Introducing Trucking by Water: California’s Maritime I-5 Seaway

How US ships built in US shipyards can reduce truck congestion, high fuel consumption and pollution

Presentation to the American Association of Port Authorities Shallow Draft Ports Seminar by The Santa Maria Group
The Shipyard

Santa Maria Steel LLC

A parcel of land with drydocks at an ex-Navy Shipyard can be economically converted to a modern US ship assembly plant – land under negotiation today.

A lattice boom construction crane will lift ship units into the drydock for erection.
The Ship

Santa Maria Shipping LLC

Existing design Conofeeder of 150 forty foot container capacity means that within a 24 hour round trip = 150 X 2 trips = 300 containerized truckloads per day
The Ship (open-top alternate)
Santa Maria Shipping LLC

Existing design Open-top Containership of 800 forty foot container capacity. At 20 knots a 24 hour round trip = 800 X 2 trips = 1600 containerized truckloads per day

Four vessels of this design were delivered from German shipyard Meyer Werft and are on a regular North Atlantic service – the containers are secured by container guides rising above the main deck level.
Gävle Container Terminal AB, Sweden

Modern Short Sea Terminal In Sweden 50,000 FEU Capacity Per Year
Cost = $13 M for Cranes + Infrastructure + 35 Employees
Natural Gas Engine

- High efficiency
- Low gas pressure
- Low emissions, due to:
  - High efficiency
  - Clean fuel
  - Lean burn combustion
- Fuel flexibility
  - Gas mode
  - Diesel mode
- Two engine models
  - Wärtsilä 32DF
  - Wärtsilä 50DF

Wärtsilä 6L50DF
California’s new I-5 seaway: 6,000 containerized truckloads by water per day

1 Ship = 300 daily truckloads X 20 Ships = 6,000 truckloads / day
1 ship = $17 million X 20 ships = $340 million