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1. Background

The eThekwini Municipality, Development Planning Environment and Management Unit and Economic Development Unit appointed the ASM Consortium to prepare a Precinct Plan for the Umhlanga Node.

The Precinct Plan is required to provide a vision and framework for coordinating and informing both public and private investment and directing the physical development and management of all initiatives to deliver a well integrated, pedestrian-friendly, safe and attractive environment of residents, visitors, and tourists. The intention of this study was to assess the appropriateness of the existing town planning scheme to respond to market demands and, if necessary, propose amendments to it.

This executive summary highlights the critical issues affecting the study area discussed in detail in the ten sections contained in this report. The strategic thrust is the optimisation of the node economically and physically.

Umhlanga Rocks is one of Durban’s premier beach resort destinations and, due to the development of new infrastructure and renewed investor confidence in the region, is experiencing a significant amount of private and public investment.

It has been estimated that 4 million domestic tourists visit eThekwini each year. Of these almost 1.5 million spend a minimal amount of money. Less than 0.5 million ‘big spending’ international tourists visit the area annually (Haley Sharpe 2003). The aim, therefore, is to reinforce the role that the Umhlanga Node can play in attracting and
accommodating tourists (both domestic and international) from the middle and upper market segments as well as diversifying the offerings to cater for the local population.

1.1 Locality
The Umhlanga Rocks Node is located 18 km from the Durban central area and approximately 12 km from the planned Dube Trade Port and King Shaka Airport. The Precinct (core of the Node) starts from the intersection of Lagoon Drive and Weaver Crescent in the north, and is bordered by Ocean Drive in the south, the M4 and Flamingo Drive in the west, and the Indian Ocean from Casa Playa to Ocean Drive in the east.

1.2 Description
- **Area**: Approximately 40 hectares
- **Ownership**: Private
- **Land uses**: General Commercial, General Residential, Special Zone
- **Development status**: Intensive redevelopment
- **Architectural character**: In transition
- **Natural**: Existing mature vegetation
- **Amenities**: Retail core. Public facilities: library, post office, public parking, taxi and public transport facility, petrol station
- **Density**:
  - Current density - full study area (60 ha): 45.72 units per ha; *core precinct* (40 ha): 33.6 units per ha
  - Number of possible units as per current FAR (core precinct only): 55.71 units per ha

2. The Vision
The Development Vision is to create:
- a seaside resort and tourism destination which is people-friendly, walkable and safe, with a cosmopolitan sense of place and urbanity
- an ‘urban village’-like environment in which residents and holiday makers feel equally at home
- a unique place that embraces the life, activities and events of holiday makers as well as accommodating and protecting the needs of the local community in a balanced and well-managed environment.

3. Development Objectives
The following objectives have been identified to drive development at the regional and local level and achieve the vision

3.1 Regional Development Objectives
1. To consolidate and enhance the beachfront amenity of Umhlanga Rocks as a regional facility
2. To reinforce and enhance Umhlanga Rocks’ role as a main tourism, holiday and recreation destination (domestic, international and business)
3. To improve linkages with the greater Umhlanga region
4. To reinforce the human scale, urban village character of Umhlanga Rocks and extend and enhance the outdoor public realm amenities
5. To contribute to the overall socio-economic development of the region
6. To build community, strengthen relationships and promote locally based partnerships.
3.2 Local Development Objectives

1. Consolidate the node into a safe, welcoming and accessible tourism and residential environment.
2. Improve connectivity at the sub-regional level and in relation to other beaches and resorts.
3. Create a pedestrian-friendly, attractive, open and human scale seaside resort.
4. Enhance and protect natural attributes: the diversity of the beach front from rocky outcrops for exploration to swimming, walking relaxation and contemplation.
5. Achieve a balance between the natural and built environments.
6. Develop a uniqueness of place – genius loci – by reinforcing the sense of place, improving legibility and defining character.
7. Enhance the entertainment niche market.
8. Maximise the coastal setting and elevated panoramic views and protect specific views and vistas.
9. Develop an interconnected and accessible public open system (hard and soft).
10. Improve back of beach facilities including parking for day visitors and space for special events.

4. Urban Design Framework – Structuring Elements

The Urban Design Framework consists of critical elements that provide the structure to sustain and guide development in Umhlanga Rocks over time. Key proposals and recommendations associated with these elements include the following:

4.1 Access and Movement
- Road upgrades – formalising the road hierarchy and traffic calming measures; upgrading major mobility routes to improve access into the node and facilitate traffic flow within the area.
- Public transport – retain a taxi/bus facility in a central position in the node.
- Pedestrian movement – pedestrian-friendly safe routes.
- Parking facilities – need for further, centrally located, structured parking with good beach access; new developments to provide shared parking; better management of existing parking.

4.2 Land Use Distribution
- Intensification of residential development (units and hotel rooms) in the core node area (40ha) is recommended to a maximum of 69 units per ha – a maximum of 500 additional units or 50,000m² (whichever is reached first). Refer to figure 2 below
- The purpose of such intensification is to achieve the development of a more sustainable and vibrant environment, with a more permanent, younger population.
- Mixed use development is encouraged in the core area.

4.3 Public Realm and Landscaping
- Open and public spaces must be well-designed and managed, and contribute to improved safety and security, and enhanced quality of environment.
- Consistency in design in the public realm.
- Relationship between private and public realm to be strengthened through sensitive architectural design.
- Comprehensive landscaping plan required.
- Integrated open space system.
UMHLANGA – PROPOSED INTENSIFICATION: INFORMATION SHEET

NOTES:

EXISTING AND PROPOSED DENSITIES: CORE NODE AREA

<table>
<thead>
<tr>
<th>EXISTING UNITS</th>
<th>DENSITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,237</td>
<td>34 units/ha</td>
</tr>
<tr>
<td>PROPOSED ADDITIONAL UNITS</td>
<td>69 units/ha</td>
</tr>
</tbody>
</table>

As a key factor impacting on densification is infrastructure capacity, 500 additional units (either residential or hotel) are viewed as the absolute limit (or a 50,000m² increase in floor area whichever is reached first).

MOTIVATION FOR DENSIFICATION:

- Creating a vibrant residential core with a more permanent population.
- Use additional rights as part of negotiation process with developers, i.e. rights can be used to encourage developers to contribute to implementation of the Precinct Plan, in particular improvements to the public realm and services provision.
- Opportunity for attracting young permanent population by providing smaller units (as well as inclusionary housing).
- Maximise utilisation of available infrastructure.

CONDITIONS FOR DENSIFICATION:

- Built form: Development must illustrate appropriate built form including consideration of height, bulk, views, vistas, character etc proposed in Precinct Plan.
- Availability of infrastructure: No development will be approved if appropriate bulk infrastructure is not available.

Figure 2: Intensification
4.4 Built Form Directives
• Height – to be controlled by the existing Town Planning Scheme in conjunction with the eThekwini Minimisation of Shadows on Beaches Policy and the built form guidelines in section 8 of the Precinct Plan.
• Views and vistas should be protected.
• Where height is permitted it should take the form of a point block rather than spread height forming a wall.
• A design-led approach to new development proposals for the definition of height and massing at site level is recommended in accordance with the guidelines in section 8 of the Precinct Plan.
• More connections to the beachfront and mid-block connections in the commercial core should be introduced.
• Site development parameters to direct private development to engage more strongly with the public realm.

4.5 Architectural Character
• Consistency in materials, colour, texture and design relating to use of local materials and energy conservation should be encouraged. More detailed guidelines at precinct plan level.
• General architectural codes should be established.
• Green agenda and green guide for developers should be introduced.

4.6 Place Making Elements
• Landmarks must be acknowledged, highlighted and protected.
• Gateways – the entrance to Umhlanga over the M4 should be enhanced – the gateway to a unique destination and holiday resort.

4.7 Legibility and sense of place
• Vistas and views – Important vistas of the sea and panoramic views need to be protected.
• Physical model of precinct recommended to test impact of development proposals on views, vistas and amenities.
• View sheds analysis recommended for development proposals.

4.8 Environmental/Microclimate Considerations
• Consolidate coastal management criteria and development principles
• Apply eThekwini ‘Minimisation of Shadows on Beaches’ Policy
• Study on wind acceleration and guidelines recommended.

4.9 Safety and Security and Management
5. Precinct Plan

The Precinct Plan defines the desirable development direction of the node, and recommends a range of public realm projects to foster new relationships between the public and private realms. The Precinct Plan focuses on the core area of the node (see fig. 1 Locality Map on page v).

The development concept for the precinct is derived from the development vision – it aims to create a legible urban environment centred on two unique experiences:

- The beach promenade that affords views of the sea and access to the beach while leaving it as natural as possible
- The back of beach public spine, ‘the Ramblas’, that provides a range of public spaces from a community-based soft park at the northern end to a public event space centrally located close to the commercial activities.

Catalytic projects

The implementation of a number of projects is recommended to enhance the public realm, encourage a mix and range of activities and leisure opportunities, improve pedestrian movement, and improve the legibility and sense of place of Umhlanga. The critical projects below have been identified in consultation with stakeholders.

- **M4 Gateway** (see figure 3 no. 1): define main entrance to Umhlanga Node through lighting, landscaping, public art and signage
- **Central Square** (see figure 3 nos. 2 & 3): In Lighthouse Road with underground parking facilities, edged by commercial activities, a place for the information centre, public art and a ‘Village Green’
- **Lagoon Drive** (see figure 3 no. 4): “Ramblas” - creating a new milieu, a linear square modelled on great public spaces such as the Ramblas in Barcelona, a public promenade as the centre of public life connecting and integrating public and semi-public spaces and defining a new urban experience.
- **Central Park** (see figure 3 no. 5): centrally located green open space should be provided as part of the back-of-beach facilities with lighting, public art, children's playground with hard and soft surfaces, facilities for public performances and ablutions.
- **McCausland Crescent** (see figure 3 no. 6): Upgrade to include landscaping, lighting, urban furniture, art work, signage and on street as well as shared parking
- **Durban View Park**: Upgrading including ablutions and new lookout point, lighting and furniture, incorporating art work such as “The African Carrousel” (collaborative, interactive art work in Bloemfontein, featuring African mythological figures), an opportunity to work with local artists and develop evocative and educational art pieces that could work with wind and water.
- **Umhlanga Lagoon Nature Reserve**: Environmental/botanical centre to promote better use of this facility, providing access to the beach and the lagoon. The space upgrading should be supported to improve visual and security aspects and encourage access to facilities.
- **Beachfront promenade**: Continue with the upgrading and where possible extend opportunities for public gathering and observation points. Look at terraces, boardwalks and lawns (see proposal for Lighthouse Road terraces).
Other projects
In addition to the above interventions, the following are proposed:
- Beachfront Facilities
  - Lighthouse Road Terraces
  - Central Beach Facilities upgrade
  - Upgrading of ablutions and facilities at Durban View Park
  - Bronze Beach sunbathing lawns
- Back-of-Beach Facilities
  - Public Transport centre and drop-off points
  - Visitors parking
  - Pedestrian friendly routes and parking

Existing projects
Projects currently under construction and initiated prior to this study that should also be supported are:
- **Central Beach facilities**: including upgrading of life-saver facilities and provision of a water sports centre
- **Granny’s Pool**: upgrading of facilities
- **Promenade**: physical upgrade of full beach promenade area including access paths to promenade
- **Tidal Pool**: there has been no indication from stakeholders during the precinct planning process that there is a demand for a tidal pool. However, this initiative is the result of a prior, separate consultative process, and it should be concluded
- **Durban View Park**: part of the promenade upgrading project

Figure 3: Catalytic Projects
6. **Urban Design Codes and Design Guidelines**

The urban design codes and design guidelines are tools to assist with the assessment of new projects and to encourage the development of a well-defined and harmonious ‘quality environment’. The Precinct Plan provides detailed urban design codes and guidelines relating to the following themes:
- Vehicular environment
- Pedestrian network
- Environmental improvements
- Mixed use
- Densities
- Building height
- Bulk, massing, coverage and FAR
- Block structure and urban grain
- Edge treatment and landmark buildings
- Management structure and public safety
- Design guidelines – built form controls (including views and vistas), public environment, building performance, signage and advertising, safety and security

7. **Way Forward**

In order to take the Precinct Plan forward to implementation, the following issues are critical:

- **Statutory Status**
  The purpose of the Precinct Plan is to guide development over time. To turn it into a document that becomes statutory will require legal input. The consultant team, guided by the Development Planning Unit, will investigate the process and procedures required to give the Precinct Plan statutory status.

- **Site Development Parameters**
  On the approval of the Precinct Plan, it is recommended that additional work is undertaken to provide site specific parameters for what are considered to be key sites for redevelopment or upgrading.

- **Urban Management**
  To ensure the successful translation and implementation of the Precinct Plan it is recommended that a Development Manager is appointed as well as a Design Review Committee to assist with the monitoring and evaluation of proposed and future development.

- **Public-Private partnerships**
  The eThekwini Municipality recognises the importance and role that the node plays at local and regional level and the need to make its natural and recreational facilities more “accessible and democratic” by promoting the upgrade of public spaces and attending to the beach rehabilitation programme, which is of paramount importance for the area to regain its appeal as a tourist destination. This will require the establishment of strong public-private partnerships with developers within the core node area.
8. Implementation Plan

8.1 Purpose of the Implementation plan

This implementation plan offers a link between the Precinct Plan and the next stage of the development process, which should involve detailed planning or feasibilities of various interventions and projects that have been identified in the Precinct Plan. As part of ensuring the sustainable development of the precinct, the implementation plan also provides for the process of planning for the management of the post-implementation stage of identified projects.

8.2 Key Factors to Influence Implementation

The implementation process for the Precinct Plan is likely to be influenced by a number of factors, which should be given serious consideration from the onset (figure 4). They are:

- Planned public and private sector projects and investments
- Active and organised key stakeholders and their interests
- Development issues identified in consultation with stakeholders
- Proposed development vision, objectives principles
- Stakeholders and their inputs
- Limited amount of municipal owned land
- The process following the Precinct Plan approval
- Local community initiatives including the UIP
- Implementing municipality Departments and their roles
8.3 Key Projects Identified:

The following projects (figure 5) are identified as key to implementation of the precinct plan and address particularly the issues that have been identified as affecting the development of the Umhlanga Node Precinct:

Project Prioritisation and Phasing:

<table>
<thead>
<tr>
<th>Projects</th>
<th>Prioritisation</th>
<th>Phasing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beach Promenade</td>
<td>1</td>
<td>2007/08</td>
</tr>
<tr>
<td>Urban Management Intensification</td>
<td>1</td>
<td>2008/09</td>
</tr>
<tr>
<td>Development Facilitation</td>
<td>1</td>
<td>2009/10</td>
</tr>
<tr>
<td>Upgrade of engineering services &amp; utilities</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Beachfront development</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Gateways / Legibility</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Back of the Beach Spine (Lagoon Drive)</td>
<td>Dependent on UKUSA Plan</td>
<td></td>
</tr>
<tr>
<td>Public / community facilities</td>
<td>Dependent on UKUSA Plan</td>
<td></td>
</tr>
</tbody>
</table>

Figure 5: Key Projects for Implementation
8.4 Priority Actions and Tools to Effect Implementation

To effect and support sustainable and efficient implementation of the precinct plan the following actions must be taken and tools applied:

**Actions:**
- Obtain Precinct Plan approval
- Secure stakeholder (property developers and local community) support for the Precinct Plan
- Council to endorse and give legal status to the precinct plan and apply when assessing development proposals
- Appoint a Development Manager to manage and coordinate the implementation stage
- Facilitate review of development proposals situated in the core precinct area, ensuring alignment with Precinct Plan principles and guidelines
- Appoint a Design Review Committee to review all development proposals and building plans
- Facilitate the efficient formation and operation of the Umhlanga Village UIP to play a role in the implementation

**Tools to Assist Implementation:**
- A business plan, which follows the detailed planning/design stage to provide the detailed implementation and operation plan
- A Project Control Group/Steering Group – comprising representatives from all departments that have already been participating in the Steering Committee.
- A Development Forum, (under the UIP leadership) which will bring together all local stakeholders

- Public/private partnerships – more formal engagement and collaboration on projects.
- Incentive Zoning - to allow the municipality to influence development of strategic parcels of land.
- The Urban Improvement Precinct (UIP) – create opportunities for private sector role in the management and maintenance of the public environment.
- Development Contributions - are normally levied against property developments that add to the demand on infrastructure.
- Marketing and Promotion of the precinct, which will involve communicating the new vision for the precinct and the process and activities that will be involved to achieve this vision.

8.5 Management Strategy

The implementation of the precinct plan has to involve an active participation of and partnerships between all stakeholders from the private sector (property owners and developers), public sector (municipality) and the community. This is to ensure sustainable implementation of the precinct plan. The approach will also ensure that all stakeholders feel ownership and are confident about the process. The appointment of a development manager is critical to ensure all activities and resources necessary to the implementation of the precinct are well co-ordinated and organised to add value to the process. The management structure for the implementation of the project is proposed in figure 6 below.
Figure 6: Proposed Management Structure for the implementation Stage
9. From Planning to Implementation

The key planning focus of the Precinct Plan was to review the Umhlanga Town Planning Scheme, with the intention of recommending certain amendments to the Scheme to enable improved management of private development. Following the urban design, socio-economic, economic and infrastructural assessments it was concluded that development control through a scheme (or amended scheme) is not the appropriate tool for addressing the development and urban design challenges faced in the Umhlanga Precinct. Instead an approach to development facilitation and support, including a component for guiding future development in the node, was developed. The proposed approach to move from planning to implementation is to ensure that, in an area where public sector space/land is limited, positive change can be effected through partnerships and cooperation.

Reasons for not encouraging scheme amendments at present, outside of city-wide processes to establish a new land use management system, include:

• The scheme established in the 1970s has facilitated development to date and addressed the concerns of communities with relative success
• The applications for amendments to the scheme generally do not establish a pattern (which we believe is necessary to justify a scheme amendment) and there is no expectation that this will be the case in future. Some of the applications are scheme amendments for additional FAR and additional height on existing buildings. General amendments to the scheme will provide additional development rights that have not been requested and will never be taken up.

It is therefore recommended that, given the development of a city-wide land use management system, no process of amending the scheme be initiated at this stage. Rather, city-wide policies on issues such as shadows, heights and densities should be developed and adopted through appropriate procedures. Such policies will guide processes in which statutory planning applications, conditions of approval and site development plans are considered. The policies to be considered are:

• The eThekwini Minimisation of Shadow on Beaches Policy
• A Development Contribution Policy (currently under development)
• A Nodal Density Policy (recommended as a city-wide policy)

Supporting this will be the use of a number of planning tools aimed at implementing the identified planning responses. As most of the Umhlanga Rocks node is privately owned and built up, the planning and management tools identified must have the potential to impact on, and change, the way in which the private sector thinks and responds to the challenges faced in Umhlanga Rocks. Some of the planning tools identified include:

• Site development plans
• Planning for neighbouring areas
• Design review committee
• Amenity reserve

Various funding, co-funding and rates, as well as urban management-related tools, are also available to Council to facilitate appropriate development and re-development in the Umhlanga Node.
10. Infrastructure Development

10.1 Services Infrastructure

a) Water Supply
It is important to note that potable water is a limited resource and therefore strict “Green Goals” should be applied to future developments. Developers should be made aware of new initiatives in the market and rain water harvesting or flow restrictors on taps can greatly reduce water demand.

b) Waste Water Infrastructure
The sewer reticulation within the study area could allow for additional development. However, the limiting factor is the capacity of the main Umhlanga sewer pump station. The proposal to attenuate foulwater within new developments and then discharge off-peak, is not supported by the Water and Sanitation Department of the eThekwini Municipality. The existing pump station would need to be upgraded and/or a new pump station built, should future development, greater than 800 units, be allowed within this node.

c) Stormwater Infrastructure
The recent upgrading of the stormwater system within the node will allow for future development. It should be noted that the water harvesting proposed to reduce water demand could also improve attenuation of rainwater on site and therefore reduce the peak intensity of stormwater discharge into the existing systems.

d) Existing Services Information
The GIS records are constantly upgraded and therefore any future planning or developments must liaise with eThekwini Municipality to obtain the latest available information.

e) Implementation strategy
Possible projects related to the Precinct Plan:-
1. Upgrading of the main Umhlanga Sewer Pump Station – dependant on proposed future development – a feasibility study is recommended to test various scenarios.
2. Development of policy directives to reduce overall water demand.

10.2 Transportation and Access

a) Transportation system change
The intensification proposed by the Precinct Plan will effectively double the level of trip making in this area assuming similar trip making characteristics. The increased densities will also sufficiently increase the development thresholds to enable an internal public transport service. A change to the transportation system which should consist of a combination of improving road-based transport capacity, with the introduction of a local public transport service, is required.

The following priority levels are proposed for each mode:
- Pedestrian
- Non-motorised transport (NMT) including cycling and leisure-based systems such as rickshas.
- Road-based public transport.
- Private vehicles, service vehicles and emergency vehicles.

b) Proposals
The following transport projects have been identified.
1. **Pedestrian and non-motorised transport** maintains a 5 minute walking distance coverage to all major
amenities and attractions within the core precinct area as well as the proposed internal public transport route

2. **A new internal public transport service to** cover the core precinct area and provide linkages to the adjacent residential areas, precincts, pedestrian and NMT network, regional public transport interchange, centralized parking facility and provide easy walking distance to the various beach amenities.

3. **Transportation Network Enhancements** including:
   - URD/M4 interchange
   - Ridge Road/Lighthouse Road intersection
   - Regional road improvements
   - Internal road network and vehicular circulation
   - Parking facilities

c) **Implementation Strategy**

The following package of transportation projects have been proposed for the **short to medium term**

1. Upgrade of the URD/M4 Interchange
2. Implementation of road network improvements as part of the UKUSA development with the amendments suggested in this report
3. Implementation of road network improvements contained in the Arup Feb 2006 report the amendments suggested in this report
4. Lighthouse Road Upgrading
5. Conversion of Lagoon Drive to Umhlanga Ramblas and associated road network changes
6. Detailed planning and costing for an internal public transport service
7. Feasibility study for a centralized public transport facility
8. Feasibility study for a centralized parking facility
9. Upgrading on key entrance nodes

The following **long term** projects have been identified;

10. Conversion of northern interchange (M4/Egret Interchange) to a full diamond by the provision of north facing ramps.
11. Widening of M4 from 3 lanes to 4 lanes between the URD/M4 and M41/M4 interchanges.
1. INTRODUCTION

1.1 Purpose of this document

The EThekwini Municipality’s Development Planning and Management Unit and Economic Development Unit have appointed the ASM Consortium to prepare a Precinct Plan for the Umhlanga Node.

The Precinct Plan is required to provide a vision and framework for coordinating and informing both public and private investment and directing the physical development and management of all initiatives to deliver a well integrated, pedestrian-friendly, safe and attractive environment of residents, visitors, and tourists.

This draft report comprises nine sections presenting critical issues affecting the study area. It includes development objectives at regional and local level, principles to guide the development of the Umhlanga Node over time and architectural guidelines including proposed interventions and projects to inform decision making at the planning, urban design, architectural and financial levels.

The information contained in this report incorporates specialist input provided by the core team: Albonico Sack Mzumara Architects & Urban Designers; Swakoteka Development Solutions; Strategic Planning Resources and Iliso Engineering. It also includes the general comments and input by NLA landscape architects and Nemai environmental consultants.

The project was managed by Vicky Sim of the Ethekwini Municipality’s Development Planning and Management Unit. The concepts and proposals have being workshopped with the Ethekwini Municipality Steering Committee set up to guide this study. The Steering Committee includes the following units and departments: Development Planning and Management; Development Engineering; Architecture and Urban Design; Ethekwini Transport Authority; Water and Sanitation; Coastal Storm Water Management; Economic Development; and Coastal Policy.

The annexures are an integral part of this report. They capture the specialists’ assessments and recommendations as follows:

Annexure 1: From Vision to Planning Implementation. This document proposes a simple approach for moving from vision to implementation. It deals with planning and management responses to address the implementation of the strategic framework for the area in terms of public space, character of the node, accessibility and economic development. It further discusses the planning and management tools that can be utilised to achieve the vision in the particular context of the Umhlanga Node.

Annexure 2: Transportation & Engineering Services Proposals. This document highlights traffic related issues and proposals with regard to regional connections, the internal road network, pedestrian facilities and circulation, public transport and parking facilities.
Annexure 3: Implementation Plan. This document describes identified projects and proposes phasing and an estimated budget for each of them.

1.2 Background

The project’s Terms of Reference require a Precinct Plan to inform and coordinate the upgrading and development of the Umhlanga Node area.

Definition of the study area:
The Umhlanga Rocks Node is located 18 km from the Durban central area and approximately 12 km from the planned Dube Trade Port and King Shaka Airport. Umhlanga Rocks is one of Durban’s premier beach resort destinations and due to the development of new infrastructure and renewed investor confidence in the region is experiencing a significant amount of private and public investment.

The study area (the Umhlanga Node) is bounded by the M4 on the west, Durban View Park to the south, the promenade and beach to the east and up to the northern extent of Lagoon Drive. The area currently consists of a mix of land uses including: commercial, general residential (temporary, permanent and tourist), hotel, administration (municipal library, offices and post office), and a taxi rank, as well as the beach and promenade areas. It covers an area of approximately 60 hectares.

Demographics:
The study area for the Umhlanga Precinct Plan includes around 40 developments with a total of 2,425 residential units (including hotel and timeshare...
accommodation). At an occupancy rate of three persons per unit this translates to a population of 7,275. However, it has been established that as many as 50% of units are utilized for holiday-related purposes. The occupancy out of season is therefore probably 50% of full occupancy, or 3,638 people. It can also be assumed that in high season the occupancy of units is substantially higher than the 3 people per unit. At 100% occupation the population in season will be in the region of 10,000 people or more.

In the core precinct (20 developments) there is a total of 1,225 units, translating into a population of 3,675 people at three people per unit (100% occupation). Additional accommodation proposed for the node includes the UKUSA with development rights for 450 units, and the Protea and Pearls together adding a further 282 units. This additional 732 units translates into a potential addition of 2,196 people to the population.

1.2. Methodology

The approach in the preparation of the Precinct Plan builds on solid urban principles extracted from previous studies, comparative research and “best practices” related to similar types of experience. It aims to provide the basic tools and environment to reconcile potential differences and conflict emerging out of different stakeholders’ interests and priorities.

The stages of work are as follows:

**Stage 1 - Inception Report**

**Stage 2 - Situation Analysis** including:

- Contextual analysis of the strategic and local planning context.
- Socio-economic analysis.
- Analysis of the precinct environment
- A property development and market overview including current development projects
- Existing land use activities and land use management controls of the Umhlanga Town Planning Scheme.
- Existing services and engineering infrastructure.
- Transportation and movement analysis.
- Establishment of GIS base mapping through consolidation of existing information.
- Establishment of development issues.

**Stage 2 Meetings**

- First broader stakeholder consultation meeting and various one-on-one meetings with property investors/developers of the planned developments.
- First progress report meeting with the client and supporting documentation.

**Stage 3 - Precinct Framework** including

- The vision for the node and its core precinct, based on its identified role within the broader urban context.
- Translation of the vision into development objectives and design principles to ensure that it is realised at the Precinct Plan level.

**Stage 3 Meetings**

- Second progress report meeting with the client and supporting documentation.
- Second broader stakeholder consultation meeting.

**Stage 4 - Precinct Plan** including

- A core area detailed Precinct Plan, with land uses and densities, proposed built form, movement, circulation and parking, public space and landscaping, services and infrastructure, and public amenities and services.
- Detailed design guidelines.
- Recommended amendments to the town planning scheme.
- A list of key interventions and projects, including design interventions for the public realm within the core area.

Stage 4 Meetings
- Third progress report meeting with the client and supporting documentation.

Stage 5 - Implementation Strategy and Management Framework including
- Identification of critical projects, that are to be catalytic in nature and of flagship status.
- Establishment of preliminary project budgets.
- Establishment of phasing and priorities.
- Establishment of a management strategy, outlining the roles and responsibilities of all stakeholders (public and private).

Stage 5 Meetings:
- Third and final broader stakeholder consultation meeting.
- Fourth progress report meeting with the client and supporting documentation.
INTRODUCTION
2. SITUATION ANALYSIS OUTCOMES

2.1 Development Issues and Opportunities

2.1.1 Intensification and City / Metropolitan Growth
The immediate hinterland of the Umhlanga ‘village’ has changed and grown into an extensive commercial, business, light industrial, office and retail hub including a new town centre with extensive residential growth. The village is now surrounded by the city.

2.1.2 Densification and Change of Character
Developments are exercising their existing rights, resulting in densification. However, infrastructure development has lagged behind private development. There is a need for growth management to deal with the changes.

2.1.3 Quality of Life and “Lifestyle”
The challenge is to retain and enhance the ‘village’ qualities of the node; to move from a cluster of resorts to an ‘urban village’, i.e. a people friendly approach to mixed use development.

2.1.4 Urban Management
An urban management plan incorporating the upkeep and maintenance of buildings and infrastructure, provision of effective safety and security measures, cleaning of the public space and provision of public facilities and services is required.

2.1.5 Transportation and Movement
Improvements are needed in road capacity, pedestrian paths and linkages - including access to the beach, public transport services and facilities, and links with the adjacent nodes. The shortage of parking also needs to be resolved.

2.1.6 Precinct Environment
The “Genius Loci (distinctive characteristics) of the node needs to be established.

A sustainable approach to development is required with the natural environment integrated into the node, and legibility improved to provide a stronger sense of place. Views are important.

To develop pedestrian-friendly, coherent public spaces, decisions need to be made regarding sidewalks, street furniture, signage and landscaping, as well as pedestrian connectivity and ease of movement. Pedestrian and vehicular conflict also needs to be dealt with.

Guidelines are required to create coherence, integrity, wholeness and continuity of architecture. The precinct is structured into isolated enclaves, which provide a richness that should be connected to form a holistic experience.

There is limited permeability. New resorts are designed to hold the visitor within their premises.

Decisions need to be made with regard to the retention and/or addition of community facilities.
There is a limited mix of activities - predominantly tourism, accommodation and leisure oriented.

2.1.7 Services and Engineering Infrastructure
The node’s capacity with regard to sewerage is limited. The storm water system requires upgrading. There is a need for improvement in general maintenance and upkeep of the services and engineering infrastructure.

2.1.8 Town Planning Aspects
The municipal rates are significantly lower than in other areas with similar property values. The new national Rates Bill will have implications for the property market. Unless well-managed by the municipality, increased rates could cause instability in the market with sales and subdivisions leading to increased densification.

Most developments have developed within their existing rights, which implies that they made their development contributions upon the promulgation of the rezoning rights.

If new development rights are to be granted, the resultant development contributions should be spent on the upgrading and the refurbishment of services and infrastructure within the node.

The existing Town Planning Scheme has played an important role in retaining some of the “village character” of Umhlanga Rocks. Specific issues are:
• the lack of a fixed height restriction
• the complexity of some of the Scheme clauses and their possible misinterpretation

The updating of the town planning scheme is an opportunity to establish control and urban management mechanisms, supported by relevant design and development guidelines, to ensure the sustainable redevelopment of the node.

There is strong resistance to the granting of additional rights, as this causes undesired densification. An approach may be to target densification in specific areas within the node.

General access to the beach is poor. The beachfront is separated from the back of beach area.

The sale of public land to UKUSA has resulted in the loss of public amenities, i.e. parking for beach goers, recreational facilities and the node’s only public event space. As much of the UKUSA land remains undeveloped, there may be an opportunity for Council to buy back land for this purpose, or enter into a partnership with UKUSA to ensure that the development’s proposed park or public square accommodates these functions and activities.

There is a need for the retention and improvement of existing amenities such as the library, council offices, post office and life-saving club. There have also been requests for a fully fledged police station in the node.

2.2 Other Policy Considerations

Given the strategic location of the Node and the role that it plays in economically, environmentally and physically in terms of coastal development in South Africa, special consideration has been given to the goals and objectives as stated in the Coastal Policy Green Paper “Towards Sustainable Coastal Development in South Africa”, Department of Environmental Affairs and Tourism (September 1998). The following themes that are of particular significance have been extracted from the Green Paper.
**THEME B: COASTAL PLANNING AND DEVELOPMENT**

**Goal B1: Coast-dependent Economies and Activities**
To promote the diversity, vitality and sustainability of coastal economies and activities, giving preference to those that are distinctly coastal or dependent on a coastal location

**Objectives:**
- Coastal planning and management efforts shall proactively seek to realise the long-term economic development potential of coastal localities and regions.
- Preference shall be given to distinctly coastal economic development opportunities and to activities that are dependent on a coastal location.
- A system of appropriately located and financially sustainable ports, small-craft harbours and related facilities shall be developed and effectively maintained.
- Adequate and appropriate public facilities shall be provided at appropriate coastal locations.
- Opportunities for mariculture shall be identified and encouraged at appropriate coastal locations.
- Coastal tourism and recreational development opportunities shall be identified and promoted at appropriate coastal locations.
- All activities relating to coastal prospecting, mining and the exploitation of petroleum, oil and gas shall be conducted in an environmentally responsible manner.

**Goal B2: Balance and Diversity**
To maintain and enhance the diversity and harmony of coastal land- and sea-scapes by maintaining an appropriate balance between built, rural and wilderness areas

**Objectives:**
- Nodal development and densification of existing nodes shall be promoted to sustain the economic potential and protect the aesthetic, amenity, cultural and ecological values of coastal localities and regions.
- New structures shall be designed and located in a manner that retains the visual beauty, wilderness character and associated benefits of undeveloped coastal areas.
- Inappropriate development in coastal areas of high agricultural potential (including commercial forestry) shall be discouraged.

**Goal B3: Design and Management of Coastal Settlements**
To design and manage coastal settlements to be in harmony with local and regional aesthetic, amenity, biophysical and cultural opportunities and constraints

**Objectives:**
- The design and built form of coastal settlements shall be in harmony with the aesthetic, amenity, biophysical, economic, social and cultural opportunities and constraints of coastal localities and regions.
- Coastal settlements and associated activities shall be managed to promote and enhance the socio-economic benefits of the coastal setting and to minimise adverse effects on coastal ecosystems.

**Goal B4: Risk and Natural Hazards**
To plan and manage coastal development so as to avoid increasing the incidence and severity of natural hazards and to avoid exposure of people, property and economic activities to significant risk from dynamic coastal processes
Objectives:

- Coastal development shall be planned and managed to minimise disruption of dynamic coastal processes and to avoid exposure to significant risk from natural hazards.
- The potential consequences of climate change and associated sea-level rise shall be taken into account in all coastal planning and management.

Goal B5: Historical and Cultural Heritage
To preserve, protect or promote historical and cultural resources and activities of the coast, where appropriate

Objectives:

- Coastal resources of significant historical, archaeological, cultural and scientific value shall be identified and, where appropriate, preserved, protected or promoted.
- Traditional and cultural activities at the coast shall be given special consideration in coastal planning and management.

THEME C: POLLUTION CONTROL AND WASTE MANAGEMENT

Goal C1: Minimisation and Control
To implement pollution control and waste management measures in order to minimise and strictly control discharges into coastal ecosystems

Objectives:

- The discharge of all land-based point and diffuse sources of pollution that are likely to end up in coastal estuaries, ground and surface waters and the air shall be minimised and strictly controlled.
- The discharge of marine pollutants and waste, especially ship-board waste, marine fuels and ballast waters, into coastal waters shall be minimised and strictly controlled.
- Adequate and effective anticipatory and reactive measures shall be implemented to reduce the adverse consequences of human-induced coastal pollution disasters and hazards.

Goal C2: Ecosystem Health and Human Uses
To ensure that pollution has minimal adverse impact on coastal ecosystems and their ability to support beneficial human uses

Objectives:

- Pollution control and waste management measures shall be implemented to ensure that discharges are kept within the assimilative capacity of coastal ecosystems.
- The discharge of pollutants and waste into coastal ecosystems shall not be allowed to reach levels that adversely affect human health, use and enjoyment of the coast.

THEME D: NATURAL RESOURCE MANAGEMENT

Goal D1: Diversity, Health and Productivity
To maintain the diversity, health and productivity of coastal processes and ecosystems

Objectives:

- The natural functioning of coastal processes and the health and productivity of coastal ecosystems shall be maintained.
- The biological diversity of coastal ecosystems shall be maintained.
Goal D2: Coastal Protected Areas
To establish and effectively manage a system of protected areas to maintain the diversity of coastal ecosystems

Objectives:
- An adequate and representative system of protected areas shall be established and managed to maintain the diversity of coastal ecosystems, habitats and species.
- Coastal protected areas shall be integrated across both the land and sea, where practicable.
- The intensity of human use in protected areas shall vary according to the appropriate level of protection required to meet ecological objectives, local needs and the compatibility of activities.

Goal D3: Renewable Resource Use
To ensure that renewable resource user practices are in accord with the regenerative capacity of coastal ecosystems

Objectives:
- An adequate understanding of the regenerative capacity of coastal ecosystems shall be developed to guide decisions about the appropriate types, scale and rate of renewable resource use.
- The use of renewable coastal resources shall be guided by the need to optimise the long-term economic viability of the activity.

Goal D4: Non-Renewable Resource Use
To use non-renewable coastal resources in a manner that optimises the public interest and retains options for alternative and future uses

Objectives:
- Non-renewable coastal resources shall be used in a manner that retains multiple-use options in the public interest.
- Non-renewable coastal resources shall be used in a manner that retains options for potential future and sequential uses in the public interest.

Goal D5: Rehabilitation
To rehabilitate damaged or degraded coastal ecosystems and habitats

Objectives:
- Coastal ecosystems and habitats which are substantially degraded or damaged as a result of past human activities shall be rehabilitated.
- Coastal developers shall rehabilitate degraded or damaged areas to acceptable standards.

THEME E: GOVERNANCE AND CAPACITY BUILDING

Goal E1: Public Participation, Partnerships and Co-responsibility
To ensure meaningful public participation and partnerships between the State, the private sector and civil society in order to foster co-responsibility in coastal management

Objectives:
- There shall be meaningful public participation in all coastal planning and management efforts.
- Organs of State shall actively seek to foster a sense of co-responsibility by developing partnerships with the
private sector and civil society in coastal planning and management.

**Goal E2: Capacity Building and Coastal Awareness**

To build the capacity of coastal managers and interested and affected parties to promote coastal awareness and more effective coastal planning and management

**Objectives:**

- A coastal management awareness, education and training programme shall be developed and implemented for interested and affected parties.
- Provision shall be made to ensure that there is adequate financial support, suitably trained and experienced staff, and appropriate technical equipment for coastal planning and management.
- An effective, accessible, co-ordinated national information system shall be designed and maintained to support coastal planning and management efforts.
3. STAKEHOLDER PARTICIPATION OUTCOMES

Below is a summary of issues put forward by the various stakeholders at meetings held with Ward Councillors and Committee Chairs, key developers and the public.

3.1 Conclusions from meeting with Ward Councillors and Committee Chairs
- The Precinct Plan idea is overdue and critical
- Contribution to upgrade of infrastructure capacity by developers important
- The capacity of existing infrastructure to accommodate new developments
- The Precinct Plan should announce the precinct
- The precinct needs iconic developments such as The Pearls
- There is a need for a holistic view of the precinct
- Public meetings should be handled sensitively

3.2 Conclusions from meetings with key developers
- Existing property investors (Oyster Box, Cabanas, Umhlanga Centre, Protea Hotel) are looking to maximise the capacity of their developments to take advantage of the increasing demand for hotel accommodation and in the process increase the value of their investment.
- The FIFA Soccer World Cup is considered a catalyst.
- Umhlanga precinct is attracting new property investment, which includes UKUSA and the Pearls developments.

<table>
<thead>
<tr>
<th>Meeting</th>
<th>Stakeholder</th>
<th>Date</th>
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<tbody>
<tr>
<td>1.</td>
<td>Ward 35 Councillor &amp; Chairs of Economic Development and Planning Committees</td>
<td>10 July 07</td>
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<tr>
<td>2.</td>
<td>Developers of, and investors in, key developments: Ukusa, Pearls, Protea Hotel, Chartwell Centre</td>
<td>11 July 07</td>
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<tr>
<td>3.</td>
<td>Developers of, and investors in, key developments: Oyster Box, Beverly Hills, Umhlanga Centre (Buxtons), Umhlanga Plaza and Granada Centre</td>
<td>12 July 07</td>
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<tr>
<td>4.</td>
<td>First public meeting: residents, residents’ organizations, business owners, etc.</td>
<td>23 July 07</td>
</tr>
<tr>
<td>5.</td>
<td>Second public meeting: residents, residents’ organizations, business owners, etc.</td>
<td>17 Sept 07</td>
</tr>
<tr>
<td>6.</td>
<td>Third public meeting: residents, residents’ organizations, business owners, etc.</td>
<td>3 March 2008</td>
</tr>
</tbody>
</table>

- Both developments comprise mixed use (commercial, residential and health amenities)
- All developments including Oyster Box, UKUSA and the Pearls are targeting an international tourism and leisure market. The proximity to the beachfront is the main attraction.
• The Umhlanga node is considered as a tourist and leisure destination with global appeal.
• The node does not have sufficient population density year round to support an increase in retail development
• Progress on the Pearls (Stage 2 development) and the Umhlanga Centre re-development is subject to approval of rezoning applications
• Safety and security is considered to be a growing problem and needs to be addressed. Most developers and owners are participating in the formation of the Umhlanga Improvement Precinct (UIP)
• All property developers and owners raised the need for integrated development and for developments to interface with one another.
• All planned developments (new and existing) will put pressure on the public environment including the existing road network and engineering services’ capacity.

3.3 Conclusions from first public meeting
• Against increased densification of the precinct
• Object to the Pearls obtaining increased development rights
• New property developments should contribute to the upgrading of the public infrastructure
• Poor management and maintenance of the public environment is an issue
• Safety and security is perceived as an increasing problem
• UIP idea needs to be supported
• Need for more public open space

• Traffic management is an issue – poor access, speeding, congestion during holiday season, parking shortages
• Public transport infrastructure – existing taxi and bus ranks need upgrading
• Views to the beach and the sea are an important attraction and value add to the node – need protection
• The Acts guiding development and protecting the areas along the coast must be applied

3.4 Conclusions from second public meeting
• The following was presented as a consolidated draft development vision:
  - A seaside resort and tourism destination which is people-friendly, walkable and safe, with a cosmopolitan sense of place and urbanity.
  - An ‘urban village’-like environment in which residents and holiday makers feel equally at home
  - A unique place that embraces the life, activities and events of holiday makers as well as accommodating and protecting the needs of the local community in a balanced and well-managed environment.
Concerns were expressed that the vision does not specify conservation of the natural environment, especially the trees nor does it specifically accommodate children or cycling facilities
• Groups expressed disapproval of any connections with surrounding areas including the connection to Ridgeside. The consultants will investigate the implications of this.
• Regarding the recovery of the beach, the council is committed to restoring facilities. In terms of the sand, it is not known when it will return.
• Concern about the water quality in the Umhlanga River was expressed – will be followed up.
• There was a request for clarity regarding the relationship of the Precinct Plan with UKUSA’s plans. Concern expressed that UKUSA plans seem to propose the removal of all the trees including the concentration of indigenous trees on the Western side. Consultants to schedule a meeting with UKUSA to discuss the UNPP.
• Suggestion that Chartwell Drive be closed to traffic in the shopping area and that the council repurchases a piece of land from Pearls and make Lagoon Drive a pedestrian walkway.
• Concern about the loss of green space. It was suggested that the Precinct Plan be restructured to gain more public space.
• Concerns about parking and beach access were raised. To be dealt with in the detailed planning.
• Concern about how the vision would be driven.
• Issues of development controls to be addressed, as part of the next stage.
• Finances to realise the vision - development needs to be phased in and incorporated into budgets. This may take time and there may be elements of the plan that are too expensive for the city, but that bridge will be crossed if and when necessary.

3.5 Conclusions from third public meeting

Traffic / Transport Related Comments
• Ridge Road link – query as to whether the project was going ahead. Comment that Durban View Road is narrow and not suitable for buses or public transport
• Query as to whether the Portland off ramp would be incorporated into the precinct plan
• Query as to whether the public transport facility proposed in the ridge area had been taken into account in the proposals for a public transport facility in Umhlanga Node Precinct
• Query as to whether proposals made by the municipality on the upgrade of M4/M41 interchange had been considered in the precinct plan?
• Request for clarity on number of lanes proposed at M4/Lighthouse Rd/Umhlanga interchange (4 or 6) to address traffic congestion at the problem
• Request for precinct plan to clarify how public parking including parking for buses will be provided especially during the holiday seasons

Engineering Services
• Query with regard to how the capacity of the existing sewer pump station and power supply problems will be addressed.

Green space
• Concern that with the development of UKUSA, more green space in the precinct is likely to be lost. The precinct plan does not give a good indication of how lost green space and remaining can be recovered and/or protected.

Communication of activities around the project
• Communication of all activities around the project needs to be improved and guaranteed
4. THE STRATEGIC THRUST

4.1 Development Direction

The development direction is formulated on the basis of the situation analysis and stakeholder participation outcomes; discussions with municipal councillors and key developers operating in the area and further considerations related to the coastal policy outlines. The strategic thrust is the optimisation of the node economically and physically.

This thrust is defined by various components described below. These components also set up the background to the comments and recommendations regarding the proposed amendments to the town planning scheme discussed in detail in annexure 1.

4.2 Intensification

Urban development practice in South Africa has, in response to urban growth pressures (sprawl, environmental degradation, inequitable quality of life, changing housing dynamics) moved toward the intensification – an increase in mixed land use and mixed residential densities - of new and existing urban areas. This is considered an appropriate way of making an urban environment more liveable and reducing its environmental impact. This approach is reiterated in the eThekwini IDP, 2010 and Beyond, 2007-2008 Review (Section 1.4), which commits itself to the zoning of land use and management systems in order to increase densities and reduce urban sprawl. The aim is to ensure a more effective use of facilities, enabling people to live closer to amenities and work opportunities. This intensification approach is to be driven by economic and environmental sustainability to ensure that people are living in harmony with the environment.

A successful and sustainable urban node is the product of the distances people have to walk to access facilities and services, and the presence of a range of such facilities and services, which supports the needs of the local population. A series of places and spaces provide the physical framework that enables the diversity of activities generated to take place. The success of the neighbourhood is also dependent on the additional attraction of socio-economic activity, as directed by its role within the wider urban sub-region.

The lateral threshold of a node is the walkable distance of a 400m – 800m radius. This determines the potential market created by the node and yields a number of people that will support amenities, services and facilities. Consequently, the higher the population density, the better for the potential market threshold. The benefits of seeking higher density levels include:

- Social: Encouraging positive interaction and diversity, improving the viability of, and access to, community services, and enabling more and better integrated residential development
- Economic: Enhancing the economic viability of development, and providing economies of scale with regard to infrastructure and amenities
• Transport: Supports public transport, reduces car travel and parking demand, and makes underground / basement parking more economically viable.

• Environmental: Increases energy efficiency, decreases resource consumption, potentially reduces pollution, preserves and helps fund the maintenance of public open space and reduces urban sprawl.

Current trends, supported by planning specialists, indicate the need for increased densities within nodes as discussed below. For example, the City of Joburg’s approach encompasses:

• Within a defined nodal boundary (a CBD, regional and metropolitan node) no upper limit of densities are specified. These are to be assessed per each proposal, but given sufficient infrastructure, access and design, 100+ dwelling units per hectare would be supported.

• Within a district node a density range of 20 – 60 dwelling units per hectare would be supported, given sufficient infrastructure, access and design.

• Adjacent and fronting on to a public transport route, density ranges of 70 – 90 dwelling units per hectare are supported. These are reduced to 20 – 50 dwelling units per hectare within a 200m range of a public transport route. Again these densities are subject to sufficient infrastructure, access and design.

(Source: City of Joburg SDF July, 2006/7)

There are varying density targets that have been applied to walkable neighbourhoods. Research in the United Kingdom has shown that net densities of 100 persons per hectare are necessary to sustain a good bus service (LGMB, 1995). This translates into 33 dwelling units per hectare, assuming an average of 3 persons per family (SA average).

In the research document Guidelines for Human Settlement Planning and Design, CSIR, 2000, the gross residential density, measured in dwelling units per hectare, required to support a frequent public transport service of 5-10 minute intervals requires a gross density 37 du/Ha (approximately 111 persons per hectare, assuming 3 persons per dwelling). A 15 minute interval service requires 22 du/Ha, approximately 66 persons per hectare; and a 30 minute to 60 minute interval requires 17 du/Ha (or 51 persons per hectare).

Thorne (1994), Johannesburg Inner City Framework, proposes a population density range from 200 – 450 persons per hectare gross density, or 67 du/Ha to 150 du/Ha. Behrens and Watson (1996) state that the appropriate gross density for South Africa is between 50 and 100 du/ha, assuming minimum of 3 persons per dwelling, yielding 150 to 300 persons per hectare gross density.

Different localities however demand different densities and should relate to the accessibility of the locality: highly accessible localities adjacent to public transport interchanges should be between 80 and 100 du/ha, localities within 1km walking distance from the transport nodes between 60 and 80 du/ha and suburban localities between 40 and 60 du/ha (all gross densities). Higher density development should therefore not be located everywhere and should not be the only type of development.

Within this context it is considered that an optimum density for the Umhlanga Node’s new demarcated precinct (core area) could be between 60 and 80 dwelling units units per hectare. The current density in the core is 33.6 units per
hectare, but in terms of existing rights - Floor Area Ratios (FAR) - this can be increased to 55.71 units per hectare.

Considering infrastructure limitations it is proposed that not more than an additional 500 units be allowed in the core area. At an average unit size of 100m$^2$ this will translate into an additional floor area of 50,000m$^2$ in the core. This area will be the maximum additional rights to be made available (i.e. should additional rights for larger units or alternative land uses be sought, this will reduce the number of additional units that can be developed in the core).

On a unit per hectare basis this will increase the density in the core area from 55.71 units per hectare (existing rights) to 69.3 units per hectare (see table 6.1 and fig. 6.2). On an area basis the 50 000m$^2$ will translate into an increase in available rights of approximately 14% from 351,722 m$^2$ (currently available rights) to 401,722m$^2$.

The recommended approach is design-led, underpinned by urban design principles and design guidelines, concentrating on a sustainable and viable urban quality. Urban market trends should be taken into account but must not dictate the outcome.

4.3 Diversification

For the optimal functioning of a node of this nature an appropriate mix of land use activities should be established. This begins with those land uses that meet daily needs of residents and the local workforce. Integrated with that should be a diverse range of secondary activities, such as social support and public facilities (education, health, religious), as well as public space and recreation areas. The business and
Retail activities to be promoted are informed by the urban context of the node, and possibly a particular activity or mix that gives the node a focus (tourism and beach-front recreation for example), which reinforces the local identity of the node and strengthens its position and role in the wider urban context. The benefits of mixed use include:

- More convenient access to facilities.
- Potentially reduced travel-to-work congestion.
- Greater opportunities for social interaction.
- Socially diverse communities.
- Visual stimulation and delight of different buildings in close proximity to one another.
- Improved safety with more “eyes on the street”.
- Greater energy efficiency and more efficient use of space and buildings.
- More consumer choice of lifestyle, location and building type.
- Urban vitality and street life.
- Increased viability of urban facilities and support for business, including public transport.

A diversity of residential typologies and tenure mixes should also be promoted to support the land use mix. This promotes social diversity and enables the establishment of different residential typologies, which discourages the establishment of exclusive enclaves.

4.4 Competitiveness

The competitive edge for this node is to be a tourism destination of choice, meeting the needs and expectations of local and international visitors.
The identification and introduction of niche activities for different age groups (leisure, holiday and tourism), place-making development and public and recreational facilities will enhance the node’s socio-economic competitiveness and its long term sustainability.

### 4.5 Connectivity & Accessibility

The movement framework of a node determines its connectivity and accessibility, which in turn affects uses and activities, density, security and the impact of development on adjoining areas. The structural components of the movement framework are the streets and pedestrian pathways (sidewalks), whilst the individual activities and components comprise walking, cycling, vehicular transport and public transport.

A successful movement framework for a node will:
- provide a maximum choice for how people will make their journeys;
- provides good access, taking into account the kinds of movement that are generated in a node; and
- make clear connections to existing routes, local facilities and neighbouring nodes and activities.

### 4.6 Liveability

The liveability of a node refers to the contribution it makes to the quality of life of the area’s inhabitants and users. This requires that a node’s urban environment and its activities should contribute to the well-being of its population (residents, workforce and visitors), with regard to facilities and services, public spaces and places, parks and open spaces, supporting engineering infrastructure, recreation, entertainment and cultural activities. This is reiterated in the eThekwini IDP 2010 and Beyond, 2007-2008 Review (Section 2.3): Quality Living Environment. Particular aspects highlighted from this include:
- The goal to ensure that all households have access to individual and community facilities and receive equitable and appropriate level of service.
- The maintenance of existing resources and infrastructure investment, including rehabilitating and sustaining ageing infrastructure before its deterioration beyond recovery, and the provision of new service infrastructure.
- Ensuring full service provision of community facilities, guided by service standards and necessary operating funds required to sustain these facilities on a day-to-day basis.

### 4.7 Sense of Place

Lynch (1960), in “The Image of the City” introduces the concept of ‘imageability’, which he defines as that quality in a physical object which gives it a high probability of evoking a strong image in any given observer. It is that shape, colour, or arrangement which facilitates the making of vividly identified, powerfully structured, highly useful mental images of the environment. It might also be called legibility, or perhaps visibility in a heightened sense, where objects are not only able to be seen, but are presented sharply to the senses.

A node’s sense of place is determined by the identity and character that is deeply felt by local inhabitants and visitors. It is based on the collective perception and experiences of the activities, places and spaces that characterise it. This is defined by the built fabric and the natural environment,
pedestrian-friendliness, the overall living and urban experience, legibility, image and identity, buildings and architecture, animated street activities, landscaping and special/unique features, such as views, particular events etc.

4.8 Environmental Sustainability

Preserving and enhancing the natural environment, water system and open space system form an integral part of the development of a node. The eThekwini IDP and associated DMOSS policy require that the following be taken into consideration within the overall goal to promote sustainable and integrated social, economic and environmental land use management:

- The sustainable and integrated development of the coastal environment, which has the potential of a wide variety of economic opportunities in the fields of tourism, property development, commercial harvesting of marine resources and the enjoyment of the natural environment.
- The protection and retention of the natural assets of the coastline, its wetlands, rivers, estuaries, grasslands and forests and coastal zone resources. It is recognised that their biodiversity must be conserved in order to ensure the sustained proper functioning of ecosystems.
- The introduction of indigenous vegetation planting and the adoption of green building and green services infrastructure development play an important role in this facet.

4.9 Urban Management

The overall urban management of a node is critical to its successful functioning and liveability. Components of this include:

- Safety and security
- Emergency management, including disaster management
- Municipal services
- Add-on services through public/private partnerships such as an urban improvement precinct
- The control of development through land use management systems and the enforcement of by-laws

This component includes an overall marketing programme coupled with a public information service.

4.10 Conclusion

The above components will be used to guide the development of the node and to ensure that the goals stated in the Coastal Policy Green Paper “Towards a Sustainable Coastal Policy in South Africa” Theme B, - see section 2.2 of this report - referring to planning and development are met, and their objectives are realised, particularly the ones referring to the following:

- Densification of the node to sustain its economic potential and protect the aesthetic, amenity, cultural and ecological values of coastline.
- The design and location of new structures in a manner that retains the visual beauty, wilderness character and associated benefits of the coastal area.
- The discouraging of inappropriate development in a coastal area with conservation value.
5. **URBAN DESIGN FRAMEWORK**

This section presents the vision for the node and its core precinct, defining its role within the broader urban context. The vision responds to the input received from various stakeholders and the policy considerations related to coastal development described in Section 3, and further informed by the strategic development thrust described in Section 4.

### 5.1 Development Vision (see figure 5.1)

The Development Vision is to create:
- a seaside resort and tourism destination which is people-friendly, walkable and safe, with a cosmopolitan sense of place and urbanity
- an ‘urban village’-like environment in which residents and holiday makers feel equally at home
- a unique place that embraces the life, activities and events of holiday makers as well as accommodating and protecting the needs of the local community in a balanced and well-managed environment.

### 4.1 Development Objectives

The following objectives have been identified to drive development at the regional and local level and achieve the vision.

#### 5.2.1 Regional Development Objectives (see figure 5.2)

1. To consolidate and enhance the beachfront amenity of Umhlanga Rocks as a regional facility
2. To reinforce and enhance Umhlanga rocks’ role as a main tourism, holiday and recreation destination (domestic, international and business)
3. To improve linkages with the greater Umhlanga region
4. To reinforce the human scale, urban village character of Umhlanga Rocks and extend and enhance the outdoor public realm amenities
5. To contribute to the overall socio-economic development of the region
6. To build community, strengthen relationships and promote locally based partnerships.

#### 5.2.2 Local Development Objectives (see figures 5.3 & 5.4)

1. Consolidate the node into a safe, welcoming and accessible tourism and residential environment.
2. Improve connectivity at the sub-regional level and in relation to other beaches and resorts.
3. Create a pedestrian-friendly, attractive, open and human scale seaside resort.
4. Enhance and protect natural attributes: the diversity of the beach front from rocky outcrops for exploration to swimming, walking relaxation and contemplation.
5. Achieve a balance between the natural and built environments.
6. Develop a uniqueness of place – genius loci – by reinforcing the sense of place, improving legibility and defining character.
7. Enhance the entertainment niche market.
8. Maximise the coastal setting and elevated panoramic views and protect specific views and vistas.
9. Develop an interconnected and accessible public open system (hard and soft).
10. Improve back of beach facilities including parking for day visitors and space for special events.

5.3 Development Principles

The following are the key development principles identified to translate the vision and objectives described above into reality at the Precinct Plan level. The key proposals in section 7 – Structuring Elements, are based on these principles.

5.3.1 Accessibility (see figure 5.5)
- Improve accessibility in and around the area
- Improve the efficiency of the current system
- Improve safety of pedestrians in and around the node.
- Provide supporting facilities to accommodate the needs of disabled people, children and the elderly.
- Promote the introduction of alternative modes of transport to improve access to the area and reduce congestion, pollution and parking requirements for day visitors.
- Improve environmental conditions along mobility corridors to accommodate a cycling track where possible and well defined sidewalks.
- Define the pedestrian network within and beyond the node

5.3.2 Connectivity (see figure 5.6)
- Define functional linkages with other nodes
- Define structural linkages between precincts
- Adjust the pedestrian sheds to the existing features - the pedestrian sheds must be adjusted according to the geography of the land and special features within it.
- Define the east-west connection with the Ridge Town Centre, Ridgeside, and Westridge to provide access to the node and beachfront facilities.

5.3.3 Legibility (see figure 5.7)
- Improve the urban experience by enhancing the unique attributes of the place, architectural character, and unique features
- Create a pedestrian-friendly environment with supporting infrastructure, signalised routes and consistent landscaping treatment
- Promote the integration of a public art programme at strategic locations to animate the public environment – the installations to also act as reference points and markers.

5.3.4 Sustainability (see figure 5.8)
- Encourage diversity and choice in terms of mixed uses
- Introduce a wider range of managed economic activities and trading
- Connect the neighbourhood centres with each other
- Infill the areas between the main connections - the basis of the development of the node is the establishment of a secondary route system realising an efficient and flexible network based on a localised character.
- Maximise the gains from natural elements such as the beachfront and nature reserve for educational, recreational and economic purposes.

5.4.5 Liveability (see figure 5.9)
- Promote the development of a range of interconnected public/private open spaces for encounters and social interaction
- Link and extend the public open space system to connect to unique natural features such as the natural reserve and activity nodes.
- Preserve and enhance the ecosystem and beachfront promenade, natural environment and corridors.
- Provide supporting public facilities centrally located.
- Support the tourism industry

5.4.6 Built Form (see figure 5.10)
- Introduce architectural codes to guide all new developments, retrofit and upgrading of existing.
- Protect vistas and define views around the node.
- Encourage architectural accentuation and built form treatment along specific routes and locations.
- Provide relief and diversity of massing of developments in different localities (detailed studies should be carried out for individual areas where necessary)
- Establish site development parameters to control height for strategic sites.

5.4.7 Landscaping and Public spaces (see figure 5.11)
- Improve the existing landscaping, consolidating and extending the indigenous vegetation.
- Link and extend the public open space system
- Preserve and enhance eco-system and beachfront promenade, natural environment and corridors.
- Integration with DMOSS.
The Vision

To create:

- A seaside resort and tourism destination which is people-friendly, walkable and safe, with a cosmopolitan sense of place and urbanity.
- An ‘urban village’-like environment in which residents and holiday makers feel equally at home
- A unique place that embraces the life, activities and events of holiday makers as well as accommodating and protecting the needs of the local community in a balanced and well-managed environment.

Figure 5.1: The Vision
1. ENHANCE BEACHFRONT AMENITY
2. ENHANCE ROLE AS TOURISM, DESTINATION
3. IMPROVE LINKAGES WITH GREATER UMHLANGA REGION
4. REINFORCE HUMAN SCALE, URBAN VILLAGE CHARACTER
5. CONTRIBUTE TO OVERALL SOCIO-ECONOMIC DEVELOPMENT OF REGION
6. BUILD COMMUNITY

Figure 5.2: Regional Development Objectives
Figure 5.3: Local Development Objectives

1. CONSOLIDATE NODE INTO A SAFE, WELCOMING AND ACCESSIBLE TOURISM AND RESIDENTIAL ENVIRONMENT

2. IMPROVE CONNECTIVITY AT THE SUB-REGIONAL LEVEL AND IN RELATION TO OTHER BEACHES AND RESORTS

3. CREATE A PEDESTRIAN-FRIENDLY, ATTRACTIVE, OPEN AND HUMAN SCALE SEASIDE RESORT

4. ENHANCE AND PROTECT NATURAL ATTRIBUTES

5. ACHIEVE A BALANCE BETWEEN THE NATURAL AND BUILT ENVIRONMENTS
6. DEVELOP GENIUS LOCI
7. ENHANCE ENTERTAINMENT NICH MARKET
8. MAXIMISE COASTAL SETTING AND ELEVATED PANORAMIC VIEWS AND PROTECT VIEWS AND VISTAS.
9. DEVELOP INTERCONNECTED AND ACCESSIBLE PUBLIC OPEN SYSTEM
10. IMPROVE BACK OF BEACH FACILITIES
Figure 5.5: Accessibility

Figure 5.6: Connectivity

Figure 5.7: Legibility

Figure 5.8: Sustainability
6. STRUCTURING ELEMENTS

The Urban Design Framework is structured by critical elements that provide the armature to sustain and guide development over time. These elements are mutually reinforcing and must be understood as a part of the whole, defining new conditions for the “remaking, restructuring, rationalising” of land use and activities within the Umhlanga Node area.

6.1 KEY PROPOSALS: Access and Movement (see figure 6.1)

The proposals related to accessibility and mobility in and around the precinct have been formulated by Iliso in collaboration with Goba Consulting Engineers.

The information presented here is a summary of the recommendations and information contained in annexure 2. Further studies, investigation and refinements will be needed to consolidate these proposals into a Transportation Management Plan. The management plan is needed to provide the basis for the upgrading, development and management of traffic, the public transport system and parking in and around the Umhlanga node area, so as to:

- maximise use of existing road reserves
- encourage the densification and intensification of land use to improve long-term sustainability
- improve safety and security
- retain the character of the area

6.1.1 Vehicular Access (see figure 6.1 a)

The precinct is served by major arterials. From Durban and the north coast, the access is via the M4 providing a direct link to Umhlanga Rocks Drive and Lighthouse Road.

Road Upgrade/Improvement Proposals

i. Formalise the road hierarchy for the Umhlanga Node area so that arterial route function can be promoted and traffic calming can be applied on access/neighborhood roads.

ii. Upgrade the major mobility routes to improve access into the Node and to facilitate the flow of traffic through the area. The proposed upgrades discussed and described in annexure 2b include:

- M4 / Lighthouse Road / Umhlanga Rocks Drive interchange and associated bridge over M4 - immediate upgrading and widening to 6 lanes
- Ridge Road/Lighthouse Road intersection - upgrade as a traffic signalized intersection immediately.
- M4 / Egret and Campbell interchange - conversion to a full diamond interchange
- M4 - Upgrade from 3 lanes (1+2) to 4 lanes (2+2)
- Ridge Road/ Lighthouse Road Intersection – upgrade to a four way signalized intersection.
- Lighthouse Road - The section between Ridge Road and Lagoon Drive to be converted to a four lane, dual carriageway, urban boulevard
- McCausland Crescent to be converted a pedestrian oriented street with occasional use by vehicular traffic for service and emergency purposes.
- Ridge Road - extend northwards to intersect with Lagoon Drive in the vicinity of Flamingo Lane
- Lagoon Drive - Two options: 1) Ramblas as in Barcelona - one way pair with a large central, activity median; 2) Central two lane, two way roadway with wider activity verges on either side.
• Chartwell Drive - existing section between Lighthouse Road and Ocean Way incorporated into the proposed Ramblas along Lagoon Drive, if this option selected
• Durban View Road - provide a pedestrian and local traffic connection to Ridgeside. Needs further investigation

6.1.2 Public Transport Proposals

In terms of environmental and economic principles and in line with other major urban centres in South Africa, the provision of an efficient, user-friendly and cost-effective public transport system has to be considered. The current studies, discussed in more detail in annexure 2, indicate that there is a growing support for the introduction of a locally-based public transport system serving and connecting the major existing and proposed nodes located in close proximity to the Umhlanga Rocks Node. The public transport is to serve the current and projected population living within a 1.5km radius which is in the order of 170,000 people (based on the developments expected to be completed within the next 10 years) and 750,000 within a 15km radius of the node.

Taxi Services: At the moment the proposal is to retain the taxi facility in a centralised position within the UKUSA site, making it accessible from Ridge Road / Ridge Road Extension.

Metered Taxis and Shuttle Services: This form of transport plays an important role providing reliable services to visitors and local residents. These services are currently located along Lighthouse and Chartwell Roads. The location could be retained provided that the services are well-managed and there are appropriate facilities such as information kiosks, shelter and toilets, as well as clear signage.

6.1.3 Pedestrian Movement Routes Proposals (see figure 6.1b)

One of the most critical components of the Precinct Plan is the creation of safe routes for all pedestrians including people with disabilities, children and the elderly. There are established pedestrian movement patterns that have evolved from clear desire lines and places of origin and destination such as public transport facilities, central parking facilities, the beachfront and through routes connecting the major residential neighbourhoods. Pedestrian movement in the central core area is structured around 5 minutes walking time or a 250m radius and 10 minutes or a 500m radius to all facilities and the beachfront promenade.

In this Precinct Plan, pedestrian-friendly routes designed to accommodate vehicular traffic, while giving priority to pedestrians over the car, will be structured primarily along:

Lighthouse Road and Ridge Road and Ridge Road Extension: main access roads and local connectors such as should be designed to accommodate wide sidewalks of no less than five meters to allow for generous pavement space and accommodate directional signage, information boards, street lighting, landscaping and street furniture.

Chartwell and Chartwell extension: The total closure of Chartwell Road recommended by some residents was considered but found not to be suitable at this stage since, in addition to being a local access road, it provides access for a central parking facility and service vehicles. From the experiential and functional point of view, local and international examples indicate that street closures are only successful in a context where the street accommodates a
very high volume of pedestrian traffic. This option could be revisited at later stage if Chartwell Centre redevelops to include structured parking and further retail facilities interfacing with this street.

**Lagoon Drive:** should be structured as a central boulevard following the concept of the Ramblas in Barcelona, with street cafes, outdoor display areas, soft and hard landscaping, wide side walks and a cycle track.

**McCausland Road:** will become the main pedestrian access to all beach front amenities and, with the new pier, provide the opportunity to create a unique experience. To do so, the amount of vehicular access to bordering properties and the amount of on street parking should be limited.

**Beach Access:** There are a number of existing public pedestrian paths from north to south of the node that are to be upgraded to improve safety and security, legibility and sense of place. Planning has started and will be implemented following the upgrading and restoration of the beach front currently under construction (see catalytic projects in section 10).

### 6.1.4 Parking facilities

Existing parking spaces include 511 undercover public bays and 177 undercover reserved bays, 390 public off street bays and 212 public on street bays.

This proposal recognises the need to provide further parking facilities to support the residential components, new business developments and cater for day visitors and tourists.

- **On-site parking:** All new developments comply with parking requirements specified in the town planning scheme.
- **This study identifies the need for centrally located, structured parking (not further than 250 meters from any access to the beachfront promenade) that could be constructed as a public/private initiative to support business and retail during the week and events related to tourism and entertainment on weekends. A viability study should be conducted as part of the further studies needed to ascertain the number of bays required and their viability in terms of the end users.
- **Shared Parking:** All new developments must comply with the parking requirements specified in the town planning scheme. In addition 10 – 20% should be made available for access to the general public at market related rates.
- **Better management of the existing on –street parking facilities and pay parking facilities is required to improve parking availability.
- **Additional parking bays could be accommodated adjacent to Hawaan Views with direct access from the beachfront.
- **Further investigation in terms of environmental impact is required to assess the number of parking bays that could be accommodated at the entrance to the Umhlanga Lagoon Reserve as part of the upgrading and use optimisation of the area.**

### 6.1.5 Traffic Management

- **The focus of the Traffic Management Plan should be to provide access to the beachfront via public transport.**
- **Temporary parking must also be provided for day visitors.**
- **The Plan must take into consideration all road and public transportation upgrades.**
6.1.6 Conclusion and Recommendations (see figure 6.1 c)

The proposal contained in the Transportation Engineer’s report aims at optimising the working of the existing transportation network and proposes interventions that can be managed without the need for major land-takes or disruptions to environmentally sensitive and protected areas.

To improve pedestrian access to the beachfront it is recommended that the pedestrian access through the Pearls site also referred to by residents as the old Umhlanga Hotel, be reinstated.

To improve local connections and access to the Node, it is recommended that in the medium to long term new connections to surrounding areas are introduced, such as the extension of Durban View Road linking to Ridgeside, the Umhlanga Ridge town centre and the Gateway commercial precinct.

6.2 KEY PROPOSALS: Land Use Distribution (see figures 6.2 & 6.3)

The predominant land uses identified during the formulation of the Precinct Plan are general residential 1, special zones, and approximately 20% general commercial. As indicated at the beginning of this section the land ownership is predominantly private with the exception of the post office and Durban View Park which is zoned public open space.

Figure 6.2 indicates existing land uses and detailed development rights of all sites located within the precinct including the extra rights applied for on some of the existing sites. It is used to assess the current conditions and makes recommendations regarding issues related to the town planning scheme, which are discussed in more detail in annexure 1.

6.2.1 General Residential

Hotels/resorts and residential in this context are interchangeable. To attract further investment into the area and contribute to the upgrading of the urban environment it is recommended that, through the adoption of this Precinct Plan, the Council encourages the development of additional hotel rooms and residential units in the core area from the existing 33.6 units/ha to an average of 69 units/ha - an additional 500 units (see table 6.1)

6.2.2 General commercial

Traditional towns tend to have a mix of different uses and to be built at high densities. This means that the streets are alive with activity, feel safe and can support a wide range of economic activity. The centre of Umhlanga Rocks around Chartwell Road has some housing above shops and has street activity outside shopping hours. This pattern needs to be supported and extended into the new development zones providing a range of conditions and vitality to make the back-of-beach experience a complementary and supportive component of what Umhlanga Node has to offer.

6.2.3 Special Zones

There are a range of special zones within the node providing a great deal of flexibility. This flexibility intended to create conditions allowing these sites to accommodate the changing economic environment and market opportunities. However, to ensure that these developments provide the
desired character and quality of urban living, including the residential and resort facilities promoted by the Precinct Plan, Council’s ongoing assessment and monitoring, from site development plans to construction will be required.

To ensure that the land use distribution, massing and heights distribution comply with the conditions and design codes proposed in this Precinct Plan, it will be necessary to set up a design review or aesthetics committee to assist with the monitoring and evaluation of proposed developments.

6.2.5 Amenity Zone

The amenity zone controls the use of land along the beachfront promenade, within which commercial activity is restricted. It is recommended that further commercial activities are located within the private property boundaries complementing and extending the current retail, restaurants and refreshment areas. It is also recommended that, since the beachfront promenade offers a limited area for public recreation and is environmentally sensitive, only limited commercial activities are permitted in a selected location which is visible, accessible and easy to manage. The uses could include “Juice Bar” kiosks and refreshment areas. The primary use should be for public purposes such as recreational sighting-seeing and relaxation, sun bathing and public gatherings. Furthermore existing public facilities should be optimised, upgraded and managed. Through programming of cultural and educational events the central beach facilities, the park and the Umhlanga Lagoon Nature Reserve could be reinvented seasonally to attract visitors and enliven the beachfront without compromising its ecological sensitivity.

6.2.6 Informal Trading

This should be regulated and restricted to specified sites. However, the proposed concept for the “Ramblas” provides an opportunity for the allocation of additional trading spaces. The ultimate location and facilities need to be developed in close consultation with property owners, managing body and the user groups. There are currently 80 registered traders operating on the beachfront promenade, on Lagoon Drive and at the public transport facilities. Future development will have to make provision to accommodate at least the same number, including supporting facilities such as ablutions and storage space.

6.2.7 Community Facilities

There is a lack of community facilities throughout the study area to serve different age groups and promote more interaction between residents and visitors. What is proposed is: a multimedia library and educational centre centrally located on the UKUSA site; a satellite police station also centrally located on the UKUSA site; a redevelopment of the post office site retaining the facility; and a community clinic to serve both local residents and visitors.

6.2.8 Conclusion and Recommendations

1. To achieve the development of a more sustainable and vibrant environment, it is recommended that, through the approval of this Precinct Plan, the city encourages the intensification of the node to include additional residential units and hotel accommodation, up to 69 units/ha net within the core area. There are 1237 existing units. An additional 814 units have been approved as per the current FAR. This gives a total of
2,051 units. The recommended units per hectare will allow for a total of 2,551 units.

2. The additional units recommended above could be viewed as a “basket of rights” available to developers on application (this will be a Scheme Amendment Application in terms of the Planning Ordinance). Council would be willing to consider the allocation of additional rights to developers who demonstrate their commitment to the development vision for the Umhlanga Rocks Node.

Annexure 1: From Vision to Planning Implementation, supports the recommendations made here.

6.3 KEY PROPOSALS: Public realm and landscaping (see figure 6.4)

In the context of an expanding tourism destination, the open space system should be regarded as an asset and not a problem. Multifunctional spaces serve a dual role: they extend the opportunity for economic exchange and promote socialisation and interaction. Well-designed and managed public spaces can contribute to improved safety and security and, by enhancing the quality of the environment, stimulate investment and social cohesion within the area.

6.3.1 The Public Realm

“The public life of any town is like a play and the streets and squares of the town are the stage on which the play is acted out”. Bracknell Town Centre: Urban Design Framework (1998)

Details, such as paving and street furniture, should be robust and consistent throughout the main public spaces to ease maintenance and contribute to the general legibility of the node. The figure ground plan illustrated in figure 8.1 indicates the general space configuration and design intentions proposed for Lagoon Drive, including the Village Green in the triangle formed by Weaver Road, Lighthouse Road and Lagoon Drive and the central park located at the intersection of Lagoon drive and Flamingo Road.

6.3.2 Enclosure

Public spaces should be enclosed by buildings to provide a better definition and shelter from the prevailing winds.

6.3.3 Proportion

The Central Boulevard and linear system should be well-proportioned and ovoid overshadowing of public spaces by tower blocks. The proposed linear system suggests the development of a range of edge conditions to support different types of outdoor activities ranging from commercial in the form of street cafés, flower vendors etc, to more recreational and cultural ones located in close proximity to proposed public facilities (see figures 8.1 & 8.2).

6.3.4 Micro-climate

Climatic conditions, such as prevailing winds and rainfall, need to be taken into account in the design of public spaces. Vegetation is an efficient way of providing shelter and shading and should be used intensively along the main pedestrian routes and corridors.
6.3.5 **Hostile areas**

Hostile areas such as service yards should be avoided along the main public spaces and where it is absolutely impossible to locate them in any other place they should be screened and maintained in compliance with the proposed standards.

6.3.6 **Landscaping**

The area is currently quite disjointed from a landscaping point of view. Both hard and soft landscaping require a comprehensive plan in terms of redevelopment. Some of the hard landscaping needs to be upgraded and the soft landscaping has not been maintained to adequate levels. Particularly the sidewalks need some more comprehensive landscape planning in order to function as a coherent whole which unifies the Umhlanga Beachfront Precinct. Most of the trees are indigenous species. However, quite a large variety of exotic palms have been added, as well as other exotic foliage plants.

6.3.7 **Management of public space**

The consolidation and management plan should incorporate more than one stage, initially just trying to work with what is already in place, but improving the maintenance and decreasing the number of, in particular, ground cover species to try and visually unify the streetscape. The Durban View park landscaping needs to be reviewed; some of the denser species may need to be removed to allow for a more continuous open view which will increase surveillance and safety.

6.3.8 **General observations**

The area around the Council offices has been upgraded recently and the planting is a lot more succinct and in line with what would be the ideal landscaping solution. However, due to the undeveloped areas and current new developments, some of the areas are receiving very basic maintenance, and are therefore not developed to their full potential. Again the understory is largely exotic, while the trees are mainly indigenous with a number of palm trees in between.

Lagoon Drive, past the Umhlanga Sands resort, starts visually deteriorating because of the clutter of a variety of landscape treatments, which takes away from the overall appeal. A more unified planting approach will significantly improve the aesthetic of this area, identifying it as a pedestrian friendly, safe and cared for environment. This continues along Lagoon Drive into the residential area, right up to the Breakers Resort and the end of the street where the landscape gives way to a natural forest and a rather untidy and unsympathetic resolution.

6.3.9 **Recommendations**

1. The current landscape should be properly documented in terms of specific short comings and upgrade requirements.

2. A Landscape Master Plan should be drafted which sets out the vision for the upgrading of the public area and streetscaping within the precinct.

3. Promote the development of an integrated open space system including connections to the Ridgeside forest and parks and the Umhlanga Lagoon nature reserve.
6.4 KEY PROPOSALS: Built Form Directives (see figures 6.5 & 6.6)

The Node is mostly developed to existing rights. However, the central area is going through a process of extensive redevelopment and upgrading. Granting of additional rights and heights has been done on an ad hoc basis, and extra heights granted to some developments is creating precedents that can be used to motivate for similar types of concessions in other locations. There is also a current proposal to cap heights at 20 storeys which has been imposed on the Pearls second tower development. This is an arbitrary figure, which is problematic because it can be challenged. Overall the current town planning scheme has managed height well except for larger sites. Therefore a range of tools are recommended to manage height. These are:

- The Town Planning Scheme
- The Shadow Policy – relative to the beach and neighbouring properties
- Design review panel – i.e. a design led approach which manages height and built form on a site-by-site basis to achieve the objectives of the Precinct Plan.

They should provide sufficient guidance to ensure the following:

- Protect vistas and define views around the node
- Encourage architectural accentuation and built form treatment along specific routes and locations
- Provide relief and diversity of massing of developments in different localities (detailed studies should be carried out for individual areas where necessary)
- Where high rise developments are permitted it is recommended that they take the form of a point block rather than a spread height forming a wall. This will be allow for the retention of framed views and an animated profile

Recommendations

Built form directives should be guided by the Shadow Policy and follow the basic guidelines described in section 8. In addition to the above, a design-led approach for the definition of height and massing at site level is recommended to guide decision-making around critical locations, discussed in more detail in section 8.

6.4.1 Block structure: size, permeability

The Town Planning scheme prescribes a minimum site size for General Residential 1 sites but not a maximum, resulting in the consolidation of large sites ranging from 5.2ha (The Pearls) to 3.6ha (Edge of the Sea) along the beachfront creating real barriers and limiting permeability and public access to the swimming beaches and facilities along the beachfront promenade.

Recommendations

1. More connection to the beachfront should be introduced including the reinstatement of the ‘right of access’ servitude through The Pearls site, as this is part of the public amenities.
2. Improve environmental conditions, landscaping, lighting, and signage and where possible widen the access path to beachfront.
3. Promote the development of midblock connections such as the existing around Chartwell Centre and Protea Hotel.
4. To improve permeability, the block structure or distance between pedestrian access points should not be greater than 120 meters within the central precinct.

5. Improve visibility and enhance safety and security by promoting the use of transparent edges and passive surveillance.

6.4.2 Site development

Individual site developments have been allowed to operate in isolation from their context creating “silos” of disconnected private realms designed to satisfy the needs of the tourist and day visitor within the confinement of these properties. These trends have been followed by current developments within the precinct and tend to have a negative impact on the public space, with buildings presenting a harsh front to the back-of-beach area.

Recommendations

1. Develop site development parameters, in consultation with property owners, including the massing - desirable FAR and coverage options - for potential redevelopment sites. Take shadows, wind tunnelling, views and vistas into account.

2. Encourage the development of limited commercial activity on sites fronting beach access paths to enhance safety and security and the vitality of the area.

3. Provide incentives to encourage a specific edge treatment along main pedestrian routes.

4. Develop parameters, for signage and advertising including estate agent, construction and development boards and general information to provide a consistent approach and minimise visual pollution.

5. Promote built to line development along main activity corridors such as Chartwell Road Extension, Lagoon Drive, and McCausland Crescent.

6. In the core area promote the development of a building envelope that scales down towards the street front to provide a human/pedestrian scale.

6.5 KEY PROPOSALS: Architectural Character

There is a level of consistency and continuity at the moment provided by the scale of buildings (with the exception of the Pearls), the use of texture and materials such as plastered surfaces, use of colour including a range of whites, ivory and a limited use of face brick, which should be preserved.

The use of colour, texture and design innovation related to using local materials and energy conservation should be encouraged.

The use of face brick above 10 meters should be strongly discouraged. Colours such as pastels, terracotta and ochre should also be discouraged. The use of primary colours should not be permitted at any level.

More detailed guidelines are provided at precinct plan level concerning building configuration, building treatment, corners, edges, colour and texture.

Roofscapes provide a vantage point capturing the views towards the north, south and east. Therefore, the use of rooftops as terraces should be encouraged.

A specific type of awning should be used throughout the central area to provide consistency and set up minimum
standards in terms of materials and building elements and treatment.

**Recommendations**

1. Adopt a green agenda and create incentives to encourage the development of “green buildings” in consultation with key stakeholders and council departments, to reduce carbon emissions, lower energy consumption and reduce waste.

2. Introduce a green guide specification appropriate to the area.

3. Conduct further research with a view to introducing general architectural codes for the node in consultation with property owners by assessing the performance of certain materials.

6.6 **KEY PROPOSALS: Place Making Elements**

Successful places are those which stand out and linger in the memory. They are places which project a good image and which people enjoy visiting and revisiting (Bracknell Town Centre: Urban Design Framework 1998). Beside the vistas and the vegetation there is very little quality in the treatment and general appearance of the public space. The general ambience and character could be improved with the introduction of new elements that complement and define the spirit of the place.

6.6.1 **Landmarks** (see figure 6.7)

There are a number of landmarks which define the character and identity of the central precinct area. These need to be acknowledged, highlighted and protected. They range from historical, evocative and natural to iconic and monumental structures.

The Lighthouse tower is the most significant, historical and memorable landmark representing this seaside resort. Its presence and visibility from the sea and central arrival area needs to be protected and conserved by declaring it a historical monument.

The Pearls has become the most dominant feature on the Umhlanga Rocks skyline. The construction of the second tower will reinforce that presence and domination.

However, landmarks are not only defined by their scale but also by their significance, meaning, and treatment. The mature fig trees located on the proposed Village Green are landmarks in their own right that need to be protected and nurtured.

The development of iconic architecture through globalisation and the commercialisation of the public space have created competition between developments, which could result in overpowering the environment with architectural gymnastics and over-scaled elements. There are sufficient landmarks within the node that need to be recognised and celebrated.

**Recommendations**

The Precinct Plan promotes the development of buildings that are of human scale, defining the quality of public space. Within that fabric there are opportunities for self expression and the introduction of elements that could become significant to people and the place through façade articulation and corner treatment.
6.6.2 **Gateways** (see figure 6.7)

There are opportunities to create a sense of arrival that marks the entrance to the node and articulates its relationship to other coastal resorts. The M4 is the major access point and most significant connection to the rest of the coastal system and provides a unique opportunity for the development of a gateway element that marks the entrance to a unique destination and holiday resort.

6.6.3 **Urban Fabric**

A consistent and robust urban fabric helps to define the character of the place, contributes to easy maintenance and provides comfort.

Street furniture should be standardised elements which capture the character of the area and meet council standards to ensure the ongoing maintenance and upkeep of the public spaces.

6.6.4 **Signage/advertising**

Traffic and directional signage has to be carefully considered to avoid interference with the lines of sight along identified vistas and view zones. Advertising signage to comply with the Council’s advertising and signage policy.

**Recommendations**

1. Map out all existing signage and assess the visual interferences created.
2. Standardise signs around the central area to prevent the visual pollution resulting from overtrading of advertising space on poles and wall surfaces.
3. Pass a municipal bylaw to make building wrapping illegal at any scale and anywhere in the node.
4. In consultation with key stakeholders, develop a manual with specific guidelines that can be policed and enforced by the managing body to be established by the Council in partnership with local stakeholders.

6.6.5 **Public art**

Public art should be introduced to animate the public environment. There are remarkable examples of sculptures which have become landmarks in their own right, such as along the seafront on rock formations in San Sebastian Spain by the sculptor Chillida; the fisherman in Buzios Brazil; Frank Gery’s fish on Barcelona’s beach promenade and many others. Public art can also be of temporary nature, linked to programmes and festivals and could contribute to add a different dimension to the beachfront as well as the proposed back-of-beach “Ramblas”.

**Recommendations**

1. Encourage introduction of public art along beachfront and public spaces.
2. Promote development of public art policy to encourage involvement of local artists.

6.7 **KEY PROPOSALS: Legibility and sense of place** (see figures 6.8 - 6.10)

‘Sense of Place’ is a perceived sense of familiarity that people experience in relation to their living environment. Places that change gradually, on a small scale and within the existing form and character are more stable and provide a better sense of place than those that change faster, on a larger scale and/or introduce a new form and character. This is the case in Umhlanga Node. Therefore certain elements
such as the lighthouse, unique vegetation and vistas and views need to be protected. People are more easily able to assimilate gradual, moderate change over time.

6.7.1 **Vistas** (see figure 6.9)

There are important vistas of the sea to the east within the precinct, which makes moving through different areas a memorable experience that needs to be protected. These are along the main vehicular and pedestrian routes framed by buildings or vegetation.

- Vista 1  Down Lighthouse Road
- Vista 2  From the Village Green down McCausland Crescent between the Pearls and Umhlanga Plaza
- Vista 3  View along Lagoon Drive looking south
- Vista 4  Down Ocean Road
- Vista 5  Down Durban View Park
- Vista 6  Pedestrian access path from Lighthouse Road to beachfront

6.7.2 **Views** (see figures 6.10 and 6.10a)

Panoramic views from Umhlanga Rocks Drive and from the intersection of the M4 with Lighthouse Road need to be protected and enhanced.

The assessment of views has been done through photographic and modelling methods, which include the building of a physical model and 3D simulations of existing conditions and proposed developments to assess impact and taking photographs of panoramic views form various vantage points. The recommendations highlight other methods that could be used to identify what needs to be preserved to retain the unique conditions defined by the current skyline, the windows to the ocean and the building profile which make Umhlanga Rocks memorable.

**Recommendations**

1. Build a physical model at 1:500 scale of the precinct indicating existing conditions with the sites as removable pieces. Each proposed development should submit a block model at the same scale of their proposed development. This will be used to test the impact on the surrounding views, vistas and amenities and monitor the development through construction.

2. A “view sheds” analysis should be conducted through a specialised computer-generated programme capable of recording “view sheds” which indicate the entire area that a viewer or group of viewers can see from a given point.

3. Confirm the line of sight and shed of spaces that need to be protected.

4. Record MSL of existing buildings to confirm general parameters along defined height zones along the sea front and proposed Ramblas.

6.8 **KEY PROPOSALS: Environmental/Microclimate Considerations** (see figure 6.11)

The casting of shadows over public spaces and amenities is an aspect which needs to be carefully assessed. The approved Shadow Study provides guidelines and the mechanism to test and assess impact. Wind tunnelling also requires specialist studies. Conservation Principles should be introduced in line with the coastal development guidelines. Further study is required to establish specific
parameters that are relevant to the Umhlanga Rocks Node in terms of the eco-system and fragile dune ecology.

Recommendations

1. Conduct a specialist study to consolidate coastal management criteria and development principles relevant to Umhlanga Rocks conditions.

2. Adopt the shadow study as a guiding tool to assess the impact that casting shadows has on the quality of the public spaces.

3. Conduct a study on wind acceleration based on the current conditions and develop design guidelines for the area.

4. Make specialist wind studies compulsory for all developments over 4 storeys.

6.9 KEY PROPOSALS: Safety and Security and Management

These aspects are discussed in detail in section 7, under design guidelines.

Recommendations

1. It is recommended that the future managing body of the node promotes the adoption of the design principles presented, and develops a tool kit and guidelines based on the principles promoted in the document prepared by the CSIR: Designing Safer places – A Manual for Crime Prevention through Planning And Design (2001).
### Table 6.1: UMHLANGA NODE - KEY INFORMATION RELATING TO DEVELOPMENT SITES

<table>
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<tr>
<th>Zone (Core or not)</th>
<th>Property description</th>
<th>Development name</th>
<th>Zoning</th>
<th>Site area (m²)</th>
<th>Net site area - where applicable due to ROW encumbrances</th>
<th>Applicable FAR -**</th>
<th>Maximum allowable floor area</th>
<th>Actual floor area</th>
<th>% of total allowable floor area</th>
<th>Existing number of units</th>
<th>Additional units possible with current FAR</th>
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**Notes:**
- **Total for Remainder of Node:** 164,971
- **Total for Umhlanga Node (Coastal Strip and Core):** 522,296

**Contributions to FAR:**
- Core Area: 33,416
- Remainder of Node: 460,880
- Umhlanga Node overall: 564,296

**Proposed Additional Units:**
- New FAR: 555

**Reference:**
- ASM Consortium 2008
Figure 6.1: Access and Movement

STRUCTURING ELEMENTS
UMHLANGA – PROPOSED INTENSIFICATION: INFORMATION SHEET

NOTES:

EXISTING AND PROPOSED DENSITIES: CORE NODE AREA

- Existing units in core: 1 237 units, 34 units/ha
- Potential (current FAR = 814 units): 2 051 units, 56 units/ha
- Proposed additional units (500 units): 2 551 units, 59 units/ha

As a key factor impacting on densification is infrastructure capacity, 500 additional units (either residential or hotel) are viewed as the absolute limit (or a 50 000m² increase in floor area whichever is reached first).

MOTIVATION FOR DENSIFICATION:

- Creating a vibrant residential core with a more permanent population.
- Use additional rights as part of negotiation process with developers, i.e. rights can be used to encourage developers to contribute to implementation of the Precinct Plan, in particular improvements to the public realm and services provision.
- Opportunity for attracting young permanent population by providing smaller units (as well as inclusionary housing).
- Maximise utilisation of available infrastructure.

CONDITIONS FOR DENSIFICATION:

- Built form: Development must illustrate appropriate built form including consideration of height, bulk, views, vistas, character etc proposed in Precinct Plan.
- Availability of infrastructure: No development will be approved if appropriate bulk infrastructure is not available.

Figure 6.2: Land Use Distribution
Structuring Elements

Precedent: The Ramblas Barcelona, Spain

Promote mixed use development within fabric of core area with active edge accommodating street front activities

Figure 6.3: Land Use Distribution
Figure 6.4: Public Realm and Landscaping

- View down Lagoon Drive showing landscape edges
- Proposed activity spine along Lagoon Drive
- Chartwell Drive commercial and retail edge
- Limit commercial along beachfront
- Proposed terraces at access to lighthouse
- Protect view of beachfront promenade looking north

STRUCTURING ELEMENTS
Figure 6.5: Built Form Directives / Heights

STRUCTURING ELEMENTS

Articulated building heights to preserve views and vistas
Proposed architectural character borrowing from existing buildings

Figure 6.6: Built Form Directives / block / Site/ Architecture
Umhlanga Node Precinct Plan

[Image of panoramic views with the Pearls' second tower]

Iconic elements: Pier and Lighthouse

[Image of model of panoramic views with the Pearls' second tower]

Model of panoramic views with the Pearls’ second tower

Figure 6.7: Place Making / Landmarks / Gateways

STRUCTURING ELEMENTS
STRUCTURING ELEMENTS

Figure 6.8: Built Form Directives / Vistas

Model of framework plan
View from McCausland Crescent
Vista from Village green looking north
STRUCTURING ELEMENTS

Various views showing articulated skyline to be controlled

Figure 6.9: Built Form Directives / Views
STRUCTURING ELEMENTS

Figure 6.10: Built Form Directives / Vistas & Views

Graphic representation of anticipated profile including currently approved developments
Figure 6.10a: Plan indicating panoramic and framed views to be preserved.
Figure 6.11: Environmental Considerations

Sensitive ecological conditions

Umhlanga Lagoon Reserve beach edge

Section through amenity reserve

Section through central public amenities looking south

STRUCTURING ELEMENTS
7. PRECINCT PLAN

7.1. Definition

This Precinct Plan can be described as proactive planning work, defining desirable directions and indicating a localised system of actions designed to foster new relationships between the private and public realm, guide development over time and provide a common point of reference for the assessment and promotion of new developments within the focus area. It aims at providing a new management and decision-making tool to optimise the use of existing resources and encourages the densification, intensification and diversification of land uses within the precinct. The Precinct Plan is supported by the “From Vision to Planning implementation” report which deals with planning and management responses to address the implementation of the strategic framework for the area in terms of public space, character of the node, accessibility and economic development (see annexure 1).

7.2. Locality (see figure 7.1)

The core area of the Umhlanga Node starts from the intersection of Lagoon Drive and Weaver Crescent in the north, and is bordered by Ocean Drive in the south, the M4 and Flamingo Drive in the west, and the Indian Ocean from Casa Playa to Ocean Drive in the east.

7.3 Description

- Area: Approximately 40 hectares
- Ownership: Private
- Land uses: General Commercial, General Residential, Special Zone
- Development status: Intensive redevelopment
- Architectural character: In transition
- Natural: Existing mature vegetation
- Amenities: Retail core. Public facilities: library, post office, public parking, taxi and public transport facility, petrol station

7.4 The Concept (see figure 7.2)

The concept is derived from the Development Vision. It is to turn the Umhlanga Node into an ‘urban village’ that embraces the life, activities and events of holiday makers as well as accommodating and protecting the needs of the local community in a balanced and well-managed environment. As a seaside tourism destination it is to be people-friendly, walkable and safe, with a cosmopolitan sense of place and urbany.

The concept creates a legible urban environment centred on two unique experiences:
- The beach promenade that affords views of the sea and access to the beach while leaving it as natural as possible.
• The back of beach public spine, ‘the Ramblas’, that provides a range of public spaces from a community-based, soft park at the northern end to a public event space centrally located close to commercial activities.

The public environment is structured along these two systems which are unique in their own right, complementary and mutually reinforcing.

In addition the midblock connections between these two zones, which are mainly in the private domain, are part of the system and incentives are needed to ensure that these connections are retained and upgraded.

7.5 Development Principles

In addition to the development principles described on section 5, there are six precinct-specific principles promoted by the ‘new urbanism’ and urban villages movement (introduced and discussed in section 4), to guide and consolidate development opportunities within the core area. They are principles for the development of more sustainable and supporting urban environments. Mixed-use and diversity are promoted to improve the performance and vitality of the area. This includes:

1. Mixed housing types, sizes and affordability to create more inclusive conditions
2. Quality architecture and urban design with special attention to the public- private interface
3. Increased activity day and night, specially around public spaces
4. Smart transportation to encourage the use of alternative means of transport such as people movers, cycling, and low carbon emission systems.

5. Sustainability - increased density, intensity and diversity within the node to support facilities which enhance the competitiveness of the node at the local regional and national level.
6. Urban quality of life, which extends the village-like atmosphere in a balanced and harmonious built and natural environment

Furthermore what defines the character of an urban village is its scale, walkability, friendliness, familiarity, continuity, and, most important, a caring and supportive community. To extend the special attributes of Umhlanga Rocks, the proposed development concept builds on a well-defined structure of interconnected spaces and enclaves with specific character and uses, which become destination places in their own right and complement and support the main attraction of the beachfront.

7.6 Precinct Plan

The different components of the Precinct Plan are illustrated in figures 7.3 – 7.10, which capture the general urban design codes and design guidelines described in more detail in section 8.

7.7 Catalytic Projects (see figures 7.11 -7.18)

There are a number of projects currently being implemented by various council departments, which are contributing to enhance the quality of the area (see figures 7.19 and 7.20). Further projects have been identified thorough this precinct planning process which are considered to be complementary and supportive of current initiatives.
These projects have been identified in consultation with stakeholders and classified according to type, although in some cases the distinction is given by the implementation mechanism - be it a partnership or privately driven. The projects and strategies are discussed in more detail on sections 9 and 10.

The critical projects are as follows:

- **Central Square** (see figure 7.11 nos. 2 & 3): In Lighthouse Road with underground parking facilities, edged by commercial activities, a place for the information centre, public art and a ‘Village Green’
- **Lagoon Drive** (see figure 7.11 no. 4): “Ramblas” - creating a new milieu, a linear square modelled on great public spaces such as the Ramblas in Barcelona, a public promenade as the centre of public life connecting and integrating public and semi-public spaces and defining a new urban experience.
- **Central Park** (see figure 7.11 no. 5): centrally located green open space should be provided as part of the back-of-beach facilities with lighting, public art, children’s playground with hard and soft surfaces, facilities for public performances and ablutions.
- **McCausland Crescent** (see figure 7.11 no. 6): Upgrade to include landscaping, lighting, urban furniture, art work, signage and on street as well as shared parking
- **Durban View Park**: Upgrading including ablutions and new lookout point, lighting and furniture, incorporating art work such as “The African Carrousel” (collaborative, interactive art work in Bloemfontein, featuring African mythological figures), an opportunity to work with local artists and develop evocative and educational art pieces that could work with wind and water.
- **Umhlanga Lagoon Nature Reserve**: Environmental/botanical centre to promote better use of this facility, providing access to the beach and the lagoon. The space upgrading should be supported to improve visual and security aspects and encourage access to facilities.
- **Beachfront promenade**: Continue with the upgrading and where possible extend opportunities for public gathering and observation points. Look at terraces, boardwalks and lawns (see proposal for Lighthouse Road terraces).

**Phasing** for the development of the precinct will be project driven. There are a number of projects that can act as catalysts such as the pedestrian access to the beachfront and the beachfront upgrade. These could be promoted simultaneously. Some of the projects depend on private/public initiatives requiring further discussion and agreements to determine their viability. These are the Central Square, Lagoon Drive and the Central Park. There are also proposals such as the Tidal Pool that need to be investigated further to understand the benefits they could have on the local economy and the impact on the ecological system.

**7.7.1 Beachfront Facilities**

In addition to the interventions illustrated in the figures, the following is proposed:

- **Lighthouse Road terraces** (see figure 7.11 no. 7): new amenities to take advantage of this unique view site. To include upgrade of accessway, new stairs, viewing platforms providing picnic areas and seating, sunbathing lawns, lighting, landscaping and furniture.
- **Central beach facilities** deck and public “balcony”. To extend lease outlets for al fresco dining etc and release
pressure over public area. It is proposed that an additional space over the existing restaurant with open terraces is included. This must be done in a sensitive manner so as not to affect any views or harm indigenous vegetation.

c. **Upgrading of ablutions and infrastructure at Durban View Park** with the possibility of building a deck over the existing ablutions and providing new cafes or food outlets.

d. **Bronze Beach** Create sunbathing lawns with seating and supported by minimal refreshment facilities.

It should be noted that any commercial activities will require lease agreements that take into consideration residents’ concerns relating to noise levels, operational hours and cleanliness.

7.7.2 **Back-of-Beach Facilities**

Most of these projects depend on public private partnerships to be realised, with UKUSA at the centre of all discussions to provide the financial and strategic support that will be required making them a reality.

**Public Realm**

i. M4Gateway (see figure 7.11 no. 1)

ii. Durban View Park

iii. Central Park (PPP) (see figure 7.11 no.5)

**Public Transport**

i. Transport centre and drop-off points

ii. Visitors Parking

**Environmental upgrade projects**

i. Lighthouse Road, drop-off zone and parking.

ii. Pedestrian-friendly routes

iii. Beach access (see figure 7.11 no.8)

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**Public/private initiatives**

i. Umhlanga central square and “Village Green” (see figure 7.11 nos. 2 & 3)

ii. Public Parking

7.8 **Community Recommended Projects**

The following are the projects identified by community representatives. They have been taken into account in the conceptualisation of the above projects.

- Keep cars, buses etc out of the main pedestrian areas.
- Benches/seats liberally scattered in pedestrian/shopping/promenade area
- Wider pedestrian footpaths along Lagoon Drive
- Make village shopping centre in Chartwell Drive a pedestrian mall
- Re-open pedestrian right of way from Lagoon Drive to Grannies Pool via previous servitude access through previous Umhlanga Hotel grounds
- Build a Parkade between Buxton Centre and M4
- Negotiate allocation of underground ‘public’ parking on whatever is developed on present Plaza site
- Municipality to purchase and demolish Sea Shore complex and turn into a public park/children’s playground
- Preserve existing green lungs and create new ones; create natural soft calming/restful/restorative areas, not more concrete barren harshness
- Beachfront Promenade made and kept pedestrian, plentiful benches, shady patches: Promenade must be conserved as a tranquil haven set apart from commercial activities, so no hawkers of any sort.
7.9 Development Initiatives (see figure 7.21)

There are a number of development initiatives within the precinct that have been assessed and taken into consideration in detail in terms of town planning scheme and development rights implications. The recommendations regarding site development parameters to guide the future consolidation of these sites are separate to this report, as are the implications that these may have on the upgrading of physical infrastructure.
Figure 7.1: Locality Plan
The Concept: to create a legible urban environment centred on two unique experiences

1. The beach promenade that affords views of the sea and access to the beach while leaving it as natural as possible.
2. The back of beach public spine ‘the Ramblas’, that provides a range of public spaces from a community-based, soft park at the northern end to a public event space centrally located close to commercial activities.

The public environment is structured along these two systems which are unique in their own right, complementary and mutually reinforcing.
Figure 7.3: Accessibility

**Precinct Plan**

Proposed road and pedestrian network

**Key**

1. **Mobility Roads**
   - Regional
   - Local
   - Access

2. **Pedestrian**
   - Regional
   - Local
   - Access

3. **Public Transport**

**Figure 7.3: Accessibility**
Figure 7.4: Land Use Distribution

Proposed built form
PRECINCT PLAN

Figure 7.5: Back of Beach Spine
Figure 7.5: Back of Beach Spine

Figure 7.6: The Ramblas

Precedents: The Ramblas, Barcelona

The Paseo, Madrid

Figure 7.6: The Ramblas
Figure 7.7: The Ramblas

Concept Plan

Section through Umhlanga Ramblas showing scale and edge treatment

Proposed public space definition and architectural elements

Proposed Umhlanga Ramblas, centre of public life, linear space accommodating outdoor activities, furniture and landscaping.
Figure 7.8: Beachfront Promenade
Figure 7.9: Legibility

UMHLANGA NODE PRECINCT LEGIBILITY

KEY
1. GATEWAY
2. EDGES
3. LANDMARKS
4. LIGHTHOUSE
5. CORNER TREATMENTS
6. ACTIVITY ROUTES
7. MOBILITY ROUTES

PRECINCT PLAN
Figure 7.10: Open Space
Locality map

Figure 7.11: Catalytic Projects
M4 Gateway

- Lighting
- Landscaping
- Public art
- Signage

Locality map

Figure 7.12: M4 Gateway
Central Square

- Public transport drop-off area and underground facilities.
- Public parking pool
- Integrated public facilities: library; post office; information/promotion centre; satellite police station
- Public artwork
- Village Green
- Lighting, landscaping, urban furniture.

Figure 7.13: Public Amenities / Central Square
“The Ramblas”
Activity spine and public promenade

- On street parking
- Landscaping
- Lighting
- Urban furniture
- Artwork
- Signage
- Shared parking
- Cycle track

Figure 7.14: Lagoon Drive / The Ramblas
Public Spaces
Central Park

- Soft and hard landscaping
- Children’s playground
- Open air concert area
- Public ablutions
- Landscaping
- Lighting
- Urban furniture
- Artwork
- Signage
- Shared parking
- Cycle track

Figure 7.15: Central Park
McCausland Crescent Upgrade

- On street parking
- Landscaping
- Lighting
- Urban furniture
- Art work
- Signage
- Shared parking

Locality map

Figure 7.16: McCausland Crescent
Light Tower Terraces

- Upgrade accessway
- New stairs
- Viewing platforms
- Sunbathing lawns
- Lighting
- Landscaping
- Furniture

Figure 7.17: Beachfront Public Amenities
Beach Access Upgrade

- Formal trading facilities
- Landscaping
- Lighting
- Urban furniture
- Art work
- Signage

Figure 7.18: Beach Access
**Beach Facilities:**
Main / Central Beach

- **Blue Flag** – the main beach complies with the following criteria:
  - Excellence in water quality
  - Environmental education and information
  - Environmental management (cleanliness, waste disposal & recycling etc.)
  - International safety & services standards (professional lifeguards, emergency management, quality of support facilities, safe access etc.)
- **Shark nets, safe swimming, surfing (international), diving & fishing**
- **Need:** Upgrading of Life-saving facilities & emergency management support / first aid facilities, as well as charters “Water-sports Centre / Multi-functional”.

**Secondary Beach** – Blue Flag pilot, swimming, does accommodate some surfing next to the facility,
- **Shark nets & safe swimming**
- **Need:** Repairs from storm; otherwise facility only two years old.

- **Rock-formations:** recreational snorkelling, netting of fish for children, educational aspect.
- **Promenade**
  - **Beach-front Pathway** – strolling, walking, jogging (distance markers) & access, with viewing areas & rest places.
  - **Environmental link** – indigenous plant identification, numbered on lamp poles & linked to handbook from Wildlife & Environmental Society.
  - **Storm damaged** (1/3 of walk way; R 40million) – parts have been damaged by recent storms; repairs are currently under way.
- **Upgrade project:** Plans in place for physical upgrade (some impacts by this study); has gone through public process; awaiting ROD from DAP.

**Figure 7.19: Current Projects**
Proposed Tidal Pool

- Added Facility – to provide increased swimming opportunity that is safe, environmentally sensitive and cope with additional demand. Planned to be 3rd Blue Flag facility.
- EIA under way – a number of issues raised from EIA, and alternative location proposed: Black Rock.
- New stormwater pier - which has engineering & leisure functions, adding to the promenade experience.
- Under Construction – pier is in the process of construction; estimated completion end 2007.
- Further Investigation – Black Rock, current EIA terms of reference extended, for equal assessment.

Durban View Park

- Public Park – access point to promenade with vehicle parking facility. Also used for picnicking.
- Future link with the Ridge
- Part of the Promenade Upgrade.

Figure 7.20 Current Projects
Figure 7.21: Current Initiatives

8. URBAN DESIGN CODES AND DESIGN GUIDELINES

This section includes the urban design codes to guide the development of the core area and architectural guidelines. It makes recommendations regarding the way forward in terms of the status of the Precinct Plan. It needs to be read in conjunction with annexure 1: Towards a vision for the future development of Umhlanga Rocks.

8.1 Vehicular Environment

8.1.1 Establish a road hierarchy and linkages which improve traffic and pedestrian circulation and accessibility.

Main Connector roads such as Lighthouse Road, designed as main access route linking with other activity nodes. Reinforce character with drop-off zones, signalised pedestrian crossings, bus stop facilities, hard and soft surfaces and landscaping along Lagoon Drive as an activity spine and shuttle route (with paved sidewalks, drop-off points, seating etc.), and Ridge Road extension and Lighthouse road as a mobility spine and McCausland Crescent and Lagoon Drive as sightseeing routes. Egret and Campbell intersection to be upgraded to strengthen linkages to and from the western suburbs.

Local access roads such as Ocean Road, Chartwell Drive, and Weaver Road designed as activity streets, with shared pedestrian
walkways, crossings and street furniture. Semi-pedestrian environment along Lagoon Drive between Lighthouse Road and the intersection with Flamingo Road, to be created with widened sidewalks and frequent pedestrian crossings.

8.1.2 Establish an intermodal facility and associated public infrastructure (e.g. transport square, public amenities, transport information office, ablutions, emergency and civil protection etc) centrally located if possibly under the main central square for convenience and legibility.

8.1.3 Parking contained in pockets with convenient and easy circulation, linking with pedestrian walkways and treated as urban space.

8.2 Pedestrian network

8.2.1 Development of a continuous pedestrian network and incorporation of a hierarchy of public spaces (courtyards, plazas, parks, malls, promenades) at nodal points in the network. Extend pedestrian network along Lagoon Drive between Lighthouse Road and Flamingo Road, and along McCausland Crescent, Lighthouse Road and main access to the beachfront.

8.2.2 Pedestrian network defined by buildings with active frontages at ground floor level to create interest and support pedestrian movement.
Backs of buildings facing public space to be activated and treated more sympathetically.

8.2.3 Improve signage management for orientation and identification purposes. Provision of clear signposting of routes to bus stations, public facilities and major buildings, including illuminations, where appropriate.

8.2.4 Clearly defined and celebrated gateways at main accesses to include information on locality of activities and places.

8.2.5 Informal trade policy potential with minimum requirements for circulation, amenity lane, support facilities (e.g. parking and storage, ablutions, refuse) and landscaping along activity spine and activity streets.

8.3 Environmental improvements

8.3.1 Develop a unique character for the Umhlanga Node as a unique destination for tourists and day visitors

8.3.2 Enhance orientation and image by creating gateways and landmarks. Focal landmarks limited to important locations to act as pointers, highlight uses and focus views.

8.3.3 Define the street space and road grid through the introduction of elements such as structural planting, gateway structures, corner elements and other features. Facilitate and improve pedestrian movement by route markers, street
8.3.4 Respond to microclimatic conditions by promoting human comfort and enhancing the pedestrian environment – covered or treed sidewalks, arcades, awnings, seating etc

8.3.5 Create a system of space for civic life, public gatherings and recreation. A central square to act as a focal point to the precinct and a gateway/landmark feature.

8.3.6 Width restrictions, bollards, raised surfaces, marked pedestrian crossings, traffic circles etc used as traffic calming measures and to encourage safe pedestrian and vehicular movement. Raised and widened pedestrian crossings to slow down traffic where possible.

8.3.7 Co-ordination of paving, street lighting, signs, street furniture, road crossing points, landscaping and other public utility requirements to create identity and character.

8.3.8 Promote development of a network of green open spaces and green links connecting the areas to Durban View Park and the Umhlanga Lagoon Nature Reserve.

8.4 Mixed Use

8.4.1 Promote activity-generating uses (shops, services, small business and offices) at ground-
floor level to create interest and support pedestrian movement.

8.4.2 Promote an optimum variety of uses in a compact, mixed use development and a range of activities on a neighbourhood level (restaurants and cafes, entertainment, recreation etc.). Support commercial use along main activity routes to strengthen pedestrian spines.

8.4.3 Promote residential use in a mixed use environment in order to maintain vitality outside normal working hours and increase passive surveillance to improve safety and security.

8.4.4 Promote medium density residential along the precinct edges and small business development such as B&Bs to support the tourism industry and encourage local economic development.

8.4.5 Mixed use activities are to be promoted in the core precinct area. Activities outside of this area to support daily convenience, beachfront and tourism (i.e. limited local convenience retail, fast-food outlets and no restaurants etc.)

8.4.6 Avoid long, blank, harsh building facades facing the pedestrian environment. Banks and medical suites should be placed on the mezzanine or second floor.
8.4.7 Encourage mix of housing and holiday/business accommodation types – town houses, flats, maisonette style, and small unit accommodation.

8.4.8 Encourage the development of centrally located community and cultural facilities.

8.4.9 Discourage the location of filling stations, car show rooms, and large scale retail along main activity corridors and around public spaces.

8.4.10 Promote retail development to create active frontages along main pedestrian routes and around public squares and places, for good edge definition and urban quality.

8.5 Densities

8.5.1 Define appropriate residential densities in the central precinct that will support public transport while protecting amenities. The critical density for sustainable development is 100 people/ha (40-50 d/ha) (Barton et al, 1995), with a desirable density of 150 du/ha. Areas within the precinct have the potential for higher density residential developments as detailed in section 6 and table 6.1.

8.5.2 Promote residential development at the appropriate level of density, as directed by the Precinct Plan. Zone 1 - Core area: 69 du/Ha, Zone 2: Remainder of Node - 77.88 du/Ha.
subject to availability of services and other criteria such as listed below.

8.6 Bulk, massing, coverage, and FAR

8.6.1 The requirements of the Town Planning Scheme to continue to apply. Amendments to the TPS can be applied for to access additional development rights (bulk/FAR) in the core area as recommended in section 8.5, subject to services infrastructure availability, adequate parking, improvements to the public realm and compliance with all statutory requirements in terms of traffic and environmental impact assessment.

8.6.2 Coverage for General Commercial 1 is 75% as per the town planning scheme. Use the remaining 25% to create open space and greenery in developments, provided pedestrian through routes are integrated into the surrounding urban fabric. The maximum block size should be 1 hectare.

8.6.3 Integrate large commercial buildings' mass into the silhouette of surrounding buildings or open spaces by stepping down or up, use of sloped roofs, terracing etc, thus providing opportunities to hide bulk from public view.
8.7 Building height

8.7.1 The existing town planning scheme is the overall guiding document in terms of height control. In addition the following need to be taken into account.

8.7.2 All developments must comply with the eThekwini Minimisation of Shadows Policy which guides development along the coastline.

8.7.3 A visual impact assessment of every proposed development in the node shall be conducted, including a “view sheds” analysis to indicate areas that can be seen from given points, to be reviewed by the Design Review Committee.

8.7.4 Appropriate building height controls shall be defined by the Design Review Committee for specific critical sites in relation to important views and vistas, in order to guide and manage building height and built form.

8.7.5 For good definition and urban quality, uniform height and active building frontages around large public squares and activity corridors of no more than four storeys, should be promoted.

8.7.6 Encourage developments of a uniform height in each zone to define the gradual transition from the beachfront high rise edge to a more medium to low rise around the precinct central area.
8.7.7 Residential developments of two to three storeys are most sustainable to create a village type atmosphere, with four to five storeys a practical maximum, and no house’s entrance more than one and a half storeys above the street. This should be encouraged around the node edges.

8.8 Block Structure and Urban Grain

8.8.1 Scale and building form of new developments should be human in scale, and dictated by adjacent buildings and the character of the street.

8.8.2 Promote perimeter block courtyard development which defines the edges and creates enclosed public space.

8.8.3 Create finer urban grain by breaking up large blocks and incorporating public pedestrian routes, internal lanes and open spaces.

8.8.4 Proportion enclosure ratio of height to space or street width within the range of 1:1 to 2.5:1 height to width for better definition and containment.

8.8.5 Urban grain developments around the village core should emphasise and reinforce the established spaces and movement routes and a “townscape” which contributes to the character of the area.
8.8.6 In historic context, existing morphology and grain, architectural styles and details, walls, cornices and entrances, or presence of landscaping should be respected, preserved and sensitively incorporated into new developments. Buildings with symbolic or special character in the precinct are the Oyster Box Hotel, the house adjacent to the Beverly Hills Hotel (site 3128), the house located on site 2417 on McCausland Crescent and others developed more recently such the Oyster Box Towers. These should be used to provide architectural clues to new development to give the precinct a consistent scale and character.

8.9 Edge Treatment and Landmark Buildings

8.9.1 Frontage development should be compatible with the existing street pattern with little deviation from the general building line, in order to define a uniform, continuous public space network. A projection or a recess may be a useful design feature in some cases.

8.9.2 Build-to-line along selected street frontages to define edges and create streets with urban quality.

8.9.3 Specific edge treatment recommendations to promote human-scale, comfort and protection – arcade treatment, internal.
8.10 Management Structure and Public Safety

8.10.1 Possible establishment of a Business Improvement District or similar type of structure for efficient management and maintenance and promote sense of ownership.

8.10.2 Promote Cleanliness, safety and security campaign to raise awareness among local residents and general users.

8.10.3 Public areas orientated in such a way that they are overlooked by buildings, provided with sufficient lighting and visibility from the roads.

8.10.4 Pedestrian routes should be well lit, designed to avoid corners and blind bends, no blank walls, alternative day and night routes. Metal railings used in preference to walls and fences to promote natural surveillance.

8.10.5 Public and private open areas must be clearly defined, with sensitive edge treatment, no land with unclear ownership or responsibility.

8.11 Design Guidelines

8.11.1 Built Form Controls

Views: The Umhlanga node has a magnificent seaside setting with elevated views to the beachfront and over the ocean. It is important
that these views are maintained without infringing on redevelopment rights

**Vistas:** The built form or massing should retain view corridors and vistas. The building design is to avoid the development of a “wall” parallel to the beach front. A tower type structure is recommended. **The building depth:** Related to building use. Typically, mixed use buildings have larger commercial/retail floor plates combined with narrower/smaller residential floors.

**Floor plates:** Recommended ground floor retail should be between 15 and 17m, offices 12m and residential 10m.

**Floor to ceiling height:** As defined in the town planning scheme, recommended is ground floor retail and entrance lobbies 4.5m, office 3.6m and residential 3.0m

**Building separation:** The overall controls aim to direct the design and development of sustainable high quality buildings which minimise the need for artificial heating, cooling and lighting. These are to improve the internal amenity of the building for retail, office and residential environments. Controls include providing windows that open onto all living and working environments.

**Articulation zones:** Buildings are to be articulated through the use of atria, light wells and courtyards to achieve substantial day
lighting at every level, and cross ventilation and/or stack effect ventilation.

8.11.2 Public Environment

Midblock connections
- To extend the existing pattern of connections present in the general commercial area.
- Pedestrian access ways must be no less than 3.5m wide to allow for visibility and ease of movement.

Colonnades/Arcades- Buildings with active frontages are required to have arcades and/or colonnades integrated with the sidewalk

Arcade/colonnade minimum width 3m, optimum 5m.

It is envisaged that sidewalks will be a minimum of 5m width (area in the road reserve). The colonnades/arcades height range 4.5m to 6.0m and made of robust materials

Building entrances- Building entries define the threshold between the street and semi-public/semi-private areas within the building. They contribute to the identity of a development. Design controls include:
- Locating entrances to relate to the existing street and subdivision pattern, street tree planting and pedestrian circulation network
- Designing the entry as a clearly identifiable element of the building
- Ensure clear site lines and equal access for all
The entry must be well sheltered, highly visible, well lit and of large enough for
- entry, waiting, meeting and foyer functions (security, post boxes etc.)
- Generally provide separate entrances for cars and pedestrians, as well as different uses.

Awnings/shading devices - Awnings increase the usability and amenity of the pedestrian environment by protecting pedestrians from the elements. They encourage pedestrian activity along streets and, in conjunction with active edges such as retail frontages, support and enhance the vitality of the precinct. The awnings provide a public presence and interface with the public environment and contribute to the identity of a development. The following controls need to be considered:
- Consistent height between developments
- Within a 15° angle to the horizontal
- Height to range from 3.1m to 4m (clear soffit height)
- Reflecting glass or similar material not to be used
- Must complement existing pattern of awnings/colonnades
- Must be located over entries into buildings
- Must include under awning lighting to enhance safety for pedestrians
- Should be stepped in relation to street level changes
- Special features and variations in shape permitted at entries and/or special corners.
**Façade Treatment** - Façades are the external face of buildings in the public environment and within a site. The architectural elements of a building contribute to the character and design of the public environment. High architectural quality requires the appropriate composition of building elements, textures, materials and colours and reflects the use, internal design and structure of a development.

**Façade Articulation and Rhythm**: The façade articulation, composition and detail has an impact on the building’s apparent scale as well as its appearance. The pattern or rhythm established by proportions of the façade, the modulation of the external walls, the design of façade elements, their materials and their detailing are all important considerations.

**Controls include:**

**Elements**: The number and distribution of elements across a façade determine simplicity or complexity. Columns, beams, floor slabs, balconies, windows, doors, balustrades, roof forms and parapets are elements, which can be revealed or concealed and organised into simple or complex patterns.

**Modulation**: Compose façades with an appropriate scale, rhythm and proportion, which responds to the building’s use and the desired contextual character.
**Design considerations** should include:

- defining a base, middle and top related to the overall proportion of the building.
- expressing key datum lines in the context using cornices, a change in the materials or building set back.
- expressing the internal layout of the building, for example, vertical bays or its structure, such as party wall-divisions.
- articulating building entries with awnings, porticos, recesses, blade walls and projecting bays detailing.
- balustrades to reflect the type and location of the balcony and its relationship to the façade details and materials.
- using a variety of window types to create a rhythm or express the building uses.
- incorporating architectural features which give human scale to the design of the building at street level. These can include entrance porches, awnings, colonnades, pergolas and fences.
- provide richness of detail and architectural interest especially at visually prominent parts of buildings such as lower levels.
- use recessed balconies and deep windows to create articulation and define shadows thereby adding visual depth to the façade.

**Orientation:** Design façades to reflect the orientation of the site using elements such as sun shading, light shelves and bay windows as environmental controls.
**Corner Treatment:** Express important corners by giving visual prominence to parts of the façade, for example, a change in building articulation, material or colour, roof expression or increased height.

**Building Services:** Coordinate and integrate drainage pipes etc, with overall façade and balcony design

**Security devices:** Coordinate bars/screens, ventilation louvres and car park entry doors with the overall façade design.

**Garage entries:** Integrate with the design of the building façade, and locate on a secondary street where possible.

**Architectural style:** If appropriate, building façades are to consider the historical subdivision of buildings, and be guided by the envisaged architectural style for that portion of the precinct.

**Balconies:** Balconies and projections enhance the amenity of buildings. They provide additional open space for social interaction in office buildings, extend the living spaces of the apartment and capitalise on the temperate climate. Balconies are also important architectural elements, contributing to the form and articulation of the building. They must be integrated into the overall architectural form and detail of the building. They also contribute to the safety and liveliness of the street.

**Roof designs:** The roof design must be integrated into the overall façade and building composition. It must also create a visually
interesting skyline when viewed from the street, other buildings and surrounding areas.

8.11.3 Building Performance

Energy efficiency & conservation - This is enabled by the ability of the building to optimise thermal performance, thermal comfort and daylight. Measures must reduce the necessity for mechanical heating and cooling, minimise greenhouse gas emissions and use the natural climatic advantages of Umhlanga’s coastal location such as cooling summer breezes, and exposure to unobstructed winter sun. Controls are to include:
- Assessment of energy performance requirements and consumption levels (these will have to be established)
- Incorporation of passive solar design techniques to optimise heat storage in winter and heat transfer in summer by
  - maximising thermal mass in floor and walls in northern rooms of buildings.
  - Insulating roof/ceiling/external walls to minimise overshadowing.
- Improve the control of mechanical space heating and cooling by targeting heating/cooling systems to particular areas, maximising natural ventilation, and including adjustable awnings and blinds.

Green Buildings – http://knowledge.allianz.com
**Waste management** - The minimisation and management of waste can contribute to the visual and physical amenity of the building as well as limiting potentially harmful impacts on the environment. Minimising waste is relevant to all stages of the building’s lifecycle, from construction to demolition. It also includes the way in which waste is stored and collected. Controls include:
- Encourage waste minimization, including source separation, reuse and recycling
- Incorporate existing building elements where appropriate and possible
- Provision of efficient storage and collection of waste and quality design of facilities
- The integration of waste management processes into all stages of the project, including the design stage.
- Include on-site composting if possible
- Appropriate location of storage areas and disposal of waste according to eThekwini regulations

**Water conservation** - Establishing improved water efficiency by reducing per capita potable water demand from the mains and by re-using water, which would otherwise be lost, as run off or waste water. Controls include:
- Requirement to harvest rainwater (through rainwater tanks) and urban storm water runoff (retention ponds where applicable).
- Option to install two separate water piping systems: potable and grey water.
- To capture, treat and reuse waste water where appropriate.
- Appropriate use of fixtures and appliances that reduce water consumption/greater water efficiency.
- Requirement to cover swimming pools.
- The utilisation of grey water for landscape irrigation, car washing and hard surface area cleaning.
- Water efficient landscapes: indigenous vegetation and efficient water deliver systems (e.g. drip irrigation).

**Minimise Sunlight Reflection** - This is to reduce potentially hazardous glare for pedestrians and motorists. It is also to avoid additional heat load on other buildings. Control is:
- No reflective glass allowed on any building.

**Wind mitigation** - Windy conditions can cause discomfort and danger to pedestrians, and downdrafts from buildings can inhibit the growth of street trees. Conversely, moderate breezes that penetrate the streets enhance pedestrian comfort and disperse vehicle emissions and air-conditioning plant exhausts. Redevelopments and new developments are to satisfy nominated wind standards and maintain comfortable conditions for pedestrians. Building design should minimise adverse wind effects. In accordance with the controls to ensure public
safety and comfort the following maximum wind criteria are to be met by new buildings:
- 10 metres/second in retail streets
- 1 metre/second along major pedestrian streets, parks and public places
- 16 metres/second in all other streets

General principles are as follows:
- Set tower buildings back from lower structures built at the street frontage to protect pedestrians from strong wind downdrafts at the base of the tower.
- Ensure that tower buildings are well spaced from each other to allow breezes to penetrate.
- The shape, location and height of buildings are to be designed to satisfy wind criteria for public safety and comfort at ground level. The usability of open terraces on buildings depends on comfortable conditions being achieved.
- A Wind Effects Report is to be submitted for all buildings of more than 4 storeys.

8.11.4 Signage and advertising

Signage - Signage and advertising are important elements of the built environment in the Umhlanga Precinct. General signage and advertising directives are intended to protect the significant characteristics of buildings, streetscapes, vistas and the ocean views. Refer to the guidelines in section 6.6.4. Signs should be well designed and positioned signs to contribute to the vitality and legibility of the

Existing signage which could be redesigned to create a coherent brand for the Node
node and respect the amenity of residents, pedestrians and the safety of motorists. The overall objective is to ensure that all signage and advertising achieves a very high level of design quality in terms of its graphic design and relationship to the architectural design of buildings and the character of streetscapes. Controls include:
- comply with eThekwini's advertising and signage policy.
- conform to detailed signage and advertising master plan for the Umhlanga Node Precinct, including management and monitoring to ensure compliance (to be established).

**Street furniture** - lighting, seating, and dustbins to comply with the Precinct design.

Indicative urban furniture that could be developed with local artists to enhance special places

Stainless steel furniture suitable for sidewalks and main public spaces
8.11.5 Safety and Security


Safety in Design
“The design of new developments and alterations to existing developments should promote community safety, having regard to the principles and objectives of ‘Secured by Design’. These principles include designing public spaces and accessways so that they are overlooked by developments provided with good lighting and clear sight lines to ensure good visibility. Further information is provided in the ‘Designing Out Crime SPG’."

Existing areas should be improved as follows:

- Increase the overlooking of public areas
- Prevent the creation of dark or secluded areas;
- Provide and maintain adequate lighting;
- Make a clear distinction between public and private space and provide ‘defensible space
- Prevent the creation of secure enclaves which do not contribute to the security of the area as a whole;
- Make houses and flats secure;
- Increase the use of public areas by encouraging mixed land uses;
- Maintain or improve pedestrian and road safety.

Increasing Natural Surveillance
Houses and flats should be designed to have habitable rooms overlooking the street or public areas. Commercial premises and live/work properties should, where possible, have offices or other regularly occupied rooms facing the street or public area. Solid security shutters are discouraged because of their deadening effect and susceptibility to graffiti. Footpaths bounded only by blank walls should, where possible, not feature in plans.

Parks, communal gardens, play areas, parking areas and other public open spaces should only be laid out where they are directly overlooked by regularly occupied buildings or supervised by staff and closed when not staffed. Play areas in residential locations should be overlooked by the houses and flats they serve.

Residential developments should provide for a mix of occupation, thereby helping to ensure life, activity and passive surveillance at all times of the day. Large developments in non-residential or mixed development areas should contain a range of uses at ground level to encourage life and activity throughout the day, weekends and evenings.

Preventing Dark, Secluded or Remote Areas
Footpaths away from busy routes should be wide and have clear visibility without blind corners. Such footpaths should have a definite purpose with some guarantee of reasonable levels of usage. Paths and alleyways simply providing access to the rear of developments should be avoided unless gated or afforded adequate natural surveillance.

Pedestrian access should concentrate pedestrian traffic to increase passive surveillance and maximise informal policing.

Public pedestrian subways are not acceptable.

Enclosed public or semi-public areas such as stairwells should be avoided and only allowed where there is guaranteed supervision at all hours.
Features such as archway entrances refuse stores, parking courts and service roads need to be carefully designed to prevent the creation of dark or heavily shaded areas, lacking natural surveillance, and potential hiding places.

Tree and shrub planting schemes should be carefully planned.

**Providing ‘Defensible Space’**

There are four types of space, which are:

- **Private** Under the total control of the occupant and not visually or physically accessible to the public e.g. a rear garden or yard;
- **Semi-Private** Under the control of the occupant but visually or physically accessible to the public e.g. the front garden of a house;
- **Semi-Public** Under the control of, or within the area of responsibility of a specific group of occupants and accessible to the public e.g. communal parking area;
- **Public** Where the general public has access by right e.g. public open space, roads and footpaths.

Spaces that are unclear as to boundaries, ownership and responsibility are more likely to be prone to criminal activity and vandalism. Therefore creating clearly defined boundaries between public and private spaces can assist in reducing criminal and anti-social behaviour. Similarly, good design that supports community interaction will help to deny criminals anonymity.

In residential developments, access to communal open space should be controlled, i.e. it should be fenced, gated and overlooked. Residents should be able to watch over the entrance to their house or flat. There should be clearly defined “defensible space” separating the public footway from the frontage (or any façade with a door or window on

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**Natural Surveillance & Defensible Space**

(Source: Bentley et al, 1985, Responsive Environments)
ground level) on residential buildings. Similar defences should be designed into the private areas of commercial developments.

Private gardens should be protected from easy access or overlooking from public areas by the provision of a strong fence, at least 1800 mm high, preferably with additional trellis topping.

**Lighting**

In general lighting should be of a standard that prevents the creation of dark, shadowed areas and would allow the positive recognition of a person's facial features at a distance of four metres.

Public areas should be especially well lit during all hours of darkness, taking care, however, not to disturb homes or other sensitive uses.

Types and locations of fittings should be selected for ease of maintenance. Care should be taken to avoid unnecessary light pollution of the sky.

Street light columns should be located away from boundary walls to private areas, to avoid their use as climbing aids.

Many of the above requirements will be satisfied by the use of high-pressure sodium lighting. Low level and bollard lighting should not be considered, other than as cosmetic enhancement to the lighting mentioned above.

**Communal Areas**

- The number of entrances to a block of flats should be kept to a minimum.

Common entrance halls should not have corners or recesses, which could serve as hiding places. These areas should be well lit, controlled by a photo-electric cell or time switch.

Access to roof spaces in communal areas should be avoided

Utility meters should be so located as to avoid the need for meter readers to enter the premises.

Wherever possible, additional storage, including cycle stores, should be located within the curtilage of each dwelling.

Where possible, drainpipes should be sited within the structure of the building. External pipes which are likely to provide potential access for intruders should be constructed of lightweight materials and secured with minimum strength fixings.

Electronic alarm systems are not substitutes for physical security, rather enhancements to it.

**Shops**

Town centres and retail premises can often be targets for crime. Retailers can adopt a number of measures to make their premises more secure. Security measures on shop frontages have the greatest impact on the appearance of the premises and the wider area, especially outside normal shopping hours. Special care should therefore be given to their design and appearance. The following factors should be considered:

The installation of external roller shutters is a frequently used solution for shop front security. However their use can give rise to conflict between the need for effective crime prevention measures, and the need to maintain or improve the environmental quality of an area;
Solid shutters can have an adverse environmental effect, giving the area a dead appearance and contributing to the creation of a hostile atmosphere. In addition, they eliminate window shopping and reduce lighting by cutting out light spillage from the premises in to the street;

Shutters themselves can become a target for graffiti and vandalism;

External shutters are only one of a number of possible security measures. Others include the use of laminated and toughened security glazing, or the installation of internal grilles;

Security is also important at the rear of premises. Shops with servicing yards should have lockable gates, and should be well lit; Consideration may need to be given to protection of premises from ‘ram-raiding’ by vehicles. The use of carefully designed and sited street furniture can contribute to resolving this problem, or failing that suitably designed bollards may be considered.

**Commercial and Industrial Buildings**

Commercial and industrial buildings can take a wide variety of forms, and the security considerations can therefore differ. The following guidelines should however be followed:

Pedestrian access to commercial buildings should be directly from the street to an entrance on the frontage of the building. This forces activity on to the street, increasing natural surveillance;

Boundaries should be well defined but boundary treatments such as fencing and landscaping should not obscure views into any particular premises. Opportunities for natural surveillance from adjacent/nearby premises and from roads and foot and cycle paths should be exploited;

Mixed use schemes such as office, residential and retail, offer the potential for increased surveillance resulting from opening hours being extended beyond the normal commercial day;

CCTV should be used where possible and be highly visible to act as a deterrent. Where commercial or industrial developments are proposed within an area that has special collective security measures (e.g CCTV), the developer may be required to contribute to the costs of those measures and a planning agreement may be sought accordingly;

Storage areas should be designed to prevent easy unauthorised access and include substantial doors, gates and locks. They should not allow opportunities for climbing into these facilities and should be placed away from other structures if their contents may pose a fire risk.

**Pedestrian Routes, Footpaths, Cycle Routes and Alleyways**

The design of footpaths and cycle routes should follow the general of principles of overlooking and visibility outlined above. In addition the following factors should be considered:

- Routes should be as direct as possible and take account of the desire lines of users;
- Routes should offer a high degree of ‘permeability’ through an area, i.e., they should offer a finely grained network of routes, which provide both a choice of alternative routes and the shortest distance when moving from one place to another;
- Routes should offer a high degree of ‘legibility’, i.e., they should be easy to follow and avoid the risk of getting lost or of needing to retrace
• one’s steps;
• They should be as wide as possible;
• They should have open areas to each side to allow good visibility along their length;
• They should avoid sharp or blind corners, tunnels and hidden alcoves;
• Where appropriate, the routes should be well and uniformly lit at night. However where such routes are not intended for use at night, then lighting should be omitted.
9. WAY FORWARD

This draft report presents the findings that came out of the situation analysis and make proposals to achieve the vision and development objectives set up to guide the future development of the Umhlanga Rocks node. The principles and guidelines described in previous sections will be refined incorporating the input received from various departments. Further to the approval of this Precinct Plan, the Council should consolidate the guidelines into an Urban Design Tool Kit produced in consultation with the managing body highlighting the design intentions. The Urban Design Tool kit can be used to brand the precinct and promote design excellence and quality living, economic investment, job creation and sustainable growth.

9.1 Town planning issues

Annexure 1 focuses on issues related to the advantages and disadvantages of the amendment of the town planning scheme and this will be discussed further with the relevant parties. Reaching to a final recommendation will require the input of a legal adviser to assess the benefits for the Council to engage in such a process.

9.2 Statutory Status

The purpose of the Precinct Plan is to “guide “development over time. To turn it into a document that becomes statutory will require legal input.

The consultant team, guided by the Development Planning Unit, will investigate the process and procedures required to give the Precinct Plan statutory status.

9.3 Site Development Parameters

On the approval of the Precinct Plan, it is recommended that additional work is undertaken to provide site specific parameters for what are considered to be key sites for redevelopment or upgrading. These guidelines will assist with the assessment of proposals.

9.4 Urban Management

To ensure the successful translation and implementation of the Precinct Plan it is recommended that a Development Manager is appointed as well as a Design Review Committee. This is discussed in more detail in section 10 and annexure 1.

9.5 Public Private partnerships

The eThekwini Municipal Council recognised the importance and role that the node plays at local and regional level and the need to make its natural and recreational facilities more “accessible and democratic” by promoting the upgrade of public spaces and attending to the beach rehabilitation programme which is of paramount importance for the area to regain its appeal as a tourist destination. This will require the establishment of a strong public private partnership around the initiatives and projects promoted by this Precinct Plan. This is further elaborated in section 10.
10. IMPLEMENTATION PLAN AND MANAGEMENT STRATEGY

10.1 Purpose

This section completes the Precinct Plan by identifying projects, priority actions, tools, factors and key stakeholders that need to be considered and managed to ensure sustainable implementation the Precinct Plan.

The Precinct Plan for Umhlanga Node Precinct Plan is a medium to long term strategic plan for the precinct. It is aimed at co-ordinating and guiding the efforts and actions of both the public and private sector towards a common development vision and objectives contained in this Precinct Plan. It also serves as a tool to help the municipality ensure that it is able to respond proactively and effectively to significant private sector investment interests that the precinct is attracting.

There is a recognition and consensus by all stakeholders (community, private sector and public sector) that the precinct needs to attract and accommodate investment that can help it to remain competitive as a tourist destination. Whilst the new private sector investment into the area presents a development challenge to the municipality and local residents, it is on the other hand an opportunity to ensure that the precinct as a residential and tourist destination reaches its maximum potential and therefore increases its contribution to the City’s economic growth and development.

The local community have expressed a strong desire for the renewal of the precinct to happen without the loss of the “urban village” character and other unique amenities of the precinct. Whilst, this concern has informed the preparation of the Precinct Plan in its urban design strategy and framework, an integrated implementation strategy is considered critical to ensure sustainable implementation of identified projects and also to ensure that concerns and aspirations of the local community are addressed in the process.

This Implementation Plan also offers a link between the Precinct Plan and the next stage of the process, which should involve detailed planning or feasibilities of various projects that have been identified. The implementation plan also emphasises the need for the process to involve planning for the post implementation stage of identified projects.

10.2 Key Informants

The following factors have informed the preparation of this Implementation Plan and Management Strategy:

- Key development issues identified in meetings with stakeholders and also in technical investigations undertaken
- Planned public and private sector investments into the area, which involve building and infrastructure development projects
- The limitations on the municipality in that it can only make capital investment and have a visible influence on the development direction of the precinct on land that it owns.
- The development vision, objectives, design principles and concepts in this Precinct Plan
• The urban design framework for the precinct, which is a key component of this Precinct Plan
• Implementing municipality departments, municipality organisation and operations
• Local community initiatives, which includes the UIP (upper and lower parts of Umhlanga)
• Key stakeholders in the precinct
• The fact that the detailed design stage is to follow the Precinct Plan stage

10.3 Key Project Areas

The following are areas where projects have been identified for implementation. A detailed description of each project is given in section 7.7 and in the project spreadsheet in annexure 5.

1. The beachfront promenade
2. Urban management intensification
3. Development facilitation
4. Regional connectivity and accessibility
5. Upgrade of engineering services and utilities
6. Public/community facilities
7. Back of beach public spine “the Ramblas” co-ordination with municipal work. These developments include UKUSA, the Pearls, Oyster Box, Beverley Hills, Granada Centre and Umhlanga Centre.

10.4 Prioritisation and Phasing of Projects

The implementation of projects will necessarily have to be phased and prioritised to address resource constraints and promote a co-ordinated development with the private sector. The following criteria have been applied to propose phasing and prioritisation.

Criteria:
• catalytic and flagship projects – encourage and support new investments and increase confidence of existing investors in the precinct;
• indicate a proactive and positive response to the needs and likely impacts of new investments;
• protect and increase the value of features that are unique and critical to the attraction of the precinct as a tourist destination of international appeal;
• respond to issues identified in the stakeholder engagement as current key concerns and priorities to address towards ensuring that the precinct becomes a sustainable urban village backed up by its economic role as a tourist destination;
• projects for which the municipality has already committed budget and other necessary resources. The implementation of these projects will happen as soon as Council approval of the Precinct Plan is secured. Their implementation will help to maintain the momentum and support that has been secured from stakeholders around the project;
• critical to ensure that the precinct is positioned to benefit from FIFA 2010 World Cup; and
• those projects that are within the municipality owned land.
Project & Phasing prioritisation

<table>
<thead>
<tr>
<th>Projects</th>
<th>Prioritisation</th>
<th>Phasing</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td>2007/08</td>
</tr>
<tr>
<td>Beach Promenade</td>
<td>1</td>
<td>❌</td>
</tr>
<tr>
<td>Urban Management Intensification</td>
<td>2</td>
<td>❌</td>
</tr>
<tr>
<td>Development Facilitation</td>
<td>3</td>
<td>❌</td>
</tr>
<tr>
<td>Upgrade of engineering services &amp; utilities</td>
<td>4</td>
<td>❌</td>
</tr>
<tr>
<td>Beachfront development</td>
<td>5</td>
<td>❌</td>
</tr>
<tr>
<td>Gateways / Legibility</td>
<td>6</td>
<td>❌</td>
</tr>
<tr>
<td>Back of the Beach Spine (Lagoon Drive)</td>
<td>7</td>
<td>❌</td>
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<tr>
<td>Public / community facilities</td>
<td>8</td>
<td>❌</td>
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- **Priority 1:** The Beach Promenade project should receive first priority. It is already budgeted for and there is already substantial planning work done. The watching brief to private sector new property developments should also receive first priority. This will involve an ongoing monitoring, coordinating, managing and alerting the municipality of impacts and any changes created by these to the municipality-driven projects. There is also a need to inspect and ensure that these private sector investments are implemented within design and planning guidelines and standards agreed with the municipality. This is a critical project given the sensitivity and concerns that some of these developments have created in the community. The implementation of this project can start in the current financial year (2007/08).

- **Priority 1:** Urban Management Intensification is considered critical throughout the whole implementation and post implementation phase. It is essential to create an environment conducive and attractive to existing investment, existing business growth and new investment to increase the economic value of the precinct to the City. Such an environment is also critical to the sustainable successful implementation of the precinct plan and all identified projects, which is an initiative of the municipality. The private sector (i.e. commercial and income-generating residential property owners) have already taken the initiative. The Promenade UIP has already been set up and plans are at an advanced stage to set up the Umhlanga Village UIP. This project should enable the UIP structures to lead this project, which can involve the municipality fast tracking the endorsement of the application submitted for the Umhlanga Village UIP. This UIP should start to operate in the current financial year (2007/08).

- **Priority 1:** Development Facilitation will involve the appointment of the Development Manager, who will be dedicated to manage the implementation of the precinct plan starting with the detailed designs of identified projects. The Development Manager will also be charged with the responsibility of promoting, building, managing and coordinating a constructive and synergistic partnership between the City, other public sector agencies and the property developers behind new investments in the node.

- **Priority 2:** Upgrading of engineering services and utilities will involve the upgrading of services such as sewer services, which may come under pressure due to an increase in
residential and other developments. In addition, as a result of road upgrades and realignment, there will be a need to upgrade or relocate services such as stormwater, water, electricity and telecommunications.

- **Priority 3: The widening of the bridge**, which is part of the M4 and Lighthouse Road intersection will be critical to support and respond proactively to the impact created by the new developments in the precinct node. The upgrade of some of the engineering services especially the sewer pump station and stormwater management should start as part of this priority. The design development of this project should start in the current financial year for implementation to happen in 2008/09 financial year.

- **Priority 3: The upgrade of M4/Egret Rd intersection as an alternative south access point** is important to relieve the M4/Lighthouse Road of pressure and therefore improve access. It is however not urgent and can be delayed possibly to be started in the 2011/12 financial year. It will however, be useful to undertake a detailed feasibility (in the design development stage) of this project together with that of the Umhlanga ridge access link in the current financial year.

- **Dependent on UKUSA Plan: Back of the beach project (Lagoon Drive – “The Ramblas”)** will be the flagship project to reinforce and enhance the village character of the precinct and its attraction as a tourist destination.

- **Dependent on UKUSA Plan: Most public and community facilities** are proposed to be accommodated in the UKUSA development. These include the public clinic and library. Other public facilities are proposed as part of the ‘back of beach’ project, which has the Lagoon Drive as the spine.

10.5 **Priority Actions and Tools for Sustainable Implementation**

The following are critical actions and tools to prepare for sustainable implementation of the Precinct Plan.

10.5.1 **Priority Actions**

- **Precinct Plan approval** by relevant technical departments and council committees and technical departments

- **Secure stakeholder support of the Precinct Plan from the property developers and the local community** (including residents, community based organisations, property owners and business owners)

- **The Precinct Plan must be endorsed and be given legal status** by the eThekwini Metropolitan Council to become a tool that is used in conjunction with the Town Planning Scheme for the area.

- **Approval of planning applications already submitted by property developers of strategically located and high impact developments within the precinct node**, subject to alignment with the objectives of the Precinct Plan. This will require ongoing and constructive dialogue between the property developers and owners of property developments, namely UKUSA, the Pearls, Oyster Box, Umhlanga Plaza, Beverly Hills, and Protea Hotel, Buxton and Granada Centre.

- **Appointment of a Design Review Committee** to review all planning applications and building plan submissions prior to approval.
• **Appointment of a Development Manager**, who will be responsible for the overall co-ordination of all activities necessary to effect the sustainable implementation of all projects that have been identified towards the achievement of the development vision for the Precinct Plan.

• **Facilitate the efficient formation and operation of the Umhlanga Village UIP.** The UIP will play an important role in facilitating the active and constructive involvement of property owners in the implementation stage and operation stage of the project. The Municipal Manager has already tasked an official from the rates department to represent the municipality in the process. This official, in consultation with the Development Planning Department and the Economic Development Unit, must be empowered to ensure that the process is efficient and can contribute in the implementation of the Precinct Plan.

10.5.2 Implementation Tools

- **A business plan**, which will follow the detailed planning/design stage (detailed cost and benefit analysis) for identified projects; life cycle cost analysis (initial cost of development and construction & cost of maintaining the development over its life); detailed budgets and cash flow; determining outcome and outputs that must be achieved by each project; identifying and securing funding sources; working out the programme and milestones for implementing projects.

- **Project Control Group/Steering Group** comprising representatives from all departments that have already been participating in the Steering Group. The group will be concerned with directing the technical detailed implementation of the project.

- **Design Review Committee**, which should include representatives from the Architecture and Development Planning departments, to review all planning applications and building plan submissions prior to approval.

- **Development Forum** to bring together all stakeholders in the community, comprising community organisations, property developers, property owners and business owners. They will be concerned with ensuring that local interests are well represented at all stages towards full implementation of the Precinct Plan.

- **Public / private partnerships** – formal engagement and collaboration with certain owners of strategic properties like the owner of Umhlanga Plaza. The aim will to encourage the owner to release the property for development.

- **Incentive Zoning** - Umhlanga Node Precinct will consist of high value and exclusive developments. There is accordingly a need to guarantee public access and facilities, which could be achieved with compensation and incentivisation to property developers. Incentive zoning will be a zoning mechanism that increases the permitted development rights for particular sites in exchange for the development providing a designated community benefit, for example, public square, walkway or artwork. Incentive zoning may also involve transfer of development rights between sites.

- **The Urban Improvement Precinct (UIP)**. The lower part of the Umhlanga Node Precinct area already has an operating UIP, known as the Umhlanga Promenade UIP.
A second UIP for the upper Umhlanga, which will be known as the Umhlanga Village UIP is already being setup. The UIP is a well-defined geographic area, within which a private sector initiated Section 21 (non-profit) company provides supplementary services to those supplied by the municipality. The objective of the UIP section 21 company is to work with the municipality to improve the public environment in order to enhance and support local business, tourism and family activities. It is funded by a levy on property owners’ rates bills, which is collected by Council and paid over to the UIP on a monthly basis.

- **Development Contributions.** The eThekwini Municipality is currently working on a development contribution policy. Development contributions are normally levied against property developments that add to the demand of infrastructure. The development contributions are utilised to fund new or additional infrastructure or an increase in the capacity of existing infrastructure necessary to meet the cost of demand derived from that new development. expenditure, specifically, funding projects that ensure that infrastructure remains sufficient to cope with the growth of a city. Development contributions must be such that they do not create cost burden for developers, which they will then pass on to consumers. Development contributions are required for the following: roads, sewer infrastructure, water supply, public open space, stormwater facilities and parking. The implementation of development contributions has to be supported by a city-wide applicable and legally recognised policy.

- **Marketing and Promotion of the precinct,** which will involve communicating the new vision for the precinct and the process and activities involved to achieve this vision. Communication will target existing investors, potential new investors, existing and potential new business owners, local residents, and tourists. Marketing and promotion of the precinct could be done by the municipality in partnership with the Umhlanga UIP. The objective of marketing the process towards the implementation the vision will be crucial in ensuring that key stakeholders are also kept informed and updated of progress and performance being achieved in implementing the project.
10.5.3 Sequence of Activities towards the Implementation of the Precinct Plan

**Actions**
- Draft Final Precinct Plan & Implementation Plan
  → Precinct Plan ready for approval
- Submission to the Municipality for Approval
  → Precinct Plan ready for adoption as a tool to manage UN growth & development
- Council adopting the Precinct Plan as a Legal document
  → Precinct Plan receiving legal status & ready to be used together with the TP Scheme
- Approval to Proceed to the Design Development Stage
  → Scope of work & appointment of the professional team
- Design Development Stage
  → Detailed designs, feasibilities, specialist studies, inputs from key stakeholders
- Tender Documentation & Procurement
  → Appointment of contractors
- Construction
  → Delivery of capital & non-capital projects
- Contract Close Out

**Outcomes**
### 10.6 Key Stakeholders, Interests and Roles

<table>
<thead>
<tr>
<th>Key Stakeholder</th>
<th>Interests</th>
<th>Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>eThekwini Municipality</td>
<td>It is in the interest of the municipality to ensure that Umhlanga grow and strengthen its role as a tourist destination. There is already a project planned to renew the town.</td>
<td>• Manage and facilitate property development investments through the TP scheme, Precinct Plan &amp; implementation of projects to improve and maintain the public environment and infrastructure. The municipality also have to service the precinct through its utility departments</td>
</tr>
</tbody>
</table>
| Owners of Strategic Property developments (UKUSA, the Pearls, Oyster Box, Beverly Hills, Umhlanga Centre, Umhlanga Plaza, Granada Centre) | Existing investors want to see the value of their investments growing. New investors coming into the precinct see an opportunity to invest and will like to see their investments making as much returns as possible. Hotel investors also want to capitalise on the hosting 2010 FIFA World Cup | • Invest in the private realm of the precinct.  
• Make development contributions in the upgrading of capital infrastructure capacity to ensure that it is sufficient to accommodate new developments  
• Assist the municipality through the UIP in the upkeep of the public environment |
| UIP (Umhlanga Village UIP & Promenade UIP)                                      | An initiative of property owners setup to provide services that supplement those provided by the municipality. They have interest in ensuring that a conducive and an attractive environment exist for business.                     | • Assists in the upkeep of the public environment, which involve security, greening, cleaning, and co-ordination  
• Could play in the role in facilitating a partnership between the private sector and public sector during implementation and in the post implementation stage. This is crucial in sustainable development of the precinct. |
| Local organisations and committees (Durban Chamber of Commerce and Industry, URAG, Beautifying Umhlanga Together, i-Care, Village Improvement Programme) | These are organisations, whose members own residential and commercial properties, and are also running businesses. They also have interests in protecting amenities enjoyed by the residential community value | • An active role in ensuring that the interests and amenities of the community are protected and enhanced by new developments in the area. |
10.7 Funding Strategy (See annexure 5)

Provisional cost analysis of catalytic projects

Budgets have been prepared based on preliminary concept drawings. The costs presented are indicative and based on m² rates extracted from similar types of projects and exclude civil engineers’ components and are exclusive of vat, escalation and professional fees (see project spreadsheet).

10.7.1 Public Funding

The municipality is investing in the implementation of a number of capital projects in the precinct. One of these, the Pier, is already being implemented. Additional projects have been identified namely Umhlanga CBD Renewal and Umhlanga Beach Development. These projects means there is already municipal funding for the precinct. The approval of the Precinct Plan will allow other departments within the municipality to budget for capital funding specific to their projects.

10.7.2 Development Grants

Development grants from the European Union and other donors active in the country are another possible source of funding that may be investigated.

10.7.3 Public and Private Sector Partnerships

Promoting partnerships between the public and private sectors on certain projects agreed as catalytic in nature, could be a crucial source of funding for implementation of the Precinct Plan. UKUSA and the Pearls have already proposed providing funding for certain projects, which will enable the release of land and also form part of the promenade development.

10.8 Management Strategy

10.8.1 Implementation through Partnerships

The implementation of the Precinct Plan has to involve active participation of, and partnerships between, all stakeholders from the private sector (property owners and developers), public sector (municipality) and the community. (See Fig. 10.1). This is to ensure quality and sustainable implementation of the precinct plan. It will also ensure that the municipality is able to leverage and utilise resources from the private sector and the local community. The local community is generally well organised through very vocal and active organisations that represent strong interests and whose energy will have to be utilised for the benefit of the project.

Figure 10.1: Key Stakeholder Involvement for sustainable implementation
is going to be crucial that the implementation process is not only focused on managing the cost, quality and time of delivering projects. The focus will also be around the management of these interest groups to ensure that they continue to participate in the way that benefits and ensures progress on the project. They will also have to be confident that their input is accommodated in all activities toward full implementation of the project.

10.8.2 Dedicated Development Management

The implementation will also have to be well managed to ensure cost effective use of resources. The appointment of a Development Manager dedicated to the precinct will be crucial to the successful implementation of the Precinct Plan. The development manager will not only be dedicated to the area but will also act as a liaison or interface between stakeholders on the site and the municipality. This appointment will be worthwhile given that the Umhlanga Node Precinct is a strategic economic development node for eThekwini municipality. The success of interventions is therefore of strategic importance. Accordingly, the management structure illustrated in figure 10.2 is proposed for the implementation stage of the project.

10.8.3 Enable Value Add Role of the UIP

The UIP being formed for the upper part of the study area (known as Umhlanga Village UIP) together with the existing Promenade UIP could play an important role during the implementation stage. It will be strategic to get them actively involved from the design development stage and also in the implementation stage, as they will also be useful in the post-implementation stage. Both UIPs are very well supported by owners of key property developments in the precinct. According to the Umhlanga Village UIP Feasibility Study (6 September 2007), the idea has secured the support of 78% of 145 owners of 43 commercial properties and 140 residential properties situated within the UIP defined area. This support also comprises organisations that are active in the community and therefore provides a legitimate reason to utilise the structure for the purpose of ensuring that the project delivers sustainable results. The UIP, which is in essence a private sector initiative, is setup not to compete with or substitute the constitutionally provided developmental and management role of the municipality but to complement this traditional role of providing services that are important to the welfare of its residents and growth of the precinct’s local economy. The sustainable implementation and operation of projects identified in the Precinct Plan can be assisted by the 2 UIPs carrying out the following functions, which they are set up to perform:

- Provision of supplementary services, which comprise the following sub-services:
  - provision of security to the public open spaces;
  - greening, for example clearing of overgrown areas;
  - keeping the area free from grime;
  - helping address social issues including attending to and looking after the needs of street kids, thus creating and promoting a caring precinct; and
  - co-ordination of arts, culture and promotional events.

- Working with Council to maintain service levels and assist with the facilitation of development processes in the precinct. Development facilitation could involve mobilisation, co-ordination of communication and reporting of issues affecting the public environment, progress in the implementation of the Precinct Plan, and interfacing between the commercial property owners,
residents, and municipality on various development issues.

Essentially the value add services that the 2 UIPs are designed to offer are in urban management, development facilitation and communication. These services combined and the fact that the UIP is a private sector initiative put the structure in a good position to also assist with the marketing and promotion of the vision of the precinct to new investors. As illustrated in figure 10.1, the UIP could be utilised also as the interface between the municipality and the Development Manager during the implementation stage.

Figure 10.2: Management Structure for the Implementation of the Precinct Plan
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FROM VISION TO PLANNING IMPLEMENTATION

DRAFT 2

JANUARY 2008

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# Annexures

**Annexure A:** Proposed Planning/Management Responses Addressing the Implementation of the Strategic Framework

**Annexure B:** Planning/Management Tools Available for Implementing the Responses

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January 2008
1. INTRODUCTION

BACKGROUND

The Umhlanga Node Precinct Plan set out to establish “a vision and framework for coordinating and informing both public and private investment in the Umhlanga Node area, directing the physical development and management of all initiatives to facilitate the development of a well-integrated, pedestrian-friendly, safe and attractive environment for residents, visitors and tourists”. The core focus set out in Terms of Reference is to:

- develop a Precinct Framework providing a Strategic Framework, including “recommended amendments to the Umhlanga Town Planning Scheme, if necessary, to achieve the desired objectives of the Precinct Plan”;
- prepare a “detailed urban design plan for the core node area to inform investment by the Municipality in the public realm” with a costing of key interventions.

The Proposal of the ASM Project Team set out in more detail how these products were to be developed.

PURPOSE OF THE REPORT

Against the above background this document provides practical guidance as to how the eThekwini Municipality should move from the Precinct Plan (Precinct Framework and Urban Design Plan) to planning implementation. The recommendations in this document, “From Vision to Planning Implementation”, are based on:

- The Status Quo Assessment;
- The Precinct Framework; and
- The Urban Design (Precinct) Plan.

It cannot be viewed as a standalone report and is a response to essentially the urban design recommendations in the Precinct Framework and the Precinct Plan.

It is noted from the above that the key planning focus of the project was intended to be proposals relating to “amendments to the Umhlanga Town Planning Scheme”. This document considers such amendments, but places the amendments in the context of a wide range of relevant planning responses and tools to be used to implement urban design, socio-economic, economic and infrastructural development proposals relating to the node. Therefore rather than focusing on development control, this report presents an approach to development facilitation and support, including a component of guiding future development in the node. This is in line with the aim of the plan of “directing the physical development and management of all initiatives to facilitate (the) development”.

2. RATIONALE FOR APPROACH

In developing an approach for moving from design / planning to implementation it is essential that the rationale (grounds) for this is clearly understood as this will ultimately determined the approach adopted. Key development aspects of the node considered in establishing the rationale are:

- the high value of land, and specifically property, in the node;
- the relatively high level of interest of developers in the node;
• the limited private owned land available for further development;
• the limited public land available for the implementation of planning (specifically urban design) interventions; and
• the perceived resistance of local residents to change in the node.

For some at least, the Umhlanga Rocks Node is losing its shine. Developers attempting to revive an interest in development in the area are on an ongoing basis meeting with resistance from various interest groups and are working within a public sector environment which does not always have the tools to clearly direct and facilitate their initiatives (the basic motivation for the need for the Umhlanga Node Precinct Plan). Maintaining the status quo is an option but there is the possibility that the following scenario will play out in the area if new investment and re-development is not encouraged:

• Property values in the area may stagnate (decline in the rate of growth) as a result of other competing more attractive coastal developments to the north and south of eThekwini (possibly compare with situation in Amanzimtoti [Durban South Coast] over the past two decades);
• Private sector investments earmarked for Umhlanga could be redirected to other coastal areas where greater profits can be realized over shorter periods of time (most areas north of Umhlanga to the Tugela Mouth and beyond are now opening up for development – the greenfield nature of developments and less development controls in these area may be a major attraction);
• The shifting of private sector investment will potentially be followed with public sector investment also being redirected to other areas (directly caused by the shifting rates base as well as transformation policies1);
• Existing building owners may limit investment in their buildings in the fear that they will not realize returns on their investments.

Such a scenario may cause a downward spiral in property, commercial, public facility and other developments in Umhlanga Rocks.

Based on the above the rationale for the approach to move from planning to implementation is to ensure that, in an area where public sector space / land is limited, positive change can be affected through partnerships and cooperation. This will ensure that the Umhlanga Rocks Node maintain its status as one of the key tourism / residential nodes, and marketing brands, of the eThekwini Municipality.

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1 A recent call for expressions of interest from the eThekwini Department of Economic Development clearly illustrates where the future focus of eThekwini will be in terms of “town centre packaging” (implementation plans and precinct plans), viz. areas such as Greater Tongaat, Pinetown, Verulam, Winklespruit, Illovo, Umkomaas, Isipingo, KwaMashu and Clermont. These precinct plans will, once completed, place these areas in direct competition with an area such as Umhlanga for attracting investment.
3. THE APPROACH – FROM PLANNING TO IMPLEMENTATION

The proposed Vision² for the development of Umhlanga Rocks node is used as a basis for developing the “town planning” response³. Using this vision together with the established regional and local objectives as a base is essential as the majority of stakeholders (public, private and community) supported the established vision and objectives. All future planning and implementation related activities should therefore contribute to the Vision for the Umhlanga Rocks node being realized. The planning responses, therefore, relate directly to the various components of the vision and regional and local objectives. Based on the planning responses identified, the tools available to implement the planning responses are identified.

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² See Precinct Plan
³ The Precinct Plan also reflects urban design, engineering and urban management responses.

January 2008
4. PLANNING / MANAGEMENT RESPONSES ADDRESSING THE STRATEGIC FRAMEWORK

INTRODUCTION

Through considering the (urban design focused) Vision and Objectives, and the proposed urban design and architectural responses related thereto, a number of possible planning responses were identified and assessed. This assessment led to the selection of a list\(^4\) of planning and management responses that will contribute to realizing the Vision and Objectives for the node being realised. The planning / management responses selected were categorized into:

- Responses focused on increasing the extent and quality of Public Space
- Responses focused on developing the character of the node
- Responses focused on improving accessibility
- Responses focused on economic development and promoting investment

SUMMARY LIST OF RESPONSES

A summary list of the planning and management responses identified is reflected below, whereafter an attempt is made to describe each of the responses. These descriptions are of particular importance as it provides the understanding of the response necessary to identify the appropriate tools.

Category 1: (Responses focused on) Improving Public Space
- Increase public space
- Create multifunctional spaces.
- Establish active edges (pedestrian / retail-commercial interface)
- Improve integration of public and private space
- Improve levels of security

Category 2: (Responses focused on) developing the character of the node
- Manage height in node in general
- Encourage indigenous planting
- Encourage retaining of indigenous planting
- Softer building edges (back of buildings)
- Protect / enhance beach area
- Manage densification of the node
- Guide the built form

Category 3: (Responses focused on) improving accessibility
- Improved access to beach
- Improved pedestrian access and facilities
- Promenade upgrade / integration
- Increased levels of public parking
- Reducing traffic congestion

Category 4: (Responses focused on) economic development and promoting investment
- Attracting business to the area
- Attracting 2nd economy business
- Attract people to the area
- Encourage the redevelopment of existing buildings
- Facilitate urban renewal
- Attract new investment

\(^4\) The Matrix in Annexure A illustrates the relationship between the planning / management responses and the strategic framework developed for the Umhlanga Rocks Node.
OVERVIEW OF RESPONSES

The proposed planning and management responses are considered below.

Category 1: (Responses focused on) Improving Public Space

Increase public space: With the sale of municipal land to Ukusa the access to public space in the node has been greatly reduced and is now essentially limited to the road reserves, the promenade and beaches. Other than the beaches, Durban View Park and the forest to the north of the node there are no public open spaces of note that can be used for events, activities and leisure.

Create multifunctional spaces: In order for the village and tourism character of the node to be retained flexible spaces that can be used for a range of uses and activities must be available.

Establish active edges (pedestrian / retail-commercial interface): The clear divide between public and private spaces in the node has led to the development of “impenetrable” edges. This has substantially contributed to pathways and pavements becoming movement corridors rather than activity corridors. By encouraging active edges, which may include retail, service and leisure activities, the divide between public and private space can be significantly reduced.

Improve integration of public and private space: As stated above, the clear divide between public and private spaces has led to the development of “impenetrable” edges. Through the development of softer edges the quality of the limited public space can be greatly enhanced.

Improve levels of security: Security, or specifically the lack thereof, often impacts negatively on the experience that people have of public spaces. Approaches to changing perceptions of security in the Umhlanga node can improve the extent to which public spaces and facilities in areas immediately adjacent to it is used.

Category 2: (Responses focused on) developing the character of the node

Manage height in node in general: Although the proposed “village character” of the node is difficult to define, it is obvious that building height could potentially impact negatively on it retaining this character. The scale of building can also impact on the use of the node. The Umhlanga Town Planning Scheme has to date effectively controlled building height, but with the increased pressure on Council to allow additional development rights the mechanism to control height has also now come under pressure.

Encourage indigenous planting: There appears to be little cohesion in the urban structure of the node and surrounding areas. Encouraging indigenous planting does have the potential to contribute to the development of the “village character” of the node and the uniquely South African character thereof.

Encourage retaining of indigenous planting: As stated, public open space in the node is now limited and the extent of vegetation is being reduced with this. Retaining existing indigenous planting, especially old and protected trees, should be a landscaping and design priority. This will also contribute to retaining and building on the unique character of the node.

Softer building edges (back of buildings): See discussion on improving “integration of public and private space” above

Protect / enhance beach area: Part of the attraction of the Umhlanga beaches are that the natural character has been retained and that most related development has been sensitive to the beach area and the amenity reserve (in which the promenade is located) that has been established. This characteristic of Umhlanga beaches are to be retained.

Manage densification of the node: There continue to be pressure on Council to increase densities within the node through primarily amendments of the scheme. Developers justify this from a demand side, whereas some resident
groups in the greater Umhlanga area suggest that such densification should not be considered based on a range of aesthetic, infrastructural and user related issues.

**Guide the built form:** The existing scheme, established in the 1970s, was progressive in that it established guidance for the development of the built form as a core component of the scheme. It is suggested by some that this scheme is outdated and that urban design guidelines should be further entrenched in the scheme. Guiding the built form will provide urban designers the opportunity to retain views and vistas, manage the scale of development and how this impact on the user, create multi-functional spaces and other urban design related aspects.

**Category 3: (Responses focused on) improving accessibility**

**Improved access to beach:** From a number of perspectives (some based on perceptions) access to the beaches of Umhlanga are limited. Firstly, the node is viewed as congested and difficult to access. Secondly, the availability of parking is viewed as a constraint, specifically in peak holiday seasons. Also important, visitors to the area find it difficult to locate accesses to the beach area and link this to where parking is provided.

**Improved pedestrian access and facilities:** Pedestrian access to beaches exist, but is generally narrow alley-like passages, passing between towering buildings, not well sign posted.

**Promenade upgrade / integration:** The Promenade represents a key structuring element in Umhlanga Rocks. It has for some time now been the intention of the eThekwini Municipality to upgrade the promenade. Some of this work has been delayed due to the damage caused by recent storms, but are now getting underway. The Promenade can be better linked to existing development and to the back of beach area. Approaches to achieving this should be considered.

**Increased levels of public parking:** Traffic investigations illustrated that the node does not appear to have a shortage of parking. Difficulties in accessing parking relates to signage and where the parking is located. Access to the available public parking therefore needs to be improved through signage and the location of parking related to new developments.

**Reducing traffic congestion:** The Ukusa and other developments bring with them major opportunities for improving the road network and traffic flow within the Umhlanga Rocks Node. It is also noted from the Transport Engineering assessment that current traffic congestion in and around the node does not relate to the node specifically, but rather to the larger road system, linked to the M4, being under pressure. Approaches to how new development can contribute to improving road networks and transport systems should be considered.

**Category 4: (Responses focused on) economic development and promoting investment**

**Attracting business to the area:** An assessment of existing business activity in the node indicated that since the establishment of new development on the Ridge, the Umhlanga Rocks area has already started establishing a vibrant and unique commercial character. The node appears not to be competing with surrounding commercial developments, but to rather augment on the services provided in these areas. With the substantial new commercial development\(^5\) envisaged new business will have to be attracted to the area. The economic potential and the opportunities offered by the node will therefore have to be clearly illustrated and the successes of businesses, especially the service industry, should be highlighted.

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\(^5\) 45 000 m\(^2\) (retail and office) is planned for the Ukusa site.
Attracting 2nd economy business: The socio-economic assessment identified the important economic contribution the Umhlanga Rocks node can make to supporting socio-economic development in the wider region. Development in the Umhlanga Rocks node will also increase the extent of opportunities available to 2nd economy businesses. Approaches to accommodating and attracting such businesses to the area, adding to the potentially vibrant tourism character of the area, should be investigated.

Attract people to the area: In order for businesses in the area to flourish, and for the node to continue to develop, people must be attracted to the node. It has been illustrated that although the node is occupied to capacity in high seasons, the occupation levels outside of season is low with on average only 50% of residential units being occupied. In order to develop a stable environment for business in which to operate, and to use infrastructure effectively, the better occupation of residential units in the precinct, the study area and Umhlanga Rock as a whole, should always be encouraged.

Encourage the redevelopment of existing buildings: Some buildings within the node are 40 years plus old and in some cases these and other buildings detract from the surrounding environment. Approaches to encouraging redevelopment or upgrading of existing buildings must be considered.

Facilitate urban renewal: The facilitation of urban renewal is linked to the redevelopment of existing buildings but is more focused on public realms upgraded. Opportunities and approaches to facilitating urban renewal must be considered.

Attract new investment: Attracting new investment to the area is as important as attracting investment to upgrade and redevelop existing building and infrastructure.
5. THE PLANNING / MANAGEMENT TOOLS FOR IMPLEMENTATION

The identification of planning responses for achieving the vision still leaves a substantial gap between what is to be done and how it is to be done. As most of the Umhlanga Rocks node is privately owned the opportunities available to the Council for redeveloping the area is extremely limited. It is therefore necessary to understand that the planning and management tools identified for this area are substantially different from what will be used in areas where substantial land areas are available to Council. The tools identified must have the potential to impact and change the way in which the private sector thinks and responds to the challenges faced in Umhlanga Rocks.

The Planning and Management tools identified are categorized as follows:

- Planning tools
- Financial tools
- Urban management tools
- Other Tools

The tools are listed below. The matrix in Annexure B considers which tools can be used for implementing the identified planning / management responses.

PLANNING TOOLS

- Amendment to scheme
- Conditions of approval
- Site development plans
- Planning for neighbouring areas
- Design codes / review group

- Landscape Planning
- Special Zones
- Amenity Reserve

FINANCIAL TOOLS

- Rates
- Rates Rebates
- Development Contributions
- Co-funding from Council / Subsidy
- Trade-offs

URBAN MANAGEMENT

- Urban management capacity
- Urban Improvement Precincts (UIPs)
- Signage
- Pricing of parking

OTHER TOOLS

- Festivals / Events
- Public / Private Sector Investment Projects
- Business Incentives
- Facilities provision

These tools are discussed in more detail below. Each of the planning tools will be discussed in terms of the following headings:
• Background
• Discussion of the Tool
• Potential application

The financial, urban management and other listed tools will only be discussed in general terms.

Over and above the above categories of tools (and individual tools) there are also three city wide policies, also viewed as tools, urgently required to guide future development in nodes such as Umhlanga. The tools are:

• The Shadow Policy
• A Development Contribution Policy
• A Nodal Density Policy

Before discussing the general tools the three policies and their impact on development in the Umhlanga Node will be discussed.

POLICIES

The Shadow Policy

A shadow policy6 has been developed by the Municipality and is currently in process to be adopted by Council. The key recommendations of the Shadow Policy include:

"... that development in the coastal zone should be limited both in height and linear extent. In areas where development is permitted, developers should be required to submit accurate shadow projections, including the effects of topography, to ensure that the rights of landowners to the south are not infringed, and that sufficient beach area remains unshaded on winter afternoons. The following aspects should be assessed:

(1) Shadow projections should show shadows cast by the proposed development at 3pm and 4pm at midwinter to assess overshadowing impacts on the beach. Where overshadowing occurs before 3pm, the proposal should only proceed if it lies within a designated zone for high rise coastal development. However, if the overshadowing within the designated zone is already considerable, so that the beach amenity is threatened, the proposal should not be permitted to proceed.

Policy – That all new buildings in the coastal zone will be required to undertake shadow impact assessments.

(2) If the expected shadows lie across significant areas of the beach, such as tidal pools and bathing areas, the proposal should be modified. Developers should be encouraged to place the tallest part of the building furthest from the beach, to the west.

Policy – That all new buildings in the coastal zone that may cause shadows on beach amenities will not be approved unless this can be shown that the shadows are not apparent on the beach before 3pm in midwinter.

(3) Shadow projections should be produced to show that the rights of southerly neighbours to direct sunlight during the solar collection period are not compromised.

6 The proposed policy document, including the motivation for the various policy statements above is attached as Annexure C.
Policy – That all new buildings in the coastal zone will be required to undertake shadow impact assessments.

(4) Where existing development rights permit overshadowing, negotiation is recommended for the relaxation of other rights (e.g. relaxation of building lines, increased bulk ratios) so that the optimum development of the site can take place. This should include minimisation of overshadowing to the south by limiting the height of the tallest part of the proposed buildings and situating them on the north end of the site; minimising overshadowing on the beach by orienting the long face of the building between 45° and 60° east of north, and restricting the bulk to the west of the site”.

Once adopted the Shadow Policy should be incorporated into the Umhlanga Town Planning Scheme. It is evident that the above policy will effectively limit the height of new development along the beach front.

A Development Contribution Policy

Collecting “development contributions” on new developments is an accepted approach towards ensuring that developers contribute financially to the establishment of specifically bulk infrastructure and services that will be required by new developments (specifically in cases where additional rights are allocated to a developer). The eThekwini Municipality is currently in the process of preparing a Development Contribution policy, but it is suggested that in the absence of a comprehensive policy in this regard an interim policy, based on the examples of other cities such as Cape Town, Johannesburg and international cities such as Auckland, be prepared and used to guide developers in eThekwini. The absence of a comprehensive policy should not delay development or allow developers the opportunity to not make fair contributions to bulk service provision.

Bulk infrastructure should not be a delaying factor in the approval of development applications as it should be possible to now determine the cost implications of all additional development to the north of Durban and to develop a cost recovery model (which will make the public and private sector partners in bulk services provision). Development contributions should, however, not only be limited to bulk water, sanitation, stormwater, road and electricity infrastructure, but should also cover the requirements for additional public parking, public facilities and public open space (active and passive).

In the preparation of the Development Contribution Policy the added value of additional development rights allocated must also be considered. This could be used as a basis for negotiations with the developer for them making contributions to socio-economic development in the wider region (e.g. the provision of crèche facilities for children, upgrading of welfare facilities, etc).

A Nodal Density Policy

At present the Council has no substantive arguments for either approving or rejecting requests for higher densities to be established in the Umhlanga Rocks Precinct. Arguments currently used to oppose increased densities in the area relating to limiting height, impacts on the village character, impacts on views and infrastructural capacity. These are generally subjective in nature and, as a result thereof, will be difficult to defend. The same applies for arguments used to motivate for increased densities in the node.

It is therefore suggested that an approach that can be used to argue for or against densities will be to establish a city wide hierarchy of nodes and to then, in line with the commitment to densification expressed in the eThekwini...
Municipality Integrated Development Plan, develop a typology of nodes with associated densities. In the absence of such a nodal density policy the Umhlanga Rocks Precinct Plan will make recommendations to be followed in the Umhlanga Node in the interim based on the national and international experience.

**PLANNING TOOLS**

**Amendment to scheme**

**Background:** It is understood that a key reason for the conceptualization of the Precinct Plan was that it will make recommendations to be made to the Umhlanga Town Planning Scheme (the Scheme). The current uncertainties and lack of direction in the development of the node is often related to the outdated nature of the scheme and the general difficulty in interpreting key scheme clauses.

**Discussion of the Tool:** In terms of Section 40 of the (KZN) Town Planning Ordinance (No 27 of 1949) the general purpose of a scheme (as well as structure and general plans) is to achieve “co-ordinated and harmonious development of the local authority area, or any area or areas situate therein, to which it relates (including where necessary the reconstruction and redevelopment of any part which has already been subdivided, whether there are or are not buildings thereon) in such a way as will most effectively tend to promote health, safety, order, amenity, convenience and general welfare, as well as efficiency and economy in the process of development and the improvement of communications”.

In general terms, and this has been commented on in earlier reports considering the Status Quo, it is suggested that the Umhlanga Town Planning Scheme has made a fair contribution to achieving the above general purpose. The scheme is, however, perceived to be outdated and at times difficult to interpret. Some more specific reasons put forward for the proposed amendment of the Scheme are:

- to reconsider densities in the node;
- to provide height restrictions in the node;
- to enforce the implementation of the proposed shadow policy of Council; and
- to guide the built form of development.

Although there is therefore a case to be made for amending the scheme there are also a number of reasons negating this thinking. The reasons include:

- **No pattern in applications:** The applications for amendments to the Scheme received to date (or anticipated to be received) generally does not establish a pattern and there is no suggestions that a pattern will emerge in future (e.g. Protea Hotel is requesting additional FAR on a General Commercial, it is anticipated that The Pearls will request additional FAR on General Residential, Buxtons requested additional height on Special Zone 4, the Umhlanga Plaza may in future request additional height / density on Special Zone 5 – other examples also exists). It is suggested that general amendments to the scheme should only respond to patterns that has been established, or can be anticipated in the short to medium term.

- **Unnecessary land rights provided:** Amendments to the scheme, focusing on issues such as height and density (FAR), will have to be applied consistently throughout the scheme area (or specific areas in the scheme area). This will provide additional rights that can either (1) not be taken up due to the level of existing investment on a site, or (2)
will encourage new development and the take-up of rights where this has never been considered. The majority of developments in the Study Area are sectional title blocks, each with a large number of owners, which suggest that major large scale redevelopment of existing buildings is not anticipated.

- **General effectiveness of the Scheme to date:** It has been suggested that the Scheme has to date made a fair contribution in guiding development in the node. A Scheme is intended to control development and it is then also this function of the scheme that also preserves the land and property values. General amendments to the scheme may impact on these land and property values (the impact of this will have to be tested in a more comprehensive assessment).

- **Impact of scheme revisions:** Although previous studies suggested that there is no conclusive proof that the loss of views (brought about by increased FAR, bulk or height [or a combination] [or indirectly the loss of views) impacts on property values, this suggestion is still disputed and no conclusive studies supporting this could be identified. Before such impacts is not better understood it is suggested that it may be counterproductive to review these aspects of the scheme.

The above represents some of the specific reasons negating against general amendments to the scheme. The fact that the eThekwini Municipality is in the process of standardizing land use management systems across the Municipality suggests that, although Umhlanga may benefit from a revision of the scheme, this may be premature. Making Umhlanga a pilot in the land use management process could, however, be considered.

**Potential Application of Tool:** It is recommended that, in lieu of the development of a city-wide land use management system, no process of amending the scheme be initiated at this stage. It is rather suggested that City-wide policies on issues such as shadows, height and densities be developed (see section on policies above) and adopted through appropriate procedures. Such policies will then guide processes in which statutory planning applications, conditions of approval and site development plans are considered.

**Conditions of approval**

**Background:** On approving statutory development applications it is generally accepted that certain “conditions of approval” will be attached to such an approval by the Council.

**Discussion of the Tool:** “Conditions of approval” can relate to a number of aspects of the development and will vary substantially from development site to site. It is, however, accepted that such conditions will not be of an *ad hoc* nature but that it will be in line with approved Council policies and guidelines, i.e. conditions that are inconsistent with Council policies or for which no policies exist should not form part of conditions of approval. It is therefore imperative that Council, amongst other aspects, develop firm policies relating to:

- densities – reflecting accepted standards to be achieved in areas throughout the eThekwini Municipality (linked to internationally and nationally accepted norms);
- heights – reflecting the policy of the City specifically on building shadows impacting on public amenities such as beaches;
- urban form – the impact of urban form on issues such as scale, urban density, the pedestrian environment and the like should be addressed; and
- development contributions – reflecting on the financial or other material implication for a developer / land owner should additional development rights (height, bulk or FAR) be approved.
**Potential Applications of Tool:** Conditions of Approval will specify conditions which the Council attaches to the approval of a development application. These Conditions, as noted above, will generally relate to approved Council policies and standards. Conditions of approval can be used to:

- Increase the public space available;
- Promote the development of active and softer building edges;
- Encourage indigenous planting;
- Provide improved public access to beaches; and
- Increase levels of public parking.

**Site development plans**

**Background:** Site development plans are required by the Development Planning Department of the eThekwini Municipality for larger developments. It is understood that site development plans (SDPs) are prepared to illustrate to the Local Authority the intentions of the Developer and to obtain in principle agreement on the various components of the development. The most recent example of a site development plan submitted for a development in Umhlanga Rocks is that of the Pearls development.

**Discussion of the Tool:** SDPs are generally viewed as a useful tool for the developer to illustrate to Council its development intentions. It does, however, appear as if there exist misunderstandings on the legal status of the SDP. In terms of current processes the SDP has no status and does not constitute an approval by the Council. An approved SDP only suggests that Council looks favorably on the proposals of the development, but that any deviations from the allocated development rights must still follow the prescribed statutory planning processes.

Some lessons learnt from recent processes involving SDPs are:

- That SDPs should be prepared for developments making use of existing rights (should additional rights be sought the prescribed route for obtaining such rights should be followed);
- That SDPs should not be viewed as an approval for additional development rights, but that it merely serves to indicate that Council supports basic principles to be applied in the development.

**Potential Applications:** Site development plans should be used as a basic planning tool in all major developments in the Umhlanga Rocks node. It provides an opportunity for the developer to provide the local authority with an understanding of the development intentions. Site development plans can specifically be used to:

- Improve the levels of integration between public and private space;
- Ensure that existing indigenous vegetation is retained; and
- Guide the built form.

**Planning for neighbouring areas**

**Background:** The Precinct Plan currently under development focuses on 20 sites in the core of Umhlanga Rocks. The precinct planning process also included the developments on the coast (in total close to 40). As a result of a number of constraints there is limited opportunities and scope for redevelopment / densification / reconfiguration of these properties. Areas to the west of the core, zoned General Residential 2 with a FAR of 0.45, however, may present such opportunities in future.
Discussion of the Tool: The densification of areas neighbouring on the Study Area does present an opportunity for the future development of Umhlanga Rocks, but will require further investigations and detailed recommendations. As much of this area is behind existing multi-storey complexes located on the beach front, areas exists where further height may not have a visual impact. The impact of increased densities on the capacity of infrastructure, however, should be considered. Council policy relating to the accepted densities in the node, however, needs to be established.

Although most of the developments in the area are sectional title it is envisaged that the lower number of units, as compared to General Residential properties, makes it more practical for such sites to be redeveloped.

The future planning of the interface between the core and the “periphery” (the areas neighbouring on the Study Area), where at present a number of accommodation establishments have been established, should also be addressed.

Potential Applications: The development of multi-storey, higher density developments immediately to the west of the study area will be facilitated. This may reduce the pressure for higher density development along the coastal strip.

Design codes / review group

Background: The establishment of design codes and design review groups in development areas is a relatively new concept now being used successfully in Umhlanga Ridge and in the Point Waterfront area. The establishment of the codes and groups essentially requires developers to submit their plans to a review group who will assess these plans based on a set of design codes. This approach is aimed at ensuring the development of quality buildings that contribute to the overall character of the area.

Discussion of the Tool: Although this tool is generally not applied in areas that are fully developed the current range of development applications do justify that a panel of experts be utilized to guide development in the area within the guidelines presented by the Precinct Plan. As a core group it is envisaged that Development Planning, Engineering Services as well as the UIP are represented on the Review Group.

Potential Applications: The tools (design codes and review group) are to be applied in cases where existing building are substantially redeveloped or where new developments are established. Design codes and design review groups will specifically be useful for facilitating:

- The development of multi-functional spaces;
- The development of active edges; and
- Improvement in the integration between public and private spaces.

Landscape Planning

Background: A key planning intervention taken from the vision and objectives is to establish the character of the node. Most developments in the node have landscaped gardens and spend substantial resources on this. The eThekwini Municipality also makes a considerable investment in landscaping the node.

Discussion of the Tool: Detailed and coordinated landscape planning, integrating public and private space, will be an important planning tool contributing to developing the character of the node.
Potential Applications: Landscape planning is a tool that can be applied to achieve the following planning / management responses:
- The integration between public and private space;
- Encouraging indigenous planting; and
- Retaining existing indigenous trees.

Special Zones

Background: A number of Special Zones already exists with the Study Area and within the Umhlanga Town Planning Scheme. The Special Zone established for Ngcebeleka eMhlanga (the Ukusa Development) is the latest addition to Special Zones in the Scheme. Special Zones are generally created where no suitable zoning classification exists for the type of development envisaged, this would therefore be necessary for larger mixed use developments.

Discussion of the Tool: Although it is necessary for a scheme to guide development it is also important that a scheme retains some level of flexibility, and Special Zones are one of the tools that can be applied for this purpose. As it is impossible for a scheme to pre-empt the type of development that will be proposed in the longer term it is essential that this tool be retained and used to ensure that new developments can relate to future trends in the property development industry.

Potential Applications: Special zones are tools that can be applied to achieve the following planning / management responses:
- the introduction of new mixed use developments;
- new developments with substantially different configurations as that allowed for in the scheme;
- facilitating urban renewal; and
- attracting new investment to the area.

Amenity Reserve

Background: The Umhlanga Node Study states that the “Amenity Reserve is the eastern portion of most GR1 properties adjacent to the beach, which is set aside to enhance the amenity of the beach”. The Scheme indicates that “save with special consent of the Council, no person shall erect a building or make excavations or execute any work on the reserved land ... or spoil or wastes or otherwise use such land so as to destroy or impair its use for the purpose for which it is reserved”.

Discussion of the Tool: The Amenity Reserve is well located in terms of the beach and is effectively a buffer or barrier between the beach and developments closest to the beach. This effectively contributes to the separation between beach and back of beach activity. At present the Promenade is located in the Amenity Reserve, but other activity along the promenade is limited. It is suggested that the Amenity Reserve offers an opportunity for achieving better integration between the beach and existing developments. Establishing more activity along the Promenade will be dependent on some relaxation (through special consent applications) of the activities that can be undertaken in the Amenity Reserve. Opportunities for establishing beach cafés and similar activities may exist.

Potential Applications: The amenity reserve is a tool that can be used to achieve the following planning / management responses:
- Increasing public space;
- Create multifunctional spaces;
- Improve pedestrian facilities and access; and
- Attracting new businesses to the area.
FINANCIAL TOOLS

Rates and Rates Rebates

The Council has substantial flexibility in how rates are levied and rebates offered. The Draft Rates Policy for 2008/9 is currently available for public comment and reflects a number of ways in which rates can be used to facilitate development. The establishment of special rating areas, and levying of additional rates for improving and upgrading the specific area, is such an opportunity. The Council is also in a position to provide rebates should it wish to attract a specific sector or specific type of development to an area. Rates rebates can also be provided if a certain level of maintenance of buildings are insured (although this is usually used in the Inner City context).

Following on the above it is suggested that if appropriate management capacity is in place, opportunities exist to use rates and rates rebates as a tool for facilitating the involvement of the private sector in the implementation of the recommendations of the Precinct Plan. This tool can be used effectively to achieve a broad range of the planning and management responses:

- Rates contributions are already used to fund UIP activity in Umhlanga;
- Rates could also be used as an incentive for developers / owners to provide better public access to beaches, more parking etc.

Development Contributions

See discussions on eThekwini Policies required in this regard.

Co-funding from Council / Subsidy

The co-funding by Council of facilities or infrastructure or redevelopment of spaces is already a tool used to support improvements to the public environment. For example, the City and the developers of the Pearls are contributing to the upgrade of sections of the Promenade in front of the Pearls development and Ukusa and other developers will be expected to contribute to the widening of the bridge over the M4, with the City also making contributions to this.

Co-funding from Council for projects has been successfully used in the past and the upgrading of the Promenade in front of the Pearls and the upgrading of the Lifesaving Club are examples of this approach being successfully implemented. Co-funding could also potentially be used as a mechanism to:

- Support the development of softer building edges; and
- Improving pedestrian access to the beach.

Trade-offs

The Council may in certain instances be willing to allow developers additional rights or consider the approval of special consents / amendments to the scheme should developers or building owners be willing to contribute to the implementation of the Precinct Plan. Care should, however, be taken that precedents are not established that may in future be used to reduce the effectiveness of the scheme. Trade-offs could potentially be used as a mechanism for:
• Creating additional public and multi-functional spaces;
• Improving pedestrian access and facilities; and
• Attracting new businesses and investment to the area.

URBAN MANAGEMENT

Urban management capacity

Urban management capacity is discussed in more detail in the implementation plan section of the Precinct Plan. However, from a Town Planning perspective it is becoming apparent that some form of dedicated urban management capacity that also deal with town planning aspects relating to the node is required. The successful implementation of the approach to planning implementation, a highly integrated approach between the public and private, is dependent on such capacity being established. This urban management capacity will be responsible for:

• All negotiations with developers relating to amendments to the scheme;
• All negotiations with developers relating to requests for additional rights;
• Informing developers of and monitoring the payment of development contributions;
• Discussions with the private sector (owners and developers) relating to trade-offs and Council co-funding.

It is not suggested that this capacity should be dedicated to the Umhlanga Rocks area, but an in-depth understanding of the development dynamics in the node will be essential.

Having a dedicated urban management resource in the area will contribute greatly to the implementation of the Precinct Plan.

Urban Improvement Precincts (UIPs)

The concept of urban improvement precincts is already well-understood in the Umhlanga Rocks context. UIPs already exist and a number of developments contribute to a UIP levy. The UIP is the ideal vehicle for ensuring that the successful implementation of the planning approach is achieved. It provides the Council with a single forum representing a number of developments that can collectively decide on key issues that can then be taken down to an individual level where necessary.

Signage

Investigations to date established that a number of the planning issues, including pedestrian access to beaches, access to parking and facilities, and traffic congestion can (at least) partly be addressed through introducing appropriate signage in the node. Signage can also be introduced as one of the components of the urban design framework.

Pricing of parking

Experience has shown that the pricing of parking have a major role to fulfil in determining where people park and the amount of time they spend in a facility. A comprehensive parking plan for the node is required to ensure the optimal use of existing parking and identify future parking needs to be accommodated in developments.
ECONOMIC DEVELOPMENT TOOLS

A basic set of “other tools” mostly focusing on facilitating economic development in the node is also proposed. This is not viewed as a finite list, but serves as a starting point for exploring other opportunities.

Public / Private Sector Investment Projects

Cooperation between the public and private sectors is the foundation of this approach to planning implementation. Larger Public Private Sector Partnerships should be identified and pursued in the node. To some extent the Ukusa development is such a public / private sector partnership. Such partnerships may be a useful tool for creating multifunctional public spaces and upgrading of the promenade.

Festivals / Events

Umhlanga already hosts annual festivals. Building on the existing festivals or introducing new festivals would be a tool for ensuring the establishment of multi-functional spaces and attracting more people to the node. This will invariably contribute to the attractiveness of the node.

Business Incentives

Business incentives such as rate reductions, reductions in servicing costs and others can be used in future as an approach to attracting specific types of businesses to the area. Specifically attracting more entertainment related businesses to the area, e.g. cinemas, play parks etc, is considered in this regard.

Facilities provision

Providing appropriate public facilities in the node will ensure that people continue to be attracted to the node.
# ANNEXURE A: PROPOSED PLANNING/MANAGEMENT RESPONSES ADDRESSING THE IMPLEMENTATION OF THE STRATEGIC FRAMEWORK

<table>
<thead>
<tr>
<th>STRATEGIC FRAMEWORK</th>
<th>PLANNING/MANAGEMENT RESPONSES</th>
<th>PUBLIC SPACE AND CHARACTER</th>
<th>CHARACTER OF NODE</th>
<th>ACCESSIBILITY</th>
<th>ECONOMY AND INVESTMENT</th>
</tr>
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<tbody>
<tr>
<td></td>
<td></td>
<td>Increase public space</td>
<td>Manage height in node in general private space</td>
<td>Guide the built form</td>
<td>Improved access to the beach</td>
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### VISION

A seaside resort and tourism destination which is people-friendly, walkable and safe, with a cosmopolitan sense of place and urbanity.

- ✓
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An ‘urban village’-like environment in which resident and holiday makers feel equally at home.

- ✓
- ✓
- ✓
- ✓

A unique place that embraces the life, activities and events of holiday makers as well as accommodating and protecting the needs of the local community in a balanced and well-managed environment.

- ✓
- ✓
- ✓
- ✓

### REGIONAL OBJECTIVES

Consolidate and enhance the beachfront amenity of Umhlanga Rocks as a regional facility.

- ✓
- ✓
- ✓

Reinforce and enhance Umhlanga Rocks’ role as a main tourism, holiday and recreation destination.

- ✓
- ✓
- ✓
## STRATEGIC FRAMEWORK

### PLANNING/ MANAGEMENT RESPONSES

<table>
<thead>
<tr>
<th>PUBLIC SPACE AND CHARACTER</th>
<th>CHARACTER OF NODE</th>
<th>ACCESSIBILITY</th>
<th>ECONOMY AND INVESTMENT</th>
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<tbody>
<tr>
<td>Increase public space</td>
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<tr>
<td>Create multifunctional spaces</td>
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<tr>
<td>Active edges (pedestrian/commercial interface)</td>
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<tr>
<td>Improve integration of public private space</td>
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</table>

- **Improve linkages with the greater Umhlanga region**
  - Yes

- **Reinforce the human scale, urban village character of Umhlanga Rocks and extend + enhance the outdoor public realm amenities.**
  - Yes

- **Contribute the overall socio-economic development of the region.**
  - Yes

- **Build community**
  - Yes

### LOCAL OBJECTIVES

- **Consolidate the node into safe, welcoming and accessible tourism and residential environment.**
  - Yes

- **Improve connectivity at the sub-regional level and in relation to other beaches and resorts.**
  - Yes

- **Create a pedestrian-friendly, attractive, open and human scale seaside resort.**
  - Yes

- **Enhance and protect natural attributes: the diversity of the beach front from rocky outcrops for exploration, swimming, walking relaxation and contemplation.**
  - Yes

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<table>
<thead>
<tr>
<th>STRATEGIC FRAMEWORK</th>
<th>PLANNING/ MANAGEMENT RESPONSES</th>
<th>PUBLIC SPACE AND CHARACTER</th>
<th>CHARACTER OF NODE</th>
<th>ACCESSIBILITY</th>
<th>ECONOMY AND INVESTMENT</th>
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</thead>
<tbody>
<tr>
<td>Achieve a balance between the natural and built environments.</td>
<td>Increase public space</td>
<td>Create multifunctional spaces</td>
<td>Encourage indigenous planting</td>
<td>Improved access to the beach</td>
<td>Attracting business to the area</td>
</tr>
<tr>
<td>Develop a uniqueness of place – genius loci – by reinforcing the sense of place, improving legibility and defining character.</td>
<td>Create multifunctional spaces</td>
<td>Encourage indigenous planting</td>
<td>Improved pedestrian access and facilities</td>
<td>Improved pedestrian access and facilities</td>
<td>Attracting 2nd economy business</td>
</tr>
<tr>
<td>Enhance the entertainment niche market.</td>
<td>Active edges (pedestrian / retail-commercial interface)</td>
<td>Encourage retaining of indigenous planting</td>
<td>promenade upgrade / integration</td>
<td>Promenade upgrade / integration</td>
<td>Encourage the redevelopment of existing buildings</td>
</tr>
<tr>
<td>Maximise the coastal setting and elevated panoramic views and protect specific views and vistas.</td>
<td>Improve integration of public private space</td>
<td>Softer building edges (back of buildings)</td>
<td>Limit building height on beach front</td>
<td>Increased levels of public parking</td>
<td>Facilitate urban renewal</td>
</tr>
<tr>
<td>Develop an interconnected and accessible public open system (hard and soft).</td>
<td>Manage height in node in general</td>
<td>Manage densification of the node in general</td>
<td>Guide the built form</td>
<td>Reduced traffic congestion</td>
<td>Attract new investment</td>
</tr>
<tr>
<td>Improve back of beach facilities including parking for day visitors and space for special events.</td>
<td>Soften building edges (back of buildings)</td>
<td>Protect / enhance beach area</td>
<td>Guide the built form</td>
<td>Increased levels of public parking</td>
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</tbody>
</table>
### ANNEXURE B: PLANNING/ MANAGEMENT TOOLS AVAILABLE FOR IMPLEMENTING THE RESPONSES

<table>
<thead>
<tr>
<th>PLANNING TOOLS</th>
<th>PUBLIC SPACE AND CHARACTER</th>
<th>CHARACTER OF NODE</th>
<th>ACCESSIBILITY</th>
<th>ECONOMY AND INVESTMENT</th>
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<tbody>
<tr>
<td>ETHEKWINI POLICIES</td>
<td>Increase public space</td>
<td>Create multifunctional spaces</td>
<td>Active edges (pedestrian / retail-commercial interface)</td>
<td>Improve integration of public private space</td>
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<td>The Shadow Policy</td>
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<tr>
<td>A Development Contribution Policy</td>
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<td>A Nodal Density Policy</td>
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<td>Amendment to scheme</td>
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<td>Conditions of approval</td>
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<td>Site development plans</td>
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<tr>
<td>Planning for neighboring areas</td>
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<tr>
<td>Design codes / review group</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Landscape Planning</td>
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<td>✓</td>
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<td>Special Zones</td>
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<tr>
<th>PLANNING/ MANAGEMENT RESPONSES</th>
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<th>ECONOMY AND INVESTMENT</th>
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<tbody>
<tr>
<td>Amenity Reserve</td>
<td>Increase public space</td>
<td>Manage height in node in general</td>
<td>Improved access to the beach</td>
<td>Attracting business to the area</td>
</tr>
<tr>
<td></td>
<td>Create multifunctional spaces</td>
<td>Encourage indigenous planting</td>
<td>Improved pedestrian access and facilities</td>
<td>Atrative 2nd economy business</td>
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<tr>
<td></td>
<td>Active edges (pedestrian/retail/commercial interface)</td>
<td>Encourage retaining of indigenous planting</td>
<td>Promenade upgrade/integration</td>
<td>Encourage the redevelopment of existing buildings</td>
</tr>
<tr>
<td></td>
<td>Integration of public/private space</td>
<td>Softer building edges (back of buildings)</td>
<td>Limit building height on beach front</td>
<td>Facilitate urban renewal</td>
</tr>
<tr>
<td></td>
<td>Manage height in node in general</td>
<td>Protect/Enhance beach area</td>
<td>Increased levels of public parking</td>
<td>Attract new investment</td>
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<tr>
<td></td>
<td>Guide the built form</td>
<td>Manage densification of the node</td>
<td>Reducing traffic congestion</td>
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**FINANCIAL TOOLS**

<table>
<thead>
<tr>
<th>Rates / Rates Rebates</th>
<th>Development Contributions</th>
<th>Co-funding from Council / Subsidy</th>
<th>Trade-offs</th>
<th><strong>URBAN MANAGEMENT</strong></th>
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<td>Urban management capacity</td>
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January 2008
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**Business Incentives**

- **Facilities provision**:
  - ✓
  - ✓
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INTRODUCTION

This analysis has been based on discussions with officials from the eThekwini Municipality and the following previous reports compiled by the officials;


The study area comprised of a mixture of land uses being residential, commercial, tourist accommodation and recreational. This diverse land use has a major effect on the infrastructure which has been clearly identified by the various departments within the Municipality.

Following discussion with Municipal Officials it has been confirmed that the reports prepared in 2005 are still a true reflection of existing capacity and therefore extracts of the report have been included in the following sections of this report.
2 STATUS QUO

2.1 Water Infrastructure

Reservoirs
A 10 Ml reservoir is required to be constructed to augment the existing water supply to this area. This will cater for the needs of any increased development within the Umhlanga node and adjoining developments. This will be required if any additional development rights are approved in the Umhlanga node. The proposed site for this reservoir has been identified and is planned for construction in 2008/2009 financial year.

Reticulation
Upgrading of reticulation is required in the form of a new ring main which will be constructed and paid for by the Ridgeside (previously known as the Tourist Triangle) development. It is unlikely that any additional cost would be required for this node.

2.2 Waste Water Infrastructure

Pump station capacity
The existing sewer pump station at McCauseland Crescent has an additional 19litre/sec capacity and this is sufficient for approximately 800 units. Once this capacity is exceed the pump station would require a substantial upgrade.

Reticulation
It is not anticipated that any major upgrading of the reticulation will be required including the potential take up of the existing 19litre/sec spare capacity in the existing sewer pump station.

2.3 Stormwater Infrastructure

The existing services in the area have been investigated and have been included in the Council’s GIS. The stormwater system for the various areas within the node are described below;

General Residential Zone
Most of the General Residential lots are situated below Lagoon Drive and tend to discharge stormwater either directly to the beach via their own pipes, or by connection into the existing system very close to the beach outlets. It would appear from the investigation presently being conducted that there are undocumented connections in this area that may be illegal. The many outlets along the Umhlanga promenade that are suspected as being stormwater discharge points are also currently being investigated (many of these were exposed during the recent storm damage).

The general recommendation is that no increase in peak runoff should be permitted above the present volumes. Any additional runoff resulting from development changes must be attenuated on site to hold the peak discharge at present levels.
Special Zones
The Special Zones, with one exception, discharge to the new Lagoon Drive / McCausland Crescent box culvert and have been catered for in the culvert design by allowing 90% hardened surface runoff from their catchments.

General Commercial
The General Commercial lots fall into two categories. Some discharge to the new Lagoon Drive / McCausland Crescent box culvert and these catchments have been catered for as per the Special Zones above,

The other group discharge to the existing stormwater system and any additional runoff generated by development changes must be attenuated within the development to hold peak discharges at present levels.

2.4 Summary
This report includes schematic reference to the existing stormwater greater than 525mm diameter and sewer pipes larger than 250mm diameter (attached “Bulk Services Layout”). This has been produced from the latest GIS information which was obtained from eThekwini Municipality in August 2007. The detailed electronic information relating to existing services within the study node has not been included in this report as this data is updated periodically as and when new developments are commissioned. It is important therefore to obtain the latest information from the relevant departments as and when any new development is considered for implementation.

The layout of existing services based on the latest GIS data obtained from the eThekwini Municipality is illustrated on the Bulk Services Layout below.
3 SERVICES PROPOSALS

3.1 Water Supply

The Stage 2, Situational Analysis, report noted that the water supply to the Umhlanga node has been planned to accommodate future development in the area. It is important to note that potable water is a limited resource and therefore strict “Green Goals” should be applied to future developments. Developers should be made aware of new initiatives in the industry to reduce overall water demand by the issuing of new policy directives from the Ethekwini Municipality. For example initiatives such as rain water harvesting or flow restrictors on taps can greatly reduce water demand which should be pursued for all new developments.

3.2 Waste Water Infrastructure

Based on the data supplied by the eThekwini Municipality it appears that the sewer reticulation within the study area could allow for additional development. However the limiting factor, as mentioned in the situational analysis, is the capacity of the main Umhlanga sewer pump station. The proposal to attenuate foulwater within new developments and then discharge off-peak is not supported by the Water and Sanitation Department of the eThekwini Municipality. Storing foulwater within any development poses numerous health risks. Therefore should future development, greater than 800 units, be allowed within this node then the existing pump station would need to be upgraded.

Based on the available bulk it appears that an additional 137,000 m$^2$ of bulk can still be developed within the node within existing land use rights. This translates to approximately 900 units with current floor area ratios. The existing pump station can cater for an additional 800 units prior to upgrading which leaves a capacity shortfall of approximately 100 units based on existing rights.

The precinct plan further refers to an intensification strategy based on current urban design best practice which has the potential to increase the number of units within the node by a further 1,800 units taking the full development potential into account. This will effectively double the number of residential units within the Umhlanga Node which in turn will require substantial upgrading of the existing sewer pump station. There are three upgrade options in this regard as follows;

1. Upgrade existing pump station by providing additional capacity within the existing pump station buildings.
2. Construction of new pump station to cater for current and potential new development capacity at the current location.
3. Minor upgrade of existing pump station to cater for 900 new residential units based on existing development rights and construction of new sewer pump station at a separate location for the potential additional 1,800 units based on the proposed intensification strategy.

The main advantage of options 1 and 2 is that these options can be implemented without extensive planning and environmental impact assessments as they can be considered as upgrades of an existing facility. This needs to be confirmed with the relevant authorities. However the current site is not ideal with regards to public interface, urban design and
proximity to the beach. While this could be partly overcome by design treatments, a larger facility at this location may be considered problematic in this instance.

Option 3’s main advantage is that the pump station can be located in a more suitable area from a public interface point of view and properly integrated into any new development such as the Ukusa development precinct where most of the new development is likely to occur. However this facility would require detailed planning and will be subject to a full environmental impact assessment if not already considered in the current development planning for the node.

The estimated costs for each of the options are as listed below. It should be noted that all costs exclude design development contingencies (10%), professional fees (14%), value added tax (14%) and pre and post contract escalation (1.5% per month). Costs estimates are also based on January 2008 contract rates and are considered to be order of magnitude cost estimates only. Final implementation prices will be dependant on detailed designs and the construction environment at time of implementation.

- Option 1: Upgrade existing pump station within existing buildings: R 5.0 million.
- Option 2: Construct new pump station at existing location: R 8.0 million.
- Option 3: Minor upgrade of existing pump station + new pump station for additional bulk: R 6.0 million.

In each option, the developer contribution principle should apply and an appropriate contribution formula needs to be derived by the municipality for this purpose. As mentioned previously these costs are based on preliminary planning only and it is recommended that a detailed feasibility study, including a cost benefit analysis, be carried to investigate the above three options. Although it has been indicated that the option of on-site attenuation is not favoured by the municipality, this option should be included in the detailed feasibility and its potential impacts fully considered. The estimated costs of the detailed feasibility study is R350,000.

3.3 Stormwater Infrastructure

The recent upgrading of the stormwater system within the node will allow for future development. It should be noted that the water harvesting proposed to reduce water demand could also improve attenuation of rainwater on site and therefore reduce the peak intensity of stormwater discharge into the existing systems.

3.4 Summary

The GIS records are constantly upgraded and therefore any future planning or developments must liaise with eThekwini Municipality to obtain the latest available information.

It has become the norm with new precinct type development to include additional services such as CCTV cameras and irrigation. These new services are laid, together with historical services (water, sewer and stormwater), within the sidewalk areas of the road reverses which results in a congested services layout. Due to this it is important that the urban landscaping designs make allowance for the additional services.
4 IMPLEMENTATION STRATEGY AND MANAGEMENT FRAMEWORK.

Based on the above services proposals, the following projects have been proposed for the short to medium term in relation to the precinct plan. It should be noted that all costs exclude design development contingencies (10%), professional fees (14%), value added tax (14%) and pre and post contract escalation (1.5% per month). Costs estimates are also based on January 2008 contract rates and are considered to be order of magnitude cost estimates only. Final implementation prices will be dependant on detailed designs and the construction environment at time of implementation.

1. Upgrading of the main Umhlanga Sewer pump station;
   a. Budget: approximately R 8.35 million depending on option chosen and allowing for a detailed feasibility study
   b. Funding: Council and Private with contribution formula.
   c. Key Actions: Detailed Feasibility Study.
   d. Interdependent projects: None

2. Development of policy directives to reduce overall water demand;
   a. Budget: approximately R 300,000.
   b. Funding: Council
   c. Key Actions: Departmental buy-in and council approval.
   d. Interdependent projects: None
UMHLANGA NODE PRECINCT PLAN
TRANSPORTATION ISSUES

FINAL REPORT: Revision 2
23 May 2008
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1 INTRODUCTION

It is proposed to increase densities within the Umhlanga Node core area to 80 dwelling units per hectare which translates to a possible additional 50,000 m² of residential development within the core area. This in turn will translate to approximately 500 new units (average of 100m² per unit) which will increase the number of residential units in the core area from the existing 1,230 (approximate) units to 1,730 units. This will effectively increase the level of trip making in this area by approximately 40% assuming similar trip making characteristics. More significantly, the increased densities will sufficiently increase the development thresholds in order to support an internal public transport service (refer section 4.2 of main report).

In other words, the increased number of units will require a significant change to the transportation system as opposed to a simple organic growth of the existing private car based road network capacity. This change to the transportation system should consist of a combination of improving road based transport capacity with the introduction of a local public transport service. In response to the proposed precinct plan the following priority levels are proposed for each mode;

- Pedestrian
- Non Motorised Transport (NMT) including cycling and leisure based systems such as rickshas.
- Road based Public Transport.
- Private Vehicles, Service Vehicles and Emergency Vehicles.

The components of the conceptual transport system are as follows;

1. Network of pedestrian and NMT routes within 5 minute walking distance to the main amenities (beach), attractions (commercial and entertainment) and proposed internal public transport route for longer trips within the precinct.
2. Internal public transport route within the larger precinct area with above-local links to adjacent precincts such as Umhlanga Ridge New Town Centre, Ridgeside and La Lucia Mall.
3. Centralised public transport interchange for regional public transport trips. This interchange should be linked directly to the proposed internal public transport service.
4. Centralised private car parking facility for regional and occasional trips to the core precinct. The parking facility should be located in close proximity to the core precinct, M4/ Umhlanga Rocks Drive interchange and connect directly to the proposed internal public transport service.
5. Extension of the local road network in accordance with the new development proposals to support local private car trips.
6. New direct links to adjacent precinct particularly Ridgeside. Care should be taken to prevent “rat-running” through adjacent residential areas.
7. Enhanced links to the regional road network by upgrading the M4/ Umhlanga Rocks Drive and M4/ Egretia interchanges.

The concept is illustrated diagrammatically in Figure 1 below;
2 TRANSPORTATION PROPOSALS

Based on the above transport concept, the following transport projects have been identified;

2.1 Pedestrian and Non Motorised Transport;

The development of a pedestrian and NMT network in accordance with Figure 7.3 of the main report. It is important to ensure that this network maintains a 5 minute walking distance coverage to all major amenities and attractions within the core precinct area as well as the proposed internal public transport route. The route should have an all weather surface, be well lit, have visible enhanced security and enjoy priority at all connections with the road based network.

This aspect has been dealt with in detail in the precinct plan main report. The proposals contained in the precinct plan are supported and hence will not be dealt with any further in this portion of the report.

2.2 Public Transport

A new internal public transport service should be introduced when the densities reach the threshold levels referred to in the section 4.2 of the main report. This route should cover the core precinct area and provide linkages to the adjacent residential areas, precincts, pedestrian and NMT network, regional public transport interchange, centralized parking facility and provide easy walking distance to the various beach amenities. The route should follow or provide some structure for the location of high density development via an interactive process with the land use planners.

Regional public transport trips should be accommodated via a new centralized facility within the core precinct area. The facility should be located within easy walking distance of all developments within the core precinct area and should connect directly to the proposed internal public transport service. The facility should be incorporated into a transit orientated development and could possibly be located at the ground floor or basement level. It is important to ensure that the facility is sized for and use only as a short term pick and drop-off facility with remote long term holding of vehicles outside of the core precinct area. Guidance on the sizing and type of facilities that should be provided at a typical public transport interchange is contained the following extract (Province Of Kwazulu Natal: Department Of Transport, Public Transport Infrastructure And Rural Mobility Project, Final Report: Revision 1, ILISO, August 2007)

“Guidance on the type and extent of facilities that should be provided at interchanges can again be taken from the appropriate functions of PT interchanges.

Noting that the prime function of a PT interchange is to provide a collection/ distribution point for passengers, the main facilities to be provided are passenger loading/ unloading bays. In so far as bus loading bays are concerned, a substantial amount of local research and development has been carried out into the design of operationally safe and space efficient bays. However, the generally used layout of loading areas for minibus-taxis differs from that of bus bays and it is contended that improvements aimed at passenger safety and comfort are required. That said the main requirements of loading bays are that they should provide
physically separated passenger and vehicle areas with properly drained all-weather surfaces. Additionally, since passenger queuing/waiting is virtually unavoidable, some means of shelter is required.

The question of the number of loading bays required at an interchange has been dealt with elsewhere at a theoretical and practical level and is not repeated here. However, the practice of some transport operators to unnecessarily overload interchanges requires attention. This situation arises when transport operators include an interchange on many of their routes as an intermediate stop, as opposed to using it as a terminal point, because their service network has insufficient direct services. An example of this took place in Pinetown during the 1970’s when virtually all services from the adjacent industrial areas were routed via the Pinetown CBD terminal. Often the buses concerned had only a few (standing) spaces available and hence were of minimal benefit. However, if a route has a low demand/low frequency service then there could be justification for routing it through intermediate interchanges.

Other facilities that are deemed to be essential for passenger comfort include toilets and service information whilst ticket/coupon sale facilities are at least highly desirable. There can also be a case for some retail outlets if these are not available in adjacent developments. However, “street cum informal trading” is not generally considered to be desirable since in practice it often interferes with the operation of an interchange.

From an operational point of view it is usually necessary to have an area set aside for short term holding of vehicles that are unable to occupy their designated loading bay – typically as a result of variation in travel times due to traffic conditions. However, long term storage of vehicles – as tends to occur in practice at most “ranks” – should not take place at an interchange. During the valley period, “ranks” are usually full of vehicles – often impeding circulation – waiting to load passengers. The result is that a large area of land – often under roofing – is actually being used to accommodate parked vehicles at the expense of passenger comfort/facilities. It is appreciated that this situation has arisen from the method of minibus-taxi operation which involves minibus-taxis “waiting in turn” to pick up the next load of passengers. Also, there are concerns about the security of vehicles being parked at locations away from a rank. Nonetheless, the need is seen to change this method of operation to one which is not only a more efficient user of land and infrastructure but also more oriented to the needs of passengers.

Considering the requirements of transport operators, it is considered that facilities should be confined to those that are necessary to the operation of the services per se. Consequently, vehicle cleaning and maintenance must take place away from/outside of a passenger interchange.

Management and control of interchanges is essential to orderly operation and hence a “control” cum management office is deemed to be necessary.”

At a conceptual level it is proposed to locate the centralized public transport facility within the central square in line with the earlier Ukusa proposals (and supported by the Arup, Feb 2006 report) and integrate this facility with the proposed central parking facility. The final choice of location and subsequent site specific considerations such as access cannot be covered in this assignment and should be the subject of a separate detailed investigation.
However for budgeting purposes the a preliminary facility size and budget has been determined in accordance with the assumptions listed below:

1. The existing facility caters for 10 bus bays and 40 taxi bays (approximately 4100m2)

2. At present only 6 minibus taxi associations are legally permitted to utilize the facility although the eThekwini Municipality CPTR records indicate that 9 minibus taxi associations use the facility.

3. On-site observations of the facility are inconclusive in terms of actual demand and utilization as these are specific to time of day.

4. Based on the current CPRT data the current passenger usage of the facility in the am peak is;
   a. 1700 passengers per hour for minibus taxis (rounded to nearest 100 passengers)
   b. 2000 passengers per hour for conventional buses (rounded to nearest 100 passengers)

5. Based on data published by the nationally published design guidelines as well as on site observations (C Simmer, M Sc Dissertation, University of KwaZulu Natal, 1996), the above passenger usage should translate to the following number of loading/unloading bays;
   a. Minibus taxis (180 passengers per hour) – 10 bays.
   b. Commuter buses (300 passengers per hour) – 7 bays.

6. The current modal split based on passenger numbers between minibus taxi and commuter bus is 45:55.

7. Therefore based on 2,700 new residential units and 67% employment rate (national average- S A Statistics), a total of 1809 new peak hour trips are anticipated by public transport. Using the above standards this translates to a total new public transport facility requirement of (10% allowance for variation in assumptions);
   a. Minibus taxis (180 passengers per hour) – 20 bays.
   b. Commuter buses (300 passengers per hour) – 10 bays.

It must be re-iterated that the above assumptions need to be tested and verified by a detailed feasibility study for the proposed new facility.

2.3 Transportation Network Enhancements

2.3.1 Past Studies
Three recent report are relevant for this project as follows;

1. Immediate Term Traffic Modelling of the Umhlanga Area (Revision 1), May 2005, Vela VKE.
2. Road Improvement Requirements for the Umhlanga Ridge Area, April 2006, DMA
3. Umhlanga Road Upgrade Assessment and Costing, Traffic Assessment and Infrastructure Costing, February 2006, ArupTransportPlanning
The first two reports dealt with the greater Umhlanga development area whereas the third report dealt specifically with the Umhlanga Node study area. Together these reports provided a comprehensive assessment of the transport implications of the known development initiatives at the time at both the macro level and micro level (in relation to the Umhlanga Node).

**Vela VKE (May 2005)**

Vela VKE (May 2005) carried out an investigation into the transport infrastructure requirements of all known developments within the greater Umhlanga Area in response to the numerous development initiatives/applications at that time. The appointment was made jointly by the Ethekwini Transport Authority (ETA) and Tongaat Hulletts Developments (ThDev), previously Morelands (Pty) Ltd. The study area for this and the second study was defined as “Umhlanga River to the north, R 102 to the east, M4 to the west and North Coast Road/Northway/M4 Virginia Interchange to the south.”

The report identified several “bottlenecks” in the transport network and suggested a suite of road infrastructure requirements, for the immediate and long term, to cater for the proposed development initiatives. The report proposed that the M4/URD interchange be upgraded to a five lane bridge to support development within the Umhlanga Node in the immediate term. The long term infrastructure requirements of direct relevance to the Umhlanga Node included:

1. The upgrade of Umhlanga Rocks Drive to a 4 lane facility between Herrwood Drive and M4 as part of the Ridgeside Development.
2. Widening of M4 (URD interchange to the M41 interchange) from three lanes (1+2) to four lanes (2+2).
3. Conversion of northern interchange (M4/Egretia Road Interchange) from a half diamond to a full diamond interchange by the provision of north facing ramps.

**DMA (April 2006)**

The above mentioned upgrades were re-iterated in the DMA report (April 2006). However it was suggested that the URD bridge over the M4 at the URD/M4 interchange be widened to 6 lanes instead of 5 lanes as mentioned in the Vela VKE (May 2005) report.

**Arup (February 2006)**

The eThekwini Municipality commissioned ArupTransportPlanning to “conduct a traffic and related infrastructure study as part of the continuing development of the Umhlanga Rocks area and the subsequent effects thereof on the existing road infrastructure”. The study area is identical to the Umhlanga Node study area and included both “existing land uses and planned future developments (by developers as well as local authority)”.

The Umhlanga Node Study explored various development scenarios which included a possible additional 2,700 residential units within the study area. However limitations imposed by other infrastructure such as sewer and water could reduce this future development...
potential although the exact latent capacity of the sewer and water capacity had not been defined. It was decided therefore to consider three development scenarios as follows;

- **Scenario 1**: Limit future development to an additional 1,000 residential units distributed throughout the study area in proportion to latent development potential on all sites considered by the Ethekwini Municipality.
- **Scenario 2**: Full development of 2,700 residential units.
- **Scenario 3**: Limited future development of an additional 1,000 residential units but with the additional units allocated to preferred sites for future development (based on eThekwini Municipality’s assessment of past trends) as opposed to proportional allocation across all sites mentioned in Scenario 1.

Similar to the first two studies, a traffic simulation model (SATURN) was developed for the study area in order to test the various development scenarios. The model was integrated into the larger area wide model developed by Vela VKE to ensure consistency of analysis and allow some level of portability between the models. The Arup report confirmed the need for the widening of the URD bridge over the M4 at the URD/M4 interchange to 5 lanes for scenarios 1 and 3 and to 6 lanes for development scenario 2. In addition, Arup recommended a package of minor road and intersection improvements most of which have been identified in previous reports.

**Summary**

While the past studies all have similar recommendations in areas where these overlap, two key issues or areas of contradiction have been identified in this regard.

1. The Arup report suggests that the widening of the URD bridge can be delayed by the introduction of a few localized improvements which will cater for an additional 40,000m² of development prior to bridge widening. The Vela VKE and DMA reports on the other hand suggest that the bridge widening occur as an immediate infrastructure improvement prior to any new development occurring in the Umhlanga Node. The analysis provided by the various reports, including the detailed LOS analysis carried out by Arup, seems to support the Vela VKE and DMA recommendations since the existing interchange is already experiencing operational problems in the peak periods. In addition Tongaat Huletts Development will be widening URD to 4 lanes between Herrwood Drive and M4 in the short term as part of the Ridgeside Development conditions of approval. The impact of this widening will be significantly reduced (and possibly be ineffective) if the URD/M4 interchange is not upgraded simultaneously. Therefore the analysis supports (based on analysis carried out by others) the immediate upgrading of the URD/M4 interchange, including the widening of the URD bridge to 6 lanes, in the immediate term.

2. With regard to the Ridge Road/ Lighthouse Road intersection, Arup had previously recommended a traffic circle at this location as part of the Ukusa Development. The additional analysis carried out in the Arup, February 2006 report indicates that the proposed traffic circle barely accommodates the additional traffic estimated under development scenarios 1 and 3 and cannot accommodate development scenario 2. Arup, nevertheless recommend that the traffic circle be installed anyway in line with their earlier recommendations as part of the Ukusa development and that the circle be upgraded in the future to traffic signals as and when traffic volumes warrant.
Experience has shown at La Lucia Ridge and Umhlanga Rocks New Town Centre that multi-lane, small diameter traffic circles (internal diameter less than 30m) have limited capacity where operationally these tend to operate as single lane circles. Hence their actual capacity is half of that estimated by the traffic analysis software which in turn significantly reduces their useful life, leading to operational problems long before the development term actually matures. Also the mixing of traffic circles and traffic signals in one system in close proximity to each other adds further operational problems to the traffic circle in particular where the platooning of vehicles and extension of queues through the traffic signals further reduces the effective capacity of the adjacent traffic circle.

Therefore based on the analysis carried out by Arup and past experience in similar situations within Umhlanga (and elsewhere in the eThekwini Municipality – Spine Road, Pavilion Shopping Centre and Westway Office Park access arrangement), it is recommended that the Ridge Road/ Lighthouse Road intersection be upgraded as a traffic signalized intersection in the immediate term. This should happen simultaneously and be integrated into the URD/M4 interchange upgrading.

In addition to the above the following regional road improvements have been identified in the previous planning reports and are supported in this assessment;

1. The conversion of the M4/ Egretia Road interchange to a full diamond interchange: Given that the new airport is set to be developed along with the associated trade port there is merit in developing the northern (half diamond) interchange with the M4 into a full diamond to facilitate traffic movements to/from the north and also to provide a link through to the north -west quadrant of Umhlanga. This arrangement will ease traffic loading on the URD/M4 interchange and has been considered in the Vela VKE and DMA reports as a potential long term project depending on the developments that actually do take place. It may be appropriate to consider additional lanes on M4 between these interchanges to accommodate the potential weaving maneuvers. This analysis should be carried at the detailed design phase prior to the implementation of this proposed project.

2. Upgrading M4 from 3 lanes (1+2) to 4 lanes (2+2) will enhance regional accessibility to the node for southbound trips and reduce the propensity to use Ridge Road to avoid congestion over this section of the M4, which is expected to increase in the future as new development is implemented.

3. Lastly, a new link to the Ridgside precinct and URNTC via Ridgside is suggested to cater for local trips. This link may initially take the form of a pedestrian link over the M4 some 400m south of the M4/URD interchange. This link is considered to be a critical precinct connector to link the proposed new Ridgside development to the Umhlanga Node. An added advantage is that this link will cater for local or precinct level trips and provide some relieve to the URD/ M4 interchange. The main disadvantage is perceived by residences along Ridge Road who have objected on the grounds that this will increase traffic on Ridge Road and negatively impact on residential amenity in this area. While this is a justifiable concern, the increased traffic will be mainly precinct based and hence considered as local traffic. Nevertheless, given that this option has not been included in either the Vela VKE or ARUP traffic models, its impacts can only be described in qualitative terms at this stage. It is recommended that this traffic models be extended to include this option in order to test it’s impacts quantitively.
Apart for the proposed new Ridgeside link, the regional and local traffic models (Saturn) developed by Vela VKE and ARUP have already assessed (and supported) the remaining proposed regional connections.

### 2.3.2 Internal road network and vehicular circulation

The main local road network proposals are contained on Figure 7.3 of the main report. It should be noted that this network is similar to the network proposed and analysed by Arup in their February 2006 report. These proposals are supported from a traffic point of view and are outlined below:

#### 2.3.2.1 Ridge Road/ Lighthouse Road Intersection

The upgrade of the **Ridge Road/ Lighthouse Road Intersection** to a four way signalized intersection. Arup (Feb 2006) suggests three approach lanes on both Lighthouse Road approaches and single lane approaches from Ridge Road for the traffic circle option. This lane configuration can remain for the signalized intersection option with the addition of right lanes on each approach. A conceptual layout of this intersection is depicted on the urban design layouts and TRL’s and final designs can be developed as part of the implementation phase.

#### 2.3.2.2 Lighthouse Road

The section of Lighthouse Road between Ridge Road and Lagoon Drive is to be converted to a four lane, dual carriageway urban boulevard with a raised planted median. The approach to the Ridge Road/ Lighthouse Road intersection is to be widened to tie into the proposed intersection configuration. Although the main purpose of this route will be for vehicular mobility, parallel on street parking, public transport drop off and pick up areas and surface treatments must be used to integrate this section of road with the overall urban landscape and to emphasize it’s location within a busy urban environment which prioritizes pedestrian movements. Lighthouse road will to remain as a two way, two lane single carriageway east of Lagoon Drive with appropriate urban landscape treatments.

#### 2.3.2.3 McCausland Crescent

As part of the Lighthouse Road upgrade, it is proposed to convert **McCausland Crescent** to a pedestrian only street with occasional use by vehicular traffic for service and emergency purposes. McCausland will culminate in new Centre Square bordered by Ridge Road to the west, Lighthouse Road to the south, Ukusa Development precinct to the north and Lagoon Drive to the east. Both Lagoon Drive and Chartwell Drive will pass through the central square. In this instance the surface treatment of these road will be integrated into the central square with priority given to pedestrians within the square. Also roadways will be demarcated by bollards as opposed to kerbs to ensure that pedestrians are able to cross at grade. The central square will also accommodate a centralized public transport and parking facility as described later in this report.
The above proposal differs to the Arup/ Ukusa proposal which suggests a one way pairing between Lighthouse and McCausland Crescent with a large public space between the two roads. Although the two proposals differ from a physical layout perspective, operationally the network will still function the same where all four lanes will be provided along Lighthouse Road as opposed to being split between Lighthouse and McCausland in the Arup/Ukusa proposal. The revised proposal to confine vehicular traffic to Lighthouse Road is favoured in that it will reduce vehicle/ pedestrian conflicts, improve the navigability of the road network and consolidate the pedestrian/activity zone.

Ridge Road

It is proposed to extend Ridge Road northwards to intersect with Lagoon Drive in the vicinity of Flamengo Lane. This proposal is as per the Arup/ Ukusa road network and the Ridge Road extension will be the primary vehicular link to the areas north of the core precinct as well as the developments within the UKusa development precinct. The Ridge Road extension will consist of two movement lanes and a third turning lane along the length of the new link. Parallel parking and service loading bays are proposed along both sides of the road with due cognizance taken of individual access requirements of new developments flanking the new link.

2.3.2.5 Chartwell Drive

A new mid block link is proposed in a similar position to the Chartwell Drive extension proposed by Arup/ Ukusa. The main difference is that the proposed link does not connect directly to Chartwell drive but will end in a cul-de-sac before connecting to Lighthouse Road. A pedestrian will be maintained with Chartwell Drive. This link is regarded as a secondary road mainly providing service and vehicular access to the developments within the UKusa Development precinct and hence should not connect directly to Chartwell Drive which is a combined pedestrian/ vehicular street. The existing section of Chartwell Drive between Lighthouse Road and Ocean way will remain as combined pedestrian/ vehicular street and incorporated into the proposed Umhlanga Ramblas along Lagoon Drive as illustrated in Figures 7.5 to 7.7 of the main report. In this instance the existing section of Chartwell Drive between Lighthouse and Ocean Way will form a one way pair with Lagoon Drive over the same section. This option is a slight deviation from the Arup/Ukusa proposals and, as such, have not been analysed in detail as yet. It is proposed that the Arup model be used to test this alternative prior to implementation.

2.3.2.6 Lagoon Drive

With regard to Lagoon Drive, two options have been proposed by the urban design team as shown below;

**Option 1: Ramblas Option:** One way pair with a large central, activity median similar the world renown Ramblas in Barcelona, Spain and Gateway Boulevard in Umhlanga Rocks Town Centre. The main disadvantage from a traffic point of view is that the central median could become isolated with roads on either side depending on the nature of traffic.
flows on the flanking roads (high speed, high volume through traffic). In order to counter this through traffic should be discouraged by providing attractive alternatives and appropriate end treatment. Also the flanking roads, in particular the road surface, should be designed to reduce speeds. Lastly some form of traffic restrictions should be applied to say public transport and service vehicles only with private traffic limited to local access only. In any case the kerbside lane should be retained for public transport vehicles only should the internal public transport route be implemented.

Option 2: Wider verges with two lane, two way roadway. This option is more common in South African urban centers and follows the conventional route of central roadway with wider activity verges on either side of the roadway. In this option, angled parking is suggested along the length of the road with no separation between the activity verge and flanking development which is considered to be a significant advantage. Also the additional parking will further enhance the flanking developments in terms of increased accessibility while the angled parking is a proven traffic calming measure.

Based on the above option 2 is favoured from a vehicular traffic point of view in that it represents a more conventional approach of creating a traffic calmed street within an urban environment. Option 2 is also similar to the Arup/Ukusa proposals and hence its impacts have already been analysed by the Arup traffic model.

However option 1 has other benefits related to improving pedestrian movement and providing opportunities for dedicated public transport. Given the stated bias towards pedestrians, NMT and public transport as well as the obvious urban design benefits, Option 1 can be supported subject to the suggested roadway treatments suggested above. Option 1 will have similar operational characteristics from a network operation point of view, hence it is considered that the findings of analysis from the Arup traffic modeling will still be valid at the network level. With regard to the specific operation along the link it is recommended that detailed pedestrian/traffic simulation modeling be carried as part of the design development and refinement process prior to implementation.

The proposed transport concept is illustrated on Figure 2, noting that this is linked to the proposed redistribution of land use.
Figure 2: Preliminary Transport Proposals

A conceptual layout of the road improvement proposals are contained in Annexure A. It should be noted that these layouts are based on preliminary planning only at this stage and are subject to change as planning proceeds. It is further recommended that these proposals are tested with the internal model developed by Arup (Feb, 2006) to test the network wide impacts prior to design and implementation.

2.3.3 Parking facilities

The main parking problem areas are in Chartwell Drive and McCausland Crescent – arising from lack of/incorrect management, difficult/unclear access and conflict of usage. In essence three groups of road users/trip purposes require parking space:

- employees (existing parkades and below ground parking within the Ukusa Development).
- visitors / beach front (proposed location down Lighthouse Road to parkade in McCausland Crescent.
- clients of the various shops, restaurants etc which would comprise residents and visitors (proposed as on street parking within Ukusa development and along Lagoon Drive).

While some attempt has been made to quantify the overall parking requirements in the node, the results of the investigation carried out in 1996 and updated in stage 2 of this investigation are inconclusive. Overall there appears to be sufficient parking to cope with the base demand loads. However a significant proportion of bays appear to be reserved and are underutilized whereas the poor positioning of parking and lack of suitable pedestrian links further reduces effective utilization. On the other hand, certain bays are well positioned in relation to the attractions and freely available. These bays are well used and based on on-site observation
often abused by long term parkers who should be using the reserved parking spaces. The net result is that those bays which are optimally positioned and are freely available to the public are well used and in high demand whereas certain parking areas have utilization levels below 50%.

Despite this, there is a general lack of parking for occasional users particularly beach goers which is evident during peak holiday seasons and certain weekends through the year. The availability of public parking will be further reduced with the impending development of the Ukusa precinct. In this regard, a combination of policy, operational and public infrastructure interventions are recommended to deal with parking in the Umhlanga node as follows;

- At a policy level, all new commercial and mixed developments should be required to provide additional public parking over and above their specific land use requirements. These bays should be freely accessible by the public and can include a basic fixed or hourly charge.
- Operationally employees and other long term parkers should be directed to park in the reserved parking areas and a combination of enforcement and punitive parking rates should discourage long term usage of public parking areas.
- With regard to infrastructure, the provision of a central public parking facility is highly recommended for the Umhlanga node to cater for visitors, shoppers and general recreational users. While it may be desirable for the municipality to provide such a facility, in reality given the space constraints in the node, this parking will have to be provided in a structure and hence be beyond the financial means of the municipality. The alternative is to develop this facility along commercial grounds, either as a stand alone facility or integrated into one of the development sites within the Ukusa development precinct. It has been proposed earlier that this facility be integrated with the proposed centralized public transport facility to create a consolidated transport node. The main benefit of this option is that it could provide sufficient pedestrian traffic to sustain some form of commercial development within the facility, which in turn can be used to assist with the funding of such a facility.

At this stage, the central square has been identified as a potential location for the proposed parking facility. A simple policy to encourage the development and usage of the central facility would be to ensure that 10% of the total new residential unit requirement is provided within the central facility. If accepted this will translate to 540 parking bays (2700 units x 2 bays per unit x 10%) within the new centralized parking structure. However similar to the proposed public transport facility, it is recommended that a detailed feasibility investigation be carried out for this facility, which should include appropriate precedent studies as part of the detailed design and implementation stage of the project.
3 IMPLEMENTATION STRATEGY AND MANAGEMENT FRAMEWORK

Based on the above transport proposals, the following package of transportation projects have been proposed for the short to medium term in relation to the precinct plan. It should be noted that all costs exclude design development contingencies (10%), professional fees (14%), value added tax (14%) and pre and post contract escalation (1.5% per month). Costs estimates are also based on January 2008 contract rates and are considered to be order of magnitude cost estimates only. Final implementation prices will be dependant on detailed designs and the construction environment at time of implementation.

1. Upgrade of the URD/M4 Interchange;
   a. Key Actions: Detail design and implementation.
   b. Interdependent projects:
      i. Widening of URD between Herrwood Drive and M4
      ii. Upgrade of Ridge Road/ Lighthouse Road intersection.

2. Implementation of road network improvements as part of the UKUSA development with the amendments suggested in this report.
   a. Key Actions: Engagement with Ukusa planners to effect proposed changes planning and preliminary designs
   b. Interdependent projects: None

3. Implementation of road network improvements contained in the Arup Feb 2006 report the amendments suggested in this report.
   a. Key Actions: Preliminary designs (TRL’s) and environmental impact assessments
   b. Interdependent projects: Ukusa development related projects.

4. Lighthouse Road Upgrading
   a. Key Actions: Revised preliminary designs (TRL’s) and cost estimates.
   b. Interdependent projects: Ukusa development related projects.

5. Conversion of Lagoon Drive to Umhlanga Ramblas and associated road network changes.
   a. Key Actions: Revised preliminary designs (TRL’s) including detailed pedestrian/traffic simulation and cost estimates.
   b. Interdependent projects: Ukusa development related projects.

6. New centralized public transport and private parking facility.
   a. Key Actions: Detailed feasibility study (R 300,000 included in budget above), Revised preliminary designs (TRL’s) including detailed pedestrian/traffic simulation and cost estimates.
   b. Interdependent projects: Ukusa development related projects.

7. Detailed planning and costing for an internal public transport service (R 250,000.00)

8. Upgrading on key entrance nodes (R 200,000 for preliminary planning and costing);
   a. M4/ Lighthouse Road Interchange.
b. M4/ Egretia Road Interchange.

Based on the area wide modeling carried out by Vela VKE and Arup, the following long term projects have been identified;

9. Conversion of northern interchange (M4/ Egretia Interchange) to a full diamond by the provision of north facing ramps.
   a. Key Actions: Revised preliminary designs (TRL’s) including detailed cost estimates.
   b. Interdependent projects: None

10. Widening of M4 from 3 lane to 4 lanes between the URD/M4 and M41/M4 interchanges.
    a. Key Actions: Preliminary designs (TRL’s) and cost estimates.
    b. Interdependent projects:
       i. URD/ M4 Interchange Upgrading
       ii. M4/M41 Interchange Upgrading
UMHLANGA NODE PRECINCT PLAN
TRANSPORTATION ISSUES
FINAL REPORT: REVISION 2
23 MAY 2008

ANNEXURE A: CONCEPTUAL ROAD LAYOUT
## ETHEKWINI MUNICIPALITY
### UMHLANGA NODE PRECINCT PLAN
#### IMPLEMENTATION PLAN - IDENTIFIED PROJECTS

<table>
<thead>
<tr>
<th>NO.</th>
<th>PROJECT</th>
<th>DESCRIPTION</th>
<th>PRIORITY PHASING</th>
<th>ESTIMATED BUDGET</th>
<th>DEPARTMENT</th>
<th>COMMENTS</th>
</tr>
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<tbody>
<tr>
<td>1.1</td>
<td>Tourism Development</td>
<td>1.1. Tourism Nodes &amp; Corridors (Umhlanga Beach &amp; Promenade)</td>
<td>1 &amp; 2</td>
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<td>1.2</td>
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<td>EDU (see 1.1 above)</td>
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<td>2.1.2. Bronze Beach to Breakers: Paving, stairs, Kurbning (Phase 1)</td>
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<td>2.1.5. Durban View Park Upgrade</td>
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<td>R 3,000,000.00</td>
<td>EDU (see 1.1 above)</td>
<td>Awaiting ROD</td>
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<td>2.1.6. Beach Access Linkages (back beach to promenade)</td>
<td>0 &amp; 1</td>
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<td>EDU (see 1.1 above); 2 of 9 links incl Ph 1 &amp; 2 (2007/08)</td>
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<td>Require an EIA; Property issue to resolve between Pearls and Beverly Hills (servitude)</td>
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<td>2.2.2. Bronze Beach Public Parking Facility</td>
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<td>2.2.3. Life Savers Club House Upgrade (Cosmetic)</td>
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<td>Pearls can contribute more if 3rd tower is approved</td>
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<td>2.2.4. Tidal Pool (subject to EIA)</td>
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<td>Metro Police &amp; Electronics / Central CCTV</td>
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<td>2.3.2. Marketing &amp; Branding</td>
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<td>2.3.3. Establish Design Review Panel (consultant input)</td>
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<td>Development Planning &amp; Architecture</td>
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<td>Implementation dependent on discussions with UKUSA board This discussion should happen before or as part of detailed design stage</td>
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<td>2.4.2. Lagoon Drive Alignment (accommodate proposed parking)</td>
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<td>2.5.7. Signage</td>
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<td>Sub-total 5</td>
<td></td>
<td></td>
<td>R 242,000,000.00</td>
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<td></td>
<td>Upgrade of Engineering Services &amp; Utilities incl. local road upgrades</td>
<td>2.6.1. Wastewater upgrade feasibility study &amp; detailed design</td>
<td>1</td>
<td>Medium Term</td>
<td>R 720,000.00</td>
<td>Water and Waste (contact Bill Pfaff)</td>
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<td>2.6.2. Upgrading the capacity of the wastewater infrastructure (Umhlanga Sewer Pump Station)</td>
<td></td>
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<td>R 5,000,000.00</td>
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<td>2.6.3. Policy directives to reduce water demand</td>
<td>2</td>
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<td>R 300,000.00</td>
<td>Water and Waste</td>
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<td>2.6.4. Upgrade to UKUSA road network as recommended in PP</td>
<td>2</td>
<td></td>
<td></td>
<td>ETA</td>
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<td>2.6.5. Road network improvements (ARUP report)</td>
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<td>R 4,000,000.00</td>
<td>ETA</td>
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<td>Sub-total 6</td>
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<td>R 10,000,000.00</td>
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<td>Gateways &amp; Legibility</td>
<td>2.7.1. Ridgeside Link (Detailed Feasibility Study)</td>
<td>Longterm</td>
<td></td>
<td>R 200,000.00</td>
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<td>2.7.2. M4/Lighthouse/URD Interchange - bridge widening</td>
<td>Medium Term</td>
<td></td>
<td>R 21,300,000.00</td>
<td>ETA</td>
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<td>2.7.3. M4/Egretia Rd Upgrade into a full diamond interchange by the provision of north facing ramps</td>
<td>Longterm</td>
<td></td>
<td>R 25,000,000.00</td>
<td>ETA/DoT</td>
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<td>2.7.4. Widening of M4 from 3 to 4 lanes between URD/M4 and M41/M4 Interchanges</td>
<td>Short Term</td>
<td></td>
<td>4,000,000.00</td>
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<td>Sub-total 7</td>
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<td>R 50,500,000.00</td>
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<td></td>
<td>Development Facilitator</td>
<td>Overall facilitation of public and private investments - including UKUSA, Pearls, Oyster Box, Umhlanga Plaza, Beverly Hills, Protea, Buxtons and Chartwell Centre</td>
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<td></td>
<td>R 400,000.00</td>
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<td>GRAND TOTAL</td>
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<td>R 379,622,100.00</td>
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**Please Note:**
- that where it is indicated that the estimated costs are for detailed feasibility work the estimated preliminary costs are only the construction stage and therefore exclude the following items:
- Project preparation, design development costs (which are normally 10% of total professional fees @ 16.5% in terms of gazetted tariffs for professional associations)
- pre and post contract escalation costs (1.5% per month)
- VAT @ 14%

**Legend:**
- 0 = Already planned for implementation
- 1 = High Priority
- 2 = Secondary priority

**Please Note:**
- (1) a 10 M1 reservoir is planned for construction in 2008/09 on a location outside the study area. It will benefit the water services needs of Umhlanga Precinct Node, particularly with the possible increase in density.
- Owing partly to location outside the node and that it is already planned for construction it is not included in the list of projects proposed for implementation as part of achieving the development vision proposed in the Precinct Plan.