

NEWSLETTER no 04

Early delivery of equitable and healthy transport options in new suburbs: Critical reforms and tools



Source: Nearmap and PSP Manor Lakes

Welcome

Welcome to the fourth newsletter of the “Early delivery of equitable and healthy transport options in new suburbs: Critical reforms and tools” project. This internal newsletter is to update RMIT’s project partners on activities both undertaken and planned, and to report preliminary insights.

Activities this quarter

In the last few months the project team has focused on the GIS analysis of transport criteria, distributing the resident survey and preparing and starting its analysis.

Furthermore, we’ve searched for more interesting international examples on early delivery of transport and finalised the briefing paper on development contributions in Victoria.

Some points from emerging insights

- Of the participants in the resident survey:
 - * 46 % of the respondents who answered this question were female and 53 % male.
 - 1 % identified as neither male nor female.
 - * The youngest person to participate was 19 years old, the oldest 89 years.
 - * 45 % of the participants who stated their suburb live in Selandra Rise and 48 % in Allura; the remainder lives in close proximity to the estates, but not within the estate boundaries.
 - * 45 % of the respondents who responded to this question were born outside Australia.
 - * In Selandra Rise about half of the respondents were satisfied with access to public transport in comparison to about a quarter in Allura. Dissatisfied with access to public transport in their neighbourhood were about half of the respondents in Allura and about a quarter in Selandra Rise.
 - International examples of interest are the FasTracks program in Denver, Colorado and the partnership with Uber in the Town of Innisfel, Ontario.
 - The analysis of the infrastructure contribution systems in Victoria has shown that the Infrastructure Contribution Plan (ICP) system satisfies the good practice principles introduced in the last newsletter to a large extent, although there is naturally still room for improvement. The Growth Areas Infrastructure Contribution (GAIC) satisfies these principles to a lesser extent. One of the main reasons for this is that the GAIC is essentially a combination of a user-pays contribution and a betterment charge. This is explained in more detail in the briefing paper on development contributions in Victoria. .
- More detailed overviews of the project team activities, insights and further relevant news are set out in the ‘Comprehensive update’ on the next pages.

Activities April - June 2019

Work across the three work streams “Policy and process analysis”, “Funding approaches and modelling” and “Resident Research” has included:

- Resident Research: dissemination of survey; preparation of analysis (entering paper surveys; setting up SPSS file etc.); start of analysis;
- GIS analysis of transport criteria in PSP areas;
- Researching international examples of early transport delivery;
- Finalising the briefing paper on development contributions in Victoria;
- Participation in Wyndham’s Trackless Tram workshop; talking to staff members of the Victorian Auditor-Generals’ Office about infrastructure contributions; interview on SBS German radio
- Finalising the research partner contract



Some preliminary insights

Update on measuring access to transport and infrastructure across Melbourne’s Growth Areas

The project focusses on the relationship between the planning process and the delivery of transport and built environment infrastructure. However, what is planned for is not always delivered on-the-ground in a timely fashion nor is it necessarily delivered according to the plan. Thus, to examine adherence to goals set out in the Precinct Structure Planning Guidelines in growth areas we are measuring the built environment using a variety of built environment measures.

How do we calculate all of this data? We are using addresses based on Geocoded National Address File (GNAF) data produced by PSMA Australia as a representation of address locations. For Greater Melbourne this data set consists of over 1.7 million address points. For our case studies, we linked this

data to the Precinct Structure Plan (PSP) boundary data to identify Cranbourne East and Truganina South PSPs using a Geographic Information System software package called QGIS. Additional geographic and Australian Bureau of Statistics (ABS) regions were also linked to this data. This means we will be able to make comparisons between different areas of Melbourne by Local Government Area, Statistical Area Level 1, or across a variety of PSP boundaries for the different measures we calculate.

Next, for each address point, we use custom scripts in combination with a variety of datasets such as Open Street Map (OSM) or the ABS to calculate a variety of measures of the built environment and infrastructure.

For example, we calculate measures for dwelling density, street connectivity, and access to key destinations such as access to transport, supermarkets, parks and open spaces, which were identified in the project's briefing paper on transport goals in the PSP Guidelines as being important for local mobility.

To derive summary measures for each PSP we will average the data across the address data points within each PSP using a statistical analysis package such as Stata. These summary measures will help us understand how walkable these areas are, and the extent of transport access in terms of distance to bus and train stops in comparison to other areas of Melbourne.

We are also currently processing General Transit Feed Specification (GTFS) data across 2015 to 2018. This data includes train, trams and bus timetables.

For these measures we are developing a generalized method using an indicator developed by RMIT's Healthy, Liveable Cities Group for measuring access to a public transport stop with a service frequency of at least 30 minutes between 7am and 7pm. This is an indicator currently used in the National Cities Performance Framework. Using this indicator across the four timepoints will reveal whether those living in growth areas have access to frequent public transport and will give some sense of how transport is rolled out across time in growth areas. The first results will be available soon.

International example: FasTracks in the Denver metropolitan region

The Denver metropolitan area is an interesting example for a concerted effort to expand and improve public transport services in a city region. While a large part of the new services will improve public transport in existing urban areas, due to the large expansion there will also be new urban areas serviced by the new light and commuter rail and bus rapid transit (BRT) lines.

The City of Denver is the capital of the US state Colorado. The Denver metropolitan area's population is forecasted to increase to 4.3 million residents by 2040, from about 3 million residents today (DRCOG 2019: MetroVision). While this growth is not as strong as in Melbourne, it still means pressure for urban development and related infrastructure as well as an increase in traffic.

The public transport expansion program called "FasTracks" began in 2004 and was conceived as a response to the predicted population growth, existing problems with traffic congestion and also as an economic

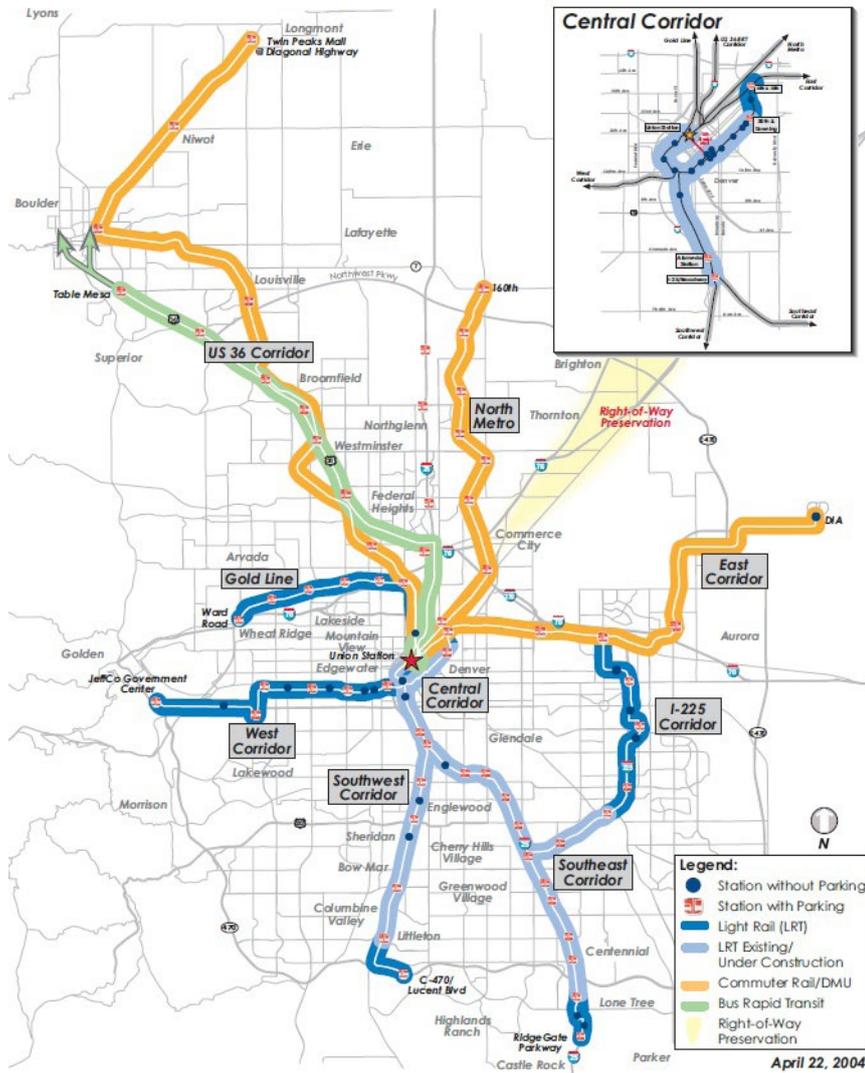
development tool, a response to the economic downturn of the early 2000s.

The program is undertaken by the regional transit agency RTD (Regional Transportation District) which develops, operates and maintains the public transport system for the Denver region.

FasTracks was planned as a 12-year project, to add about 29 km of bus rapid transit, about 196 km of new light-rail and commuter rail service in six new corridors and in extensions to the three existing lines in the region, as well as 57 new rapid transit stations, and 21,000 park-and-ride spaces. Furthermore, the central Denver Union Station was to be redeveloped into a multi-modal transit hub and bus services re-directed and increased (RTD 2004: FasTracks Plan).

See Figure 1 for a map of the planned extensions.

Figure 1: FasTracks program as planned in 2004



Source: RTD 2004: FasTracks Plan

An interesting point is the funding of the program. The primary revenue source was planned to be a 0.4% increase in sales and use tax within the District, for which a ballot was held in 2004. In the ballot the program was approved by 58 % of the district voters. A similar program was rejected in 1997. Reasons for the success in 2004 were seen in the community outreach before, but also in the fact that FasTracks comprises public transport improvements for most of the jurisdictions within the region, so that nearly everybody benefits from it. Another reason is seen in the bipartisan support and the region’s collaborative political culture.

Apart from the income through increase in sales tax, a number of other mechanisms is used, such as bonds, certificates of participation (COP), federal grants, funding support from local jurisdictions and Public Private Partnerships (RTD 2019: Initial Unfinished Corridors Report).

There were two big changes in the assumptions for the FasTracks program. One is a big increase of the FasTracks’ budget and the other is an increase in the time that is needed. While RTD was anticipated to finish the FasTracks program in 2018 within a budget of US\$ 4.7 billion, in 2007 the budget estimation was

increased to US\$6.2 billion due to the rise of constructions costs. Another problem was that the revenue in sales tax was lower than anticipated, particularly due to the Global Financial Crisis in 2008. This led to pursuing further other funding possibilities, particularly Public Private Partnerships, additional federal grants and contributions by local stakeholders (RTD 2019).

By now RTD has completed 75% of the FasTracks program (seven corridors, plus one opening in 2020, plus the Denver Union Station redevelopment) and spent about US\$5.6 billion (RTD 2019). Currently, RTD and other stakeholders in the region discuss several possibilities of funding and completing the remaining 25% of the program, with completion dates ranging between 2040 and after 2050.

International example – Innisfil, Ontario, partnering with Uber for the provision of local public transport

Innisfil, in southern Ontario, Canada, came to international (transit) attention in 2017 when the town announced a partnership with American taxi booking company Uber, for the provision of local transit services within the community.

The Town of Innisfil has a population of around 36,500, dispersed across numerous smaller communities over an area of 260km². It is located immediately south of the regional centre of the City of Barrie with a population of about 140,000 residents and approximately 30km from the northern extent of Toronto's suburbs and 80km from Toronto's downtown core. Innisfil is not included in the Greater Toronto and Hamilton Area, which has a population of just under 7 million, but is included in the Greater Golden Horseshoe of around 9.2 million.

Transit service provision in the towns and cities of Ontario is fragmented, and for the most part delivered by the relevant municipality. In Innisfil, local services are provided by Innisfil Transit, which was formed through an April 2017 partnership with multinational taxi booking platform Uber, instead of providing a standard route-based system.

Throughout the Greater Golden Horseshoe, the provincial agency GO Transit provides a regional and commuter transit service, which includes rail and bus connections from Barrie into the northern suburbs of the Greater Toronto and Hamilton Area and Union Station in Toronto. While the Barrie Line passes through the Town of Innisfil, there is no train station.

In partnering with Uber, the Town argued that a ridesharing-based solution would be less financially burdensome than a traditional fixed route bus service, while providing a higher level of service for those choosing to use it.

Innisfil Transit works through the Uber Pool booking platform, but travellers select "Innisfil Transit" instead of a regular Uber option. Internal trips to key destinations have set fares. Initially, passengers paid C\$3 to travel to the Town Hall and Community Centre area in central Innisfil, C\$4 to a GO coach stop on Yonge Street, and C\$5 to travel to Barrie South GO railway station. The Town of Innisfil covered the difference between the fare Uber would charge and the transit fare. Other journeys with an Innisfil origin and/or destination booked through the Innisfil Transit option received a C\$5 discount off the overall fare.

In the first 4.5 months of operation, 2,366 unique users took a total of 12,393 trips with Innisfil Transit. Only ten percent of these journeys involved two or more passengers in the vehicle. It is not clear whether these are two unique journeys sharing a part of a trip, or two people with the same origin and destination.

The most patronised unique destination was within the Innisfil Heights Employment Zone (640 trips). The combined journeys directly to Barrie South GO and any of the GO bus stops along Yonge Street was however higher (777 total trips). This indicates the importance of networking in the provision of local transit which indicates the importance of overall connectivity in the transit network¹.

¹ Town of Innisfil, 2017. Staff Report – Executive Summary DSR-171-17. URL: https://innisfil.civicweb.net/FileStorage/65E9DCB478B44A92851554A31A807DDD-Ridesharing%20Transit%20System_%204%201_2%20Month%20Update.pdf

Part of the initial concern with the development of Innisfil Transit's partnership with Uber was the financial burden on the municipality. At the 4.5-month mark, the Town was subsidising transit journeys by C\$5.73 per passenger on average, compared to a predicted C\$33 per passenger subsidy for a fixed route bus service. Importantly, this C\$5.73 subsidy is that provided by the municipality, and does not incorporate the broader operational subsidisation of Uber.

Comparing 2017 and 2018, the Town of Innisfil indicates an increase in the total number of trips from approximately 4,500 per month to 7,100 per month. Some 20 % of total journeys in 2018 were connecting either to or from GO Transit services along Yonge Street or at Barrie South GO. Overall, the match rate – the measure of whether a vehicle is carrying more than one passenger – increased from 17% in the first year to 31% in the second year. Nonetheless, over this time, the subsidy per passenger-ride increased to C\$7.45, with the service receiving a total of C\$640,000 of municipal funding over 2018. As such, the Town increased fares for flat-fare destinations by \$1,

decreased the discount to non-flat-fare destinations by \$1, and introduced a 30 trip per month cap per rider ², which was not well received by users of the system.

To summarise, the Town of Innisfil is a small growth community north of Toronto, Ontario, on the outskirts of the City of Barrie, which received international media attention by partnering with Uber to provide local transit services. While this partnership has had some successes, it is also facing financial challenges, as increasing ridership has led to increased subsidy. Further, part of the success of the Uber partnership can be explained by the service connecting into regional services provided by GO Transit, and potentially by enabling access to the nearby City of Barrie's transit offering. While Innisfil Transit is an interesting and innovative model of transit provision in dispersed, low density areas, context is key here. Its geography is more comparable to the area Ballarat and Bacchus Marsh, as it is a collection of smaller settlements across a broad area, rather than the growth areas at Melbourne's fringes, which are much more conventional suburban developments.

Planned activities

- Finalise analysis of international examples of early delivery of transport
- Further analysis of resident survey in Selandra Rise and Allura
- Further GIS analysis
- Preparation of resident interviews
- Publication for PlanningNews
- Project Advisory Group: 8th August 9.30-11.30 am, Building 37 (411 Swanston St), Level 2 – the same room as last time

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² Town of Innisfil, 2019. Staff Report – Executive Summary DSR-038-19. URL: <https://innisfil.ca/wp-content/uploads/2019/05/DSR-038-19-Innisfil-Transit-2018-Results-and-Fare-Changes-Pdf.pdf>