

FILE NO: 7/0/44 PZ 9 Pretoria East Mobility Study  
AUTHORS: M. van der Vyver (308-7956)  
L. Steyn (308-7946)  
E.A.L. Venter (308 7955)  
City Planning Committee: 13-03-2002

**HOUSING, CITY PLANNING, LAND AND ENVIRONMENTAL PLANNING  
DEPARTMENT  
REPORT: DISCUSSION ON THE PRETORIA EAST MOBILITY STUDY  
(PHASES 1 AND 2) AND THE PROPOSED MENLYN NODE SPATIAL  
DEVELOPMENT FRAMEWORK**

Report of the Municipal Manager:

EXECUTIVE SUMMARY

"In recent years the erstwhile City Council of Pretoria (CCP), now part of the City of Tshwane Metropolitan Municipality, have been inundated with development applications in the Menlyn Area. Due to the ever growing demand on the existing infrastructure (specifically the road infrastructure) and the need for the formulation of a land use master plan, definite action was needed in this regard. As part of the Integrated Planning Process of the former Greater Pretoria Metropolitan Council (GPMC) the Pretoria East Mobility Study (PEMS, Phase 1) was undertaken. The objectives of the PEMS, Phase 1, correspond with the objectives and strategies identified in the 1997/1998 Integrated Development Planning (IDP) programs for the Pretoria City Wide Planning Forum as well as Planning Zone Forums 9 and 10.

After the compilation of the PEMS, Phase 1, the need arose for more detailed investigations and more active public participation. This need was addressed by means of the Menlyn Node Urban Transport and Land Use Development Study (PEMS, Phase 2) that consisted out of various studies done by consultants.

The project *per se* stems from the Zone 9 IDP:

"Investigate and draft an overall development framework with the emphasis on strategic urban management directives to ensure co-ordinated, integrated development with specific reference to (1) identification and preservation of residential core areas, (2) business nodes and expansion (Hatfield, Brooklyn and Menlyn specifically), (3) nodal expansion, impact and need for buffer zones/interfaces, (4) mixed land uses, (5) intensity or density of development, and (6) the formulation of an appropriate physical framework to sustain and enhance economic development."

The proposed policy, Menlyn Node Spatial Development Framework (MNSDF) was compiled by Council Officials from the studies done by the consultants during the PEMS, Phases 1 and 2. This policy document will ultimately address specific land use proposals within the Menlyn Node. This in order to address the development of the Menlyn area in a co-ordinated, harmonious manner. The MNSDF will serve as a management framework to guide and direct future land use changes within the development edge of the Menlyn Node.

## PURPOSE AND STRUCTURE OF THE REPORT

The purpose of this report is to:

- \* Give feedback on the background relating to the origin of the studies;
- \* give a brief overview of the studies that was done in the Menlyn Node Area;
- \* give feedback on the Public Participation Process that was followed;
- \* give feedback on land use proposals in the Menlyn Node and surrounds; and
- \* submit for Council's approval a land use management framework (policy) namely The Menlyn Node Spatial Development Framework, to guide and direct future land use changes within the Menlyn Node.

In order to assist the reader, the report is structured in the following manner:

- Section 1: Introduction that will provide a brief background regarding the origin of the studies done by the consultants, the ancillary documents (Annexure 1.1) and the public participation process (Annexure 1.2) that was followed for Pretoria East Mobility Study (PEMS), Phases 1 and 2.
- Section 2: Discussion on the Pretoria East Mobility Study, 1997/1998 (PEMS, Phase 1) (Annexure 2).
- Section 3: Discussion of and evaluation on specifically the Town Planning and Engineering studies done regarding the Menlyn Urban Transport and Land Use Development Study, 1999/2000 (PEMS, Phase 2) (Annexure 3).
- Section 4: Discussion of the proposals of the proposed policy namely: Menlyn Node Spatial Development Framework (Annexure 4).
- Section 5: Conclusion.

Annexures:

Annexure 1: Introduction

- 1.1 Discussion of the ancillary documents used as the basis for the Menlyn Node Spatial Development Framework.
- 1.2 Public Participation Process and summary of comments received.

Annexure 2: Pretoria East Mobility Study (PEMS, Phase 1).

Annexure 3: Menlyn Urban Transport and Land Use Development Study (PEMS, Phase 2):

3.1 Discussion/...

- 3.1 Discussion on the Base Data Studies for the Menlyn Urban Transport and Land Use Development Study.
- 3.2 Land use impacts, Menlyn Node Urban Transport and Land Use Development Study: N1 Roads and Interchanges, October 2000.
- 3.3 Atterbury Road Land Use Development Study, March 2000.
- 3.4 Land Use Input towards the Basic Planning of Garstfontein Road and Lois Avenue, April 2000.
- 3.5 Pretoria East Mobility Study; Wolwespruit Drive, Development Framework, May 2000 and Wolwespruit Drive South Land Use Proposals and Basic Planning, May 2000

Annexure 4: Menlyn Node Spatial Development Framework.

## SECTION 1: INTRODUCTION

### 1.1 BACKGROUND (see Schedule 1)

The Menlyn Node originated with the approval of the Menlyn Hyperama ( $\pm 41\,500\text{ m}^2$ ), which was developed just after the construction of National Route 1 (N1) and the Atterbury Road interchange ( $\pm 1969/70$ ). Owing to rapid growth, related demand and urbanisation, the Menlyn Node is currently characterised by  $\pm 386\,507\text{ m}^2$  of approved land use rights of which  $\pm 82\,000\text{ m}^2$  represent latent rights (rights approved but not exercised). Major transportation and land use problems associated with the Node are presently experienced.

Owing to known problems and in anticipation of possible new ones, the erstwhile Greater Pretoria Metropolitan Council (GPMC) in liaison with the former City Council of Pretoria (CCP) initiated a number of traffic-cum-transportation engineering and land use related studies in the eastern suburbs of Pretoria and within the Menlyn Node (refer to Schedule 1):

- \* Phase I: Pretoria East Mobility Study (macro level); and
- \* Phase II: Menlyn Node Urban Transport and Land Use Development Study (micro level).

#### 1.1.1 Pretoria East Mobility Study, Phase 1 (PEMS, Phase 1): 1997/1998

In response to the traffic problems, the erstwhile GPMC resolved on 4 December 1997 that a number of road upgrade proposals must be implemented in the Menlyn area. At the same time, the need for the improvements of the Atterbury Road Interchange with the N1 was acknowledged. This culminated in approval of a Feasibility Study on the improvement of the Atterbury Road Interchange with the N1. This study, generally referred to as the Pretoria East Mobility Study, Phase 1 (PEMS, Phase 1), identified a number of important traffic- and development-related problems in the east of Pretoria, as

well/...

well as possible solutions. Related public participation input acknowledged the traffic problems being experienced, but with little or no public agreement as to the viability and feasibility of solutions emanating from the study. (More detailed discussion is contained in Section 2 of this Report.)

#### 1.1.2 Menlyn Node Urban Transport and Land Use Development Study, (PEMS, Phase 2): 1999/2000

The need for more detailed investigations and report to establish the feasibility and financial viability of solutions emanating from Phases 1 led to Phase 2 of the process by the approval on 6 May 1999 by the former GPMC in liaison with erstwhile CCP of a further study titled Menlyn Node Urban Transport and Land Use Development Study. (More detailed discussion is contained in Section 3 of this Report.)

The findings of this study served before the then GPMC in November 2000, just prior to the restructuring of local authorities. At that stage, jurisdiction in respect of land use matters vested in the disestablished CCP. Owing to this situation, the GPMC resolution basically resolved:

- \* That the road network be approved in principle, be further refined regarding detail and be advertised;
- \* that the financial plan be approved in principle, but be further refined and resolved in liaison with organised business located within the Menlyn Node; and
- \* that alternative locations for additional land use development be investigated in terms of the IDP's and the LOD's.

Other than in general terms, land use proposals and related issues were therefore not specifically addressed in the report to the GPMC.

#### 1.1.3 Menlyn Node Spatial Development Framework (PEMS, Phase 3)

The GPMC resolution of 30 November 2000 in respect of the PEMS, Phase 2 implied the continuation of the study in order to finalise it. In addition to refinement of the proposed network and financial plan, the major aim of Phase 3 is an ultimate report to the City of Tshwane Metropolitan Municipality, with the emphasis on land use proposals, formulation of a related land use policy and approval thereof. (More detailed discussion is contained in Section 4 of this Report.)

#### 1.2 ANCILLARY DOCUMENTS (see Annexure 1.1)

Cognisance was taken of ancillary and related studies, reports and/or policies to ensure that principles contained therein, which have been or are to be adopted by the City of Tshwane Metropolitan Municipality, are not negated by the implementation of the source-documents and ultimately the policy. Care was also taken to ensure that the concepts in these documents would not militate against the principles contained in the proposed policy, the Menlyn Node Spatial Development Framework.

Due/...

Due to the volume of the relevant documents it was not possible to evaluate each and every definition, concept or principle contained in the ancillary documentation.

There are three major components that are related to the principles in the ancillary documents, namely Transportation, Land Use and Urban Design. For the purpose of the Menlyn Node Spatial Development Framework the upgrading, maintenance or construction of roads are primary issues. Land use and urban design plays an important but secondary role.

The following ancillary documents are relevant:

- \* Pretoria City Wide Integrated Development Plan (revised 1999);
- \* Integrated Development Plan for Zone 9;
- \* Integrated Development Plan for Zone 10;
- \* Strategic Metropolitan Framework - Land Development Objectives, 1997;
- \* The Interim Integrated Development Plan for the City of Tshwane Metropolitan Municipality, 2001;
- \* An Integrated Development Framework for Duncan Street, Lynnwood Road, Charles Street, Atterbury Road and Duxbury / Brooklyn / Dely / Garstfontein Road, July 2001;
- \* Principles and Guidelines for the Pretoria Spatial Plan, October 2000;
- \* The Development Facilitation Act, 1995 (Act no 67 of 1995);
- \* Report on the feasibility study: Menlyn Node Urban Transport and Land Development, November 2000; and
- \* Report on development in the Menlyn area and the provision of Road infrastructure, August 2001.

A summary of the most critical issues contained in the ancillary documentation, is discussed in Annexure 1.1.

### 1.3 PUBLIC PARTICIPATION PROCESS (see Annexure 1.2)

Principle 3(1)(d) of the Development Facilitation Act, 1995 stipulates the following:

"Members of communities affected by land development should actively participate [our underlining] in the process of land development."

The following is of importance regarding public participation in terms of "New Land Law" written by Budlender, Latsky and Roux;

"This/...

"This principle clearly requires a measure of community involvement during a land development project. It is submitted that most procedures in existing laws require the advertisement of and permitting a period during which objections or representations may be lodged, in respect of a particular process, which constitute sufficient compliance with this principle. However, the implication of the principles is that, in appropriate cases, where such advertisements and objection procedures are demonstrably more insufficient in the circumstances, more would be required in order to ensure "active" participation. However, it is submitted that in principle it does not serve as an excuse for government not to govern, although participation is required to be "active", it is still merely participation and not for example "consensus" or "agreement" that is required."

Public participation is stressed by this principle. The public must be afforded the opportunity to influence planning decisions. The implication is that when new plans are formulated by local authorities, a process that actively involve citizens, interest groups, stakeholders and others must be followed. More effort should be made to involve the public than in the past. This can be achieved by means of public meetings, information sessions etc. This process, however, must be balanced with Principle 3(1)(i) which calls for policies, laws and procedures which promote speedy development.

All documentation relating to the Public Participation Process will be available for perusal. This was, however, not included in the report due to the volume thereof. The most critical issues raised from the interested and affected parties (I&APs) of each study have been summarized and incorporated in this report or included in Annexure 1.2.

### 1.3.1 The public participation process for PEMS, Phase 1

Findings of the PEMS, Phase 1, (specifically the proposed Pretoria East Arterial Road Network) were submitted to public participation, generally referred to as the Phase 1 or macro-participation process:

Key objectives of the process were:

- \* Identification of core interested and affected parties (I&APs); and
- \* identification of perceptions and formulation of recommendations regarding requirements for additional participatory processes and other social studies, should the relevant authorities wish to proceed with further detailed studies and implementation.

A combination of focus group meetings, specific interviews with key I&APs and an open day was used to achieve the above-mentioned objectives. In addition, a number of information and communication actions were run at the same time. These included, articles and notices in daily (Beeld and Pretoria News) and local newspapers (Eastern and Rekord) as well as street posters regarding the open day. Information and registration sheets were mailed to the I&APs as per comprehensive database. Relevant documents, registration sheets, maps and comment sheets were handed out during the open day.

Major/...

Major issues, concerns and suggestions raised by the I&APs were the following:

- \* Most respondents indicated agreement with the larger issue of insufficient traffic capacity;
- \* a diversity of opinions on mechanisms needed to address the larger problematic issues were reflected with little agreement on the proposed solutions; and
- \* many issues raised related to unique characteristics of a particular property or institution and the value systems or requirements of its owners.

The participatory processes and procedures followed were in accordance with directives as per the Environmental Conservation Act, 1989 and the Development Facilitation Act, 1995.

Within this framework, there was principle support from I&APs, the former Planning Zone Forums 9 and 10 included, to proceed with more detailed investigations.

The nature of issues and concerns noted indicated a need for ongoing participation of I&APs should the project proceed. Specific requirements were the following:

- \* To receive all information generated by the project;
- \* to participate extensively in decision-making on the alignment of road systems, detail planning and design; and
- \* to have alternatives (the possible solutions) investigated by project teams.

### 1.3.2 The Public Participation Process for PEMS, Phase 2 (See Schedule 2)

Schedule 2 summarizes the process per sub-project area, consisting of:

- \* Plenary sessions to initiate and explain the sub-projects, culminating in the election of representative working groups per project area (on request of the community, Garstfontein Road and Lois Avenue one-way system combined and Wolwespruit Drive South, Central and North combined);
- \* a range of working group meetings, reviewing debating and rationalizing proposals, implications and impact;
- \* special meetings with specific I&APs as matters evolved or problems arose;
- \* focus group meetings (working groups plus broader I&APs) to review and endorse findings and recommendations of working groups;
- \* a combined plenary session (all working groups and I&APs) to present the total project, findings and recommendations;
- \* supportive approaches during the process included database expansions as I&APs came to the fore, making available all minutes of meetings, daily and local newspaper advertisements and media releases; and

\* in/...

- \* in addition, project management in liaison with project consultants, ensured special investigations on public request — noise and gas pollution, alternative alignments and road configurations.

Cumulatively the Public Participation Process was inclusive, transparent and in accordance with directives of the Environmental Conservation Act, 1989 and the Development Facilitation Act, 1995.

Road and land use proposals as endorsed by focus groups during the final public plenary session as well as by the former Planning Zone Forums 9 and 10 are considerably in line with public input and related requirements. Major discrepancies basically concern the Atterbury Road route alignment. Sound traffic and transportation engineering issues necessitated strategic intervention by project consultants, which resulted in a recommendation contrary to some working group representations.

The erstwhile GPMC / CCP officials were involved throughout the process and provided valuable input.

## SECTION 2: PRETORIA EAST MOBILITY STUDY, 1997/1998 (PEMS, PHASE 1)

The PEMS, Phase 1 is attached as Annexure 2.

### 2.1 ORIGIN OF THE STUDY

Various traffic- and development-related issues were experienced in the east of Pretoria, owing to the following:

- \* Degradation of the living environment owing to traffic intrusions into residential areas;
- \* insufficient capacity of and congestion on the road network; and
- \* rapid residential and business development, pressures for further development and the inability of the road network to accommodate traffic.

### 2.2 DEMARCATION OF THE STUDY AREA

The study mainly focused on the Menlyn Node, but investigations considered issues in a much broader context within the area roughly demarcated by the R21-Nelson Mandela Drive (south), the N4 Freeway (north), Duncan Street (west) and Hans Strijdom Drive (east).

### 2.3 CONSULTANTS APPOINTED

Infrastructure Consulting Engineers	:	Project planning and co-ordination
Ferero Planners Inc.	:	Analysis of current and future land use scenarios

Gibb/...

Gibb Africa	:	Development of road proposals
Stewart Scott Consulting Engineers	:	Development of public transport proposals
VKE Engineers	:	EMME/2 traffic demand modeling
Stanway Edwards Ngomane Associated (Pty) Ltd	:	SATURN traffic demand modeling
Afrosearch	:	Public participation process, record of public issues, concerns and suggestions

## 2.4 STUDY SCOPE

The study brief called for:

- \* the formulation of land use scenarios for the year 2005 and 2015 (base 1997).
- \* Related traffic modeling; and

Land use criteria consisted of:

- \* Retail and office developments according to square meters and allocation per EMME/2 traffic zones; and
- \* residential development according to dwelling-units and allocation per traffic zone.

## 2.5 DISCUSSION

The study identified a number of important traffic- and development-related problems in the east of Pretoria:

- \* A continued demand for business development is expected:

The eastern areas of Pretoria have experienced rapid growth over the past number of decades. It is a popular residential area and is also sought after for commercial development. New residential areas are continually being established, while new shopping centers and office complexes are regularly being developed. These developments have resulted in various traffic-related problems in the area.

- \* There is a need for an integrated approach to resolve issues based on the interrelationships between transportation, traffic and land-use:

Although the eastern areas of Pretoria have developed rapidly, the transportation system has not been upgraded. Very few new major roads have been constructed, and unbridled development has been allowed to restrict the capacity of the few existing roads. This has resulted in a high level of congestion on the roads.

\* Congestion/...

- \* Congestion and the high levels of development have resulted in a degradation of some living environments in the eastern areas:

One of the most important issues in the area is the degree of traffic intrusion (rat-running) that occur in sensitive residential areas. These intrusions are caused mainly by traffic problems on the main arterial routes, with drivers using residential streets as alternative routes (such as Glenwood and Ingersol Road) and impacting negatively (noise, speed) on the residential amenity value. The attractive residential areas are one of the most important assets of the eastern areas.

- \* There is a need for a master plan to accommodate urban growth and development in a co-ordinated manner:

Historically and initially, land uses within the Menlyn Node were invariably approved contrary to the Pretoria Structure Plan, 1993 and the then Garston Local Guide Plan of the disestablished CCP. These plans were then amended in accordance with land use changes as approved by authorities. Lacking therefore were pro-active strategic directives regarding development and growth.

- \* Demand for economic development in general:

From a development perspective, main issues revolved around the demand for economic development in general, creation of job opportunities inclusive, and the inability of Menlyn Node to accommodate further development owing to insufficient capacity on the network, thereby limiting the financial ability of the municipality to generate additional income, and in turn to address social needs elsewhere. Furthermore, network constraints could lead to the loss of potential investments to areas other than Tshwane. Hence the need for road upgrades to facilitate new developments.

The PEMS concluded that improvements to the transportation system, *i.e.* roads as well as public transport, are required. Should improvements not be implemented, it would conceivably ultimately result in stagnation of the east of Pretoria and further deterioration of living environments.

## 2.6 SOLUTIONS

The following solutions in respect of the road network were proposed (Map1):

- \* A system of service roads and interchanges on the N1 freeway to improve access from the freeway to Lynnwood, Atterbury and Garstfontein Roads as important arterial routes;
- \* one-way roads in respect of Atterbury and Garstfontein Roads at Menlyn to improve the capacity of these roads;
- \* provision for Wolwespruit Drive, a new facility linking Delmas Road (Rigel Avenue) in the southeast with Charles Street/Atterbury Road in the north; and

\* the upgrade/...

- \* the upgrade of Charles Street and Brooklyn Road to *inter alia* improve accessibility to the Central Business District (CBD) from the southeast.

### SECTION 3: MENLYN URBAN TRANSPORT AND LAND USE DEVELOPMENT STUDY, 1999/2000 (PEMS, PHASE 2)

#### 3.1 ORIGIN AND AIM OF THE STUDY

A report was approved on 6 May 1999 by the former GPMC regarding the necessity for more detailed investigations to establish the feasibility and financial viability of solutions emanating from the PEMS, Phase 1.

The major aims of this feasibility study were:

- \* Detailed investigations to establish a road and land use master plan serving as overall guidelines for accommodating further development and enabling local authorities to review land use applications;
- \* the master plan to take due consideration of factors such as the needs of residents in the area, financial realities and the impact of development on the natural environment; and
- \* the road and land use master plan to be supported by a financial plan for network upgrades.

#### 3.2 SUB-PROJECTS (see Annexure 3.1)

Meeting the objectives of the Menlyn Node Urban Transport and Land Use Development Study (PEMS, Phase 2) required a multi-disciplinary integrated approach and the unbundling of the study into a number of sub-projects and related appointments of consultants. In essence the sub-projects revolved around the following:

- \* Public Participation (already briefly discussed in 1.3.2);
- \* Base data studies:
  - Menlyn Node database development.
  - Environmental scoping.
  - Geological investigation.
  - Topographical survey.
  - Menlyn Node public transport study;
- \* CBD / Menlyn Node Analogy Model; and
- \* Menlyn Node Financial Model (Still to be finalized).

All the above-mentioned studies have been documented and the relevant reports are available.

A summary of the most critical issues contained in the sub-projects are discussed in Annexure 3.1

Project/...

Project management functions were undertaken by a team consisting of a project manager, a technical engineering co-ordinator and a technical town planning co-ordinator, aimed at liaison with and integrating the involvement and input of the various role players.

Officials of the then GPMC and CCP attended project co-ordinating meetings and provided valuable input in respect of solutions. In addition, some officials attended Working Group meetings emanating from the public participation process.

### 3.3 TOWN PLANNING AND TRAFFIC ENGINEERING STUDIES

The following Town Planning and Traffic Engineering studies were undertaken:

- \* Land Use Impacts, Menlyn Node Urban Transport and Land Use Development Study: N1 Freeway, service roads and interchanges (east of the N1), October 2001 (see paragraph 3.3.1);
- \* Pretoria East Mobility Study - Atterbury Road, Land Use Development Study, March 2000 (see paragraph 3.3.2);
- \* Land Use input towards the basic planning of Garstfontein Road and Lois Avenue, April 2000 (see paragraph 3.3.3); and
- \* Wolwespruit Drive South land use proposals and Basic Planning and Wolwespruit Drive Area (see paragraph 3.3.4).

In order to assist the reader, each of the above mentioned studies will be discussed in the following manner:

- \* Consultants appointed;
- \* Demarcation of the study area;
- \* Point of departure;
- \* Road network proposals;
- \* Land use proposals; and
- \* Evaluation.

#### 3.3.1 Menlyn Node Urban Transport and Land Use Development Study: N1 Road and Interchanges, October 2000 (see Annexure 3.2)

##### 3.3.1.1 Consultants appointed

Cadre Plan:	Town Planning;
Civil Concepts:	Traffic Engineering; and
Holm Jordaan & Partners:	Urban Design

##### 3.3.1.2 Demarcation of the study area

N1 freeway, service roads and interchanges (east of the N1) - interchanges on the N1 freeway between Rigel Avenue interchange and the N4 interchange to the north, basically linking Lynnwood, Atterbury and Garstfontein Roads.

##### 3.3.1.3 Point/...

### 3.3.1.3 Point of departure

A system of service roads and interchanges on the N1 freeway between Rigel Avenue interchange and the N4 interchange to the north, basically linking Lynnwood, Atterbury and Garstfontein Roads were investigated.

This is a study concerning land use impact of proposed N1 service roads and interchanges, from Dely Road to Lynnwood Road. The existing land uses along the N1 freeway are predominantly residential, single dwellings. The Floor Space Ratio in this area is typically 0,3 with a typical coverage of 30%.

Noise measurements done in 1999 show that the noise levels were above the limit of 65 dB(a) namely, between 66.3 and 69.6 dB(A). Control and reduction of road traffic noise levels in the urban environment can be achieved by using direct or indirect measures.

Direct measures can be a sound barrier, *i.e.* any large object that blocks the line of sight between source and receiver. The basic requirements of barriers are:

- \* It must be continuous (*i.e.* no gaps);
- \* it must be rigid and massive enough (*i.e.* in excess of 20 kg/m<sup>2</sup>); and
- \* it must be long enough (*i.e.* significantly extend past the length of the area to be protected).

Indirect measures are described as measures which govern the characteristics of the receiver and involve the organization of land uses so as to separate the most noise-sensitive uses from the high impact zones along the road. Changes in land use by Council consent along the edges of freeways to home-office use or clean trades, will have advantages for owners worst affected by noise and for a neighborhood as well. These advantages are:

- \* The owners in the buffer strip can recoup some, or all of the financial losses, which result from the depreciation of their properties because of noise pollution;
- \* additional acoustic protection of the neighbourhood can be achieved by increasing the density permitted in the first row of stands adjacent to the freeway;
- \* properties in the buffer strip can be better acoustically protected by shielding the residential component of the stand behind the home-office component;
- \* the scale of development can be limited to protect the aesthetic characteristics of the existing neighbourhood;
- \* little internal traffic is generated, thus minimizing acoustic nuisance generated by the land use itself; and
- \* little or no nuisance is caused by the business activities on the stands themselves, subject to the enforcement of performance criteria as a condition of consent.

Regarding/...

Regarding the overall development framework the study shows that land uses need to be planned in a manner to act as an interface between the freeway and the core residential area. Alternatively no land use changes should be allowed. The interface between the freeway and residential environment, if any should serve to mitigate additional noise and pollution.

#### 3.3.1.4 Road network proposals (Map 2)

The existing road network is summarized as follows:

- \* The N1 freeway has three lanes in each direction;
- \* Dely Road crosses under the N1 with no access to the freeway;
- \* Atterbury Road has a diamond interchange with the N1 and has full access north and south on and off the freeway; and
- \* Lynnwood Road has limited access (on and off ramps to the south only).

Proposals:

The N1 freeway would consist of a system of service roads and interchanges between Rigel Avenue (south) and the N4 interchange (north). The system provides for freeway carriage lanes in both directions, with one-way service lanes on both sides from south of Garstfontein Road to north of Lynnwood Road.

In order to ensure connectivity between the N1 and the three arterials, full interchanges are proposed at Lynnwood, Atterbury and Garstfontein Roads (both northern and southern directions). All interchanges would therefore operate via the service roads, with the latter in turn to link with the freeway carriage lanes.

With exclusion of the system at the Lynnwood interchange, service roads would be located primarily within the existing N1 road reserve ( $\pm 1.0$  m impact), thus restricting expropriation of adjacent privately owned properties. Approximately six residential properties at the Lynnwood interchange would be affected.

A possible interchange between Lynnwood Road and the N1 / N4 systems-interchange to serve the CSIR / University of Pretoria Hub known as the Innovation Hub (a Blue IQ project of Gauteng) is under investigation. An interchange in this position would conceivably have negated the need for Lynnwood Road on/off-ramps to and from the north. Owing to this, a specific recommendation regarding the Lynnwood Road interchange was deferred and as such did not form part of the GPMC Resolution, taken on 20 November 2000 and related network approval.

From a transportation perspective and should the Innovation Hub not materialise, it would rationally imply the re-instatement of the Lynnwood / N1 freeway interchange as proposed. This issue needs to be addressed/clarified by the Traffic Engineers of the City of Tshwane Metropolitan Municipality.

It should be noted that the on-/off-ramps and the re-alignment of Meiring Naudé Drive would severely impact on approximately six (6) residential properties.

Public/...

Public input:

The N1 Working Group accepted the principle of service roads at their first meeting. Major issues revolved around:

- The N1 road widening originally intended (5 m, now 1 m) and related impact on existing residential components; and
- the impact of noise.

The Working Group in conjunction with affected residents, however, agreed to proposals subject to specific conditions:

- \* Noise mitigation be provided to reduce the noise levels to legal limits;
- \* noise barriers be extended to include the ramps at the Atterbury and Lynnwood Road interchanges;
- \* measures to curb the increase of traffic in Lynburn Road should be investigated;
- \* existing pedestrian crossing over the N1 be taken into consideration in the detail design phase; and
- \* preference to the relocation of the northern legs of the interchange owing to the impact on the said ± six (6) properties.

The final alignment proposals as agreed to during the public participation process were comprehensively in line with original solutions.

### 3.3.1.5 Land use proposals

Proposals:

Based on community and working group prerogatives, land uses adjacent to the N1 freeway and service roads are to remain low-density residential (maximum of ± 15 dwelling units per hectare ). The underlying rationale revolves around retention of the residential character, preventing business development intrusions and non-residential through-traffic.

Public input:

From a land use (residential) perspective, the following measures are pre-conditional and would be required:

- \* Noise mitigation to reduce the noise levels to legal limits;
- \* mitigating the impact of the Lynnwood Road interchange (southbound off-ramp, northbound on-ramp) on the residential character of the adjacent area (e.g. landscaping, buffer planting); and
- \* land use proposals therefore revolve around retention of the status quo and as such are in accordance with public input.

3.3.1.6 Evaluation/...

### 3.3.1.6 Evaluation

Road proposals evaluation:

The traffic interchanges are concentrated on the service roads, i.e. removed from the freeway itself. This would ensure efficient, safe flow of traffic.

Additional mobility is provided in a north-south direction. This, together with additional interchanges on Lynnwood and Garstfontein Roads, would significantly increase the capacity of the road system in the area.

Land use proposals evaluation:

Land uses along the freeway should remain residential or be used for land uses compatible with residential uses. The principle cannot be accepted that linear non-residential land uses are acceptable along the freeways. The basic reasoning is that intrusion of incompatible uses will occur with the associated negative influences such as the eroding of the primary residential areas. It is preferable that other mitigating measures are deployed such as noise barriers along the freeways.

The proposals of the development and improvements of the N1 freeway are supported.

### 3.3.2 Pretoria East Mobility Study - Atterbury Road Land Use Development Study, March 2000 (see Annexure 3.3)

#### 3.3.2.1 Consultants appointed

EVS Planners	:	Town Planning;
Gibb Africa	:	Traffic Engineering; and
GPS Greeff & Associates	:	Urban Design.

#### 3.3.2.2 Demarcation of the study area

Atterbury Road between Genl Louis Botha Avenue to the east and the N1 Freeway to the west.

#### 3.3.2.3 Point of departure

A one-way system for Atterbury Road — the existing Atterbury Road to be complemented to the north by a dual facility basically following the existing Ingersol / Kelvin Street alignment through Lynnwood Glen. This would significantly improve the capacity to accommodate additional traffic.

The study identifies the problems experienced by residential properties adjacent to main routes as noise and air pollution, rat-running, illegal and uncontrolled land uses, illegal occupation of open spaces, traffic congestion, lack of public transportation and pedestrian facilities and lack of road capacity.

Atterbury Road (between N1 freeway in the west to the intersection of Genl Louis Botha Drive) is classified as an "mobility spine", serving as a nodal connector with a primary mobility function and therefore no access to new developments should be granted except by means of service roads.

The study/...

The study in principle suggests the following with regard to non-residential development along Atterbury Road:

- \* the residential integrity of the adjoining neighbourhood should be maintained to ensure that residents continue to reside there;
- \* non-residential uses allowed, shall be “special” for offices only which include offices for professional persons and/or medical consulting rooms;
- \* the maximum FSR allowed shall be 0.4;
- \* the height of buildings shall not exceed 2 storeys and a 45 set back for the second storey shall be maintained for structures adjacent to residential properties;
- \* a 5 meter landscaped building restriction area, adjacent to residential properties shall be maintained;
- \* excluding existing approved access points, direct access shall not be allowed to Atterbury Road and each application shall be accompanied by a traffic impact study;
- \* all structures, new or old, facing residential properties, shall display a residential character or façade, and shall be governed by a site development plan;
- \* residential and non-residential erven shall be separated by at least a 2.1 meter high non-transparent brick wall and street front screening shall also comply with aesthetical requirements;
- \* placing and the extent of signage, air-conditioners, etc. shall be subject to City Council approval;
- \* sufficient parking and pedestrian facilities should be provided; and
- \* development of individual erven should be discouraged and consolidated developments are preferable.

The guidelines contained in this study, must play a roll in the general guidelines contained in the policy documents.

#### 3.3.2.4 Road network proposals (Map 3)

Primarily three options were reviewed by the Atterbury Working Group:

- Option (i): Upgrades within the existing road reserve providing for two lanes in both directions and median-separated, or
- Option (ii): A one-way system consisting of the existing Atterbury Road (west-bound leg) and a northern alignment (east-bound leg) from Atterbury interchange along Ingersol Road-Kelvin Street to link with Atterbury Road east of Gen. Louis Botha Avenue, or

Option (iii)/...

Option (iii): A similar one-way system, with the northern leg between Atterbury Road and Kelvin Street partially following Ingersol Road but cutting through two office components (Podium Offices and Atterbury Office Park).

Public and working group input presented contrasting and opposing views:

Option (i): Based on the need to prevent any further land use intrusions into their residential areas and therefore to safeguard the residential character and amenity value, those in opposition to any option other than upgrades within the existing road reserve of Atterbury Road.

Option (ii): Those in favor of business and office development and hence support for the Ingersol Road-Kelvin Street option because of more land conceivably becoming available for business and office development. However, this implied further intrusion into the Lynnwood Glen residential area.

Option (iii): The registered owners of the Atterbury Office Park indicated that an alignment through the Atterbury Office Park would have severe consequences for the viability of development and tenants. Because of the possibility of large claims for compensation, this option was rejected as a viable solution.

Central to the alternative options reviewed, was the total closure of Ingersol Road. It fell outside the scope of the project. This issue and its finalization must be addressed by the Traffic Engineers of the City of Tshwane Metropolitan Municipality in due course.

Despite concerted efforts, the Working Group could not reach agreement regarding compromise solutions. On instruction, the project consultants were requested to formulate a specific proposal. They recommended that Atterbury Road be primarily upgraded within the existing road reserve. Major characteristics of the proposed network are as follows (Map 3):

- \* Two median-separated carriageways both directions and consisting of ± four lanes in each direction between the N1 freeway and Genl Louis Botha Avenue;
- \* a diversion (lengthening of distance) between the two carriageways from the N1 freeway to Lois Avenue to ensure sufficient stacking space and at the same time providing access to the Menlyn Shopping Complex and the Price Waterhouse / NRA offices; and
- \* the upgrade of the Atterbury Road / Lois Avenue intersection;
  - A diversion (lengthening of distance) between the carriageways east of Lois Avenue in the vicinity of Garston Spruit and the introduction of a new intersection to serve the Menlyn central area south of Atterbury Road via Dallas Road and also to serve some properties north of Atterbury Road via a service road.
  - The 'throttling' of Ingersol Road by means of traffic calming measures.

### 3.3.2.5 Land use proposals

Existing and proposed development rights:

Schedule 3 shows the existing (37 009 m<sup>2</sup>) and proposed (26 073 m<sup>2</sup>) development rights, totaling 63 082 m<sup>2</sup>.

Menlyn Node boundary

Proposals would imply the rounding off of the Menlyn Node north of Atterbury Road and conceivably to result in the preservation of endangered residential areas adjacent to and north of the Menlyn Node boundary.

Ingersol Road west: Erven 86–91, Lynnwood Glen

The properties situated directly south of this road portion are zoned 'Special' for purposes of offices with a floor space ratio (FSR) of 0.4, while Erven 86–91, Lynnwood Glen, have already been rezoned for purposes of dwelling-house offices. Based on these facts and the anticipated traffic to utilize Ingersol Road west in future, it is proposed that these properties on application be afforded office rights (FSR of 0.4), subject to such provisions and conditions as set out in Schedule 4.

Kelvin Street: Erven 97–100 and 136–142, Lynnwood Glen, and others

It is proposed that, on application, the Atterbury Office Park component (Erf 36, Menlyn Extension 4) be afforded additional office floor space in the order of ± 3 859 m<sup>2</sup> (FSR increase from 0.4 to ± 0.66).

Erven 97–100 and 136–142, Lynnwood Glen, adjacent to and south of Kelvin Street are currently zoned for Special Residential purposes. It is proposed that, on application, these properties be afforded office rights (FSR of 0,4), subject to such provisions and conditions as set out in Schedule 4.

Boskop Street: Erven 50 and 51, Menlyn Extension x 9

Erven 50 and 51, Menlyn Extension 9, situated directly south of and adjacent to Boskop Street, are zoned for the purposes of a filling station and a motor showroom with related facilities. It is proposed that, on application, rights could be extended to an FSR of 0,3 and with performance zoning, 0,4. No noise and visual mitigation measures can be imposed on the properties at this stage. Should the property owners amend the existing rights, the Tshwane Metropolitan Municipality must impose land use controls to protect the residential area north of Boskop Street. Any new rezoning application submitted for the amendment of land use rights must be accompanied by a traffic impact study.

Holding 6, Garston Agricultural Holdings

Holding 6, Garston Agricultural Holdings, is currently owned by the City of Tshwane Metropolitan Municipality and is subject to a long-term lease in favour of a private entity. The largest part of this property will, however, be required for realignment of the eastern carriageway of Atterbury Road in order to introduce the local widening of the median to provide access to the area south of Atterbury Road. Owing to the insufficient capacity of

the existing/...

the existing culvert at Kelvin Street, as well as downstream, it has been recommended to utilise the area between the two carriage ways of Atterbury Road for the purpose of storm water retention. The median will therefore not be available for development. It is proposed that, on application, the remaining part of the holding not taken up by road construction, and that part of Kasteel Road south of Kelvin Street but north of Atterbury Road, be afforded office rights.

Access:

Excluding the use of the Kelvin and Boskop Street properties for residential purposes, the line of no access along these streets in respect of non-residential uses would imply two access scenarios:

- \* Consolidation with adjacent properties and obtaining access via existing development (e.g. Atterbury Park and Erven 87–100, Lynnwood Glen); or
- \* Access via the Dallas Road /Atterbury Road intersection, which would imply the construction of a service road.

Service roads do not form part of the Menlyn Road Network proposals. Affected property owners would therefore be left to their own devices to ensure access.

It should be stressed that any access via Kelvin Street for non-residential uses would result in pressures for land use changes in respect of the Lynnwood Glen residential component.

Public input:

As indicated, the road network and land use proposals were based on ultimate recommendations from project consultants. It therefore follows that those in support of the Kelvin Street route alignment did not accept the land use proposals as set out.

Relative to this situation, however, current applications to the north of Kelvin / Boskop Street would be contrary to the Menlyn Node as demarcated.

Noise mitigation measures / barriers were requested by some residents.

#### 3.3.2.6 Evaluation

Road proposals evaluation:

- \* A more efficient and safe flow of traffic and increased capacity will be established;
- \* increased accessibility to the Menlyn Central area via the Dallas Road link will be achieved;
- \* opportunities to ensure synchronisation of traffic lights will be created ; and
- \* greater choice as to preferred route options.

#### Land use proposals evaluation:

- \* The proposed mixed land uses are not supported. Only office development with a maximum FSR of 0.3 (and with performance zoning 0.4) and a height of 2 storeys can be supported; provided that office activities mean the gathering of information, the processing and ordination thereof, the coordination of new information with existing information, the storage thereof and the distribution of the processed information.
- \* no access from any residential street such as Boskop or Kelvin will be allowed;
- \* along the development edge, the development of a buffer (performance zoning) must be incorporated in new developments;
- \* proposed land use changes in the Lynnwood Glen area should follow road improvements of Atterbury Road, specially the area to the east of Ingersol Road;
- \* Erven 86 to 91, Lynnwood Glen have been earmarked for dwelling house offices in terms of an Action Plan that has been approved by the former Pretoria City Council during 1996. However, Erven 84 to 91 will serve as an appropriate buffer for the area west of Ingersol Road in future should low/medium intensity land uses be developed;
- \* regardless what the future planning for Ingersol Road holds, care should be taken that no non-residential uses are stimulated within the primary residential area. Erven 84 to 91 can be redeveloped to an FSR of 0.3 and with performance zoning to 0,4;
- \* the proposed land use intensities for Erf 36, Menlyn Extension 4 (FSR of  $\pm 0,66$ ) are in order and can be adopted; and
- \* Erven 97 - 100 and 136 - 142, Lynnwood Glen, Holding 6, Garston Agricultural Holdings, Menlyn Extension 13 and Erven 50 and 51 Menlyn Extension 9, only low/medium land use intensities can be accommodated at an FSR of 0,3, and with performance zoning, 0,4. The reason being that it is in line with the proposals from the residents and the proposed land use will be an appropriate buffer between the business and the residential area.

Conclusion: Proposals as submitted by the Consultants (Map 3) cannot be accepted and should be amended in accordance with the proposals as discussed under this section.

### 3.3.3 Land use input towards the Basic Planning of Garstfontein Road and Lois Avenue, April 2000 (see Annexure 3.4)

#### 3.3.3.1 Consultants appointed

Plan Associates:	Town Planning;
Gibb Africa:	Traffic Engineering; and
Plan Associates:	Urban Design.

#### 3.3.3.2 Demarcation/...

### 3.3.3.2 Demarcation of the study area

The study deals with the road network associated with Garstfontein Road and Lois Avenue, including most of the Menlyn area (east of the N1 freeway and the R21, south of Atterbury Road, west of Genl Louis Botha Avenue and the strip of development adjacent to and south of Garstfontein Road).

### 3.3.3.3 Point of departure

A one-way system in respect of Garstfontein Road with two options to complement the existing route, namely a southern alignment via the Newlands residential area and a northern alignment via the Menlyn Office & Retail Park and Glen High School.

Lois Avenue and Dallas Road will serve as the respective legs of a one-way system. The Lois Avenue one-way system study area corresponded with the Menlyn central area defined by the N1 freeway, existing Garstfontein and Atterbury Roads and Genl. Louis Botha Avenue. Advantages of such a system revolved around improved capacity on and access to properties from these roads, increased opportunities for development *inter alia* to increase the income revenue base of authorities.

This study comprised two major components namely public participation and the technical component.

The technical component is of importance to use in this instance and a situational assessment was conducted with the following summarized results:

Planning in the East of Pretoria should *inter alia* be aimed at:

- \* Improving the living quality of the residential areas;
- \* appropriately controlling development to prevent intrusion of undesirable land uses into core residential and other sensitive areas;
- \* reducing traffic volumes and speed through residential and other sensitive areas (thus reducing noise and air pollution); and
- \* improving road safety at schools and other educational institutions.

Road design principles applicable to arterial roads are:

- \* Arterial roads should not carry high traffic volumes, at high speeds and provide access to properties at the same time;
- \* a maximum of four lanes should be allowed between intersections on roads from which access to adjacent properties is provided (more lanes allowed at intersections);
- \* in commercial areas, one-way roads are preferred;
- \* no on-street parking should be allowed;

\* decleration/...

- \* deceleration lanes should be allowed;
- \* median islands must be provided on two-way main roads to prevent right turning;
- \* traffic signals must be appropriately co-ordinated to minimize stopping at signals and thus preventing / reducing accidents; and
- \* left in/ left-out / right-in accesses can be provided on two-way roads, but only when some provision is made to accommodate right-out movement.

Keeping arterial roads in mind, the following land use and its planning issues are raised:

- \* Non-residential land uses could be established adjacent to arterial roads;
- \* residential land uses should be located away from such roads;
- \* traffic generated by any development (residential and non-residential) should not exceed the maximum traffic flow that can be accommodated by a particular road class;
- \* developments adjacent to arterial roads should be targeted at vehicular traffic and must generate a minimum of pedestrian volumes;
- \* peak periods of the land use should not coincide with those on the arterial roads;
- \* developments generating high pedestrian volumes should be located in business nodes; and
- \* appropriate buffer zones should be placed between residential and commercial developments.

#### 3.3.3.4 Road network proposals

The original PEMS study one-way system proposals in respect of Garstfontein Road, especially the then envisaged alignment south of Garstfontein Road through the Newlands residential area, did not receive public support, were vehemently opposed and were rejected, for mainly two reasons:

- \* The Motortown and other commercially orientated uses adjacent and south of Garstfontein Road currently provide an effective buffer between Garstfontein Road and the Newlands residential areas; and
- \* a southern alignment have major implications: physical (non-residential land use intrusions), social (properties affected and subsequent relocation) and financial (road reserves, affected properties and expropriation).

The PEMS northern alignment in turn reflected a number of negative attributes:

- \* Form a town planning point of view the Office Park and Glen High School will be bisected;

\* the expropriation/...

- \* the expropriation of private property and Glen High School will have financial implications.

In the light of the cumulative impact of these issues, the northern alignment as a viable option was rejected at an early stage.

The Garstfontein Road system is therefore to be upgraded primarily within the existing road reserve and would consist of three lanes in both directions and separated by a median.

Garstfontein Road in turn would interchange with the N1 freeway via the service roads. The central section of Wolwespruit Drive (Dely to Garstfontein) would *inter alia* serve as the western legs of the interchange.

Provision is also made for more localised upgrades to enhance accessibility and to ensure appropriate access management in respect of specific properties. Read in conjunction with land use proposals, these upgrades most notably revolve around the following:

- \* Rounding off of the existing motortown-cum-commercially orientated land use buffer on the eastern periphery (Corobay Street to Genl. Louis Botha Avenue) and western periphery (Thys Street to the N1 freeway);
- \* to ensure appropriate access management, properties associated with the eastern periphery will be subject to a single point of ingress / egress from Garstfontein Road (left in-left out only). Alternatively, access could be negotiated by developers from Corobay Street (south) via existing motortown development. No access would be permitted via Tucker Street; and
- \* the land use parcel on the western periphery would obtain access via Mante Street (the Garstfontein access to the Menlyn Shopping Complex), Palala Road and an underpass via Garstfontein Road to link with Thys Street. No access for business cum commercial purposes would be permitted from Bali Street.

Within this framework, cognisance was taken of the fact that the refurbishment of the Menlyn Regional Shopping Complex (recently completed) was based on Lois Avenue being a two-way system. Implementation of the Lois Avenue one-way system was rejected mainly for two reasons:

- \* Although Old Mutual Properties (Pty) Ltd did not oppose the one-way system, consequences such as changed traffic patterns, possible reduced accessibility to the Center and potential negative impact on Center operations and viability could not be disregarded. Traffic modeling and road network alternatives did not prescribe a one-way system; and
- \* central to the road network configuration was the need for and feasibility (desirability) of a direct link between Atterbury and Garstfontein Roads via Dallas Road and Corobay Street, *inter alia* implying the expropriation of ± four Special Residential properties. This option was rejected for the following reasons:
  - no need for a direct link and related ability of proposals as adopted to accommodate traffic;

- potential/...

- potential traffic conflicts in Corobay Street regarding through-traffic and dedicated school traffic; and
- financial considerations regarding residential properties and expropriation.

The road configuration as adopted therefore provides for the following:

- \* Lois Avenue to remain as is (two lanes both directions);
- \* Dallas Road to be upgraded and to link Atterbury Road with Aramist Street, providing an opportunity for a new link off Aramist Street to the Menlyn Retail Park; and
- \* Corobay Street is to retain its link with Garstfontein Road, but is to be closed at the southern boundary of the school, in turn terminating the existing link between Aramist Street and Garstfontein Road. Implicit in this configuration is the following:
  - Corobay Street to be a dedicated access to Glen High School and the Menlyn Retail Park via a new link westwards; and
  - Corobay Street (northern section) to link with Aramist Street, in turn ensuring an additional access option to the school for dropping off and fetching children.

The upgrading of Aramist Street will have a minor impact on adjacent properties (2 m) and be extended westwards to link with Lois Avenue, *inter alia* providing a direct link between Serene Street and the Menlyn Regional Shopping Complex via the new Gobie Street access to the Complex.

Public input:

Road network proposals are in accordance with those of the Garstfontein–Lois Working Group and were confirmed during the final public plenary session.

### 3.3.3.5 Land use proposals

Existing and proposed development rights (south of Garstfontein Road):

Schedule 5 shows the existing and proposed development rights, south of Garstfontein Road. Existing primarily motortown-cum-commercially related uses amount to 50 239 m<sup>2</sup>, proposed uses to 35 655 m<sup>2</sup>, and totaling ± 85 894 m<sup>2</sup>.

Proposed new development rights relate to the eastern (Waterkloof Glen properties) and western (De Beers erven) periphery of Garstfontein Road.

Waterkloof Glen properties (east)

It/...

It is proposed that the motortown-cum-commercially orientated buffer uses along Garstfontein Road be rounded off by affording motor trade-related retail rights to the remaining properties along Garstfontein Road (FSR of  $\pm 0.3$ ). Owing to access limitations, the proposed motor trade activities should preferably be of low intensity (e.g. showrooms). This could provide for an additional  $\pm 8\ 842\ \text{m}^2$ . However, it should be noted that some of these properties currently accommodate townhouses.

To prevent any negative visual impact of redevelopment on the Tucker Street residential component to the south thereof, a condition prescribing a well designed landscaped buffer as part of the development on these properties, should preferably be incorporated as a development control condition. Appropriate access management limited to one point of ingress/egress along Garstfontein Road (left in-left out) would be required. No access (non-residential uses) would be permitted via Tucker Street.

#### De Beers erven (east)

These erven to the west of the IST offices, the N1 freeway and north of Bali Street should experience pressure for redevelopment. This area currently comprises a townhouse complex and various single residential units. The redevelopment of this area for office use will complement the IST offices and will complete the strip of development to the south of Garstfontein Road.

The townhouse complex as an entity might experience problems in terms of viability for redevelopment at an FSR of 0.6. An FSR of 1.0 might also not be feasible in terms of the associated parking requirements. The residential uses might be problematic as the 2–3 m high embankment of the re-aligned Garstfontein Road will lie directly adjacent to the north of the complex. In view of the above factors and uncertainties, it is proposed that the Tshwane Metropolitan Municipality treat this as a special case and work out a proper agreement with the residents at the time when the redevelopment of the area proceeds.

In general an FSR of 0.6 should be allowed in this area for office development. This would result into about  $21\ 778\ \text{m}^2$  additional office space development.

No direct access will be given to the area from Garstfontein Road.

No access to any non-residential land use should be provided from Bali Street in order to protect the residential suburbs further to the south.

To prevent any negative visual impact of redevelopment on the Bali Street residential component to the south thereof, a condition prescribing a well designed landscaped buffer as part of the development on these properties, should preferably be incorporated as a development control condition.

#### Menlyn Node boundary

The southern boundary of the Menlyn Node will therefore basically correlate with Tucker-Bali Streets. Based on the success of the current land use buffer, there is every indication that completion of the buffer would largely prevent further development pressures on the Waterkloof Glen-Newlands residential components.

Existing/...

Existing and proposed development rights (Menlyn Central Area):

Schedule 6 shows the existing and proposed development rights for the Menlyn Central Area. Existing rights amount to 299 259 m<sup>2</sup>, currently predominantly retail. Proposed development rights amount to ± 148 514 m<sup>2</sup>, predominantly designated for office purposes. Total rights would then amount to ± 447 773 m<sup>2</sup>.

West of Lois Avenue

This area designated by the N1 freeway, Atterbury Road, Lois Avenue and Garstfontein Road currently represents the primary development area of the Menlyn Node.

It comprises four main components: the Menlyn Center, Old Mutual Offices, the Telkom / Dash / Italtile / Gestetner area, and the Outspan area to the northwest.

Currently the Menlyn Center has a total of 105 000 m<sup>2</sup> of development rights comprising 80 000 m<sup>2</sup> retail, 15 000 m<sup>2</sup> business buildings (offices, financial institutions, etc.) and 10 000 m<sup>2</sup> entertainment. Application proposals therefore provide for an increase in the total permissible floor space from 105 000 m<sup>2</sup> to 140 000 m<sup>2</sup> (35 000 m<sup>2</sup> additional). Within this framework, the permissible retail floor space is increased from 80 000 m<sup>2</sup> to 120 000 m<sup>2</sup> (40 000 m<sup>2</sup> additional). The total floor space increase (35 000 m<sup>2</sup>) relative to the retail floor space increase (40 000 m<sup>2</sup>) per implication implies a conversion of some of the existing permissible business and entertainment floor space to retail floor space. It is proposed that these rights be granted subject to the parking and access requirements of the Tshwane Metropolitan Municipality.

There are various small portions of land available for development around the Old Mutual offices (between Palala Road and Garstfontein Road). If development rights are granted to these areas in accordance with the FSR norm indicated above, it would provide for an additional 1 161 m<sup>2</sup> of office space and 1 750 m<sup>2</sup> retail space.

The Telkom / Dash / Italtile properties have potential for an additional 12 645 m<sup>2</sup> of office space to be granted on the Telkom site. The Outspan site, now part of the Menlyn Shopping Complex properties, has capacity for about 7 526 m<sup>2</sup> of office/hotel rights.

It should be noted that Telkom has submitted an application for ±22 000m<sup>2</sup>, including ± 10 000 m<sup>2</sup> for retail purposes. The granting of the above development rights would not lead to the further spatial expansion of the Menlyn Node, but would rather optimise the utilisation of space within the proposed boundaries of the Node, and the applications could therefore be considered favourably.

Access to this area is limited to existing points. Care should be taken that the accesses have sufficient capacity to accommodate the traffic if the area is developed to its full capacity. Another important requirement would be to ensure that sufficient parking space is provided for all the land uses.

East of Lois Avenue

This area comprises, amongst others, the Menlyn Retail Park, various offices to the north and northeast thereof, a block of high-rise flats, the Filling Station, a nursery and the Glen High School. Major proposed land use components revolve around the following:

- Erf/...

– Erf 12, Menlyn X 1

There is a vacant portion of land to the south of the block of flats that could be developed for office purposes. At an FSR of 0.6, this could provide for an additional 4 938 m<sup>2</sup> of office space.

– Erf 52, Menlyn X 9

As the nursery is a fairly low-intensity land use, one could also expect pressure for redevelopment of this strategically located site in future. This could eventually provide for an additional 7 014 m<sup>2</sup> of office space. If developed for office purposes, this site would, however, have to gain access from the internal network to the south and not from either Atterbury Road or Genl Louis Botha Avenue.

– Corobay Avenue area

It is proposed that the vacant portion of land between Menlyn Retail Park and Glen High School, and bisected by Corobay Street, be earmarked for future retail use. The site currently belongs to the state and specifically the Department of Education and Training with a view to the future expansion of the Glen High School. The Glen High School, however, indicated that they were negotiating with the Department to buy the land and to then develop it in such a way that it would generate a frequent income for the school.

It is also possible that the two townhouse complexes to the north of this site could eventually experience pressure for retail development. If allowed to redevelop, this area could complement the retail component of Menlyn Retail Park.

This entire area could provide for an additional 7 013 m<sup>2</sup> retail space at an FSR of 0.3 to complement the Menlyn Retail Park. Access to this retail node would then be provided from Corobay Avenue, from the existing entrance at Garstfontein Road, at the Dallas and Aramist intersection, and the existing access further to the west along Aramist.

– Waterkloof Glen X 2

This leaves the residential component comprising Waterkloof Glen X 2. Some illegal land use changes have already taken place in this area—especially along Genl Louis Botha Avenue. In view of this and the land-use changes taking place in the immediate surroundings, it is reasonable to argue that this entire area will come under development pressure in the foreseeable future.

At the public meetings held with the local community, there was general consensus among the residents that the area will undergo land use changes in future, and that it should be allowed. Based on the trend in the immediate vicinity, and specifically to the northwest, it seems that offices could be the preferred use.

However, relevant is the existing relatively large component of medium- and high-density residential development in this area and in the areas peripheral to the Menlyn Node, which is very positive as it provides job and residential opportunities in close proximity.

As/...

As a principle, the Tshwane Metropolitan Municipality should try to conserve as much as possible of the medium- and high-density residential components in this area. Another land use that could be accommodated with great success in this area is recreation and entertainment which could complement the sport and recreation node to the east of Genl Louis Botha Avenue.

In view of this, it is proposed that the Tshwane Metropolitan Municipality allow this area to redevelop into a zone of mixed uses comprising office, medium- and high-density residential, sport, recreation and entertainment, and retail focused on serving these uses (i.e. no regional retail facilities). Market forces should be allowed to determine the exact mix and extent of the different uses, but it is expected that offices will be dominant. A typical model for development in this area would be for a building to comprise office and/or residential uses on the upper levels, and to accommodate limited retail (e.g. restaurants, financial institutions, pharmacies etc.) that is primarily focused on serving the local office/residential component, on the ground floor. This principle has already been established with the offices adjacent to the east of Lois Avenue and south of Menlyn Retail Park.

At an FSR of 0.6, this area can accommodate an additional 87 023m<sup>2</sup> mixed land uses floor space.

Public input:

As stated, the public opposed the Garstfontein Road two-way concept. Land use proposals are therefore considerably in line with public input.

Road and land use proposals for the area south of Garstfontein Road and the Menlyn Central Area are consistent with Working Group recommendations and related endorsements as per the final public plenary session.

### 3.3.3.6 Evaluation

Road proposals evaluation

- \* Owing to the new Garstfontein Road / N1 freeway interchange, a major redistribution of traffic within the Menlyn Node, especially southbound traffic (Centurion-Midrand-Johannesburg), implying increased capacity on roads such as Lois Avenue, Lois Avenue-Atterbury Road intersection etc. and furthermore negating the need for the Lois Avenue one-way system.
- \* Contrary to the current situation, increased accessibility to the Menlyn Central area and properties within will be created.
- \* Increased options as to choice of route will be established.
- \* Elimination of current areas of traffic conflict (e.g. Glen High School) will occur.

Land use proposals evaluation

Waterkloof/...

### Waterkloof Glen X 2 Area

- \* The proposed land use changes in this area is supported in principle. More detail regarding land uses is required. It is therefore proposed that a detail investigation (Waterkloof Glen Village Action Plan) be conducted in this area to determine the development guidelines for future land uses. The specific land use proposals will be discussed in more detail under Section 4 of this report.

### Garstfontein Road

- \* The proposed land uses are acceptable, provided that the following conditions are adhered to:
  - Erven 452 to 457 and Portion 4 of Erf 811, Waterkloof Glen X 2, are earmarked for mixed land uses, provided that the access limitations are solved to the satisfaction of the traffic engineers; and
  - No access from any residential street will be allowed.

### De Beers

- \* No access from any residential street will be allowed (e.g. Bali Street);
- \* a zoning line with the development of a buffer (performance zoning) must be incorporated in new developments, when adjacent to residential properties;
- \* the erven are earmarked for high intensity land uses provided that the access limitation are solved to the satisfaction of the traffic engineers; and
- \* new developments will be considered as filling-in and rounding-off of existing land uses.

### Balanced solution

Disadvantages relate to the fact that purely from a transportation-traffic engineering perspective, road upgrades within the existing road reserve probably do not represent the optimal solution (re mobility, capacity, etc.). However, within the framework of community, land use and traffic engineering issues, it does represent a balanced solution, with advantages predominantly vested in safeguarding endangered residential areas to the south of Garstfontein Road by virtue of strengthening the buffer zone and demarcation of the southern perimeter of the Menlyn Node *per se*.

### 3.3.4 Wolwespruit Drive South - Land Use Proposals, May 2000 and Basic Planning and Pretoria East Mobility Study Wolwespruit Drive Development Framework, May 2000

#### 3.3.4.1 Consultants appointed

Wolwespruit Drive South:

F. Pohl Town and Regional Planners:

MBS Consulting Engineers:

Wolwespruit Drive Area Plan Practice:

G.P. Greeff Associates:

Town Planning; and

Consulting Engineers.

Town Planning; and

Urban Design.

### 3.3.4.2 Demarcation of the study area

The Wolwespruit Drive area was defined as being the urban area between Atterbury Road and Charles Street in the north, the N1 Freeway in the east and Rigel Avenue in the south. The western boundary of the Wolwespruit Area was arbitrarily drawn, depending on the development issues under investigation.

### 3.3.4.3 Point of departure

A new north-south arterial, linking Delmas Road (southeast) with Charles Street / Atterbury Road (north). At the same time, Delmas Road to be re-aligned to feed directly into Wolwespruit Drive *inter alia* to direct traffic away from Rigel Avenue and alleviate traffic problems in respect of the N1 freeway / Atterbury Road interchange.

Traffic and transportation engineering issues prescribed the Wolwespruit Drive Central route alignment and configuration, including channelling in certain areas of the Wolwespruit.

Consultants accepted this situation as a point of departure regarding land use proposals. Road proposals therefore influenced and informed as to land use proposals and not vice versa.

In addition, further input from environmental consultants indicated that, subject to development control parameters and in compliance with environmental performance criteria, the Wolwespruit could be incorporated albeit within development to ensure open space continuity and linkages.

### 3.3.4.4 Road network proposals (Map 4)

Relative to these issues, the Wolwespruit Working Group agreed and recommended as follows:

#### Wolwespruit Drive South (Rigel to Dely)

The Wolwespruit Drive South should be implemented from Rigel Avenue up to Dely Road. Provisional land use proposals basically provided for high-technological-cum-office developments between Wolwespruit Drive South and the N1 freeway, with open space and residential development associated with the Wolwespruit and areas to the east of it.

However, Project Management instructed consultants in March 2000 not to proceed with detailed proposals. This basically revolved around the need for further regional road network investigations and traffic modeling (Hans Strijdom Drive, K54, PWV 17, etc.), with possible implications in respect of Wolwespruit Drive South.

#### Wolwespruit Drive North (Garstfontein to Charles / Atterbury)

The proposed Wolwespruit Drive North (between Garstfontein Road and Charles Street / Atterbury Road) were wholly rejected and not implemented. Reasons underlying this decision primarily revolved around:

\* Community preference for safeguarding the residential environment and related amenity value;

\* the conceivable/...

- \* the conceivable physical impact of the road on community facilities (New Hope School for physically disabled and autistic children, church, community clubs — gym, pigeon club, wrestling club, MG car club, etc.); and
- \* financial implications regarding expropriation of road reserves and dwelling units in respect of some properties to accommodate road reserves.

#### Wolwespruit Drive Central (Dely to Garstfontein Road)

The Wolwespruit Drive Central between Dely and Garstfontein Roads should be implemented with mitigating measures regarding noise and the Wolwespruit open space system pre-conditional to any development. Access should be provided via the Garstfontein Road / Wolwespruit Drive intersection to serve approved but still undeveloped business development located in the northwestern quadrant of the N1 freeway / Garstfontein Road interchange, therefore adjacent to and north of Garstfontein Road.

Current Wolwespruit Drive road proposals therefore relate to Wolwespruit Drive Central only (Dely to Garstfontein Road). It should be noted that Wolwespruit Drive is terminated before its link with Dely Road. There is therefore no direct Wolwespruit Drive Central link between Dely Road and Garstfontein Road.

From a transportation and traffic engineering perspective, Wolwespruit Drive Central (the Dely Road-Garstfontein Road section) is viewed as of strategic importance. The N1 freeway service roads and N1 freeway / Wolwespruit Drive / Garstfontein Road interchange are absolutely essential from a network perspective and can be implemented. Opportunities remain for implementation of Wolwespruit Drive South (if and when required) as well as Wolwespruit Drive North should it be required over time, albeit at much greater costs (new developments, additional expropriation, etc.).

Important is the fact that traffic engineering and design requires the channeling of the Wolwespruit in certain areas.

#### 3.3.4.5 Land use proposals

##### Wolwespruit Drive South (Rigel Avenue to Dely Road)

Land use proposals revolved around commercial-cum-high technological uses between the N1 freeway and the new road facility, open space regarding the Wolwespruit system and residential uses generally to the east of the *spruit*. However, as stated, Wolwespruit Drive South was deferred for further traffic investigations and modeling.

##### Wolwespruit Drive North (Garstfontein Road to Atterbury Road)

Because Wolwespruit Drive North was not implemented, urban development and design guidelines as proposed were in generic format, revolving around the following (refer to Schedule 7 for detail):

- \* Home offices along 26th Street and Selati Avenue up to Charles Street with retention of existing community uses and facilities (New Hope School, community clubs), excluding the Selati Street / Garstfontein Node;

\* high/...

- \* high-density residential infill (60 du/ha) in respect of vacant land;
- \* on the northern side of Garstfontein Road at the interchange with the N1 freeway, specialised retail, offices, hotels and restaurants;
- \* low-intensity single facility restaurants at activity points along the Wolwespruit; and
- \* specialised retail at the intersection of Selati Street and Garstfontein Road.

The proposals furthermore provide for urban design guidelines.

#### Wolwespruit Drive Central (N1 freeway / Dely Road to Garstfontein Road)

Recommended land uses revolved around offices and restricted retail (refer to Schedules 8 and 9 for detail). Owing to environmental considerations, proposed development would be subject to compliance with a whole range of specific urban (development) and environmental design guidelines.

The report is furthermore specific regarding development. Should any development proposals not comply with the recommended urban design and environmental performance criteria, such development should not be permitted.

#### Floor space issues

Read in conjunction with bulk parameters, land use proposals could result in  $\pm 97\,500\text{ m}^2$  office and specialised (restricted) retail floor space, the area north of Garstfontein Road / N1 freeway interchange included.

#### Public input

The deliberations of the Wolwespruit Working Group focused on the:

- \* Proposed alignment of a new road named Wolwespruit Drive between Rigel Avenue and Charles Street; and
- \* land use impact that such a future road could have on the adjacent residential areas.

The proposed Wolwespruit Drive was divided into a southern (south of the N1 freeway up to Rigel Avenue), a central (from the N1 freeway to Garstfontein Road) and northern (from Garstfontein Road to Atterbury Road) section. Due to the potential negative social impact that the northern section of the road could have on the residential areas of Ashlea Gardens, Alphen Park and Maroelana and especially the New Hope School, the deliberations primarily focused on issues related to these impacts. Three different alignments for the northern section of the road were investigated.

The southern and central sections of the road cross open areas and therefore land use issues received more attention than the actual road alignment.

From/...

From the start of the process, some of the I&APs questioned the necessity of the proposed Wolwespruit Drive. Core aspects that were noted in this regard were:

- \* The New Hope School is an asset to the wider metropolitan community, which should be adversely affected by the road construction;
- \* as the construction of the proposed Wolwespruit Drive could lead to a change in the residential character of the area, most residents were opposed to the idea;
- \* the western alignment of the northern section of the Wolwespruit was supported by some of the I&APs, as it is anticipated to enhance the commercial land use potential of a number of properties;
- \* the members of the Wolwespruit Working Group felt strongly about the fact that the natural environment and the *spruit* should be protected;
- \* additional traffic through the residential areas should be prevented as far as possible; and
- \* noise mitigation should be implemented.

Members of the Wolwespruit Working Group suggested that the proposed Wolwespruit Drive should terminate in Dely Road. The benefits of this alternative were discussed. Concerns were also expressed that, should the proposed Wolwespruit Drive not be constructed, the pressure on Selati Street would increase. The Wolwespruit Working Group concluded that only the central and southern sections of the proposed Wolwespruit Drive should be constructed, meaning that the road should terminate in Garstfontein Road.

At the Wolwespruit local public meeting, the following were recommended:

- \* The proposed northern section of Wolwespruit Drive will not be built;
- \* Limited development should be allowed on Selati and 26th Streets (e.g. home office rights). [In January 2000, Afrosearch received written comments from residents residing in 26th Street, Menlo Park, regarding this issue. They were of the opinion that the traffic flow in Selati and 26th Streets would increase considerably due to termination of the Wolwespruit Drive in Garstfontein Road. They therefore recommended that the properties along 26th Street be made available for purposes other than residential use should any of these property owners request rezoning.];
- \* The residential character of the core area between Garstfontein Road and Atterbury Road should be reinforced;
- \* The area between Erasmuskloof and the N1 freeway could be opened up for commercial development;
- \* A bridge could be constructed across the *spruit* to link the residential area at Koelman Road with Umgazi Road. [In January 2000, Afrosearch received strongly voiced objections from Deltaks Property Investments (Pty) Ltd. They were opposed to 'the road to lead into Garstfontein Road and east of the Wolwespruit supported by a bridge over Wolwespruit at Koelman Road'.]; and

- \* Commercial development (Van Biljon-Steyn-Scheepers) could be permitted on the northwestern quadrant of the crossing between Garstfontein Road and the N1 freeway with the only access point from Garstfontein Road. There will be no access from Umgazi Road.
- \* During the public review period, the residents of River's Edge, Wild Avenue, Newlands, indicated that they oppose the construction of the central section of Wolwespruit Drive. The following comments were received:
  - It was stated that it would be impossible to construct the proposed Wolwespruit Drive and the N1 service roads within the approximate 100 m buffer remaining between River's Edge and the N1, without impacting on the quality of life and privacy of those residents.
  - It is unsure how the proposed road and the river would be accommodated within the 100 m buffer without encroaching on River's Edge.
  - The necessity of Wolwespruit Drive is questioned, seen in the light of the proposed N1 freeway service roads. [The above concerns were noted. It was indicated that both the town planners and road engineers devised and documented mitigating measures to appropriately attend to the concerns raised and the sensitive environment. It was further indicated that the specific concerns would be addressed during the detailed Environmental Impact Assessment (EIA), as well as the detailed design phases, should the project continue. The matter of further public involvement and consultation in the following project phases is therefore recommended.]
  - Further concerns were raised regarding the increase of noise levels and the negative impact on the aesthetics due to the construction of the proposed Wolwespruit Drive and the impact thereof upon the adjacent greenbelt. The I&AP who raised these concerns proposed that a wall of at least 6 m be constructed to ensure noise reduction and proper security. [The concerns raised were noted. Both the town planners and road engineers proposed mitigation measures to attend to these concerns. It was indicated that it was the understanding of the consultants that a detailed noise impact study would be undertaken during the detail design stage of the project.]
  - A meeting was held on site on Friday 14 July 2000 with an I&AP representing the River's Edge complex, which is adjacent to the proposed Wolwespruit Central alignment. A large-scale plan showing the proposed alignment was given to the I&AP and the actual alignment on the ground was indicated to him. His concerns regarding the visual intrusion of passing motorists into the River's Edge swimming pool area were largely alleviated. The consultant involved was of the opinion that the I&AP was relieved that the proposed road and associated development would alleviate the existing security problem in the area. The issue of noise impact was still of concern to the I&AP, but the possible noise abatement

measures/...

measures were discussed with him at length. The I&AP was satisfied that this issue would be adequately dealt with at the detail design stage. It is the wish of the I&AP to remain actively engaged in the consultation process. The consultant's feeling was that the I&AP was satisfied with the discussion and outcome of the meeting.

- \* Comments were received regarding specific technical issues relating to the land parcel north of Garstfontein Road and the section of under/undeveloped land in the northwestern quadrant of the N1 freeway -Garstfontein Road intersections. In this regard, it was requested that access be provided to this land from Garstfontein Road. These concerns were addressed in reports.

#### 3.3.4.6 Evaluation

##### Road proposals evaluation

- \* Other than residential streets, there is no main road link available in the area. Subject to the implementation of the Dely Road link (therefore not terminated), it could conceivably reduce traffic intrusions along certain residential streets;
- \* owing to visibility from the N1 freeway, open space along the N1 freeway primarily in Municipality ownership, can be opened for prime development, preventing current problems of illegal occupation of this vacant land at the same time;
- \* to some extent, development could conceivably act as a noise barrier with regard to traffic on the N1 freeway; and
- \* the single most important disadvantage is the fact that the Wolwespruit and surrounds as a natural (nature) open space and part of the city-wide open space system *per se* could be irretrievably lost.

##### 3.3.4.6 Land use proposal evaluation

The approval of additional land use rights outside the boundaries of the proposed Menlyn Primary Development Area (for example west of the N1 freeway), is not a viable option at this point in time due to the following reasons;

- \* Development in the Wolwespruit Open Space System will eventually lead to pressure for other non-residential development in the area, *i.e.* along Garstfontein Road, westwards. The first row of erven directly along Garstfontein Road, and erven currently part of the so called Garstfontein Node, have already been earmarked for non-residential uses by means of the Integrated Development Framework for Duncan Street, Lynnwood Road, Charles Street, Atterbury Road and Duxbury / Brooklyn / Dely / Garstfontein Road, that was approved by the Council on 5 July 2001 (see Map 5);
- \* The existing latent office rights (55 259 m<sup>2</sup>) and potential rights (134 559 m<sup>2</sup>) in the Menlyn primary development area (see Map 6) will be able to meet the demand for additional land use rights in the near future to a large degree;

\* the Wolwespruit/...

- \* the Wolwespruit Open Space System is part of the City Wide Open Space System and should be preserved for future generations. It has also been indicated as an Open Space System in the Pretoria Structure Plan, 1993, the City Wide IDP, 1999 and the IDP of Planning Zone 9;
- \* Currently the N1 freeway forms a physical barrier between the Menlyn primary development area and Ashlea Gardens that is part of the transitional area;
- \* Due to the visibility of the Wolwespruit Area, any redevelopment (even for public open space) must be done with the utmost care in order to promote the capital city image of Tshwane.

This Department cannot evaluate land development applications in the Wolwespruit Area, until the following additional critical issues have been successfully resolved:

- \* An environmental scoping report or environmental impact assessment in terms of the Environment Conservation Act (Act 73 of 1989) must be done because the proposed change in land use (*i.e* office development) in the Wolwespruit Area falls within the ambit of the listed activities in Schedule 1 of Regulation 1183;
- \* the proposed roads system should be constructed first in order to make the area accessible for development;
- \* the flood line areas in terms of the 1:100 year flood line needs to be addressed - currently the buildable area for specifically Ashlea Gardens X 6 is very limited;
- \* positive comments from the Department Housing, City Planning and and Environmental Planning, Division Environmental Planning as this Department is the custodian of Open Spaces in the municipal area.

## SECTION 4: MENLYN NODE SPATIAL DEVELOPMENT FRAMEWORK

### 4.1 INTRODUCTION

The studies that were done in terms of the PEMS, Phases 1 and Phase 2 will serve as source documents for the Menlyn Node Spatial Development Framework (MNSDF). Although not every suggestion or proposal was included in the final policy document, the basic principles and view points were included in the latter document.

The purpose for the MNSDF is to be a management tool to council officials in the evaluation and assessment of land use applications. Invariably, other disciplines, such as traffic related and urban design issues will form to a great extent the backbone of the proposed policy. Where possible, an integrated approach was followed in order to integrate the three main disciplines, namely town planning, traffic engineering and urban design.

In whatever manner the economic analogy model is perceived, there is every indication that there is a need for additional land to accommodate development. There are currently (1999/2000) some 18 applications for land use changes associated with the Menlyn Node under review by the City of Tshwane Metropolitan Municipality. These applications relate to the following areas:

AREA	NUMBER OF PROPERTIES	SIZE (ha)	BUSINESS FLOOR SPACE (m <sup>2</sup> )
Menlyn Central area	7	29.6	82 923
North of Atterbury Rd	35	18.7	51 814
South of Garstfontein Rd	3	2.0	17 154
Wolwespruit*	6	16.8	15 787
<b>TOTAL:</b>	<b>51</b>	<b>67.1</b>	<b>167 678</b>

\* Ashlea Gardens X6 excluded

It should be noted that some of these applications, especially those associated with Atterbury Road, fall outside the boundary of the Menlyn Development Edge as demarcated in terms of this Report. Nonetheless, these applications are indicative of the demand as identified in terms of the analogy model. However, local authority decisions on these applications depend entirely on the approval of road network upgrades and land use proposals in terms of this Report.

#### 4.2 PROPOSALS OF THE TOWN PLANNING CONSULTANTS WITH REGARD TO LAND USES

The proposals from the consultants can to a large degree be incorporated in the final policy: Menlyn Node Spatial Development Framework (MNSDF). However, not all the proposals are acceptable due to the reasons as discussed in the evaluation section of each study. The studies done by the consultants will still form the building blocks of the MNSDF and the said policy should always be read in conjunction with the specific study done for a demarcated area within the Menlyn Node.

#### 4.3 DEVELOPMENT PRINCIPLES FOR WATERKLOOF GLEN X 2

##### 4.3.1 Background

The study: Land use input towards the Basic Planning of Garstfontein Road and Lois Avenue, April 2000 did not address any specific land uses for Waterkloof Glen X 2, other than to state that mixed high intensity land uses should be accommodated. A need therefor existed to address these issues on a site specific basis.

The Pretoria East Mobility Study identified Aramist Street as an important link between Garstfontein and the Menlyn Node. The study proposed that Aramist Street be upgraded to a double lane road. It is further proposed that Dallas Road be linked with Atterbury Road and that Frikkie De Beer Street be linked with Lois Avenue.

These changes will increase the traffic volumes in the suburb and reduce the existing living quality. This principle was tested with the residents, and accepted by them, during the consultations of PEM, Phase 2.

##### 4.3.2 Location

Waterkloof Glen X 2 is located on the eastern boundary of the Menlyn Node, bordered by Atterbury Road, Genl Louis Botha Drive and Garstfontein Road.

#### 4.3.3 Area

There are 88 residential erven, which range between 1 983 m<sup>2</sup> and 2 500 m<sup>2</sup>, 2 erven zoned Special for Group Housing, 4 erven zoned Special for a Filling Station, one school erf and a farm portion. The total area under consideration is 173 142 m<sup>2</sup>.

#### 4.3.4 Need and Desirability

The demand for development within the Menlyn Node is very high and has not reached a saturation point. Waterkloof Glen Extension 2, is the logical expansion of the Menlyn Node and the only land available for large scale development. It is furthermore a very good address for corporate development and the area is ideally situated to attract investments to Tshwane.

#### 4.3.5 The Proposed Development

The emphasis should be on vibrant public spaces and rich streetscapes. A-grade quality finishes should be standard throughout the development. The development should encourage walking rather than driving. A mixed use town center that has all the ingredients of a classic town is envisaged.

A variety of facilities and amenities, all within walking distance for each other. These include residences, shops, arts, culture, education, hotels and entertainment; integrated with corporate and high street office addresses.

The proposed development can include amongst other things:

- \* Civic buildings such as government offices (i.e. branch office for the Department of Home Affairs);
- \* libraries;
- \* small theaters;
- \* restaurants;
- \* professional offices;
- \* open air concert venues;
- \* art galleries;
- \* education and training;
- \* hotels; and
- \* conference and exhibition centres.

The development should be complementary to the existing businesses in the Menlyn Node, especially those in the Menlyn Centre.

#### 4.3.6 Development Guidelines

The aim is to create an upmarket work / conference / relaxing and residing area. Work and live have to be integrated in an area where the corporate head office and the home owner have a desire to be. The Victoria & Alfred Waterfront scheme in Cape Town is an example of successfully incorporated entertainment, retail, hotel and commercial activities in a homogeneous precinct.

The area has to provide public open space, like plazas and amphitheaters, to integrate human interaction. These areas have to ensure that a human environment is created.

In/...

In order to attract corporate investors, certain “incentives” have to be provided. Rezoning of individual residential erven to home offices cannot be supported. Developers have to be encouraged to do block developments by granting high floor space ratios.

#### 4.3.8 Conclusion

Due to the complexity of the area and the development potential no specific land uses can be stipulated other than to indicate that an FSR of 0.6 and higher can be supported. Fragmented development (typical dwelling-house office development) is not desirable and would be discouraged.

### 4.4 DEVELOPMENT PROPOSALS FOR WATERKLOOF GLEN EXTENSION 5

#### 4.4.1 Background

Three rezoning applications comprising of all 24 erven in Waterkloof Glen X 5 were received by the Tshwane Metropolitan Municipality during March 2001. The purpose of the application was to rezone the properties from Special Residential with a density of one dwelling house per 1000 m<sup>2</sup> to Special for the purposes of motor dealerships and places of refreshment including take-aways and drive-through facilities and Special for the purposes of residential buildings and/or dwelling-units, a medical centre, clinic, consulting rooms and laboratories.

#### 4.4.2 Need

There are latent office and retail rights within the Menlyn Primary Development Area available and although no additional office and retail rights can be considered outside these boundaries, ancillary and supporting uses such as motor dealerships, places of refreshment and “white ware” retail are situated on the periphery of the Menlyn Primary Development Area. The need for additional ancillary and supporting uses on the periphery of the Core is acknowledged.

Other motor related uses such as the installation of alarms, tyres, batteries, air conditioning, motor glass, radios, shock absorbers, towbars and exhaust systems tend to be industry orientated, it has not been motivated and the need therefore cannot be acknowledged specially with the Menlyn Motor City where adequate such facilities are provided. These facilities at the Menlyn Motor City are in close proximity to the application site.

The need for places of refreshment as supporting use to the motor dealerships is acknowledged.

The developers has identified the need for a medical day clinic in the area of the Menlyn Node, and the need for such a clinic with ancillary uses is acknowledged.

According to the developers there is a need for conventional residential apartments at the edges of major nodes and especially at a node the size of Menlyn. It as an accepted Town-planning principle that higher density residential development could be situated around or close to business nodes, and therefore the need for the residential units is acknowledged.

#### 4.4.3 Desirability/...

#### 4.4.3 Desirability

Although it would have been ideal for the proposed uses to be situated in the Menlyn Primary Development Area (between Atterbury, General Louis Botha and Menlyn Drive), it is acknowledged that the motor dealerships are dependent on high visibility and the application site is, from a visibility and accessibility point of view, very suitable.

The fact that the developer acquired all the erven (24 erven) between Menlyn Drive, Genl Louis Botha Avenue, Muriel Street and the park strip (Erf 805) means that there are no residential properties directly adjacent to the application site. The 24 erven will function as an isolated group of erven.

The only residential properties that could be influenced by the development are the erven to the east of Erf 805. These erven are approximately 50 to 60 metres from the nearest point of the development where residential flats with a maximum height of 3 storeys will be built.

#### 4.4.4 Land uses

The following land uses was approved by the City Planning Committee on 31 August 2001:

Development Precincts			
Street Blocks	Suburb	Erven	Proposed Land Uses
Muriel, Delphi and Celleste	Waterkloof Glen X 5	747,748,749,750,752, 753,754,755,756,757 and 758	Special Residential or after consolidation residential buildings and/or dwelling units, a medical centre, clinic, consulting rooms and laboratories.
Genl Louis Botha, Garstfontein, Celeste	Waterkloof Glen X 5	731, 732, 733, 734, 735, 737, 738 and 739	Special Residential or after consolidation motor dealerships and places of refreshment (take aways and drive through facilities included)

## SECTION 5: CONCLUSION

The Pretoria East Mobility Study was commissioned by the former GPMC as part of the Integrated Development Planning Process. The Development Frameworks, drafted for the Menlyn Node and environs, from part of an integrated development planning initiative for the Menlyn Node, Pretoria and the Greater Tshwane Metropolitan Area focusing on transportation and land use.

According/...

According to the study the current structure and form of the city of Pretoria include the following:

- \* A compact city core with decentralised activity nodes of which the Menlyn Node forms a part.
- \* a multi-nodal urban structure;
- \* a hierarchy of roads;
- \* a public transport system; and
- \* a city-wide open space system.

The spatial distribution of activity nodes indicates that the Pretoria CBD has been identified and acknowledged as the Primary Metropolitan Activity Node within the Tshwane Metropolitan Municipality area, followed by nodes, such as Menlyn, Brooklyn and Hatfield, which have recently developed into prominent Secondary Metropolitan Activity Areas, mainly as a result of the ongoing decentralisation of business related development from the Pretoria CBD.

The Council of the City of Tshwane Metropolitan Municipality adopted at its Council meeting of 15 January 2001, the following vision: 'An internationally acclaimed African capital city that empowers the community to prosper in a safe and healthy environment.'

In terms of the Tshwane Interim Integrated Development Plan, 2001, the proposed policy adheres to the following Strategic Focus Areas:

- \* "The encouragement of economic growth and development in order to make the City of Tshwane's economy globally competitive and more focused.";
- \* "The management of physical development so as to compact and integrate the city..."
- \* "The promotion and strengthening of Tshwane's national status as the sole capital city of South Africa." and
- \* "The building of Tshwane's international image and reputation as the African Centre of excellence."

In the report regarding the Integrated Development Framework for Duncan Street, Lynnwood Road, Charles Street, Atterbury Road and Duxbury / Dely / Brooklyn / Garstfontein Road the following statements were made that is also applicable regarding the MNSDF:

"It is imperative to have a co-ordinated economic growth strategy to help avoid potentially chaotic environments where fragmentation of infrastructure and transportation lead to inefficiencies. Of vital importance is the containment of metropolitan growth and to curb urban sprawl. Future development should be directed to targeted parts of the metropolitan areas that have the desired densities, amenities and infrastructure. The inner city and the suburban growth centres (e.i. Menlyn, Hatfield or Brooklyn) should be the targeted areas.

Sustainability of development is an holistic approach. It should include the maximization of the environmental quality to conserve/support residential character and promote responsible development that will maintain and also uplift these established residential areas. These form the backbone of not only residential development in Pretoria, but also Pretoria in large. The quality of residential development in Pretoria is a well known fact and it makes it a residential city of choice.

Development/...

Development and the management thereof should always consider the sustainability as a principle priority."

The need to upgrade a road network in an established area, where people live in comfort while, a few kilometers away people live in poverty and have very little services, can be questioned. When comparing a road with running water and electricity in every household, the "road" seems to be a luxury, which can be done at a later stage.

History divided our society into two categories, i.e. a serviced section and an under serviced section. Delivering social services to the under serviced section is one of the primary functions of our Government. These services are extremely important to address the desperate needs of society. Given the need and importance of the deprived, Government has also a responsibility towards the serviced section of society.

The serviced section of society is in desperate need for the provision and upgrading of infrastructure, such as roads. This infrastructure is extremely expensive but important for the future of the Metropolitan area. The upgrading and improvement of infrastructure is a prerequisite to attract business and to generate an income which can be used for the delivery of services.

The investment in both sections of society will produce different returns on the investment for the Municipality. When comparing the "return on investment" between the upgrading of a road network and the addressing of social services, a different picture emerges. The "return on investment" on the upgrading of the road network is, better access to the Menlyn Node and the residential areas to the East of Pretoria.

The improved accessibility will result in more business development in the area, consequently more rates and taxes for the Municipality and additional employment opportunities for the residents. The improved access to the residential area will contribute to create a positive attitude at the residents towards the Municipality. The businesses in the Menlyn Node and the residents of the East of Pretoria are substantial contributors towards the income of the Municipality. This income will address the needed social services.

The "return on investment" on the addressing of social services is less than that of the road network in monetary terms, although not less important. By addressing social services will ensure that the lives of the residents improve and that expectations are met.

The ultimate decision for the City of Tshwane Metropolitan Municipality, is to take a decision based on priorities. The final decision will have a long term effect on the Metropolitan area.

The preference of property developers for the Menlyn area, is often questioned. There is an impression that development is focused on the East of Pretoria and that areas to the North of the Metropolitan area, are neglected.

In order to put the development in the Menlyn Node into perspective, it is important to remember that the three most important elements in a developer's decision is location, location and location of the property. This implies that the business address is vital in the development decision.

A development such as the Menlyn Centre has to be financed by a very strong and stable investor. All investors are nowadays very cautious of the risk of a development. The "good business address" plays a very important part in the risk and the return of an investment.

The Menlyn/...

The Menlyn Node's "good business address" is due to the area's accessibility from the N1 freeway, the location close to an affluent market and the variety in product and service offerings in the area. The benefit of accessibility is at present the major problem in the area. Being accessible, attracts business and customers to the area, which has exceeded its road capacity. The result is a congestive road network system with an increasing demand for further development in the area.

The other reason for Menlyn's success is that business needs business to be successful. The benefit of a large variety in product and service offerings in the area result in a stimulus in complimentary products and services. The result is that a product, clothing for example, attracts a complimentary product, jewelry, to the area. Another example is the presence of home improvement merchants which attracts a variety of tile, sanitary ware and carpet dealers to the area.

The Menlyn Node is at present a retail shopping, entertaining, home and motor service centre. The area needs large formal employers such as head quarters of large corporations to provide employment for the local residents. These head quarters are at present located in Midrand and Sandton and provide employment to many residents of Tshwane. Local residents have to commute daily between Tshwane and their work place which contribute to the congestion of local and national roads.

One solution to the problem will be to restrict any further development in the Menlyn Node and to guide development to other areas in Tshwane. The result will however be extremely negative for the area and the Municipality. There is a development momentum in the Menlyn Node which will be destroyed. Such a step will drive away future development in the entire metropolitan area.

There are at present rezoning applications submitted for 200 000 m<sup>2</sup> in the Menlyn Node. If the roads are upgraded, a possible additional 200 000 m<sup>2</sup> office and retail rights can be expected. These rights will generate a substantial income for the Municipality which can be applied to address serious needs.

A sustainable solution to the problem will be to invest in the Menlyn road network system, while at the same time encourage investors to address the shopping needs of the under serviced community. The Economic Development Division of the Municipality can play a very important part in this process.

In terms of Schedule 8, Strategies and Projects: Urban Elements, the following project is listed (Section III, Schedule 8, Page 70):

"Investigate and draft an overall development framework with the emphasis on strategic urban management directives to ensure co-ordinated, integrated development with specific reference to (1) identification and preservation of residential core areas, (2) business nodes and expansion (Hatfield, Brooklyn and Menlyn specifically), (3) nodal expansion, impact and need for buffer zones/interfaces, (4) mixed land uses, (5) intensity or density of development, and (6) the formulation of an appropriate physical framework to sustain and enhance economic development."

By the approval of the MNSDF, a project as listed in the Zone 9 IDP, has been successfully completed."

RECOMMENDED:/...

RECOMMENDED:

That it be recommended to Council:

- A. That the Menlyn Node Spatial Development Framework, (Annexure 4) be approved.
- B. That the prevailing Integrated Development Plans be amended in order to incorporate the principals of the approved policy.