



## **Comment on and objection to the Draft Basic Assessment Report for proposed improvements of the R44 between Somerset West and Stellenbosch, as updated on 12 May 2014**

### Opening Remarks

Our comments on and objections to the report are preliminary, not exhaustive. They are those which we consider as important and which should be made available to the various authorities involved in this project. We obtained from specialist traffic engineers and planners. Due to the complexity and irrevocable negative impacts on the environment and other economic drivers, should the proposals be implemented, we reserve the right to submit more detailed comments.

### History

The operational performance of the R44 has been of concern for at least 25 years. There has been considerable land use development in that period which takes access directly or indirectly from the R44. This has resulted in considerable traffic growth which has made the situation far worse. However the R44 passes through a number of highly sensitive areas and clearly any changes proposed for the route should acknowledge and enhance the environmental integrity of the corridor and its hinterland.

As no intervention has occurred for many years and the route passes through highly sensitive areas, any proposal must receive careful consideration and reflection. It is probable that other alternatives based not only upon a different perception of the role and function of the R44 but also a more comprehensive and integrated design. There is no necessity for undue haste in searching for the best solution.

Implementation of any proposal, not based on sustainable development principles (Environmental integrity, human well-being and economic viability) will destroy the character and long term survival and economic growth of Stellenbosch. Locally,

nationally and Internationally, Stellenbosch is a well-known destination due to attributes of very sensitive nature.

## Comments.

1. The visual impact of the two proposals has been misrepresented in the photographs in the report. The damage they do is far greater. The location of the proposed Winery and Annandale interchanges have been viewed in Google Earth Street View which clearly demonstrate this. Any interchange at either location is demonstrably unacceptable.
2. The consultant states in the report that “In the past there has been a rather piecemeal approach to dealing with safety problems.....In many cases solutions have been proposed that acted in isolation and did not consider the overarching implications on the R44.” No clear strategic approach has been defined in the report which questions the appropriateness of the view that the R44 is anything other than a “high speed mobility corridor”.
3. The capacity of any road is not determined by the width or number of lanes but by the capacity of its intersections. The capacity of the R44 is ultimately determined by the capacity of the intersection between Dorp Street in Stellenbosch and the R44. The impact traffic growth at this intersection would have on performance is one of the main points of contention.

The consequences this has on ‘design volumes’ is difficult to assess because of the general complexity of traffic analyses and a lack of time to ‘dig further’. It appears that traffic volumes from Somerset West to Stellenbosch in the morning have been constrained at current levels while other traffic streams have assumed to grow at a defined annual rate.

4. In the conceptual design of the two at-grade roundabouts two basic ‘rules’ in roundabout design are not considered:
  - The first is “Entry speed should be no greater than circulating speed”. For example if the circulating speed, that is the speed at which vehicles are travelling around the roundabout, is 30km/hr (which is determined by the radius of curvature and the superelevation rate), the entry speed

of traffic entering the roundabout should be approximately of the same order. This requires specific remodelling of the approach geometry.

- The second is “Slow in, fast out”. Simply put, traffic leaving the roundabout should be able to accelerate away and clear the section. There are no constraints on exit speeds as there are on entry speeds. The resultant intersection geometry is far different from that shown. Roundabouts on dual-carriageways handling modest traffic volumes at high speed have to be designed properly.

5. Because of concerns about the appropriateness of the design of both the elevated and at-grade roundabouts, it is not possible to confirm the land take. This will only be possible when the at-grade roundabouts are redesigned and the designs of the grade separated roundabouts reviewed.

6. The notion of rigid adherence to 1:2 slope embankments and any mention of vertical retaining walls should be immediately discarded. Any proposed changes of whatever nature should not simply be imposed on the area through which the road passes. Design standards should be relaxed wherever possible to ensure that any proposed changes are subservient to aesthetic, environmental and other important considerations. A road is not a separate element of the landscape and seemingly divorced from it. It is an integral part of the landscape and must be perceived as such. This applies to any road, not only the R44.

The Economic Specialist Study is extremely complicated and involved and the sheer mass of information which has to be dealt with daunting. It would take a great deal of time and involvement with the Specialists as well as those responsible for providing traffic input. We are very skeptical of its findings and recommendations, principally because they defy common sense. The table above lists selected criteria and the values which have been subscribed to them for the three alternatives:-

It is assumed that these apparent anomalies are self-evident. It should be cautioned that these figures are based on a limited understanding of a complex and complicated report and may misrepresent these aspects.

The total costs of the grade-separated interchanges are estimated at R481m of which capital outlay – initial capital costs, land acquisition, maintenance, professional fees –

amount to R197m. It is assumed that these costs do not include costs associated with the other ancillary work along the route. If this is true then clearly costs of this magnitude are acceptable to the various funding agencies that are prepared to make budgetary provision for these amounts. We would suggest that a project of this magnitude should be planned by a truly multi-disciplinary team and also in close co-operation with local authorities and should consider not just the R44 but also future traffic solutions in Stellenbosch as well. If it is not possible to have an integrated plan, the better part of R481m may be wasted.

The emphasis throughout the report is that “the R44 is a high speed mobility corridor” and the acceptance of this definition without question has influenced the entire approach to this project. All other aspects of this study have been made subservient to this understanding.

A holistic solution should begin with a reassessment of the role and function of the R44. This should not occur in isolation but in the context of the value placed on the generalised environment, broadly defined, of the area through which the route passes. The efficiency of traffic movement is not ‘the end all or be all’ of planning and ‘holistic solutions’ flow from an understanding and awareness of all the factors involved and an appropriate balance sort.

This scheme has been predicated on achieving acceptable levels of traffic efficiency alone after which the impact this will have on other factors have been explored. Where these are deemed unacceptable, ways to mitigate any negative impacts are sought. This is the established approach to road design and construction and is insensitive to the needs, requirements and priorities of others. It is essentially a ‘top-down’ approach where meeting the needs of traffic dominate.

In a location such as this, planning should be inclusive with the stated needs, values and principles of others respected. It is only with this inclusive, participative approach will the ‘best’ scheme be developed. With the financial resources the various authorities are prepared to commit to this project, better alternatives can be demonstrated.

We are perplexed by the fact that the report (which should be an independent assessment) clearly promotes the implementation of grade separated intersections, without

fully taking the consequences of such implementation on the sensitive environment into account.

We also question the willingness to spend more than R400m on the implementation of a proposal that is not a holistic or integrated approach. The grade separated proposal will not improve the mobility or LOS on the R44 due to the capacity of intersections near and at Stellenbosch.

The proposal also does not take into account that more than 80% of morning peak hour traffic has Stellenbosch as the destination. Furthermore, most of the serious accidents on the R44 happen at the signalized intersections and not at the median crossings. Traffic using the median crossings does so mainly after peak hour traffic.

In the light of the above we do not have any alternative but to strongly oppose the proposed implementation of grade separated intersections. We can demonstrate that the available funds can be used for a much more strategic and sustainable solution.

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