

Chapter**5****Project Description****5.1 Project Concept**

MEB intends to reclaim the proposed Project site and develop a maritime hub in Kuantan. The proposed KMH is planned for a much bigger shipyard and fabrication yard with associated maritime industrial park as well as institution, business and residential parks to support and be self-sufficient where necessary. The proposed KMH will also have a dedicated navigation channel to access to the proposed shipyard and fabrication yard. The proposed development components are as presented in **Table 5.1.1**. Development planning for Phases 2 and 3 will only be determined by future market requirement and tentatively it is earmarked for industrial parks.

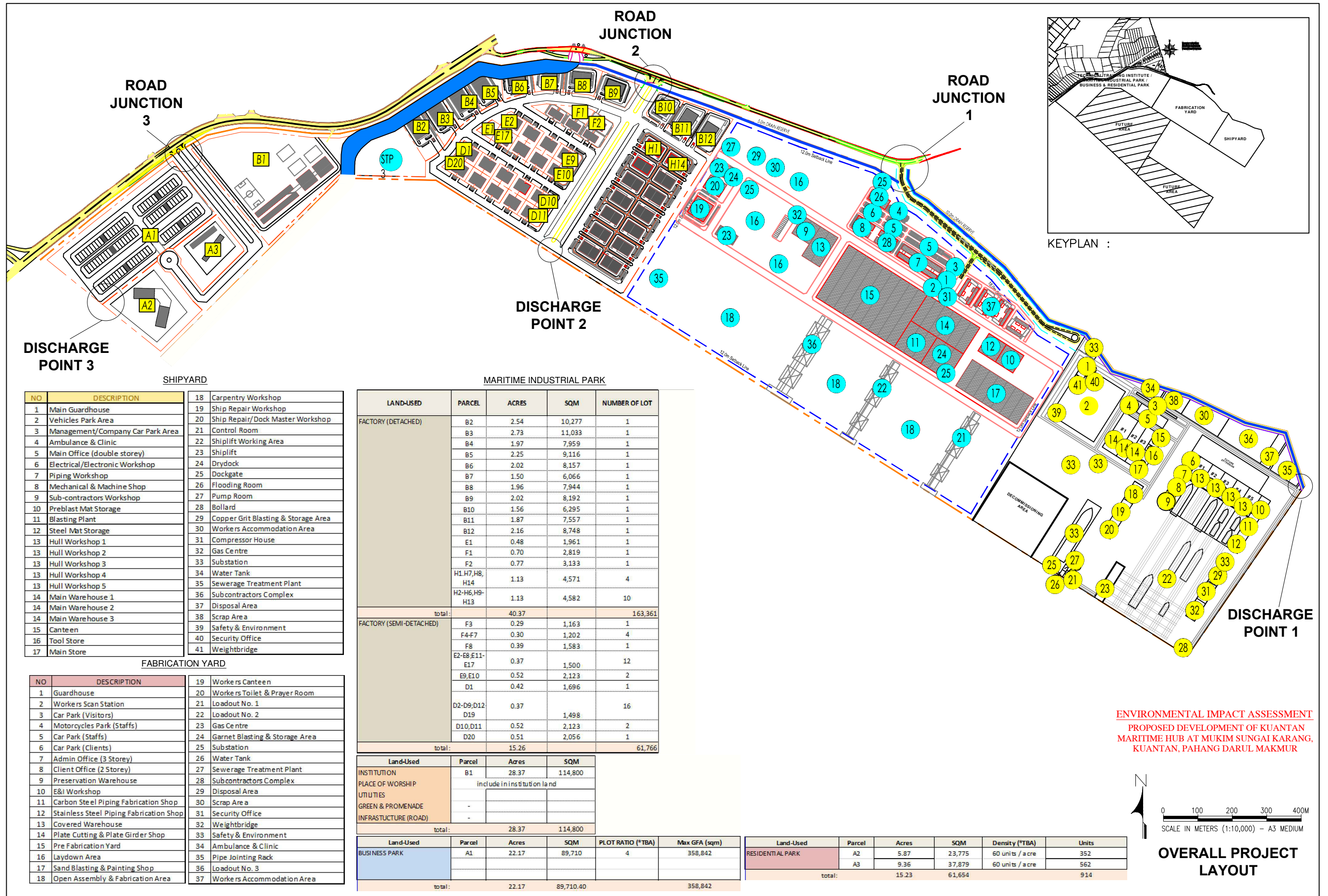
Table 5.1.1: Breakdown of Project Development

Development Phase (refer Figure 1.3.1)	Type of Development	Approximate Acreage (acre)
Phase 1	Shipyard	120
	Fabrication Yard	200
	Training Institution	30
	Maritime Industrial Park	100
	Business and Residential Park	50
	Total for Phase 1	500
Phase 2	Future Development (Industrial Park)	365
Phase 3	Future Development (Industrial Park)	115
Total for 3 phases		980

5.2 Project Layout and Components

The details on proposed Project layout for Phase 1 development which covers an area of 500 acres with the list of components are presented as **Figure 5.2.1**, **Figure 5.2.2**, **Figure 5.2.3** and **Figure 5.2.4**. The proposed dedicated navigation channel is shown on **Figure 5.2.5**.





NO	DESCRIPTION
1	Main Guardhouse
2	Vehicles Park Area
3	Management/Company Car Park Area
4	Ambulance & Clinic
5	Main Office (double storey)
6	Electrical/Electronic Workshop
7	Piping Workshop
8	Mechanical & Machine Shop
9	Sub-contractors Workshop
10	Preblast Mat Storage
11	Blasting Plant
12	Steel Mat Storage
13	Hull Workshop 1
13	Hull Workshop 2
13	Hull Workshop 3
13	Hull Workshop 4
13	Hull Workshop 5
14	Main Warehouse 1
14	Main Warehouse 2
14	Main Warehouse 3
15	Canteen
16	Tool Store
17	Main Store

NO	DESCRIPTION
1	Guardhouse
2	Workers Scan Station
3	Car Park (Visitors)
4	Motorcycles Park (Staffs)
5	Car Park (Staffs)
6	Car Park (Clients)
7	Admin Office (3 Storey)
8	Client Office (2 Storey)
9	Preservation Warehouse
10	E&I Workshop
11	Carbon Steel Piping Fabrication Shop
12	Stainless Steel Piping Fabrication Shop
13	Covered Warehouse
14	Plate Cutting & Plate Girder Shop
15	Pre Fabrication Yard
16	Laydown Area
17	Sand Blasting & Painting Shop
18	Open Assembly & Fabrication Area

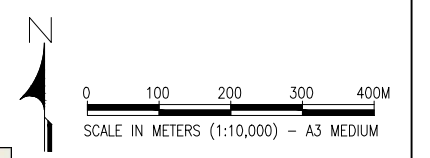
LAND-USED	PARCEL	ACRES	SQM	NUMBER OF LOT
FACTORY (DETACHED)				
	B2	2.54	10,277	1
	B3	2.73	11,033	1
	B4	1.97	7,959	1
	B5	2.25	9,116	1
	B6	2.02	8,157	1
	B7	1.50	6,066	1
	B8	1.96	7,944	1
	B9	2.02	8,192	1
	B10	1.56	6,295	1
	B11	1.87	7,557	1
	B12	2.16	8,748	1
	E1	0.48	1,961	1
	F1	0.70	2,819	1
	F2	0.77	3,133	1
	H1,H7,H8,H14	1.13	4,571	4
	H2-H6,H9-H13	1.13	4,582	10
total:		40.37		163,361
FACTORY (SEMI-DETACHED)				
	F3	0.29	1,163	1
	F4-F7	0.30	1,202	4
	F8	0.39	1,583	1
	E2-E8,E11-E17	0.37	1,500	12
	E9,E10	0.52	2,123	2
	D1	0.42	1,696	1
	D2-D9,D12	0.37	1,498	16
	D19	0.51	2,056	1
	D10,D11	0.52	2,123	2
	D20	0.51	2,056	1
total:		15.26		61,766

Land-Used	Parcel	Acres	SQM
INSTITUTION	B1	28.37	114,800
PLACE OF WORSHIP	include in institution land		
UTILITIES	-	-	-
GREEN & PROMENADE	-	-	-
INFRASTRUCTURE (ROAD)	-	-	-
total:		28.37	114,800

Land-Used	Parcel	Acres	SQM	PLOT RATIO (*TBA)	Max GFA (sqm)
BUSINESS PARK	A1	22.17	89,710	4	358,842
total:		22.17	89,710.40		358,842

Land-Used	Parcel	Acres	SQM	Density (*TBA)	Units
RESIDENTIAL PARK	A2	5.87	23,775	60 units / acre	352
	A3	9.36	37,879	60 units / acre	562
total:		15.23	61,654		914

ENVIRONMENTAL IMPACT ASSESSMENT
 PROPOSED DEVELOPMENT OF KUANTAN MARITIME HUB AT MUKIM SUNGAI KARANG, KUANTAN, PAHANG DARUL MAKMUR



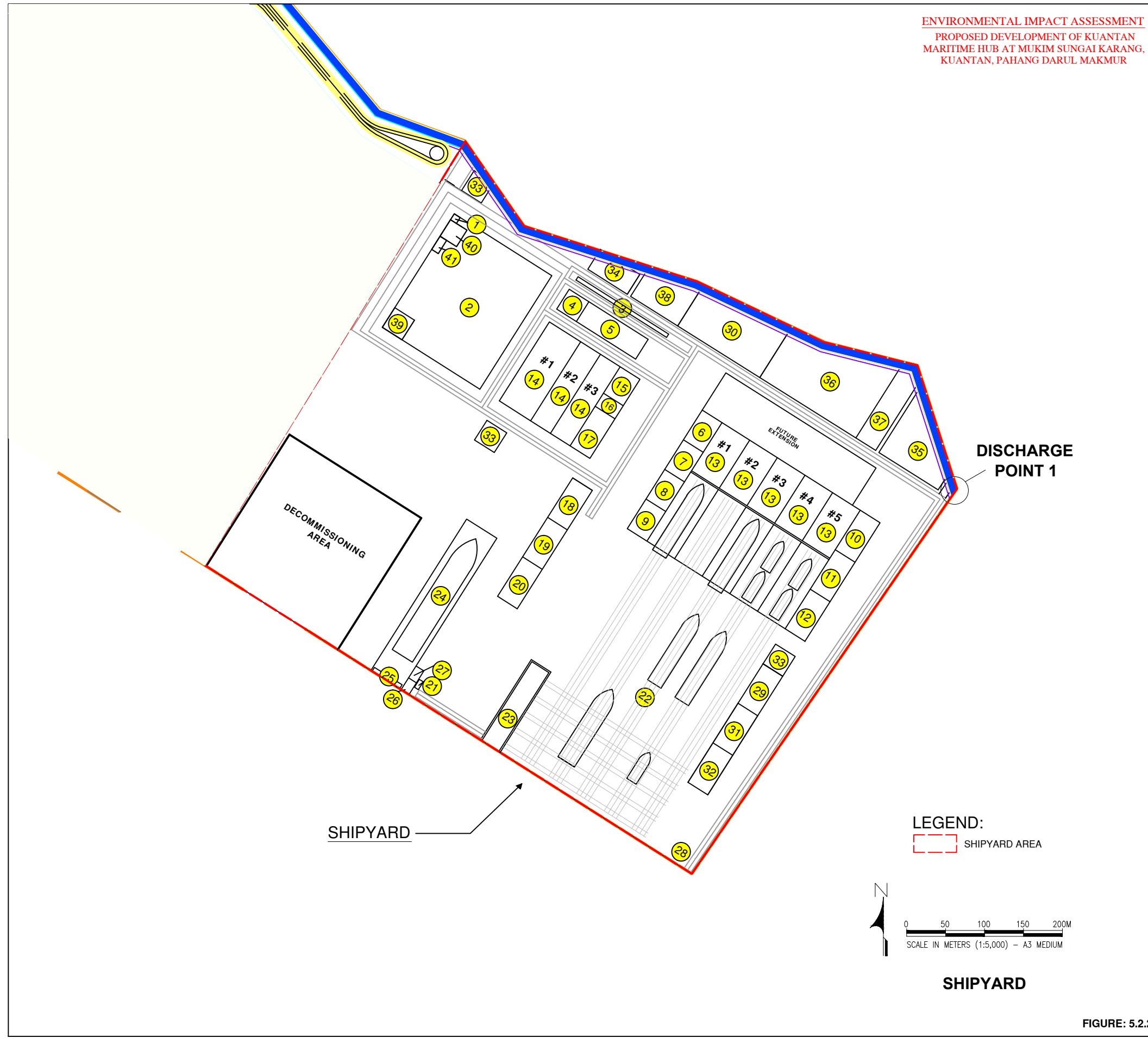
OVERALL PROJECT LAYOUT

FIGURE : 5.2.1

ENVIRONMENTAL IMPACT ASSESSMENT
PROPOSED DEVELOPMENT OF KUANTAN
MARITIME HUB AT MUKIM SUNGAI KARANG,
KUANTAN, PAHANG DARUL MAKMUR

SHIPYARD

NO	DESCRIPTION
1	Main Guardhouse
2	Vehicles Park Area
3	Management/Company Car Park Area
4	Ambulance & Clinic
5	Main Office (double storey)
6	Electrical/Electronic Workshop
7	Piping Workshop
8	Mechanical & Machine Shop
9	Sub-contractors Workshop
10	Preblast Mat Storage
11	Blasting Plant
12	Steel Mat Storage
13	Hull Workshop 1
13	Hull Workshop 2
13	Hull Workshop 3
13	Hull Workshop 4
13	Hull Workshop 5
14	Main Warehouse 1
14	Main Warehouse 2
14	Main Warehouse 3
15	Canteen
16	Tool Store
17	Main Store
18	Carpentry Workshop
19	Ship Repair Workshop
20	Ship Repair/Dock Master Workshop
21	Control Room
22	Shiplift Working Area
23	Shiplift
24	Drydock
25	Dockgate
26	Flooding Room
27	Pump Room
28	Bollard
29	Copper Grit Blasting & Storage Area
30	Workers Accommodation Area
31	Compressor House
32	Gas Centre
33	Substation
34	Water Tank
35	Sewerage Treatment Plant
36	Subcontractors Complex
37	Disposal Area
38	Scrap Area
39	Safety & Environment
40	Security Office
41	Weightbridge



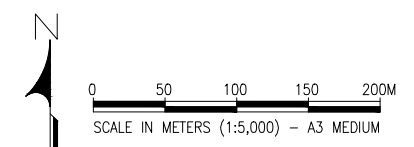
ENVIRONMENTAL IMPACT ASSESSMENT
 PROPOSED DEVELOPMENT OF KUANTAN
 MARITIME HUB AT MUKIM SUNGAI KARANG,
 KUANTAN, PAHANG DARUL MAKMUR

FABRICATION YARD

NO	DESCRIPTION
1	Guardhouse
2	Workers Scan Station
3	Car Park (Visitors)
4	Motorcycles Park (Staffs)
5	Car Park (Staffs)
6	Car Park (Clients)
7	Admin Office (3 Storey)
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13	Covered Warehouse
14	Plate Cutting & Plate Girder Shop
15	Pre Fabrication Yard
16	Laydown Area
17	Sand Blasting & Painting Shop
18	Open Assembly & Fabrication Area
19	Workers Canteen
20	Workers Toilet & Prayer Room
21	Loadout No. 1
22	Loadout No. 2
23	Gas Centre
24	Garnet Blasting & Storage Area
25	Substation
26	Water Tank
27	Sewerage Treatment Plant
28	Subcontractors Complex
29	Disposal Area
30	Scrap Area
31	Security Office
32	Weightbridge
33	Safety & Environment
34	Ambulance & Clinic
35	Pipe Jointing Rack
36	Loadout No. 3
37	Workers Accommodation Area

LEGEND:

FABRICATION YARD AREA



FABRICATION YARD

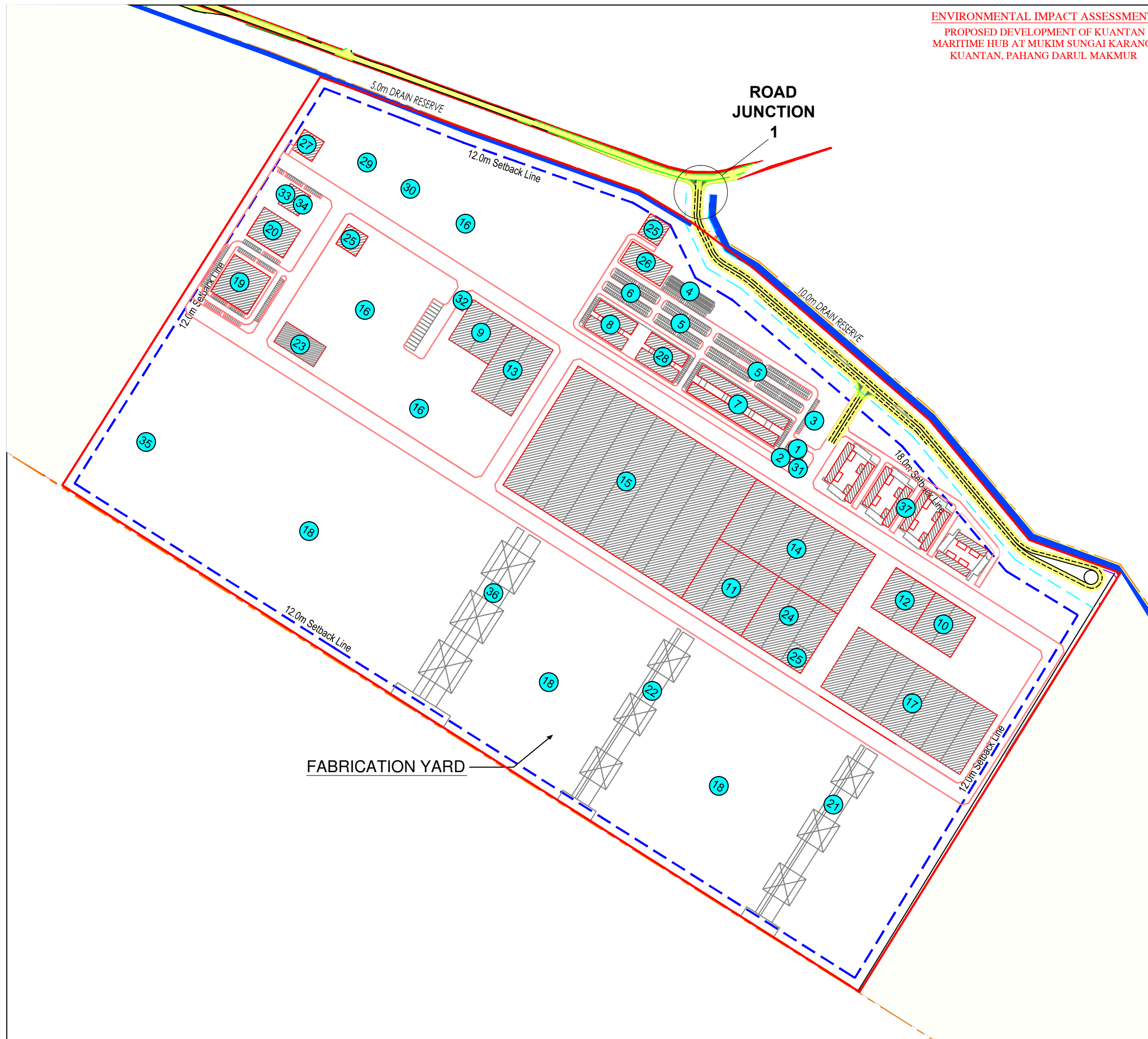
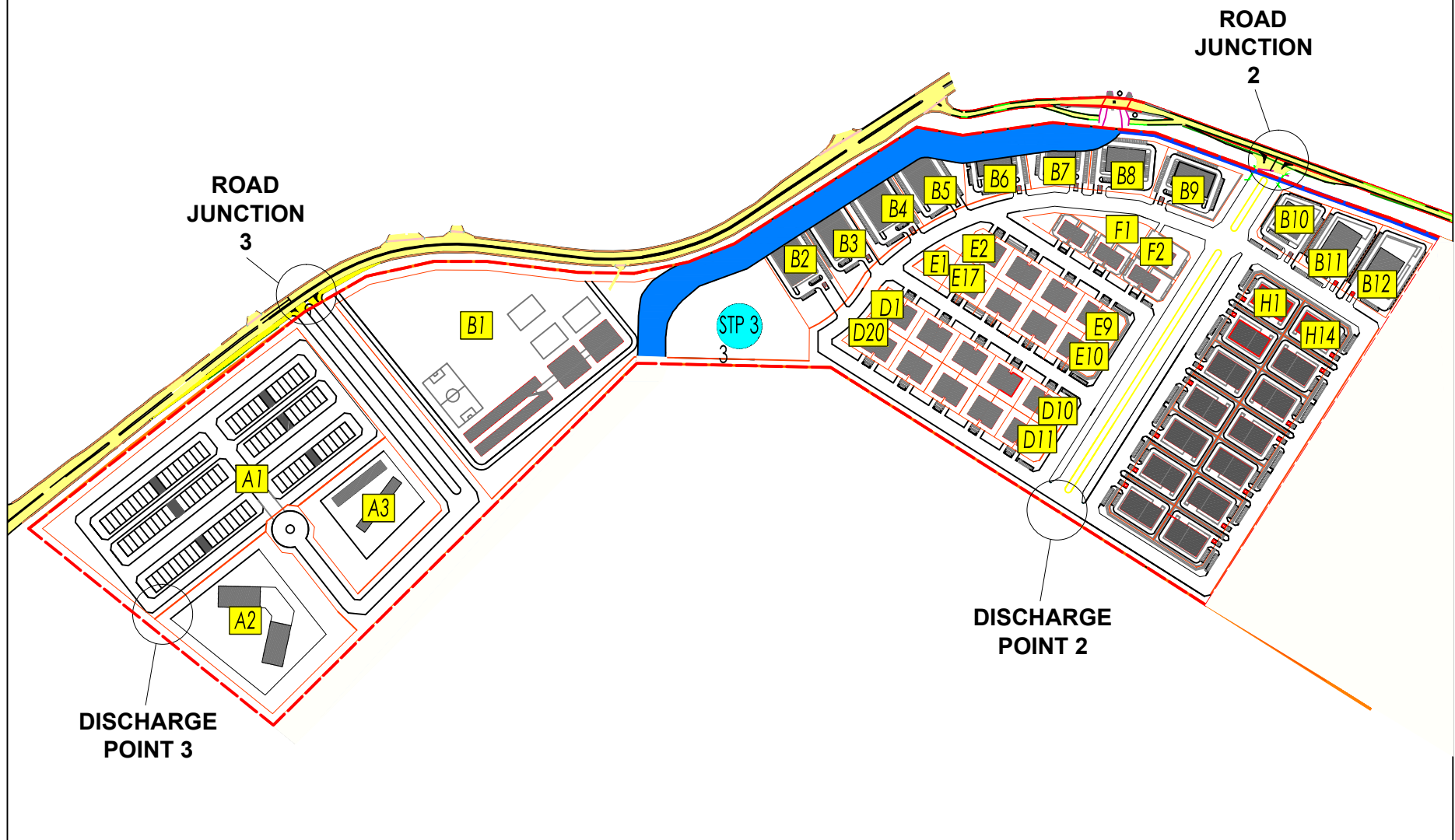


FIGURE: 5.2.3



MARITIME INDUSTRIAL PARK

LAND-USED	PARCEL	ACRES	SQM	NUMBER OF LOT
FACTORY (DETACHED)	B2	2.54	10,277	1
	B3	2.73	11,033	1
	B4	1.97	7,959	1
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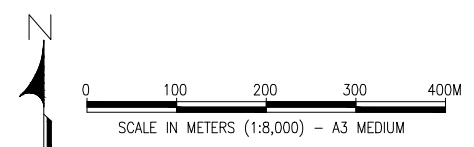
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LEGEND:

MARITIME INDUSTRIAL PARK AREA



MIXED
 DEVELOPMENT AND
 INDUSTRIAL PARK

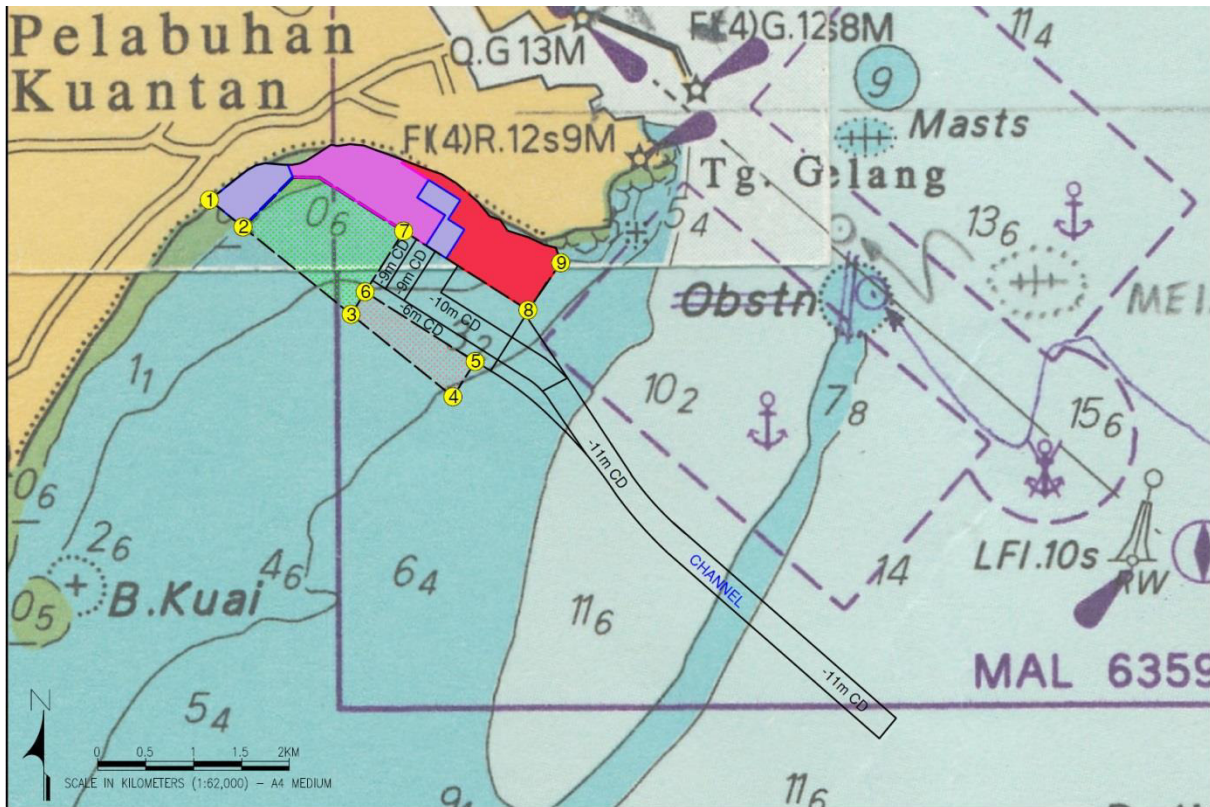


Figure 5.2.5: Proposed Navigation Channel

The main Project components that are associated with activities of potential environmental concerns are listed in **Table 5.2.1**.

Table 5.2.1: Main Project Components Proposed Under Phase 1 Development Planning

Type of Development	Main Components
Shipyard	Workshops
	Blasting Plant
	Painting Plant
	Dry Dock
	Chemical Storage
	Gas Tank Storage
	Waste Storage
	Sewage Treatment Plant
Fabrication Yard	Workshops
	Blasting Plant
	Painting Plant
	Chemical Storage
	Gas Tank Storage
	Waste Storage