Floating Cruise Ship Docks &
The Nanaimo Cruise Ship Terminal
Presented by Todd Nottingham, P.E., Vice President
PND Engineers, Inc.
Home Port Mechanical Ramps

Above: Long Beach Passenger Boarding System
Long Beach, California

Right: Terminal 91 Passenger Boarding Ramp
Seattle, Washington
Boarding Ramps: Platform Docks and Destination Ramps
Boarding Ramps: Floating Docks & Simple Ramps
Generic Floating Cruise Ship Dock

MOORING LENGTH = $L_{\text{MIN}}$

CRUISE SHIP LENGTH = $L$

DOCK LENGTH = $L/3$

BREASTING LENGTH = $L/2$

FREEBOARD
$7\,\text{min} / 8\,\text{max}$
Cruise ship berth expansion in Juneau. Berth on right is existing South Franklin dock.
Ketchikan Port Berth Expansion

Berth IV

Berth III
Whittier Cruise Ship Dock

Mooring Length: 1055’
Dock Length: 655’
Nanaimo Berth Design – Concept 1

1. Multi-use piers
2. Potential expansion to two berths
3. Improve existing operations

Cost of One Berth: $30,000,000
1. Separate berth
2. Potential expansion to 3 berths
3. Separate freight and cruise operations

Cost of One Berth: $15,000,000
Float Fabrication
Ramp Fabrication & Placement
Lofting Pile
Pile Installation Methods
Separated vehicle and pedestrian ramps
1. Separate facility savings = $15 million (USD)
2. SPIN FIN® pile savings = $1 Million (USD) total
3. Lower operating cost (Gangway)
Contact Us

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