

ENVIRONMENTAL IMPACT ASSESSMENT –FIRST SCHEDULE

"CADANGAN PEMAJUAN SUSUNATUR PERINDUSTRIAN DI ATAS LOT 486, LOT 636 DAN LOT 638, MUKIM SUNGAI TIRAM, DAERAH JOHOR BAHRU, JOHOR DARUL TA'ZIM BY RISING GATEWAY SDN. BHD."

EXECUTIVE SUMMARY

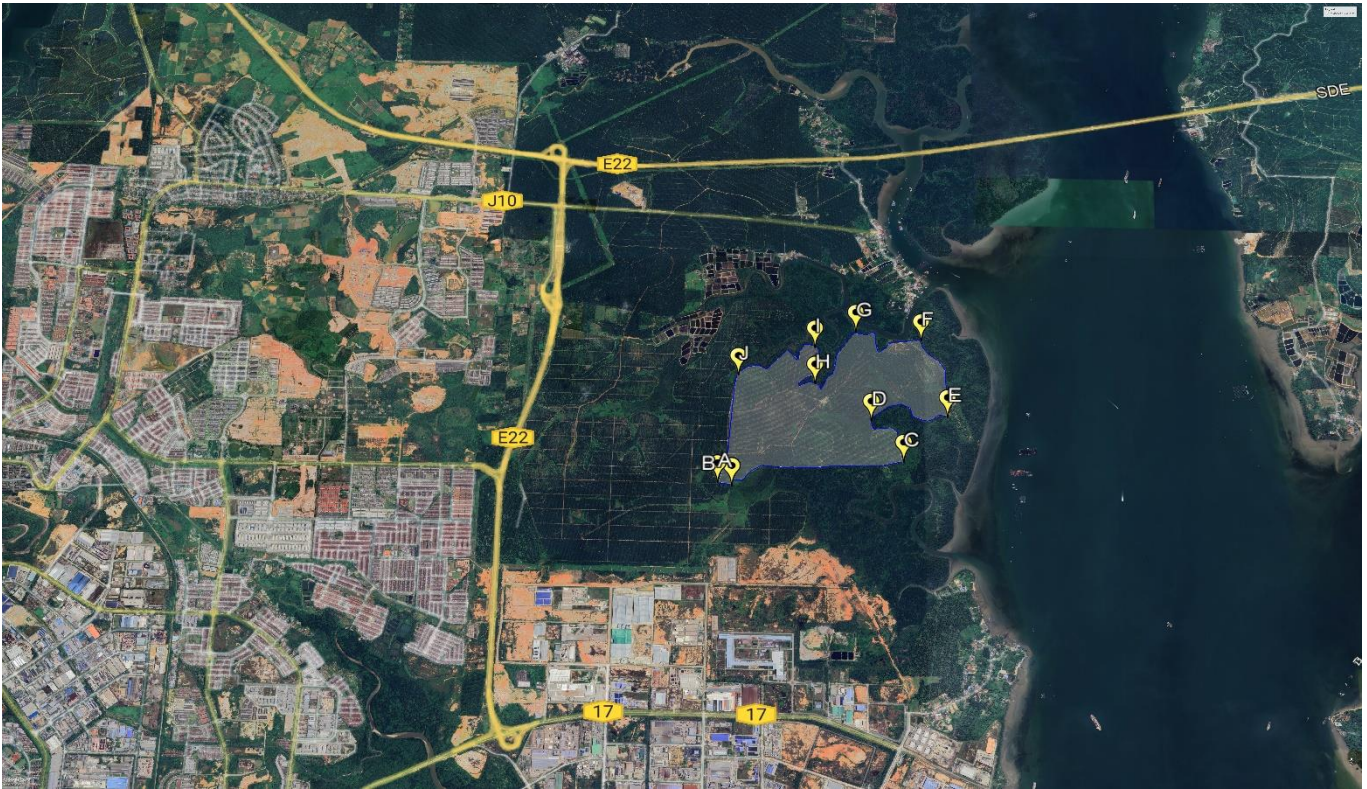



Figure ES-1: Location Map of Proposed Project for Rising Gateway – Tanjung Langsat


<p>PROJECT BACKGROUND</p> <ul style="list-style-type: none"> Total acreage: 296.3537 hectares. Proposed project site is currently cover by oil palm plantation. Divided into three (3) phases of development. 	<p>PROJECT LOCATION</p> <ul style="list-style-type: none"> Location: Zone D (Eastern Gate Development), east of Pasir Gudang Heavy Industrial Estate and fronting the mainland of Singapore. Can be accessible via Jalan Persiaran Tanjung Langsat via Jalan Rumbai 2. 	<p>LEGISLATION</p> <ul style="list-style-type: none"> First Schedule, Environmental Quality (Prescribed activities) (Environmental Impact Assessment) Order 2015: Activity 17 Industrial Estate Development: Development of Industrial Estate covering an area of 20 hectares and more.
<p>STATEMENT OF NEED</p> <ul style="list-style-type: none"> To optimize the existing landuse by developing the land for industrial purposes. Proposed project would complement the existing Industrial area of Tanjung Langsat. Existing road network make project site itself very strategic and easy to reach. 	<p>PROJECT DESCRIPTION</p> <ul style="list-style-type: none"> Project Component: Industrial lot, worker's hostel, private depot, management office and facilities and infrastructures / utilities. The proposed project will be developed over 9 years (2025 - 2034). PE overall: 35,000 PE. 2 modules for STP – each module 17,500 PE. 	<p>LOCAL PLAN</p> <ul style="list-style-type: none"> Based on the <i>Rancangan Daerah Pasir Gudang (RTPG 2030)</i>, project site is located within ZP7: <i>Kawasan Perindustrian Tanjung Langsat</i> under <i>Presint 7.4: Kawasan Perindustrian Kong Kong</i>. The site has zoned as "industrial". Proposed project site in line with the allocated land uses.

Project Developer



RISING GATEWAY SDN BHD
Person in Charge: Dato' Fahrul Rohman bin Ahmad

Environment Consultant (EIA)



KUALITI CERIA SDN BHD
Team Leader (EIA): Ts. Dr. Nur Syamimi Zaidi

CONFORMANCE OF PROPOSED PROJECT TO GOVERNMENT'S DEVELOPMENT PLANS

2.7.5 PRESINT 7.4: KAWASAN PERINDUSTRIAN Kong Kong

KOLUM I JENIS GUNA TANAH UTAMA	KOLUM II KELAS PENGGUNAAN TANAH DIBENARKAN	KOLUM III LAJUR-LAJUR SYARIFAT/TAHAP	
KELAS B Komersial	<p>KELAS PENGGUNAAN / AKTIVITI DIBENARKAN</p> <p>DENSITI DAN NISBAH PLUIT</p> <p>B1 : Rancit (Ba – B1) B3 : Perkhidmatan dan Profesional (B3 – B3) B4 : Makanan dan Minuman (Ba – Ba) B6 : Perkhidmatan Kenderaan (Ba – Ba) B7 : Kompleks Perniagaan (Ba – Ba) B9 : Tempak Letak Kenderaan B12 : Stesen Minyak</p> <p>Nota:</p> <ul style="list-style-type: none"> Ketinggian dan nisbah Plar Bangunan adalah tertakluk kepada keperluan teknik perancangan serta selaras dengan plan had ketinggian zon perancangan (PghT.zaf). Pengedaran 1.2 meter luhur star kat berlandskap perlu disediakan di hadapan kedai hingga lot kedai perniagaan. Free standing building perlu menyediakan 3.0 meter perimeter planting disekeliling sempadan lot. 	<p>KELAS B3, B4, B6, B7, B9, B12 Kedua-dua = 1:3 'Free Standing' = 1:3</p>	<ul style="list-style-type: none"> Jenis Guna Tanah Utama adalah menjadi sepegetimana warna yang ditunjukkan dalam Pelan Cadangan 2010. Aktiviti selain daripada yang dinyatakan di dalam Kolum I dan II adalah tidak dibenarkan. Perlu diujuk bersama Jajual Kelas Penggunaan Tanah di Bahagian A. Semua pemohon perlu mematuhi aspek perundangan, dasar, garis panduan dan planlain perancangan yang diguna pakai serta dibenarkan oleh PERI, PET dan agensi teknikal yang berkaitan. Pembangunan baru digalakan mematuhi elemen-elemen berikut seperti: <ul style="list-style-type: none"> a. Bandar ekohim melalui prinsip GDFE. Smart building / Smart Home seperti penggunaan tenaga diperbaharui, smart tempau, SP4H, penggunaan gajim dan smart device. Micro mobility Lane. CCTV. Smart Street Lighting. Smart Park dan Smart Bar Stop. Cadangan projek pembangunan perlu mengambil kira penyediaan lokasi bagi perkara berikut: <ul style="list-style-type: none"> a. Kawasan tapak menara atau struktur pemancar komunikasi. b. Main Distribution Frame (MDF), Telecommunications Equipment Room (TER), dalam label ganti atau pendawaian dalam unit telefon tetap dan mudah alih. c. Laluan kemudahan selia komunikasi termasuklah laluan kabel pertainan. Pihak pemaju perlu merancang kerjasama pemasangan infrastruktur komunikasi dan mendapat kelulusan Pemohonan Pemajuan (MK, Infra, Bangunan atau Permit Sementara) serta tertakluk kepada Garis Panduan Perancangan Infrastruktur Komunikasi (GPP-I) 2008M. Presint 7.4 adalah termasuk dalam cadangan kawasan zon Antarabangsa (Seluruh pembangunan adalah tertakluk kepada komponen pembangunan yang dibenarkan dalam Zon Antarabangsa dan tertakluk kepada persetujuan pihak PET).
	<p>KELAS C Perindustrian (Cadangan)</p> <p>C2 : Industri Berat C3 : Industri Sederhana C4 : Industri Ringan C5 : Industri Perikanan Kecil & Sederhana / Kotek Industri C6 : Kawasan Pekerja Densiti Sederhana C8 : Industri Khas (Industri Teknologi Tinggi)</p> <p>Nota:</p> <ul style="list-style-type: none"> Zon Perumahan minimum seluar-kurangnya 50m, 150m, 300m atau lebih (Tertakluk kepada penilaian risiko). Pembangunan perniagaan adalah dibenarkan (dalam kawasan industri) dengan pertimbangan oleh pihak PET. Aktiviti perniagaan yang dibenarkan melibatkan aktiviti: <ul style="list-style-type: none"> i. Kade / Kade Pejabat ii. Gaiat iii. Pusat makanan / minuman iv. Stesen minyak v. Pusat perniagaan 	<p>Atrama pekerja densiti sederhana (40 unit) atau 200 penghuni / ekar dan tidak melebihi 5 tingkat.</p>	
KELAS F Kemudahan Rekreasi	<p>F2 : Kemudahan Tanah Lapang dan Rekreasi (Taman Rekreasi, padang kejiranan, padang permainan, lot permainan, zon perampasan)</p> <p>Kemudahan rekreasi sedia ada perlu dikekalkan</p>		
KELAS G Pangsapuri & Pangsapuri (Cadangan)	<p>G1 : Jalan (lot tanah yang terluar dengan cadangan jalan gas) pembangunan perlu menyediakan lebar jalan – Rujuk Ekap 2.11</p> <p>G3 : Kemudahan Pengangkutan</p>		
KELAS H Infrastruktur dan Utiliti (Sedia ada dan Komplet)	<p>H1 : Bekalan Elektrik (PMU, PE, Rentsi TNB) H2 : Bekalan Gas H3 : Bekalan Air (Tinggi / Rendah) H4 : Saliran dan Perparitan (Kisat Parit) H5 : Pengaliran Sisa Rapijal (Tangkai Rebusan) H6 : Pembangunan (Laj) Rawatan Kumbahan</p> <p>Kemudahan infrastruktur dan utiliti sedia ada perlu dikekalkan</p>		

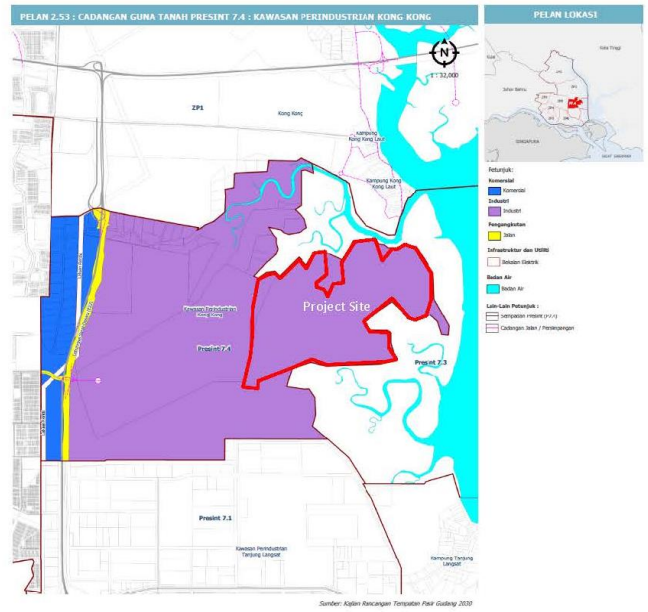
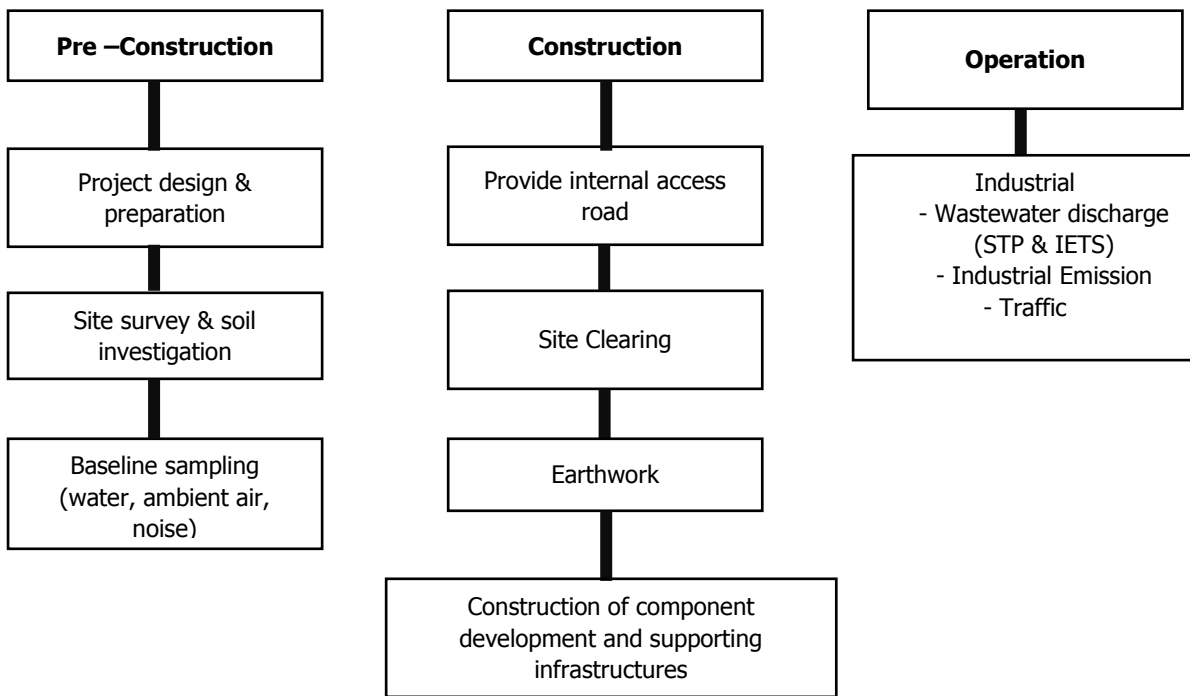
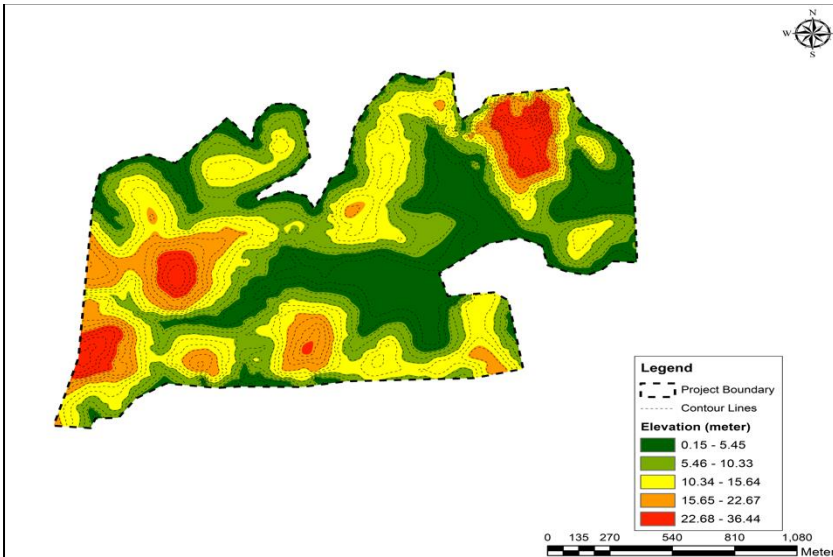


Figure ES-2: Proposed Project Site within *Presint 7.4: Kawasan Perindustrian Kong Kong*

PROJECT ACTIVITIES

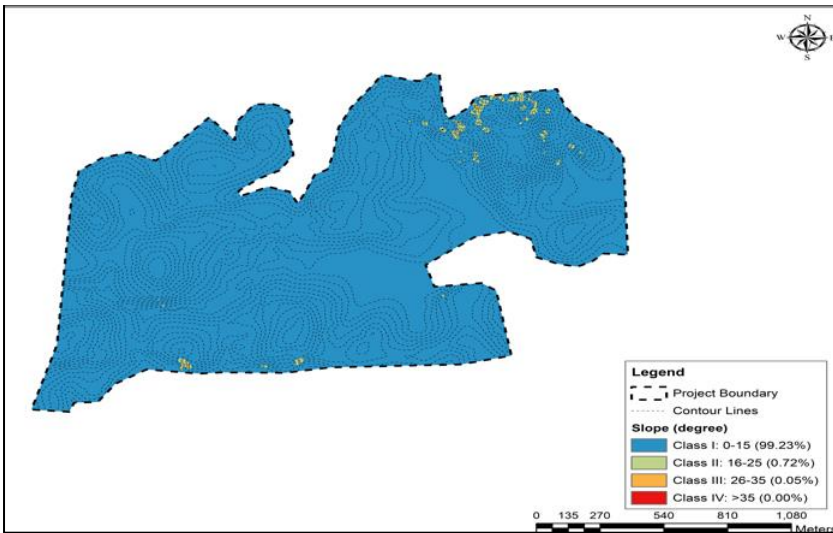




CONTOUR

- Highest Peak Level: 36.401m (North)
- Lowest Ground Level: 1.011m (East)

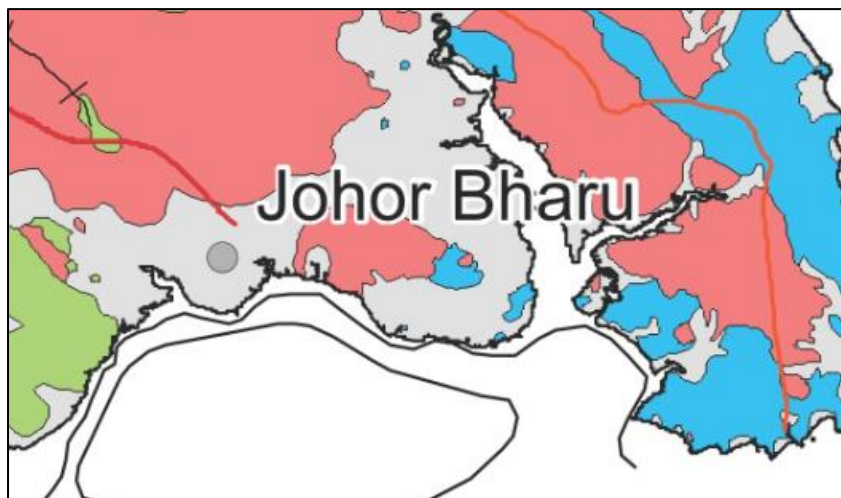
Figure ES-3: Contour Map



SLOPE GRADIENT

- 99.23% CLASS I (0 ° -15°)
- 0.72% CLASS II (16 ° -25 °)
- 0.05% CLASS III (26 ° -35 °)
- 0% CLASS IV (>35 °)

Figure ES-4: Slope Map



SOIL

- Underlain under Quaternary geological period and consists of marine and continental deposits: clay, silt and peak with minor gravel.
- SI is carried out by Geolab (M) Sdn Bhd.
- 22 boreholes overall project site with BH7 and BH9 found rock - GRANITE.

Figure ES-5: Geological Map



EXISTING ENVIRONMENT – HYDROLOGY

(3) major rivers draining the project area which are Sungai Kong Kong, Sungai Tepi and Sungai Tengah.

No water intake points located downstream of the proposed project site.



Figure ES-6: Location of proposed Project Area Within Sungai Kong Kong, Sungai Tepi and Sungai Tengah



EXISTING ENVIRONMENT - CLIMATE AND METEOROLOGY

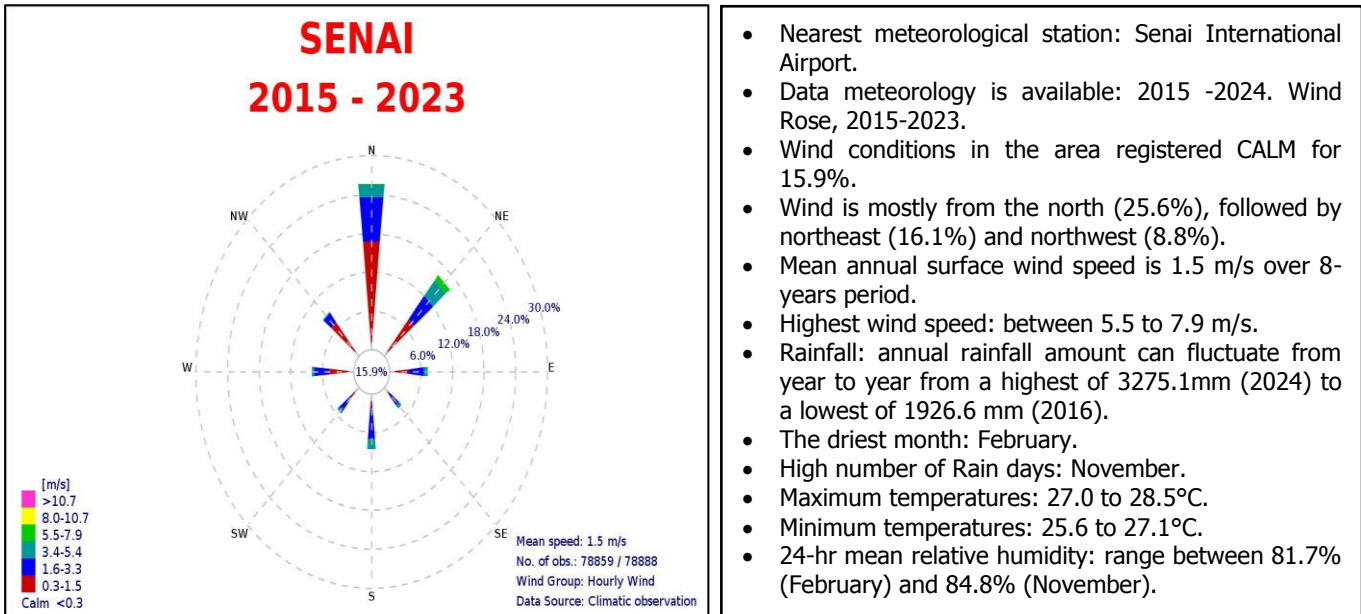


Figure ES-7: Wind Rose Senai International Airport Station (2015- 2023)



EXISTING ENVIRONMENT - LAND USE

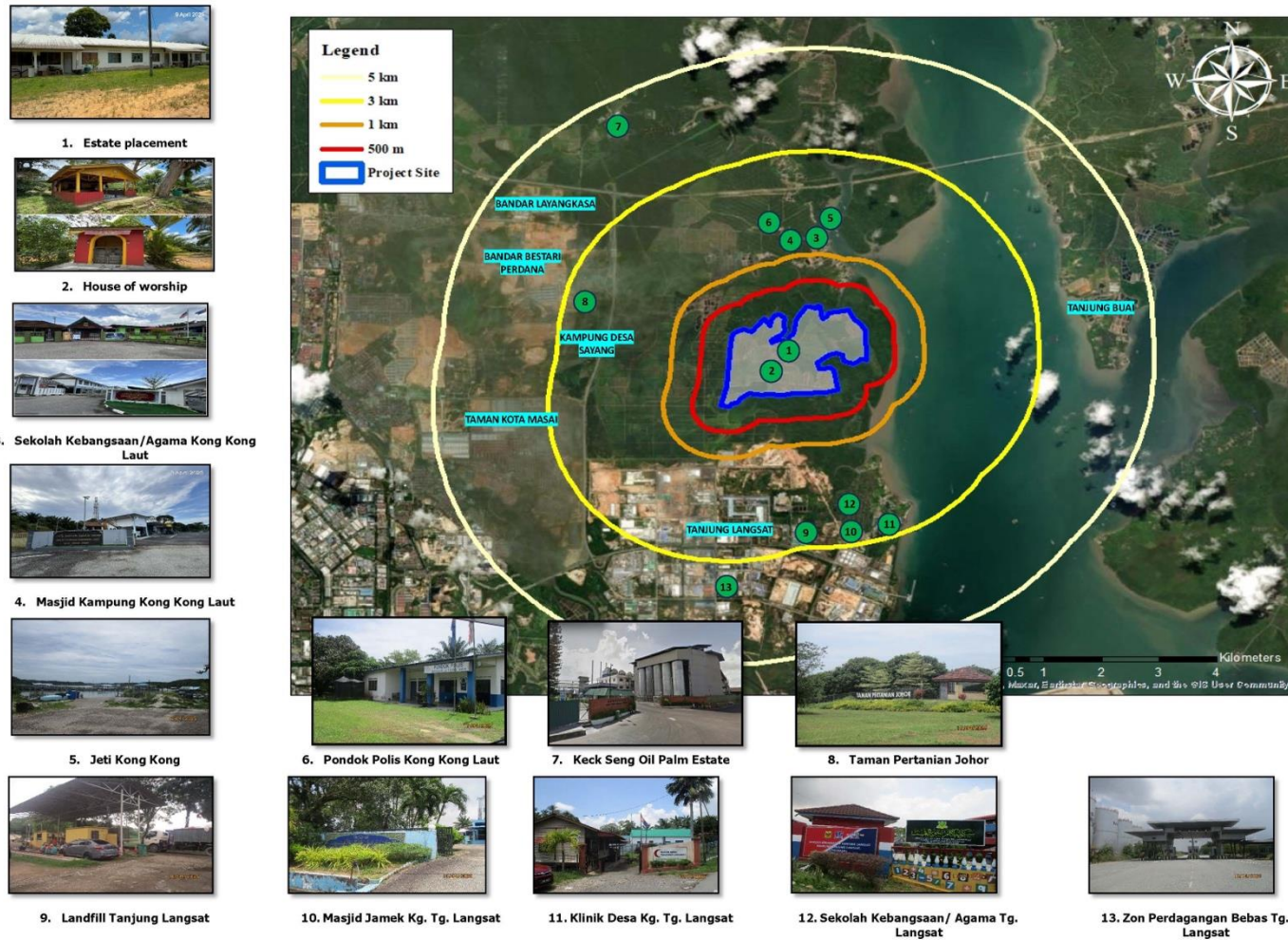


Figure ES-8: Land Used Map 5-km surrounding from Proposed Project Site

LAND USE

- Nearest village – Kg. Kong Kong Laut and Kg. Tanjung Langsat within 1 km.
- Other Residential within 5 km – Bandar Layangkasa, Bandar Bestari Perdana and Kota Masai.
- Nearest Industrial: Tanjung Langsat Industrial Area about 2 km south of the project site.
- Commercial around the project site: Bandar Layangkasa, Bandar Bestari Perdana and Kota Masai.



EXISTING ENVIRONMENT - BASELINE DATA



Figure ES-9: Baseline Monitoring Location (River Water, Ambient Air and Noise)

WATER QUALITY

- 8 sampling points along Sg Kong Kong, Sg Tepi and Sg Tengah.
- Average NQWS Class III.
- Average WQI: 57 – 69.
- Parameters – COD (MID1, DNS1, UPS3, MID2 & DNS3) BOD (all points), Phosphorus (DNS3) Iron (UPS3 and MID2), Aluminium (all points) were recorded high and exceed limit during baseline especially from non-point sources area such as palm oil plantation and other existing development nearby.

AMBIENT AIR QUALITY












- 3 sampling points.
- Parameter: PM₁₀, PM_{2.5}, SO₂, NO₂, CO, O₃, and H₂S.
- PM₁₀: 26 - 30 µg/m³
- PM₁₀: 14 - 16 µg/m³
- SO₂, NO₂, CO, O₃ & H₂S Not Detected
- All parameters well below the New Malaysia Ambient Air Quality Standard (MAAQS).

NOISE LEVELS

- 3 sampling points.
- Parameter: L_{eq}
- DAYTIME: 46.2- 52.7 L_{eq}
- NIGHT TIME: 43.0 – 45.2 L_{eq}
- All results recorded below the recommended permissible limit: 60 dB(A) day & 50 dB(A) night.
- Main source of noise: vehicular movement and human activities.














IMPACT & MITIGATION MEASURE – CONSTRUCTION STAGE

<p>RECIPIENT:</p>  Sg. Kong Kong, Sg. Tepi & Sg. Tengah  Kg. Kong Kong Laut & Kg. Tanjung Langsat <p>(Situated approximately 2 km of the development)</p>	<p>IMPACT:</p>	
<p>MITIGATION MEASURE:</p>	<p>QUALITY OF WATER</p>	
<ul style="list-style-type: none"> • Proper selection of site clearing and earthwork period duration and avoid rainy season. • Provision to ESCP and related BMPs to plan and implement the recommended measures for each phasing. 	 By removal of vegetation cover and stripping of topsoil may reduce of soil biota and change existing land use and composition of soil/land.  Set up storage area and Labour camp may increase probability of spillage and leakages that could pose soil and water pollution.	 Exposed ground surface led to impact of surface runoff - silt and sand would be susceptible to water and wind erosion when exposed to the elements. Flash Flooding might occur. Increase of suspended solid in water could interfere aquatic life. Extensive erosion could cause landslides and instability of structure near to the slope.
<ul style="list-style-type: none"> • Restrict the speed limit of heavy vehicular movement and scheduled transportation hour avoid peak hour. • Exposed areas to be stabilized as soon as possible. • Conduct site inspection and monitoring work periodically to ensure all BMPs in good condition. 	<p>QUALITY OF AIR</p>	
<ul style="list-style-type: none"> • Sufficiently maintain the construction vehicles and machinery before use to reduce the level of exhaust emission and annoyance sound. 	 Soil disturbance and heavy machinery movement near to residential area will increase airborne particulates and gases which reduce air quality.	 Improper management of biomass and solid waste could lead to open burning and cause air pollution.
<ul style="list-style-type: none"> • Install Hoarding at the perimeter of project site to reduce air n noise problem. 	<p>NOISE & VIBRATION</p>	
<ul style="list-style-type: none"> • Garbage is to be collected and disposed regularly to the approved Local Authority dumpsite. 	 Moving machinery/equipment will pose excessive noise to surrounding resident and nearby public. Traffic-additional heavy vehicular movement may be subjected to visibility issues due airborne and noise interference.	<p>WASTE MANAGEMENT</p>  Improper disposal of solid and sanitary waste could result in unsanitary condition, visual annoyance and giving rise health and hazard issues. Unmanaged waste adversely affects the local aesthetic value and water pollution occurs if waste is dumped into water bodies.
<ul style="list-style-type: none"> • Provide adequate medical services, on-site septic tanks, and regular collection of garbage. 	<p>SOCIO ECONOMIC</p>	
<ul style="list-style-type: none"> • Foreign labour shall have medical and health certificate and registered with Department of Immigration. 	 Recruitment of foreign workers may lead to security (invasion) and health issues.	 Additional heavy vehicular movement cause road congestion and accident in the vicinity of site/public road.
<ul style="list-style-type: none"> • Worker's camp shall build in suitable area which is providing with proper sanitary and sewage system and supplying with clean water. 		



IMPACT & MITIGATION MEASURE - OPERATIONAL STAGE

<p>RECIPIENT:</p>  Sg. Kong Kong, Sg. Tepi & Sg. Tengah  Kg. Kong Kong Laut & Kg. Tanjung Langsat <p>(Situated approximately 2 km of the development)</p>	<p>IMPACT:</p>	
<p>MITIGATION MEASURE:</p> <ul style="list-style-type: none"> • Sewage sullage should be dried and disposed-off at approved Sanitary Landfill. • Garbage shall be collected and disposed at approved dumpsite/landfill. • All garbage should be properly bagged to avoid spillage and minimized dispersion of odour. • Upgrading the road to the sufficient size and traffic flow that suit the industrial traffic flow. • Change the type of control for intersection junction and follow the TIA study/guidelines. 	<p>WATER QUALITY</p>  <p>Additional wastewater discharge – if not treated accordingly could pose major water pollution to receiving watercourse.</p>  <p>Indiscriminate dumping of sewage and sullage will cause deterioration of quality receiving water bodies and effect the biological/aquatic life.</p>	 <p>Should the treatment plant not properly located on suitable location, it could produce noxious odour the would offensive the resident and public nearby.</p> <p>Ammonical Nitrogen concentration in water bodies may increase and at the same time cause disease transmission and aquatic life to be affected.</p>
	<p>AMBIENT AIR QUALITY</p>  <p>During process treatment (biological treatment) and sludge management it will cause odor emission caused by NH3 Gas release.</p>	 <p>Additional emissions from the increasing numbers of vehicles surrounding area are expected to increase air pollutants such as dust, smoke and exhaust gases in localized.</p>
	<p>NOISE & VIBRATION</p>  <p>Additional traffic volume after full completion is expected to create annoyance sound that comes from heavy vehicles and human activities surrounding.</p>	<p>WASTE MANAGEMENT</p>  <p>Upon full completion, the estimation of waste generation would be increasing especially domestic solid waste daily.</p> <p>Improperly conduct of collection and disposal domestic solid waste would certainly affect the aesthetic quality and bad odour.</p>
	<p>SOCIO ECONOMIC</p>  <p>Additional traffic volume after full completion is expected to create traffic congestion especially during peak hour.</p>  <p>Inadequate the infrastructure and facilities planned for the surrounding may cause unable to accommodate the increasing population from time to time.</p>	



ENVIRONMENTAL MANAGEMENT PLAN (EMP)



ENVIRONMENTAL AUDITING

- Environmental auditing is one of the requirements in EMP preparation guidelines in accordance with Section 33A Environmental Quality Act 1974.
- It must be conducted by an Auditor registered with the Department of Environment (DOE).



ENVIRONMENTAL MONITORING PROGRAM

- Proposed monitoring program comprises **three (3) components**:
 1. Performance Monitoring (PM)
 2. Compliance Monitoring
 3. Impact Monitoring (IM)



EMERGENCY RESPONSE PLAN

- Responsibility of Rising Gateway Sdn Bhd to prepare Emergency Response Plan (ERP) for any possible emergencies occurring during the pre-, construction and operational stage.



FINDINGS OF THE EIA STUDY

- To minimize various impacts that are anticipated from each stage of construction and operation.
- Slope and geotechnical analysis have been done extensively looking into appropriate mitigation measures to ensure slope stability and avoid potential failures and fatality.
- Water quality modeling to forecast the impact of slope development to the surrounding river system.
- The project will not induce any adverse impacts on the surrounding land uses.
- Project has the capability of realizing the significant benefit especially to the Pasir Gudang area without incurring any possible environmental adversities.
- Effort to commission an EIA study should be given strong support from all relevant parties.