Environment Impact Assessment (EIA) Report

PA 01191/05 (GF 00150/06): Construct mixed development which includes a) shopping hall, b) commercial areas and residential units; c) underground parking and service facilities at Old Union Club, Hugh Hallet Street, Tigne' Street, Sliema

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1 INTRODUCTION

The Malta Environment and Planning Authority (MEPA) requested an Environmental Planning Statement (EPS) for the proposed development as per Schedule I, Category II, Section 3.1.2.2.ii, of the former EIA Regulations, 2001. The application is for outline development permission.

The EPS was coordinated by Kevin Morris from Adi Associates Environmental Consultants.

2. THE PROPOSED DEVELOPMENT

The site lies between Triq it-Torri and Ix-Xatt ta' Qui-Si-Sana, in an area known for the former Union Club. The site also borders Triq Tigne' and Triq Hugh Hallet and covers an area of 11,631m^2.

The proposal is for excavation of the site to 4 floors (6 floors below Triq Hugh Hallet), construction of 7 blocks (of 2, 4, 6, 8, 10 and 12 floors) and a 32 floor tower (Fig. 4.46 o the Coordinated Report Block Plan in Addendum to the EPS). Villa Drago and its garden are proposed for rehabilitation. The total gross floor area of the proposal is 53,854m^2.

The proposal will provide the following uses:

- 242 residential units;
- open space (340 m^2);
- ancillary developments/ amenities for residents including open space and nursery (3263m^2);
- offices (4,830m^2);
- retail outlets, including food and beverage (10,423m^2); and
- car park (800 units) within the basements.

3. EIA CONSULTATION

As part of the EIA process, consultation with various consultees was carried out during the scoping and the reviewing stages. Consultation with the public was carried out during the scoping and following the certification of the EPS.

3.1 Consultation during Scoping

During the scoping stage the PDS was circulated to the following consultees and made available for public consultation on 24th January, 2007:

- Sliema Local Council;
- Malta Resources Authority (MRA);
- Din l-Art Ħelwa;
- Superintendence of Cultural Heritage (SCH);
- Civil Protection Department (CPD);
- Department of Public Health;
- Nature Group; and
- Kummissjoni Ambjent.

Comments were received from the following:

CPD:

- fire safety measures, prevention and precaution are adhered to; and
- adequate access to fire vehicles and personnel shall be provided.

Qui-Si-Sana Residents Association:
- examination of traffic flows and related air quality;
- examination of noise impacts;
- impacts on utilities and infrastructure are indicated; and
- safety measures in conjunction with the height of the tower.

Flimkien għal Ambjent Aħjar (FAA):
- examination of overshadowing, wind impact, landscape impacts and emissions
- integration of Scheduled Villa Drago into the project; and
- comments on overdevelopment of Tigne Peninsula.

Alternattive Demokratika:
- examination of cumulative impacts;
- impacts of noise, dust and emissions; and
- Increase in VOC's

Comments from the Public:
- comments as per the Qui-Si-Sana Residents Association;
- comments on the aesthetics and visual impacts of the proposal;
- comments on shadowing of the proposal;
- comments on impacts on Villa Drago;
- comments on inadequacy of the proposed tower, given the proximity to apartments;

3.2 Consultation during Review

The first draft of the EPS was submitted to MEPA on 2nd February, 2007 and circulated for review to the following consultees:
- Sliema Local Council;
- Malta Resources Authority (MRA);
- Din l-Art Ħelwa;
- Superintendence of Cultural Heritage (SCH);
- Civil Protection Department (CPD);
- Department of Public Health; and
- Nature Group.

The EPS was also circulated for internal review within MEPA.

The deadline for submissions was 30th July, 2007. Within the stipulated consultation period, comments were received from the Sliema Local Council, who objected to the proposal, the Department of Public Health, MRA Energy, MRA Water and the Qui-Si-Sana Residents Association. The following was submitted:

Department of Public Health:
- comments on impacts due to noise and vibration complaints and investigation thereof;
- comments on legislation related to water quality, risk assessment and food safety.

FAA:
- demand for the proposal, including comments on residential property;
- comments on monitoring of emissions;
- conformity of the proposal to the Structure plan Policies;

- comments on impacts during operation, especially emissions to air, and construction namely noise and vibrations;;
- comments on impacts of shadows, visual amenity and social impact.

MRA Energy:
- request for further information on energy use, energy efficiency measures and temporary/ permanent fuel storage.

MRA Water:
- comments on the reuse of rainwater and greywater.

Qui-Si-Sana Residents Association:
- objected to the proposal since it contravenes the North Harbour Local Plan;
- concerns on the height of the tower and flanking buildings, proximity of the tower to the streets, shadowing impacts and issues related to noise, dust and traffic.

The comments made by MEPA and its consultees during the review stage were forwarded to the EIA coordinator, the applicants and the architect on 7th March, 2007. These comments were addressed by the EIA Coordinator and responses were submitted to MEPA.

3.3 Consultation following Certification

The certified EPS was published for public consultation on 7th September, 2007. The deadline for submissions was 28th September, 2007. However this period was extended upon request the Qui-Si-Sana Residents Association. Within the stipulated consultation period, comments were received from the Qui-Si-Sana Residents Association, Hallet Court Owners Association, San Roque Owners Association and FAA. The following was submitted:

FAA submitted further comments to those mentioned above.

Qui-Si-Sana Residents Association: Presented a detailed report on the EPS and Traffic Impact Statement (TIS). The main points raised were:
- Lack of justification given oversupply, making project unnecessary;
- The visual impact of the project on the surrounding areas is down played throughout the entire EPS. The viewpoints chosen for preparing photomontages and as submitted in the EPS deceive the massive visual impact that the proposed project will create;
- Alien Development: The proposed development does not blend with the surrounding area and will further damage the historical and landscape components especially since the proposed project is earmarked to occupy the space of the former Union Club building. Impact on Valetta,
- Nuisances will be incurred by the Tigné Residents. The EPS hardly presents any mitigation measures; and
- The current traffic situation on the Tigné peninsula is already problematic. This will be made even worse with the advent of the MIDI Tigné Point Development as well as the proposed development of Fort Cambridge and the present proposal.

Hallet Court Owners Association:
- The Scheme is not in conformity with the North Harbours Local Plan in respect of height;
- The Application Site is designated in the Local Plan for hotel development;
- The Scheme must conform to NHH01 and the FAR policy;
- The proposed tower is close to abutting development;
- Photos have been taken from advantageous places;
- Scheme does not conform to DC policy regarding tall buildings;

- Traffic is chaotic in Triq Hughes Hallet. The residents' garage is accessed directly opposite the main entrance to the Plevna Hotel; and
- Air quality on Ix-Xatt ta' Qui-Si-Sana will exceed the EU laws.

San Roque Owners Association:

- Scheme is not in conformity with the North Harbours Local Plan in respect of height;
- traffic situation will be exacerbated by the proposal;
- infrastructure in the Tigné area is not sufficient for the proposal and other development;
- traffic noise and construction / operation noise will severely affect residents;
- light and privacy issues will result from the tower;
- increasing population will make matters worse in Sliema;
- traditional development will not have the same impact; and
- proper study of the impact of the increase in traffic on air quality was not conducted.

Public:

- The Scheme will result in an exponential increase in pollution noise and disturbance;
- The EPS understates the visual impacts of the Scheme;
- Commercial activities should not be considered and not overlooked by bedrooms of adjacent apartments because of potential noise from air conditioners;
- Tower block is not appropriate; and
- Set backs and back yards are required.

4. THE SITE AND SURROUNDINGS, ASSESSMENT OF IMPACTS AND MITIGATION MEASURES

The following characteristics of the site, assessment of impacts and mitigation measures were identified in the EPS (Table 13.2 of the EPS):

Characteristics	Impact	Significance of Impact	Mitigation Measures
Land cover and land use			
Site is situated in the Sliema Primary Town Centre, the land uses of which are (Fig 4.8 of the EPS): - predominantly residential (apartment blocks and townhouses) and retail including food and beverage outlets; - hotels; - Qui-Si-Sana promenade and rocky coast; - public garden; - public car parks; - construction works being carried out for the MIDI project and Fort Cambridge; - Il-Fortizza (Sliema Point Battery), a Grade 1 building scheduled under GN 700/95, and other scheduled buildings.			
Geoenvironmental			
The site consists of Lower Globigerina Limestone of relatively poor quality which cannot be readily reused. A soll layer also exists on site. No quaternary deposits were visible in the application site. Faulting occurs within the site in a W-E direction.	Production of mineral waste: 109,215m^3 of poor quality mineral resource will be removed. The impact on the resource is not significant yet the volume of waste produced comprises 7.7% of the national annual inert arisings and the impact is thus judged as major.	Major adverse	-soil still on site will be removed when dry and will be stored for use in landscaping scheme; -Where possible excavated material shall be reused on-site or off-site.
	Removal of beds containing	Insignificant to	Reporting discovery of

Characteristics	Impact	Significance of Impact	Mitigation Measures
No solution caverns were noted on the subsurface down to the depth investigated.	important palaeontological features: No features of special importance were noted and impact is considered as not significant.	major adverse depends on any new discoveries)	important geological finds to Heritage authorities.
	Collapse of excavation: The scanline survey indicated such a potential however impact is uncertain given that at this point it is impossible to ascertain whether there will be collapses due to the lack of a Construction Management Plan (CMP).	Uncertain.	- Scanline survey undertaken at the commencement of excavations and progressively thereafter; - good site management.
Mean sea level aquifer is some 7 to 17 metres below ground level. No substantial freshwater aquifer is expected to develop given that the site is close to the sea and largely built up.	Pollution of Mean Sea Level Aquifer: Projected floor level is 2-3m above Mean Sea Level given that there is no appreciable aquifer, the impact is judged as not significant. However, added caution to ensure no polluted effluent reaches the sea should be taken.	Not significant.	-provision of mobile toilets; -adequate waste storage containers; -prohibition of storage of acids, fuels, oils and lubes unless adequately bunded; -CMP and Environmental Management Plan (EMP); -All servicing of vehicles and machinery is to be carried out off-site.
Runoff generated from the site should the proposal be built is 1,919m^3.	Generation and pollution of run-off: During excavation rainwater will be channeled to silt traps and routed to a sump. Overspill will be disposed of as directed buy the Competent Authority; During operation, 1368m^3 storage for rainwater will be provided.	Not significant	- no effluent will be allowed to run of the site; and - No runoff will be allowed to enter the site.
Cultural Heritage			
Cultural heritage features are comprised of Villa Dago, and the grounds, scheduled as Grade I.	Loss of or damage to features (restoration of Villa Drago). Accretions added over the years will be removed and the villa will be restored to as close to its original as possible.	Restoration of the facades and the interior of the Villa is deemed a major beneficial impact.	Measures to protect Villa Drago should be followed. Trenching to at least 1 m below the foundation level of Villa Drago or the new building, whichever is lower, is proposed to
	Change in setting: Three	Restoration of	

Characteristics	Impact	Significance of Impact	Mitigation Measures
	new buildings are proposed at a minimum of 8.8 metres from the façade of the Villa. These buildings are at a height of 2 floors and were not judged to effect the setting of the Villa. Refurbishment of the gardens will have an impact on the setting.	gardens is deemed of major beneficial impact.	prevent transmission of vibrations.
Emissions to Air			
Baseline survey was based on a desk-top study. Concentration of NO_X and PM_{10} arising from traffic were 3.08 and 106.6ug/m^3 respectively.	Construction: Impact of dust and other particulate matter generated during excavation or from handling construction materials on sensitive receptors. This may result in visual and health effects. With the proposed excavation methods (trencher, ripper, pneumatic hammer and shovels) PM_{10} generation is less than that from a soft stone quarry. Also, dust generated is deposited within 100m of the site, within which no high sensitive receptors such as hospitals or schools are present. Emissions from construction vehicles are considered negligible compared to traffic emissions in the area.	Minor adverse	-Control of dust emissions; - Wheel washing; - Maintenance of vehicles and plant; -no unnecessary running of plant -Planning of timing and working methods; - Communication with residents and the Local Council.
	Impact of vehicles entering and leaving the site will contribute to PM_{10}, NO_X, CO, CO_2, Benzene and VOC's. The worst case scenario of 5 years after commencement of operation (2017) was assessed, compared to the present situation. NO_X emissions will increase from 132ug/m^3 to 157ug/m3 at peak hour on weekend morning due to the	Impact of minor significance given that the Average Hourly Limit value	Measures to reduce private car use. There are no suitable direct mitigation measures for the effects of traffic-derived pollutants for this site and specific to the Scheme.

Characteristics	Impact	Significance of Impact	Mitigation Measures
	proposal by 2017.	of 200ug/m^3 (LN 224 of 2001 is not exceeded.	
	PM_{10} emissions will increase from 108ug/m^3 to 128ug/m^3 due to the proposal by 2017.	Impact of major significance. Even without the proposal, the levels of PM_{10} will be above the hourly limit for protection human health of 50ug/m^3 (LN 224 of 2001).	
Noise and Vibration			
Noise was measured at Triq it-Torri, in the middle of the site and on the eastern side of the site. L_{A90} values were between 45- 62dB(A) during day light hours and 41- 51dB(A) at night time. The predominant noise sources were traffic and construction activities. Noise sensitive receptors identified were the residents of dwellings overlooking the site; Union Club users, office workers at Triq it-Torri and pedestrians.	Noise impact on sensitive receptors: L_{A90} sound levels from the combined operation of the plant is predicted to be between 85dB(A) and 96dB(A) during excavation and 75dB(A) and 87dB(A) during construction. These will be reduced by 28dB by walls and window panes.	Major significance during excavation and construction. However, due to attenuation resulting from screening effect due to buildings surrounding the application site, the impact beyond the immediate vicinity of the site boundary is likely to be not significant.	Windows shut
	Impacts of operational noise on residents	Uncertain	Nil
In the absence of construction activities on the site, ambient vibration levels are anticipated to be typical for an urban location.	Impact of vibrations on structural integrity of surrounding buildings.	Minor	-Preparation of a CMP and vibration monitoring programme; -Excavation of trench around site periphery deeper than excavation.
	Impact of vibrations on people in adjacent buildings	Not significant except where excavation is within 20metres of the affected building. In the latter case the impact may be of major significance	-Excavation of trench around site periphery deeper than excavation. -Curtail working hours.
Waste Management			
The proposal will result in a quantity of waste produced	-The EPS indicates the following general waste	The following quantities of waste	Inert waste shall be deposited in a licensed

Characteristics	Impact	Significance of Impact	Mitigation Measures
during demolition of existing structures, excavation, construction of the scheme and operation.	streams will be generated during construction and operation: -Waste left over from demolition of the former Union Club Site; -Excavation waste; -Building material from Villa Drago; and -Operational waste.	shall be produced: Inert waste: 390m^3; Inert waste: 141,215m^3; Furniture, fittings, concrete, steel, wood: 5 truck loads; Municipal solid waste, packaging waste; waste fluorescent tube, refrigerants.	landfill. Other wastes shall be disposed off as directed by the competent authority.
Utilities			
Water	The daily water consumption of the proposal in full operation is estimated to be approximately 147m^3 per day. WSC confirmed that it would be possible to connect to the mains piping network on Triq it-Torri, Triq Tigne and Triq Hughes Hallett.		
Sewage	The proposal's peak effluent discharge is 0.58% of the existing gallery's capacity. The EPS indicates that this is sufficient.		
Energy	Power requirements for this proposal are given at 5,000kVA. The residential component will consume an average of 3.21MWh at full occupancy whereas the commercial component is expected to consume 4830kWh per day assuming all commercial outlets are fully occupied. This is equivalent to 4.5 GWh p.a..	An additional facility with two 1,600kVA transformers is necessary	

Characteristics	Impact	Significance of Impact	Mitigation Measures
Building Performance: Wind			
The EPS determined the pedestrian wind comfort upon criteria categorised for three main pedestrian activities that is sitting (low speeds), standing (slightly higher speeds) and walking (winds that lift leaves, move litter and hair). An uncomfortable designation was also designated, should the criterion for walking not be satisfied. Wind conditions were assessed at 19 points and were considered whether suitable for sitting, standing or walking if the wind speeds were within the particular ranges for at least four out of five days.	In the EPS, it was shown that the Tower generates a downdraught. Consequently strong winds have been predicted along the trough fare at the base of the tower. A summary of worst case wind comfort criteria is given in Figure 11.15 of the EPS. Wind conditions suitable for business walking were predicted for the thoroughfare beneath the tower and on either side of it. The potential impacts of the proposal on the site itself were thus considered minor. Impacts on private property areas were not significant.	Impact is of minor significance with scope for mitigation.	The EPS indicated various mitigation measures which reduce wind speeds effectively namely: - The channel at base of tower shall be enclosed; and - Entrances to residential units from Hugh Hallet Street, affected due to narrowness between existing buildings, should be recessed. The exact configuration and placement of these measures would need to be ascertained through wind tunneling modeling.
Building Performance: Shadow			
The EPS states that the FAR proposals carry implications for shadowing; a change to shadowing and hence shading of private property close to the site is inevitable and cannot be avoided. However, according to the EPS, the direction given by Policies 1.3 and 2.10 of the Policy and Guidance 2005, indicates that adverse impacts from shadowing should be related to public recreational space and not to the effects on individual private dwellings.	Extent of shadowing is illustrated in Figure 11.16 to 11.26 of the EPS. In view of the transient nature of shadowing, no single location is subject to shadow throughout the day. The shadow diagrams show that public open space along ix-Xatt ta' Qui-Si-Sana are impacted by shadows cast from buildings along the seafront whereas the scheme will extend the impact further over the sea. Shadows on the open space at the junction of Triq it-Torri and Triq il-Kbira, will not be exasperated as a result of the proposal.	Worst case shadowing occurs in both winter and summer seasons 1 hour after sunrise when shadow from the tower extends over dwellings to the south east of the site. The proposal will not exacerbate the shadowing on public open spaces, and since the impact on nearby dwellings is marginal, the impact of shadowing is judged to be not significant.	/
Building Performance: Landscape and Visual amenity			
Area of influence for the wind and shadow studies was identified through a ZVI (Figure 11.29 of the EPS). Proposal falls within the strategic view no 3, which indicates the Valletta Skyline from University, defined by			

Characteristics	Impact	Significance of Impact	Mitigation Measures
NHSE07.			
Viewpoint 1: Near Preluna Hotel	Skyline is broken by the lower buildings of the proposal and by the Tower. The magnitude of the change is major and a considerable number of moderate sensitive users are affected.	Major significance.	None
Viewpoint 2: Manoel Island Bridge	Skyline is broken by the Tower. Proposal is a considerable distance from the Fort Cambridge proposal. A considerable number of moderate sensitive users are affected.	Minor significance.	None
Viewpoint 3: Valletta Ferry Landing	Skyline is broken by the Tower but tends to complement the existing and committed high rises. A considerable number of moderate sensitive users are affected.	Minor significance.	None
Viewpoint 4: Smart City	Skyline Is broken by the proposal which together with Fort Cambridge and Midi create a focus.	Minor – Not significant	None
Viewpoint 5: Bighi	Proposal is not visible from this viewpoint.	/	/
Viewpoint 6: Vittoriosa	Proposal is not visible from this viewpoint.	/	/
Viewpoint 7: Triq Garibaldi	Proposal is not visible from this viewpoint.	/	/
Viewpoint 8: University	Proposal is not visible from this viewpoint.	/	/
Viewpont 9: Mdina Bastions	Change is barely noticeable.	Minor – Not significant	None
Viewpoint 10: Triq it-Torri	Skyline is broken by the lower buildings of the proposal and the Tower. The sense of scale and continuity afforded by the existin development is over-powered by the proposal.	Major significance	None
Viewpoint 11: Is-Sur ta' linglizi	Skyline broken by Fortina, Midi and Fort Cambridge. Proposal sits behind other highrise.	Minor significance	None
Social			
The EPS identified the following	The EPS indicates both perceived and actual impacts of the proposal on different sociospheres		No mitigation measures

Characteristics	Impact	Significance of Impact	Mitigation Measures
sociospheres the area of study (Figure 12.1 of the EPS): • Well- established residents or aging community; • Permanent local Maltese residents; • Local foreign residents; • Working community; • Tourists; • Visitors to local residents; • Visitors to the locality for leisure; • Night- life visitors. According to the EPS the locality experienced cumulative changes during the past 15 years from the former quite residential community. The area is attractive to the permanent, transient and visiting communities since it provides centrality, proximity to the seashore; a place to relax, anonymity and privacy, amenities and services and proximity to leisure localities.	during construction and operation. The actual impacts are being reproduced below:		specific to social impacts were proposed.
	Loss of refuge and privacy	Minor to major adverse impact on residents during both construction and operation.	
	Overcrowding of leisure space	Not significant to minor.	
	Traffic congestion	Minor to major adverse impact, affecting both during construction and during operation.	
	Increased noise and air pollution	Major adverse impact during construction and operation. This impact can be mitigated if the use of hydraulic hammers is minimised.	
	Increase in off street parking opportunities	A minor beneficial impact during operation.	
	Potential two-tiered community	Minor adverse impact.	
	Increase in activity around the site	Minor beneficial impact.	
Residual Impacts The following residual impacts were identified: • Change of land use cannot be mitigated; • Production of inert waste; • Impact on air quality (dust) due to demolition, excavation and construction; • Impact on air quality (vehicle emissions) during operation; • Noise arising from excavation activities; • Noise arising from operation (excluding traffic); • Impacts of vibrations on structural integrity; • Changes in visual amenity; • Social impacts; and • Economic Impacts.			
Uncertain Impacts • Removal of Limestone beds; • Collapse of excavation; and • Impacts of operational noise.			

5 PLANNING, POLICIES AND LEGISLATION

5.1 Maltese Legislative and Regulatory Framework

- Development Planning Act, 1992;
- Environment Protection Act, 2001;
- Nature Protection:
  - Legal Notice 1 of 1994: Environment Protection (Preventive and Remedial Measures) Regulations;
  - Legal Notice 12 of 2001: Trees and Woodland (Protection) Regulations; and
  - Legal Notice 311 of 2006: Flora, Fauna and Natural Habitats Protection Regulations.
- Air Quality:
  - Legal Notice 291 of 2002: National Emission Ceilings for Certain Atmospheric Pollutants Regulations;
  - Legal Notice 224 of 2001: Limit values for Sulphur Dioxide, Nitrogen Dioxide and Oxides of Nitrogen, Particulate Matter and Lead in Ambient Air Regulations; and
  - Legal Notice 163 of 2002: Limit Values for Benzene and Carbon Monoxide in Ambient Air Regulations.
- Waste Management:
  - Legal Notice 337 of 2001: Waste Management (Permit and Control) Regulations;
  - Legal Notice 161 of 2002: Waste Management (Waste Oils) Regulations; and
  - Legal Notice 98 of 2004: Waste Management (Packaging and Packaging Waste) Regulations.
- Water:
  - Legal Notice 194 of 2004: Water Policy Framework Regulations.
- Noise:
  - Legal Notice 193 of 2004: Assessment and Management of Environment Noise Regulations.
- Malta Resources Authority Act, 2001:
  - Legal Notice 203 of 2002: Protection of Groundwater against Pollution caused by certain Dangerous Substances Regulations, 2002;
  - Legal Notice 23 of 2004: Quality of Water for human Consumption Regulations, 2004; and
  - Legal Notice 139 of 2002: Sewage Discharge Regulations, 2002.
- Water Services Corporation Act, 1991; and
- Solid Waste Management Strategy.

5.2 Local Planning Policy

- Structure Plan Policies applicable to this project fall within the following policy areas:
  - Settlement Pattern: SET 1, SET 6 and SET 7;
  - Built Environment BEN 1, BEN 2, BEN 3, BEN 4, BEN 12 and BEN 17;
  - Housing: HOU 1;
  - Commerce and Industry: COM 5;
  - Agriculture (soils): AHF 4
  - Minerals: MIN 19;
  - Transport: TRA 2, TRA 3, TRA 4, TEM 1 and TEM 4;
  - Cultural Heritage: UCO 7; and
  - Scheduled Sites: RCO 1;
  - Water Conservation: PUT 8 and PUT 13.
- Waste Management Subject Plan; and
- The North Harbour Local Plan: NHSJ15, NHSE01-10, SE 1, NHRE01- NHRE03;
- Policy and Design Guidance, 2007-11-12 Planning Policy on the Use and Application of FAR;
- Minerals Subject Plan: HS3 to HS8, DC to DC22;
- Traffic Policies: Circulars PA 3/93, PA 3/01 and Traffic Calming Guidelines;
- Retail Policies and Interim Retail Planning Guidelines.

6. CONCERNS OF THE ENVIRONMENT PROTECTION DIRECTORATE

The EPD has a number of concerns on the development proposal vis-à-vis the characteristics of the site and the impacts of the proposal on the site and surroundings, as indicated in the EPS

6.1 Air Quality

The EPS indicates a major negative impact on air quality due to operational traffic and that measures to reduce private car use should be elicited. However, the EPS states that there are no suitable mitigation measures for the effects of traffic-derived pollutants specific to the proposal. The generation of traffic due to the proposal will therefore further exacerbate the air quality of the Sliema-Tigne area.

6.2 Noise

The EPS indicates that noise during excavation and construction will result in a major impact both in the open and with the windows closed. The EPS indicates that measures to reduce noise impacts during the construction phase is keeping the windows shut, a mitigation measure which is not deemed reasonable. Although the EPS outlines this is a short term impact (excavation will take 10 months and construction will take 4 years), such impact will be significant given that the proposed development site is surrounded by a densely populated area.

In addition, noise impacts during operation are deemed uncertain. Further examination of these impacts is required at the Full Development Stage, should this proposal be considered favourably.

6.3 Energy

The estimated overall electricity consumption of the development is 4.5 GWh p.a., equivalent to 0.3% of Malta's 2005 demand. This is considered as a significant increase given the maximum electricity generation by Enemalta allowed by Malta's second National Allocation Plan will be 2726 GWh by 2012. This generation value denotes an increase of 426 GWh over 2005 generation figures, of which the proposal consumes 1.05%: the project relies completely on electricity from the grid (i.e. from Enemalta) to provide the energy required.

Similarly, there are concerns with regard to Malta's ability to comply with the 2010 National Emissions Ceilings, in particular for NOx: NOx emissions in 2005 totalled 11.9 kTonnes (45% from energy generation, the rest from Transport), and these must be reduced to 8 kT by 2010. The increased electricity demand due to this project (and similar projects of this scale) will result in emissions that counteract the reduction measures envisaged by Malta's Plans and Programs.

6.4 Visual Impact

The EPS indicates that the impact on the visual amenity is major when viewed from near the Preluna Hotel and Triq it-Torri. EPD is of the opinion that a major impact would also result from Manoel Island and the Valletta Landing Ferry given that the proposed tower is set apart from other highrise buildings. Unlike what the EPS states, the proposal would also be visible from Bighi,. This is based on assessments carried out for similar proposals in the Tigne Peninsula which were also visible from this view, albeit with a telephoto lens.

6.5 Geo-environment

The scanline survey indicated potential collapse of excavation yet the EPS identifies such impact as uncertain. At this stage it is not possible to predict the likelihood of such impact i.e. whether there will be collapses due to the absence of a Construction Management Plan (CMP). Further examination of these impacts is required at the Full Development Stage, should this proposal be considered favourably.

6.6 Cumulative impacts

Cumulative impacts of this proposal with other minor and major construction sites, such as Fort Cambridge and Midi would result in a major impact on traffic and air quality. In addition, the cumulative impact of operational traffic is deemed major adverse given the findings of this EIA and other EIAs undertaken for the Tigne area.

6 CONCLUSIONS

The EPS has predicted a number of potential impacts on the environment as a result of the proposed development, some of which are major negative. The mitigation measures proposed in the EPS are aimed at minimising the predicted impacts of the proposal. Despite these mitigation measures being proposed, short term and major residual impacts have been identified.
