

Financing Strategies: Case Study of the Gerald Desmond Bridge



AAPA Infrastructure Development and Financing Seminar

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About the Port of Long Beach



2nd Busiest U.S. Port

\$180 Billion in Trade

Gateway for clothing, toys, shoes, furniture

San Pedro Bay Port Complex



Port of Los Angeles

Port of Long Beach

Why is Southern California Goods Movement So Important to the Rest of U.S.?

Importing the Goods of a Nation

43% of America's goods

Extensive hwy/rail infrastructure in Southern California

Local and Regional Demand

40% stays in the region

18 million consumers/producers in Southern California

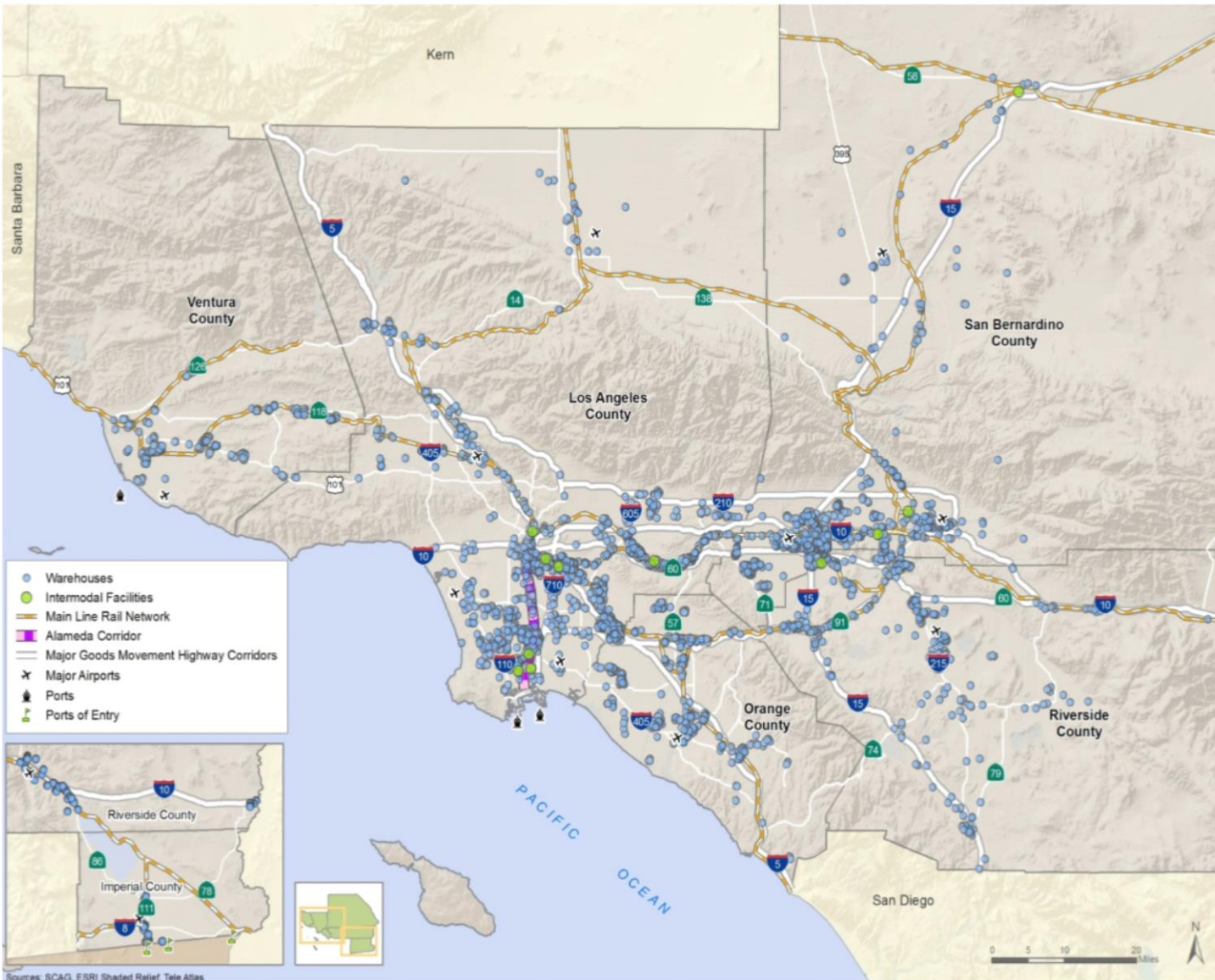
National Supply Chain Logistics

Over 1 Billion Square Feet of Warehouses

Distribution centers in CA serve many states

SCAG Regional Goods Movement System

- Six Commercial Airports
- Four Major Seaports
- 9,000 lane miles of freeways
- Two Class I railroads
- Three international border crossings
- Abundant warehousing facilities
- Large internal market



Ships Are Getting Bigger



CMA CGM Corte Real arrived @ POLB on 11/8/2013

Capacity: 14,000 TEU

Max. Draft (water depth): 52'

Height (Beam): 168'

Width: 98' (8-Lane highway)

Overall Length: 1,200' (3.3 football fields)

...and BIGGER.



CMA CGM Benjamin Franklin arrived @ POLA on 12/26/2015

Capacity: 18,000 TEU

Height: 197'

Length: 1,300' (longer than the Empire State Building is tall)

Width: 177' (half a football field)

Net tonnage: 116,000

Photo: LA Times

Port of **LONG BEACH**

And Just How Big Is A Big Ship?

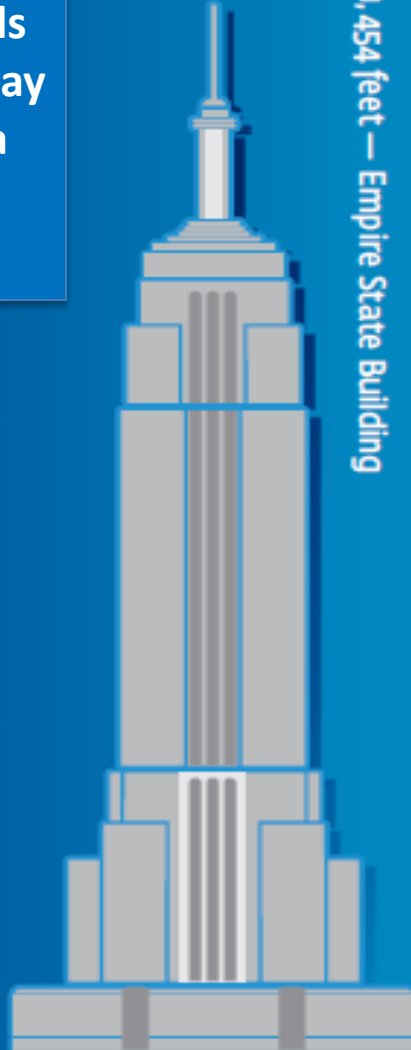
Fact: The largest container vessels calling the Port of Long Beach today are wider than the new Panama Canal locks, to be completed in 2015.



1,092 feet — USS Nimitz



965 feet — Older Cargo Ship



1,454 feet — Empire State Building



1,392 feet — Six Boeing 747 Airplanes



1,200 feet — New Cargo Ship

Challenges for Surface Transportation System

- Meeting Future Demand
 - Trucks serve primarily local uses and intra-regional
 - Goods movement dependent industries will drive traffic growth
 - Intermodal and rail
- Managing “Surges”
 - More congestion – truck access; crossings
 - Accelerated roads/bridges deterioration
 - Inadequate funding for O&M

Gerald Desmond Bridge



- **Obsolete and deteriorating**
- **Low clearance**
- **Isn't capable of handling growth**
- **Needs to be replaced**

New Bridge Features

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- A wide-angle photograph of a modern cable-stayed bridge spanning a body of water. The bridge features two tall, white, A-frame pylons with numerous white cables fanning out to support the dark bridge deck. The sky is a dramatic mix of orange, red, and purple hues from a setting or rising sun, with scattered clouds. In the background, across the water, an industrial port area is visible with various cranes and structures. The bridge's reflection is visible in the calm water in the foreground.
- **Design-build**
 - **Cable-stayed design**
 - **205-foot vertical clearance**
 - **3 lanes w. full shoulders (ea. direction)**
 - **Emergency lanes**
 - **Bicycle & pedestrian facility**
 - **Scenic overlooks**

Project Partners





\$1.47 billion

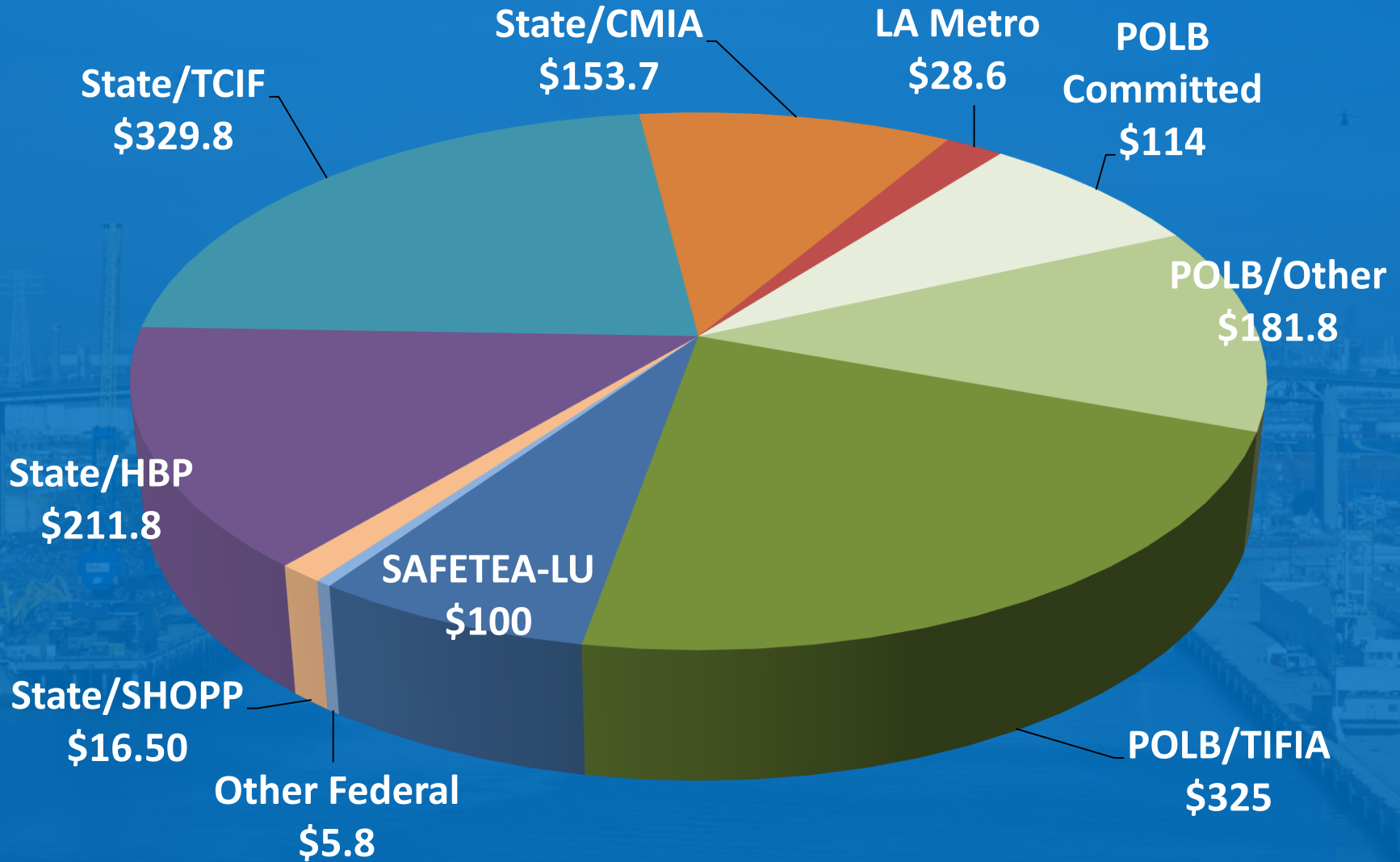
Iconic Bridge

Gerald Desmond Bridge Replacement Project

Project Budget: \$1.49 Billion



Funding Sources (\$ millions)



Funding Arrangements

- Partnership is key
- Internal grants management capacity
 - Satisfying conditions of multiple grants
 - Matching
 - Reporting
 - invoicing
 - Schedule
 - QA/QC reviews
 - Audits

Funding Arrangements (cont.)

- Unique conditions of funding
 - Design Build
- Multiple grants on one project, or multiple projects on one grant?
 - FASTLANE and TIGER – bundling/components
 - End-to-end, systems, scaled benefits
 - Project development timeframes

Final Remarks

- Mega projects are being delivered at POLB
- Funding gaps to be resolved
- Competition among trade gateways remains fierce
- Environment of great infrastructure need and limited funding
- Sustainable/equitable funding for freight infrastructure and on-going O&M

Thank you!

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