

Refer Drawing No: EGS43718/Sheet 1

EGS06
GPS baseline marker, nail embedded on terrace road, pointed blue
Coordinates : N-2844.846
 E-4633.748
 (Cassini)
Elevation : 6.86m above CD
 4.026m above LSD

EGS05
GPS baseline marker, nail embedded on terrace road, pointed blue
Coordinates : N-2828.135
 E-45718.100
 (Cassini)
Elevation : 5.83m above CD
 3.028m above LSD

EGS03
GPS baseline marker, nail embedded on conc. kerb, pointed red
Coordinates : N-2984.431
 E-46614.827
 (Cassini)
Elevation : 6.16m above CD
 3.324m above LSD

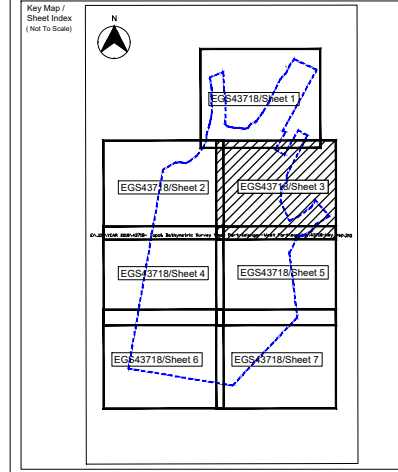
EGS02
GPS baseline marker, nail embedded in pile on conc. monument, pointed red
Coordinates : N-3024.074
 E-46483.286
 (Cassini)
Elevation : 6.37 above CD
 3.565m above LSD

EGS01
GPS baseline marker, nail embedded in pile on conc. monument, pointed red
Coordinates : N-31830.102
 E-46538.399
 (Cassini)
Elevation : 6.22 above CD
 3.41m above LSD

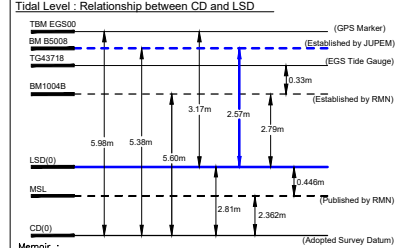
EGS04
GPS baseline marker, nail embedded on top of concrete slab, pointed red
Coordinates : N-31648.471
 E-46435.500
 (Cassini)
Elevation : 6.01m above CD
 3.209m above LSD

EGS00
Temporary bench mark, nail on embedded concrete slab, pointed red
Coordinates : N-31905.448
 E-46461.402
 (Cassini)
Elevation : 5.88m above CD
 3.179m above LSD

TBM EGS (TIDE GAUGE)
Mark on concrete slab, pointed red
Coordinates : N-32044.993
 E-46501.973
 (Cassini)
Elevation : 5.83m above CD
 3.125m above LSD



- Legend :**
- 15 2 -18 9 -21 3 : Denotes elevations below datum
 - 0 0 2 2 7 3 : Denotes elevations above datum
 - 0 0 2 2 7 3 : Contour at 1 meter intervals
 - : Survey Limits
 - : Shore line digitized from CHART MAL 5300
 - : Surveyed shore line
 - : Traverse line
 - : Lot boundaries with lot numbers
 - ☐ : Mangrove
 - ☐ : Manhole
 - ☐ : Gate
 - : Chain Link Fence
 - : High Water Mark
 - : Slope
 - ☐ : Building
 - ☐ : Properly boundary marker found
 - ☐ : Buoy / Beacon



Memoir :

- Survey Date
 - Bathymetric Survey : 06-22/06/2018
 - Topographic Survey : 01-23/06/2018
- Survey Datum & Grid
 - Bathymetric Survey : WGS 84 Universal Transverse Mercator, Zone 47 N
 - Topographic Survey : Selangor State Cassini
- Drawing Grid : Selangor State Cassini Grid
- Equipment used
 - Hydrographic Survey :
 - Kongsberg 120M (2018) EchoSounder Valeport T40 water level recorder
 - C-Nax G-GPS system (Gloabally corrected GPS) via C-View Navigation Operating software package
 - Liason Survey Boat Reg. No. BPN087P and shallow draft fibreglass dinghy
 - Topographic Survey :
 - Topcon G5 (Capable of tracking GPS, GLONASS, BeiDou, Galileo, QZSS constellations) Total Station Topcon ES 105
 - GPS South Galaxy G1 (Innovative structure design, 7th centimeter and electronic bubble, NFC function, Advanced database model, Full constellation support and Compass Level)

Horizontal control

- The horizontal position of the survey vessel was located by G-GPS (Gloabally corrected GPS)
- C-Nax navigation system, surveyed on WGS 84 UTM Zone 47 N coordinates; were later transformed to Selangor State Cassini Grid for final plotting
- Horizontal control based on GPS Static Observation, Reduce to Selangor State Cassini (Ch) grid projection.

Vertical control

All elevations were reduced to Chart Datum which was 5.60m below BM 1004B, located on the left side of the main entrance at Angkasa Resort, Jely, Pulau Indah, Klang, Selangor established by RMN.

Revision no.	Date	Drawn by	Interpreted by	Checked by	Remarks
	31/7/2018	Khairani		Mohamad	Final

Project :
WESTPORTS DEVELOPMENT
PROPOSED EXPANSION OF CONTAINER
TERMINAL CT10-CT19 AND ITS ASSOCIATED
WORKS AT WESTPORTS, PULAU INDAH
SELANGOR DARUL EHSAN

Drawing Title :
TOPOGRAPHIC AND BATHYMETRIC SURVEY

Drawing Number : EGS43718/Sheet 3

Scale : 1: 5000

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04/04/04, P/S/04/04, Cst A / Cst B, Universal Land Surveyor Act 458/1958
Accredited Hydrographic Surveyor

Refer Drawing No: EGS43718/Sheet 5