PL 6354

SmartCity
MALTA

Master Plan / Project Description Statement

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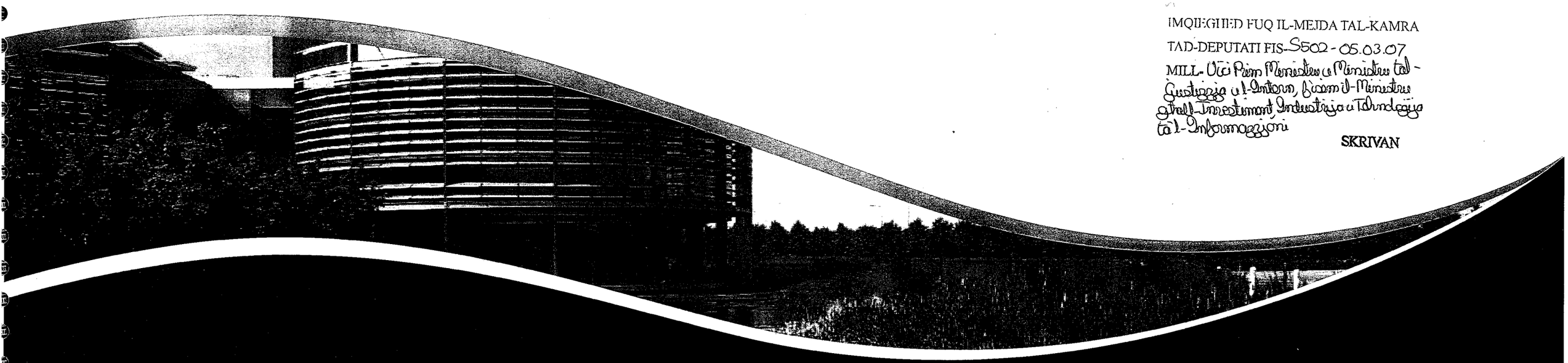

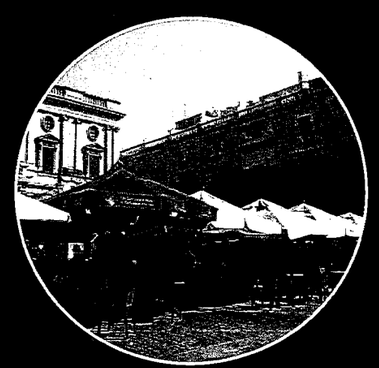

Prepared on behalf of:

Government of Malta MIIIT
SmartCity

Project Managers:

Bovis Lend Lease

Consultants:

Colin Buchanan
Arquitectonica / OTH

March 2007

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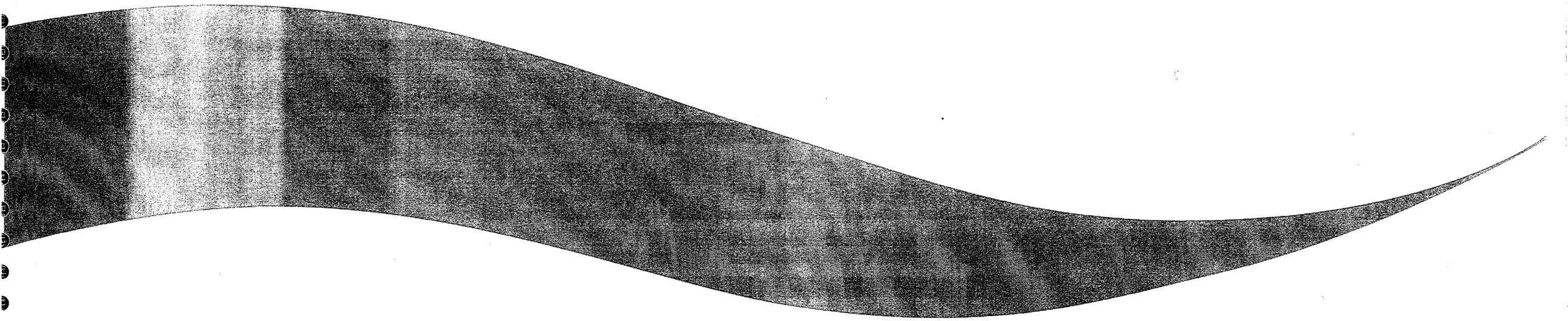

Prepared on behalf of:

Government of Malta MIIIT
168, Strait Street
Valletta
VLT 08,
Malta

SmartCity
P.O. Box 73000
Dubai
United Arab Emirates

Consultants:

Bovis Lend Lease
19 Hanover Square
London
W1S 1HY
United Kingdom

Colin Buchanan
Newcombe House
45 Notting Hill Gate
London, W11 3PB
United Kingdom

Arquitectonica
9 rue Bleue
75009 Paris
France

OTH INGENIERIE
4, rue Dolores Ibarruri
TSA 40002
93188 Montreuil Cedex
France

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1.0 Introduction

This document has been prepared in respect of proposals to redevelop land at the site known as Ricasoli, in the limits of Kalkara, Malta into a state-of-the-art, knowledge-based and employment-led mixed use development. The proposals consist of a high quality working and living environment, providing bespoke and specialist facilities specifically for information and communications technologies industries.

These proposals have been prepared on behalf of SmartCity (Malta) Ltd, a company to be formed by the Government of Malta (GOM) – herein represented by the Ministry for Investment, Industry and Information Technology (MIIIT) – and the developers directly responsible for the delivery and subsequent marketing and management of the project, which will also be known as SmartCity Malta. The developers are Tecom Investments and Sama Dubai, whose origins are explained in further detail in Section 1.2 and Appendix One.

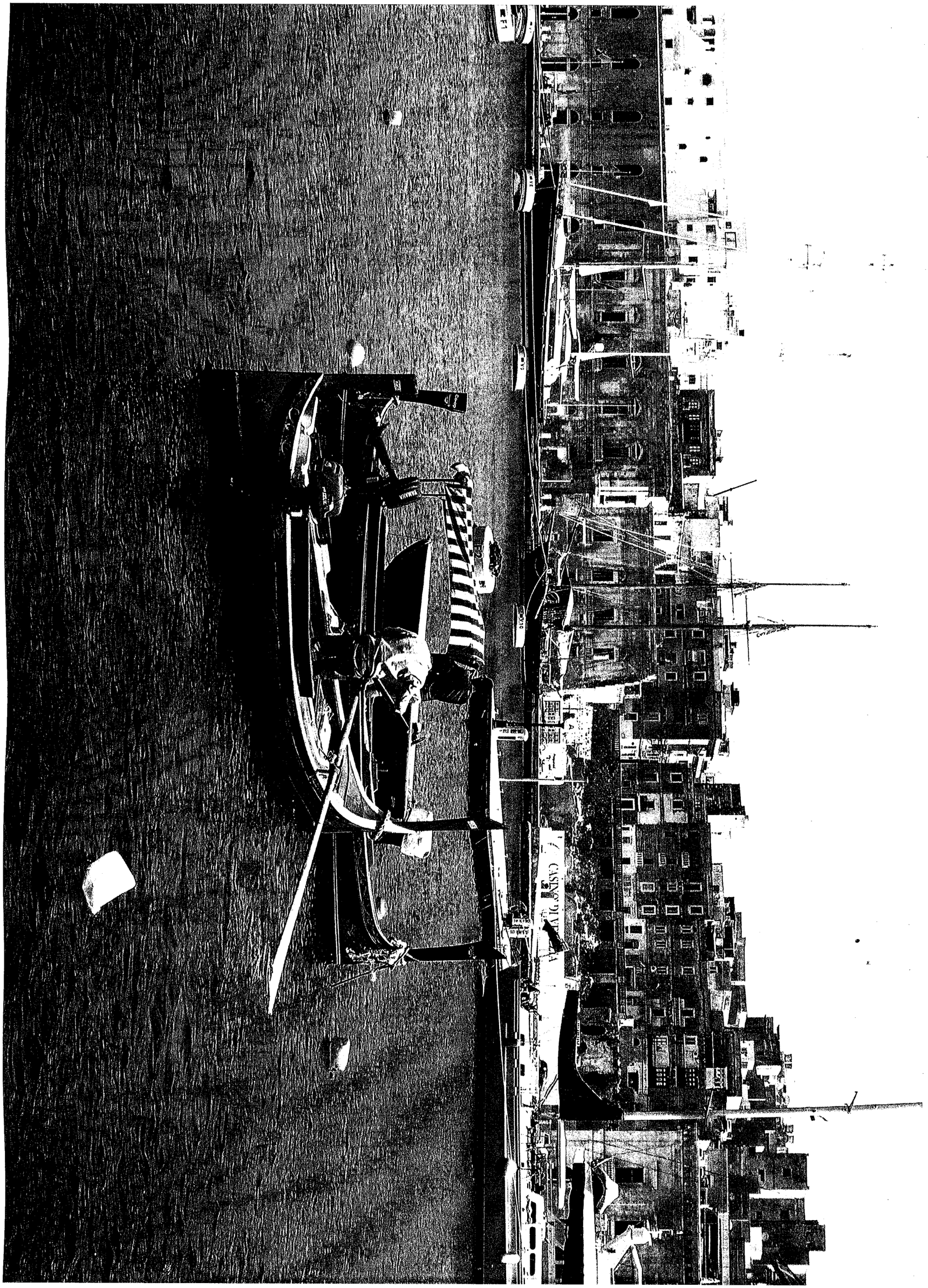
> "SmartCity Malta will transform the current Ricasoli Industrial Estate into a state-of-the-art ICT and Media park based on the models of Dubai Internet City and Dubai Media City."

1.1 Document purpose

This document and the development proposals have been prepared with the direct involvement and assistance of MIIIT and following discussions with Malta Environment and Planning Authority (MEPA) and Malta Transport Authority (ADT). This Project Description Statement, Revision 1, supercedes any previous versions. It provides:

- Details of the developer [See Section 1.2 and Appendix One].
- An indication of economic viability [See Section 1.4].
- Description of the site, its environmental characteristics and surrounding land uses [See Section 2].
- The purpose and rationale for development and how it fulfils Government of Malta planning, economic, social and environmental objectives [See section 3 and 4].
- An explanation of the economic, social and environmental objectives of the development, and the opportunities and constraints encountered [See Sections 3 and 4].
- Description of services, water, foul water sewers, surface water drainage, including storm water drainage, and energy sources [See Section 3.5 and 4.9].
- A detailed project description statement explaining the development proposals and giving a comprehensive schedule of land use / space provision and the mix of uses [See Section 1 and 4].
- Parameter plans showing land use, buildings, roads, pedestrian networks, landscaping. In addition, artist's perspectives are included to provide a general illustration of the proposed development. [See Section 4].
- Details of proposed phasing [See Section 5.1].
- Commentary on alternatives considered [See Section 1.5 for site selection and Section 4.2 for site layout].
- Estimates of number of persons to be employed [See Section 4].
- Access arrangements on and off the site and parking requirements [See Section 4].
- Details of the proposed timing of the project [See Section 5].
- Details as to how the proposals will be delivered, including likely construction requirements [See Section 5].
- Proposals for mitigating the negative effects of the development [See Section 5.3].

This document also provides the framework which will gradually evolve into detailed development proposals. Detailed architectural, planning, environmental and engineering studies will be completed over the coming months which will be used to submit and obtain appropriate development consents.



1.2 Details of developers

SmartCity has been established under Dubai Holdings to take the vision of TECOM international. This is driven by the creation of knowledge based townships in other parts of the world. This vision is an extension of Dubai Internet City (DIC), which is the worlds first, and only IT free zone.

Tecom Investments and Sama Dubai are subsidiary companies of Dubai Holding. They have been responsible for the delivery, and subsequent management and operation of, major urban development mixed use employment projects in the UAE and abroad.

TECOM Investments has substantial experience in regulating and managing knowledge based clusters. Dubai Internet City, Dubai Media City, Knowledge Village, International Media Production Zone are some of the initiatives of TECOM. TECOM is also a leading full service telecommunications network operator and service provider. Further detail of Tecom Investments is provided in Appendix One.

Sama Dubai is focused on investment in real estate with the aim of creating a world class portfolio of subsidiaries, partners and investments which will distinguish it as a leader in the sector. Sama Dubai is active across several segments of the real estate development sector including tower buildings (under the Dubai Towers brand), large scale resorts (under the Salam brand), business developments, mega malls and more. They aim to become the largest premium real estate developer in the region, and one of the top five in the world.

1.3 Vision proposals

SmartCity Malta will transform the current site in the Ricasoli area into a state-of-the-art ICT and Media Park on the models of Dubai Internet City and Dubai Media City. The project is consistent with Malta's prevailing foreign direct investment and ICT strategies. The transformation of the site is a microcosm of how the economy has to undergo a transition from one based on low-value manufacturing undertakings into one largely based on knowledge and high-value services. The internationally acclaimed National ICT strategy sets as one of its priorities, the transformation of Malta into the leading ICT regional centre of excellence.

In the context of these two strategies, SmartCity Malta will be the largest foreign investment initiative in developing an ICT / media cluster sector yet to be undertaken in Malta, generating substantial numbers of jobs concentrated in the private sector and predominantly in the knowledge-based urban environment. The first deliverables from this investment can be expected by 2008. The new jobs would represent circa 4% of current jobs in Malta and compare to 1,025 computer and related activities (NACE code 72) jobs and 2,574 postal and telecommunications (NACE sector 64) jobs on Malta in February 2006. This clearly represents a significant growth in the economy of the country and an essential diversification from other recent large scale investments, in the residential and tourism areas.

> "This project will be the largest foreign direct investment initiative in developing an ICT / media cluster sector yet to be undertaken in Malta "

The new Malta facility will be the first European Union Investment on the lines of Dubai Internet City and Dubai Media City, and it is expected that global investment partners will be able to focus their European operations and businesses through locating at SmartCity Malta. It will also provide a major opportunity for existing and emerging Maltese business ventures to focus on a new investment opportunity to fulfil their own future enterprise aspirations. SmartCity Malta will include a new fully-fledged ICT and Media City community on the models developed by the same organisations in Dubai. The project will also include the development of hospitality and residential uses, retail facilities, a lodging area and associated activities to help serve the peripatetic requirements of workers associated with the knowledge-based operations to the site, as well as welcoming other Maltese residents and visitors. This will create a closer knit built environment and service occupiers of the site in a cost-effective and efficient manner.

The visionary objectives of the Master Plan are as follows:

- The creation of a world-class IT/Media park providing a self contained environment for the knowledge-based community including residential, retail, entertainment, education and associated essential services.
- To develop the international brand identity of SmartCity in Europe by utilizing the locational advantages of Malta with the support of the Maltese Government and by providing world class infrastructure to meet the requirements of global and emerging local companies.
- Directly contributing to the transformation of the Maltese economy into a knowledge-based economy, by developing the ICT and media sectors in Malta.
- Creating a flagship development, that is locally inspired and well integrated within its historic and natural context, with landscape and buildings designed to the highest international standards of commercial development (see Section 4.1).

SmartCity Malta will be comprised of the following complementary uses, identified to create a diverse and vibrant development, attractive to visit and use at any time of day, week or season of the year:

- Office space, which represents the main site land use.
- Lodging facilities (such as apartments and villas) intended for the use as residences.
- Hotels and related short stay accommodation facilities.
- Resort based leisure facilities – e.g. swimming pools, tennis courts, gymnasium/ fitness facilities
- Retail and associated commercial floorspace.
- Open spaces to be enjoyed by the wider community.
- Services, utilities, roads, access ways and parking related to the above.

The mix of uses will reduce the need to travel, create a cohesive community and achieve a high degree of self containment required for developing a sustainable knowledge community.

Much of the growth of IT-based industries in the last two decades has depended on an unsustainable level of expatriate labour and propensity to international travel for those engaged in the associated commerce and business activity. SmartCity Malta aspires to be a more sustainable model where the labour force resourcing the new facilities will be more indigenous to the country than examples of such facilities built hitherto. The results of Malta's investment policies in education and training coupled with job market forces should ensure that the jobs created by SmartCity will be retained within the national economy and not sourced from a significant proportion of non-Maltese labour.

1.4 Economic viability

In economic investment terms Malta is similar to Dubai in respect of their strategic proximity to large neighbouring markets as well as size, connectivity and exposure to extensive tourist activity. As a consequence of these strategic advantages, and by building on the experience and expertise of delivering similar projects elsewhere in the world, Tecom/Sama Dubai anticipates that take-up of space will be equally as successful as at Dubai Internet and Media Cities.

The GOM, Tecom and Sama Dubai have reviewed extensively the various scenarios within which the project would develop. Particular importance has been given to the ever-growing investment which GOM has been making in ICT education in the country together with the various financial and fiscal incentives which the Government has made available for investors in ICT in Malta. Both these factors are crucial instruments underpinning the successful completion and take-up of the project.

The GOM, Sama Dubai and Tecom Investments have also considered the rapid development of the global outsourcing and near-by markets – two sectors which will be centrally targeted by the project.

1.5 Site selection and alternatives considered

The developers were not involved in the selection of the site. In fact the site was selected by the GOM as the most appropriate location for the development of SmartCity Malta and also the contemporary large-scale employment development. The GOM opted for this site because of:

- The size of the site.
- Its proximity to Valletta and the major settlements around Grand Harbour.
- Proximity to Luqa airport and to the Malta Freeport.
- Fort Ricasoli and its environs are spectacular locations with good views to and from the sea affording a potentially high quality aspect for SmartCity Malta.
- The Government own most of the land and could relatively swiftly obtain its vacant possession.
- The site is located in the southern part of the island, a region which the Government is striving to establish as a centre for the provision of high-value services.
- The opportunity offered by the site to make it an exemplar of regeneration, converting from industrial to IT sector office employment, within an improved local environment.
- The potential afforded by the site to become a precedent for future office employment in the southern part of the island as part of MEPA's hub employment policies (see also Appendix Two).

1.6 Timing and Phasing of Proposals

This Project Description Statement addresses a range of proposals including obligations under Smart City's agreement with the Government of Malta which require to be met within a period of 8 years. These are confined to the provision of a minimum of 103,000 sq metres of Office accommodation (see Table 4.1 to follow).

However the PDS also addresses a longer time scale and the recognition that such facilities cannot exist in isolation of commercial and residential facilities which need to be integrated with the office accommodation. In order to provide flexibility within Smart City's business planning, these uses, also referred to in table 4.1, will be provided over a 15 year timescale to a detailed programme to be agreed with appropriate Malta authorities in due course. Facilities within this category include Hotels, Retail and Residential accommodation. Further details of how the overall development described in this document might be phased, is contained in Section 5 to follow.

2.0 Site description

The site for SmartCity Malta is located adjacent to the sea on the south east coast of the island approximately 1.5km due east of Valletta and 1km south of the entrance to the Grand Harbour. The area is bound by the settlements of Santa Rokku and Il-Wileg to the south and Xghajra to the east.

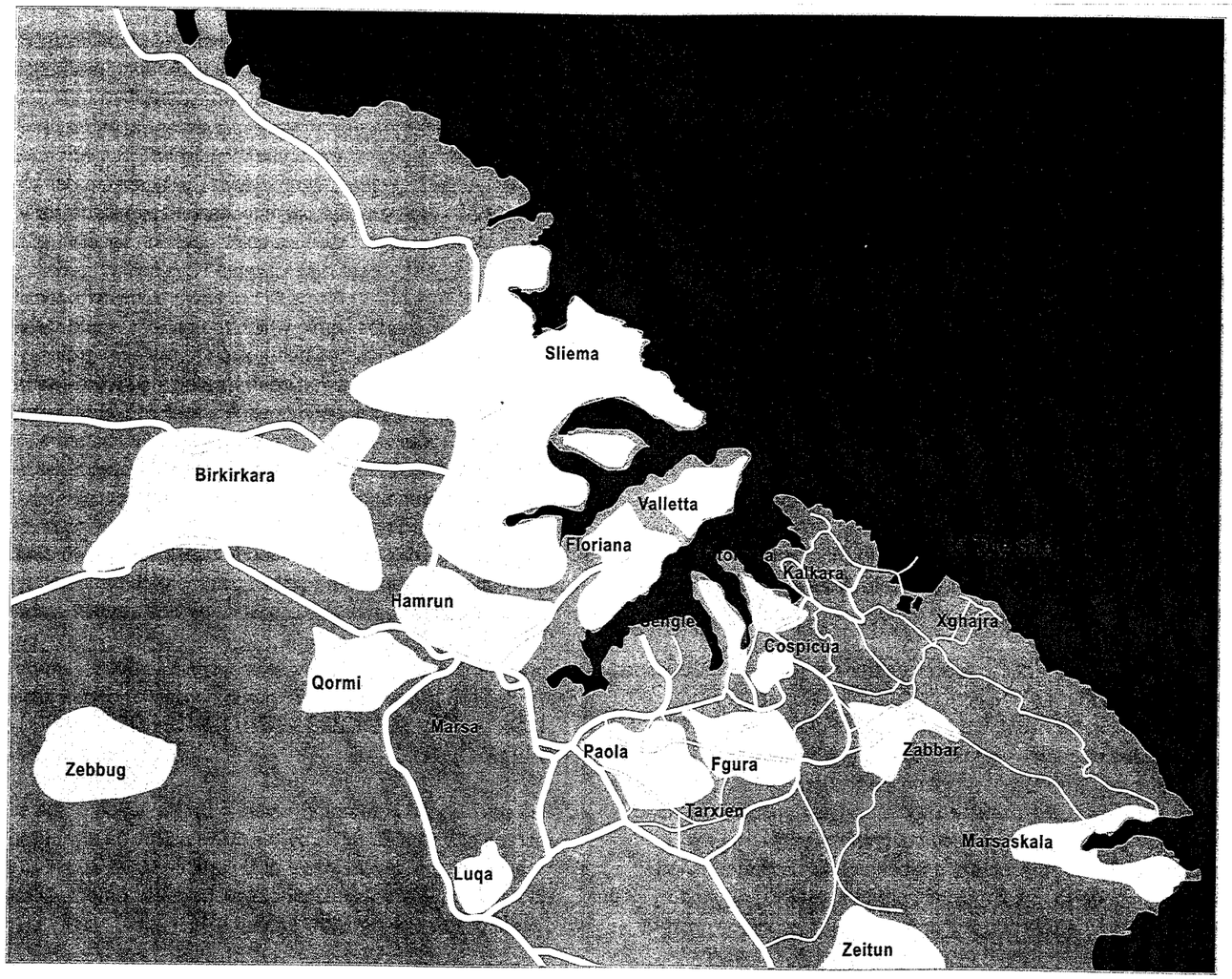
The coastline between Ricasoli Point at the neck of Valletta's Grand Harbour and the site for SmartCity Malta is a rocky shore rising steeply as a cliff to approximately 10m above sea level. The coast has been progressively fortified over the centuries leaving an impressive array of adjacent military strong points. Ricasoli Fort commands the approaches to Valletta, together with Fort St Rocco and the 19th Century Fort Rinella, with its 100 ton Armstrong gun still in place as a tourist attraction.

To the north of the site are the Mediterranean Film Studios. There are several interesting features: parts of sailing ships, a submarine and a large water tank film set of approximately 100m diameter.

On the site for SmartCity Malta the highest point is a hill at 37.5m above sea level occupied by Fort St Rocco. The lowest point of the site is 7.5m elevation in its south eastern portion.

The northern part of the site closest to the sea is open terraced / informal agricultural or grazing land, with rocky outcrops sloping down to the sea. The coastline, despite its protected status, is in poor condition with extensive erosion ageing earthworks, tipping, building demolition and general untidiness.

Fig 2.1 Location Plan



The island's main sewage treatment plant, with a major northerly outfall to the sea for partially treated sewage, is located here. Plans for extensive improvements and relocation of this facility sewage works predominantly underground are described in more detail in Section 4.9.

Most of the area is taken up by the Ricasoli Industrial Estate, comprising 19 large-scale buildings, which dominate the site. The buildings are two storey commercial / industrial facilities with long facades generally measuring over 50m in length.

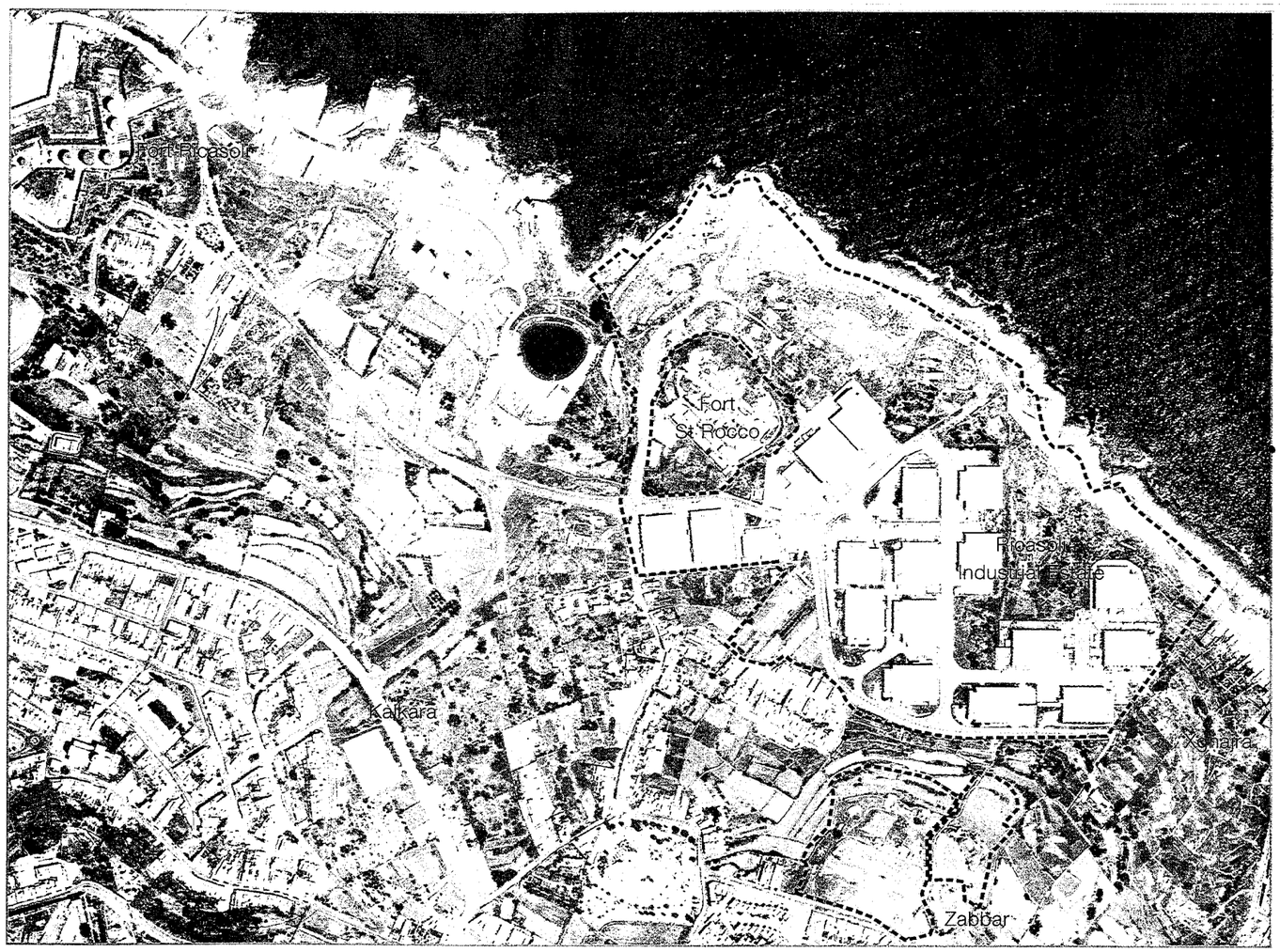
Access into and throughout the estate is provided by wide roads laid to tarmac and flanked by narrow footpaths. The whole area is almost completely devoid of street furniture or trees; indeed there is no comprehensive landscaping on site.

One of the attractive features of the site is the large stone retaining walls that separate differing levels to the seaward side of the fort complex. One of these walls forms part of the southern boundary of the main site.

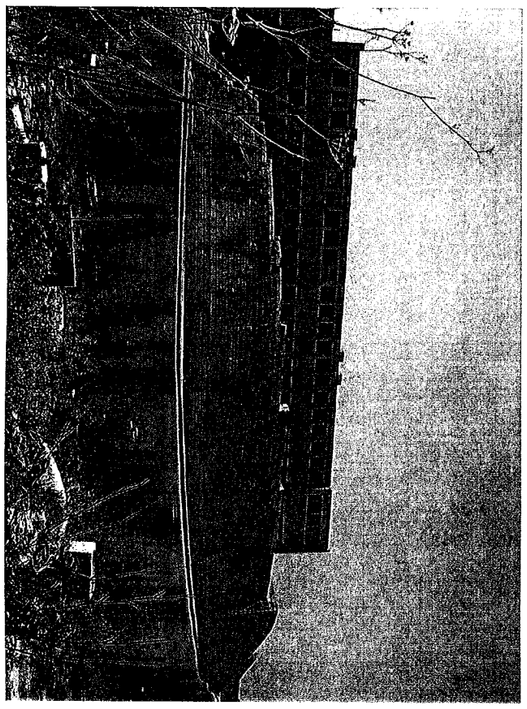
Adjacent to the southern boundary there is the small hamlet of Santu Rokku. This settlement is within a Rural Conservation Area. It is a relatively unspoilt agricultural community in need of some improvement.

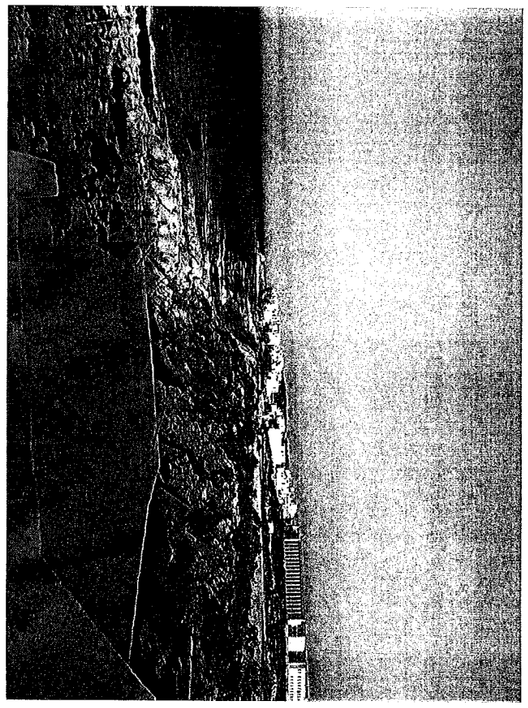
An area of land to the south is included in the development and is currently disconnected from the main site. This site extends down hill along the road to Xghajra, with its highest elevation at the 50m level. This area is rural land partitioned with dry stone walls, together with a few clustered dwellings.

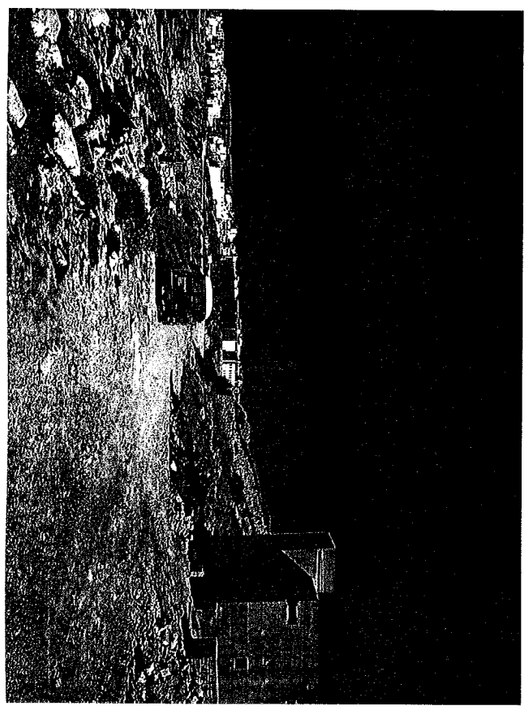
Fig 2.2 Site Boundary

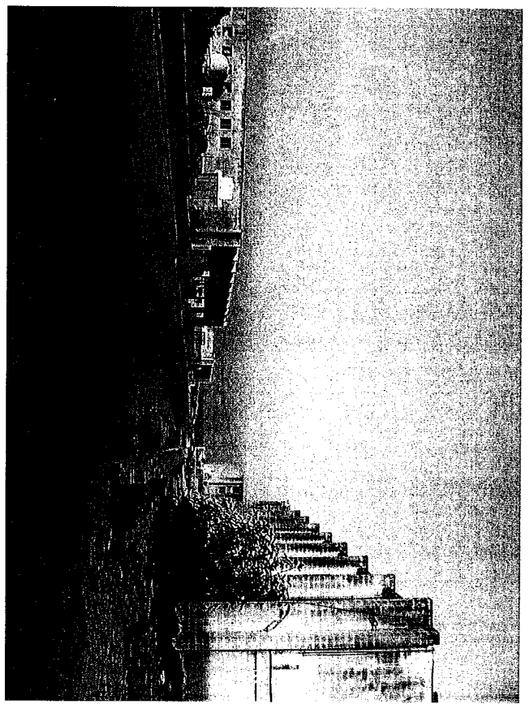


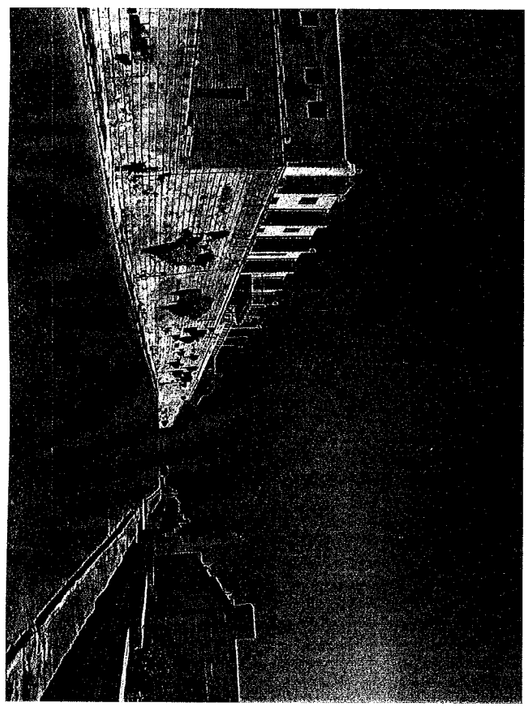
The site

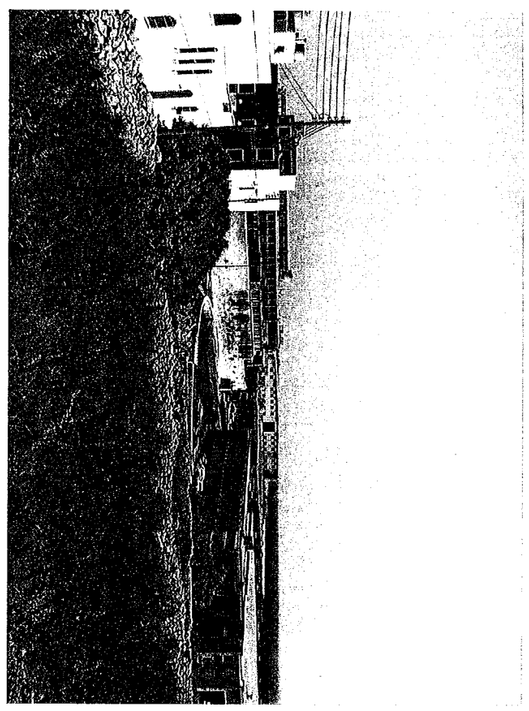


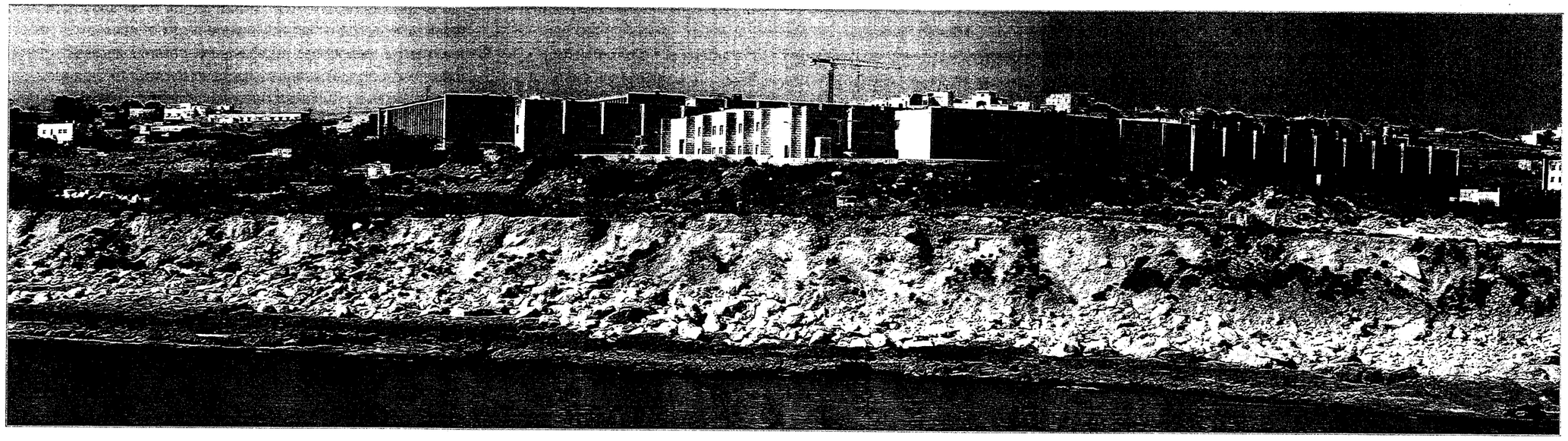












Site viewed from the sea

3.0 Development considerations

3.1 Introduction

This section of the report establishes the context and policy framework for the development, highlighting key land use policies at the national and local level, sustainability objectives and issues that need to be incorporated into the Master Plan. It concludes by identifying the opportunities and constraints afforded by the project, its purpose and intended location in this part of Malta.

3.2 Land use policy

The main planning policies of relevance to the SmartCity proposals are contained within the adopted Structure Plan for the Maltese Islands (1992), the Draft Structure Plan for the Maltese Islands (2006) and, at the local level, in the Grand Harbour Local Plan (1992), Grand Habour Local Plan Draft for public consultation (2006), South Area Local Plan (2006) and Fort Ricasoli Development Brief (1997). A Planning Policy On The Use And Applicability Of The Floor Area Ratio (FAR) – Supplementary Guidance (2006) Draft For Public Consultation. Employment, Growth Scenarios and Strategic Landscape Policy Directions Topic Papers prepared by MEPA have also been reviewed.

The policies contained in these documents are analysed insofar as they relate to the anticipated development of SmartCity Malta, in Appendix Two.

They deal in turn with the land use implications of Settlement Pattern, the Built Environment, Housing, Social and Community Facilities, Commerce and Industry, Tourism and Recreation, Utilities, Transport, Conservation, Employment, Provision of Infrastructure, Environmental and Design Principles, Energy and Accessibility and Movement.

None of the policies pose a major constraint to the development of SmartCity at a national level. In relation to the Grand Harbour Local Plan there are a number of policies which are currently under revision through the draft Grand Harbour Local Plan, which supports the development of an ICT and Media Development City at the former Ricasoli Industrial Estate and its surrounds. However, in developing the Master Plan for SmartCity, the existing policy context must also be considered so that proper planning of the development is facilitated. These issues are considered in more detail below and how they have been addressed in the Master Plan.

Grand Harbour Local Plan (1992)

Environmental policy designation

Part of the development is on environmentally sensitive land. Policy designations that apply are: Rural Conservation, the Rinella Recreational Area, Site of Scientific Importance/ Area of Ecological /Geological Importance, Strategic Open Gap and Areas of Open Space. These policies seek to protect and, where possible, enhance the landscape, environmental, ecological and heritage resources. The proposals use of these area of land offers scope to link SmartCity with settlements to the west (Kalkara and Cospicua) south (Zabbar) and south east (Xgharja) and for development to be achieved within a primarily landscaped setting.

To minimise impacts, low density, high quality residential units are proposed, arranged to be partially hidden in the contours of the site and designed to minimise built form and maximise the quality and care of open space. The proposals will create new open space areas and allow public access to it and along the coast, where there is none at present.

Land use zoning

The majority of the site is zoned for industrial development. The proposals for SmartCity Malta are for an employment development, but which will include a mix of uses - commercial, residential, retail, leisure, community uses and open space. These are proposed in order to create a vibrant and lively business oriented community, used and inhabited throughout the day and thus safer and easier to maintain. Furthermore, by providing a mix of uses on site, the development becomes more sustainable than having a single office dominated land use, as it will reduce the need to travel.

Response to the policies

The development proposals are driven by the aspiration to create a high quality development, that is attractive, viable, safe and well connected to its surroundings, of a scale that could not have been envisaged at the time of the drafting of the local plans. Fundamentally, the concept of a mixed use, high-tech business-led employment initiative, if sensitively carried out, with full recognition of necessary national or local environmental and social objectives, provides a major opportunity for Malta to realise a series of its political, economic, social and environmental aspirations which effectively fulfil national interest. This is recognised by the amendments to the Grand Harbour Local Plan Draft for Consultation (2006), which supports the concept of a mixed use, employment-led development in this area.

At a local level, there is a link between SmartCity Malta with adjacent urban areas, which will promote the integration of local communities into the development by enabling:

- Access to, and use of, an enhanced range of new facilities (open space, leisure, retail, community uses).
- Access to new job opportunities.
- Safer access to and along the coastline.
- Integration of new infrastructure and transport measures with those necessary to upgrade facilities serving the surrounding local communities.

The choice of site for this project is an opportunity for development at the local level. The south side of Grand Harbour has not benefited in the same way as, for example Sliema or St Julian's, from major commercial and tourist-driven investment in recent years. Similarly, housing and road infrastructure in this southern portions of Malta's capital city sub-region has been subject to relative decline compared to other parts of the city. The towns of Zabbar, Tarxien and Xgharja are not among the most affluent of communities in the wider capital city sub-region.

Much of the natural environment in this area is also degraded with the coastal area between the sewage works and Xgharja being heavily eroded and subject to extensive dumping of rubbish and pollutants, many of which are a significant threat to marine and terrestrial environmental quality.

GOM and the developers firmly believe that SmartCity Malta poses a major opportunity locally, as well as nationally, to rationalise transport infrastructure, improve local environmental conditions and introduce new employment opportunities to an area well suited to benefit from these. Section 4 of this report identifies the ways in which these opportunities will be exploited to maximum advantage. Many of the objectives set out in MEPA's various planning documents can and will be realised.

Grand Harbour Local Plan Draft for Consultation (2006)

The Government have acknowledged the benefits of the proposals for SmartCity and, as a result, draft amendments to the Grand Harbour Local Plan were published in November 2006 for public consultation. Development boundaries have now been rationalised to allow development at the SmartCity site and the draft amendments allocate the site for a mixed use development.

3.3 Economic, social and environmental issues

Economic, social and environmental objectives have similarly been identified through review of the National Sustainability Development Strategy (2006-2016) (3rd Draft) and also the land use policy review. These objectives will, wherever possible, be translated into the sustainability framework for the development of SmartCity Malta.

The review of policy and the Sustainable Development Strategy which relate to the SmartCity Malta development are analysed in Appendix Two and Three respectively.

The key issues for Malta concerning physical, economic and social parameters are as follows:

3.3.1 Economic

- Malta has an economy which is very open to inward investment that depends on tourism & other service industries. However it is particularly prone to economic downturns.
- Malta's average GNP per capita in 2004 amounted to approximately US 12,000, but well below the EU monetary union area average.
- Limited presence of natural resources.
- The country is experiencing a net migration of 2.06 persons per 1,000 population per annum.
- Malta has a highly skilled and productive workforce, over 70% of which are employed in the private sector.
- Unemployment was estimated to be 4.8% in 2005.
- Programmes for SME's and business start-ups are being established by the Maltese Government.
- There is a strong desire for foreign investment.
- GOM is aggressively promoting the transformation of the economy into a knowledge-based one.

3.3.2 Environment

- Water shortages and contamination from the increase in artificial impermeable surfaces diminish drainage to water aquifers and land-uses such as landfill.
- Lack of storm water management leading to extensive flooding in catchment areas, coastal and soil erosion, as well as being a potential source of marine pollution.
- Energy and water infrastructure capacity issues.
- Poor access to open space and the countryside for amenity use.
- Decrease in public transport patronage.
- Pressure for development to occur within rural areas.
- Growth in urban areas constrained by lack of available building land.
- Archeologically and historically affluent heritage.
- Intensive use of coastal and marine areas.
- Little use made of renewable energy sources and potential sites for large-scale renewable energy infrastructure limited by potential visual impact.
- High car ownership rates.

3.3.3 Social and community

- Free health and community care services.
- Community infrastructure (health and homecare for the elderly, etc) is under significant pressure.
- Quality of existing urban areas deteriorating.
- High proportions of early school leavers.
- Accessibility for disabled users is not widespread.
- High levels of out-migration from Malta of socially and educationally mobile population.

It is clear that, when relating the issues described above, to the policies listed in more detail in Appendix Two and Three, SmartCity has a major role to play in the future economic and social development of Malta.

3.4 Access and Transportation

3.4.1 Policy context

Structure Plan 1992

The Structure Plan 1992 remains a key statutory document despite subsequent iterations. It specifically relates land use with the co-ordination of transport and sets out the requirements for new developments. Importantly, it recognises the need to reduce transport impacts through the careful regulation of development. This includes demonstrating that development can be delivered with adequate access, parking and, where appropriate, highway remedial work. Appendix Four elaborates on this and subsequent policy documents listed below.

Sustainable Land Transport White Paper 2003

This document reviews the current transport situation in Malta and provides a strategic framework for land transport on the island. The White Paper provides an estimate of mode split based on household travel surveys conducted in 1989 and 1998 and supplements this with traffic data. It seeks to achieve an extensive shift to public transport use, as described in Appendix Four.

Sustainable Development Strategy (SDS) 2006-2016

The SDS was developed for Malta following the commissioning of a task force whose remit was to develop a National Strategy for Sustainable Development. The aim was to provide an overarching strategy that sets out the principles and vision for sustainable development on the island. In so doing, the strategy would harmonize documents covering various other sectors. The document identifies various priority areas, of which transport and land use feature under the 'environment' priority area.

3.4.2 Site context in relation to the local transport network

The site location, immediately adjacent to Fort St Rocco, lies on the Ricasoli peninsula and is constrained to the north-east by the sea. Whilst the site is somewhat isolated from the existing urban form, it does complete an urban arc that is formed around the Valletta and Grand Harbour area stretching from Sliema to the north around to Zabbar and Cospicua to the south.

The site is accessed from Triq Santu Rokku, a road that also serves the Ricasoli Fort area. From Triq Santu Rokku, the road network is somewhat convoluted, splitting between a route to the east to Zabbar, and to the west to Cospicua.

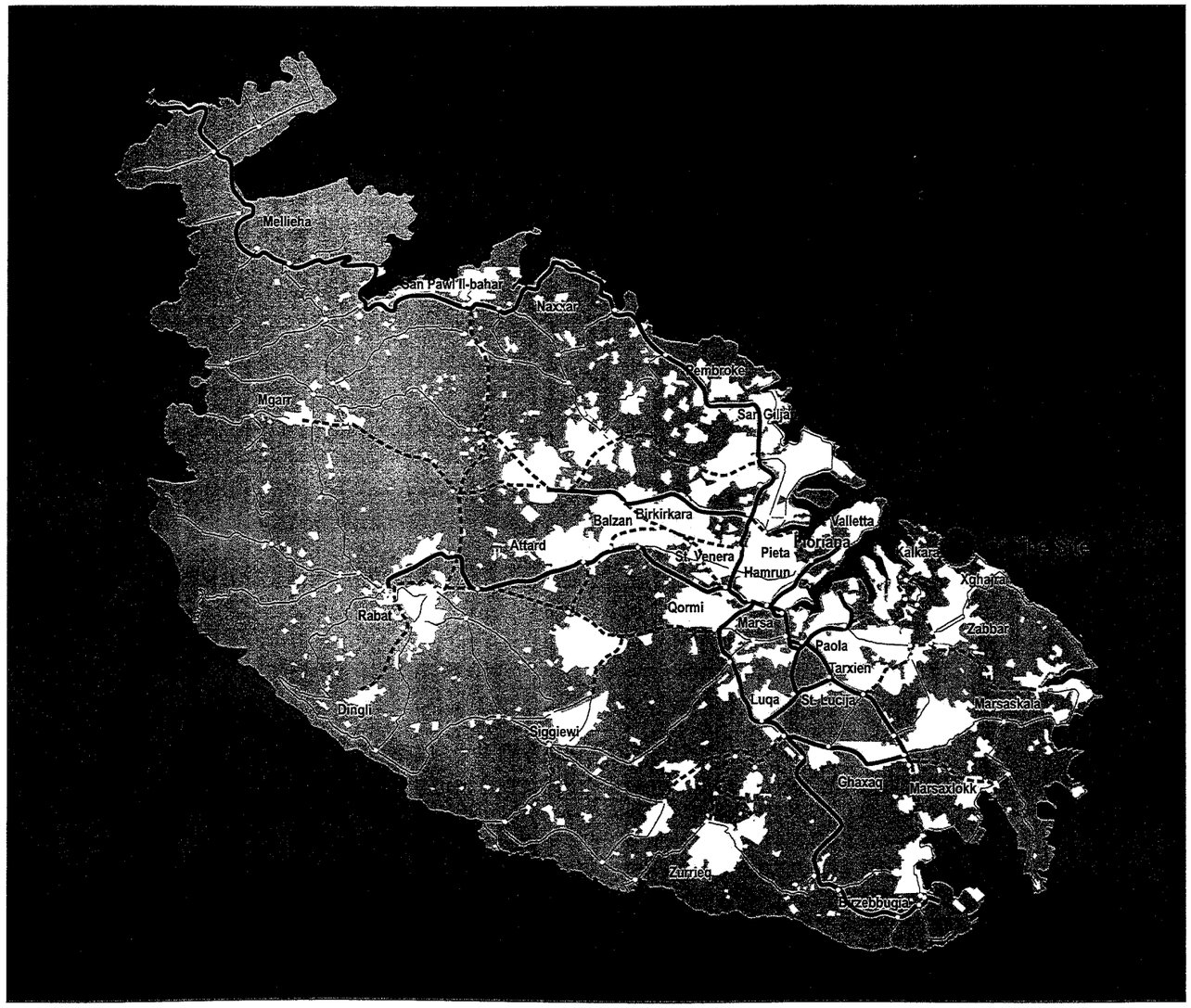
3.4.3 Relationship to other urban areas

The relationship of the site to the existing road network is shown in Figure 3.1. It is likely that the site will attract people from a wide area to work and seek recreation. As part of the socio-economic component of the Environmental Impact Assessment (EIA), it will be necessary to analyse the likely take up of job opportunities within SmartCity, both as part of the island economy as a whole, and the locality surrounding the site.

Immediately to the south are the areas of Zabbar, Tarxien and Paola, all large built up areas. A large proportion of people likely to be working or visiting the site will come from these areas. In addition, there are larger settlements around the south side of Grand Harbour from which a smaller number of people will be attracted.

Valletta, Sliema and Floriana are further away but due to their importance in the urban area, are likely to be key locations for commuters to the site.

Fig 3.1 Existing road network



3.4.4 Relationship to other nodes (airport, port, science parks and so on)

As well as other urban areas, the relationship of the site to other important centres will need to be considered. In particular, the airport will be a key transport node and connections between SmartCity and the airport will be important. Likewise, the ports within the Grand Harbour may be a source of foot passengers and freight needing to get to the site.

In addition, there will be interactions between the businesses on the site and businesses elsewhere on the island. Links to banking, science and technology centres, educational establishments, etc. will need to be considered, and though much of this communication will be electronic, people and freight movements should not be under estimated.

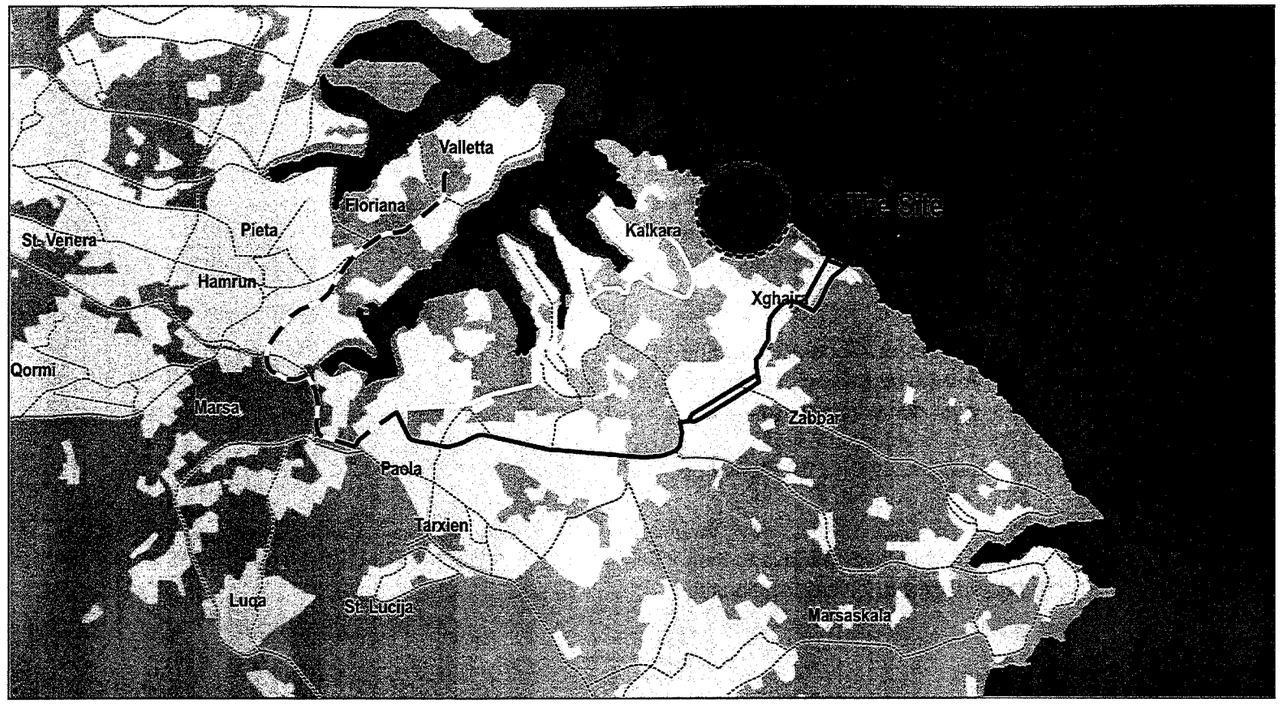
3.4.5 Public Transport

Malta's public transport network focuses on Valletta with many of the bus services terminating there (see Figure 3.2). The area to the south of Grand Harbour has a more limited network of routes but there is a reasonable coverage of services to the main urban areas. Most services to this part of the island make use of the Triq Hompesch.

In the vicinity of the site there are local services that serve Vittoriosa and Xghajra. However, these are 15 minutes walking distance from the site.

Current provision of public transport services to the area is wholly inadequate to support the development proposals. It is expected that GOM will carry out a strategic review of public transport links to the site and upgrade the frequency, destinations and quality of services at an adequate pace to encourage public transport usage in SmartCity. The upgrade should be supported by an off-site Park and Ride that is capable of serving both Valletta and Smart City. Park and Ride has proved to be successful elsewhere on the island.

Fig 3.2 Existing bus network



3.4.6 Non-motorised transport - cycling, walking

In spite of hot temperatures, throughout the summer months walking and cycling offer an important mode of transport for people without access to a car. Figure 3.3 shows an 'as-the-crow-flies' walking isochrone for 15 minute, 30 minute and 1 hour walking times and 6, 12 and 24 minute cycling times. Within the 30 minute walking time or 12 minute cycling time, there is a considerable local population.

The main challenge to encourage walking and cycling will be to create direct and safe routes to the site. Where possible, such routes should be away from the main roads and major junctions. Currently, there are no cycle facilities and limited walking routes in the vicinity of the site.

3.4.7 Network improvements - planned or under construction

After consultation with ADT, it is understood that ADT currently have a proposal to improve the road links to the Ricasoli peninsula. The

Fig 3.3 Walking and cycling catchment

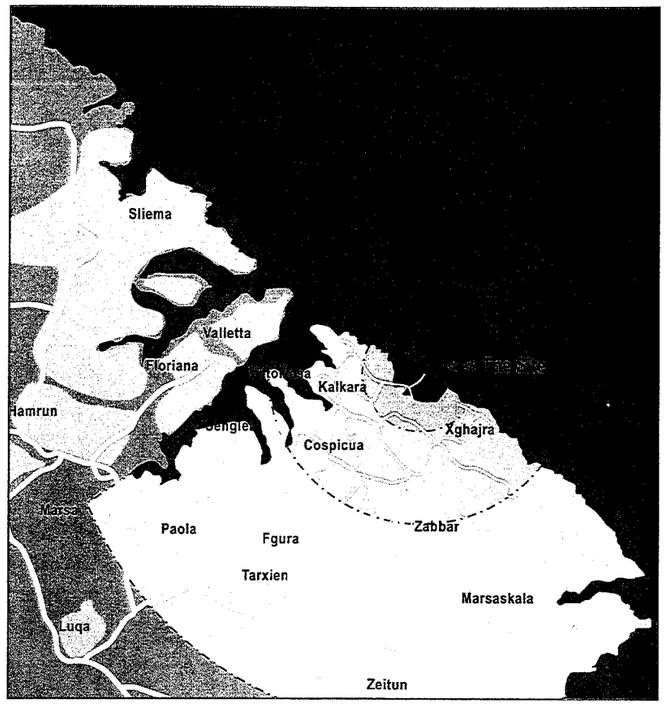


Fig 3.4 ADT proposed road improvements to the site

road link consists of both upgrades to existing links and new links, the precise alignments of which, are still to be finalised, but are illustrated broadly in Figure 3.4.

3.5 Utilities

The site is currently provided with utility infrastructure to support the existing industrial estate as described below:

- Water supply; 100mm pipe, maximum capacity 30 cubic metres 3/hr at 3.5 bar.
- Sewerage; the site drains by gravity to the existing Main Sewerage Pumping Station located within the site boundary. The station will be replaced off-site as part of the agreements between SmartCity and GOM.
- Power; 11kV supply with 10MVA capacity.
- Communications: 2*48 pair fibre optic cable terminated in the building within the site that is currently owned by Maltacom.

3.6 Opportunities and Constraints

In considering the current and emerging land use policy, transport network, utilities infrastructure and its relationship with the site, it is possible to identify principles and issues which guide formulation of the Master Plan. This has been done by means of a SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis and is shown in Table 3.1.

Bringing the site forward for comprehensive redevelopment is a positive and pro active response to policy challenges, which will stimulate regeneration, secure and invigorate inward investment and benefit local communities. The first Opportunity alone, as listed in Table 3.1, would be sufficient to justify proceeding with the SmartCity Malta project because of its potential to transform a part of the Maltese economy for the future. In general the quality of the Opportunities are greater than the corresponding Threats and SWOT analysis needs to ensure that appropriate weighting is given to issues which offer macro solutions to national issues.

Nevertheless, any project of this sort needs to be an exemplar of good planning principles, because many of the issues to which SmartCity can be a partial solution, relate to relatively poor environmental conditions prevailing across part of the site and the need to improve economic opportunities for the existing communities in this area south of Grand Harbour. The site's location and infrastructure, environmental and cultural constraints limit the manner in which the site's development can be brought forward, in terms of layout and land uses.

A development response which is sensitive to local conditions, needs to build on the sea-front / coastal aspect, respect ecological and environmental resources and protect the cultural and historical resource of Fort St. Rocco. The new development also needs to respect and integrate with the existing communities of Xgharja, Santu Rokku and the outer suburbs of Zabbar.

The chosen design approach responds to Maltese urban design and architectural styles and provides an environment that supports and provides a high quality business and working environment. This means provision of flexible and high quality business space and supporting open space, leisure, retail and residential uses.

Alternative master plan concepts were initially proposed for SmartCity and these are described in more detail in Section 4.2 to follow. The preferred approach was selected and developed in conjunction with Tecom / Sama Dubai and MIIIT to provide the current proposal because it responded best to the combination of development constraints, offering the ability to integrate with surrounding communities and providing a flexible and attractive business environment that would be successful. The details of proposals which respond to the issues and development parameters identified above are set out in Section 4 and summarised at Section 4.10.

Table 3.1: SWOT Analysis of the current site and conditions

Strengths

- Most of the site is designated for employment development
- Policy supports the improvements to the existing industrial estate at Ricasoli
- The estate is recognised an important resource in terms of space
- Within reach of major centres (e.g. Valletta, Sliema, Marsa and Tarxien)
- Easy local access to Zabbar, Kalkara and Cospicua
- Easy access to the airport
- Has existing road network access
- Uncongested immediate road network
- Draft Grand Harbour Local Plan designates the area as a strategic employment hub, for ICT and media development (employment led mixed use development)

Weaknesses (see also section 4.10 to follow)

- Indirect road links; network needs substantial upgrading
- Current road routes via built up areas
- Limited public transport
- No cycle or pedestrian routes
- Current community infrastructure provision is weak

Opportunities

- Provide Malta with significant new employment and economic development opportunities offering scope for competitive new businesses with the IT sectors of larger countries of the European Union.
- Regenerate declining employment areas by increasing the number of high quality jobs
- To create landmark buildings
- To provide a new community and utilities infrastructure such as new retail facilities and networks via fibre optic cables
- Fort St. Rocco to be preserved, ultimately to be brought into productive use as a cultural resource
- To provide coastal walk as part of the open space area, Rinella Recreation Area and land designated as Site of Scientific Importance / Area of Ecological / Geological Importance. This will provide a link to Xghajra to Fort Ricasoli and on to the Three Cities
- Improve the quality of the environment and landscape as a result of more sensitive development than industrial use
- Delivery of new road infrastructure
- Access for pedestrian traffic to Grand Harbour via passenger ferries
- Mixed use development to help create a self-contained community and therefore reduce the need to travel by car.
- High profile public transport
- SmartTravel
- Upgrade utilities infrastructure within the area to include use of renewable energy sources
- Potential to provide momentum for improving the cultural heritage of Fort St. Rocco and Fort Ricasoli
- Policy in favour of intensification of the existing industrial estate

Threats (see also section 4.10 to follow)

- Removal of South Harbour Link Road from the South Area Local Plan.
- Major office and retail hubs proposed elsewhere
- Potential adverse impact on Site of Scientific Importance/ Area of Ecological / Geological Importance
- Potential for adverse impact on open character, setting of the Fort, strategic gap between settlements
- Traffic impact from Fort Ricasoli development
- Increasing car reliance
- Falling use of public transport
- Low level use of non-car modes
- Timing of new road infrastructure

4.0 Development proposals

4.1 Concept/vision

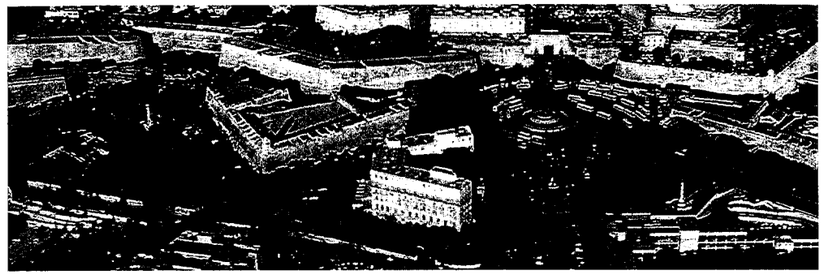
The design vision for SmartCity Malta arises from attention to the local context and landform and from the aspiration to create a progressive environment, a visual expression of the state-of-the-art technologies and businesses that will locate here, within a locally inspired built and natural environment.

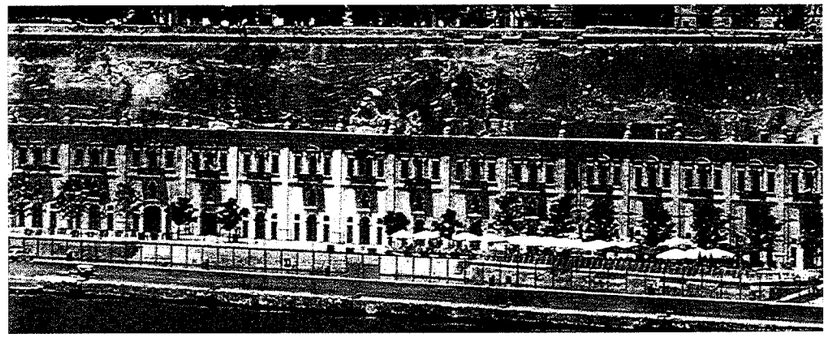
It is the goal of SmartCity Malta to achieve the vision of a cohesive mixed use community on a spectacular hillside site overlooking the Mediterranean: a community that will foster a creative synergy among its parts. The development seeks to enhance this area by introducing into this compromised but potentially beautiful setting, places of work, places of leisure and recreation, places of culture, and places to live, where the built environment and the landscape may complement each other, so that built form will harmonize with natural form, and the natural landscape will grace the man-made environment.

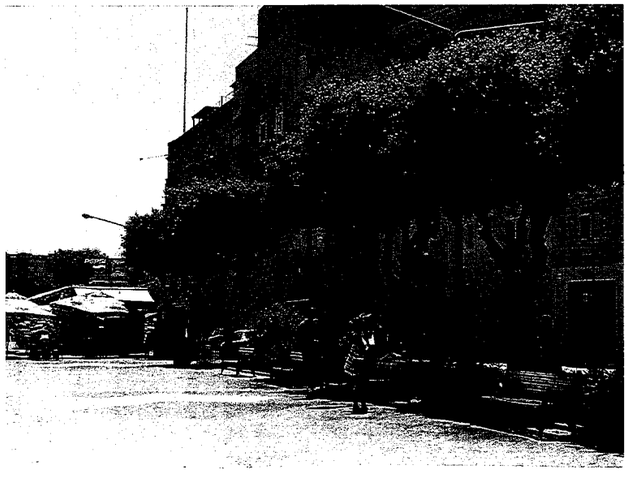
SmartCity Malta will offer complementary top quality accommodation, site management and services, as expected by international companies and their staff, within a locally inspired environment and lifestyle.

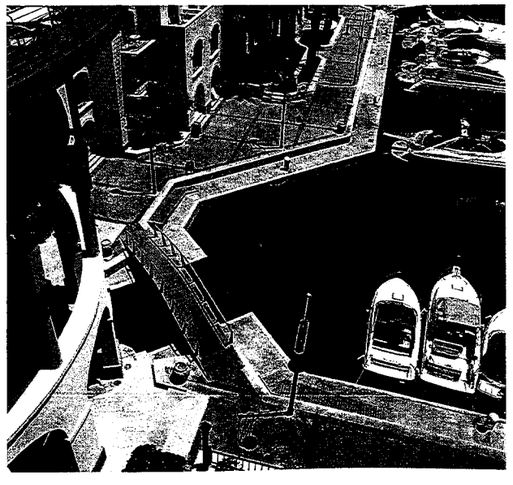
The layout of the development has four sources of inspiration:

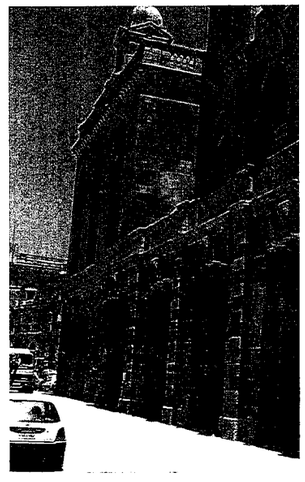
- The morphology and landform of the Maltese forts, sculpting the natural topography with retaining walls. The ramparts of SmartCity will be in local natural stone and will replicate some of the inhabited terraces already present in and around the Grand Harbour.
- The irregular grid of medium-scale development, inspired from the traditional settlements of Malta, such as Birgu or Rabat.
- The radial arrangement around a focal point, which is public open space with water, fountains and landmark features acting as trademarks of the very successful developments promoted by Tecom and Sama Dubai elsewhere in the Mediterranean Gulf, and North Africa.
- Building types that respect the visual richness of the urban streets of Malta, where frontages are articulated in a sequence of harmoniously diverse designs; the corporate nature of most of the development will be tempered by the organic footprints and carefully detailed façades, which will achieve a balance between progressive architecture and reinterpretation of traditional forms.











4.2 Alternative concepts

Four alternative urban development concepts were considered as a starting point for the development of the current proposals:

- "Valletta": a well enclosed development organised on a regular grid and internal open spaces/squares. The advantage of this approach was the creation of regularly shaped and flexible blocks, with the disadvantage of poor relationship to the seafront and lack of focal points.
- "Vittoriosa": compact and organically shaped development set along winding roads following the contours. This approach created very impressive developments where gradients are steeper than at the Ricasoli Estate site. It also suited smaller scale buildings, such as residential and hotel, rather than providing a flexible grid for employment.
- "Fort": bastion inspired angular construction, with embedded buildings and strongly oriented towards the sea. This approach had the potential to exploit the sea frontage and create dramatic views of and from the sea. However, on its own, it risked becoming too literal and thus inappropriate.
- "Oasis": a very green development, with buildings immersed in lush open space, within a loose and informal development layout. This approach had the benefit of creating very attractive settings and upholding the existing natural beauty, recognised by the existing the landscape designations. It introduced however a pattern of development which is alien to the islands, with the built areas concentrated in fewer, bulkier buildings.

These layouts were part of a design exercise in master plan evolution where the sketches prepared for each theme were not developed to any level of detail which would justify their reproduction in this document.

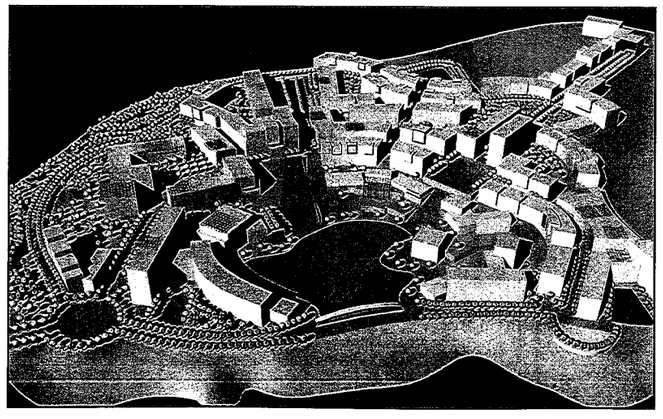
Initial concept master plan

These alternative schemes quickly evolved into an initial scheme which utilised the better aspects of each and sought to suppress their respective disadvantages. The first master plan was developed around a combination of a regular (albeit radial) grid, which opens up in informal bastion-like terraces and winding roads.

Proposed concept master plan

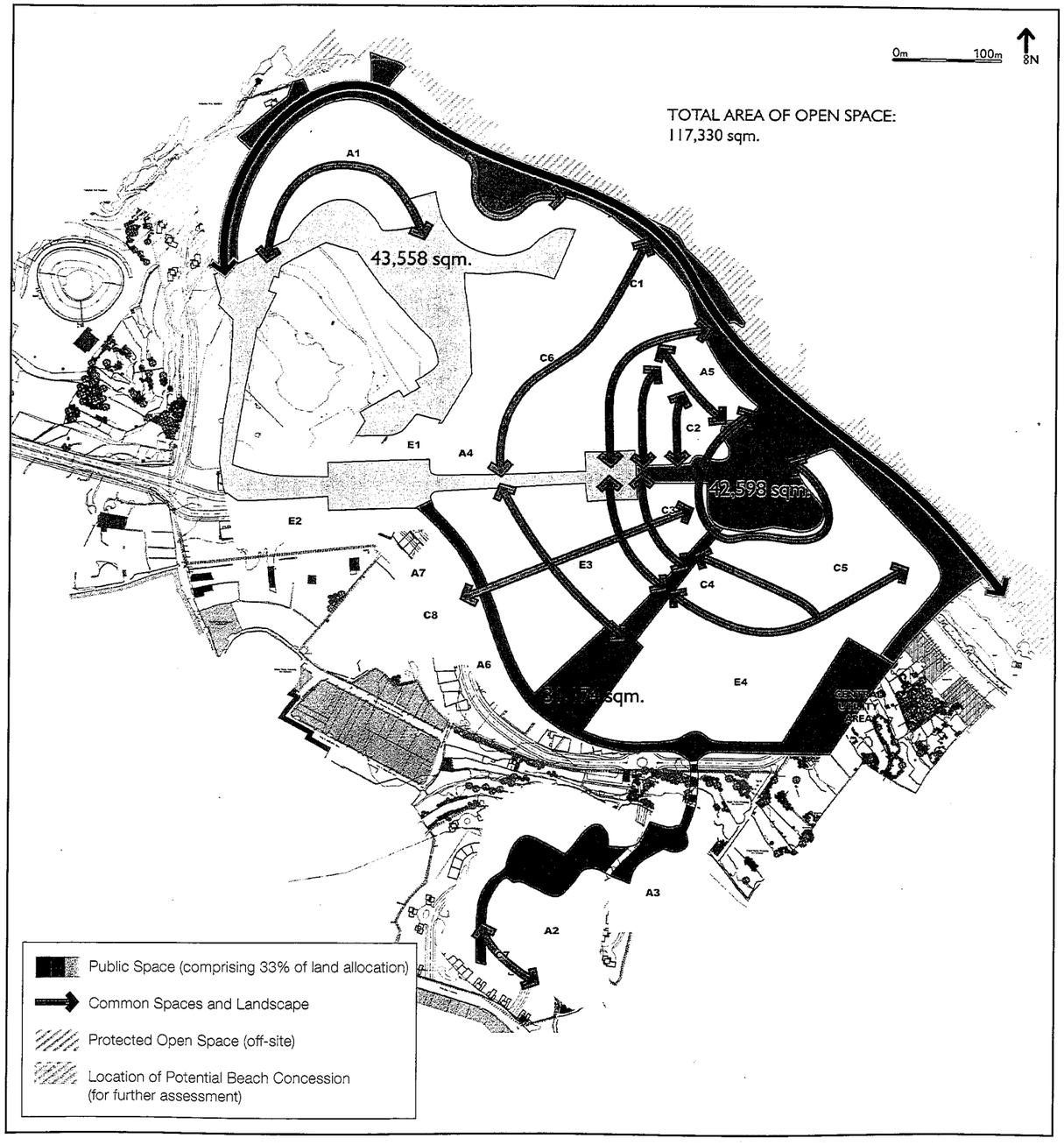
The evolved site layout seeks to progress the initial one by:

- **Loosening up the grid, to adapt to the site morphology;** the built landscape is structured to dramatise and capitalise on the site's topography. Most of the site is focused on a lagoon, located in the natural lowest point of the site. The lagoon is the public heart of the project, the focal point of a concentric and radial street organisation; the street pattern re-establish and accentuate the natural terrain, rather than imposing an artificial arrangement of geometric development platforms.
- **Providing an articulated and varied central feature,** which respects the site topography and marine ecology; a central lagoon, located at the natural height above sea level, will create an "infinity pond" overlooking the sea, an apparently seamless expanse of water (see figure 4.4). This will be the public heart of SmartCity, welcoming local users, as well as visitors from the neighbouring community and from the rest of the island. It will be an area of intense mixed use: apartments, hotels, offices, retail and leisure will energise the public spaces. Informal terraces are sliced through by grand stairways that bring to mind the stepped streets that occur in Maltese towns and elsewhere in the Mediterranean. Grand stairways will double as an amphitheatre for events taking place in the lagoon area and encourage movement into the centre.
- **Increasing the presence of water throughout the site** and creating a number of belvedere and vista points, of different character and feel; the proposed radial boulevards are lined with trees and a water channel is cut into the centre; fountains and water gardens are present at the intersection between boulevards and curved avenues, so that water flows with the movement of people towards the centre, where the streets terminate in grand, stepped pedestrian balconies overlooking the lagoon.
- **Introducing opportunity for mixed land uses,** in the same building or in adjacent buildings, to bring about engaging public spaces enlivened by daytime and night time activity, where residence, work and leisure truly co-exist to support each other. The proposed housing neighbourhoods (apartments and villas) will be prized not only for the breathtaking views and sense of privacy they offer, but also for their proximity to a coastal walk, to retail and leisure, and to their place of work.
- **Substantially temper the "corporate" image,** by offering opportunities for richly articulated buildings. The façades are designed with richness of detail and a balance between innovation and traditionally inspired architectural elements. The long thin profiles will maximize daylight in the interior, following European standards. The buildings define street edges, introducing ground floor retail in places to animate the street, and are configured to define quiet mid-block courtyards.
- **The landscape** is verdant and permeates all areas of the site. Formal boulevard planting is adopted for the main access routes, giving way, progressively, to informal urban planting, to open common garden areas in between the buildings and to natural, green landscape towards the coast.



Indicative 3D view

Fig 4.1 Open space



The intent of the Master Plan of SmartCity in respect of the layout and distribution of open space is to create a well connected network of public spaces and generally accessible spaces (the "common landscaped areas"). The public spaces (33% at least of the total site) occupy:

- *The principal boulevards, avenues, pedestrian axis and squares.*
- *The central lagoon.*
- *The coastal route and the vista points at the edge of the cliff (complementing the off-site protected landscape).*
- *A belt of open land surrounding Fort St. Rocco.*
- *A green route linking the southern residential area and existing settlements with SmartCity.*

The Common Spaces and Landscape are the grounds of the proposed buildings, generally free from road traffic and parking, which will be landscaped and open to common use. Some include green courtyards between buildings (likely to be used by the adjacent occupiers), while others have a much more public vocation: the terraces, grand staircases and piazzas surrounding the lagoon, for instance. The provision of accessible space (public or common) is accompanied by the visual enjoyment of large areas of green private land (gardens and leisure grounds).

4.3 Design principles

The development will have a clear identity, with an identifiable arrival point, coherent character and obvious legibility, to facilitate natural orientation of users and visitors. Key components of the identity and orientation of SmartCity Malta include:

- The landscaped boulevard linking SmartCity to Luqa Airport, Valletta and other key locations on the island, which will be designed and delivered by the GOM. This will be an improved part of Malta's road network, and designed to provide a high quality visual experience for those travelling to the site.
- The arrival gateway, fully landscaped with high quality materials and including a special features, such as a trellis feature and a fountain, incorporating a sculptural or virtual logo of the development.
- A number of urban open spaces within the development: the arrival square and belvedere, along the entry boulevard, the water garden within the business area, the mixed urban plaza towards the south east and the central lagoon. These visually connected spaces constitute the main focal points of the site, around which all buildings are orientated. They will be natural gathering points and centres of activity for the site.
- The site, compact and well defined, will be open to everybody and will welcome visitors, occasional users and the residents of nearby settlements.
- The development layout creates new links to the surrounding areas of Zabbar, Xghajra, Kalkara and Fort Ricasoli, creating opportunities for the future creation of a "chain" of tourist and cultural destinations.
- Provision is made for the integration of a regenerated Fort St Rocco within the site; access to it and open views are protected by carefully planned development, which will be masked in the site terrain.
- The development formalises a new coastal path, a shared surface, for local access and cycle/ pedestrian enjoyment. The path introduces view points and public green spaces that are open to the public and are enlivened by leisure activities.
- It proposes the creation of a lagoon surrounded by apartments, hotels, retail and leisure activities, which will welcome visitors, and creates a high quality arrival point for public transport.
- Buildings will be arranged to facilitate efficient access for servicing and emergency vehicles.
- It provides underground parking, along with on-street parking for occasional use.

The general built form aims to create an open bowl, set within the landscape. It will create a frontage onto the sea that will be well integrated with the local topography and will maximise views. All buildings will be medium or low rise, not exceeding 10 storeys. A 3D model of the proposals will be developed for the outline planning application, based on surveyed site levels and topography, to define the overall massing and clarify the building heights of the "bowl".

SmartCity Malta will be locally inspired, not only in its layout and built form, but also in its details: the materials, architectural details and planting used will be those commonly found in the towns and landscapes of the Maltese Islands.

The development, however, will be clearly progressive, a visual expression of the state-of-the-art nature of its drivers: ICT and media businesses. Buildings and detailing will be clearly contemporary, with reference to local tradition and strong contextualisation.

The heritage value of Fort St Rocco will be highlighted by the proposed landform, which will emphasise its seaward orientation. The buildings surrounding it will be carefully planned: individual villas will be screened by rampart walls partly buried in the hillside and incorporated in the design of the terraces/ rampart. This will retain the open views to the sea and the open setting to and from the fort.

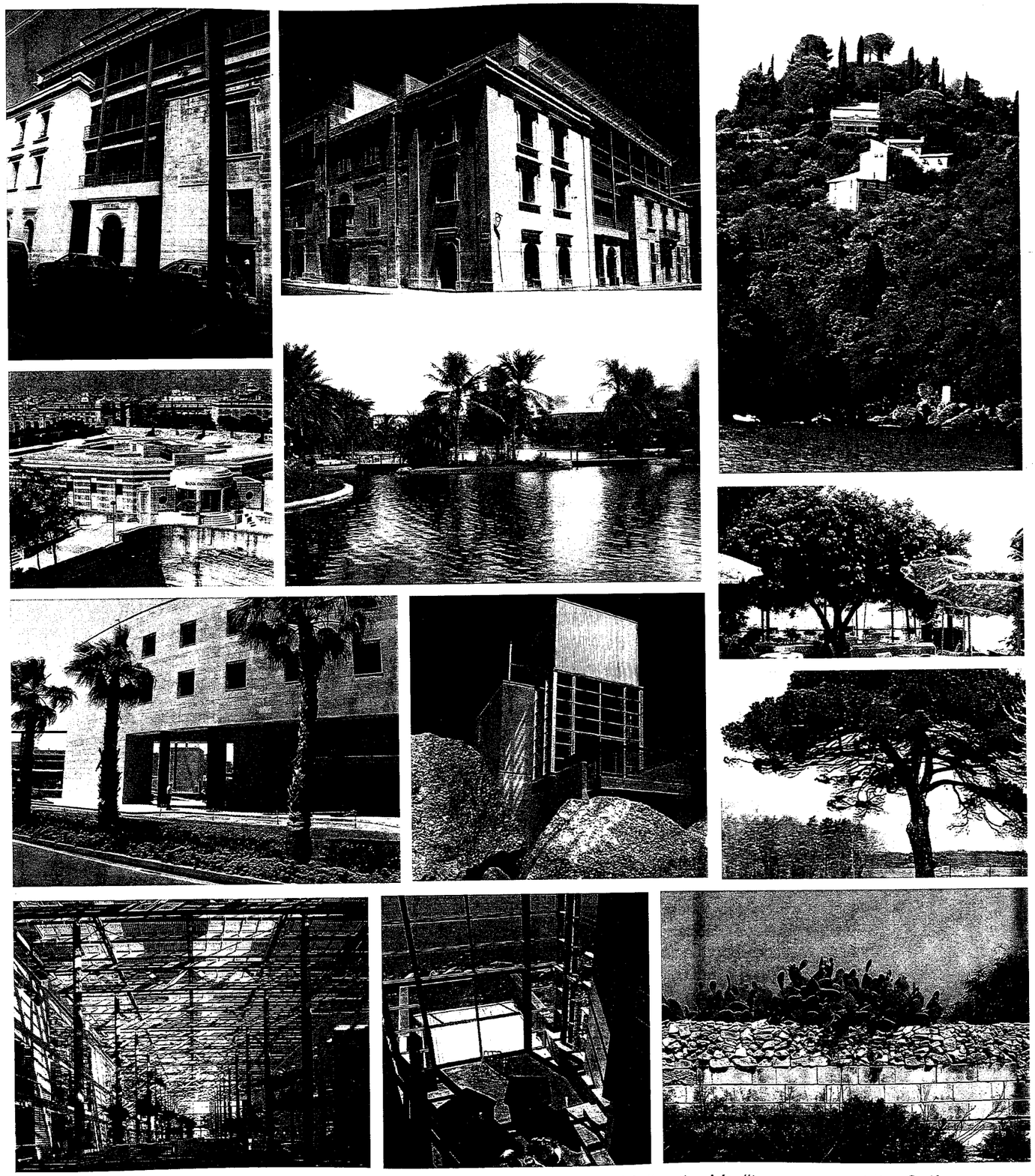
The range of land uses and their arrangement within the proposed development are designed to foster community spirit and encourage a vibrant local life. There will be a range of offices and business spaces of various sizes, and flexible buildings able to combine either residence or small/ medium companies. The central area will be lively throughout the day as it will be surrounded by businesses, residential, apartments and a good range of hotel, commercial and leisure uses.

The local environment will fully cater for the car, but will also encourage walking and use of the public spaces and facilities. Most car parking will be located under the buildings and removed from view. Pedestrian footpaths and spaces will be generously sized and detailed to high specification. Opportunities for stopping and using the spaces (for example by introducing seats and associated street furniture) will be on offer. All areas of the development will be accessible by users and visitors with impaired mobility, as lifts and low gradient ramps will always be provided along the principal desire lines as an alternative to stairs. Full compliance with prevailing Accessibility Guidelines and international best practice in inclusion of people with disabilities will be applied as the Master Plan development progresses in consultation with National Commission for Person's with Disability (KNPD).

The aim of the landscape design is to combine with the architecture to create an attractive structured environment which will form and define the places and spaces within the development: the landscape will be rich and well maintained. It will include high quality ground level planting (including mown grass and flowers), shrub planting and upper storey planting (trees). Planting will be used to set out the building, and will avoid screening them when inappropriate.

Different areas will have a different landscape character: formal along the main axes and more relaxed and free-form in between buildings. Trees and other plants will be typical of the Maltese Islands. Throughout the development, lighting and signage will be an integral part of the design.

The early sourcing of plant and paving will facilitate the creation of an established landscape ahead of full site occupation.



Inspiration for the proposed buildings and landscape from elsewhere in Malta, the Mediterranean and the Gulf.

4.4 Character areas

This section identifies the different areas, or components, of the Master Plan proposals and outlines their character and image, for the purpose of better understanding of the main concept. More detailed guidance will be produced as the project progresses. At a later stage, if appropriate, a Design Code or Development Guidelines could be created, to ensure that the design principles described here will be upheld and promoted through to detailed design, so that development of the site will be cohesive. Consideration should be given to the level of detail of the guide and its purpose (either adopted document, or internal guidance for the developers), so that design and environmental quality is safeguarded while, at the same time, innovation and creative response to the area are encouraged, and appropriate development is facilitated through the planning process.

Main roads

The main roads within the site are the access road and perimeter road. They will have a formal character with generous regular footways, green verges and avenue planting. The buildings will have strong frontages, a continuous building line and a common set of design requirements (such as use of local limestone), aiming to reinforce visual harmony and strong urbanity.

Structural planting will form shaded tree-lined avenues using street trees commonly planted in Malta such as Aleppo Pine, Narrow Leafed Ash and Holm Oak. This planting would be further strengthened by the use of clipped hedges, ground cover shrubs and grass verges.

The innermost ring road is proposed to be an urban mixed use street. Still catering for large volumes of traffic and providing access to the car parks, it will be designed to reinforce its urban character: no green verges, irregular and more decorative tree planting, urban furniture such as seating. The frontages will be diverse and urban: there will be shops and cafés on the ground floors, and the uses will include residential, hotel, offices, education and conference facilities.

Key public spaces

There are a number of large public spaces that act as focal points for the site:

- The entrance square.
- The belvedere square at the end of the main boulevard.
- The water garden and the main business square within the employment area.
- The central open space with the lagoon, terraces and features, including a floating stage, a grand staircase to be used as amphitheatre and a concentration of leisure activities.

These are spaces designed to high specification with decorative paving, water features, street furniture, lighting, lawns and the formal use of attractive trees such as Jacaranda, Oleander and groups of Palms.

Buildings set within these spaces will have their main frontage and entrances onto them from terraces overlooking the lagoon and will be designed to provide a degree of visual unity and richness of detail.

The lagoon

A lagoon will be the heart of the proposed development. It is envisioned as an irregularly shaped public area and as a focal point set within the topography of the hill. It will be designed to high specifications and with the purpose of maximising amenity value and use. The lagoon, will be designed as an "infinity pond", without visual discontinuity with the sea (despite the significant change in level, about 12m). The lagoon will incorporate features like a spray or mist fountain, a floating stage, rowing boats for hire and an attractive arrangement of bridges, terraces and routes to maximise hustle and bustle on a daily basis, by workers, residents and visitors as well as offering opportunities for more festive events and celebrations.

The lagoon will be framed by terraces of restaurants, cafés and shops, as well as apartments, offices and hotels. Some cafe/shopping uses will be built under publicly accessible terraces. It will accommodate the main commercial frontages of the development, creating opportunities for a lively and safe environment, within an area which is designated "for public use" in the land deeds. The buildings beyond the terraces will be an integral part of the skyline of the central space. They will be of medium scale and will include a range of uses, so that this focal area will be lively throughout the day and evening. Trees, informal landscape and vegetation will create an open, fresh and green environment.

The retail floor space is intended to provide a complementary shopping offer to attract customers from those that work at SmartCity and visitors from nearby areas. The combination of cafés, restaurants and good shopping will endow it with "destination in its own right" status, and encourage integration with the maltese way of life. It is not intended that SmartCity will become a major tourist resort complex.

The seafront

The seafront will be a primarily pedestrian environment accessible by the public and respectful of the ecological/ natural values of the area, which is identified as a Site of Scientific Importance/Area of Ecological/Geological Importance as well as an area where public access is desirable.

It will have attractive pedestrian paving and informal vegetation suitable to the coastline location. It will provide the setting for a number of uses:

- Cafes and restaurants, incorporated into the frontage of the buildings framing the central space feature.
- Hospitality and residential.
- Small scale public green spaces and vista points.
- A high quality bus waiting/arrival point towards Zabbar.

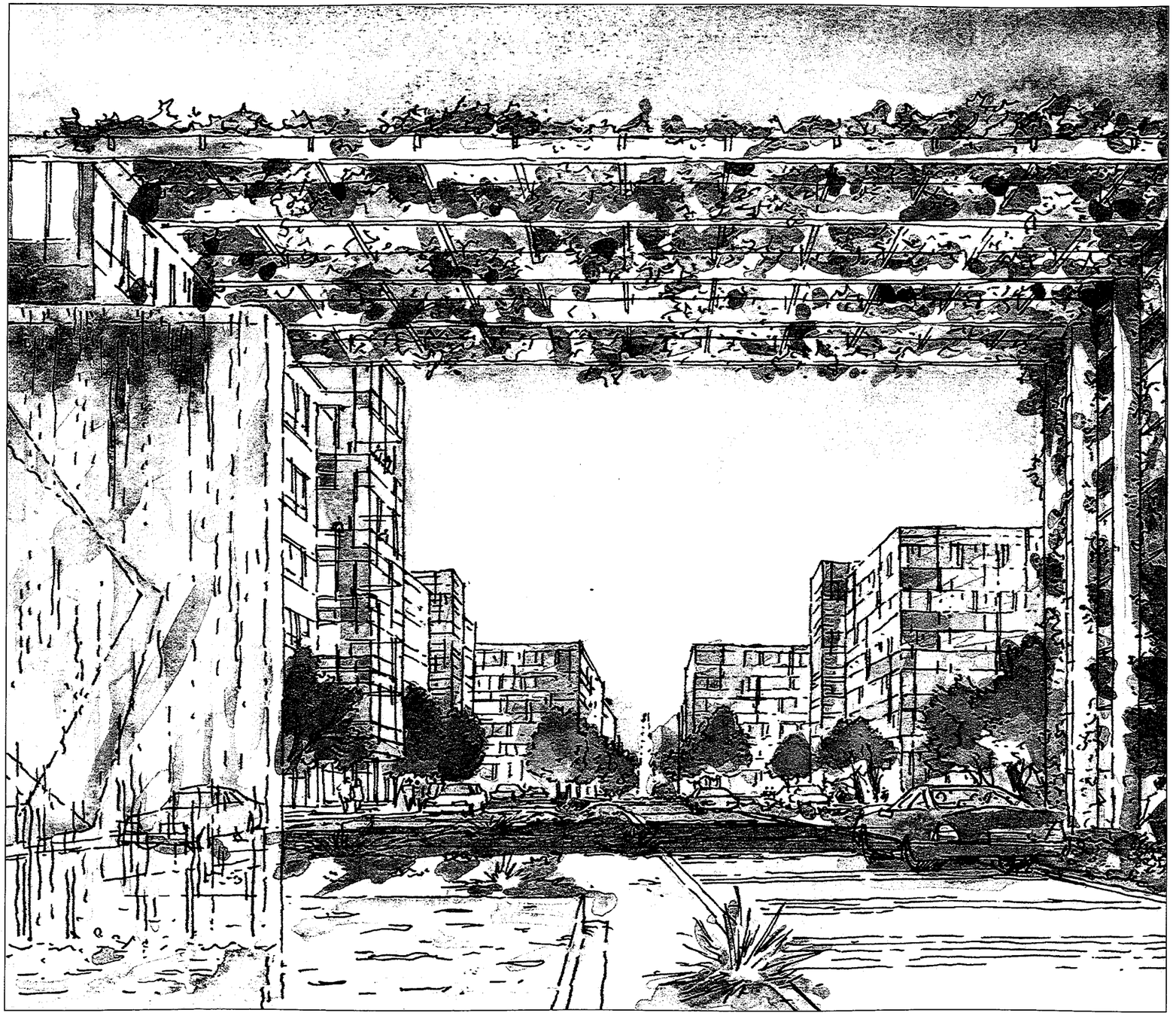
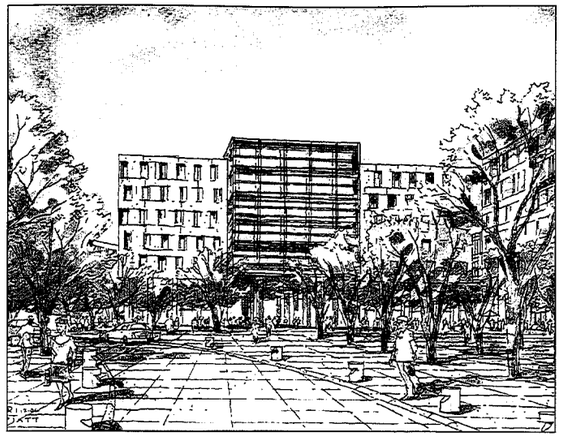
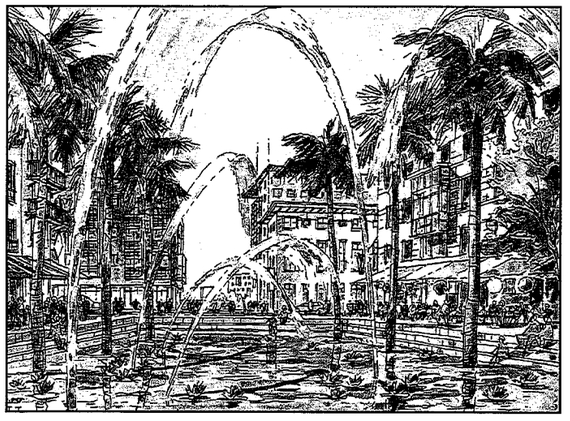


Fig 4.2 Artist's impression of the entrance boulevard





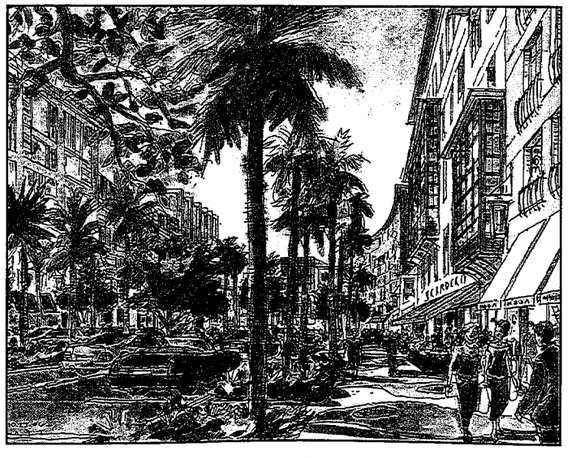


Fig 4.3 (a, b,c above) Artist's impressions of the development core area.

Fort St Rocco

Fort St Rocco is not part of the concession. It is however an important cultural asset, which the development seeks to protect and enhance. The area surrounding Fort St Rocco is designed as a loose set of terraces, inspired by the architecture of bastions and ramparts. The character of this area is primarily open and green, with minimal infrastructure and only local access. The main objective is to create the illusion of an unbuilt area, when seen by the fort or by the entrance boulevard, while creating frontages on the key public spaces and maximising sea views. The design approach is also guided by the local land use designations of Rinella Recreational Area and Site of Scientific Importance/Area of Ecological/Geological Importance.

Urban form is loose allowing important ecological/geological resources to be protected and to retain landscape character. The landscape will be informal and it aims to recreate the natural coastal habitats. The foreshore will be accessible to the public and public space areas surrounding the Fort will be introduced.

There will be a variety of building types in this area:

- The business hotel and conference centre, which creates a low profile frontage onto the inner ring road and enjoys views of the fort. It has naturally landscaped grounds.
- Private attached dwellings, on two floors, built partially underground and set within the elevation of the terraces/ ramparts. These will have frontages orientated towards the sea views and small southfacing sunken gardens. At the lower level, they will provide an animated frontage onto the seafront promenade.
- Individual villas, set within the landscape and built close to the sea. These, and their access road, will be screened from the views from the fort by structures similar to rampart walls.

The proposals aim to allow maximum flexibility for future restoration of the Fort, without precluding any potential future reuse. This is achieved by the retention of independent access, the preservation of sea views and of open space surrounding the fort. Provision is made for a future entrance square fronting onto Smart City entrance boulevard, should this be perceived as of benefit. The building line of the nearest developments have been set further away from the Fort as compared with the present situation enhancing its setting. Thus, future potential integration of the regenerated Fort with the network of public routes and pedestrian destinations of the site will be facilitated.

Business quarter

The business quarter is located in proximity of the peripheral access road and the inner ring road. It has a variety of building sizes and types, allowing occupation by a range of tenants. All buildings enjoy a prime frontage location, either on a main road or on a key open space.

The buildings along the peripheral roads will have a formal frontage onto that road and an average of 6 floors in height. A middle route, designed as a shared surface with minimal through traffic and no access to parking, will provide access to informal landscape and generous pedestrian spaces.

The landscape treatment around the new buildings will be more relaxed and less formal with the use of more ornamental flowering species to provide colour when combined with water features and grass lawns. Plants such as Palms, Bougainvillea, fruit trees and Hibiscus will be used.

Xghajra residential area

This residential area is located separately from the rest of the site in an area of rural character at the outskirts of Xghajra. The priority for this area has been that of minimising the appearance of the buildings and maximising green / open space and to facilitate access for surrounding communities to SmartCity Malta and its facilities. For this reason the built form is loose and very different from the nearby compact, urban settlements. It is primarily comprised of buildings hidden in the landscape.

Its main access will be from Triq San Leonard, the road serving existing residential development: a winding, slow and pedestrian friendly road will link the areas of San Pietru/Xghajra to SmartCity Malta. A community centre, with shops and leisure facilities will be located directly off this road, so that facilities could be made accessible to other local residents.

The building types include:

- Private attached villas, on two floors, built partially into the hillside and set within the elevation of curving terraces. These will have frontages oriented towards the sea views and will provide an animated frontage onto communal gardens.
- Individual villas, set within the landscape.

The landscape will be informal and inspired by local vegetation. It will include a recreational area.

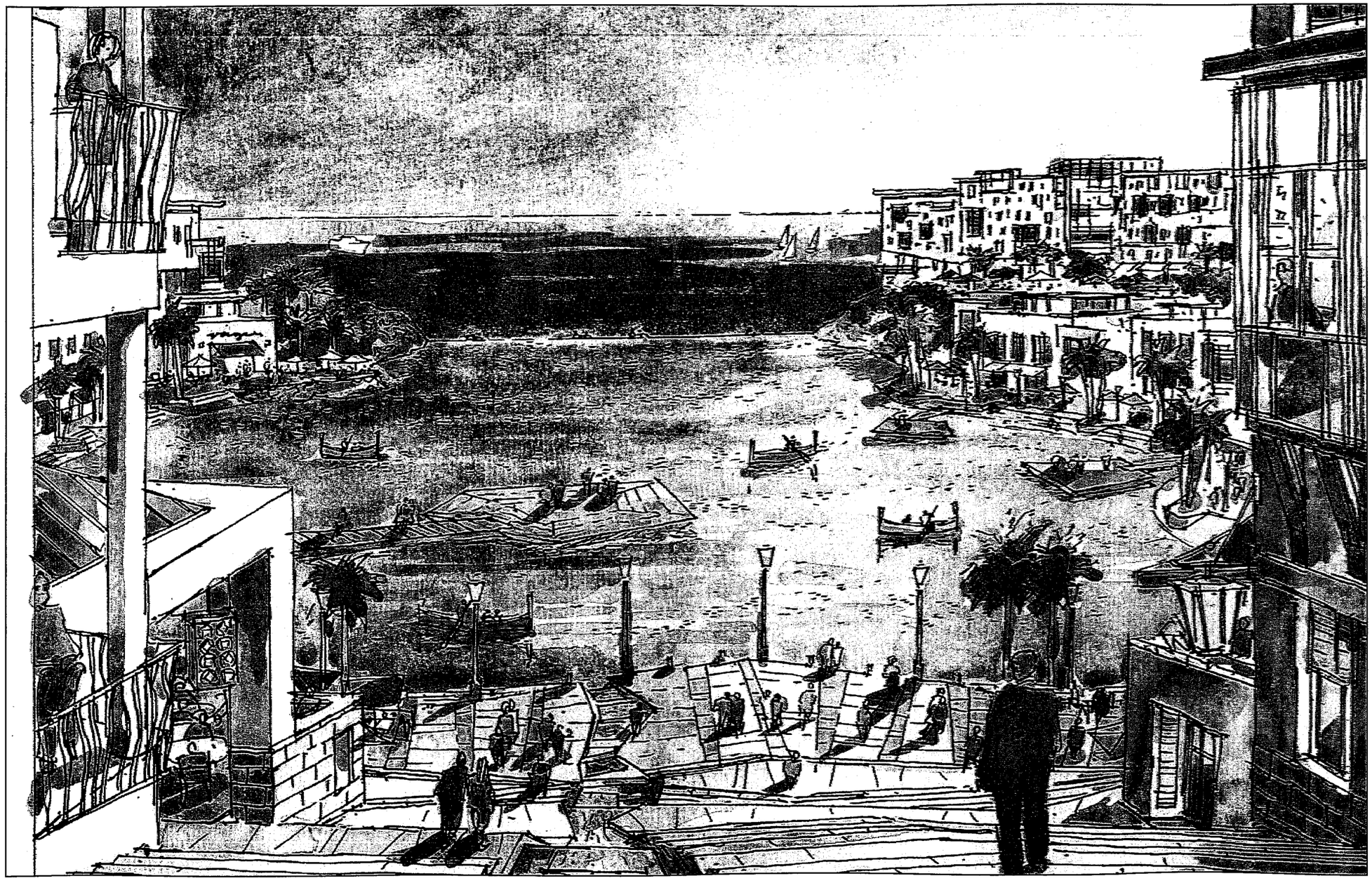


Fig 4.4 Artist's impression of the lagoon

4.5 Sustainability framework

Sustainability principles will underpin the development of SmartCity Malta and by using objectives established in Section 3, a sustainability framework for the development has been produced. This framework reponds to the Sustainability Development Strategy for the Maltese Islands (April 2006), a summary of which is provided in Appendix Three.

The proposals for SmartCity Malta aim to achieve self containment, thereby minimising the need to travel both internationally and within Malta, using space efficiently, and creating a balanced community. The following principles will be adopted in the application of SmartCity Malta's design strategy:

Energy

- Application of renewable energy sources, such as solar heating installations and photovoltaic panels.
- Design of energy efficient buildings, with green roofs, green facades and in certain cases set within the slope of the hills and ramparts.
- Buildings that make maximum use of natural light and natural ventilation, limiting the need for artificial lighting or air conditioning.

Building Materials

- Maximise the use of locally sourced building materials, including the sandstone recycled from demolition within the site itself and where there is opportunity using materials arising from land remodelling works for example work related to the creation of the central space feature.
- Maximise the re-use of existing road bases and foundations, and re-use of local rocks and rubble.
- Maximise the use of renewable resources and materials, that can easily be replenished such as wood, clay (for brick) and sand (for glass). Limit the use of concrete, which has high embodied energy and contributes to CO2 emissions.

Water

- Use of sustainable methods to source drinking water and water for irrigation.
- Run-off water harvesting and treated grey water for activities, such as irrigation. Consider use of recycled water from sewage treatment.
- Reducing water consumption through using low-flow fittings such as spray taps and low flush toilets.

Transportation

- A mixture of uses to reduce the need to travel.
- Development of a Green Travel Plan to manage traffic.
- Maximise the opportunities for walking, cycling and the use of public transport.

Local context

- Appropriate development form (building and neighbourhood scale) in relation to the characteristics of the surrounding area.
- Development that is sensitive to the setting of local heritage for example Fort St Rocco and Santu Rokku.
- Management of the existing Site of Scientific Importance/Area of Ecological/Geological Importance surrounding the development.
- Creation of new habitats, including wildlife corridors via tree canopies along major and minor roads and accesses.

Social

- Creation of new community infrastructure on site, including health, education and recreational facilities.
- Create good access to nearby communities, such as, Kalkara, Xghajra and integration with Santu Rokku.

Economic

- Creation of a substantial number of jobs, significantly more than currently exist on site.
- Provide business start up facilities, facilitating local business enterprise and investment.
- Creation of new 'hub' for media and high tech industries.

Artist's impression of the villas.

4.6 Land uses – development framework plans

The parameters for development are contained in the following plans and tables:

- Summary land use schedule - Table 4.1
- Dominant land uses - Figure 4.5
- Maximum density - Figure 4.6
- Maximum height zoning - Figure 4.7
- Circulation and access - Figure 4.8

These plans provide a framework and basis for preparing detailed plans for phases of development and for individual buildings. They establish the amount of built development that is sought at this time and govern the form and manner in which it can be achieved, by setting building heights, car parking standards, the locations of main roads and the locations for land uses (mixed or otherwise) including open space.

The principle of dominant uses

Figure 4.5 illustrates a series of "dominant" land uses for each area of the Master Plan, based on the schedule in Table 4.1. In order to retain essential flexibility in a volatile real estate market, the principle of dominant uses is proposed. This would enable the developers to construct buildings with consent to fit out for mixed uses if needed, whereby, for example, 60% of floorspace would be offices, 30% residential and 10% retail. This flexibility also provides for night time activity in commercial office zones otherwise devoid of evening activities when office workers have gone home.

Later consent may be sought to convert a mixed use building to 100% offices as demand materialises for commercial office space. The term 'dominant use' commits the developers to fitting out of buildings within given zones with a majority of the stated use, while Table 4.1 further commits to the minimum provision of employment generating uses sought by the Maltese Government. Detailed consent procedures for each phase or unit of development will be the means by which these principles will be applied and enforced statutorily.

Offices (ICT and Media)

High quality serviced office space will be provided specifically designed to cater for information technology business and the media. A range of unit sizes will be provided in response to demand, and space will be allocated for small to medium sized enterprises (SMEs) to encourage local investment and new business start-ups.

There is a commitment to develop 103,000sqm of office space as a minimum, within 8 years.

Lodging

A mix of household types and sizes will be provided in response to market needs, including the needs of local people, and also the option for people to live and work on site. Private open space will be provided for residents.

Commercial

Hospitality and serviced apartments – Over the 15 year timescale, there will be up to four hotels and serviced apartments for rent. The larger hotel will be a high quality facility supported by a full range of business, conference and leisure facilities, bars and restaurants. This hotel, and the serviced apartments complex, will predominantly cater for business users but also for leisure users, building on cultural assets within the site. A second hotel, overlooking the sea, will be a small scale luxury 'boutique hotel' primarily aimed at the upper end of business users. The first two hotels are likely to be needed to coincide with the 8 year office accommodation commitment, but it is not intended that SmartCity will become a major resort destination in its own right.

Retail/ cafés and restaurants/ community facilities – A range of retail facilities will be provided primarily to support the day-to-day needs of residents and business users of the site and to attract a customer base of those seeking quality shopping at value for money prices from across the island of Malta. So these areas will comprise convenience and comparison shopping as well as restaurants, bars and commercial leisure. Space will be provided within retail areas for financial services, health, support facilities (training, recruitment, copy service etc.) and recreational clubs. These facilities will also be accessible to local people. The amount of floorspace allocated to each of these sub catagories will be detailed at a later stage, in order to complement, rather than supplant, facilities already available in the nearby settlements.

Utilities plant – this area will accommodate the utilities plant, required to service the needs of the site, e.g. power, water, gas, and telecommunications installations and switch gear.

Car parking – car parking will be primarily provided within basements (below ground). There will be a small provision of on-street parking for disabled users and short stay visitors. Individual villas and homes will have individual parking within their grounds. The amount of car parking in each location relates to the requirements of each particular land use.

Open Space

Open space areas will be provided in the form of highly maintained gardens which will be available for the enjoyment of local residents, visitors and workers to SmartCity. In addition, less formal open space areas will be provided, in response to location and environmental conditions.

Fort St. Rocco and environs

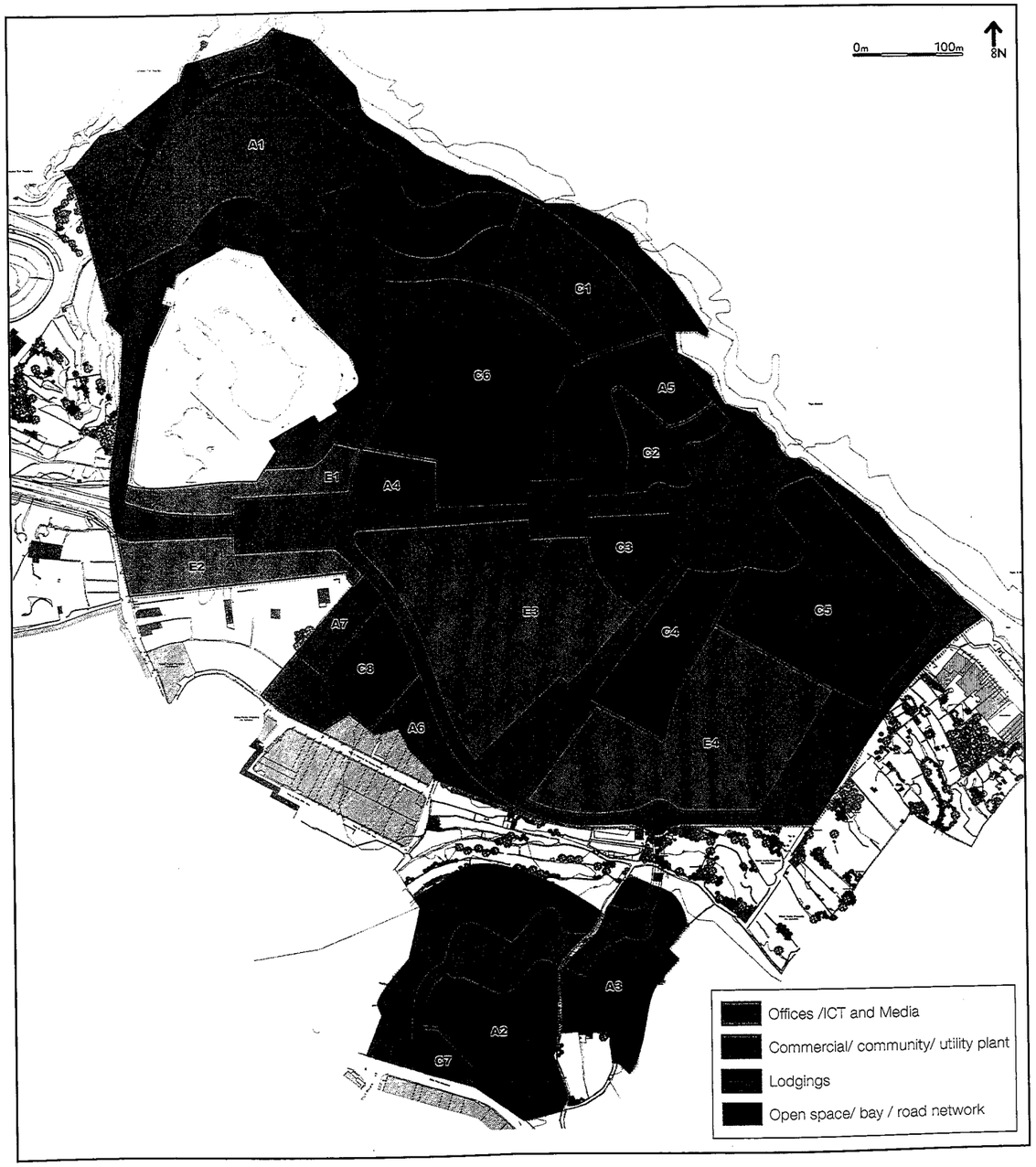
Measures to protect the physical and cultural integrity of Fort St. Rocco will be introduced so as to enable the building to be brought back into use in the future. Open space areas will be retained around the Fort to ensure that its setting is not adversely impacted, but also to enable public access and enjoyment of this historic and cultural resource.

Table 4.1 Summary land use schedule

Land Use	Minimum GBA		Maximum GBA		Land Allocation		Maximum Coverage
	%	sq.m	%	sq.m	%	sq.m	%
ICT & Media Business Park	46%	103,000	47%	157,000	19%	68595	75%
Commercial	29%	63,500	27%	90,000	28%	98,563	50%
Lodging	25%	55,000	26%	88,000	20%	72,268	50%
Public Spaces	-	-	-	-	33%	116,802	-
TOTAL	100%	221,500	100%	335,000	100%	356,228	-

N.B There is a commitment to develop 103,000sqm of office space as a minimum, and that all other stated Gross Floor Areas are subject to change as the design develops.

Fig 4.5 Dominant Land Uses



Land uses are mixed through the site, to avoid the creation of "districts", encourage integration and create a lively and busy environment throughout the day. A key principle of good town planning is the provision of mixed uses especially in town centres. This affords a good mix of day and night time activity where offices, shops and residential uses contribute to the vitality of the space. However, the distribution of proposed uses still allows for a degree of concentration.

Offices (ICT and Media) are located primarily where they can be served by the main access boulevard and the ring roads. This is because they are great traffic generators, and the intention is to minimize the amount of car traffic penetrating into the development.

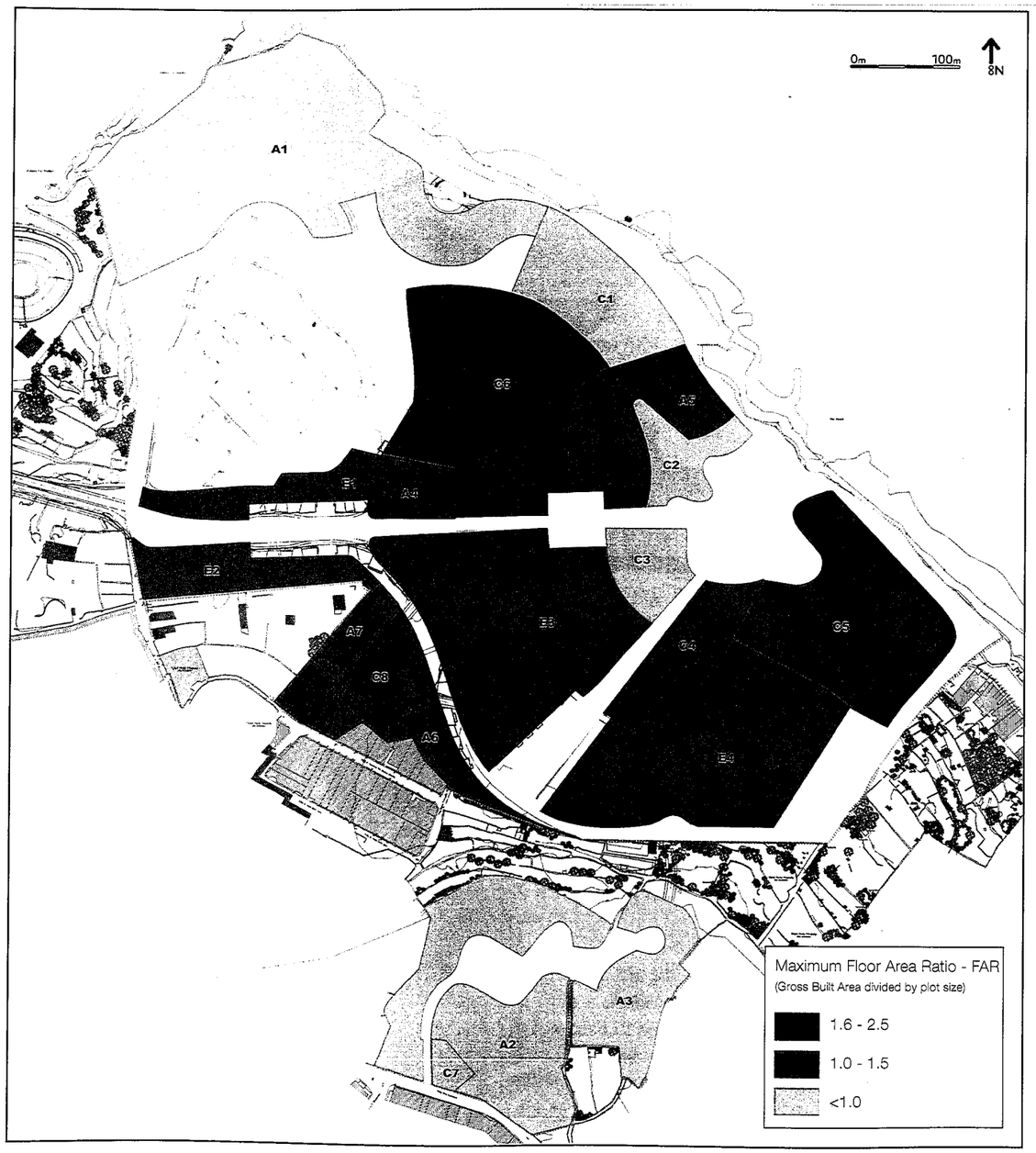
Commercial uses (hotels, serviced apartments, retail, community centre, conference centre) gravitate around the lagoon, to reinforce its public role as the heart of the development; small scale retail and community facilities are located throughout the site, as part of office buildings or in the southern residential area.

Lodgings are dispersed throughout the site, with villas mainly located in the two sensitive locations: adjacent to Fort St Rocco and within the rural satellite site.

4.7 Densities and Height Zoning

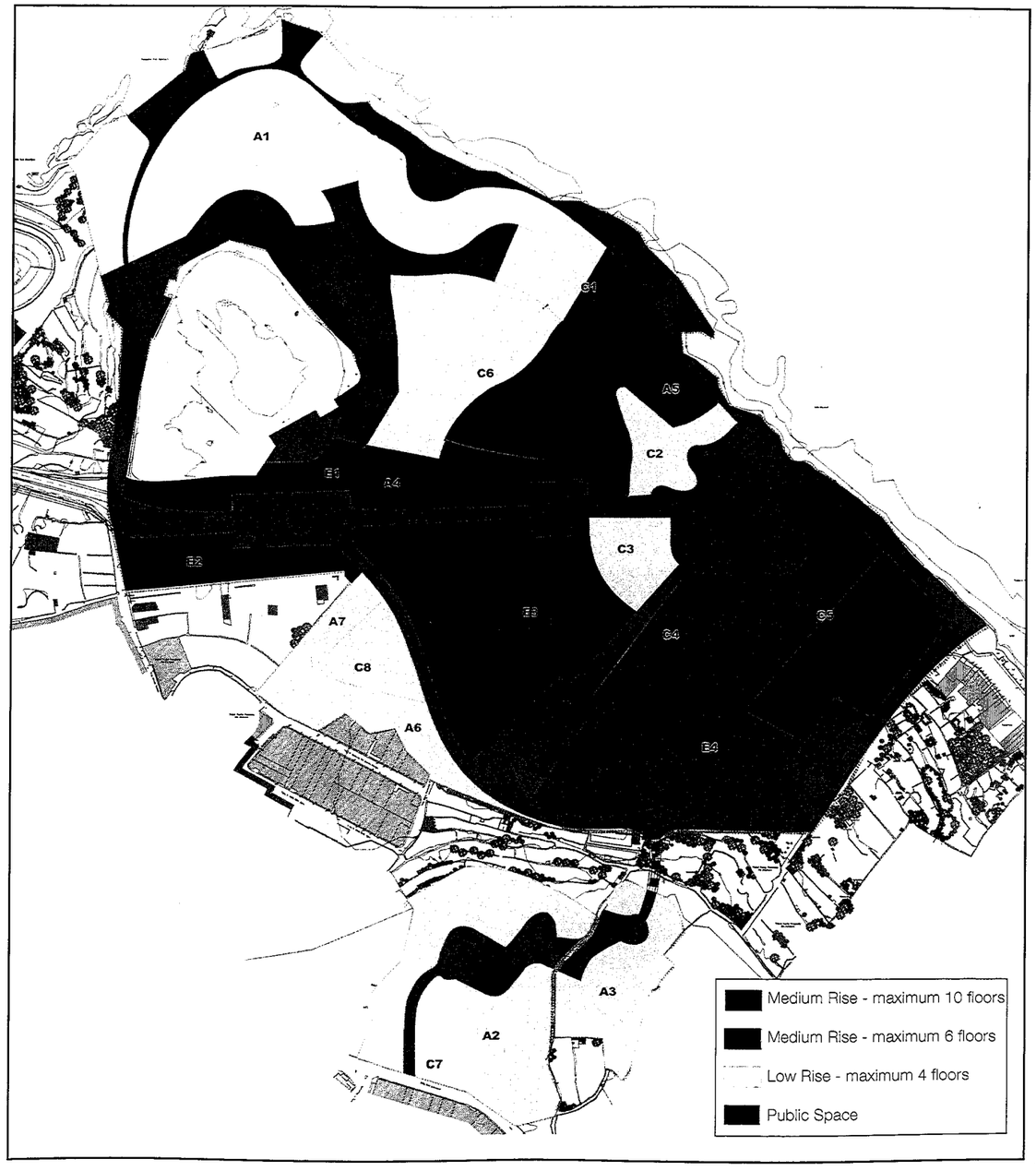
Figure 4.6 and figure 4.7 illustrates the intended overall maximum density ratios (FAR – Floor Area Ratio) and maximum building heights for zones within the development.

Fig 4.6 Maximum density - ratio of maximum Gross Built Area over land allocation



Densities (FAR – Floor Area Ratio) are calculated as Gross Built Area (floor space) over plot size (site area). The plan shows how the entrance area and the sites in between the two ring roads are the more urban in nature, with a FAR averaging of 2. The rest of the area, and the coast has relatively low densities, reflecting the design intention of providing a natural profile along the sea front.

Fig 4.7 Maximum Height Zoning



The development is of low and medium rise buildings. There are large areas of low rise: the coastal areas, the lagoon and the southern satellite site. This is because of the aspiration to retain open views onto the sea or onto the rural landscape, such as the Southern Strategic Gap. The rest of the development is medium rise, with the majority of buildings between five and six storey high. The exceptions are likely to be:

- *The entrance boulevard, where taller buildings (up to 8 storey) would reinforce the business image of SmartCity upon entrance.*
- *"Accent frontages" onto the main public spaces, to create variety; these are not expected to be above 10 storey high.*

4.8 Movement and circulation

4.8.1 Overall strategy - 'SmartTravel' for a SmartCity

The development theme of SmartCity Malta is of a high-tech, visionary development that reflects the creative and innovative aspirations of its occupants. The same should also be true of the transport and access arrangements to the site. SmartTravel will be the theme underpinning the whole transport strategy for the site. This will reflect the need to provide efficient, modern, hi-tech travel that is also socially and environmentally aware.

The strategy will seek not only to establish good highway engineering and access designs for the site but also to demonstrate state-of-the-art sustainable travel opportunities. This means effective management of access and mobility that provides all users of the site with a choice of access modes, infrastructure that makes access hassle-free and a resulting environment that is pleasant to live and work in. This will also require commitment from the GOM to ensure that adequate public transport opportunities are available to the occupants of SmartCity and that innovative technologies are exploited to maximise the take-up of sustainable transport systems.

Likewise, the strategy will seek to ensure that the development can 'consume its own smoke' in terms of its impacts on the surrounding transport network. Not only will the infrastructure associated with the site benefit the users of the site, there will also be benefits to the wider environment and community.

4.8.2 Site access strategy by road

Strategic road links

As identified previously, the proposal by the ADT to upgrade the road network between Tarxien and the Ricasoli peninsula is an important factor in realizing the successful development of the site. Figure 3.1 shows the lack of an arterial route within this region of the island and the need for an upgraded link. This will provide both improved access to the site but will also provide wider benefits in the locality so that Zabbar and Cospicua can be bypassed by strategic traffic.

Furthermore, the new road link will provide better access to urban areas along the southside of the Grand Harbour, therefore helping the economic growth of this part of the island.

The road should be designed as a multi-modal link providing for both public transport, walking and cycling as well as the private car. This may be achieved through the re-allocation of road space to specific modes and the provision of an off-site Park and Ride site where the new road intersects with route one.

Local road links

The main access to the site will be taken from Triq Santu Rokku. This road currently forms the main site access and the majority of vehicles that use it are site related. However, the road is in need of upgrading to support the level of development proposed on the site.

The level of traffic generation to the site could be such that a dual 2-lane road will be required for access from the existing towns up to the site main plaza. The road design will comply with the ADT's 'Road Works (Design and Construction Standards) Regulations' 2003. It may be that, through discussions with the ADT, the on-site road standards could be relaxed especially given that the road will function primarily as an access road. A relaxation would allow for the landscaping described in Section 4.4.

Off site there will be a need to ensure that the upgrade of the link (Figure 3.4) will be of adequate standards to serve the site. It is important that landscaping along main accesses to the site are of high quality and the style reflects that achieved at SmartCity in order to effectively promote the positive integration of the development to the Grand Harbour area.

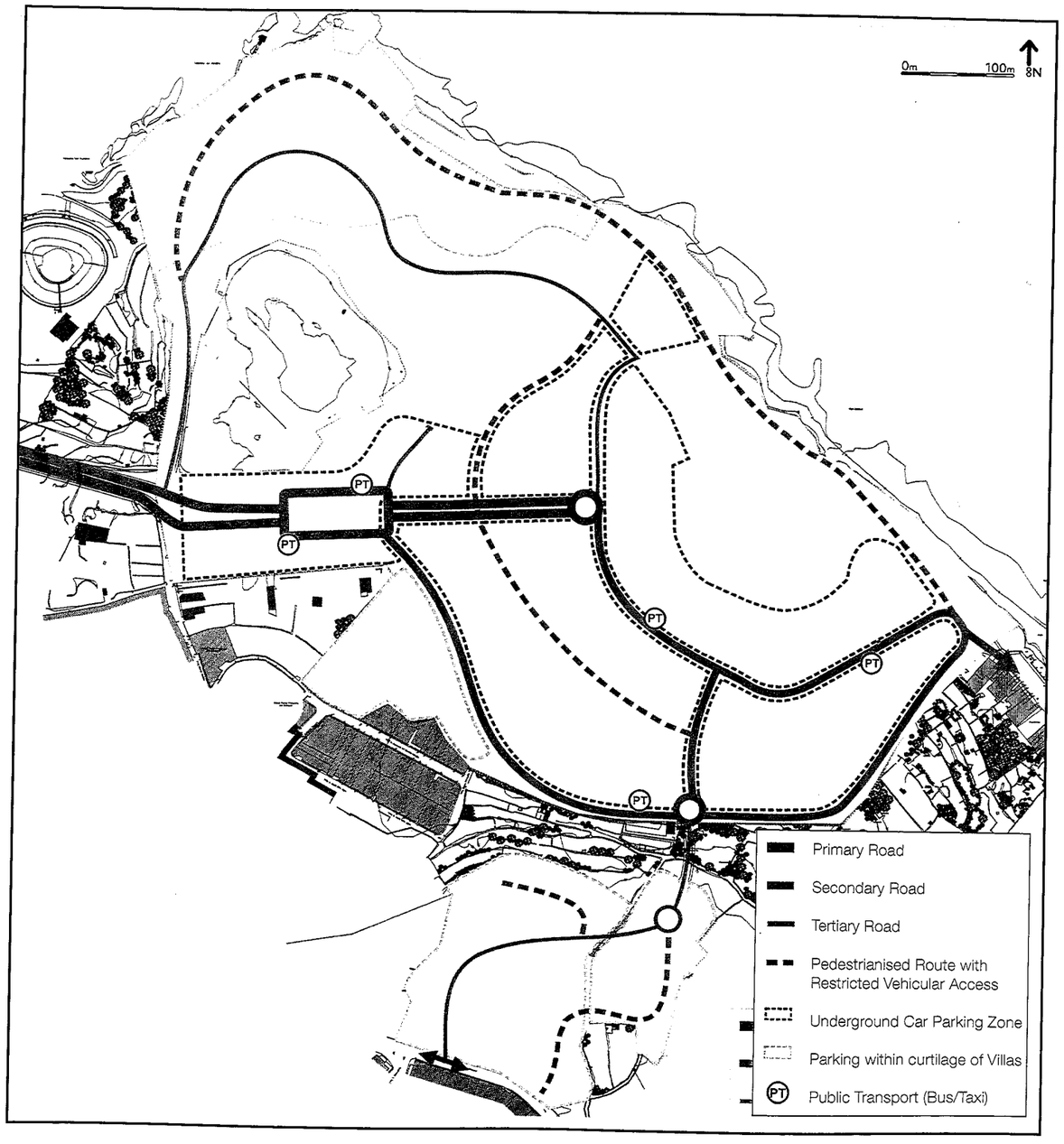
Upgraded junctions would be required at the following intersections:

- Triq Santu Rokku with the site access.
- Triq Il-Missjoni Talajana with Triq Santu Rokku.
- Triq Il-Missjoni Talajana with Triq Santa Liberata.

The precise design of these junctions would need to be clarified by a Traffic Impact Statement (TIS) and supporting traffic surveys.

A second access to the site can be taken from the coast road at Xghajra. This is unlikely to be heavily trafficked but could be used in the case of an emergency if the main access is blocked for some reason. Furthermore, it could be used for occasional vehicles that want to travel south or could provide the opportunity to extend the bus route through the site.

Fig 4.8 Preliminary Circulation, Access and Parking



Relationship to on-site layout

The main site access from Triq Santu Rokku will lead directly into the core of the site. Immediately on entry to the site there will be a minor road that will lead down to the lodging area on the coast. The main route will feed into the central square in front of the hotel. From here the majority of the commercial traffic will route down the perimeter road which runs along the south side of the site. Road access from the perimeter road will provide access to underground car parking and surface servicing bays.

It is intended that the traffic speeds on the site will be kept to a minimum (under 30 km/h). This will make the roads safer and quieter. To achieve this low speed it will be important to calm traffic immediately on entry to the site through the use of landscaping, surfaces and, if necessary, horizontal deflections.

Within the site, the roads will be designed to a less formal highway standard. Landscaping, surface treatment and sensitive road layout have been used to ensure appropriate throughput of traffic without a detrimental impact on the site's environment.

There will be a dual carriageway leading into SmartCity, and linking into two single carriageway avenues, designed to carry high volumes of traffic at peak hours. These roads will serve all the underground parking. It is not envisaged, at this stage, that there will be a need for traffic lights. Designed to a high standard of landscaping, these roads will provide an attractive urban frontage to the adjacent developments and will provide the setting for public transport and cycleways. Footways will be of generous width.

Tertiary roads will serve the residential areas, with an alignment and width meant to reduce speeds and limit use by through traffic as a short-cut. Cyclists will be welcomed to share the carriageway with general traffic. No public transport service is envisaged along these roads.

Pedestrianised routes with restricted access to local destinations will run along the coast, to serve smaller scale developments and as a "middle ring road" in the main area of SmartCity. These links will be designed as pedestrian/cycleway spaces (block/stone paving, non-parallel kerbs, planting designed to restrict forward visibility, etc.) where vehicle run-over is allowed. Vehicles are likely to use these links to access private sites located along the route, as well as for servicing and emergency only.

Possible impacts and mitigation

A full Transport Impact Statement will be carried out in accordance with the guidelines set out by MEPA and contained in the Structure Plan Explanatory Memorandum. This should provide forecasts of the trip generation from the site and an estimate of modal split. Any offsite highway impacts should be identified through appropriate modelling techniques and suitable mitigation measures identified.

A more detailed description of principal headings of the TIS is provided towards the end of Appendix Four.

4.8.3 Site access strategy (non-car)

Public Transport

Serving the site by public transport will be an important part of the overall SmartTravel principle. Public transport will provide access for people without a car but will also provide those with a car the opportunity not to use it. In so doing, the detrimental impacts of traffic generation can be mitigated.

Upgrading the existing public transport network to serve the site will be examined. This will include both extensions to existing services and possible increases in service frequency. The opportunities to integrate express services (that is with limited stops) will be examined within the existing public transport network with the aim of serving longer distance trips.

Furthermore, the provision of an off-site Park and Ride will be fundamental to transferring employees from dispersed home locations to public transport.

Cycle network/local pedestrian links

Realistically, walking and cycling are only going to apply to a very local travel market. However, it is nevertheless an important means of access and sustainable transport and should be encouraged to dissuade short car trips.

Figure 3.3 illustrates the potential local cycle and pedestrian catchment linking to key settlements. Where possible cycle and pedestrian routes will use quiet and safe roads away from major traffic flows. Supporting infrastructure including safe crossing points, signing and lighting will be provided where appropriate.

4.8.4 Supporting traffic management

Traffic regulation

It is proposed that adequate on-site parking is provided and therefore there will be no parking around the edge of the site on public roads. There will also be a need to keep the access and internal roads clear to maintain free flowing traffic movements. Some degree of traffic regulation and enforcement will therefore be necessary on key roads.

Traffic speeds will also have to be carefully designed. On the site, traffic speeds should be kept at or below 30 km/h. Immediately outside the site and on the approach roads, traffic speeds can be increased to 50 km/h and on the major distributor roads traffic speeds may be increased from between 70 to 90 km/h.

Servicing and emergency vehicles

Servicing will take place wholly within the site. The site has been designed to enable discrete and efficient servicing to take place for all land uses. Where possible refuse vehicles will only be required to reverse short distances when servicing units within the site.

Emergency access is also an important consideration and all parts of the site will be accessible by emergency services/ vehicles.

Parking provision

Sustainability is directly linked to the extent of car parking provision which is itself a response to balancing access with the creation of circulation space not dominated by motor vehicles. The Transport Impact Statement is currently under preparation and will determine the final total of parking demand using calculation standards adopted by the Maltese transport authorities. These will determine the potential demand against which a policy for public transport provision, traffic segregation and traffic calming will be proposed. Full provision of parking against the agreed standard calculation method will result in a level of parking provision and townscape dominated by roads and car parks. It is the intention of Smart City to reduce this level of demand as much as possible through adoption of traffic limitation methods which will be proposed in more detail once the TIS process is complete.

The provision for the development will allow sufficient spaces to be provided in underground car parks strategically distributed throughout the development. Access to car parks that service the office spaces will be from the primary and secondary roads. These will be located in such a way as to minimise the traffic impact upon the new proposed road network. The provision of an off-site Park and Ride scheme by the local authorities will provide additional parking and promote a transfer from the private car to public transport.

Soft engineering - Travel Plan

To ensure efficient use of non-car modes to the site, a Travel Plan will be developed that sets out how mobility will be managed. Such a document should be seen as a 'live' document which continues to advise, inform and update on mobility long after site construction is completed.

The Travel Plan will ensure that the SmartTravel theme for the site continues in perpetuity.

Signing

Signing and information will be considered at an early stage in the development process. Signing not only raises the profile of the site, it will ensure that visitors to the site travel there by the most efficient mode and route. Signing will be appropriately located at key junctions on the highway network.

A comprehensive signage strategy will be developed for the site. This will ensure that the site operates successfully and fulfils the principles of a SmartTravel community. Car access will play an important role and appropriate access arrangements have been identified. However, there will be many opportunities for non-car access and this will make the site accessible from throughout the Valletta region.

4.9 Utilities

The general principle for the provision of telecommunications, power, potable water and foul drainage will be that the utility provider shall install a main connection point for the development at a location to be agreed between the parties. The developer will construct the on-site infrastructure with the option to retain ownership of this infrastructure for the life of the project. Direct contracts will be arranged between the individual tenants and the power and water companies. Services will be run underground.

Water supply from the nearest 250mm trunk main will be provided directly from the Water Services Corporation (WSC) Water for irrigation will be provided by a combination of grey water supplied by WSC, and harvesting of storm water and grey water from the buildings. Consideration will also be given to the provision of separate storage for fire fighting.

Sewage will be collected via a gravity system, with local pumping stations if required, and discharged from the WSC into a new sewage treatment plant on the coast to the south of Xgharja.

The proposals for linking the current pumping station to a new treatment plant several kilometres south east along the coast, include the installation of 2 x 500mm pipe mains laid underground will be provided by the appropriate authority.

Electricity will be brought to site via a new 33kV link to a new standard 33kV 45MVA distribution centre, to be constructed in the utility area located within the site boundary. Power will be distributed around the site at 11kV with a number of substations which will provide low voltage power to all facilities. To provide a more sustainable development, consideration will be given to the use of solar power.

Existing fibre links into the Ricasoli Industrial Estate will connect to a central switch located in a suitable building on the site. ICT services will be distributed around site via fibre optic cables terminated at the main switch.

4.10 Responding to the issues

Section 3.6 of this report identified opportunities and constraints, which have been used to guide the formulation of the Master Plan. The above description of the proposals and measures that will be introduced to complement the development will provide a robust basis for ensuring delivery of a high quality environment, stimulating investment and securing effective regeneration of the site. The proposals respond to local context, providing facilities and enhanced amenity for adjacent local communities and settlements but also preserving and protecting environmental and heritage resources. These proposals provide a positive basis for securing a coastal walk and the bringing into use of Fort St. Rocco.

Referring to each of the Weaknesses and Threats as identified in the SWOT analysis, in Table 3.1 the Master Plan provides for, or ameliorates, each problem as illustrated in Table 4.2.

The next section identifies matters that need to be resolved in order to ensure that development can take place successfully and sustainably, so that the benefits to local communities can be maximised. These together with the above provide the basis for being able to respond positively to the opportunities and constraints identified at Section 3.6.

Table 4.2 Amelioration of Weaknesses and Threats (see also Table 3.1 Swot Analysis)

Weaknesses	Response
1. Indirect road links; network needs substantial upgrading	1. Provision of a new off-site road link by GOM will remedy this
2. Current road routes via built up areas	2. Provision of a new off-site road link by GOM will remedy this
3. Limited public transport	3. The SmartCity proposals provide a basis for investment in public transport facilities. The proposals will accommodate and allow for public transport facilities.
4. No cycle or pedestrian routes	4. Proposed SmartCity development will provide new cycling and walking links. The provision of enhanced coastal access across the sea frontage of SmartCity should help promote a cycling and walking culture in Malta.
5. Current community infrastructure provision is weak	5. New community facilities in the form of open space, bars, restaurants, health, training and recreational clubs as well as new retail facilities will be provided as part of the proposals, which will be accessible to local communities. The arrival of the new business community of SmartCity in this south eastern part of Malta provides opportunity for additional community facilities to serve the entire area to be provided.

Threats	Response
1. Removal of South Harbour Link Road from the South Area Local Plan	1. Strategic road and transport infrastructure being provided to facilitate development. The draft Grand Harbour Local Plan includes the south harbour link road as a proposal.
2. Major office and retail hubs proposed elsewhere	2. New strategic policy promoting employment and office hubs is being prepared to stimulate inward investment and to create a more diverse economic base.
3. Potential adverse impact on Site of Scientific Importance/Area of Ecological/ Geological Importance	3. Master Plan is for a lower density of development in locations with Site of Scientific Importance/Area of Ecological /Geological Importance designations so that development can be brought forward in a manner that reduces impacts and protects/preserves environmental assets. Where habitats are affected, mitigation will be proposed.
4. Potential for adverse impact on open character, setting of the Fort, strategic gap between settlements	4. Master Plan proposals will introduce substantial open space areas and provide a vital part of the proposed coastal walk. Adjacent communities will have access to these facilities, some of which will be provided in existing open countryside areas.
5. Traffic impact from Fort Ricasoli development	5. New strategic road infrastructure will be provided.
6. Increasing car reliance 7. Falling use of public transport 8. Low level use of non-car modes	6. 7 & 8. Proposed SmartCity development provides opportunity to enhance public transport facilities and provide new cycling and walking links to the existing industrial estate.
9. Timing of new road infrastructure	9. Plans to develop new strategic infrastructure are being devised by relevant authorities.

5.0 Implementation

5.1 Phasing principles

The site will be brought forward in a phased approach in response to construction, commercial, environmental, utility, infrastructure and land use policy constraints. Detailed technical studies of construction traffic routes and construction methods and requirements need to be undertaken. Technical studies of utilities, infrastructure and environmental impacts need to be completed before phasing studies can be carried out and agreed with Government of Malta. Socio-economic and other programmes to complement physical activities and to secure sustainable development will be required (see Section 5.4).

In order to provide a sustainable community and to minimise transport impacts, a mix of uses will be required in initial phases of development. This will comprise employment as well as supporting residential, retail, open space, leisure and hotel uses. Thus, development may need to commence for different users and at several locations across the site.

It is intended that the buildings will be brought into use as soon as is practicable after completion and hence construction traffic and activities will be segregated from operational uses /areas. Phasing of physical development is illustrated in the tables opposite.

Offices (ICT/Media)	Development at end of each stage		Construction Mobilisation (months from Closing Date month zero)	Construction Period (Months)
	Min GBA	Max GBA		
Phase				
1	8000	10400	0 - 18	18
2	12000	15600	06 - 36	30
3	20000	25000	24 - 54	30
4	20000	25000	36 - 66	30
5	20000	25000	54 - 84	30
6	20000	25500	66 - 96	30
7	3000	30500	84 - 168 (min 3000sqm in period 84-96)	84
	103000	157000		

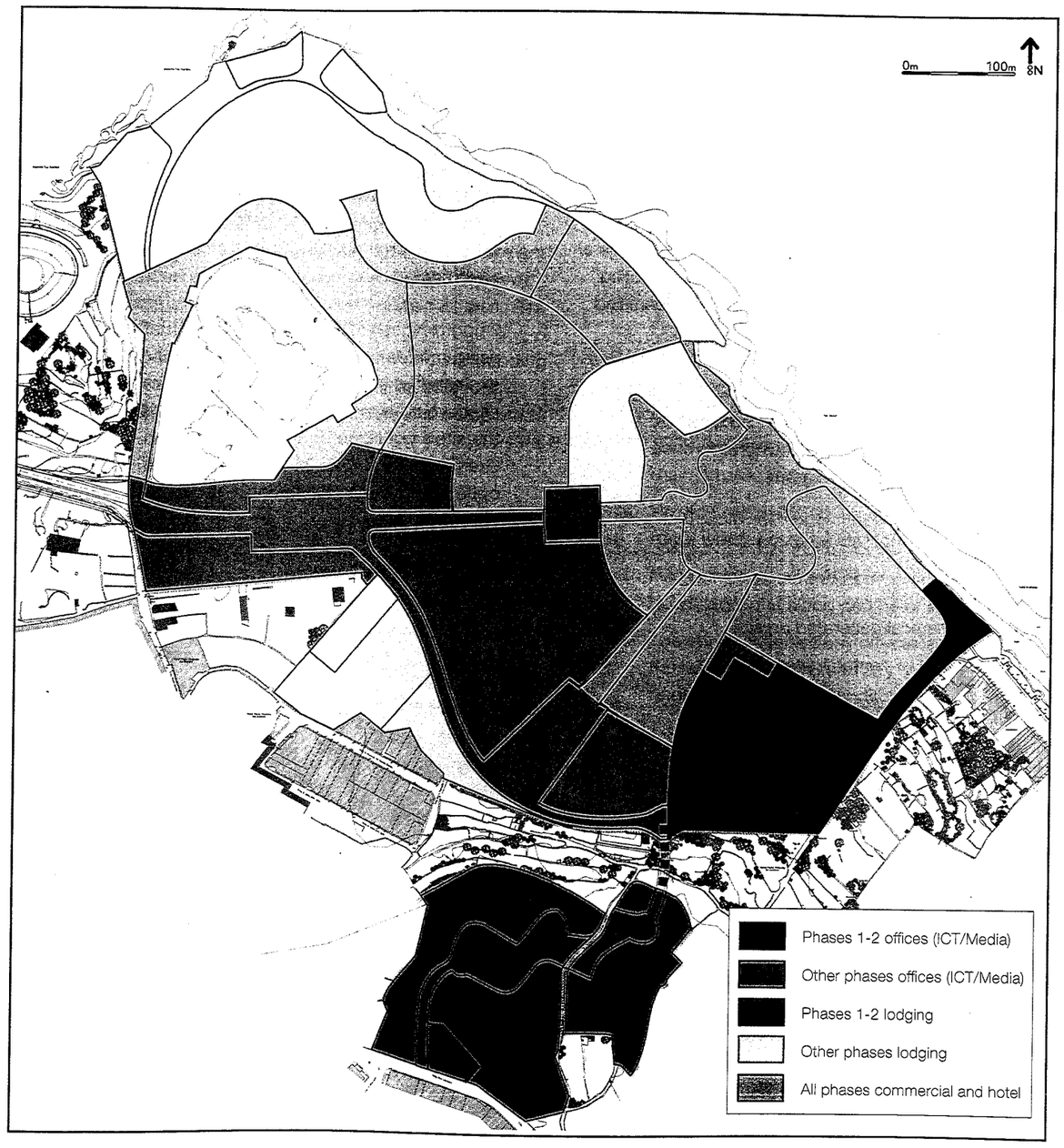
Lodging	Development at end of each stage		Construction Mobilisation (months from Closing Date month zero)	Construction Period (Months)
	Min GBA	Max GBA		
Phase				
1	8250	17600	0 - 48	48
2	8250	17600	24 - 84	60
3	8250	17600	48 -108	60
4	30250	35200	72 - 132	60
	55000	88000		

Commercial and hotel	Development at end of each stage		Construction Mobilisation (months from Closing Date month zero)	Construction Period (Months)
	Min GBA	Max GBA		
Phase				
1	17500	22500	24 - 84	60
2	17500	22500	48 - 108	60
3	17500	22500	60 - 120	60
4	17500	22500	84 - 144	60
	70000	90000		

Table 5.1 Indicative phasing

N.B Closing Date refers to the agreement between the Government of Malta and SmartCity. The project phases are based upon minimum required Gross Built Area; however this does not preclude SmartCity from developing later phases at an earlier juncture.

Fig 5.1 Indicative phasing



Phasing Commitments

Initial phases

There is a commitment to develop at least 8,000 sqm GBA of office space within the ICT and Media business area by no later than 18 months from the Closing Date. This development will be located to the south east of the site and temporarily served by the coastal road from Xghajra, while the main access to the site will be used by the rest of the construction traffic.

Concurrent with this development will be the creation of a square fronting the building and the delivery of adequate utility services.

Mixed use development will be brought forward, providing the opportunity to create flexible working and living space, as well as a range of unit sizes as investment momentum, social programmes and office support facilities can be practicably provided. These will be delivered through an early (and possibly concurrent start) of Lodgings and Commercial and Hotel phases.

Later Phases

Later phases of development will bring forward at least an additional 95,000 sqm GBA of offices (ICT and Media) by no later than 96 months from the Closing Date. Further and additional office development as described in Table 4.1 will be completed within 14 years of the Closing Date.

Phasing will be planned to minimise disturbance to existing occupiers, maximise a sustainable mix of complementary uses and create opportunities for the rational creation of complete districts or neighbourhoods, with adequate proviosion of open space, pedestrian and cycle links as well as parking and supporting retail.

5.2 Construction

Code of Construction Practice

A Code of Construction Practice (CoCP) will be prepared to set out the standards of construction, logistics and practices that will minimise if not eliminate the construction impacts of the project upon the local environment and local communities. The CoCP will be developed in tandem with the Environmental Impact Assessment study and agreed with MEPA and ADT.

The CoCP will be a practical working document that will be developed in agreement with relevant authorities. It will communicate the proposals for dealing with construction issues arising during the course of the SmartCity development. The individual codes approved under it will apply only to the construction phases and will relate in particular to:

- Statutory & Third Party Liaison.
- Construction Site Environmental Standards.
- Construction Site Logistics Control.
- Health and Safety & Environmental Management Principles.

Throughout the life of the project, the CoCP will be periodically reviewed and amended to reflect these changing methods of good construction practice, and will be re–issued accordingly. The CoCP will be a dynamic, live, essential management tool for the duration of the SmartCity scheme in order to ensure that the health and amenity of the local communities surrounding the site are not unduly harmed or adversely affected.

The CoCP will be structured as follows:

Introduction – sets the context for the CoCP including the background to the SmartCity project, the purpose of the CoCP and an overview of the scheme and associated construction activities.

Liaison – sets out the mechanisms for liaison between main contractors, the community businesses and the Local Authority during construction of the SmartCity project.

Construction Practice – discusses some general considerations associated with activities that will be employed during construction of the SmartCity project.

General Matters Applicable Under the CoCP - covers all general features and activities of construction works possibly impacting on local communities and the environment. These are identified under the topic headings listed below:

- Public and private highways.
- Routes for construction traffic.
- Sites and methods of working and security of contractor's storage and lay down areas.
- Noise and hours of working.
- Vibration.
- Dust and pollution.
- Use of excavated material generated on site.
- Handling and disposal of contaminated materials.
- Protection of surface and groundwater resources.
- Ecology.
- Site boundaries/hoardings/temporary structures on the public highway.
- Archaeological remains.
- Other site activities.
- Means of liaison between local communities and construction management.

The measures identified above are applicable to all areas of the construction works for the duration of the project. Site specific requirements will cover the particular requirements relating to individual construction compounds and will be made available should any site specific requirements be identified to be included in the CoCP in the future.

Construction Traffic Strategy

The impacts of construction traffic will need to be carefully managed over the duration of site construction. It is acknowledged that the construction traffic strategy is to be agreed both with MEPA and ADT jointly. Mitigation measures should be identified and put in place to ensure that construction vehicles can safely and effectively access the site with minimum impact on the surrounding communities and environment.

Opportunities to supply and remove materials from the site using modes other than roads should be explained and exploited wherever possible. Access from the sea may be an effective means of transporting materials either directly from the site's coastline boundary or ports on the south side of Grand Harbour. Sea based disposal has been identified as an option, and will be fully considered in due course.

5.3 Mitigation

Further detailed technical environmental, economic and infrastructure studies have been commenced which will assess the impact of the proposed development in more detail. Mitigation measures to minimise impact will be devised to meet sustainability objectives and agreed with MEPA as an integral componant of the planning process.

Appendices Four and Five provide a list of technical studies that will be undertaken in order to prepare the Traffic Impact and Environmental Impact statements. These studies will, amongst other topics, identify and consider appropriate mitigation required to minimise the adverse impact of the new bay on marine and coast, the noise and vibration impacts of construction on the site, and the impact of the proposed development on the surrounding communities, the local ecology and the heritage qualities of Fort St. Rocco.

5.4 Undertakings of Government of Malta Agencies

Scope

This section of the report seeks to identify matters to be resolved with various government agencies in order to ensure that development can take place successfully and sustainably and so that benefits to local communities can be maximised.

Matters identified comprise largely off-site infrastructure and physical enhancements but there will also be a number of social and community objectives to be realised as well. The matters identified are based on the current understanding of the SmartCity Malta proposals and the site and surrounding conditions. Detailed commitment will require additional definition as further studies are undertaken and completed.

Transport and access

- Provide a dual 2-lane road network between Tarxien and the Ricasoli peninsula comprising the following:
  - Upgrade to junction of Triq Id-Dejma with Triq Il-Dasah.
  - Upgrade of link Triq Il-Foss.
  - Upgrade of junction Triq Il-Foss with Triq Il-Kbira.
  - Upgrade of junction Triq Il-Foss with Triq Santa-Duminka.
  - New link Tal-Fata (Triq Santa-Duminka) to Triq Santu Rokku.
  - Enhance Triq Santu Rokku to become a dual 2 lane road up until point of access.
- An off-site Park and Ride packaged together with the new road to provide a multi-modal solution.
- Upgraded junctions would be required at the following intersections:
  - Triq Santu Rokku with the site access.
  - Triq Il-Missjoni Talajana with Triq Santu Rokku.
  - Triq Il-Missjoni Talajana with Triq Santa Liberata.
- Extensions to existing bus routes serving Vittoriosa, Cospicua, Zabbar and Xghajra to provide access for workers and visitors to the site.
- Cycle links to Xghajra, Zabbar, Cospicua, Vittoriosa and Kalkara.
- Pedestrian links to Xghajra, Santu Rokku, Zabbar and Vittoriosa.
- Signing, parking controls, traffic management as appropriate.
- Provision of land to facilitate suitable high quality landscaped road, cycle and walking access between southern residential mixed use areas and the main employment areas of SmartCity Malta.
- Provide secondary or emergency access route which could be via Xghajra.
- Bus turning head and appropriate pick up / set down locations along perimeter road.
- The specification of any off-site enhancements should match those achieved at SmartCity Malta, particularly in respect of design standards, landscaping, lighting and signage.

Utilities

- Upgrade water supply to provide a connection from the nearest 250mm trunk main. This connection will terminate at a main meter at an agreed point close to the site boundary.
- The existing sewerage pumping station will be decommissioned, removed and relocated off-site. The pumping station which will cater for SmartCity is the Xghajra one, which will be upgraded and connected to the new sewage treatment plant. Details will be agreed between WSC and SmartCity.
- The drainage to the existing properties on the south of the site will be diverted around the site.
- An upgraded link to a new standard Distribution Centre will be supplied. The Distribution Centre will be constructed in the 'utility area' located within the site boundary. Power will be fed to the site at 11kV through a main meter. Enemalta and SmartCity will be entering into detailed discussions as the project design develops.
- The existing fibre links will be retained and expanded within the site boundaries although the routing of these may have to be amended to suit the Master Plan, with the support and facilitation of the Government of Malta.

Employment

- Devise, and deliver in partnership with SmartCity, initiatives to assist the further development of ICT education in Malta.
- Facilitate involvement of the Local Councils of Kalkara, Xghajra, Zabbar and Three Cities, to devise measures to help ensure that the residents of the towns neighbouring the SmartCity benefit from the development.

Community and Heritage

- Up-skilling and re-skilling programmes to provide the local population with the opportunity to benefit from employment opportunities in SmartCity.
- Develop partnerships enabling provision of education and health facilities to accommodate the needs of new population of SmartCity and complement and enhance existing facilities off site.
- Develop proposals to enhance and ultimately open Fort St. Rocco up for public access as a cultural resource and tourism destination.
- Provide green infrastructure to link proposed open space and coastal walk area with Xgharja to the east and Fort Rinella and Fort Ricasoli to the west.

Appendix One Details of Developers

SmartCity

SmartCity has been established under Dubai Holdings to take the vision of TECOM international. This is driven by the creation of knowledge based townships in other parts of the world. This vision is an extension of Dubai Internet City (DIC), which is the worlds first, and only IT free zone. Dubai Internet City currently has over 850 IT companies operating in the free zone.

TECOM has also established Dubai Media City, and Dubai Knowledge Village, to create both knowledge and media base hubs. In order to take this vision international, TECOM have partnered with 'Sama Dubai' to take full benefit of their construction knowledge.

Sama Dubai and Tecom are members of Dubai Holding.

Dubai Holding was launched in 2004 to consolidate the various mega projects in Dubai that were created over the past five years as well as to research, identify and execute future major projects that will benefit the Emirate and the region.

It currently consists of 20 companies in business sectors as diverse as media, healthcare, finance, real estate, energy and education, and has promoted Dubai's role as an international centre for business, commerce, industry and tourism.

Some of Dubai Holding's projects are Burj Al Arab, Dubailand, Dubai Internet City, Dubai Media City and the Jumeirah Group.

Sama Dubai

Sama Dubai are a dynamic, highly ambitious organisation, committed to achieving key business objectives.

They aim to become the largest premium real estate developer in the region, and one of the top five in the world. They want to be recognised as the premier brand owner of key real estate related businesses.

Their mission is to take a genuinely responsible approach to doing business profitably. They place great importance on their ability to use natural resources judiciously, to practice intelligent stewardship of the environment, demonstrating respect for cultural values, people and communities. They believe that to achieve long-term growth, their business activities must contribute positively to the common good.

They acquire and partner with premier real estate related businesses globally. They manage investments directly or indirectly always with a long term perspective geared for value creation.

They leverage synergies and efficiencies across different businesses and markets, thereby creating strategic value, and maximising returns to stake holders that consistently outperform industry benchmarks.

They have developed a broad portfolio of product concepts, each of which will be recognised as a global brand that is best in class within its product range. These include:

- Mixed use towers.
- Industrial parks.
- Marinas.
- Resorts & spas.
- Self-contained urban developments.
- Residential communities.
- Mega malls.
- Business parks.

They are guided by 6 principles:

- Best practice.
- Best people.
- Best companies.
- Strong local partners.
- Highest quality.
- Corporate social responsibility.

TECOM Investments

TECOM Investments develops and manages businesses that support the growth of knowledge-based industries in Dubai. Presently, TECOM has interests in five industry clusters: information and communication technology (ICT), media, education, biotechnology, and energy. TECOM's first brand, Dubai Internet City, was established in October 2000, to support and develop a cluster for the ICT sector. Dubai Media City for the media cluster, and Knowledge Village for the education cluster, were set up in January, 2001 and October, 2003, respectively.

The phenomenal success of the publishing and broadcasting segments of the media cluster at Dubai Media City led to the launch of more specialized projects: International Media Production Zone (IMPZ) and Dubai Studio City. To harness value from the burgeoning business process outsourcing sector, TECOM launched Dubai Outsource Zone (DOZ) in March 2004. Dubai's contribution to the life sciences area is the Dubai Biotechnology and Research Park (DuBiotech).

These initiatives are part of Dubai's long-term vision of diversifying its economy from oil-based industries to knowledge-based ones. TECOM Investments offers significant incentives for locating businesses in TECOM's business parks. Foremost is a clustered environment where businesses in the same general industry category share the same work campus. This environment puts equipment vendors, for example, next door to systems integrators in Dubai Internet City for convenient coordination.

This environment also encourages networking, such as between advertising agencies and creative freelancers in Dubai Media City or between generalist academia and specialized training companies in Knowledge Village. Businesses have a wide array of options, from long-term leases of land and putting up their own facilities to shorter-term leases of a fully-equipped desk or two for start-up operations.

Through its internal departments, sister companies and subsidiaries, TECOM Investments further supports businesses with services such as telecommunications (including managed and secure hosting by eHosting DataFort), facilities management by Idama, district cooling by Empower, hospitality services (e.g. booking of hotels, meeting rooms, car rentals, etc.), on-site and expedited issuance of business licenses, visas, etc. In addition, companies in TECOM Investments get free zone benefits of 100% ownership, no corporate and personal income taxes and customs duties, and no restrictions on repatriation of capital and dividends in whatever currency.

Apart from spurring cluster development by creating purpose-built facilities and by working with the Dubai government to develop business-friendly policies, TECOM Investments also builds "pure play" businesses. TECOM provides managed hosting and security services through eHosting DataFort (EHDF).

TECOM's Arab Media Group broadcasts radio programs through eight stations, publishes two daily newspapers, and has outdoor advertising and events management capabilities. In a joint venture with the Dubai Electricity and Water Authority (DEWA), TECOM Investments has also set up Empower, an energy efficiency company that currently provides district cooling services.

TECOM Investments takes corporate social responsibility seriously by operating, with the support of His Highness Sheikh Mohammed Bin Rashid Al Maktoum, the IT Education Project (ITEP), an initiative that seeks to raise IT literacy in the UAE. Another TECOM concern is Tamkeen, a training centre for the visually impaired.

Dubai Internet City groups together over 815 tenant ICT companies: the world's largest managed entity for ICT providers. Dubai Media City has over 900 tenant companies and the Knowledge Village has over 260 educational institutions in a single campus . Collectively, these zones employ over 15,000 employees. TECOM Investments also established the new Dubai Studio City, Dubiotech-the Biotech initiative and secured progress in the new 'Dubai Outsource Zone'.

TECOM International, a department within TECOM Investments, is mandated to take this experience abroad and establish a chain of 'Smart Cities' which will be self contained and interlinked townships for Knowledge based industries including IT, ITES, Media and Bio-technology. These communities will have superior technological and physical infrastructure, which will help companies operating from there to be highly successful.

TECOM's strategy is to become a preferred business campus provider to IT Companies internationally and to provide an ideal environment and infrastructure that contributes to the development of IT/ITES in these markets. In view of this, we have undertaken evaluation of many locations worldwide.

Appendix Two Land use policies

This Appendix summarises land use policies relevant to the SmartCity proposals from the following documents:

- Structure Plan for the Maltese Islands (1992)
- Draft Structure Plan for the Maltese Islands (2006)
- Grand Harbour Local Plan (2002)
- Grand Harbour Local Plan (2006)
  Draft for public consultation.
- South Area Local Plan (2006)
- Fort Ricasoli Development Brief (1997)
- A planning policy on the use and applicability of the floor area ratio (FAR) - supplementary guidance (2006)

This policy framework has been used as a basis for guiding and refining the development of the Master Plan.

A2.1 Structure Plan for the Maltese Islands (1992)

The Structure Plan for the Maltese Islands was approved in 1992 and provides a strategic policy framework to guide development throughout Malta.

The plan aims to achieve three goals, which include the following:

- To encourage the further social and economic development of the Maltese Islands and to ensure as far as possible, that sufficient land and support infrastructure are available to accommodate it.
- To use land and buildings efficiently, and consequently to channel development activity into existing and committed urban areas, particularly through rehabilitation and upgrading of the existing fabric and infrastructure thus constraining further in-roads into undeveloped land, which generally result in higher density development than at present.
- To improve radically the quality of all aspects of the environment of both urban and rural areas.

Structure Plan Policies which are relevant to the SmartCity proposals include:

- SET 1, 2, 7, 11, 12
- BEN 1, 2, 3, 5, 7, 8, 12, 17
- HOU 1, 3, 8, 9
- SOC 15, 16, 24, 25
- COM 2, 3, 5
- IND 4, 6, 8
- TOU 3, 6, 11, 15
- REC 1, 2, 13
- PUT 10, 11
- TRA 2, 3, 4
- PTR 8
- RDS 3, 4
- UCO 4, 5, 7, 10
- RCO 1, 2, 3, 4, 5, 6, 10, 11, 12, 15, 23
- CZM 3

Settlement pattern

Policies SET 1 and SET 2 establish that development will be encouraged in existing urban areas, particularly redevelopment and rehabilitation of existing stock. Residential development will therefore be promoted within the Inner Harbour area, with priority given to outer residential areas for the establishment of employment uses.

Policy SET 7 states that when considering applications for permission to develop in existing and new urban areas, in particular the outer residential area, the MEPA will favour the following uses sequentially:

- Community facilities.
- Local employment.
- Local shops.
- Housing.

Policy SE-11 states that no form of urban development will be permitted outside existing or committed built-up areas and primary areas. However, the supporting text in paragraph 6.10 notes that there may be occasions when MEPA will have to consider proposals outside the urban development boundary and that a comprehensive examination into the advantages and disadvantages of the proposals will ensue. Policy SET 12 requires Environmental Impact Analyses (EIA) to be prepared for any proposal not zoned for development.

Built environment

Policies BEN 1 and BEN 2 aim to control development that would have an adverse impact on existing and planned uses including noise, vibration, visual intrusion, atmospheric pollution, high traffic generation and unusual operating times. Proposals incompatible with the urban design, heritage and environmental characteristics of an area will not be permitted. Policy BEN 3 requires utility infrastructure to be located underground in service ducts.

Policy BEN 5 controls development within non urban areas. It states that proposals will be judged against policies and design guidelines of the Local Plans for Rural Conservation Areas.

Policies BEN 7, 8 and 12 deal with application procedure. A development permit will be required for any development, including change of use and development of buildings. It is advised that outline permits are first sought to establish the principles and general characteristics of a development proposal. A full permit is then required before any development can commence. An environmental assessment may be required by MEPA due to the scale and nature of the proposal.

Policy BEN 17 requires that planning applications should include soft and hard landscaping proposals and a management plan.

Housing

Policy HOU 1 reiterates Policy SET 1 by requiring development and redevelopment of residential uses to be concentrate within existing built up areas Local Plans will include specific policies of residential development and advice on design and other standards, as stated by Policy HOU 3.

Policies HOU 8 and 9 relate to affordable housing. The provision of low cost housing will be encouraged within private developments as stated by Policy HOU 8. New government built rental housing shall be located within existing or new built up areas.

Social and community facilities

Policy SOC 15 and SOC 16 deals with planning for education facilities. New schools will be required in areas where demographic projections indicate that a need exists and in localities which afford good accessibility and a safe environment. Particular consideration needs to be given to the siting of special schools in order to assist in their integration with the rest of the education system.

Provision is made within Policy SOC 24 to provide an adequate range of community facilities in new housing areas. Such facilities should have appropriate access for all users as stated by Policy SOC 25.

Commerce and industry

Commercial Policies COM 2, 3 and 5 are relevant to the SmartCity proposals. Policy COM 2 states that private sector offices will not be permitted in Valletta/Floriana until accessibility is improved. A business park is allocated at Luqa Airport on the Marsa side of the new passenger terminal. Uses will include, offices, superstores, business hotel with conference facilities and other compatible commercial uses. MEPA will give favourable consideration to the conversion of existing residential and other uses to small office use, in compliance with BEN 1, BEN 2 and BEN 3.

Industrial Policy IND 4 states that high density developments will be preferred for new manufacturing industrial facilities. Policies IND 6 and 8 refer to the service industry. MEPA will give favourable consideration to the development of sites that have temporary provision schemes. New service industry uses will be encouraged to build to a higher density and multi-storey building forms will also be encouraged.

Tourism and recreation

Policies TOU 3, 6, 11, 15 are relevant to the proposals. TOU 3 states that the Planning Authority will give favourable consideration to development proposals which contribute to the achievement of stated tourism objectives.

Vittoriosa, Senglea, Cospicua, Kalkara and Ricasoli are identified within Policy TOU 6 as having potential for tourism development. Policy TOU 11 reiterates the importance of Maltese heritage by ensuring that sites are made more accessible. Heritage trails will be identified within the Local Plans. Policy TOU 15 states that the planning authority will define a comprehensive policy for coastal zones.

Recreation Policy REC 1 states that standards of recreational provision will seek to overcome deficiencies. Sites will be allocated within the Local Plans. REC 2 encourages the private sector to provide such facilities.

Policy REC 13 relates to recreation in the countryside. Areas will be formally identified to establish a network of country parkways and coastal and inland rights of ways. This included a waterfront park at Ricasoli seafront, linked by a parkway to the Cottonera Lines. This is reiterated within Policy CZM 3 which requires public access around the coastline immediately adjacent to the sea or at the top of cliffs to be secured for public enjoyment.

Utilities

Three new sewage treatment plants, including one at Wied Ghammieq adjacent to Ricasoli, will be required as stated by Policy PUT 11, and subject to EIA (Policy PUT 10).

Transport

Policies TRA 2, TRA 3 and TRA 4 relate to the co-ordination of transport and land uses. The promoters of major developments will be required to prepare traffic impact statements, depicting the likely impact of their proposals on the highway network. Appropriate agreements will be required for the funding of the necessary remedial highway works. Vehicle parking principles for new developments are outlined within Policy TRA 4 which states that full standards should be applied. Where a development is not required to meet full standards, the cost of providing the shortfall of spaces in public parking facilities shall be a requirement of any development.

Policy RDS 3 stipulates that the design and construction of all new and improved roads will be in line with agreed statutory standards. The Structure Plan also identifies the South Harbour Link Road as a high priority project (0-5 years) within the South East Sector upgrade (Policy RDS 4)

All major new development will be laid out to enable the passage of buses, as stated by Policy PTR 8

Conservation

Fort St Rocco is a listed building and therefore Policies UCO 4, UCO 5, UCO 7 and UCO 10 apply. MEPA will designate for conservation all buildings and spaces listed in the National Protective Inventory. Listed buildings will be restored and the relocation of existing inappropriate uses will be sought as stated by policy UCO 4.

Fort St Rocco is a grade 1 listed structure. Policy UCO 7 states that such buildings will be preserved in their entirety. Demolition or alterations which impair the setting, or change the external or internal appearance, including anything contained within the curtilage of the building, will not be allowed. Any interventions allowed must be directed to their scientific restoration and rehabilitation. Internal structural alterations will only be allowed in exceptional circumstances where this is paramount for reasons of keeping the building in active use.

Developments will not be permitted which adversely affect views of or from Urban Conservation Areas, or which detract from the traditional urban skyline (Policy UCO 10).

Part of the site is designated as a Rural Conservation Area (RCO 1) in which Policies RCO 2, 3, 4, 5, 6, 10, 11, 12, 15, 23 apply. Within such areas, Policy RCO 2 states that no form of urban development will be allowed. However, (ref to BEN 5) applications for permission to develop agricultural, ecological, or scenic development facilities will be favourably considered as long as proposed development does not infringe the principles set out in Policy RCO 4 and within Local Plan policy.

MEPA will not permit the development of any structure or activity which would adversely affect scenic value (Policy RCO 4). Infrastructure development in such areas will only be given permission if MEPA is satisfied that all possible measures are taken to mitigate against visual harm (Policy RCO 5). A programme of enhancement work is proposed by MEPA.

The coastline around the proposed development is designated as a Site of Scientific Importance (SSI) in which Policies RCO 10, 11, 12 and 15, apply. Local Plans will determine their protective ratings, level 1 being the most significant (Policy RCO 12). Policy RCO 15 states that there is a general presumption against developments in urban and other built-up areas which are insensitive to the continued existence of identified features of scientific importance within that area.

Policy RCO 23 stipulates that any developments connected with the construction of coastal defences, the enlargement of existing beaches and the creation of new ones will be allowed following a comprehensive scientific study in the short to long term with respect to the environmental, social and economic impact.

A2.2 Draft Structure Plan for the Maltese Islands (2006)

A review of the Structure Plan for the Maltese Islands has commenced with the publication of the Draft Structure Plan. The following review identifies policies from the current draft that are pertinent to the proposals.

We note that MEPA are continuing to develop their employment hub policy as part of the Local Plan and Structure Plan reviews, building on the opportunity afforded by SmartCity and recognising the potential to diversify and strengthen the Maltese economy as a whole.

The vision and goals of the plan are as follows:

"To improve the quality of life in the Maltese Islands by integrating environmental stewardship and social and economic development, within a framework of sustainable development."

"Goals:

- *To encourage further social and economic development by ensuring that sufficient land is available to accommodate it and by encouraging the upgrading of land, buildings and infrastructure.*
- *To facilitate stewardship of the rural, urban, coastal and marine environment, promoting distinctiveness and channelling urban development into existing development areas.*
- *To facilitate an integrated and efficient approach to the development and to the use of land, buildings and infrastructure.*
- *To facilitate partnership, participation and inclusion in the planning process."*

Structure Plan Policies that are relevant to the SmartCity proposals include:

- RES 1,3,4
- EMP 1,3,4,5,6
- BEV 1,3,4
- NEN 3
- HEV 1,2
- MOW 1
- DES 1,2
- SCF 1,2
- SKA 1,2,3
- SAR 4
- REN 1
- ITS 2
- GMT 1

Residential and employment development

Policy RES 1 allocates 45,000 additional dwellings only within defined development zones. The Grand Harbour Local Plan Area is allocated 4,700 dwellings. New dwellings outside the development zones will not be permitted except in rural settlements (ref RUR 5) and those essential to the needs of livestock farming.

Development of non-residential uses on vacant and underdeveloped land within the development zones located on the periphery of urban areas will not be permitted as stated by Policy RES 4. Only uses such as small outdoor sports facilities, and uses that have been identified by the Local Plans for which no alternative land exists may be considered.

The provision for 30,000 additional jobs located at employment hubs within the defined development zones are identified in Policy EMP 1. The Grand Harbour Local Plan area is allocated 5,000 jobs.

Local Plans shall distribute the relevant job and housing numbers in accordance with strategic Sectorial Objective JHO 1 and 2.

Retail

Outside retail hubs the following retail development is permitted as stated by Policy EMP 3.

- Showrooms up to 2000 square metres floor space, in areas specifically designated in Local Plans, which offer good accessibility but excluding designated industrial land.
- In exceptional cases, large supermarkets of more than 500 square metres sales and storage area and not more than 2000 square metres sales floor space.
- Small convenience shops of not more than 75 square metres sales and storage area.
- Factory outlets as part of an industrial facility located in an industrial hub.
- Speciality shopping in association with tourist, leisure and recreation oriented development.

Outside the development zone, MEPA may permit speciality shopping as part of tourist, leisure and recreation oriented development and small convenience shops of not more than 75 square metres sales and storage areas in rural settlements, as defined by this Plan (Refer to Policy RUR 5).

Office and employment development

New office development will be promoted at office hubs in Gzira, Pembroke, Marsa, Paceville, the Malta International Airport, and the Malta Freeport as stated by Policy EMP 4. As indicated above we understand that MEPA are still developing 'hub' policy building on the opportunity to develop SmartCity. Outside the designated office hubs and the town centres, MEPA will only permit small-scale offices provided they are within the development zone and do not exceed 50 square metres in floor space.

The Structure Plan guides industrial development to Industrial Hubs which includes Ricasoli Industrial Park within Policy EMP 6, to consolidate existing industrial areas and provide for warehousing and the future needs of local micro-industries.

Tourism

Policy EMP 5 states that outside the tourism hubs and town centres, small-scale tourism and leisure development which contributes to the regeneration of Urban Conservation Areas, or to the rehabilitation of scheduled buildings subject to Policies HEV 1, 2, 3 and 4; or to the diversification of the rural economy; may be permitted subject to Policies RUR 4 and 5.

Built environment

Policy BEV 1 classifies the urban hierarchy and guides the location of development to contain urban sprawl, minimise the need to travel, and guide development towards urban areas well served by public transport and existing infrastructure, as follows:

- Principal Urban Area – to accommodate major employment, service and residential growth.
- Regional Urban Settlements – to accommodate employment, service and residential development serving regional needs.
- Small Urban Settlements – to accommodate development serving local needs.

Policy BEV 3, with respect to building heights, states that maximum heights will be identified within Local Plans. MEPA will allow buildings higher than the maximum building heights solely by applying the Floor Area Ratio (FAR), on a plot ratio of not more than 0.75, to specific large sites outside Urban Conservation Areas, provided that the height of the new building is not more than twice the maximum building height for the block or not more than ten floors which ever is the lower; and where the resultant development is appropriate to the location and creates an interesting and attractive urban form through varying building heights and massing.

Buildings which are more than twice the statutory building height limitation or more than ten floors (tall buildings) will be allowed in the following strategic locations, provided they are on sites with an area of not less than 4,000 square metres, and subject to urban design studies:

- Marsa, Pembroke, Gzira, Paceville Office Hubs.
- Paceville and Qawra Tourism Hubs.
- MIA Transport Hub.
- Sliema Primary Town Centre.

The Structure Plan supports high density residential development in suitable locations and promotes development in areas close to the designated historic cores as required by Policy RES 3. Density ranges are identified within Policy BEV 4.

Infrastructure provision

Outside major growth areas for jobs and homes identified within Policy EMP1 and RES 3, MEPA will not favourably consider major developments unless the existing infrastructure requirements are adequate or improvements to such facilities can be made without adverse impacts on the environment.

Environment

Policy NEN 3 states that development close to scheduled and protected areas will be prohibited if the development poses an adverse impact on such areas.

Heritage

Policy HEV 1 on Scheduled Buildings and Structures prohibits the demolition of Scheduled Buildings and ensures that the protection of their architectural and historical integrity is balanced by the importance to retain them in active use. The setting of Scheduled Buildings will also be protected from development that would adversely affect its historical and architectural integrity as stated by Policy HEV 2

Waste management

Policy MOW 1 requires applications for major developments to minimise the amount of waste produced from demolition, construction and operation

Design principles

Structure Plan Policy DES 1 encourages good design of proposed developments to improve the quality of buildings and the amenity of their surrounding areas. Designs should respond to local character, promote legibility, create a network of green spaces, streets and squares, integration of existing assets and create an accessible, safe, secure environment, and reduce the opportunities for crime.

Energy conservation is encouraged by Policy DES 2 with regards to siting, design and layout of buildings; the incorporation of energy efficiency measures, including on-site generation of energy; and the use of suitable materials.

Community facilities

Proposals that include new or extensions to existing large scale community facilities will be favourably considered as stated by Policy SCF 1. The scale of development will be based on the hierarchy identified within Policy BEV 1 except proposals for new schools with national or regional catchments may be favourably considered on undeveloped land outside the development zone, and provided that MEPA is satisfied that there are no suitable alternative site.

Policy SCF 2 states that MEPA will permit new and extensions to childcare and small scale facilities for education, health, care for the elderly and places of worship within the development zone, provided that they are located away from land uses that would adversely affect their amenity.

In determining development applications for proposals with 30 or more dwellings, MEPA will require the allocation of at least 10 per cent of the dwellings for affordable housing as stated by Policy SKA 1. Where in the opinion of the Housing Authority, the direct allocation of dwellings is inappropriate, a monetary contribution towards affordable homes will be required from the developer, especially major schemes that contain less than 30 dwellings.

MEPA will favourably consider development applications for new, and extensions to, social facilities for vulnerable groups (Policy SKA 2). In determining development applications within the Grand Harbour Area, MEPA may adopt a more flexible approach to the criteria above, to have regard to the special needs of the area and the locational requirements of the facility.

Access for all is promoted within Policy SKA 3 providing that architectural and historical character of Scheduled Buildings is not adversely affected

Recreation

The Coastal Zone will be safeguarded from development that detracts from its potential for recreation, as stated by Policy SAR 4. MEPA may permit development for non-major impact recreation, provided it does not restrict or interfere with public access to, and use of, the coast and with the visibility of the coast from public areas including carriageways; and/or does not have an adverse impact on protected areas and sites

Energy

MEPA will favourably consider proposals for the establishment of infrastructure for the generation of energy from renewable sources that contribute to the national targets for reducing greenhouse gas emissions and reduce reliance on fossil fuels. Major developments will require the provision of renewable energy infrastructure into the design of the development as stated by Policy REN 1.

Accessibility, movement and green modes

Parking standards are provided within Policy ITS 2 and in Supplementary Planning Guidance. Transport Assessments will be required under Policy GMT 1 for high trip generating development. Where the Transport Assessment identifies negative impacts, MEPA will require a planning obligation from the developer to fund mitigation measures and implementation of a Travel Plan.

A2.3 Grand Harbour Local Plan (April 2002)

The Grand Harbour Local Plan was approved in April 2002 and contains policies that are relevant to the SmartCity project. MEPA are considering reviewing this Local Plan to take account of the SmartCity opportunity. The policies for the area focus on four principal concerns, which relate to:

- Strengthening the residential role of the town.
- Assisting better management of the environment.
- Maintaining the best features of the area, and attracting complementary development where appropriate.
- Maximising the tourism and recreational potential of the Ricasoli area.

Policies of the Plan relevant to the SmartCity proposals, are as follows:

- GT01, GT03 GS02, GE01, GE03, GD02, GD04, GD05, GD09, GK01, GK04, GK08, GK13, GK14, GK15, GK20, GK21, GK22, GK23, and GK24.

General policies

Policy GT01 identifies the road hierarchy, which includes the proposed South Harbour Link Road and improvement priorities to junctions along the route. High prioritisation is afforded to the implementation of the Link Road within Policy GT03.

There is a general presumption against development outside of the defined urban development boundary except where specified within other policies as stated by Policy GK01 and reiterated in Policy GS02. Sites outside the development boundary will only be considered if it is essential for the development proposed.

The openness of the Ricasoli area will be maintained subject to development identified below:

- Minor works to existing dwellings for their continued occupation.
- Agriculture or tree planting.
- Establishment of sport, recreational, leisure or tourist facilities appropriate to an area of open character in line with other policies in the plan.
- Infrastructure requirements that can not be located within the urban area.
- Other proposals as indicated within the plan.

Policy GK08 proposes a public footpath around the shoreline cutting across to Rinella Bay from Wied Ghammieq Cemetery and Fort Ricasoli. The path will be properly signposted, and where possible be accessible to those with mobility restrictions.

Policy GK14 supports the provision of community facilities, with priority consideration of proposals given to housing for the elderly, a bank and a post office.

Environment and conservation

Policy GK04 states that the hamlet of Santu Rokku is designated within a Rural Conservation Area and there is therefore a general presumption against development, particularly for industrial purposes. Improvements to existing dwellings will however be granted.

The north east of the site is designated part of the Rinella Recreational Area where Policy GK13 applies. It states that the area inwards of the shoreline will be reserved for general recreational use but safeguarding the open character will be an important consideration in assessing development schemes. The improvement of historical features such as Fort Rokku (Grade 1 Listed) will be encouraged as a tourism related attraction, as long as cultural and historical aspects are safeguarded. The open character of the area to the northeast of the fort will be maintained.

A Site of Scientific Importance (SSI) is located along the northern and eastern parts of the site boundary, along the coastline. Part of the bay of Il-kalanka tall-Patrijet is located within the site. This area is of significant importance (level 2) in terms of geomorphology, stratigraphy and palaeontology and coastal geomorphology. The Wied Ghammieq Cross Fault is 'one of the few remaining cross faults which formed the Grand Harbour drainage system' (GHLP Geological Survey: Malta University Services 1995), and the site has significance in relation to structural geology, geomorphology and hydrology (level 4). Policy GE01 states that development which could prejudice the natural characteristics of the areas or adversely affect individual sites, will not be permitted. In accordance with Policy GK15, these sites will be safeguarded from development.

There is a presumption against development on areas of open space as specified within Policy GE03.

Ricasoli Industrial Estate

Ricasoli Industrial Estate is located within the centre of the proposed development. Policy GD04 encourages and supports improvements to the existing industrial estate at Ricasoli as the estate has been an important resource in terms of space for industrial expansion. Intensification via increasing density and utilising space more efficiently for parking and roads is therefore supported via Policy GK20 rather than major expansion to accommodate growth on more land. Particular consideration will be given to proposals that include infrastructure development. General heavy industry is not permitted (Use class 13-16).

Policy GD05 states that where sites in industrial or commercial use have resulted in an excessively adverse impact on the local environment or neighbourhood, then a change of use to more appropriate purposes will generally be acceptable unless specified otherwise in the Plan.

It is also important that the area between the industrial estate and Xghajra is maintained. Policy GK21 relates to applications which include the changes to existing building heights within the estate. MEPA will adopt a flexible approach to such matters.

An area within Ricasoli Industrial Estate is allocated in the short term for development of Small and Medium Sized Enterprise (SME) workshops. Outline permit applications will not be required, however, full permit applications should be submitted as stated by Policy GK22. Policy GK23 designates a reserve site within the Ricasoli Industrial Estate for Small and Medium Sized Enterprise (SME) workshops and/or General Industry with neighbour compatibility. Outline permit applications will be required. Policy GD02 encourages the development of small scale industries in contained surroundings, including those currently contained on the Ricasoli Industrial Estate.

A safeguarded site for a sewage treatment plant is proposed within the north of the Ricasoli Industrial Estate (Wied Ghammieq) as stated by Policy GK24. Further studies, including EIA and risk assessment need to be undertaken concerning this land use. The general area of Kalkara/Ricasoli has a strategic significance in respect of the upgrading of the sewerage system because of the proximity of the main outfall on the coast at Wied Ghammieq.

Office development

Policy GD09 on office development allows the development of offices within the Local Plan area in a controlled manner, balancing employment growth with transport infrastructure, housing provision, rehabilitation of historic buildings and essential public administrative requirements.

A2.4: Grand Harbour Local Plan (2006) Draft for Consultation.

In November 2006, draft amendments to the Grand Harbour Local Plan were published for public consultation. Policies that were amended and relevant to the proposed development include:

GT03 South Harbour Link Road

GD04 Upgrading Of Existing Industrial Estate

GK05 Kalkara Transport Strategy

GK07 Public Transport

GK13 Rinella Recreational Area

GK20 ICT and Media Development City

GK21 ICT and Media Development City Building Heights

GK22 Public Utilities Provision

General Policies

Policy GT03 continues to identify a new arterial road on the southern fringe of the Local Plan area, from Tal-Barrani Road to Kalkara by safeguarding the road alignment from development. The policy also identifies the South Harbour Link Road as a high priority project for early implementation.

The Ricasoli. Industrial Estate is now removed from Policy GD 04 as a result of the area being re-designated for ICT and Media development (employment led mixed use development) within the Area Policies section

Area Policies

Policy GK05 Kalkara Transport Strategy, promotes the introduction of a comprehensive transport strategy for Kalkara. This includes:

- The definition of a road hierarchy.
- A comprehensive road and footpath upgrading scheme.
- The discouragement of through traffic.
- Proposals for the quay area to include traffic and pedestrian management measures.
- Measures to improve public transport.
- Link from Triq Santu Rokku to Triq il-Konvoj ta' Santa Marija.
- Improvements to and resurfacing of Triq Missjoni Taljana, Triq Santu Rokku, and the Triq Santu Rokku Access Road.
- The 'traffic calming' of Triq Santu Rokku, where it passes through Santu Rokku village.
- Junction improvements at the sites indicated within the plans.

The supporting text notes that improved accessibility will be important in order to facilitate the development of the ICT and Media Development City and also Fort Ricasoli.

Policy GK07 encourages improvements to the services and frequency of public transport to Kalkara and the Ricasoli area, in particular to the ICT and Media Development City. The supporting text goes onto state that the ICT and Media development City brings a mix of uses which needs to be complemented by an integrated public transport system. The systems should not be solely road based but also the potential for a ferry service from Kalkara with connections to other parts of the Three Cities.

The coastal area behind the scientifically important shoreline between Xghajra and Fort Ricasoli, is designated as the 'Rinella Recreational Area as stated by Policy GK13. The policy states that the shoreline is intended for public use. The Planning Authority will support measures for the improvement of the area by the introduction of a coastal footpath, seating and informative displays. The safeguarding of the open character will be an important consideration in assessing development schemes and also encouraging the improvement of Fort St Rokku, as long as cultural and historic aspects are safeguarded. The open character of the northeast of the fort will be maintained.

Policy GK20 and GK21 relate to the development of an ICT and Media development City. Policy GK20 states that MEPA will support such a development which will regenerate the area of the former Ricasoli Industrial estate and its surrounds into an employment led mixed use development within a high quality working and living environment, providing specialist facilities specifically for information and communications technology industries. A masterplan will be required based on the vision of a 'Gateway for ICT to Europe'. Requirements for the Master Plan include landuses, buildings, heights, roads, pedestrian networks and landscaping and including a comprehensive schedule of landuses. The provision of energy saving measures and high quality buildings and spaces should be included as well. The setting of Fort Santu Rokku and the city should also be considered by the proposals. Acceptable landuses include:

- Office space for ICT/Media clusters.
- Residential.
- Hotels, related short stay accommodation facilities and resort based leisure facilities.
- Retail and associated commercial floorspace.
- Services, utilities, roads, access ways and parking relating to the above.

Policy GK21 controls building heights with the ICT & Media Development City which states that a flexible approach will be adopted, taking into account;

- The streetscape through a consideration of the buildings on the same side and those on the opposite side of the street/s concerned.
- The general massing of the building.
- The topographical features and, where applicable, consideration of the sloping nature (including buildings in the background).
- The skyline when seen from outside the site area, especially in relation to views from the water level.
- The particular requirements of the actual use.
- Adequate development densities to ensure quality development and any other relevant planning considerations.

The policy also notes that this area is also a potential suitable location for tall buildings subject to clearance from the relevant authorities and to urban design considerations.

Policy GK22 on Public Utilities Provision states that an appropriate site for the location of the Sewage Treatment Plant has been identified in Xghajra. Note that the safeguarded site within the Ricasoli Industrial estate has now been removed.

A2.5 South Area Local Plan (July 2006)

The South Area Local Plan for Malta was recently approved in July 2006 and sets a framework to base decisions on land use and development over the next ten years. Part of the proposed development is located within the Strategic Open Gap between Xghajra and Ricasoli industrial estate and also agricultural land. Policy SMCO10 states that urban development will not be permitted in all Strategic Open Space Gaps. Strict control on development within these gap sites will ensue, and development may be refused outside the development zone if it leads to urban sprawl. Where suitable, informal recreational areas will be encouraged within such areas in the form of play areas/picnic areas. No further expansion or intensification of existing permitted development will be allowed and only change of use within the same use classes, or to other use classes which result in a significant reduction in adverse impacts from the existing operations, will be allowed. Policy SMAG01 states that MEPA will continue to protect agricultural land from all types of inappropriate development. Only buildings, structures and uses essential to the needs of agriculture will be permitted and then only if it can be demonstrated to the satisfaction of MEPA that they will not adversely affect water supplies, soil and landscape, and accord with all other policies within the Local Plan.

The boundaries of the strategic open space gaps as indicated on the relevant Area Policy maps are subject to change by the Rationalisation of Development Boundaries exercise and as a result, the area subject to development is now removed from the strategic gap and that the agricultural classification will not apply.

The area is also located adjacent to the Urban Conservation Area (UCA) of Xghajra in which policy SMCO01 applies, stating that development proposals should respect the existing street alignment of the adjacent UCA and adjacent frontages. Although these areas lie outside the UCA, the design, colours, materials, and textures employed on the facades of buildings, should introduce and reflect architectural elements which are found in the adjacent UCA. Within such areas building heights will be three floors, but no semi basement will be permitted, as indicated in the relevant Building Heights Maps.

Policy RDS 4 within the extant Structure Plan proposes improvements to the South East Sector arterial and distributor networks which includes the South Harbour Link Road. The road aims to improve accessibility to both the 'Three Cities' and Kalkara/Ricasoli Industrial Estate area and bring about regeneration of the areas. However, Policy SMIA01 recommends the deletion of the proposed South Harbour Link Road (between Ghajn Dwieli and Labour Road, Zabbar), due to the adverse impact on Wield Blandun scheduled valley area. The road could also impinge on the fortifications of the 'Three Cities' and therefore detract from the setting of a Grade 1 scheduled site.

Policy SMIA02 therefore encourages the construction of a number of new road links, as listed in Policy SIMA02 which will need to be supported by an Environmental Impact Assessment.

A2.6 Fort Ricasoli Development Brief (January 1997)

Fort Ricasoli Development Brief was approved in 1997 and aims to guide development proposals and outlines the development objectives that schemes should follow.

The objective of the brief is to promote and market Fort Ricasoli as a heritage/cultural theme park which will operate all year round and will include the restoration and physical regeneration of the Fort.

The proposals include a costal walking route, which will ultimately link with Fort St Rocco and Xghajra, in conformity with Policy REC13 and Policy CZM3 within the extant Structure Plan.

A2.7 A Planning Policy On The Use And Applicability Of The Floor Area Ratio (FAR) – Supplementary Guidance (May 2006) Draft For Public Consultation

Supplementary guidance on the use and applicability of the Floor Area Ratio (FAR) has been published in draft for public consultation. It identifies areas that are:

- Inappropriate locations for tall buildings.
- Appropriate locations for tall buildings.
- Designated locations.

Inappropriate locations include areas outside development zones, areas that are on elevated ground or ridges, steeply sloping terrain, small urban settlements on the fringe of main urban conurbations, areas not well served by public transport, conservation areas and historic cores and views into protect areas (e.g. Special Protection Areas and Areas of High Landscape Value)

Appropriate locations for tall buildings include 'hub' areas and committed areas for development. The locations should also support the regeneration of commercial/employment centres which include Ricasoli for mixed commercial development.

The need to be well served by public transport, be visually recessive, and relate well to areas committed to other land use designations are also taken into consideration where appropriate locations for tall buildings are concerned.

Designated areas therefore include:

- Pembroke Business Park, Marsa Park and Gzira predominantly for office uses.
- Qawra, Paceville and Sliema Town Centre/Tigne predominantly for tourism/leisure uses.
- Luqa International Airport predominantly for commercial uses and subject to an "Obstacle Limitation Surface" constraint for any structure exceeding 35.0m in height.

MEPA will favourably consider proposals for tall buildings provided that:

- They are within the locations identified as appropriate by this policy (refer to above designated areas).
- They have a minimum site area of 4,000sqm.
- They comply with each of the criteria contained within this Supplementary Guidance and with the provisions of the Guidelines on the Methodology.

Appendix Three Sustainable Development Strategy

A Sustainable Development Strategy For The Maltese Islands was adopted by the National Commission for Sustainable Development on 18 April 2006. It revises the original draft, published in July 2004, and seeks to address social, economic and environmental concerns in a consistent manner and allows policy makers to set relative priorities to these three pillars of sustainable development. A final version of the strategy is expected to be published in due course.

Priority areas

The strategy identifies a number of priority areas via consultation processes and also the National Commission for Sustainable Development. The identified priority areas are accompanied by indicators and targets which are as follows.

The Environment

Climate Change. Take steps to reduce greenhouse gas (GHG) emissions through transport and energy policies that seek to promote environmental protection, competitiveness and security of supplies and, as a result, decouple the rate of growth of GHG emissions from economic growth.

Air Quality. Take remedial action to control emissions of air pollutants (ambient levels of particulate matter, sulphur dioxide, carbon monoxide, benzene, lead, ozone, heavy metals and nitrogen oxides) and achieve compliance with European standards.

Nature and Biodiversity. Halt loss of biodiversity by 2010, and achieve management of protected areas by 2008.

Groundwater. Adopt a policy that safeguards the quality of ground water resources so as to protect human health, and satisfy the requirements for human use (including agricultural and industrial usage) and achieve good qualitative status by 2015.

Seawater. Sustain compliance with Bathing Water Directive and achieve compliance with Barcelona Convention standards.

Waste. Prevent and minimise waste by achieving EU waste-related objectives and targets, reviewing Malta's Waste Management Strategy by 2007.

Land use. Protect, maintain and improve the urban and rural environment and through the planning system protect the open countryside from uses, particularly residences, which can be more appropriately located in urban areas.

Transport. Reduce car ownership rates to the EU average by 2014. Attain 1995 bus patronage levels by 2014 (40 million passengers).

The Economy

Economic Growth. Adopt policy measures so that the growth of GDP per capita in real terms grows at a rate which will enable the Maltese economy to converge towards the EU average.

Employment. Create employment opportunities to generate income and improve the quality of life of the population, taking into consideration environmental and social impacts and adopt policy measures so that the ratio of total employment to the working age population in Malta converges with the EU average and reaches at least 57% by 2010

Labour productivity. Adopt policy measures to increase average labour productivity at a rate of 1% per annum over the EU average by 2010, while attempting to balance wages, taxation and productivity, in collaboration with the social partners.

Society

Poverty reduction. Reduce or at least sustain the current level of 15% of the population at risk of poverty and decrease the ratio of population aged over 65 at risk of poverty from 20% to 15%, by 2010.

Labour force participation of women. Adopt policy measures so that the labour force participation rate of women increases from 33% to 40.7% by 2010.

Health. Decrease ratio of overweight/obese population in line with the EU average by 2010 by, amongst other things, enhancing the focus on healthy living and prevention, to reduce the need for curative care.

Education. Continue to adopt measures to decrease the early school leavers rate to 35% by 2010.

Appendix Four Transport and Traffic Impact Statement

Structure Plan 1992

Various policies deal with the need for a Traffic Impact Statement. Provision of remedial highway works and parking are all relevant to this development.

The plan also identifies the need to manage traffic, in particular road safety, through speed limits and traffic calming, and to lessen the impact of car traffic through the provision of non-car modes such as public transport.

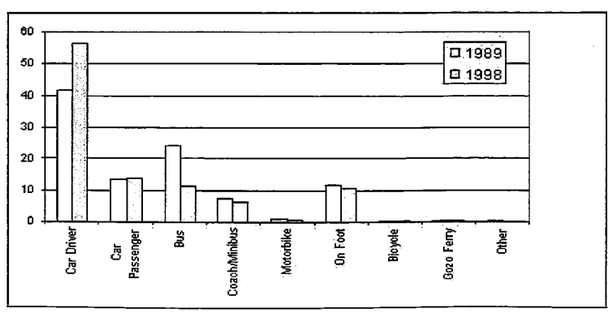
Sustainable Land Transport White Paper 2003

The White Paper identifies a huge growth in vehicle use of about 66% between 1990 and 2002. The trend closely matches that of GDP for Malta but far exceeds any corresponding growth in population.

The growth in car use has been matched with a significant downturn in the use of public transport, almost halving between 1989 and 1998.

Mode split data for the islands shows how the car dominates travel. Figure 3.1 taken from the White Paper, demonstrates the growth in proportion of trips by car and the decline in bus use.

Figure 5.1: % modal split 1989-1998
(source: Household Travel Survey MEPA 1998)



The White Paper highlights the consequences of the trends in car use citing in particular the increase in accidents from additional traffic, impacts on health from pollution, economic problems from congestion and social problems resulting from exclusion, poor accessibility and severance.

Recognising these problems and the inadequacy of policy in the past, the White Paper proposes a reaffirmed direction to policy and sets out the following objectives and targets:

Achieve modal shift from private to public transport modes:

- Stabilising bus service patronage to 1995 levels.
- 20% reduction in on-street parking, particularly in town centres.
- Establish schemes for Green Transport Plans.
- Safe travel for all users.
- 50% reduction in injury accidents by 2014.
- Healthier travel.
- 20% reduction in harmful transport emissions in the urban area.
- 30% reduction in the number of cars entering Valletta peninsula.
- Making infrastructure accessible to all.
- 50% of traffic management schemes implemented will be aimed solely at improving the conditions for non-motorists.
- 95% of walkways should be within standard widths and design.
- Establish schemes for safe routes to schools for all urban primary schools.

Sustainable Development Strategy (SDS)

The SDS highlights the massive increase in recent years in registered vehicles throughout Malta, and the corresponding decline in bus use to just 12% of all trips. However, the document highlights the importance of buses in terms of the tourist industry which attracts over 1 million visitors per year - of which 85% use buses!

The SDS promotes a sustainable transport system highlighting the role that land use and transport interactions can have at reducing vehicle trip mileage and fostering sustainable modes of transport. The document recommends that 'bands of concentrated activities' need to be located along established main thoroughfares or at major transport nodes / interchanges. It is also recommended that bus use could be made more attractive through the rationalization of road space and good urban design.

Furthermore, the use of water transport services is also recommended by the SDS. In particular ferries should be reintroduced operating to and from the Grand Harbour.

Further guidance on traffic and highways, specifically in terms of design, is available from the ADT. Reference in the Master Planning work has been made to 'Circular 3/93 Traffic Generation, Access and Parking' and the 'Road Works (Design and Construction Standards) Regulations 2003'.

Existing transport network

Roads

At a strategic level the current road hierarchy as established by the ADT is shown in Fig 3.1. This shows the main arterial roads and distributor roads on the island. It is noticeable that, whilst the urban arc between Sliema and Tarxien is well served by arterial roads, there is a gap in the network between Tarxiem and the Ricasoli peninsula.

At a local level, the road system to the Ricasoli peninsula is circuitous. This is mainly due to the road avoiding the high land around the old city wall and Tal-Fata. As such, to access Ricasoli, the road routes either through Zabbar or through Cospicua, both areas of which are heavily built up.

The local road configuration results in a lot of traffic being concentrated at the junction of Triq Tal-Labour and Triq Santa Duminka. This junction is very complex and serves many movements. Some rationalization of the junction may be beneficial especially as part of the wider scheme being promoted by ADT to bypass Zabbar.

Network improvements planned or under construction

The proposals for network improvements are shown in Map 3.4. This shows the following:

- Upgrade to junction of Triq Id-Dejma with Triq Il-Dasah.
- Upgrade of link Triq Il-Foss.
- Upgrade of junction Triq Il-Foss with Triq Il-Kbira.
- Upgrade of junction Triq Il-Foss with Triq Santa-Duminka.
- New link Tal-Fata (Triq Santa-Duminka) to Triq Santa Rokku.

These proposals will provide not only a good link to the Ricasoli peninsula but will also provide a by-pass route for traffic currently passing through Zabbar and Cospicua.

Existing situation

- Counts - junction, pedestrians etc.
- Strategic Model (if available from Transport Authority).
- Public Transport routes and nodes.
- Accident data.
- Current parking availability.
- Current trip generation.

Proposed situation

- Layout.
- Links.
- Access.
- Car Parking.

Forecast Trip Generation

- For each land use - mix of traffic, time of day, direction, distribution etc.
- Mode split forecast i.e. car, public transport, walk, cycle.

Network testing

- Strategic model - scenario testing of bypass route.
- Local junction testing.
- Public transport network capacity.
- Environment capacity assessment.

Mitigation

- Highway upgrade designs.
- Public transport routes/links.
- Park and Ride
- Soft engineering measures e.g. Public transport, travel plan etc.
- Road safety auditing.

Construction traffic

- Strategy including routes, timing, control.

Appendix Five Environmental Studies

The scope, timing and method of preparation of the EIA will need to be agreed with MEPA. Eventually it would be expected that the EIA work would feed into the Code of Construction Practice, and inform the processes of future development and development control for the site and project.

The following studies are proposed to be undertaken in order to assess environmental impacts:

- Ecology.
- Marine.
- Agriculture.
- Geology / Hydrology.
- Visual and Landscape.
- Architectural, Archaeological and other human artifacts of historical and/or cultural value and or scheduled property.
- Air Quality.
- Social Impacts.
- Economic Impacts.

Colin Buchanan, Newcombe House
45 Notting Hill Gate, London W11 3PB

T + 44 20 7309 7000
E london@cbuchanan.co.uk

www.cbuchanan.co.uk