

This report is the motivating memorandum that was included in the most recent application for Zwartkop x28

M E M O R A N D U M

Date: 27 June 2012

APPLICATION IN TERMS OF SECTION 96(4) OF THE TOWN-PLANNING AND TOWNSHIPS ORDINANCE, 1986 (ORDINANCE 15 OF 1986) FOR THE AMENDMENT OF AN EXISTING TOWNSHIP APPLICATION ON PORTION 58 AND 59 OF THE FARM BRAKFRONTEIN 390-JR - TO BE KNOWN AS ZWARTKOP EXTENSION 28

The Proposed Development

The developers plan a development on this land for mainly offices for $\pm 195\,000\text{m}^2$ of gross leasable floor area. (GLA) This will reside within $\pm 230\,000\text{m}^2$ of gross building floor area. The maximum height of the building will be 200 meters which is the equivalent of around 41 storeys for office use and 3 storeys for parking garages. The proposed development will contain several high tower block buildings situated on top of buildings with a higher bulk lower down.

The proposed development would obtain access from the surrounding road system via Pannevis Road and Kwartsiet Crescent. It is also the intention of the developers to obtain access from the John Vorster traffic interchange by extending the interchange to include a sub system of left out and left in roads between West Avenue and the N1 freeway. Negotiations in principle in this regard have been concluded with Gautrans.

The development would be erected on erven 1 and 2 as well as all space above Kwartsiet Crescent. Parking for the proposed development would be provided in 3 levels of parking garage on top of the surface as well as 7 levels below the ground surface. It is the intention of the developers to use automatic parking systems that is a totally upgraded technology from the usual way of parking space provision.

The proposed development will function in conjunction with the proposed Symbio-City development of the Centurion Lake area in as much that it would also depend heavily on the proposed "Private Rapid Transport" system (PRT) to connect Zwartkop extension 28 with the Gautrain station. The PRT would also connect the proposed Zwartkop extension 28 with many other land uses and developments within the Centurion Core area.

A critical element of the buildings of Zwartkop extension 28 is that it must obtain the legal ability to be hung with so called building wraps showing building size graphic advertisements. The site is widely visible from the surrounding area. There are many Gantries, billboards and advertisements on the walls of buildings along the N1 freeway between Centurion area and the Midrand area in northern Johannesburg. The proposed building wraps for Zwartkop extension 28 will only add to this already established phenomenon. All advertisements shown on the walls of the buildings would be approved by the applicable municipal system first.

Application History

The total area of PORTION 58 AND 59 OF BRAKFORTEIN 390-JR is 2,9079ha.

The farm portions were previously part of the existing township Zwartkop X 15 in the form of erven 1906 to 1909 and 1911. Because of many uncertainties - regarding the intended use and development of this land by the owners - the erven were eventually taken back to farmland by applicable procedures. Hence the land is presently farm portions - portion 58 and portion 59 (a portion of portion 19) of the farm Brakfontein 390 –JR. The street reserves of Kwartsiet Crescent and Pannevis Road were not taken back to farmland and are still existing street reserves. However, no roads have been built in the street reserves abutting the 2 portions of land.

On 14 December 1994 an application to extend the boundaries of Zwartkop extension 15 was lodged with the Centurion local authority to again include Portion 58 and 59 (a portion of portion 19) of the farm Brakfontein 390 –JR into Zwartkop extension 15. This application has since been terminated and all concerned parties were subsequently informed.

Many years ago an application was lodged by the owners to buy part of the street reserves of Kwartsiet Crescent and Pannevis Road from the local authority together with other abutting small pieces of the farm Brakfontein 390-JR belonging to the local authority. This application was also terminated and all concerned parties were subsequently informed.

In order to develop portion 58 and 59 (a portion of portion 19) of the farm Brakfontein 390 –JR as intended by the owners an application for township development was lodged on 18 December 2008 – Zwartkop extension 28. This application was duly advertised as prescribed.

On 14 May 2009 the application was amended to increase floor area ratio and height. However, the amendment of 14 May 2009 was not finalised. It is hereby amended and extended as indicated within these documents.

On 16 April 2012 a letter was sent to the municipality for amendment of the application of 14 May 2009 but the letter of 16 May 2012 is hereby nullified and must be disregarded in total.

This application is now amended as proposed within this memorandum and as shown on the proposed township layout plan. This document and its attachments represents the only amendment of the application for township establishment Zwartkop extension 28 and the layout plan is CPD ZWK x28/5 of June 2012.

MOTIVATION FOR AMENDMENT OF APPLICATION AS WELL AS FOR LAYOUT PLAN NO. CPD ZWK X28/5.

Background

Since 1994, a new land planning system was introduced in South Africa. As the constitution of South Africa strongly points to a developmental approach by Local Governments a new set of values and norms has been adopted. A National **Commission for Development and Planning** was appointed in terms of the Development Facilitation Act no. 67 of 1995 that formulated a completely new set of development planning principles and norms than before. These principles and norms are still in place and it has become the norms and values for spatial and land use planning done in terms of all other legislation. It has to form the basis of all the existing spatial framework policy documents. Anticipated new land planning legislation will not replace these

values and norms by definition. The Development Facilitation Act no. 67 of 1995 states inter alia in Chapter 2 paragraph 3 (1)(c) (iii, iv,v,vi,vii) as follows:

Policy, administrative practice and laws should promote efficient and integrated land development in that they:

(iii) promote the availability of residential and employment opportunities in close proximity to or integrated with each other.

(iv) optimise the use of existing resources including such resources relating to agriculture, land, minerals, bulk infrastructure, roads, transportation and social facilities.

(v) promote a diverse combination of land uses, also at the level of individual erven or subdivisions of land.

(vi) discourage the phenomenon of "urban sprawl" in urban areas and contribute to the development of more compact towns and cities.

(vii) contribute to the correction of the historically distorted spatial patterns of settlement in the Republic and to the optimum use of existing infrastructure in excess of current needs.

This totally redefined the traditional concepts of need and desirability regarding township applications indicated by Ordinance 15 of 1986 alone. All spatial framework policy documents of a municipality have - among others - to confirm to these stipulations and they do so.

It has been identified on nearly all echelons of planning practise that South African cities developed extraordinary ineffectiveness in regard to the cost of land use in terms of movement of people and goods between different localities of production. This is both applicable to the poor and the rich. Urban form has in most instances become too sprawled for communication between places of work and places of residence to be effective or profitable. Therefore the essence of the DFA and the Municipal Systems Act are to allow development to rectify urban form in this regard. This means that new land use development that is significantly better located in terms of the above principles (iii to vii) should not be constrained in favour of existing development located elsewhere as has happened many times in the past. (The typical example of the past: disapproval of an application for additional retail development to be situated well because of other retail rights that exist but that did not develop yet and is not situated in the right place.)

In South Africa the need for development for many years was regarded within a collective sense defined as a shortage of urbanised land use in the form of area and volume. This approach led to a situation where land use control outside CBD's was mostly focused on a process to limit the intensity of development to achieve a so called better built environment on a so called human scale of harmony between development elements, etc. For most areas within South Africa this environment that came about was only suburban in all aspects and totally dependent on private vehicle transport alone and therefore could not become economically effective built up areas on a metropolitan scale.

Suburban areas could never achieve agglomeration economies or economy of scale for public transport. Because of the traditional extremely low densities within market driven suburban developments outside CBD's, the train and bus services between such suburbs and the CBD eventually failed. Planners and the land market could not realise planned concentrated densities outside CBD's to economise travel between such areas and the CBD and far less so between destinations within the suburbs. In the end the level of private income rose to such levels and was extended to so many that decentralisations from the CBD, of residence and job opportunities

reached a gigantic magnitude over the last 30 years. So much so that a whole new urban form emerged from this process – namely the urban region and its so called edge cities that occur in a varying scale. It is now fully accepted that a metropolitan area is multi nodal in nature and grows from multiple urban centres. A huge slice of economic activities in a city do not need private transport in abundance to succeed and it is these activities that have to be reorganised on concentrated relevant localities to function on effective mass transport systems.

The emergence of the edge city phenomenon in the Tshwane areas (the use of this term to indicate the typology and not to prove the edge city academically in scale and character.) became evident when the huge areas of decentralised single houses and town houses became large enough to provide a demarcated “hinterland” or market area for retail and commercial development within them. The land market has indeed moved many job opportunities and business to the market which is formed by the residential areas. Unfortunately there is no proof that suburbanisation of job opportunities brought workers living in the suburbs actually closer to their job opportunities in relevant numbers. Workers’ residence and the locality of firms are always changing geographically over time. According to various sources – where workers have a choice - the relationship between the locality of job opportunities and the locality of residence of workers is weak up to 1 hour’s travel time. However, it is regarded planning wise that a city should always be able to provide a minimum choice of typology of housing within a complete model of neighbourhood services as well as good accessibility of all job opportunities. As the cost of private transport escalates over time, workers should be able to seek alternative residence and place of work to decrease living costs.

Since 1995 new development must now be regarded as part of an investment driven development approach to provide economic prospering over a wide front by increasing urban economy of scale, positive agglomeration effects, etc. Within this approach, urban realities of South Africa became interlinked with the economic dilemma of a developing country in Africa. Within the international context, the country is not as competitively located and has only a limited amount of economic opportunities within a global competitive framework. Markets and economies within cities that have the potential to drive development are less pronounced and not always recognised but such opportunities should be identified and maximized as far as possible. There are localities on the urban movement system where effective development can be placed by the land market but it is not always recognized by the financial and municipal decision makers.

A set of urban infrastructure provides a hierarchy of economic opportunities that must be allowed to be maximised by the planning and land use control process and not equalised and minimised as has been the planning approach in South Africa for most of the time. Only by maximising opportunities of good locality can economy of scale and agglomeration economies be achieved by areas located well on the movement system.

A locality on the movement system that is a geographical central place in terms of infrastructure as well as the multiple economic markets it serves from that point should be regarded as an urban node on the movement system. Such a place should be able to accommodate increased volumes of concentrated job opportunities. The only way this can happen is when the market develops these opportunities with the risks that go with it. Authorities should assist in opening up the development of such localities.

As an economically developing country on the southern tip of Africa, South Africa faces many drawbacks against other countries with a first world or third world economy which is situated much more favourably on the highways of the global economy. The global economy can be to a country’s benefit but the same country can also be sucked dry of its resources if it cannot compete against the world for its fair share of investment. This means a country must also – in addition to natural resources - have places of post industrial production where the production and commerce of goods and services can take place at a cost low enough to be competitive with others. If not - such activities

will move to other cities in the world that do contain such places and the country will be sucked dry of resources - that will also include human capital - without the benefit of increasing job opportunities and general prosperity.

Recently the Tshwane policy for Strategic Investment Attraction, Development Facilitation and Aftercare Plan has indicated that the municipality indeed see contemporary type urban development as a serious vehicle for economic development.

As the 21st century unfolds, we move ever faster towards global economic integration. The role of major cities is changing significantly in driving growth, prosperity and social wellbeing. Cities today are dense networks of interchanging investments, information, goods and people as well as centres of innovation and knowledge management. The city and its infrastructure, its quality of human capital and its extraordinary ability to innovate in the global economy, is the one that can provide an economic future for all its residents. Development to achieve this must be allowed in the right place by municipalities and their residents.

The competition among cities is intense, and a strong city brand is a potent weapon to maximize the visibility of a city's qualities and allow it to differentiate itself from its competitors. Cities are competing at a regional, national and international level with one another to attract visitors, new residents and investment. They need to create and maintain a distinctive and powerful brand. The Centurion Metropolitan Core area of the Tshwane Metro has what it takes to become a place of international excellence as it is situated on the Centurion, Midrand, Johannesburg business axis. The proposed development represents an important step in that direction.

The Global Arena and Economic Survival

The Centurion Metropolitan Core area must be allowed to increase its land use performance because of the implications of legislation. Legislation demands the restructuring of South African cities to the effect of providing sufficient economy of scale and positive agglomeration effects to accommodate a modern economy within the limits imposed by time and space. The area is part of the Gauteng global economic geographical sphere and situated on an integrated high order movement system that complements land development investments and economic growth.

Investors with equity are looking to invest in much bigger projects than before – demanding an increase in the bulk of developments implicating multi-storey buildings. Such development increases land use performance in terms of public transport systems. In terms of legislation such demands should be favourably considered by the authorities and not be scaled down to a level of urban ineffectiveness as a matter of routine as was mostly done in the past.

A Unique Spatial Connection for Knowledge Economies in Northern Gauteng

Since the late nineteen eighties a unique relationship between the urban periphery of Joburg North and the east and south of Tshwane began to take shape. The decentralized job opportunities that developed in the outer periphery of the suburbs along the N1 freeway started to develop in relation to each other in enough quantities for a new urban form to emerge. This pattern was extended by the rapid growth of the Midrand Strip and its further development.

Historically - before the system of freeways came into place - both Johannesburg and Pretoria communicated with their hinterland via provincial roads radiating from them. The urban sprawl that typically occurred around these cities over the last 50 years partly followed only segments of these radial roads. For various reasons both cities favoured a certain direction and grew totally lopsided around its CBD. In Johannesburg market driven development happened to the northwest and in Tshwane's case it occurred mainly to the south, south east and the east.

For both urban agglomerations the segment of low density residential urban sprawl developed into urban realms containing a rich post-industrial type of urban structure. These areas typically densified and intensified with elements like urban corridors, nodes, activity spines, high streets, districts, open space systems and areas of discontinuity. These areas became the main focus points of the new urban growth that occurred outside the main CBD's of the two cities over the last 30 years.

During the decade of the eighties - as the N1 freeway began to exert its mighty influence on city form and function - certain areas within the above mentioned radial segments of built up areas became ideal localities to be used by developments based on the post industrial economy. The high tech and knowledge economies found in the outer fringes of the cities provided the ideal environment for growth because of the high levels of access provided by the freeway at the time.

Where in the past only the CBD's of Pretoria and Johannesburg communicated via various transport modes, the outer fringes of the two cities started to become intensely involved with each other by way of road transport in the form of the N1 freeway. However, presently dispersed development in the radial segments of the two cities as discussed above – together with the urban form and land use typology founded in Midrand - advanced to a state where their life giving arterial - that is the N1 freeway - became seriously congested. Presently the economies discussed above situated within the suburbs are under severe stress because of the losses of time and the many other costs brought about by traffic congestion.

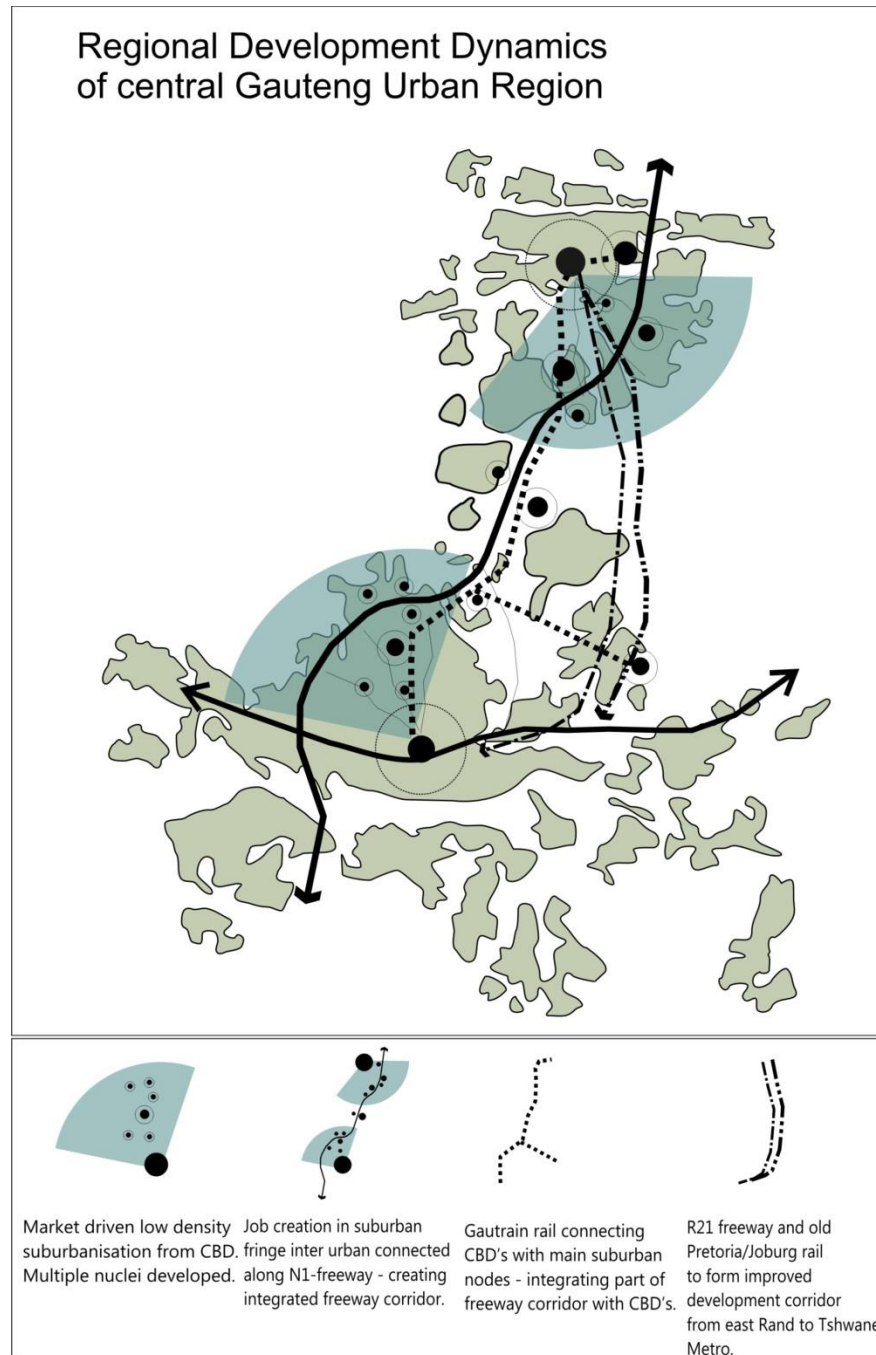
The above described phenomena can be graphically presented with the **Graphic: Regional Development Dynamics of Central Gauteng Urban Region** on page 7.

The congestion of the freeways by the car dependant economic activities of the outer fringes of the radial road segments led to the conception of the Gautrain. However, the rapid rail facility did not duplicate the transport system between the outer fringes of the radial urban segments but add a totally new aspect to the transport aspect of the total urban model. It re-instated the historic urban nodes of Johannesburg CBD and the Tshwane CBD, into the discussed movement system regarding the urban periphery. To the above nodes can be added Rosebank, Sandton City and the important destination for Oliver Tambo airport. It is clear that the only elements of the segments of the radial roads that now contain both the N1 corridor as well as the Gautrain corridor - as immediate inputs of a dynamic development impetus - are the areas around Midrand and Centurion Stations. It is therefore clear that the effective area around the Centurion Gautrain Station should have an enormous potential for development – especially if that development could be made dependent on transit.

It has become internationally evident that the concept of urban compactness - recently reintroduced as a redevelopment urban model to rectify urban sprawl not really succeeds in general to reduce trip generation and private transport use. The reason for this could be that compact development is usually small enough that it can still be planned with the usual ratio between floor space in buildings and typical low cost parking provision. Like in CBD's the area around the Centurion Station should be carefully planned to have a calculated lack of parking spaces to achieve a significant swing towards dependability on transit. To soften this effect, it is being proposed that the redevelopment of the greater Centurion Lake area – the Symbio-city project approved by the Tshwane Council - will contain an ingenious local private transit system (Automated Personal Rapid Transport or PRT) that will serve a large area of the Centurion Urban node. See page 13.

This public transport system - the PRT - will also enable the placement of parking areas on the fringes of the high land use intensity zone of the Centurion Core area. (As in park and ride.) This will integrate a much bigger area than the usual retail based pedestrianized zone at the core of the

urban node. It can significantly reduce the use of private transport within the zone of extreme land use intensity that will surround the Centurion Gautrain station. The impact of the proposed township Zwartkop extension 28 as well as other mega developments in the pipeline for the area can therefore be spread around the high intensity land use area and do not have to be site specific.



It is very important for the developers of Zwartkop extension 28 that the proposed township be fully integrated with the Gautrain station. The economy of transport around a Gautrain station quickly brakes down as one move away from the station. Therefore the Automated Personal Rapid Transport described on page 13 is being regarded as the absolute key to the success of this application as well as other huge developments in the area to follow in the near future.

The municipality has embarked on a spatial development policy to allow skyscraper standards for certain localities in the greater Centurion Mall area. However, the maximum height of buildings it proposes has no real rational base but for a few land mark buildings. The distribution of high buildings would not create a new urbanism, (how inhabitants of towns and cities interact with the built environment) pedestrian streets, urban park places, etc. It is strongly suspected that too many skyscrapers would be allowed on too a large area of the movement system. This application is part of the West Avenue Boulevard as well as the main open space system running through the area and on the main “street” intersection of the area comprised by the N1 freeway, provincial road K111 and municipal road John Vorster Road.

The municipal spatial development policy to allow skyscraper standards for buildings within a certain area will increase the floor space ratios of such developments from average 0,8 up to 8 and even more. It is bound to have a huge impact on the movement system. However, it will also take the land use intensity well and truly over the economic threshold toward the concept of transit. (An interesting phenomenon mentioned in the media that is already emerging for people already using the Gautrain for work trips is that – to overcome the lack of private transport from place of work to other economic activities - some of those people leave their private transport at work during the week to use it for work during the day - and return it home only on weekends.)

The Urban Region

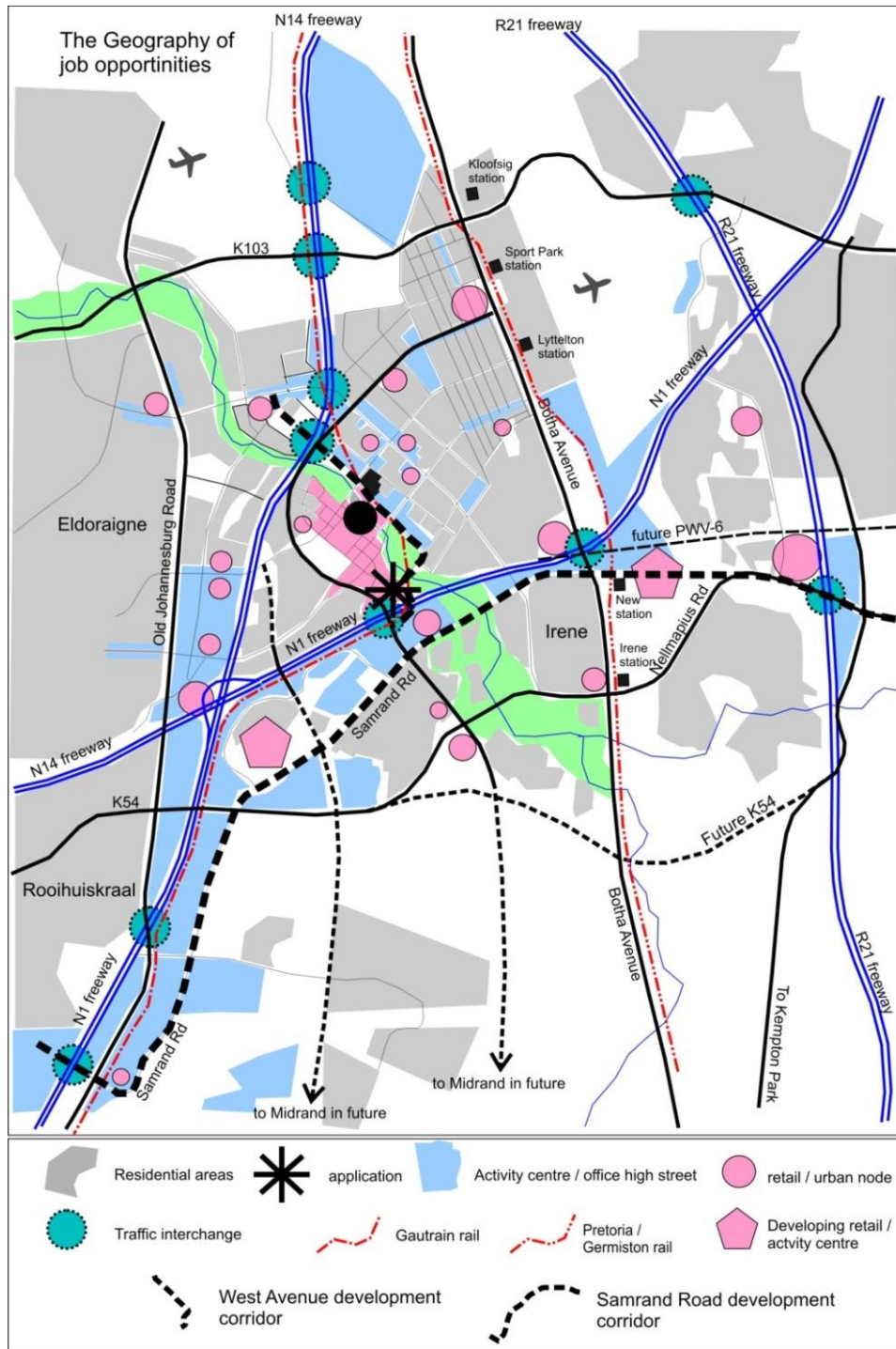
Gauteng Province is being pushed by authorities and parastatals as a developing urban region that can compete on the world stage. Global competitiveness will not occur through single cities alone but by way of huge urban agglomerations of at least 12 million residents. In South Africa such agglomerations can occur in Gauteng, Cape Town and eThekweni. The southern Tshwane area is therefore but a part of the Gauteng urban region. It is a very important part as many aspects of the area are in line with attractors of the post industrial economy now functioning on an international and the global scale.

According to several reliable sources a mega-region like Gauteng can be seen to benefit from the fact that such complex economies need diverse types of agglomeration economies and geographic settings, from extremely high agglomeration economies indicated by the specialized advanced corporate services to the fairly modest economies like suburban office parks and regional labour-intensive low-wage manufacturing. It can incorporate this diversity into a single economic mega zone. These types of agglomeration economies today are distributed across diverse economic spaces and geographic scales: central business districts, office parks, science parks, the transportation and housing efficiencies derived from large commuter belts, low-cost manufacturing districts, tourism destinations, specialized branches of agriculture, such as horticulture or organically grown food, and the complex varieties evident in global cities. Each of these spaces shows distinct agglomeration economies and empirically is found in diverse types of geographic settings – from rural to urban, from local to global.

The Development of a Mixed Use Land Use Typology on a high order road grid.

Over the years the area around the application within the traffic box formed by the K103 in the north, the Old Johannesburg Road in the west, Botha Avenue in the east and the K54 / Nellmapius Road in the south developed a sophisticated and mixed use land use typology. Presently it is widely accepted that mixed land use is essential to first realise before private transport trips per floor area can be reduced. Mixed land use development is also essential to increase resilience of the city to be able to withstand many economic problems and short term fluctuations of economic growth.

The graphic: **The Geography of Job Opportunities** illustrates the trend how job opportunities developed within the traffic box area mentioned above.



It is clear that a huge amount of job opportunities has been developed in the traffic box area over the decades. An urban complexity and resilience clearly exist. The area therefore is not vulnerable to change and the proposed Zwartkop extension 28 will not send a detrimental shock wave through it. The opposite is expected – that the proposed development will hugely increase the investment pattern of new development in the area because of what the new development will represent in the sub region.

The graphic indicates that over the decades a clear pattern of urban development and land use has been established - most probably because of sustained municipal planning policies.

The Samrand Road / Olievenhoutbosch Road development corridor situated south of the N1 freeway has taken great strides forward to completion during the last 5 years. When Samrand Road's extension is built over the Pretoria – Germiston railway line over the short term to the east - it will connect with the R21 freeway via Nellmapius Road. This will create a powerful integration of the local movement system with yet another freeway and a developing urban corridor system down to street level.

The Samrand Road corridor will become very powerful and will behave like a true corridor development with its own retail structure, residential areas, office developments, commercial rights and enormous warehouses. Years ago the developers M&T wanted to develop the areas' first true high-rise tower block of flats within this corridor. It was only the extreme conservative and non-technical policies to building on dolomite areas (understandable) implemented by the Council for Geosciences and the NHBRC at the time that prevented such a development. (See paragraph under Geology for more data in this context.)

Eventually – upon completion - the Samrand Road corridor will have 6 traffic interchanges with the N1, N14 and R21 freeways. This is far more than anything comparable elsewhere within the Gauteng urban conurbation. The Samrand Road corridor and its vicinity already are elevating the southern Tshwane area into a property hotspot comparable to Sandton City, Sunning Hill and Rivonia urban node areas.

John Vorster Road is planned by Gautrans to extend far to the south into the Midrand Urban centre area as a provincial K-route. As such it would become a road of high hierarchy- servicing a huge built up surrounding area. The area around the John Vorster traffic interchange is therefore a central place of a very high hierarchy. This locality therefore justifies the proposed maximum height of more or less 44 storeys and FAR of 8,5 – it is the locality with the highest hierarchy. This is where John Vorster Road crosses the N1 freeway corridor. Only a few hundred meters further south John Vorster Road crosses the Samrand Corridor discussed above. In the short term future John Vorster Road will be extended to the south and will connect to the soon to be constructed K54 provincial road further south. The K54 will be a very important east – west stretching road of local importance – thereby creating an even more dynamic integrated road grid than before. The site of the application will therefore become situated on one of the most important crossroads of the surrounding sub region.

The proposed Zwartkop extension 28 as well as the planned Centurion Lake redevelopments would unquestionably regain the market orientated top spot in land use hierarchy of the southern Tshwane development area. However, it will not unexpectedly change the established development and land use pattern. It will enhance existing viable development. It will bring numerous companies to the area renting in the P+ category of office grading. Therefore, any existing recent office development in the area will gain from it as it will increase the area's centrality. It will elevate existing developments' value in the market. Other existing and future office developments can then be upgraded to a higher quality office environment as is now possible. (This increases rent per square meter for the owners.)

THE WEST AVENUE BOULEVARD – a strip for mega sized developments

The above described phenomenon provides the *rationale* why a development of such magnitude as is proposed for erven 1 and 2 of Zwartkop extension 28 is not only feasible but extremely timely and desirable for the Tshwane Metro. The locality of the proposed development within the

surrounding transport system and built environment is of such potential that nothing but a global standard of land use intensity can be justified for the site.

The site of the application will be part of the West Avenue Boulevard that will span from the (over the short term) future traffic interchange on the N14 freeway up to the John Vorster interchange with the N1 freeway in the east. West Avenue will also become integrated with this traffic interchange.

The developers will also be involved with the redevelopment of the Centurion Lake and that development will also have a huge impact on the movement system. It has been decided that a **Traffic Impact Study** for both the proposed township Zwartkop extension 28 and the redevelopment project for the Centurion Lake area will be conducted at the same time as part of the same document. The document for the traffic impact study of the redevelopment of the Centurion Lake area as well as this application is therefore imminent.

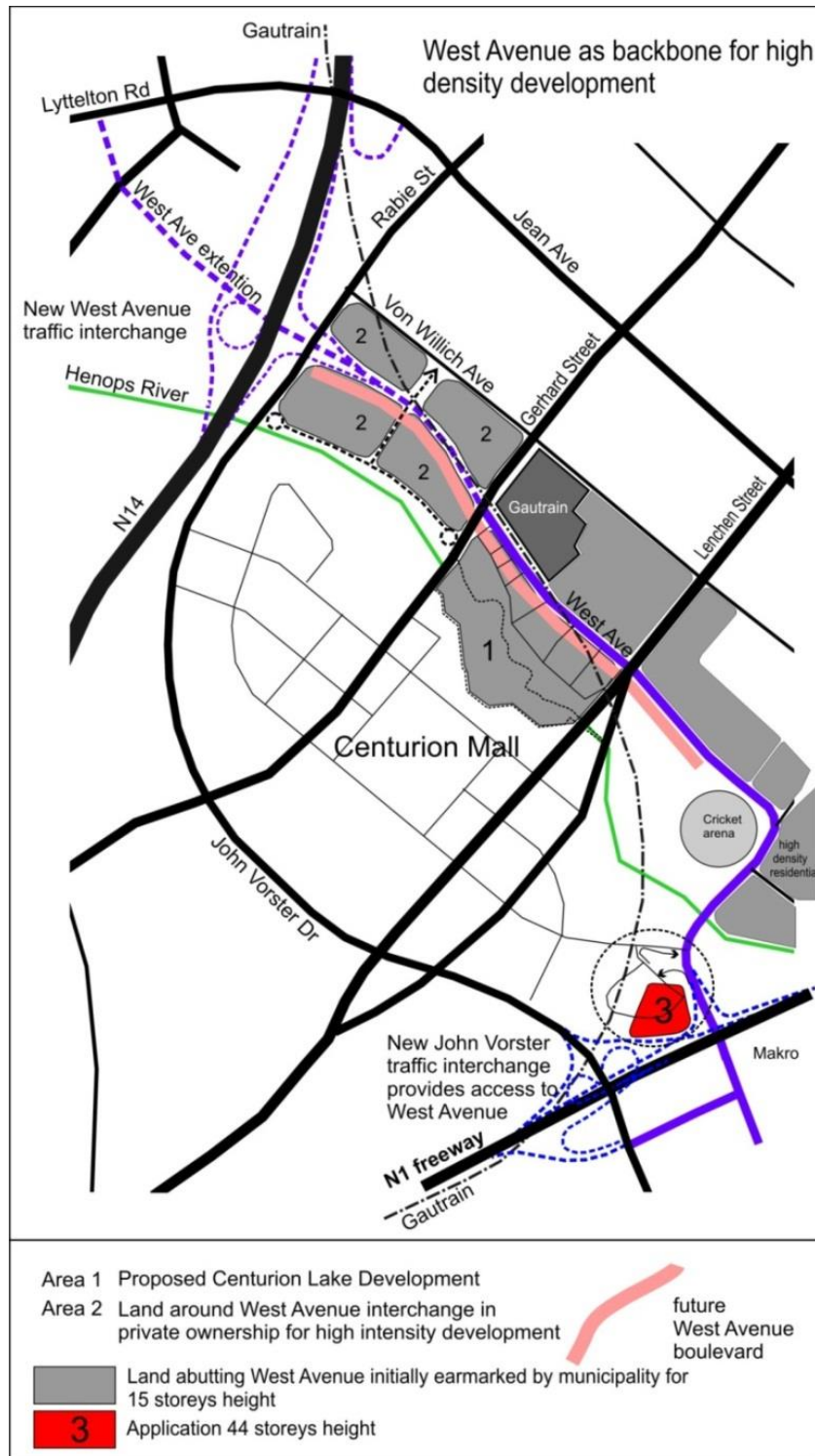
The above mentioned West Avenue Boulevard concept - in its present form and in principle - has been part of the spatial planning process for this area since the year 2000 in various formats. In reality the concept of the West Avenue traffic interchange with the N14 has been envisioned for the existing Centurion Mall development since around 1985.

The municipality's new envisioned role for the Metropolitan node of the southern Tshwane area ensures that the West Avenue traffic interchange with the N14 freeway shall continue to be seen as an essential element of the area's movement system. The newly envisioned scale of developments along West Avenue - to be modern sky scrapers - will provide the economy of scale to realise the upgraded movement system as discussed.

The municipality has earmarked several sites along West Avenue as well as other places within the Centurion Mall area to become landmark buildings sites with a height of 30 plus storeys. The concept of skyscraper buildings has therefore been established by the municipal planning process. The locality of Zwartkop extension 28 is such that it must accommodate the highest building on the movement system because the area around the John Vorster traffic interchange is the area with the highest hierarchy of accessibility on the freeway system in combination with the municipal street network.

The applicants have also investigated the further integration of West Avenue with the John Vorster traffic interchange on the N1 freeway. In future a left out access from the N1 freeway to West Avenue and a further left out access from West Avenue to the proposed Zwartkop extension 28 will provide a very high order access system to the application. In this way the application could be directly linked to the freeway. As such the site will have an extremely high hierarchy and centrality on the movement system.

The **Graphic: "West Avenue as Backbone to High Density Development"** on page 12 provides an indication of what has been discussed above. It is clear that West Avenue can function as the movement system's backbone of the envisioned high intensity land development along it and in its vicinity. However there is a fully developed grid of roads servicing the whole of the surrounding area already in place.



It must be noted that the developments along West Avenue will also be serviced by the Gautrain rail system, its bus system, the future municipal rapid bus system as well as a proposed system of automated Personal Rapid Transport – or PRT system. See graphic on page 13. The implementation of this system is mainly associated with the municipality's redevelopment project of the Centurion Lake area. Zwartkop extension 28 can only be integrated with the Gautrain station by way of the proposed PRT system. The PRT system will be provided by the applicants but will serve the whole of the greater Centurion Mall area. The proposed township Zwartkop extension 28 would be fully integrated with the Gautrain station by way of the PRT system.

The PRT system works on a rail system that can be on ground level or elevated. Many of the rails would have to be situated within existing street reserves. Such street reserves belong to the municipality. Because of the eventual general public service the PRT will provide, it has been proposed elsewhere that the use of the road reserves for the PRT rail system be regarded as a partnership between the applicants and the municipality. That the part of the road reserves or any other land belonging to the municipality needed for the rail system be supplied by the municipality at no costs for the developers of erf 53 Verwoerdburg Stad.

The several fast developing Personal Rapid Transport systems in the world provides a unique solution for transport systems in urban nodes. Decentralised urban nodes in Gauteng are not pedestrian friendly and actually still private transport based. PRT presents what has been regarded as only a transportation solution of the future as a proven and safe solution for today. It is a viable option for local urban transportation with potential for higher access and services at a lower cost than existing transport modes, while avoiding traffic problems such as congestion, accidents and pollution. It seems that the Centurion Mall area and its surroundings could be particular suitable for such transport systems. Some of these systems are already in use in some of the world cities.

Typical Automated Personal Rapid Transport as Discussed



It is the intent of the municipality that West Avenue will not only be the movement backbone of the described development but will also be integrated with the Gauteng Station on an economic and human scale. The boulevard will also be a business area with the street front opposite of the station functioning as an open mall. The ground level of the new buildings replacing the existing development along West Avenue should – according to the municipal planners – be for shops and applicable other businesses to create a complex lifestyle experience of mixed uses and a wide typology of lower order retail facilities not typical of the chain store only phenomenon of large shopping centres.

THE PROPOSED ZONING

Presently the buzzword for development is mixed use development. In order to provide enough flexibility for the proposed development Zwartkop extension 28 it has been decided that the zoning would accommodate the **following land uses as the main tenants in the buildings:**

Zoning: SPECIAL for:

Office, Commercial use, Place of refreshment, Hotel, Private Fitness Centre, shops limited to a total of 2900m² GLA, private medical facilities, Retail industry limited to a total of 3000m² GLA, Helipad, Car wash, ATM, Telecommunication mast, advertising wraps on outside of building.

- See attached Annexure T tables for specific definitions and land use controls.

Offices

The developers plan to create ±195 000m² of gross leasable floor area. (GLA) This will reside within ±230 000m² of gross building floor area. A small percentage of this will go for other uses as indicated above and on the Annexure T tables.

According to Schedule 7 of the Tshwane Town Planning Scheme of 2008 the Floor Area Ratio (FAR) and GLA is eventually equal after certain floor areas has been deducted from the total floor area of a building. The FAR of a building is therefore very close - if not equal - to the GLA. The total floor area of a building is therefore more than the FAR provided by the town planning scheme – taking into account the floor areas meant for stairs, services, etc. that are deductible in terms of Schedule 7.

The area is fast becoming one of the hotspots for office use in the northern Gauteng area. The proposed development would bring only the highest grading of office floor space to the market and will provide a very high level of supporting services. As such it must be seen to open up a new office supply market on an international level in the area rather than to compete with the existing office market.

It is foreseen that the office rent for the development would fall within the top “P” classification and this means that the proposed development would bring a level of office space to the market not yet seen before in the area. The proposed development would therefore not extend the existing office floor area but provide a new market in the Centurion area.

Motivation for office use for Zwartkop extension 28.

THE OFFICE KNOWLEDGE BASE

The following knowledge regarding the office market has been gathered from several reputable sources on the internet. The facts are provided – and actually speaks mostly for itself - and are then discussed to make important deductions from it.

According to Prof Francois Viruly - property economist writing in the Financial Mail the following:

Success in property investment is highly reliant on choosing the right property, in the right sector and at the right time. The cyclical performance of the property market is illustrated by the Investment

Property Databank (IPD) data which shows that in 1998 total returns in the commercial property market declined to a mere 5,1% when the interest rate increased to 25,5%. The rise in interest rate also resulted in total returns with very little capital growth. In 2004, a decline in the interest rate as well as relatively strong economic growth played an important role in strengthening property returns from 23,4% in 2004 to 30,1% in 2005. However, the global financial crisis reduced prospects in the sector with total returns declining from 27,7% in 2007 to 13% in 2008.

The direction taken by the property market is driven by the demand for space, conditions that exist in financial markets and prospects that developers see in bringing new developments to the market. In forecasting demand one would expect that a relationship exists between economic growth and the demand for space. IPD figures suggest that a strong correlation exists between GDP growth and property returns, more specifically a 1% rise in GDP results in commercial property returns rising by as much as 3%.

Attempting to pinpoint a leading indicator for the commercial position of the property cycle can be a complicated exercise. It is often unclear whether indicators lead or lag the property market. Past research has suggested that important leading indicators for the SA property market include movements in interest rates, GDP growth, building costs and the level of building plans passed.

According to Prof Viruly the SA Property Owners Association (SAPOA) provides a regular update of vacancy rates in the office and industrial property sectors. The vacancy rate becomes an important analytical tool when the natural vacancy rate is considered. In the case of the office market, the SA vacancy rate probably lies at around 8%, with the figure being about 9% in Johannesburg and 6% in Cape Town and Durban. The important point is that rentals in real terms start rising only when vacancy rates decline below the natural vacancy rate.

Though few doubt the importance of timing when investing in the equity market, property investors have often adopted the view that since property is a long-term investment, timing is of lesser importance. This is based on the view that the property cycle is difficult to identify, and even if it can be identified, opportunities to sell and acquire properties are difficult to time within the context of this cycle.

This is particularly true for property developments that can take years to develop and can span numerous cycles. Added to this, the different sectors of the commercial property markets will rarely be on the same point on the property cycle and tend to lag and lead each other. The upward phase of the property cycle often starts with the industrial sector, which in time is followed by the retail and office sectors. The industrial sector is influenced by manufacturing output; the retail sector by consumption expenditure; and the office sector largely by trends in employment in the service sector.

With property investments being long-term investments, it is equally, if not more, important for investors to pay attention to long-term structural changes in the economy. Such long-term trends have an effect on the type of space that is demanded and where and when it is demanded. Trying to come to grips with long-term trends in the property market requires the investor to understand long-term population growth and urbanization trends. It has been estimated that the population of Gauteng will grow from the present 10m people to 20m by 2045. This will invariably increase the demand for space in both the residential and commercial property sectors. Rising urban populations are likely to increase densities, which, in turn, will alter the type of properties demanded by the market.

The significant improvement in transportation systems also results in new investment opportunities. Studies suggest that transportation systems offer significant opportunities for the development of suburbs and in particular the integration of commercial and residential uses. The densification of

cities offers opportunities for developers and investors to enter into new sectors of the property market, one being the redevelopment of existing properties.

The SA property market experienced a significant boom in 2001-2008. As can be expected, this resulted in a significant level of development activity.

In 2009 the SA property market entered a downward phase of the property cycle characterized by rising vacancy rates, placing negative pressure on rentals and property values. Added to this, investors found it increasingly difficult to secure funding for new developments. During 2011 the property market will gradually mop up the excess space, and it is likely that market conditions will start to improve significantly during the course of 2012 and 2013.

It may still take time for the property cycle to move through its upward phases. However, it presents opportunities for investors wishing to acquire properties that could benefit from capital growth during the upward phase of the property cycle. Moreover, pockets of opportunities, created by changing transportation and density dynamics, always exist in the market.

From the Website: www.property-investing.org the following facts and quotes:

The demand for office space is a derived demand because firms rent space as an input to the production of services or goods they provide to businesses and households in the local, regional, or national economy.

The major tenants of office space are firms providing finance, insurance, real estate and other services, including primarily professional, business, and government services (Wheaton 1987). Within the service sector, DiPasquale and Wheaton (1996) consider the following types of firms as office space users: advertising, computer and data processing, credit reporting, mailing and reproduction, legal and social services, membership organizations, and engineering and management services. Thus, if market demand for such services increases, demand for office space will also increase (to the extent that the additional demand for services cannot be satisfied by existing firms without using any additional space).

The aggregate demand for office space at the broader market level refers to the total amount of square meters of office space demanded by all firms interested in operating within that market. This is actually the sum of the individual office space demands of each of these firms. The demand of an individual firm for office space depends on the size of the firm, that is, the number of its employees and the amount of office space used per employee.

Obviously, the greater the number of firms, the greater the average number of employees per firm, and the greater the amount of square meters per employee required by each firm, the greater the total amount of office space demanded within a market. Within this context, increases in aggregate market demand for office space can be triggered by:

- 1) Increases in the number of office firms operating in the market,
- 2) *Increases in the average number of workers employed* by each office firm, and
- 3) *Increases in the amount of office space per employee* demanded by each firm.

The increase in the general demand for office space is mainly driven by economic growth. However it is important to note that the general office market can vary considerably between different geographical areas and different economic sectors at a specific time.

While economic growth of metropolitan markets depends largely on how the national economy is doing, there are significant variations in economic growth rates across markets due to differences in sectoral structure, production cost differentials, and local market dynamics. Empirical evidence in the USA presented by Erickson and Wasylenko (1980), Carlton (1979), and Bartik (1984) verifies the use of the cost minimization approach in business location selection and, therefore, the influence of production cost differentials in driving job growth. These studies suggest that business location is affected by agglomeration (concentration of firms), unionization rates, wages, and corporate taxes. However predicting employment growth across metropolitan markets is more complex than simply recognizing the effects of these factors.

Non-price factors that influence office space requirements per employee include the type of services provided by the firm, the growth prospects of the firm, and the profitability of the firm. Within this context, increases in the square-feet-per-employee requirements of office firms can be triggered by:

- a) Employment growth in service activities that require a greater amount of space per employee
- b) Expectations for faster growth in the future
- c) Increases in office firm profitability

The office market cycle is an important characteristic of office market behaviour. Investing profitably in office property requires an understanding of how office markets are likely to move over the investment horizon.

Furthermore, the potential impact of such movements on the earning prospects of a particular property need to be evaluated thoroughly. Market wide behaviour does not affect equally all properties; its impact may vary depending on the strength of location, nature of demand, and the quality/amenities offered by a property.

An important characteristic of the cyclical behaviour of both new construction and the vacancy rate is the long periodicity of the cycle, which is accepted to be between 8-10 years.

The office cycle may also differ in terms of magnitude and timing across different qualities of office space, such as class A, class B etc.

The office market cycle is due to the inherent idiosyncrasies of the behaviour of this market. In particular, the cyclical movement of the office market is due to:

- The sluggish adjustments of office space demand to changes in market conditions (market rents and vacancies) due to long-term leases that prevents office tenants change their consumption of space and location,
- The sluggish adjustments of supply to changes in demand due to the long time that it takes to plan and complete an office project; furthermore due to the high cost of office development process, projects that are well in this process are rarely remain unfinished despite of unfavourable developments in the market,
- The sluggish adjustment of rents for already rented space due to long-term leases that not only maintain rents at fixed levels but stipulate mandatory increases, independently of prevailing market conditions and trends in market rents,
- The high volatility of demand for office space due to unpredictable economic shocks that affect employment growth in service and financial sectors which determines large portion of additional

demand for office space.

Scientific forecasting of the office market cycle requires historical data on office rents, office space supply, and vacancy rates. This data can then be used to estimate and calibrate forecasting equations predicting marginal demand or absorption, which is calculated as the change in occupied stock, completions, which are calculated as the change in the existing stock and rents. In other words, a system of three econometric equations needs to be estimated. Once calibrated through econometric estimates using the historical data, it can be used with different economic scenarios regarding employment growth in office-using sectors, to assess how demand, completions, vacancy rates and eventually market rents will move in the local market.

Competent forecasting firms specialized in real estate market analysis and forecasting do provide forecasts of major office markets in the US, which can provide valuable insights into future office rental rate movements and potential returns from office property investments.

Office market analysis needs to identify all demand and supply factors that determine the levels and prospects of a market's most important indicators: its vacancy rate and rental level.

Furthermore, it is also important to be able to identify and quantify the structural dimensions of these two indicators, that is, the structural (or "normal", as is often referred to in the literature) vacancy rate and implicit equilibrium rent, or in other words the equilibrium rent implied by prevailing office space demand and supply conditions. Quantifying these two indicators can provide significant clues in terms of how office market rents and vacancy rates are likely to move in the future.

Aspects regarding Office Developments in Centurion from various sources:

In August 2008 it was estimated that there was 271 000m² committed new office developments in the Tshwane area outside the CBD. At the same time it was reported that the rentals of Centurion and Menlyn only grow with 5% and 4% which represents a decrease during 2007 in relation to increase of rent in Hatfield (13%) and Brooklyn (14%). This could indicate that the Centurion and Menlyn areas are not as competitive.

It has been indicated in 2011 that in the Centurion area there is presently about 360 000m² of rentable office space in the market.

It has been forecasted by a reputable firm that by way of the above mentioned techniques that the Centurion area could need at least 950 000m² of office space by the year 2025.

According to the firm Urban Studies several years ago already the Pretoria/Tshwane area has been dominated by office growth in a south-easterly direction, scattered throughout the south-eastern suburbs with concentrations in the Hatfield and Brooklyn areas. The development, however, shows very strong growth in Centurion and the adjacent office area. For the first time in 20 years the link between Centurion, Midrand and Johannesburg has established itself as a very strong business corridor. The quality housing in the Centurion area as well as the very large residential growth that can be expected in this area will further strengthen office growth in this particular sector of the Pretoria/Tshwane market.

According to various websites rentable Office space are being graded into 4 categories as follows:

Grade P- Top quality, architecturally modern space, which is generally a pace-setter in establishing next generation levels of rentals and prestige, Offices will incorporate efficient space planning,

environmentally friendly installations, the latest generation building systems & services, ample parking, prestige entrances, common areas & ablutions, high quality finishes and probably offering good views.

Grade A - Generally not older than fifteen years, or which has had a major renovation; high quality modern finishes; air conditioning; adequate on-site parking and commanding view, market rental near the top of the range in the area in which the building is located. (The following should also be taken into account in determining whether the building is A-grade or not: Consider whether the building has a good quality lobby finish, quality access to/from an attractive street environment and other similar factors, such as safety and security.)

Grade B- Generally older buildings, with accommodation and finishes close to modern standards as a result of refurbishments and renovation from time to time, air-conditioned, with on-site parking, unless special circumstance pertain.

Grade C- Buildings with older style finishes, services and systems. It may or may not be air-conditioned or have on-site parking.

Recently, according to various websites the Office space gross rentable areas within the Centurion Commercial Office Node, range from small pockets to larger suites, measuring from 80m² to 12 000m².

Gross rentals range according to location, age, visual attractiveness, grading and quality of office space provided, therefore a value range is provided as a guide:

Grade C office space = R75 m² to R85 m²

Grade B office space = R80 m² to R 90 m²

Grade A office space = R89 m² to R120 m²

However there are office space advertised in Centurion for ±R170m².

(All rates quoted are per calendar month.)

Gross rental is defined as being the total rental being asked including operating costs and municipal costs, but excluding parking, VAT, electricity/water consumption and internal cleaning.

Parking rentals vary according to type (i.e open, covered & basement) and availability of parking, therefore a value range is provided as a guide:

Open parking bays = R250/bay to R290/bay

Covered parking bays = R280/bay to R380/bay

Basement parking bays = R400/bay to R650/bay

(All rates quoted are per calendar month.)

OFFICES FOR SALE:

Offices now (June 2012) for sale within Centurion range from small suite pockets to entire office parks varying between approximately 90m² to 6 000m². Asking sale prices, vary from location, to

grade of office and quality of office space provided, therefore a value range is provided as a guide of between:

Grade A, B and C office space: R9 500/m² to R13 500/m².

Sale prices, exclude parking/VAT/transfer duty and attorney fee associated with the purchasing process.

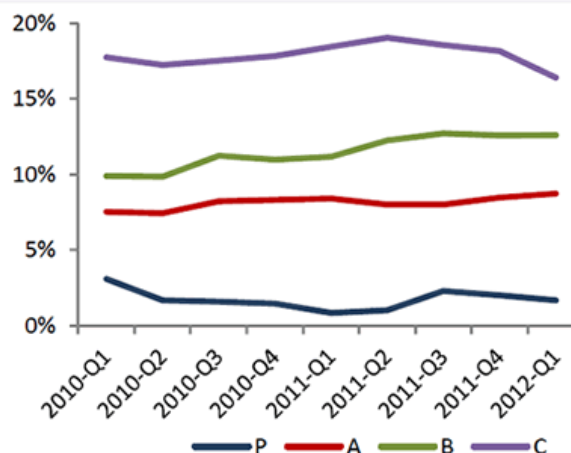
SAPOA Office Vacancy Survey.

The latest SAPOA Office Vacancy Survey, compiled by IPD, sheds a degree of positive light on an office sector that continues to operate in a challenging market with vacancies generally above natural levels.

The national office vacancy rate stabilized somewhat in Q1 of 2012 following marginal yet steady growth over the previous four quarters. While this was only a very slight improvement of just 2 basis points and conditions for the office sector remain tough, it indicates that some nodes are showing improvement while overall vacancy rates may be beginning to level out.

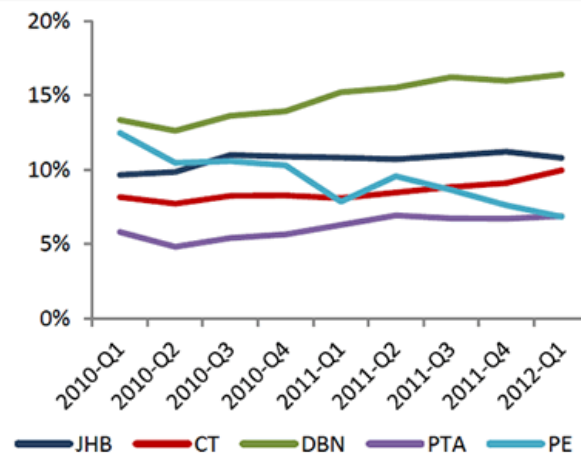
Prime space continues to outperform lower grade stock, especially in prime decentralized nodes where most areas saw an improvement this quarter. The P grade vacancy rate is currently a low 1,67% while A grade space saw a marginal increase to 8,73%. The largest improvement was realised by C grade space which fell by nearly 2% to 16,41% in line with continued office-to-residential conversions and some demand for C grade space, particularly from call centre operators. The vacancy rate of B grade office space has remained relatively flat over the past two quarters and currently sits at 12,60%.

National Office Vacancy by Grade



In terms of cities, Johannesburg and Port Elizabeth saw some improvement while Pretoria, Durban and Cape Town continued on their current trend of increases. All these movements were less than 1% though, supporting the view that a flattening of vacancy rates is developing.

National Office Vacancy by City



The economic outlook for the year ahead is less than favourable with low growth expected for the year ahead and as a result the office market is unlikely to experience any significant improvement in the short term. However, while a degree of uncertainty persists in the economy and therefore the office market, overall vacancy rates appear to be stabilising somewhat which suggests that they may be approaching the bottom of the current cycle.

The latest SAPOA office vacancy survey shows that while vacancies in six out of the seven Cape Town offices nodes rose in the fourth quarter of 2011, Century City bucked the trend with vacancy levels falling to 8,5% from a high of 12,9 percent in August 2009.

Century City as model for Centurion Metro Node.

Because the Centurion Core area is about to be flooded with ultra-high quality offices it can be expected that a chain reaction of new developments will follow and that the area will become a dynamic node that could differ in rent and vacancy rates from the surrounding office nodes. An example of such a phenomenon can be found in Cape Town in the form of Century City.

According to the Century City website the following:

Giles Balmer of Rabie Property Group, developers of Century City, says this is even more spectacular given the fact that the size of the Century City office market has ballooned to 243 488 m² of office space against a mere 83 003m² that existed when Rabie acquired the undeveloped land and associated rights in June 2004. The Cape Town office vacancy factor overall rose to 10,5% in the same time.

“Currently only 20 889 m² of offices remain to be let in the precinct so the total take-up since June 2004 amounts to around 150 000 m² giving an average annual take up of 20000 m² per year over the past seven and a half years.”

Balmer says they know of no other office node in the country to experience this level of growth over this period.

He points out that the bulk of new space at Century City came on stream between June 2006 and September 2008 - a period when the node grew from 96 978 m² to more than 206 000 m².

Factors contributing to Century City's growing popularity as an office destination is its central location, its integrated new urbanist lifestyle, its high level of infrastructure, security and services; its extensive public transport offer and the wide range of world class leisure, sports and retail amenities, including Canal Walk shopping centre, all in easy walking distance, according to Balmer.

"The launch of Century City Connect, the first open access fibre optic network of its kind in South Africa, is certain to add to its appeal particularly among companies with large broadband requirements.

"Century City Connect is providing the country's fastest, carrier neutral 'last mile' open access network over which a select number of Internet Service Providers are offering those living and working in the 250ha precinct the fastest voice, broadband and multi-media services. Because Century City's fibre optic backbone is carrier neutral, clients are able to choose which of the accredited Internet Service Provider's (ISPs) packages best suits them in terms of voice, broadband and multi-media services as well as cost," he said.

"It has total development rights of around 1.3 million m² of bulk including a total of 591 180 m² of office space so what is here now is less than half that of when it is fully developed," says Balmer.

He says that with its basket of rights, Century City is in the enviable position of being able to respond to cycles within the different sectors of the property market as these cycles tend to follow each other rather than overlap.

"Continued demand for office space in the precinct has prompted significant new development and 14 years after it was launched the Century City development has matured significantly with a multi-tier office market having emerged giving buyers and tenants a much broader choice of product."

It is clear from the above that the same phenomenon can happen in northern Gauteng that is a much more open and bigger market than the Cape Town area.

Discussion

The commercial property market showed a remarkable resilience during the recessions of 1998 and 2009 under circumstances of incredible stress. It clearly indicates that the market is not unduly sensitive for change or shocks.

The huge residential growth experienced during 2001 - 2007 has not yet fully impacted upon the commercial property market due to fewer developments emerging than could have been expected. Therefore there is a huge lag in developments in the market. This could be seen that the time is ripe for developments that would provide huge floor areas near to Gautrain stations.

The calculation of the exact needs for office floor area is an extremely complex process and is more focused on micro aspects for the risk management of a specific development than macro aspects for a more general land use planning approach. There are many critical variables in the process and it can be said that calculating a need is more a measuring instrument than an absolute statement.

Office vacancy rates in South Africa are not critical – it is more used to measure trends over and under the natural vacancy rate of an area. Taken into account the serious impact the 2009 recession had on the economy of South Africa and the many job opportunities that were lost, the vacancy rate

for offices did not move into a serious situation for offices in general. It is clear that the macro scale office environment is a robust urban system as long as enough equity is available during the development phase of a project to carry it towards profitability.

Aspects like improvements in transportation systems and growth in the residential sector creates new opportunities for office development. The Centurion area had huge residential growth during 2001 – 2007 and during this period the Gautrain and its station was constructed. The Gautrain station in Centurion is within the metropolitan node area of which the application is also part of. It is important to note that different economic sectors have different phases of growth. This can also vary between different geographical areas in a city as well as between different urban nodes in a city. That is also why office vacancy rates can differ between urban nodes within the same city.

The office market struggles to keep up with the idiosyncrasies of the office property cycle because of aspects like long term leases and fixed rents that are intrinsic to the office market. Therefore vacancy rates over the natural rate are not a true short term indication of the need for offices over the medium term, etc.

The technique for calculating office needs in an area is totally based on statistics and data of the past that are then projected to define a future possibility. This form of planning has been identified as totally inadequate for non-linear complex systems which office developments in an urban environment undoubtedly are. The market situation for offices has more to do with investment risk and the probabilities of the variables of the development process than the need for office development in a city as a planning model.

In August 2008 sources indicated that 271 000m² new office development became committed at the time for the Centurion area. At this time rentals in Hatfield and Brooklyn areas increased with 13%-14% respectively while rental increases in Centurion and Menlyn were only 5% and 4 % respectively. It is clear that the office market in Centurion could be focused too much on serving a local market and is ready to be elevated to a new milieu to start functioning in the global market and with a grading of P+ quality offices.

It has been established by Urban Studies that the office market in Tshwane is mainly in the eastern and southern suburbs and that a dedicated business corridor has been established between Centurion, Midrand and Johannesburg. In terms of this application it can be said that this business corridor will be fed by the Gautrain over many years and is it expected to grow spectacularly in future.

It has been indicated that there is only 360 000m² of total office space available for rent in the Centurion metro node. It has been calculated by a reputable source that Centurion in total could need at least 950 000m² office space in the year 2025. This is only 13 years from now. However, this figure is only based on the typical local aspects fed into a formula and distributed over the whole of the area. It would also be totally based on private transport. In reality it seems fair to say that the area can indeed accommodate huge quantities of high graded offices that would not negatively influence the existing of future market for cheaper offices.

For spatial planning purposes and view of the plethora of legislation pointing to developing cities for mass transport it can be said that a huge volume of office space should be concentrated around the Gautrain Station and within the area situated upon its secondary movement system where transport spinoffs can be achieved. From the data and the knowledge gathered it can be safely assumed that the proposed development as well as other proposed mega developments around the Gautrain station would not negatively impact on the existing office market. It is the intention of the application to supply the Centurion Metro node with additional P+ grading offices on a substantial scale. The office market in Centurion would be greatly extended and improved by the

proposed office development and it would be able to change the typology of the business environment of the Centurion Metro Node area greatly.

It is the Tshwane metro's intention to transform the Centurion Metro node in a way as discussed previously and to elevate it as part of the global business community. As such it would become an important and geographical office entity. It is expected that the newly proposed mega developments would produce spinoff advantages for more developments of the same kind over time. It will become an urban node within a wide office market developing its own dynamics, etc. Century City can be seen as a successful example of such an island of development within a metropolitan environment and that is growing much faster than other developments in the area. The data provided above for Century City shows that while it is developing rapidly its vacancy rate is lower and is actually shrinking.

The cost of building the proposed office development would be high and therefore the rent per square meter would be above most of the offices available in the market presently. The range of office rent has been indicated by an office renting firm to be between R75/m² and R120/m². It has been estimated that the proposed development's rent per square meter will have to approach R180 to R200 per square meter. It is therefore clear that the market to be penetrated by the proposed office development would be completely new. The risk of doing so would be all for the developers. However, at the same time a successful development will be able to enrich the Centurion business environment considerably in favour of all stakeholders and residents.

Retail Industry:

The application limits this zoning to a maximum of 3000m². The locality of the buildings would be situated in an area that already shows trends and possibilities in this direction. This zoning would bring a mixed use element into the complex that could boost job creation over a wider spectrum of skills in the area. These types of uses would normally not gather in a central place like the proposed development and therefore this zoning would help to centralise business that usually are scattered into less used places of non-economic land use. The quality that the proposed floor area would have in the market and the expected high level of rent would regulate the typology, implementation and scale for the eventual land use under this zoning automatically.

Commercial use:

This zoning enlarges the margin of land use mix considerably. The quality that the proposed floor area would have in the market and the expected high level of rent would regulate the typology, implementation and scale for the eventual land use under this zoning automatically.

Hotel:

The concept of the hotel for ±55 rooms is mostly to accommodate the needs of the tenants in the buildings. However, Gauteng is known for its emerging business tourism. The huge increase in office rights foreseen by the municipality to occur in the area over the short term will also increase the demand for facilities for business tourism. The proposed development would be ideal to accommodate the typical businessman who wants to stay over for a few days and to therefore include accommodation like a hotel within the proposed development is a logical step and should be acceptable in such a huge development.

Outdoor Advertising on Buildings

It is the serious intention of the developers that the proposed development should be able to contain so called building wraps with advertising being placed on it. This is the placement or projection or illumination at night of huge advertising images on the side of the buildings. Building wraps and similar large advertisements on the side of buildings are becoming an international phenomenon.

It is well known that a well-structured policy and implementation of advertisements are an important element of economic development and growth within any economy. The City of Tshwane Metro has by-laws in place for the control and limitation of outdoor advertising. These by-laws do not contain the concept of building wraps. Therefore the building wrap function is added to the proposed amendment scheme in this application - with reference to the bylaws - until the situation can be clarified.

This aspect of the application is being considered to be a critical part of the application and should under no circumstances be dismissed as a matter of routine – especially not in the light of the inadequacy of the bylaws. If the present situation in regard to the by-laws and the town planning scheme rules out any outcome on the grounds of the nature of the municipal legal structures alone not being able to accommodate the concept of building wraps the applicants must be informed how to go about administratively to create the necessary, structures.

Any decision by the municipality to dismiss the concept as part of the application must go through a hearing process of the municipal Town Planning Committee.

ATM

In order to ensure the availability of ATM facilities in the proposed development it is listed as a separate zoning as it could be that the applicable set of zonings in this application do not contain the land use rights for an ATM.

THE FOLLOWING USES WOULD BE MAINLY FOR THE CONVENIENCE OF THE TENANTS IN THE BUILDINGS:

Shops / Places of Refreshment, Private Fitness Centre, private medical facilities, Helipad, Car wash.

Helipad

The area is fast becoming a highly sophisticated working environment. The proposed development will open up a new international and global office market. It is acceptable for such a market to have close access to helicopter transport within the Gauteng urban conurbation. As such it is expected that an available helipad on the premises would be of highly convenience to tenants. In this way high profile tenants and clients (the people to be attracted to the development) can escape the traffic congestion typical of peak hour traffic, etc.

Shops / Places of Refreshment

The floor area for shops and restaurants is mainly for tenants. The total number of people that would work within the buildings would easily exceed the buying power usually associated with 2900m² of GLA for shops.

Because such a large development with a formalised access system – that is high tech parking garages only - which is not workable for an ordinary small shopping centre - it is proposed that it

would not be necessary to conduct any special retail investigation for the purpose of this application.
(The total floor area is also less than the minimum area stated by the municipality to need a retail investigation.)

The shopping facilities would not be typical low order shopping centres but will be part of the tenant infrastructure and service facilities of the buildings. The shopping facilities would therefore not compete with other shopping centres situated on street level in the area. The proposed erven 1 and 2 would not be situated on an open street grid with a client base surrounding it. The erf is cut off from the surrounding area with the freeway, the Hennops River, John Vorster Road and is very poorly accessible by foot from the immediate surrounding area. The shops would therefore not function within the hierarchy of shopping centres of the surrounding area at all. However, the shops would provide a high level of service to the tenants.

Private Fitness Centre, Private Medical Facilities, Car wash.

These typical facilities for such a development would mainly be for the benefit of tenants. The facilities would be part of the main services being offered by the owners of the building to tenants.

OPEN SPACE

The proposed township of Zwartkop extension 28 borders erven 1912 and 1913 of existing township Zwartkop extension 15 and these erven are both zoned "Public Open Space." This implies that the storm water rivulet flowing through the area does not border the application but that such storm water rivulet is flowing through the above mentioned erven and that these erven were provided for open space purposes when Zwartkop x15 came about. The land on which the proposed township Zwartkop extension 28 would reside was originally part of Zwartkop extension 15 and proclaimed as such. (See application history in beginning of this memorandum.) Note that the storm water rivulet becomes totally channelled to flow underneath the John Vorster traffic interchange.

The surface of erven 1912 and 1913 of existing township Zwartkop extension 15 has been extensively damaged by the construction process of the Gautrain rail. This damage also extends to outside the Gautrain's servitude. This action almost for certain completely destroyed the ecological elements of the landscape along the storm water rivulet. According to the applicable municipal engineers the damage done by the Gautrain project to the area was at no time sanctioned by the municipality and that a process has been instigated by the municipality and other organisations to oversee the reparation of this damage by the Gautrain authorities. The idea of the reparation is to take the situation on site back to its state before the Gautrain was constructed as far as possible. It could also be that the storm water rivulet would become totally channelled within erven 1912 and 1913 of Zwartkop extension 15.

It is therefore proposed that this application does not provide additional "public open space" (park) but that a zone of open space (landscaping) between the storm water rivulet and the line which is 32 meters from the middle of the river is declared a building restriction area and be landscaped in conjunction of erven 1912 and 1913 of existing township Zwartkop extension 15. (This 32m line is intersected for a short distance by the 1:50 year flood line that is then situated further away from the stream than the 32m line and - for this distance - becomes the building line.)

The storm water rivulet running through Zwartkop extension 15 comes from a storm water duct running underneath the whole of the John Vorster traffic interchange. South of this interchange the storm water rivulet forms the basis of the water features of the Highveld Techno Park. (Which is part of its storm water system.) It must be remembered that Highveld Techno Park was a project of the former - but now redundant - Centurion municipality. The water features in Highveld were also provided by the municipality itself. Some alterations to this storm water system in Highveld have

occurred with the upgrading of the John Vorster traffic interchange to supply the area with a left in off-ramp of its own.

Environmental Impact Assessment Authorisation

On 12-03-2012 the Gauteng Department for Agriculture and Rural Development has issued a statement in regard to this application stating that based on the data submitted the application is not listed in terms of the Listing Notice¹, activity 23(i) of the Environmental Impact Assessment Regulations, 2011¹⁰, (GN R. 544) published under the National Environmental Management Act (NEMA) (Act 107 of 1998) (as amended) and therefore does not legally require environmental authorisation from the department. See annexure A in this regard.

The Tshwane Open Space Policy

According to this policy the storm water rivulet mentioned above is part of a Blue Way. Blue Ways include all watercourses (rivers and spruit areas) in the city irrespective of their character and order. Such areas are defined by natural contour low points and the 1:50 year flood line or 32meters from the centre line of the Blue Way, whichever is the greatest. It accommodates permanent and perennial water flow. The policy excludes built storm water structures from being regarded as Blue Ways.

The Tshwane Open Space Policy stated that Blue Ways are the most important elements in the provisioning of environmental goods and services, the protection of biodiversity, endangered species and ecological systems, as well as eco-based activity. Therefore Blue Ways must be conserved.

The Open Space Policy states that Natural Blue Ways consist of ecologically pristine areas with the riverine and riparian zones as ecological focal point. The river/spruit must be maintained in its natural setting with a natural flood line. Human intervention must be localised with a minimum footprint. Activities must focus on ecological research, education, conservation of bio diversity and passive recreation.

The Tshwane Open Space Policy indicates that continuity of movement along rivers such as hiking trails and cycling routes must be facilitated. Strict control of development and invader species have to be practiced and only endemic landscaping allowed. Cultivated Blue Ways are characterised by manicured riparian zones as the basis for passive and active recreational activities. Trees must define the edges of the green structure, and buildings should weakly define the bigger space. The use of indigenous grass must be promoted at all times. Urban Blue Ways have historically been totally transformed. It consists of a linear space with strong edge definition. Here, buildings must focus on the Blue Way with activities and openings linking onto and interacting with the open space. The interface with other land uses must be a balance between hard and soft to improve ecological functioning. Rehabilitation of disturbed areas within all Blue Way character types must be sought at all times.

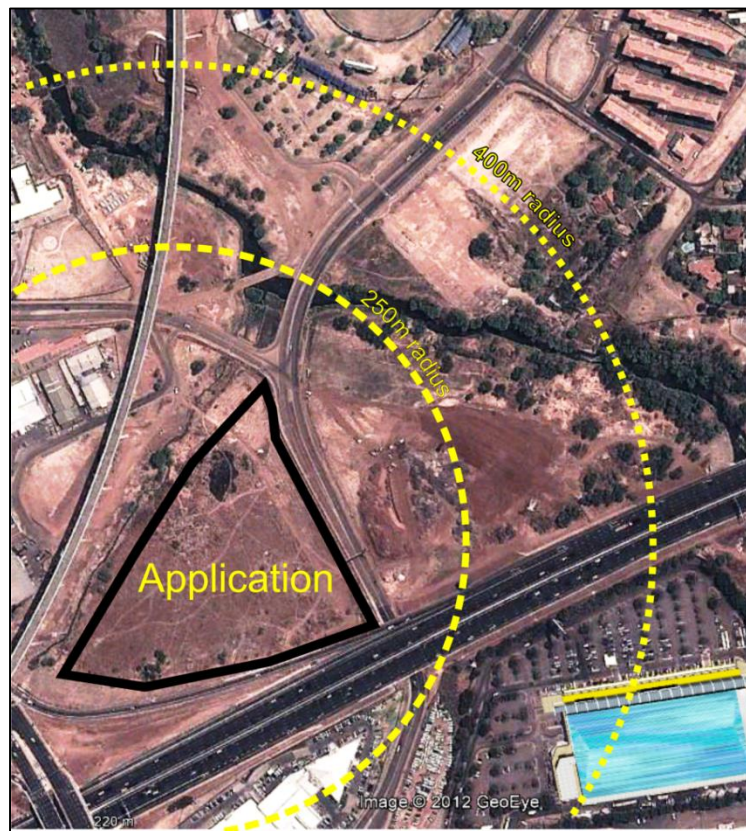
Although the stream is not situated on the land that is part of the proposed township Zwartkop extension 28, part of its flood line is. The layout plan for proposed township Zwartkop extension 28 has included the 32m line from the centre of the Blue way as well as the 1: 50 year flood line where it is further away from the stream than the 32m line. See discussion above.

Almost all of the elements for a blue way listed – except the contours - in the Tshwane Open Space Policy is absent as far as the proposed Zwartkop extension 28 is concerned. As described above some of the pristine quality of the Blue way that runs through the area has been destroyed by the Gautrain construction. The terrain has no special features that are associated with blue ways as

shown in the policy document and that is indeed partly present south of the traffic interchange in Highveld. The storm water rivulet comes from a storm water duct underneath the John Vorster interchange within the township of Zwartkop extension 15 situated on a park erf.

Although the applicable Blue Way is an extension from the Hennops River it is totally cut off from the bigger surrounding area by high order streets and roads. Nothing is situated near it. The area of the application is cut off by roads from the surrounding built up area on all fronts. The N1 freeway in the east, the John Vorster interchange and John Vorster Road in the south, South Street to the west and the extension of West Avenue underneath the N1 freeway in the north. The area is not easily reached from any residential area.

Within a macro scale the proposed township Zwartkop extension 28 has huge open spaces around it that are created by road reserves, vacant land, park erven and the Hennops River open space zone between the N1 freeway and the N14 freeway. The 1: 50 year flood line from the Hennops River runs very wide on its southern bank opposite the proposed development. As such the open space toward the river will always remain open. The development therefore would face a huge open space area to the north. See following graphic.



Landscaping of the development would occur in the 32m zone open space area as well as on top of the parking structures as each building on top of another would cover a smaller area – leaving space to landscape on the roof area. Note that all parking spaces would be within roofed and enclosed parking spaces.

GEOLOGY

A geological investigation has been conducted and the Council for Geoscience has found the site suitable for the development of offices subject to a final footprint investigation in line with the SANS 1931-1 document.

The Council for Geoscience has classified the whole of the site with a D4 designation. It has approved the site for the following land uses according to SANS 1931.1 document:

| Designation | Land usage description |
|-------------|--|
| C2 | Railway stations, shops, wholesale stores, offices. |
| C3 | Places of worship, theatrical, indoor sports or public assembly venues, other institutional land uses, such as universities, schools, colleges, libraries, exhibition halls and museums. |
| C4 | High rise commercial developments with populations not exceeding those calculated in accordance with Regulation A21 of the National Building Regulations. |
| C5 | Light (dry) industrial developments, dry manufacturing, commercial uses such as warehousing, packaging, etc. |
| C6 | Fuel depots, processing plants or any other areas for the storage of liquids. |
| C7 | Outdoor storage facilities, stock yards, container depots, etc. |

The geological investigation has found that the water table is low and no association with sinkholes and the lowering of the water table in the area is evident.

According to the Council for Geoscience's approval a final footprint investigation will be conducted together with the approval of the site development plan and a dolomite risk plan once the application has been approved and the development process is initiated.

A geological report was provided for the municipality and sent to the Geology section.

See letter discussed above received from the Council for Geoscience attached as Annexure B.

Air Rights and Subterranean Rights

It is the intention of this proposed development to use 100% of the space between the proposed building lines on the layout plan for building purposes. This would include the whole of Kwartsiet Crescent where it borders erven 1 and 2.

The Tshwane Town Planning Scheme of 2008 makes provision for consent use application for air rights over a street reserve and subterranean rights under a street reserve.

Because Kwartsiet Crescent is an existing street reserve the air rights and subterranean rights cannot be part of this application. Applications for these rights will be lodged separately. According to the municipality a servitude for alternative air rights and subterranean rights would then be registered over Kwartsiet Crescent. The buildings constructed within these servitudes are then owned by the developers.

The air rights over Kwartsiet Crescent will be for the same zoning rights as is been applied for in this application.

The subterranean rights will be for parking facilities.

It would also be appropriate to notarial tie erven 2 and 3 to integrate the parts of the parking and development to be constructed on the two erven.

Parking Requirements

Parking and traffic aspects will be fully addressed within the traffic impact study for the development. (Not included with this documentation.) The traffic impact study will be conducted in conjunction with that of the Symbio-City development in the Centurion Lake area.

The developers are planning a fully-automated parking garage system, which can save up to 60% of the space needed compared to a conventional parking garage. It will also save time for users and will increase convenience for clients as well as for the future tenants. The parking facility will be accommodated within a 3 level structure above ground level and 7 levels below ground level. Access to the parking area would be along Kwartsiet Crescent only.

The parking standards per land use would be to the satisfaction of the municipality based on Table G of the Tshwane Town Planning Scheme of 2008.

THE FLOOR AREA RATIO (FAR), COVERAGE AND HEIGHT

It is important to take note of schedule 7 of the Tshwane Town Planning Scheme of 2008 which states that buildings that are entirely for parking purposes are excluded from gross leasable floor area and therefore also from the FAR. This means that the first 3 levels above ground level as well as the 7 basement levels that are for parking only are excluded from the FAR.

The following land use controls are applied for erven 1 and 2:

Coverage: 80% on surface of the ground. (100% of area below surface that would include the parts of erven 1 and 2 that border on Kwartsiet Crescent.)

Coverage of maximum 80% for the ground floor parking structure is applied for. The second level parking structure would cover 68% and the 3rd level structure would cover 65%. The buildings on top of that are not foreseen to exceed 50% coverage on its footprint. These figures for coverage can increase if erven 1 and 2 would become smaller for some reason during the process of this application. Landscaping of the development would occur in the 32m zone open space area as well as on top of the parking structures where these buildings on top of each other would have a smaller coverage than the one below.

Floor Area Ratio

A FAR of 8,5 is applied for erven 1 and 2 to provide for flexibility in the application. However it is not foreseen that the GLA would exceed a maximum of $\pm 195\,000\text{m}^2$ GLA.

Height of 200 meters from ground level is applied for. This height would include the first 3 levels of the parking above ground and then at least 41 levels for the floor areas of the zoned land uses, depending how the bulk would be applied on the part of the buildings on lower levels.

The height above Kwartsiet Crescent inside the parking building on ground level is allowed to be 10m from the surface of the street.

There is no evidence in contemporary literature that indicates that the concept of height for office related buildings is problematic as a land use or a built up area. Increased height is the only real way of improving the cost factor of movement on ground level in a city by decreasing distance between the city elements for a percentage of the job opportunities within an area. Increased height of buildings are now more and more regarded as essential for large urban areas to become

compacted and to increase land use performance in relation to economic activities. The metropolitan node area for southern Tshwane is meant to be an urban area.

The municipality has conducted an investigation to increase the height of buildings in the Centurion Core area to that of skyscraper status. However it is difficult to rationalise the limitation on the height of buildings as this will increase the compactness of the urban area and therefore also increase land use performance of the bigger area.

LAYOUT PLAN CPD ZWK X28/5 OF JUNE 2012

It was decided not to show the area of right of way servitude SG 4605/1994 as “proposed street” as this will leave a small piece of street zoned land isolated in the landscape. As the freeway is proclaimed and situated on farm land it seems more appropriate to leave the right of way servitude as it is.

The right of way servitude SG 4060/1994 has been shown on the layout plan as Pannevis Road although it is only $\pm 72 \text{ m}^2$.

It has been decided not to provide new erven for public open space below the 32m line from the centre of the storm water rivulet as discussed elsewhere in the memorandum. The 32m line has been indicated as a building line for all development on the surface. For a short distance the 1:50 year flood line is further away from the storm water rivulet as 32m and for that distance the building line run on the 1:50 year flood line.

It must be noted that subterranean development would cover 100% of erven 1 and 2 as well as Kwartsiet crescent.

Kwartsiet Crescent is part of Zwartkop extension 15's S.G. plan. However it is only paved from South Street up to erf 1913 in Zwartkop extension 15. The part of Pannevis Road south east of its intersection with Kwartsiet Crescent is also not paved. The area of Kwartsiet Crescent that borders the proposed erven 1 and 2 of Zwartkop extension 28 is not paved. It is unknown if access to the proposed township Zwartkop extension 28 would be able to happen from the south western part of Kwartsiet Crescent. This application proposes presently that access occur from South Street to Pannevis Road and then to the south eastern part of Kwartsiet Crescent into the proposed development as a cul de sac.

Also see attached Annexure T tables for land use controls.

Conclusion

It is clear from the above that the proposed development is timely and needed to increase the effectiveness of land use in the area. The application is in line with all goals and norms of the spatial development frameworks for the area. It is also clear that it is situated on a very central locality on the movement system and that it is part of the on-going municipal planning and development initiatives. It will play a major role in crossing the thresholds of land use intensity to increase the possibility of effective implementation of transit as a major transport mode in the area. The application will add to the economy of scale and agglomeration effects to upgrade the existing roads infrastructure together with additional development initiatives of the municipality and others.

The proposed development will bring a new dimension of economic activities to the area that would also enrich the existing and developing office base in the area.

It will be appreciated if you can do what is necessary to process the application further as a matter of urgency. Please do not hesitate to contact us in this regard.

L. du Bruto
DUBRUTO & ASSOCIATES
Town and Regional Planning



**agriculture and
rural development**

Department: Agriculture and Rural Development
GAUTENG PROVINCE

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City of Tshwane Metropolitan Municipality
Open Space Management Section
P.O. Box 1454
Pretoria
0001

Attn: Rudzani Mukheli
Tel: (012) 358 8731
Fax: (012) 358 8934

Dear Madam

**RE: INTERPRETATION OF NEMA 2010 REGULATIONS FOR PROPOSED TOWNSHIP
ZWARTKOP X28 ON PORTION 58 AND 59(A PORTION OF PORTION 19) OF THE FARM
BRAKFORTEIN 390 JR**

The abovementioned development application has reference.

The proposal entails establishment of a township on Portion 58 and 59 (a portion of portion 19) on the farm Brakfontein 390 JR which measures 2, 9079 ha in extent and located within a built-up area.

Based on the above and the information submitted, the proposed activity is not listed in terms of Listing Notice 1, activity 23(i) of Environmental Impact Assessment Regulations, 2010, (GN R. 544) published under the National Environmental Management Act (NEMA) (Act No. 107 of 1998) (as amended) and therefore does not legally require environmental authorisation from the Department.

Although authorisation, in terms of NEMA, is not required for this activity, all relevant legislation and requirements of other government departments (i.e. National, Provincial and Local) must still be complied with.

If you have any queries concerning this issue please feel free to contact the relevant official at the number given above.

Yours faithfully,

Pirate Ncube
Chief Director: Sustainable Use of the Environment
Date: 12/03/2012

Cc: EcologicAFRIKA Planning & Design studio

Attn: CJ Roos
Fax: (012) 661 5251

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