

June 17, 2004



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Attention: Bob Gibbs

Dear Sir:

**Re: Edmonton Exhibition and Midway  
1920 Street Fort Edmonton Park  
Environmental Screening Report, Parking Considerations**

***Transportation Planners  
and Engineers***

Pursuant to our recent discussions, we have had an opportunity to complete an overview of the parking characteristics associated with the 1920's Edmonton Exhibition and Midway development, planned to be constructed and operated within Fort Edmonton Park.

The following brief presents a summary of our assessment and findings. Our work efforts included interviews and discussions with City of Edmonton Community Services representatives. We have also reviewed the October 2002 Programme Statement prepared for the 1920 Midway and Exhibition and the Fort Edmonton Park, 1920's Midway and Exhibition Site Plan Report prepared by HIP Architects for the Fort Edmonton Historical Foundation.

We have attended to the site on a number of occasions to gain further insight into current parking operations and utilization characteristics and have completed a series of parking accumulation surveys. Based on our work efforts to date, we are pleased to advance the following submission.

*Bunt & Associates  
Engineering (N. Alberta) Ltd.*

## **1.0 INTRODUCTION**

### **1.1 Preamble**

Parking is an integral component of any re-development project and can strongly influence the economics and viability of a project.

In recognition of the proposed construction and operation of the 1920's Midway and Exhibition, careful consideration must be given to the possible incremental increase in site parking generation.

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Sufficient parking must be provided/available to reasonably provide for the needs of the expanded Fort Edmonton Park facility, in recognition of future developments that may be considered within the Fort Edmonton Park area, while staying within the physical and financial constraints of the project. This will ensure that the function and the integrity of the existing parking management plan employed at Fort Edmonton Park is maintained.

## **1.2 Study Purpose and Scope**

The purpose of completing a Parking Assessment at this stage of planning was to:

- Gain an appreciation for the extent of parking supply and demand associated with existing development activity at Fort Edmonton Park through a review of historical statistics and other related data;
- Qualify, quantify and identify the availability and distribution of surplus stalls within existing parking areas within the greater Fort Edmonton Park development area;
- Assess pedestrian access to the site;
- Evaluate emergency and service vehicle access to the site;
- Identify and assess the parking characteristics (incremental demand) associated with the development of the Midway and Exhibition, and;
- Identify any operational constraints or parking management limitations (event programming) from a parking supply/demand perspective and identify any mitigative measures to resolve any adverse impacts.

The impacts on adjacent parking accommodation resulting from the construction and operation of the project are documented in this brief. The primary function of this report is to determine whether the proposed development will negatively impact current parking characteristics associated with Fort Edmonton Park.

## **1.2 Study Goals and Objectives**

The primary goal of the study was to prepare an effective and balanced parking plan to assist with the continued orderly development of the Fort Edmonton Park site while allowing for possible increased parking demands to be accommodated. The following study goals and objectives were established:

- assembly of current and future development activity, attendance statistics and characteristics and existing parking area supply/demand data to be used as the background for the estimation of future parking patterns;
- review and evaluate current and future land use plans through a review of the Master Plan. As such, parking accommodation was addressed from a cumulative impact perspective;
- gain an appreciation and understanding for the extent of parking demand associated with the existing development site;

- provide comment and suggest modifications to the current parking plan to ensure that a functional parking program is described, and;
- ensure that the recommended plan accounts for and acknowledges any constraints identified and to ensure that acceptable levels of service are maintained from both a traffic, parking and pedestrian perspective.

## **2.0 EXISTING AREA CONDITIONS**

### **2.1 Introduction**

Fort Edmonton Park is located in the North Saskatchewan River Valley south of the Quesnell Bridge and west of Whitemud Drive on Lot Block A, Plan 852 1469. Fort Edmonton is currently accessed from Fox Drive immediately west of Whitemud Creek, due east of the Fox Drive/Whitemud interchange. The intersection of the Fort Edmonton access and Fox Drive is traffic signal controlled. **Exhibit 1** illustrates the site location and orientation.

Fort Edmonton Park is a living history museum that traces the development of Edmonton through four historical periods – The Fort, 1885 Street, 1905 Street, and 1920 Street. The Park currently features over 75 structures, many of which are the originals while others are recreations. The Park is open May 23<sup>rd</sup> – August 31<sup>st</sup> daily. From September 1<sup>st</sup> to October 3<sup>rd</sup>, the Park is open on Sundays and is open on Labour Day. The Park is also open October 9<sup>th</sup> – 11<sup>th</sup> for Homecoming Weekend. In addition, guided wagon tours are given from September 1<sup>st</sup> to October 1<sup>st</sup> on Monday – Saturday. In addition, four major events are held at Fort Edmonton Park – Spring Carnival (opening weekend), Highland Gathering, Canada Day, and the Harvest Fair.

In addition, the park operates some programs during the winter months. Various park venues and facilities can be reserved and booked to accommodate meetings and special events (banquets, private functions, etc.) on a year round basis. Facility rentals typically occur on off-peak days and in the evening. Parking associated with these types of events in and of themselves does not create or result in parking concerns. In many cases, to facilitate the movement of guests at events which attract a significant attendance, transit is most often used from downtown and area hotels.

### **2.2 Existing Parking Inventory**

Existing parking demands at Fort Edmonton Park are accommodated in four general parking areas. The primary parking facility is a paved parking apron, shared with the John Janzen Nature Centre, accommodating approximately 448 parking spaces. Eight of these spaces are designated as handicapped stall while 18 spaces are allotted for staff only. This primary parking facility can generally accommodate most daily and weekend parking demands; however, when additional parking is required, an immediately adjacent grass overflow area is available.

This latter parking area provides an additional parking area accommodating approximately 431 spaces. Additional overflow parking demand can also be accommodated along Fort Edmonton Park Road and in an additional overflow lot bounded by Fort Edmonton Park Road and Fox Drive. This latter overflow parking area can accommodate about 352 vehicles. Finally, parking designated for Selkirk Hotel Guest Parking is available near the Administration Building. Approximately 20 parking spaces are located in this area.

**Table 1** summarizes the available parking inventory at Fort Edmonton Park. As presented in Table 1, there are approximately 1,400 parking spaces that are available on an as required basis. The 93 parking spaces identified along the Service Road were estimated by calculating the available length of roadway and assuming 7m per vehicle. It should be noted that this parking inventory does not include parking spaces located in the immediate vicinity of Fort Edmonton. The general location of these parking fields is also illustrated on Exhibit 1.

**Table 1: Available Fort Edmonton Park Parking**

<b>Location</b>	<b>Number of Parking Spaces Available</b>
Primary Lot – Parking Zone A	448
Staff Only Lot off Primary Lot	18
Grass Overflow Lot – Parking Zone B	431
Fort Edmonton Road/Overflow Lot	352
Handicap parking-Train Station	23
Handicap parking-near Fort	15
Blanchard Hangar	20
Hotel Selkirk	20
On-street (Staff only)	93
<b>TOTAL</b>	<b>1397</b>

### **2.3 Historical Attendance Characteristics**

#### Annual Attendance Profiles

In order to gain an appreciation for the parking demand generated by Fort Edmonton Park, site attendance and parking utilization information was provided by representatives of Fort Edmonton Park. Monthly and yearly gate attendance statistics were provided and are summarized in **Table 2**.

As can be highlighted from Table 2, gate admissions over the past few years increased on a yearly basis and peaked at about 130,000 people in 2001. Patron attendance has declined since 2001 by approximately 15,000 annual patrons. Peak monthly gate attendance occurs in July or August. In combination, approximately 60,000 people visit the site during this two month period. It has been estimated that attendance at the park in July and August represent about 50% of the annual park attendance.

**Table 2: Monthly and Yearly Fort Edmonton Park Gate Attendance**

	YEAR				
	1999	2000	2001	2002	2003
January	0	0	0	10	0
February	1917	1765	1024	1098	309
March	0	0	6	2476	0
April	4065	3200	2737	72	2779
May	10973	13425	12364	9702	9604
June	23803	23160	25229	24560	23412
July	33777	40005	36934	33862	34113
August	34319	35810	38029	33767	34223
September	9291	4949	10269	8371	6987
October	4700	3900	4500	4000	4658
November	0	0	0	0	0
December	0	1794	0	0	0
<b>TOTAL</b>	<b>122,845</b>	<b>128,008</b>	<b>131,092</b>	<b>117,918</b>	<b>116,121</b>

In regards to the above, it is interesting to note that attendance/occupancy at the Shaw Conference Centre also peaked in 2001 and then declined for the next two years. Based on discussions with representatives of the Conference Centre, events associated with the September 11, 2001 incident, the war in Iraq and SARS had profound impacts on travel and tourism globally. Attendance decreases witnessed at the Conference Centre and at Fort Edmonton Park reflect national trends seen throughout Canada.

Daily Attendance Profiles

Daily attendance was also assessed. Daily attendance varies throughout the year. Attendance is lowest during the weekdays and greater on Sundays and long weekends. However, the three to four major events – Canada Day, Harvest Fair, and Opening Weekend – are the busiest event days at Fort Edmonton Park.

The average weekday attendance has been assumed to be approximately 1,000. During these time frames, the main parking lot is sufficient to accommodate the parking demands generated. Overflow parking facilities are typically not utilized during these periods.

Sundays represent the busiest attendance days throughout the summer at Fort Edmonton Park. Additionally, long weekends also witness a greater than average attendance having a similar magnitude as Sunday attendance. From information provided, the average Sunday and long weekend attendance is about 1,450 daily gate admissions. During these periods, the main lot as well as limited use of the grass overflow lot may be utilized to accommodate the generated parking demands.

Special event days including Canada Day, Harvest Fair, and opening weekend occur 3 to 4 times per year. Historical attendance records for these events indicate that the average attendance is approximately 4,000 to 8,000 people per day. For these special events, it is possible for the main lot and both overflow lots to be utilized, although 100% utilization does not usually occur. To aid in maximizing the use of available parking spaces, parking attendants direct traffic during these events. Fort Edmonton Park staff have also recently employed the use of field markings to assist in developing parking modules to maximize area parking supplies.

Over the entire course of the year, Special Event Days are considered to be rare and only occur on an infrequent basis.

It should be noted that gate attendance statistics are independent of program and rental generated attendance such as tours, conventions and other bookings. These events can generate an additional 70,000 to 85,000 patrons on a yearly basis.

Rentals and bookings at Fort Edmonton Park occur during the evenings or during the off season and will continue to do so after the Midway is developed. Larger bookings of over 800 people (the capacity of the Blanchard Hangar) usually utilize shuttle services to take attendees to the Park. This is mainly due to the fact that most of the people attending these types of functions are not residents of Edmonton.

The attendance to the Park is obviously dependent on the event and weather conditions. It is believed that the attendance statistics presented reflect current and historical operating conditions.

## **2.4 Existing Parking Characteristics**

To supplement observational information related to parking demand advanced by Fort Edmonton Park representatives, parking accumulation surveys were completed at Fort Edmonton Park during two types of events.

The first 2 surveys were completed on Sunday, May 23, 2004 and Monday, May 24, 2004. These two days represented the opening weekend which occurred during the May long weekend. The surveys were generally completed between 12:00 noon and 4:30 PM on Sunday and Monday.

As mentioned previously, the opening weekend represents one of the largest attendance periods at Fort Edmonton Park. Daily attendance on Sunday was recorded at about 2,600 people, while daily attendance on Monday was recorded at about 4,000 people.

A second parking accumulation survey was completed while a 1,500 person event was being staged at the park. This event (AUMA Conference, May 28, 2004) represented an extremely large booking. Notwithstanding that these types of events are rare, the parking and transportation characteristics of this event were assumed to be similar to other large bookings

that occur at the Fort throughout the year. The parking accumulation surveys completed during this event were completed generally between 4:00 Pm and 8:00 PM.

**Table 3** summarizes the results of the parking accumulation surveys completed. For the purpose of this assessment, the percentage of occupied spaces for “All Parking Zones” represented a parking inventory of about 1,050 spaces (including Parking Zones A and B). This magnitude of parking does not include the off-site overflow parking fields (352 spaces) located on the east side of the Quesnell Bridge and which are only utilized as required on Special Event Days.

**Table 3: Parking Survey Summary**

Date	Parking Zones A and B			All Parking Zones		
	Spaces Occupied	Peak Hour	% of Spaces Occupied	Spaces Occupied	Peak Hour	Spaces Occupied
05/23/04	510	2:00 PM	48%	589	1:30 PM	56%
05/24/04	616	2:00 PM	60%	725	2:00 PM	70%
05/28/04	132	7:30 PM	13%	211	7:30 PM	20%

As can be highlighted from Table 3, during the opening weekend, parking activity peaked at approximately 2:00 PM in the afternoon. The peak period of parking occurred on Monday of the Long Weekend when approximately 70% of the available parking spaces were occupied. This magnitude of parking translates into a surplus of about 325 on-site parking spaces.

Daily attendance at Fort Edmonton Park on Sunday and Monday of the opening weekend was 2,600 and 4,000 people respectively. These attendance statistics translate into daily parking indices of between 0.15 and 0.2 occupied spaces per daily attendee during the peak hour of parking demand.

The parking characteristics associated with the many different events held at Fort Edmonton Park can vary considerably as a function of the time of year, special event day occurrence and whether a special event draws from a local or regional market when transit shuttles are most often used to assist patrons in attending to the Park.

Discussions with staff at Fort Edmonton Park indicate that the parking supplied at their facility is sufficient and meets their needs. It is of note that the parking lots do not reach 100% occupancy even during special event days. As mentioned previously, overflow parking areas are used as required to accommodate additional parking demand during Special Event Days. However, the occurrence of such events is very infrequent. To date, no significant issues have been identified in regards to the availability of parking spaces at Fort Edmonton Park.

## **2.5 Mode Split Characteristics**

Although current mode split information was not available for the site, historical information (January, 2000) indicates that transit use (Edmonton Transit) is low and that vehicle occupancy



is in the order of 3-4 people per vehicle. Auto occupancies of 3-4 people per vehicle are in line with published data (ITE) which suggests that auto occupancies for amusement type facilities are in the order of 3.1-3.5 persons per vehicle.

A City of Edmonton transit zone is located at Fort Edmonton Park along Fox Drive. Bus tours transport approximately 5,000 people per year.

It is also of note that participants attending to functions within some of the on-site venues are also often bussed to the site from area hotels. Parking for large vehicles and buses can be accommodated in both the primary parking lot and the adjacent overflow facility.

## **2.6 Staff Parking**

Some staff parking is provided separately on site at Fort Edmonton Park. Staff members are also requested to park along the service frontage road during peak attendance days. During normal operating days, staff parking is accommodated in the overflow parking lot (Grass Overflow Lot).

## **3.0 PROPOSED DEVELOPMENT CHARACTERISTICS**

### **3.1 Proposed Land Use Schedule**

The 1920's Midway and Exhibition will include numerous building developments that are unlike anything currently built in the Park. The following is a list of the proposed developments for the 1920's Midway and Exhibition.

- Carousel (32 horses and 2 chariots)
- Exhibits Building (3360 sf)
- Ferris Wheel
- Aeroplane Ride
- Game Booths (6 in total at 500 sf each)
- Hi Striker (21 ft high)
- House of Mirrors (1152 sf)
- Side Show Tent (1600 sf)
- Areas for Large and small show tents (Large tent approx. 2000 sf)
- Entry Gate

These developments are to be built within the Activity Sector of Fort Edmonton Park. Under the Zoning By-law for the River Valley Activity Node Zone, the proposed developments are permitted under the discretionary Carnival land use. It is the goal of Fort Edmonton Park to attempt to increase yearly gate admissions by 10,000, spread over May through August, by the development of the 1920's Midway and Exhibition development.



### **3.2 Forecast Attendance Patterns – Design Day**

The construction and operation of the 1920's Midway and Exhibition will allow the Fort Edmonton Park facility to provide an additional venue to attract more potential groups and organizations and to increase gate attendance.

Based on discussions with representatives of Fort Edmonton Park, the construction and operation of the Midway and Exhibition are anticipated to increase annual attendance by approximately 10,000 people. However, the operation of the Midway and Exhibition in itself is not anticipated to generate a significant increase in overall parking demands on a daily basis.

As mentioned previously, Special Event Days at present have the capability of attracting between 4,000 and 8,000 people on a daily basis. A 10,000 person increase in annual attendance represents an approximate 8.5% increase in annual attendance over 2003 statistics. For the purposes of this assessment, it has been assumed that Special Event Days attract daily populations in the order of about 6,000 people. A projected increase of about 8.5% over current Special Event Day daily populations would result in gate admissions being in the order of about 6,500 daily admissions, or an increase of about 500 people per day.

## **4.0 PARKING ASSESSMENT**

### **4.1 Zoning By-law Parking Requirements**

Facilities at Fort Edmonton Park can be categorized under a number of different use class definitions. The various facilities at the Park could be classified as hotel land uses, general retail stores, outdoor amusement establishments, indoor participant recreation services, restaurants and exhibition, spectator entertainment establishments and convention facilities. From a parking supply perspective, the aforementioned land use classes have different off-street parking requirements, typically based on the number of available seats in the facility or the floor area used by patrons.

The Zoning By-law for the City of Edmonton states that any development within the Community, Educational, Recreational and Cultural Service Use Class not listed separately shall provide 1 parking space per 3.5 seats or 3.1 parking spaces per 10 m<sup>2</sup> of Floor Area used by patrons.

Given the variety of land use facilities within the Park, it is somewhat difficult to definitively assign a particular land use class to the overall development. The Midway and Exhibition development is probably best classified as a Carnival land use.

Fort Edmonton Park is districted as a River Valley Activity Node Zone (AN). Regulations and guidelines associated with this zone acknowledge that there is most likely not a single parking index that would appropriately reflect overall development site parking requirements. The development regulations associated with this land use district state that a parking impact assessment should be completed for all major facility and development applications in order to develop a more appropriate and customized parking supply for the development area.

#### **4.2 Parking Demand/Supply Strategy**

As mentioned previously, it has been projected that an incremental increase of about 500 people per Special Event Day could be anticipated. Based on this design capacity (6,500 daily gate admissions) and assuming a parking ratio of between 0.15 and 0.2 occupied spaces per person (daily population), it has been estimated that between 975 and 1,300 parking spaces would be required to meet anticipated peak period parking demands. The existing parking inventory, including the off-site overflow parking lots are of sufficient supply to meet this design requirement.

#### **4.3 Synopsis**

The assessment has concluded that during normal operating days which may generate patron crowds in the order of 1,500 people (daily attendance), sufficient parking exists to accommodate anticipated parking demands, including possible incremental increases in parking demand generated by the Midway and Exhibition.

There will continue to be, on occasion, special event days which will generate a patron base which could be in the order of 6,500 people. This design condition occurs very infrequently. However, the assessment has concluded that the incremental increase in parking demand associated with the construction and operation of the Midway and Exhibition could be accommodated without causing any significant concerns from a parking generation and accommodation perspective. Parking generated by the development should not unduly interfere with or affect the parking characteristics of the overall development, or other adjacent developments, in that, sufficient parking opportunities will continue to exist within the development area.

**Transit Provision:** Although Fort Edmonton Park and the John Janzen Nature Centre are identified as being major attractions within the City of Edmonton, no direct transit service is currently provided to these sites. Consideration could be given to developing peak hour transit service into the development sites on Special Event Days to provide patrons with an alternative mode of transportation.

**Pedestrian Accommodation and Handicap Parking Provision:** The 1920's Midway and Exhibition will be easily accessible from the main and overflow parking facilities via the existing pedestrian walkway system.

Although general parking provision for Midway and Exhibition patrons will be confined to existing parking facilities, to provide parking accommodation for all possible patrons, it is recommended that handicap parking spaces be provided in the immediate vicinity of the Midway and Exhibition. Access to these parking spaces can be arranged through Fort Edmonton Park administration representatives.

**Service Vehicle Provision:** It is anticipated that provision for service vehicles will be incorporated into the development plans for the construction of the Midway and Exhibition via the existing service road system.

**Special Event Planning:** To accommodate parking demands generated by the expanded facility and to better accommodate large attendance events, it is recommended that Fort Edmonton Park representatives continue to promote the use of shuttles as a parking management tactic to better accommodate large bookings.

Fort Edmonton Park will continue to operate as it has in the past and will continue to provide activities, functions, and recreation opportunities for Edmontonians and tourists alike. The existing parking supply should be more than adequate to accommodate the parking demands associated with the new 1920's Midway and Exhibition being considered for the park site.

## **5.0 CONCLUSIONS**

It has been concluded that the proposed construction and operation of the 1920's Midway and Exhibition development can be accommodated from a parking supply and demand perspective. No additional parking spaces are deemed required to be constructed at this time to accommodate the proposed development. The incremental increase in parking demands associated with an expanded Fort Edmonton Park facility can be accommodated without causing significant concerns from an area parking accommodation perspective. The construction and operation of the 1920's Midway and Exhibition is not anticipated to unduly interfere with or affect current or future area parking operations.

It is anticipated that the assessment meets with your immediate needs and requirements and represents a rational and systematic assessment methodology. Furthermore, it is anticipated that this brief will provide you with a level of comfort and confidence that the proposed development is appropriate from a parking accommodation perspective. Please do not hesitate to contact us should you require any further information or clarification regarding our submission.

Sincerely,  
**Bunt & Associates**

Mark Huberman, P.Eng.

Attachment