

- Piet Retief Street
- Van Reede and Vrede Streets between the R44 and Piet Retief Street
- Alexander Street between the R44 and Bergzicht Street
- George Blake Street

In addition, a number of access roads are under severe pressure. These include the following:

- The Welgevonden access road
- Lang Street into Cloeteville
- La Colline access off the R310
- The Technopark access road

It is clear that the road network will not be able to supply the required capacity for the medium to long-term growth needs of Stellenbosch. This is very evident on the higher order Provincial roads. It is therefore acknowledged that some roads, particularly in the historic town area, may in future operate at or over capacity during peak periods (unless modal shift changes). It should also be noted that weekday AM and PM peak period traffic congestion will spread over a longer time (peak hour spreading) as a result of historic and present capacity problems.

The 2040 traffic assignment indicates the need for various general capacity improvements, and these were introduced during the modelling process and formed part of the final output:

- Polkadraai Road: It was assumed that the last remaining single carriageway sections will be dualled well before 2035, in accordance with the Provincial roads infrastructure programme.
- R44 North: This road requires a dual carriageway from Stellenbosch to Welgevonden. The R44 in the vicinity of Klipmuts also requires additional road capacity due to the proposed future residential and employment concentration in this area.
- Adam Tas Road: This could become the busiest section of road in Stellenbosch, requiring 3 lanes per direction between the R44 and Merriman. In addition, the R44, Alexander, George Blake and Merriman intersections also need to be improved or reconfigured to provide additional capacity.
- R304 (Koelenhof Road): The model results indicated that this road should be dualled between the R44 and Bottelary Road.
- Merriman and Cluver Street link: Upgrade to dual carriageway or minimum 2-lanes per direction required between Bosman Street and Banghoek Road.
- Dorp Street: Capacity improvements required between the R44 and Adam Tas Road. Conceptual planning has been undertaken for the dualling of this section.
- Van Reede / Vrede Streets: These roads required dualling between the R44 and Piet Retief Street, with further improvements at the R44 / Van Reede intersection.
- Van Reede Street westbound extension to Technopark: The extension of this road to provide a second access to Technopark linking into Electron road.
- Technopark, De Zalze, Brandwacht and Welgevonden access roads: Dualling and/or intersection improvements are required.
- Jamestown Road: Road Network development required due to major residential developments planned for this area.
- Baden Powell Drive: Dualling of remaining sections between the N2 and Polkadraai Road.

It is recommended that all the above road projects could, with further investigation and analysis, be included in the next RMP update. Some of the above projects are included in the list of identified road projects.

It should be noted that instead of providing additional traffic lanes, capacity could also be increased by changes to the road classification. For example, a vehicular lane along a mobility route can generally carry

significantly more vehicles than the same lane on a lower order road. There are also fewer delays due to fewer intersections along a mobility route.

THE EASTERN LINK ROAD

The Eastern Link Road (previously incorrectly referred to as the eastern bypass) has been contemplated for a long time, but has never been formally adopted due to public and environmental concerns. However, the scale, nature and potential benefits of this project make it an ideal candidate for inclusion in the 2018 RMP.

The preliminary alignment was coded into the model as a single carriageway Class 4 collector road. This route involves the extension of Van Reede Road and a connection with Pastorie Road at the Theological Faculty with a new proposed bridge crossing over the Eerste River. Other alignment alternatives would include the widening of the Coetzenburg bridge near the CBD. However the modelling results, of alternative routes near the CBD, are expected to be of a similar order due to only marginal differences in travel time and distance.

Based on this limited modelling assessment, the following results are important:

- The term “bypass” is a misnomer, considering that very little traffic deviates from the R44 onto this route as an alternative access into the Stellenbosch CBD.
- The link road mainly serves as an internal connector, carrying a maximum of about 450 vehicles per hour in any given direction between the R44 and the proposed Van Reede extension.
- Traffic on the proposed Van Reede extension to Dorp Street, across the Eerste River, is however significantly higher (850 vehicles per hour), serving as an alternative to the congested Piet Retief Road.
- Traffic on the R44 near the Technopark intersection reduces by about 300 vehicles per hour as a result of local traffic using the new link road. Between Van Reede and Dorp Street, the reduction is more than 200 vehicles per hour, mainly as a result of the proposed Van Reede extension.
- If planned correctly, the link road could also play an important role as a non-motorised transport (NMT) and public transport route, and will provide suburbs such as Paradyskloof and Brandwacht with easy access to the CBD.
- In future, the Eastern Link Road would also service residential developments in Jamestown with access to the CBD.

In terms of these findings, a strong case can be made for a first phase implementation between Van Reede and Pastorie Street. This should have immediate benefits, considering the lack of adequate crossings of the Eerste River and the present traffic demand in this area. The phased implementation of the Paradyskloof-Trumali Road portion would also have immediate benefits due to access restrictions on the R44 and proposed residential developments in the area.

THE WESTERN BYPASS

The concept of a western bypass (identified in the CITP) has been around for a very long time, but the actual alignment details have never been fully articulated. Generally, there is a perception that traffic conditions along the R44 have deteriorated to such an extent that an alternative high order bypass requires serious investigation.

There would be considerable long-term benefits for having a bypass to Stellenbosch, which include:

- Significant relief to motorists, especially along the R44
- Benefits to the town itself (less through traffic, congestion and pollution)
- Reduced urban creep
- Environmental benefits in the form of reduced car emissions
- The possibility of allowing future land use developments and new urban design initiatives.