MULTI-PURPOSE FLOATING PLATFORMS

INDUSTRIAL APPLICATIONS

Port Construction
Port Expansion
Offshore Storage
Offshore Drilling Support
Marine Offloading Facilities
Breakwaters

www.truenorthservicesllc.com
Our team is dedicated to providing environmentally responsible, cost effective, innovative and forward thinking solutions to complex logistical and operational problems.

We acquire assets and technology for deployment worldwide to facilitate project operations & cargo delivery.

**Products and services we provide include the following:**

- Port Construction
- Port Expansion
- Offshore Storage
- Offshore Drilling Support
- Marine Offloading Facilities
- Breakwaters
To meet increasing demands worldwide for rapid deployment of marine operation facilities, True North has acquired an inventory of Multi-Purpose Floating Platforms.

**These floating platforms are US built and therefore qualify for US Export Import Bank project financing.**

The floating platforms can be retrofit to meet operational and capability needs prior to deployment.
True North Floating Platform Solutions
General Advantages

- Millions of Dollars saved in capital costs
- Can be engineered to meet project specifications
- Can be rapidly mobilized
- Simple in Structure
- Heavy lifting capacity
- Reuseable

- Rapid assembly and disassembly
- Modular hybrid pier
- Easy installation
Floating Piers:
• Can provide berthing for vessels up to Panamax size
• Can accommodate pedestrian and vehicle traffic

Floating Breakwaters:
• Provide substantial wave attenuation
• Are especially well suited for deep water breakwater locations
• Are environmentally friendly - flushing bays (as opposed to rip rap breakwaters which create stagnant bays)
• Rise and fall with the tide (as opposed to breakwaters which inhibit views at low tide)

Floating Platforms:
• Can handle significant loads such as heavy equipment and buildings
• Can be resurfaced to meet clients’ needs
• Can be ballasted to achieve the required freeboard and draft
• Can be structurally enhanced, as necessary, to carry additional deck loads
• Can be secured by anchors and/or piles
The following slides show actual current floating platform usage worldwide as well as conceptualized applications envisioned by major design and construction companies around the world.
Our staff has had experience in projects such as the Melville Island Supply Base which utilized decommissioned bridge pontoons from the Hood Canal Bridge in Washington State.

The Melville Supply Base offers laydown area, fuel, accommodations, and resupply to vessels operating in the Oil & Gas Industry. The port operates heavy lift cranes and has RORO capacity. These services were all made possible by the affordable option of the floating refurbished bridge pontoons.
Floating Platform Application
Melville Island Marine Terminal - Northern Territory, Australia

The floating platforms were refurbished in Vancouver, Canada.
The refurbished floating platforms were loaded on a semi submersible barge and transported from Puget Sound (Washington State) to Northern Australia and then towed by tug to the final destination at Tiwi Island.
The floating platforms were quickly transformed into a floating deep water pier secured by pilings and able to transition with the changing tides.
Within six weeks the floating platforms were ready to use and incoming vessels were offloading.
The following slides show the True North Bridge Pontoons
Many of the floating platform sections are ready for immediate use as floating roadways. They include the following additional assets which make them perfect for a “plug-and-play” scenario in the field:

**Exterior**
- Paved roadway rated for heavy loads
- Barriers & walkways along external edge
- Drainage
- Storm Water Runoff

**Interior**
- Segregated, dry ballastable sections
- Access to each pontoon section
- Wired for electrical
- Hydraulic systems
True North Floating Platforms
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Watertight compartments
True North Floating Platforms Specifications

TOP SLAB LEVEL

14'9” @ ctr 4495.8mm
14'6” @ sides 4419.6mm

14'9” @ ctr 4495.8mm
14'6” @ sides 4419.6mm

BTM SLAB LEVEL

60'
18288mm

360'
109728mm
Floating Platform Stability:
The pontoons are extremely stable due to their weight and draft. Each 109.73 meter x 18.29 meter (360 ft x 60 ft) pontoon in present application (with bridge superstructure) has a draft of 2.13 meters (7.0 ft) and a displacement of 4,128 MT (4,550 tons).

Additional Stability & Draft Measurements for the 109.73 meter x 18.29 meter (360 ft x 60 ft) pontoons:
- Area of Pontoon: 2,007 square meters / 21,600 square feet
- Weight of Pontoon: ± 4,128 MT / ± 4,550 tons
- Light Draft in Fresh Water: 2.0 - 2.13 meters / 6.5 - 7.0 feet
- Immersion in Fresh Water: ± 2,007 MT per meter draft / ± 675 tons per foot draft
- Light Draft in Salt Water: ± 1.93 meters / ± 6.33 feet
- Immersion in Salt Water: ± 2,060 MT per meter draft / ± 692 tons per foot draft

Stability will be influenced by the center of gravity and location of the load or equipment on top of the floating platform.
Are the pontoons available for sale or lease?
• Sale and Lease opportunities are currently available, but will be dependent upon future availability and project duration.
• Lease-to-Purchase options are also available to qualified buyers.

Are there financing options available for the pontoons?
• Yes. Because the pontoons are USA built, US Export Import Bank financing options may be available to the purchaser/lessee.
• Because the pontoons are considered “green” in their reuse and application, other financing and grant options may be available to purchaser/lessee.

What are the delivery times for the Pontoons?
• Pontoons are available for 2016 projects (and beyond) based on availability.
• Delivery times are dependent upon location of deployment.

What is the estimated installation time frame?
• 1 week to 2 months, depending on application.

How are the Pontoons Installed?
• End to end, side by side, and “T” configurations can be designed to suit needs.
Frequently Asked Questions

What are the pontoons Maximum Loads?
• Pontoons can be structurally enhanced to meet client loading needs.

What is the Pontoon stability?
• The pontoons are extremely stable due to their weight and draft.

What is required to maintain the Pontoons during operations?
• As the pontoons are reinforced cured concrete, maintenance is minimal.
• Fendering should be employed if landing vessels alongside.
• If pontoons are grounded, the bottom should be sandy and groomed.

What equipment is required to install the Pontoons?
• Prior projects have required:
  • small tugs for handling
  • ballast pumps/hoses (to aid connection line-up)
  • power-pack + tools / accessories
  • portable gen set
  • lighting
  • small fork lift

What are the survey requirements for the Pontoons regarding vessel class/registration?
• Pontoons are not vessels and as such there are no vessel regulatory or manning requirements.
Joe Sanders, CEO
jsanders@truenorthamerica.com
+1-253-514-5194

Wayne Hamilton, Vice President - Projects
whamilton@truenorthamerica.com
+61-4-5788-8570

Eric Radford, Director of Operations
eradford@truenorthamerica.com
+1-253-514-0668

David Bishop, Engineering
dbishop@truenorthamerica.com
+1-253-514-7025

Tim Lord, Contracting Officer
tlord@truenorthamerica.com
+1-415-342-9144

www.truenorthservicesllc.com

Main Office: 5358 33rd Ave NW, Suite 104, Gig Harbor Washington, 98335 USA, +1-253-857-2919