EXECUTIVE SUMMARY

1.0 INTRODUCTION

The proposed development is known as the "Proposed Hotel on Lot 2097, Kawasan Bandar XXXVII, Daerah Melaka Tengah, Melaka". The project site covers an area of 0.61ac (2,484m^2) is located in Melaka downtown and it's surrounded by established developments. Main access to the Project Site is via Jalan Syed Abdul Aziz. The project key and location plan is shown in Figure ES1.

The proposed project involves a coastal hotel and hence it falls under the purview of the ***Item 12(a)*** of the Environmental Quality (Prescribed Activities) Order, 20015. ***Item 12(a)*** is described as *Development in Coastal and Hill Area: Construction of building or facilities with 80 rooms or more in coastal area*.

2.0 PROJECT PROPONENT / EIA CONSULTANT

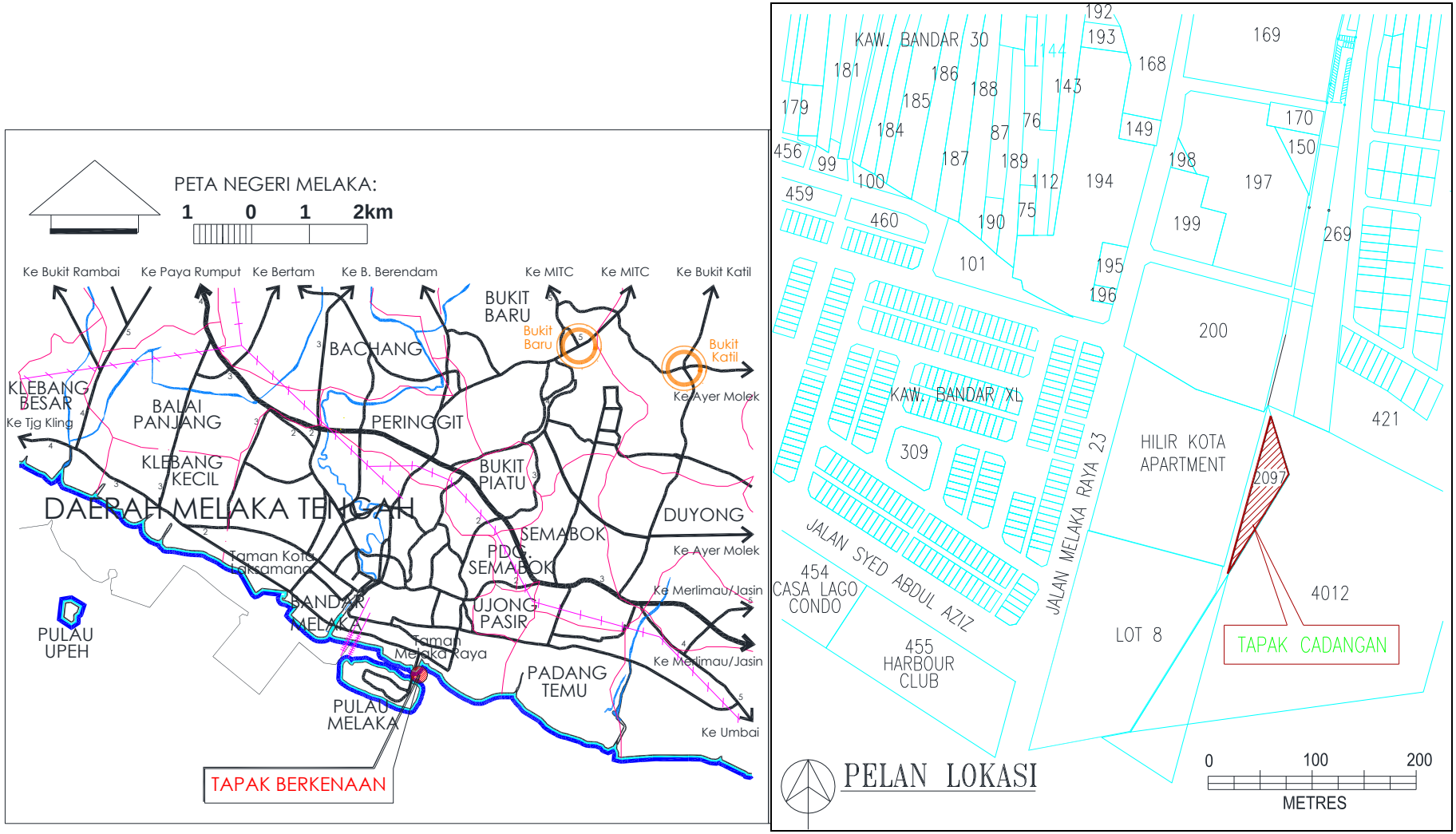
The project proponent is Prolific Acres Sdn. Bhd. The correspondence address is as follows:

Prolific Acres Sdn. Bhd
F3-96, Hatten Square
Jalan Merdeka
75000 Bandar Hilir
Melaka
Tel : 06-282 1828 Fax: 06-282 1827
Attn.: Mr. Chong Foh Siong (Project Director)

The Consultant appointed for undertaking the Preliminary EIA Study is:

Integrated Envirotech Sdn Bhd
Lot 32-2, Jalan Setiawangsa 11A
Taman Setiawangsa
54200 Kuala Lumpur
W. Persekutuan
Tel : 03-4256 6623 Fax : 03-4251 9623
Attn.: Dr. Mohd Zaki Mohd Said (Director)

Figure ES1 – Project Key and Location Plan



Source: Prolific Acres Sdn Bhd, 2016

3.0 STATEMENT OF NEED AND PROJECT OPTIONS

Needs of the proposed project can be summarized as follows:

- To support one of the state government's goals to develop Melaka as a heritage and cultural tourist hub.
- To achieve a better balance of development and economic growth of the areas.

The project options has been investigated based on two scenarios: 'no project option' and 'development options'.

- *No project option* - the land will remain abandoned and will not act as a stimulus towards future growth and development of the area.
- *Development option* - As the site is designated for service and commercial development, various development options can be considered such as serviced hotel, commercial related activities i.e. shop-offices or commercial building. In the vicinity of the project site, several new commercial areas are developed and high availability of commercial areas can be seen. Therefore, development of shop-offices or commercial building may not be economic viable. Indeed, a few shop-offices have been converted to budget hotels to cater for market needs. Therefore, the preferred option is the proposed hotel development, which could fulfil the tourism demand due to the expanding tourist population.

4.0 PROJECT DESCRIPTION

In general, the proposed development consists of one block of hotel building (249m^2). With the project site of 2,484m^2, plinth area is calculated as 10.02%. The hotel block is a 26-storey (include sub-basement) building encompasses 100 hotel rooms, hotel facilities and car park.

5.0 THE EXISTING ENVIRONMENT

Landform and Topography

The project site is currently a flat and vacant reclaimed land. Variation of elevation height within the project site is small with less than 1.0m.

Soil

Top soil of the project site is sandy silt with some gravel according to site investigation.

Hydrology and Drainage Flow

Currently, runoff from the western portion of the Project Site is channelled into the existing concrete drain (1.75m width) along the western boundary of the project site before discharging into Selat Melaka. Some runoff near the eastern boundary of the project site is directly discharging into Selat Melaka.

Land Use

The proposed project site is located in Melaka downtown and hence, land uses within 3km radius are predominantly developed areas for tourism, commercial and residential. The nearest sensitive receptor is a residential area namely Hilir Kota Apartment located immediate west of the project site.

Water Quality

A water quality monitoring exercise was carried out at two (2) locations for marine water. The results show all tested parameters were below the MWQS standard limits. The results show all tested parameters were below the Class 3 of MWQS standard limits except TSS during high tide and low tide.

Besides, two (2) samples of drainage water is collected. The results of water quality testing show that they are below Class III limits of National Water Quality Standard.

Air Quality

Two (2) air quality stations were established in adjacent to the project site. The result indicates that the concentration of PM10, PM2.5, SO_2 and NO_2 were found to be below the respective limits of the Malaysian Recommended Air Quality Guidelines.

Noise Level

Two (2) noise stations were established in adjacent to the project site. The noise readings (Leq) recorded were 57.3 – 59.7 dBA during daytime and 55.7 – 57.8 dBA during night time.

Biological Environment

In the vicinity of the project site, there is no significant biological site.

Traffic Condition

Traffic survey (traffic count) has been carried out at the following locations during weekday and weekend.

(a) 1 at Jalan Syed Abdul Aziz (eastbound & westbound) adjacent to Project site
(b) 1 at Jalan Ujong Pasir & Jalan Parameswara
(c) 1 at cross junction of Jalan Syed Abdul Aziz (adjacent to Plaza Melaka Raya Service Apartment)

Level of Service (LOS) for the above locations during the two peak hours (morning and evening) are:

(a) Jalan Syed Abdul Aziz - A
(b) Jalan Ujong Pasir & Jalan Parameswara - E
(c) Cross junction of Jalan Syed Abdul Aziz – D to F

6.0 ASSESSMENT OF IMPACTS AND MITIGATING MEASURES

The potential impacts and recommended mitigating measures are summarized in the following table.

SUMMARY OF PROJECT ACTIVITIES, IMPACTS AND PROPOSED MITIGATION MEASURES

Potential Impact	Project Activities and Sources of Pollution	Impact Magnitude	Proposed Mitigation Measures	Reference Page
I. CONSTRUCTION PHASE				
Erosion and Sedimentation	• Siltation and sedimentation mainly caused by exposed land.	Minor	• Construct sediment basin and temporary earth drains prior to earthworks. • Provision of wash trough at entrance. • All runoff from the project site will be directed to the sediment basin prior to discharging off-site. • Regular maintenance and inspection of the sediment basin / temporary drains.	6-1
Water Pollution	• Soil erosion due to exposed land. • Domestic sewage and sullage generated. • Accidental spill of chemicals or oils.	Minor	• Mitigating measures recommended for control of sedimentation as discussed for 'Erosion and Sedimentation' section. • Provision of adequate portable toilets on-site. • No direct discharge of untreated sewage and sullage into drains or waterways. • Diesel / oil storage area must be placed on paved and bunded area.	6-10
Air Pollution	• Dust generated from vehicular movement.	Minor	• Establish hoarding and maintain vegetation stripes along the site boundary. • All loaded vehicles should be adequately covered to prevent spillage of materials during transport. • Provision of vehicle trye cleaning at main entrance of the project site. • Regular water spraying of access roads particularly during dry and windy weather conditions. • Regular maintenance of vehicles and machinery. • Open burning is strictly prohibited on site. • Speed limits shall be imposed on all vehicles entering and leaving the Project Site. • Open areas and green areas should be vegetated as soon as possible.	6-11

Potential Impact	Project Activities and Sources of Pollution	Impact Magnitude	Proposed Mitigation Measures	Reference Page
I. CONSTRUCTION PHASE				
Noise Pollution	• Operation of construction equipment, transportation and machinery.	Moderate	• Restricting working hours to daytime. • Maintenance of all vehicles and machinery to ensure good working condition and reducing possible noise emission. • Establish hoarding and maintain vegetation stripes along the site boundary. • Only hydraulic piling method to be used to minimize noise impact. • Maximum six (6) pile drivers are operating simultaneously during piling stage. • Shut down engines when not in use. • Machinery emitting high noise levels should be installed with suitable noise absorbent materials and shall be sited within an enclosure. • Speed limits shall be imposed on heavy vehicles on site.	6-17
Vibration	• Vibration caused during piling and construction stage.	Minor	• Working hour is limited to daytime. No construction works shall be permitted on weekends or public holidays. • Selection of piling methods with low vibration generated i.e. Injection Spun Pile system. • Removal of obstructions to the driven pile, if any. • Reduce the energy per blow although this will prolong the work, where applicable. • Pre-boring to reduce resistance and the number of blows. • Cut-off trench close to the receivers or the source to interrupt the transmission path, where applicable.	6-21
Waste	• Garbage from site office and construction wastes.	Minor	• Open burning is strictly prohibited. • Solid wastes should be disposed off at dedicated site by licensed contractor.	6-24

Potential Impact	Project Activities and Sources of Pollution	Impact Magnitude	Proposed Mitigation Measures	Reference Page
I. CONSTRUCTION PHASE				
Traffic and Transportation	• Transportation of construction materials and equipments.	Minor	• Operating hours for trips to the project site should be scheduled away from the morning, afternoon and evening peak hours.	6-24
Socio-economic	• Public health risk from possible contamination of river water.	Minor	• Provision of adequate toilet facilities with regular maintenance on site. • Stagnant water on site should be drained off to prevent breeding and spread of mosquitoes. • Fumigation if necessary to prevent breeding of mosquitoes and traps/poison to control threat of rats.	6-27
	• Road safety risks from transportation activities.	Minor	• Planning and closely monitoring on movement of equipment/machinery to ensure smooth flow of traffic. • Speed limit shall be imposed for all vehicles using temporary access and logistics roads. • Contractor is responsible for reinstatement and repair of any damage on public and private road caused by construction vehicles. • Maximum permissible laden weight is as limited by the Road Transport Department.	

Potential Impact	Project Activities and Sources of Pollution	Impact Magnitude	Proposed Mitigation Measures	Reference Page
II. OPERATIONAL PHASE				
Flood Risks	• Conversion of exposed land into paved area.	Minor	• Design of permanent drainage system shall be in accordance with the DID Urban Stormwater Management Manual, 2012.	6-9
Waste	• Domestic wastes.	Minor	• Domestic waste will be disposed off regularly by licensed contractor to approved sanitary landfill at Sg Udang.	6-24
Traffic	• Traffic volume generated.	Moderate	• Good traffic management at the proposed ingress / egress within the site are required in the future.	6-27

7.0 ENVIRONMENTAL MANAGEMENT PLAN (EMP)

This EIA has identified the basic framework for the formulation of an EMP for this Project. As a minimum, the scope of an EMP shall encompass the following:

- Establishment of the key potential impacts that are to be monitored;
- Development of an environmental monitoring program to serve as an early detection system;
- Formulation of the reporting format and implementation of proper mitigation measures; and
- Allocation of personnel and formulation of Environmental Management Team.

8.0 STUDY FINDINGS

Given that the environmental risks posed by the proposed project are minimal and manageable and given the favourable economic and social benefits that would accrue to the community, it is considered that the project should proceed.

RINGKASAN EKSEKUTIF

1.0 PENGENALAN

Cadangan pembangunan dikenali sebagai *"Proposed Hotel on Lot 2097, Kawasan Bandar XXXVII, Daerah Melaka Tengah, Melaka*". Cadangan Projek meliputi kawasan seluas 0.61ac (2,484m^2) terletak di pusat bandar Melaka. Laluan utama ke tapak projek adalah Jalan Syed Abdul Aziz. Pelan kunci dan lokasi projek ditunjuk dalam Rajah RE1.

Cadangan Projek ini dikenalpasti sebagai aktiviti yang ditetapkan di bawah ***Perkara 12(a)***, Perintah Kualiti Alam Sekeliling (Aktiviti Yang Ditetapkan) 2015. ***Perkara 12*(a)** diperihalkan sebagai "Pembangunan di Kawasan Pantai dan Bukit: Pembinaan bangunan atau kemudahan yang mempunyai 80 bilik atau lebih di kawasan pantai". Justerus itu, laporan kajian impak alam sekitar perlu disedia dan dihantar kepada Jabatan Alam Sekitar (JAS) sebelum Projek dilaksanakan.

2.0 PEMAJU PROJEK / PERUNDING EIA

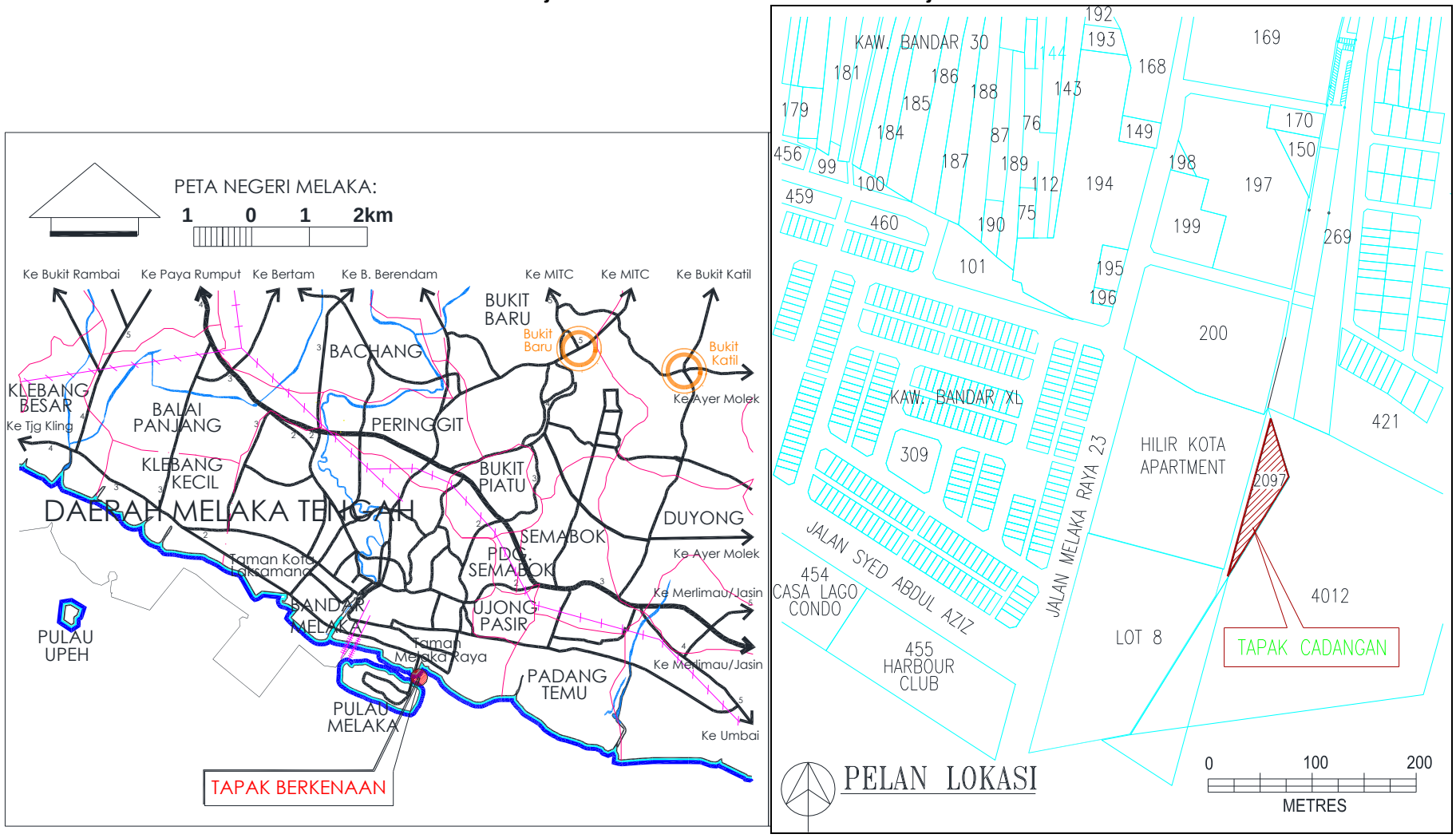
Pemaju projek adalah Prolific Acres Sdn. Bhd dan boleh dihubungi melalui alamat berikut:

Prolific Acres Sdn. Bhd
F3-96, Hatten Square
Jalan Merdeka
75000 Bandar Hilir
Melaka
Tel : 06-282 1828 Fax: 06-282 1827
Attn.: Mr. Chong Foh Siong (Pengarah Projek)

Perunding EIA boleh dihubungi melalui alamat berikut:

Integrated Envirotech Sdn Bhd
Lot 32-2, Jalan Setiawangsa 11A
Taman Setiawangsa
54200 Kuala Lumpur
W. Persekutuan
Tel : 03-4256 6623 Fax : 03-4251 9623
Attn.: Dr. Mohd Zaki Mohd Said (Pengarah)

Rajah RE1 – Pelan Kunci dan Lokasi Projek



Punca: Prolific Acres Sdn Bhd, 2016

3.0 KEPERLUAN DAN PILIHAN PROJEK

Keperluan projek yang dicadangkan boleh diringkaskan seperti berikut:

- Menyokong salah satu matlamat kerajaan negeri untuk membangunkan Melaka sebagai warisan dan pusat pelancongan budaya.
- Mencapai keseimbangan yang lebih baik dari segi pembangunan dan pertumbuhan ekonomi kawasan.

Pilihan projek telah disiasat berdasarkan dua senario: 'tiada pilihan projek' dan 'pilihan pembangunan'.

- Tiada pilihan projek - tanah akan kekal ditinggalkan dan tidak akan dibangunkan di kawasan ini.
- Pilihan pembangunan – tapak telahpun ditetapkan untuk pembangunan komersial. Pelbagai pilihan pembangunan boleh didirikan termasuk perkhidmatan hotel, aktiviti berkaitan dengan perdagangan iaitu kedai pejabat atau bangunan komersial. Di sekitar tapak projek, beberapa kawasan komersial baru dibangunkan dan ketersediaan kawasan komersial yang tinggi dapat dilihat. Oleh itu, pembangunan kedai pejabat atau bangunan komersial mungkin tidak berpotensi dari segi ekonomi. Malah, beberapa kedai pejabat telah ditukar kepada hotel bajet untuk menampung keperluan pasaran. Oleh itu, pilihan pembangunan adalah hotel yang dicadangkan, di mana permintaan pelancongan dapat dipenuhi memandangkan pelancong yang semakin bertambah.

4.0 HURAIAN CADANGAN PROJEK

Secara umum, pembangunan yang dicadangkan terdiri daripada satu blok bangunan hotel (249m^2). Kawasan plinth adalah 10.02% dengan mengambil kira 2,484m^2 kawasan tapak projek. 26-tingkat blok hotel (termasuk sub-basement) berkenaan merangkumi 100 bilik hotel, kemudahan hotel dan tempat letak kereta

5.0 KEADAAN PERSEKITARAN SEDIA ADA

Keadaan Tanah dan Topografi

Tapak Projek adalah kawasan tambakan laut kosong yang rata pada masa kini. Perubahan ketinggian tanah adalah kurang daripada 1.0m.

Tanah

Tanah atas kawasan yang dicadangkan ialah kelodak berpasir dengan batu mengikuti keputusan penyiasatan tapak.

Hidrologi and Sistem Saliran

Larian air dari bahagian barat tapak Projek akan mengalir melalui parit (lebar 1.75m) di sepanjang sempadan tapak sebelah barat dan seterusnya discaj ke Selat Melaka. Larian air dari sebahagian timur tapak projek akan mengalir terus ke Selat Melaka.

Guna Tanah

Tapak projek terletak di pusat bandar Melaka. Maka, guna tahan di sekitar 3km terdiri daripada kawasan perumahan, perniagaan dan pelancongan. Hilir Kota Apartment merupakan penerima sensitif yang terdekat dan ia terletak disebelah barat tapak projek.

Kualiti Air

Sebanyak dua (2) stesen kualiti air laut telah didirikan untuk projek ini. Kesemua parameter yang diuji didapati di bawah had-had piawai Kelas 3 MWQS kecuali TSS semasa air pasang dan air surut.

Selain itu, dua (2) sampel air saliran diuji. Keputusan ujian kualiti air menunjukkan kualiti air adalah di bawah had-had Kelas III Piawai Kualiti Air Kebangsaan.

Kualiti Udara

Sampel kualiti udara telah diambil di dua (2) lokasi berdekatan dengan tapak projek. Keputusan menunjukkan kandungan PM10, PM2.5, SO_2 and NO_2 adalah di bawah tahap yang dicadangkan dalam Garispanduan Kualiti Udara Malaysia.

Kualiti Bunyi

Bunyi bising diambil di dua (2) lokasi berdekatan dengan tapak projek. Tahap bunyi bising tercatat adalah 57.3 – 59.7 dBA pada waktu siang dan 55.7 – 57.8 dBA pada waktu malam.

Persekitaran Biologi

Di sekeliling tapak projek, tiada tapak yang ketara dari segi biologi.

Keadaan Trafik

Pembilangan trafik telah dijalankan di lokasi berikut pada hari minggu dan hujung minggu.

(a) 1 di Jalan Syed Abdul Aziz berdekatan dengan tapak projek
(b) 1 di Jalan Ujong Pasir & Jalan Parameswara
(c) 1 di persimpangan silang of Jalan Syed Abdul Aziz (berdekatan dengan Plaza Melaka Raya Service Apartment)

Tahap perkhidmatan bagi lokasi-lokasi tersebut pada puncak masa pagi dan malam adalah.

(a) Jalan Syed Abdul Aziz - A
(b) Jalan Ujong Pasir & Jalan Parameswara - E
(c) Cross junction of Jalan Syed Abdul Aziz – D to F

6.0 PENILAIAN KESAN DAN LANGKAH-LANGKAH TEBATAN

Kesan yang berpotensi dan langkah-langkah tebatan yang dicadangkan disimpulkan dalam jadual yang terpapar pada mukasurat berikut.

RINGKASAN AKTIVITI-AKTIVITI PROJEK, IMPAK BERPOTENSI DAN LANGLAH-LANGKAH TEBATAN

Kesan Berpotensi	Aktiviti-aktiviti Projek dan Punca Pencemaran	Magnitud Impak	Langkah-langkah Tebatan	Halaman Rujukan
I. FASA PEMBINAAN				
Hakisan dan Sedimentasi	• Kelodakan dan sedimentasi yang disebabkan oleh pembukaan tanah dan kerja tanah.	Minor	• Kolam perangkap kelodak dan perparitan sementara disediakan sebelum fasa perobohan dan kerja tanah. • Kemudahan membersih tayar kenderaan disediakan di pintu masuk tapak projek. • Larian air dari tapak disalur ke kolam perangkap kelodak sebelum discaj ke luar tapak. • Pembersihan / penyelenggaraan kolam perangkap kelodak / perparitan sementara dengan kerap.	6-1
Pencemaran Air	• Hakisan tanah disebabkan oleh tanah lapang. • Bahan kumbahan domestik. • Limpahan minyak.	Minor	• Langkah-langkah tebatan yang dibincang bagi bahagian 'Hakisan dan Sedimentasi'. • Sistem rawatan kumbahan sementara yang mencukupi dan berfungsi baik harus dibekalkan di tapak. • Kumbahan domestik tidak dibenarkan dialirkan terus ke dalam parit dan badan air. • Kawasan simpanan diesel mesti diletak pada kawasan berturap dan berbenteng.	6-10
Pencemaran Udara	• Penjanaan debu daripada pengerakkan kenderaan.	Minor	• Pemasangan hoarding / penanaman pokok sepanjang sempadan tapak. • Bahan yang diangkut harus ditutup untuk mengelak tumpahan dalam perjalanan pengangkutan. • Kemudahan membersih tayar kenderaan disediakan di pintu masuk tapak projek. • Penyiraman air di tapak dijalankan secara kerap. • Pengendalian yang kerap ke atas kenderaan dan mesin. • Pembakaran terbuka adalah dihalang di tapak. • Had kelajuan dikenakan ke atas kenderaan yang masuk dan keluar dari tapak Projek. • Kawasan lapang, kawasan hijau harus ditanami tumbuhan secepat mungkin.	6-11

Kesan Berpotensi	Aktiviti-aktiviti Projek dan Punca Pencemaran	Magnitud Impak	Langkah-langkah Tebatan	Halaman Rujukan
I. FASA PEMBINAAN				
Pecemaran Bunyi	• Penghasilan bunyi semasa operasi peralatan pembangunan, pengangkutan dan mesin.	Sederhana	• Waktu kerja dihadkan pada waktu siang. • Penyenggaraan kenderaan dan mesin untuk memastikan mereka berada dalam keadaan operasi yang baik dan mengurangkan penghasilan bunyi bising. • Pemasangan hoarding / penanaman pokok sepanjang sempadan tapak. • Hanya hidraulik piling dibenarkan untuk mengurang bunyi bising. • Maksimum enam (6) mesin pile digunapakai semasa piling. • Enjin dimatikan apabila tidak diguna. • Mesin yang mengeluarkan bunyi bising kuat harus dipasang dengan bahan serap bunyi dan ditempatkan dalam kawasan yang dipagari. • Had kelajuan harus dikenakan ke atas kenderaan berat di tapak.	6-17
Getaran	• Getaran semasa piling dan kerja-kerja pembinaan	Minor	• Waktu kerja dihadkan pada waktu siang. • Pemilihan kaedah piling yang bergetaran rendah seperti Injection Spun Pile system. • Pengalihan bahan rintangan di mesin pile. • Mengurangkan tenaga setiap pukulan, sebagaimana praktikal. • Penebukan awalan untuk mengurangkan rintangan dan bilangan pukulan. • Parit pengasingan berdekatan dengan penerima untuk menyekat laluan getaran, sebagaimana praktikal.	6-21
Bahan Buangan	• Sampah dari pejabat pekerja dan bahan buangan pembinaan.	Minor	• Pembakaran terbuka adalah dilarang. • Bahan buangan pepejal harus dilupuskan di tapak yang ditetapkan oleh kontraktor berlesen.	6-24

Kesan Berpotensi	Aktiviti-aktiviti Projek dan Punca Pencemaran	Magnitud Impak	Langkah-langkah Tebatan	Halaman Rujukan
I. FASA PEMBINAAN				
Trafik dan Pengangkutan	• Pengangkutan bahan pembinaan dan peralatan.	Minor	• Aktiviti-aktiviti pengangkutan harus mengelak dari waktu puncak.	6-24
Sosio-ekonomi	• Risiko kesihatan awam disebabkan potensi pencemaran air sungai.	Minor	• Peruntukan kemudahan tandas yang mencukupi dan disenggarakan dengan kerap. • Air bertakung di tapak harus disalir untuk mengelak pembiakan dan penyebaran nyamuk. • Pewasapan untuk mengelak pembiakan nyamuk dan pemasangan perangkap/racun untuk menangani ancaman tikus, jika diperlukan.	6-27
	• Risiko keselamatan jalan disebabkan aktiviti pengangkutan.	Minor	• Perancangan dan pemantauan ke atas peralihan peralatan/mesin untuk memasti kelancaran keadaan trafik. • Had kelajuan dikenakan ke atas semua kenderaan yang menggunakan laluan sementara dan laluan pengangkutan. • Kontraktor bertanggunjawab ke atas pembaikian kerosakan jalan yang disebabkan oleh kenderaan pengangkutan. • Berat bahan pengangkutan oleh kenderaan berat harus dihadkan sebagaimana yang ditetapkan oleh Jabatan Pengangkutan Jalanraya.	

Kesan Berpotensi	Aktiviti-aktiviti Projek dan Punca Pencemaran	Magnitud Impak	Langkah-langkah Tebatan	Halaman Rujukan
II. FASA OPERASI				
Risiko Banjir	• Peralihan guna tanah dari tanah lapang kepada kawasan berturap.	Minor	• Rekabentuk sistem saliran dan kolam perangkap kelodak mesti sejajar dengan '*Urban Stormwater Management Manual, 2012*' yang diterbit oleh JPS.	6-9
Bahan Buangan	• Bahan Buangan Domestik.	Minor	• Bahan buangan domestik akan dilupuskan secara kerap oleh kontraktor berlesen di tapak pelupusan yang diluluskan di Sg Udang.	6-24
Trafik	• Penjanaan trafik.	Sederhana	• Pengurusan trafik yang baik di pintu masuk / keluar pada masa depan.	6-27

7.0 PELAN PENGURUSAN ALAM SEKITAR (EMP)

Laporan EIA tersebut thelah menggariskan rangka asas EMP untuk Porjek tersebut., secara minima skop EMP perlu merangkumi perkara-perkara yang berikut:

- Penentuan impak utama yang perlu diawasi;
- Merancangkan program pemantauan sebagai sistem pengesanan keadaan alam sekitar;
- Formulasi format untuk pelaporan perlaksanaan langkah tebatan ; dan
- Peruntukan tenaga kerja dan penentuan satu Unit Pengurusan Alam Sekitar.

8.0 PENEMUAN KAJIAN

Dengan langkah pencegahan dan perlindungan pencemaran yang mencukupi, kajian EIA ke atas cadangan Projek menunjukkan bahawa ia tidak menghasilkan sabarang kesan buruk yang signifikan ke atas persekitaran setempat. Malah membawa manfaat dari segi sosial-ekonomi memandangkan kesesuaian tapak dan kebolehlaksanaan dari segi ekonomi.