

Environmental Impact Assessment



FIRST SCHEDULE

ENVIRONMENTAL IMPACT ASSESSMENT REPORT

**CADANGAN PEMBANGUNAN INDUSTRI RINGAN DI ATAS
LOT 10038 – LOT 10294, PT278-PT613, PT614 (TAPAK MASJID SEDIA
ADA), PT615-PT617 (LOT LAMA 147, 226, 330, 333, 10002 & 10003),
MUKIM 2, JALAN VALDOR, TASEK, SEBERANG PERAI SELATAN,
PULAU PINANG.**

TETUAN ASAS DUNIA BERHAD

JUNE 2026



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- *Individual* who contributes one way or another to the completion of the study.

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Green Acres Environment PLT.

JUNE 2026



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Director
Department of Environment Penang State
Aras Bawah – Zon B
Wisma Persekutuan
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13200 Kepala Batas
Pulau Pinang

Dear Sir,

RE: Declaration of the Project Proponent for the Environmental Impact Assessment for the “Cadangan Pembangunan Industri Ringan Di Atas Lot 10038 – Lot 10294, PT278-PT613, PT614 (Tapak Masjid Sedia Ada), PT615-PT617 (Lot Lama 147, 226, 230, 333, 10002 & 10003), Mukim 2, Tasek, Seberang Perai Selatan, Pulau Pinang.”

For: Tetuan Asas Dunia Bhd.

I hereby declare that the entire EIA Report is the product of the Qualified Person (i.e., the EIA Consultant) engaged by my company and all the facts stated in the Report and the accompanying information are to the best of my knowledge and belief true and correct, and that I have not withheld or distorted any material facts. I agree and I undertake the responsibility to implement all the pollution prevention and mitigating measures (P2M2) described in the EIA Report, in the Environmental Management Plan (EMP), and in the LD-P2M2* as proposed by the EIA Consultant. I have allocated sufficient funds for the above purpose.

Name of Project Proponent : Dato' Chan Fook Sun
NRIC Number : 740512-07-5449
Designation : Managing Director
Signature :

Date : 16 JUN 2026
Company's stamp :



(Note*: LD-P2M2 stands for Land Disturbance Pollution Prevention and Mitigation Measures)



Our ref: GAE/45/26

**Director
Department of Environment Penang State**

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Dear Sir,

RE: Declaration of the EIA Study Team Leader for the “Environmental Impact Assessment for the “Cadangan Pembangunan Industri Ringan Di Atas Lot 10038 – Lot 10294, PT278-PT613, PT614 (Tapak Masjid Sedia Ada), PT615-PT617 (Lot Lama 147, 226, 230, 333, 10002 & 10003), Mukim 2, Tasek, Seberang Perai Selatan, Pulau Pinang.”

For: Tetuan Asas Dunia Bhd.

I hereby declare that the entire EIA Report is the product of my own work and the work of my team members (i.e. other consultants who are also Qualified Persons) who worked under my supervision and all the facts stated in the Report and the accompanying information are to the best of my knowledge and belief true and correct and that I have not withheld or distorted any material facts. I have briefed the Project Proponent on the content of the Report and highlighted to him all the pollution prevention and mitigating measures (P2M2) described in it, in the Environmental Management Plan (EMP), and in the LD-P2M2*, and the Project Proponent has agreed to implement them (i.e. P2M2).

Name of EIA Consultant team leader: Ng Ling Pheng
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Signature : 
Date : 16th June 2026
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(Note*: LD-P2M2 stands for Land Disturbance Pollution Prevention and Mitigation Measures)

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LIST OF APPENDIX

Appendix A : Letters from Various Departments

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2. Pengesahan Aras Tanah HT Ph2 (20 Feb 25)
3. Earthwork Approval Letter (22 Nov 2022)
4. MBSP Zoning Approval Letter (28 Oct 2025)
5. Rezoning Approval Letter (1 Dec 2025)
6. Hoarding Permit Approval Plan HT (6 Sep 2024)
7. EIA Approval Letter (Pre Perumahan) (11 Mar 2010)
8. EMP Approval Letter (Pre Perumahan) (11 Feb 2020)
9. Tasek EMP Plan (Previous Perumahan) (11 Feb 2020)
10. Acknowledgement Letter TIA Submission (13 Mar 2026)
11. Acknowledgement Letter SIA Submission (18 May 2026)
12. Acknowledgement Letter to Planning MBSP (26 Mar 2026)

Appendix B : Laboratory Analytical Results

1. Air Monitoring
2. Noise Monitoring
3. Vibration Monitoring
4. Water Monitoring

Appendix C : Plans & Respective Forms

1. Forms
2. Master Layout Plan
3. As-Built Survey Plan
4. Earthwork Plan & Erosion and Sediment Control Plan
5. Land Disturbing Pollution Prevention and Mitigation Measures Plan (LD-P2M2)

Appendix D: Raw Data

1. Hydraulic Calculation Report
2. Water Demand Calculation
3. Load Data
4. PE Calculation
5. RUSLE MUSLE Calculation
6. PDC1
7. AERMOD Output
8. Noise Input - Output

Appendix E : Soft Copy Reports

1. Master Layout Plan
2. As-Built Survey Plan
3. Earthwork and Erosion and Sediment Control Plan and Earthwork Report
4. Laporan Cadangan Pemajuan (LCP)
5. Traffic Impact Assessment (TIA) Report
6. Laboratory Analytical Report
7. Road and Drainage Plan
8. Sewerage Plan and Report
9. Raw Data
10. Social Impact Assessment (SIA) Report
11. LD-P2M2 Plan and Report
12. Water Modeler Report
13. Air Modeler Report
14. Noise Assessment Modelling Report
15. Land Title
16. Written Declaration to DOE (Form)
17. EIA Report

ACRONYMS	
AN	Ammoniacal Nitrogen
APHA	American Public Health Association
BMP	Best Management Practice
BOD	Biochemical Oxygen Demand
CESSWI	Competent Erosion, Sedimentation & Storm Water Inspector
CFC	Chlorofluorocarbon
COD	Chemical Oxygen Demand
CVI	Coastal Vulnerability Index
CVI _B	Biodiversity CVI
CVI _p	Physical CVI
CVI _s	Socio-Economic CVI
dB(A)	A-weighted Decibel
DEL	Direct Exchange Line
DO	Dissolved Oxygen
DOE	Department of Environment, Malaysia
EFS	Equivalent Floor Space
EIA	Environmental Impact Assessment
EMP	Environmental Management Plan
EPA	Environmental Protection Agency of the United States
EQ	Environmental Quality
EQA	Environmental Quality Act (1974) & Amendments
ERT	Emergency Response Team
ESA	Environmentally Sensitive Area
ESCP	Erosion and Sediment Control Plan
FRIM	Forest Research Institute Malaysia
FTB	Fibre Termination Box
GAS	Green Acres Studio Sdn. Bhd.
GBI	Green Building Index
HPD	Hearing Protection Devices
HT	High Tension
IEMA	Institute of Environment & Management of United Kingdom
ISO	International Organisation for Standardisation
IWK	Indah Water Konsortium
JKR	<i>Jabatan Kerja Raya</i>
JMG	<i>Jabatan Mineral dan Geosains</i>
JPS	<i>Jabatan Pengairan & Saliran</i>
kV	Kilo Volt
LOS	Level of Service
MASMA	<i>Manual Saliran Mesra Alam Malaysia 2nd Edition</i>
MCMC	Malaysian Communications and Multimedia Commission

ACRONYMS	
MBPP	Majlis Bandaraya Pulau Pinang
MUSLE	Modified Soil Loss Equation
MW	Mega Watt
NA	Not Applicable
NWQS	National Water Quality Standards for Malaysian
O&G	Oil & Grease
OSD	On Site Detention
PBA	<i>Perbadanan Bekalan Air Pulau Pinang Sdn. Bhd.</i>
pcu	Passenger car unit
PE	Population Equivalent
pH	-Log 10 of Hydrogen ion Concentration
PM ₁₀	Particulate Matter < 10 microns/ Respirable Dust
PORR	Penang Outer Ring Road
ppb	Parts per billion
PPE	Personal Protective Equipment
ppm	Parts per million
PVC	Polyvinyl Chloride
RE	Resident Engineer
Reg.	Regulations
RL	Reduced Level
RLS	Ruang Lantai Sepadan
RMK12	Twelfth Malaysia Plan
RMAQG	Recommended Malaysian Air Quality Guidelines
ROW	Right of Way
RSNPP	<i>Rancangan Struktur Negeri Pulau Pinang</i>
RUSLE	Revised Universal Soil Loss Equation
SRJK(C)	<i>Sekolah Rendah Jenis Kebangsaan (Cina)</i>
SK	<i>Sekolah Kebangsaan</i>
SOP	Standard Operating Procedure
SPC	State Planning Committee
SPT	Standard Penetration Test
STP	Sewage Treatment Plant
t/ha/yr	Tonnes per hectare per year
TIA	Traffic Impact Assessment
TMB	Telekom Malaysia Berhad
TNB	Tenaga Nasional Berhad
TSP	Total Suspended Particulates
TSS	Total Suspended Solids
USLE	Universal Soil Loss Equation
V/C	Volume to capacity ratio

EXECUTIVE SUMMARY

CADANGAN PEMBANGUNAN INDUSTRI RINGAN DI ATAS LOT 10038 – LOT 10294, PT278-PT613, PT614 (TAPAK MASJID SEDIA ADA), PT615-PT617 (LOT LAMA 147, 226, 230, 333, 10002 & 10003), MUKIM 2, JALAN VALDOR, TASEK, SEBERANG PERAI SELATAN, PULAU PINANG.

PROJECT PROPONENT

ASAS DUNIA BHD. (198201014764)(94528-T)

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10200 George Town, Pulau Pinang.

Tel : 604-255 9905

Fax : 604-255 9888

Email : nidzar@asasdunia.com

Contact person : Mr. Khairin Nidzar Bin Othman (Development Manager)



PROJECT DESCRIPTION

The proposed industrial park development consists:

- i) 11 Unit Kilang Sesebuah 2 Tingkat Jenis A
- ii) 57 Unit Kilang Sesebuah 2 Tingkat Jenis B
- iii) 3 Unit Kilang Sesebuah 2 Tingkat Jenis C
- iv) 1 Unit Bangunan Komersial 2 Tingkat
- v) Tapak Penjaja
- vi) Stor MBSP
- vii) Tapak Masjid
- viii) Tapak Pencawang Letrik
- ix) Kemajuan Masa Hadapan
- x) Tapak Loji Kumbahan Pengolahan
- xi) Tapak Kolam Tadahan Air



Di atas Lot 10038 - Lot 10294, PT278-PT613, PT614 (Tapak Masjid Sedia Ada), PT615-PT617 (Lot Lama 147, 226, 230, 333, 10002 & 10003), Mukim 2, Jalan Valdor, Tasek, Seberang Perai Selatan, Pulau Pinang.

Leveraging the strengths of this collaboration, the proposal has been refocused from residential development to a managed industrial park. The reasons behind this decisive shift are briefly outlined below:-

- i. Economic Benefits of Industrial Park
- ii. Catalyst for Regional Development and enhancing the Local Brand
- iii. Adherence to Northern Corridor Economic Region (NCER)
- iv. Adherence to future land use as per *Draft Rancangan Tempatan Seberang Perai* 2030.
- v. Adherence to *Rancangan Fizikal Negera (RFN-4)*
- vi. Strategic Proposed Site Location

EIA CONSULTANT

GREEN ACRES ENVIRONMENT PLT

(Co. No: 202104001059 [LLP0027687-LGN])

Address : Bay Avenue K-9-3,
Lorong Bayan Indah 2,
11900 Bayan Lepas, Penang.

Tel : 604-630 9968

Fax : 604-630 9969

Email : ng@greenacres.my

Contact person : Ms. Ng Ling Pheng (Lead EIA Consultant)



LEGAL REQUIREMENT

The project site with project area of about **29,016.89 hectares (71,702 acres or 290,168.940 m²)** which falls under the *First Schedule*, according to the subsection 34A (1) of the Environmental Quality Act (EQA), 1974, Environmental Quality (Prescribed Activities) (Environmental Impact Assessment) Order, 2015:

“Activity 17 Industrial Estate Development: Development of industrial estate covering an area of 20 hectares or more.”

STATEMENT OF NEEDS

- With the state government to realize the implementation of RSNPP 2030 to highlight the existing assets, diversifying and improving various sectors in the Pulau Pinang.
- This development will provide employment opportunities to the people of the Seberang Perai in the field of industry and business.
- Approvals for Planning Permission for industrial areas in Seberang Perai from Majlis Bandaraya Seberang Perai (MBSP).
- To support the growth of high-value and sustainable industrial activities in line with the state and national industrial development policies.
- To promote integrated and well-planned industrial development with adequate infrastructure and environmental management measures.
- To enhance the local economy through increased investment opportunities and business activities within the proposed development area.



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PROJECT LOCATION AND SENSITIVE RECEPTOR

Currently, the project site was exposed from previous earthwork activities and the site is presently in a generally flat condition with sedimentation ponds and concrete drainage already constructed on site.



MAIN ROAD – JALAN SIMPANG EMPAT TASEK

NEAREST RESIDENTIAL AREA
Taman Tasek Permai

NEAREST EDUCATIONAL AREA
Tabika Kemas Tasek Chempedak

AIR QUALITY

The baseline ambient air quality around the project area was good and the Particulate Matter 10 μm (PM_{10}) and Particulate Matter 2.5 μm ($\text{PM}_{2.5}$) results show the monitoring stations **complied** with the Malaysian Ambient Air Quality Standard (2020) of 100 $\mu\text{g}/\text{m}^3$ and 35 $\mu\text{g}/\text{m}^3$ respectively.

WATER QUALITY

Water quality at Stations W1–W14 was generally **within** Class III, except Suspended Solids (SS) exceeded at W1. Nutrients (Al and P) exceeded at all stations. Exceedances of heavy metals were observed for Mn (W1, W6–W8, W12–W13), Fe (W1, W6–W7), Se (W1–W2), Sn (W1), and Zn (W1, W5, W12). Ammoniacal Nitrogen ($\text{NH}_3\text{-N}$) exceeded at W3–W5, W7–W8, W10–W12. COD exceeded at W6–W7 and W12–W13, while BOD exceeded only at W6. DO was non-compliant at W11 and W12.

NOISE AND VIBRATION

The baseline noise levels and vibration recorded at Station N2, N3 and V1, V2, V3 were **within** the recommended guideline limits **except** Station N1 at day and night.

EXISTING ENVIRONMENT



TRAFFIC CONDITION

In the 2028 Completion Year scenario, overall junction performance remains mixed, with most junctions operating at LOS C to LOS D during both AM and PM peak periods, reflecting moderate delays and generally manageable saturation levels.

TOPOGRAPHY

The existing topography of the project site is generally flat terrain. The height of the terrain is ranging from +11.40m to +28.76m above sea level with a difference of only 17.36m. The higher elevation is mainly found towards the eastern area while the lower terrain lying towards the western and northern area.

PROJECT ACTIVITIES

PRE-CONSTRUCTION PHASE

Site Investigation

CONSTRUCTION PHASE

Site Preparation
Site Clearing
Earthworks
Drainage Work
Transportation

CONSTRUCTION PHASE

Construction
Pilling Works
Building Construction
Infrastructure construction
Utility development
Waste Disposal

POST CONSTRUCTION PHASE

Occupation,
Service and Maintenance
Sewage collection and treatment
Solid waste collection
Drainage system
Maintenance Services
Road Traffic

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IMPACT ASSESSMENT AND MITIGATION MEASURES

Impact	Mitigation Measures
Soil Erosion and Sedimentation	Key BMPs: Perimeter drain with check dams channeling surface runoff to the sediment basins and detention ponds. The final discharge shall be released into existing concrete drain which will then flow into <i>Sungai Chempedak</i> and eventually to <i>Sungai Jawi</i> before finally discharging into the sea.
	The project site is cleared of vegetation, earthwork activities is completed, with sediment basins and concrete drainage already constructed on site.
Water Pollution	Provide and maintain temporary toilets as per SPAN requirements
	Maintain oil and grease traps at kitchens in good working condition
	Manage scheduled waste in compliance to Environmental Quality (Scheduled Waste) Regulations 2005
	Follow SOPs for applying fertilizers and pesticides, prioritize organic manure, and adopt integrated pest management to reduce agrochemical use. Use only approved herbicides, avoiding applications during rain
Air Pollution	Regular maintenance of boilers (if installed) should be carried out to ensure its operating efficiency. A maintenance/inspection schedule should be established for this purpose.
	Implement the ESCP and maintain BMPs regularly
	Vehicles (e.g.: lorry) should be maintained frequently
	Transportation of raw materials and finished goods using large lorries, trucks and containers and prime movers should be encouraged to use low sulphur diesel as fuel
Traffic Impact	Plan haulage routes and working hours
	Set vehicle speed limit < 30km/h
	Provide flagman to control entry/ exit to public road
Noise & Dust Impact	Construct hoarding along site boundary
	Water road surfaces to reduce dust dispersion
	Service machinery
	Limit work hours to day time & week days
	Maintain vehicle exhaust silencers in good condition to reduce noise and comply with Environmental Quality (Motor Vehicle Noise) Regulations 1987 .

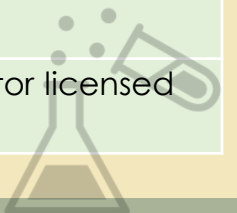


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PERFORMANCE MONITORING: CONSTRUCTION AND OPERATION PHASE

No	BMP/ Pollution Control System	Sampling Station/ Location	Item to be monitored	Frequency	Limits	Remarks
A Construction phase - ESCP						
1	Sediment Basins	Final discharge sediment basins 1, 2 & 3	Turbidity	Weekly & After rain ≥ 12.5 mm	Turbidity = 250 NTU	In-situ by EO
			TSS		TSS = 50 mg/l	
			Depth of silt	Weekly	>50% full	EO
2	Silt Fence	Silt Fence	Condition	Weekly & After rain ≥ 12.5 mm	Nil breach/ bypass	EO, visual
3	Check dams	Check dams	Condition	Weekly & After rain ≥ 12.5 mm	Nil breach/ bypass	EO, visual
4	Perimeter drainage	Perimeter drainage	Condition	Weekly & After rain ≥ 12.5 mm	Nil breach/ bypass	EO; visual
5	Overall site/ other issues	Overall site/ other issues	All	Weekly, Monthly	BMP	EO to report to DOE online Site environmental meeting
B Operation Phase – STS						
1	STS – Final discharge	STS – final discharge point 1 & 2	Temperature pH BOD ₅ COD TSS O&G NH3-N NO3-N Phosphorus Fecal Coliform Total coliform Enterococci Escherichia coli (E.coli)	Monthly	-	APHA; Accredited laboratory
2	STS – Unit operations	STS Unit operations, TBD	Operational performance of unit operations, e.g., Equalization tank, aeration tank, clarifier	Daily, weekly, monthly as per procedures	TBD	CePSTSO; as per Operation and Maintenance Manual
3	STS – Sludge	STS sludge	Quantity deposited	As necessary	NA	CePSTSO; Contractor licensed by SPAN



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IMPACT MONITORING: CONSTRUCTION PHASE

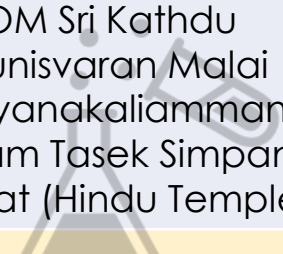
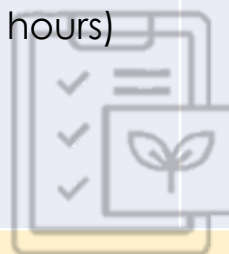
Environmental Aspect	Sampling Station	Location (GPS Coordinates)	Parameters	Frequency	Limits	Rational
Water Quality (Existing Drain) 	W1	05°16'58.95"N 100°31'13.61"E	- pH Value @ 25°C - Chemical Oxygen Demand; mg/l - BOD-5 days test @ 20°C; mg/l - Dissolved Oxygen; mg/l - Total Suspended Solids; mg/l - Oil and Grease; mg/l - Ammoniacal Nitrogen; mg/l - Escherichia Coli (Count/100 ml) - Turbidity; NTU 	Monthly	NWQS Class III - pH = 5 – 9 - COD = 50 mg/l - BOD = 6 mg/l - DO = 3 – 5 mg/l - TSS = 150 mg/l - O&G = – - AN = 0.9 mg/l - E.Coli = Not exceeding 300 CFU/100mL - Turbidity = -	Upstream of Project site, Drain A
	W2	05°16'57.59"N 100°31'17.36"E				Discharge from Project site
	W3	05°17'0.77"N 100°31'14.64"E				Downstream of Project site, Drain A
	W4	05°17'3.38"N 100°31'17.16"E				Drain B. north of Project site
	W5	05°17'3.96"N 100°31'13.99"E				Drain C, confluence of W3 & W4
	W6	05°17'3.95"N 100°30'50.49"E				Upstream of Sg. Chempedak
	W7	05°17'5.85"N 100°30'50.00"E				Confluence of Sg. Chempedak & W5
	W8	05°17'34.01"N 100°29'46.28"				Sg. Chempedak before confluence
	W9	05°17'36.81"N 100°29'47.75"E				Upstream of Sg. Junjong
	W10	05°17'33.96"N 100°29'40.50"E				Sg. Junjong, confluence of W8 & W9
	W11	05°17'9.69"N 100°28'9.99"E				Sg. Junjong, downstream of Perwira
	W12	05°17'2.46"N 100°27'30.64"E				Sg. Junjong, after confluence with Sg. To Suboh
	W13	05°16'51.19"N 100°26'37.40"E				Sg. Junjong, before confluence with Sg. Jawi
	W14	05°16'25.36"N 100°26'9.37"E				Sg. Jawi, after confluence with Sg. Junjong

EXECUTIVE SUMMARY

CADANGAN PEMBANGUNAN INDUSTRI RINGAN DI ATAS LOT 10038 – LOT 10294, PT278-PT613, PT614 (TAPAK MASJID SEDIA ADA), PT615-PT617 (LOT LAMA 147, 226, 230, 333, 10002 & 10003), MUKIM 2, JALAN VALDOR, TASEK, SEBERANG PERAI SELATAN, PULAU PINANG.

IMPACT MONITORING: CONSTRUCTION PHASE

Environmental Aspect	Sampling Station	Location (GPS Coordinates)	Parameters	Frequency	Limits	Rational
Air Quality	A1	05°16'55.79"N 100°31'12.39"E	- Particulate Matter $\leq 10\mu\text{m}$ (PM ₁₀) - Particulate Matter $\leq 2.5\mu\text{m}$ (PM _{2.5})	Monthly	<u>RMAQG</u> - PM ₁₀ = 100 $\mu\text{g}/\text{m}^3$ (24hrs) - PM _{2.5} = 35 $\mu\text{g}/\text{m}^3$ (24hrs)	Kampung Tasek Chempedak
	A2	05°17'3.67"N 100°31'22.29"E				Taman Tasek Permai
	A3	05°16'44.06"N 100°28'41.10"E				OM Sri Kathdu Munisvaran Malai Mayanakaliamman Alayam Tasek Simpang Ampat (Hindu Temple)
Noise Quality	N1	05°16'55.79"N 100°31'12.39"E	L _{eq} , L _{max} , L _{min} , L ₁₀ & L ₉₀ in dB(A) (day time and night time for 24 hours)	Monthly	<u>Permissible Sound Level</u> - Day time = 66.4 $\pm$ 1.5 dB(A) - Night time = 60 dB(A)	Kampung Tasek Chempedak
	N2	05°17'3.67"N 100°31'22.29"E			<u>Permissible Sound Level</u> - Day time = 65 dB(A) - Night time = 60 dB(A)	Taman Tasek Permai
	N3	05°16'44.06"N 100°28'41.10"E				OM Sri Kathdu Munisvaran Malai Mayanakaliamman Alayam Tasek Simpang Ampat (Hindu Temple)
Vibration	V1	05°16'55.79"N 100°31'12.39"E	Peak Particle Velocity (PPV) (day time and night time for 24 hours)	Monthly	<u>Second Schedule Day Time</u> 0.8 mm/s to 1.6 mm/s (R=8 to R=16)	Kampung Tasek Chempedak
	V2	05°17'3.67"N 100°31'22.29"E			<u>Night Time</u> 0.8 mm/s to 1.6 mm/s (R=8 to R=16)	Taman Tasek Permai
	V3	05°16'44.06"N 100°28'41.10"E				OM Sri Kathdu Munisvaran Malai Mayanakaliamman Alayam Tasek Simpang Ampat (Hindu Temple)



RINGKASAN EKSEKUTIF

CADANGAN PEMBANGUNAN INDUSTRI RINGAN DI ATAS LOT 10038 – LOT 10294, PT278-PT613, PT614 (TAPAK MASJID SEDIA ADA), PT615-PT617 (LOT LAMA 147, 226, 230, 333, 10002 & 10003), MUKIM 2, JALAN VALDOR, TASEK, SEBERANG PERAI SELATAN, PULAU PINANG.

PENGGERAK PROJEK

ASAS DUNIA BHD. (198201014764)(94528-T)

Address : No. 228, Wisma Asas, Lebuhr Chulia, George Town,
10200 George Town, Pulau Pinang.

Tel : 604-255 9905

Fax : 604-255 9888

Emel : nidzar@asasdunia.com

Orang untuk dihubungi : Mr. Khairin Nidzar Bin Othman (Pengurus Pembangunan)



JURURUNDING EIA

GREEN ACRES ENVIRONMENT PLT

(Co. No: 202104001059 [LLP0027687-LGN])

Address : Bay Avenue K-9-3,
Lorong Bayan Indah 2,
11900 Bayan Lepas, Penang.

Tel : 604-630 9968

Fax : 604-630 9969

Emel : ng@greenacres.my

Orang untuk dihubungi : Ms. Ng Ling Pheng (Ketua Jururunding EIA)



KEPERLUAN UNDANG-UNDANG

Tapak projek dengan keluasan projek kira-kira **29,016.89 hektar (71,702 ekar atau 290,168.940 m²)** yang terletak di bawah *Jadual Pertama*, dalam Perintah Kualiti Alam Sekeliling (Aktiviti Yang Ditetapkan)(Penilaian Kesan Kepada Alam Sekeliling) 2015:

“Aktiviti 17 Pembangunan Estet Industri: Pembangunan estet perindustrian yang meliputi kawasan seluas 20 hektar atau lebih.”

PENYATAAN KEPERLUAN

- Sejarar dengan hasrat Kerajaan Negeri untuk merealisasikan pelaksanaan RSNPP 2030 dengan menonjolkan aset sedia ada serta mempelbagaikan dan memperkukuhkan pelbagai sektor di Pulau Pinang.
- Pembangunan ini akan menyediakan peluang pekerjaan kepada penduduk Seberang Perai dalam sektor perindustrian dan perniagaan.
- Mendapatkan kelulusan Kebenaran Merancang bagi pembangunan kawasan perindustrian di Seberang Perai daripada Majlis Bandaraya Seberang Perai (MBSP).
- Menyokong pertumbuhan aktiviti perindustrian bernilai tinggi dan mampan selaras dengan dasar pembangunan perindustrian di peringkat negeri dan negara.
- Menggalakkan pembangunan perindustrian yang bersepadu dan terancang dengan penyediaan infrastruktur yang mencukupi serta pelaksanaan langkah-langkah pengurusan alam sekitar yang berkesan.
- Meningkatkan ekonomi tempatan melalui pertambahan peluang pelaburan dan aktiviti perniagaan dalam kawasan pembangunan yang dicadangkan.



HURAIAN PROJEK

Pembangunan Taman Perindustrian yang dicadangkan terdiri daripada:

- 11 Unit Kilang Sesebuah 2 Tingkat Jenis A
- 57 Unit Kilang Sesebuah 2 Tingkat Jenis B
- 3 Unit Kilang Sesebuah 2 Tingkat Jenis C
- 1 Unit Bangunan Komersial 2 Tingkat
- Tapak Penjaja
- Stor MBSP
- Tapak Masjid
- Tapak Pencawang Letrik
- Kemajuan Masa Hadapan
- Tapak Loji Kumbahan Pengolahan
- Tapak Kolam Tadahan Air



Di atas Lot 10038 - Lot 10294, PT278-PT613, PT614 (Tapak Masjid Sedia Ada), PT615-PT617 (Lot Lama 147, 226, 230, 333, 10002 & 10003), Mukim 2, Jalan Valdor, Tasek, Seberang Perai Selatan, Pulau Pinang.

Dengan memanfaatkan kekuatan kerjasama ini, cadangan ini telah diubah fokusnya dari pembangunan pertanian kepada taman perindustrian yang dikendalikan. Sebab-sebab di sebalik peralihan keputusan ini digariskan secara ringkas seperti berikut:

- Manfaat Ekonomi Taman Perindustrian
- Pemangkin Pembangunan Wilayah dan meningkatkan Jenama Tempatan
- Pematuhan kepada Wilayah Ekonomi Koridor Utara (NCER)
- Pematuhan kepada guna tanah masa depan seperti yang dinyatakan dalam Draf Rancangan Tempatan Seberang Perai 2030
- Pematuhan kepada Rancangan Fizikal Negara (RFN-4)
- Kedudukan Strategik Tapak Cadangan



RINGKASAN EKSEKUTIF

CADANGAN PEMBANGUNAN INDUSTRI RINGAN DI ATAS LOT 10038 – LOT 10294, PT278-PT613, PT614 (TAPAK MASJID SEDIA ADA), PT615-PT617 (LOT LAMA 147, 226, 230, 333, 10002 & 10003), MUKIM 2, JALAN VALDOR, TASEK, SEBERANG PERAI SELATAN, PULAU PINANG.

LOKASI PROJEK DAN RECEPTOR SENSITIF

Pada masa ini, tapak projek telah terdedah akibat aktiviti kerja tanah terdahulu dan kini berada dalam keadaan tanah yang secara amnya rata, dengan kolam takungan kelodak serta sistem saliran konkrit yang telah dibina di tapak.



MAIN ROAD – JALAN SIMPANG EMPAT TASEK

KAWASAN PERUMAHAN TERDEKAT

Taman Tasek Permai

KAWASAN PENDIDIKAN TERDEKAT

Tabika Kemas Tasek Chempedak

KUALITI UDARA

Kualiti udara ambien asas di sekitar kawasan projek adalah baik dan hasil untuk Partikulat Matter 10 μm (PM_{10}) dan Partikulat Matter 2.5 μm ($\text{PM}_{2.5}$) menunjukkan bahawa stesen pemantauan **mematuhi** Piawaian Kualiti Udara Ambien Malaysia (2020) iaitu 100 $\mu\text{g}/\text{m}^3$ dan 35 $\mu\text{g}/\text{m}^3$ masing-masing.

KUALITI AIR

Kualiti air di Stesen W1–W14 secara umumnya berada dalam Kelas III, kecuali Suspended Solids (SS) melebihi had di W1. Nutrien (Al dan P) melebihi piawaian di semua stesen. Logam berat yang melebihi had termasuk Mn (W1, W6–W8, W12–W13), Fe (W1, W6–W7), Se (W1–W2), Sn (W1) dan Zn (W1, W5, W12). Ammoniacal Nitrogen ($\text{NH}_3\text{-N}$) melebihi had di W3–W5, W7–W8, W10–W12. COD melebihi had di W6–W7 dan W12–W13, manakala BOD hanya di W6. DO tidak mematuhi piawaian di W11 dan W12.

PARAS BUNYI BISING DAN GEGERAN

Tahap bunyi dan gegaran yang direkodkan di Stesen N1, N2, N3 dan V1, V2, V3 adalah **dalam had** garis panduan yang disyorkan **kecuali** Stesen N1 yang menunjukkan ketidakpatuhan terhadap had bunyi pada waktu siang dan malam.

PERSEKITARAN SEDIA ADA



KEADAAN TRAFIK

Dalam senario Tahun Siap 2028, prestasi keseluruhan persimpangan adalah bercampur, dengan kebanyakan persimpangan beroperasi pada Tahap Perkhidmatan (LOS) C hingga D semasa waktu puncak pagi (AM) dan petang (PM), menunjukkan kelewatan sederhana dan tahap ketepuan yang masih boleh dikawal.

TOPOGRAFI

Topografi sedia ada di tapak projek secara umumnya adalah berbentuk tanah yang rata seperti yang ditunjukkan. Ketinggian kawasan ini adalah dalam julat +11.40 m hingga +28.76 m di atas paras purata laut, dengan perbezaan ketinggian sebanyak 17.36 m. Kawasan yang lebih tinggi kebanyakannya terletak di bahagian timur, manakala kawasan yang lebih rendah terletak di bahagian barat dan utara.

AKTIVITI PROJEK

FASA PRA-PEMBINAAN

Penyiasatan Tapak

FASA PEMBINAAN

Penyediaan Tapak

Pembersihan Tapak
Kerja tanah
Kerja Saliran
Pengangkutan

FASA PEMBINAAN

Pembinaan

Kerja Pilling
Pembinaan Bangunan
Pembinaan infrastruktur
Pembangunan utiliti
Pelupusan sisa

FASA PASCA PEMBINAAN

Penghunian dan Penyelenggaraan

Pengumpulan dan rawatan kumbahan
Pengumpulan sisa pepejal
Sistem Saliran Perkhidmatan
Penyelenggaraan Trafik Jalan Raya

RINGKASAN EKSEKUTIF

CADANGAN PEMBANGUNAN INDUSTRI RINGAN DI ATAS LOT 10038 – LOT 10294, PT278-PT613, PT614 (TAPAK MASJID SEDIA ADA), PT615-PT617 (LOT LAMA 147, 226, 230, 333, 10002 & 10003), MUKIM 2, JALAN VALDOR, TASEK, SEBERANG PERAI SELATAN, PULAU PINANG.

PENILAIAN IMPAK DAN LANGKAH-LANGKAH MITIGASI

Impak	Langkah- langkah
Hakisan Tanah dan Pemendapan	BMP utama: Parit perimeter dengan struktur check dam yang menyalurkan larian air permukaan ke besen mendapan dan kolam takungan. Pelepasan akhir air akan dialirkan ke saluran konkrit sedia ada, seterusnya mengalir ke Sungai Chempedak dan kemudian ke Sungai Jawi sebelum akhirnya dilepaskan ke laut. Tapak projek telah dibersihkan daripada tumbuh-tumbuhan, kerja-kerja tanah telah siap dilaksanakan, dan besen mendapan serta sistem saluran konkrit telah dibina di tapak. Sediakan dan pelihara tandas sementara mengikut keperluan SPAN.
Pencemaran Air	Pastikan peta minyak dan gris dalam keadaan baik di kemudahan dan berfungsi dengan baik. Uruskan sisa terjadual mengikut Regulasi Kualiti Alam Sekitar (Sisa Terjadual) 2005. Ikuti SOP untuk penggunaan baja dan racun perosak, utamakan baja organik, dan amalkan pengurusan perosak bersepadu untuk mengurangkan penggunaan agrokimia, hanya menggunakan bahan kimia yang diluluskan, serta mengelakkan penggunaan semasa hujan.
Pencemaran Udara	Pemeliharaan biasa kolam (jika dipasang) harus dilakukan untuk memastikan kecekapan operasinya. Satu prosedur penyelenggaraan/pemeriksaan perlu ditetapkan untuk tujuan tersebut. Laksanakan ESCP dan pelihara BMP secara berkala. Kenderaan (contohnya: lori) harus diselenggara dengan kerap. Pengangkutan bahan mentah dan produk akhir menggunakan trak dan kontena besar serta penggerak utama harus digalakkan untuk menggunakan diesel berkeluasan rendah.
Kesan Trafik	Kawalan laluan pengangkutan dan waktu bekerja. Tetapkan had kelajuan kenderaan <30km/j. Tandakan pintu masuk dan keluar ke jalan awam.
Kesan Bunyi & Debu	Bina sempadan kawasan projek. Permukaan jalan bertabur untuk mengurangkan penyebaran debu. Servis mesin. Hadkan waktu kerja kepada waktu siang dan hari bekerja Pastikan penyenyap ekzos kenderaan dalam keadaan baik untuk mengurangkan bunyi dan mematuhi Regulasi Kualiti Alam Sekitar (Bunyi Kenderaan Motor) 1987.

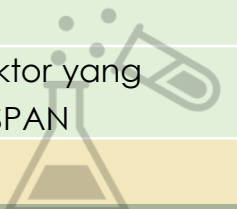


RINGKASAN EKSEKUTIF

CADANGAN PEMBANGUNAN INDUSTRI RINGAN DI ATAS LOT 10038 – LOT 10294, PT278-PT613, PT614 (TAPAK MASJID SEDIA ADA), PT615-PT617 (LOT LAMA 147, 226, 230, 333, 10002 & 10003), MUKIM 2, JALAN VALDOR, TASEK, SEBERANG PERAI SELATAN, PULAU PINANG.

PEMANTAUAN PRESTASI: FASA PEMBINAAN DAN FASA OPERASI

No	BMP/ Sistem Pengawalan Pencemaran	Stesen Persampelan/ Lokasi	Pemantuan Item	Kekerapan	Had	Kenyataan
A	Fasa Pembinaan - ESCP					
1	Kolam Mendapan	Perlepasan Akhir Kolam Mendapan 1, 2 & 3	Kekeruhan TSS	Mingguan & Selepas Hujan $\geq$ 12.5 mm	Kekeruhan = 250 NTU TSS = 50 mg/l	In-situ dengan EO
			Kedalaman kelodak	Mingguan	>50% penuh	EO
2	Pagar Kelodak	Pagar Kelodak	Keadaan	Mingguan & Selepas Hujan $\geq$ 12.5 mm	Tiada pelanggaran/ pintasan	EO, visual
3	Empangan Semak	Empangan Semak	Keadaan	Mingguan & Selepas Hujan $\geq$ 12.5 mm	Tiada pelanggaran/ pintasan	EO, visual
4	Saliran Perimeter	Saliran Perimeter	Keadaan	Mingguan & Selepas Hujan $\geq$ 12.5 mm	Tiada pelanggaran/ pintasan	EO; visual
5	Secara Keseluruhan Site/ Isu lain	Secara Keseluruhan Site/ Isu lain	Semua	Mingguan, Bulanan	BMP	Pelaporan EO kepada DOE online Mesyuarat Persekitaran Site
B	Fasa Operasi– STS					
1	STS – Perlepasan Akhir	STS – Tempat Perlepasan Akhir	Suhu pH BOD ₅ COD TSS O&G NH ₃ -N NO ₃ -N Phosphorus Fecal Coliform Total coliform Enterococci Escherichia coli (E.coli)	Bulanan	-	APHA; Makmal Bertauliah
2	STS – Operasi unit	STS Operasi unit, TBD	Prestasi operasi bagi operasi unit, contohnya: tangki penyamaan, tangki pengudaraan, penjernih	Harian, mingguan, bulanan mengikut prosedur	TBD	CePSTSO; mengikut Manual Operasi dan Penyelenggaraan
3	STS – Enapcemar	STS Enapcemar	Kuantiti yang dilupuskan	Seperti yang diperlukan	NA	CePSTSO; Kontraktor yang dilesenkan oleh SPAN

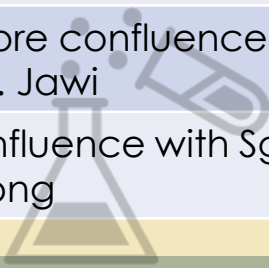


RINGKASAN EKSEKUTIF

CADANGAN PEMBANGUNAN INDUSTRI RINGAN DI ATAS LOT 10038 – LOT 10294, PT278-PT613, PT614 (TAPAK MASJID SEDIA ADA), PT615-PT617 (LOT LAMA 147, 226, 230, 333, 10002 & 10003), MUKIM 2, JALAN VALDOR, TASEK, SEBERANG PERAI SELATAN, PULAU PINANG.

PEMANTAUAN IMPAK: FASA PEMBINAAN

Aspek Persekitaran	Stesen Persampelan	Lokasi (GPS Koordinat)	Parameter-Parameter	Kekerapan	Had	Rational
Kualiti Air (Saliran Sedia Ada)	W1	05°16'58.95"N 100°31'13.61"E	- pH Value @ 25°C - Chemical Oxygen Demand; mg/l - BOD-5 days test @ 20°C; mg/l - Dissolved Oxygen; mg/l - Total Suspended Solids; mg/l - Oil and Grease; mg/l - Ammoniacal Nitrogen; mg/l - Escherichia Coli (Count/100 ml) - Turbidity; NTU	Bulanan	NWQS Class III - pH = 5 – 9 - COD = 50 mg/l - BOD = 6 mg/l - DO = 3 – 5 mg/l - TSS = 150 mg/l - O&G = – - AN = 0.9 mg/l - E.Coli = Not exceeding 300 CFU/100mL - Turbidity = -	Upstream of Project site, Drain A
	W2	05°16'57.59"N 100°31'17.36"E				Discharge from Project site
	W3	05°17'0.77"N 100°31'14.64"E				Downstream of Project site, Drain A
	W4	05°17'3.38"N 100°31'17.16"E				Drain B. north of Project site
	W5	05°17'3.96"N 100°31'13.99"E				Drain C, confluence of W3 & W4
	W6	05°17'3.95"N 100°30'50.49"E				Upstream of Sg. Chempedak
	W7	05°17'5.85"N 100°30'50.00"E				Confluence of Sg. Chempedak & W5
	W8	05°17'34.01"N 100°29'46.28"				Sg. Chempedak before confluence
	W9	05°17'36.81"N 100°29'47.75"E				Upstream of Sg. Junjong
	W10	05°17'33.96"N 100°29'40.50"E				Sg. Junjong, confluence of W8 &W9
	W11	05°17'9.69"N 100°28'9.99"E				Sg. Junjong, downstream of Perwira
	W12	05°17'2.46"N 100°27'30.64"E				Sg. Junjong, after confluence with Sg. To Suboh
	W13	05°16'51.19"N 100°26'37.40"E				Sg. Junjong, before confluence with Sg. Jawi
	W14	05°16'25.36"N 100°26'9.37"E				Sg. Jawi, after confluence with Sg. Junjong



RINGKASAN EKSEKUTIF

CADANGAN PEMBANGUNAN INDUSTRI RINGAN DI ATAS LOT 10038 – LOT 10294, PT278-PT613, PT614 (TAPAK MASJID SEDIA ADA), PT615-PT617 (LOT LAMA 147, 226, 230, 333, 10002 & 10003), MUKIM 2, JALAN VALDOR, TASEK, SEBERANG PERAI SELATAN, PULAU PINANG..

PEMANTAUAN IMPAK: FASA PEMBINAAN

Aspek Persekitaran	Stesen Persampelan	Lokasi (GPS Koordinat)	Parameter-Parameter	Kekerapan	Had	Rational
Kualiti Udara	A1	05°16'55.79"N 100°31'12.39"E	- Particulate Matter ≤10µm (PM ₁₀) - Particulate Matter ≤ 2.5µm (PM _{2.5})	Bulanan	<u>RMAQG</u> - PM ₁₀ = 100 µg/m ³ (24hrs) - PM _{2.5} = 35 µg/m ³ (24hrs)	Kampung Tasek Chempedak
	A2	05°17'3.67"N 100°31'22.29"E				Taman Tasek Permai
	A3	05°16'44.06"N 100°28'41.10"E				OM Sri Kathdu Munisvaran Malai Mayanakaliamman Alayam Tasek Simpang Ampat (Hindu Temple)
Kualiti Bunyi	N1	05°16'55.79"N 100°31'12.39"E	L _{eq} , L _{max} , L _{min} , L ₁₀ & L ₉₀ in dB(A) (day time and night time for 24 hours)	Bulanan	<u>Paras Bunyi Bising</u> - Day time = 66.4 ± 1.5 dB(A) - Night time = 60 dB(A)	Kampung Tasek Chempedak
	N2	05°17'3.67"N 100°31'22.29"E			<u>Paras Bunyi Bising</u> - Day time = 65 dB(A) - Night time = 60 dB(A)	Taman Tasek Permai
	N3	05°16'44.06"N 100°28'41.10"E				OM Sri Kathdu Munisvaran Malai Mayanakaliamman Alayam Tasek Simpang Ampat (Hindu Temple)
Gegaran	V1	05°16'55.79"N 100°31'12.39"E	Peak Particle Velocity (PPV) (day time and night time for 24 hours)	Bulanan	<u>Second Schedule Day Time</u> 0.8 mm/s to 1.6 mm/s (R=8 to R=16)	Kampung Tasek Chempedak
	V2	05°17'3.67"N 100°31'22.29"E			<u>Night Time</u> 0.8 mm/s to 1.6 mm/s (R=8 to R=16)	Taman Tasek Permai
	V3	05°16'44.06"N 100°28'41.10"E				OM Sri Kathdu Munisvaran Malai Mayanakaliamman Alayam Tasek Simpang Ampat (Hindu Temple)

