2017 LRT Passenger Count Report

by Monitoring & Geospatial Services

Urban Form and Corporate Strategic Development | City Planning

City of Edmonton

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Executive Summary

The purpose of the count is to describe boarding and alighting data on the Capital Line and the Metro Line.

The City of Edmonton conducted the 2017 LRT Passenger Count during the SEP17 signup occurring between September 3, 2017 and December 2, 2017. The purpose of this count is to describe boarding and alighting data on the Capital Line and the Metro Line, during a time when service hours are at their highest level and post-secondary institutions and schools are in session. The LRT Passenger Count represents the average passenger flow of a typical fall weekday on each LRT line as well as describing the station activity at each LRT station.
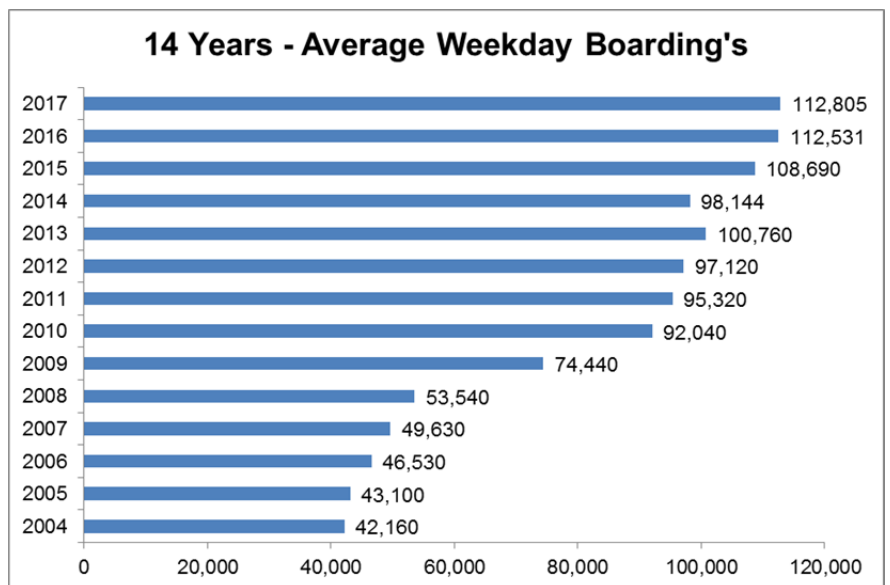
In 2017, the average weekday boarding's and alighting's on both LRT lines was 112,805.

The 2017 LRT Passenger Count found that there are approximately **112,805** average weekday boarding's and **112,805** average weekday alighting's on both the Capital and Metro lines. This represents an increase of **0.24%** from the previous year and an increase of **3.79%** from 2015.

Other Key Findings:

- Average weekday total boarding's and alighting's: **225,610.**
- **78,040** boarding's on the Capital Line, a decrease of **2.81%** from the previous year.
- **34,765** boarding's on the Metro Line, an increase of **7.85%** from the previous year.
- The greatest increase in boarding's occurred at MacEwan Station (**37.5 %** increase).
- The greatest increase in alighting's also occurred at MacEwan Station (**44.4 %** increase).

Station Activity (High to Low)		
University	27,394	12.1%
Century Park	26,715	11.8%
Churchill	20,863	9.2%
Southgate	19,293	8.6%
Clareview	16,577	7.3%
Health Sciences/Jubilee	15,853	7.0%
Corona	15,613	6.9%
Central	12,511	5.5%
South Campus/Fort Edmonton	10,834	4.8%
Bay/Enterprise Square	9,650	4.3%
Belvedere	8,611	3.8%
MacEwan	8,140	3.6%
Coliseum	7,041	3.1%
NAIT	6,639	2.9%
Grandin/Govt Centre	5,861	2.6%
Stadium	5,198	2.3%
Kingsway/RAH	4,648	2.1%
McKernan/Belgravia	4,169	1.8%
Total	**225,610**	**100.0%**

14 Years - Average Weekday Boarding's

Year	Boarding's
2017	112,805
2016	112,531
2015	108,690
2014	98,144
2013	100,760
2012	97,120
2011	95,320
2010	92,040
2009	74,440
2008	53,540
2007	49,630
2006	46,530
2005	43,100
2004	42,160

Introduction

LRT was first introduced in 1978, in time for the 1978 Commonwealth Games.

Edmonton Transit Service (ETS) started Light Rail Transit (LRT) service in 1978 starting with the Capital Line which now is a 16.1 km line from Clareview station in northeast Edmonton to Century Park station in south Edmonton. The Metro Line opened on Sunday, September 6, 2015 as a 3.3 km extension from Churchill station to the Northern Alberta Institute of Technology (NAIT) station.

Although 78 LRV's are required to operate the Metro and Capital Lines, ETS has a total of 94 LRV's in their fleet.

During the SEP17 signup, LRT service was operated with 78 light-rail vehicles (LRV) on the Capital and Metro Lines connecting 18 LRT stations (10 of which are connected to an ETS Transit Centre). The Capital Line provides 125 weekday trips between Clareview and Century Park stations while the Metro Line provides 76 weekday trips between NAIT and Century Park stations.

The LRT Passenger Count methodology manually counts passengers at every LRV door for each train from the beginning to the end of the service day. This train-level methodology provides accurate data while reducing counting errors and stages the data for analysis and reporting.

The project team makes every effort to avoid doing counts during special event however not all events can be avoided.

In addition to the regular scheduled service, ETS operates extra service on the lines for special events such as hockey or football games or other major events at venues near the LRT lines. While the project team tries to avoid doing passenger counts during these major events, not all events can be avoided. Passenger counts from these special events are sometimes blended in with the regular scheduled service passenger count. The number of events from one year's counting to the next may produce a positive or negative variance on the passenger count and may have an impact on the final passenger count reported.

Further in-depth analysis of this survey can be found on the Monitoring and Geospatial Services Tableau link:

https://public.tableau.com/profile/urban.analysis

This site will allow the end user to customize the data and conduct analysis based on personal requirements.

Total Station Activity

Station activity refers to the total number of boarding's and alighting's at each LRT station on both the Metro and Capital Lines. Figure 1 is a breakdown of total station activity. Table 1 is a breakdown of total station activity compared to 2016.
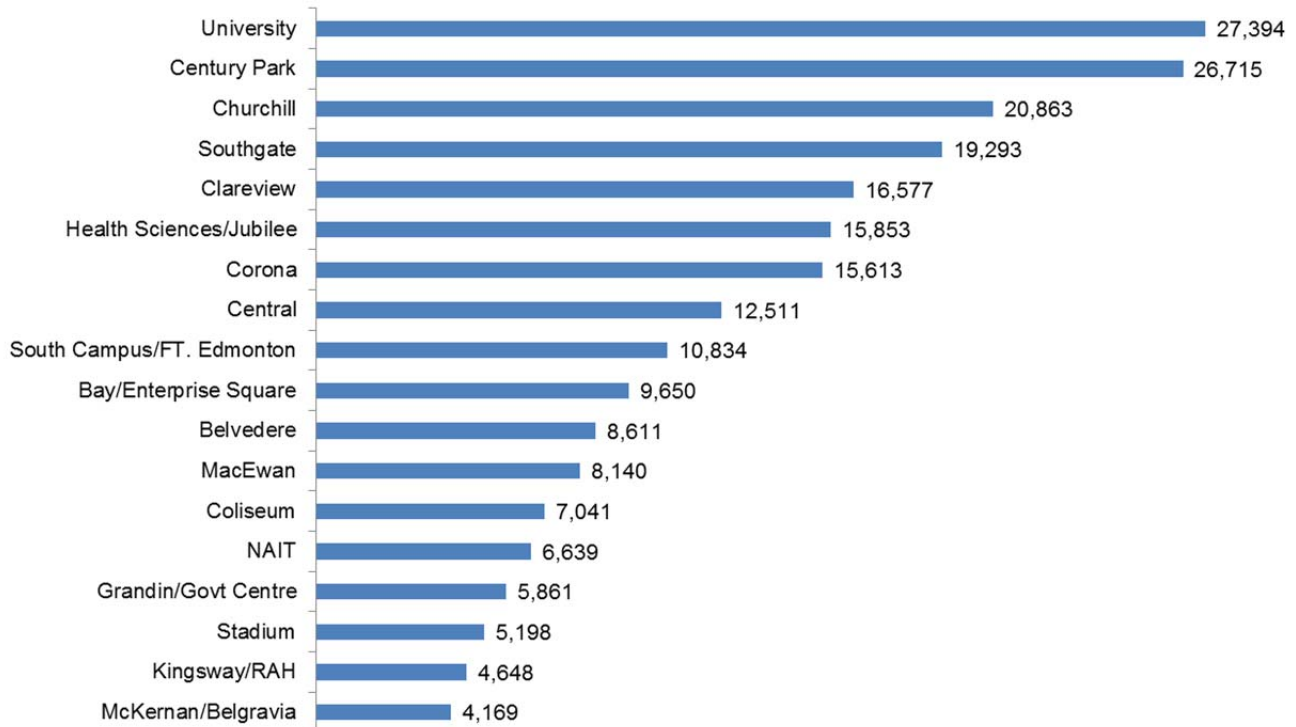
Figure 1: 2017 Total Station Activity:

Table 1: Percent Change In Total Station Activity:

LRT Station	2017 Boarding	2016 Boarding	% Change Boarding	2017 Alighting	2016 Alighting	% Change Alighting	2017 Station Total	2016 Station Total	% Change Total
University	13,078	12,970	0.83%	14,316	13,307	7.58%	27,394	26,277	4.25%
Century Park	13,533	13,579	-0.34%	13,182	13,626	-3.26%	26,715	27,205	-1.80%
Churchill	10,647	10,274	3.63%	10,216	10,647	-4.05%	20,863	20,921	-0.28%
Southgate	9,291	9,153	1.51%	10,002	9,785	2.22%	19,293	18,938	1.87%
Clareview	8,434	8,916	-5.41%	8,143	8,160	-0.21%	16,577	17,076	-2.92%
Health Sciences/Jubilee	8,028	8,071	-0.53%	7,825	7,530	3.92%	15,853	15,601	1.62%
Corona	7,740	7,723	0.22%	7,873	7,899	-0.33%	15,613	15,622	-0.06%
Central	6,303	6,510	-3.18%	6,208	6,640	-6.51%	12,511	13,150	-4.86%
South Campus/FT. Edmonton	5,613	5,215	7.63%	5,221	5,109	2.19%	10,834	10,324	4.94%
Bay/Enterprise Square	4,785	5,317	-10.01%	4,865	5,883	-17.30%	9,650	11,200	-13.84%
Belvedere	4,423	4,525	-2.25%	4,188	4,300	-2.60%	8,611	8,825	-2.42%
MacEwan	4,052	2,946	37.54%	4,088	2,831	44.40%	8,140	5,777	40.90%
Coliseum	3,546	3,777	-6.12%	3,495	3,849	-9.20%	7,041	7,626	-7.67%
NAIT	3,417	3,424	-0.20%	3,222	2,964	8.70%	6,639	6,388	3.93%
Grandin/Govt Centre	3,009	2,826	6.48%	2,852	2,838	0.49%	5,861	5,664	3.48%
Stadium	2,606	3,027	-13.91%	2,592	2,959	-12.40%	5,198	5,986	-13.16%
Kingsway/RAH	2,170	1,947	11.45%	2,478	2,125	16.61%	4,648	4,072	14.15%
McKernan/Belgravia	2,130	2,331	-8.62%	2,039	2,079	-1.92%	4,169	4,410	-5.46%
LRT TOTAL	112,805	112,531	0.24%	112,805	112,531	0.24%	225,610	225,062	0.24%

Total Boarding's and Alighting's

Total boarding's and alighting's refers to the total number of passenger entries and exits from both the Metro and Capital Lines.

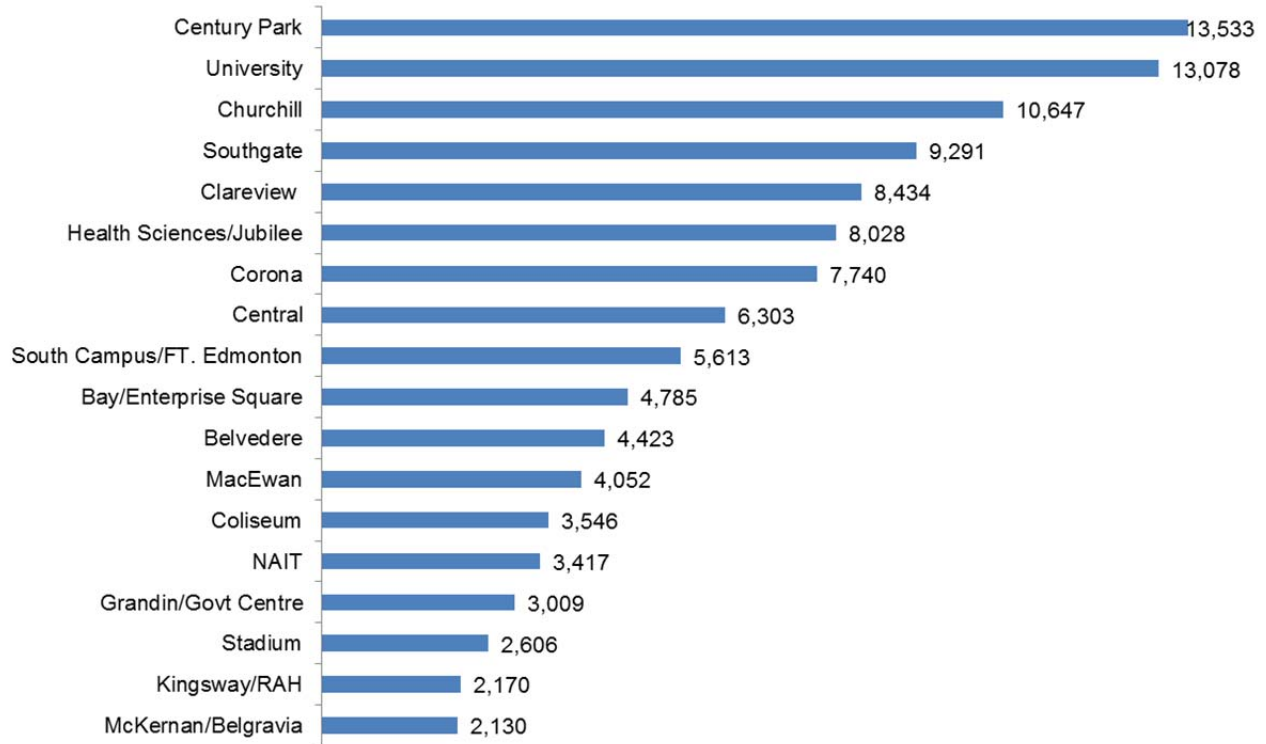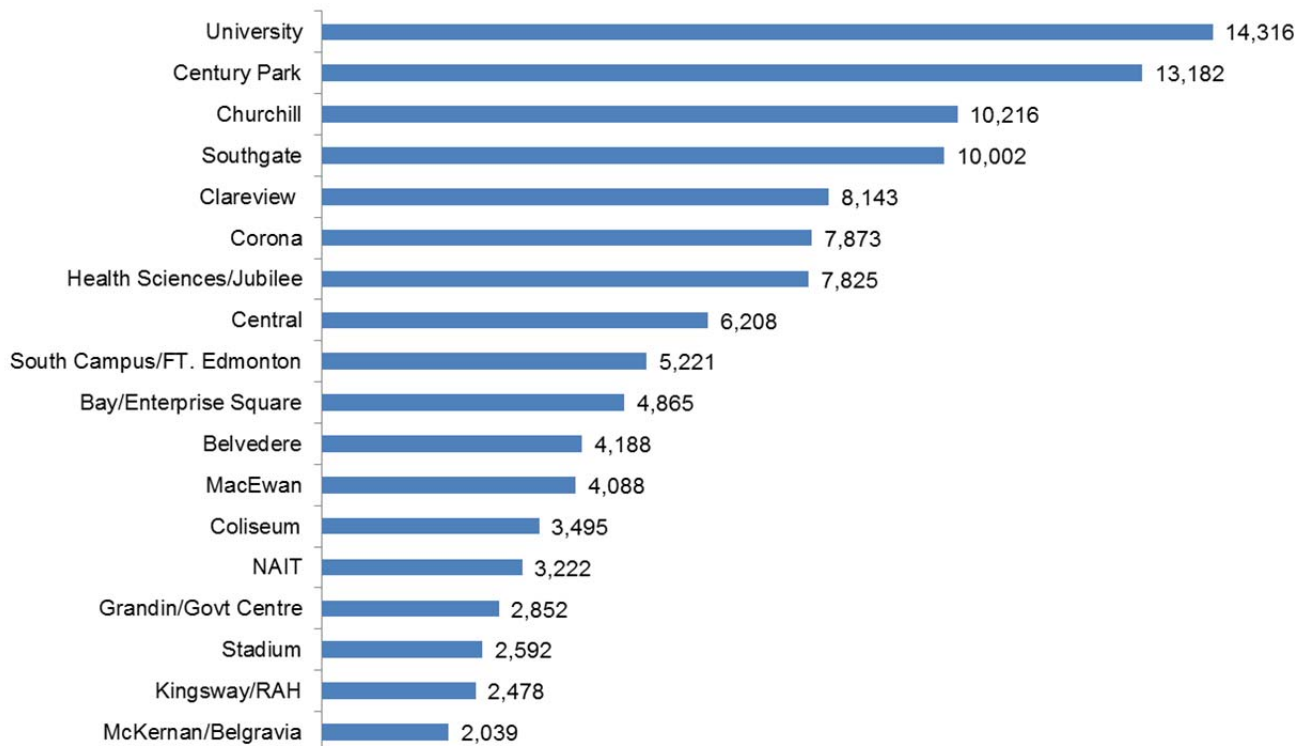Figure 2: 2017 Total Boarding's By Station:

Station	Boardings
Century Park	13,533
University	13,078
Churchill	10,647
Southgate	9,291
Clareview	8,434
Health Sciences/Jubilee	8,028
Corona	7,740
Central	6,303
South Campus/FT. Edmonton	5,613
Bay/Enterprise Square	4,785
Belvedere	4,423
MacEwan	4,052
Coliseum	3,546
NAIT	3,417
Grandin/Govt Centre	3,009
Stadium	2,606
Kingsway/RAH	2,170
McKernan/Belgravia	2,130

Figure 3: 2017 Total Alighting's By Station:

Station	Alightings
University	14,316
Century Park	13,182
Churchill	10,216
Southgate	10,002
Clareview	8,143
Corona	7,873
Health Sciences/Jubilee	7,825
Central	6,208
South Campus/FT. Edmonton	5,221
Bay/Enterprise Square	4,865
Belvedere	4,188
MacEwan	4,088
Coliseum	3,495
NAIT	3,222
Grandin/Govt Centre	2,852
Stadium	2,592
Kingsway/RAH	2,478
McKernan/Belgravia	2,039

Capital Line Analysis

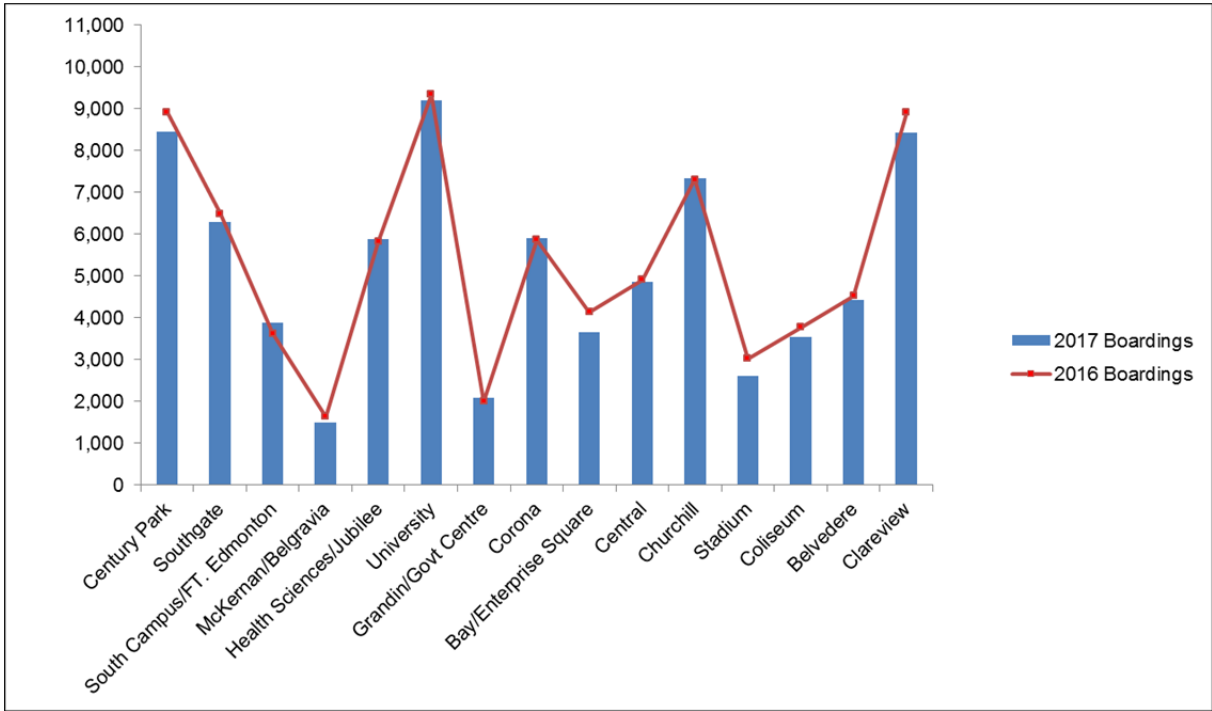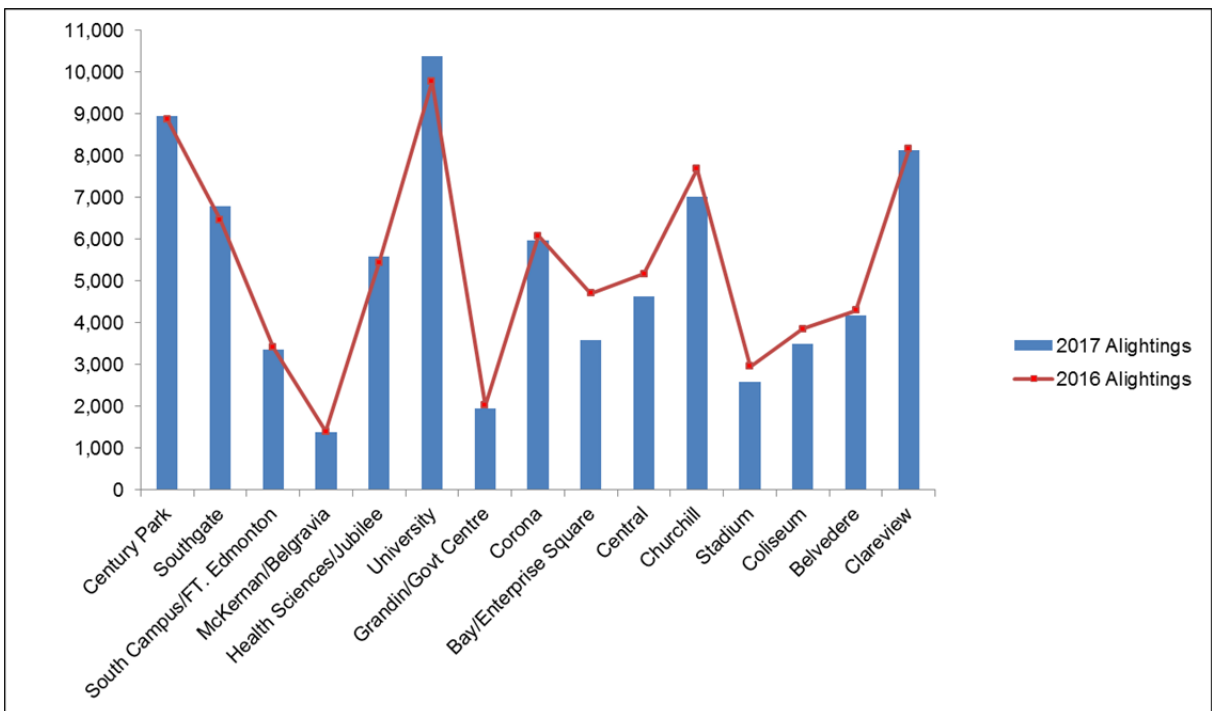Figure 4: Capital Line Total Boarding's:

Figure 5: Capital Line Total Alighting's:

Metro Line Analysis
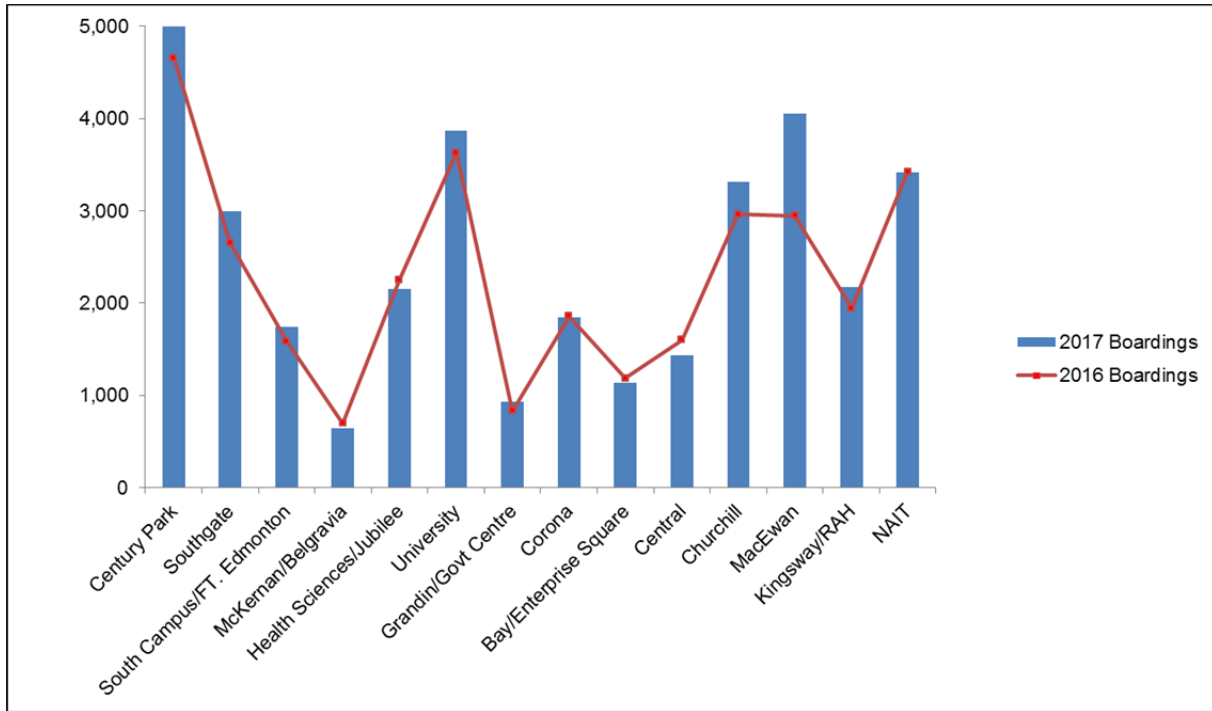
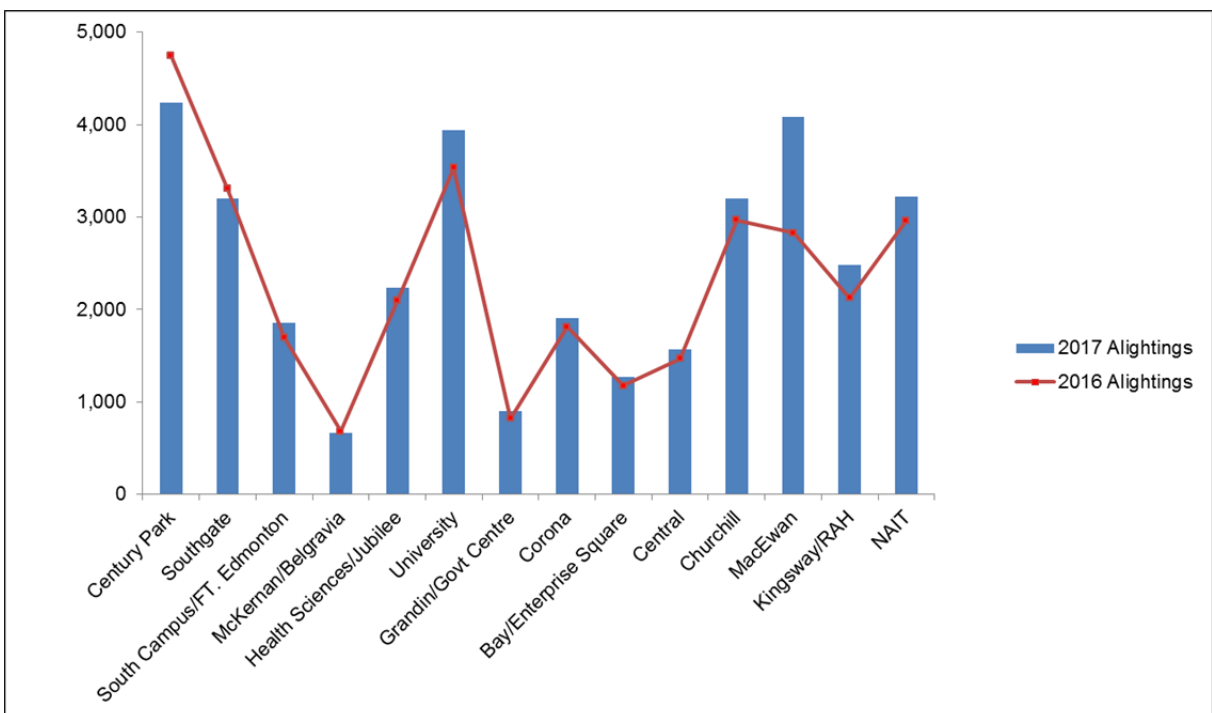Figure 6: Metro Line Total Boarding's:

Figure 7: Metro Line Total Alighting's:

DISCLAIMER

The Monitoring & Geospatial Services team makes an extensive effort to assure the quality of information contained in this report is correct. Transit data, including LRT ridership can vary by 10 percent or more from one day to the other or by season to season. Our team tries to minimize the variations by conducting surveys around the same time of the year. Year to Year variation may be due to random events such as weather, accidents or unforeseen events affecting service delivery. It is impossible to achieve complete accuracy and consistency in the reported data.

We recommend looking at trends, since variation that is consistent over a longer period is more likely to be real and not just the result of random events. Consideration and appropriate weighting of other sources is to be encouraged before making decisions.