

Final Draft

**Macassar and Environs
Spatial Development Plan
Volume 2:
Proposals and Conclusions**

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Cape Town**

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The **Macassar and Environs Spatial Development Plan** comprises an executive summary and two volumes:

The **Executive Summary** is a synopsis of the Introduction, Development Challenges and the Spatial Development Plan Proposals.

Volume one contains the analysis and background of the Macassar and Environs Spatial Development Plan with regard to:

- The Public participation process;
- The legal framework;
- The contextual planning frameworks;
- The study area context; and
- The issues.

Volume two (this document) contains the proposals and recommendations that will guide future planning and development within Macassar and environs. The proposals consist of:

- The concept;
- Proposals for the various precincts;
- An environmental plan;
- Transportation plan; and
- Implementation proposals and recommendations.

Nota: 'n Afrikaanse vertaling van die Bewaring- en Beplanningstellings verskyn in Bylaag A.

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List of Acronyms

CMA	Cape Metropolitan Area
DFA	Development Facilitation Act
DWAF	Department of Water Affairs and Forestry
IDF	Integrated Development Framework
IDP	Integrated Development Plan
MOSS	Metropolitan Open Space System
MSDF	Metropolitan Spatial Development Framework
NEMA	National Environmental Management Act, 1998 (No. 107 of 1998)
PGWA	Provincial Government Western Cape
RDP	Reconstruction and Development Programme
SAHRA	South African Heritage Resources Agency
TSDF	Tygerberg Spatial Development Framework

List of Annexures

A. Bewaring- en Beplanningstellingen

1 Spatial Development Plan

1.1 Background

The review of the draft Macassar and Sandvlei Structure Plans has been necessary as the original Macassar plan was drafted prior to the restructuring of local government and Macassar's incorporation into the Helderberg Administration; and prior to the proposed redevelopment of the Somchem/AECI land to the east of Macassar. The original planning aimed to develop Macassar in a north-south axis, which would have terminated at a planned railway station in the north, this direction of growth will change now to be integrated with the adjacent Somchem/AECI initiative to the east of Macassar. The study area boundary runs along Baden Powel Drive in the west, north of the railway line to include Faure, Croydon, and Firgrove. The eastern boundary includes a section of the N2, Donald Cook's land and the Eerste River estuary. The False Bay coastline forms the southern boundary for a portion of the area. Refer to **Figure 1.1**.

A number of issues have been documented in Volume 1 and are summarised in this section. The study area is fragmented and generally lacks cohesion. Thus communities operate as separate areas e.g. Firgrove, Somchem Village, Croydon/Faure, Macassar east and west, Macassar Beach and Sandvlei. Macassar suffers from being a racially exclusive town planned in the 1960's that was expected to have a high growth rate and be largely self-sufficient. This has not happened for a number of reasons including the subsequent development of Blue Downs and Kleinvlei. This scenario has resulted in a struggling community dependant on work and urban facilities some distance from Macassar. The town has a number of community facilities but lacks cohesion of a strong retail focus and as a consequence small shops and taverns are scattered throughout the residential areas of the town. The town of Macassar is not well integrated and suffers from a lack of east-west movement with the poorest groups living the furthest away from the public transportation and community facilities. A lack of housing, social problems, gangsterism and crime, prevail in the area.

While the area is well endowed with natural resources, many are under threat from the impact of urban development, especially the Macassar dune system. The drainage system and associated landforms are an important part of the character of Macassar. The river ecosystems, in combination with the coastal ecosystems, form an area of metropolitan conservation significance and provide ecological and recreational opportunities.

1.2 The Concept

Over the past decade the direction of new growth within the western Helderberg basin has been reoriented and future growth will now be accommodated on the Somchem/AECI land, which will connect with the activity spine along the R102 towards Gustrouw. This proposed corridor has meant that the axis of future development in Macassar has shifted from a north-south orientation, along Albatross Way, to an east-west orientation to benefit from the alignment of the proposed Somchem/AECI activity corridor. The prospect of commercial and industrial opportunities in close proximity will benefit Macassar, Sandvlei and Firgrove. In the short to medium time frame, consolidation, intensification and densification of Macassar is desirable. However, the possibility of growth in a northerly direction, should a station be provided between Croydon and Firgrove in the longer term, should not be ruled out (see para.1.11.3).

Figure 1.1: Study Area

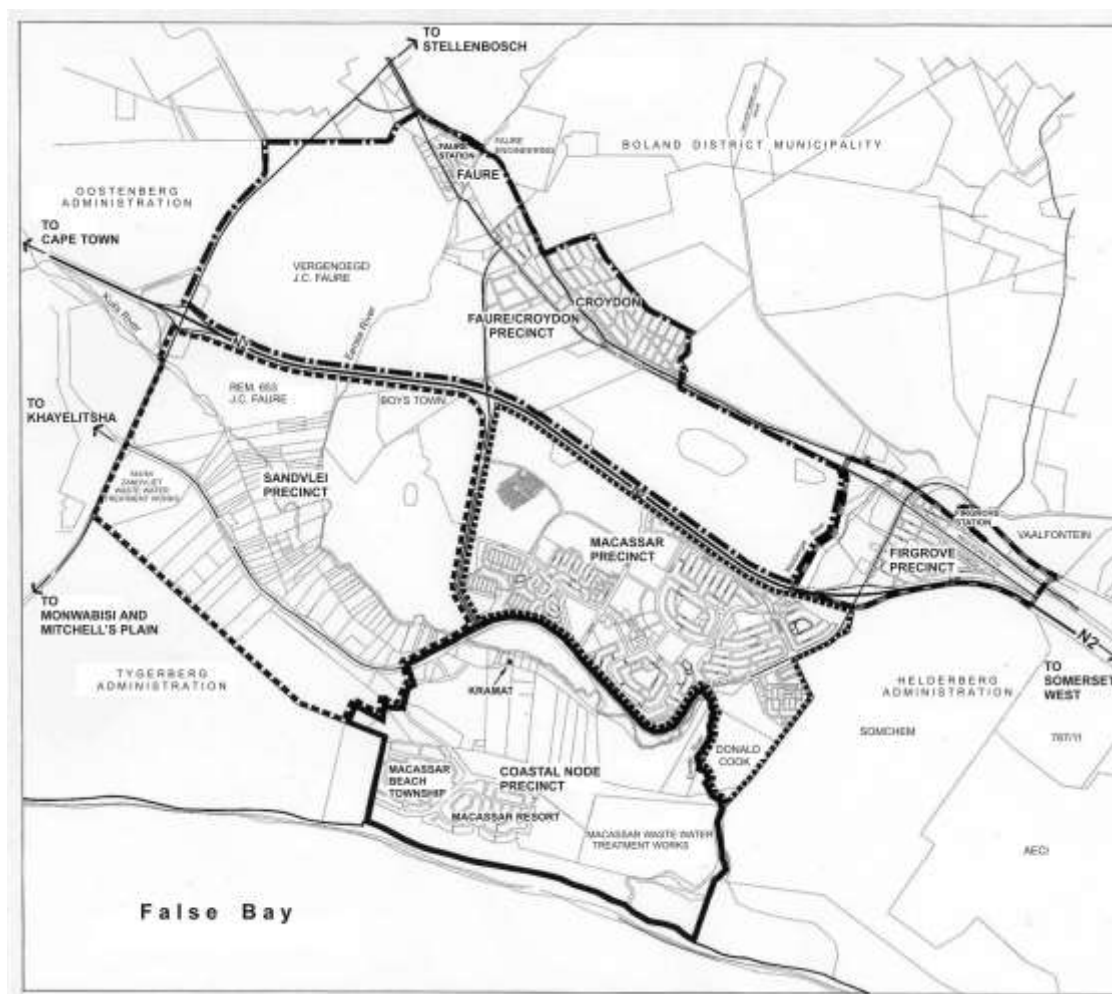
Figure 1.2: Macassar and Environs Spatial Development Plan

The spatial plan is based on the following principles:

- Intensifying development within Macassar;
- Integrating Macassar by means of a ring road to connect the existing and planned routes;
- Developing nodes of mixed use activity;
- Maintaining the low density residential areas of Firgrove and Faure;
- Protecting the rural-urban interface;
- Developing a metropolitan open space system; and
- Protecting conservation worthy areas and agricultural land.

The spatial plan as indicated in **Figure 1.2** is an overview of the proposals for the study area and illustrates how the proposals for the individual areas relate to each other since the study area contains a number of unique areas e.g. Macassar, Sandvlei, Firgrove, Faure and Croydon. Each of these precincts is discussed separately in the sections below. **Figure 1.3** illustrates the various precincts.

Figure 1.3: Precinct Plan



1.3 Macassar Precinct

1.3.1 Intensifying Development within Macassar

Figure 1.4 is an extract from the overall study area plan, illustrating the proposals for Macassar. The intention is to encourage the maximum use of development potential within the urban area and to integrate the urban area of Macassar by means of:

- Promoting the location of affordable housing close to existing economic, social and transportation opportunities;
- Promoting a mutually supportive mix of land uses such as residential, recreational and employment activities; and
- Developing a more effective and equitable transport system that links residential areas with economic and recreational opportunities.

Ideally, higher density housing should be located at the centre of the town and on activity routes. The intensification of residential uses in the town centre will ensure a permanent presence of people, which is one way of creating safer environments.

Unfortunately, this has not quite materialised in Macassar and it is found that higher residential densities, accommodating the poorer section of the community, are located on the periphery of the town, furthest away from the central community facilities and public transport terminals. Some restructuring of densities and transportation should therefore be targeted over the medium to longer term.

1.3.2 Internal Road System

An internal ring road is proposed to connect the existing and planned roads, which will provide an internal movement route in Macassar. The proposed movement system as illustrated in **Figure 1.5**, requires two important interventions:

- A new road between Ring Road and Musica Road, (adjacent to the school and the public open space), although planned and used as a footpath it will need to be constructed as a full road; and
- The second intervention, which is likely to be more controversial, provides a connection from Albatross Way to Nagtegaal Road, between the high school and the new sports fields. This section of road will complete the ring road and provide a very important connection that is needed for both pedestrians and vehicles. This road could be closed for larger sports meetings if necessary.

The proposal is a compromise, in that ideally there should not be a barrier between the school and the sports fields. However, the benefits of improving the road system, providing a pedestrian access and making the urban structure more legible outweigh the disadvantages of separating the sports fields from the school. The proposed movement system will improve east west movements, provide easy access to all the residential precincts, facilitate public transportation and encourage residential intensification and densification at appropriate locations. High-density housing and mixed uses should be located at the intersection of the access routes and the ring road. The proposed movement system creates a number of residential precincts based on the provision of acceptable walking distances of 400m to 600m from public transport stops. The ring road provides an integrating element for the existing fragmented development of Macassar. (**Figure 1.6** refers).

Figure 1.4: Macassar Precinct

Figure 1.5: Macassar Internal Road System

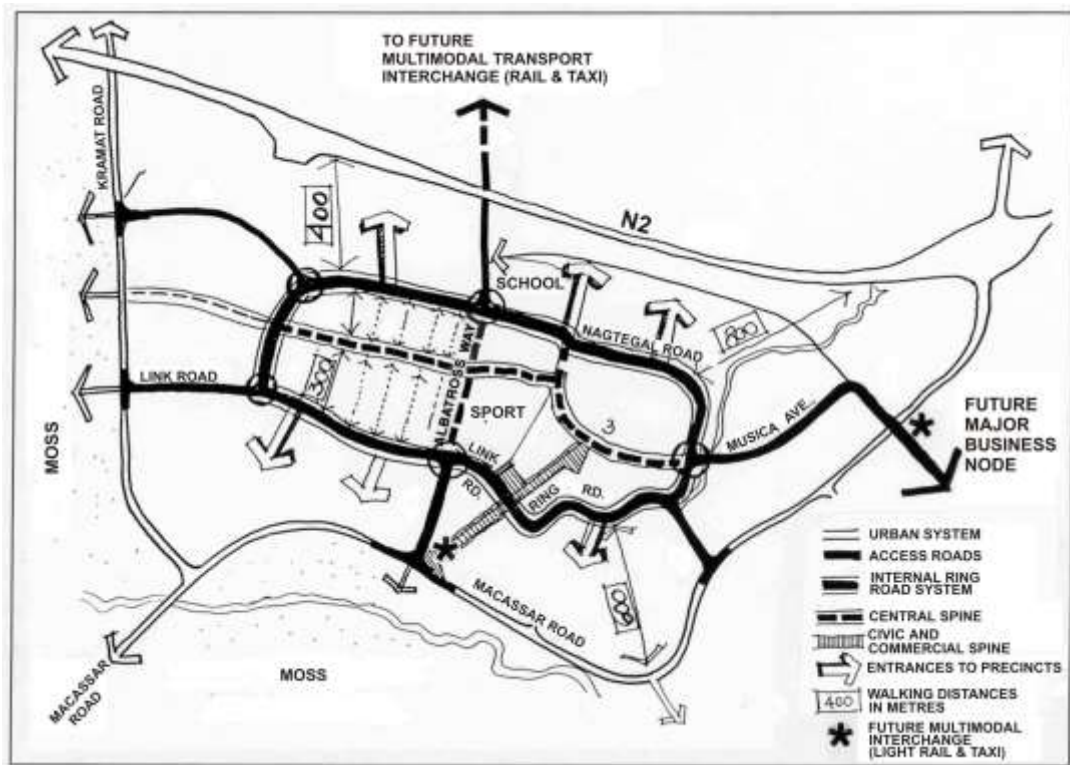
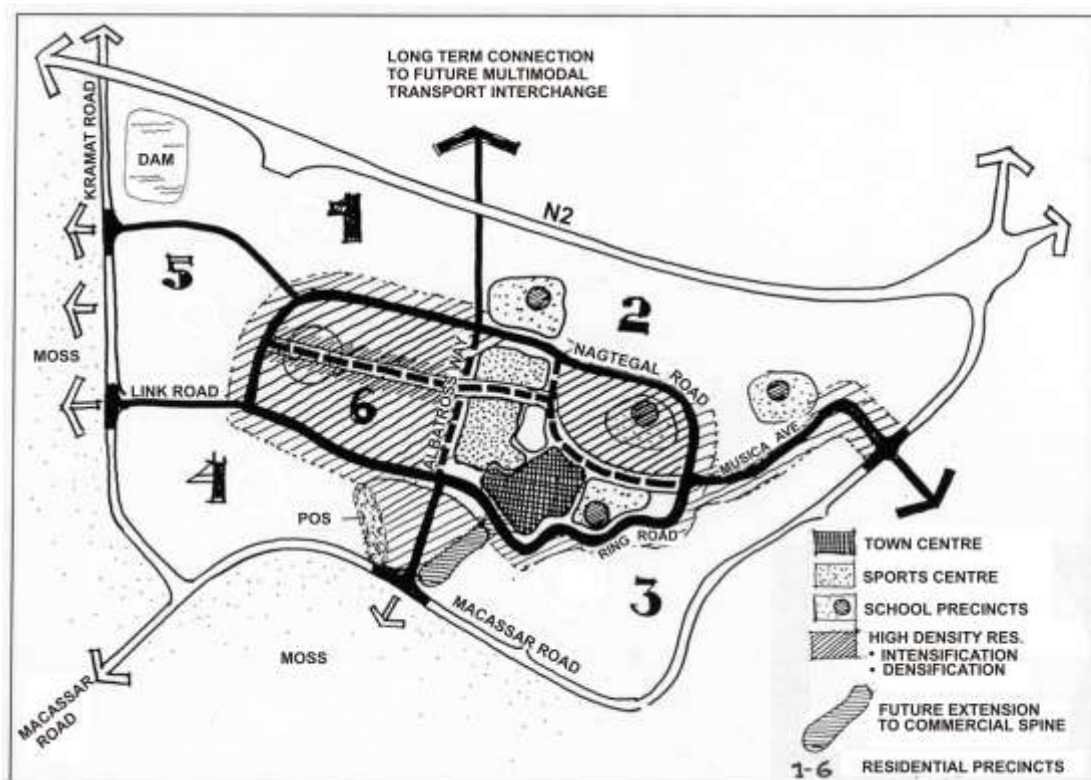


Figure 1.6: Macassar Residential Precincts



Macassar Road will act as a mobility route skirting Macassar and also connecting Khayelitsha and the proposed employment opportunities on the Somchem/AECI land. In the long term, a light rail system could be accommodated along this road. In the short to medium term, it is anticipated that road-based public transport will connect Macassar with Khayelitsha and the Somchem/AECI employment opportunities. It is proposed that high density mixed use development should be encouraged at key intersections along this route i.e. at the intersection of Macassar and Zandvliet Roads and where Albatross Way and Macassar Road intersect.

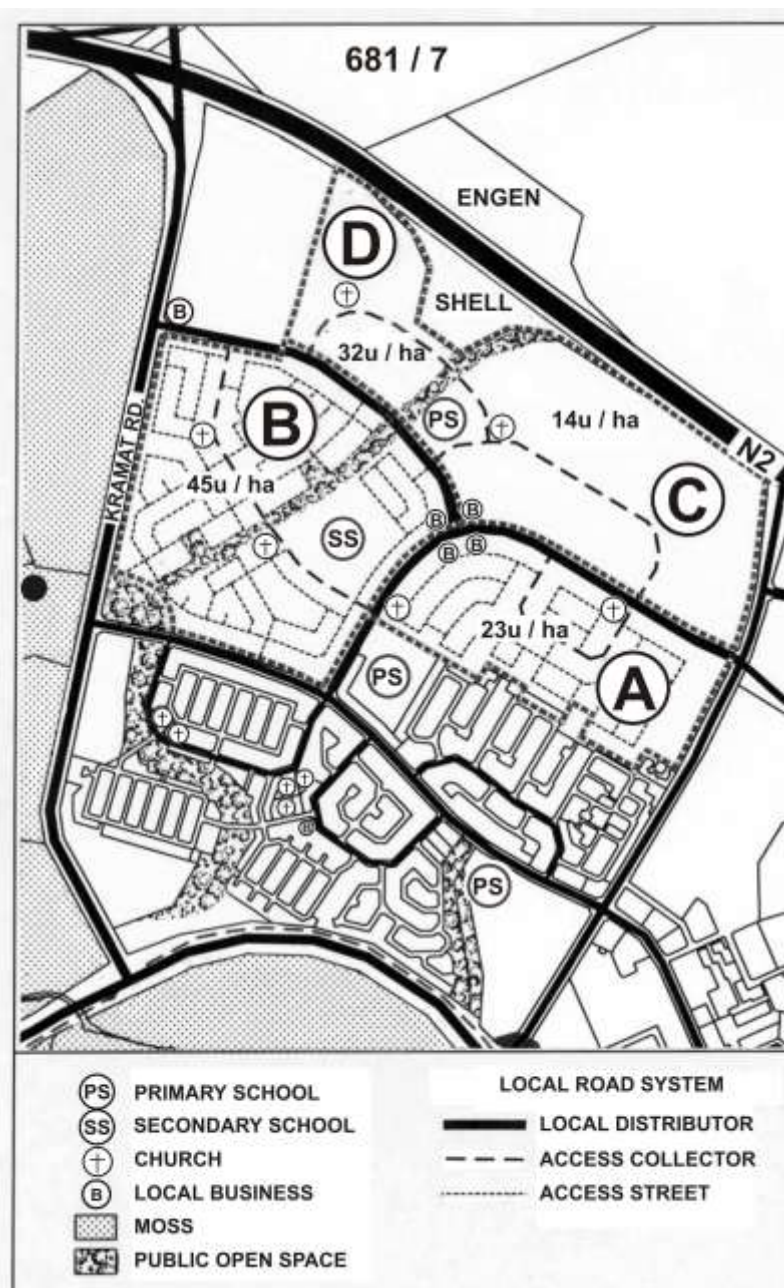
1.3.3 Future Residential Development and Community Facilities

The area to the west of Albatross Way is largely undeveloped and it is within this area, between the N2 in the north, Kramat Road to the west, Link Road to the south and Albatross Way to the east, that the bulk of the immediate expansion of Macassar is proposed. Refer to aerial photograph, **Figure 1.7**.

A range of housing densities can be accommodated in this area (Refer to **Figure 1.8**). However, discussions with housing and town planning officials of Helderberg Administration confirmed that the emphasis should fall on the provision of plots for affordable housing. This part of Macassar, by comparison, represents the more accessible land for immediate development and it was agreed that the bulk of it should be set aside for development of housing schemes on erven varying between 140 m² and 300 m². A small portion, nearer the N2, is set aside for the provision of larger erven of approximately 500 m². This will satisfy the demand registered with the Administration for erven to build private houses on, as is occurring in the immediately adjacent area between the N2 and Zandvliet Road.

Figure 1.7: Aerial Photograph

Figure 1.8: Future Residential Development on the Western Side of Macassar



The Layout for area A, in principle, should mirror and complement that of the existing New Macassar development to the immediate west thereof. The original concept allowed for a central pedestrian spine stretching from the primary school site to Albatross Way. This falls partly within open space and partly within road reserves. It should be completed and responded to in terms of the way the new layout of Area A would connect into this spine. A nursery school site and churches could be conveniently located with regard to pedestrian routes and even taxi pick-up points (either on Albatross Way or near the primary school). The location of intersections between the access collectors and the local distributor roads should be carefully co-ordinated between Areas A, B, C and D so as to ensure even or adequate spacing in relation to one another.

Area B is destined for development of a formal housing scheme, which is due to commence as soon as funds permit. An access collector road is planned as a local structuring element representing an extension of the pedestrian spine in Area A. It will facilitate movement towards the town centre, the schools and Faure Station in the north (via Kramat Road). A major storm water drain, in the form of an open, grassed canal, is accommodated in a linear open space which runs transverse to the access collector, and represents the other major, structuring element in the layout design. This also links up with schools, church sites and other community facilities and extends into the existing residential precinct to the west of Area B, as well as the major riverine open space system and recreational areas along the Eerste River.

Area C should be planned as an extension of the middle-income area further east, along the N2. Erven are seen to vary between 400 and 600 m² in size but a more exact evaluation of actual market demand should be made before doing the final layout design.

Area D is separated from Area C by the existing Shell Ultracity site (on the N2), the linear storm water open space and a proposed primary school site. It also contains a disused farm irrigation dam, which occupies a considerable area of land next to Kramat Road. Refer **Figure 1.7** (aerial photo). Area D is earmarked for residential plots ranging between 200 and 400 m². The dam site itself, is not regarded suitable for housing development and is therefore intended to be used as a detention pond. An alternative use would be to use it for recreational purposes, using the dam walls as embankments for informal spectator seating. Unless it is fenced and positively used for community purposes, the dam site could attract informal squatter housing.

With reference to **Figure 1.8**, it is accordingly recommended that average plot sizes be planned as indicated in **Table 1.1** below.

Table 1.1: Summary Table of New Residential Areas A to D

Section	Area (*)	Average Erf Size	Approximate No. Erven
A	18 ha	300 m ²	410
B	34 ha	140 m ²	1 560
C	28 ha	500 m ²	390
D	21 ha	200 - 400 m ²	280
TOTAL	101	---	2 640

* Excluding major, non-residential uses such as irrigation dam, drainage servitude, etc.

1.3.4 Zandvliet Homestead and Surrounds

The Zandvliet homestead, a building of historic importance, is located on Ptn 1 of Erf 1137 to the west of Kramat Road. The homestead is located on a large property, which falls predominantly within the 50-year flood plain.

The area is envisaged as a riverine conservation area, with public access for recreation and environmental education purposes, located outside of the proposed urban edge. The property contains a number of sports fields in addition to the historic Zandvliet homestead. (See aerial photo, **Figure 1.7**).

Many studies undertaken for the area have commented on the need to restore and convert the derelict Zandvliet homestead into an appropriate community facility. Converting the building to a community facility is seen as a way of preventing the main house from further deterioration by vandalism.

A proposal to use Erf 1137 for an animal pound and veterinary clinic was investigated by Planning Partners in 1999 at the request of the former Helderberg Municipality. The investigation concluded that it would be beneficial if the establishment of a pound could, in some way, contribute towards the maintenance and restoration of the Zandvliet homestead. A pound and animal care facility in this locality would be accessible to an extensive urban and rural catchment area and could form part of a more comprehensive community facility including environmental education and agriculture extension services. Factors such as noise pollution and effluent disposal would have to be managed effectively to ensure that the facility does not have a negative impact on the area.

It was recommended that the proposal for the use of Zandvliet homestead for a pound and animal care facility should be discussed with relevant interested and affected parties, after which further detailed investigations will need to be undertaken to establish cost estimates and to obtain the required authorisation of change of land use.

The existing sports fields, on either side of the homestead, are all located within the 50-year flood plain and past attempts to safeguard them against flooding proved unsuccessful. Considerable investments have been made in establishing the fields and the associated infrastructure, including flood lighting, cloakrooms and fencing. While limited, A-grade facilities can be developed over time at the new, central sports grounds on Albatross Way, the Zandvliet facilities should be kept as secondary practice fields and informal training/playing areas.

Erf 3993, a former portion of Zandvliet, was previously planned to accommodate a middle-income residential extension on land situated above the 50-year floodline. This idea has since been discarded and Erf 3993 has been excluded from development as defined by the urban edge study. It is now seen to form part of the MOSS. It contains a bluegum plantation and is bordered in the north by The Boys Town development. A secondary school could be developed on part of this land, above the 50-year flood line, if justified by future demand (See para 1.6).

Boys Town occupies land, next to the N2, which stretches down to the Eerste River and which is partly leased to an outside party for the cultivation of roll-on lawn. The modern building complex is located on the higher land, less subject to flooding. It is envisaged that this institutional/residential use will continue and it may even expand in future.

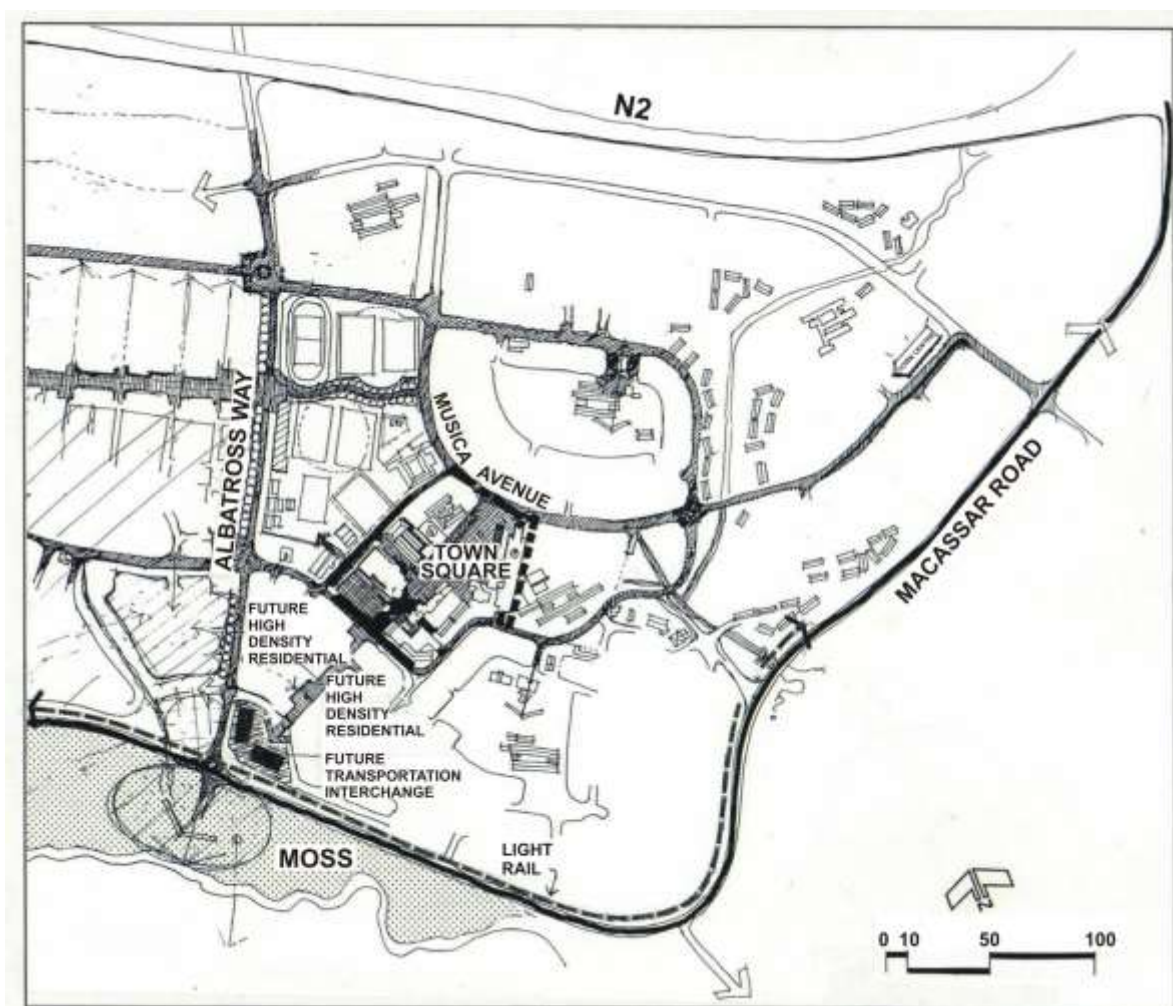
1.3.5 Town Centre

The original development concept accommodated the town centre on Albatross Way, which was the main structuring element of the original draft structure plan (The Planning Partnership, 1990). However, the development of the sports fields along Albatross Way has now isolated the town centre from this main structuring element and prevents the centre from expanding towards Albatross Way. The existing neighbourhood centre lacks exposure and, although fairly central, is not well exposed to passing trade on the major road system. The town centre is dominated by community facilities and very little commercial development has occurred to date. It nevertheless includes a day hospital, municipal offices, police station, post office, two community halls, a library, crèche and some retail outlets.

The proposed urban design concept identifies the concentration of community facilities, between Musica, Link and Ring Roads as elements of the town centre that could be used as a catalyst to encourage more intense development and activities within the area. Currently, the civic facilities are spatially fragmented and the area lacks a legible relationship of public space and built form. For the purposes of creating a town centre, a central commercial and civic spine will be used to connect the existing civic facilities along Musica Road. At the same time, the opportunity exists to create a commercial spine running in a southwesterly direction. This spine can accommodate a hierarchy of public spaces ranging from the public boulevard, to the semi public areas and semi private residential courtyards. Higher density housing should be used to intensify development of the Town Centre as well as being used to define the public realm.

As the commercial spine extends over time, it will grow in a southerly direction to terminate in the proposed long term commercial and public transport node and possible taxi rank at the intersection of Albatross and Macassar Roads. (Refer to **Figure 1.9**). In order to ensure that the connection is not severed, commercial activities and pedestrian ways must be provided through the area known as Chris Hani Park. Any residential development that takes place in this area (which will contribute to the mixed use nature, high intensity commercial and civic node) should be high density in nature and respond to the proposed public realm structuring elements.

Figure 1.9: Long Term Proposal for the Town Centre



The commercial spine should be pedestrian in character and have a high concentration of urban activities. The town square is proposed to be located at the confluence of Musica Road and the spine. This space could be a vibrant urban space that accommodates taxi and bus pick up points, as well as informal trading facilities. (Refer to **Figure 1.10**)

In order to effect the above proposal the following actions need to be undertaken:

- The town centre should be developed in accordance with the concept illustrated in **Figure 1.10**. The Helderberg Administration has recently sold erven 2375 and 2377 for commercial purposes. These two properties should be consolidated with erf 2381, refer to **Figure 1.11**, in order to realise the conceptual plans for the town centre;
- Detailed urban design guidelines, based on the concept illustrated in **Figure 1.10**, should be developed for the town centre in order to provide directives for the appropriate built form response, the public realm, landscaping, parking requirements, pedestrian movement and consolidation of the town centre;
- Active marketing of the town centre and the possibility of providing incentives to developers such as rates holidays for developers, that provide employment,

landscaping and parking, should be investigated by the local authority as a means of attracting commercial activities to Macassar;

- Ensuring that high density housing (that responds to the concept) is provided between Macassar and Link Roads; and
- Ensuring that the proposed built environment responds to the public realm connection between the Town Centre and the proposed taxi node.

1.3.6 Additional Commercial Nodes within Macassar

The intensification of commercial development in the Town Centre is vital to the creation of a well functioning suburb. However, in addition to the Town Centre it is anticipated that local mixed-use nodes, incorporating commercial activities will develop at key intersections within the residential precincts.

Local commercial activities should be located at points of high accessibility along local distributor roads. They should be small scale and contribute to a mixed land use environment without competing with the proposed intensification of the town centre. The conceptual location of commercial nodes and businesses are shown on **Figure 1.4**.

1.3.7 Donald Cook's Land

The area of industrial land located to the southeast of Macassar, known as Donald Cook's land, is approximately 40ha in extent. Currently, the property is used as a vinegar factory as well as a distribution centre for canned foods. Together, the two businesses employ approximately 60 people, mostly from Macassar. Although the Helderberg Structure plan has acknowledged that the property will remain as an industrial use for the foreseeable future, land adjacent to the Eerste River could be developed for low density residential purposes to serve as a buffer between the industrial use and the river. However, any development on the site must take cognisance of the floodplain. Furthermore, in the case of residential development the southern extremity of the site will be affected by the buffer zone surrounding the Macassar Wastewater Treatment Works.

Figure 1.10: Proposed Town Centre Concept

Figure 1.11: Town Centre Cadastral Layout

1.4 Coastal Node Precinct

1.4.1 Macassar Beach Township and Resort

The Macassar Beach Township, undeveloped at this stage and owned by the National Housing Board, offers an opportunity for limited residential development close to the coast. The development of the Beach Township and the Beach Resort should be sensitively integrated into a coastal node creating the opportunity to impose sound planning, environmental planning, conservation and architectural conditions on the future development (Refer to **Figure 1.12**). The existing township should be limited in extent in order to take the conservation worthy adjacent dunes into account. It is recommended that no development should take place between the maximum erosion line (as determined by the CSIR) and the coast. The erosion line should determine the outer extent of future development without any requirement for artificial storm protection and no development should take place to the south of this line. Although Macassar Beach Township has no services, the opportunity exists for the development of an attractive coastal residential area provided it is undertaken subject to appropriate development parameters and is well integrated with the surrounding sensitive environmental elements. The authorities should seriously consider proceeding with a development framework for both the Beach Township and the upgrading of the Beach Resort. The development framework process could explore joint venture opportunities with the private sector. Any capital that is realised from such a venture could be used to relieve the housing backlog in the area. Based on the erosion setback line, the beach township can accommodate approximately 320 erven at an average size of 650m². At a density of 4,5 persons per household, the area will accommodate 1440 inhabitants (Sandvlei Structure Plan, 1996). While it is envisaged that this coastal residential area will appeal to the upper-middle to higher income groups, the final town planning and density should be informed by a proper market investigation.

Macassar Beach Resort offers a valuable recreational facility for the region and is in need of upgrading. The original parking area was retained in the later resort development but is inappropriately located on the primary dune and is thus covered with sand and should be moved northwards from the dune. Access to the beach should be upgraded and incorporated into the design to ensure that equitable access to the seashore is provided. There is a high degree of abuse of the dune system around Macassar Beach caused by four-wheel drive trails and trail bikes (Chittenden Nicks de Villiers and Coastec, 2000) and this should be prevented. The creation of a multi-purpose conservation area, including the western dune, the coastal zone and the eastern dune as proposed in the Macassar Dunes Management Plan, 1999, is supported in principle. The proposals for the conservation area will help to alleviate the abuse of the dunes and the problems mentioned above.

The Macassar Beach Township and Macassar Beach Resort have the potential to be redesigned to form an integrated nodal development. In doing so, it will be necessary for the current General Plan to be amended or cancelled. Detailed guidelines regarding architectural character, planting, access and fencing should be established for the future development of both areas.

Figure 1.12: Coastal Node

1.4.2 Kramat Precinct and Surrounds

The Kramat and its surrounding old cottages have a unique rural character and are of great historic significance. The “*village green*” in front of the cottages, towards the river, forms an inherent part of this historic complex and adds to its informal rural quality. Serious consideration should be given to placing this entire complex under an appropriate urban conservation zoning. (Refer also to the Draft Sandvlei Structure Plan, 1996).

The village green is regularly flooded in winter and some of the old cottages are also under regular threat. The more recent construction of a few large, modern homes in direct vicinity of the Kramat also detracts from the visual quality and integrity of the historic complex. Plans, and an application for rezoning, have also recently been submitted to the local authority to allow the construction of a college related to the Islamic faith.

The proposed college will be sited on land which forms part of a natural amphitheatre, behind the historic settlement, which is not excessively steep. This area is shown on **Figure 1.12** as being reserved for Institutional/Residential purposes and it is accepted that limited residential development of appropriate, sensitive architectural design, could also be established here. This could serve to give relief to those existing cottages, which are seriously affected by flooding.

Careful consideration should however be given to the following aspects:

- new development must not detract from the visual quality and integrity of the historic settlement;
- all efforts should be made to find a feasible engineering solution to the flood problem as affecting the historic cottages;
- if replaced by new housing out of the flood plain, the historic cottages should not be demolished; those that can be protected from the floods should be kept, possibly as accommodation for pilgrims and tourists thus offering a unique experience to those visiting the Kramat;
- formalised parking should be provided for the large number of pilgrims visiting the site over certain religious days; this should be located behind the Kramat and tucked out of sight. The road access and parking area could possibly be planned as part of the new college development;
- appropriate signage;
- an appropriate urban design and conservation plan should be prepared in sufficient detail for the total area prior to any new development being allowed within the institutional/residential area; and
- privately owned land located within the dune conservation area should be placed in public ownership by means of a land swap (or purchase) as is also recommended in the Macassar Dunes Management Plan (Chittenden Nicks deVilliers 2000).

1.4.3 Eerste River Estuary and Macassar Treatment Works

The Macassar Wastewater Treatment Works is located within the proposed coastal conservation and recreational area. Donald Cook's land is the only area that would be affected by the 800m buffer zone around the Macassar treatment works. It has been proposed that the land along the Eerste River could be utilised for residential purposes. Due to the buffer restrictions, the southern portion of the land should therefore not be utilised for residential purposes. No other residential development is planned within close proximity of the facility. The Macassar Waste Treatment Works is running at close to capacity and as there is a need to upgrade one of the works, to absorb the future urbanisation within the Helderberg Basin, it has been proposed, by the former CMC, that the Zandvliet Wastewater Treatment Works will be upgraded. The Macassar Wastewater Treatment Works was considered unsuitable for expansion due to regional planning considerations for the Macassar Coastal area. (Chittenden Nicks De Villiers, 2000). Limited recreation activity at this location would be in keeping with the nodal strategy in the False Bay Coastal Policy Plan. Further detailed planning, with regard to the development of the Eerste River estuary, is required.

1.5 Low Density Urban Areas

1.5.1 Faure and Croydon Precinct (Figure 1.13)

Faure originally developed as a very localised, small settlement on the old Cape Flats road, next to the Eerste River. It contains a church, a shop and a small number of houses as well as the St. Paul's primary school (168 scholars registered in 2001). It also has a station next to which Faure Engineering later developed. The latter now occupies some 20 ha of land on either side of the Eerste River, between the R102 and the railway line.

Development rights for the adjacent township of Croydon were approved in 1903 before legislation made it compulsory for township developers to provide essential services prior to the sale of erven. The township falls on either side of the railway line but only the lower section, between the R102 and the railway line, has developed to date. It contains a small number of businesses, fronting onto the R102 and approximately 40 houses.

The larger section of Croydon, above the railway line, is totally undeveloped and part of it is occupied by the vineyards of Kahlenberg farm, which is owned by the Faure family. Although a substantial number of erven in this part of Croydon have been sold, no services have as yet been installed and no development has taken place. This part of Croydon includes good agricultural soils and represents an unwarranted intrusion of urban development into the agricultural fabric of the area.

It is preferable that it should continue to be utilised for agricultural purposes and it is accordingly recommended that its future development and land use be renegotiated. To this end, the authorities and the landowners will have to cooperate in order to come to an equitable resolution. Croydon Township, above the railway line, should accordingly also be excluded from the area defined for future development by the urban edge.

Figure 1.13: Faure and Croydon

Portion 44 of Farm 654 (so called Zettler land) has been the subject of a more recent application for rezoning to subdivisinal area. The application was not supported by the local authorities but has recently (February 2001) been granted on appeal. The approval involves 46 ha of land, between the R102 and Kramat Road, to be developed at a maximum density of 11 units per ha. According to the town planning consultants for the project, no detailed planning has as yet been done for this land and authorisation for the change in land use, in terms of the Environment Conservation Act is also outstanding (pers. com. Mr P.J Le Roux, Jan Hanekom and Partners, Paarl).

While it may be regarded as premature and not in the interest of the desired shorter term consolidation and integration of development in the Macassar and broader Helderberg areas, development of the Zettler land over the longer term seems inevitable. Development of the corridor of land between the R102 and N2, and stretching between Eersterivier/Faure (Oostenberg) to Firgrove/Macassar (Helderberg), in fact seems inevitable over the longer term (see also paragraph 1.11.3 later). The important issue here, would be to protect the good agricultural soils and the bulk of the viable agriculture on farms situated above the railway line.

Vergenoegd farm (653) is a productive agricultural unit with a historic Cape Dutch homestead and modern wine cellar facilities. It has been owned by the Faure family for a number of generations and is known to produce top quality wines. The farm has for a long period of time however been impacted upon by surrounding urban growth. It has been cut into four portions by the N2 national road and Baden Powell Drive, it is being traversed by a number of metropolitan bulk service lines (water mains, power lines and major storm water canals) and it has been at the receiving end of increasing floods as a result of increased, upstream urbanisation in the catchment areas of both the Kuils River and the Eerste River.

Although Vergenoegd farm currently falls outside the urban edge, it will soon be surrounded by urban development. Continued agricultural production under these circumstances may be very difficult and alternative land-use proposals should be sympathetically considered in the future revisions of the Helderberg Structure Plan and the Macassar SDF. Already, large portions of the farm, outside the core area of good soils next to the Eerste River, are lying fallow and industrial rights have previously been granted to that portion of the farm north of Baden Powell Drive in the Oostenberg area. These have not been acted upon and have since lapsed. (See also **Figure 3.6, Volume 1**).

1.5.2 Firgrove Precinct

Firgrove, located between the Moddergat Spruit, the railway line and the N2 is a low-density residential area with associated services. Industrial development exists next to the station.

Firgrove Station is well used by the residents of both Firgrove and Macassar with Macassar Road serving as an important connector between Macassar and Firgrove station. Small scale commercial activities and higher density housing should be allowed to locate along Macassar Road, up to the 1:50 year flood line of the Moddergat Spruit. Refer to **Figure 1.14**. A filling station, supermarket and tavern already exist in this area and together with a hotel, form the core of this development.

Land uses that would not be appropriate in the area are large commercial developments, high-rise buildings and large-scale industrial and waste disposal sites.

The following guidelines should be applied to future development of the area:

- Single residential development should dominate;
- Higher density flats and group housing can be accommodated in appropriate areas;
- No development should be above three storeys;
- Neighbourhood commercial business developments should be designed in keeping with the residential character of the area;
- Taxi pick up points can be considered along main routes and at accessible nodes (e.g. opposite the Seven-Eleven supermarket and at the station); and
- Service related industrial activity should be permitted, especially adjacent to the station.

Figure 1.14: Firgrove Precinct

1.6 Sandvlei Precinct

The Sandvlei area plays an important agricultural role for its inhabitants. A recent study entitled 'Policy Guidelines for Development within Helderberg Smallholding Areas', 2000 was undertaken for the Helderberg Administration. The study recommended that smallholdings be excluded from the urban edge and that a smallholding edge be defined and reviewed on a five year basis. The study further recommends that any future subdivisions below 1 ha, should not be allowed. In keeping with the recommendations of the abovementioned study, the proposed smallholdings within the study area have not been included within the urban edge. Both agricultural and residential smallholdings are proposed within the study area and are discussed below. **Figure 1.15** has reference.

1.6.1 Agricultural Small Holdings

The smallholdings in Sandvlei have a special character and any additional development that is undertaken in the area should not compromise its rural character or the open space systems of the Kuils and Eerste Rivers. The area suffers from being located below the 1:50 year flood line and there is a need to provide the opportunity for existing farms to relocate their dwellings out of the flood zone on higher ground abutting Macassar Road.

The area to the west of the Eerste River and south of the N2 could be utilised as bone fide agricultural smallholdings. In keeping with PGWC's 'Policy for the Establishment of Agricultural Smallholdings in the Urban Fringe', this area could be used for land reform purposes by aspirant farmers from previously disadvantaged communities. This proposal would be in line with national and provincial land reform objectives. Appropriate beneficiaries may be found within the informal settlement at Madalabos, Macassar and Sandvlei. The local authority should investigate this as a new project, as discussions will need to be held with the owners of the land, beneficiaries and interested and affected parties. The local authorities are expected to play a developmental role and ensure that they proactively respond to the diverse demands for farming land on the urban edge. Funding sources are available depending on the monetary circumstances at the time of application. The local authorities can approach the Departments of Agriculture and Planning, Local Government and Housing for assistance during the preparation of the project. The minimum size of smallholdings should be determined with due consideration of economic viability, which would require a specialist study.

The area to the south of Macassar Road is currently being mined, an activity that will continue for approximately 20 years when the mining approvals of the current sand mining operation will expire (Chittenden Nicks de Villiers and Coastec, 2000). The current activities will exceed any five year review period for the spatial development Plan and thus it is difficult to predict what land uses would be appropriate for the area in the long term. The former Helderberg Council approved an application for residential rights on two properties, Erven 4889 and 5928, in May 2000. In addition the owners have also applied for mining permits and therefore it may be some time before the residential rights are enacted upon. It should be noted that the aforementioned properties are located in an area where mining levels will be taken to less than 6m to groundwater. In terms of the Macassar Dunes study it was proposed that in these cases, the land should be reserved for non-urban use. Thus future mining is likely to have a negative impact on residential usage and the residential rights may not be appropriate.

Figure 1.15: Sandvlei

At a conceptual level future land uses should include agricultural and residential smallholdings that complement the character of the established Sandvlei community to the north of Macassar Road. Due to the long-term nature of the mining activity, and the uncertainty about the final depths of mining and the post-mining quality of the land, future land uses for this area should be reviewed over time.

1.6.2 Residential Small Holdings

The land surrounding the Zandvliet Wastewater Treatment Works has been demarcated for residential smallholding purposes, as the soil quality for agricultural purposes is low. In addition, the Provincial Department of Health enforces a policy that restricts residential land use within a 500 - 800m radius of wastewater treatment works depending on the scale of the facility. After discussion with officials from the Department of Health, it was confirmed that in the case of Zandvliet, the 800m buffer strip surrounding the wastewater treatment works would be enforced. Land in this area that is not affected by the buffer zone is of low agricultural potential. Residential smallholdings are considered to be the most appropriate land use as this area is in the urban fringe and residents can keep livestock and cultivate some of the land for their own purposes. A minimum size of 1 ha and a low density of one unit per hectare should be maintained. Further subdivision, to smaller units should not be permitted.

Approximately 200 shacks have been established at the informal settlement named Madalabos, located just off the intersection of Baden Powell Drive and Macassar Road. The settlement is adversely impacted by Zandvliet Wastewater Treatment Works, which prohibits residential development within the buffer zone. The settlement is also located within, and adjacent to land below the 1:50 year flood line, which forms part of the Kuils River MOSS.

The Urban Edge study makes no mention of the informal settlement, which is outside of the proposed urban edge boundary. However, the Kuils River MOSS study recommends that the area be maintained for urban agriculture and that an appropriate alternative location be sought for the informal settlement. Furthermore, provincial policy limits development within the 1:50 year flood line. This land is unsuitable for residential urban development and thus it is proposed that the area bounded by Baden Powell Drive, the Kuils River, Sandvlei smallholdings and Macassar Road be demarcated and used for residential smallholdings of no less than 1ha in extent. Residential units should be located above the 50-year flood-line and the area below the flood line could be used for common grazing.

This land could be considered for residential use and activities, preferably in terms of the land reform process, as mentioned above under the section on Agricultural Smallholdings. Appropriate beneficiaries may be found within the informal settlement. The local authority should investigate this as a project together with the proposals for the land reform of the agricultural smallholdings.

1.6.3 Commercial Nodes

A small-scale commercial node could be located at the intersection of Baden Powell Drive and Macassar Road. The site is opposite the Zandvliet Wastewater Treatment and is therefore not suitable for residential development as it is within the 800m buffer zone. Development at this location would be in keeping with current activities that are taking place along Baden Powell Drive, in the direction of Khayelitsha. Nodal development at this intersection would serve as a source for employment in the area. However, the scale of the development should be limited to that of a local facility.

1.7 Schools and Community Facilities

According to the 1996 census, a total population of 26 372 persons were accommodated in 5 122 residential units found within the study area. This yields an average household size of 5,15 persons per unit. Except for a few private homes and a number of informal shacks, not much housing has been added to the stock of 1996. It is accepted therefore that the current population would still be of the order of 28 000 people. Future residential development within the study area, as provided for by this Spatial Development Plan, could add a further total of approximately 4 800 units. The total number of housing units would then approximate 10 000 units. Assuming a modest decline of household size to 4,8 people per unit, this then yields a capacity population of some 48 000 people.

There are currently 2 secondary schools in the area (with a total enrolment of 1 823 learners) and 5 primary schools (total enrolment 4 433 learners). The latter figure includes the St Paul primary school which currently only accommodates 168 pupils.

The provincial norm for the provision of schools currently stands at 1 primary school (2 ha site) per 1000 residential units and 1 secondary school (3 ha site) for every 2000 residential units.

This would imply that there will currently be a need for a third high school in Macassar and that enrolment figures in the existing two secondary schools should be fairly high. This does not seem to be the case and a decline in enrolment figures since 1999 in fact points to a movement of scholars to specialised and alternative, schools outside the study area.

Table 1.2: Macassar School Enrolment (No. of Learners)

School	Year	
	1999	2001
Secondary (2)	1 889 learners	1 823 learners
Primary (5)	4 564 learners	4 433 learners

The addition of a further 4 800 residential units would normally require the provision of a further 4 primary and 2 secondary schools. It is recommended that 3 primary schools and 1 secondary school be provided in the core development area bounded by Albatross, Link and Kramat Roads, all as shown on **Figures 1.3 and 1.4**. The 4th primary school would best be located on the Zettler land north of the N2, thus serving the Faure, Croydon, Zettler area. (Firgrove already having a primary school). Alternatively, the current St Paul's primary should be significantly enlarged.

If the need for a further (4th) secondary school is confirmed in future, in terms of actual number of local scholars, then it is recommended that a site be allocated on Erf 3993 west of Kramat Road as shown schematically on **Figure 1.3**. This would place it centrally between the Sandvlei/Macassar Beach developments and the future Faure/Croydon/Zettler complex with easy access from Kramat Road. Care should obviously be taken that the site is located out of the 50-year flood plain.

Macassar is reasonably well endowed with community facilities such as the existing old age home, day hospital and clinic, crèche, public library and community halls which are all located in the town centre. A number of church and crèche sites are distributed throughout the residential neighbourhoods.

Future residential developments should continue to provide in the need for church and crèche sites in accordance with the ruling provincial guidelines. Church sites need to be accessible and can assist in the urban design of the neighbourhoods if judiciously sited in focal and land mark positions. This is illustrated in principle on **Figure 1.4**. Crèches need to be sited conveniently considering main pedestrian desire lines and walking distances.

Macassar and environs is well endowed with natural assets and for this reason limited public open space should be provided as part of the residential development process. (Refer to section 1.8 below)

1.8 MOSS and Public Open Space

The study area is well endowed with valuable natural assets including the Kuils and Eerste Rivers, the confluence of these two rivers and the Moddergat Spruit. These river corridors provide an opportunity to form a continuous link of open space within the study area that can connect to smaller and fragmented pockets of open space. For this reason it is recommended that only play parks be provided within the study area. These parks should be appropriately designed and located within residential neighbourhoods. Landscaping of the public realm should also be undertaken to enhance the urban public environment.

Consequently, it is proposed that the river corridor is one of the most important aspects of achieving an integrated MOSS system within the study area. The inclusion of these areas into a MOSS has the advantage of managing this important community resource and ensuring that the water quality is managed appropriately.

In order to protect the land adjacent to the riverine corridors the following guidelines were identified in the 'Kuils River MOSS' study (Ninham Shand and Chittenden Nicks, 1999):

- Development below the flood line should be prevented and the 1:50 year flood line should form the urban development set back line;
- All development along the riverine corridor should include an approved storm water management plan;
- Residential development along the river corridor should use the corridor as the open space requirement rather than providing open space within the urban area. This would allow for higher residential densities to be achieved in appropriate locations;
- All development adjoining the river should be orientated towards the river in order to increase surveillance as well as integrating the river urban interface;
- Informal settlements should not be allowed to locate below the flood lines and existing settlements should not be formalised; and
- Local by-laws should be promulgated which prohibit damage to river banks, polluting, dumping, filling of the flood plains or removal of materials from the river.

Many specialist studies have been commissioned by the authorities and should be referred to for detailed recommendations.

◆ **Sandvlei**

The land along the Kuils and Eerste Rivers between Baden Powell Drive, the N2 and the confluence of the two rivers, is mainly in private ownership. The prolific growth of wetland plants as well as earthworks by land owners have created obstructions to the river course (Ninham Shand and Chittenden Nicks, 1999). Further subdivision of the smallholdings within the floodplain should not be permitted. The informal settlement of Madalabos is located within the flood plain and an appropriate location should be sought for their relocation.

The following proposals regarding water quality have been extracted from the recommendations made in the Kuils River MOSS study:

- Ensure fitness of water quality for fishing, swimming, and harvesting of waterblommetjies for consumption;
- Improve the quality of urban runoff at source by providing basic services e.g. sewage reticulation, solid waste removal;
- Consider controlling stock grazing in the floodplain area that will be used for recreation purposes; and
- Initiate a conservation and management plan for the area.

◆ **Kuils River and Eerste River Confluence**

The Kuils and Eerste River confluence experiences flooding, which impacts on the residents and farms located below the 1:50 year flood line. In line with provincial policy, which prevents permanent structures for human habitation below the 1:50 year flood line, no further dwellings should be allowed below this line and any existing dwellings below the flood line should be allowed to relocate to higher ground near Macassar Road.

◆ **Kramat**

The open space adjacent to the river and close to the Kramat represents the “*village green*” in front of the cottages in this historic settlement. It is used by the residents for recreational purposes and also as parking for visitors to the Kramat. It is seen as an inherent part of the settlement and its traditional, rural setting. It often gets flooded in winter and is sometimes used for grazing of animals.

◆ **Macassar**

The Moddergat Spruit river embankments have recently been stabilised which has created a pleasant open space system within Macassar. Unfortunately, most of the dwellings have been orientated away from the river and any new development or redevelopment should take cognisance of the river course and its potential use as a green lung within Macassar.

◆ **Eerste River Green Belt**

Macassar Road creates a barrier between the Macassar residents and the Eerste River Greenbelt. However, this sheltered area is protected from the prevailing southeasterly winds and has the potential to be upgraded for recreational opportunities (Ninham Shand and Chittenden Nicks, 1999). The north eastern corner

of the intersection of Albatross Way and Macassar Road is likely to develop as a node over time and the land within the Eerste River green belt could be developed as a local picnic area. A more detailed investigation should be undertaken to integrate the area with the urban area of Macassar and overcome the barrier of Macassar Road, e.g. tree planting, access, parking, signage and ablution facilities.

♦ **Eerste River Estuary**

The Eerste River Estuary must be integrated into the proposed Coastal Reserve as well as the future Somchem development proposals. The influence of the Macassar Wastewater Treatment Works on the (downstream) Eerste River mouth should be monitored and routine water quality monitoring should be introduced. (Refer to Kuils River MOSS study). Limited recreation activity at this location would be consistent with the nodal strategy in the False Bay Coastal Policy Plan, but should be planned in more detail as an important component of the False Bay Coastal Reserve.

1.9 Urban Edge

The purpose of the urban edge strategy is to curb urban sprawl and thereby encourage higher densities within urbanised areas. Furthermore, its purpose is to protect valuable agricultural land and conservation worthy areas from urban development. The proposed urban edge limits the development of Macassar to the area south of the N2, and east of Kramat Road. Future growth of the residential areas should be directed along the Somchem/AECI activity corridor towards Somerset West and Strand.

The area to the north of the railway line at Croydon has been excluded from the urban edge as it should remain as agricultural land for the reasons discussed under section 1.4.1 above. The recent rezoning approval of 46 ha of Portion 44 of Farm 654, known as the Zettler land, means that this land will now be utilised for urban development and hence the urban edge line has been moved. Firgrove is limited to the area of the existing urban development, with the exception of the land adjacent to the Moddergat Spruit which is to be included within the urban edge.

Sandvlei, although outside the urban edge has a mixed residential smallholding and agricultural character. Any additional development within the area should promote the special character of the area.

1.10 Transportation Infrastructure

Most of the inhabitants of the study area are dependent on travelling to employment opportunities outside the area. As a consequence of this, ease of access to an efficient transportation network and public transport system is very important.

1.10.1 The Major Road System

♦ **The External Road System**

The N2 is the highest order of road (built to freeway standards), which cuts through the study area and connects it with the Helderberg basin to the southeast and the remainder of the Cape Metropolitan Area to the northwest. The R102 also plays an important role in satisfying the demand for travel from Macassar to the Blackheath, Kuils River and Bellville areas.

At present, Macassar is linked to the N2 via two interchanges, one where it intersects with Baden Powell Drive in the north and the other where it intersects with Macassar Road at Firgrove in the south.

The draft Macassar Structure Plan of 1990 however, recommended that a third interchange be provided to connect Macassar with the N2 where it currently crosses under Kramat Road. This was based on the findings of a traffic and transportation study by Bruinette Kruger Stoffberg Inc, 1985, which concluded that the provision of a half-diamond intersection at Kramat Road would reduce future loads on the Baden Powell Drive interchange. This latter diamond interchange may otherwise have to be upgraded at greater cost to a full directional interchange. Their projections were admittedly based on the larger population growth envisaged for Macassar at that time and the proposal needs to be re-evaluated. A half-diamond interchange at Kramat Road, feeding in the direction of Cape Town, would certainly reduce travel distances to the N2 connecting points and allow a more even distribution of traffic on the internal Macassar road system. It would also benefit road-based public transportation in the direction of Cape Town. Furthermore, tourists and pilgrims visiting the Kramat (sometimes in substantial numbers) will have a more direct route to this destination.

Macassar Road, from Firgrove to Baden Powell Drive, serves as a mobility route linking Firgrove, Macassar and Sandvlei. In time, this road will serve as an important link and integrator between Khayelitsha to the west, Macassar and the proposed activity spine on the Somchem/AECI land to the east.

◆ **The Internal Road System**

The proposed internal ring road for Macassar is discussed under 1.3.2 above. It will have conveniently spaced linkages onto the external framework of major roads comprising mainly of Macassar Road and Kramat Road.

The grid-like internal system of roads serving Firgrove township is functioning well, and with direct linkages onto Macassar Road and the R102, has more than adequate capacity for this limited development.

◆ **Pedestrian and Cyclists**

Specific attention should be given to the provision of a system of pedestrian and cycling paths, especially in the newer development of Macassar, north of Albatross Way. The structure plan proposals for this area include a central pedestrian route, starting at the new sports grounds and linking it in a north-westerly direction with future schools and other community facilities. Transverse routes, occupying open space systems, can extend the network and link up with public transport pick-up points (on Macassar Road, Kramat Road and the internal ring road).

The upgraded Moddergatspruit open space corridor is ideal to accommodate a proper path for the substantial number of pedestrians that walk to Firgrove Station on a daily basis. The current, very dangerous habit of crossing the N2 (diagonally) on foot should be discouraged. A better solution would be to link the Moddergatspruit route with the Macassar Road over bridge by means of a very gradual ramp, thus lifting pedestrians to cross the N2, via the bridge.

It would be an improvement if the dividing effect of the central sports fields along Albatross Road could be overcome by opening up a pedestrian crossing in between the fields during the week. Over weekends when the fields are used, and even at night time, the gates could be closed.

1.10.2 Public Transport

◆ **Railway passenger service**

The greatest demand for rail transportation is in the direction of Cape Town and Bellville. This is mainly catered for by the heavy rail passenger service operating on the Strand – Cape Town line. Stations are located at both Firgrove and Faure and passengers either walk to the stations or are taken there by combi-taxi. Firgrove is the more popular and busier station for travel in both directions, i.e. towards Helderberg and towards Cape Town. This is explained by the fact that, for travel towards Cape Town, the fare is the same from either station but the chances of getting an empty seat is apparently better if embarking at Firgrove.

The travel demand towards Cape Town/Bellville could change with the development of employment opportunity to the east of the study area. In recognition of the future role that development of the Somchem/AECI land will have in the Helderberg area, the SARCC have commissioned a new investigation with regard to the feasibility of the provision of a public transport route from Khayelitsha to the Helderberg Basin (Jeffares & Green Inc. in association with Hawkins Hawkins & Osborn, 2000). The study considers two main component items:

- A conventional heavy rail linkage from the proposed Khayelitsha Extension Line to the Bellville – Strand Line; and
- A complementary light rail corridor which interfaces with the heavy rail link.

The railway loop from the Khayelitsha line, back onto the Strand line, is also motivated from an operational point of view, which favours looped systems rather than dead-end lines.

For the heavy rail component, the study thus recommends that two alternative, preferred routes be further investigated, both of which will run through the Macassar area.

◆ **Bus Service**

Golden Arrow Bus Services currently operate a passenger bus service from Macassar, following two routes which both start at the town centre terminus in Link Avenue:

- The one route runs to Somerset West, via Firgrove, and ends at the H.H. Hospital. Thirteen trips are made on week days, between the hours of 06h00 and 16h00, and passengers can transfer to the Strand and Gordon's Bay services.
- The second route runs along the R102 to Bellville via Kuilsrivier and Tygerberg Hospital, ending at Karl Bremer Hospital. On week days only one trip is made in the early morning at 6h35 and one in the evening at 18h00. Transfers can be made onto the larger system of routes in the Bellville area.

◆ Taxis

Combi-taxis currently play a very important supplementary role in providing shorter distance public transportation. They provide a feeder service to the local stations and also integrate with the taxi services of the larger Helderberg area to form an extensive network of (almost) door-to-door transportation.

The taxi service in Macassar currently however, has no proper taxi rank facilities and Ninham Shand Inc. have recently been appointed by City of Cape Town: Helderberg Administration to undertake an investigation and report on the provision of such a facility.

Early discussion between Planning Partners and the Committee of the taxi association (Personal Communication Messrs Daniels, Rhodes, Pietersen & Solomons, 10.09.99) indicated their willingness to be accommodated in the town centre, on the existing, but under-utilised, tarred parking area. This seems to have changed in preference to remaining at the current, informal rank in Zandvliet Road, at least for the time being.

While the outcome of the Ninham Shand study, which will include a public participation programme, should be awaited, it seems clear that a permanent, long-term solution is unlikely at this point in time. The most acceptable interim solution should nevertheless be identified and adopted.

Attention also needs to be given to pick-up and offloading points, both with regards to safety and convenience, especially at places such as the two railway stations, a point opposite the Seven Eleven shop in Firgrove and in the newly developing residential areas of Macassar.

1.10.3 Transportation: A Long Term Vision

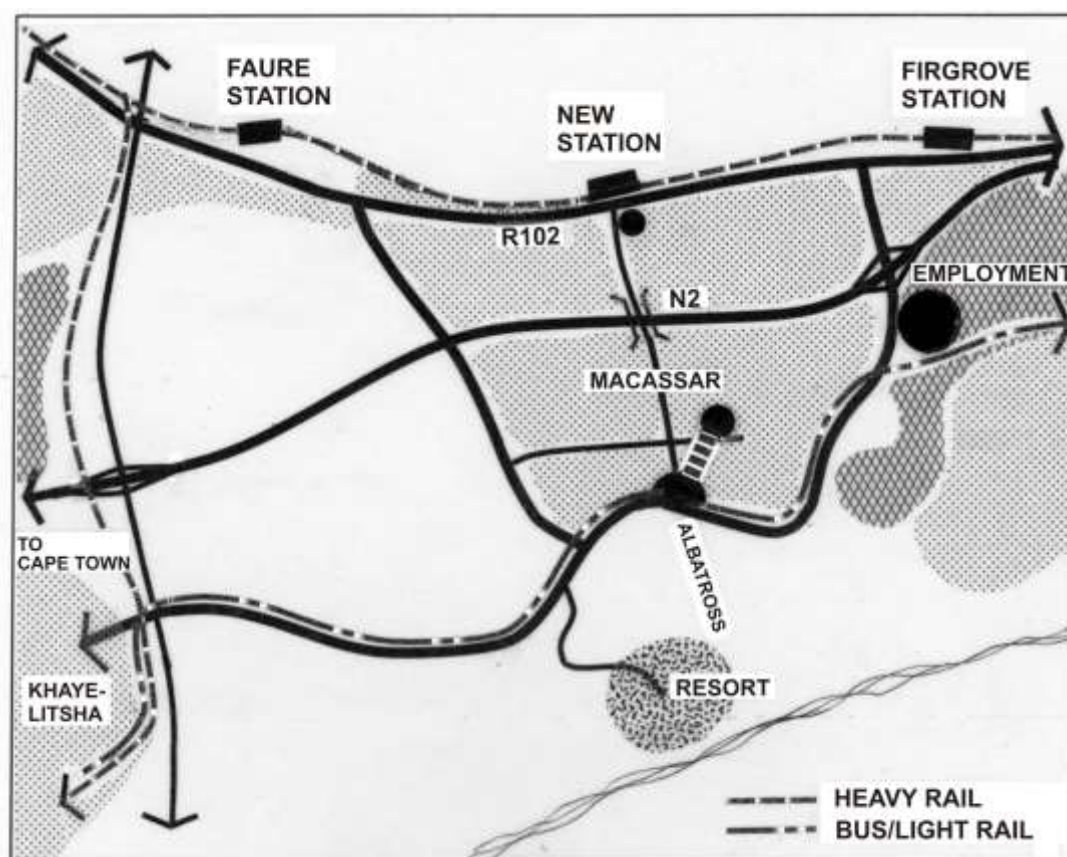
The development of larger scale, more intensive employment opportunity in the Helderberg area, especially along the activity corridor shown on the Helderberg Structure Plan, will inevitably create new patterns of movement and demand for travel.

Furthermore, the land situated between Firgrove and Faure, even though it is currently located outside the urban edge, seems bound to develop over the longer term. Except for the alluvial soils along the banks of the Eerste River on Vergenoegd farm, this land has limited agricultural potential and is under-utilised or lying fallow at present. Its development over the longer term, thus bridging the gap between Oostenberg and Helderberg and completing this development corridor, seems logical. (See also para. 1.5.1). **Figure 1.16** has reference.

It is doubtful though whether a heavy rail link between Khayelitsha and The Somchem/AECI land, across the Macassar area would be justifiable. It will have to cross the ecologically sensitive, intervening MOSS, comprising of dunes and wide flood plain areas and will inevitably also impact on the historically significant settlement of the Kramat and Sandvlei smallholdings.

The third option mentioned in the SARCC study, namely to loop the Khayelitsha line back onto the Strand – Cape Town line via an alignment parallel and closer to Baden Powell Drive, seems preferable. This link could also service future employment areas in the Oostenberg area north of Baden Powell Drive (**Figure 1.16**).

Figure 1.16: Long Term Vision for the Study Area



It is accordingly recommended that future transportation studies consider the option of extending the supplementary, light rail system as a more appropriate means of establishing the required link between Khayelitsha, Macassar and the Helderberg employment areas. Initially a bus system may suffice, to be replaced by a light rail system when passenger demand justifies this. An alignment along Macassar Road, which seems to have adequate reserve width, is shown on **Figure 1.17**. In fact, verge width along Macassar Road is such that further residential densification along the proposed route also seems feasible. A strong public transportation service on Macassar Road, linking into, and properly integrated with both the local Helderberg and larger Metropolitan systems, will also redress the anomalous situation where the poorer section of the Macassar community currently lives furthest away from the public transport routes.

With the advent of development along the Firgrove/Faure corridor, consideration may again be given to the provision of a passenger railway station midway between Faure and Firgrove as originally advocated in the 1990 draft Macassar Structure Plan. Looking further into the future a potential transportation system as shown on **Figure 1.17** thus begins to crystallise. It shows a heavy rail system as the longer haul commuter facility, supplemented by the more flexible and accessible light rail system, which may adequately serve the local demand for travel between especially the poorer residential areas and major areas of employment within the Helderberg Basin.

Figure 1.17: Conceptual Public Transport Proposals

1.11 Bulk Services

1.11.1 Water Supply

Water is supplied via connections to the Steenbras Dam Pipeline located south of Main Road no. 2 and the Blackheath-Faure Pipeline. Water reservoirs are located north of the Macassar Beach Township in a relatively high vantage point within the dune system, from where reticulation occurs to Macassar Township (two pipelines) and Macassar Beach Township. Two water pipe bridges cross the Eerste River south of Macassar Township.

Future water pipelines are planned north and south of Macassar Road in the Zandvliet area as part of a scheme to provide water for future development.

1.11.2 Sewerage

There are two regional wastewater works located in the study area. The Zandvliet Wastewater Treatment Works, to the west, and the Macassar Wastewater Treatment Works, to the southeast, on the western bank of the Eerste River.

The Blackheath-Macassar (Blackmac) and Baden Powell main sewer lines run along Baden Powell Drive and enter the study area at the Stellenbosch/Swartklip bridge. The Blackmac line stretches across the study area in a southeasterly direction to reach the Macassar Wastewater Treatment Works. In the design of this sewer line, provision has been made to double its capacity within the same reserve. The Baden Powell line stretches down from its confluence with the Blackmac line to meet with the Zandvliet Wastewater Treatment Works further south.

A sewer line connects Macassar Beach Township directly to the Macassar Wastewater Treatment Works.

The Macassar Wastewater Treatment Works has a total capacity of 34 MI/day and currently receives approximately 30 MI/day. This facility is thus running close to its capacity. It is currently proposed to upgrade the Zandvliet Wastewater Treatment Works by 35 MI/day to a total of 90 MI/day. This upgrading will be sufficient to absorb the demands of future development, within its service area, for the next 5 years.

1.11.3 Stormwater Drainage

The most significant stormwater routes in the study area are the Eerste River, Kuils River and the Moddergat Spruit.

1.11.4 Electricity

Eskom is the supplier of electricity to the area.

A substation is located northwest of the Firgrove Station which provides the study area and other surrounding areas with electricity. A 132 kV power line also runs along the N2. An obtrusive overhead power line, which enters the study area to the north of the Macassar Wastewater Treatment Works, is located over the eastern dune system and serves Macassar Beach Township and the Kramat community.

The Zandvliet smallholding area, to the north of Macassar Road, is also served with an overhead power line.

2 Conservation Statement

This section is concerned with a summary of proposals concerning the preservation of the built as well as the natural environment of the study area, in order to comply with the provisions of Section 4(9) of the Land Use Planning Ordinance (Ordinance 15 of 1985).

2.1 Background Information

Information concerning the environmental overview as well as a description of the built and natural environment can be found in Volume 1.

2.2 The Natural Environment

The environmental resources and attributes of the greater Macassar area are under considerable threat from the impacts of urban development, especially the ecologically sensitive Macassar dune system. Some of the natural features that occur here are of national conservation importance and worthy of serious consideration in future planning initiatives in the area. This will best be achieved by incorporating the recommendations of this report and those contained in other relevant documents.

The following actions are recommended:

- Formal conservation status needs to be accorded to the Macassar dune system, selected wetland areas, the estuary and coastline. The legitimacy of the conservation value of the dunes and related areas needs to be considered in equal light with those of mineral areas. The draft Macassar Dunes Management Plan needs to be finalised and given official status.
- Significant areas of strandveld and coastal renosterveld need to be accorded conservation status, especially the renosterveld remnant which is of national conservation importance.
- Efforts should be made to pursue the establishment of an ecologically functional link between areas of conservation value along this stretch of the False Bay coastline, i.e. from the False Bay Coastal Park at Strandfontein to the Lourens River Protected Natural Environment. Such initiatives should link up with the MOSS, which for the purposes of this plan incorporates the Eerste and Kuils Rivers and their adjacent floodplains (Ninham Shand & Chittenden Nicks, 1999).
- Outdated structure plans that advocate development other than conservation-compatible types in sensitive riverine, estuarine, dune or coastal environments need to be amended accordingly. The Cape Metropolitan Area Urban Structure Plan has relevance in terms of the proposed eastward extension of Khayelitsha across Baden-Powell Drive and into the existing dune area.
- Appropriate actions need to be taken to manage and minimise the pollutants currently entering the Moddergatspruit, Kuils, and Eerste River catchments. It is suggested that management plans be drawn up for each river in proportion to the river's size and level of pollution, as advocated in the Kuils River MOSS Study.

- Formalisation of certain recreation activities in the dunes, on the coastline and in the wetland areas is encouraged. Appropriate activities would include walking, bird watching and picnicking.
- An integrated alien vegetation eradication program should be implemented as soon as possible. It could be used as a source of income for the local community through the sale of firewood.
- The use of all vehicles outside of demarcated official roads in the dunes and coastal areas should be prohibited in view of the risk to humans, the disturbance of the sandy substrate and disturbance to fauna and flora.

2.3 The Built Environment

Conservation worthy elements in the built environment include those elements with a high aesthetic, historical or cultural value or those that play a positive role in the quality of the urban environment. Within the Macassar study area the following are of importance:

- The preservation and protection of the Kramat and Moslem settlement. Many of the inhabitants of the cottages at the foot of the hill on which the Kramat is located are direct descendants of the Sheik and his followers. These cottages are also considered by SAHRA to be of cultural significance. Local planning for the Kramat area is required at a precinct level. Proposals should provide guidelines on parking requirements, the location of ablution facilities, signage and landscaping measures to militate against flooding.
- The preservation and protection of the Sandvlei cottages and dwellings along the Kuils River. These dwellings lend a distinctive character to the area through their chosen setting, scale and rural nature, and are considered to be worthy of conservation.
- The preservation and protection of the small church located amongst the smallholdings next to the Kuils River. The church was built in 1879 and is of historical significance despite a fair amount of architectural modifications having been effected.
- The preservation and protection of Vergenoegd. The existing gable was added to the house in 1773 and is identical to the one at Spier. One of the original sides of the H-form building does no longer exist.
- Although numerous suggestions have been made regarding the future use of the Zandvliet building, it is in a dilapidated state and should be preserved and protected.
- The preservation of the homestead at Zeekoevlei. The farm, originally named Vogelgezang, was first owned by Sara Tas, a sister of Adam Tas. The name was changed to Zeekoevlei in about 1720. The current building was built in *circa* 1850.

Further attention should be given to these areas in the preparation of precinct plans and site development plans.

3 Planning Statement

It is recommended that: The General Structure Plan for the Province of the Cape of Good Hope, published as a supplement to Circular GOK/LDC9/1988 of 8 December 1988, in so far as it has a bearing on the area covered by the Macassar and Environs Spatial Development Plan as indicated in **Figure 1.3** is hereby withdrawn and superseded by the following authorisation:

3.1 Authorisation

In accordance with the Macassar and Environs Spatial Development Plan as indicated in **Figure 1.3**, read together with Section 1 of Volume 2 of the planning document, the City of Cape Town: Helderberg Administration is hereby authorised in terms of Section 5(2) of the Land-use Planning Ordinance, 1985 (Ordinance 15 of 1985) within its area of jurisdiction and taking into account paragraphs 3.2 and 3.3 below:

- To replace the map of the zoning scheme or a portion thereof in terms of Section 14 of the Ordinance, with one in terms of which land is not necessarily zoned in accordance with its use;
- To grant or refuse rezoning applications in terms of sections, 16(1) or 18 of the Ordinance (including rezoning to sub-divisional areas, as referred to in Section 22(1)(a)); or
- To approve or withhold in terms of section 16 (2)(a) of the Ordinance an extension of the period in which a rezoning remains valid.

3.2 Powers of the City of Cape Town

The City of Cape Town: Helderberg Administration (or their successors), may not exercise any of the powers granted to them in Paragraph 3.1 (on the understanding that this exclusion is not applicable to any proposal for which the detail has already been indicated on the structure plan) to approve a rezoning or replacement scheme that:

- Is opposed by any national or provincial department, the South African Heritage Resources Agency and an adjacent local authority that has an interest in the application;
- Lies below the 1 in 50-year flood line;
- Involves the rezoning of public open space to another zone, except in cases where such rezoning is in accordance with the Macassar and Environs Spatial Development Plan; or
- Is in conflict with the following structure plan proposals:
 - The alignment of national and regional distributor roads, primary distributor roads and secondary distributor roads;
 - The approximate alignment of local distributors;
 - The approximate extent and location of agricultural areas, primary conservation areas, metropolitan open space, industrial areas, activity

corridors, activity streets, public utilities and low, medium and high density areas; and

- The approximate location of sub-regional nodes.

3.3 Conditions

The authorisation in paragraph 3.1 is also subject to the following conditions:

- That the provisions and conditions of all relevant government legislation must first be complied with where applicable; and
- That the requirements set by all relevant government bodies must be complied with, with specific reference to the natural and built environment.

Note:

An Afrikaans translation of the Conservation and Planning Statements is included under Annexure A.

4 Implementation

In order for the Macassar and Environs Spatial Development Plan to function as a management tool it is necessary to identify key actions that will enable the local authority to prepare necessary budgets as well as establishing programmes for implementation.

4.1 Key Actions

4.1.1 Land Uses

There are a number of actions that can be undertaken by the local authority that will play a developmental role in Macassar. These include:

- Investigating development opportunities at Macassar Beach Township and Macassar Resort by the local authority. Guidelines need to be established for public /private partnerships, the integration of the two developments, upgrading of the resort facility and establishment of development parameters for the Macassar Beach Township.
- Development of the Macassar Town Centre should be actively pursued in accordance with the Town Centre urban design principles, as discussed under section 1.3.5.
- Implementing the ring road option within Macassar to provide equal access opportunities within Macassar as well as guiding future development of the residential precincts.
- Detailed precinct guidelines, with regard to signage, parking and landscaping should be developed for the Kramat precinct.
- Investigating the use of land on the urban fringe for residential and agricultural smallholdings, for previously disadvantaged individuals.
- Developing detailed guidelines and implementing a programme for the smallholdings in Sandvlei, which will allow the residents in the flood plain to locate closer to Macassar Road and to ensure that the special character of the area is retained.

4.1.2 Transportation

- The implementation of the creation of a ring road within Macassar (discussed under section 1.3.2) should be pursued to improve east west traffic and pedestrian movement. It will also encourage residential intensification and densification at appropriate locations.
- The location of an interim taxi rank should be decided upon and the facility upgraded.
- Budget for the design and implementation of the proposed half diamond interchange on the N2, at Kramat Road. This upgrading will improve access from the N2 to Macassar. The provision of the interchange will shorten travel distances for the inhabitants of Macassar as well as improve the distribution of traffic on the internal routes.

- Although long term, the light rail options through Macassar should be investigated further.
- Upgrade pedestrian routes to major destinations such as the Town Centre and Firgrove Station.

4.1.3 Environmental

- The river corridors in the study area are an important aspect of the MOSS system and should be delineated and acknowledged as such. The Kuils and Eerste Rivers, their confluence area and the Moddergat Spruit provide an opportunity to form a continuous link of open space within the study area that can connect to smaller and fragmented pockets of open space.
- The sand mining activities should be monitored on a regular basis and prior to the completion of the activities (approximately 2020) appropriate land uses should be accorded to the area.
- Formal conservation status needs to be accorded to the Macassar dune system, selected wetland areas, the estuary and coastline.
- A community based programme of eradication of exotic trees and plants should be investigated.
- The relevant authorities should initiate a comprehensive litter and solid waste cleanup in the study area. This should include a concerted effort to include the local communities and educational institutions.
- Appropriate actions need to be taken to manage and minimise the pollutants currently entering the Moddergatspruit, Kuils, and Eerste River catchments.
- The use of all vehicles outside of demarcated official roads in the dunes and coastal areas should be prohibited in view of the risk to humans, the disturbance of the sandy substrate and disturbance to fauna and flora.
- Efforts should be made to pursue the establishment of an ecologically functional link between areas of conservation value along this stretch of the False Bay coastline, i.e. from the False Bay Coastal Park at Strandfontein to the Lourens River Protected Natural Environment.

5 Conclusion

The proposals contained within this report are aimed at creating a spatial development plan that integrates Macassar and its environs into the rapidly developing Helderberg basin as well as providing guidance to achieving a sense of place.

The change in municipal structures and the rapid development on the eastern side of Macassar has created the need for a spatial plan that will facilitate the integration of the urban environments in a meaningful way, as well as the conservation of the environmentally sensitive areas, of which there are many within the study area. In addition, the spatial plan creates security regarding decision making for the local authority as well as the general public.

The plan and report will form the basis for future policy making and decision making. The Land Use Planning Ordinance (No. 15 of 1985) makes provision for the revision of structure plans every ten years. When implemented, the Western Cape Planning and Development Act (Act 7 of 1999) will provide the mechanism for reviewing spatial development plans more frequently on a five-year basis.

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ANNEXURE A

BYLAAG

BEWARING- EN BEPLANNINGSTELLINGS

English copy on page 39 and 41 respectively.