

TRANSPORT AND LAND USE IN CAPE TOWN

This report describes relationships among the following locations in Cape Town, Western Cape, South Africa:

- Public transport zones (PT2) (areas with relaxed parking requirements due to proximity to public transport service)¹
- Mixed-use intensification areas (where redevelopment to a mix of land uses is actively encouraged)²
- Taxi routes³
- MyCiTi BRT stops⁴

Figure 1 shows the extent of the data, as well as the areas in which subsequent maps in this report will focus.

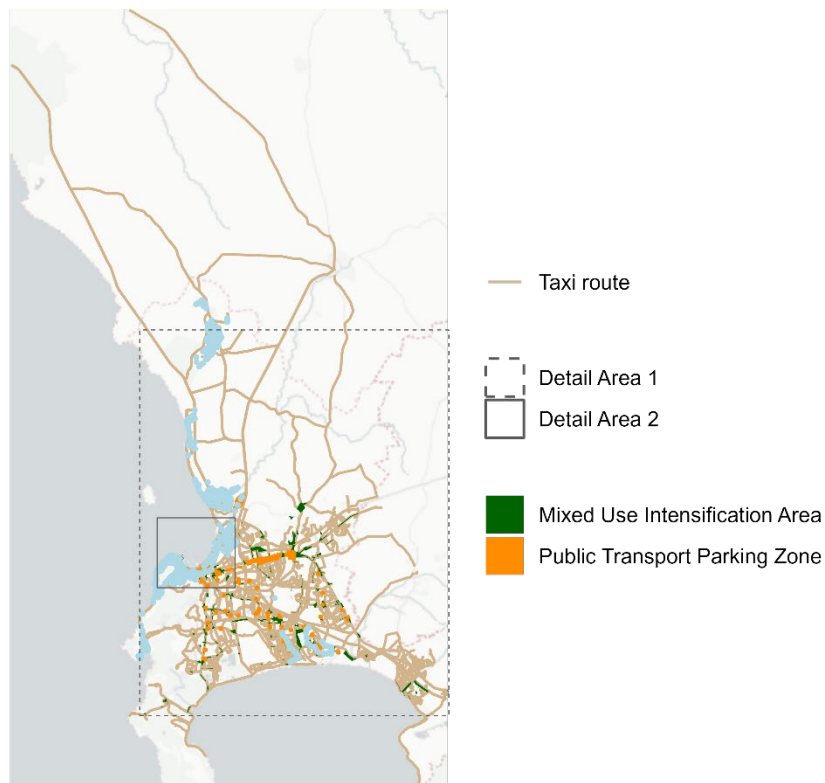


Figure 1. Data extents and detail areas.

¹ Source: <https://odp-cctegis.opendata.arcgis.com/datasets/cctegis::parking-pt2-public-transport-zones/explore>

² Source: https://odp-cctegis.opendata.arcgis.com/datasets/7dbcf28e3c534429bb7eefd68bbdf584_216

³ Source: https://odp-cctegis.opendata.arcgis.com/datasets/2efbfd905a974d50be57c8641a2ea171_97

⁴ Source: https://odp-cctegis.opendata.arcgis.com/datasets/19684ea3f08b4c95ab4fe7099ed75e81_96

RELATIONSHIPS BETWEEN BRT STOPS AND TAXI ROUTES

Figure 2 shows the BRT stations and taxi routes within Detail Area 1, with stations colors indicating the distance to the nearest taxi route. The distance from a BRT stop to the nearest taxi route ranges from zero to 1.8 kilometers. The average distance from a BRT stop to the nearest taxi route is about 86 meters.

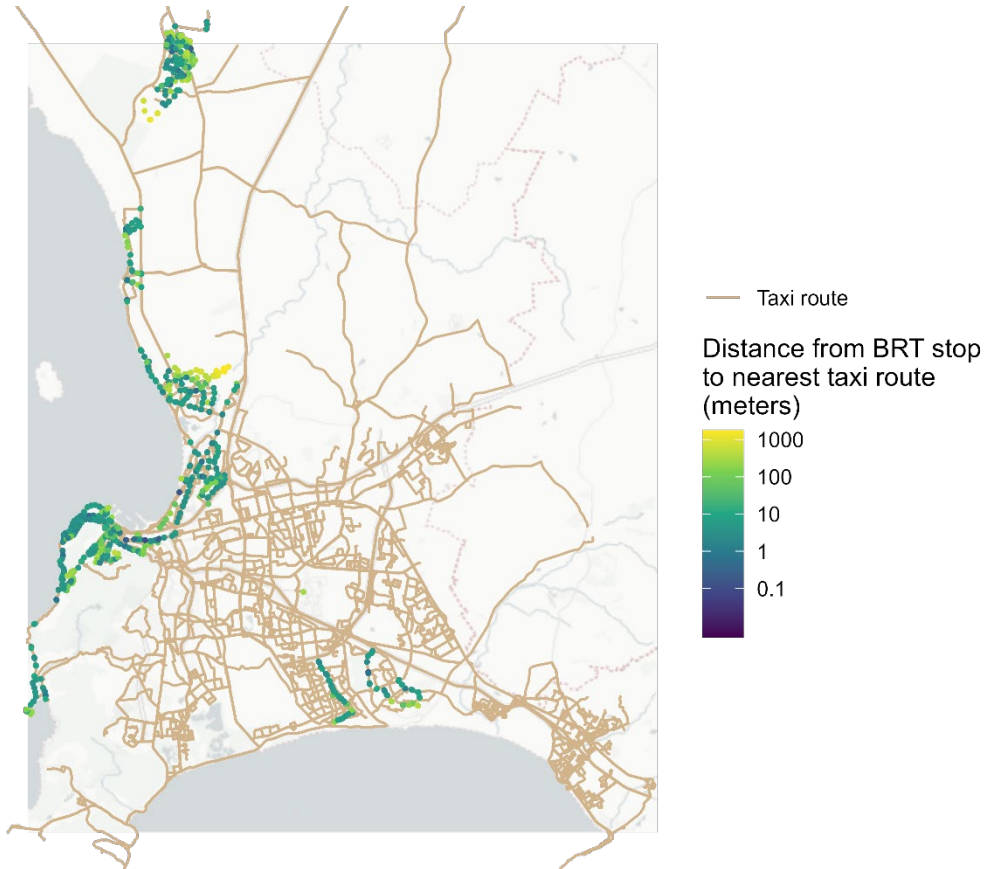


Figure 2: Distances from BRT stations to taxi routes within Detail Area 1.

As Table 1 shows, 79 percent of BRT stops are within 100 meters of the nearest taxi route.

Table 1: Summary of BRT stations by distance to taxi route.

BRT Station Location	Number of stations	Percent of stations
Within 100 meters of a taxi route	203	21%
Beyond 100 meters of a taxi route	152	79%

Figure 3 shows the locations of BRT stops within Detail Area 1, relative to a 100-meter buffer around taxi stops.

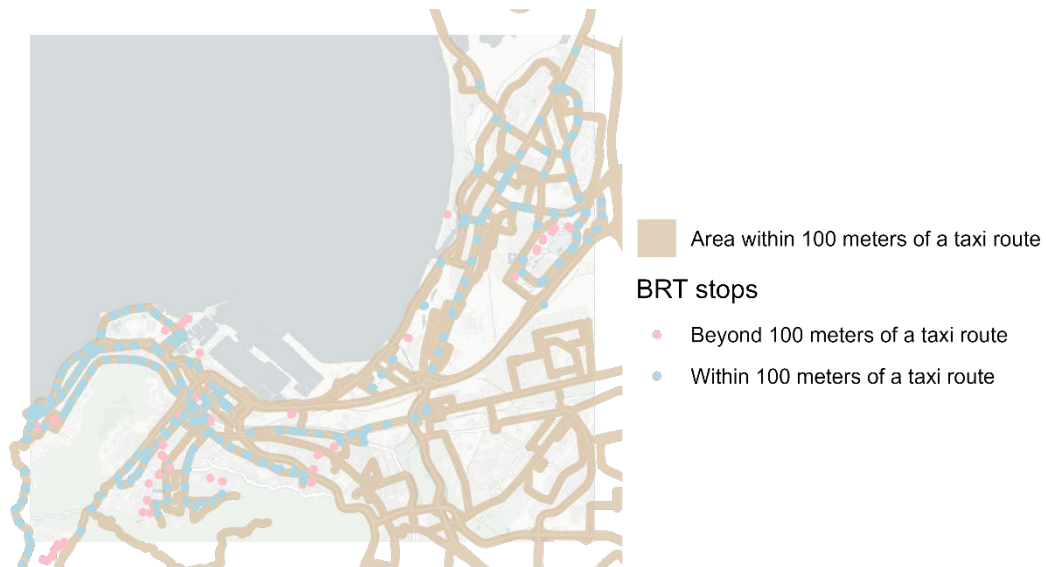


Figure 3: Locations of BTR stops relative to 100-meter buffer around taxi routes.

In general, the close proximity of most BRT stations to taxi routes makes it possible to easily switch between these transport modes.

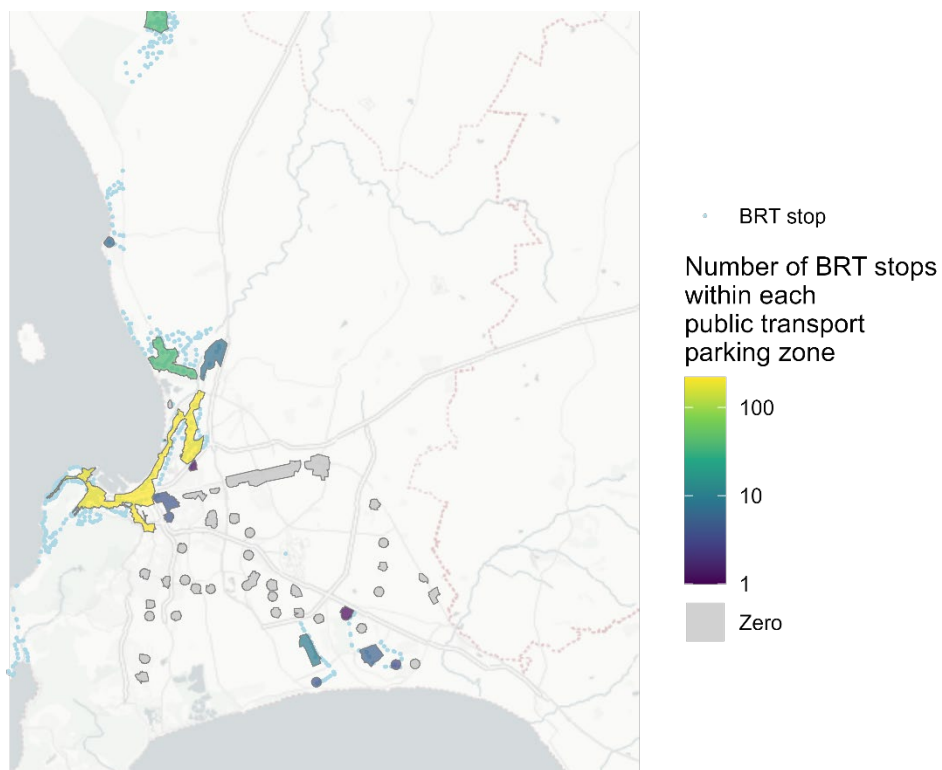


Figure 4: Public Transport Parking Zones by the number of BRT stops they contain.

RELATIONSHIP BETWEEN PUBLIC TRANSPORT PARKING ZONES AND BRT STATIONS

Figure 4 shows the locations of BRT stops in Cape Town relative to Public Transport Parking Zones (where parking requirements are relaxed due to proximity to transit). The color of each zone varies by the number of BRT stops it contains. Of the 48 Public Transport Parking Zones, 36 do not contain any BRT stops. Three contain more than ten, and one contains more than 200.

RELATIONSHIP BETWEEN MIXED USE INTENSIFICATION AREAS AND PUBLIC TRANSPORT ZONES

The total area included in Mixed Use Intensification Areas is 51.2 square kilometers and the total area included in Public Transport Zones is 69.7. 18.5 square kilometers of area are included in both a Mixed Use Intensification Area and a Public Transport Zone. This represents about 36 percent of the total area of Mixed Use Intensification Areas and 27 percent of the total area of Public Transport Zones.

Figure 5 shows the overlap between Public Transport Zones and Mixed Use Intensification Areas for Detail Area 1.



Figure 5: Overlap of Mixed Use Intensification Areas and Public Transport Parking Zones in Detail Area 1.

SOFTWARE STATEMENT

The report was written and laid out in Microsoft Word. All figures were created by the author in R using the ggplot and sf packages.