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Consulting Services

- Civil Engineering Services
- Roads
- Traffic Engineering

Contact Person: Piet van Blerk

Your Ref: Remainder Farm 1049, Stellenbosch

Our Ref: ICE/S/1243

Date: 15 March 2018

TV3 Architects and Town Planners
97 Dorp Street
First Floor, La Gratitude Office Building
STELLENBOSCH
7600

Attention: Mr Clifford Heys

Sir

PROPOSED INCLUSION OF REMAINDER FARM 1049, BRANDWACHT, INTO URBAN EDGE OF THE STELLENBOSCH MSDF 2018: TRAFFIC IMPACT STATEMENT

This company was appointed to prepare a Traffic Impact Statement (TIS) for the proposed residential development on Remainder Farm 1049, Stellenbosch. This TIS is in support of the proposal to include the subject property in the Urban Edge of the Stellenbosch MSDF 2018, and will be followed by a full Traffic Impact Assessment (TIA) which will be conducted during the further development application.

1. LOCALITY AND BACKGROUND

The subject property is situated to the south of the Brandwacht residential area and the Brandwacht Aan Rivier development, Stellenbosch. See the attached **Locality Plan**.

The future Stellenbosch Eastern Link Road (Proclaimed Main Road 169) passes through the subject property, resulting in two pockets as indicated on the attached **Conceptual Layout**. The position of the said future road is also indicated on the attached **Locality Plan**.

The idea of an "eastern bypass route", which would run from Jamestown, through Paradyskloof, Brandwacht/Dalsig, and intersect Van Riebeeck Street opposite Marais Street, originated many years ago. Building plans for Boland College was since approved across the said route. An adjusted route is thus now considered. The proclaimed Eastern Link Road as mentioned above, starts at the R44/Techno Avenue intersection, traverses Blaauwklippen Farm, runs along the existing Wildebosch Road (through Paradyskloof), through Brandwacht, to the east of Dalsig, across Welgevallen and Coetzenburg, and ties in opposite Marais Street.

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Reg No:2006/133238/23



2. PROPOSED DEVELOPMENT

2.1 Proposed Development

The proposed residential development on the subject property will, at this stage, consist of 263 erven varying between 350 to 800 m² per erf. As previously mentioned, the property will be developed in two pockets as result of the Eastern Link Road. See the attached **Conceptual Layout** prepared by *tv3 Architects and Town Planners*.

2.2 Access to the Property

Based on aerial photos, access to the property is currently obtained from Trumali Road, slightly to the east of its intersection with Ben du Toit Drive, as well as from Ben du Toit Drive at the first bend. See the photo below. Access to the proposed residential development will be obtained from Trumali Road, further east. Detail on access will be discussed in *paragraph 4* below.



Photo 1 : Existing access to subject property

3. TRAFFIC

Trip generation rates as contained in the TMH17 *South African Trip Data Manual* was consulted to calculate the potential peak hour traffic that can be generated by the proposed development. The TMH17 suggests 1 trip per dwelling unit, with a 25/75 in/out split during the AM peak hour and 70/30 during the PM peak hour.

Based on the above, the proposed residential development will have the potential to generate 263 peak hour trips (66 in, 197 out during the AM peak hour and 184 in, 79 out during the PM peak hour).

4. ACCESS, EXISTING AND FUTURE ROADS

As previously mentioned, access to the proposed residential development will be obtained further east of Ben du Toit Drive along Trumali Road. The future Eastern Link Road crossing the subject property will also in future provide access to the property (via an access road – no direct erf access). Trumali Road, as well as the future Eastern Link Road, can be classified as Class 4-roads.

The accesses proposed, at this stage, are as indicated on the attached **Conceptual Layout**. With the implementation of the Eastern Link Road, Trumali Road will intersect the said road \pm 431 metres southeast of Ben du Toit Drive (226 + 205 as indicated below). It is thus proposed that access to the western portion of the

proposed residential development be obtained at a position between the said intersections. See the photo below. Access to the eastern portion of the proposed development will be obtained from an access road intersecting the Eastern Link Road. The said access will be situated along the access road, ± 360 metres southeast of the Eastern Link Road. The two intersections along the Eastern Link Road (i.e. Trumali Road and the access road) are proposed on the outside of the horizontal curves, approximately 405 metres apart. It is anticipated that these intersections will have to be signalised. Based on the classification of the roads and the surrounding development area, the spacing of these intersections is considered acceptable.



Photo 2 : Intersection spacing along Trumali Road (and Eastern Link Road)

Trumali Road currently consist of two lanes (one per direction), and serves an office park, the Brandwacht Aan Rivier development, the Medi Clinic hospital currently under construction, as well as the Stellenbosch Waterworks. Trumali Road terminates at the access to the said waterworks.

5. ANTICIPATED ROAD IMPROVEMENTS REQUIRED

As part of the conditions of approval for the Medi Clinic hospital currently under construction, the existing dedicated left-turn lane on Trumali Road (at its intersection with the R44) will be extended, as well as the existing left-slip lane along the R44 at the said hospital (Elsie du Toit Drive).

As part of residential developments currently proposed within Paradyskloof, the extension of Schuilplaats Road up to Trumali Road is currently being considered. It is anticipated that the said road extension will be implemented prior to the operation of the residential pockets mentioned.

Trumali Road currently intersects the R44 from the east by way of signalised T-intersection. Additional turning lanes were suggested at this intersection as part of a proposed office-development in the vicinity (not yet approved). Existing conditions along the R44 in the vicinity of the said intersection during peak times (AM/PM) are heavily congested. It is thus anticipated that at least a section of the Eastern Link Road will be required to accommodate the full proposed development. This will be addressed in the full TIA during further development applications.

6. PARKING

Parking will be provided on the individual erven. Detail regarding parking requirements and the layout will be addressed in the full TIA.

7. PUBLIC AND NON-MOTORISED TRANSPORT (NMT)

Existing formal public transport facilities in the area includes the public transport embayment along the R44 at its intersection with Trumali Road. It is anticipated that public transport facilities will be provided along the Eastern Link Road. Public transport embayments could also be considered along Trumali Road at the proposed access (outbound legs).

NMT facilities exist along the R44. Sidewalks currently exist along the northern side of Trumali Road between the R44 and Ben du Toit Drive. It is anticipated that the said sidewalk will have to be extended up to the proposed access. With the possible portion of the Eastern Link Road implemented, facilities along Trumali Road should be extended to tie in with the probable NMT facilities along the Eastern Link Road.

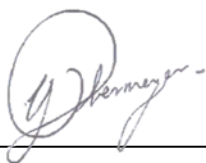
8. CONCLUSIONS AND RECOMMENDATIONS

From the above the following conclusions and recommendations are made:

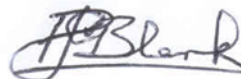
- 1) That this TIS is in support of the proposal to include Remainder Farm 1049, Brandwacht, in the Urban Edge of the Stellenbosch MSDF 2018, and that a full TIA will be compiled during further development application;
- 2) That the subject property is situated to the south of the Brandwacht residential area and the Brandwacht Aan Rivier development, Stellenbosch;
- 3) That the proposed development will consist of 263 residential erven varying between 350 to 800 m² per erf;
- 4) That the proposed residential development has the potential to generate 263 peak hour trips (66 in, 197 out during the AM peak hour and 184 in, 79 out during the PM peak hour), with access obtained from Trumali Road at two positions;
- 5) That pending road upgrades in the area include the extension of Schuilplaats Road to Trumali Road (intersecting by way of roundabout) along with the changing of the existing R44/Paradyskloof Road intersection to allow only left-turn movements to/from Paradyskloof Road (right-turn movements to/from the golf course still accommodated), the extension of the dedicated left-turn lane on the Trumali Road-approach to its intersection with the R44, as well as the extension of the existing left-slip lane along the R44 towards Elsie du Toit Drive;
- 6) That additional pending upgrades anticipated are the provision of additional turning lanes at the R44/Trumali Road intersection;
- 7) That it is at this stage anticipated that at least a section of the Eastern Link Road will be required to accommodate the proposed residential development; and
- 8) That some public- and non-motorised transport facilities exist in the vicinity of the subject property, but that it is anticipated that additional such facilities will be provided along Trumali Road and the Eastern Link Road.

We trust that the Traffic Impact Statement will be to your satisfaction and will gladly provide any additional information required on request.

Yours faithfully



Yolandi Obermeyer (B. Eng Civil)
iCE GROUP (STELLENBOSCH)



Piet van Blerk Pr. Eng
iCE GROUP (STELLENBOSCH)

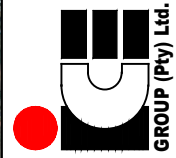
Attachments

Locality Plan

Conceptual Layout (Brandwacht aan Rivier II) (*tv3 Architects and Town Planners*)

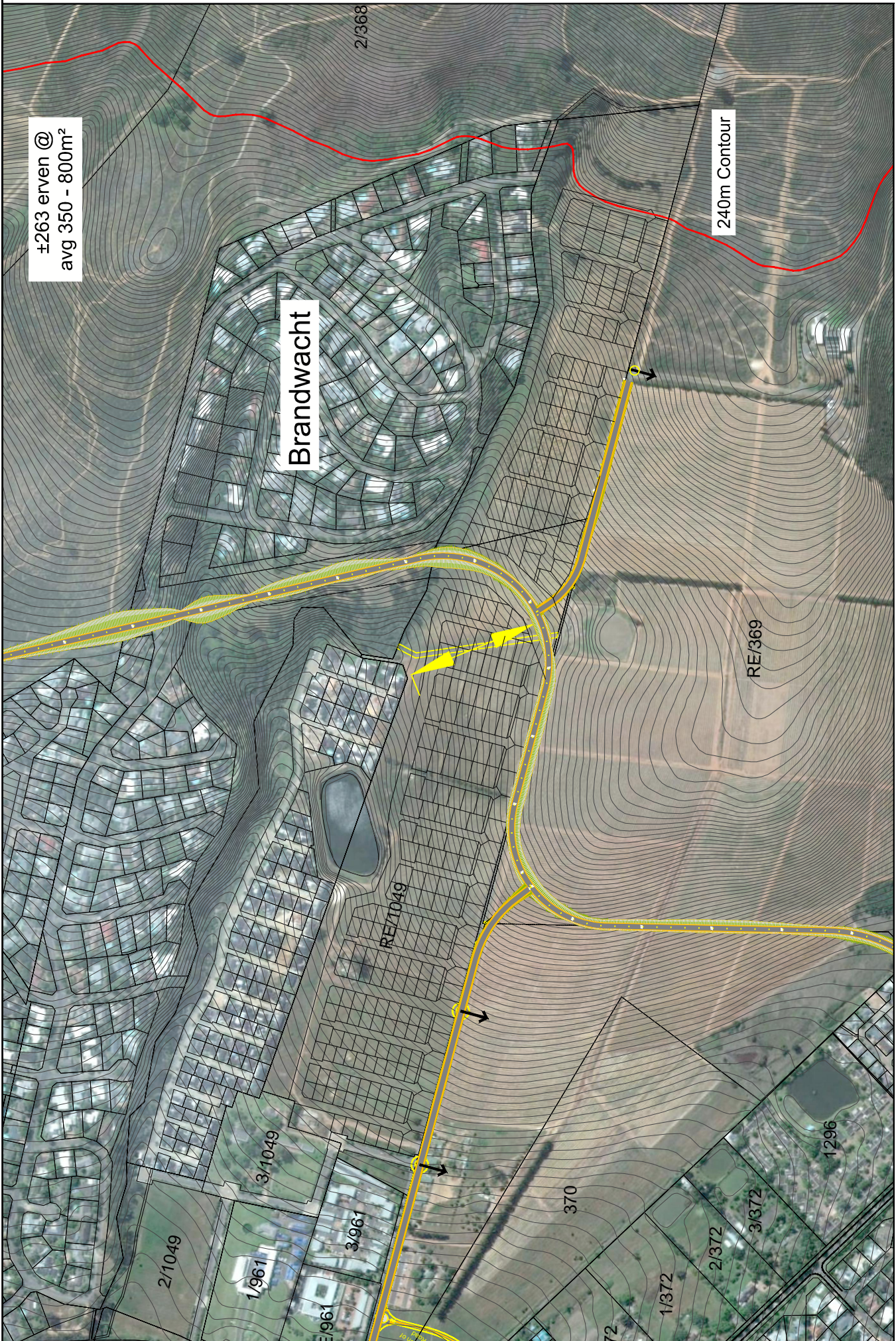


Locality Plan



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 Techno Park
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Notation:



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Drawn:	CJC	Checked:	JVR	Date:	07/02/2018	Scale:	1:7500	
Project no.:	3504 - P	Revision no.:	1					
Drawing:	Conceptual layout						Plan no.:	1

Brandwacht aan Rivier II

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