

# Executive Summary

## 1.0 INTRODUCTION

- 1.1 The Preliminary Environmental Impact Assessment (P-EIA) report is prepared for 'Cadangan Membina Istana Kerajaan Terengganu' on lot 1796, in Mukim Cenering, District of Kuala Terengganu, Terengganu Darul Iman.
- 1.2 The project development, which involves a total area of approximately 160.61 acres (64.99 hectares) of land with only about 7.97 acres (4.96%) will be utilised for the development while the rest of the area will be left to its natural condition parallel to the environmental friendly concept.
- 1.3 The proposed development falls under item 7 of Environmental Quality (Prescribed Activities) (Environmental Impact Assessment) Order, 1987 made under Section 34A of the Environmental Quality Act, 1974. The project initiator is required to prepare and submit an Environmental Impact Assessment report to ensure the environmental aspects are taken into account.
- 1.4 This project is initiated by the State Government of Terengganu for Duli Yang Maha Mulia Tuanku Al-Sultan Negeri Terengganu. AHT (Norlan United) & Carriage Sdn. Bhd. is appointed as the turnkey contractor under the Design and Build Concept. The P-EIA report is prepared and submitted by O&L Jurutera Perunding Sdn. Bhd., Melaka.

## **2.0 STATEMENT OF NEED**

2.1 The development is proposed to build a new palace complex and related facilities for Duli Yang Maha Mulia Tuanku Al-Sultan Negeri Terengganu. The main concern of the proposed development is to create a peaceful, comfortable and efficient living environment that will fulfil the practical and spiritual needs for the use of Duli Yang Maha Mulia Tuanku Al-Sultan Negeri Terengganu.

2.2 The proposed project has been conceived to achieve the following objectives :

- ❖ To develop a new palace complex and related facilities for Duli Yang Maha Mulia Tuanku Al-Sultan Negeri Terengganu.
- ❖ To develop a peaceful, comfortable and efficient living environment that will fulfil the practical and spiritual needs.
- ❖ To develop a new place for royal ceremonies.

## **3.0 PROJECT DESCRIPTION**

3.1 The project site is located on Lot 1796 in Mukim Cenering, District of Kuala Terengganu, Terengganu. It is located immediately to the northern boundary of Mukim Marang.

3.2 The nearest access road that leads to the proposed project site from the state road network is T100 which stretches from Chendering and passes through Pengadang Buloh to Bukit Payung.

3.3 The proposed area is generally hilly with ground contour levels ranging from 2.86 m to 162.6 m above Mean Sea Level, MSL. The

topography of the site is undulating with slope varying from 5% to 35%.

- 3.3 Although the proposed development has an area of about 160.61 acres of land, the components proposed in the project would only involve an area of 7.97 acres (4.96%) of land. The rest of the area will be left in its natural condition which complements the environmental friendly concept.

### **The Proposed Components and Floor Area**

<b>Proposed Component</b>	<b>Area (acres)</b>	<b>Percentage (%)</b>
Main Palace including 'Panca Persada' (5 Storey with 2 level of basement)	4.471	56.37
King Residence (3 Storey with 2 level of basement)	0.425	5.36
Family and Music Pavilion	0.042	0.52
Guest Villa : Entertainment Pavilion	0.048	0.61
Guest Villa : Bedroom Pavilion 1	0.046	0.58
Guest Villa : Bedroom Pavilion 2	0.046	0.58
Guest Villa : Bedroom Pavilion 3	0.046	0.58
Guest Villa : Prayroom Pavilion	0.002	0.31
Guest Palace ( 2 Storey )	0.400	5.04
Administration Office ( 2 Storey )	0.379	5.00
Mosque	0.709	8.94
<i>Surau</i>	0.200	2.52
Guard House	0.243	3.06
Bridge	0.047	0.60
Landscaping Works ( Landscape )	0.830	10.46
<b>Total</b>	<b>7.973</b>	<b>100.00</b>

## **4.0 EXISTING ENVIRONMENT**

- 4.1 Generally, the proposed project is located approximately 8 km from Kuala Terengganu and it is located amidst the agricultural area, newly-developed residential areas and villages. The existing land use near the proposed project area is mostly agricultural which covers almost 41% of Mukim Cenering.

- 4.2 The levels at the site vary from the lowest level of 2.86 m MSL to the highest level of 162.60 m MSL. The highest level with the elevation of 162.60 m MSL is located at the northwest of the project site while the lowest area of 2.86 m MSL is located to the south of the project site which also connects the project site with the old abandoned mine.
- 4.3 According to the Geological Survey Map (Revised draft 1964), the main geological character of this area is Carboniferous. The rock types in this category of geological character are phyllite, slate, shale and sandstone. Argillaceous rocks are commonly carbonaceous.
- 4.4 Several surface water quality parameters were chosen for analysis by the Consultant and it was found that most of the parameters tested for the samples are well within the Class II Water Quality limit for the Proposed Interim National Water Quality Standards for Malaysia (INWQM).
- 4.5 Data obtained by the Consultant showed that the Total Suspended Particulate (TSP) concentration at sampling location A1 was  $41 \mu\text{g}/\text{m}^3$  which is lower than the allowable limit of  $260 \mu\text{g}/\text{m}^3$  stipulated under the Malaysian Recommended Air Quality Guidelines, indicating that the air quality of the area is good and relatively clean.
- 4.6 About 28% of the daytime LAeq and all of the night time LAeq readings recorded were higher than the respective maximum permissible sound level for daytime (55dB(A)) and night time (45dB(A)) in reference to the 'Planning Guidelines for Environmental Noise Limits and Control' for suburban residential areas. Through observations, there are no major activities during the daytime and night time. The main source of noise recorded during daytime is most probably due to cars and student activities from the nearby school whilst noise generated during night time is most probably caused by singing insects.

4.7 The economic status of the local population can be categorised belonging mainly to the low and middle income category. The economic activities in the area are predominantly agriculture base and local trading activities especially along Jalan Sultan Muhamad and Jalan Sultan Mahmud located about one to two kilometres to the west of the proposed project site.

## **5.0 POTENTIAL SIGNIFICANT IMPACTS AND MITIGATING MEASURES**

5.1 Project activities expected to have potential impacts on the environment are broadly classified into four categories namely: pre-construction, construction and operational phases as well as impacts arising from abandonment of the project.

5.2 During the construction stage and assuming that the Project site is developed in one single phase, the total erosion from the entire Project site is estimated to increase to 1,781.54 tonnes/year. However, with an incorporation and implementation of erosion control measures, the erosion impact would not be that great.

5.3 The calculations indicate an increase in flood runoff of about 8.57 % in average for the 5, 10 and 100 year return period storm. The existing monsoon drain located at the north of the project that will serve as the main outlet, are estimated to have enough capacity (349.36 cusecs) to cater for the additional runoff. The provision of proper drainage system and a detention pond could provide some flow attenuation to reduce the impact. Thus, significant flooding problem at the downstream of the site is not expected.

5.4 The socio-economic impacts predicted from the proposed Project during operational phase are positive impacts. As the proposed

development will complement with the surrounding land use, the development is expected to generate more business opportunities to the area.

- 5.5 The completion of the Project will result in slight increased of vehicular traffic to the area and it will be necessary for the Authorities to carry out road improvement works as the population increases.

## **6.0 CONCLUSION**

- 6.1 The development of the site into a palace complex is considered to be a suitable option to provide a peaceful, comfortable and efficient living environment that will fulfil the practical and spiritual needs for the use of Duli Yang Maha Mulia Tuanku Al-Sultan Negeri Terengganu.
- 6.2 The completion of the Project will also have a positive impact on the socio-economy of the area as well as the State by diverting development away from the densely populated area towards the countryside which has the potential to be developed.
- 6.3 With careful planning and good construction and management practices, the Project is not expected to bring any significant adverse environmental impacts on the surroundings but rather its implementation will contribute to the economic development of the State in general.