

Chapter 3

Calgary International Airport

Table of Contents

	page
3. Calgary International Airport	3-1
3.1 Introduction	3-1
3.2 Existing Facilities.....	3-1
3.3 Airport Master Plan	3-2
3.4 Airport Land-Use Plan.....	3-5
3.5 Airport Strategic Operating Plan, 2009-2013.....	3-5
3.6 Environmental Management	3-7

List of Figures

Figure 3-1 Existing Facilities	3-3
Figure 3-2 Existing Airfield System and PRP (The Calgary Airport Authority, As Shown in the 2004 Master Plan)	3-4
Figure 3-3 Airfield District.....	3-6

3. Calgary International Airport

3.1 Introduction

Calgary International Airport (YYC) is an important element of Canada's overall civil air transportation system, acting as an international gateway for Calgary and southern Alberta. In 2008, YYC became Canada's third busiest airport with over 12.5 million passengers recorded as having used the facility. It is an important economic engine for the Calgary region, providing direct employment for 15,000 people at the airport and indirect employment of 40,000 more.

The airport campus encompasses a land area of 2,136 ha, located entirely within the City of Calgary's municipal boundaries. The airport terminal building is located only 16 km from the City's downtown core, making it one of the most centrally located international airports in Canada.

YYC has operated in its present location since 1939. It has been expanding more or less continuously since then, with the proposed runway being anticipated in airport municipal and provincial planning processes since the late 1970s.

3.2 Existing Facilities

YYC houses a variety of aviation-related industries that form an important intermodal transportation hub. That hub has generated synergies that have attracted other complementary aviation, commercial, educational, and recreational uses such that YYC can be thought of as "a city within a city".

Existing uses (Figure 3-1) include:

1. Existing airfield system, consisting of three intersecting runways and associated taxiways.
2. Air terminal precinct, consisting of the air terminal building, main apron, parking facilities, hotel, offices, and other related facilities.
3. McCall North includes the airport support precinct that consists of a variety of support uses related to the air terminal precinct, including air cargo, flight kitchens, ground handlers, main fire hall, and aviation fuel storage. This area is also home to two major hangar complexes for Air Canada and West Jet. West Jet's recently completed corporate office campus is located adjacent to their hangar.
4. McCall Central, home to a variety of navigational aids such as the main VHF/UHF transmitter and receiver, and the existing field electric centre (FEC), which provides power for the airfield lighting system.
5. McKnight Tradepark and McCall South Tradepark, the historical roots of YYC, are located at the southern end of the airport campus. In the early stages of YYC's history, each area was home to previous air terminal buildings. Over time, these areas have evolved into zones that are now focused on a variety of aircraft maintenance facilities, hangars for corporate aircraft, and other associated industrial and commercial uses. Of note is Southern Alberta Institute of Technology (SAIT)'s Art Smith Aviation campus, located in McCall South.
6. The recently developed Deerfoot Trail South area, located on the west side of the existing airfield, is home to a variety of airfreight users such as Purolator, Fed Ex, and UPS. It also contains a variety of warehouse users, as well as the existing air traffic control tower and the airside maintenance facility.
7. Barlow Trail North, a recently developed area located north of the air terminal building, is home to car rental operations, as well as ancillary industrial and commercial uses. A new hotel is also located within this zone.

8. A major recreational zone exists in the southeast quadrant of the airport. It includes Rotary Challenger Park (a recreational facility designed “from the ground up” as a recreational facility for those with disabilities) and the newly opened Silverwing 27-hole golf course. The cost of the Rotary Challenger Park lease is donated by the Authority.
9. Deerfoot Trail North, an area south of Airport Trail and east of Deerfoot Trail, currently under development for commercial and light industrial uses.

In addition to the uses noted above, the YYC campus has sufficient land available within its current boundaries to accommodate the recent 2004 YYC long-term master plan.

3.3 Airport Master Plan

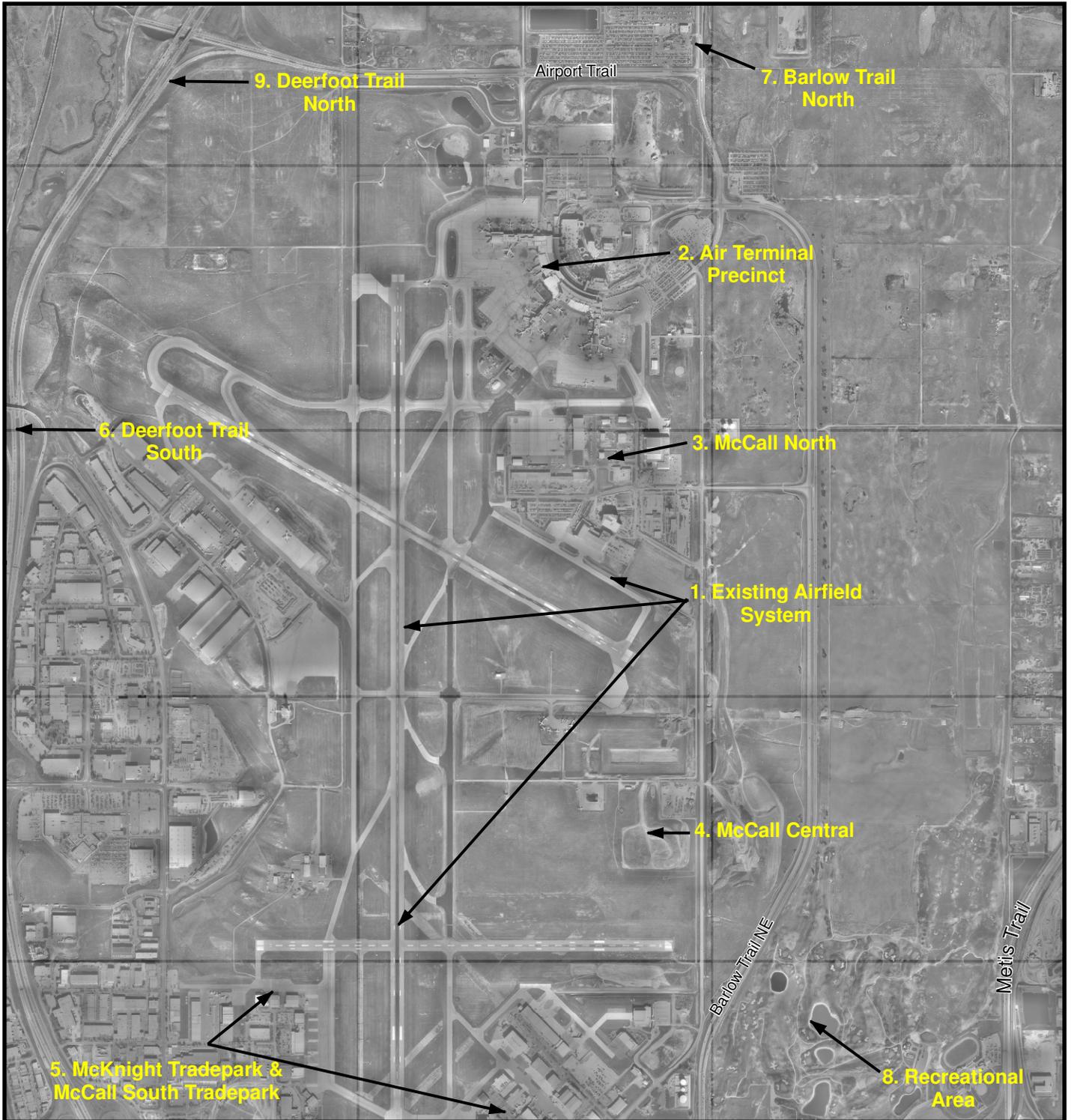
Under Transport Canada (TC), prior to 1992, numerous master planning initiatives for YYC were prepared. As part of its ground lease with the federal government, the Authority is required to prepare and update its master plan on an on-going basis. Since taking over responsibility for operation and management of YYC in 1992, the Authority has published two master plans, one in 1996 and the most recent in 2004.

The purpose of a master plan is to provide “a framework for development over a 20-year period”. The Master Plan takes into consideration the findings of numerous background studies, and combines them into an overall picture of the facility requirements necessary to accommodate forecasted traffic volumes.

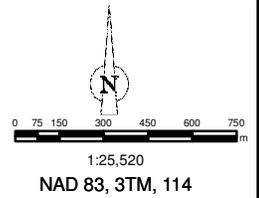
One of the key features of the 2004 Master Plan was the confirmation of the need to provide for a new parallel runway, Runway 16L/34R, within the 20 year planning horizon. Furthermore, the Master Plan specified the critical design aircraft the new Airbus A380 for airfield planning purposes, using standards set by both TC’s TP312 4th Edition and the International Civil Aviation Organization (ICAO)’s Annex 14. Under the standards established by ICAO’s Annex 14, the A380 falls into an aircraft class known as “Code F.”

The identification of the need for an additional runway at YYC is not new, as the initial planning for this runway was undertaken in the late 1960s and 1970s and has been included in master plans for YYC since that time.

In 1977, the Calgary International Airport Zoning Regulation was passed under the federal Aeronautics Act. In addition to imposing controls fixing elevations on each of the thresholds, and thereby controlling the heights of developments on and off YYC property, the Regulation established the separation distance between the existing 16R/34L runway and the proposed parallel runway, as well as the length and orientation of the proposed runway. In 1979, the Alberta Government introduced its Airport Vicinity Protection Area (AVPA) Regulation, which confirmed the runway location. Both the 1996 and 2004 Master Plans conformed to this Regulation in relation to the length, orientation, and location of the parallel runway (Figure 3-2).



Orthophotography from Calgary Airport Authority.



YYC CALGARY AIRPORT AUTHORITY

The Calgary Airport Authority
Runway Development Program
Parallel Runway Project

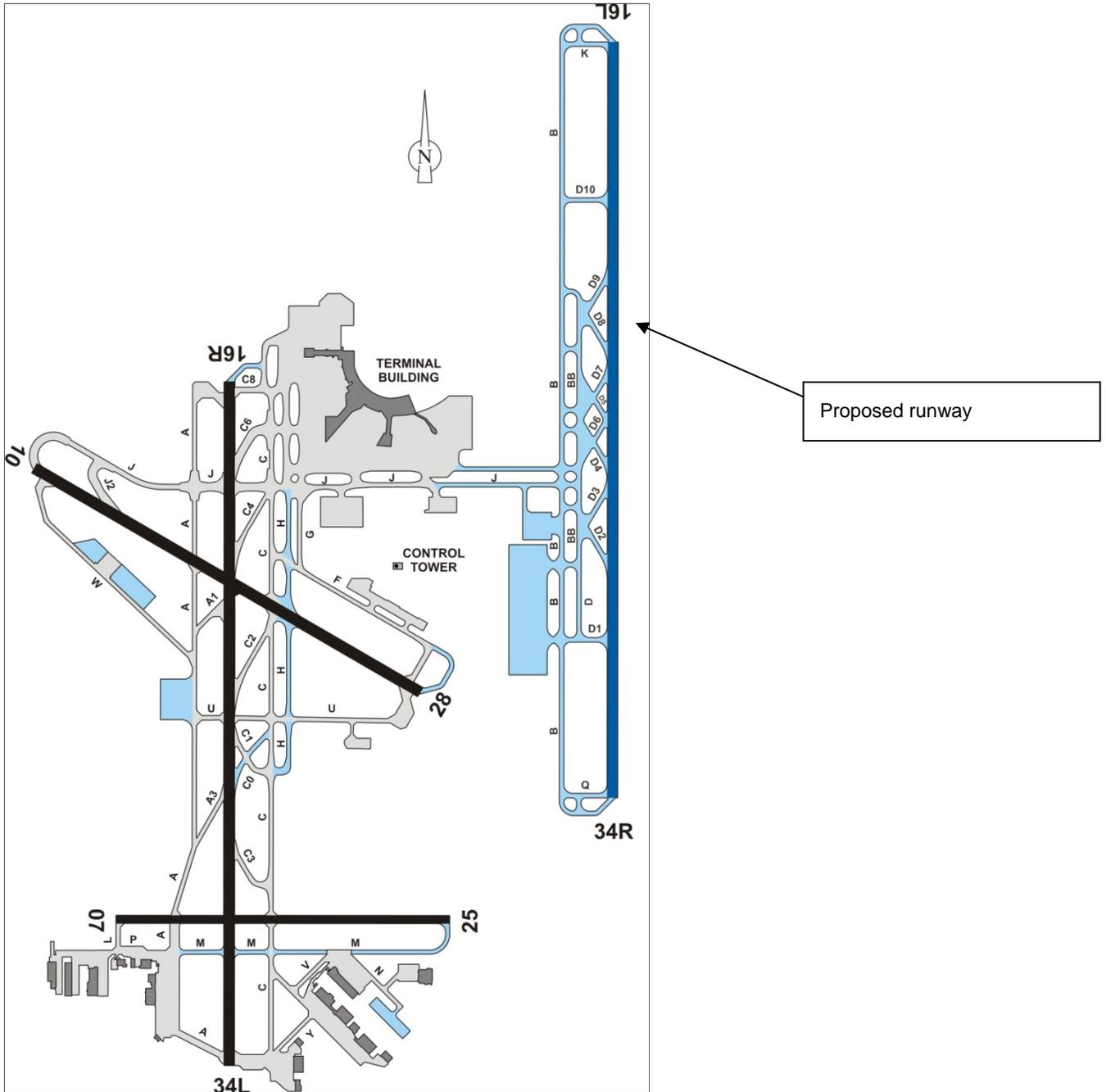
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Existing Facilities

Figure 3-1

Figure 3-2 Existing Airfield System and PRP (The Calgary Airport Authority, As Shown in the 2004 Master Plan)



3.4 Airport Land-Use Plan

The Authority has an approved land-use plan that forms part of the ground lease between the Authority and the federal government. In addition to the ground lease, the land-use plan is included in the City of Calgary/Calgary Airport Authority Agreement on Land Use, Development Guidelines, and Acreage Assessment Levies (City/Airport Agreement). This Agreement was entered into by both parties in 1993, and is intended to act as a framework within which the development of Authority lands will be undertaken.

The land-use plan contained in both the ground lease and the City/Airport Agreement divides YYC into various land-use districts, and includes a list of uses that are permitted within those districts. Within the Land-Use Plan, an Airfield District provides for the movement of aircraft and other facilities directly related to aviation and includes the lands required for the development of the parallel runway (Figure 3-3).

Under the City/Airport Agreement, runways are listed as a “permitted use - category 1(a)” under the Airfield District. Section 4.2 of the Agreement defines Category 1(a) uses as follows: “No request or notification to the Director is required”. Under the Agreement, the Director is defined as “... the official of the City of Calgary who is the head of the Planning and Building Department”.

3.5 Airport Strategic Operating Plan, 2009-2013

In November 2008, the Authority released its Strategic Operating Plan for 2009-2013 (the Plan). The Plan explains steps the Authority will take to maintain and improve its current high performance level in providing airport services to the Calgary region in a sustainable and environmentally acceptable manner.

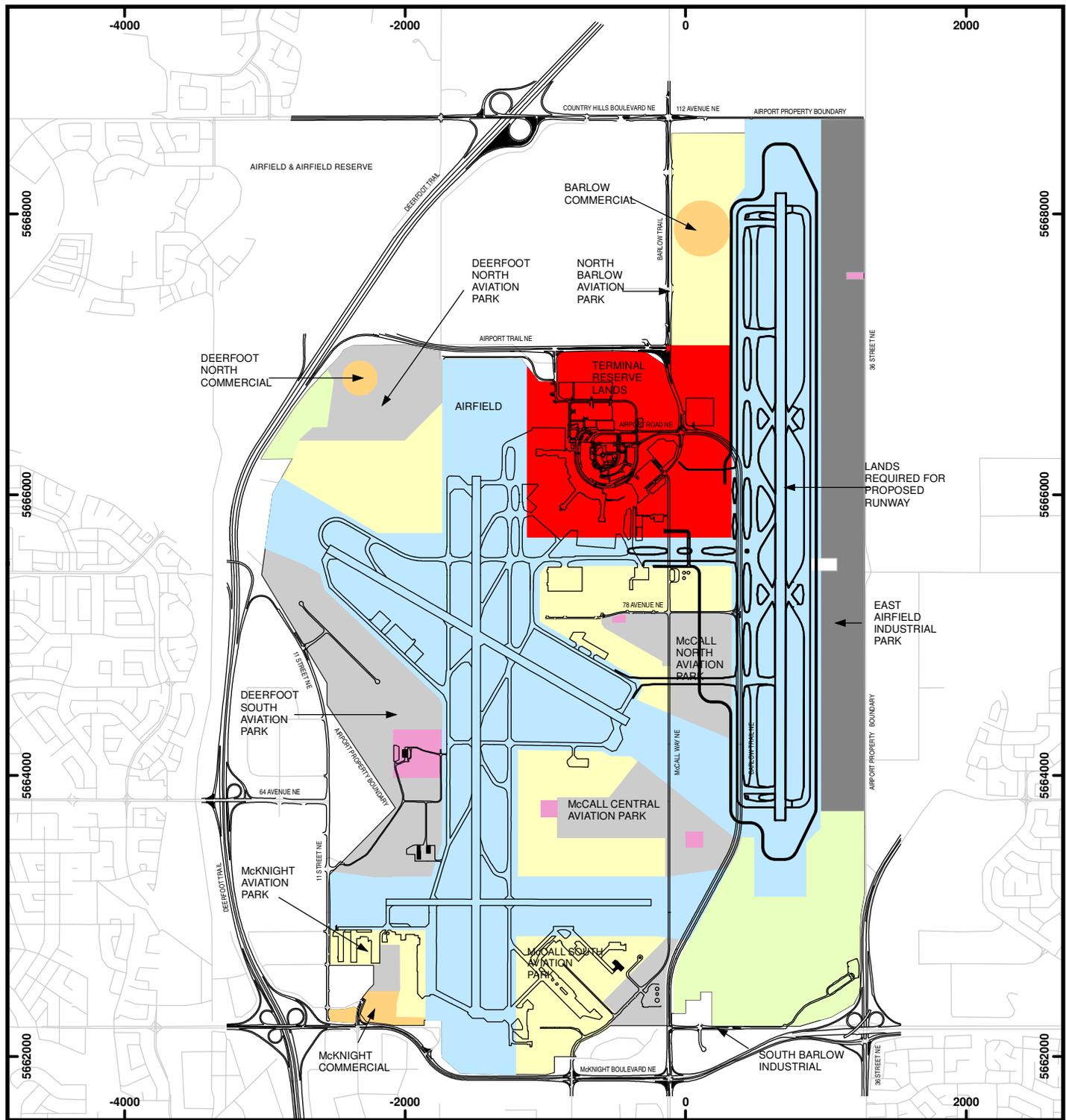
Since 1992, the Authority has invested over \$1 billion to expand airport infrastructure; a further \$3 billion is currently forecast by 2019 to meet the needs of the trading region. Of those funds, \$500 million is for the PRP.

The Plan acknowledges current economic conditions and uncertainty about future levels of economic activity. It points out that a decision to proceed with construction of the new runway will not have to be made until the end of 2010, which is consistent with the targeted completion of the CS process.

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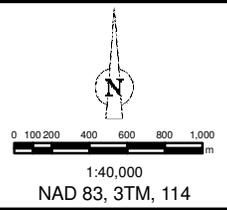
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Base data from NTDB 1:50,000.
 Airport Land Use from Calgary Airport Authority.

- Airfield & Airfield Reserve
- Airport Terminal District
- East Airfield industrial District
- Airport Commercial District
- Operational Services Areas
- Aviation Services District
- Airport Commercial District
- Airport Recreation District



ISS/REV: A



The Calgary Airport Authority
 Runway Development Program
 Parallel Runway Project



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Airfield District

Figure 3-3

3.6 Environmental Management

The Authority has a variety of standards and programs in place under an ISO 14001 compliant Environmental Management System (EMS) to assist it in achieving its goal of operating the airport without significant adverse effects to the environment. The EMS outlines a wide range of programs dealing with specific areas of environmental risk, such as bird and wildlife control, aircraft de-icing, and the management of underground storage tanks, as well as including the commitment to assess environmental impacts associated with projects.

The 2004 Master Plan states the following:

“To make certain the potential environmental effects of development are mitigated, the Airport Authority undertakes an environmental assessment of all projects. The Environmental Assessment Process (EAP) is a self-assessment process compliant with the Canadian Environmental Assessment Act (CEAA), and uses the Canadian Airport Council’s Environmental Assessment Process. The Airport Authority is the decision-making Authority, and is charged with ensuring that the potential environmental effects of all projects are fully considered.” (Calgary Airport Authority, 2004)

In addition, the Authority has a standard template for preparation of ECO Plans for construction projects. The plans detail environmental practices, mitigation, and oversight measures to be employed during construction. An ECO Plan will be prepared for the PRP (see Volume V, Item 14).

The Authority also undertakes noise management as part of its overall environmental program. Chairing the Airport Community Noise Consultative Committee (ACNCC) forms part of the overall program. This Committee is comprised of community association representatives and representatives from key stakeholder groups, such as TC, NAV CANADA, airlines, and municipal planning departments. The Committee typically meets semi-annually and acts primarily as an information forum between the above groups on matters related to airport noise. This committee will be used to communicate the results of the noise assessments of the PRP to their respective associations.