

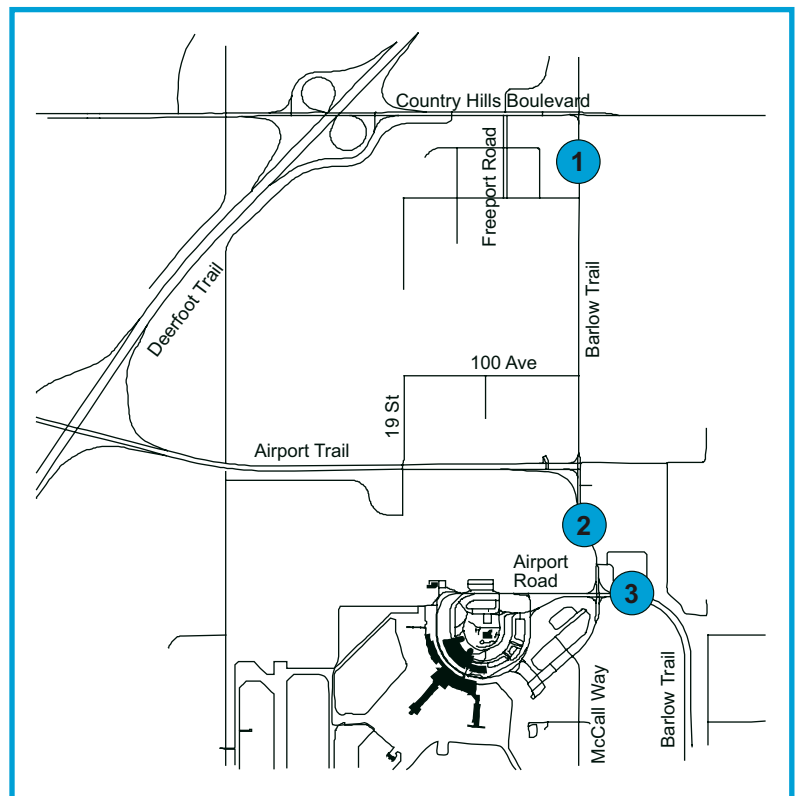


TRAFFIC PATTERN CHANGES AFTER THE OPENING OF AIRPORT TRAIL

In June 2001 Airport Trail was opened, providing another access route to the Calgary International Airport. This opening created an opportunity to study how the introduction of a new roadway affects the routes that people use to get to their destination. This *Mobility Monitor* will look at how traffic volumes have changed at three locations near Airport Trail.

KEY FINDING

In August 2001, 12,900 vehicles per day were using Airport Trail. By April 2003, this had grown to 14,000 vehicles per day.

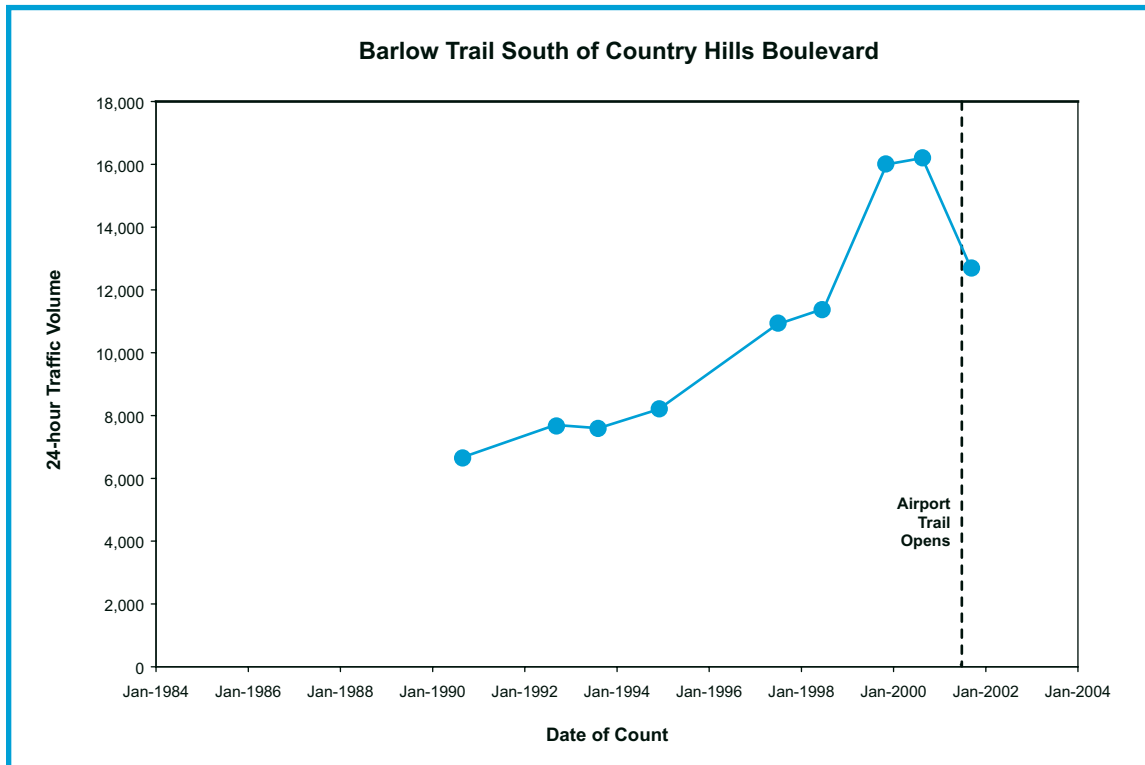


- The traffic volume on Airport Road west of the Barlow Trail and Airport Road intersection dropped slightly from 31,400 vehicles per day to 30,800 vehicles per day after Airport Trail was opened. Since this is a small decrease the changes in other volumes will be due to changes in route selection or traffic growth unrelated to the airport.
- By 2003 the traffic volume on Airport Trail had reached 14,000 vehicles per day. The traffic volume on Barlow Trail east of the Barlow Trail and Airport Road intersection, which had been the primary access route, was 18,300 vehicles per day in 2003.

The Transportation Data Section of Transportation Planning produces the *Mobility Monitor* with the goal of making people working in the field of transportation more aware of the information the section can provide. The Transportation Data Section is responsible for collecting information on travel for use in planning and operating the city's roads, transit and pathways.

KEY FINDING

The traffic volume on the section of Barlow Trail, south of Country Hills Boulevard (#1 on the map) dropped from 16,200 vehicles a day to 12,800 vehicles per day after Airport Trail opened.



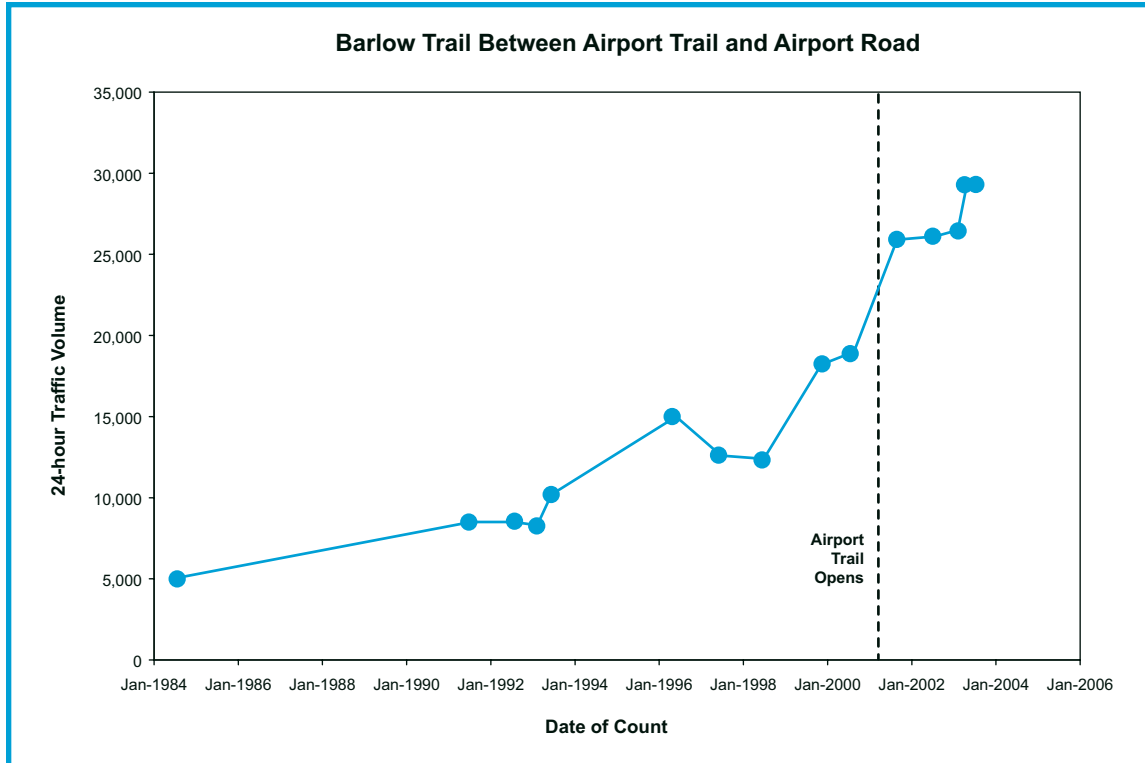
- Between 1990 and 1998 traffic volumes on Barlow Trail, south of Country Hills Boulevard grew at about 7% per year.
- From 1998 to 1999 the annual growth rate jumped to 28% per year.
- After the opening of Airport Trail traffic volumes on this section of Barlow Trail dropped 20%. During 2001 Country Hills Boulevard was being widened, and traffic delays due to construction may have influenced traffic volumes.
- It appears that about 3,400 vehicle trips a day shifted from this section of Barlow Trail to Airport Trail after it was opened. However, the development of the area north of Airport Trail likely means that there was an overall increase in traffic, so the number of trips that shifted may be higher than it appears.

Count Data Used to Evaluate the Impact of the Airport Trail Opening

Two types of counts were used for this *Mobility Monitor*. Automatic traffic counters were used to collect estimates of traffic volumes for 24-hour periods. Manual intersection traffic counts collected data for 6-hour periods. Information from the automatic counts was used to adjust the manual intersection count data to estimate 24-hour volumes.

KEY FINDING

The traffic volume on Barlow Trail, between Airport Trail and Airport Road (#2 on the map) grew from 19,000 vehicles per day to 25,900 vehicles per day after Airport Trail was opened.



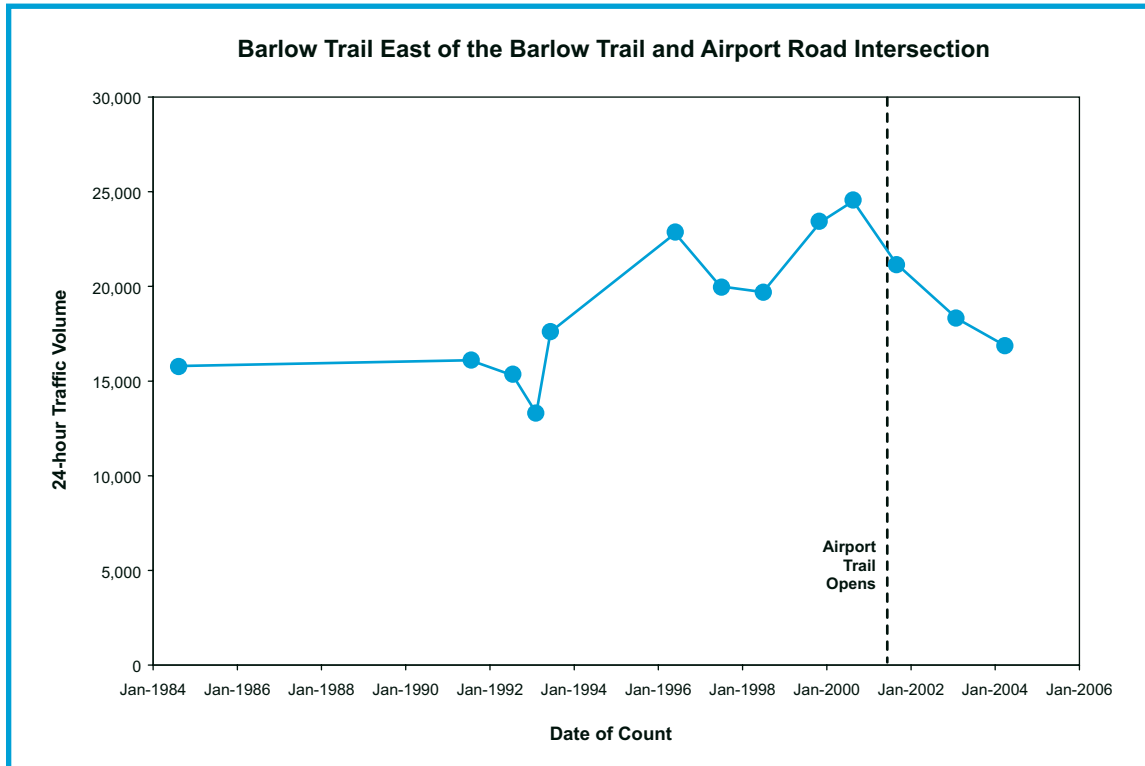
- From 1984 to 2000 traffic volumes on Barlow Trail increased from 5,100 vehicles per day to 19,000 vehicles per day. During this period the volume went up and down several times, but over all traffic volumes grew by about 8.5% per year.
- Traffic volumes increased substantially after Airport Trail opened. In 2003 traffic volumes grew from 26,500 vehicles per day to 29,300 vehicles per day.
- Traffic volumes on this section of Barlow Trail grew because traffic was shifting away from Barlow Trail north of Airport Trail, and away from Barlow Trail east of the Barlow Trail and Airport Road intersection in order to use Airport Trail.

Why Study the Impact of a New Road?

Some people may question the value of studying the impact of transportation system changes after they happen. Usually we would like to know what will happen before it happens. These kinds of studies are valuable in gaining an understanding of how changes can affect travel behaviour. They can also warn us when things turn out differently than we expected, so we can react in a timely manner.

KEY FINDING

The traffic volume on Barlow Trail, east of the Barlow Trail and Airport Road intersection (#3 on the map) dropped from 24,500 vehicles per day to 21,200 vehicles per day after Airport Trail was opened.



- Between 1984 and 2000, traffic volumes on Barlow Trail east of the Barlow Trail and Airport Road intersection grew at just under 3% per year. The traffic volumes varied considerably from year to year. In 1993 there was a sharp decline in traffic, but it rebounded later in the year.
- After traffic shifted away from this road in 2001, it continued to decrease from 21,200 in 2001, to 18,300 in 2003 and 16,800 in 2004.
- This data indicates that a substantial volume of traffic has shifted away from Barlow Trail to Airport Trail. This could be 25% or more of the total traffic on Barlow Trail.

How Accurate and Reliable is This Data?

How concerned should you be by the potential for error in the data presented in the *Mobility Monitor*? Traffic on a road can vary by 10% or more from one day to the next. A change from one year to the next may be due to some random event, such as the weather, accidents or illness. For this reason, it is wise to look at trends, since changes that are consistent over a long period of time are more likely to be real, and not just the result of random events.