

The Goal: Ridership or Coverage?



VIDEO 1: The Goal of the Metro Transit Network

What's the goal of the Metro Transit network, and why is public transit important in HRM? There are lots of answers to that question, but most of them fall into one of these two categories:

Coverage

Public transit is an important way to move people around. People need to get to work, school, appointments, run errands, and participate in cultural, recreational, and social activities. Not everyone can drive, walk, or cycle, to where they need to go, and some people choose not to, so public transit is an important way to help people move around their communities.

If this is the most important reason to have public transit, it makes sense to have a transit system that as many people as possible can access. This means spreading resources out throughout the serviced areas of HRM, and providing a basic level of service in as many of the urban and suburban neighbourhoods as possible, even if there are not many people riding the bus.

The downside is that because transit is trying to cover so many neighborhoods, it's often not very frequent or efficient, and the system will be more expensive to operate. On the other hand, the advantage is that it gives people with limited transportation choices a way to get around.

Ridership

Public transit is important as it contributes to building a more sustainable community. It reduces the number of cars on the road, and as a result, reduces congestion, pollution, and the need to widen roads.

If this is the most important reason to have public transit, it makes sense to have a transit system that tries to get the highest ridership possible, and the most cars off the road. This means focusing resources where there is the highest demand, and increasing and improving these services to get the most riders.

The downside is that areas with less demand may have only basic service, or no transit service at all. The advantages are that transit moves more people overall, and the system becomes more cost effective.

Transit agencies all over the world constantly debate how to balance these two goals. Should public transit be focused on the areas where the most people will use it, or spread out so that more people that need it have access? Deciding why we want to move people changes how we move forward.

Currently, Metro Transit works to meet both of these contradictory goals, trying to strike a balance between meeting demand in high density areas, and providing basic service to as many of HRM's urban and suburban residents as possible. But we can't always do both at once, and it's important to recognize that these goals are competing, and almost every time we move closer to one of these goals, it means we move further away from the other one.

What should the goal of the Metro Transit network be?

How should competing goals be balanced?

Different Goals at Different Times of Day

Peak commuting periods is when there is the highest demand on our road network, and on our transit service. When transit focuses on getting daily commuters to and from work at rush hour, it can help a lot of people get to work, and also relieves congestion, helps traffic move better, and reduces pollution. But there is also demand for transit service in the middle of the day, in the evenings, and on weekends.

Although the buses may not be as full, transit service at these times help those people who work different shifts, and those who need to run errands, get to appointments, or get to social or recreational activities. When good transit service is provided all day every day, it helps to create a city where people can move around whenever they need to, without owning a car. On the other hand, providing trips that have few or no riders is expensive and inefficient.

SOME FOOD FOR THOUGHT

Many transit agencies measure the success of a transit route by examining its average cost recovery (the percentage of operating costs of the route that is recovered by fares). While this may be a good way to measure success on a route focused on meeting a ridership goal, it may not be appropriate for measuring the success of a route focused on meeting a coverage goal. For example, in 2012 the average cost recovery for Metro Transit's ridership routes was 46% (with several routes approaching or attaining 100%). On the other hand, the average cost recovery for coverage routes was approximately 19%. However, that isn't to say that these routes weren't successful – these routes instead work towards achieving social goals in many neighbourhoods by providing mobility to people who rely on transit service to get around, something that can't easily be quantified. How would you measure the success of a coverage route?

System Design



VIDEO 2: The design of the Metro Transit Network

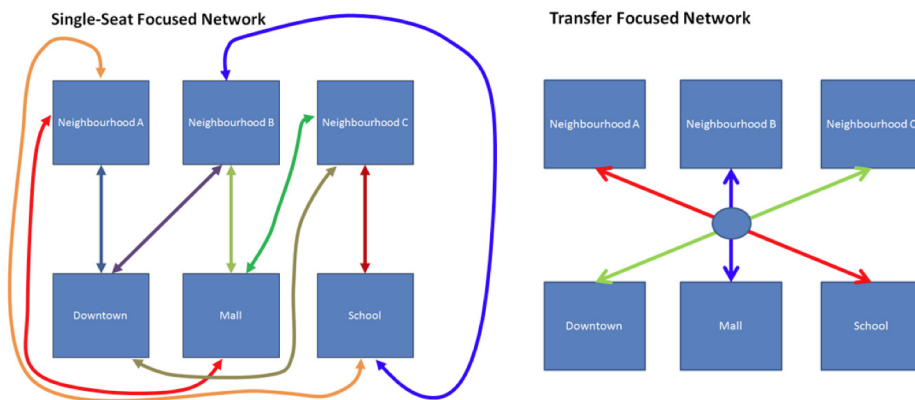
In some cases, avoiding transfers in a transit network is ideal: transferring can be a hassle, especially when the weather isn't great, or if transit vehicles are running behind schedule. With this in mind, some transit networks are designed to reduce the number of transfers required to make trips, and emphasize *'single seat trips'* (trips that can be completed without any transfers at all).

In a carefully planned transit network however, transfers can improve efficiency and shorten the length of the average trip by establishing short, direct routes.

In a region like HRM where many people are traveling to many different destinations, planning a transit system without transfers can be very complicated. The resulting network will be hard to navigate as routes travel an indirect route, trying to provide a single-seat trip to as many people as possible. This can mean these routes are longer, vehicles come less frequently, and buses are more likely to get caught in traffic along the way.

The following example shows two simplified networks, each with three neighbourhoods (neighbourhoods A, B, and C), and three general destinations (Downtown, Mall, and School). On the left is a network that focuses on avoiding transfers, so there are routes from all neighbourhoods to all destinations. In order to accomplish this, a total of nine transit routes would be required.

On the right is a network which focuses on using transfers to connect routes, and so most trips from a neighbourhood to a destination will require a transfer. This network requires only three transit routes, creating a network that is much clearer and easier to understand.



Where are the advantages and disadvantages of a transfer based network?

Where are the advantages and disadvantages of a single-seat based network?

The advantage of the second example is that available resources are only split between three routes, not nine, so buses come much more frequently (i.e., the bus you want comes every 10 minutes instead of 30 every minutes). As a result, even though passengers may need to wait for a transfer, it is still likely that the overall trip time will be faster in the transfer option. Additionally, because most of the routes in the transfer focused network are shorter, they will probably be more reliable as they are less likely to get caught in traffic than the longer routes.

Alternatively, the benefit of the single-seat focused network is that once you're on your first transit vehicle, you can sit down and relax until you arrive at your destination. This is particularly good when weather is bad, and for people with limited mobility.

Managing the System



VIDEO 3: System Maintenance

Metro Transit is constantly under pressure to both introduce new transit service and to improve the quality and reliability of the existing transit network.

In the past, Metro Transit has invested primarily in the implementation of new routes, with minimal resources being allocated to the maintenance or improvement of service on existing routes. Since the adoption of the Regional Plan in 2006, Metro Transit has implemented 14 new transit routes:

Route 8	Waterfront
Route 11	Dockyard
Route 16	Parkland
Route 19	Greystone
Route 22	Armdale
Route 23	Timberlea/Mumford
Route 56	Dartmouth Crossing
Route 57	Russell Lake
Route 88	Bedford Commons
Route 89	Bedford
Route 90	Larry Uteck
Route 330	Tantallon / Sheldrake Lake MetroX
Route 320	Airport/Fall River MetroX
Route 402	Sambro Community Transit

DID YOU KNOW...

With the exception of Ottawa (OC Transpo) and Toronto (the TTC), Metro Transit provides more service hours per capita than any other Canadian transit agency reporting to the Canadian Urban Transit Association (CUTA).

While this has been important in terms of providing transit service to residents who may not have had access to service before, the continued lack of re-investment in existing routes has meant that the quality of service along many of the network's older routes has declined over time. As additional resources haven't been allocated to these routes, they haven't been able to respond to either increases in demand, or increases in traffic congestion. As a result, many buses along these routes run late or over capacity.

In 2012, Metro Transit shifted some of its resources from the implementation of new routes to the improvement of existing service. For example, prior to November 2012, the Route 52 Crosstown was subject to significant delays throughout the day. In order to improve service reliability, additional vehicles and operational time were allocated to this route. As a result, lateness was reduced by 70%. This investment improved service for the almost 6,000 daily passengers who take the Route 52. During the same period, 25 other routes also received investments in service maintenance in order to improve schedule adherence. These routes included Route 80 Sackville, the Route 4 Rosedale, and Route 21 Lakeside/Timberlea.

Both the introduction of new service and the maintenance of existing service are important to attract and retain transit riders. Which should be the priority for Metro Transit? Improving and maintaining what we have, or expanding the network to provide new service?

How should Metro Transit split its resources between investing in the existing system, and in providing new service?

Transit Priority Measures (TPMs)



VIDEO 4: TPMs or Mixed Traffic

Making transit faster and more reliable is important to maintain and increase ridership. One of the best ways to achieve this is to reduce the impact that traffic congestion and traffic signals have on transit vehicles. Transit Priority Measures (TPMs) are tools that municipalities and transit agencies can use to reduce these impacts and improve both reliability and travel time of transit vehicles. There are many different types of TPMs, and in many cases they are used together to create a system. Some of the most common TPMs include:

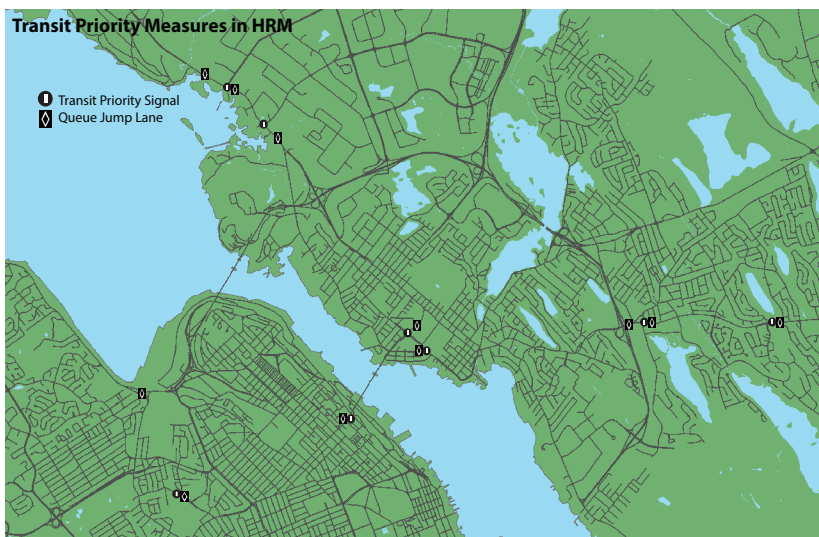
- Traffic Signal Priority
- Queue Jumps
- Bus lanes
- Transit corridors that are separated from traffic

If you think the purpose of a road network is to efficiently move cars through our region, then maybe transit priority measures don't make a lot of sense. They can be costly, cause delays for vehicles and take away space in the street that would otherwise be allocated to the movement of private vehicles, or parking. On the other hand, if you think of the purpose of a road network is to efficiently move people, then transit priority measures are a great way to enable transit vehicles to move more people faster and more reliably.

However, the implementation of any of these measures would not come without a cost, financial and otherwise. Most city streets with high transit demand serve many purposes, including travel lanes for private vehicles, pedestrian space, and on-street parking. As many of these streets are often not good candidates to be widened, the introduction of a bus lane will likely reduce space available for one of these other purposes. This often means either the removal of one lane of traffic or the elimination of some on-street parking.

These are not decisions to be taken lightly, and the implementation of any TPM will require careful study of the existing infrastructure and demand in order to determine the fairest way to maximize the number of people moving along our roads.

The map of the TPMs currently in use in the Metro Transit service area.



What role should transit priority measures play in the Metro Transit Network?

What impact could they have on other users?