7.3	ECONOMIC DEVELOPMENT AND PLANNING: [ALD JP SERDYN (MS)]

7.3.1	STELLENBOSCH MUNICIPALITY: REVISION OF MUNICIPAL SPATIAL DEVELOPMENT FRAMEWORK (MSDF) FOR WC024

1. PURPOSE OF REPORT

To inform Council of the process followed to amend the approved 2013 Municipal Spatial Development Framework and to recommend for its approval for inclusion in the 2017/18 Integrated Development Framework (IDP).

2. BACKGROUND

With the enactment of the new planning dispensation in 2015 which include the Municipal Land Use Planning By-Law, 2015 (By-law), the Western Cape Land Use Planning Act, No 3 of 2014 (LUPA) and the Spatial Planning and Land Use Planning Act, No 16 of 2013 (SPLUMA) Council must adopt a Municipal Spatial Development Framework (MSDF) within five years of implementation.

The Stellenbosch Town Council approved a Municipal Spatial Development Framework (MSDF) for the WC024 municipal area on 28 February 2013 in terms of the Municipal Systems Act, 2000 (No 32 of 2000). Section 26 of the Systems Act requires that the municipality's IDP reflects the council's vision for the long term development of the municipality. The MSDF, as a compulsory core component of the IDP, reflects the spatial policy and strategic framework as envisaged by Council that serves as the building blocks for the future urban and rural spatial development pattern of the municipality.

In terms of Section 24 (1) of the Municipal Systems Act "the planning undertaken by a municipality must be aligned with, and complement, the development plans and strategies of other affected municipalities and other organs of state so as to give effect to the principles of co-operative government contained in Section 41 of the Constitution."

The SDF needs to give due consideration to and include the most recent up to date information, (hence the need to correct mistakes made in the 2013 approval) of the planned investment and development initiatives of all spheres of government and other strategic stakeholders and indicate linkages with the strategies and geographical targeted areas to achieve integrated service delivery and efficiency through spatial alignment. This presupposes that implementation plans in the IDP and SDF need to be comprehensive, aligned, synergistic, linked to strategies and objectives to achieve the desired outcomes, and adequately resourced. Hence the current MSDF needs to be aligned with the requirements of the new planning dispensation and must also be brought in line with the new products currently being developed at this stage to form part of the MSDF process for the entire WC024. The Provincial Spatial Development Framework (PSDF) and Regional Spatial Implementation Framework are of particular importance.

However, certain corrections of mistakes and minor adjustments have to be considered, e.g. where existing developed urban uses are excluded from the urban edges or where approved municipal housing projects have been excluded. The developed Devonvale Golf Estate, Longlands Estate, La Roche (previously Amoi) development, Coetzenburg Sportfields, Erf 4 (De Zalze), and Enkanini are examples. In addition the Municipality must include its Jamestown and other "Integrated Human Settlements" and funded projects like the Klapmuts school sites on the Braemar Farm in Klapmuts.

3. COUNCIL RESOLUTION

At the 2ND COUNCIL MEETING of 2016-10-05 (Item 7.4.4) it was resolved:

RESOLVED (majority vote)

That Council authorises the Municipal Manager to:

(a) proceed with the development of a Municipal Spatial Development Framework for Stellenbosch Municipality (WC024) (MSDF);

(b) establish an intergovernmental steering committee (IGSC) to compile or amend its municipal spatial development framework in terms of Section 11 of the Land Use Planning Act;

(c) establish a project committee;

(d) proceed with all administrative functions to oversee the compilation of a first draft of the Municipal Spatial Development Framework for Council approval in terms of the Municipal Systems Act (2000), the Land Use Planning By-law (2015), Land Use Planning Act (2014) and the Spatial Planning Land Use Management Act (2013); and

(e) use the MSDF as a platform to consider and align the following:

(i) Strategic Environmental Management Framework (SEMF)

(ii) Rural Area Plan (RAP)

(iii) Urban Development Strategy leading to a Stellenbosch WCO24 SDF

(iv) Heritage Resources Inventory

(v) Integrated Human Settlement Plan

(vi) Klapmuts Local Spatial Development Framework (LSDF)

(vii) Stellenbosch LSDF amendment to be compliant with SPLUMA

(viii) Jonkershoek LSDF amendment to be compliant with SPLUMA

(f) proceed with the amendment of the current approved MSDF to be aligned with the 2017/18 IDP; and

(g) both the amendment of the existing MSDF and the compilation of the new MSDF run concurrently with the Integrated Development Planning cycle.

4. PROCESS FOLLOWED IN ORDER TO AMEND THE MUNICIPAL SPATIAL DEVELOPMENT FRAMEWORK

As a result of the 5 October 2016 resolution by Council (above) the directorate advertised the intention to amend the current MSDF by June 2017 and to draft a revised MSDF for inclusion in the 2018 IDP in the Eikestadnuus, Tattler, Die Burger and the Government Gazette during the first week in November 2016. **(ANNEXURE 1)** The public and any interested parties were invited to register as interested and affected parties and to submit comments and suggestions for consideration. In addition, the directorate attended all IDP meetings during the November public participation process and informed the meetings of the intention to revise the MSDF, the process to be followed and invited the public at the meetings to submit comments and suggestions for consideration.

A Project Steering Committee (PSC) was established in February 2017 and consists of all directors of the municipality. The Intergovernmental Steering Committee (IGSC) was established on 23 January 2017 and met formally on Friday 17 February 2017 for the first time. At the meeting all consultants presented a synopsis of the work thus far undertaken and the directorate presented the process envisaged to be followed in compiling both the amendments to the current MSDF in 2017 as well as the process to be followed in preparing the revised MSDF for inclusion in the Integrated Development Plan (IDP) in 2018.

A copy of all presentations as well as status quo reports available at that time was distributed to all members of the IGSC. This included information relating to the projects listed in the council resolution paragraph e (i) –e (vii).

The PSC discussed and drafted proposed amendments to the current SDF. This information was also made available to the IGSC. This information was in the form of maps depicting the current (approved) urban edges as well as the proposed amendments of the urban edges where applicable. A table explaining the proposed amendments was also circulated to be read with the maps. The maps and tables form part of the proposed amended MSDF attached as **ANNEXURE 2.**

The ISC was given 60 days to submit written comments on the proposed amendments circulated in terms of legislative requirements. The period for comments concluded on 30 April 2017. The second ISC took place on 5 May 2017 at which meeting progress with the drafting of the 2018 MSDF was discussed and, importantly, the ISC reflected on the proposed amendments to the 2013 MSDF that is to form part of the 2017 UDP. The minutes of the IGSC meeting held on 5 May 2017 is attached as **ANNEXURE 3**.

Taking into account that Council elected to draft the MSDF by way of the assistance of the IGSC and furthermore that it is the function and duty of the IGSC to ensure that the MSDF be drafted according to all legal prescriptions taking into account appropriate and effective public participation and ensuring alignment with all applicable policies and higher order plans, the

input and comments of the IGSC cannot be ignored and must be given serious consideration.

The proposed amendments to the current MSDF are included in the revised draft MSDF document attached to the report. The spatial strategy, principles and strategies derived from the principles remains largely unchanged.

The changes proposed are illustrated in the maps included under each urban node and explained in the table. These were proposed due to the following reasons:

(a) corrections and/or amendments to urban edges (e.g. Anura, Erf 4, De Zalze etc.)

(b) proposed infill and development areas in response to council decisions (Northern Extension, Paradyskloof, Klapmuts, etc.)

(c) to accommodate major infrastructure projects e.g. roads master plan; and

(d) to allow for the development of institutional facilities.

Importantly, these proposed amendments we derived at through proposals by the administration while some of the proposals follow feasibility studies conducted by Council e.g. the Northern Extension, Paradyskloof and Jamestown Housing project. Based on applications received, interest show for development and mistakes previously observed some amendments were also proposed.

However, amendments were not proposed nor influenced by the formal revision of the MSDF as part of the 2018 SDF process as alluded to in paragraph (f) of the Council decision currently underway nor through proposals made by the consultants for the heritage inventory and management plan, the rural area plan or the urban development strategy. This process is followed separately with a view to draft a new MSDF for the WCO24 area that will be aligned and integrated with the IDP in 2018. In order for this process to be legitimate and efficient, intense public participation has taken place for the individual projects and will continue to take place based on projects but also as a process to debate the combined product that will be contained in the 2018 MSDF proposed.

5. RESPONSE TO COMMENTS RECEIVED

Comments received on the proposed amended MSDF included comments received from the public participation process, from State Departments, through the Intergovernmental Steering Committee and by way of the comments through the LG MTEC process.

Broadly speaking the comments can be categorised in four main themes i.e.

(a) Requests from land owners and developers to included their properties in the urban edge so as to simplify the process to obtain development rights;

(b) Objections to the process of public participation due to various factors such as too little time to comment, superficial public participation (as

part of the IDP process and not a separate process for the MSDF specifically) and generally a lack of proper public consultation;

(c) Amendments are seen as major amendments and not in line with the Council Resolution referring to minor amendments and rectification of anomalies and mistakes. Many of these refer to the notion of urban sprawl and the use of good agricultural land and the contention that the proposed amendments contradicts SPLUMA principles, current MSDF strategies and higher order plans such as the PSDF and Regional Implementation Framework; and

(d) Serious concerns from State Departments such as the Department of Agriculture, Department of Environmental Affairs and Development Planning, Department of Transport and Public Works, Cape Nature etc. as to absence of data, facts and solid research that the proposals were based on. This included the main concern that the process to draft the 2018 MSDF is still underway, still requires extensive public participation and will form the scientific and evidenced based information that will be essential to the drafting of a well thought out and considered SDF.

The latter sentiment was also echoed by the LG MTEC meeting representing various provincial departments which inter alia suggested that *"this Department strongly recommends that the SDF amendments to accommodate the proposed changes to the urban edges as well as the proposed new nodes, not be approved together with the IDP at the end of May/early June 2017. Instead we are of the view that the proposed amendments should rather be considered as part of the new SDF drafting process that is currently underway."*

"Given that insufficient background detail has been provided on the reasons for all the edge extensions as well as the proposed new nodes, we recommend therefore that the proposed SDF amendments are not approved together with the IDP at the end of May 2017, but that instead the proposed amendments are included in the new SDF drafting process which is currently underway. The lack of background information also means that the public was not placed in a position to effectively engage with these proposals and it is questioned therefore whether effective public participation was achieved around the SDF component of the IDP."

The LG MTEC reference (which was also included in the 2016 IDP review) which referred to Stellenbosch Municipality *being "at somewhat of a figurative cross roads"* is concerning. They were of the opinion that the Municipality seemed to be pulling in different directions when it came to a choice between development options. On the one hand Transit Orientated Development was supported, whilst on the other there seemed to be support for high income, low density, sprawling developments. It would appear from the 2017 IDP that Stellenbosch Municipality remains at this cross roads."

The MSA does not provide for an independent approval or amendment of the MSDF. Section 25(2) of the MSA do allow for an integrated development plan adopted by a municipal council to be amended in terms of section 34 and remains in force until an integrated development plan is adopted by the next elected council. As a MSDF is a core component of an IDP reflecting the spatial implications of the IDP it follows that a MSDF can also be amended annually in order to reflect the amendments of the IDP spatially.

In a legal opinion obtained from advocate Swart from STBB/Smith Tabata Buchanan Boyes attached as **ANNEXURE 4** it was agreed that "said minor amendments to the MSDF can be effected as part of the adoption process of the new IDP as contemplated by the council resolution and that the comprehensive revision of the MSDF can commence simultaneously and included in the future review of the IDP or separately subject to compliance with the relevant legislation.

The concern expressed by the Department of Environmental Affairs and Development Planning is attached as **ANNEXURE 5** while the table with comments received and the directorate's response to them is contained in **ANNEXURE 6.**

6. CONCLUSION

The process of draft a new MSDF for the WC024 area is well underway. Various valuable, up to date and innovative initiatives are guiding the process to inform and guide the preferred spatial strategy that will put the municipality in a better position to respond proactively to the challenges that face area and its communities. Many of the solutions envisaged will be innovative in nature, will depart from conventional planning solutions and may require extensive partnerships. SPLUMA requires that municipalities look afresh and with renewed vigour to finding innovative solutions in order to adapt current ineffective spatial strategies to address inequality and the skewed spatial structure that characterise South African towns and cities in a sustainable way. In the event of the WC024 municipal area the challenge is even more difficult and complicated due to difficulty of a shortage of appropriate land, the prevalence of good agricultural soils and a world renowned landscape and built environment. Finding a balance will be challenging and will require tough decision making in future.

The strong recommendation from LG MTEC is therefore considered fair input based on the reasons given by the department and in light of planning process that is underway at the moment.

However, this does not imply that no municipal planning may take place or continue for municipal land including that located outside of the urban edge for consideration in the 2018 MSDF.

SPECIAL MAYORAL COMMITTEE: 2017-05-24: ITEM 5.3.1

RECOMMENDED

(a) that Council approves the proposed amendments to the MSDF as it relates to the northern extension and Jamestown in **ANNEXURE 2** of the agenda item in the 2017/2018 IDP;

(b) that further amendments as per **ANNEXURE 2** be considered as part of the new MSDF process in May 2018;

(c) that Council takes note of the process followed thus far in amending the current MSDF as well as in preparing the new MSDF to be aligned and included in the IDP in 2018;

(d) that the corrected MSDF be included in the 2017 IDP; and

(e) that frequent updates of the progress made with the 2018 MSDF be submitted to Council.

Meeting:	*9th Council meeting: 2017-05-31*	***Submitted by Directorate:***	*Planning & Economic Development*
Ref No:	*15/10*	***Author:***	*Manager: Spat. Planning, Heritage & Environ*
Collab:	*516629*	***Referred from:***	*Special Mayco: 2017-05-24*

ANNEXURE 1

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NOTICE OF INTENT TO REVIEW AND AMEND THE STELLENBOSCH (WC024) MUNICIPAL SPATIAL DEVELOPMENT FRAMEWORK (MSDF), 2013

Notice is hereby given in terms of section 28(3) and 29 of the Municipal Systems Act, 2000 (Act 32 of 2000), section 20 of the Spatial Planning and Land Use Management Act, 2013 (Act 16 of 2013), Chapter 3 Part 3 of the Western Cape Land Use Planning Act, 2014 (Act 3 of 2014) and Chapter 2 of the Stellenbosch Land Use Planning By-Law (2015) that Stellenbosch Municipality intends to review and amend the Municipal Spatial Development Framework (MSDF) for the WC024 area.

The MSDF is a long-term forward planning document which spatially indicates potential growth and development paths of the Municipality. It co-ordinates the spatial implications of all strategic sector plans (engineering, transport, economic, housing, community services etc.) It is also one of the core components of the Integrated Development Plan (IDP) and gives spatial effect to the vision, goals and objectives of the IDP. The MSDF serves as a guide to decision making in development and land use planning.

The Stellenbosch MSDF was approved by Council on 28 February 2013. It needs to be aligned with the requirements of the new planning dispensation and with the new products and the IDP. Amongst others it includes:

- Strategic Environmental Management Framework
- Rural Area Plan
- Heritage Resources Inventory
- Integrated Human Settlement Plan
- Significant settlement proposals (Faure, De Novo, Vlottenberg)
- Klapmuts Local Spatial Development Framework
- Stellenbosch (Town) Local Spatial Development Framework
- Jonkershoek SDF
- Urban Edges
- Roads Master Plan
- Comment and decision-making criteria for telecommunications infrastructure

Submissions for an amendment of the current MSDF may be submitted as part of the 2017/2018 IDP process for rectification of known anomalies and desirable changes. Changes and amendments in this regard will be reflected in the 4th Generation IDP to be approved by Council in May 2017. Submissions must be submitted to the Manager: Spatial Planning, Heritage and Environment (Bernabé de la Bat) at Stellenbosch Municipality on Bernabe.delabat@Stellenbosch.gov.za or tel. (021) 808 8652 during office hours. Alternatively send an e-mail to Barbara-Ann.Henning@stellenbosch.gov.za

Acting Municipal Manager
Stellenbosch Municipality
P22/16

JIE BURGER 2016-11-16

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KENNISGEWING

VIR HERSIENING EN WYSIGING VAN MUNISIPALE RUIMTELIKE ONTWIKKELINGSRAAMWERK VIR DIE WC024 AREA, 2013

Kennis geskied hiermee in terme van artikel 28(3) en 29 van die Wet op Munisipale Stelsels, 2000 (Wet 32 van 2000), artikel 20 van die Wet op Ruimtelike Beplanning en Grondgebruikbestuur, (Wet 16 van 2013), hoofstuk 3 van die Wes-Kaapse Wet op Grondgebruikbeplanning (Wet 3 van 2014) en hoofstuk 2 van die Verordening op Munisipale Beplanning (Oktober 2015) dat Stellenbosch Munisipaliteit van voornemens is om die Munisipale Ruimtelike Ontwikkelingsraamwerk (ROR) vir die WC024 area te hersien en te wysig.

'n Munisipale Ruimtelike Ontwikkelingsraamwerk is 'n langtermyn vooruitbeplanningsdokument wat die ruimtelike groeipatroon en nuwe ontwikkelingsmoontlikhede van 'n munisipale gebied aandui. Dit integreer en koördineer die ruimtelike implikasies van alle strategiese sektorale planne (ingenieurs, vervoer, ekonomiese, behuising, gemeenskapsdienste, ens) van 'n munisipaliteit in 'n sinvolle strategiese plan. Hierdie dokument is ook 'n kern komponent van 'n munisipale geïntegreerde ontwikkelingsplan (GOP) en gee fisiese effek aan die visie, doelwitte en doelstellings van die munisipale GOP. Die munisipale ROR dien as 'n riglyn vir besluitneming in ontwikkeling en grondgebruikbeplanning.

Die Stellenbosch munisipale ROR is goedgekeur deur die Raad op 28 Februarie 2013. Dit moet egter voldoen aan die vereistes van nuwe beplanningswetgewing en aansluit met nuwe strategiese dokumente en die GOP. Dit sluit in onder andere:

- Strategiese Omgewings Bestuursraamwerk
- Landelike Area Plan
- Register van Erfenis Hulpbronne
- Geïntegreerde Menslike Nedersettings Plan
- Beduidende nedersetting voorstelle (Faure, De Novo, Vlottenberg)
- Klapmuts Plaaslike Ruimtelike Ontwikkelingsraamwerk
- Stellenbosch (Dorp) Plaaslike Ruimtelike Ontwikkelingsraamwerk
- Jonkershoek ROR
- Stedelike Grense
- Paaie Meesterplan
- Kommentaar en besluitnemingskriteria vir telekommunikasie-infrastruktuur.

Voorleggings vir die wysiging van die huidige munisipale ROR kan voorgelê word as deel van die 2017/2018 GOP proses vir die regstelling van bekende anomalieë en mindere veranderinge. Veranderinge en wysigings in hierdie verband sal gereflekteer word in the 4de generasie GOP wat aan die Raad in Mei 2017 voorgelê word vir goedkeuring. Voorleggings kan ingedien word by die Bestuurder: Ruimtelike Beplanning, Erfenis & Omgewing (Bernabé de la Bat) by Stellenbosch Munisipaliteit (Bernabe.delabat@stellenbosch.gov.za) of tel (021) 808-8652 gedurende kantoorure. Alternatiewelik stuur 'n e-pos aan Barbara-Ann.Henning@stellenbosch.gov.za. Alle korrespondensie moet duidelik verwys na die hersiening en wysiging van die munisipale ROR.

Waarnemende Munisipale Bestuurder
Stellenbosch Munisipaliteit
P22/16

X1710H-09-09121716

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INNOVATION CAPITAL

KENNISGEWING

VIR HERSIENING EN WYSIGING VAN MUNISIPALE RUIMTELIKE ONTWIKKELINGSRAAMWERK VIR DIE WC024 AREA, 2013

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'n Munisipale Ruimtelike Ontwikkelingsraamwerk is 'n langtermyn vooruitbeplanningsdokument wat die ruimtelike groeipatroon en nuwe ontwikkelingsmoontlikhede van 'n munisipale gebied aandui. Dit integreer en koördineer die ruimtelike implikasies van alle strategiese sektorale planne (ingenieurs, vervoer, ekonomiese, behuising, gemeenskapsdienste, ens) van 'n munisipaliteit in 'n sinvolle strategiese plan. Hierdie dokument is ook 'n kern komponent van 'n munisipale geïntegreerde ontwikkelingsplan (GOP) en gee fisiese effek aan die visie, doelwitte en doelstellings van die munisipale GOP. Die munisipale ROR dien as 'n riglyn vir besluitneming in ontwikkeling en grondgebruikbeplanning.

Die Stellenbosch munisipale ROR is goedgekeur deur die Raad op 28 Februarie 2013. Dit moet egter voldoen aan die vereistes van nuwe beplanningswetgewing en aansluit met nuwe strategiese dokumente en die GOP. Dit sluit in onder andere:

- Strategiese Omgewings Bestuursraamwerk
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Waarnemende Munisipale Bestuurder
Stellenbosch Munisipaliteit
P22/16

EIKESTADNUUS 2016-11-10

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KENNISGEWING DAT STELLENBOSCH MUNISIPALITEIT VAN VOORNEMENS IS OM 'N MUNISIPALE RUIMTELIKE ONTWIKKELINGSRAAMWERK VIR DIE WC024 AREA OP TE STEL

Kennis geskied hiermee in terme van artikel 28(3) en 29 van die Wet op Munisipale Stelsels, 2000 (Wet 32 van 2000), artikel 20 van die Wet op Ruimtelike Beplanning en Grondgebruikbestuur, Nr. 16 van 2013 (WRBG), hoofstuk 3 van die Wes-Kaapse Wet op Grondgebruikbeplanning Nr. 3 van 2014 (WWG) en hoofstuk 2 van die Verordening op Munisipale Beplanning (Oktober 2015) dat Stellenbosch Munisipaliteit van voornemens is om 'n Munisipale Ruimtelike Ontwikkelingsraamwerk (ROR) vir die WC024 area op te stel.

'n Munisipale Ruimtelike Ontwikkelingsraamwerk is 'n langtermyn vooruitbeplanningsdokument wat die ruimtelike groeipatroon en nuwe ontwikkelingsmoontlikhede (medium tot langtermyn) van 'n munisipale gebied aandui. Dit integreer en koördineer die ruimtelike implikasies van alle strategiese sektorale planne (ingenieurs, vervoer, ekonomiese, behuising, gemeenskapsdienste, ens) van 'n munisipaliteit in 'n sinvolle strategiese plan. Hierdie dokument is ook 'n kern komponent van 'n munisipale geïntegreerde ontwikkelingsplan (GOP) en gee fisiese effek aan die visie, doelwitte en doelstellings van die munisipale GOP. Die finale ROR sal goedgekeur word in terme van die Wet op Munisipale Stelsels, 2000 (Wet 32 van 2000) en hoofstuk 2 van die Verordening op Munisipale Beplanning (Oktober 2015) en sal dien as 'n riglyn met besluitneming oor ontwikkeling en grondgebruikbeplanning.

'n Interregeringsloodskomitee en projekkomitee moet ingestel word in terme van artikel 11(a) van die Wes-Kaapse Wet op Grondgebruikbeplanning Nr. 3 van 2014 (WWG) en voornoemde verordering. Dit is die verantwoordelikheid van hierdie komitees om te verseker dat die opstel van die ROR moet voldoen aan die voorskrifte van die bogenoemde beplanningswetgewing. Staatsdepartemente, staatsorgane en/of ander rolspelers word uitgenooi om aktief deel te neem aan die opstel van die ROR. Die finale konsep ROR sal adverteer word vir publieke kommentaar sodra dit beskikbaar is.
Die beoogde voltooiingsdatum van die ROR is Mei 2018.

Indien u enige verdere navrae in verband met die proses het of wil registreer as 'n belanghebbende of geïnteresseerde party in die opstel van die Stellenbosch ROR, kontak die Bestuurder: Ruimtelike Beplanning, Erfenis & Omgewing (Bernabe de la Bat) by Stellenbosch Munisipaliteit (Bernabe.delabat@stellenbosch.gov.za) of tel (021) 808 8652 gedurende kantoorure. Alternatiewelik stuur 'n e-pos aan Barbara-Ann.Henning@stellenbosch.gov.za of 'n brief aan die Munisipale Bestuurder, Posbus 17, Stellenbosch, 7599 met enige skriftelike voorlegging of 'n versoek vir registrasie as 'n relevante belanghebbende of geïnteresseerde party. Alle korrespondensie moet duidelik verwys na die Stellenbosch ROR.

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INNOVATION CAPITAL

KENNISGEWING DAT STELLENBOSCH MUNISIPALITEIT VAN VOORNEMENS IS OM `N MUNISIPALE RUIMTELIKE ONTWIKKELINGSRAAMWERK VIR DIE WC024 AREA OP TE STEL

Kennis geskied hiermee in terme van artikel 28(3) en 29 van die Wet op Munisipale Stelsels, 2000 (Wet 32 van 2000), artikel 20 van die Wet op Ruimtelike Beplanning en Grondgebruikbestuur, Nr. 16 van 2013 (WRBG), hoofstuk 3 van die Wes-Kaapse Wet op Grondgebruikbeplanning Nr. 3 van 2014 (WWG) en hoofstuk 2 van die Verordening op Munisipale Beplanning (Oktober 2015) dat Stellenbosch Munisipaliteit van voornemens is om `n Munisipale Ruimtelike Ontwikkelingsraamwerk (ROR) vir die WC024 area op te stel.

`n Munisipale Ruimtelike Ontwikkelingsraamwerk is `n langtermyn vooruitbeplanningsdokument wat die ruimtelike groeipatroon en nuwe ontwikkelingsmoontlikhede (medium tot langtermyn) van `n munisipale gebied aandui. Dit integreer en koördineer die ruimtelike implikasies van alle strategiese sektorale planne (ingenieurs, vervoer, ekonomiese, behuising, gemeenskapsdienste, ens) van `n munisipaliteit in 'n sinvolle strategiese plan. Hierdie dokument is ook 'n kern komponent van `n munisipale geïntegreerde ontwikkelingsplan (GOP) en gee fisiese effek aan die visie, doelwitte en doelstellings van die munisipale GOP. Die finale ROR sal goedgekeur word in terme van die Wet op Munisipale Stelsels, 2000 (Wet 32 van 2000) en hoofstuk 2 van die Verordening op Munisipale Beplanning (Oktober 2015) en sal dien as `n riglyn met besluitneming oor ontwikkeling en grondgebruikbeplanning.

`n Interregeringsloodskomitee en projekkomitee moet ingestel word in terme van artikel 11(a) van die Wes-Kaapse Wet op Grondgebruikbeplanning Nr. 3 van 2014 (WWG) en voornoemde verordering. Dit is die verantwoordelikheid van hierdie komitees om te verseker dat die opstel van die ROR moet voldoen aan die voorskrifte van die bogenoemde beplanningswetgewing. Staatsdepartemente, staatsorgane en/of ander rolspelers word uitgenooi om aktief deel te neem aan die opstel van die ROR. Die finale konsep ROR sal adverteer word vir publieke kommentaar sodra dit beskikbaar is. Die beoogde voltooiingsdatum van die ROR is Mei 2018.

Indien u enige verdere navrae in verband met die proses het of wil registreer as `n belanghebbende of geïnteresseerde party in die opstel van die Stellenbosch ROR, kontak die Bestuurder: Ruimtelike Beplanning, Erfenis & Omgewing (Bernabe de la Bat) by Stellenbosch Munisipaliteit (Bernabe.delabat@stellenbosch.gov.za) of tel (021) 808 8652 gedurende kantoorure. Alternatiewelik stuur `n e-pos aan Barbara-Ann.Henning@stellenbosch.gov.za of `n brief aan die Munisipale Bestuurder, Posbus 17, Stellenbosch, 7599 met enige skriftelike voorlegging of `n versoek vir registrasie as `n relevante belanghebbende of geïnteresseerde party. Alle korrespondensie moet duidelik verwys na die Stellenbosch ROR.

Waarnemende Munisipale Bestuurder
Stellenbosch Munisipaliteit
P21/16

[illegible]	Publikasie Datum	Afdeling	Bladsy
BMSTBEN (ElkestadNuus)	03/11/2016	CLASSDSP (CLASSDSP)	-

STELLENBOSCH

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NOTICE OF INTENT TO COMPILE A MUNICIPAL SPATIAL DEVELOPMENT FRAMEWORK (MSDF) FOR THE STELLENBOSCH MUNICIPALITY (WC024) IN TERMS OF MSA, SPLUMA, LUPA AND THE STELLENBOSCH LAND USE PLANNING BY-LAW

Notice is hereby given in terms of section 28(3) and 29 of the Municipal Systems Act, 2000 (Act 32 of 2000), section 20 of the Spatial Planning and Land Use Management Act, 2013 (Act 16 of 2013), Chapter 3 Part 3 of the Western Cape Land Use Planning Act, 2014 (Act 13 of 2014) and Chapter 2 of the Stellenbosch Land Use Planning By-Law (2015) that Stellenbosch Municipality intends to compile the Municipal Spatial Development Framework (MSDF) for the WC024 area.

A MSDF is a long-term forward planning document which spatially indicates potential growth and development paths (medium to long term) of a municipality. It co-ordinates the spatial implications of all strategic sector plans (engineering, transport, economic, housing, community services etc.) of a municipality. A MSDF is also one of the core components of a municipal IDP and gives physical effect to the vision, goals and objectives of the municipal IDP. Once completed, the MSDF will be approved in terms of the Municipal Systems Act, 2000 (Act 32 of 2000) as well as Chapter 2 of the Stellenbosch Land Use Planning By-Law (2015) and will serve as a guide to decision making in development and land use planning.

An Intergovernmental Steering Committee (ISCC) and Project Committee will be established in terms of section 11(a) of the Land Use Planning Act, 2014 (Act 13 of 2014) and aforementioned By-Law. It is the responsibility of these committees to ensure that the compilation of the MSDF process must adhered with all specific reference to the above mentioned applicable planning legislation. Government departments, organs of state and/or other role players will be invited to actively participate in the drafting process of the MSDF. The final draft MSDF will be advertised for public comment when available as the envisaged completion date is May 2018.

Should you have any additional questions regarding the process or want to register as a relevant stakeholder/interested party on the compilation of Stellenbosch MSDF, please do not hesitate to contact the Manager Spatial Planning, Heritage and Environment (Bernabé de la Bat) at Stellenbosch Municipality on Bernabé.delabat@Stellenbosch.gov.za or tel. (021) 808 8652/8653 during office hours. Alternatively send an e-mail to Barbara-Ann.Henning@stellenbosch.gov.za or a letter to the Municipal Manager, PO Box 17, Stellenbosch, 7599 with any written submission and a request for registration as a stakeholder/interested party.

Acting Municipal Manager
Stellenbosch Municipality
P21/16

ANNEXURE 2

STELLENBOSCH MUNICIPALITY
SPATIAL DEVELOPMENT FRAMEWORK

Prepared for

STELLENBOSCH MUNICIPALITY
Plein Street, Stellenbosch, 7599
Tel: (021) 808 8111 Fax: (021) 808 8200

Prepared by the Sustainability Institute based on the
Stellenbosch Municipal Spatial Development Framework
Draft Status Quo and Draft Strategies reports by CNdV Africa (2010)
and inputs from Stellenbosch Municipality (2012)

Revised edition May 2017

CONTENTS

SYNOPSIS

This amended Spatial Development Framework (SDF) has been drafted by Stellenbosch Municipality in accordance with the relevant legislative requirements to guide the future spatial form of the greater Stellenbosch area. It is aimed at developing a binding set of principles which guide development and developmental rights of property owners. Specifically, the SDF aims to:

- Achieve shared and inclusive growth
- Increase access to opportunities, particularly for disadvantaged citizens
- Improve sustainability by minimizing ecological footprints
- Maintain the unique sense of place of the towns and region

To achieve these outcomes, various factors such as strategic infrastructure needs and requirements, natural resources, housing, agriculture and appropriate land use need to be taken into consideration. Section 2 looks at seven strategic perspectives that will guide the future spatial development of Stellenbosch and ensure that development that does not diminish the resource base on which its economy depends, or the beauty and sense of place that is valued by local inhabitants and visitors:

INTERCONNECTED NODES

A key feature of the greater Stellenbosch area is the historic pattern of locating settlements along strategic transport and river systems. To protect the unique character of the area and constrain environmental damage, it would be advantageous to follow this pattern. However, development patterns in recent years have seen the growth of unplanned informal settlements and low-density suburbs situated far away from transport routes, both of which place unnecessary pressure on ecosystems, arable land and other resources.

Those living in distant suburbs are almost entirely reliant on private motor vehicles for their mobility, and the expansion of these developments has an important role to play in increasing traffic congestion. To stem this, it is suggested that higher density developments be allowed within town limits, and that a strict urban edge be defined and enforced to put an end to low density urban sprawl.

While each settlement should have its own design and implementation framework that recognizes the unique characteristics of its setting, the common principles of walking distance, functional integration and socio-economic integration should be common to all of them. Developments should be prioritized firstly around rail routes, and secondly alongside road routes and intersections.

A balanced supply of low-, middle- and high income housing should be prioritized in each node including some social and gap-housing on private developments. In accordance with the principles of densification, existing settlement nodes should receive priority above greenfield land. Land use should be based on its best long term sustainable use, rather than on its best financial return.

CAR FREE LIVING

Congestion has increased significantly in recent years, and most of the vehicles on the road are from within the municipality as opposed to those from outside. To reduce the number of cars on the road, a combination of non-motorized transport and public transport facilities is suggested. Adequate pedestrian and cycling infrastructure and appropriate development policies should ensure that at least 50% of activities found in an urban area are within 1km of residential areas, making it easier to live without private cars. Ensuring that settlement densities are adequate to ensure the financial viability of public transport facilities should also encourage a shift away from ever-increasing dependence on private cars.

INCLUSIVE ECONOMIC GROWTH

Stellenbosch effectively has a dualistic economy. One part is highly skilled and affluent, and their desire to live in Stellenbosch has led to rapid increases in the value of land for housing and farming. This is contrasted by a significant low-income population which experiences poor service access and low living standards. Recent retail and housing developments have predominantly catered to the needs of high income earners and car owners, and the divide between the two groups has widened as a result.

To address imbalances between rich and poor, a proportionate balance of low, middle and high income housing should be provided. More affordable housing should be provided closer to economic opportunities, and commercial zones should be created within close proximity of low income suburbs. Sufficient industrial land should also be made available near public transport links, especially rail.

Shopping centres and areas with high pedestrian traffic should include market areas and sidewalk opportunities that help informal traders to access more business. Markets and informal retail spaces should be properly managed, and rentals charged for informal retail spaces according to the level of services provided.

In accordance with the various aims of the SDF, appropriately located public land should be used for agricultural, conservation and tourism purposes in land reform, equity or lease schemes that broaden participation in the rural economy. Stellenbosch University's ambitious "Campus Master Plan" should also be integrated into the municipality's spatial planning.

OPTIMAL LAND USE

Stellenbosch faces a shortage of around 20,000 housing units, and meeting this need will require doubling the current stock. Given the current relationships, this implies that at least 6,000 units will have to be built on municipal land, much currently used for agricultural purposes. Doing so would destroy the municipality's character, so the concept of infill and redevelopment with higher densification is promoted instead. Due to excessively cumbersome procedures, national and provincial land reform programs prefer to acquire private land rather than making publically owned land available for development via lease. Various factors including policy uncertainty and indecision have significantly increased the premium on private land. Policy consistency is required for at least ten years in regard to the approval of applications either within or outside the urban edge to allow longer term financial stability and planning.

Instead of expanding the footprint of built areas, suitable locations for at least 6,000 middle and low income residential units need to be identified either as part of existing settlements through densification or extension and integration of existing settlements. At all times, preference must be to develop locations close to public transport hubs, and brownfield sites are preferred over greenfield locations. Projects catering to low, middle and high income groups should be designed as larger integrated settlements rather than stand-alone townships or gated communities. It is proposed that municipal land be allocated to its most appropriate use, and that the land be used or applied by the municipality – preferably under a lease agreement - to allow for the desired developments to become feasible, rather than being sold to the highest bidder. Space should simultaneously be created for additional educational and other facilities to ensure minimal need for vehicular transport.

RESOURCE CUSTODIANSHIP

Achieving a sustainable future for Stellenbosch will depend on its ability to make best use of available resources for the benefit of all. Resolving inequality and growing the economy will require access to energy, water, waste and sanitation services, and the 20,000 new residential units proposed for Stellenbosch municipality will require a doubling of infrastructural service points over the next 10 or more years. The infrastructure backlog equates to a funding requirement of R1billion. This implies an annual requirement of approximately R400 million for 5 years. Current budgetary projections indicate that no more than R200 million will be available under the most optimistic scenarios implying that it is not possible to fund the infrastructure investment. The potential for large scale upliftment and development is severely hampered by the lack of attention to necessary infrastructure in the past. Five specific areas require urgent attention:

- Fresh water: Much of Stellenbosch's key water supply infrastructure is in a state of disrepair, severely constraining the municipality's ability to deliver uninterrupted fresh water services and preventing future development. At the same time, poor management of solid and liquid wastes in agricultural, industrial and informal residential areas and run-off from roads is causing the pollution of rivers and groundwater. To address this, pollution reduction should be complemented by efforts to re-establish and protect indigenous riverine ecosystems. All rivers above a minimum size shall be protected by river conservation zones, and no buildings should be located in the 1:100 year flood lines. The eradication of alien vegetation from all areas should be supported. Peak water demand should be accommodated with supplementary water storage and recycling, and urban water conservation and demand management programs should be implemented.

- Waste water: Stellenbosch municipality's 7 waste water treatment works (WWTW) and sewage reticulation system cannot meet the needs of the current population, let alone support future development. Regular sewage leaks and overflows into rivers and groundwater result in eutrophication, ecosystem degradation and the spread of disease, threatening the health of communities and reducing quality of life. WWTW must be upgraded to achieve minimum water quality standards as defined by DWAF. Where feasible, development at new settlement nodes should be serviced by localized waste water treatment plants that deploy appropriate sustainability-oriented technologies. Peak load management systems will need to be considered for particular areas. Sewage should be regarded as a potential source of water, nutrients, methane gas.

- Solid waste: The municipality's solid waste system is at maximum capacity. The current landfill site at Stellenbosch town is way over capacity, and the new cell being constructed in August 2012 will only provide additional capacity until 2017. With high public resistance to new solid waste sites and in line with new legislation, ways of reducing waste streams need to be implemented urgently. Appropriate strategies for waste separation at source should be formulated and implemented as swiftly as possible. A MRF should be installed at each waste transfer station and landfill site, and private and community-based sub-contractors should be included in a recycling-oriented waste management system.

- Energy: Economic growth and the provision of housing are directly affected by the availability of electricity, and the municipality is entirely dependent on the Eskom grid in this regard. Stellenbosch town needs to reduce its consumption by 10% to avoid overstepping supply. A combination of innovative demand reduction measures and increases in capacity will be required to prevent power disruptions whilst improving access to the poor, and this change will need to be led by wealthy households, businesses and the University. All new housing should install solar water heating devices, and non-subsidy housing should be encouraged to meet the portion of their electrical demand that exceeds 300kWh per month by generators such as solar photovoltaic panels and solar hot water heating devices. SANS 10400-XA energy efficiency standards should be adhered to in all planning applications for new buildings, major renovations and usage changes. Alternative energy sources should be developed and integrated into the grid, and the largest energy users should be encouraged and incentivised to invest in solar energy generation.

- Construction materials: Most of Stellenbosch's building materials are sourced outside the municipality, increasing the load on the transport system whilst contributing to CO_2 emissions and depleting fossil fuels. Many of these materials also require vast amounts of electricity to produce. Private contractors should be educated about source sites for building materials that are as close to the settlement nodes as possible, and their use should be encouraged over more distant sources. The use of recycled, recyclable and low energy building materials in the construction of new buildings should also be encouraged.

FOOD AND AGRICULTURE

The fertile soils of Stellenbosch produce the region's largest export products, namely wine and vegetables. If one then includes the tourism sector which is largely built on wine tourism, then the importance of agriculture to the region cannot be overemphasised. The majority of arable land is used for the production of wine, with only a small proportion of the region's food being produced locally.

Several factors such as inappropriate rezoning of high value agricultural land and the diminishing financial returns on farming have led the sector to experience difficulties in attracting capital. While significant investments have been made in the farming sector, not all is related to productive uses of the land. This has led to fertile land being rendered unproductive, and this in turn has diminished employment opportunities for low skilled workers and increased reliance on food imported from elsewhere.

It is proposed that 10,000 ha of land should be used for the production of food for local consumption. Land outside of existing or proposed urban settlements should be used for agricultural production, biodiversity conservation, scenic quality and agri-tourism. The use of incentives to encourage the usage of fallow land should be implemented, including potentially using public land as surety for the release of funding from the Land Bank, DBSA and others to further land reform projects. To ensure sustainable agricultural usage, further sub-division of land should be strongly discouraged. Informal, properly managed farmers markets selling fresh produce should be provided in key centres, while further large mall developments should be discouraged.

HERITAGE

The sense of place of the Stellenbosch region is derived from a long agricultural and academic history coupled with well-preserved architecture and endemic biodiversity. Uncontrolled expansion of urban areas and industrialised agriculture into indigenous ecosystems threatens the unique fabric of the region, and may diminish the appeal of the area. Several specific principles are proposed to protect the character of the area, including the use of guidelines for sensitive biodiversity areas, controls over building heights and architectural styles along major roads, and the determination of appropriate land use zoning according to view sheds. The character of the rural area should be protected via various guidelines such as setting buildings along provincial roads back by at least 100m. Tourism that reinforces the municipality's sense of place should be encouraged and attractions should be developed that remain appropriate to the region's well established themes.

Following the principles introduced in Section 2, Section 3 considers the 14 nodes that have been identified as the loci of future development in Stellenbosch Municipality in more detail. This includes a summary of the challenges and opportunities faced by each node and maps of the status quo and proposed developments that indicate how this could be translated into more detailed spatial plans. Table 1 on page 12 summarizes the key infrastructure capacity issues that need to be addressed in each of the nodes, and can be used to prioritize infrastructure investments across the municipality in the short term.

SECTION 1: INTRODUCTION

South Africa's spatial planning is governed by the Municipal Systems Act, National Environmental Management Act (NEMA), the Spatial and Land Use Management Act (SPLUMA),the Western Cape Land Use Planning Act (LUPA) and the Stellenbosch Municipality: Land Use Planning Bylaw, and consists of two components:

1) Spatial Development Frameworks (SDF)

2) Land Use Management Systems (LUMS)

SDF's are guiding and informing documents that indicate the desired spatial form and define strategies and policies to achieve this. They guide the LUMS, which can be likened to town planning or zoning schemes that have a binding effect on development rights. Based on the challenges identified in the 2008 Stellenbosch Municipal Draft Spatial Development Perspective, this SDF aims to:

- Achieve shared growth
- Increase access to opportunities, particularly for disadvantaged citizens
- Improve sustainability by minimizing ecological footprints
- Maintain the unique sense of place of the municipality's towns and regions

Based on the Municipality's vision statement for the 2010-2020 period, the SDF aims to guide:

- future economic growth within a sustainable and coherent spatial framework;
- the planning and organization of strategic infrastructure for managing mobility, water, energy, solid & liquid wastes to reduce negative environmental impacts;
- the protection and conservation of key natural resources and eco-system services, particularly rivers, soils, biodiversity, air quality, sacred spaces and public open spaces;
- the use of privately and publicly owned land to maximize opportunities for low skilled job seekers living in the area;
- the delivery of public and private sector housing on the social, gap and lower income sectors, taking into account the prioritization of incremental upgrading of informal settlements;
- the maintenance and further development of the municipality's agricultural base;
- the form, quality and appearance of all forms of urban and rural development in order to preserve the beauty and sense of place that is valued by the people of Stellenbosch and visitors from around the world.

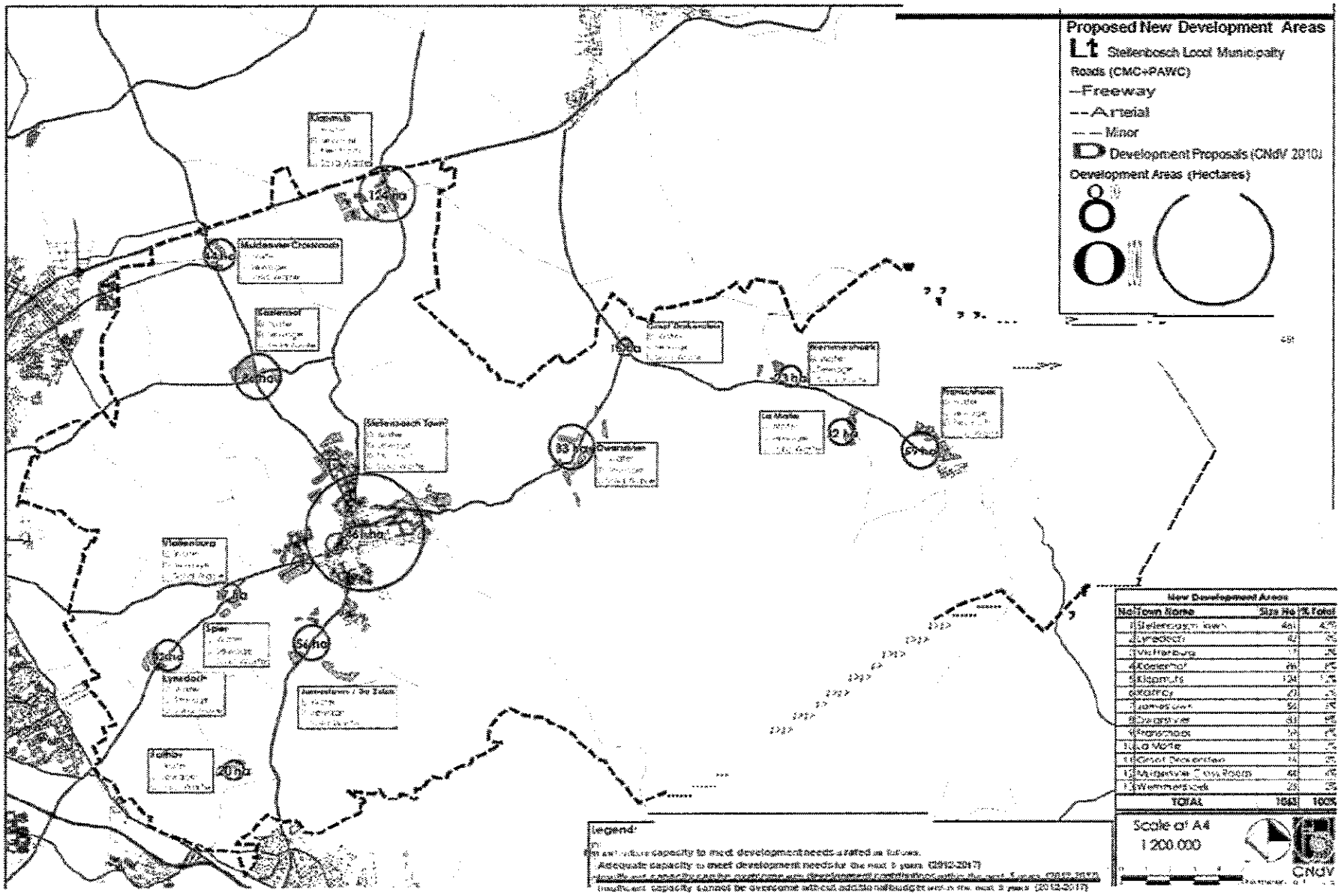


FIGURE 1: PROPOSED NEW DEVELOPMENT AREAS (Note: New development areas have not been indicated for Spier as the development of this node will focus on intensification)

SECTION 2: DEVELOPMENT PRINCIPLES

There are seven strategic perspectives that will guide the future spatial development of Stellenbosch. The seven strategic perspectives which will be discussed in greater detail below are:

- Interconnected nodes
- Car Free Transport
- Inclusive Economic Growth
- Optimal Land Use
- Resource Custodianship
- Food and Agriculture
- Heritage

1. INTERCONNECTED NODES

With the exception of parts of Stellenbosch town, the Stellenbosch municipal area consists of a relatively tightly structured settlement pattern located at strategic nodes along transport and river systems. This is regarded as a key strength and needs to be reinforced.

However, the largely sustainable development patterns established in the municipality over the last 300 years are being threatened by:

1) Pressure on resources like fresh water and arable land due to rapid population and settlement growth.
2) "Urban sprawl" type growth since the 1970's, typified by the construction of low density suburbs or "security estates" on agricultural land situated far from major transport systems.

New suburbs in far flung portions of the municipality are dependent almost entirely on private motor vehicles, and this has negative consequences in terms of congestion, pollution and costs of commuting. An alternative approach is to focus on the development of nodes located at strategic intersections of road and rail networks, or intensify the development of existing nodes at these points as an alternative to uncontrolled, low density sprawl. Instead of converting valuable farmland into new suburbs, a high density nodal development pattern based on strategic transport intersections has a much smaller impact on the landscape and arable land, and allows rural, agricultural, hydrological and ecological systems much more freedom to function successfully. Stellenbosch Municipality's development nodes and their interconnecting transport systems are illustrated on the following page:

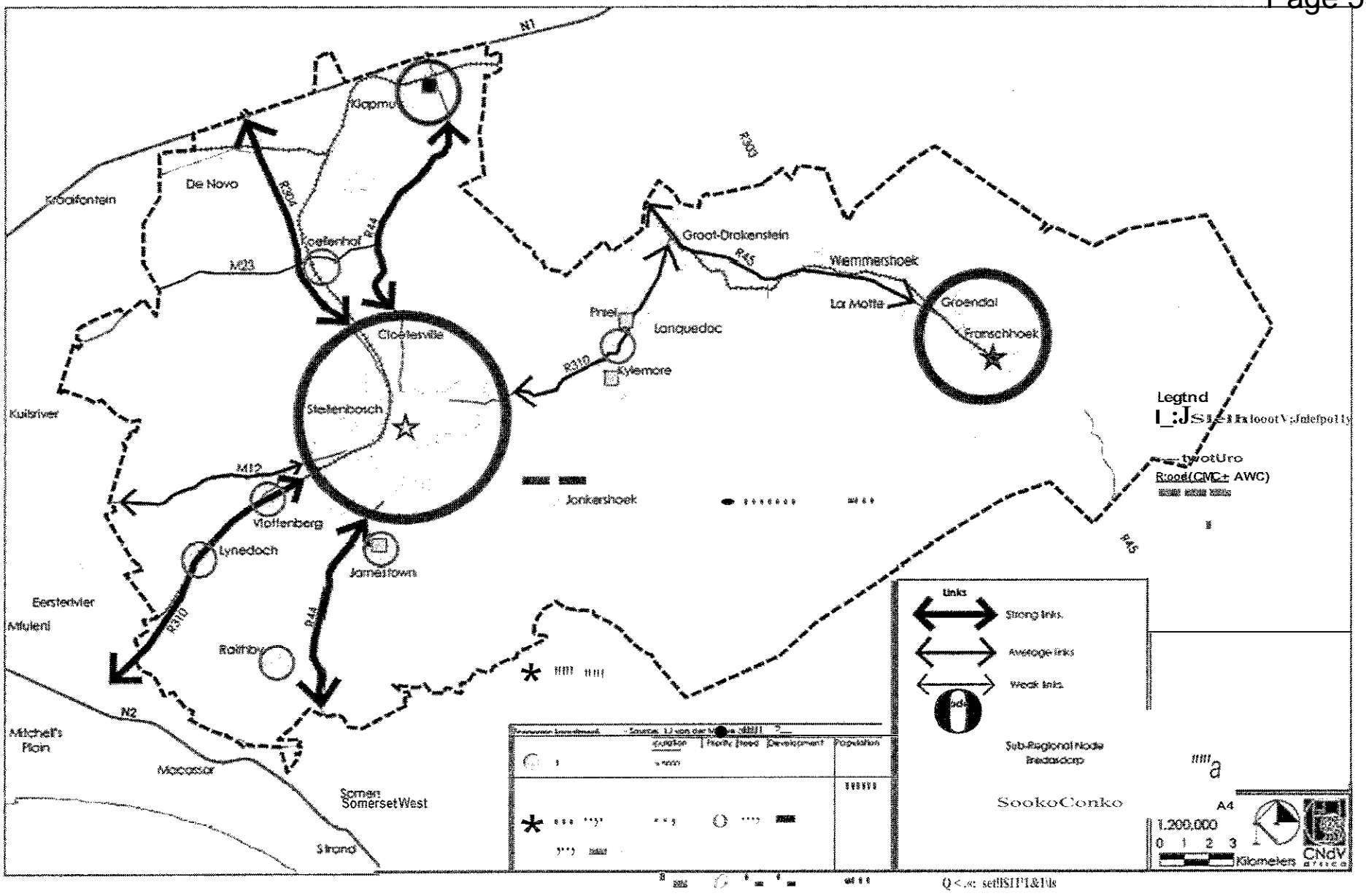


FIGURE Z: STELLENBOSCH SETTLEMENT NODES CONNECTED BY ROAD AND RAIL NETWORKS

PRINCIPLES

- The municipality should be developed as a system of inter-connected, nodal, tightly constrained settlements that have minimal outward expansion, have relatively dense internal plans, and are linked to other settlements by road, rail and high speed voice and data telecommunications.
- The development of settlement locations should be prioritized firstly on rail routes, then secondly on road routes. Acquisition or not of land for development should be informed by this priority.
- Internal average gross densities should vary between approximately 15 du/ha for small settlements and approximately 25 du/ha for large ones, particularly where traffic congestion is prevalent.
- Urban design frameworks should be developed for each settlement, recognizing their unique characteristics and potential.
- The principles of walking distance, functional integration, socio-economic integration, appropriate densification and the urban edge should inform settlement design.
- In order to prevent urban sprawl and protect natural environments and farmland, settlements should define and maintain a strict urban edge, outside of which development should not be permitted.
- Instead of focusing development on the urban periphery (like a doughnut shape), efforts should be made to ensure that the settlement centre is the most dense, with densities diminishing toward the urban edge (like a cupcake shape).
- The usage of land should be based on its highest and best long term sustainable use as opposed to its best long term financial return.
- A balanced supply of low, middle and high income housing should be ensured in each settlement node so as to promote integration and minimize the need for travel.
- Developments on private land must include at least social and gap housing components - if not also an RDP component - particularly if such projects involve upgrading of land rights.

New development applications should be encouraged to focus on locations within existing settlement nodes rather than greenfields land.

2. CAR-FREE TRANSPORT

Traffic congestion has increased significantly in recent years due to Stellenbosch's economic growth, an increase in private vehicle ownership and reduced restrictions on car use by students in central Stellenbosch. The 2004 Transport Master Plan for Stellenbosch (currently being updated for 2012) found high levels of congestion on the arterials between settlements, and that only 10.1%-11.3% of this traffic is from outside the municipality. Large volumes of vehicles leave the municipality each day, and many of those that move within it have Stellenbosch town as their final destination. The university is a significant generator of traffic.

To reduce the number of cars on the road, a combination of non-motorised transport (NMT) and public transport facilities should be used so that residents commute without needing a private car. The municipality is served by a number of railway lines, as well as bus and taxi routes along the major arterial routes. Residents from further afield can use park-and-ride facilities to reduce the distance travelled by car, but focusing development around transport thoroughfares will help to reduce the need for this. A non-motorised transport (NMT) strategy was prepared for the municipality in 2009 to encourage commuting on foot and by bicycle. This requires the demarcation and construction of dedicated lanes for cyclists, and the development and linking of pedestrian-friendly zones. Where vehicle traffic acts as a barrier to NMT, road intersections need to be made safer for pedestrians, cyclists and the disabled to cross. Paving and landscaping can be used to attract pedestrians to public spaces, and help to improve the quality and functionality of urban spaces.

The proposed vision of a Sustainable Transit-Oriented Development (STOD) approach is one framing of development which succeeds in transcending the tension that Stellenbosch faces between heritage and sprawl perspectives. This does not mean to say that alternative or complementary approaches to development are ignored; rather, infrastructure and spatial planning will prioritizes integrated public transport-oriented and infrastructure-led development. Together these interconnected and complementary components serve to reinforce a framing of development for this municipality which makes ecologically sustainable growth and inclusive economic prosperity possible.

PRINCIPLES

- Settlement form should lessen rather than increase the demand for private motor vehicle travel.
- The primary measure of access is appropriate walking distance. At least 50% of activities found within the urban area (e.g. employment, shopping, public transport, social & recreational) should be within 1km of where people live.
- Within urban settlements, pedestrian movement should be prioritized in the circulation pattern of streets and the design of street cross-sections.

- All regional roads should facilitate non-motorized transport (particularly cycling) by ensuring that shoulders are available and demarcated as cycling ways. These can be used on an emergency basis for breakdowns, but cyclists should receive priority.
- The possibility of constructing more stations on the Lynedoch – Klapmuts rail line should be investigated, along with the option of the municipality or a service provider operating a commuter shuttle along this line. Similarly, consideration should be given to re-opening the rail link to Franschhoek.
- Development approvals should be guided by the need to achieve the settlement densities needed to make the public transport system financially and operationally viable.
- Intensification, integration and mixed use development around primary station precincts that recognizes: (a) the primary and overarching TOD approach with prioritization of development around a set of carefully designed, ecologically sustainable high density nodes built around integrated public transport services along the Klaptmuts-Lynedoch railway spine;
- Building an integrated mobility network to ensure that all communities have access to a comprehensive range of preferably public as well as private transport options.

3. INCLUSIVE ECONOMIC GROWTH

Stellenbosch faces the twofold challenge of attracting skills to supply dominant economic sectors (manufacturing, wholesale, retail, accommodation, tourism and financial services) whilst ensuring demand for low skilled labour (mainly in agriculture, construction and tourism) in order to reduce the numbers of unemployed. Good quality of living and jobs in the tertiary sector make Stellenbosch an appealing home for high income earners. However, as land for housing and farming becomes increasingly expensive and the retail sector shifts toward shopping centres (accessible mainly by private car), there is a risk that the gap between the rich and the poor will widen. In contrast, town centres in Franschhoek and Stellenbosch provide examples of retail spaces that are socially inclusive. The proliferation of open air markets also provides opportunities for inclusive commercial activities.

Agriculture, property development and tourism are Stellenbosch's most competitive economic sectors, while the industrial, manufacturing, transport and freight industries are seen as being in decline. Stellenbosch town is reputed to be the small town with the most JSE listed or private equity companies in South Africa, and the exceptional growth in the financial services sector over the past 5 years is expected to continue.

Inclusive economic development will depend on a creative mix of the larger formal businesses that need to expand; the proliferation of middle-level businesses across the primary, secondary and tertiary sectors; and the strengthening and integration of smaller and informal businesses into the mainstream economy. From a spatial perspective, this requires that the distances between lower income groups and economic opportunities be reduced by developing new housing closer to job opportunities or developing new commercial areas closer to low income suburbs, and improving affordable mobility options for the poor. Land reform programs on both public and private rural land can offer access to agricultural, agri- and eco-tourism and conservation opportunities, and the allocation of well-located areas for use by informal traders and SMMEs can help to integrate these businesses into urban economies.

The proposed growth of Stellenbosch University is viewed as a major opportunity for the property and service sectors. It is a major driver of the municipality's tertiary economic sector, and its needs and forward plans should be integrated with those of Stellenbosch town and the wider municipality.

STELLENBOSCH UNIVERSITY "CAMPUS MASTER PLAN"

The development of Stellenbosch University has been envisaged in the recently completed 2011 Campus Master Plan. As a major driver of the Municipality's tertiary economic sector, the University has as its vision to fulfil the role of a true 21st century, low carbon institution of excellence. To maximise its potential economic influence, the University's needs and forward plans should be aligned with those of Stellenbosch town and the wider Municipality. As a major contributor to the traffic volumes in Stellenbosch, the University has developed an integrated solution to the ever-increasing number of vehicles visiting the campus. A Campus Mobility Plan was implemented to limit the use of private vehicles and promote the use of public transport and non-motorised transport, and the municipality's mobility plans should be aligned with this. The University has also adopted a policy to increase the percentage of resident students to reduce commuting.

The Campus Master Plan is addressing accessibility, sustainability and the maintenance and provision of open and green spaces for recreation. In this regard the efforts towards rehabilitating Stellenbosch Mountain should be acknowledged, supported and sustained. A joint venture between the Jan Marais Trust, the Municipality and the University to develop the Jan Marais Nature Reserve as a recreational space for the community should be investigated further.

Although the University believes that it is operating within its land use rights, it is aware of challenges faced by the Municipality with regard to infrastructure capacity and has expressed a willingness to become involved in upgrading precinct infrastructure where such challenges are a result of University growth. Innovative sustainable solutions to deal with infrastructure constraints should be co-developed by unlocking the vast intellectual capacity of the University

PRINCIPLES

- The complete socio-economic cross-section of a community should be located within 1km of each urban centre. In larger settlements like Stellenbosch town, they should be located within 1km of its 6 sub-centres.
- Low income housing should be balanced with a proportionate amount of middle-income and upmarket housing.
- Care should be taken to ensure that income disparities are not reflected in large differentiations between neighbouring groups, nor should contrived barriers be erected that reproduce historic patterns of division and exclusion.
- Suitable land located close to places of work should be made available timeously to cater for the residential needs of employees, particularly in the gap, social and middle income markets.
- 20% of the space in regional and neighbourhood shopping centres should include a market area, preferably linked to public transport drop off points and sidewalk opportunities.
- Areas of land should be set aside, and if necessary expropriated to provide SMMEs with access to well located parts of the CBDs for retail, service provision and manufacturing.
- Marketplaces should be created in central locations that are able to intercept significant pedestrian flows, preferably linked to public transport interchanges.
- A range of informal retail locations should be provided on sidewalks, verges and median areas to cater for permanent traders (e.g. fruit and vegetables, newspapers and magazines, refreshments and snacks, second hand goods, crafts, clothing etc.)
- All markets and informal retail spaces should be properly managed and reasonable permit conditions enforced, and rentals charged depending on the level of facilities and services provided.
- Appropriately located public land should be used for agricultural, conservation and tourism purposes in land reform, equity schemes or lease schemes that broaden participation in the rural economy.
- Stellenbosch University's plans should be integrated with the town and municipality's Spatial Development Frameworks.
- Sufficient industrial land should be made available close to public transport links (especially rail) and new industrial land should be launched in Klapmuts and Koelenhof.

4 OPTIMAL LAND USE

Meeting Stellenbosch's current housing needs could result in another 20,000 housing units across income groups by 2025. This represents a near doubling of the current stock built up over 300 years, and is estimated to require a capital investment of approximately R9.5 billion from the public and private sector over 10 years. For the housing model to work, the required level of cross-subsidy means that 6,000 dwellings may need to be located on what is now municipal land. If greenfield land is used without urban infill and redevelopment, the 750 - 1,000 ha required could result in the loss of 250-300 low skilled agricultural jobs, GGP contributions from agriculture of R18.5 million, exports of R8.5 million and the destruction of the municipality's identity. Development should thus target infill and redevelopment of strategic areas to prevent this from happening, and fourteen development nodes have been identified as suitable locations. Each node has unique characteristics that make different combinations of densification and greenfields development appropriate.

Prevailing property market patterns are impeding the sustainability and affordability of the municipality's growth. The lifestyle / trophy premium of living on farm land is increasing agricultural land prices, making farming unaffordable, chasing away investment in farming and undermining the possibility of successful land reform projects. Policy indecision about whether agricultural land should be preserved or eventually used for urban development enhances this premium. Urban land also commands high prices, providing little incentive for social and middle income housing in urban areas. This results in lower income residents having to live far away from their places of employment, creating a need for transport and worsening congestion. It also encourages informal settlements on well-located land so that people can save on transport costs (e.g. Enkanini in Stellenbosch).

A large amount of municipal land is publicly owned, and this can be used to provide affordability advantages for agricultural and low income housing developments rather than selling this land to the highest bidder. Unfortunately, procedures for leasing or alienating state land are exceptionally cumbersome, and as a result the national and provincial land reform program prefers to concentrate on acquiring private land instead.

PRINCIPLES

- Identify suitable locations for 6,000 middle- and low-income residential units (middle to high density, including flats), either as part of an existing settlement (densification) or an extension that is integrated into the existing settlement rather than isolated from it. At all times preference must be given to locations that are close to public transport links.

- Subdivisions, second dwellings, sectional title, re-development of existing low density areas, infill and brownfield land opportunities should be prioritized over greenfield sites, as guided by the SDF.

- Land and projects catering for low-, middle- and high-income groups should be designed as part of a larger integrated settlement rather than stand-alone townships or gated estates. In addition to site plans, Development Frameworks and Precinct Plans for the broader settlement should be included in project proposals.

- Land should be used for its most sustainable and appropriate use whether publicly or privately owned[1].

- As far as possible, care should be taken to ensure that publicly owned land is not sold for purposes for which it is not ideal, but may be more lucrative (e.g. urban development in farming areas).

- Public land to be used for social or low income housing should not be sold at the highest price, but rather leased or sold at levels that make such projects viable.

- Policy consistency is required for at least 10 years in regard to the approval of applications whether they are inside (urban) or outside the Urban Edge (agricultural, conservation, eco/agri tourism) so that investment time horizons are sufficiently long term to support investment by land owners, farmers and bankers.

[1] For example, publicly owned agricultural land could be leased through open or limited tender for farming purposes or used for land reform programs in agriculture, agri-tourism, eco-tourism or conservation.

5. RESOURCE CUSTODIANSHIP

Achieving a sustainable future for Stellenbosch will depend on its ability to make best use of available resources for the benefit of all. Resolving inequality and growing the economy will require access to energy, water, waste and sanitation services, and the 20,000 new residential units proposed for Stellenbosch municipality will require a doubling of infrastructural service points over the next 10 or more years. The municipality's ongoing ability to provide these services at an affordable price will depend on its ability to raise the funds required for this purpose while at the same time protecting the resources and ecosystems on which current and future settlements depend.

Due to a long period of delayed decisions on infrastructure investment, Stellenbosch currently faces a major infrastructure backlog worth approximately R1 billion. A capital budget of approximately R400 million per annum is required for four to five years to rectify this, yet the municipality's capacity to spend on infrastructure is currently limited to between R120 - R200 million per annum over the next fifteen years.

Development in the municipality is effectively being stifled by its infrastructure backlogs and constraints. During the course of 2011 the Mayoral Committee was made aware of the fact that no new land-use applications should be supported for approval, and plans to construct low cost housing will have to be restricted due to infrastructure limitations. Existing critical backlogs require immediate attention, and developmental backlogs will need to be addressed if the municipality wishes to house its growing population. Clear policy decisions need to be made as to how the municipality will meet its legal imperatives in terms of levels of service provision and service delivery.

5.1 FRESH WATER

Much of Stellenbosch's key water supply infrastructure is in a state of disrepair, severely constraining the municipality's ability to deliver uninterrupted fresh water services to its constituents and preventing future development. An urgent priority is the main water link between Idas Valley and Cloetesville. Almost all of the development nodes require investments in bulk infrastructure to improve their access to water and sanitation and reduce water wastage.

At the same time, poor management of solid and liquid wastes in agricultural, industrial and informal residential areas and run-off from roads is causing the pollution of rivers and groundwater. Combined with reduced river flows from upstream dams, the situation has become so serious that the South African National Biodiversity Institute (SANBI) has classified most of Stellenbosch's rivers as "critically endangered". This means that so much of the original riverine habitat has been destroyed that ecosystem functioning has been impaired. These rivers can no longer clean and slow down storm water flows, with negative repercussions for the ecosystems, communities and economic activities[2] that rely on them. To address this, pollution reduction should be complemented by efforts to re-establish and protect indigenous riverine ecosystems.

Compounding the challenges mentioned above, climate change is likely to bring a combination of rising temperatures and reduced or erratic rainfall, placing pressure on already constrained water supplies. Unless new approaches to service delivery can be implemented that allow the same benefits to be achieved using less fresh water, increasing competition for water resources will place additional pressure on rivers, estuaries and wetlands. The drying of these ecosystems will compromise their ability to provide goods and services, with negative repercussions for humans and other dependent species.

[2] There is mounting concern that if water quality falls below European Union standards, the fruit and wine export industry could suffer in the near future.

PRINCIPLES

- All rivers above a minimum size shall be protected by river conservation zones of 10-30m on either side of the bank, depending on the width and maturity of the river (as determined by an aquatic ecologist or land surveyor). These zones should be returned to their natural riparian status for passive recreational use only, and no urban development or intensive agriculture shall be permitted within them.
- No foundations of permanent buildings shall be located within the 1:100 year flood lines (as determined by a hydrological engineer).
- Peak water demand should be accommodated with supplementary storage and recycling (e.g. rainwater tanks, grey water recycling) of water so that the municipality can focus on satisfying base demand and meeting the needs of the poor.
- Urban water demand management programs should be implemented to ensure that urban water demand does not undermine agricultural needs, including:
  - Rainwater harvesting should be mandatory on all new urban developments, and retrofitting of rainwater harvesting should be encouraged on all existing developments (where heritage constraints allow for this).
  - Grey water recycling should be promoted on all residential, commercial and industrial units with gardens.
- Water conservation measures should be adopted, for example minimizing unaccounted for water through leak repair and pressure adjustment, installing water meters, educating consumers about water saving, promoting water saving devices and promoting waterwise gardening.
- Technologies that facilitate the efficient use of irrigation water should be encouraged.
- Conservation areas should continue to enjoy the highest possible level of protection in order to ensure water quality and quantity at least in the upper reaches of the river system.
- The eradication of alien vegetation from all areas should be supported.

5.2 WASTE WATER

Stellenbosch municipality's 7 waste water treatment works (WWTW) and sewage reticulation system cannot meet the needs of the current population, let alone support future development. Regular sewage leaks and overflows into rivers and groundwater result in eutrophication, ecosystem degradation and the spread of disease, threatening the health of communities and reducing quality of life.

Stellenbosch town, Koelenhof, Jamestown / De Zalze and Vlottenburg all depend on Stellenbosch's WWTW, but it does not currently have sufficient capacity to accommodate further development. The Dwars River Valley and Klapmuts WWTW are also constrained. Some of the other development nodes have constructed decentralised plants, or have plans in place to construct them or connect to larger, centralized plants. Although the municipality has favoured centralized water treatment systems over package plants due to ineffective management of package plants by private entities in the past, it has recognized that there are technologies that can productively re-use waste water and the nutrients it contains, and also improve efficiencies. Advanced electronic monitoring technologies will be required to ensure a sufficient degree of centralized control of decentralized systems.

PRINCIPLES

- Waste Water Treatment Works (WWTW) must be upgraded to achieve minimum water quality standards as defined by DWAF.
- Where feasible, development at new settlement nodes should be serviced by localized waste water treatment plants that deploy appropriate sustainability-oriented technologies and are capable of extension, rather than being connected to a centralized regional system. Monitoring technologies and regulations should be used to facilitate centralized control.
- Peak load management systems will need to be considered for particular areas and/or large developments (e.g. storage facilities that accumulate flows during peaks and then release during off-peak periods).
- Sewage should not be regarded as waste but rather as a source of water, nutrients, methane gas and sludge - all of which can be productively re-used, especially if technology partners can be contracted to take over the management of certain plants.

5.3 SOLID WASTE

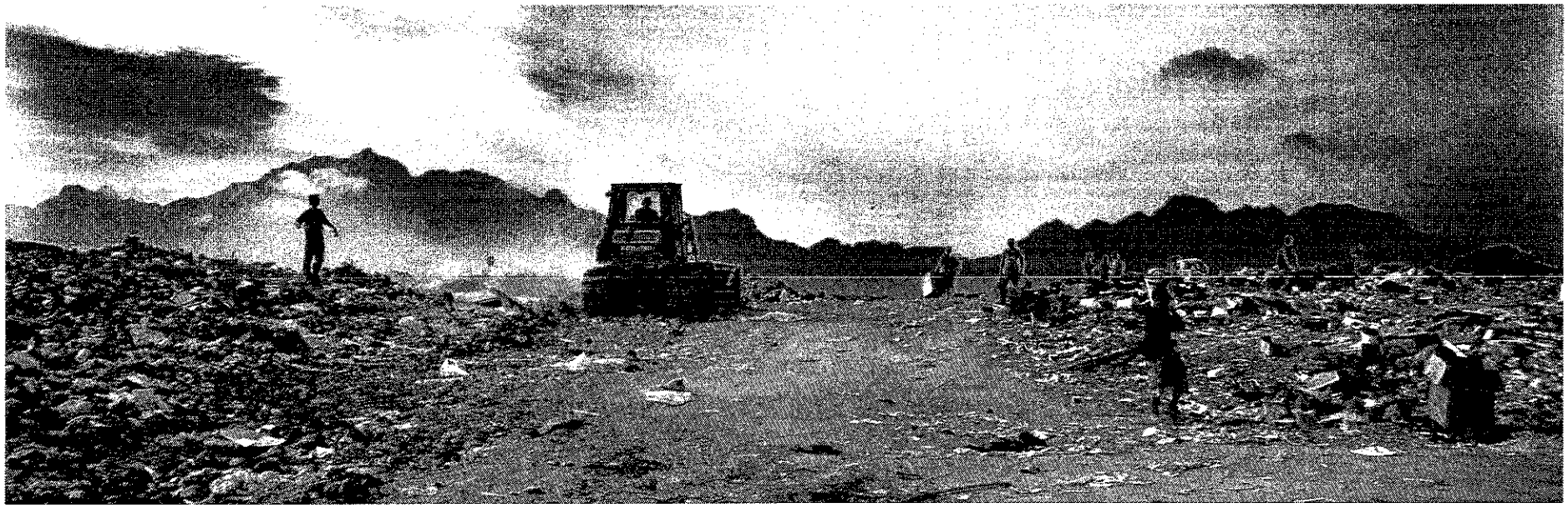
Stellenbosch Municipality's solid waste system is at maximum capacity. The current landfill site at Stellenbosch town is over capacity. The closest alternative is the Vissershok landfill site, but trucking the waste to Vissershok will increase costs per ton of waste removal by 186% (from R70/ton to R200/ton).

With high public resistance to new solid waste sites and in line with new legislation, ways of reducing waste streams need to be implemented urgently. Waste separation at source is not widely adopted, and as a result there is minimal diversion of waste from landfill for recycling. In order to facilitate recycling, new recycling collection trucks, conveniently located drop-off facilities and new Materials Recovery Facilities (MRFs) are required as part of an integrated strategy for waste minimisation.

PRINCIPLES

- Appropriate strategies for waste separation at source should be formulated and implemented as swiftly as possible in Stellenbosch town and other settlements that use its landfill site. If this process is to be phased, the largest generators of waste per capita (i.e. upper income households, businesses, the University, industries and demolition sites) should be targeted first.
- A MRF should be installed at each waste transfer station and landfill site.
- Private and community-based sub-contractors should be included in a recycling-oriented waste management system.
- Disused quarries (e.g. the quarry to the west of the R304 intersection with Koelenhof) should be re-used as landfill sites, and closed landfill sites should be used for conservation, agriculture or urban development depending on their suitability and that of the surrounding land.

- The council must request from the DME that it also signs off on mine rehabilitation plans to ensure that they comply with the SDF. This must be integrated into the process of issuing mine closure certificates.



5.4 ENERGY

With the exception of Stellenbosch town and Franschhoek, information on the municipality's electricity consumption is hard to come by due to the fact that a number of areas are serviced directly by Eskom. However, it is anticipated that Eskom supply will be constrained at least until 2014 while it builds additional capacity, predominantly in the form of CO_2-emitting coal-fired power stations. Cables will also need to be upgraded in some areas to cater for growth in demand as a result of densification. Economic growth and the provision of housing are directly affected by the availability of electricity, and a lack of electricity supply capacity within the municipality makes its growth entirely dependent on Eskom's environmentally hazardous power supply.

Stellenbosch town is supplied by the municipal energy department, and available data indicates that it needs to reduce its consumption by 10% to avoid overstepping supply. It is estimated that R200m will be required over the next 10 years to supply an additional 20,000 units with 350Kwh/month (which is substantially less than the 700kWh that typical middle income households draw from the grid each month).

Given electricity supply constraints and the need to increase average consumption by low income households to meet basic needs, wealthy households, businesses and the University will need to take the lead in reducing demand for electricity and moving to alternative energy sources (e.g. solar hot water heating). A combination of innovative demand reduction measures and increases in capacity will be required to prevent power disruptions whilst allowing for access to be extended to the poor.

It must be noted that as from November 2011, all buildings must by law adhere to the promulgated SANS 10400-XA energy efficiency standards. Plans must detail how the building conforms to these standards in order to be approved, and the people who approve these plans need to be trained so that they can evaluate these submissions.

It is also worth noting that there are now various incentives for large energy users to invest in renewable energy plants that can be cash positive within the first year. These include a 3% discount from Eskom if a plant of 1MW or above is constructed, cheap loans from the IDC's Green Fund, grant funding from international sources, etc.

PRINCIPLES

- In accordance with the new SANS 10400-XA standard, all new housing (including low income housing) should install solar water heating devices (for which there are various technologies).
- All non-subsidy housing should be encouraged to meet the portion of their electrical demand that exceeds 300kWh per month by generators such as solar photovoltaic panels and solar hot water heating devices.
- SANS 10400-XA energy efficiency standards should be adhered to in all planning applications for new buildings, major renovations and usage changes.
- Alternative energy sources should be developed and integrated into the Stellenbosch grid, including renewable energy (which could include solar or wind power generated, for example, on the West Coast, or energy from waste).
- The largest energy users in Stellenbosch, plus all future large property developments, should be encouraged and incentivised to invest in solar energy generation equal to or greater than their existing requirements.
- Stellenbosch should ensure that it benefits from the strategies mounted by the Western Cape's Green Cape initiative.

5.5 CONSTRUCTION MATERIALS

Most of Stellenbosch's building materials are sourced outside the municipality, increasing the load on the transport system whilst contributing to CO_2 emissions and depleting fossil fuels. Many of these materials, for example Portland cement, require vast amounts of the country's scarce electricity to produce, and can be substituted for materials with less of an environmental impact. Lower embodied-energy construction materials include local stone, clay, thatch, sustainably-grown wood and recycled bricks.

There are at least two brick quarries located north of Stellenbosch, one of which is anticipated to be in use for another 100 years. A quarry on the Polkadraai Road makes an effort to be lower carbon by using recycled oil to fire its kilns and pelletized sewage instead coal chip within the bricks.

PRINCIPLES

- Educate private contractors about source sites for building materials that are as close to the settlement nodes as possible, and encourage them to use them instead of more distant sources.
- Encourage the use of recycled, recyclable and low energy building materials in the construction of new buildings (e.g. re-used, SABS bricks made from crushed rubble, adobe bricks, sand bags etc.) to reduce the need for raw materials and transport.
- Low embodied-energy alternatives to Portland cement should be encouraged.

6. FOOD AND AGRICULTURE

Together with water, Stellenbosch's fertile soils represent its most important resource for long-term sustainability. Wine and vegetable products are the district municipality's largest export products, and agriculture contributes to over 18% of the municipality's employment. Between 1996 and 2001, 64% of all new jobs created in the CWDM were in the agricultural sector. Agriculture is a significant employer of people who are not sufficiently skilled to find work in other sectors with skills shortages. Due to the nature of the wine and fruit industries, many of these jobs are seasonal, and ways to create year-round employment in other sectors should be sought where appropriate. There are strong linkages between the agricultural sector and manufacturing, wholesale, trade and accommodation, and financial services sectors (particularly with agri-tourism).

In recent years, the agricultural industry has experienced difficulties in attracting capital as high premiums paid for the lifestyle aspects of Stellenbosch farm land have driven property prices up and financial returns for farmers down. High and medium potential agricultural land has been rezoned to inappropriate uses (e.g. upmarket housing, golf courses, RDP housing, certain types of tourism development and poor mining rehabilitation). This has the following negative impacts:

1) Fertile agricultural land is rendered unproductive, compromising the region's ability to ensure food security.
2) Low skilled farm labourers have less opportunities for employment, contributing to the poverty gap.
3) Opportunities for biodiversity conservation are reduced.

Despite approximately 40,000 ha of cultivated land in the Stellenbosch region, 17 265 ha (43%) is used for wine grapes and relatively little of it is used for food production. The vast majority of the municipality's food requirements are being imported from outside its boundaries, and distributed through major retailers, agricultural coops, corner shops and farm stalls. In addition to the negative environmental impacts associated with importing food, there are indications that this large scale, formal food distribution system will come under increasing pressure as a result of inflation, decreasing purchasing power amongst all income groups, particularly the poor. Informal marketing channels that build a network of farmers markets could allow retail prices to drop whilst increasing revenues to farmers, effectively circumventing middlemen.

PRINCIPLES

- A minimum of 10,000 ha of arable land (public or privately owned) should be safeguarded for the cultivation of food for local consumption, and not used for purposes that would remove its productive potential.
- Land outside of existing and proposed urban settlements should be used for agricultural production, biodiversity conservation, scenic quality and agri-tourism.
- Intensification of agriculture, biodiversity conservation and agri-tourism should be promoted in farming areas outside of urban settlements.
- Incentives should be put in place to encourage the use of currently fallow land for agriculture or biodiversity conservation purposes. This could include using municipal land as surety for Land Bank / DBSA / IDC loans, and promoting partnership land reform projects on private and municipal land.
- Outside of existing and proposed urban settlements for township development (and permanent freehold residential occupation), the subdivision and lease of land should be strongly discouraged.
- The construction of additional large grocery anchored shopping malls should be discouraged in the municipality, mainly because they undermine neighbourhood-level commercial activity and they often are only accessible by private car.
- Locations for informal, properly managed farmers markets selling fresh produce, arts and crafts should be provided in key centres.

7. HERITAGE

Stellenbosch's sense of place is derived primarily from its historic architecture, endemic biodiversity and the views from its main arterial routes. Its main attractions include wine farms, natural areas, historic sites and museums, sports and recreational facilities, and tight-knit urban street character in many of the historic urban cores (e.g. Stellenbosch, Franschhoek). Approximately 169,000 tourists visited the municipality's tourism bureau in 2005, of which over 80% were foreign. Growth in domestic tourism is seen as an opportunity to expand the tourism economy. The establishment of Stellenbosch 360 in 2012 clearly marks the start of a new era in tourism promotion and business involvement in development in general.

Stellenbosch is home to some of the rarest and most diverse vegetation on earth, but this is coming under pressure from the uncontrolled expansion of urban areas and industrialized agriculture into indigenous ecosystems. As pockets of untouched ecosystems get smaller and the spaces between them get wider, they lose their ability to function and reproduce, and species become extinct. Combined with climate change, uncontrolled conversion of rare ecosystems could result in the loss of beneficial ecosystem services and significantly diminish the appeal of the area unless decisive action is taken to protect and nurture endemic biodiversity.

There is increasing importance of telecommunications to the growth of the economy. This is especially the case in Stellenbosch that has a strong emphasis on business services and information communication technology Rapid expansion of the telecommunications industry in recent years has resulted in an increasing demand for radio telecommunication services, and new technologies in the cellular phone industry. The location, siting and development of TMI continues to be an issue of particular interest to both local communities and local government alike, with debate focusing on adequate availability of connectivity, visual amenity and public health. With the nature of technology it must be accepted that the future need for TMI sites will increase in the short to medium term..

PRINCIPLES

- Sensitive biodiversity areas should be mapped, and clear and appropriate guidelines introduced to conserve them.
- Crest lines should be kept free of buildings and intensive agriculture to protect biodiversity.
- Ridge lines should be used for properly managed walking trails to increase recreational potential, tourism and income.
- The boundaries of view sheds along major routes should be determined by a visual resource management exercise.
- Land within these view sheds and outside of existing or proposed settlement nodes should be classified as either "Buffer" or "Intensive Agriculture" Spatial Planning Categories (SPCs) depending on the underlying land's suitability and use.

- Development for agricultural or agri-tourism activities within these view sheds and outside of existing or proposed settlement nodes should be limited to 1 du per 10 ha (or equivalent).
- Buildings along provincial roads should be set back at least 100m from these roads to preserve the character of rural areas.
- Building heights and architectural styles should be controlled within 200m of any prominent road so as to preserve the heritage of the built environment.
- Outside of formal conservation areas, land owners should be encouraged to conserve vegetation classified by SANBI as Endangered or Critically Endangered (particularly along ridge lines) and to link to existing conservancies (e.g. through the Cape Nature Stewardship Program). These land uses should be classified in the Core SPC.
- Adopt a telecommunication mast infrastructure policy that will facilitate the growth of new and existing telecommunications systems and facilitate the provision of TMI in an efficient, cost-effective, environmentally appropriate and sustainable way.
- Tourism that reinforces the municipality's sense of place (e.g. agri-tourism, wine tourism and eco-tourism) should be encouraged in the settlements and on rural land outside the urban edge.
- Variety in the region's tourism offerings should be preserved rather than focused on one unique resource (e.g. wine tourism), but attractions must remain appropriate to the region's tourism themes.
- Restaurants, wine tasting and holiday accommodation should be encouraged, but must be within the parameters of the rural housing guidelines and provincial resort guidelines.

SECTION 3: STELLENBOSCH NODES

In line with the principles introduced in section 2.1 on interconnected nodes, the following 14 nodes have been identified as the loci of future development in Stellenbosch Municipality.

3.1. Stellenbosch Town

3.2. Franschhoek

3.3. La Motte

3.4. Wemmershoek

3.5. Groot Drankenstein

3.6. Dwars River Valley

3.7. Klapmuts

3.8. Muldersvlei Crossroads

3.9. Koelenhof

3.10. James Town/De Zalze

3.11. Vlottenburg

3.12. Spier

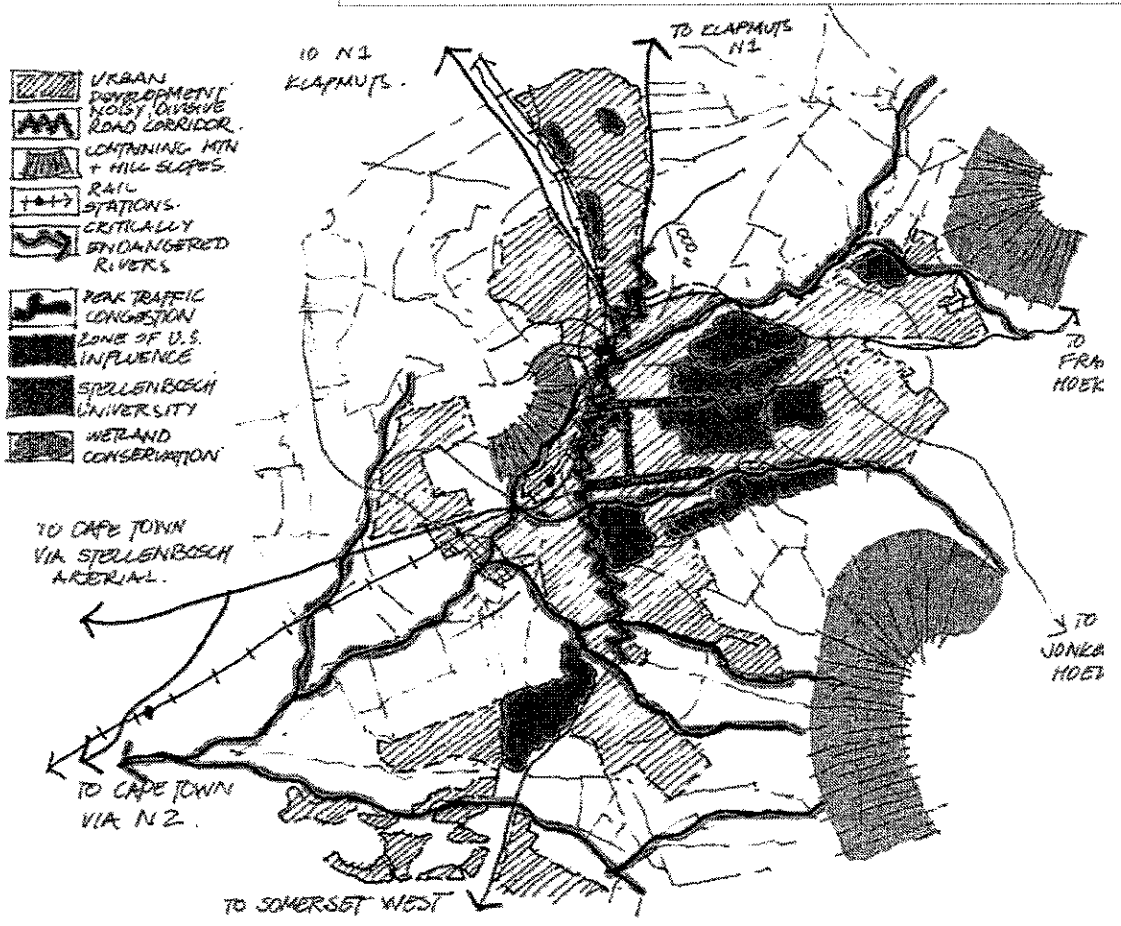
3.13. Lynedoch

3.14. Raithby

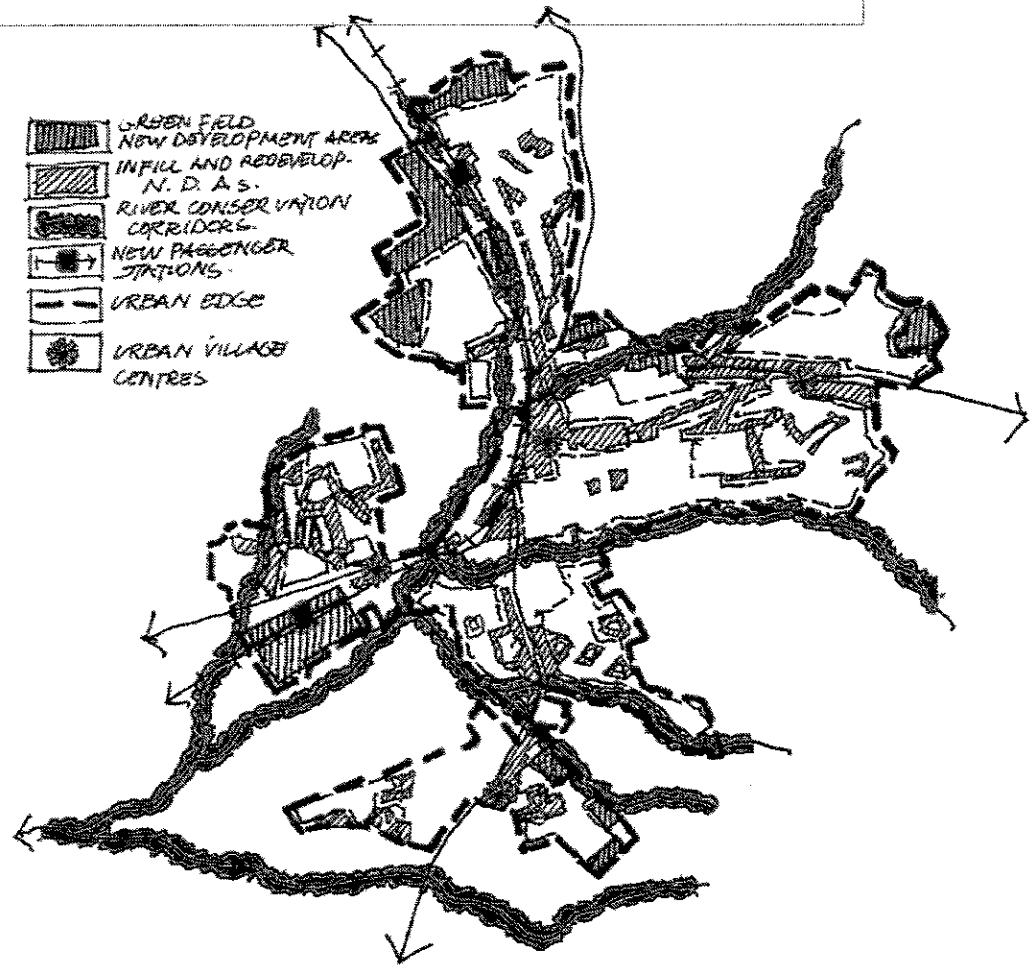
3.1. STELLENBOSCH TOWN

Strategic location

- On the main R44 arterial and railway line



STELLENBOSCH TOWN ANALYSIS



STELLENBOSCH TOWN PROPOSALS

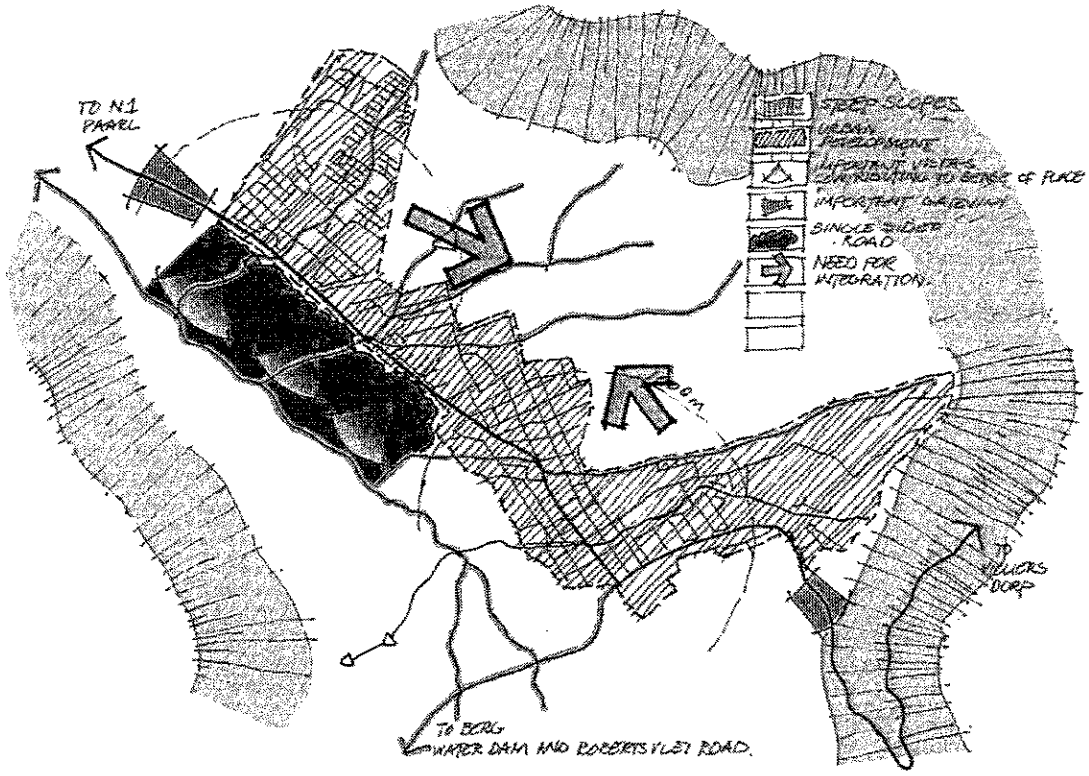
Description	• Educational, administrative, agricultural and services centre functioning as the economic hub of the Stellenbosch Municipality.
Advantages	• Existing corporate and governmental offices • Local authority decision-making centre • Rail access • Hospital and health functions • Historical buildings
Challenges	• Large informal settlements on the periphery and in central parts of the town are expanding in an uncontrolled manner and require access to services. • Stellenbosch is still largely divided along apartheid planning lines, with a poor north and wealthy south. • The town suffers from morning and evening traffic congestion that is considered excessive for a town of its size. • The needs and intended growth of the university need to be taken into account to avoid it becoming a gated complex that blocks movement and hinders integration.
Opportunities	• To maintain the character of the town centre, development should follow a perimeter block layout, with clearly defined street building lines echoing the town's historic fabric, with parking underneath or to the rear. • Street trading, businesses and NMT frontages along Bird Street should be consolidated and extended into Kayamandi, Cloetesville and Idasvallei along Cluver and Merriman Streets. • There is potential to fill the gap in the market for middle income residential accommodation
Constraints	• The primary constraint on development is the lack of finance to extend the bulk infrastructure - especially sanitation, solid waste, energy and roads to meet the needs of current and future citizens. • The town's rivers are categorized as Critically Endangered and need to be protected, especially downstream of WWTW and informal settlements. • Special care needs to be taken to avoid damage to heritage buildings and precincts.
Future lateral growth direction	• To prevent sprawl, an urban edge to limit the outward growth of the town over the next decade needs to be demarcated and adhered to.

Development areas	• The town is to be conceptualized as 5 interdependent mixed-use, mixed-income urban villages focusing on: (1) North: intersection of Bassi Street / R304 / Cloetesville Steps (2) Centre: existing town centre, (3) East: Idasvallei/Uniepark on intersection of Helshoogte/Cluver. (4) West: Onderpapagaaiberg/SFW on intersection of Devon Valley/Adam Tas/Oude Libertas, (5) South: Paradyskloof on intersection of Blaauklippen/Strand Roads. • Low key densification of existing suburbs is to be achieved by subdivision down to minimum plot size and adding second dwellings. • New development areas that can accommodate large scale, mainly housing development outside of the existing urban development are to be identified. These include the northern extension of Stellenbosch and the infill opportunity between Brandwacht and Paradyskloof. • The settlement as a whole should achieve a gross dwelling unit density of 25du/ha, with densities of 100-200du/ha along main transport routes and around public open spaces. • Special consideration should be given to the future of the area where the prison, Department of Transport and various small public open spaces are located in order to ascertain more high value uses for these areas, especially within the context of the University's masterplan.
Roads and transport	• Main streets are to be upgraded with trees, landscaping, cycling and pedestrian facilities similar to that already in Dorp, Plein and Church Streets. • The high quality main street with good pedestrian and cyclist access is to be extended to the main streets of peripheral suburbs. • Transport plans should integrate and support the traffic reduction strategies in Stellenbosch University's "Campus Master Plan" (See Section 3). • Transit-oriented development principles should apply. This means linking investments in public transport and NMT to zoning decisions that promote densification in nodes serviced by public transport and NMT facilities. • Given the rising volume of traffic that is supposedly passing through Stellenbosch town (causing congestion, road deterioration, etc), the transport plan has suggested that it may be worth considering a new arterial bypass that links the R44 at a point between Annandale Road and the Technopark entrance, passes behind Technopark (giving it another much needed entrance), cuts across the R310 and rejoins the R44 on the other side of Kayamandi. Major new investments in public transport links, especially into Technopark, eg a light rail or tram service connection should also be considered.
Water	• Certain supply zones within town (i.e. Cloetesville and Kayamandi) do not have capacity.
Sewage	• No capacity at Stellenbosch WWTW to justify approvals of new developments until end 2018.
Electricity	• The Nominated Maximum Demand (NMD) has reached full capacity. No additional large developments can be accommodated.
Solid waste	• Stellenbosch landfill site is nearly at capacity. Additional landfill sites are urgently required to meet demand after 2019.

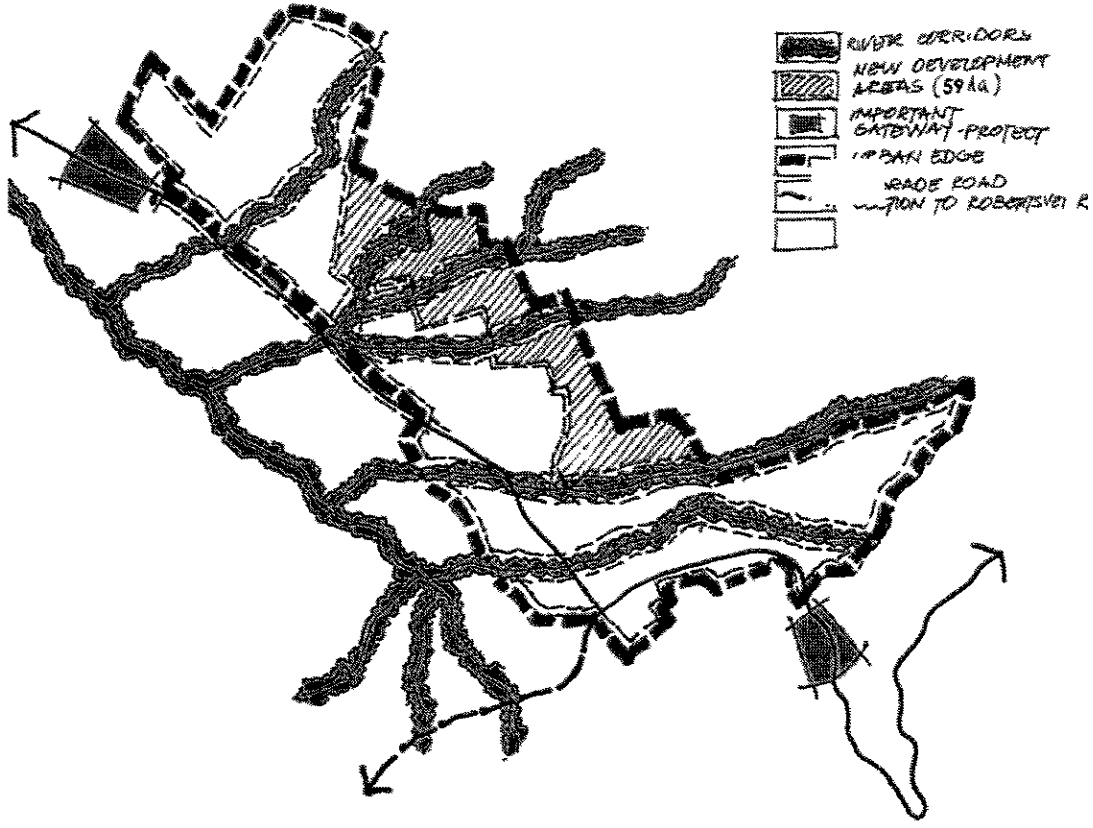
Rivers and conservation zones	• Fresh water ecologists to demarcate 10 to 30m setbacks from the banks of rivers and canals within which no new development (other than roads, paths, landscaping or street side trading) or ploughing may occur. These setbacks are to be mandatory for new developments and retrofitted in existing ones where possible. • The redevelopment of public open spaces should be avoided unless they can be shown to be surplus to open space requirements in the long run.

STELLENBOSCH: PROPOSED URBAN EDGE
Legend
Proposed New Urban Edge
Current Urban Edge
Affected Areas
Included
Excluded
Kilometers
0
0.5
1
2
3
4

3.2. FRANSCHHOEK



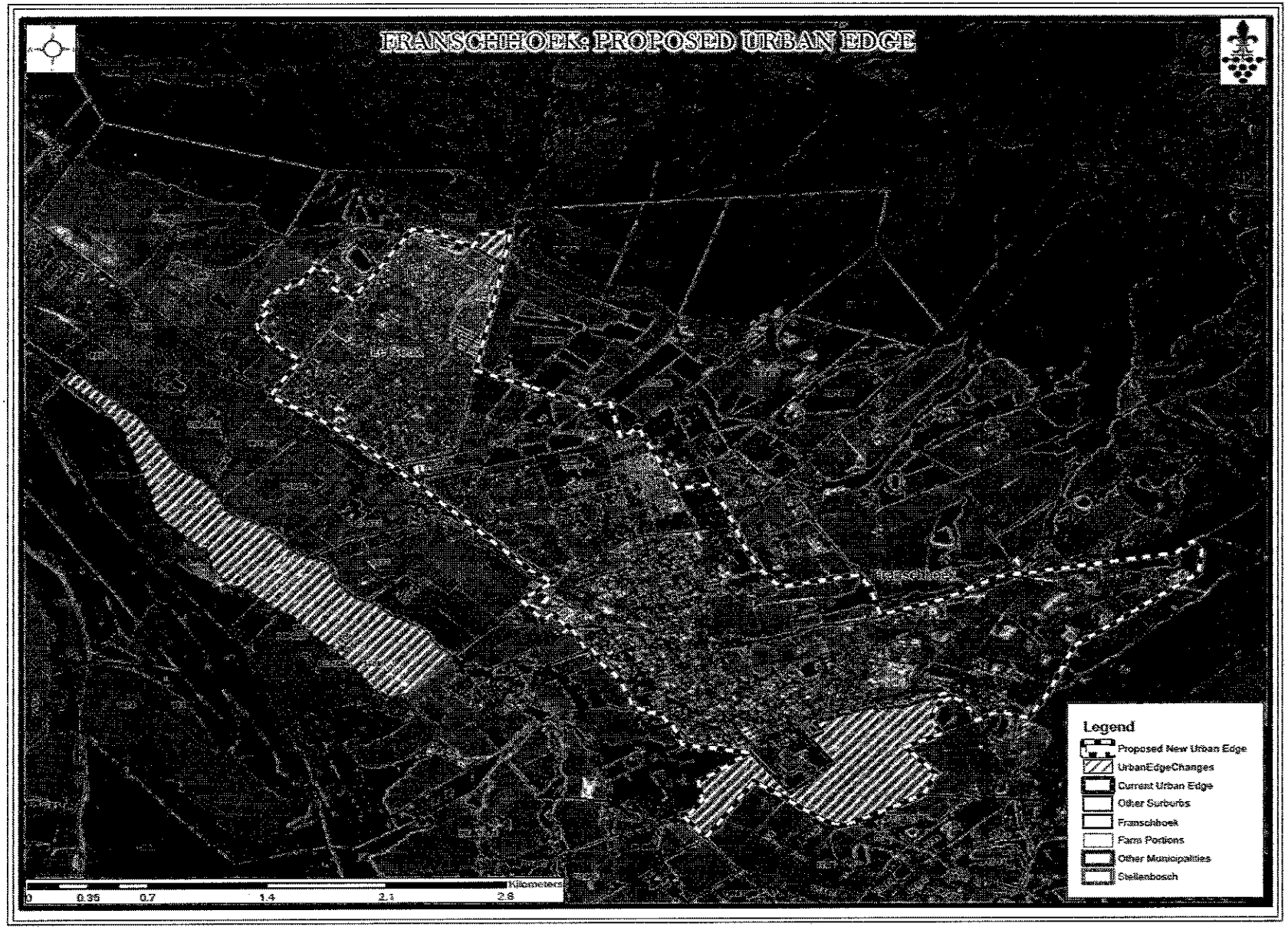
FRANSCHHOEK ANALYSIS



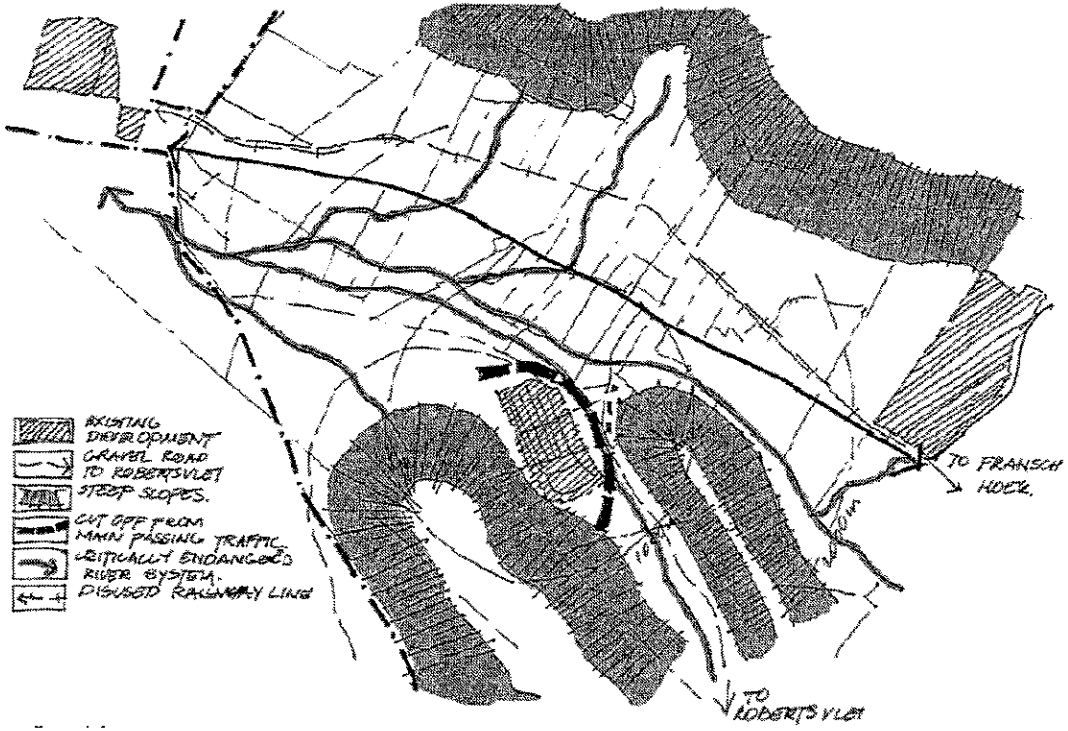
FRANSCHHOEK PROPOSALS

Strategic location	• On the R44 and railway line
Description	• An administrative and agricultural service centre that has become popular as a destination for upmarket tourism and cuisine.
Advantages	• Existing corporate and governmental offices • Local authority decision-making centre • Rail access • Hospital and health functions • Tourist destination • Historical buildings
Challenges	• Franschhoek South (where most of the higher order facilities are located) is poorly integrated with Franschhoek North, a low income settlement 2km north of the main village. • Its successful tourism economy is facing challenges of over-capacity and traffic congestion along its main streets, particularly during summer. • Informal settlements are expanding. • Insecticide spray from agriculture negatively affects health in the valley at certain times of the year.
Opportunities	• The economic opportunities offered by the main road are to be extended northwards so that Franschhoek North may also benefit. • A Cape Country aesthetic has been successfully retained thanks to a rigorous aesthetics committee, particularly in Franschhoek South. Current heritage areas are to be supported and extended into surrounding suburbs to promote the growth of high quality urban areas. • The approaches to the village from North and South contribute to its sense of place, and should be carefully controlled.
Constraints	• Located in a narrow flood plain, Franschhoek is abutted by the steep slopes of the Wemmershoek/Limietberg mountains to the north and Groot Drakenstein mountains to the south.
Future lateral growth direction	• Development along the northern edge of the river between Franschhoek North and South should be promoted. • An urban edge that holds the current line of development to the South, West and East and accommodates the integration of Franschhoek North and South needs to be demarcated.
Development areas	• Land above the current urban boundary of the town between Franschhoek North and South is to be promoted for mixed use, mixed income development including social and gap housing. The current small-holdings south of Franschhoek is to be included within the urban edge. • Low key densification of existing suburbs with 2nd dwellings and subdivisions down to minimum plot sizes should be encouraged.
Roads and transport	• The upgrading of the main street currently underway should be completed, and extended to Franschhoek North, including the provision of cycle paths. • NMT facilities are to be prioritised to reduce the need for motorised transport.
Water	• Certain supply zones within town (i.e. central town and surrounds) do not have capacity.

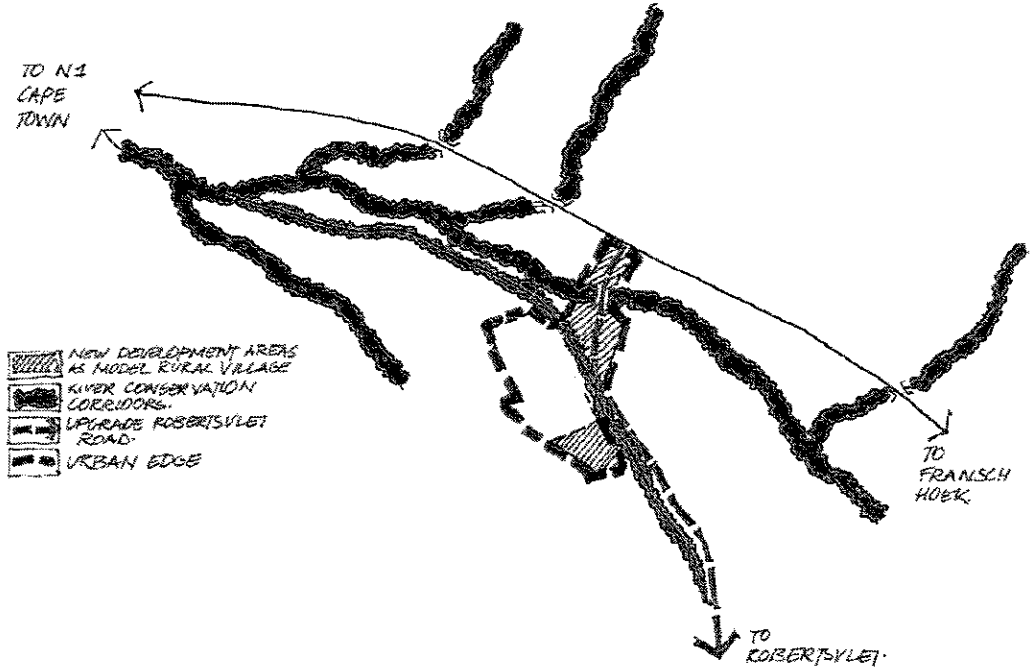
Sewage	• Capacity sufficient for development.
Electricity	• The Nominated Maximum Demand (NMD) has reached full capacity. No additional large developments can be accommodated.
Solid Waste	• Stellenbosch landfill site is nearly at full capacity.
Rivers and conservation zones	• Fresh water ecologists to demarcate 10 to 30m setbacks from the banks of rivers and canals within which no new development (other than roads, paths, landscaping or street side trading) or ploughing may occur. These are to be mandatory for new developments and retrofitted where possible to existing developments.
Important Reference Documents	• Franschhoek Spatial Development Plan (November 2000) by TV3 Architects & Planners • Franschhoek Urban Edge Policy (April 2003) by TV3 Architects & Planners


FRANSCHHOEK: PROPOSED URBAN EDGE
Legend
Proposed New Urban Edge
UrbanEdgeChanges
Current Urban Edge
Other Suburbs
Franschhoek
Farm Portions
Other Municipalities
Stellenbosch
Kilometers
0
0.35
0.7
1.4
2.1
2.8

3.3. LA MOTTE

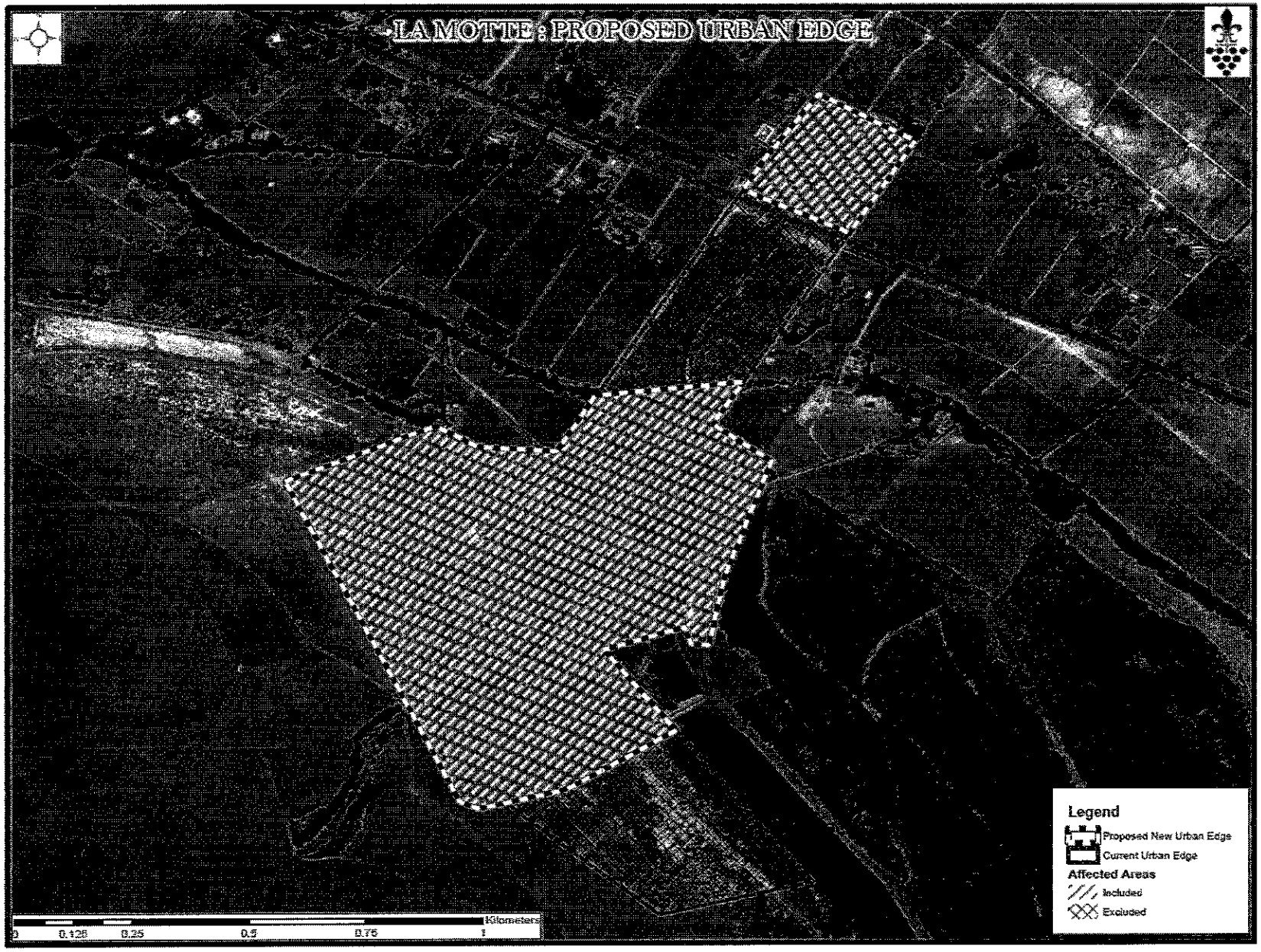


LA MOTTE ANALYSIS

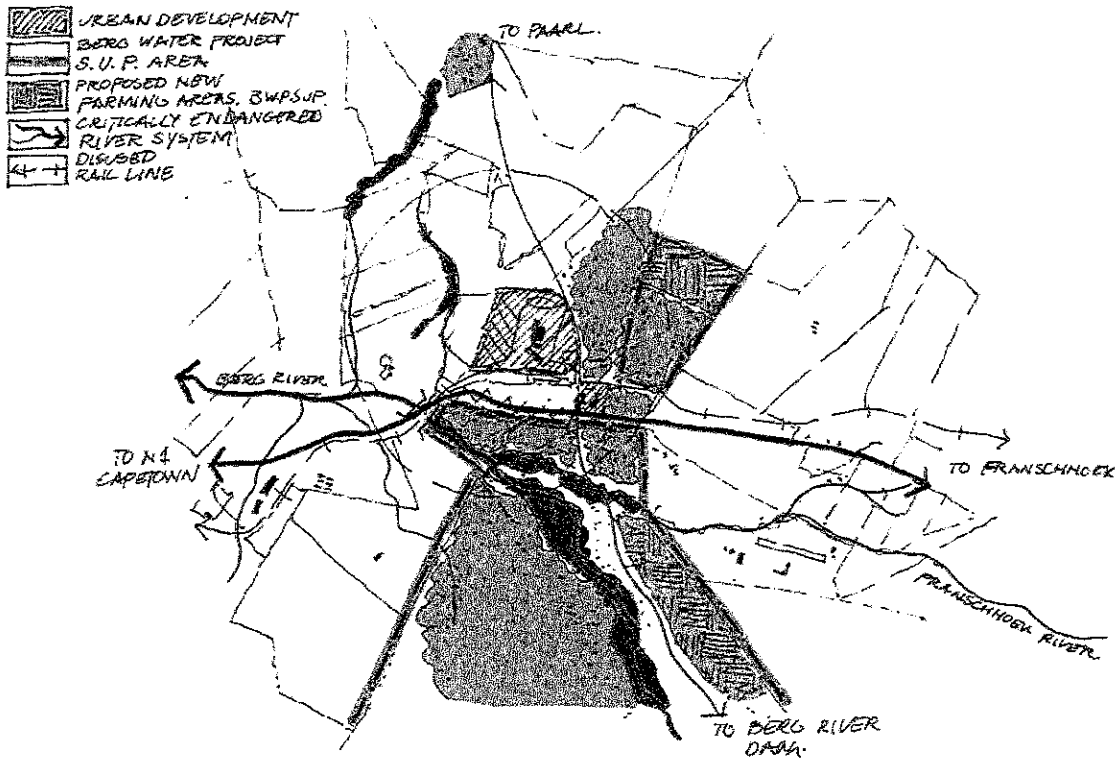


LA MOTTE PROPOSAL

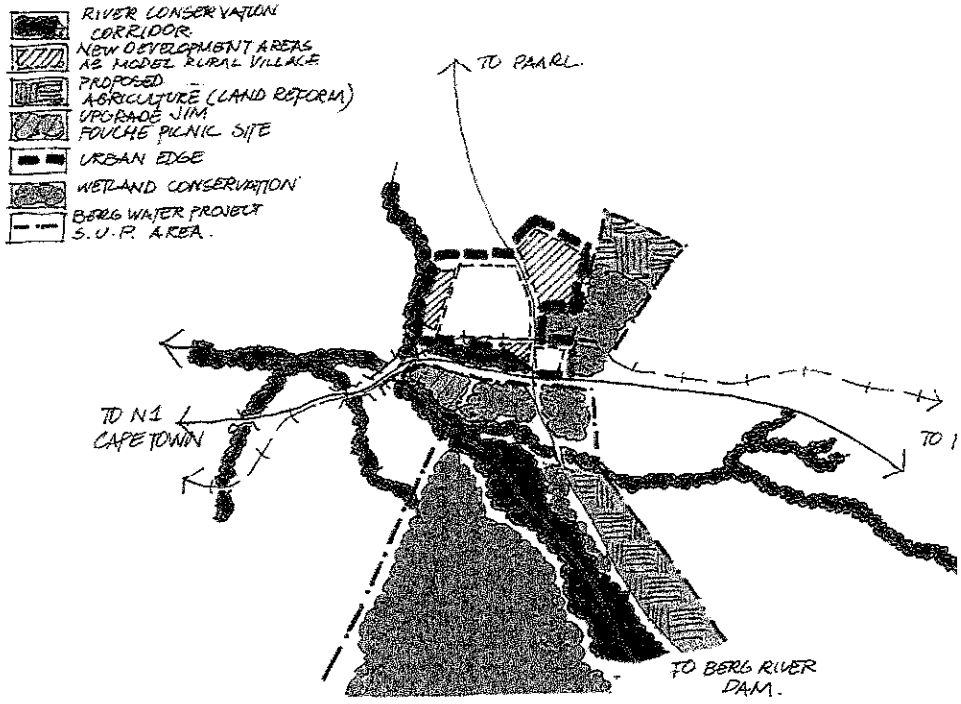
Strategic location	• Set 1km back from the R45.
Description	• A former Bosbou hamlet functioning as a rural settlement.
Advantages	• Rural character
Challenges	• Set back from the R45, the hamlet is cut off from passing trade. This makes it difficult to be anything more than an agri-village serving the surrounding farms.
Opportunities	• Link to R45 and improve access to public or private transport so that the residents can benefit from passing trade.
Constraints	• Robertsvlei and Franschhoek Rivers require the demarcation of setback lines by a freshwater ecologist, and river management guidelines.
Future lateral growth direction	• Towards the R45
Development areas	• The former SAFCOL headquarters site offers an excellent opportunity for mixed income, mixed use development with a low key retail/commercial farm stall frontage along the R45. Land south of the new TCTA housing to the boundary of this property.
Roads and transport	• Tar the Robertsvlei Road to act as an alternative route to increase exposure to passing trade and act as an alternative route to the south. • Implement NMT links with the R45 and surrounding settlements (at the cross-section of this road). • Upgrade current streets and open spaces with landscaping and tree planting.
Water	• Bulk provision in place but minor upgrades necessary on reticulation.
Sewage	• Capacity sufficient.
Electricity	• Area supplied by Eskom. Capacity to be confirmed by Eskom.
Solid Waste	• Stellenbosch landfill site is nearly at full capacity.
Rivers and conservation zones	• Fresh water ecologists to demarcate setbacks from the banks of the Robertsvlei and Franschhoek Rivers and implement river corridor management guidelines.


LA MOTTE : PROPOSED URBAN EDGE
Legend
Proposed New Urban Edge
Current Urban Edge
Affected Areas
Included
Excluded
Kilometers
0
0.125
0.25
0.5
0.75
1

3.4. WEMMERSHOEK

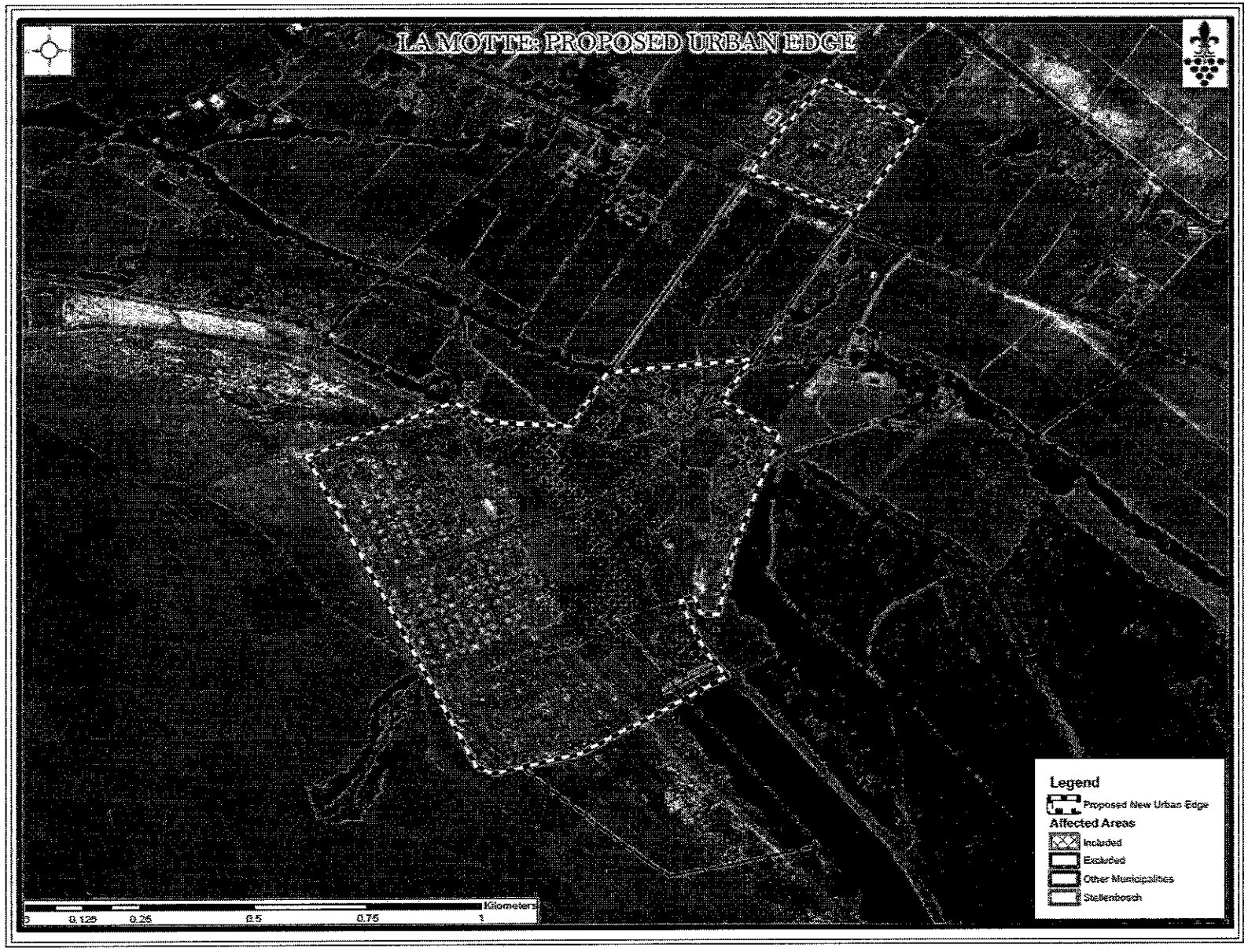


WEMMERSHOEK ANALYSIS

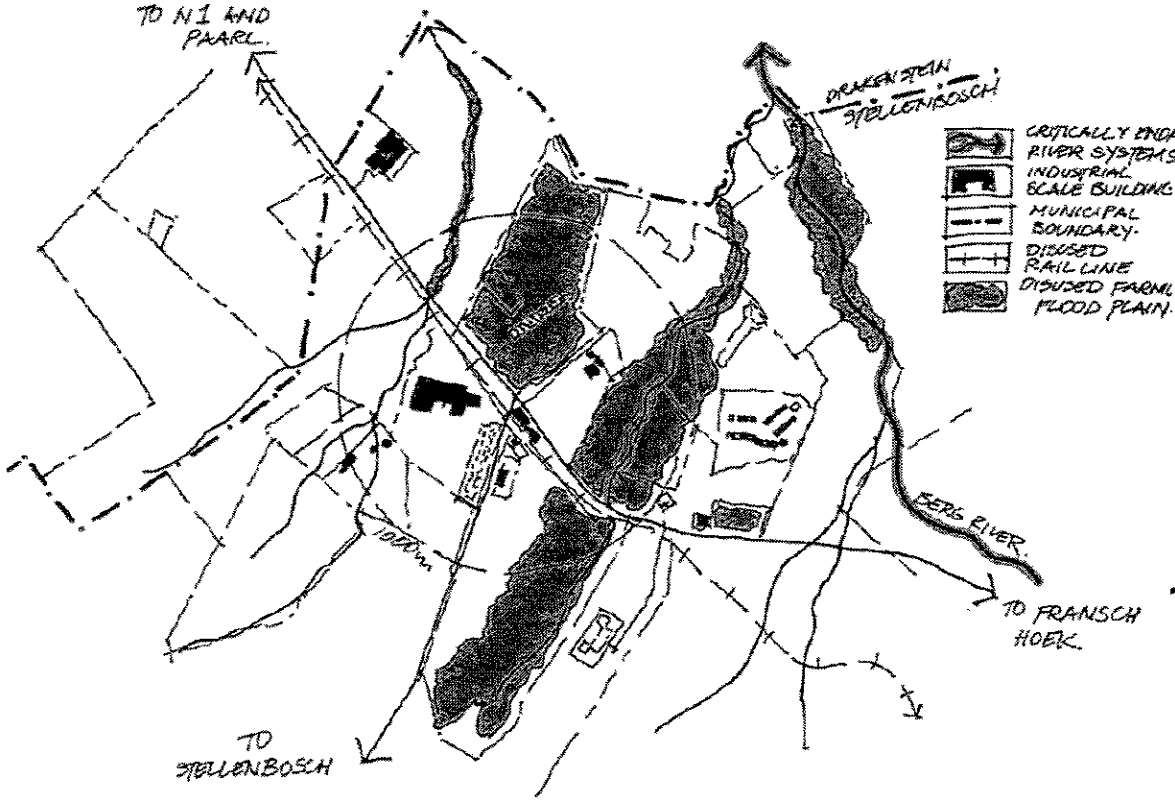


WEMMERSHOEK PROPOSALS

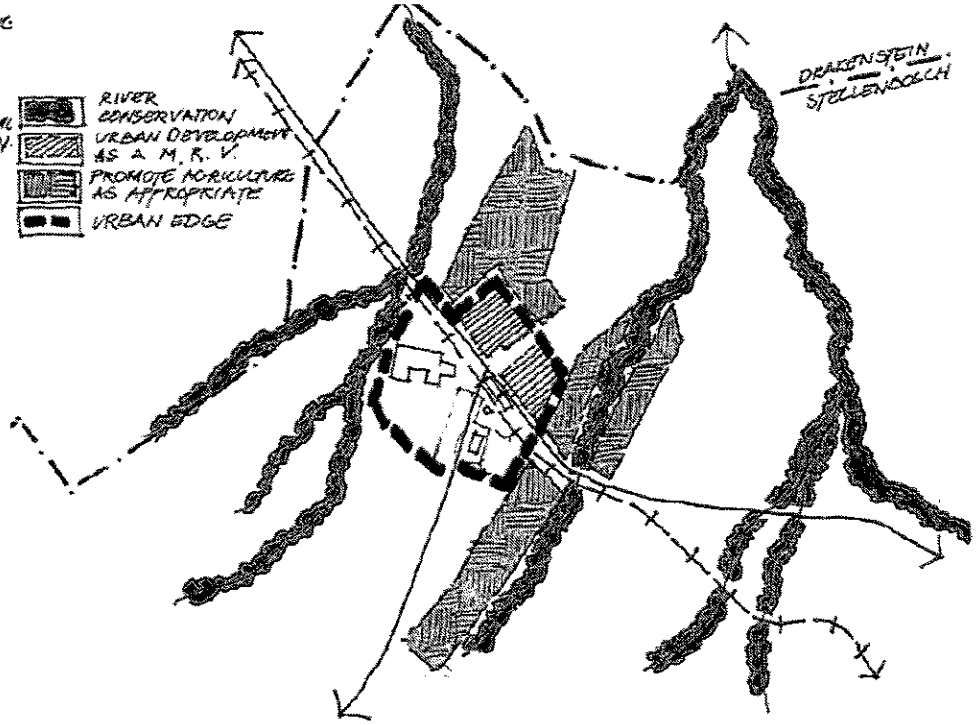
Strategic location	• Strategically located at the gateway to the Franschhoek valley, at the confluence of the Berg and Franschhoek Rivers and intersection of the R45 and R303.
Description	• Bosbou village built around Wemmershoek sawmill, now functioning as a rural settlement.
Advantages	• Rural character
Challenges	• High water table in the lower vineyards of farms surrounding the wetlands.
Opportunities	• Small scale mixed use development could be achieved along the R303. • The closed sawmill precinct could provide opportunities for industrial premises.
Constraints	• Surrounding wetlands in the river confluence area severely limit urban and agricultural development to the west, south and east, and make it difficult to achieve frontage along the R45.
Future lateral growth direction	• West towards and up to the river.
Development areas	• Above the wetland area abutting the R303 to the north. • Along the western boundary of the current residential area. • Possibly below the railway line abutting the school on the western edge of the R303.
Roads and transport	• NMT links with the R45 and surrounding settlements should be implemented at the cross section of this road. • Upgrade current streets and open spaces with landscaping and tree planting.
Water	• Bulk infrastructure required, e.g. reservoir and feeder pipes.
Sewage	• Capacity sufficient.
Electricity	• Area supplied by Eskom. Capacity to be confirmed by Eskom.
Solid Waste	• Stellenbosch landfill site is nearly at full capacity.
Rivers and conservation zones	• Implement river corridor management guidelines for the Berg River tributaries and wetlands with setback lines demarcated by a freshwater ecologist.


LA MOTTE: PROPOSED URBAN EDGE
Legend
Proposed New Urban Edge
Affected Areas
Included
Excluded
Other Municipalities
Stellenbosch
Kilometers
0
0.125
0.25
0.5
0.75
1

3.5. GROOT DRAKENSTEIN

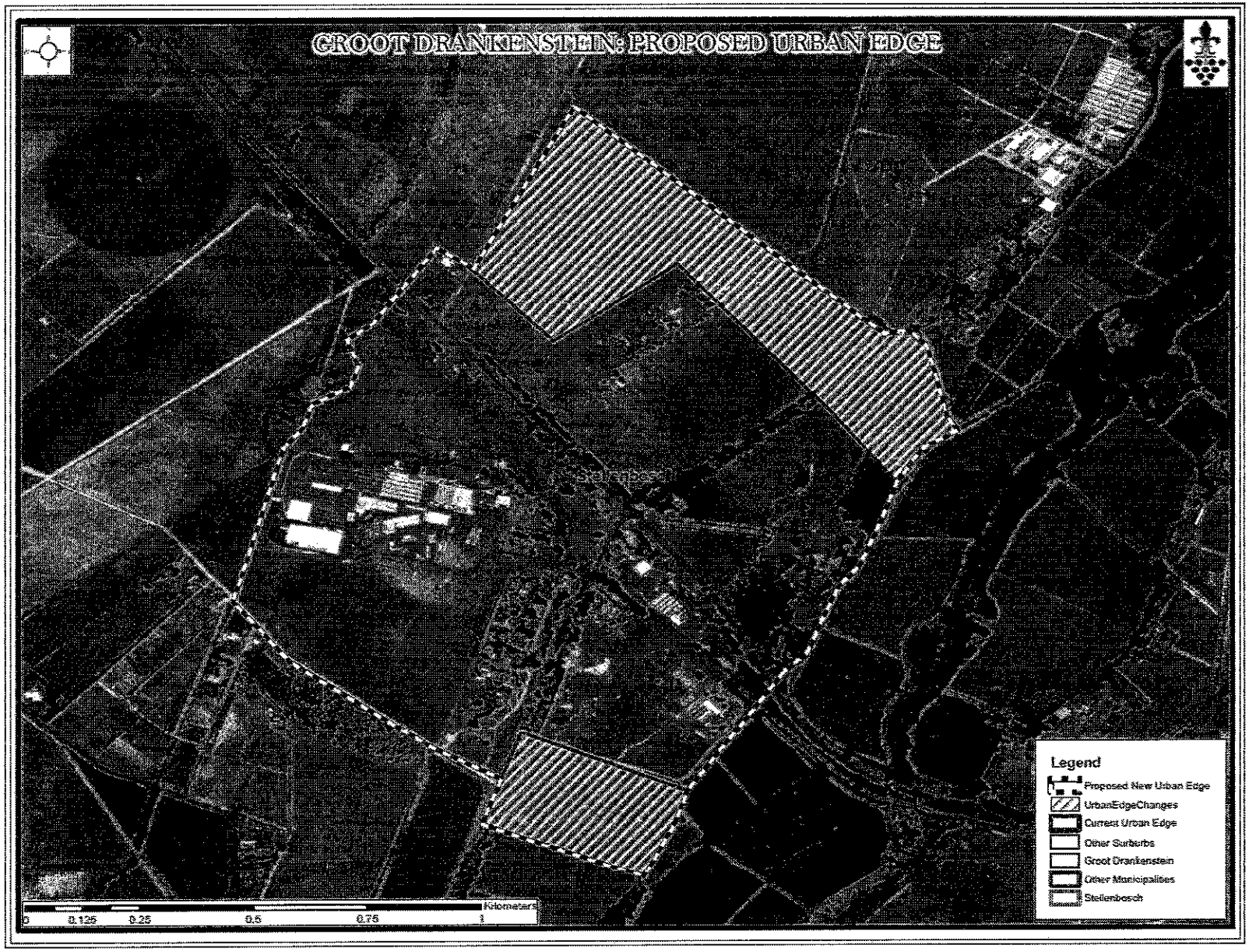


GROOT DRAKENSTEIN ANALYSIS

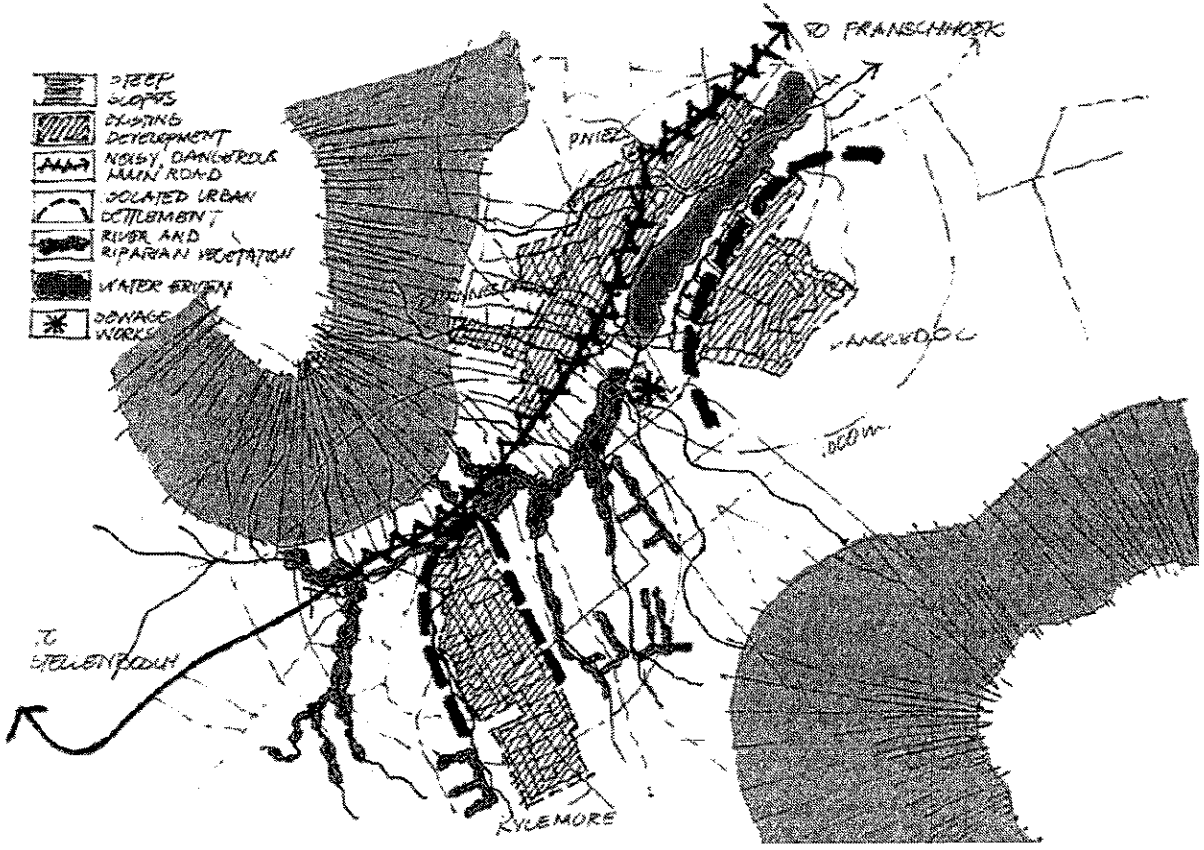


GROOT DRAKENSTEIN PROPOSALS

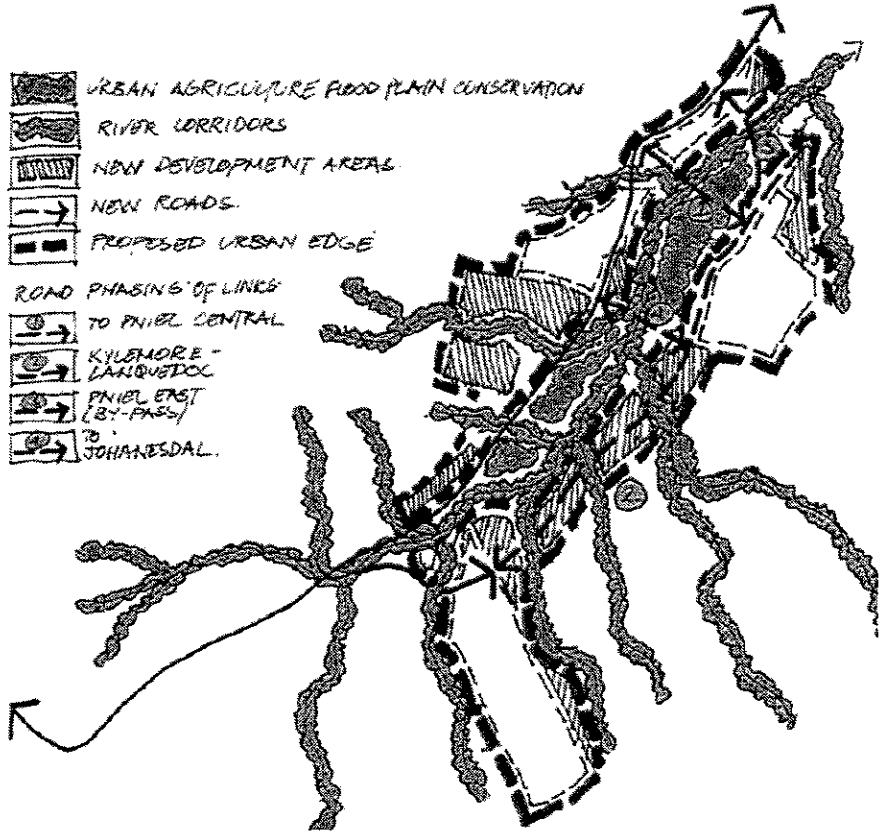
Strategic location	• Intersection of the R310 to Stellenbosch and the R45 between Franschhoek and the N2
Description	• There is no existing settlement at this intersection, and the area is currently occupied by Boschendal agri-village, cellars, rail station and sheds.
Advantages	• Not constrained by existing development
Challenges	• The development of Meerlust will need to be linked to the land reform project approved for the site.
Opportunities	• The land around the road intersection has strategic potential as a settlement. • Careful development can reinforce the heritage potential of Groot Drakenstein as a Boland Village.
Constraints	• Located between tributaries of the Berg and Dwars rivers, but both are some distance away.
Future lateral growth direction	• Along the roadside or northwards into the remainder of the properties.
Development areas	• Western portion of Meerlust and property on the other side of the entrance road abutting the R45 for a distance of 500m. There is scope for agriculture on remainder of Meerlust property and in the flood plain of the Dwars River outside of the river corridor.
Roads and transport	• Service roads to be introduced along property frontages facing the R45 so that benefits of passing trade can be obtained without disrupting traffic. • These should be properly pedestrianised and landscaped so as to offer an attractive experience.
Water	• Bulk infrastructure required, e.g. reservoir and feeder pipes.
Sewage	• Capacity limited due to lack of external services.
Electricity	• Area supplied by Eskom. Capacity to be confirmed by Eskom.
Solid Waste	• Stellenbosch landfill site is nearly at full capacity.
Rivers and conservation zones	• Fresh water ecologists to demarcate 10 to 30 m setbacks from the banks of rivers and canals within which no new development. (other than roads, paths, landscaping or street side trading) or ploughing may occur. • Eco conservation zones to be investigated on site.


GROOT DRANKENSTEIN: PROPOSED URBAN EDGE
Legend
Proposed New Urban Edge
UrbanEdgeChanges
Current Urban Edge
Other Surburbs
Groot Drankenstein
Other Municipalities
Stellenbosch
Kilometers
0
0.125
0.25
0.5
0.75
1

3.6. DWARS RIVER VALLEY (PNIEL, JOHANNESDAL, LANQUEDOC, KYLEMORE)

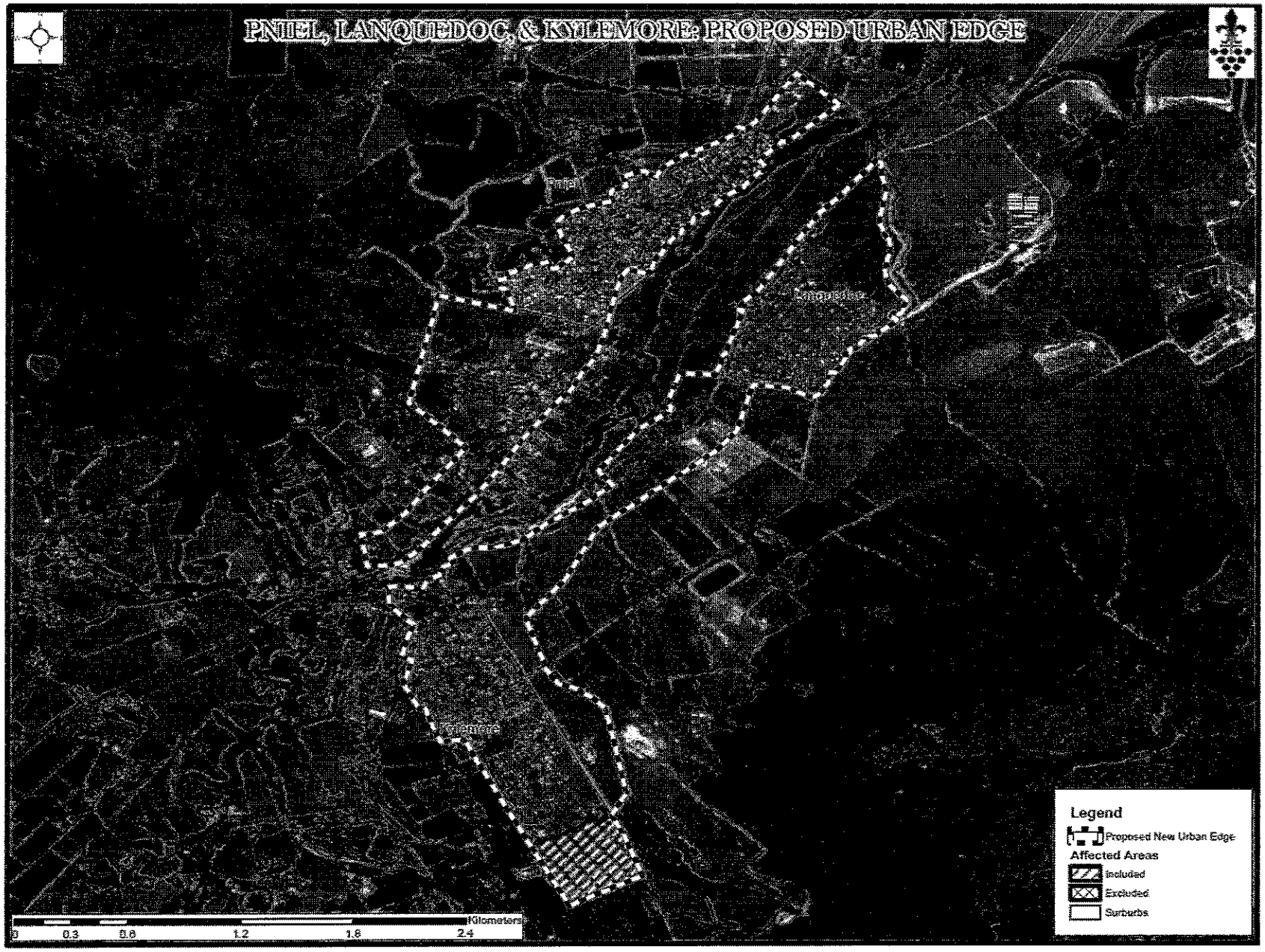


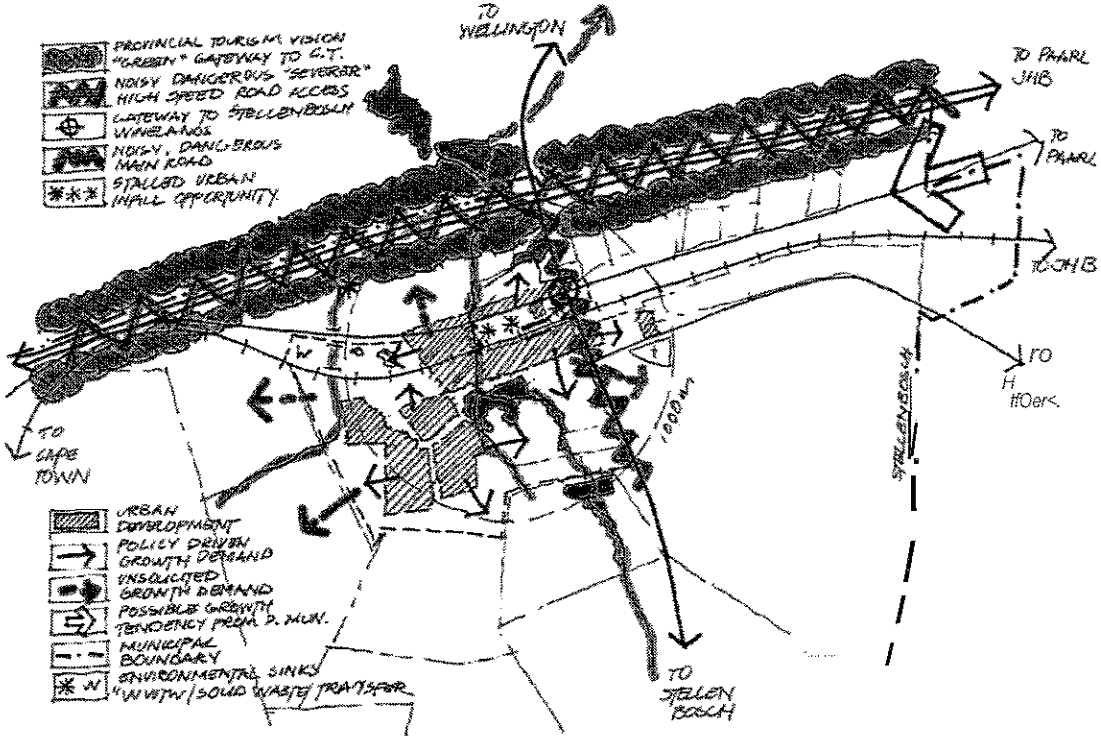
DWARS RIVER ANALYSIS



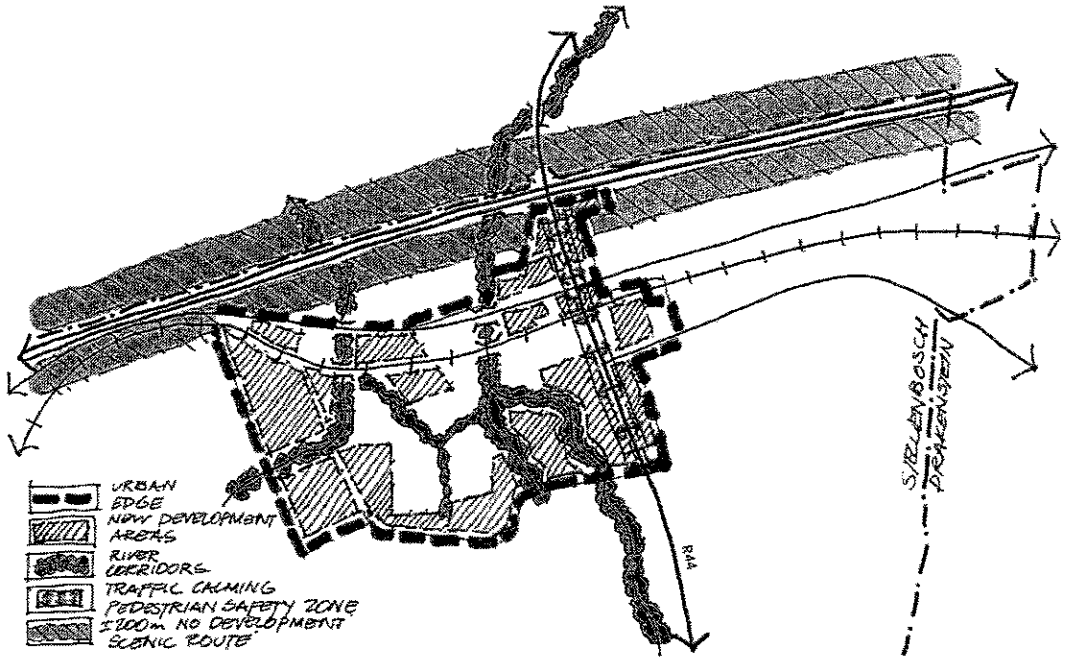
DWARS RIVER PROPOSALS

Strategic location	• Close proximity to the Helshoogte Road joining Stellenbosch town and Franschhoek.
Description	• Ex-mission and farm villages functioning as isolated rural settlements.
Advantages	• Hospital and health functions • Tourist destination • Historical buildings
Challenges	• The Helshoogte Road cuts dangerously Johannesdal and Pniel, and bypasses Kylemore and Lanquedoc. This needs to be designed and reconstructed to integrate the hamlets, in conjunction with the proposed ring road.
Opportunities	• Better integration of the four settlements and improved access to passing trade on Helshoogte Road would enhance economic prospects. • Creating pleasant street frontages, well landscaped public spaces and parking in front of shops would encourage pedestrians. • Providing good internet access could aid the development of local businesses. • Historic buildings in Pniel, Kylemore and Lanquedoc create a unique sense of place that should inform the architectural, urban design and landscape guidelines. • All of this will need to be achieved as part of the proposed wider redevelopment plan for Boschendal.
Constraints	• The valley is flanked by steep mountain slopes and the Dwars River serves as a barrier between the settlements.
Future lateral growth direction	• Link Kylemore and Lanquedoc, and consolidate development along internal ring road where possible.
Development areas	• Johannesdal plots and the strip along Helshoogte Road. • Eastern fringe of Kylemore to proposed river corridor setback line. • Link area along flood plain between Kylemore and Lanquedoc (above 1:100 year flood plain). East of Lanquedoc.
Roads and transport	• Construction of new roads to better integrate settlements. • Helshoogte Road Access Management Environment to be amended to 'urban', and cross-sections to be amended accordingly so that it performs more as a high street where it passes through Johannesdal and Pniel. • Road cross-sections for Helshoogte and proposed ring road and links must accommodate pedestrians and cyclists, and regional transport linkages.
Water	• Bulk infrastructure required, e.g. reservoir and feeder pipes.
Sewage	• Upgrade of WWTW done in 2015.
Electricity	• Eskom supplies Lanquedoc and Kylemore. Drakenstein supplies Pniel and Johannesdal.
Solid Waste	• Stellenbosch landfill site is nearly at full capacity.
Rivers and conservation zones	• Fresh water ecologists to demarcate 10 to 30m setbacks from the banks of rivers and furrows within which no new development (other than roads, paths, landscaping or street side trading) or ploughing may occur.


PNIEL, LANQUEDOC, & KYLEMORE: PROPOSED URBAN EDGE
Legend
Proposed New Urban Edge
Affected Areas
Included
Excluded
Suburbs
Kilometers
0
0.3
0.6
1.2
1.8
2.4



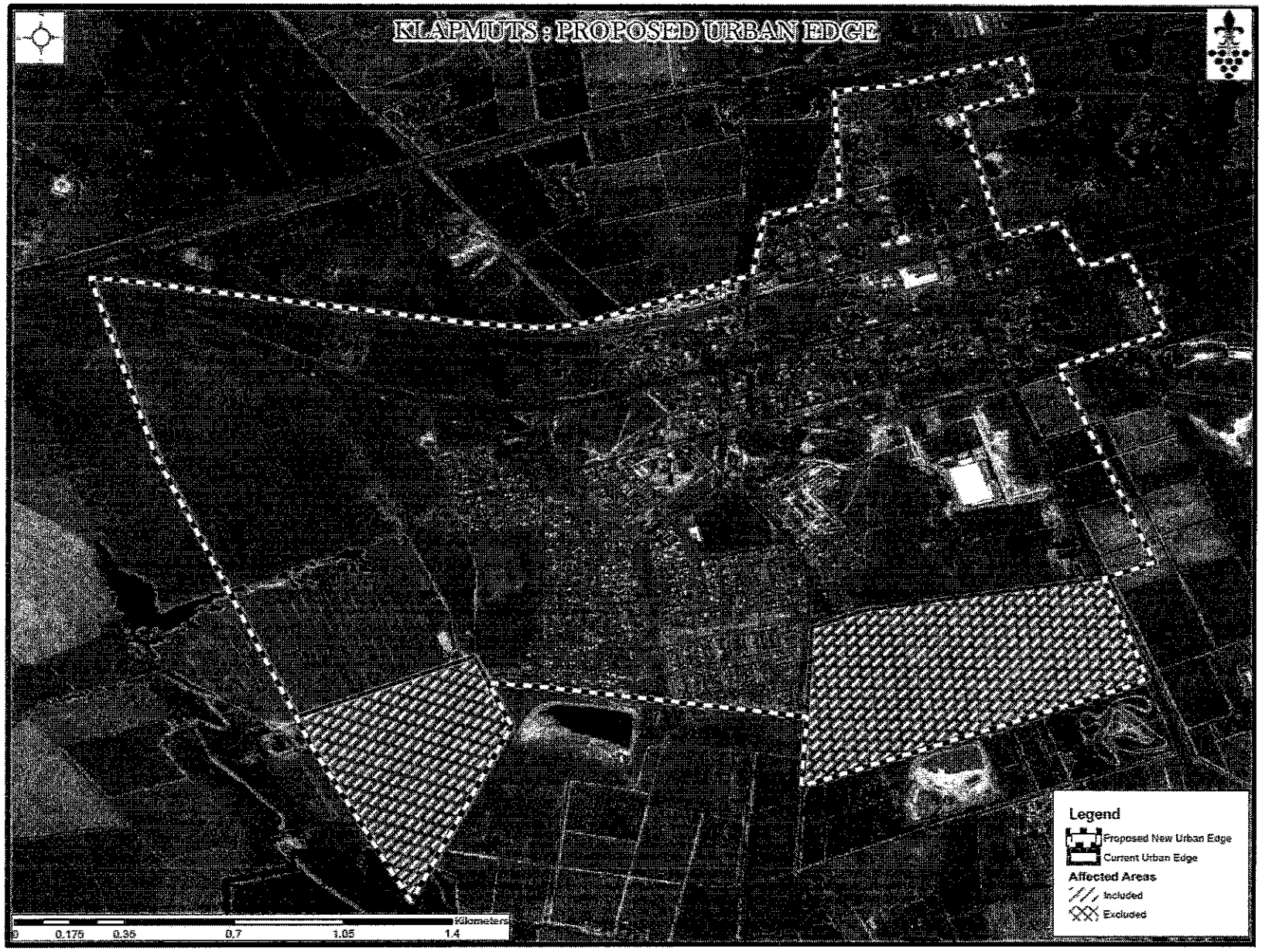
KLAPMUTS ANALYSIS



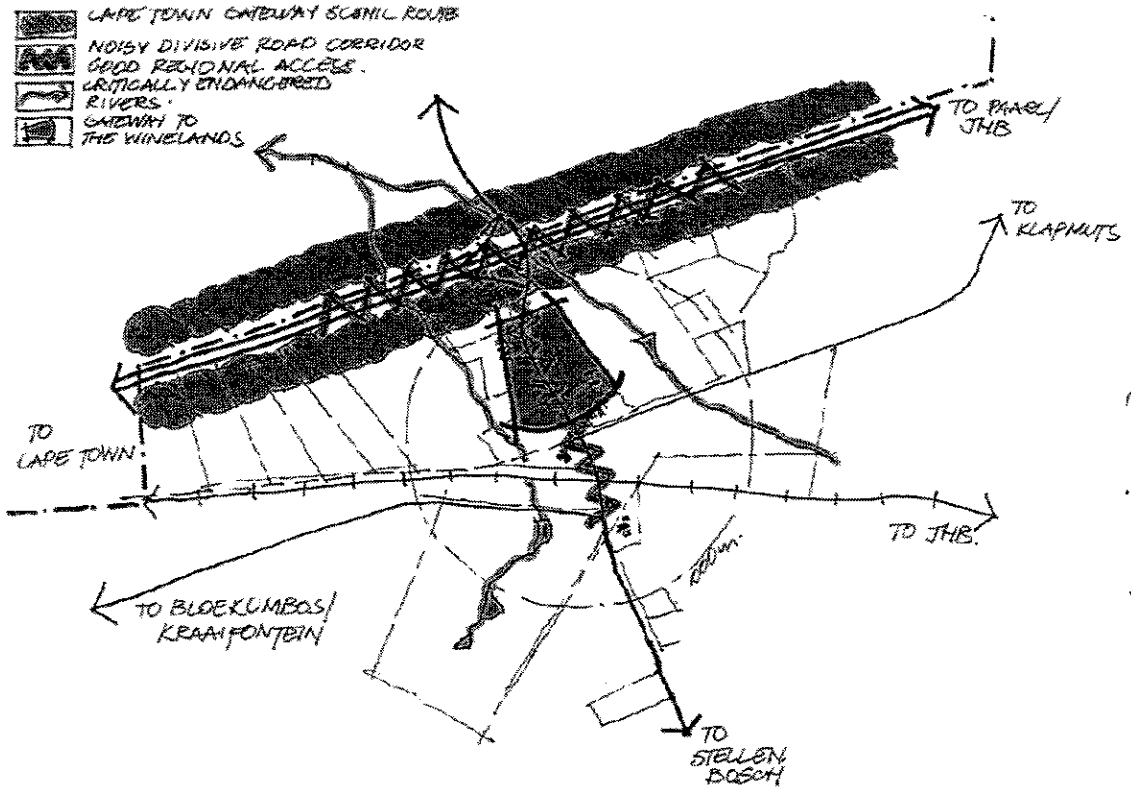
KLAPMUTS PROPOSALS

Strategic location	• Located near the intersection of the N1 and R44, straddling the Cape Town - Gauteng railway line, the Old Paarl Road and the road link to Simondium and Franschhoek.
Description	• Largely undeveloped small village.
Advantages	• Rural character • Tourist destination • Hospital and health functions
Challenges	• Klapmuts is a 'doughnut' settlement with most development favouring the periphery rather than the centre (except for the new filling station). It runs the risk of developing as a series of peripheral townships and gated estates rather than a well-integrated, balanced settlement. • The socio-economic gradient principle should be carefully adhered to when allocating land to different income groups, and the physical interfaces between these areas must be carefully considered so as not to worsen inequality. • The point where the R44 cuts through the settlement could be problematic if it is designed for high speed traffic. • Farm dams above the southern part of the village could pose a hazard if they break.
Opportunities	• The area of Klapmuts to the west of the R44 has potential to operate as a mixed-use, mixed-income settlement, particularly if development can be encouraged in the centre of the village. • Open spaces around the 4-way stop and on the verges are well positioned for low income traders. • The market in front of the church could be formalized, and drawings for this are already available.
Constraints	• At least a 200m strip of land should be left on either side of the N1 for agricultural or conservation purposes (i.e. No increasing of development rights should be allowed there).
Future lateral growth direction	• The public and private land identified for future development should more than cater for the settlement's growth for the next decade, and this period should be dedicated to ensuring appropriate development in the centre of the village and implementing infill schemes.
Development areas	• Infill and redevelopment projects need to be incentivized in accordance with building, urban design and landscaping guidelines. • Major infill opportunities include Etlinger Street south (between R44 and the river), Old Paarl Road south (between the railway line and transfer station) and Merchant Street (between the river corridor, Grootfontein Pad and the railway line). • Greenfield areas include Klapmuts West, the strip abutting the eastern boundary of the R44.

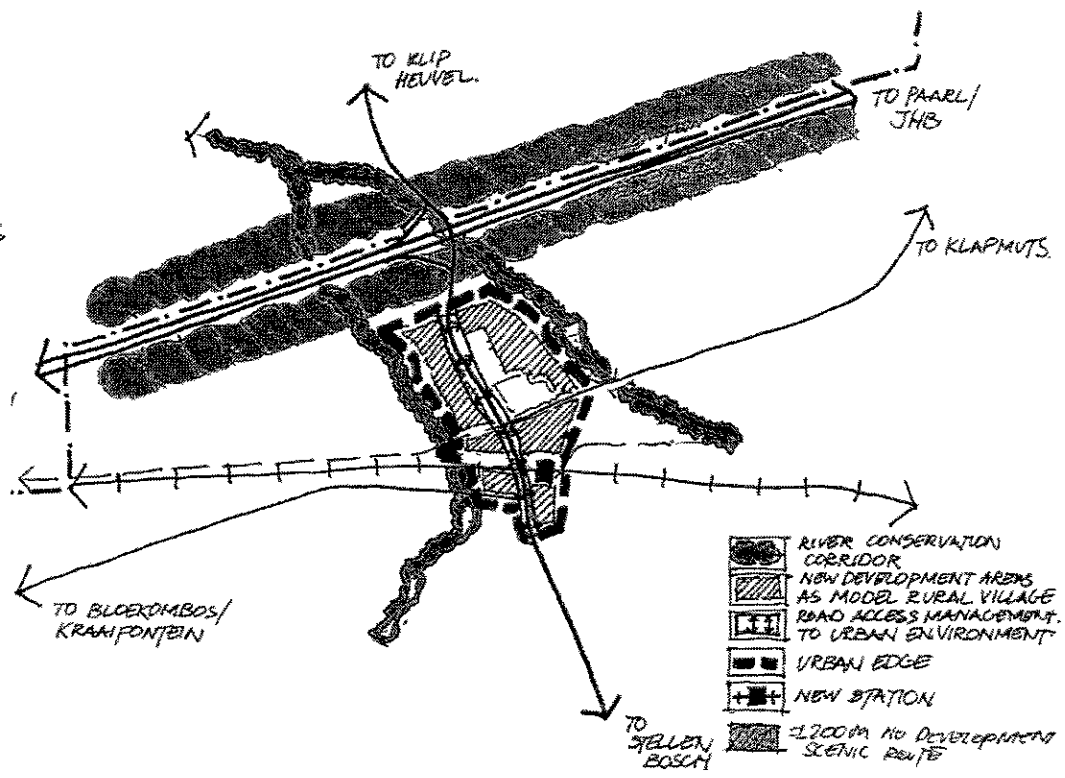
Roads and transport	• The upgrading of Merchant and Etlinger Street with landscaping, tree planting and pathways for pedestrians and cyclists needs to be completed. • Negotiations with transport authorities are required to amend the Road Access Management conditions of the R44 within the urban edge to an Urban Environment, with traffic calming measures and provision for cyclists and pedestrians. If sufficient pedestrian linkages can be created across the railway line and there is a mix of land uses on both sides of the settlement, NMT should be sufficient for the majority of Klapmuts' internal transport needs. • Railway facilities need to be upgraded to increase usage by commuters, and new services are required to make mobility between Klapmuts and Stellenbosch and Klapmuts and Paarl easy, affordable, reliable and regular.
Water	• Bulk infrastructure required, e.g. reservoir and feeder pipes.
Sewage	• Upgrade of Klapmuts WWTW will provide limited capacity.
Electricity	• Although an Eskom supply area, adequate capacity exists at newly constructed substation.
Solid Waste	• Stellenbosch landfill site is nearly at full capacity..
Rivers and conservation zones	• Fresh water ecologists to demarcate 10 to 30m setbacks from the banks of rivers and furrows within which no new development (other than roads, paths, landscaping or street side trading) or ploughing may occur. These setbacks are to be mandatory for new developments and retrofitted where possible to existing ones. • Special attention needs to be given to ecological conservation around the dams.
Important Reference Document	• Klapmuts Spatial Development Framework (September 2007) by MCA Africa


KLAPMUTS : PROPOSED URBAN EDGE
Legend
Proposed New Urban Edge
Current Urban Edge
Affected Areas
Included
Excluded
Kilometers
0
0.175
0.35
0.7
1.05
1.4

3.8. MULDERSVLEI CROSSROADS

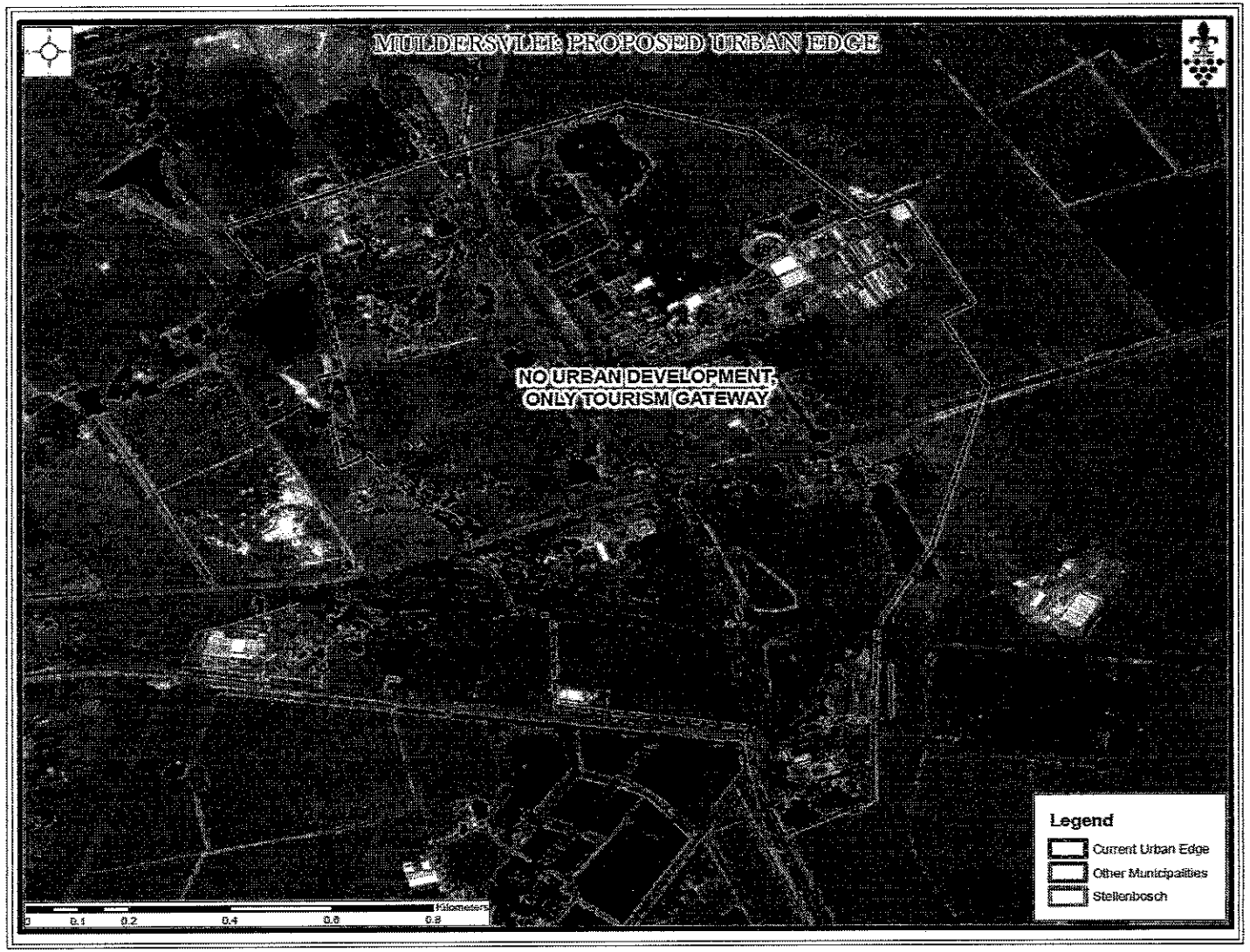


MULDERSVLEI ANALYSIS

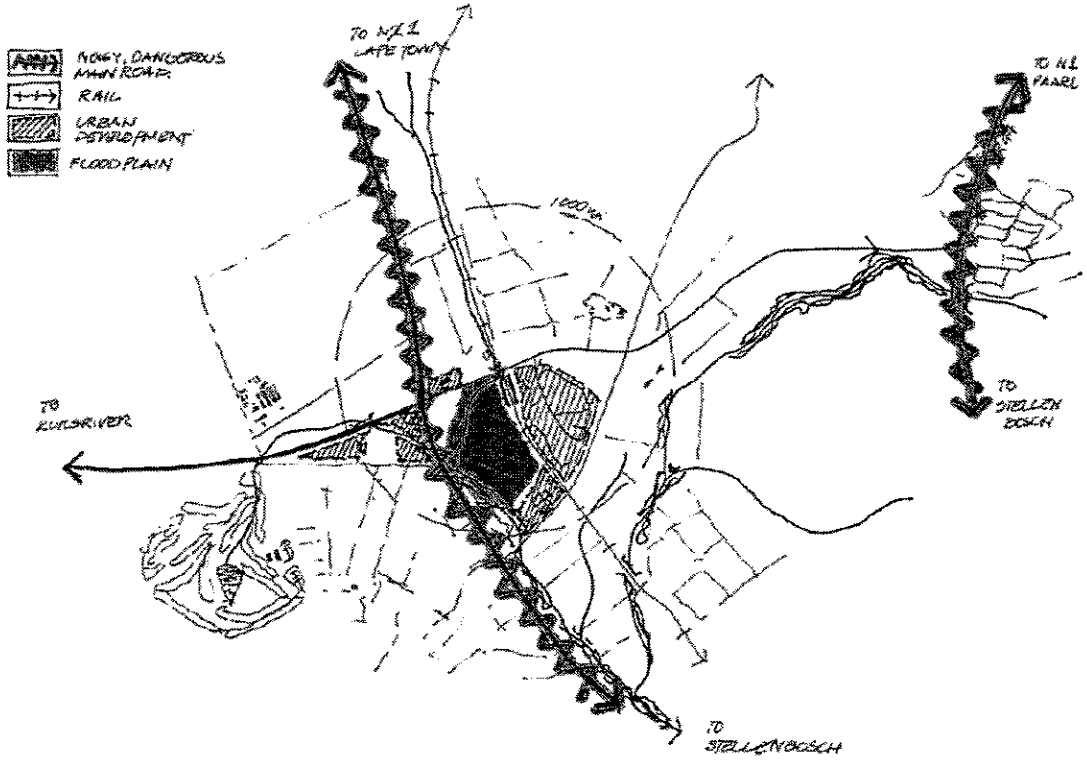


MULDERSVLEI PROPOSALS

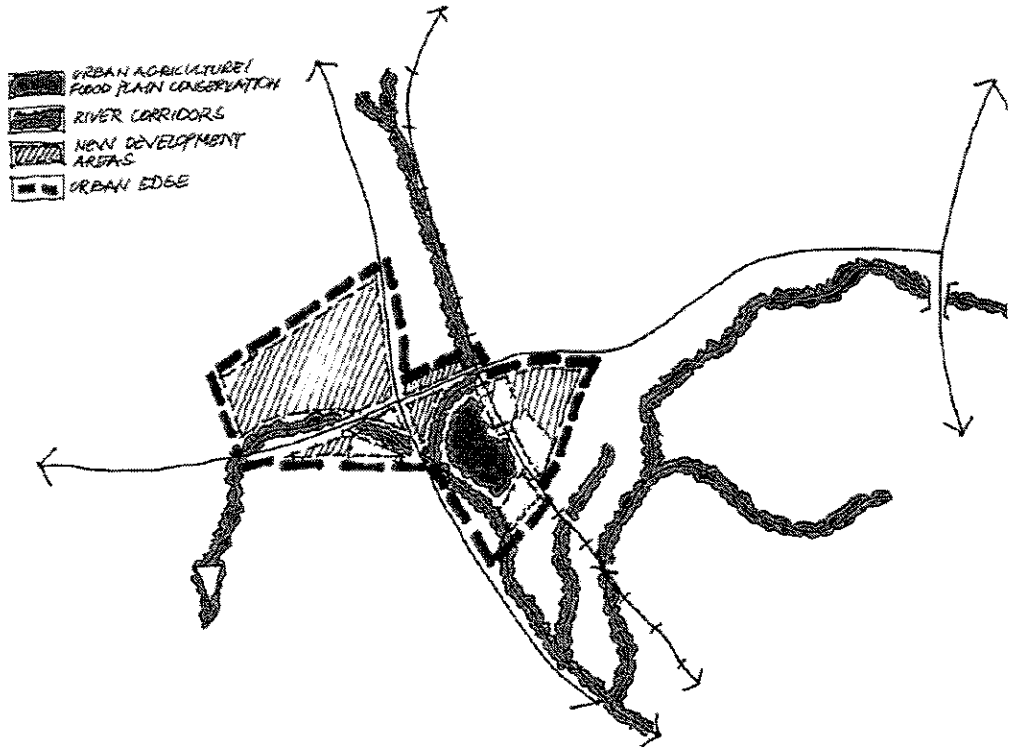
Strategic location	• Extremely well located, with access to the Cape Town - Gauteng railway line, N1, Old Paarl Road and R304.
Description	• Consists of farms and some high order facilities, but is not currently a cohesive settlement.
Advantages	• Rail access • Rural character
Challenges	• Speed of passing traffic and lack of safe pedestrian and cycle routes. • N1 and R304 produce a lot of noise pollution. • Land is privately owned so opportunities for farm worker, social and gap housing can only be achieved through quid pro quo arrangements with landowners in their development applications for middle and high income development proposals.
Opportunities	• The properties around the intersection have been sub-divided far below minimum farm size, which could facilitate further development of a regional tourism gateway. • Existing heritage buildings could inform architectural urban design and landscape guidelines for new developments..
Constraints	• 'Fringe' of 100-200m alongside the N1 to remain free from development. The site is flanked by two river tributaries, and the quality of their water is a problem. • The site is not recommended for a regional shopping centre, a large stand-alone office park or an industrial estate.
Future lateral growth direction	• No further provision for lateral growth should be made until the existing proposal has been fully developed.
Development areas	• Potential for 45 hectares to be yielded, but a framework plan is required to guide the detail of how various areas should be developed.
Roads and transport	• Sections of the main routes within the urban edge should be upgraded with landscaping and demarcated routes for pedestrians and cyclists. • Service roads parallel to thoroughfares may be required to provide frequent direct access to abutting properties. • A new rail station may be required, depending on the size of the proposed settlement.
Water	• Bulk infrastructure to be provided.
Sewage	• Bulk infrastructure to be provided.
Electricity	• Area supplied by Eskom. Capacity to be confirmed by Eskom.
Solid Waste	• Stellenbosch landfill site is nearly at full capacity.
Rivers and conservation zones	• Fresh water ecologists to demarcate 10 to 30m setbacks from the banks of rivers and furrows within which no new development (other than roads, paths, landscaping or street side trading) or ploughing may occur.


MULDERSVLEI: PROPOSED URBAN EDGE
NO URBAN DEVELOPMENT,
ONLY TOURISM GATEWAY
Legend
Current Urban Edge
Other Municipalities
Stellenbosch
Kilometers
0
0.1
0.2
0.4
0.6
0.8

3.9. KOELENHOF

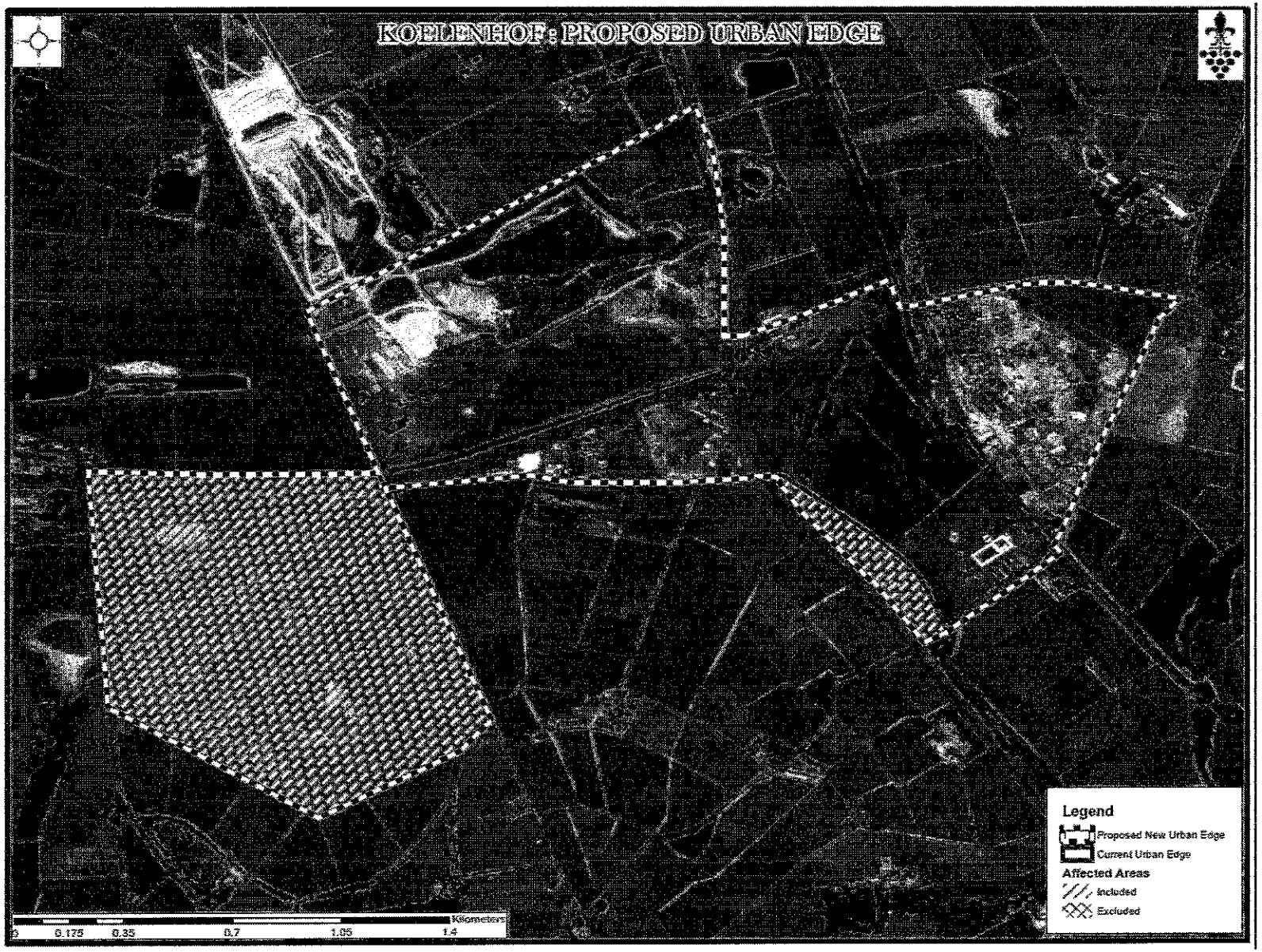


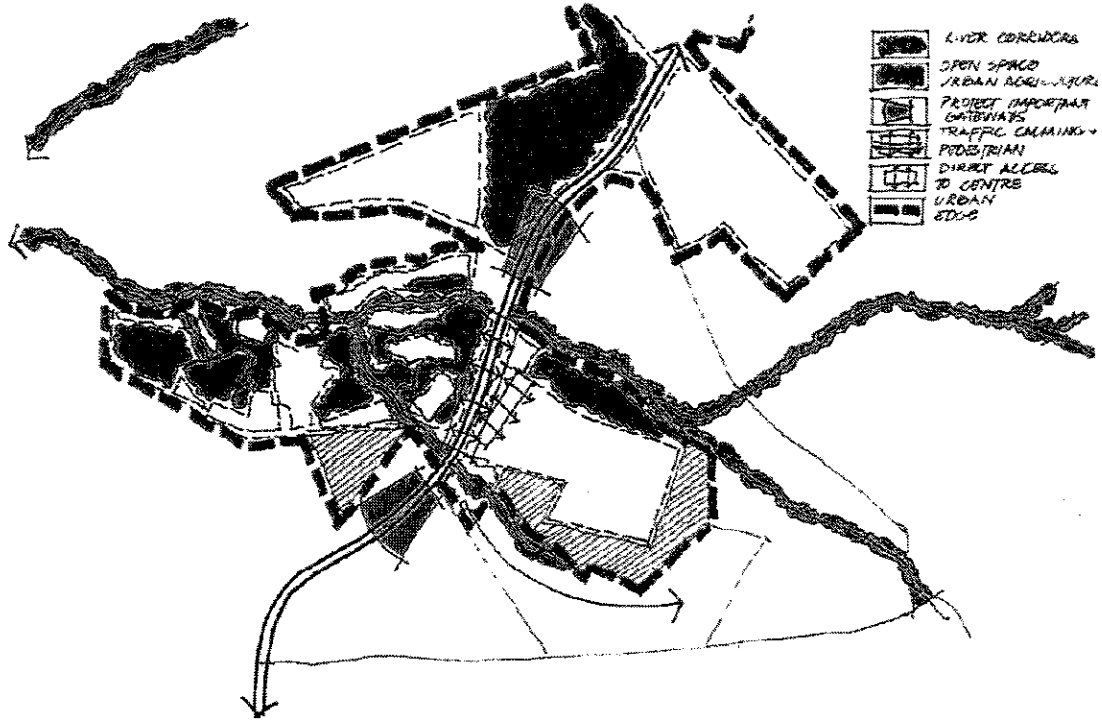
KOELENHOF ANALYSIS



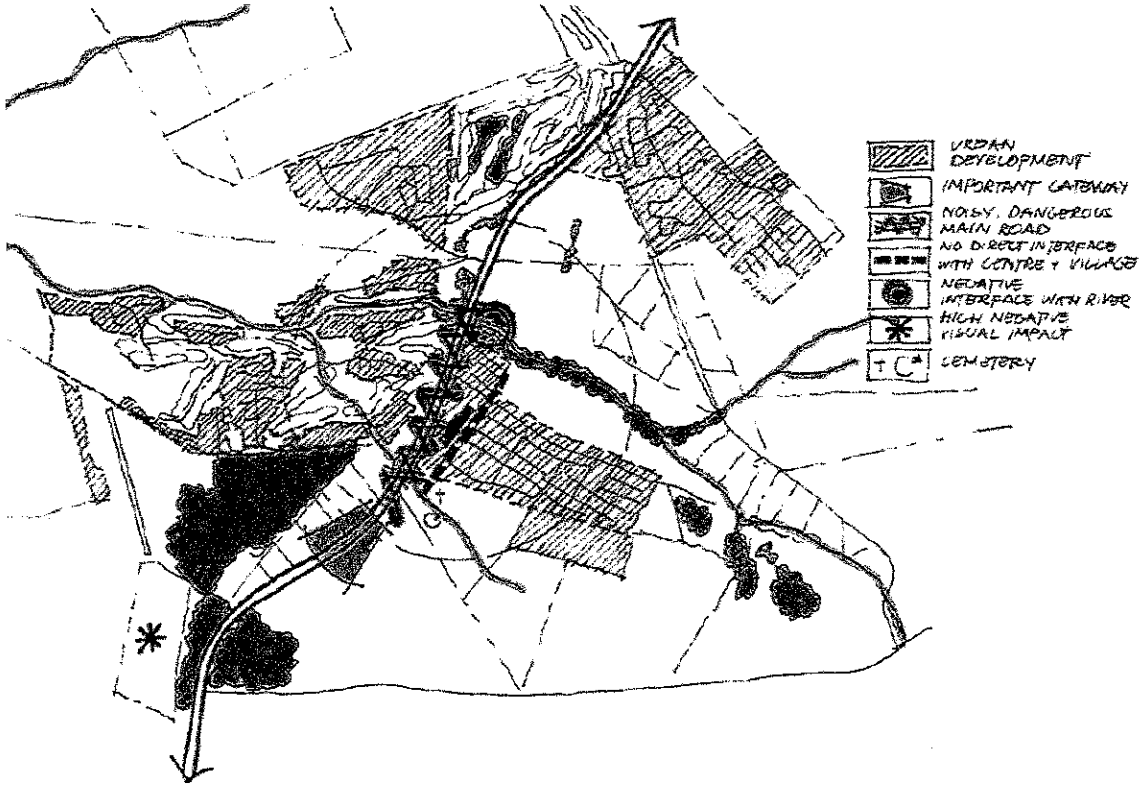
KOELLENHOF PROPOSALS

Strategic location	• Intersection of R304 and M23, with a station on the Metro rail suburban route to Stellenbosch town.
Description	• Ad-hoc, disjointed developments focused on access to regional road and rail.
Advantages	• Rail access • Rural character
Challenges	• Land is privately owned so opportunities for farm worker, social and gap housing can only be achieved through quid pro quo arrangements with landowners in their development applications for middle and higher income development proposals. • The settlement consists of several uncoordinated parcels of singular function. • There is no provision for SMME's and informal traders.
Opportunities	• Cape Winelands heritage creates a unique sense of place that should inform the architectural, urban design and landscape guidelines. • Care should be taken to ensure a complete range of commercial and retail space is available, including the informal sector and SMMEs. • Densification and infill of existing built areas.
Constraints	• The confluence of a number of river tributaries forms a wetland near the centre of the village that is undevelopable. • The valley location is bounded by steep slopes.
Future lateral growth direction	• No further provision for lateral growth should be made until the existing proposal has been fully developed.
Development areas	• Densification and infill in existing underdeveloped townships and subdivisions (this may require incentives). • A framework plan is required to guide the detail of how various areas should be developed so as to ensure that the settlement operates as a coherent system.
Roads and transport	• Service roads parallel to thoroughfares may be required to provide frequent direct access to abutting properties. • Sections of the main routes within the urban edge should be upgraded with landscaping and demarcated routes for pedestrians and cyclists. • A convenient rail-based public transport system using the existing railway and station would help to functionally link the centre to Stellenbosch town.
Water	• Bulk infrastructure required, e.g. reservoir and feeder pipes.
Sewage	• No capacity at Stellenbosch WWTW until end 2018.
Electricity	• Area supplied by Eskom. Capacity to be confirmed by Eskom.
Solid Waste	• Stellenbosch landfill site is nearly at full capacity..
Rivers and conservation zones	• The wetland between R304 and the rail line should be declared a conservation area and/or used for market gardening/horticulture if suitable. • Fresh water ecologists to demarcate 10 to 30m setbacks from the banks of rivers and furrows within which no new development (other than roads, paths, landscaping or street side trading) or ploughing may occur.
Important Reference Document	• Koelenhof Spatial Development Framework (December 2007) by CNDV Africa

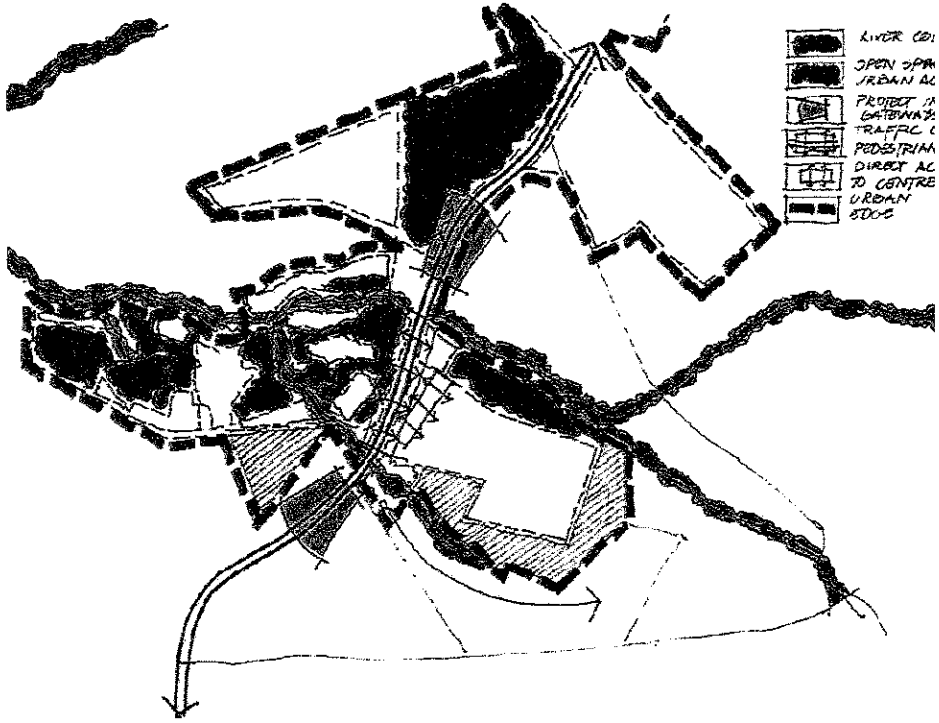

KOELENHOF: PROPOSED URBAN EDGE
Legend
Proposed New Urban Edge
Current Urban Edge
Affected Areas
Included
Excluded
Kilometers
0
0.175
0.35
0.7
1.05
1.4


RIVER CORRIDORS
OPEN SPACE
PROJECT IMPORTANT
GATEWAYS
TRAFFIC CALMING
PEDESTRIAN
DIRECT ACCESS
TO CENTRE
URBAN

3.10. JAMESTOWN/DE ZALZE

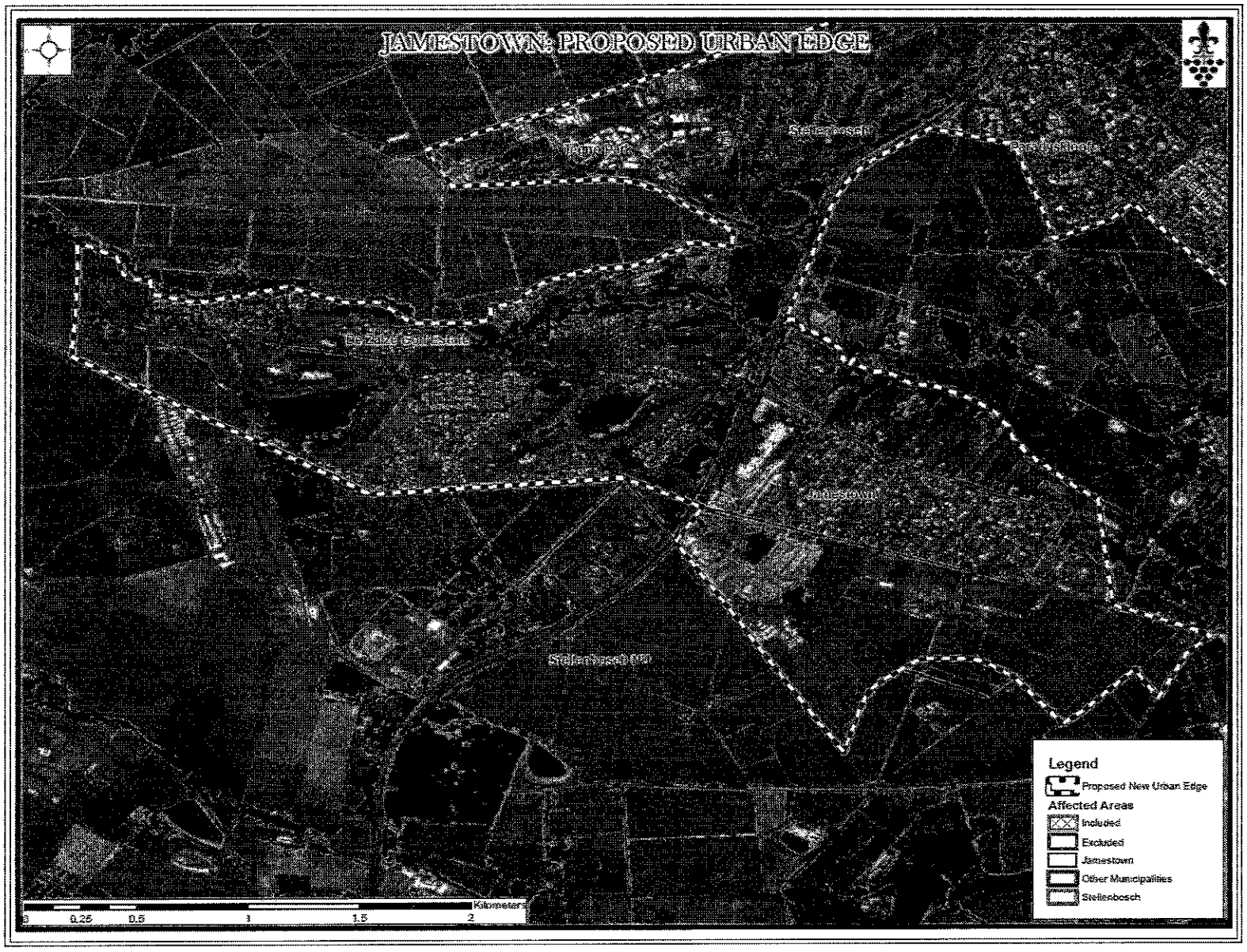


JAMESTOWN/DE ZALZE PROPOSALS

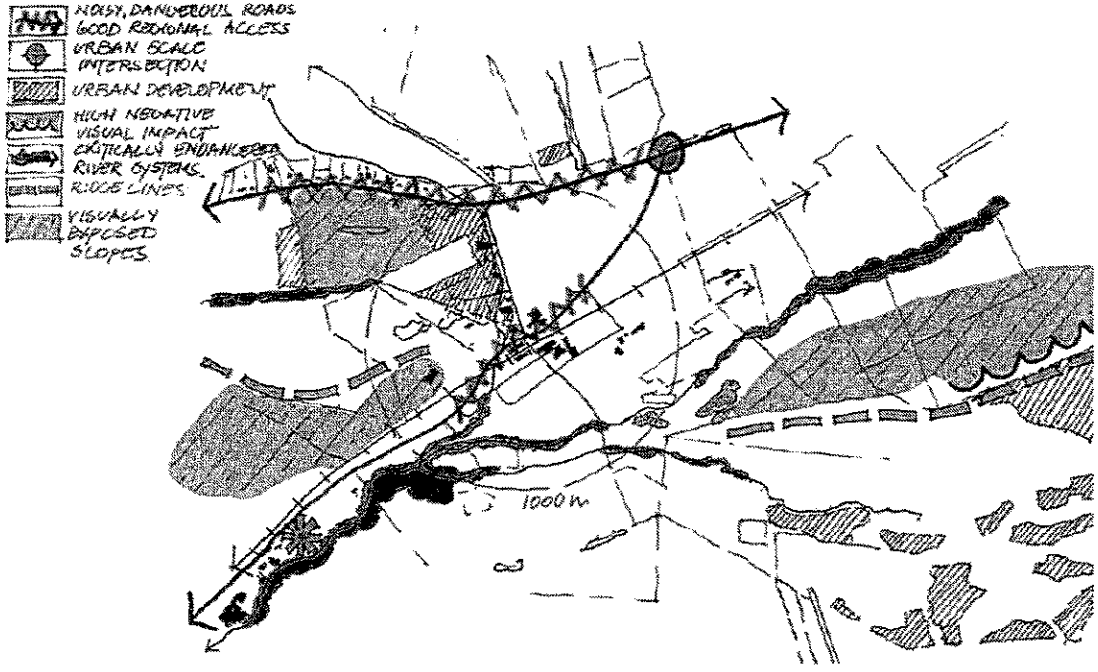


JAMESTOWN/DE ZALZE ANALYSIS

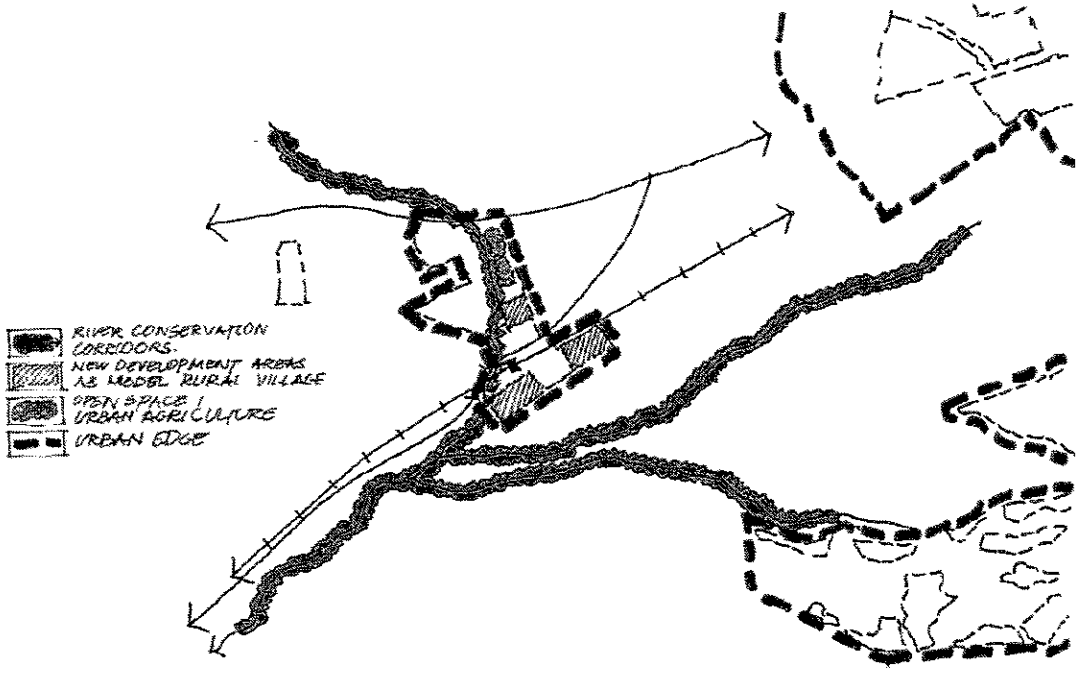
Strategic location	• Straddling the R44.
Description	• A disjointed semi-rural settlement on the outskirts of Stellenbosch town consisting of three isolated components: a historic Rhenish mission village (Jamestown), an out of town shopping centre (Stellenbosch Square) and an upmarket golf estate (De Zalze).
Advantages	• Rural character • Hospital and health functions
Challenges	• The three components are not integrated at all due to the high-speed R44 and walling off of De Zalze. • Jamestown residents need access to viable economic space that gives them opportunities for SMMEs and employment. • The Blaauwklippen River is Critically Endangered as a result of poor agricultural and urban development along its banks.
Opportunities	• Opportunity to implement low income housing on commonage land to the south. • Small scale commercial and retail activities could be catered for along De Zalze's frontage with the R44 (e.g. a farm stall or market for emerging businesses).
Constraints	• The R44 bisects the node.
Future lateral growth direction	• Southerly expansion to accommodate RDP, social and gap housing.
Development areas	• A portion of municipal land on which the airfield stands as well as the land holding at the entrance to Technopark has potential to be used for social and gap housing. • Vacant land in Jamestown can be further consolidated. • Further research is required to assess the long term costs and benefits of developments that convert productive agricultural land into new suburbs.
Roads and transport	• The extent to which the R44's cross-sections can be amended to make it less of a barrier to pedestrians and cyclists should be investigated. • The impact of traffic generated by each of the three components should be undertaken.
Water	• Bulk infrastructure required, e.g. reservoir and feeder pipes.
Sewage	• No capacity at Stellenbosch WWTW until end 2018 and outfall sewer required.
Electricity	• Area supplied by Eskom. Capacity to be confirmed by Eskom.
Solid Waste	• Stellenbosch landfill site is nearly at full capacity.
Rivers and conservation zones	• Fresh water ecologists to demarcate 10 to 30m setbacks from the banks of rivers and furrows within which no new development (other than roads, paths, landscaping or street side trading) or ploughing may occur. • Particular care needs to be given to Jamestown's interface with the Blaauwklippen River.


JAMESTOWN: PROPOSED URBAN EDGE
Legend
Proposed New Urban Edge
Affected Areas
Included
Excluded
Jamestown
Other Municipalities
Stellenbosch
Kilometers
0
0.25
0.5
1
1.5
2

3.11. VLOTTENBURG

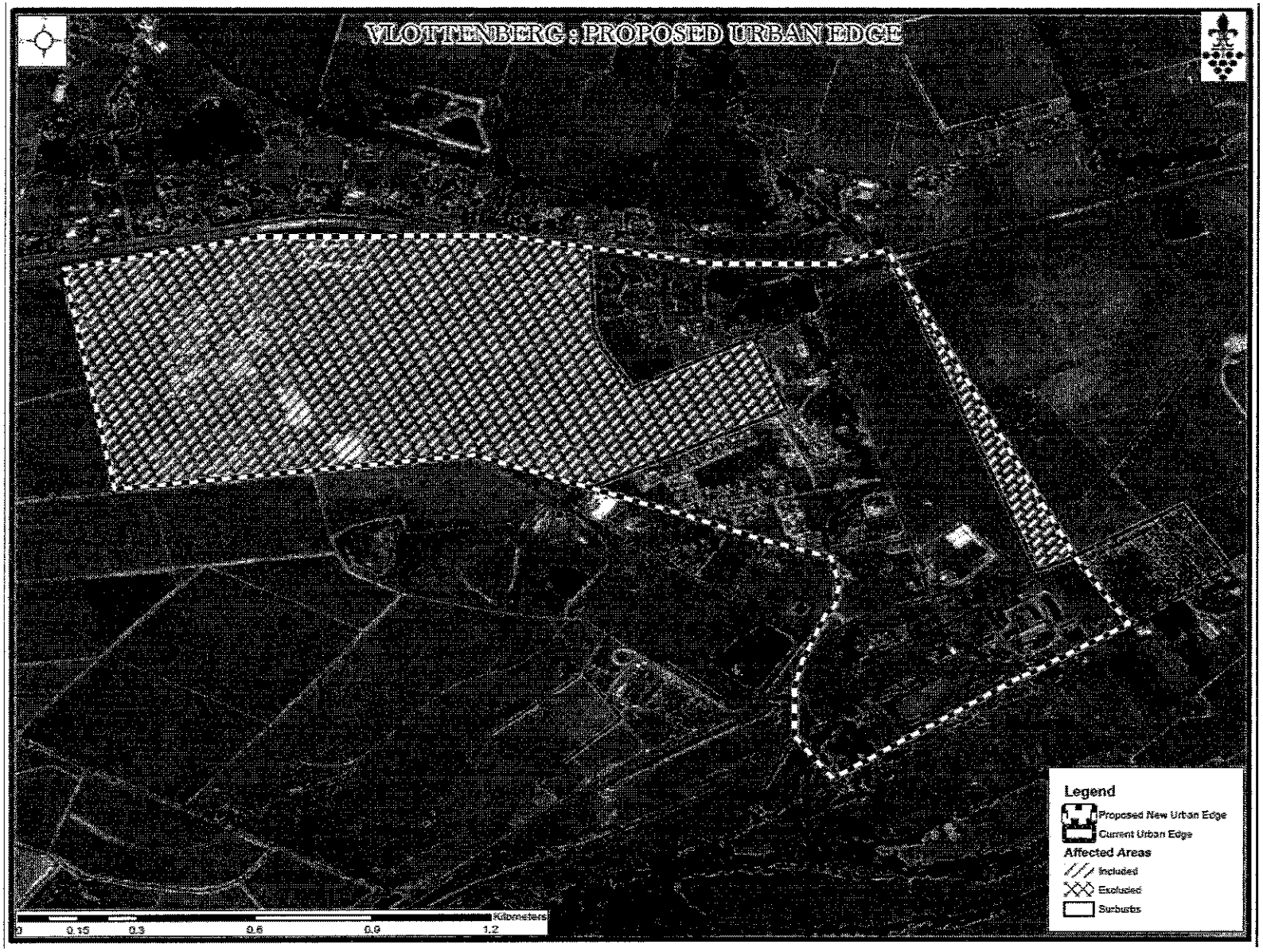


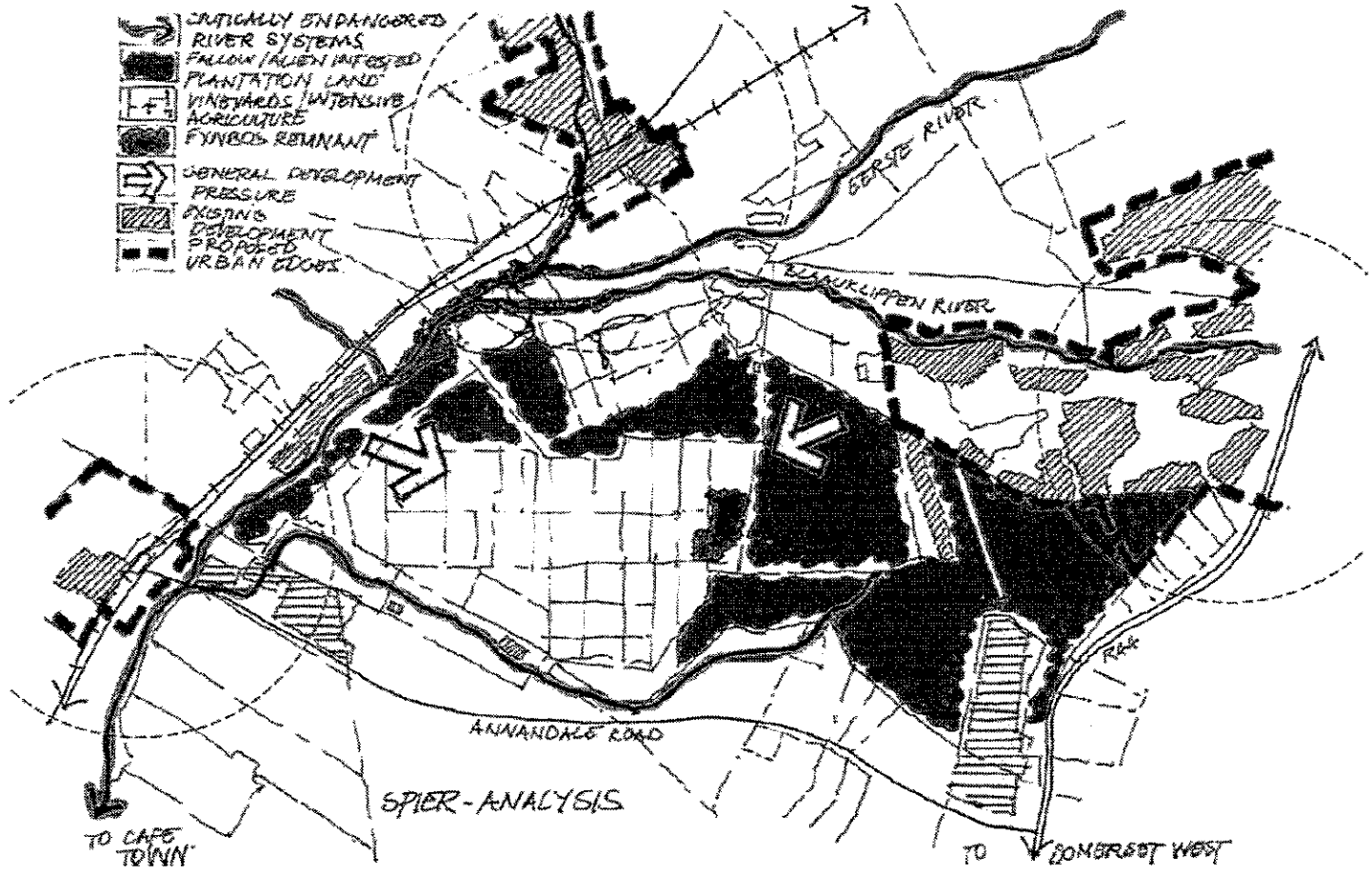
VLOTTENBURG ANALYSIS



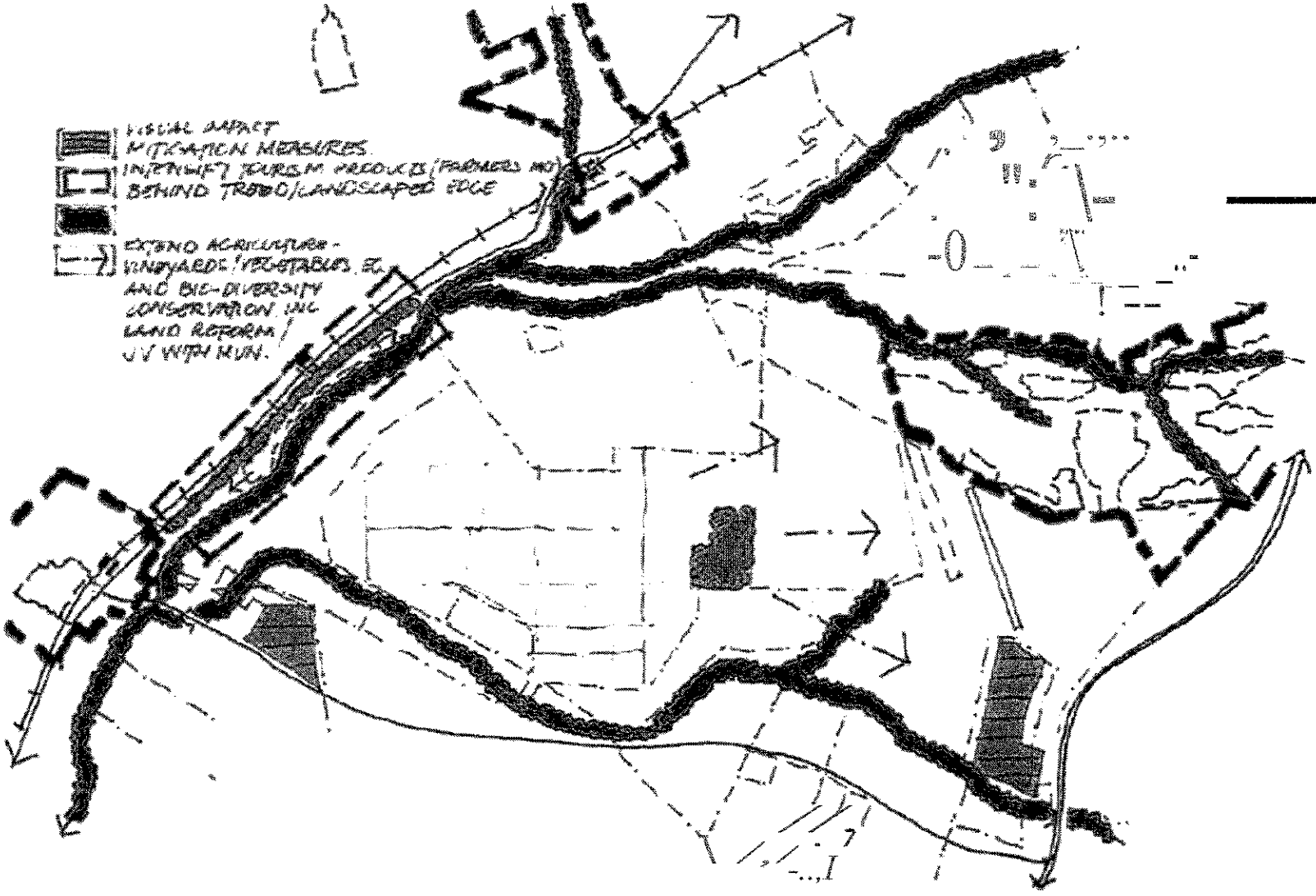
VLOTTENBURG PROPOSALS

Strategic location	• On the R310 and railway line
Description	• Mixed-income rural settlement focused on a small processing node around the railway station, Van Ryn Brandy Cellar and Vlottenburg Winery.
Advantages	• Tourist destination • Rail access
Challenges	• There is a demand for upmarket housing on the higher westerly slopes and a need for low income housing to accommodate current and future residents. • The interfaces between land use activities threaten integration, particularly between upmarket and lower income housing areas.
Opportunities	• Spaces around the intersection could be designed for use as informal markets, accessing passing trade. • A collection of Victorian residential, industrial and transport buildings around the Vlottenburg Road / R310 intersection adds character to the area, which diminishes as one moves northwards. The heritage value of these buildings could be used to inform guidelines for future development.
Constraints	• Rivers are considered Critically Endangered and require protection from development.
Future lateral growth direction	• No further lateral growth should be undertaken for the next 10 years.
Development areas	• Land, mainly below the R310 has been identified as having development potential subject to the identification and demarcation of flood lines. • The land between Vlottenburg and De Zalze and Onder-Papagaaiberg could be relatively easily developed into continuous urban suburbs.
Roads and transport	• Vlottenburg's good linkages to rail and road transport networks make it well suited to an efficient and convenient rail car service that would reduce the need for private transport and circumvent road widening. • Vlottenburg Road should be designed as a pedestrian and cycle friendly high street lined with small scale retail activities where possible. • The possibility of calming traffic around the intersection between the R310 and Vlottenburg Road should be explored.
Water	• Bulk infrastructure required, e.g. reservoir and feeder pipes.
Sewage	• No capacity at Stellenbosch WWTW untill end 2018 and outfall sewer required.
Electricity	• Area supplied by Eskom. Capacity to be confirmed by Eskom.
Solid Waste	• Stellenbosch landfill site is nearly at full capacity.
Rivers and conservation zones	• Fresh water ecologists to demarcate 10 to 30m setbacks from the banks of rivers and furrows within which no new development (other than roads, paths, landscaping or street side trading) or ploughing may occur. Particular care needs to be paid to the interface with the Sandrift River, and a detailed design exercise is required to resolve the interface between housing, the river and Vlottenburg Road.


VLOTTENBERG : PROPOSED URBAN EDGE
Legend
Proposed New Urban Edge
Current Urban Edge
Affected Areas
Included
Excluded
Suburbs
Kilometers
0 0.15 0.3 0.6 0.9 1.2



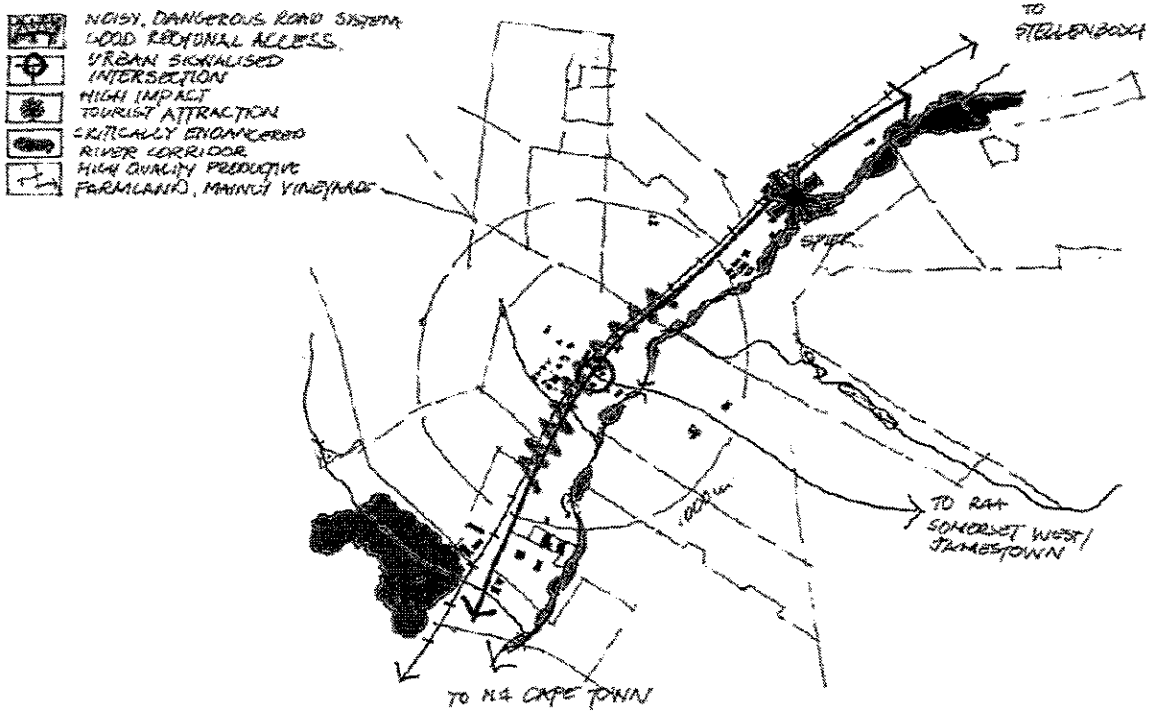
SPIER ANALYSIS



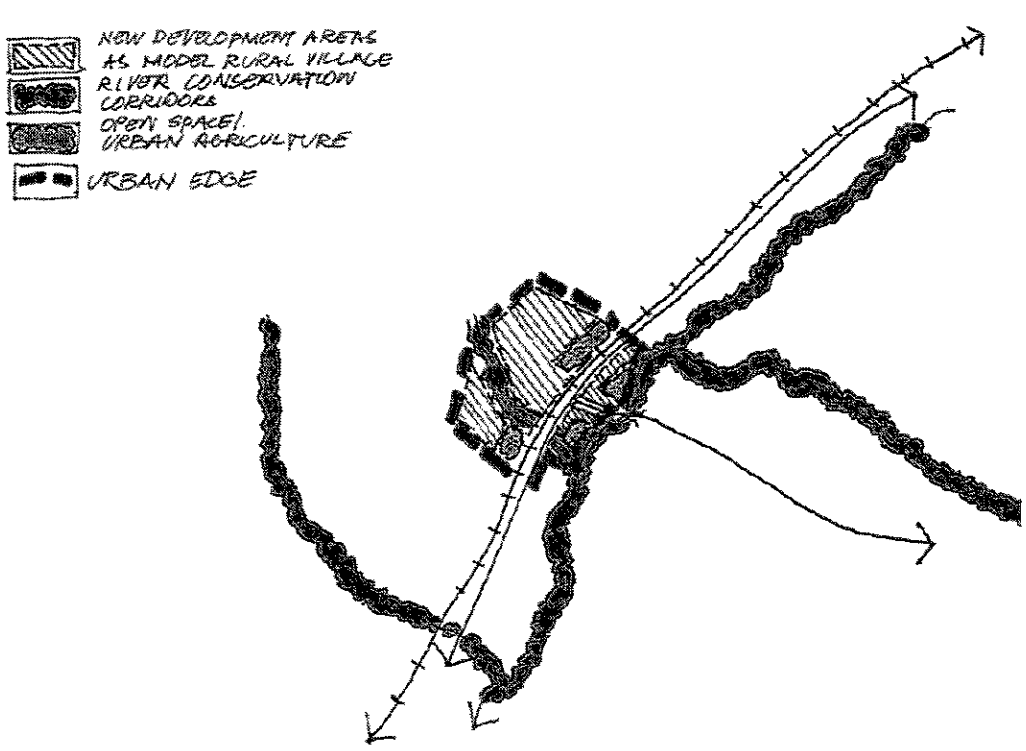
SPIER PROPOSALS

Strategic location	• Between the R44 and the R310, and alongside the railway line.
Description	• Mixed-income, mixed-use area centred on Spier winery and its tourism offering.
Advantages	• Tourist destination • Rail Access
Challenges	• Further urban development at Spier is likely to extend onto food producing land, with negative implications for Stellenbosch's food security. • Intended to be a mixed-income settlement, accessibility (rail, taxi and bus) and provision of services to low income groups may become a problem. • The visual impact of existing activities along Annandale Road and at the airfield should be assessed and mitigated against, as this area serves as a gateway to Spier and Stellenbosch.
Opportunities	• Tourism products such as farmers' markets are proposed along the urban development area between the Eerste River and the landscaped edge along the R310. • Spier has tried to establish its infrastructure systems in line with sustainability principles, for example treating waste water through wetlands and recycling its solid waste. Future development should be linked to the ability of this development to provide for its own services using sustainable methods.
Constraints	• The Eerste, Blouklip, and Bonte Rivers that flow through and alongside Spier are Critically Endangered.
Future lateral growth direction	• Future lateral growth should be confined to the existing urban area. • The impact of further development on Lynedoch, De Zalze, Jamestown and Stellenbosch would need to be assessed in order to gauge its macro-level impact.
Development areas	• Further development should be promoted only within the current development precinct at Spier (i.e. Between the R310 and Eerste River) in order to protect the remaining area for agricultural development, biodiversity conservation and possibly agricultural land reform use.
Roads and transport	• The rural nature of the current main streets creates a pleasant sense of place, and this character should be retained.
Water	• Capacity to be determined for new developments. Cost will be borne by the developer.
Sewage	• Capacity by means of own sewage treatment plant to be created.
Electricity	• Area supplied by Eskom. Capacity to be confirmed by Eskom.
Solid Waste	• Stellenbosch landfill site is nearly at full capacity..
Rivers and conservation zones	• Fresh water ecologists to demarcate 10 to 30m setbacks from the banks of rivers and furrows within which no new development (other than roads, paths, landscaping or street side trading) or ploughing may occur. • Further development should take particular care of the interface with the Eerste River, Blouklip River and Bonte River.

3.13. LYNEDOCH



LYNEDOCH ANLYSIS

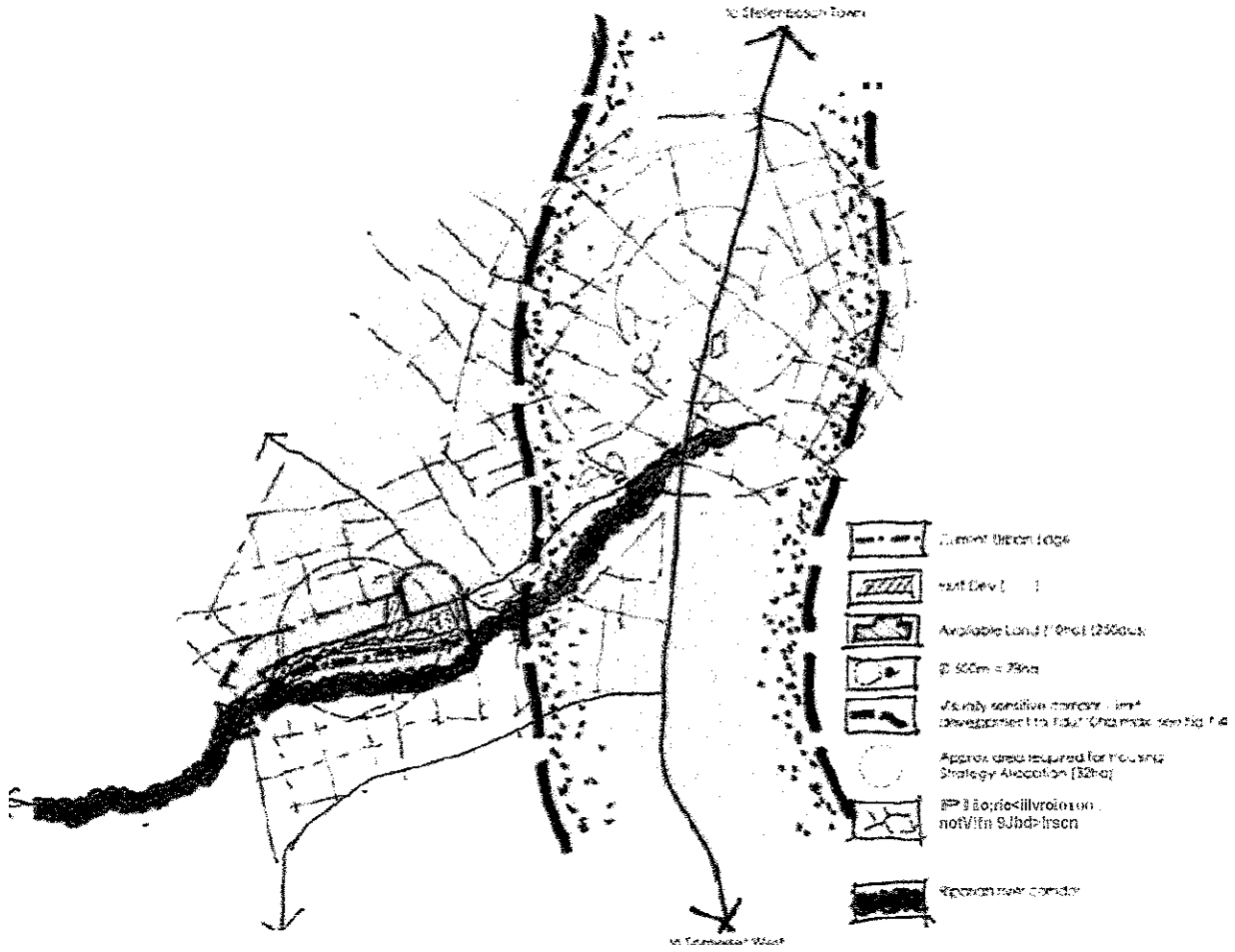


LYNEDOCH PROPOSALS

Strategic location	• Intersection of the R310 and Annandale Road, at the Lynedoch Railway station.
Description	• Mixed-income mixed-use rural settlement containing labourers' accommodation, a petrol station and the Lynedoch Eco-village.
Advantages	• Tourist destination • Rural character • Rail access
Challenges	• Development should be located on land that is not high quality farm land. • The R310 forms a barrier and needs to be integrated into the development in a way that minimises this effect.
Opportunities	• Appropriately designed spaces around the intersection could support informal markets that benefit from passing trade. • Architectural guidelines should be prepared to ensure that future development is in keeping with the sense of place. • If infill is pursued with an adherence to sustainable development principles, Lynedoch could serve as a model rural village.
Constraints	• The railway line and the R310 which run though the settlement in parallel. • The Eerste River has been identified as Critically Endangered and requires conservation.
Future lateral growth direction	• No further lateral growth should be provided for the next 10 years.
Development areas	• Infill areas are identified east and west of the railway line / R310, although the major infill areas are proposed to the west of this arterial. It is proposed that an urban edge be defined around these infill areas.
Roads and transport	• Lynedoch's good linkages to rail and road transport networks make it well suited to an efficient and convenient rail service that would reduce the need for private transport and circumvent road widening. • The widening of the R310 as proposed by Western Cape Provincial Government is not supported because this will place undue burdens on intersections in Stellenbosch and discourage the use of the trains. Park and Ride facilities are encouraged as the alternative.
Water	• Capacity to be determined for new developments. Cost will be borne by the developer.
Sewage	• Capacity by means of own sewage treatment plant to be created.
Electricity	• Area supplied by Eskom. Capacity to be confirmed by Eskom.
Solid Waste	• Stellenbosch landfill site nearly at full capacity.
Rivers and conservation zones	• Fresh water ecologists to demarcate 10 to 30m setbacks from the banks of rivers and furrows within which no new development (other than roads, paths, landscaping or street side trading) or ploughing may occur. Further development should take particular care of the interface with the various rivers. • The pockets of open space should be carefully treated and permitted to be developed for urban agriculture.

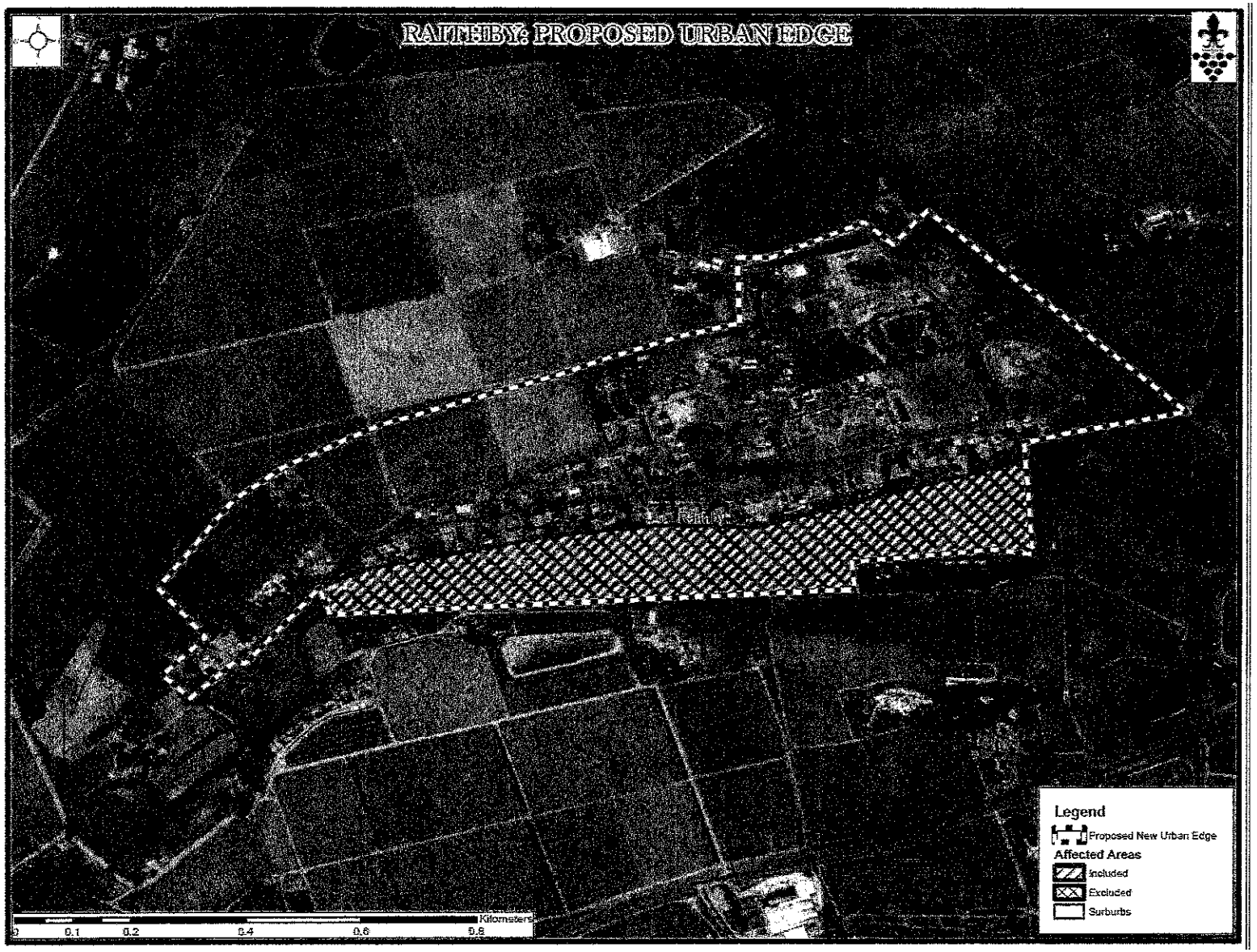

LYNDOCH- PROPOSED URBAN EDGE
Stellenbosch
Lyndoch
Legend
Proposed New Urban Edge
UrbanEdgeChanges
Current Urban Edge
Other Surbarbs
Lyndoch
Stellenbosch_13Dec2016
Other Municipalities
Stellenbosch
Kilometers
0
0.075
0.15
0.3
0.45
0.6

3.14. RAITHBY



RAITHBY ANALYSIS

Strategic location	• Located mainly on Watson Way, far from the main road and rail routes.
Description	• Mixed-income rural settlement serving a number of farms in the vicinity.
Advantages	• Rural character • The settlement's amenities are within walking distance of each other
Challenges	• The sustained existence of the settlement depends on its ability to create jobs and retain agricultural land for economic and subsistence purposes. • Besides a school, church and shop, Raithby is a dormitory settlement that lacks the necessary thresholds to support higher level facilities. • The need for low income housing in the area must be assessed. • There is significant pressure to develop the area around the settlement into gated estates. • Raithby is far from main road and rail routes, making it functionally isolated.
Opportunities	• The character of the existing settlement (e.g. the church, built forms, water erven) can be translated into architectural and urban design guidelines for new developments, particularly along Watson Way. • The river stream to the south of Raithby has potential to be enhanced as a tourist attraction.
Constraints	• There is limited land available for further development in Raithby, and any further development would most likely be in the form of private medium or high income developments which threaten the ability to create an integrated settlement at this node. • The river stream that flows south of Raithby is an important natural environmental element that has been assessed as Critically Endangered and requires protection. • Any development within 1km of the R44 would fall into a visually sensitive corridor, and would require low density (not more than 1du per 10 ha) and visual impact studies.
Future lateral growth direction	• No further lateral growth should be provided for the next 10 years.
Development areas	• There are infill opportunities on Raithby's existing plots and pockets of land within 1km of the settlement. Approximately 10ha have been identified for infill development (approximately 250 dwelling units at 25du/ha). • It is proposed that an urban edge be defined around Raithby to protect the natural and agricultural land from development pressure and allow for the integrated development of the existing urban area. • There is a need to confirm the role of Raithby hamlet in relation to the rest of Stellenbosch in terms of whether it should grow, and if so in what direction and form.
Roads and transport	• Any development of Watson Way should be in keeping with its character and sense of place.
Water	• Bulk infrastructure required, e.g. reservoir and feeder pipes.
Sewage	• Capacity by means of own sewage treatment plant.
Electricity	• Area supplied by Eskom. Capacity to be confirmed by Eskom.
Solid Waste	• Stellenbosch landfill site is nearly at full capacity.
Rivers and conservation zones	• Fresh water ecologists to demarcate 10 to 30m setbacks from the banks of the Bonte River and furrows within which no new development (other than roads, paths, landscaping or street side trading) or ploughing may occur. Any development along the stream will require careful treatment of the interface with the river.


RATTEBY: PROPOSED URBAN EDGE
Legend
Proposed New Urban Edge
Affected Areas
Included
Excluded
Surburbs
Kilometers
0
0.1
0.2
0.4
0.6
0.8

ANNEXURE 3

INTERGOVERNMENTAL STEERING COMMITTEE MEETING – REVIEW OF MSDF

ACTION MINUTES

STELLENBOSCH
STELLENBOSCH • PNIEL • FRANSCHHOEK
MUNISIPALITEIT • UMASIPALA • MUNICIPALITY

INNOVATION CAPITAL

May 5, 2017
Authored by: Barbara-Ann Henning

INTERGOVERNMENTAL STEERING COMMITTEE MEETING – REVIEW OF MSDF

ACTION MINUTES

ATTENDANCE:

Present:

See attendance register attached.

Agenda Points:

1. Welcome
2. Attendance and apologies
3. Approval of previous minutes held on 2017-02-17
4. Finalisation of Agenda
5. Introduction, Background & Purpose of Meeting
6. Presentations
   - 6.1 Heritage Inventory (Liana Jansen)
   - 6.2 Rural Area Plan (Simon Nicks)
   - 6.3 Urban Development Strategy (Rode Consulting)
7. Amendment of current MSDF
8. Way Forward
9. General
10. Next IGSC meeting and Closure

Item No	Agenda Item
1.	**Welcome** The Manager: Spatial Planning, Heritage and Environment, Mr Bernabe de la Bat welcomed everyone to the meeting. He introduced himself as the Chairman for the meeting as the Director, Mr Dupre Lombaard could not attend.
2.	**Attendance and Apologies** The attendance register was circulated for every member to sign. *Please refer to attached attendance register.* Apologies: Dupre Lombaard Nicole Abrahams (SANRAL) Geraldine Mettler (Municipal Manager) Stephen Boshoff (Built Environment Partnership) Leon Kemp Fabio Todeschini
3.	**Approval of previous minutes held on 2017-02-17** - Previous minutes of meeting approved; - Noted that the Terms of Reference of the Intergovernmental Steering Committee and formal appointment letters for each member must still be finalized (BdlB);
4.	**Finalisation of Agenda** No additional items added to agenda Mr Damien Burger raised the question when the comments and proposals on the amendment of the MSDF be tabled during the meeting. Mr Bernabe de la Bat confirmed that it will be discussed during Agenda Point 7.

5. **Introduction, Background and Purpose of Meeting**

Council made a decision to redraft MSDF and at the IGSC meeting the members must comment and advise on this process. The intention is to integrate opportunity for planning on other neighbouring municipalities as well.

SB Municipality currently busy with two (2) processes:

- Minor Amendments on current MSDF: Approval by end of May 2017 after which it will be published for the public to take note;
- Review of MSDF: Approval by end of June 2018

6. **Presentations of current projects:**

6.1 Heritage Inventory (Presentation done by Liana Jansen)

Questions/Comments:

- Mark Swilling requested that Liana elaborate with regards to the comment on the Western Bypass;
- Ruida Stanvliet (Cape Nature) commended that the CBAs etc was taken into consideration with the compilation of the Heritage Inventory;

6.2 Rural Area Plan (Presentation done by Simon Nicks)

Questions/Comments:

- Nadeem Gafieldien stated that SB University is not the only generator of traffic as there are a lot of traffic from outside the municipality's boundaries and a wider approach should be followed;
- John Muller (SB Mun) confirmed that the Business Plan (Provincial Sustainable Public Transport System) is completed and will be evaluated by Council by June 2017;
- Mr Joorst (WC Education Department) was concerned that the Agri-parks will have an impact on settlements;
- Tania de Waal raised concerned about the future of the Bosdorpe;
- Kobus Munro had questions with regards to the comments/proposals/objections received on the amendment of the MSDF.

- Bernabe de la Bat confirmed that all the responses will be send to the members of the IGSC to take note, but not to comment on;
- Hillary Smith (Western Cape Education Department) had concerns with regards to the placement of schools in the area
- Annelize de Bruin (City of Cape Town) wanted to discuss the policy position of 2 types of development that they deal with on a daily basis at City of Cape Town:
  - Semi-permanent markets (eg. Audacia/Route 44)
  - Private schools on rural land

Simon Nicks responded that recommendations can be made with regards to the appearance of these types of developments.

6.3 Urban Development Strategy (Presentation done by Bergwaldt Rode)

Questions/Comments:

- Annelize de Bruin (City of Cape Town) noted that there is enough vacant space within current urban edge to use for development – How is SB Municipality going forward with this process?
- Bernabe de la Bat confirmed that all information will be taken into account and the project committee must make a decision and final decision by Council;
- Erwin Rode (Rode Consulting) suggested that research be done on to vacant land within urban edge;
- Simon Nicks responded that there is no need to review the whole MSDF, but rather revision of the Implementation Plan;

7. Amendment of current MSDF:

Main concerns received from public:

- General concern about the lack of information;
- General concern about the ad-hoc suggestions;
- General concern about the public participation
- Private consultants with regards to extension of the urban edge for possible future developments

- **Comment from Western Cape Government very important:**
- Insufficient information provided on each of the proposed urban edge amendments
  - Meeting held on 6 April 2017, Dupre Lombaard pointed out that "every single site" has an approval by the Council. Background documentation on each site was agreed on and forwarded to WCG department;
  - Info with regards to the Klapmuts site, Northern Ext and Paradyskloof were provided – Not any of other sites;
  - Info on Klapmuts, Northern Ext and Paradyskloof also not valuable as no info on Council Resolutions, discrepancies and other info missing;
- Concern with regards to possible nodes for development (Jonkershoek area)
- Concern with regards to the establishment of agri-villages and the proposed utilisation of the Provision of Land and Assistance Act, 1993. The decision by the Municipality to continue to support development initiatives using this act is concerning. Please refer to DEAD&DP Circular 10 of 2016
- This *department strongly recommends that the SDF amendments to accommodate the proposed changes to the urban edge, as well as the proposed new nodes NOT BE APPROVED with the IDP at the end of May/early June 2017. Advising that the proposed amendments should rather be considered as part of the new SDF drafting process:*
  - Consequences of proposed amendments have not been incorporated into IDP and budget;
  - Proposals not backed by any planning process, including status quo assessments, scenario planning etc. Proposals appear to be put forward on an ad hoc basis;
  - TOD is supported on the one site while support for high income, low density, sprawling developments is also supported by SB Municipality.
  - Planning should be done in collaboration with Drakenstein and City of Cape Town – Appears from limited info available that insufficient consultation with neighbouring municipalities around proposed edge amendments and new nodes has taken place;
  - May of the proposed urban edge amendment and nodes are in conflict with policies contained in the PSDF 2014. Alignment between spheres of government is a legal requirement

8. **Way Forward:**

  - BdlB to prepare Terms of Reference of IGSC;
  - BdlB to prepare formal appointment letters for each member;
  - Rural Development Study (Agri-parks) to be circulated to members (Tommie Bolton from Department Rural Development and Land Reform)

- Education study to be circulated to members (Hillary Smith from Western Cape Education Department)

9. General

Kobus Munro expressed that the Western Cape Government Environmental Affairs and Development Planning feels very strongly about their comment on the amendment of the MSDF and all their concerns should be included in the final report prepared for Council.

10. Next meeting and closure:

The next IGSC meeting scheduled for Friday, 7 July 2017

The meeting adjourned at 15:30.

ATTENDANCE REGISTER

Western Cape Government
Environmental Affairs and Development Planning

Head of Department
Piet van Zyl

Ref: 15/4/3 /BC1

Ms Geraldine Mettler
The Municipal Manager
Stellenbosch Municipality
PO Box 17
Stellenbosch
7600

Dear Colleague

COMMENT ON THE 4th GENERATION IDP (2017 – 2022) AND PROPOSED AMENDMENTS TO THE STELLENBOSCH SPATIAL DEVELOPMENT FRAMEWORK (SDF)

1. Thank you for providing us with an opportunity to comment on your Municipality's Draft 4th Generation IDP (2017 – 2022) and specifically the proposed amendments to the SDF, as per your email dated 1 March 2017.

2. As stated in our comments in preparation for the LG MTEC Engagements, we are of the view that insufficient information has been provided on each of the proposed urban edge amendments in order for us to assess the amendments in any meaningful way.

2.1 In the meeting held with your Municipality on 6 April 2017, your Mr Dupre Lombaard confirmed that "every single site" (for which amendments had been proposed), "has an approval by the Council" and that these amendments "should in fact have been included in the 2012 Stellenbosch SDF". At the end of this meeting it was agreed that background documentation on each of the sites, as well as confirmation of the relevant Council approvals, would be forwarded to this Department during the following week.

2.2 Further information on the proposed amendments to the Klapmuts site, the Northern Extension and the Paradyskloof edge amendments were then provided to us. However, no information was provided on any of the other urban edge amendments within Stellenbosch Municipality. Moreover, the information on the Northern Extension, the Klapmuts site and Paradyskloof was of limited value to us, for the following reasons:

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Private Bag X9086, Cape Town, 8000
www.westerncape.gov.za/eadp

2.2.1 There was no information on a Council resolution to proceed with the implementation of the Klapmuts Special Economic Zone. Furthermore, Annexure 1, referred to in the Mayoral Committee Minutes dated 17 June 2015, was not attached to the Minutes, so we were not able to identify where "the area" that is being referred to in the Minutes? It is uncertain if it is in fact the same area that is indicated to the east of Klapmuts on the proposed SDF amendment maps or not.

2.2.2 In the context of the Northern Extension, the Minutes of the Council Meeting dated 22 February 2017, which were provided to us, refer to Remainder Farm 183, Portion 23 of Farm 183, Portion 3 of Farm 183 and Leased Portions A, B and C of Farm 183. Yet, the proposed extensions that are being put forward in the SDF amendment refer to additional farms and portions. The proposed SDF amendment also refers to Farms 182/1, 72/2, 81/33, 182 and Farm 183/5. It would appear that additional Farms and Portions of Farms have been added to the original resolution by Council to support the planning process for the Northern Extension. The Minutes do state that "Council supports investigating the extension of the current urban edge to be considered by the public during the April 2017 IDP/ budget/ SDF process" – this statement could be referring to the additional Farms and Farm Portions referred to above, but without Appendix 1 referred to in the Council Minutes, it remains unclear.

2.2.3 As far as Paradyskloof is concerned, the Mayoral Committee Minutes dated 17 June 2015 state that "the actual development footprint should not exceed 1,2 ha, with the remainder being conserved as a natural attraction". Again, an Annexure which shows the location of the site is referred to in the Minutes, but the Annexure was not attached. In the presentation given at the Intergovernmental Steering Committee on the Paradyskloof proposal, an area far greater than 1.2 ha is proposed for development. Thus, in this instance, there is a very clear discrepancy between what was recommended to the Mayoral Committee in 2015 and what is being proposed as part of this SDF amendment.

2.2.4 The lack of adequate background information and documentation is critical, as it not only affects meaningful input from this Department, but more importantly other departments, community based organisations active in Stellenbosch and the general public, who are not in possession of sufficient background information which motivates and supports the proposed amendments to the SDF. It would, in our view, be irresponsible to proceed with these significant amendments under these circumstances.

3. A further concern that we have are the "possible nodes for development", that the Draft 2017 IDP makes reference to. One such node is the "Jonkershoek area", which is referred to in the proposed 2017 SDF amendments.

4. Reference to the establishment of agri-villages and the proposed utilisation of the Provision of Land and Assistance Act, 1993 (Act No. 126 of 1993) is also a serious concern. This Department communicated the unconstitutionality of this "old order" legislation, which pre-dates the SPLUMA/LUPA dispensation, to the Municipality in our DEA&DP Circular 10 of 2016. Therefore, the decision by the Municipality to continue to support development initiatives using Act No. 126 of 1993 is concerning.

5. In conclusion, this Department strongly recommends that the SDF amendments to accommodate the proposed changes to the urban edge, as well as the proposed new nodes, not be approved together with the IDP at the end of May / early June 2017. Instead, we are strongly advising that the proposed amendments should rather be considered as part of the new SDF drafting process, which is currently underway. The reasons for taking this stance are as follows:

5.1 We are concerned that the consequences of the proposed amendments have not been incorporated into the IDP and its associated budget. Poor planning decisions are causing financial hardship for municipalities. In particular, low density sprawling urban areas and decentralised new nodes, particularly if these are for poorer households, could potentially have devastating financial consequences for a municipality. SDF proposals should therefore be incorporated into the IDP and the financial implications properly investigated and understood.

5.2 On the whole, the proposals don't appear to be backed by any planning process, including proper status quo assessments, scenario planning, forecasting, strategic environmental or agricultural assessments, nor are they informed by any visioning process or spatial budgeting process. Instead, for the most part, the proposals appear to be put forward on an *ad hoc* basis.

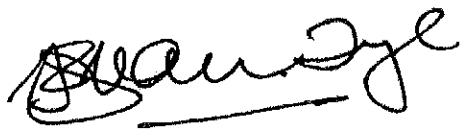
5.3 In this Department's comment on the 2016/17 IDP we referred to how Stellenbosch Municipality "is at somewhat of a figurative cross road". The Municipality seemed to be pulling in different directions when it came to a choice between development options. On the one hand, Transit Orientated Development was supported, whilst on the other there seemed to be support for high income, low density, sprawling developments. It would appear from the 2017-2022 IDP that Stellenbosch Municipality remains at this cross road.

5.4 The growth of Stellenbosch Municipality and its response to growth is intricately linked to surrounding municipalities, in particular the City of Cape Town and Drakenstein. Nodes such as Klapmuts and Meerlust, for example, cannot be planned in isolation by Stellenbosch Municipality; this planning has to happen in collaboration with Drakenstein and City of Cape Town. Aside from this making good planning sense, it is a legal requirement that neighbouring municipalities should be consulted. It would appear from the limited information available, that insufficient consultation with neighbouring municipalities around the relevant proposed edge amendments and new nodes has taken place.

5.5 Many of the proposed urban edge amendments and nodes are in conflict with the policies contained in the Provincial Spatial Development Framework 2014. Alignment between the spheres of government is another legal requirement, which seems not to have been adequately considered. These proposed amendments to the SDF cannot be approved without there being far greater consultation and discussion.

6. We trust that Stellenbosch Municipality will seriously consider these concerns that we have raised, when deciding on a way forward.

Yours sincerely



PIET VAN ZYL
HEAD OF DEPARTMENT
ENVIRONMENTAL AFFAIRS AND DEVELOPMENT PLANNING
WESTERN CAPE GOVERNMENT

DATE: *26 April 2017*

CC: **Mr Dupre Lombaard (Dupre.Lombaard@stellenbosch.gov.za)**
Ms Barbara-Ann Henning (Barbara-Ann.Henning@stellenbosch.gov.za)
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ANNEXURE 4

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DIRECTOR: PLANNING AND ECONOMIC DEVELOPMENT

Stellenbosch Municipality
STELLENBOSCH

Your Ref: **Our Ref:** AHS/CVDL/ **Date:** 07 September 2016

Dear Sir,

RE: STELLENBOSCH MUNICIPALITY MUNICIPAL SPATIAL DEVELOPMENT FRAMEWORK: COMPILATION OF NEW AND AMENDED MUNICIPAL SPATIAL DEVELOPMENT FRAMEWORK

1. We act in this matter on behalf of the Stellenbosch Municipality (the Municipality). The Municipality intends to amend the current Municipal Spatial Development Framework (MSDF) as part of the adoption process of the Fourth Generation Integrated Development Plan (IDP) of the Municipality.

2. The Municipality has briefed us with relevant correspondence exchanged between the Municipality and the Department of Environmental Affairs and Development Planning as well as a draft report of the Director: Planning and Economic Development which will serve before Council when the following recommendations are to be considered by Council:

'That Council authorise the Municipal Manager to:

(a) proceed with the development of a Municipal Spatial Development Framework for Stellenbosch Municipality (WC024) (MSDF);

(b) establish an intergovernmental steering committee (IGSC) to compile or amend its municipal spatial development framework in terms of Section 11 of the Land Use Planning Act;

(c) establish a project committee;

(d) proceed with all administrative functions to oversee the compilation of a first draft of the Municipal Spatial Development Framework for Council approval in terms of the Municipal Systems Act (2000); the Land Use Planning By-law (2015), Land Use Planning Act (2014) and the Spatial Planning Land Use Management Act (2013); and

(e) use the MSDF as a platform to adopt and align:

(i) *Strategic Environmental Management Framework (SEMF)*

(ii) *Rural Area Plan (RAP)*

(iii) *Urban Development Strategy*

(iv) *Heritage Resources Inventory*

(v) *Integrated Human Settlement Plan*

(vi) *Klapmuts Local Spatial Development Framework (LSDF)*

(vii) *Stellenbosch LSDF*

(viii) *Jonkershoek LSDF*

(f) *Proceed with the amendment of the current approved MSDF.*

(g) *That both the amendment of the existing MSDF and the compilation of the new MSDF run concurrently with the Integrated Development Planning cycle.'*

3. We have been requested by the Municipality to provide external legal comments regarding the processing of the amendment to the current IDP (including the SDF) and the compilation of a new SDF in terms of the applicable provision of the Systems Act.

4. In terms of Section 26(e) of the Systems Act, the SDF forms a core component of the IDP.

5. It is of importance to note that the Systems Act does not provide for a separate process for the compilation, adoption or amendment of a SDF independently from the IDP. Any proposed compilation or amendment of the SDF must form an integral part of the process prescribed by the Systems Act and the Local Government: Municipal Planning and Performance Management Regulations, 2001.

6. In the Report of the Director, the proposed course of action as far as the amendment of the current SDF and the compilation of a new SDF is described in the following terms:

'As the current MSDF was approved in terms of the MSA as part of the current IDP and will form part of the 2017/18 IDP minor amendments to rectify existing and known anomalies to the current MSDF is possible and desirable through the current IDP process culminating in the approval of the last cycle of the 3rd generation IDP in 2017.

Despite the amendment of the current MSDF as set out above the alignment of the MSDF with the new legislative environment remains a longer term legislative requirements.'

7. It is evident that the Municipality intends to compile a new SDF, but faces the challenge that such process will realistically not be completed within the statutory time frame for the adoption of the New Generation IDP.

8. We are in agreement that the aforementioned challenge can be addressed by the Municipality in the following manner:

8.1 The said minor amendments to the SDF can be effected as part of the adoption process of the new IDP.

8.2 The preparation of a comprehensively revised SDP, in compliance with the legislation referred to in paragraph 10 below, can now be mandated by Council and such process can commence. It appears unlikely that this process will be completed when the New Generation IDP is adopted by Council at the end of June 2017. The new SDF can however be approved by Council as part of a future review of the IDP or separately.

9. As remarked above, the Systems Act does not provide for an independent approval or amendment of an SDF.

10. If the abovementioned understanding of our instructions is correct, we record our agreement with the abovementioned recommendations, subject to compliance with the following statutory requirements as far as the procedure to be followed as well as the contents of the SDF is concerned:

10.1 Chapter 5 of the Systems Act.

10.2 Sections 20 and 21 of the Spatial Planning and Land Use Management Act 16 of 2013 (SPLUMA).

10.3 Chapter III Part III of the Land Use Planning Act 3 of 2014 (LUPA).

10.4 Chapter III of the Stellenbosch Municipality Land Use Planning By-Law.

11. It is anticipated that the Municipality may find itself under constraints to strictly comply with the aforementioned statutory provisions as far as the amendment of the current SDF and IDP is concerned. It is therefore important that the process plan of the IDP identifies any possible shortcomings as far as procedural requirements as well as the prescribed contents of the IDP is concerned and clearly describes the programme for compliance as far as the transitional phase is concerned.

Yours faithfully

ANDRE SWART
STBB | Smith Tabata Buchanan Boyes

ANNEXURE 5

Western Cape Government
Environmental Affairs and Development Planning

Head of Department
Piet van Zyl

Ref: 15/4/3 /BC1

Ms Geraldine Mettler
The Municipal Manager
Stellenbosch Municipality
PO Box 17
Stellenbosch
7600

Dear Colleague

COMMENT ON THE 4th GENERATION IDP (2017 – 2022) AND PROPOSED AMENDMENTS TO THE STELLENBOSCH SPATIAL DEVELOPMENT FRAMEWORK (SDF)

1. Thank you for providing us with an opportunity to comment on your Municipality's Draft 4th Generation IDP (2017 – 2022) and specifically the proposed amendments to the SDF, as per your email dated 1 March 2017.

2. As stated in our comments in preparation for the LG MTEC Engagements, we are of the view that insufficient information has been provided on each of the proposed urban edge amendments in order for us to assess the amendments in any meaningful way.

2.1 In the meeting held with your Municipality on 6 April 2017, your Mr Dupre Lombaard confirmed that "every single site" (for which amendments had been proposed), "has an approval by the Council" and that these amendments "should in fact have been included in the 2012 Stellenbosch SDF". At the end of this meeting it was agreed that background documentation on each of the sites, as well as confirmation of the relevant Council approvals, would be forwarded to this Department during the following week.

2.2 Further information on the proposed amendments to the Klapmuts site, the Northern Extension and the Paradyskloof edge amendments were then provided to us. However, no information was provided on any of the other urban edge amendments within Stellenbosch Municipality. Moreover, the information on the Northern Extension, the Klapmuts site and Paradyskloof was of limited value to us, for the following reasons:

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2.2.1 There was no information on a Council resolution to proceed with the implementation of the Klapmuts Special Economic Zone. Furthermore, Annexure 1, referred to in the Mayoral Committee Minutes dated 17 June 2015, was not attached to the Minutes, so we were not able to identify where "the area" that is being referred to in the Minutes? It is uncertain if it is in fact the same area that is indicated to the east of Klapmuts on the proposed SDF amendment maps or not.

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2.2.4 The lack of adequate background information and documentation is critical, as it not only affects meaningful input from this Department, but more importantly other departments, community based organisations active in Stellenbosch and the general public, who are not in possession of sufficient background information which motivates and supports the proposed amendments to the SDF. It would, in our view, be irresponsible to proceed with these significant amendments under these circumstances.

3. A further concern that we have are the "possible nodes for development", that the Draft 2017 IDP makes reference to. One such node is the "Jonkershoek area", which is referred to in the proposed 2017 SDF amendments.

4. Reference to the establishment of agri-villages and the proposed utilisation of the Provision of Land and Assistance Act, 1993 (Act No. 126 of 1993) is also a serious concern. This Department communicated the unconstitutionality of this "old order" legislation, which pre-dates the SPLUMA/LUPA dispensation, to the Municipality in our DEA&DP Circular 10 of 2016. Therefore, the decision by the Municipality to continue to support development initiatives using Act No. 126 of 1993 is concerning.

5. In conclusion, this Department strongly recommends that the SDF amendments to accommodate the proposed changes to the urban edge, as well as the proposed new nodes, not be approved together with the IDP at the end of May / early June 2017. Instead, we are strongly advising that the proposed amendments should rather be considered as part of the new SDF drafting process, which is currently underway. The reasons for taking this stance are as follows:

5.1 We are concerned that the consequences of the proposed amendments have not been incorporated into the IDP and its associated budget. Poor planning decisions are causing financial hardship for municipalities. In particular, low density sprawling urban areas and decentralised new nodes, particularly if these are for poorer households, could potentially have devastating financial consequences for a municipality. SDF proposals should therefore be incorporated into the IDP and the financial implications properly investigated and understood.

5.2 On the whole, the proposals don't appear to be backed by any planning process, including proper status quo assessments, scenario planning, forecasting, strategic environmental or agricultural assessments, nor are they informed by any visioning process or spatial budgeting process. Instead, for the most part, the proposals appear to be put forward on an *ad hoc* basis.

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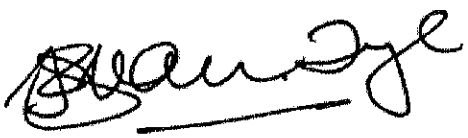
6. We trust that Stellenbosch Municipality will seriously consider these concerns that we have raised, when deciding on a way forward.

Yours sincerely



PIET VAN ZYL
HEAD OF DEPARTMENT
ENVIRONMENTAL AFFAIRS AND DEVELOPMENT PLANNING
WESTERN CAPE GOVERNMENT

DATE: *26 April 2017*

CC: **Mr Dupre Lombaard (Dupre.Lombaard@stellenbosch.gov.za)**
Ms Barbara-Ann Henning (Barbara-Ann.Henning@stellenbosch.gov.za)
Ms Jeanne Basson (Jeanne.Basson@stellenbosch.gov.za)

ANNEXURE 6

MSDF
MSDF Proposals

NAME	COMPANY	PROPOSAL	Comment from Council
DP Burger	Friedlaender, Burger & Volkmann	Inclusion of Farm 490/2 & 5, Stellenbosch within the urban edge (African Valley)	Major change to MSDF. Objections received. No services available. To be considered in 2018 MSDF.
Max Lourens	SMR	Inclusion of Farm 490/2 & 5, Stellenbosch within the urban edge (African Valley) Damien Burger submitted proposal	Major change to MSDF. Objections received. No services available. To be considered in 2018 MSDF.
Jacques Volschenck	Dennis Moss Partnership	Rectification of Stellenbosch urban edge: Erf 16422 & Farm 119/9 (Bergplaas Resort)	Current urban edge does not follow the cadastral boundary. There is merit in the proposal. To be considered.
Mauritz van den Heever	Planning Partners	Erf 298, Raithby Urban Edge: Inclusion of whole property within urban edge	Major change
Peter Mons	Peter Mons Planning	Proposals on Leeu Properties: Farm 1551/1, Farm 1551, Farm 1506/2, Rem Farm 1506, Rem Farm 1084, Franschhoek	Major change to MSDF. Various and strong objections received including from state departements. To be considered in 2018 MSDF.
Saliem Haider	Stellenbosch Municipality	1ha of land at Droe Dyke for Waste Transfer Station	To be included in the planning of Droeë Dyke. Internal matter.
Cecil Munch	Newbridge Property Services (Pty) Ltd	Inclusion of Erf 728/63, Stellenbosch (Joostenberg) in urban edge to allow for development	Major change
Pierre Smit	Pierre Smit and Associates	Erf 705, Jamestown: (Eienaar is Mnr Adriaanse) Proklamering van Skoolstraat tussen Pajaro en	Not an SDF issue.
Boet Grobler	De Zalze Winelands golf estate	Possibility of the development of smaller waste and grey water treatment plants as	Not an SDF issue.
Gerhard Nel	Jubelie Projects	Kayamandi Northern Extension: Farms 182/1, 72/2, 81/33, 183/23, 182, 183, 183/36, Rem 183/5	Forms part of Northern Extension project currently under consideration by Council. Various and strong objections received from provincial government, public and consultants.
Clifford Heys	Tv3 Architects and Town Planners	Inclusion of Farm 490/2, Stellenbosch (Botmanskop) within urban edge for future urban development (for a low impact residential estate)	Major change
Michael Back	Backsberg Estate	Inclusion of portion of Farm 748/33 in urban edge of Klapmuts	Major change
Anton Lotz	Anton Lotz Consultants	200m contour be scrap as the urban edge and the cadastral boundaries of Farm 742/5 be used as urban edge and the designation as a higher density mixed use development zone	Major Proposal to be considered in Klapmuts SDF currently in process and 2018 MSDF.
Anton Lotz	Anton Lotz Consultants	Inclusion of Farm 1515 in the urban edge and the creation of a learning and innovation designation over Farm 742/5 and Farm 1515 to allow for a mix of land uses that will form part of	Major Proposal to be considered in Klapmuts SDF currently in process and 2018 MSDF.
Doug Jeffery	Doug Jeffery Environmental Consultants	Objection to the proposal for a Canola Oil processing plant on Farm 750/2 Paarl	Land Use Management Issue. Use of land to be considered in Klapmuts SDF currently in process. To form part of 2018 MSDF.
Anton Prinsloo	Tv3 Architects and Town Planners	Proposed amended development plan for Vlottenburg Village Development representing Vredenheim (Farms Rem 387, Rem 388, 387/5, 1559/1, 1559/2, 1559/3 and 1559/4	Major issue to be considered during 2018 MSDF process. Various objections received. No services currently available.
Anton Prinsloo	Tv3 Architects and Town Planners	Request for the inclusion (in part or entirely) of Farm 742/2 and Farm 748/2 within the designated urban edge of Klapmuts	Major change
Clifford Heys	Tv3 Architects and Town Planners	Rem of Farm Brandwacht No 1049, Stellenbosch: Amend current urban edge to include Farm 1049 and indicate for future development - Proposed land use is primarily residential with a variety of densities	Major change
Allen Goosen	MLH Architects and Planners	Proposed amendment of Raithby urban edge to include Kuikenvlei farm workers housing (Farm 351, Raithby)	Major amendment. Objections received. To be considered in 2018 MSDF process.
Pieter van Heyningen	Sustnet	Strategic proposals for Technopark	Not and SDF issue but a land use management item
Reitz Malherbe	In consultation with Piet Louw Architects	Recommend Groenhof as a possible new node for a village with various land uses (Knorhoek)	Major change to MSDF. Strong objection in principle against new urban nodes form provincial authority due to feasibility issuesd.To be considered in 2018 MSDF. Currently no services available.
Piet Claasen	Town planner	Ward 7: Objection to the proposal that Coetzenburg (University) be included in the urban edge	Objections received. The amended urban edge will not effect the land use rights . However, objection were received. To be considered in the 2018 MSDF process.

Margie Murcott	City of Cape Town: TDA	Request for more information and opportunity for discussion on proposals on the border of City of Cape Town e.g. Raithby and Klapmuts	The concern is shared. The proposal to discuss common issues on the boarder with the CoCT is supported. Discussions will be set up during 2018 SDF process.
Myra Francis and Cllr Frazenburg	Stellenbosch Municipality	Request to relook proposed amendment of La Motte urban edge as it will have serious implication for housing projects	Supported.
Dr Ruida Stanvliet	Cape Nature	Request for extension for submission of comments until 12 May 2017	Extension was allowed by the MM.
Liana Jansen	Heritage Practitioner	• Franschhoek: Disagreement with proposed amendment as it falls within an exceptionally high significant heritage area and high soil capacity • La Motte: Support amendment, but stressing the fact that the section between R45 and original La Motte settlement should remain undeveloped as a highly sensitive CBA, wetland and high soil suitability. • Wemmershoek: Agree with proposed amendment • Groot Drakenstein: disagree with proposed amendments as proposed node is far too large and Lekkerwyn should be outside urban edge. Very high significance heritage area • Dwars River Valley: Disagree with proposed amendment as the valley bottom should not be within urban edge. This area is a CBA and a sensitive wetland area. High soil capability in southern section and considered a very high significant heritage area • Klapmuts: Disagree with proposed amendments as settlement will be too large. Proposed areas all feature CBA layers and number os sensitive wetland areas. Compact settlement with denser typologies of buildings is desirable • Koelenhof: Disagree with proposed amendments as they are too large and trigger a number of sensitive areas such as significant CBA and wetland areas • Vlottenburg: Agree to amendments as considered to be ideally situated to become a satellite settlement designed as an urban node. Propose that settlement be extended towards north-east • Lynedoch: Agree with amendments • Raithby: Do not support proposed amendments as the extension of the urban edge to the south would obliterate the historically significant agricultural character of the area. It falls within a high significant heritage area • Stellenbosch town: Agree with some amendments and others strongly disagree as high significant heritage areas etc. • Strongly disagree with western by-pass – It will fail in its own terms - Confusion of the Role of the R44	Objections to the extention of the urban edge inflitrating the cultural landscape noted. The objection to the proposed Western Bybpass is noted. The feasability of the road requires confirmation and the design therefor, in the event that iot may realise, will be of particular imporantce. It is also noted that the role and function of the road needs clarification particularly as it is a provincial road.

Tania de Waal	WCG: Environmental Affairs & Development Planning	• Insufficient information provided on each of the proposed urban edge amendments - Meeting held on 6 April 2017, Dupre Lombaard pointed out that "every single site" has an approval by the Council. Background documentation on each site was agreed on and forwarded to WCG department; - Info with regards to the Klapmuts site, Northern Ext and Paradyskloof were provided – Not any of other sites; - Info on Klapmuts, Northern Ext and Paradyskloof also not valuable as no info on Council Resolutions, discrepancies and other info missing; • Concern with regards to possible nodes for development (Jonkershoek area) • Concern with regards to the establishment of agri-villages and the proposed utilisation of the Provision of Land and Assistance Act, 1993. The decision by the Municipality to continue to support development initiatives using this act is concerning. Please refer to DEAD&DP Circular 10 of 2016 • This department strongly recommends that the SDF amendments to accommodate the proposed changes to the urban edge, as well as the proposed new nodes NOT BE APPROVED with the IDP at the end of May/early June 2017. Advising that the proposed amendments should rather be considered as part of the new SDF drafting process: - Consequences of proposed amendments have not been incorporated into IDP and budget; - Proposals not backed by any planning process, including status quo assessments, scenario planning etc. Proposals appear to be put forward on an ad hoc basis; - TOD is supported on the one site while support for high income, low density, sprawling developments is also supported by SB Municipality. - Planning should be done in collaboration with Drakenstein and City of Cape Town – Appears from limited info available that insufficient consultation with neighbouring municipalities around proposed edge amendments and new nodes has taken place; - May of the proposed urban edge amendment and nodes are in conflict with policies contained in the PSDF 2014. Alignment between spheres of government is a legal requirement	Noted the objection towoards the idea of a proposed western bypass due to scarring of a sensitive landscape and possible visual intrusino.

Sarah Winter	Cape Winelands Cultural Landscapes	On behalf of the Cape Winelands Cultural Landscapes Working Group – conclude that the proposed concept of the Western By-Pass will not solve the problems is sets out to resolve and will have a negative impact which is not foreseen or dealt with in the proposal. Reasons: • It will fail in its own terms: Concept neither takes present patterns of movement into proper account nor distinguishes between through-traffic and trips that have SB as origin and destination • Confusion of the Role of the R44: Unclear whether it should be a mobility route, a scenic route or urban arterial • The proposal ignores public transportation: Congestion problem in SB is the private vehicle. Logical movement modes to be reinforced are public transport, the rail and road-based busses and tazi modes that should be feeders to rail station. Large amounts of finance required to implement a by-pass would be far better spent in extending the rail network and its maintenance and ensuring road-based public transport feeds to its stations. • The alignment of the proposed by-pass: Economy of SB based on agriculture and tourism, makes great sense to protect and enhance these, but the proposed alignment would negatively impact heavily on both • The issue of the urban edge: Unintended outcome of enormous negative consequence if all land between existing settlement of Stellenbosch and the by-pass should be included in the urban edge. Conclusion on western by-pass: The concept of the Western by-pass and related intention to expand urban edge of Stellenbosch to include it is unsuitable and inappropriate. The concept as proposed and promoted in public should be scrapped on economic, urban planning, environmental and heritage grounds. Of the opinion that proposal would trigger the need for a HIA in terms of the NHRA. Heritage Western Cape informed of this proposal.	Noted the objection towoards the idea of a proposed western bypass due to scarring of a sensitive landscape and possible visual intrusion. The feasability of the road requires confirmation and the design therefor, in the event that iot may realise, will be of particular imporantce. It is also noted that the role and function of the road needs clarification particularly as it is a provincial road.
Barry Phillips	Franschhoek Trust & Ratepayers Ass	• The Trust objects on procedural and substantive grounds to the inclusion of the southernmost portion of land in the Groot Drakenstein urban edge (portion nearest Boschendal Manor House). Urban edge should not extend beyond the boundary of the to-be-built Boschendal village as it will detract from magnificent rural setting of the manor house. • Strongly object to the proposed extension of Franschhoek Urban edge as no reasons have been given for the proposed extension;	
	Dennis Moss Partnership	Farm 74/23, Koelenhof: Inclusion of the site into the urban edge of Koelenhof and that the current SDF land use designation for the land namely "urban agriculture/floodplain	
(Tielman Roos)	Dennis Moss Partnership	Bottelary Bewarea: Consideration of Bottelary Bewarea and land eastwards toward Simonsberg	Noted and supported
(Jacques Volschenck)	Dennis Moss Partnership	Devonvale Golf & Wine Estate: Urban edge to include the estate	Existing development outside urban edge
	Dennis Moss Partnership	Erf 16422 and Farm 119/9, Stellenbosch: Bergplaas Resort and La Roche Estate: Inclusion in	Major change

Francois Swart	Stellenbosch University	• Only reference to University's Master Plan is on pg. 19 of the SDF under paragraph dealing with inclusive economic growth - therefore it is proposed that the Campus Master Plan principles be included in SDF. • Supports proposed amendment to existing urban edge to include greater Coetzenburg area; • In terms of mobility and transport the basic principles of interconnected nodes and car-free transport is supported	Principles is already included in the MSDF
Louis Welgemoed	WCG: Human Settlements	• Portions of the Jamestown Remainder of Farm 527 partially fall outside of new proposed urban edge amendments; • Langrug Informal Settlement falls partially outside the new proposed amendments to urban edge; • La Motte northern portion falls almost totally outside of the new urban edge amendments	Noted. The rectification of minor portinons of the urban edge can be considered based on the information collated during the planning processes.
Anine Trumpelmann	AT Planning	Inclusion of Boschendall Village in the urban edge (Groot Drakenstein node) - Please refer to	Proposal supported as refinement of the urban edge.
Patricia Botha	Stellenbosch Interest Group	• Municipal decision of 5 Oct 2016 regarding the amendment of current approved MSDF to be aligned with 2017/18 IDP was not executed as reflected in the agenda or minutes of meeting; • Documents do not constitute an amendment to the current approved MSDF and therefore can not form part of the 2017/18 IDP: - Spatial Development Framework Nov 2012, revised edition April 2017 (Draft MSDF) and urban edge maps contained in it; - Appendix 4 of the Draft 4th generation IDP – list of properties proposed by municipal officers for inclusion or exclusion - Section 6.1 of Draft IDP • Section 6.1 of Draft IDP to be replaced by Section 6.1 of approved 2016/2017 IDP as no specific projects were identified during the IDP participation process; • Urgent need to abandon old pattern of urban growth which leads to major traffic congestion, loss of agricultural land and rural environment; • Proposals conflict with approved principles for sustainable development e.g.. Vlottenburg, Klapmuts, Lynedoch , Stellenbosch • Letter by Prof Mark Swilling in Eikestad News on 27 March 2017 with regards to Western Bypass is disturbing;• Inclusion of new areas within urban edge as proposed implies a perpetuation of a segregationist policy of unsustainable development and outward expansion instead of densification within the existing urban edge. This will lease to the loss of irreplaceable agricultural land and to the destruction of the unique character of WC024 • Shaping Stellenbosch plan is an example of how a compact, sustainable and inclusive town might be realised.	Reference to the destinction between "minor" adjustments vs "major" adjustments. General consensus is that many proposals indeed constitutes major adjsuments. Valid objection. Same as above.
Chris Cronje	Tv3 Architects and Town Planners	Farm 742/2, Klapmuts and Erf 2183, Klapmuts: Inclusion in urban edge of Klapmuts	Major change
Chris Cronje	Tv3 Architects and Town Planners	Farm 1457, Stellenbosch (Blaauwklippen Farm): Inclusion in urban edge of Stellenbosch for primarily residential uses	Major change
Chris Cronje	Tv3 Architects and Town Planners	Portion of Rem of Farm 510/71, Rem Farm 510/52 and Rem of Farm 510/53 and Rem of Farm 510/54 (First portion of land directly east of current La Clemence Retirement Village) - Already within approved urban edge but not earmarked for residential development - Request to review and amend to earmark for residential development	Major change

Chris Cronje	Tv3 Architects and Town Planners	Farm 1166, Stellenbosch (Mountain Breeze Vineyard Estate) - Inclusion of property within urban edge and for residential development	Major change
Chris Cronje	Tv3 Architects and Town Planners	Inclusion of Northern Extension, Kayamandi within urban edge and for a mixed use development	Major change
Chris Cronje	Tv3 Architects and Town Planners	Inclusion of Rem of Farm 1480 (Libertas) and Farm 1040 (Fleurbaai) for urban expansion with a mixed use development and inclusion in urban edge	Major change to MSDF. Various and strong objections received including from state departments. No services available currently. To be considered in 2018 MSDF.
Hans Eggers	Friends of Stellenbosch Mountain	• Under the new SPLUMA/LUPA legislation, the contents of the MSDF must be aligned with the priorities and principles of the IDP: the MSDF must follow where the IDP leads. Since the priorities and principles in the Fourth-Generation IDP, to be considered by Council in May 2017, are only now being tabled and discussed, there may not be specific spatial proposals in the SDF Chapter of the IDP but only the principles. • Approval in May 2017 of this detailed list of revisions to the Urban Edge would also pre-empt the long and involved process (which starts after May 2017) of specialist input, intergovernmental alignment and public participation which will eventually result in a revised Urban Edge. • Align the principles with the legislation: There is no rational reason why the principles and strategies already approved by Council in the 2016 IDP and set out in the 2014 in the Quo Vadis and Shaping Stellenbosch Reports should be arbitrarily altered, omitted or simply ignored in the specific proposals, as they have been. Merely stating that the Shaping Stellenbosch report does not comply with the statutory requirements" (as stated in Item 6.1.4, Planning Committee Minutes of 2016{05{31} is an inadequate reason for simply dropping well-considered plans and strategies which contain a great deal of public input and cost a lot of money. By their nature, principles are long-lasting and should be changed only after intense workshopping and public participation. The so-called principles currently appearing in Section 6.1 of the Draft IDP are incompatible both with earlier IDP principles and the Provincial Spatial Development Framework. • The April 2017 Public Participation Process (PPP) presentations were highly misleading. The major changes set out above were hardly mentioned. For example, at every ward meeting, only one single Urban Edge map was shown for about ten seconds while the other 11 maps were not shown at all; neither was it even mentioned that changes for the status of dozens of cadastral units were inserted into the Fourth Generation Appendix 4. Likewise, mention was made of a Roads Master Plan without reference to the Comprehensive Integrated Transport Plan (CITP) which should actually govern and inform the Roads Master Plan. This PPP and the arbitrary	The objection to the proposed Western Bybpass is noted. The feasability of the road requires confirmation and the design therefor, in the event that iot may realise, will be of particular imporantce. It is also noted that the role and function of the road needs clarification particularly as it is a provincial road.
Otto van Noie	Idasvallei Leraarskring	Input on SDF was patchy and selective, only cursory mention was made. Worrying indication what it will be designed primarily as a desk-top outcome by municipal officials, and not as an outcome of thorough-going public participation. SDF 2013 documentation was not made available for interrogation in libraries. Conern with regards ot the Northward Extension proposal; adjustment to urban edge by inclusion of pieces of land of which histories,	Objection noted. Documents were available on websirte and libraries.
Kobus Basson	Klein Zalze (Prepared by Cluver Markotter)	Inclusion of the whole of Erf 4, 579 and 577 De Zalze within the urban edge. Discrepencies with regards to the definition of the "southern urban edge"of Stellenbosch. Questions the fact that	Major change

Cor van der Walt	Department Agriculture	Concerned about potential loss and associated pressures created by some of amendment proposals as some of these proposals are considered areas of agriculture significance due to their land capatility and suitability as well ass strategic location to preserve abutting agricultural land. WCDoA and DAFF in process of demarcatin areas of agricultural significance from a land capability and suitability perspective as well as from legislation exclusions as directed from provisions of Act 70 of 1970. This project still subject to verification, the departments would appreciate additional time to demarcate these areas not only to justify agricultural perspective but also bring counter proposals to the front. Presentations done at IGSC meeting on 5 May	Concern noted. Meeting between provincial department and Natioanl department was set up to dioscuss the issue of loss opf agricultural land and Act 70 of 1970
Damien Burger	Friedlaender, Burger & Volkmann	include properties that hve been rezoned out of adricultre or those that fall within a subdivisional area within the urban edge. Eg Farm 490/5 (African Valley), Stellenbosch and Farm	Major change in a sensitive area
Dr Andrew Kok	Huguenot Foundation of SA	Opposed to the propsed changes to the FH urban edges from a heritage point of vies as it is culturally unacceptable and should be preserved. Also oppose as there was procedural non-compliance as there was no adequate consultation with the HSSA and inconsistent municipal planning strategy as under SPLUMA and LUPA legislation the MSDF must be informed by the priorites and prinvicples of the IDP and any interim revision of an MSDF can only be of an incremental nature. The HSSA appeals to the MM and Mayor to reject the urban edge proposals	Objection noted. Documents were available on websirte and libraries.
Malcolm Watters	Transport & Public Works: WCG	• Status quo report on urban development strategy stated that existing unutilised spaced wihin defined urban edges were sufficient ot accommodate the likely population growth for future; • Amendments to planned urban edges appears to run counter to a number of principles set out in approved MSDF; - Several of proposed urban edge amendments will result in outward expansion of urban areas, making them "longer" rather than "rounder" of tightly constrained"; - Priority should be given to location settlements firstly on rail and secondly on road routes. Some proposed expansions of urban fringes will result in development being further from the nearest station and further from major road routes; - The principle to prevent urban sprawl and protect natural environments and farmland, settlements should define and maintain a strict urban edge, outside of which development should not be permitted does not appear to have been adhered to in proposed amendments; - MSDF indicates that housing development on urban periphery should be avoided, but many of the proposed amendments stretch the periphery. • Land use changes have implications for travel patterns and it is important to evaluate whether the additional travel generated by development can be accommodated on the existing transportation system. If proposed urban edge amendments are implemented, it should be noted that the Department of Transport and Public Works cannot commit to providing or contributing to necessary transport infrastructure to service developments; • Proposed amendment to urban edges should not be implemented at this stage, but the need, desirability, location and scale of such amendments should be subject of careful consideration in the preparation of the new MSDF (2018) • If expansion of land available within urban fringes is essential, it should take place where there is a large waiting list for housing; • Expansion of specific nodes should only be implemented when it is demonstrated that travel needs can be adequately met without a high degree of reliance on private transport and without increasing congestion on existing roads which are already at capacity;	Comment with respect to adequate space within the existing edge noted. Supports the development of nodes along the transport route. Comments valid.

Ruida Stanvliet	Cape Nature	• Noted that there have been significant changes to the urban edges and questions the urgency of the current process to have amendment to urban edges approved by Council at the end of May whereas the final SDF is only to be approved in 2018; • Municipality encouraged to only consider minor changes to urban edges for approval end of May 2017 and to include major urban edge extension in the proves of the SDF approval during 2018; • Wemmershoek: Proposed extension of urban edge includes an area to east of R301/Wemmershoek Road and Cape Nature strongly objects to this as this area forms party of the proposed Wemmershoekvlei Nature Reserve. • Stellenbosch Town: Proposed extension of urban edge between Brandwacht and Paradyskloof includes areas of natural vegetation that have been classified as Critical Biodiversity Area (CBA) and Ecological Support Areas (ESA). Cape Nature will not support development in CBA and only limited appropriate land uses permitted in ESA; • La Motte: urban edge extension includes watercourse and associated floodplain which would not be suitable for urban development ; • Groot Drakenstein: Northern section of proposed urban edge extension includes areas of CBA upon which urban development will not be supported; • Dwars River Valley: proposed urban edge extension to the north of Lanquedoq would not be supported as this consists of CBA. Floodplain wetlands associated with Dwars River also to be avoided; • Klapmuts: Western section of urban edge extension between N1 and R101 consists of CBA and urban development would not be supported; • Koelenhof: proposed urban edge extension includes areas of wetland and natural vegetation remnants supporting threatened species and need to be taken cognisance of in development proposal eg. Devonbosch mixed use development which received environmental approval following a lengthy process, including negotiations with Cape Nature; • Spier: noted that this property does include a high conservation priority vegetation remnant.	Information on CBAs and ESAs welcomed and comments supported. Information will be taken up in SEMF.
Cllr DA Hendrickse	EFF	Process flawed as SDF drawn up without meaningful public participation. Administration is using the illegal IDP process to run and publi participate the SDF. SDF gets informed by the	Noted

	CNDV Consultants	Klapmuts: • Proposed industrial land to be included inside urban edge, significant agricultural land component well located close to settlement to be investigated for small scale agriculture/land-reform to be retained, green strip/noise zone to be retained along N1; • Inclusion of Portion of Farm 32/26 in urban edge supported (Butterfly World); • Farm 748/40 (Mt Vernon): Significant agricultural and CBA resources to be retained, encourage appropriate tourism development, consider agricultural incentives eg. Rebates, otherwise property to be allowed to return to agricultural market at viable price. • Farm 768: Butterfly world to be rained for small scale agriculture/land reform abutting Weltevreden park Koelenhof: • Farm 65/50 and 65/27 and Farm 1330 included within urban edge = Supported; • Portion of Farm 66/31 to be included in urban edge = NOT SUPPORTED, well located agricultural land resource plus CBAs; • Farm 74/35: Not supported as there are CBAs and wetland areas – maybe small area abutting road – check access; • Farm 1512 (Devonvale Golf Estate) to be included in urban edge supported as land use – off grid services to be promoted to be provided by estate and agricultural land component to be retained. Stellenbosch: • Northern Ext: not supported as there is large agricultural well located land resource opportunity for either small scale agricultural/land reform – large adjacent vacant land component inside urban edge still not developed after many years and should be priorty; • Farm 490/7 and Farm 119/9 is supported but should be middle upper income (more able to afford transport costs); • Coetzenburg: Supported if to rationalise sports complex as urban activity inside urban edge – NO urban development should be supported;	

Comment from Simon Nicks:

Klapmuts:

- Proposed industrial land to be included inside urban edge, significant agricultural land component well located close to settlement to be investigated for small scale agriculture/land-reform to be retained, green strip/noise zone to be retained along N1;
- Inclusion of Portion of Farm 32/26 in urban edge supported (Butterfly World);
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- Portion of Farm 66/31 to be included in urban edge = NOT SUPPORTED, well located agricultural land resource plus CBAs;
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- Northern Ext: not supported as there is large agricultural well located land resource opportunity for either small scale agricultural/land reform – large adjacent vacant land component inside urban edge still not developed after many years and should be priorty;
- Farm 490/7 and Farm 119/9 is supported but should be middle upper income (more able to afford transport costs);
- Coetzenburg: Supported if to rationalise sports complex as urban activity inside urban edge – NO urban development should be supported;
- Paradyskloof SDA: Not supported as it is a major well located agricultural resource, and must be small scale agriculture/land reform. It is extremely visually sensitive.
- Lease Area 527, Jamestown: Not supported – Significant agricultural land component visually sensitive on high ground creeping up mountain slopes;
- Portion of Farm 502: Not supported – CBAs
- Erf 4, de Zalze: Supported except for agricultural land component to be consolidated with adjacent agricultural land;

Vlottenburg: Longlands inclusion not supported

Lyndoch: Support that node becomes smaller

Raithby: Watererven is important agricultural land and part of historic character of Raithby.

Pniel/Kylemore: Urban edge expansion not supported

La Motte: Frontage required to give visual exposure to settlement along R44 (Include this portion in urban edge

Franschhoek: Urban edge expansion along Farms 1554, 18, 3267, 20, 1320 etc (Leeu Estates) not supported

Comment from Simon Nicks (CNDV Consultants)

Klapmuts:

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Franschhoek: Urban edge expansion along Farms 1554, 18, 3267, 20, 1320 etc (Leeu Estates) not supported

Comment/Response from Council: Valid comments and objections noted.

Comment from Stellenbosch Rate Payers Association (Andre Pelser):

- Proposed adjustments are wholly inappropriate for the sustainable growth and development of SB and its satellite settlements;
- Way in which these proposed major adjustments to the urban edge found their way into draft IDP is highly problematic;
- Because of the existing restraints as regards to the potential of Stellenbosch for long-term physical expansion, the urban development that does take place should be qualitative rather than quantitative and a compact urban structure with higher residential densities should be aimed at;
- Need to manage growth in Stellenbosch to preserve its fundamental character and identity, therefore apply the principle of limited incremental growth to the consideration of any new development outside the existing approved urban edge;
- Stellenbosch does not have a traffic problem during University holidays. Would be in local, provincial and national interest to spend a billion rand on student accommodation close to campus rather than wasting amounts on additional road infrastructure which will only aggravate the current traffic problem. Providing accessible accommodation rather than roads would also massively reduce carbon footprint and lessen dependence on fossil fuel;
- Major concern about urban edge it proposed extension northwards of Kayamandi. Should rather take place in small increments on the area of land between Cloetesville and Idas Valley. State land needs to be released for optimal development.
- Rather than drastically expanding the existing urban edge, thereby directing where additional growth should take place, all development proposals should be subjected to rigorous public debate to determine the impact, feasibility and desirability of the proposal before the area in question is incorporated within the urban edge.
- Following arguments to illustrate why certain of proposal should not be supported:
    - Longlands should never have been approved as it constitutes urban sprawl and leap-frog development;
    - University Sporting facilities should not be included;
    - Proposed Eastward expansion of urban edge at Klapmuts should not be permitted as proposed development is exclusionary, socially unacceptable and constitutes urban sprawl;
    - Inclusion of land between Brandwacht and Paradyskloof is premature as a plan and program to release this land in small increments needs to be compiled first;
    - No new development at Groot Drakenstein (Boschendal) has yet taken place and it is accordingly premature to expand this urban edge;
    - Remaining proposal include land that should not be urbanised but also includes land that has long been urbanised.

Comment/Response from Council: Objections noted. General consensus is that many proposals indeed constitute major adjustments. Valid objections.

7.3.2	STELLENBOSCH MUNICIPALITY: DRAFT TELECOMMUNICATION MAST INFRASTRUCTURE POLICY

1. PURPOSE OF REPORT

The purpose of this item is to obtain Council's in-principle approval for the Directorate to advertise a first draft Telecommunication Mast Infrastructure Policy for input and comment from the public, Interested and Affected Parties and industry.

The overarching object of this policy is to facilitate the growth of new and existing telecommunications systems and facilitate the provision of TMI in an efficient, cost-effective, environmentally appropriate and sustainable way.

2. BACKGROUND

DRAFT TELECOMMUNICATION MAST INFRASTRUCTURE POLICY

There is increasing importance of telecommunication to the growth of the economy. This is especially the case in Stellenbosch that has a strong emphasis on business services and in- formation communication technology.

Rapid expansion of the telecommunications industry in recent years has resulted in an increasing demand for radio telecommunication services, and new technologies in the cellular phone industry. The location, siting and development of Telecommunication Mast Infrastructure (TMI) continues to be an issue of particular interest to both local communities and local government alike, with debate focusing on adequate availability of connectivity, visual amenity and public health.

Due to improvements in mobile devices (smart phones), the coverage that each mast is able to provide has shrunk. Thus there is continual need to provide more masts as coverage is lost - the distance between the masts is reducing.

Cell phones have become a part of many people's lives. It is increasingly used for daily social media, the internet, media and communication. However, with the increase in TMI in towns across the country concerns are raised regarding the safety of this technology and people are asking how safe these cellular masts are. Stellenbosch is recognised as a town of significant cultural and historic significance and heritage and is highly regarded for its environmental and scenic quality. Concerns raised by the public regarding the location and design of telecommunication mast infrastructure are therefore relevant.

This concern was acknowledged and included in the IDP and SDF which recommended that a policy be drafted to address the issues.

A meeting was held with industry towards the end of 2016 where the need to manage the proliferation, location and design of telecommunication mast infrastructure was discussed. At that meeting it was acknowledged that the policy that guides telecommunication mast infrastructure in the City of Cape Town (CoCT) was efficient and accepted as good practise.

Subsequently approval was obtained for CoCT to use their approved 2015 Telecommunication Mast Infrastructure Policy as a base to develop a local policy. A copy of the Stellenbosch Municipality: Draft Telecommunication Mast Infrastructure Policy is attached as **APPENDIX 1** to the report.

The Director: Planning and Economic Development further requested comment and advice from the Department of Environmental Affairs and Development Planning regarding applications received for the establishment of cellular and telecommunications masts and antennae. The Department's response is attached as **APPENDIX 2** to the report. One of the main concerns that are frequently raised is that of the possible health impacts of such infrastructure. Conflicting information and research creates concern and confusion regarding this important issue. From the attachment an in the draft policy it was made clear that the Department of Health (DoH) applies the exposure guidelines published in 1998 by the International Commission on Non-Ironizing Radiation Protection ("ICNIRP") which is based on the official endorsement of the world Health Organisation. All communication base stations in South Africa are required to conform to the World health Organisation and National Health Department standards with regard to levels of electromagnetic radiation.

3. COMMENT FROM RELEVANT DEPARTMENTS

None required.

SPECIAL MAYORAL COMMITTEE: 2017-05-24: ITEM 5.3.1

RECOMMENDED

(a) that the proposed Draft Telecommunication Mast Infrastructure Policy be noted;

(b) that the Municipal Manager be requested to advertise the draft Telecommunication Mast Infrastructure Policy for public input and comments; and

(c) that, after receiving and considering the input received, the policy be resubmitted to Council for consideration.

TELECOMMUNICATION MAST INFRASTRUCTURE POLICY

DRAFT

2016/17

GLOSSARY, DEFINITIONS AND TERMINOLOGY

Abbreviations

SMIZS Stellenbosch Municipality Integrated Zoning Scheme

DAS Distributed Antenna Systems

DEADP Provincial Department of Environmental Affairs and Development Planning

ECA Electronic Communications Act 2005 (Act 36 of 2005)

ECO Environmental Control Officer

EIA Environmental Impact Assessment

EME Electromagnetic energy

EMP Environmental Management Plan

EMR Electromagnetic radiation

FBTS Freestanding Base Telecommunication Station

ICASA Independent Communication Association of South Africa

ICNIRP International Commission on non-ionizing Radiation Protection.

LUPA Land Use Planning ACT No.3 of 2014.

MFBTS Minor Freestanding Base Telecommunication Station

NBR National Building Regulations and Building Standards Act No.103 of 1977.

NDOH National Department of Health, Directorate Radiation Control

NEMA National Environmental Management Act No.107 of 1998

PED Planning and Economic Development Department

RBTS Rooftop Base Telecommunication Station RF radiofrequency

TMI Telecommunication Mast Infrastructure

TP Telecommunication Provider

Definitions

Antennas means any system of wires, poles, rods or devices, used for the transmission or reception of electromagnetic waves and includes satellite dishes with a diameter exceeding 1.5m. It excludes domestic TV antennas less than 2m in diameter/ height and where the associated antennas mounting structure is less than 3m in length.

Areas of Environmental and Heritage significance includes environmental and heritage resources, including natural and cultural sites, scenic and tourist routes, which are of special value for the benefit of all, and need to be protected.

Stellenbosch SDF means the Spatial Development Framework approved by Council.

Stellenbosch Municipality means the administrative jurisdiction of Council.

Municipality means the Stellenbosch Municipality.

Council means the Municipal Council of the Stellenbosch Municipality and includes anybody or persons empowered by it to assess and resolve on Telecommunication Mast Infrastructure applications.

Distributed Antenna System (DAS) means a network of spatially separated antenna nodes connected to a common source via a transport medium that provides wireless service within a geographic area or structure. A distributed antenna system may be deployed indoors (an iDAS) our outdoors (an oDAS).

Electromagnetic Energy (EME) is a term which includes electromagnetic radiation and applies to all Telecommunication Mast Infrastructure that transmits or receives electronic communication signals.

Environmental Management Plan (EMP) is a contractually binding guideline document for use with the implementation of the construction on a site to manage and mitigate environmental impacts associated with that construction.

Equipment room means a structure to house communication equipment associated with Telecommunication Mast Infrastructure. This can be a separate building or container used exclusively for the equipment or it can be a room within a building.

Freestanding Base Telecommunication Station (FBTS) means a freestanding support structure on land

or anchored to land and used to accommodate Telecommunication Mast Infrastructure for the transmitting or receiving of electronic communication signals, and may include an access road to such facility.

Habitable structure means any structure where people may reside.

MSA means Local Government Municipal Systems Act 2000 (Act 32 of 2000)

Minor freestanding base telecommunication station (MFBTS) means a freestanding support structure on land or anchored to land and used to accommodate telecommunication infrastructure for the transmitting or receiving of electronic communication signals. The telecommunication infrastructure will form part of the base station that may be attached to street lamps, traffic lights, road directional signage, camera poles and flag poles or similar support structure which may not exceed:

- 15m in height measured from existing ground level, or
- 300mm diameter for the post or support structure to which the antenna is to be attached.

A screened container for antennas attached to, or included in the mast may not exceed:

- 500mm diameter
- 2m height

An equipment container may not exceed:

- 1m x 1m x 1m cube above existing ground level.

Modification of Telecommunication Mast Infrastructure means the modification to the physical structure or radio frequency emissions of telecommunication infrastructure.

NBR means the National Building Standards and Building Regulations Act 1977 (Act 103 of 1977)

Rooftop Base Telecommunication Station (RBTS) means a support structure attached to a roof, side or any other part of a building and used to accommodate Telecommunication Mast Infrastructure for the transmitting or receiving of electronic communication signals.

Satellite dish means any device incorporating a reflective surface that is solid, open mesh, or bar configured that is shaped as a shallow dish, cone, horn or other and is used to transmit and/or receive electromagnetic signals.

Scenic Drive Network Plan means as applied to an existing Council approved plan.

Support structures means pole, monopole, guyed tower, lattice tower, freestanding tower or any other tall structure that is designed to accommodate antennas.

Telecommunication Mast Infrastructure (TMI) means any part of the infrastructure of a telecommunication network for radio/wireless communication, including voice, data and video telecommunications that are used in the transmission or reception of electromagnetic waves. This includes the following: Freestanding base telecommunication station (FBTS); Rooftop base telecommunication station (RBST); antennas; any support structure; equipment room (defined); radio equipment (irrespective of spectrum used); and optical communications equipment (laser and infra-red) provided by cellular network operators and any other telecommunication provider as well as all ancillary structures and the associated feeder cables between the communication equipment and the antennas, needed for the operation of TMI.

Telecommunication Network means a system, or series of systems, that carries, or is capable of carrying, communications by means of guided or unguided electromagnetic energy.

Telecommunication Provider (TP) means the holder of a telecommunications licence in terms of the Electronic Communications Act (2005).

Unauthorized person means any person who is not employed by the operator of the infrastructure and who is not trained or conversant with the occupational exposure hazards and precautionary measures required to be taken so as to prevent exposure to Radio Frequency levels that could be harmful to health.

TABLE OF CONTENTS

1 PROBLEM STATEMENT

1.1 Need for this policy review

1.1.1. There is increasing importance of telecommunication to the growth of the economy. This is especially the case in Stellenbosch that has a strong emphasis on business services and in- formation communication technology.

1.1.2. Rapid expansion of the telecommunications industry in recent years has resulted in an in- creasing demand for radio telecommunication services, and new technologies in the cellular phone industry. The location, siting and development of TMI continues to be an issue of particular interest to both local communities and local government alike, with debate focusing on adequate availability of connectivity, visual amenity and public health.

1.1.3. With the nature of technology it must be accepted that the future need for TMI sites will increase in the short to medium term.

1.1.4. Investment in telecommunications networks not only facilitates economic trade in goods, by bringing together buyers and sellers, but more importantly, also promotes trade in services upon which modern economies are built.

1.1.5. There are significant economic benefits of good Telecommunication Mast Infrastructure, but this must be balanced with the fact that Stellenbosch depends on its scenic resources for tourism. The resources therefore also have an economic value, which could be negatively affected by unsightly or inappropriate structures.

1.1.6. The need for the preparation of a Cellular Telecommunication Policy came about, firstly, due to the need to include all TMI into the policy and not focus only on cellular technology and secondly, due to the need to introduce provisions and guidelines on mitigating impacts of this infrastructure.

1.1.7. Many existing installations have been approved on a temporary basis. Their continued operation will at some point require re- consideration of approval. This Policy will provide updated guidelines to be utilized by decision makers within the Municipality in assessing and responding to any application for the right to erect or modify TMI.

1.2 Problem Statements

1.2.1. Most of the original infrastructure was approved as temporary departures.

1.2.2. Masts provide a radio signal which is dependent on line of sight for good reception. The signal becomes weaker with distance or obstructions.

1.2.3. Landlords, topography and demand tend to dictate the location of masts. For example, mountainous areas often require high masts due to the topography.

1.2.4. Due to improvements in mobile devices (smart phones), the coverage that each mast is able to provide has shrunk. Thus there is continual need to provide more masts as coverage is lost - the distance between the masts is reducing.

1.2.5. Cell phone providers are having difficulty accessing suitable land, and there have been problems accessing municipal owned land, even when it is the most suitable location for TMI.

1.2.6. Parastatals such as Telcom, ESKOM and the SABC, who also make use of masts, have traditionally not been subject to approval regulations or the same stringent requirements as private industry.

2 DESIRED OUTCOMES

The overarching premise is to facilitate the growth of new and existing telecommunications systems and facilitate the provision of TMI in an efficient, cost-effective, environmentally appropriate and sustainable way.

The policy aims to:

- Promote economic business activity in the Municipality;
- Give clarity and certainty to the industry and to the general public with regards to acceptable locations and positioning of TMI;
- Provide a comprehensive set of policy guide- lines;
- Improve the quality and efficiency of decision making;
- Improve consistency of decision making though- out all Municipal Districts and Departments and in the setting of conditions for planning applications; and
- Improve awareness and a quicker response to changes in TMI and its related industry.

3 STRATEGIC INTENT

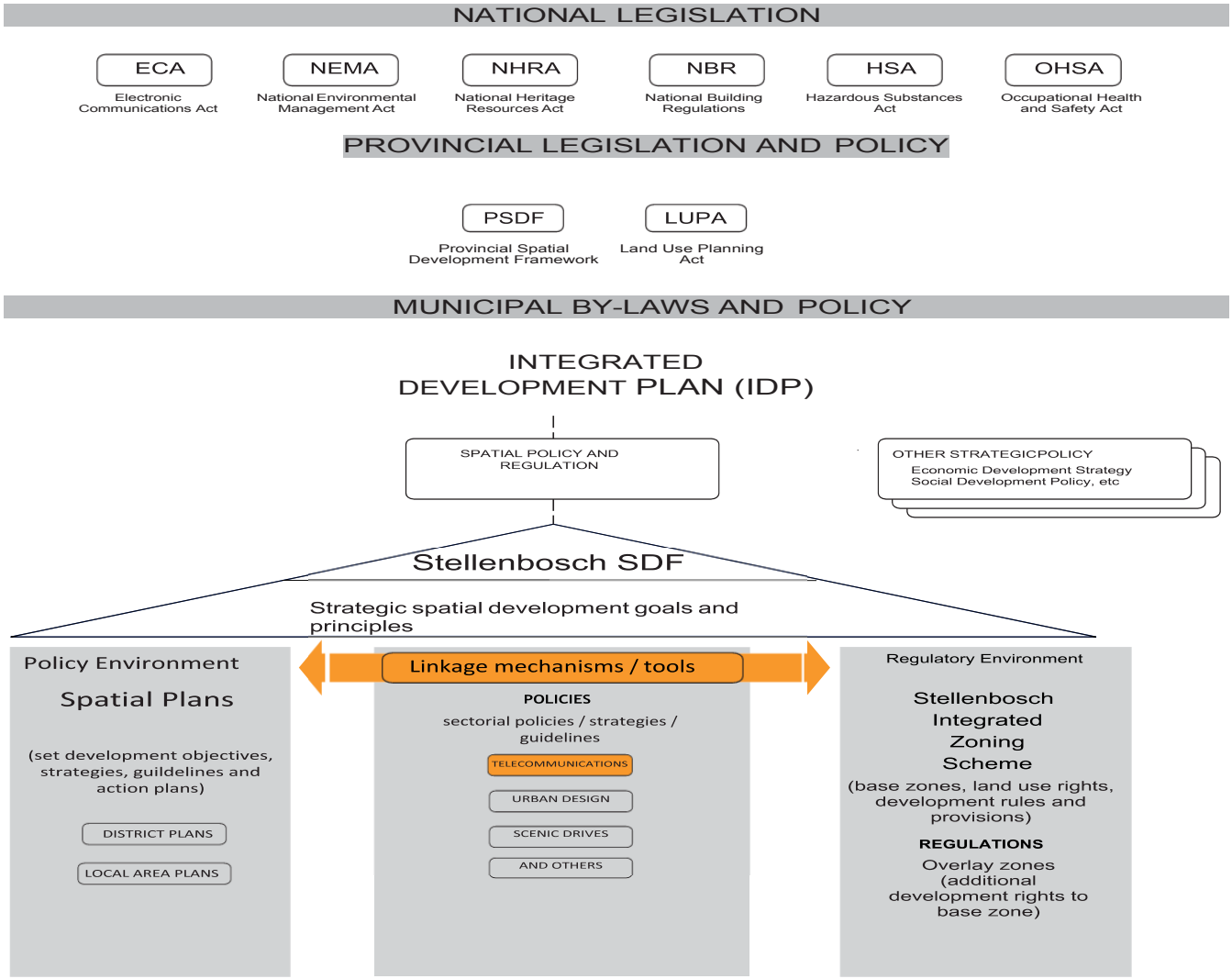
Control over the installation of TMI falls within the ambit of municipal planning, which, in terms of the Constitution is a municipal competency.

In terms of the MSA and the Constitution, Council must satisfy itself that it is addressing its responsibly, inter alia, its duties towards its community placed upon it by such legislation in this case its obligation to provide a safe and healthy environment and to promote the economic wellbeing of the municipal area. Seen in this context, Council has a responsibility to its community to develop and apply policy around TMI.

The policy falls within Strategic Focus Area 1: The opportunity Municipality: Programme 1.1(e): Planning and regulation programme: Supportive legal frame-works. It serves to support other policies while dealing with TMI in detail.

Optic Fibre installations, Point to Point copper (cable) installations, and undersea cables are excluded from this Policy.

The implementation of the Policy will aid the development of a Municipality with ***opportunities*** which are ***well run***, ***safe*** and ***inclusive***.



4 POLICY PARAMETERS

The policy applies across the Stellenbosch Municipality.

The Policy contains information which can assist applicants when preparing an application regarding the siting and design of TMI and information required on submission. The Policy should be consulted by TP's in both the initial planning of their telecommunications networks and prior to submission of applications of TMI for planning approval. Attention to the Policy will reduce the prospect of ill-conceived applications being submitted to the Municipality. It will also minimize delays involved in subsequent assessment and determination of applications.

The two overriding concerns of the broader public, namely, potential visual impact and possible impact on human health and wellbeing from EME emissions are addressed. The approach taken is to protect the visual character and amenity of the Stellenbosch Municipality as far as possible, and to minimize the health risks (known / potential and perceived) associated with EME, in line with the Municipality's mandate.

The responsibility for regulation and control of EME lies with the National Department of Health (see "Annexure 7: Letter from the National Department of Health" on page 46).

This policy will not affect TMI that has been lawfully approved, unless the approval lapses and a new application is to be made.

4.1 Visual Impact

Council encourages sensitive siting, design and co-location or sharing of TMI so as to minimize impact on its surroundings.

The Policy seeks to strike a balance between erection of necessary TMI development on the one hand, and the conservation of visual, tourist, traffic safety, environmental and heritage characteristics on the other hand. The objective of this Policy is to ensure that placement of the TMI respects the integrity of any site on which it is erected and that it does not detrimentally affect the character of the locality in which it is displayed. TI should be placed where they are most compatible with the surrounding locality and where they impact as little as possible on visual corridors or scenic drives.

4.2 Health Impact

The Municipality takes guidance from the NDOH who have adopted the ICNIRP public exposure standard (See Annexures "A6.4 Guidelines for safe exposure to RF radiation" on page 43 and "Annexure 7: Letter from the National Department of Health" on page 46). This policy, must adopt a precautionary approach by the insertion of certain additional provisions and requirements (see "Objective 10. To protect the health, safety and wellbeing of the inhabitants of Stellenbosch" on page 24).

The cellular network provider or network provider shall at all times be required to comply with the requirements of the NDOH and the ICNIRP on nonionizing radiation protection with respect to safety standards.

4.3 Services Impact

Most underground infrastructural services are located within Councils road reserves. Historically some service providers, and particularly Telkom, installed services in an ad hoc manner. Many of the Municipality's road reserves do not have an accurate record of the type and location of these services.

Any proposals to consider additional infrastructure (including the base plinth) for TMI need to take cognisance of the logistical difficulties that may arise as a result of this uncertainty of services location.

5 ROLEPLAYERS AND STAKEHOLDERS

The Telecommunication Mast Infrastructure Policy has been written for TPs, built environment professionals and municipal officials involved in the design, assessment and implementation of development proposals. It will be used primarily by the Stellenbosch Municipality's Planning and Building Development Management Department (PBDM) to facilitate their statutory development control functions. The powers and functions of these departments are captured in the system of delegations granted by Council to act on its behalf.

All applicable Municipal Departments will use the policy to comment on applications in support of the functions of the regulatory departments.

The TMI industry is a key role player and they not only need to continue developing new technology, but also need the legislative framework in which to operate within the law.

6 REGULATORY CONTEXT

6.1 Statutory Framework

6.1.1. Compliance with the Electronic Communications Act (36 of 2005). ICASA regulates all forms of TMI and the issue of approvals and licenses. Documentation may be required showing that transmitting power levels are in compliance with ICASA licence conditions. The NDOH, has the mandate and the responsibility to administer the provisions of the Hazardous Substances Act (Act 15 of 1973) with respect to Group III (electronic products) and Group IV (radionuclides) hazardous substances. Devices and facilities which produce non-ionizing radiation and which are included in the Schedule of Listed Electronic Products as contained in Regulation R1302 (14 June 1991), are regarded as having been declared Group III hazardous substances, and as such all the relevant provisions of the Hazardous Substances Act apply to them, i.e. the NDOH is the legally mandated national authority for the regulation of public exposure to radiation and related matters and endorses the safety standards for public exposure as set by IC-NIRP.

6.1.2. National Environmental Management Act (Act 107 of 1998 as amended) and the Amended Environmental Impact Assessment Regulations, 18 June 2010 (GN543), (Listing Notice 3, GN546): The DEADP is the competent authority to authorize the construction of masts or towers of any material or type used for telecommunication broadcasting or radio transmission purposes in a) estuaries b) rural areas and c) urban areas that are outside commercial and industrial areas, where the TMI is to be placed on a site not previously used for this purpose, and where the TMI will exceed 15 metres in height, excluding attachments to existing buildings and masts on rooftops. Construction activities that may be required for TMI installation may also trigger other listed activities in terms of this Act.

6.1.3. The NBR and the regulations thereunder, particularly Section 7 of the Act, requires Council to be satisfied that buildings or structures are not dangerous to life or property. Other provisions in the Act are that the buildings / structures must not disfigure the area, that they must not be unsightly or objectionable, and that they must not derogate from the value of adjoining or neighbouring properties. TMI such as FBTS is considered to be a structure as defined in the NBR and will therefore

Table 1: Zones that allow TMI as primary use, additional use or with the consent of Council

Zone	Primary Use	Additional Use (SDP)	Consent use
Multi-Unit Residential Zone			Rooftop
Local Business Zone			Rooftop
Industrial Zone	Rooftop		Freestanding
Education Zone			Freestanding and Rooftop
Community Zone			Freestanding and Rooftop
Utility Services Zone	Rooftop		Freestanding
Transport Facilities Zone		Rooftop	Freestanding
Public Roads and Parking Zone		Rooftop	Freestanding
Public Open Space Zone			Freestanding and rooftop
Private Open Space Zone			Freestanding and rooftop
Agriculture and Rural Zone		Rooftop	Freestanding
Natural Environment Zone			Freestanding and rooftop

Note that the content of this table is subject to change should the bylaw be amended

require approval in terms of such Act by Council.

6.1.4. Section 34 of the National Heritage Resources Act (Act 25 of 1999) requires a permit for any alteration or new addition to a building older than 60 years, S27 requires a permit for provincial heritage sites, including former national monuments and S38 requires a permit for development which would change the character of certain classes of sites.

6.1.5. The Stellenbosch Municipality Integrated Zoning Scheme permits FBTS and RBTS as a primary or additional use in certain use zones. The scheme also permits with Councils consent both the above in certain zones (see Table 1). Council must also have regard to permitting these base stations in terms of various overlays in the Zoning Scheme Regulations, present and future.

6.2 Council approvals required

6.2.1. Land use management within the jurisdiction of the Stellenbosch Municipality is governed by its Zoning Scheme approved in terms of the LUPA. The Stellenbosch Municipality Integrated Zoning Scheme permits RBTS and FBTS as a primary or additional use in certain zones. The scheme also permits with Councils consent BST's in certain zones.

6.2.2. Where the permitted use is silent in the scheme, a temporary land use departure can be applied for, for a limited period of time.

6.2.3. Applications will be advertised in accordance with legislative requirements together with Council's Notification Policy for Land Use Development Applications.

6.2.4. The erection of TMI is also controlled by the NBR. In this Act, a building includes "any other structure erected or used for or in connection with the rendering of a service". Plans for TMI must therefore be submitted to Council for approval.

6.2.5. Other approvals or checks may be required in terms of any other relevant municipal Bylaws.

6.3 Accommodation of MFBTS in the SMIZS

In terms of section 3.2.8 of the SMIZS a special use is a use that is not defined or provided for in the zoning scheme regulations, and may be so classified and permitted in any zone with the approval of Council.

It is proposed that MFBTS be included in the SMIZS as a consent use and permitted in the following zones:

- Multi-Unit Residential Zone
- Local Business Zone
- Industrial Zone
- Education Zone
- Community Zone
- Utility Services Zone
- Transport Facilities Zone
- Public Roads and Parking Zone
- Public Open Space Zone
- Private Open Space Zone
- Agriculture and Rural Zone
- Natural Environment Zone

- Stellenbosch Municipality Integrated Zoning Scheme
- National Building Standards and Building Regulations Act 103 of 1977
- Electronic Communications Act (36 of 2005)
- Hazardous Substances Act (Act 15 of 1973)
- National Environmental Management Act (Act 107 of 1998 as amended)
- National Heritage Resources Act (Act 25 of 1999)

7 POLICY OBJECTIVES AND GUIDELINES

The objectives and guidelines of the policy as presented in the next pages must be taken into account in the assessment of all applications received for TMI in the Stellenbosch Municipality.

The Policy addresses 6 issues, namely,

- Economic considerations;
- Site selection and co-location;
- Visual impact, landscaping, public amenity;
- Impact on areas of environmental and heritage significance;
- Impact on existing services and utilities; and
- Public health and safety.

Municipalities are authorized to make policies and bylaws to regulate matters which are within its competency to administer.

The following TMI may be erected after approvals are granted without having to comply with the pro- visions of this Policy:-

- Temporary installations that provide additional telecommunications coverage at public events, such as sports events or cultural festivals (limited to the duration of the event).
- Replacement of support structures only, for purpose of co-location of TMI if the replacement structure is not more than 5 metres higher than the original approved structure it replaces and the TMI that it supports does not protrude more than 0.5 metres from the face of the structure. This does not apply to structures with no previous required approvals, nor to the replacement of outdated/faulty equipment.

Each issue gives rise to a number of objectives which strive to address the issue. Each objective includes guidelines on how this should be done.

THE OBJECTIVES MUST BE READ HOLISTICALLY WITH EACH OTHER AND WILL BE ASSESSED AS A WHOLE.

Application of the Policy

- Applications for TMI must be considered i.t.o. this Policy and all information required in “Annexure 2: Requirements for submission” on page 34 and “Annexure 3: Information to be submitted with applications” on page 36 to this policy must be submitted with an application for TMI.
- The objectives, guidelines and requirements laid down in this policy shall serve as a guide- line for decision making by the municipality which involve the construction or modification of TMI on any land within the jurisdiction of the Stellenbosch Municipality
- Each application for a TMI will be considered on its own merits and within the guidelines of this Policy.

OBJECTIVE 1: TO IMPROVE AND MAINTAIN COMMUNICATION

Telecommunication networks not only facilitate economic trade in goods, by bringing together buyers and sellers, but more importantly, also promote trade in services upon which modern economies are built. It can thus be seen how important communication can be for economic growth. Communication is the root of all events, daily interaction, social affairs and anything that requires the purpose of human dealings.

OB.1.1. The telecommunications network should be as comprehensive and accessible as possible.

OB.1.2. Use TMI to enhance people's experience of the municipality (both residents and tourists), and allow them to remain connected.

OB.1.3. Use the TMI to increasingly become a:

- Valley of Possibility
- Green and Sustainable valley
- Safe valley
- Dignified Living
- Good Governance and Compliance

OBJECTIVE 2: TO INSURE THAT THE TMI IS PLACED IN THE BEST POSSIBLE LOCATION

The coverage area that TMI can reach needs to be maximized while at the same time it must be ensured that the siting is compatible with adjoining land uses and permissible land uses, that the receiving environment and heritage value (natural and built) is not adversely affected, and that negative visual impacts and impacts on human health and wellbeing are minimized. Well sited TMI will reduce the mitigation measures that are needed.

OB.2.1. Subject to all other relevant criteria TMI should preferably be located within areas where they have the least visual impact.

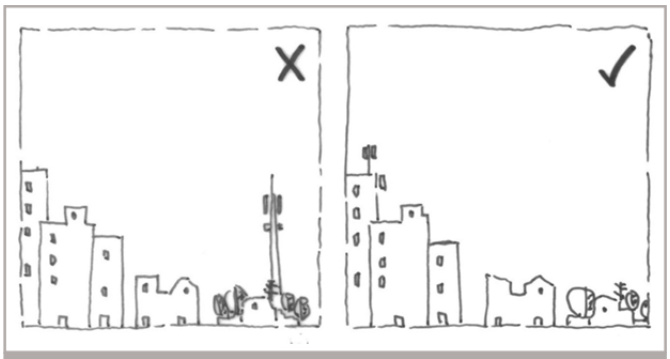
OB.2.2. TMI should when developed within or abutting an area of environmental or heritage significance be located and positioned on the property where it will have the least impact on the surroundings.

OB.2.3. All possible site location alternatives should be explored early in the planning process in order to minimize the impact of the TMI, rather than relying only on mitigation measures to reduce the impact.

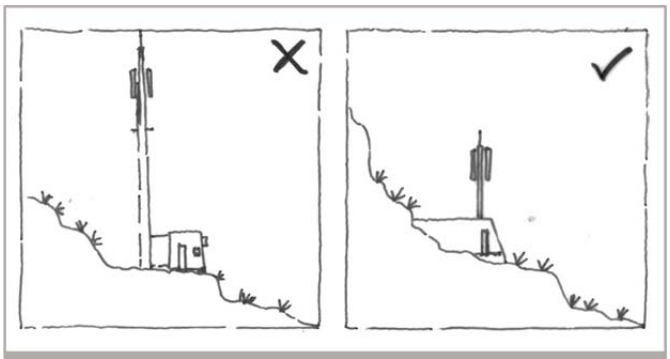
OB.2.4. In open areas, avoid placing TMI in visually sensitive zones see “Factors affecting visual sensitivity” on page 15, such as:

- On highly visible skyline locations, such as ridges and coastal promontories;
- In stark open fields, particularly on hill crests – rather relate the mast to other structures or clumps of trees in the area.

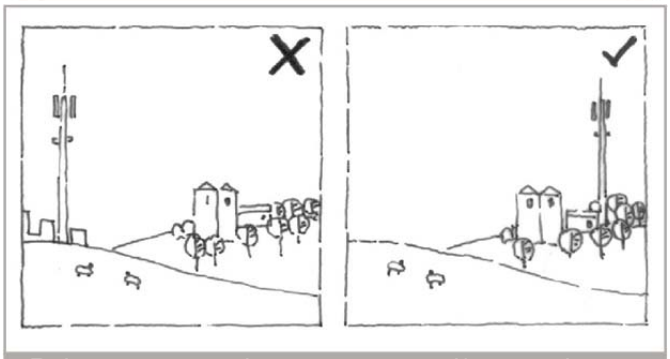
OB.2.5. Using existing structures to accommodate TMI is encouraged (if this does not conflict with any other legislation), for example, on tall buildings, utility poles, light masts, billboards and existing tall structures. (See “Objective 9. Where possible TMI should be placed on other structures such as light posts, road signs etc.” on page 23)



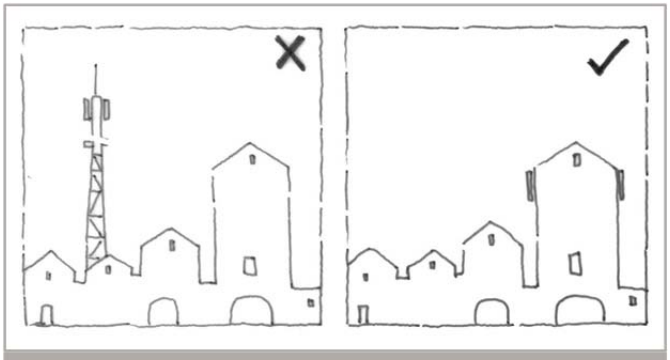
Locate TMI within industrial, commercial or business areas where possible



Avoid masts and structures on the skyline



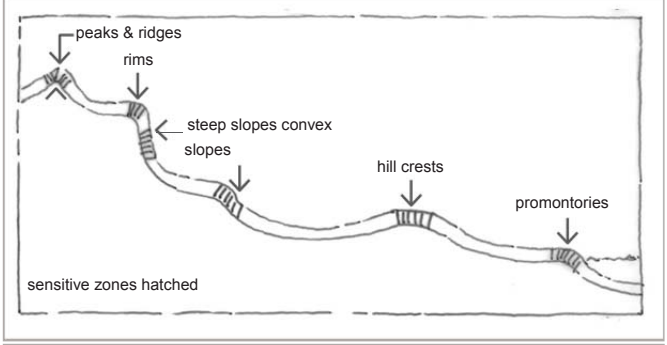
Relate masts to other structures and/or tree clumps



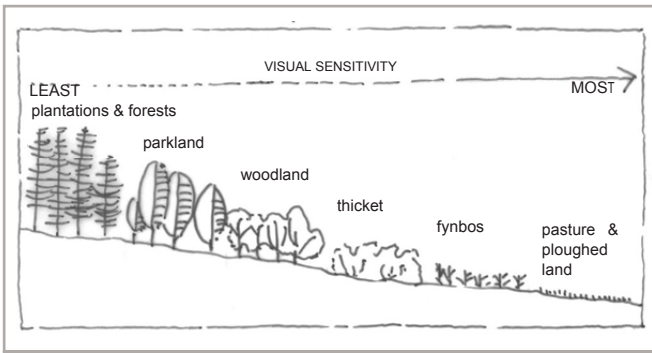
Use existing structures to accommodate TMI wherever possible

Factors affecting visual sensitivity

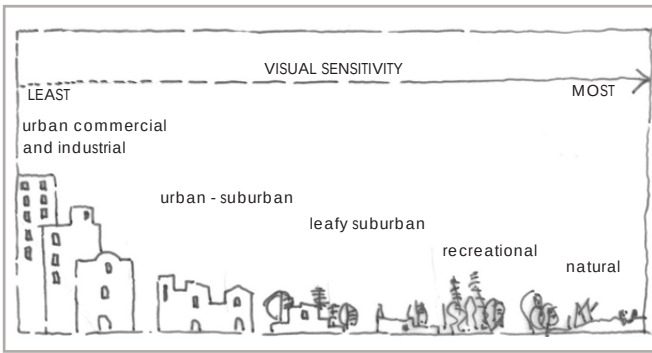
- The landscape or townscape can be seen to have varying levels of visual absorption capacity. This existing visual impact is largely dependent on landforms, land cover (vegetation), and land uses.
- Landforms such as peaks, ridges, spurs, promontories, rims, convex slopes and steep gradients, for example, tend to be more visible and therefore more visually sensitive.
- Land with low cover, such as ploughed fields or low fynbos vegetation provide less visual absorption than thickets or wood- land. Plantations, shelter belts and park- land tend to have the tallest canopy, al- though plantations may be temporary, if harvested.
- Land uses such as open playing fields or low density residential areas tend to be more visually exposed than commercial or industrial areas with large buildings.
- Visual sensitivity is related to the degree of naturalness of an area. For example, pristine areas are more scenically valuable than disturbed or urbanized sites. Generally the sensitivity scale ranges according to the wilderness, rural or urban character of the landscape.
- The uniqueness of an area, or the protection it is afforded must also be considered. Nature reserves, scenic drives, national monuments, heritage sites and historical areas would all heighten the sensitivity of an area.
- Special features, view sites and places of interest further influence visual sensitivity at a micro scale.



Visually sensitive landforms



Land cover and visual absorption capacity



Land use and visual absorption capacity

OBJECTIVE 3. TO ENSURE THE CO-LOCATION OR SHARING OF TMI WHEREVER POSSIBLE

It is necessary to effectively and efficiently use existing infrastructure and minimize visual clutter. Competing TMI sites across the municipality will therefore be discouraged.

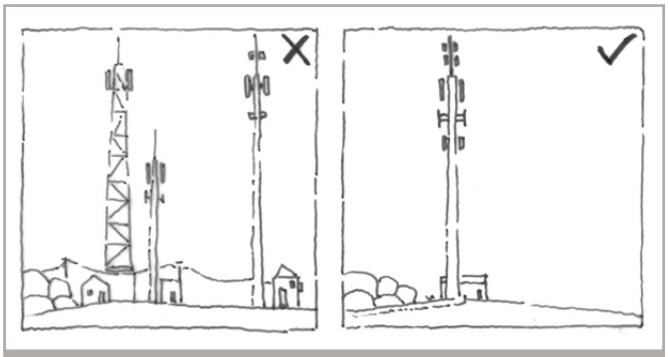
OB.3.1. Existing and future potential for co-location of TMI needs to be considered.

OB.3.2. In any application, the benefits of co-location shall be weighed up against any possible negative effects, i.e., co-location should not be adhered to at the expense of all other considerations. These could include:

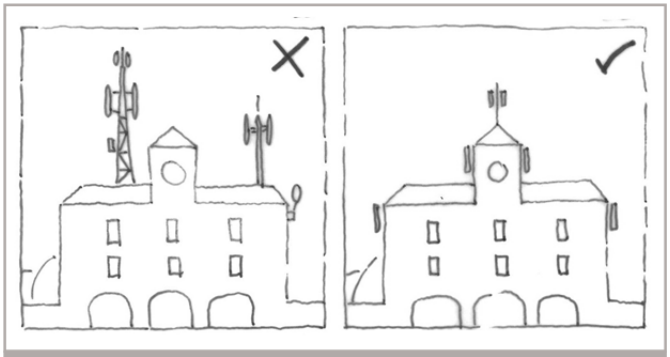
- a possible increase of support structure height needed to accommodate the other providers that may be visually un-acceptable;
- a possible increase of power output from one location;
- physical and technical limits to the loads that a support structure is able to support; or
- planned Radio frequency (RF) cover- age may not be achieved by a particular TP at a certain location.

OB.3.3. The siting and design of TMI and ancillary facilities should be integrated with existing buildings and structures, unless it is impracti-cal to do so, in which case they should be sited and designed so as to minimize any adverse impact on the amenity of the surrounding area.

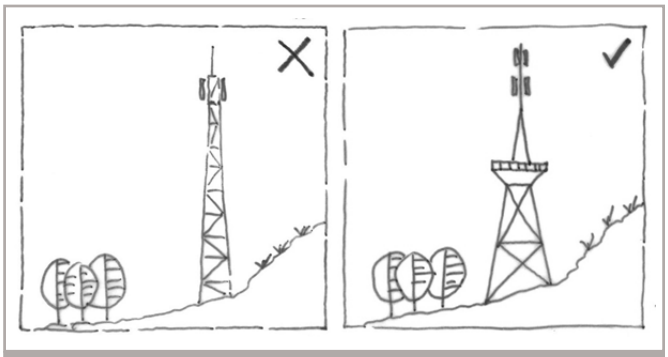
OB.3.4. Consider the possible multiple use of masts for landmark structures etc. Take the particular needs and character of the area into account.



Design masts for sharing



Integrate the TMI with the existing structure or building wherever possible



Masts could become viewing towers

OBJECTIVE 4. TO RETAIN THE VISUAL INTEGRITY, SPECIAL CHARACTER AND AMENITY OF THE STELLENBOSCH MUNICIPALITY

Proliferation of TMI could result in visual clutter which would be detrimental to Stellenbosch's built and natural environment. The visual impact is especially important in natural open environments or on ridge lines. TMI should be integrated into the landscape (whether rural or urban) to be as visually unobtrusive as possible.

OB.4.1. TMI should be designed, sited and integrated with existing infrastructure to minimize any potential adverse visual impact on the character and amenity of the local environment, in particular, impacts on prominent landscape features, buildings, general views in the locality and individual significant views.

OB.4.2. Attention must not only be paid to the de- sign of masts, but also to the treatment of ancillary structures and mechanical equipment. Access roads, power lines and fencing will all be assessed.

OB.4.3. TMI must be designed to minimize, mitigate or avoid adverse impacts on the visual character and amenity of residential areas.

OB.4.4. The obstruction of or detraction from views of significant vistas, significant landmarks or elements of the cultural landscape should be avoided.

OB.4.5. TP's must motivate their choice of support structure, which should blend into the sur- rounding environment as far as possible.

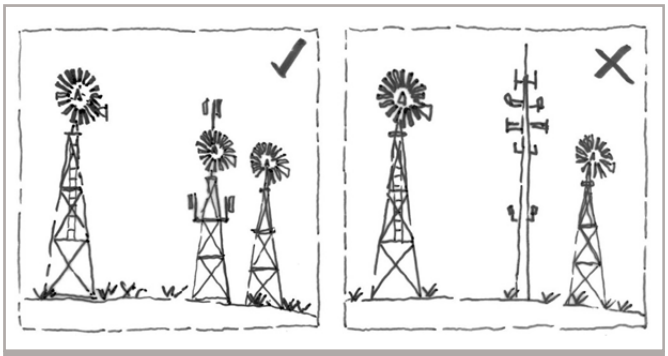
OB.4.6. In the event that a container is used as an equipment room on a rooftop, such container must be set back as far as possible from the edges of the roof so as not to be visible from street level.

OB.4.7. Cables should be placed underground, unless it is impractical to do so and there would be no significant effect on visual amenity.

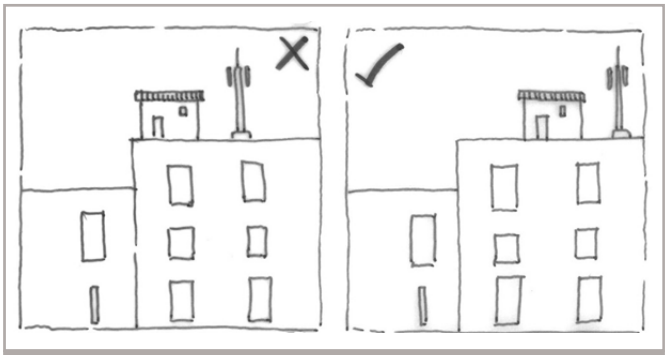
OB.4.8. Newly constructed access roads or other parts of the TMI site, as deemed appropriate, should be landscaped to Council's satisfaction.

OB.4.9. Advertising signs of any type require approval in terms of the Stellenbosch Municipality Outdoor Advertising and Signage Bylaw. Signage should be limited to small signs, if approved in terms of the relevant By-law and not larger than 0,2m², displayed at ground storey level needed to identify the site/property/owner, as required, and those needed at ground storey level to warn of any danger, to Council's satisfaction.

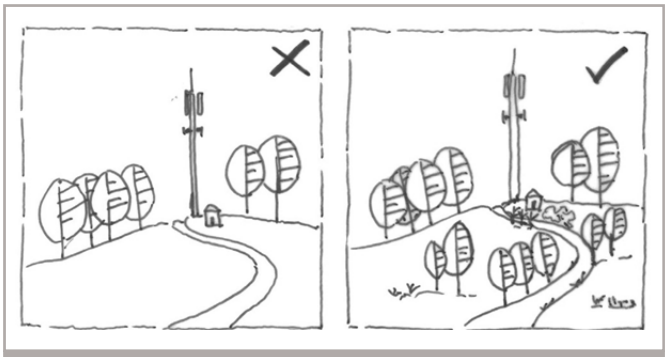
OB.4.10. Lighting should be energy efficient, fully shielded and tilted downwards and screens should be placed around these lights to prevent vandalism. Any such measures are required to be indicated on the TMI Plan that is submitted on application.



Site to minimize adverse visual impacts



Set the equipment room as far back as possible on a rooftop



Access roads should be landscaped

OBJECTIVE 5. TO DESIGN WITH THE LANDSCAPE AND USE MODERN MITIGATION MEASURES TO REDUCE IMPACT

The TMI should be placed and designed to respond appropriately to the surrounding landscape. Mitigation measures should be appropriate to each particular landscape and incorporated into the design.

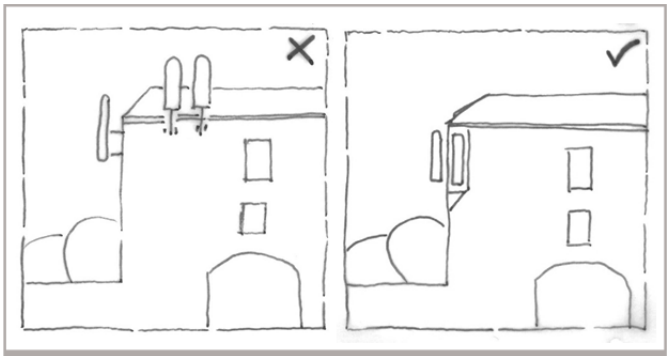
OB.5.1. Design and siting of TMI should be integrated as far as possible with the building or support structure to which it relates. TMI such as antennas should not merely be hung off the side of a building, or be attached so as to protrude above the top of the roof/apex of a roof, but should form an integral part of the building as a design element. For heritage areas, buildings older than 60 years and other heritage sites, the integrity of the heritage must prevail in the design and siting of TMI.

OB.5.2. Techniques which may be used to minimize adverse visual impacts for RBTS include: adjustment to the overall size (height and scale); colour/cladding to match adjacent walls, i.e. complementing facade treatment so as to maintain visual balance; creating an architectural feature such as a spire, column and finialand screening to minimize visibility of the facility from adjacent areas.

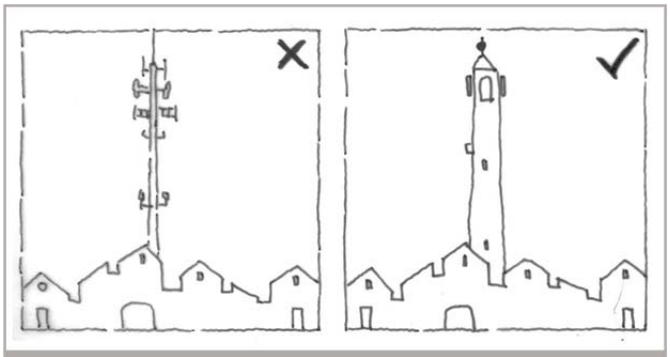
OB.5.3. In the case of FBTS, design measures to mitigate visual impact are in some cases the same as those referred to above, and include: adjustment to the overall size (height and dimension); colour coding to match the predominant background (e.g. sky, vegetation); designing the infrastructure as a work of urban art/as another structure (e.g. flagpole, signpost, tree); picking up on a fencing style/type of roof pitch and repeat this for the equipment room; if there are boulders on site use stone cladding for the equipment room.

OB.5.4. The equipment room should be walled or fenced as appropriate in the context (metal, stone, wood or brick) or housed in a specially designed building to match other buildings on the site.

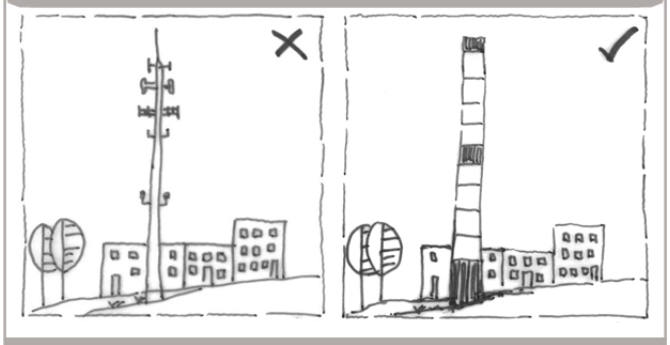
OB.5.5. TMI support structures should preferably be located where vegetation (trees), landforms or other features of a site will adequately screen or reduce the impact of the TMI from public



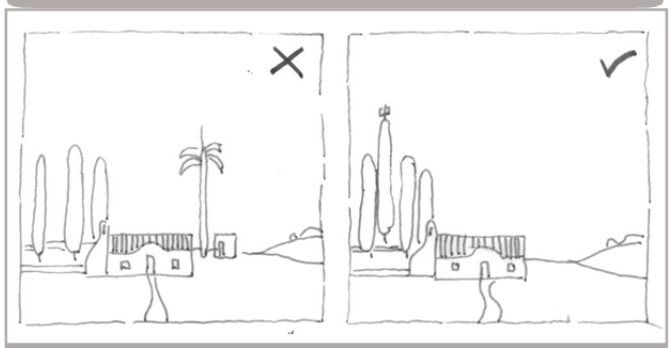
Integrate TMI with the building or support structure to which it relates



An architectural feature can be created on the building or in the landscape



The TMI can be designed as a work of urban art/furniture



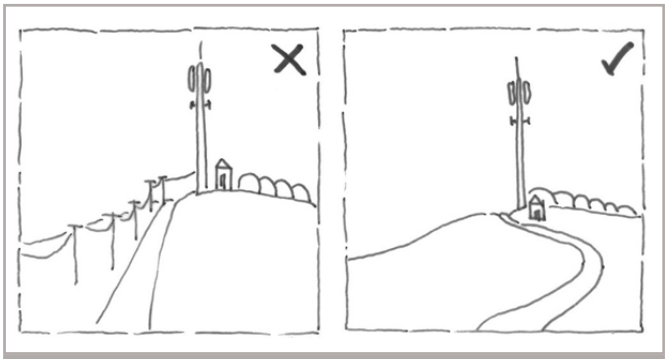
Avoid inappropriately disguised masts

areas and reduce the visual impact. Landscaping/tree planting and maintenance thereof can be requested by Council as a measure to reduce the visual impact of TMI, even if only to screen the base of any towers and ancillary structures, and to draw attention away from the structure.

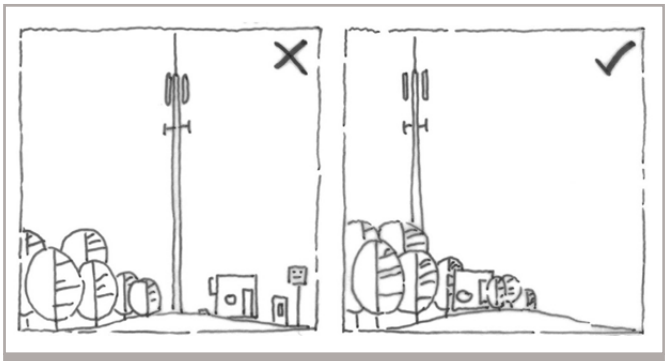
OB.5.6. Measures such as concealment, colour and appropriate finishes and camouflage should be used, where appropriate, to minimize the visual impact.

Mitigation guidelines

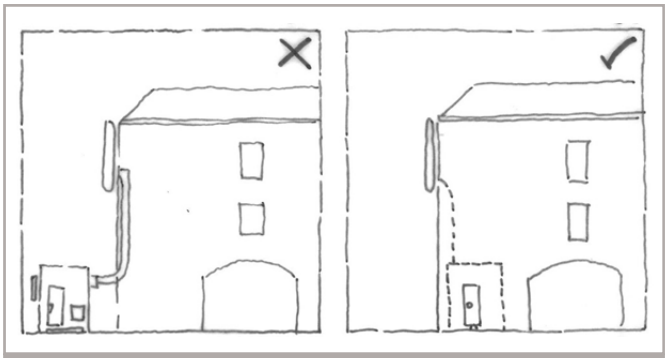
Site or property characteristics	Mitigation guidelines
Existing fences with a common style or predominant colour that are a positive feature in the landscape.	The fence around the base station site must match the style and colour of the other fences.
Walls as a positive feature in the environment.	The wall around the base station site must match the style and colour of the surrounding walls.
Existing buildings have an architectural theme.	Any structures built must respond to this theme.
Open or exposed locations where the background is mostly sky.	Any structures should be left unpainted in a galvanized finish.
Existing buildings with one or two predominant colours or design elements. e.g. a brick building with a pitched roof.	Any structures should be painted from the same palette of colours. If the equipment room cannot be housed within an existing building, then its architecture must respond to the predominant design elements.
An open space or natural area	If possible equipment container and mast must be camouflaged physically within the environment - camouflage structures (trees, rocks) or painted a suitable natural colour.
Residential areas where trees are an important land- scape feature	Camouflage support structures as trees that are appropriately part of the local landscape.
Residential areas with few trees	Place TMI on existing street features such as
Urban areas	Incorporate TMI into existing buildings wherever possible.



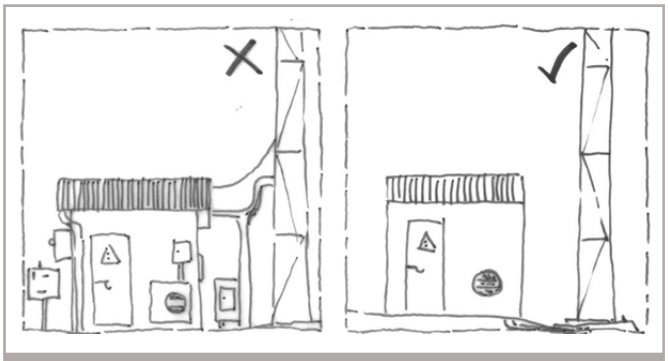
Site new road appropriately in the landscape



Locate TMI where trees or other landforms will mitigate the impact



Avoid external containers and ducts



Accommodate mechanical equipment in container

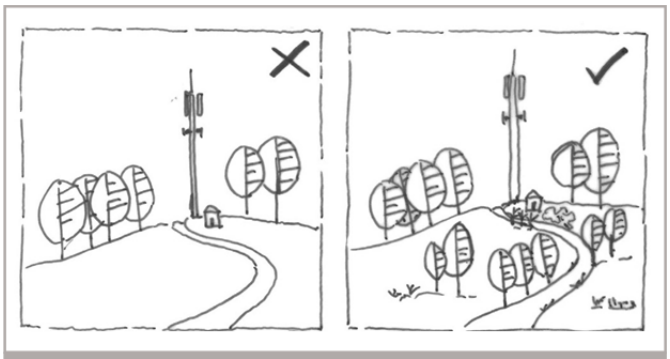
OBJECTIVE 6. TO RETAIN AND IMPROVE THE ENVIRONMENTAL AND HERITAGE QUALITY OF THE PUBLIC ARENA

Appropriate landscaping around TMI and associated facilities should be implemented, for example, greening or softening or screening of impacts through the provision of planting, landscaping or providing public facilities or amenities. It should be ensured that TMI is sited with minimal need for tree and plant removal.

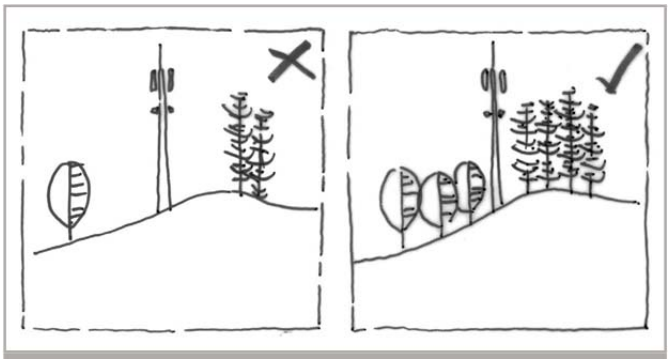
OB.6.1. Newly constructed access roads or other parts of the TMI site, as deemed appropriate, should be landscaped with plants, trees and ground covers to minimize visual impacts.

OB.6.2. Where power to a base station site is required and excavation works are undertaken, the removal of mature trees or vegetation should be avoided as far as possible.

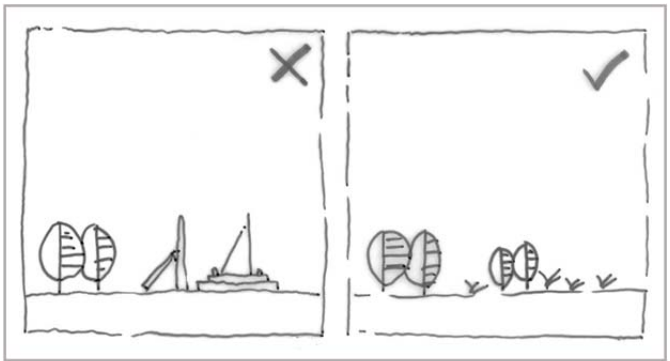
OB.6.3. On termination of use of TMI, the TP will be requested to remove all equipment from the site including the access road (if no longer needed) and the area should be rehabilitated to the satisfaction of Council. Council may impose conditions regarding post-decommissioning rehabilitation of the site.



Landscape new TMI sites appropriately



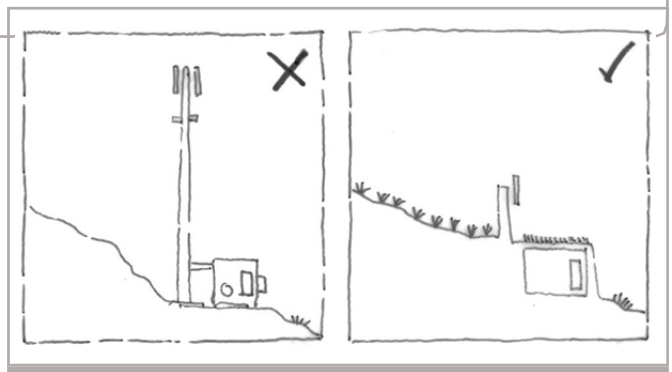
The removal of mature trees or vegetation should be avoided as far as possible

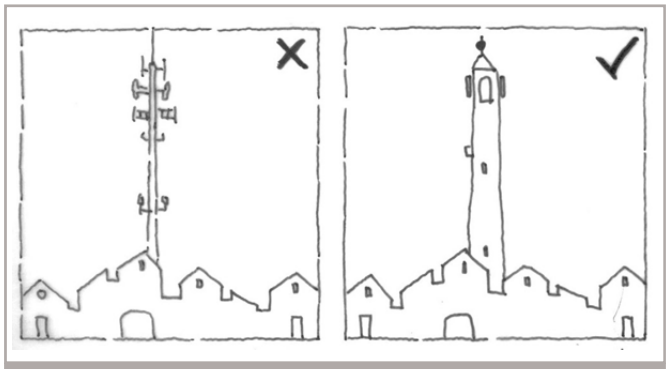


All equipment to be removed from site on the termination of TMI

OBJECTIVE 7. TO PRESERVE AREAS OF ENVIRONMENTAL OR HERITAGE SIGNIFICANCE

Environmental and heritage areas are of great importance to Stellenbosch and need to be sensitively treated. The visual impacts tend to be much higher in these areas, and if siting in this kind of area is unavoidable, then it must be ensured that the location and design of the TMI is done in such a manner that the integrity of the landscape or resource is retained by the appropriate mitigative measures to minimize negative impact.





In heritage areas, all structures should be in keeping

OB.7.1. The erecting of TMI in areas of environmental or heritage significance where it can be viewed to or from the site, with adverse impacts on the environmental or heritage resource should be avoided as far as possible. If this is unavoidable for network and technical reasons, the requirements in" Annexure 2: Requirements for submission" on page 34 must be satisfied.

OB.7.2. Environmentally sensitive construction methods must be employed in the construction of a TMI site so that the natural habitat is not disturbed. Any disturbance to the natural habitat must be rehabilitated.

OB.7.3. Surrounding vegetation is to be retained as far as possible. Any proposed removal of trees and vegetation is to be shown on the submission of the site plans and is to be approved by Council prior to removal.

OB.7.4. In heritage areas, masts, structures, fences, etc. should be in keeping with the character of the area.

Typical areas of significance

1. Land zoned Public Open Space.
2. Large boulders/rocky outcrops on the site.
3. Site abuts vacant/open space/public passage.
4. Site abuts or is within a conservation/nature area. or place with National/Provincial/Local protection status.
5. River/stream/watercourse/drainage channel on or within 32m of the site.
6. Wetland/dam/water body/marshy area/high water table on or within 32m of the site.
7. Site that naturally stays filled with water in wintertime.
8. Floodplain of a river/wetland (within 1:50 year floodline/1:100 year floodline).
9. Coastline, beach or within 100m of the high water mark of the sea.
10. Coastal dunes, Coastal forests/thickets on the site.
11. Site outside or abutting the urban edge or constituting the last row of properties on a mountainside, rural/smallholding edge/horticultural area.
12. Steep slopes greater than 1 in 3.
13. Site abuts/is within a scenic drive/reserve.
14. Significant tourism gateways/viewing platforms/ vantage points/vistas.
15. Old Oaks, Stone Pines, gum tree avenues or similar Historical plantings on site (tree avenues/hedges).
16. Mature (trunk circumference of an adult's arm's length) trees on site (indigenous or alien).
17. Cultural landscapes, historic farms, historical plantings on site (tree avenues/hedges).
18. Existing Buildings/any part of a structure older than 60yrs.
19. Existing building/site which is a National monument/ provincial heritage site.
20. A declared/proposed Urban conservation area or heritage area/zone.
21. Special Areas eg Nature Reserves.
22. Surveyed heritage areas.
23. Graves/burial grounds/cemeteries on the site.
24. A place of known social/cultural significance, for example, certain places of worship, a male initiation site, a place of oral traditions/stories/legends, struggle history, slavery.

OBJECTIVE 8. TMI MUST BE SITUATED AND OPERATED IN A MANNER SO AS NOT TO INTERFERE WITH ANY OTHER UTILITY FUNCTIONS

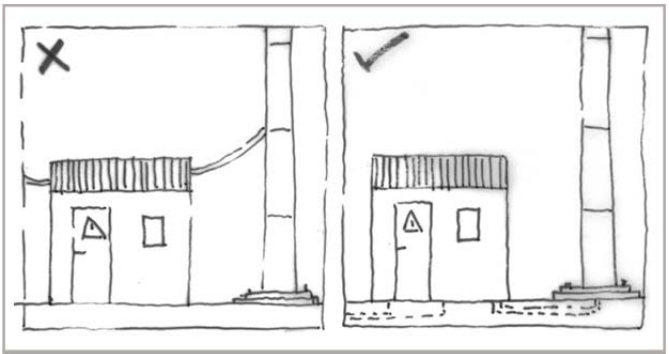
It is important that the existing and future planned utility services are not affected by additional infrastructure

OB.8.1. Electricity supply to TMI must, where practically possible, make use of underground cables. All electrical installations must be as per ESKOM or Stellenbosch Municipality Electrical Department requirements and standards. RBTS sites should have cabling placed in a properly sealed metal channeling.

OB.8.2. Power supply to TMI sites must not interfere with existing radio equipment installed in the vicinity.

OB.8.3. If existing electricity supply to the site is not sufficient, the use of solar energy should be considered.

OB.8.4. Any interference that TMI may have on satellite or television reception must be investigated by the TP, and in the event that the fault lies with the TMI, the TP shall rectify the matter at own cost.

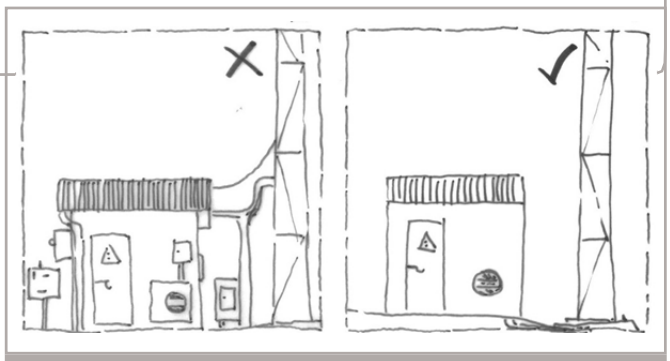


Electricity supply must, wherever possible make use of underground cables

OBJECTIVE 9. WHERE POSSIBLE TMI SHOULD BE PLACED ON OTHER STRUCTURES SUCH AS LIGHT POSTS, ROAD SIGNS ETC.

New technology has allowed small panels to be placed on normal street utility poles; this is called Distributed Antenna Systems. Although they need to be placed on a number of poles, there is no additional visual impact.

Before the responsible Road Department can consider new cabling and base plinths in road reserves, it will be necessary for the identification of all existing services in the vicinity of the proposed new location. Thereafter it will be dependent upon the service departments being able to accommodate the infrastructure and supporting network in the road reserve without compromising service delivery in respect of other services.



All mechanical equipment should be placed within the structure

OB.9.1. TMI lines and cables should be located within existing underground conduits or ducts.

OB.9.2. If a base station is needed; it should be sensitively sited with little impact on its surroundings.

OB.9.3. All mechanical equipment should be placed within the base station.

OB.9.4. Distributed Antenna Systems, when placed on normal street utility poles, will not be considered a land use activity.

For examples see "A1.3 TMI placed on other structures including utility structures" on page 32

OBJECTIVE 10. TO PROTECT THE HEALTH, SAFETY AND WELLBEING OF THE INHABITANTS OF STELLENBOSCH

The safety of the population has to be protected with regard to permissible EME levels as well as making sure that the security is sufficient so that no unauthorized entries that could lead to people being injured can occur.

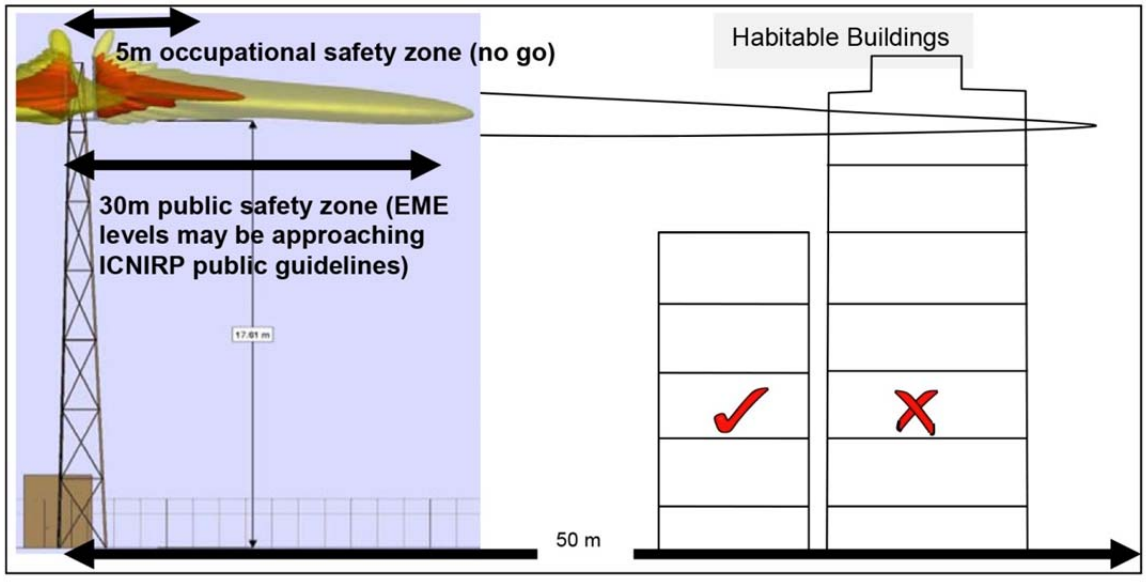
OB.10.1. Public access to TMI installations must be restricted in an appropriate manner (e.g. fence, wall, locked gate or door) together with warning signage to the satisfaction of the Municipality. Care shall be exercised by the TP to ensure that such security measures do not inhibit emergency exit procedures (e.g. fire escape) for RBTS sites.

OB.10.2. In the light of public concerns and ongoing research and debate on the effects of EME on public health, Council is adopting appropriate precautionary measures, taking preventative action and undergoing reactive investigation, as deemed necessary.

OB.10.3. With the exemption of Minor Freestanding Base Telecommunication Stations, antennas should be located and positioned so that no habitable structures are within a zone of 50m directly in front of the antennas at the same height. The following diagram generally illustrates acceptable and unacceptable positioning of antennas.

OB.10.4. No TMI or combination of such infrastructure may at any time cause the public to be exposed to RF levels that exceed the ICNIRP public exposure guideline in any occupied space or location to which the public reasonably has access. This is endorsed by the NDOH.

OB.10.5. No public or unauthorized person shall be able to gain access to rooftop antennas and should not come within 5m in front of antennas.



50m public safety zone (EME readings must be below ICNIRP public exposure guideline)

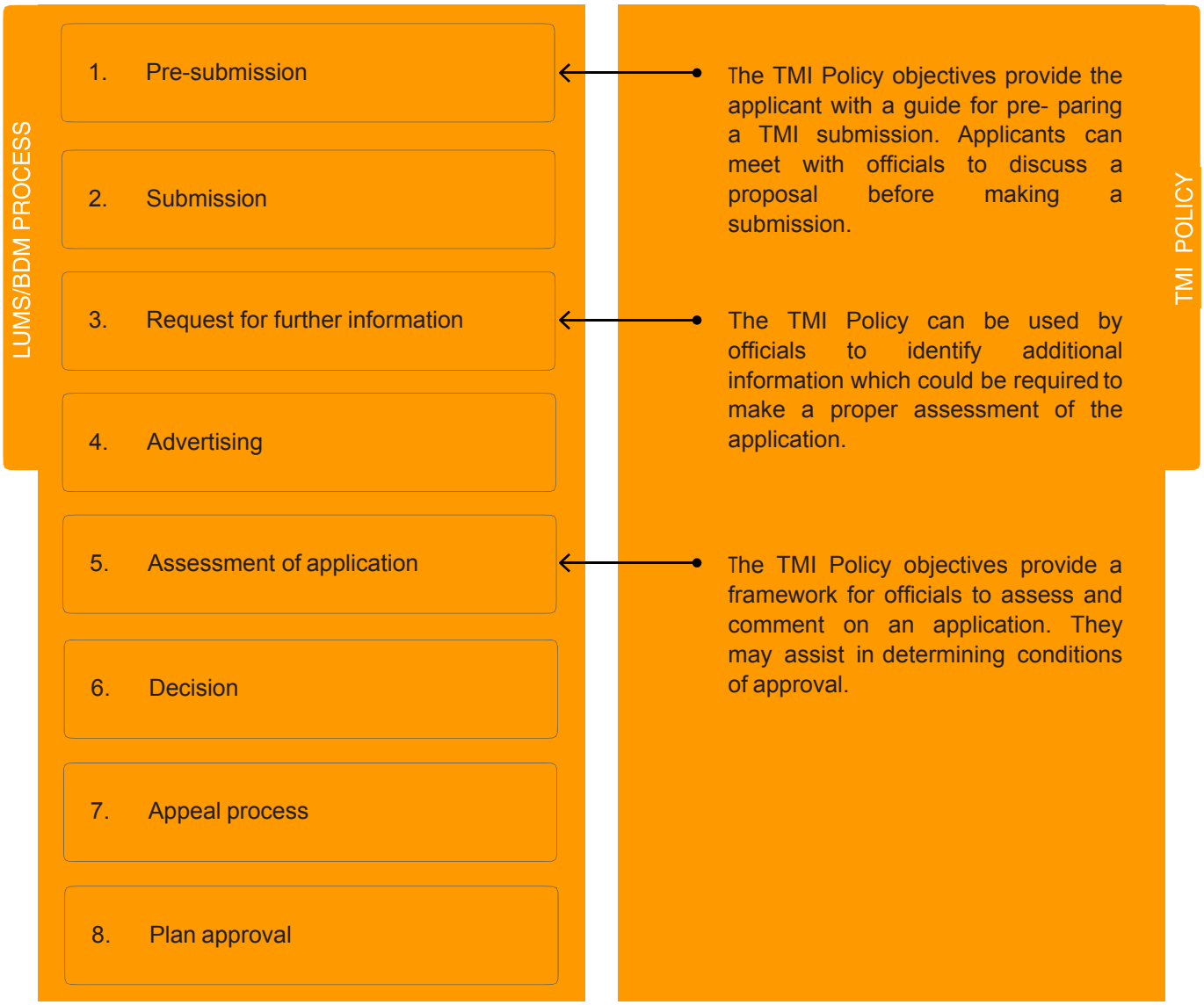
Zone sizes depicted here are for a typical shared cellular operator, tri-band (GSM900, DCS1800 and UMTS) site

8 IMPLEMENTATION

The Telecommunication Mast Infrastructure Policy will be effective from the date it is approved by Council and will not be retrospectively applied to applications that are already in the system. The Policy will be applied within the Municipality's existing development application process and will need to be considered by officials in the assessment of development applications.

It is the applicant's responsibility to ensure that where parallel processes are required, in terms of other legislation, that these are integrated as far as possible and to ensure that design considerations are considered in order to streamline all levels of approvals and minimize risk.

Prospective applicants who are considering projects to which the policy would apply are welcome to engage the Municipality in pre-submission consultation.



9 MONITORING, EVALUATION AND REVIEW

Council must ensure that conditions of approval are complied with (model conditions are attached un- der “Annexure 5: Model Conditions of approval” on page 40).

9.1 Monitoring

9.1.1. Council can request a Network Plan from each respective TP. This would enable one to see all existing and planned sites for the Stellenbosch Municipality and how the different networks’ sites relate to each other.

9.1.2. At any time Council may request monitoring by an independent certified expert in the field, to verify any issue relating to the siting and operation of TMI, as put forward by the TP, at the expense of the TP. In this way, compliance monitoring, to check that RF EME levels are within standards set for public exposure limits, can be verified at any time. Alternatively the Municipality may take its own readings.

The cellular network provider or network provider should at all times comply with the requirements of the NDOH and the ICNIRP on non-ionizing radiation protection with respect to safety standards.

9.2 Evaluation

9.2.1. Any TMI which is erected in contravention of an approval given by council may be required to be rectified in terms of a notice served on the land owner or TP, as deemed necessary.

9.3 Review

9.3.1. The TMI policy will be reviewed every five years.

9.3.2. The TMI industry as a primary stakeholder must play an active role in the monitoring and evaluation of this policy.

9.3.3. The effectiveness of the policy in facilitating decision making process will be ongoing.

10 REFERENCES

Council wishes to acknowledge that the following documents have been used or institutions consulted, in the preparation of this Policy:-

Department of Planning NSW, Australia, Draft Telecommunication Guidelines, 2002.

EMSS, Technopark, Stellenbosch

Liverpool City Council, development Control Plan No. 38: Telecommunication Towers, 23 August 2000.

Western Australian Planning Commission, Statement of Planning Policy No. 52: Telecommunications Infrastructure, and Guidelines for the Location, Siting and Design of telecommunication Infrastructure (March 2004).

South African Bureau of Standards (SABS): Draft Code of Practice: Environmental Considerations for the Planning and Management of Telecommunications Structures (prepared by Environomics for the SABS) 19 May 2000.

Department of Environmental Affairs and Tourism (Directorate Environmental Impact Management: Provisional Background document on standards for cellular phone base station antennas).

ICNIRP, International Commission on Non-Ionizing Radiation Protection.

ANNEXURES

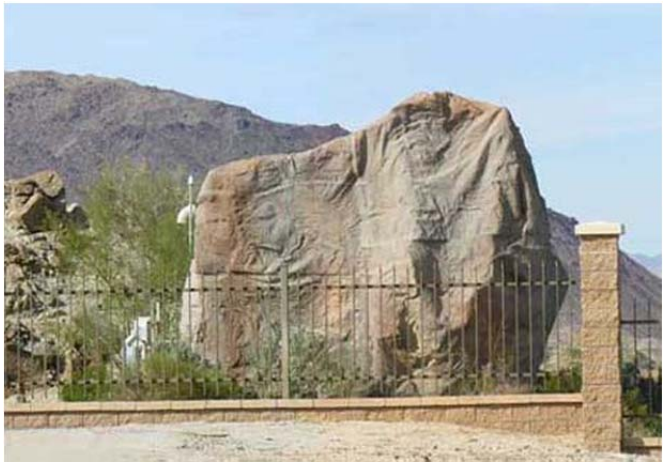
ANNEXURE 1: REFERENCE GUIDE TO GOOD PRACTICE

A1.1 Disguised TMI

One way to reduce the impact of TMI on its surroundings is to disguise them. One of the most popular methods is to construct a false tree - these tend only to be successful if they are at roughly the same height as other trees (as in the palms shown here) or in a forested area. They also need to be very well designed and constructed to be effective.

Sculptures and towers can be built to be TMI, and these tend to be more successful in urban and sub- urban settings.

The false rock below is a good example of an unobtrusive TMI, with good landscaping around it.



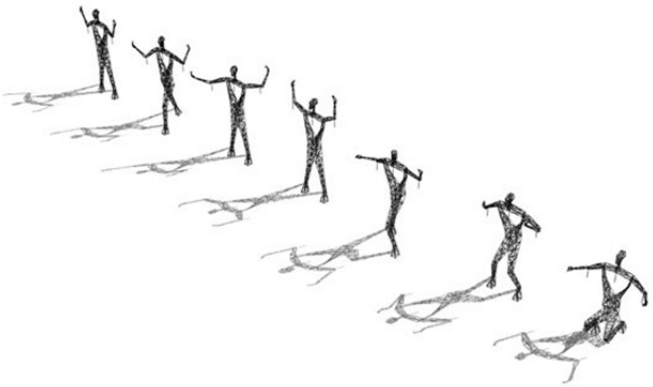
A1.2 TMI designed as an architectural feature

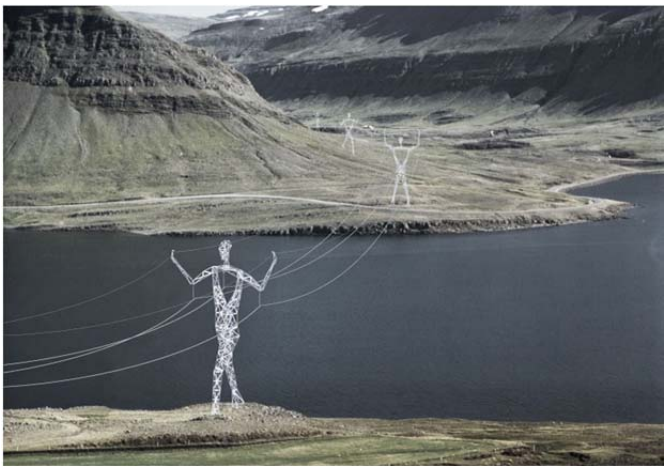
A preferred reaction rather than disguising the TMI as something else is to design something unique that is attractive in its own right.

The pylons shown below are an example of this innovative thinking. The human figures were a competition entry to the Iceland national power transmission company.

The Architects (Choi+Shine) write: “Seeing the pylon-figures will become an unforgettable experience, elevating the towers to something more than merely a functional design of necessity.”

The Deer Power lines are also conceptual by Design Depo, Moscow.





Mosaic Tower

For a more urban setting, Mosaic tower is a beautiful landmark. TMI, nowadays hugely interacting with urban landscape, can no longer be considered as a simple technological element. They are becoming a contemporary symbol, connected and inter- twining with material and immaterial networks.

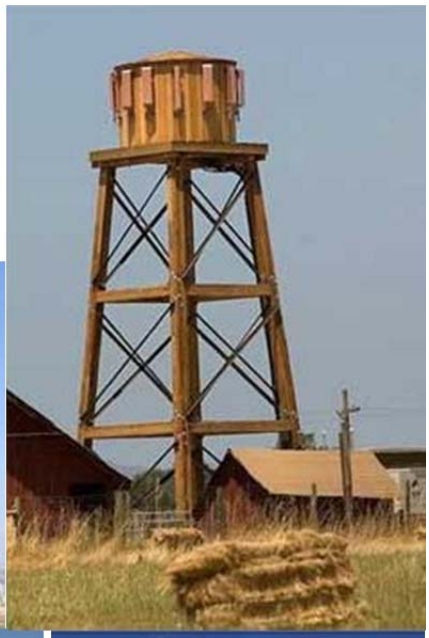
Montjuic Communications Tower

Calatrava's beautiful and original communications tower was built for Telefónica in the heart of the 1992 Olympic site, to carry coverage of the Games. Aside from its distinctive structural form, the tower is innovative in enclosing the circular platform of microwave dishes, replacing the normal clutter with a serene white arc. As a result the 130 meter structure becomes a welcome feature in the Olympic park.

A1.3 TMI placed on other structures including utility structures

As long as it's not too obtrusive, it is ideal to place TMI on existing structures.

It is far better to use light poles, flagpoles etc. to carry the transmitters than to build obtrusive towers, even if more transmitters are needed.



A1.4 TMI placed on domestic structures

As TMI gets smaller, it is becoming easier to place it on domestic structures unobtrusively. TMI is often placed on or next to a chimney and generally has less visual impact than a satellite dish.

ANNEXURE 2: REQUIREMENTS FOR SUBMISSION

A2.1 Site selection and co-location

2.1.1. All applications for TMI must be accompanied by a Site Analysis Plan which clearly illustrates the proposal in the context of the existing landscape and receiving environment and drawn to an appropriate scale. Accompanying the Site Analysis Plan must be a Report detailing the motivation for the selected site, detailing how the siting and design of the facility has responded to the site analysis and satisfactorily demonstrating to Council that all alternatives on the site itself have been explored in order to address section 6.1.2 above (see Annexure A for detail that needs to be included in such a Site Analysis Plan).

2.1.2. A Zoning and Land Use Map to a scale of 1:2000 (A4) indicating zoning and land use must be submitted. Indicate on such map all areas of environmental and heritage significance, if applicable, and any habitable structure that is within a 50m zone directly in front of the antennas at the same height as per “Public health and safety” on page 35 below. A Report and Map that demonstrates how the proposed site relates to the existing and proposed network telecommunications infrastructure and confirming that the applicant has looked at all possible existing options for co-location. A radius of 1 kilometer around the site must be shown, showing existing or proposed TMI and other possible sup- port structures. If no available alternative is possible, this fact must be motivated in this re- port to the satisfaction of the Municipality. This Report must detail possible sharing opportunities with other TP’s in the future. This may include making provision in the design of the TMI so that it can physically cope with accommodating infrastructure of all other TP’s or that the building that is to accommodate the equipment room should be constructed so as to be able to contain additional TP’s containers in the future.

2.1.3. Where TMI can be placed on other structures such as lamp posts, traffic lights, road direction signage, camera poles and flag poles, co-location must be encouraged.

Technical advances in the industry must also look to minimizing the size/scale and impact of infrastructure, which can also make co-location more practical.

A2.2 Visual impact, landscaping and public amenity

2.2.1. The applicant should demonstrate in the Re- port that all efforts available to assimilate the structure with its surrounding environment have been made.

2.2.2. If required by Council, the applicant must sup- ply at least one alternative design option e.g. height, type (monopole, lattice or disguised) and colour or locality that has a lower visual impact.

2.2.3. A photo montage and a schedule of colours and finishes for the proposed TMI may be re- quested by the Municipality.

2.2.4. A visual impact assessment prepared by a suitably qualified independent professional, to the Municipality’s satisfaction, may be requested by the Municipality. The assessment shall include the visual sensitivity indicating low, medium, high, very high at each scale of visibility including local, distant and skyline, and include recommendations on mitigation.

2.2.5. For every new or upgraded FBTS site, the Municipality should consider whether landscaping or the provision of public amenities is appropriate in the context to both enhance the local environment and to benefit the public amenity. If it is considered appropriate, a landscape plan must be provided by the applicant, to demonstrate to Council how landscaping will be implemented and maintained on the subject site prior to plan approval.

A2.3 Utilities

2.3.1. Advisory or warning signage including a pictogram may be a requirement for TMI. Such signage shall identify the property and the TMI and shall warn the general public as required. Such signage shall be to the Municipality's satisfaction and may not be larger than 400mm x 500mm.

A2.4 Public health and safety

2.4.1. If a habitable structure is within the 50m zone at the same height and in front of the antennas; this being typical panel antennas, at an approximate 60 degree angle, or any other type of installation e.g. omni-directional antennas, or if the proposed TMI elicits Council concern numerical simulations of predicted RF EME levels must be submitted to Municipality for verification and assessment, prior to approval of the site. This Department may request further information or verification from the applicant, which may include numerical simulations of predicted RF EME levels done by an independent certified institution. These readings must be submitted with reference to compliance with the latest public exposure limits, i.e. what percentage it is of the ICNIRP guidelines.

2.4.2. Once a site is operational, the Municipality may request a test report to be carried out by an independent certified institution providing the results of measurements showing the actual RF EME levels from that site, with necessary detail as determined at that time. The cost of carrying out such tests shall be borne by the applicant.

ANNEXURE 3: INFORMATION TO BE SUBMITTED WITH APPLICATIONS

The following plans or documents may be required when applying for the construction of TMI:-

A3.1 Site Analysis Plan

(Scale 1:2000) with accompanying Report

A Site Analysis should include a Map and Report that provides sufficient information relating to the site and its surroundings to assist in the assessment of TMI proposals. This is to ensure that it is designed and located in the best possible manner so as to minimize visual impact and any concerns over RF EME exposure levels.

When applying for a FBTS Council may require the following information to be included in the submission:-

- zoning, site boundaries and dimensions
- location and height of the TMI
- natural landforms and waterflow through the site
- surrounding land uses to a radius of 200m
- surrounding areas of environmental & heritage significance
- existing vegetation
- details of any significant environmental constraints and, where relevant, commitments stating how these constraints will be managed to prevent a negative impact on the environment
- views and vistas to and from the site
- location of areas of environmental significance (“Typical areas of significance” on page 21) within the exposure area
- proximity to adjacent or nearby buildings or other tall structures
- proximity of TMI to other existing TMI sites. Show km radius around application site for urban areas.
- other info as required by the Municipality

When applying for a RBTS, the Municipality may require the following information to be included in the submission:-

- site boundaries and dimensions
- location and height of the TMI
- proximity to adjacent or nearby buildings and use of such buildings
- views to and from the site
- use of the building and position of such use relative to TMI
- proximity of TMI to other TMI and other possible support structures
- photographic illustrations of the proposal within its setting
- other info as required by the Municipality

A3.2 Telecommunication Mast Infra-structure Plan

(scale 1:1000 as well as a reduced A4)

The following information is required with an application for TMI:-

- dimensioned plans showing detail of the TMI;
- graphic illustrations including photographs of similar facilities or computer generated simulations showing the type of facility and its relationship with adjacent development;
- elevations showing the extent, height and appearance of the proposed facility as viewed from any adjacent street, public place and adjacent property;
- proposed materials and colour of the facility, and proposed arrangements for maintenance and future modifications in response to changes to any adjacent buildings or structure;
- any screening or fencing proposed in conjunction with the facility, including arrangements for maintenance;

- any external lighting of the proposed facility or the facility site; details of any existing vegetation to be removed and any proposals for landscaping or restoration of any disturbed land;
- details of the timing of works involved in establishing the facility and any arrangements for temporary access or changes to existing access facilities during the course of construction;
- how the proposed facility relates to the existing and proposed network of telecommunications infrastructure, and what, if any, additional facilities are known by the proponent to be under consideration to meet projected future increases in demand;
- how the proposed TMI facility addresses Section 9 Development Control: Objectives, Guidelines and Requirements as contained in the Stellenbosch Municipality Telecommunication Mast Infrastructure Policy.

A3.3 Compliance certificate and Lease agreement

- The Municipality may require a statement that the site will be compliant with the current public exposure guidelines prepared by ICNIRP.
- If the site is leased from the Municipality, a letter of con- sent or the lease agreement is required.

A3.4 Information that may be required by the Stellenbosch Municipality's Building Management Branch

- Specify what radio spectrum or frequency is used.
- Specify what radio equipment is used – make and model.
- Specify the number of antennas attached to this equipment and the gain in dB, polarization, and coverage i.e. azimuth and elevation.
- Specify what power levels are to be radiated by the antennas in dBM or Watts;
- If operating in the ISM band, provide a certified copy of their ICASA license. If not operating in the ISM band, then provide a certified copy of their specific spectrum licence;
- The maximum power output of the facility and radio frequency electromagnetic energy levels in accordance with ICASA. This statement is to demonstrate that the carrier accepts full responsibility for compliance with the Telecommunications Act;
- Provide the GPS coordinates (WGS84) of this site, and of all radio sites which connect to this installation.

A3.5 Environmental Management Plan (EMP)

- An EMP must be included in the submission if the site is within an area of environmental & heritage significance and no EIA is triggered in terms of NEMA.
- Separate guidelines on a Generic full EMP and a Site EMP are available from Environmental & Heritage Management Branch, where an EMP is required. This must be submitted to Council's satisfaction prior to final building plan approval.

ANNEXURE 4: PRELIMINARY ASSESSMENT CHECKLIST FOR PLANNING CASE OFFICIAL

Officials Name……

PLEASE ATTACH COMPLETED CHECKLIST TO APPLICATION DOCUMENTATION

Erf …….. Address …… APPLICATION #.....

GENERAL REQUIREMENTS				
Has the following been submitted? (Annexure 3)	**YES**	**NO**		
Telecommunication Mast Infrastructure Plan				
Zoning Compliance certificate and / Lease agreement				
Telecommunications Branch Information, if required				
Environmental Management Plan, if required				
Other, specify				
Monitoring:				

SITE SELECTION AND COLOCATION (OB1 & OB2)	**YES**	**NO**		
Is a Site Analysis Plan & Report submitted and to Council's satisfaction?				
Is a Zoning / Land use map (1:2000) (A4) submitted?				
Is the TMI on an existing structure or building?				
IF YES	Is the proposal integrated with the structure / building as a design feature?		**Y**	**N**
Is the Report submitted that addresses co-location options to Council's satisfaction?				
Is the map and photographs showing other existing tall structures (TMI structures / other) in a 1km radius around the site submitted to Council's satisfaction				
Are there existing / other approved TMI sites within the 1km radius around the proposed site?				
IF YES	Is there sufficient motivation / reason for non-location with such site(s)?		**Y**	**N**

VISUA IMPACT, LANDSCAPE AND PUBLIC AMENITY (OB 3 & 4)	**YES**	**NO**		
Will there possibly be a negative visual impact on the environmental / heritage resource / public amenity / landscape arising from this proposal?				
IF YES	Is an alternative type and / or locality that has a lower visual impact required? (Council may require this)		**Y**	**N**
IF YES	Is a photo montage and a schedule of col- ours and / finishes required? (Council may require this)		**Y**	**N**
IF YES	Is a Visual Impact Assessment required? (Council may require this)		**Y**	**N**

Is the proposal for a FBTS site (new or upgrade / modification / sharing)?				
IF YES	Have landscaping / or provision of public amenities been proposed and adequately been dealt with regarding implementation?		**Y**	**N**
Monitoring: If landscaping or provision of public amenities is a requirement as a condition of approval.				

IMPACT ON AREAS OF ENVIRONMENTAL AND HERITAGE SIGNIFICANCE (OB 5 & 6)	**YES**	**NO**		
Is the proposal within an area of environmental / heritage significance?				

IIMPACT ON EXISTING SERVICES & UTILITIES (OB 7)	**YES**	**NO**		
Is advisory & warning signage on the TMI?				

PUBLIC HEALTH AND SAFETY (OB 9)	**YES**	**NO**		
Is there a habitable structure within a 50m zone in front of the antennas?				
IF YES	Show alternative location that does not fall into this 50m zone.			
IF YES	If circumstances prevail that necessitates being within the 50m zone, ensure that “Objective 10. To protect the health, safety and wellbeing of the inhabitants of Cape Town” on page 24 of the Policy is com- plied with.)			
Is the 5m areas in front of the antennas accessible to the general public?				
IF YES	Ensure that safety measures are put in place to prevent access.			

ANNEXURE 5: MODEL CONDITIONS OF APPROVAL

Standardized conditions of approval for cell masts and other Telecommunication Mast Infrastructure

With an approval of a site for telecommunication structures, the following pro forma conditions may apply. When formulating conditions of approval, any further site specific issues or conditions which are not dealt with in the general conditions must also be included as conditions of approval. [Note that if the TMI is in an area of environmental significance an EMP must be submitted to Council for approval prior to final approval and not as a condition of approval].

A5.1 General

5.1.1. This approval shall be valid for maximum period of 5 years for temporary departures or extended period.

5.1.2. After 5 years, or if the site is decommissioned before such time, the applicant must remove all site infrastructure and the site must be rehabilitated, within one month, to its former state or to a condition that is in line with the land use and character of the area at the time, as required by the Municipality. If the TMI are still operational at this time, the period can only be ex- tended by a further application to the Municipality.

5.1.3. Ongoing maintenance of the entire installation must take place by the applicant.

5.1.4. Conditions of approval must be made known to any new owner of the site and are binding on the successor in title.

5.1.5. The combined or weighted RF exposure of a person may not exceed the public exposure guideline as set by the ICNIRP.

5.1.6. The applicant shall grant the Municipality access at all reasonable times to the installation, for the purpose of monitoring inspection and compliance certification.

5.1.7. No unauthorized person should be able to come within 5m in front of the panel antennas. Clearly marked warning signs, must de- fine this no go zone.

5.1.8. Should any further research link electromagnetic radiation to health issues, the Municipality may impose further conditions to keep it in line with CNIRP.

5.1.9. The finishing and colour of the panel antennas for rooftop sites must be in keeping with the building to which it is attached.

5.1.10. That for freestand sites the consent use or departure be restricted to the fenced compound of the mast and equipment room as depicted on the building plan.

5.1.11. This approval does not exempt the applicant from any other Bylaws or Regulations that may be applicable including any lease/wayleave approval that may be required for location in a Council road reserve or on other Council owned property.

5.1.12. The mast or equipment room should not be utilised for outdoor advertising purposes.

A5.2 Visual impact, landscaping and public amenities

5.2.1. Paintwork, materials and finishes used for the fencing, posts, antennas and equipment container must be in accordance with the specifications on the approved plans, and also maintained as such.

5.2.2. The equipment room for rooftop sites must be set back as far as possible from the edges of the roof.

5.2.3. Any lighting of structures shall be shielded from adjacent properties (tilted downwards), and should avoid upward light pollution.

A5.3 Impact on existing services and utilities

5.3.1. Rooftop Installations should be situated in such a manner that they do not interfere with other utility functions.

5.3.2. In the event that interference occurs with Council's services, this shall be rectified by the cellular operator and at the cost of the operator, within the timeframe stipulated by Council.

A5.4 Public health, safety and security

5.4.1. If access to the rooftop is prevented, for example, by a locked door, ensure that this conforms with fire escape procedures.

5.4.2. Access to the antennas and or mast and equipment room must be strictly controlled by means of a fence or wall with locked gate and adequate warning signs in the official languages must be displayed on the gate.

A5.5 Lease

5.5.1. This temporary departure shall become effective upon the approval of the lease application for a part of the property for the erection of cell phone communication infrastructure.

5.5.2. If for any reason any condition of the lease agreement is breached or the lease ceases to exist, the temporary departure shall expire.

5.5.3. Prior to approval of building plans, the applicant must provide the Municipality with an indemnity form, indemnifying the Municipality against any possible public claim arising from the erection or use of this installation.

A5.6 Special conditions

5.6.1. Any special conditions relevant to a particular site (e.g. mitigating factors such as landscaping required), should be added under this section.

5.6.2. Council may require a master plan to be approved that indicates the grid network of existing and proposed TMI for each service provider to manage the integration of MFBTS into existing services within Councils road reserves.

THE ABOVE STANDARD CONDITIONS WILL BE UP-DATED ON THE MUNICIPAL WEBSITE, AND MAY BE APPLICABLE, IN ADDITION TO ANY SPECIFIC CONDITIONS OF CONSENT WHICH MAY ALSO / ALTERNATIVELY BE IMPOSED

ANNEXURE 6: RADIO FREQUENCY (RF) EXPOSURE AND HUMAN HEALTH

Electromagnetic Radiation from mobile phone base stations

Information Document Prepared by

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In the past century numerous devices have been designed by scientists and engineers using radio-frequency (RF) electromagnetic fields for communication. These include two-way communication transmitters (for example sea-vessel to shore-base), hand held communication transmitters (walkie-talkies), radio and television transmitters, radars, satellite communication transmitters, and lately mobile phone (or cellular phone) communication transmitters including cellphones and base stations.

The nature of RF communication

In all the cases mentioned above, one transmitting device transmits (or radiates) energy in the form of electromagnetic fields carrying the required information (voice, picture, digital data, etc.). A second receiving device receives **a very small part** of the radiated energy, enough that the required information can be processed and used.

RF communication in cellular phone technology

In the case of cellular phones, two-way communication must be established between the cellphone and the base station. First, the base station acts as the source of radiation and then the cellphone. A simplistic view of RF communication when the base station acts as the radiating source is shown in Figure
1. Here it is demonstrated how the base station antennas radiate RF electromagnetic fields away from the base station in all directions --- like the waves in a pond when a stone is dropped into it. As the radiating field travels away from the base station, the energy it carries is distributed over a larger region (the semi-circles become larger). In one particular direction, energy from the radiating field is ``intercepted'' by a receiving device (cellphone). Only a small percentage of the transmitted energy is avail- able for ``interception''.

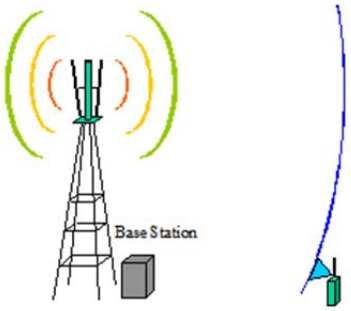

Figure 1: RF communication when the base station acts as the radiating source

A6.1 Radiation levels around base station antennas

Near a base station, in regions that are accessible to the general public (for example, at the foot of a base station mast), another important factor must be taken into account: A base station antenna radiates most of its energy in a specific direction (called the main beam of the antenna). This is shown in Figure 2. The main beam typically points in the direction of the horizon (actually a few degrees downwards). The result is that only a very small percentage of the radiated energy will be present in the regions outside the main beam (that is, in the regions around the base station masts which are accessible to the general public).

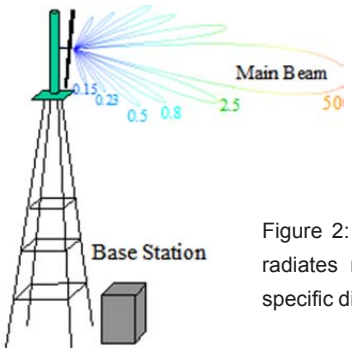

Figure 2: A base station antenna radiates most of its energy in a specific direction

A6.2 RF radiation and the environment

The consequence of numerous RF devices continuously radiating electromagnetic fields in all directions is that our environment (our suburbs, homes, offices, streets, playgrounds, etc.) is populated by RF electromagnetic fields, all carrying some amount of energy. At the frequencies these devices radiate at (i.e. radio-frequencies), the electromagnetic fields can penetrate relatively easily into our bodies. Our biological tissue material (brain, muscle, bone, fat, etc.) absorbs some of this RF energy.

A6.3 RF radiation and human health

It is very important to note that there is a significant difference between radio-frequency radiation (at which cellular technology operates) and the well know X-ray and Gamma-ray radiation that can be emitted by radioactive material. X-ray and Gamma-ray radiation are classified as **ionizing** radiation. These are known to be dangerous through the mechanism of ionization (or the direct breaking of chemical bonds in human tissue or cells). Radiofrequency radiation is classified as **non-ionizing** radiation because the energy it carries is too low to cause ionization or the breaking of chemical bonds in human tissue. However, at sufficiently high energy levels RF radiation **can** be harmful to humans. All scientists agree on this point and for this reason various international regulating bodies have compiled standards or guidelines for limiting human exposure to radio-frequency radiation.

A6.4 Guidelines for safe exposure to RF radiation

The guidelines for safe exposure have been com- piled from the published scientific literature on the topic, and the scientists who have studied the literature agree that the research is adequate for establishing valid safety guidelines. Simplistically stated, the guidelines are established in the following way: Scientists observe that negative health effects start to occur in laboratory animals at a certain energy level. They then set the safety guidelines (applicable to the general public) at approximately 50 times below this energy level. In South Africa, the Department of Health (Directorate: Radiation Control) has adopted the International Commission on Non-Ionizing Radiation Protection guidelines of April 1998 (ICNIRP'98).

A6.5 Prolonged exposure

Research to date indicates that what matters most is the intensity of exposure and not the duration. This has been established through lifelong exposure of rats and mice, and epidemiological studies on military personnel who have worked close to communication antennas and radars (RF devices) for years. The guidelines have thus been set accordingly.

A6.6 Cellphones and guidelines for safe exposure

With the cellphone as radiator, RF exposure of the human operator is just below the international safety guidelines (see Figure 3). This is due to the very close proximity of the operator to the cellphone. But remember that these guidelines are 50 times below the energy levels where negative health effects have been observed.

A6.7 Base stations and guidelines for safe exposure

Energy absorption in humans exposed to RF radiation from base stations is typically **hundreds to thou- sands of times below** the international safety guide- lines (see Figure 3). This is also true on the ground next to base stations or at any position in the close vicinity of base stations. Only on the top of a base station mast, directly in front and within 10 to 20 meters of the antennas, would the energy absorption levels approach the safety guidelines. The public is usually denied access to these areas.

A6.8 Base stations on rooftops

Quite often in urban environments, base stations are installed on the rooftops of buildings. In some cases the antennas of the base station site might be installed against the wall of a building. The reason behind these rooftop installations is to provide cellphone coverage in the area without erecting a mast. Similar to base stations on masts, installations on rooftops lead to public exposure in the immediate vicinity of the building that are **thousands of times below** the international safety guidelines (see Figure 3). Exposure right below the installations (on the top floor of a building) or right behind a wall mounted installation is also well below the guide- lines. The only extra precaution that should be taken in the case of rooftop installations is that access to the areas **directly in front and within 10 to 20 meters** of the antennas should be controlled, because this is the area where the exposure levels would approach the safety guidelines. Figure 4 shows a computer representation of a typical rooftop installation. The yellow zones are the boundary area where the exposure approaches the public guideline for safe exposure. As can be seen from this representation, the only area of exposure above the guidelines is right on top of the roof, in front of antenna 1. Access control and signage would be implemented to protect members of the public against accidental entry into this area on the roof. The yellow zones of antennas 2 and 3 are in the air where no person has access. These antennas are thus inherently safe and no special access controls need to be implemented.

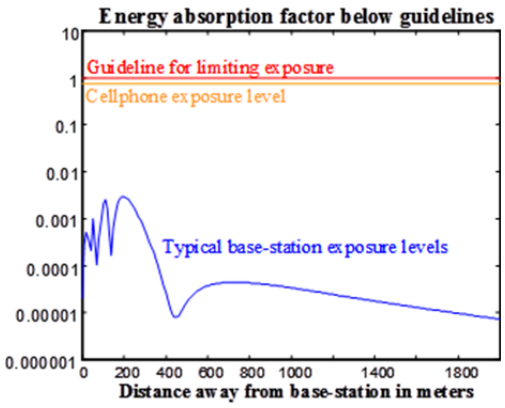

Figure 3: Typical base station exposure levels

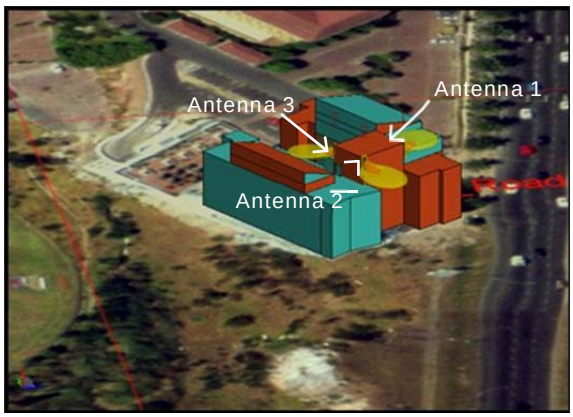

Figure 4: A computer representation of a typical rooftop installation

A6.9 Occupational Exposure (RF workers)

Most regulating bodies, including ICNIRP and the Directorate: Radiation Control (South Africa) distinguishes between occupational and general public exposure levels. The following direct quotation from the ICNIRP guidelines should yield a clear understanding of what is meant by the concept occupational exposure:

*"The **occupationally** exposed population consists of adults who, in the normal course of their particular employment, are exposed under generally known conditions and are trained or informed to be aware of potential risks and to take appropriate precautions."*

Guidelines for safe **occupational** exposure are 5 times less stringent. This is still 10 times below the levels at which harmful health effects have been observed, but it can be expected from "aware" and well-trained RF workers that they take precautions to minimize exposure during the course of their work.

A6.10 The World Health Organization and continuous international research

The available guidelines for safe exposure are deemed to be an accurate health risk assessment based on the current available research data. This is the view of the World Health Organization (see the WHO factsheet on base station exposure at http://www.who.int/mediacentre/factsheets/fs304/en/index.html). Apart from the WHO, a number of independent international expert groups have also reviewed the scientific literature. All concluded that the balance of evidence indicates that exposure **below the ICNIRP guidelines** would not cause any negative health effects. Nonetheless, scientific studies on human exposure to radio-frequency fields continue world-wide. These studies are conducted to enable regulating authorities to make better health risk assessments as more and more people worldwide are exposed to the radio-frequency radiation from cellular phone and other communication technologies. The majority of scientists in this field concentrate their studies on possible health effects at cellphone levels of radiation and not base station levels, because the latter are deemed too low to justify intense investigations.

ANNEXURE 7: LETTER FROM THE NATIONAL DEPARTMENT OF HEALTH

Department of Health

Directorate: Radiation Control
Private Bag X62
BELLVILLE
7535

Tel: 021 957 7483
Fax: 021 946 1589
E-mail: DutoiL@health.gov.za

Web: http://www.doh.gov.za/department/radiation/01.html

Enquiries: LL du Toit
Date: 26 June 20104

To whom it may concern

HEALTH EFFECTS OF CELLULAR BASE STATIONS AND HANDSETS

The Directorate: Radiation Control is the section within the National Department of Health that is responsible, from the viewpoint of human health, for regulating electronic products producing non-ionizing electromagnetic fields (EMF), i.e. where the frequency of such EMF is less than 300 GHz. In carrying out this responsibility, the Directorate has been utilizing the World Health Organization's (WHO) International EMF Project (www.who.int/emf) as its primary source of information and guidance with respect to the health effects of EMF. The International EMF Project was established by the WHO in 1996 to (i) assess the scientific evidence for possible adverse health effects of non-ionizing electromagnetic fields on an on-going basis,
(ii) initiate and coordinate new research in this regard, and (iii) compile health risk assessments for different parts of the electromagnetic spectrum. The Department of Health has been a member of the International Advisory Committee of the International EMF Project since 1998.

In June 2005 the International EMF Project hosted a workshop that was specifically aimed at considering the possible health consequences of the emissions from cellular base stations and wireless networks. The findings of this workshop were summarised in a 2-page Fact Sheet (www.who.int/mediacentre/factsheets/ fs193/en/index.html). The following extract from this Fact Sheet provides a clear-cut summary of the findings to date, i.e. ***"Considering the very low exposure levels and research results collected to date, there is no convincing scientific evidence that the weak RF signals from base stations and wireless networks cause adverse health effects."***

The following quote is taken from another WHO Fact Sheet (Electromagnetic fields and public health: mo- bile phones) that was published in June 2011: **"To date, no adverse health effects have been established as being caused by mobile phone use."**

The WHO recommends utilizing internationally recognized exposure guidelines such as those that were published in 1998 by the International Commission on Non-Ionizing Radiation Protection (ICNIRP) and that were reconfirmed in 2009 for the frequency range 100 kHz – 300 GHz (i.e. including all the frequencies employed by the cellular industry). The Department of Health likewise recommends the use of these ICNIRP guidelines to protect people against the known adverse health effects of EMF.

Numerous measurement surveys, which have been conducted around the world (and in South Africa), have shown that the actual levels of public exposure as a result of base station emissions invariably are only a fraction of the ICNIRP guidelines, even in instances where members of the public have been really concerned about their exposure to these emissions.

At present there is no confirmed scientific evidence that points to any health hazard associated with the very low levels of exposure that the general public would typically experience in the vicinity of a cellular base station. The Department is therefore satisfied that the health of the general public is not being com- promised by their exposure to the microwave emissions of cellular base stations. This also means that local and other authorities, in considering the environmental impact of any particular base station, do not need to and should not attempt, from a public health point of view, to set any restrictions with respect to parameters such as distance to the mast, duration of exposure, height of the mast, etc.

The Department of Health is obviously not able to make any pronouncements about the specific levels of EMF that a member of the public would experience at any particular base station site when it is in operation. However, generally-speaking unless a person would climb to the top of a mast (or other structure supporting an antenna) and position him/herself right in front of the active antenna not more than a few meters away, such a person would have no real possibility of being exposed to anywhere near the afore- mentioned ICNIRP guideline limits. Since these base stations are, as a rule, cordoned off with barbed wire fencing and locked gates/doors to protect the sensitive and expensive technology, such actions would in all probability not constitute responsible behaviour. Even then the risk of falling off the structure in question would be an immeasurably greater threat to the health of the person involved. Based on the results of numerous global and local surveys, the experience has been that the exposure to base station EMF at ground level is typically in the range of between 0.001 – 1.0 % of the afore- mentioned ICNIRP guideline limits. Against this background of available data, there would be no scientific grounds to support any al- legation that adverse health effects might be suffered by a responsible member of the public due to the EMF emitted by a base station.

Although the Department of Health currently neither prescribes nor enforces any compulsory exposure limits for electromagnetic fields, the Department does advise all concerned (whether they be a government department, the industry or the public) that voluntary compliance with the afore-mentioned ICNIRP exposure guidelines is the recommended and science-based way to deal with any situation involving human exposure to the non-ionizing electromagnetic fields emitted by cellular base stations and handsets.

Yours sincerely,

LL du Toit

DEPUTY DIRECTOR: RADIATION CONTROL

21/09/2017

Western Cape Government
Environmental Affairs and Development Planning

Mr Kobus Munro
Environmental Affairs and Development Planning
Directorate: Spatial Planning
Our ref: 15/4/3/BS2

Mr Dupre Lombaard
Director: Planning and Economic Development
Stellenbosch Municipality
P.O. Box 17
Stellenbosch
7600

Your ref: 15/P/8

Dear Mr Lombaard

COMMENT AND ADVICE ON THE CONSIDERATION AND ADMINISTRATION OF APPLICATIONS FOR THE ESTABLISHMENT OF CELLULAR AND TELECOMMUNICATIONS MASTS AND ANTENNAE

Your request to the Department of Environmental Affairs and Development Planning (DEA&DP), for guidance, information and advice in order to draft a policy to assist in the consideration of applications for the establishment of cellular and telecommunications infrastructure, has reference.

Various issues have been raised in your letter, including:

a) Complaints received around:
   - the negative effects of signals/ electromagnetic radiation on health,
   - the lack of public protection in the regulatory/ statutory environment,
   - conflicting research,
   - the effect of signal infrastructure on the value of surrounding property,
b) Legal risks to the Municipality in consideration of Building Plans and Land Use Management Applications
c) Whether or not the Department of any other Western Cape Municipalities have been successfully challenged through review procedures.
d) Whether or not it is a legislated requirement that the public be consulted prior to any decision on or the establishment of telecommunications infrastructure.

We have responded to the above issues under 4 broad headings, firstly health impacts, secondly impacts on the values of surrounding properties, thirdly public participation and lastly case law.

1. Health Impacts

1.1 As far as health impacts are concerned, we have considered the stance adopted by numerous reputable international and national groupings, ranging from the World Health Organisation, Cancer Research UK, the Australian Government Department

of Communications, to the South African National Department of Health and the City of Cape Town. The consensus amongst all the organisations is that there are no conclusive studies, linking emissions at levels to which the general public is exposed, to any negative health effects. A more detailed description of the stance adopted by these various organisations and the findings of the research that has been undertaken is attached as **Annexure A**.

1.2 DEA&DP takes its lead from the Department of Health ("DoH") when it comes to reviewing Environmental Impact Assessments (EIA's), concerned with the health effects of cellular and telecommunication masts and antennae. The DoH applies the exposure guidelines published in 1998 by the International Commission on Non-Ironizing Radiation Protection ("ICNIRP") which is based on the official endorsement of the World Health Organisation. All communication base stations in South Africa are required to conform to the World Health Organisation and National Health Department standards with regards to levels of electromagnetic radiation. The Department is therefore satisfied that the health of the general public is not being compromised by their exposure to the microwave emissions of cellular base stations. At present there is no confirmed scientific evidence that would indicate any hazard to human health in this regard.

2. Impact on the value of surrounding properties

The "effect of signals infrastructure" on the value of surrounding properties has not been scientifically researched. However, the CEO of one major Estate Agency in Cape Town stated that "unsightly mobile phone masts can negatively influence a home's appeal." He went on to say that although currently no scientific proof exists that mobile phone masts are a danger to residents who live nearby, people generally avoid living close to them and the re-saleability of the property can be a problem in the future. Thus anecdotal evidence would seem to suggest that potential buyers are more cautious about buying property in close proximity to cellular and telecommunications masts.

3. Public Participation

In responding to your request for information and guidance when it comes to the legislated requirements for public participation, we have combined our response to this with our response to the issue of a "lack of public protection in the regulatory / statutory environment" as the latter is linked to the former.

From a planning law perspective there are a number of regulatory instruments which are applicable with respect to cellular and telecommunication masts and antennae, namely:

- The Spatial Planning and Land Use Management Act, 2013 (SPLUMA);
- The Western Cape Land Use Planning Act, 2014 (LUPA);
- The Stellenbosch Land Use Planning By-law 2015 (By-law);
- The National Building Regulations and Building Standards Act No. 103 of 1977 (NBR); and

- The Stellenbosch Zoning Scheme By-law (Draft 2017) (Scheme)

Each of these will be discussed in turn below: -

3.1 SPLUMA

This Act does not define or address telecommunication masts or equipment or how they should be applied for or considered. It is however clear that the acquiring of rights for a cell phone mast will constitute a land development application to be submitted, considered and approved by the municipality. However, it also defines 'land use' as the purpose for which land is or may be used lawfully in terms of a land use scheme, existing scheme or in terms of any other authorisation, permit or consent issued by a competent authority, and includes any conditions related to such land use purposes. By implication this means that the erection of a cell phone mast will not require a land development application, in every instance, particularly if the mast is provided for in the zoning scheme as a primary right.

3.2. LUPA

3.2.1 This Act does also not define or address telecommunication masts or equipment *per se* but in Section 2(1)(c) thereof it provides that a municipality must regulate:

- zoning schemes;
- procedures for land use applications;
- procedures for public participation;
- criteria for deciding on land use applications;
- conditions of approval for land use applications;
- procedures applicable after a land use application has been approved;
- enforcement of its by-laws and decisions with regard to land use planning.

3.2.2 Section 43 provides for a notice to be published for applications that will materially affect the public interest or the interests of the community if approved.

3.2.3 Section 44 provides for a notice to be served in a number of predetermined cases.

3.2.4 Section 61 provides for exemptions from subdivision and consolidations of land.

3.3 Stellenbosch Land Use Planning By-law 2015

In section 24 of the By-law it exempts the registration of a servitude or lease agreement for the provision or installation of telecommunication lines by or on behalf of a licensed telecommunications operator. It is to be noted that it concerns only the registration of servitude or lease agreement and not for any land use rights which must precede the erection of a cell phone mast.

3.4 National Building Regulations (NBR)

The NBR defines a building to include:

> any other structure, whether of a temporary or permanent nature and irrespective of the materials used in the erection thereof, erected or used for or in connection with-
>
> (i) the accommodation or convenience of human beings or animals;
>
> (iii) the rendering of any service;

The NBR also provides that no person shall without the prior approval in writing of the local authority in question, erect any building in respect of which plans and specifications are to be drawn and submitted in terms of this NBR. A cell phone mast, would thus fall within the ambit of the definition of building for which a building plan is to be submitted and approved by a municipality prior to the erection thereof.

The NBR does not provide for any kind of public participation when a building plan is submitted or considered

3.5 Stellenbosch Zoning Scheme By-law (Draft 2017) (Scheme)

A zoning scheme is compiled in a way to allow certain land use rights as primary rights, secondary rights or rights which can only be accessed via a special consent from the municipality. From a scan of the new Stellenbosch Zoning Scheme By-law it would appear that in no zoning a cell phone mast is allowed as a primary right and in most instances would require either an approval as a secondary right of even a consent use approval. The difference in public participation requirements between these applications could mean that certain types of applications could be approved without a public participation process. We would urge the municipality to reconsider the zoning scheme and its provisions dealing with cell phone masts specifically due to the public perception around this matter.

4. Case Law

The last of the broad issues that we were requested to respond to, is whether or not the Department or any of the other Western Cape Municipalities have been successfully challenged through review procedures. Of relevance in this instance is the Beekmans N.O and Others v Mobile Telephone Networks (Pty) Ltd and Another (13543/14) [2015] ZAWCHC 79 (3 June 2015) case, which raises questions regarding the interpretation and application of the National Building Regulations and Building Standards Act 103 of 1997 (the Act) and the regulations promulgated thereunder in relation to a so-called 'temporary building'. The outcome of this case was that the Supreme Court of Appeal ruled that the City of Cape Town erred in regarding the base station as a temporary building and MTN was advised to apply to the City for approval of building plans for a

base station in terms of Section 4 of National Building Regulations and Building Standards Act 103 of 1997. We have included a summary of this Court Case as **Annexure B.**

Conclusion

We trust that this input will go some way in assisting you with the development of your policy for the consideration of applications for the establishment of cellular and telecommunications infrastructure. Please do not hesitate to let us know if we can assist any further.

Yours sincerely

PIET VAN ZYL
HEAD OF DEPARTMENT

DATE: 07.04.2017

Annexure A

Cellular and Telecommunications Mast and Antennae

Dr. Elizabeth Barclay and Nathaneal Jacobs

Introduction

In South Africa, cell phones have become a part of many people's lives. It is very hard for many people to be without their cell phones, as they use it daily for social media, the internet, media and communicating. Because of the increasing demand, it has become necessary for cell phone companies to grow their coverage across the country by putting up cellular mast/tower. However, with the increase in cellular mast in towns and cities across the country, there are various articles claiming that cellular mast are dangerous and therefore people are now asking the question as to how safe these cellular mast are.

Current scientific research is yet to produce conclusive evidence suggesting adverse health effects associated with, working with or living close to wireless internet technology. Although antennae and base stations emit radio waves, their frequency is not considered high enough to pose a health risk. Antennae mounted on towers, masts or any other structures are usually substantially elevated above ground level, radio waves are emitted at this level, thereby further reducing the amount of radiation at ground level. Furthermore, regular tests regarding the compliance to safety regulations add to reducing any health risk factor.

International Organisations stance on Cellular Mast

The International Commission on Non-Ionising Radiation Protection (ICNIRP), stated that there is no substantive evidence that proves that adverse health effects, including cancer, can occur in people exposed to the limits at or below the limits on the whole body average specific absorption rate (SAR) recommended by the International Non-Ionising Radiation Commission (INIRC) or at or below the ICNIRP limits for localized SAR. (ICNIRP, 1998)

The World Health Organisation (WHO) stated that, considering the very low exposure levels and research results collected to date, there is no convincing scientific evidence that the weak RF signals from base stations and wireless networks cause adverse health effects. (WHO, 2006)

The American Cancer Society, stated that there is very little evidence that proves that living, working or going to school near a Cell phone mast might increase the risk of cancer or any health problems. (American Cancer Society, n.d.)

According to 'Cancer Research UK', mobile phone masts and base stations are unlikely to increase your cancer risk. In fact they go further to state that the exposure from cellular base stations is much less than the exposure you would get from a phone. (Cancer Research UK, 2016)

Research indicating health concerns

Concerns have been raised in regard to the increase in cancers in residential areas that surrounds cell phone masts and towers. One of the issues that have been identified is the possible increase in childhood leukaemia in areas where cell phone masks have been placed near or in schools. However, the studies have not accounted for any other location based radiation (including other electro-magnetic objects such as televisions and radios) or differential socio-economic and demographic considerations. Therefore, it is not absolutely conclusive and it and has not be pivotal in determining definite universal policies.

Other countries stance on Cellular Mast

The Groupe Spéciale Mobile Association (GSMA) 'Base Station Planning Permission in Europe' list 31 countries (United Kingdom, Germany, France, Italy, Spain, Switzerland, Sweden, etc.) and gives a detailed breakdown of every country's: exposure guidelines; planning authority; Requirements for planning permission; timescales for permission; appeals process; public consultation, and; exemptions and existing site upgrades. The aforementioned are steps used to keep the 31 countries safe from any health dangers as a result of putting up Cellular Mast. (GSMA, 2012)

In Europe "Mobile network infrastructure and the adoption of mobile services are now considered as key indicators of European economies. To ensure national coverage, mobile operators are required to install base stations across the country so that every user is able to benefit from the use of mobile services". The key health and safety aspects include operator provision of declarations of network infrastructure compliance with relevant national or international guidelines. (GSMA, 2012)

The Australian Government Department of Communications stated that some people may have concerns about possible health effects from exposure to electromagnetic energy (EME) coming from radio communications transmitters on towers and elsewhere. However, exposure limits are set well below the level at which adverse health effects are known to occur and include a wide safety margin to protect the public. (Australian Government, 2015)

The Indian Government, in the year 2008, adopted the International Commission for Non Ionizing Radiation Protection (ICNIRP) Guidelines. However, in 2012, India has adopted the United States of America's (USA) cell phone handset radiation standard. The Indian Government's Communications Department's adoption of the USA's radiation standards, makes it one of the most stringent Electro Magnetic Field (EMF) exposure norms in the world. These norms include:

- EMF (Electromagnetic Frequency) exposure limit (Base Station Emissions) has been lowered to 1/10th of the existing ICNIRP exposure level, effective 1st Sept. 2012.
- Telecom Enforcement Resource & Monitoring (TERM) Cells have been entrusted with the job of conducting audit on the self-certification furnished by the Service Providers. TERM Cell will carry out test audit of 10% of the BTS site on random basis and on all cases where there is a public complaint. (Moskowitz, 2012)

South Africa's stance on Cellular Mast

The South African National Department of Health utilizes the World Health Organisation (WHO) International electromagnetic fields (EMF) project as it primary source of guidance and information with respect to health effects of EMF. The South African National Department of Health has also published Electro Magnetic Field (EMF) exposure limit guidelines. These are based on guidelines endorsed by the International Commission on Non-Ionising Radiation Protection (ICNIRP), an independent scientific organisation established in 1992, which has been doing on-going research ever since. (du Toit, 2015)

The City of Cape Town Policy on communication infrastructure also endorses the National Department of Health's guidelines. Emissions from base station and antennae must be in compliance with these guidelines. The COCT also states that, cellular network provider or network provider shall at all times be required to comply with the requirements of the

National Department of Health's and the ICNIRP on nonionizing radiation protection with respect to safety standards. (COCT, 2015)

The City of Cape Town Policy on communication Infrastructure addresses the unsightly issue of cellular mast by stating that, Telecommunication Infrastructure should be placed where they are most compatible with the surrounding locality and where they impact as little as possible on visual corridors or scenic drives. (COCT, 2015)

The City of Cape Town also conducts tests to ensure that the exposure levels are in line with the required limits as set out by the Department of Health.

The Nelson Mandela Bay Municipality stated that all authorizations granted for cellular installations shall be subject to review and the appropriate steps taken (e.g. decommissioning at the service providers cost) The applicant shall provide proof that the RF emissions are within the limits set in the International Commission on Non- Ionising Radiation Protection (ICNIRP) public exposure guidelines. No base station shall be sited within a school ground without the schools governing body providing proof that parents have been consulted and that the parents are aware that concern has been expressed about the lack of knowledge concerning the effect of radio frequency emissions on the health of humans. (Nelsom Mandela Bay Municipality, no date)

The City of Polokwane Telecommunication Mast Policy, 2015, states that even though the National Department of Health has over the years endorsed Telecommunication Infrastructure (TI), no antennae should be located at least 50m from any habitable structure or erven positioned as such. (City of Polokwane, 2015)

The City of eThekwini, is mindful of the need for the development of an effective and efficient communications system within the Municipal area. The City of eThekwini stated that the cellular network provider or network providers shall at all times comply with the requirements of the Department of National Health and the International Commission on Non-Ionizing Radiation Protection with respect to safety standards. The cellular network provider or network providers shall at all times comply with the requirements of the Department of National Health and the International Commission on Non-Ionizing Radiation Protection with respect to safety standards. (eTthekwini Municipality, no date)

The Ekurhuleni Metropolitan Municipality Cellular Mast Policy does not make any reference to any health matters. They do follow strict safety mechanism though.

Adrian Goslett, CEO of RE/MAX of Southern Africa, stated that unsightly mobile phone masts can negatively influence a home's appeal, he says that "*Although currently no definitive scientific proof exists that mobile phone masts are a danger to residents who live nearby, people generally avoid living close to them and the re-saleability of the property can be a problem in the future*". Mr Goslett also mentioned that noisy highways or airports and anything else that could be seen by the buyer as an annoyance or eyesore will also impact the appeal of a property[2]. There is however no conclusive studies that prove that cellular masts definitely drop property values and that people are struggling to sell their property because of a cellular mast in the area. (Property24, 2012)

According to Chantelle Dickinson of Harcourts Rhino, in her experience, "the issue of cellphone masts hasn't really been a problem but that others in her office have occasionally experienced difficulties when trying to sell properties close to cellphone masts due to the perceived health risks and visual pollution." (Gray-Parker, 2016)

Independent surveys

An independent survey was conducted by an Electromagnetic consultancy firm around a cellular tower in Constantia. The measured results were compared to the guidelines of limiting exposure proposed by the ICNIRP and subscribed to by the Directorate: Radiation Control at the South African Department of Health. For the measured results presented in the survey report a 100% value would indicate that the ICNIRP exposure limit for the General Public has been reached. However, the highest value measured was 0.2584% of the ICNIRP General Public guidelines. This was more than 380 times below the General Public limit.

Conclusion

There are no conclusive studies linking emissions at these levels to any health effects and scientific research, that may reveal such a link, is on-going. The steps taken by the, ICNIRP, WHO, National Department of Health, local Municipal policies on telecommunication stations and by the wireless internet companies to ensure the safety of the public against

any possible harmful emissions, along with the above facts and concerns about health issues, can be allayed.

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Annexure B

Beekmans N.O and Others v Mobile Telephone Networks (Pty) Ltd and Another (13543/14) [2015] ZAWCHC 79 (3 June 2015) raises questions regarding the interpretation and application of the National Building Regulations and Building Standards Act 103 of 1997 (the Act) and the regulations promulgated thereunder in relation to a so-called 'temporary building'.

Rather than to consider an application for building plan approval in terms of section 4 of the Act, MTN was advised to submit a written application in terms of Regulation A23(1) for a temporary building (cell mast), which would align it with the Temporary Land Use Departure that was granted for the property.

On 17 October 2013 the City granted provisional authorisation in terms of Regulation A23(1) to proceed with the erection of the Temporary Cellular Communication Base Station, as proposed on building plan application number 01461/2013 subject to several conditions.

It was held by the court that there is no evidence that MTN has ever demolished base stations after a short period of time. As a matter of practical reality, it seems unlikely that the City, having decided in a process finalised in early 2013, that the first five-year departure should be granted, would thereafter refuse rolling five year extensions (or eventually a rezoning) in the absence of some material change in circumstances. Given the above and the cost of constructing a base station, it was held that the base station did not qualify as a 'temporary building'.

The decision taken by the City on 17 October 2013, granting approval to the first respondent in terms of regulation A23 of the regulations promulgated in terms of the Act, to construct a cellular base station and mast on Erf 10762 Constantia, Dalham Road, Constantia, is reviewed and set aside.

This decision was subsequently taken on appeal (*Mobile Telephone Networks v Beekmans NO* (1139/2015) [2016] ZASCA 188 (1 December 2016)) where it was held that the court a quo correctly concluded that the City materially erred in regarding the base station as a temporary building. The appeal was dismissed and MTN was advised to apply to the City for approval of the building plans of the base station in terms of section 4 of the Act.