

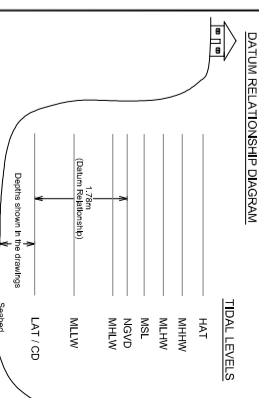
CONTOUR INTERVAL 1 METRE  
CHART DATUM

**LEGEND / NOTES :**

- All measurements are in metres.
- Coordinates is in MRSO.
- All levels are based on Bench Mark No. BM 0031 (RL : 3.84m NGVD) (RL : 5.62m CD)
- Chart Datum at Tanjung Gelang is 1.70m Below Mean Sea Level (MSL)
- Chart Datum (MSL) is based on 3 present boundary marks
- Depth soundings are based on Chart Datum (CD) at Lat 2'09" N (121.225° E)
- Depth soundings are below Chart Datum (CD)

**TIDAL LEVELS AT TANGJUNG GELANG**  
(Abstracted from Royal Malaysian Navy Tide Table 2016)

NSVD (m)	LAT (CD) (m)
Highest Astronomical Tide (HAT)	2.08
Mean Higher High Water (MHHW)	1.56
Mean Lower High Water (MLHW)	0.50
Mean Sea Level (MSL)	0.14
Land Survey Datum (NSVD)	0.00
Mean Higher Low Water (MHLW)	-0.21
Mean Lower Low Water (MLLW)	-1.28
Lowest Astronomical Tide (LAT) @ Chart Datum (CD)	-1.78



**GEODETIC INFORMATION :**

**Geoidetic Data**

- Spheroid : Malayan Revised Everest
- Semi Major Axis : 6 377 304.633 metres
- Semi Minor Axis : 6 356 103.039 metres
- Eccentricity Squared : 0.006 637 746 6302
- Reciprocal Flattening (1/f) : 300.8017

**Origin of Meridian of Reference**

- Projection : Penang State Cassini
- Origin of Meridian : G. Sijun

**Longitude of Reference** : E 102° 26' 10.24 E

**Latitude of Origin** : N 05° 42' 39.50 N

**Falset Easting** : 0 m

**Falset Northing** : 0 m

**CLIENT :**

**Muhibbah Engineering (M) Bhd**  
 Lot 598 & 579, 2nd Mile  
 Jalan Bera Tiga Lama  
 41200 Kuala Selangor  
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**PROJECT TITLE :**

**MUHIBBAH KUANTAN MARITIME HUB**

**DRAWING TITLE :**

**HYDROGRAPHIC AND TOPOGRAPHIC SURVEY - CHART DATUM -**

Surveyed By: Mastura, Nizam, Amir, Saiful, Azhar, Hisham, Bahari  
 Amzar, Othman, Cheong  
 Planned By: Mastura  
 Checked By: Mastura  
 Approved By: S. Lee Cheuk Hock

Date of Survey: 29th June - 30th July 2016

**SCALE :**

**1 : 1000**

**REVISION :**

REVISION	DATE	REPORT NO.
		9182016

Surveyor's Drawing No.: JPWS/16/PH/6533008/7  
 Drawing Date: 22nd August 2016  
 Client's Drawing No.:  
 Sheet No.:  
 Rev: 1

Chartered & Licensed Land Surveyors:

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