Bangkok Port

Redevelopment Project

Phatthawut Kanokwannakhon
Port Engineer, Bangkok Port, Port Authority of Thailand

Experience

Port Authority of Thailand

- Port Engineer, Bangkok Port (2018-Present)

- General Administration Officer, Bangkok Port (2016-2018)

- Second Engineer, Marine Department (2010-2012)

Royal Thai Navy

- Second Engineer, Mine Squadron (2007-2010)

Course

APEC-Antwerp/Flanders Port Training Center

Port Facilities Security Seminar

Japan International Cooperation Agency (JICA)

Seminar on Port Facility Security for ASEAN

Education

Royal Thai Naval Academy

Bachelor's degree, Marine Engineering · (2003 - 2006)

Armed Forces Academy Preparatory School

High School, Science Math Steam · (2001 - 2002)

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Bangkok Port

- Bangkok Port, one of the important ports of the country which plays an important role in the development of an efficient logistics system and connect the country's economic growth.

- Bangkok Port is located in Bangkok. Thailand's capital, the economic center, is surrounded by important industrial and consumer resources.

- The development of Bangkok Port has implemented the Automated Port System in accordance with the government policy by driving with innovation and modern technology.
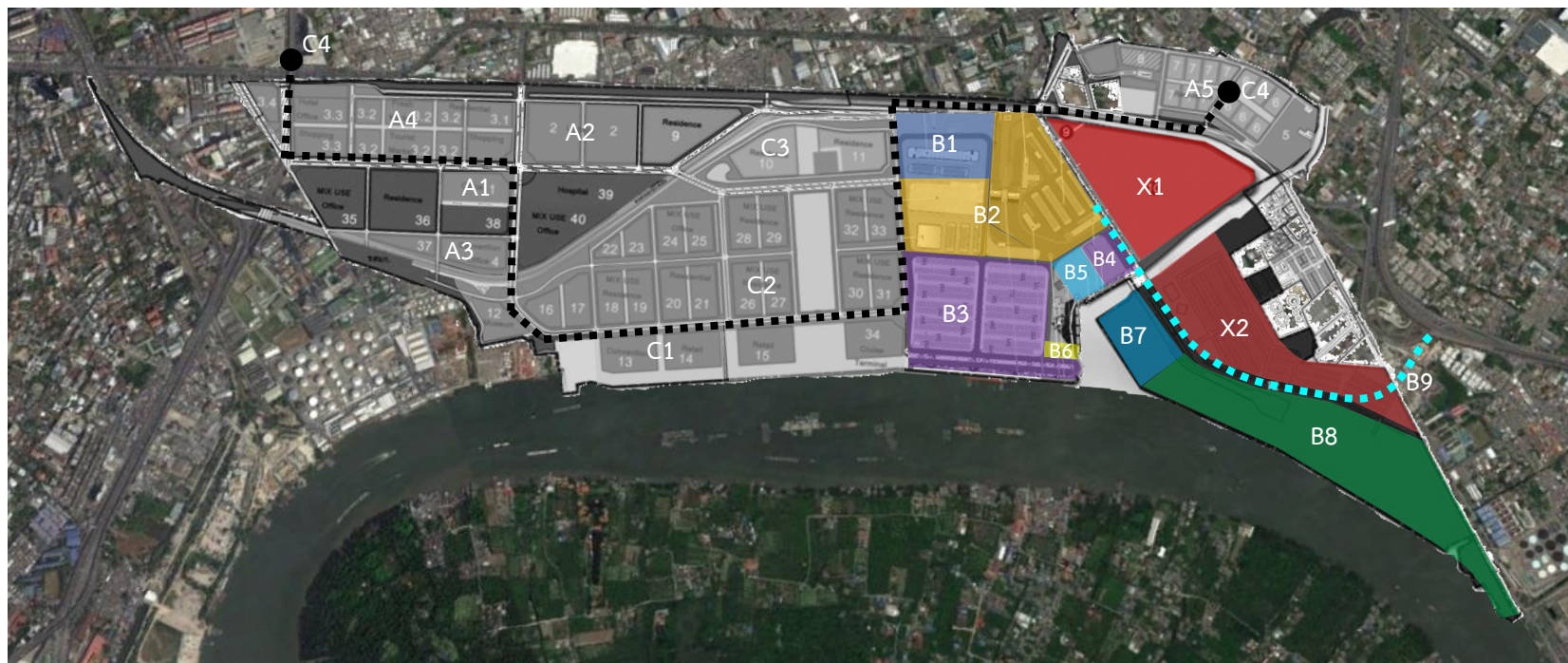

Bangkok Port Area

Land Use

- Bangkok Port (Core Business Zone) is also necessary as a ship and cargo service for Bangkok and nearby, the largest consumer source of the country, which reduces the overall cost of transportation.

- Commercial Zone focuses on the development of business areas.

- Bangkok Modern Port City's urban development area focuses on the development of a large-scale business city in the country. The new tourism hub links water tourism

Conceptual Design

กลุ่มการพัฒนาพื้นที่ A

A1 อาคารศูนย์ธุรกิจพาณิชยนาวี (Maritime Business Center)

A2 ศูนย์โลจิสติกส์และกระจายสินค้า

A3 อาคารสำนักงาน (Office Building)

A4 ศูนย์การค้าธุรกิจทันสมัยครบวงจร

A5 ที่อยู่อาศัยทดแทนชุมชนแออัดและสำนักงานเขตคลองเตย/สถานีตำรวจท่าเรือ

กลุ่มการพัฒนาพื้นที่ B

B1 Exported Container Freight Station

B2 BKP Distribution Center
- Vertical W.H. & Free Zone
- Truck Terminal
- BKP One Stop Service
- BKP Head Quarter
- Empty Container Yard
- X-Ray Center
- Main Gate System

B3 BKP West Container Terminal

B4 Incident Command Center

B5 Maintenance Service Center

B6 Harbor Service

B7 Barge Transfer

B8 BKP East Container Terminal
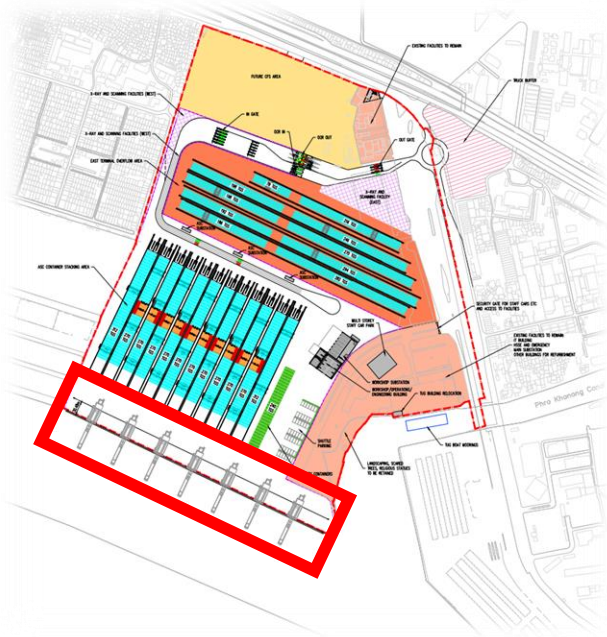
B9 Express Way Ramp

Area Development Group C

C1 Passenger Terminal

C2 Modern Port City Phase 1

C3 Modern Port City Phase 2
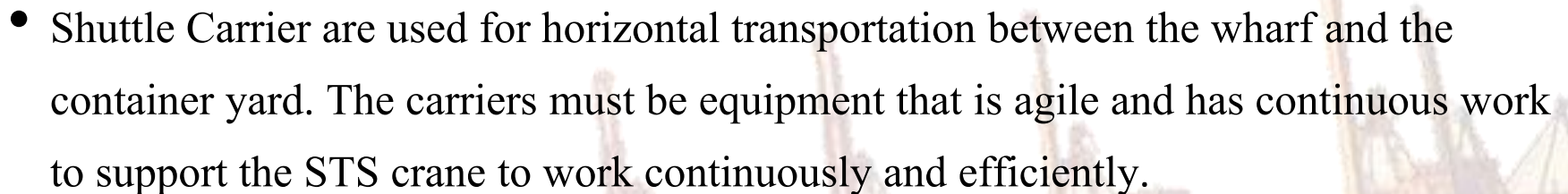
C4 Monorail

Future development Area X

X1 Reserved Area 1

X2 Reserved Area 2

EXISTING FACILITIES TO REMAIN

FUTURE CFS AREA

X-RAY AND SCANNING FACILITIES (WEST)

X-RAY AND SCANNING FACILITIES (WEST)

EAST TERMINAL OVERFLOW AREA

IN GATE

OCR IN

OCR OUT

OUT GATE

X-RAY AND SCANNING FACILITY (EAST)

ASC SUBSTATION

ASC SUBSTATION

ASC SUBSTATION

ASC CONTAINER STACKING AREA

SECURITY GATE FOR STAFF CARS ETC AND ACCESS TO FACILITIES

EXISTING FACILITIES TO REMAIN:
IT BUILDING
HSSE AND EMERGENCY
MAIN SUBSTATION
OTHER BUILDINGS FOR REFURBISHMENT

MULTI STOREY STAFF CAR PARK

WORKSHOP SUBSTATION
WORKSHOP/OPERATIONS/
ENGINEERING BUILDING

TUG BUILDING RELOCATION

SHUTTLE PARKING

EMPTY CONTAINERS

LANDSCAPING, SCARED TREES, RELIGIOUS STATUES TO BE RETAINED
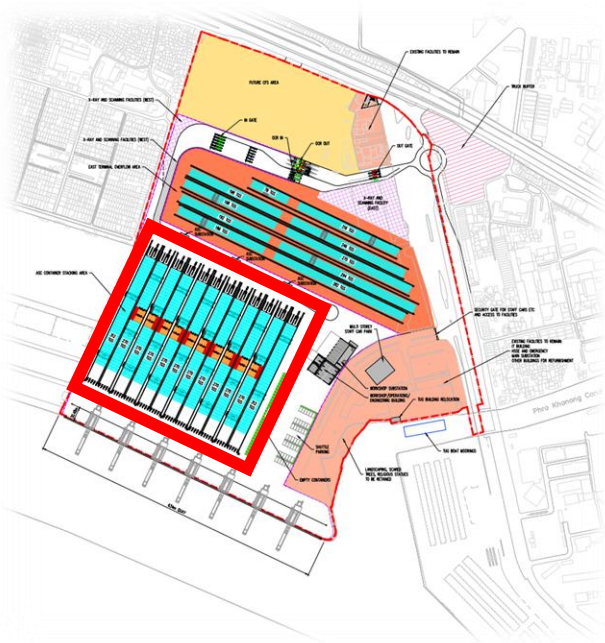
TUG BOAT MOORINGS

Phra Khanong Canal

Full Electrical – Ship to Shore Crane

- Ship to Shore (STS) Crane is used to lift the container between the vessel and the shore must be a reliable device due to the use of over 95% of the service life. The STS-100% electric type is used to reduce CO_2 emissions.

Full Electric – Shuttle Carrier

- Shuttle Carrier are used for horizontal transportation between the wharf and the container yard. The carriers must be equipment that is agile and has continuous work to support the STS crane to work continuously and efficiently.
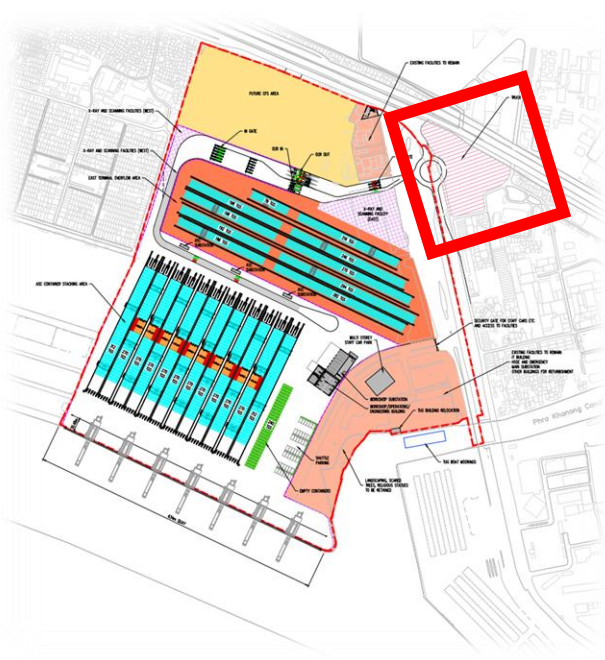
Full Electrical – Automatic Stacking Crane

- Automatic Stacking Crane (ASC) is used for vertical transportation. Which is used for receive/deliver containers between Shuttle Carrier and trucks.

- Using of ASC can reduce CO_2 emission, as well as eliminating the need for electricity for lighting in the container yard due to automated system.

Truck Buffer Zone, VBS & Express Way Ramp

- Due to traffic problems from container trucks that entry to the Bangkok Port, there is a development to connect the Bangkok Port to the expressway directly and including the truck buffer zone. With the development of both physical and Vehicle Booking System (VBS)

- Reduce the traffic problems of personal cars and trucks in CO_2 emissions due to traffic jams. Able to manage truck trips efficiently and shorten the waiting time for receiving containers in the port.