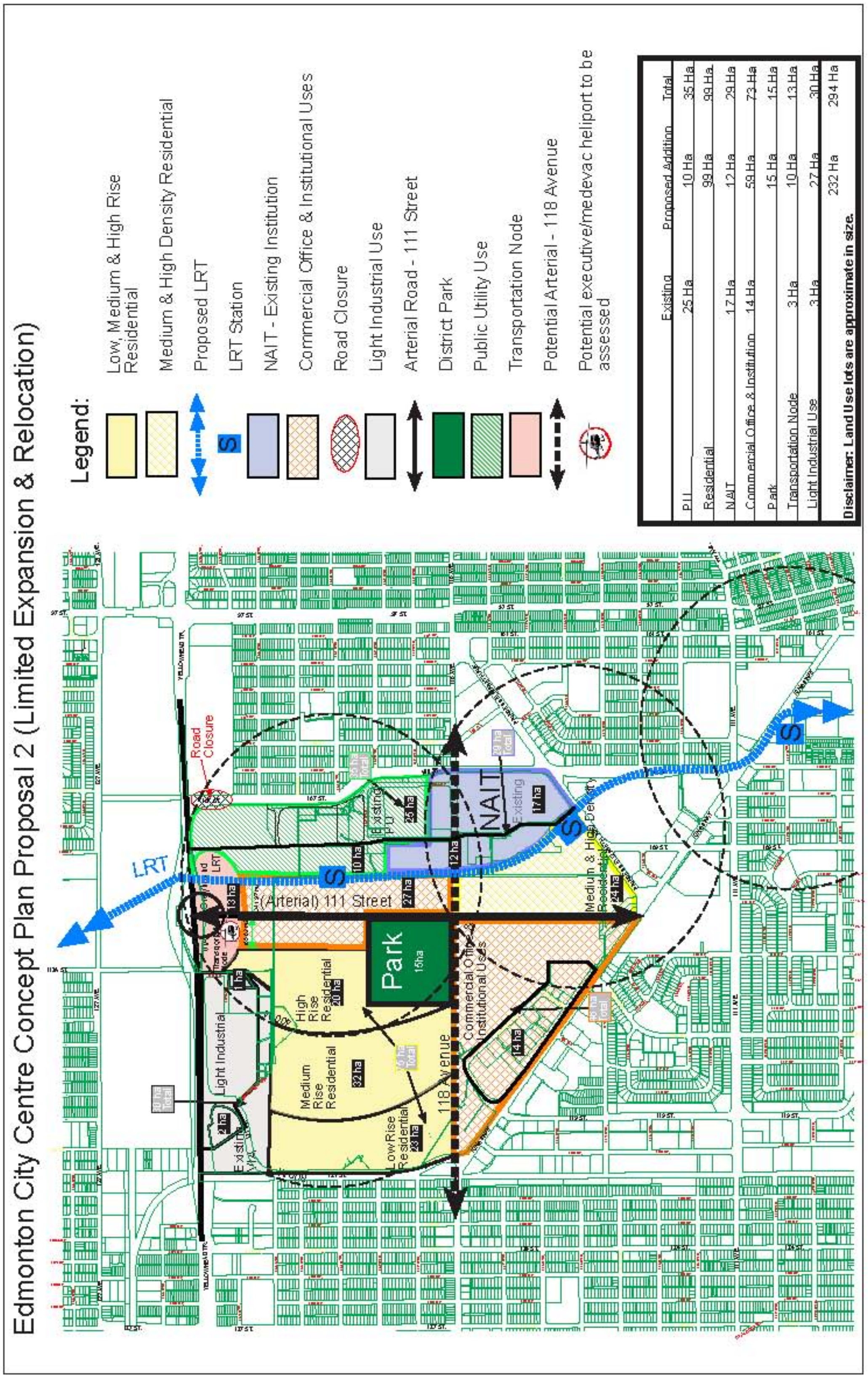
Use	Size	Value	Sale ($m)
Low Rise Residential RA7	20 net ha	2400 units@ $25000 per unit	60.0
Medium Rise Residential RA8	27 net ha	6100 units @ $20000 per unit	122.0
High Density Residential RA9	17 net ha	5500 units @ $18000 per unit	99.0
Medium and High Density Residential	20 net ha	4600 units @ $19000 per unit	87.0
Commercial Office along 111 St	23 net ha	$4.0 million/ha	92.0
Commercial Office south of 118 Ave	27 net ha	$4.0 million/ha	108.0
NAIT	12 net ha	$4.0 million/ha	48.0
Transportation Node	12 net ha	$2.0 million/ha	24.0
Light/Medium Industrial	3 net ha	$2.0 million/ha	6.0
		TOTAL	**646.0**

Development Costs ($m)
Servicing Costs for Redeveloped Areas **TOTAL** **(160.0)**

Net Revenue Return ($m) **TOTAL** **$486.0**
Concept Plan 2 has a positive net revenue return from the development activity of $486,000,000.

Assumptions
All figures are rounded. All costs are shown in millions of 2008 dollars. Servicing costs include on site utilities including 111 Street and 118 Avenue, plus an allowance for some off site utility upgrades. Costs not included are the LRT construction or modifications to Yellowhead Trail, or any remediation of contaminated soil or groundwater that may be needed. The removal of the existing runways is assumed to be cost neutral as the cost of excavating and processing the pavement structure will be recovered in the value of the recycled aggregate.

Municipal Property Tax Revenue
Concept Plan 2 would generate $68.0 million annually of municipal property tax revenue (assuming full build out, 2007 assessed values and 2008 municipal mill rate).



	Existing	Proposed Addition	Total
P.U.	25 Ha	10 Ha	35 Ha
Residential		99 Ha	99 Ha
NAIT	17 Ha	12 Ha	29 Ha
Commercial Office & Institution	14 Ha	59 Ha	73 Ha
Park		15 Ha	15 Ha
Transportation Node	3 Ha	10 Ha	13 Ha
Light Industrial Use	3 Ha	27 Ha	30 Ha
		232 Ha	294 Ha

Disclaimer: Land Use lots are approximate in size.

Concept Plan 3 – No NAIT Expansion and Limited Westwood Integrated Facility Expansion

Concept Plan 3 is based on a *Transit Oriented Development* concept (TOD), served by the LRT. Land uses include medium to high density residential development with commercial/office/institutional uses as employment nodes as well as public utility lands, medium industrial and district park uses.

Concept 2 does not relocate the Westwood Integrated Complex, but does allow for its expansion by 8 ha, while NAIT has no expansion onto the ECCA lands.

Key development assumptions include:

- NAIT has no expansion on ECCA lands.
- City owned lands discounted by 15% of area for circulation/roadway requirements
- Residential lands discounted by 15% of area for circulation/roadway requirements.
- Residential development assumes 100% build-out as per densities permitted under Edmonton Zoning Bylaw.
- VIA Rail Station and medium industrial lands remain as existing.
- A heliport site was identified, but needs further assessment because of the implications of its approaches on building heights in the vicinity.
- At 100% build-out, the projected population would be 34,000 people.

Sale Revenue
(Based on 2008 Market Value Estimate for Vacant Serviced Land

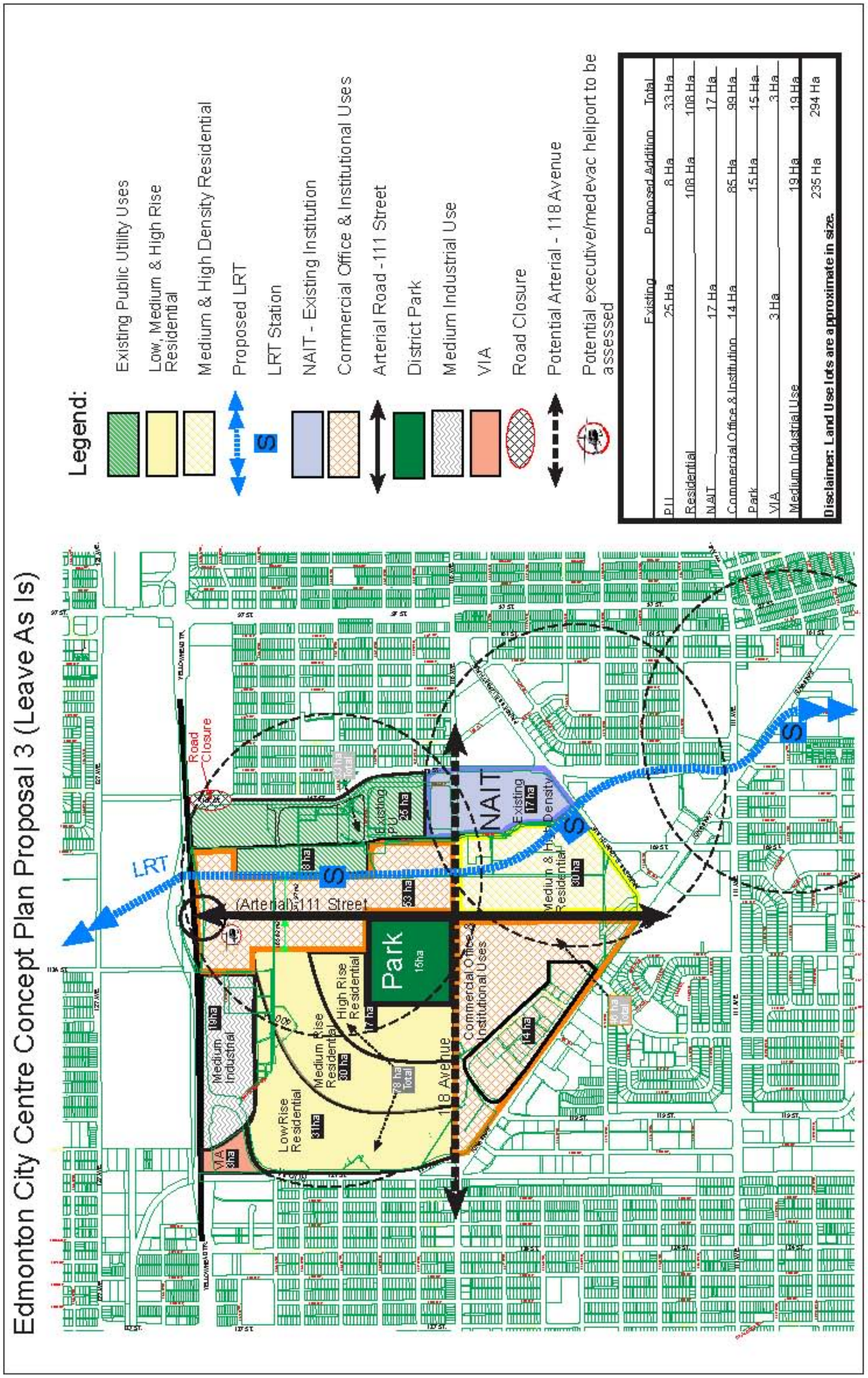
Use	Size	Value	Sale ($m)
Low Rise Residential RA7	26 net ha	3300 units@ $25000 per unit	82.0
Medium Rise Residential RA8	25 net ha	5700 units @ $20000 per unit	114.0
High Density Residential RA9	14 net ha	4700 units @ $18000 per unit	85.0
Medium and High Density Residential	25 net ha	5700 units @ $19000 per unit	108
Commercial Office along 111 St	45 net ha	$4.0 million/ha	180
Commercial Office south of 118 Ave	27 net ha	$4.0 million/ha	108
		TOTAL	677.0

Development Costs ($m)
Servicing Costs for Redeveloped Areas **TOTAL** **(160.0)**

Net Revenue Return ($m) **TOTAL** **$517.0**
Concept Plan 3 has a positive net revenue return from the development activity of $517,000,000.

Assumptions
All figures are rounded. All costs are shown in millions of 2008 dollars. Servicing costs include on site utilities including 111 Street and 118 Avenue, plus an allowance for some off site utility upgrades. Costs not included are the LRT construction or modifications to Yellowhead Trail, or any remediation of contaminated soil or groundwater that may be needed. The removal of the existing runways is assumed to be cost neutral as the cost of excavating and processing the pavement structure will be recovered in the value of the recycled aggregate.

Municipal Property Tax Revenue
Concept Plan 3 would generate $95.0 million annually of municipal property tax revenue (assuming full build out, 2007 assessed values and 2008 municipal mill rate).



	Existing	Proposed Addition	Total
PU	25 Ha	8 Ha	33 Ha
Residential		108 Ha	108 Ha
NAIT	17 Ha		17 Ha
Commercial Office & Institution	14 Ha	85 Ha	99 Ha
Park		15 Ha	15 Ha
VIA	3 Ha		3 Ha
Medium Industrial Use		19 Ha	19 Ha
		235 Ha	294 Ha

Disclaimer: Land Use lots are approximate in size.