

SPECIAL SESSION:

Optimizing Truck Movements in the Southern California Port Region

- Intro to the Session: Mark Jensen, Transpo Group (Moderator) (5 min)
- The DrayFLEX Program and Applications (30 min)
 - Program Overview and Related Initiatives: Shrota Sharma, LA Metro
 - Demonstration of the DrayFLEX Truck Trip Optimization Application: Sal Manzo, InfoMagnus
 - The DrayFLEX Truck-Safe Routing Application: Krista Jeannotte, Cambridge Systematics
- Related Port-specific Initiatives
 - Christopher Chase, POLA (10 min)
 - Theresa Dau-Ngo, POLB (10 min)
- Panel Discussion with Audience Q&A (Moderator plus all participants) (30 min)

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An aerial photograph of a busy port area. Numerous Maersk container ships are docked at the pier, with their white hulls and blue star logos clearly visible. Several large red and white semi-trucks are parked on the tarmac, some with Maersk containers. A large red rectangular box is overlaid in the center of the image, containing white text. The background shows the extensive infrastructure of the port, including cranes and other shipping equipment.

METRO GOODS MOVEMENT TECHNOLOGY PROGRAM

SHROTA SHARMA
LA METRO



Metro

Metro is a...

Funder

Operator

Planner

Builder





Goods Movement

Goods Movement in the Region Today

San Pedro Bay Ports handled over 20 million TEUs in 2021 – the largest ports in the country

40% imports, 25% exports

By 2035, truck volumes and TEUs will triple

ISSUE: Increased container volume → increased freight hauled on trucks

SOLUTION: Use ITS to improve goods movement at the POLA & POLB



Technology Plan

Gateway Cities Technology Plan for Goods Movement

Developed implementation plan for
deploying technology to reduce congestion
and improve air quality

13 individual ITS projects identified, FRATIS
among these projects

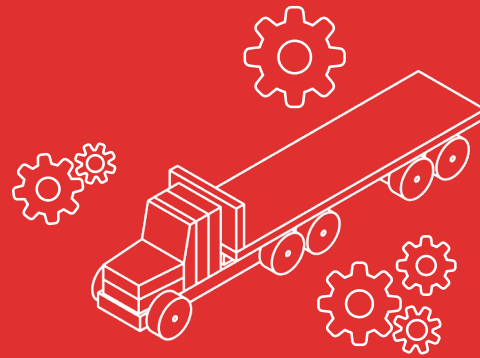
Related elements identified in Technology
Plan:

- Enhances traveler information
systems to address specific freight
needs

- Integrates data on wait time at
intermodal facilities

- Drayage Optimization

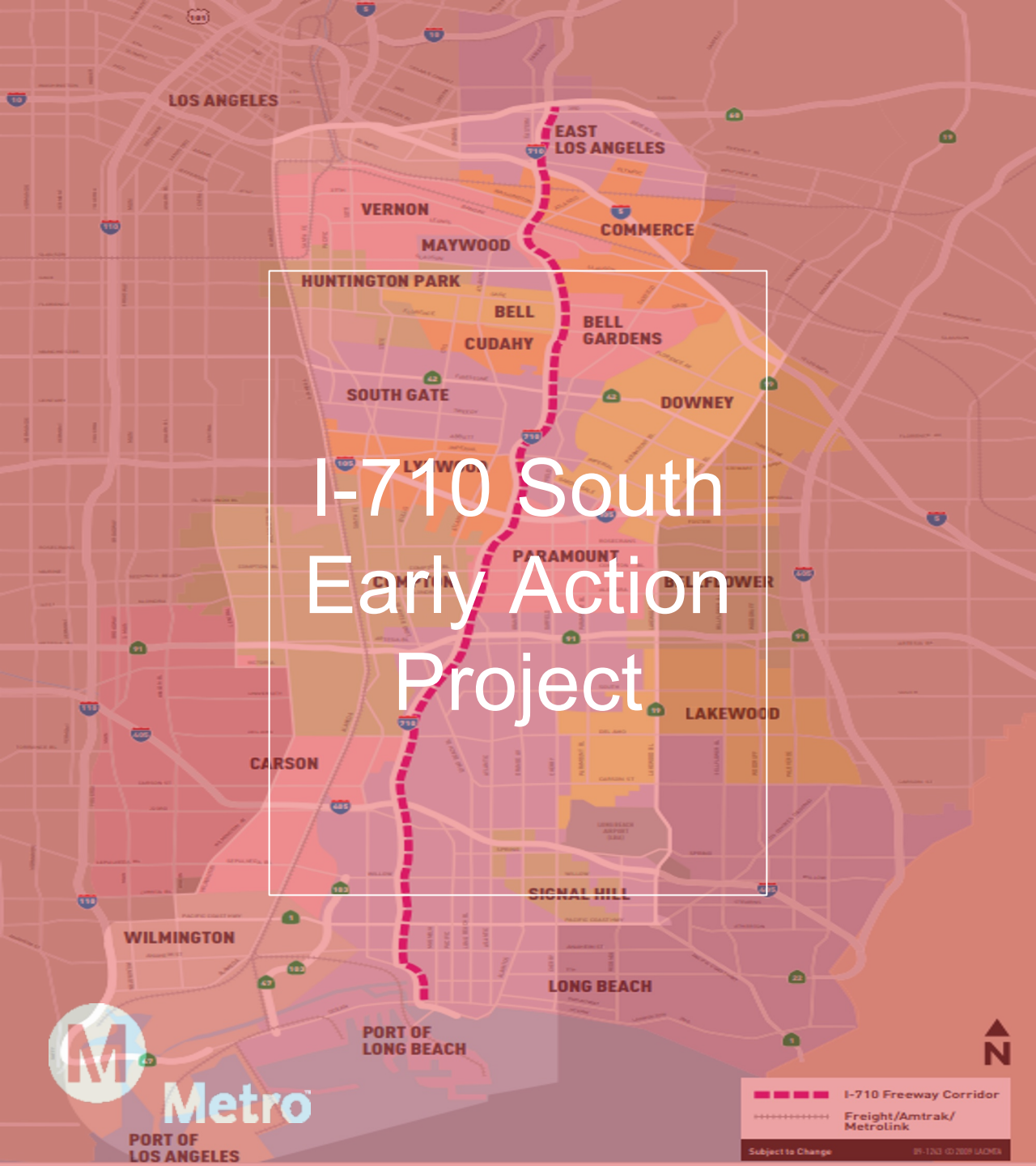
- Optimize truck/load
movements between freight
facilities



FRATIS

Freight Advanced Traveler Information System

The FRATIS application bundle provides freight specific route guidance and optimizes drayage operations to improve coordination between freight facilities.



I-710 South Early Action Project

Addressing mobility goals for I-710 South corridor.

FRATIS intends to address the following objectives:

- Improve air quality

- Improve mobility, congestion, and safety

- Assess alternative, green goods movement technologies



Modernized FRATIS

Improve Trucking Company Experience & Add Significant Daily Value

Promote the use of FRATIS with more **flexible software**

Improved integration approach

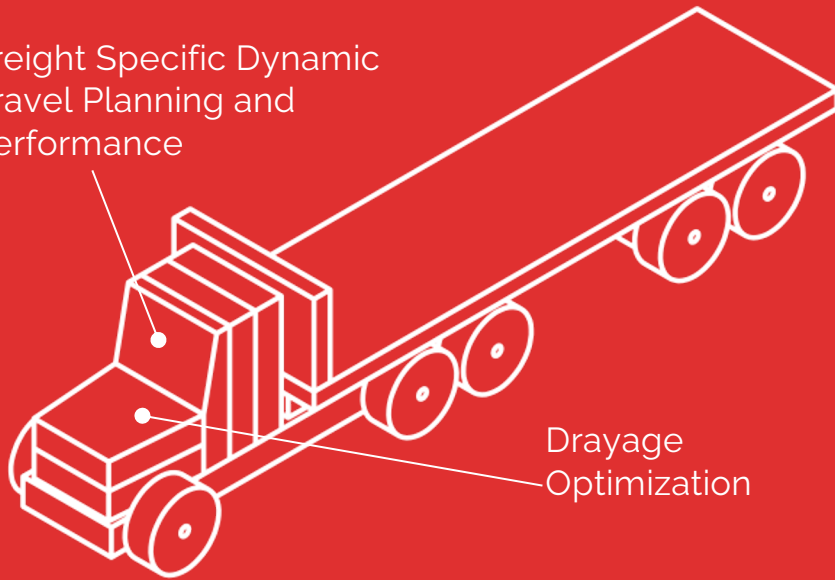
Make FRATIS a **true mobile application** (using any iOS or Android platform)

Integrate and operationalize features that LA Ports really need

Rebranded as **DrayFLEX Core** and **DrayFLEX Trip**

DrayFLEX Core

Freight Specific Dynamic
Travel Planning and
Performance



Drayage
Optimization



Metro

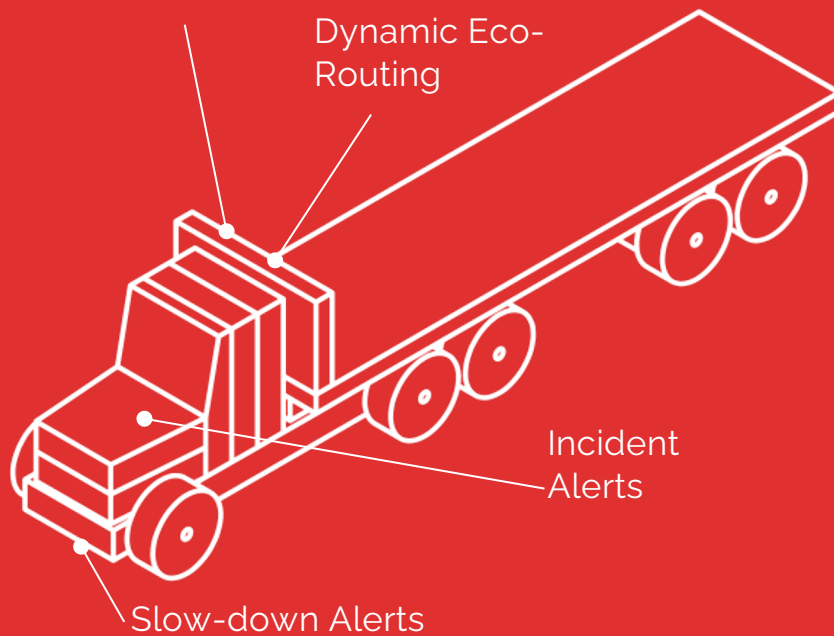
Leverage Existing Systems

- Terminal wait times
- Real-time terminal and port performance
- Aggregate analytics

DrayFLEX Elements

- Real-time data integration with TMS
- Automated Route and load match optimization
 - Instant best match load assignments with re-dispatch options
 - Trip monitoring
 - Move alerts
- Chassis availability and matching
- API-based open architecture

DrayFLEX Trip



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DrayFLEX Trip Application provides route guidance

Truck driver mobile app

Turn by turn routing based on truck profile

Fastest or more fuel-efficient route options

Audible incident alerts

Audible speed notifications

Slow-down ahead notifications

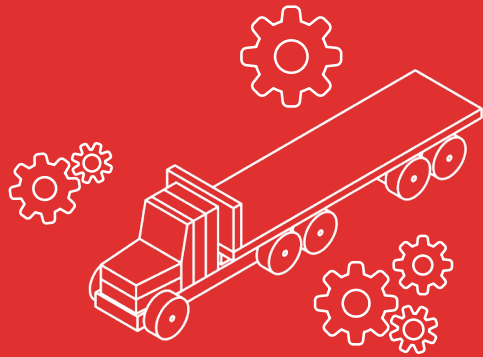
Terminal wait and turn times

iOS and Android

Performance reporting and dashboards

Integration with other data platforms

Goods Movement



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DrayFLEX as a goods movement solution

Continuing to fulfill what came out of the Gateway Cities Technology Plan for Goods Movement

Technology has rapidly matured since the document

Supply Chain issues has caused disruption on advancements

Traffic Management using technology is the focus in lieu of capital improvements on I-710

THANKS!

Any questions?

Shrota Sharma

LA METRO | Principal Transportation Planner

sharmas@metro.net

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DRAYAGE FREIGHT AND LOGISTICS EXCHANGE (DRAYFLEX)

presented to
METRANS CONFERENCE

presented by
**METRO
CAMBRIDGE SYSTEMATICS
INFOMAGNUS
OZ ENGINEERING
SUTRA
CDM SMITH
JACOBS ENGINEERING**

MAY 26, 2022



LA METRO “LA FRATIS MODERNIZATION” ATCMTD GRANT (USDOT)

ATCMTD Benefit	Anticipated Benefits
Mobility	FRATIS would drive overall goods movement efficiencies for the private sector through shorter turn times, improved travel times to distribution centers achieving benefits of 15 percent savings in vehicle miles of travel (VMT), travel times, and 21 percent savings in fuel.
Safety (non-quantifiable)	By reducing congestion and increasing reliability, FRATIS will enhance safety by lowering the number of primary and secondary incidents.
Environment	FRATIS will reduce CO ₂ , NO _x and SO _x , V _o C and CO by and between 21 and 23 percent each, and PM ₁₀ by 27 percent.



ATCMTD GRANT APPLICATION

FREIGHT ADVANCED TRAVELER INFORMATION SYSTEM (FRATIS) PROJECT

DATE: June 3, 2016

SUBMITTED TO: U.S. Department of Transportation - Federal Highway Administration

BY: Los Angeles County Metropolitan Transportation Authority

Metro

Advanced Transportation and Congestion Management Technologies Deployment (ATCMTD) Initiative

Applicant: Los Angeles Metropolitan Transportation Authority (Metro)
 Type of Eligible Applicant: Regional Transportation Planning Agency/Transit Agency
 ATCMTD Grant Request: \$3,000,000
 Location: Los Angeles County, California
 Congressional Districts: 44th - Janice Hahn, 47th - Alan Lowenthal
 NOFO Number: DTFH616RA00012

HOW WE ARE “MODERNIZING” FRATIS

- Rebranded to Drayage Freight and Logistics Exchange “**DrayFLEX**”
 - » **DrayFLEX Core** – Dispatcher optimization tool
 - » **DrayFLEX-Trip** – Routing mobile app for truck drivers
- Integrate and operationalize features that ports, trucking companies, and/or truck drivers need to add significant value to daily operations
- Improve trucking company experience and promote adoption of DrayFLEX with more flexible software and integration approaches
- Make DrayFLEX-Trip a mobile application that can run on both iOS and Android platform, utilizing web services, and API connectivity
- Build on top of already commercialized goods movement tools to increase commercial deployment



Los Angeles-Gateway FRATIS
Demonstration Team Final Report,
Cambridge Systematics for FHWA,
February 2015

“Future efforts should focus on more flexible software and integration approaches, and utilize web services, API connectivity and mobile applications for the next generation of FRATIS. The FRATIS approach needs to eventually become independent from both the back office and dispatcher-to-truck communications platforms that trucking companies use today. Additionally, future FRATIS application of the Drayage Optimization Algorithm must be more flexible to allow for the Daily Plan to be modified by drayage dispatchers, in real-time, across a given day in response to changing operational conditions and external events”



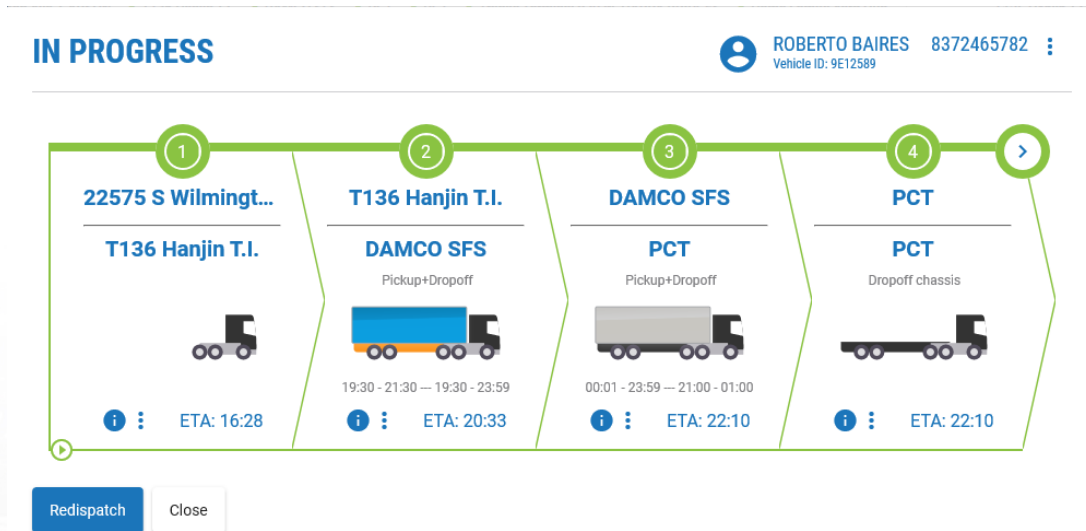
Metro





DRAYFLEX CORE

DRAYFLEX CORE OVERVIEW

- Instant best-match load assignments with re-dispatch options when changes arise en route
 - » Trip monitoring
 - » Move alerts
- Automated dispatch workflow and optimization
- Chassis availability and matching
- Performance reporting and dashboards
- Integration with Truck Management Systems (TMS)
 - » Profit Tools
 - » Trinium



DRAYFLEX CORE DEMONSTRATION



Customer

User Login

Username

Password

Login

Forgot Password?

[DRIVERS AVAILABLE](#)

DISPATCH PLAN OPTIONS

QA DRIVER2501 9876543210

Vehicle ID: 9E3247

PLAN 1

3 Moves/42 Miles

4 hr 25 min

\$210 (\$30 ↓)

Approximate Time

1 131 W 223RD ST, CARSON - SHIPPERS MIDDLE RD 12 min

2 SHIPPERS MIDDLE RD - DAMCO SFS 39 min

3 DAMCO SFS - TTI 44 min

PLAN 2

4 Moves/73 Miles

6 hr 35 min

\$213.5 (\$26.5 ↓)


Approximate Time


1 131 W 223RD ST, CARSON - Home Lomita Yard Hub 13 min


2 Home Lomita Yard Hub - Trapac 14 min


3 Trapac - TTI 21 min

PLAN 2

1 131 W 223RD ST, CARSON
↓
Home Lomita Yard Hub

ETA: 12:00


2 Home Lomita Yard Hub
↓
Trapac Pickup+Dropoff

17:00 - 21:00 — 17:00 - 02:00
ETA: 17:43


3 Trapac
↓
TTI

ETA: 19:50


4 TTI
↓
ELECTROLUX HOME PRODUCTS Pickup+Dropoff

20:00 - 22:00 — 00:00 - 23:59
ETA: 23:01


Cancel


Submit Plan



Bobtail


Pool chassis


Company's chassis



Truck with empty container


Truck with full container



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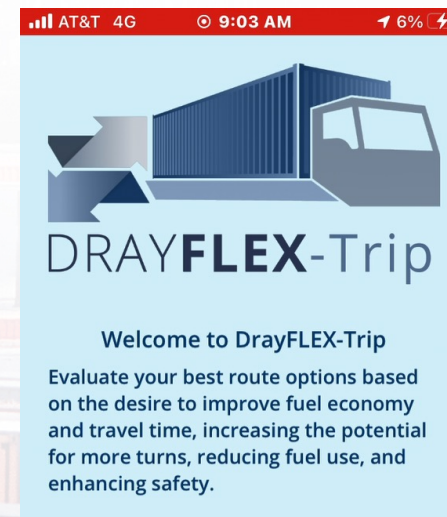
20



DRAYFLEX-TRIP

DRAYFLEX-TRIP KEY FEATURES

- Mobile app for truck drivers (iOS and Android)
 - » Fastest or more fuel-efficient route options
 - » Turn by turn routing based on truck profile
 - » ETA and appointment on-time arrival information
 - » Favorite locations
 - » Restricted route notifications
 - » Audible incident alerts
 - » Audible speed notifications
 - » Slow-down ahead notifications
 - » Terminal wait and turn times
 - » Trip summary and ratings



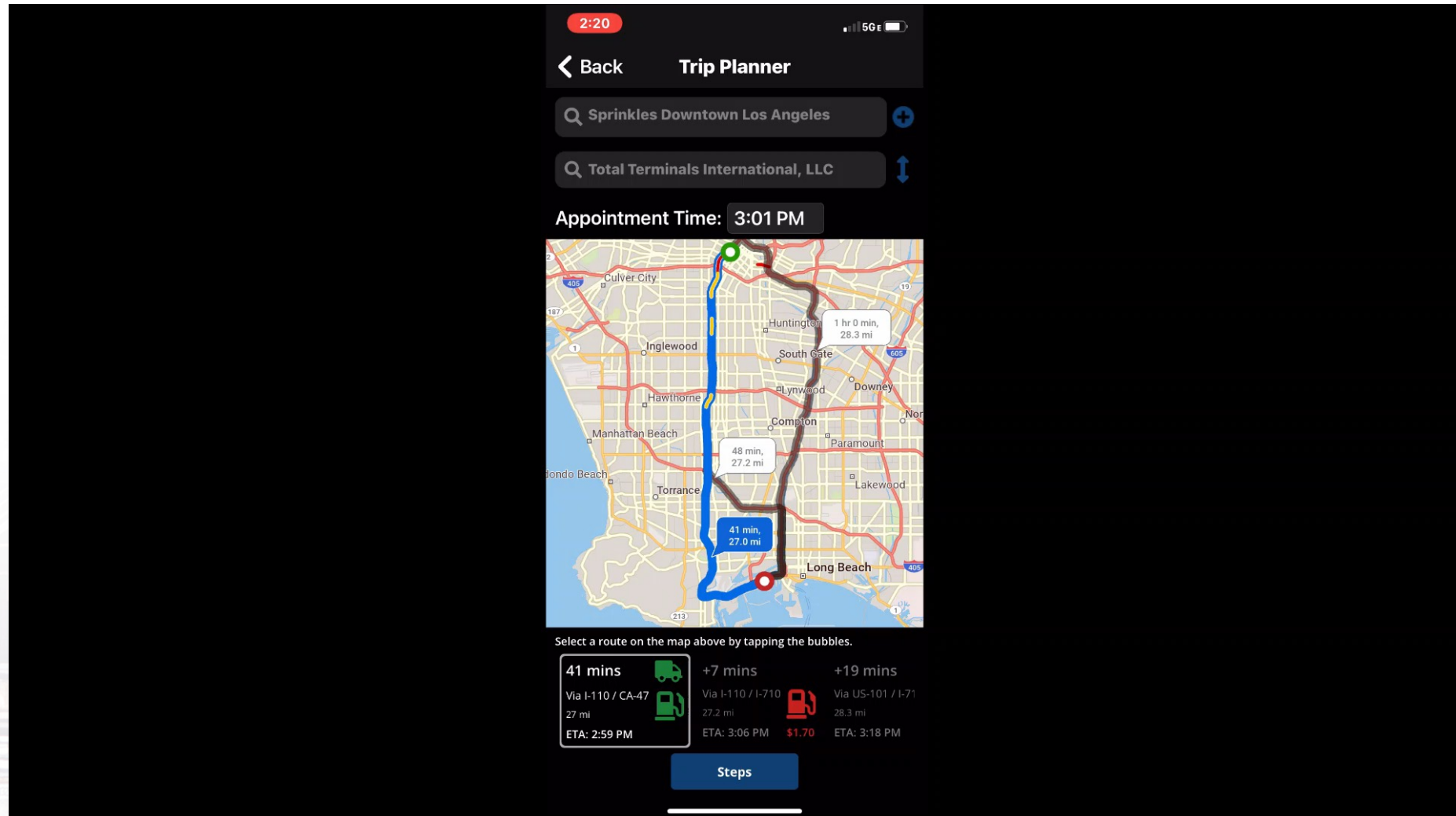
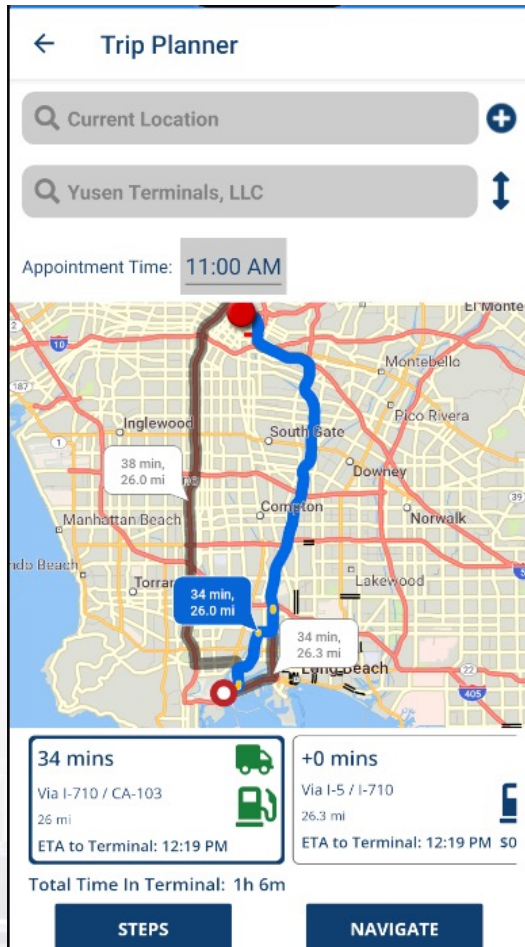
Ports of Los Angeles/Long Beach Last Updated: 11/25/2020 6:04:34 PM		
PCT	PCT	
In Q	In Terminal	Total Visit Time
6 minutes	31	37
TraPac TraPac Container Terminal		
In Q	In Terminal	Total Visit Time
10 minutes	32	41
TTI Total Terminals International, LLC		
In Q	In Terminal	Total Visit Time
33 minutes	40	73



Metro

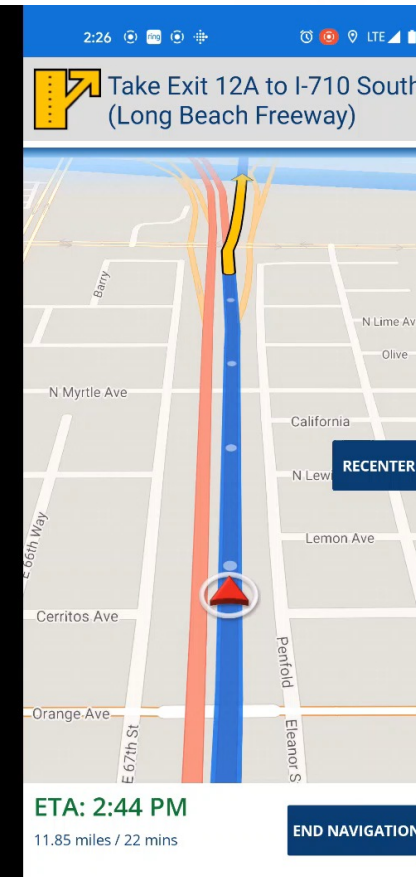
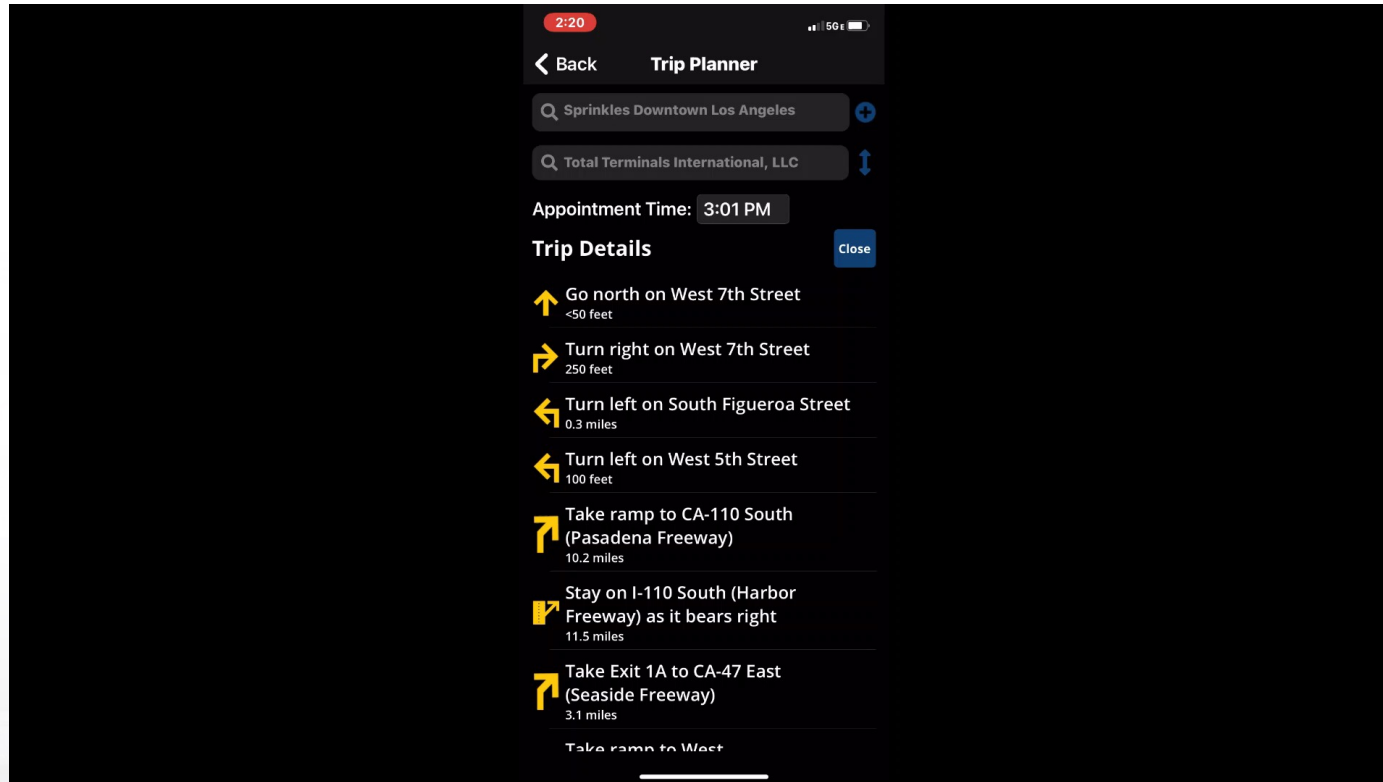


FASTEST OR MORE FUEL-EFFICIENT ROUTE OPTIONS



Metro

TURN BY TURN ROUTING BASED ON TRUCK PROFILE



Metro

ETA AND APPOINTMENT ON-TIME ARRIVAL INFORMATION

AT&T 6:06 PM 99%

[Back](#) Trip Planner

5500 Sheila Street

Yusen Terminals, LLC

Appointment Time: 11:00 AM

29 min, 21.0 mi

38 min, 19.8 mi

31 min, 21.2 mi

Route	Distance	ETA	Fuel Cost
+3 mins Via I-710 / CA-103	21.2 mi	ETA: 6:37 PM	\$0.00
+9 mins Via I-710 / CA-47	19.8 mi	ETA: 6:43 PM	\$0.90

Steps

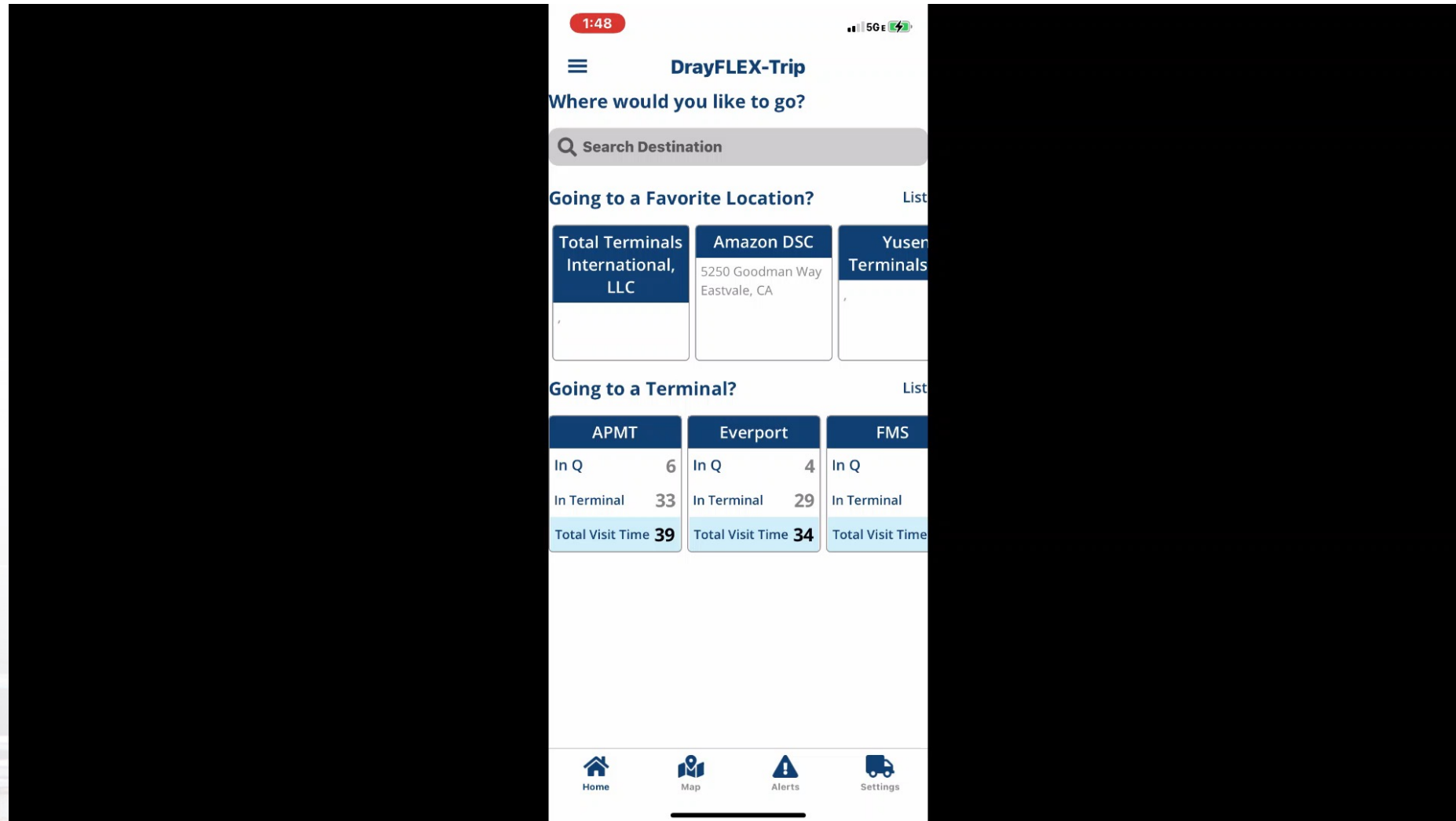
ETA: 3:14 PM

3.96 miles / 8 mins

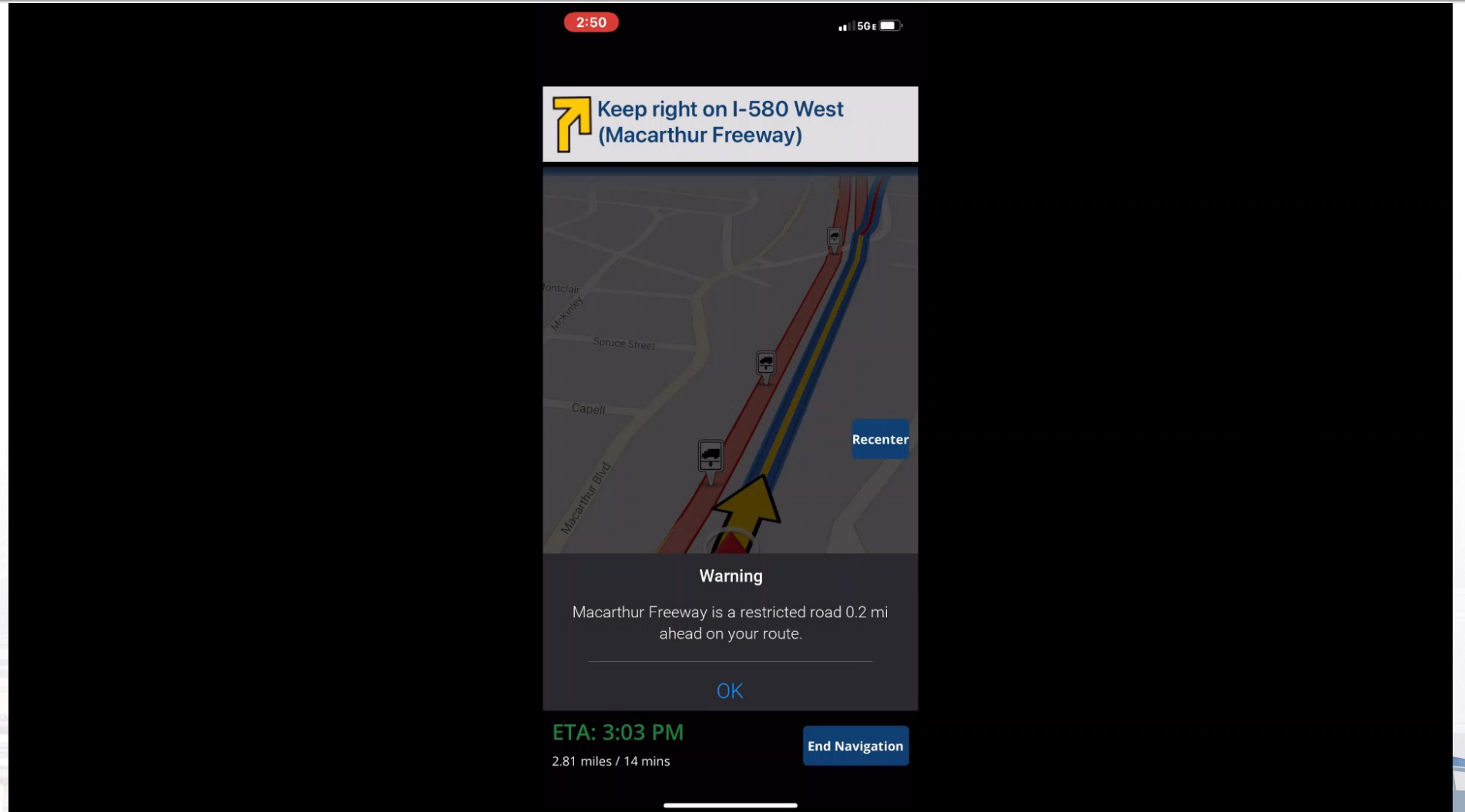
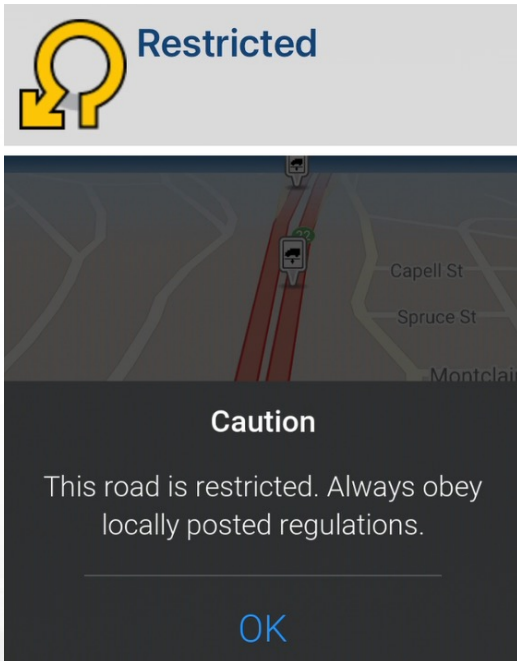
Late Arrival

End Navigation

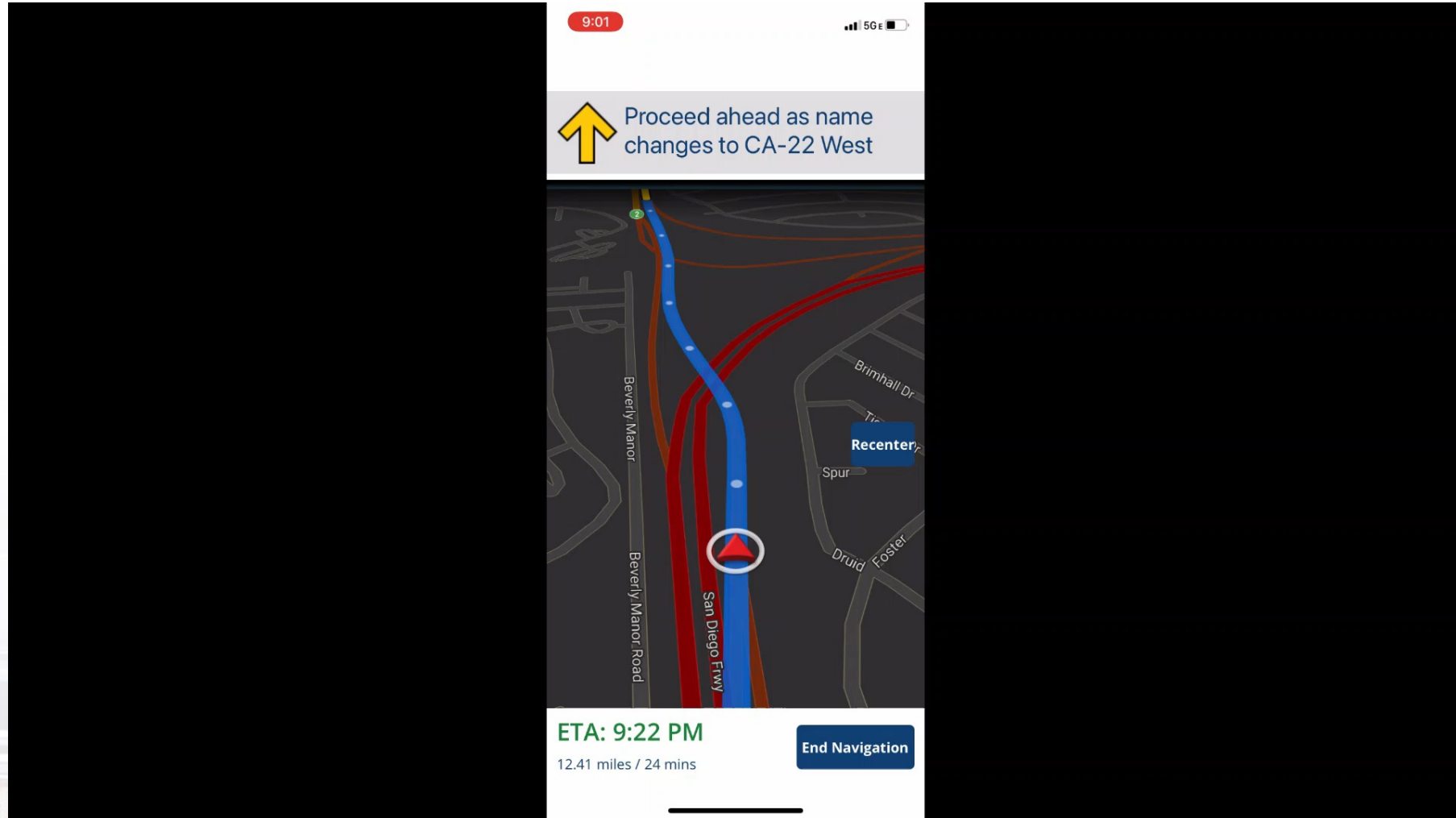
FAVORITE LOCATIONS



RESTRICTED ROUTE NOTIFICATIONS



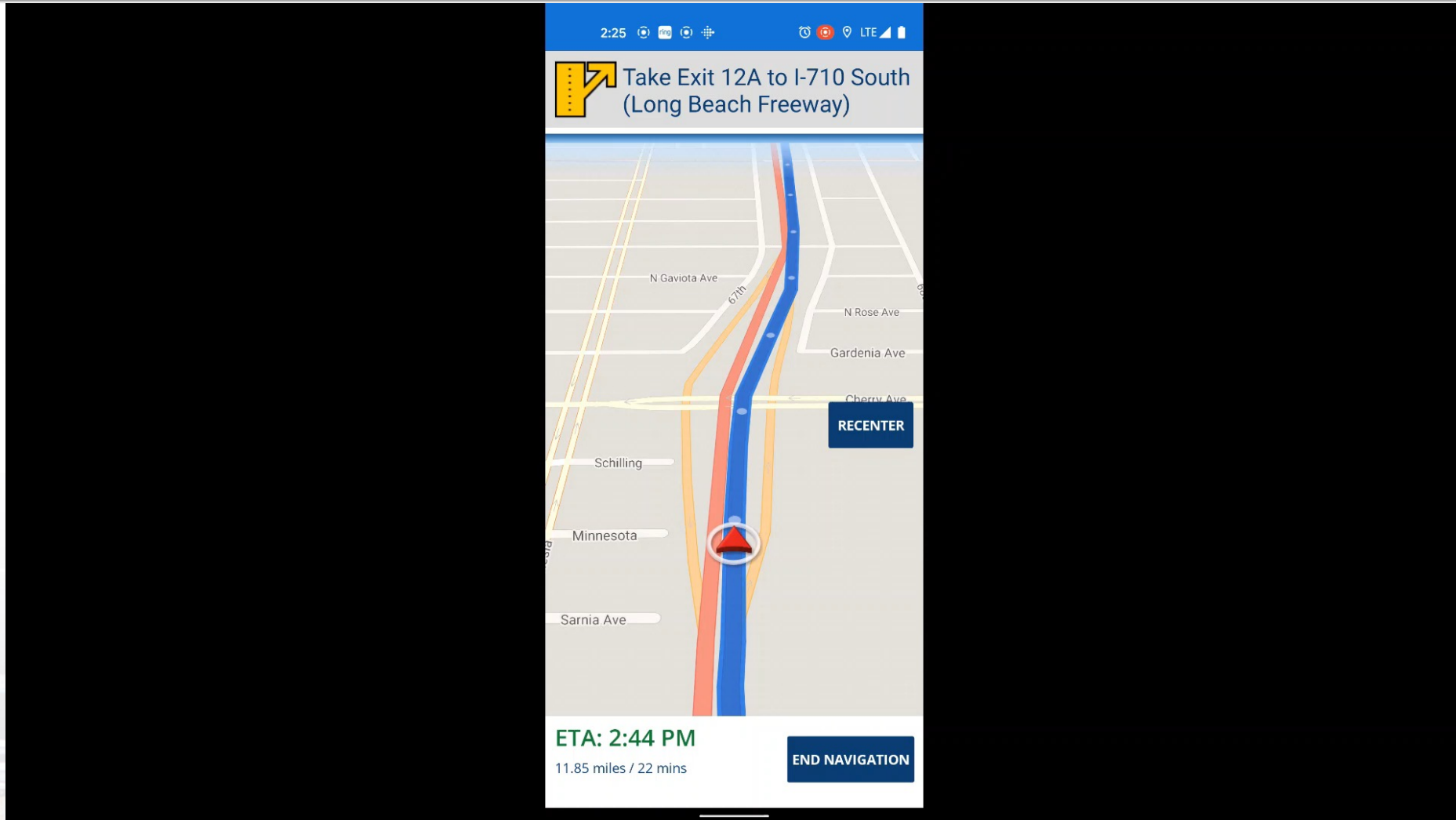
INCIDENT/ACCIDENT ALERTS



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SLOW-DOWN AHEAD NOTIFICATIONS



Metro



TERMINAL WAIT AND TURN TIMES

2:225G

☰

DrayFLEX-Trip

Where would you like to go?

Q

Search Destination

Going to a Favorite Location?

List

5832 Nottingham Drive
Oakland, CA

Total Terminals International, LLC

Going to a Terminal?

List

APMT

Everport

FMS

In Q27

In Q4

In Q

In Terminal43

In Terminal29

In Terminal

Total Visit Time70

Total Visit Time34

Total Visit Time

Home

Map

Alerts

Settings

AT&T5:49 PM99%

◀

Back

Terminals

Ports of Los Angeles/Long Beach

Last Updated: 1/15/2021 5:47:59 PM

PCT

PCT

In Q

In Terminal

Total Visit Time

9 minutes

54

63

TraPac

TraPac Container Terminal

In Q

In Terminal

Total Visit Time

9 minutes

36

44

TTI

Total Terminals International, LLC

In Q

In Terminal

Total Visit Time

15 minutes

54

69

Home

Map

Alerts

Settings



Metro



TRIP SUMMARY AND RATINGS

Trip Summary

Rate Your Trip



Current Location

, 5815-5858 Thornhill Drive, Oakland,
CA 94611

Arrived 4:12 PM

Early Arrival

Trip Time 2 mins

Incidents



Metro





DRAY**FLEX**-Trip

Welcome to DrayFLEX-Trip

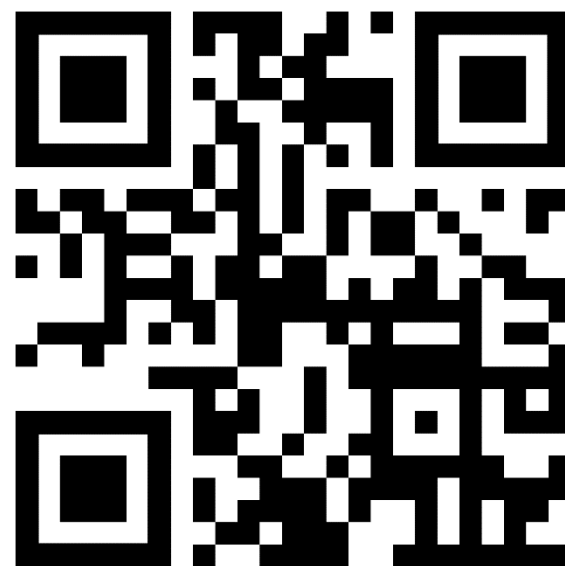
Evaluate your best route options based on the desire to improve fuel economy and travel time, increasing the potential for more turns, reducing fuel use, and enhancing safety.



Metro™

SIGN-UP AT:

www.drayflextrip.com



SCHEDULE/NEXT STEPS

DRAYFLEX SCHEDULE AND NEXT STEPS

Task	Start	End
Project Refinement & Concept Exploration	September 2018	February 2019
Stakeholder Outreach and Recruitment	October 2018	March 2019
Project Planning (SEMP, ConOps, System Requirements)	January 2019	July 2019
System Definition and Design	June 2019	November 2019
System Deployment and Implementation	June 2019	June 2022
System Validation, Performance Measurement, Training, & Commercialization Plan	September 2018	June 2023
Operations and Maintenance	August 2021	June 2023



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THE PORT
OF LOS ANGELES **LA**

America's Port

The Port of Los Angeles

May 2022



2018-2022 Storm of Trade Impacts

U.S.-China Trade Tensions

Tariffs & Retaliatory Tariffs

Manufacturer Migration to Southeast
= Cargo Routing to U.S. East coast

BCOs Pull Cargo Forward in
Advance of Tariff Increase

Tariff Wars Trigger Export Declines

Record-Setting 2018 Container Volume

Covid-19 Pandemic

Critical Supply Chain Needs + Labor Force Impacts

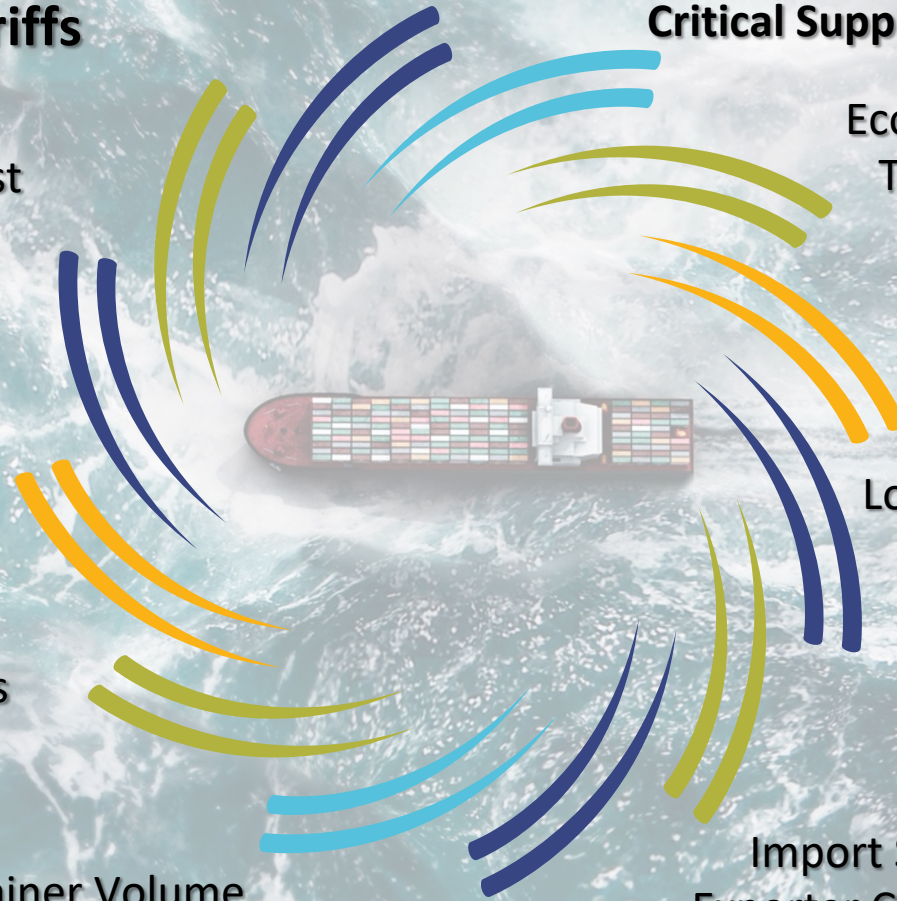
Economies Shutter, Cargo
Trade Volumes Plunge

Consumer-Driven Cargo Surge
Record-Setting E-Commerce

Local & Global Supply Chain Disruptions

Global Container Shortage
Carrier Price Hikes

Import Surge Continues
Exporter Challenges Continue



Our Operational Focus Points



Strategic Land Use

- Ongoing terminal modernization projects
- Re-purposing surplus land to support short and mid-term cargo needs
- Creating Terminal Alliances



Process Management

- Supply Chain Optimization efforts -- 100+ stakeholders
- Continuing strong engagement with State & Federal Policymakers, including FMC and Departments of Commerce, Labor & Transportation



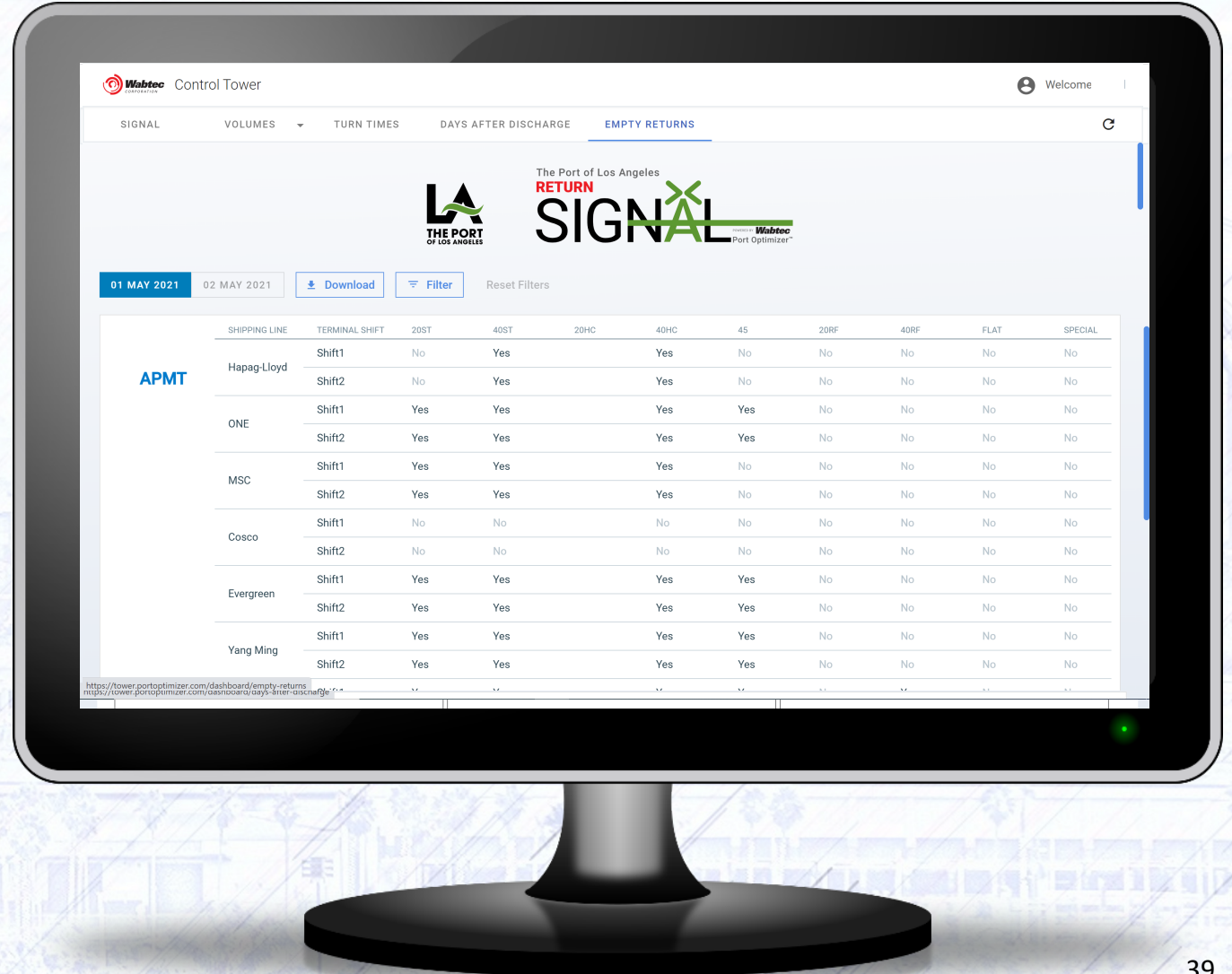
Technology

- Digital Infrastructure & Port Community Systems
- Increased development & application of Blue & Green technology

Real-Time Information Sharing

Port Optimizer™

Establish a **global data repository** to provide accurate, actionable information and analytics, accessible to designated parties across the **port's supply chain**



Wabtec Control Tower

Welcome

SIGNAL VOLUMES TURN TIMES DAYS AFTER DISCHARGE EMPTY RETURNS

The Port of Los Angeles
RETURN SIGNAL
Wabtec Port Optimizer™

01 MAY 2021 02 MAY 2021 Download Filter Reset Filters

	SHIPPING LINE	TERMINAL SHIFT	20ST	40ST	20HC	40HC	45	20RF	40RF	FLAT	SPECIAL
APMT	Hapag-Lloyd	Shift1	No	Yes		Yes	No	No	No	No	No
		Shift2	No	Yes		Yes	No	No	No	No	No
ONE	ONE	Shift1	Yes	Yes		Yes	Yes	No	No	No	No
		Shift2	Yes	Yes		Yes	Yes	No	No	No	No
MSC	MSC	Shift1	Yes	Yes		Yes	No	No	No	No	No
		Shift2	Yes	Yes		Yes	No	No	No	No	No
Cosco	Cosco	Shift1	No	No		No	No	No	No	No	No
		Shift2	No	No		No	No	No	No	No	No
Evergreen	Evergreen	Shift1	Yes	Yes		Yes	Yes	No	No	No	No
		Shift2	Yes	Yes		Yes	Yes	No	No	No	No
Yang Ming	Yang Ming	Shift1	Yes	Yes		Yes	Yes	No	No	No	No
		Shift2	Yes	Yes		Yes	Yes	No	No	No	No

<https://tower.portoptimizer.com/dashboard/empty-returns>
<https://tower.portoptimizer.com/dashboards/days-after-discharge>

Product Principals

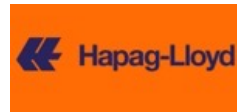
- **“System of systems”** ... fits within the existing Supply Chain ecosystem to enable interoperable supply chain visibility. GE architecture / delivery mechanism is purposely flexible.
- **Partnerships** ... open to and actively exploring technology partnerships across the Maritime shipping / broader Supply Chain ecosystem.
- **Data Stewardship** ... you own your data and should define how it is used. GE role is to act as independent data stewards and software providers. Transparent & consultative about how data is used. GE is not seeking to share sensitive information.
- **Highly elastic for easy and rapid growth:**
 - Scalable to support expected Port growth
 - Headroom for big data traffic
- **Cloud based, Modular and service oriented:**
 - Upgrades with no customer disruption
 - Minimized setup and maintenance cost
 - User online services
 - Easy to access/switch over
- **Short release cadence:**
 - Rapid production deployment
 - Experiment oriented feedback and Analytics

Data Sources



Ocean Carrier Data

CBP Data covering all shipments into Port of LA (including Manifest EDI 309 and Customs EDI 350 messages)



Direct connections with Carriers including Manifest data, Booking information, Stowage, Destination Terminal, and Rail/Truck destination information

Marine Terminal Data



Additional Data Sources



U.S. Customs and
Border Protection



Full data for all Port of LA Terminals, including movement events, gate moves, yard location, last free day, and holds

Port Optimizer Modules

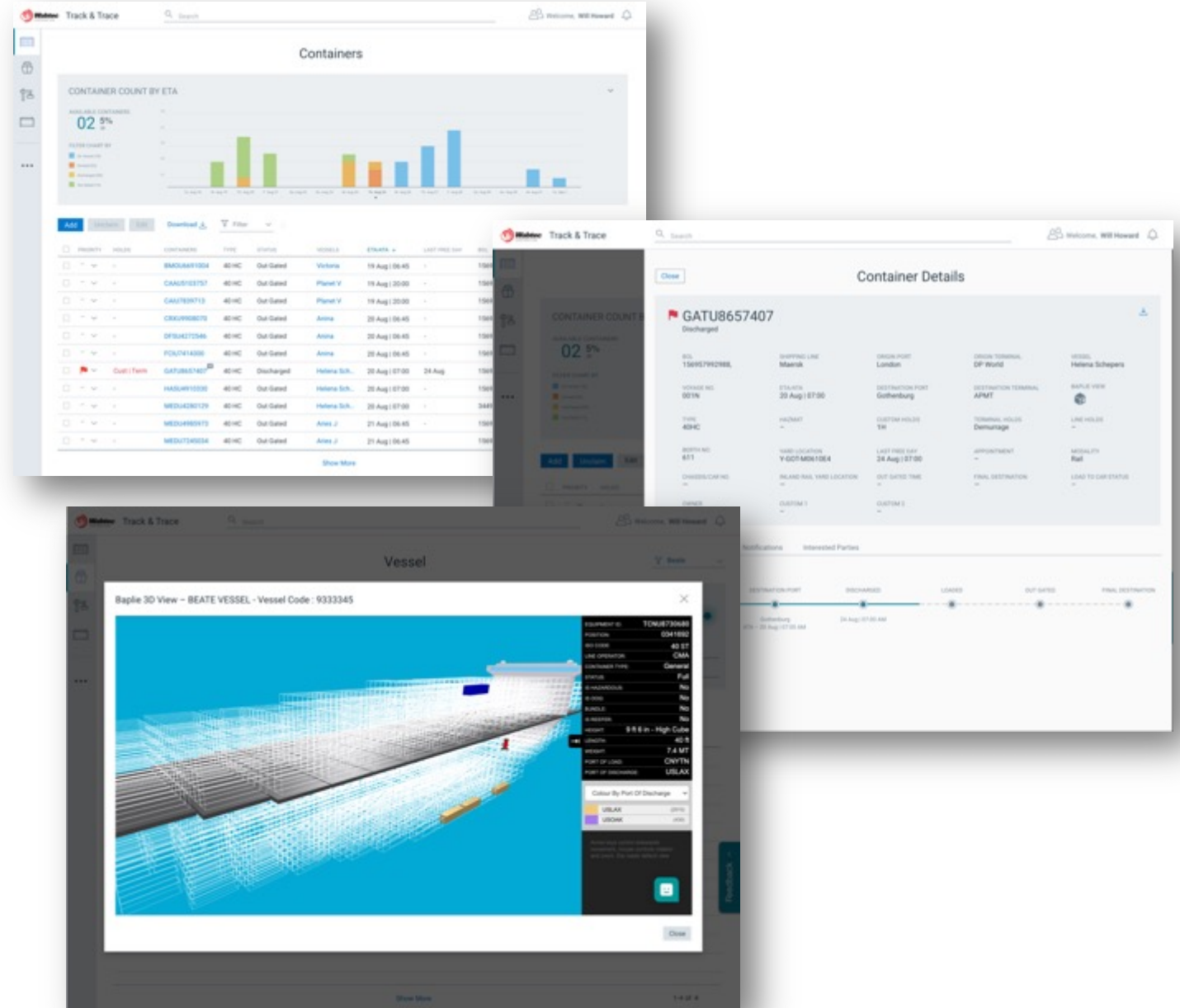


Track & Trace

Container Visibility and Planning

Provides visibility for better operational decisions of Intermodal Containers from the Ocean to Inland

- Graph that quickly shows volume over time with color coded statuses.
- Multiple data sets merged and standardized.
- Visual timeline tracker with key milestones.
- Container location and near real time updates.



The Port of Los Angeles Signal

High-Level Visibility/Data Metrics

New levels of visibility

- Three-week forward view of import volumes
- Better planning for port stakeholders (chassis, truck, rail)
- Open to entire community
- Ability to grow as port needs grow

<https://tower.portoptimizer.com/dashboard/signal>

Weekly Forecast

Week	Local Volumes (estimated)					Rail Volumes (estimated)					Weekly Total			
	20'	40'	45'	Other	Total	On-Dock	Off-Dock	On-Dock	Off-Dock	Total				
Oct 11 - Oct 17 (week 42)	6,294	45,229	1,660	701	53,884	2,499	860	18,074	6,250	649	216	21,222	7,326	82,432
Oct 18 - Oct 24 (week 43)	6,334	41,545	1,490	854	50,223	2,518	862	16,603	5,740	582	193	19,703	6,795	77,721
Oct 25 - Oct 31 (week 44)	1,189	6,346	196	644	8,355	457	153	2,527	870	70	22	3,054	1,045	12,454
Nov 01 - Nov 07 (week 45)	395	1,611	13	224	2,243	151	50	638	216	3	0	792	266	3,901
Nov 08 - Nov 14 (week 46)	46	268	2	90	366	16	5	105	35	0	0	121	40	527

* Totals contain vessels that have not yet departed origin location

2020 Port of LA Total Volumes (TEU)

Q1 2020	
January	411,198
February	258,716
March	198,264

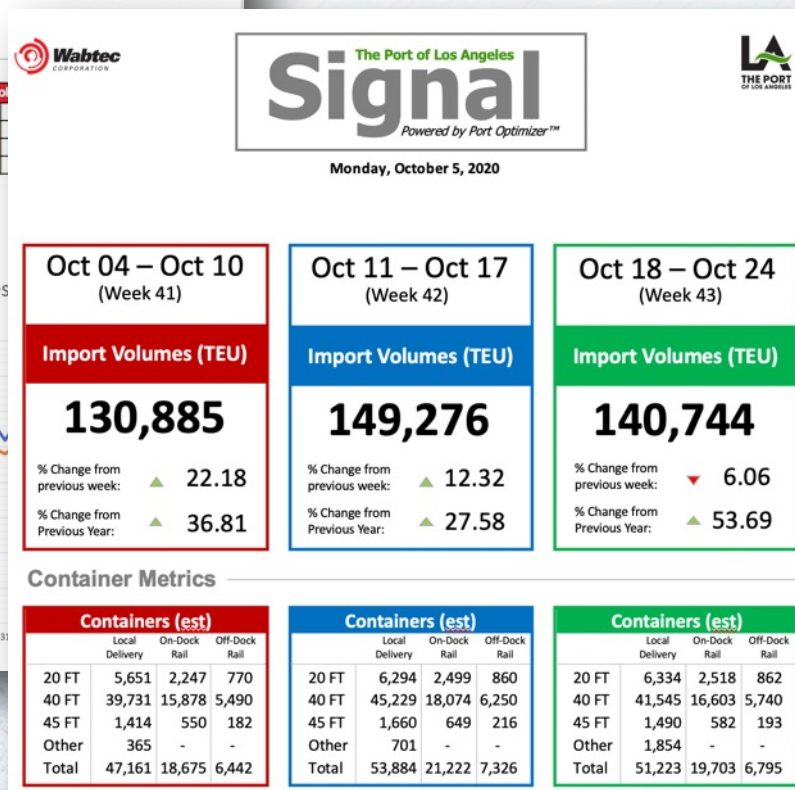
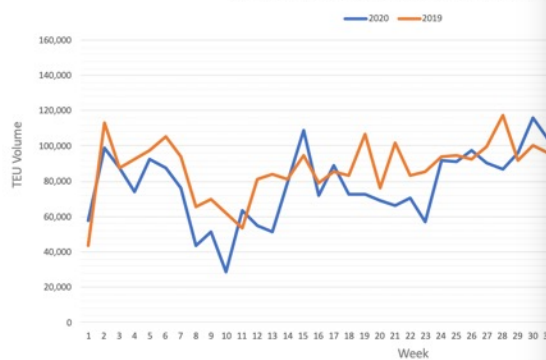
Q3 2020	
July	492,725
August	449,890
Sept	600,221

September	
Week 36	132,754
Week 37	106,817
Week 38	111,784
Week 39	127,391
Week 40	101,802

October	
Week 41	
Week 42*	
Week 43*	
Week 44*	

Q2 2020	
April	421,849
May	278,059
June	337,679

Port of Los Angeles Weekly Volumes



The Port of Los Angeles Return Signal

High-Level Visibility/Data Metrics

The screenshot displays the Wabtec Track & Trace interface. The top navigation bar includes 'Today', 'Tomorrow', 'Historical', and 'Download' tabs. The left sidebar shows 'IMPORTS' and 'EXPORTS' sections with various icons. The main content area is divided into three sections: ETS, FMS, and TRPC. The ETS section shows a table with columns for 'Shift1', 'Shift2', and various 'Yes/No' status indicators. The FMS section shows a table with columns for 'SHIPPING LINE' and 'TERMINAL SHIFT'. The TRPC section shows a table with columns for 'SHIPPING LINE' and 'TERMINAL SHIFT'. The 'Historical Terminal Empty Return' section is highlighted, showing a search form with fields for 'Terminals', 'Date', and 'Time', and a 'Submit' button. Below the search form is a table titled 'APMT Empty Returns' showing a detailed view of empty returns for various terminals and shifts.

Carrier	Terminal	Shift	Empty	Full	Other
APL/CMA	Shift1	Yes	Yes	Yes	No
APL/CMA	Shift2	Yes	Yes	Yes	Yes
Evergreen	Shift1	Yes	Yes	Yes	Yes
Evergreen	Shift2	Yes	Yes	Yes	Yes
OOCL	Shift1	No	No	No	Yes
OOCL	Shift2	No	No	Yes	Yes
Cosco	Shift1	No	No	No	Yes
Cosco	Shift2	No	No	Yes	Yes

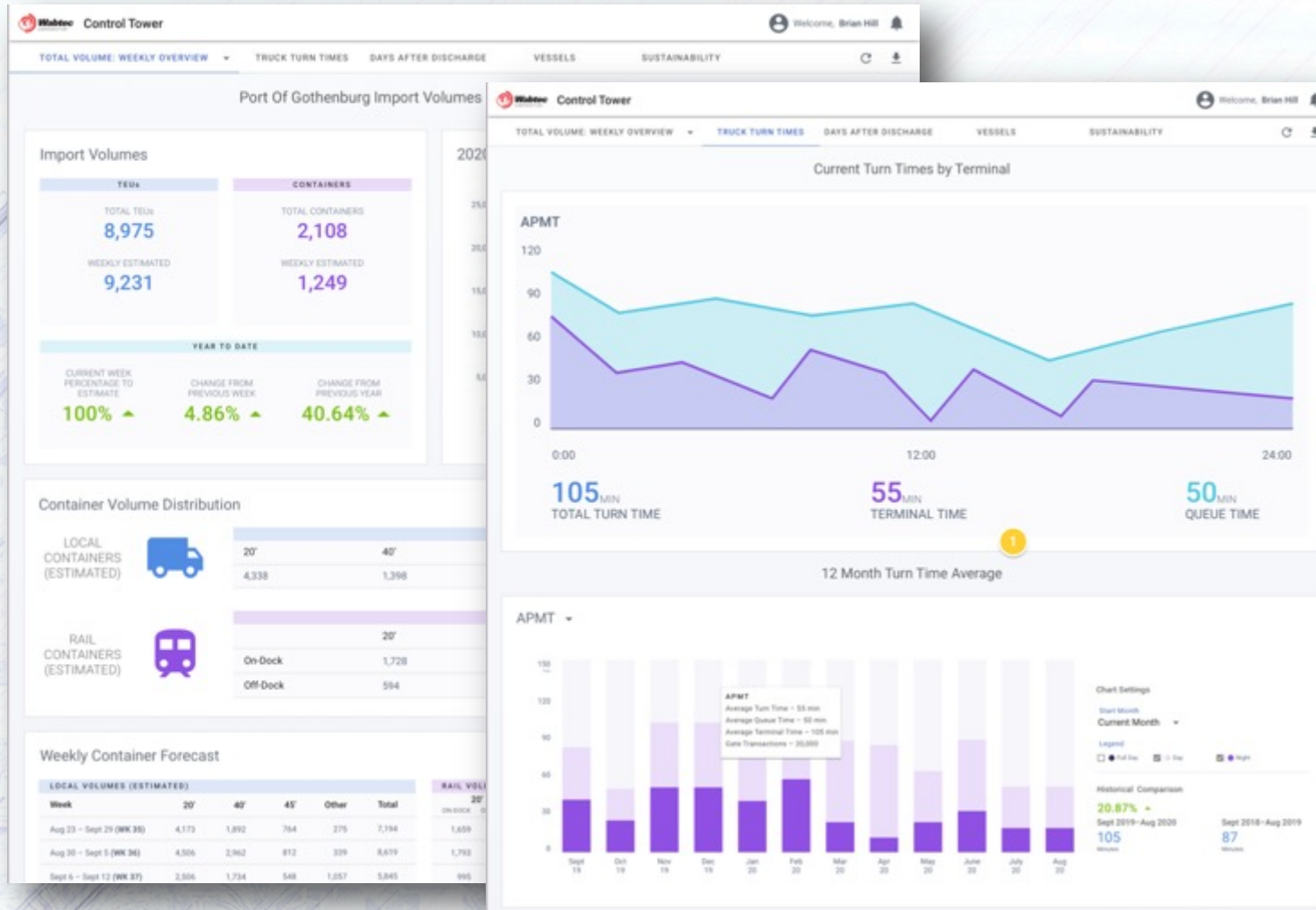
Empty Returns Made Easy

- Empty Return information for all terminals in a single view
- Searchable by size, carrier, type and terminal
- Multi-day views
- Historical views including screen captures of terminal sites

<https://tower.portoptimizer.com/dashboard/empty-returns>

Control Tower

High-Level Visibility/Data Metrics



Measures and reports Port wide Key Performance Indicators

Port Performance Metrics

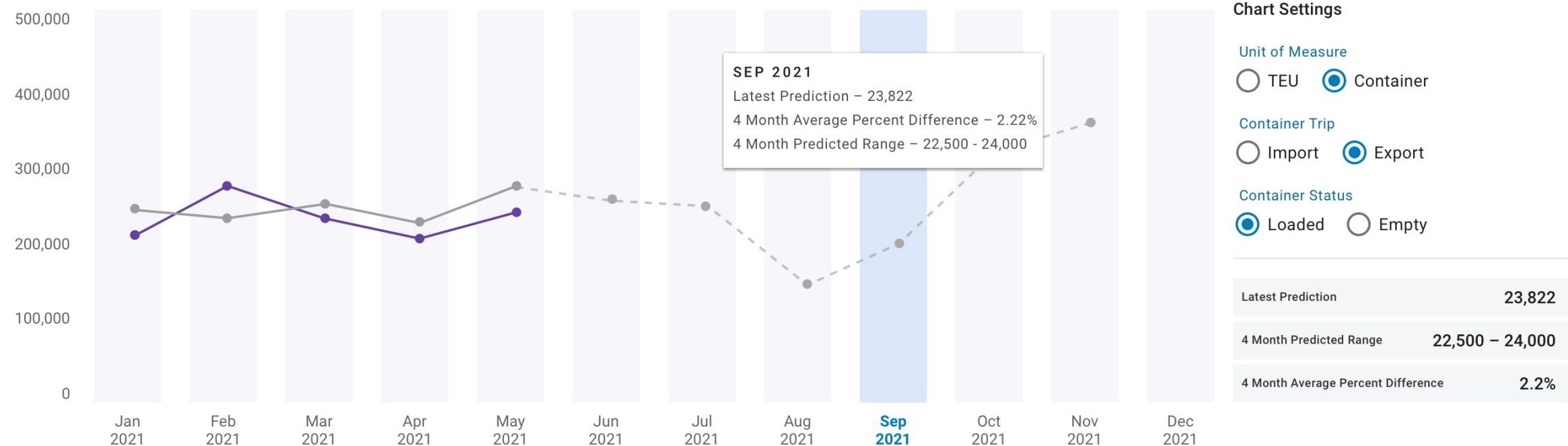
- Truck Turn Times
- Cargo Dwell Times
- Import/Export Volumes
- Rail Metrics
- Financial Metrics

Current and Historical views with weekly/monthly/yearly comparisons



Total Volumes by ATA: 6 Month Prediction

Port of Los Angeles



THANK YOU

@PortofLA



portoflosangeles.org



SPECIAL SESSION:

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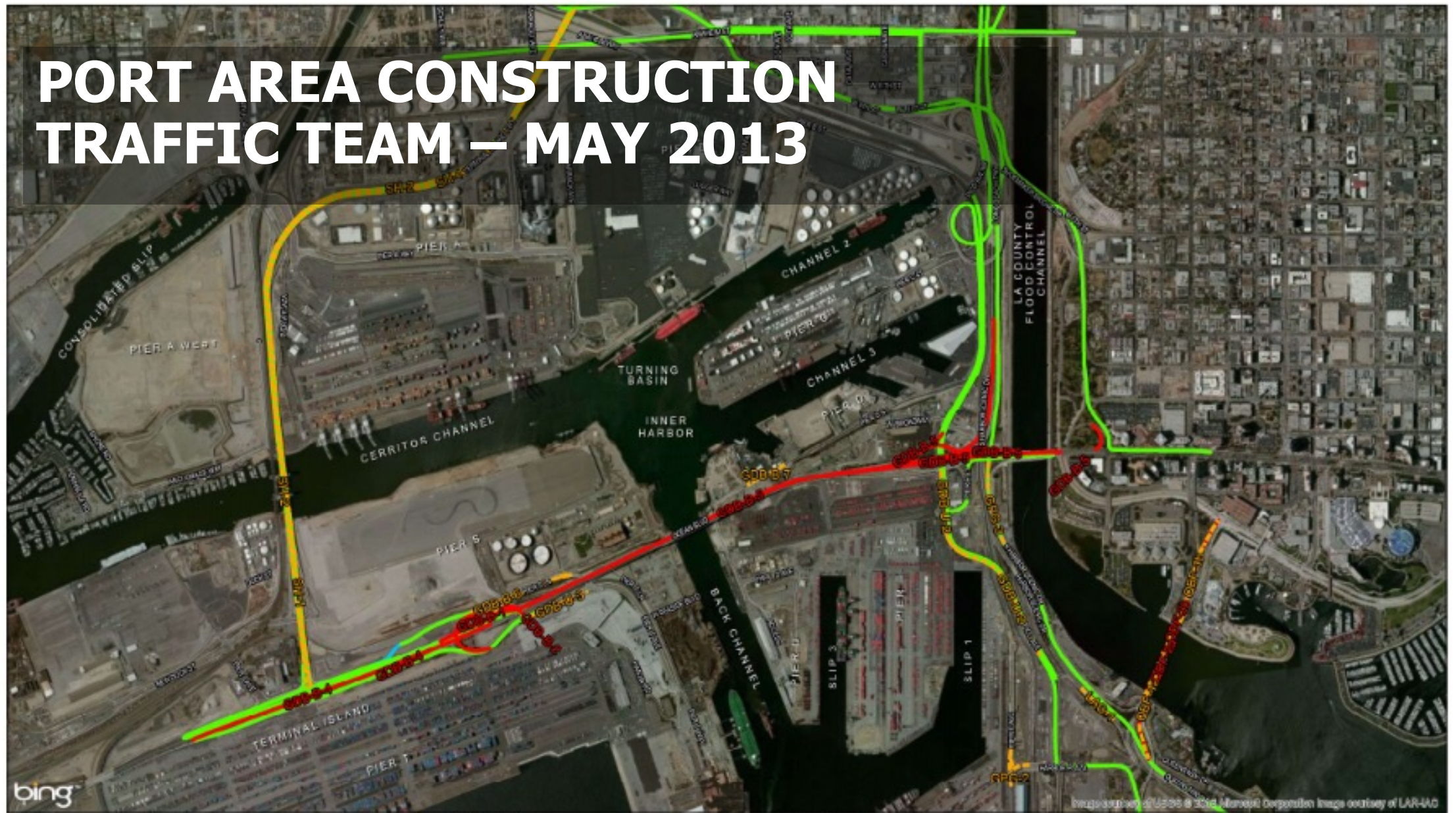
Port of
LONG BEACH
THE PORT OF CHOICE

Traffic Management: Teamwork and Technology

Theresa Dau-Ngo, AICP
Director, Transportation and Master Planning
Port of Long Beach

May 26, 2022

PORT AREA CONSTRUCTION TRAFFIC TEAM – MAY 2013



LSA



LEGEND

- Full Closure
- - - Partial Closure
- Detour
- Detour-Temporary Road

Project ID

- | | |
|-------------------|---|
| Project ID | Project Description |
| GDB-B-1 | WBI Ocean Blvd off-ramp to Pier T Ave |
| GDB-B-2 | WBI Ocean Blvd on-ramp from Pier T Ave - horseshoe demo |
| GDB-B-4 | Ocean Blvd Full Closure - horseshoe demo |
| GDB-B-5 | Ocean Blvd Full Closure - horseshoe demo |
| GDB-B-6 | Pier S Lane Closure |
| GDB-B-7 | Pier D Lane Closure |
| GDB-U-2 | SB Pico Avenue Lane Closure - Tideland |
| GDB-U-3 | Pier T Avenue Lane Closure - SCE |

Project ID

- | | |
|-------------------|---|
| Project ID | Project Description |
| GPB-2 | Pier F Avenue Closure |
| GPB-3 | Harbor Scenic Dr n/b on-ramp |
| LAC-1 | Bridge Column Work on Harbor Scenic Drive |
| QBF-1a | Lane closure of QWB northbound lane |
| QBF-1b | Lane closure of QWB southbound lane |
| QBF-2a | Full closure of QWB northbound |
| QBF-2b | Full closure of QWB southbound |
| SH-1 | NB SR-47 Partial Closure |
| SH-2 | SB SR-47 Partial Closure |

FIGURE 1

Port of Long Beach - Look Ahead

Active Projects with Roadway Closures or Restrictions

Week of July 8 thru July 14

PORT STAFF

Executive Management

Transportation Planning

Engineering Design

Program Management

Construction Management

Project Controls

Security

Tenant Services and Operations

Communications

OUR PARTNERS

Project Management/ Construction
Management (PM/CM)

Shimmick/ FCC/ Impregilo (SFI)

Westbound Communications

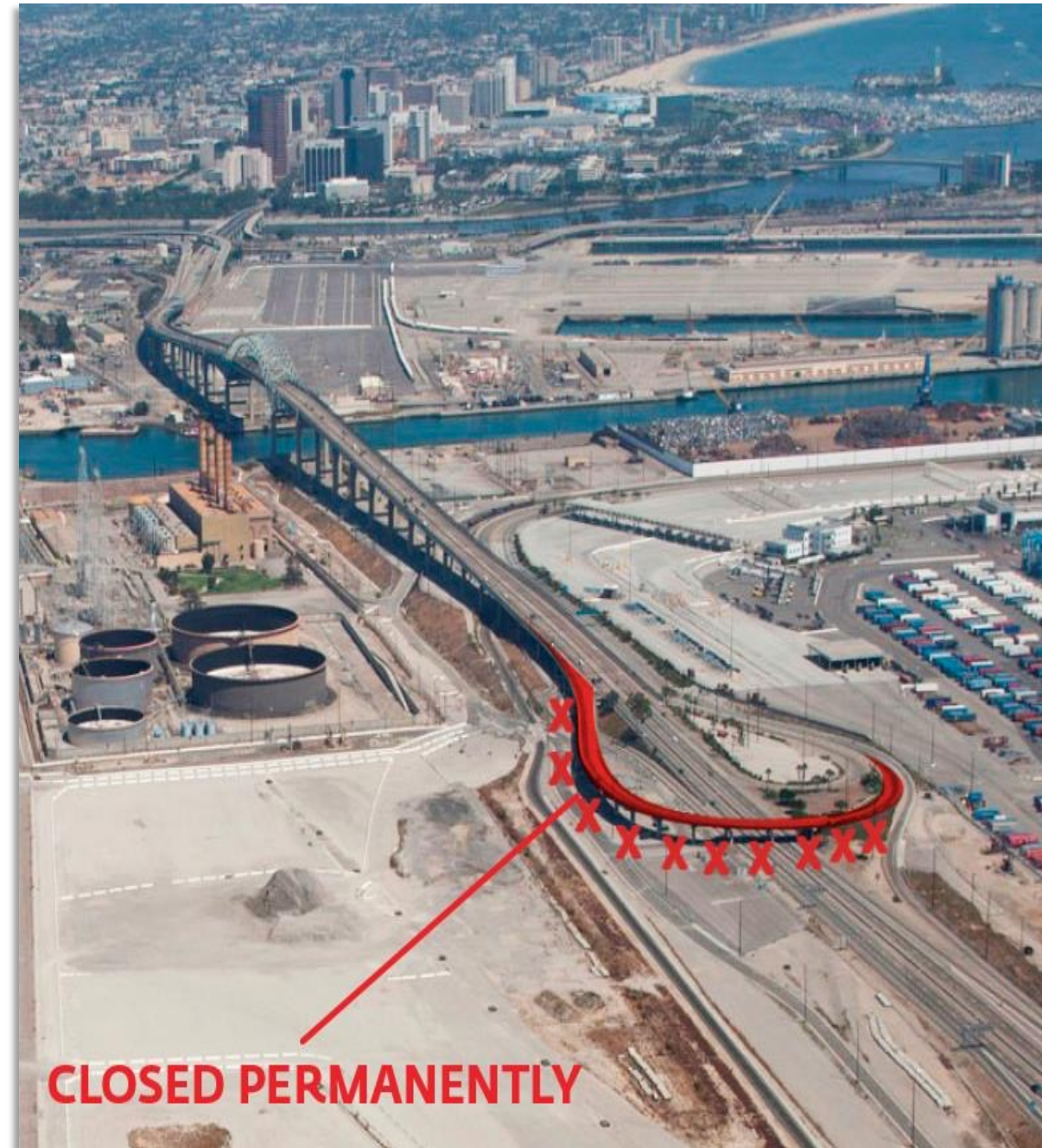
Caltrans

City of Long Beach Public Works

Los Angeles County

T E A M

HORSESHOE RAMP DEMOLITION – JULY 2013



TRANSPORTATION MANAGEMENT PLAN APPROVAL (TMP) – SEPTEMBER 2013



SOUTHBOUND I-710 TO WESTBOUND OCEAN BLVD CONNECTOR CLOSURE – FEBRUARY 2014





JOINT SITE VISIT – MIDDLE HARBOR AND GDB REPLACEMENT PROJECTS - DECEMBER 2015



Gerald Desmond Bridge Replacement Project

Caltrans • Metro • Port of Long Beach • US Department of Transportation

Long-term Closure

Ocean Blvd. Detour to Downtown Long Beach

Start Date: 5 a.m. Tuesday, January 19, 2016*
Duration: 36 months

Closure:

Eastbound Ocean Boulevard between the Gerald Desmond Bridge and downtown Long Beach will be closed for crews to construct the new bridge.

Closure of the section of Ocean Blvd. above Pico Avenue will require all vehicles heading to downtown Long Beach from the Desmond Bridge to briefly exit Ocean Blvd. to Pico Avenue and rejoin Ocean via the existing on-ramp. Westbound Ocean will remain open, although motorists may expect a brief realignment of the lanes.

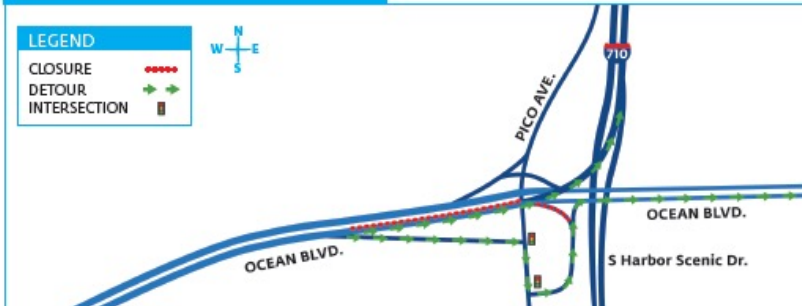
Signalized intersections and improvements to on- and off-ramps will help traffic merge and flow, and reduce delays. The closure is expected to begin in January 2016 and last 36 months. Please note the northbound Long Beach (710) Freeway connector will remain open at this time.

* Closure dates and times are subject to change. For the latest information, visit newgdbridge.com and sign up for weekly updates or download the LB Bridge app.

Detour:

Vehicles heading east on Ocean Blvd. from San Pedro and Terminal Island/Piers S and T to downtown Long Beach will exit at Pico Avenue, turn through two signalized intersections and rejoin Ocean Blvd. via an improved on-ramp.

CLOSURE



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www.facebook.com/newgdbridge
[@newgdbridge](https://twitter.com/newgdbridge)
(562) 283-7610

12-28-15

EASTBOUND OCEAN CONNECTOR CLOSURE— JANUARY 2016



Fact Sheet

LBCT Pier E TRUCK ENTRY LANE

All Trucks Enter Via Northbound Pico Avenue



Overview

The highly anticipated Long Beach Container Terminal Pier E facility at Middle Harbor opens in spring 2016, beginning an era of advanced, automated container cargo handling at the world's greenest terminal.

Safety is a top priority, so the Port of Long Beach has designed a special truck entry and queuing lane on Pico Avenue, just south of the fast-rising Gerald Desmond Bridge Replacement Project.

Pico Ave. Entry Lane

The ONLY way to enter Pier E is for truck drivers to use the northbound Pico Avenue entry lane.

- Get into the entry lane at Harbor Plaza and Pico Avenue
- Most drivers will come south and loop around the Pier G petroleum coke barns to get into the entry lane
- From the entry lane, make a left turn into Pier E

All trucks departing Pier E will exit via Pier D Street.

All truckers who need chassis for Pier E will go to LBCT's new chassis yard on Pier B, northwest of the Pico Avenue exit from the 710.

For the latest Port traffic updates, download the LB Bridge app to your smartphone from the Apple, Android or Windows app stores. Or subscribe to weekly email alerts at: www.newgdbridge.com.

Please drive safely.

OPENING OF MIDDLE HARBOR PHASE 1 – APRIL 2016



NB 710 Detour



NORTHBOUND I-710 CONNECTOR CLOSURE – JUNE 2018



An aerial photograph of a newly opened cable-stayed bridge spanning a body of water. The bridge features two tall, white, A-frame pylons with numerous white stay cables supporting the deck. The bridge deck is multi-laned and filled with traffic, including cars and large trucks. To the left of the bridge, a large construction crane is visible on a barge. In the foreground, several large water cannons are spraying high arcs of water towards the bridge. The background shows a dense urban skyline with various buildings and a large container yard filled with colorful shipping containers. The text "OPENING OF THE NEW BRIDGE" and "OCTOBER 2020" is overlaid in large, white, bold letters at the bottom of the image.

OPENING OF THE NEW BRIDGE
OCTOBER 2020

ATMIS 5.5

Functions

- Traffic Data
- Traffic Control
- General Situation Data
- Sign Control
- Parking
- Public Transport
- Events
- Strategy Management
- CCTV
- System Administration
- Freeway Management
- Visualization and Quality Management
- User Administration
- External Links

System Events / Information

Alert Status: Accepted Alerts

Overall actual status: Objects not accepted

System status: System objects disrupted

Translation Table errors to correct

Ready

Default

X: 382649 Y: 373944 0.300 09/03/2014 7:25:53 AM

Severity	Category	Origin Time	Comments	Status	Message	User	Object subsystem	Object Type	Object name	Relations	Text-ID	Check Number	Check Time Domain
i		09/03/2014 7:24:4...			User AlanC has logged on	AlanC					2000		
i		09/02/2014 11:05:...			User PeterK has logged on	PeterK					2000		
i		09/02/2014 11:05:...			User PeterK has logged on	PeterK					2000		
i		09/02/2014 8:29:4...			Message Manager: Roadworks GDB WB Ocean Blvd On-...	PeterK	ATMIS		GDB WB Ocean Blv...		2310		
i		09/02/2014 8:23:2...			Message Manager: Roadworks GDB Pier T Lane lane Clo...	PeterK	ATMIS		GDB Pier T Lane lan...		2311		
i		09/02/2014 8:23:2...			Message Manager: Roadworks GDB Pier T Lane lane Clo...	PeterK	ATMIS		GDB Pier T Lane lan...		2311		
i		09/02/2014 8:20:2...			User PeterK has logged on	PeterK					2000		
i		09/02/2014 7:53:5...			User ShashankP has logged on	ShashankP					2000		

Filter:

AlanC

Start

7:26 AM 9/3/2014

Camera Grid View

Cameras

✓ AIS

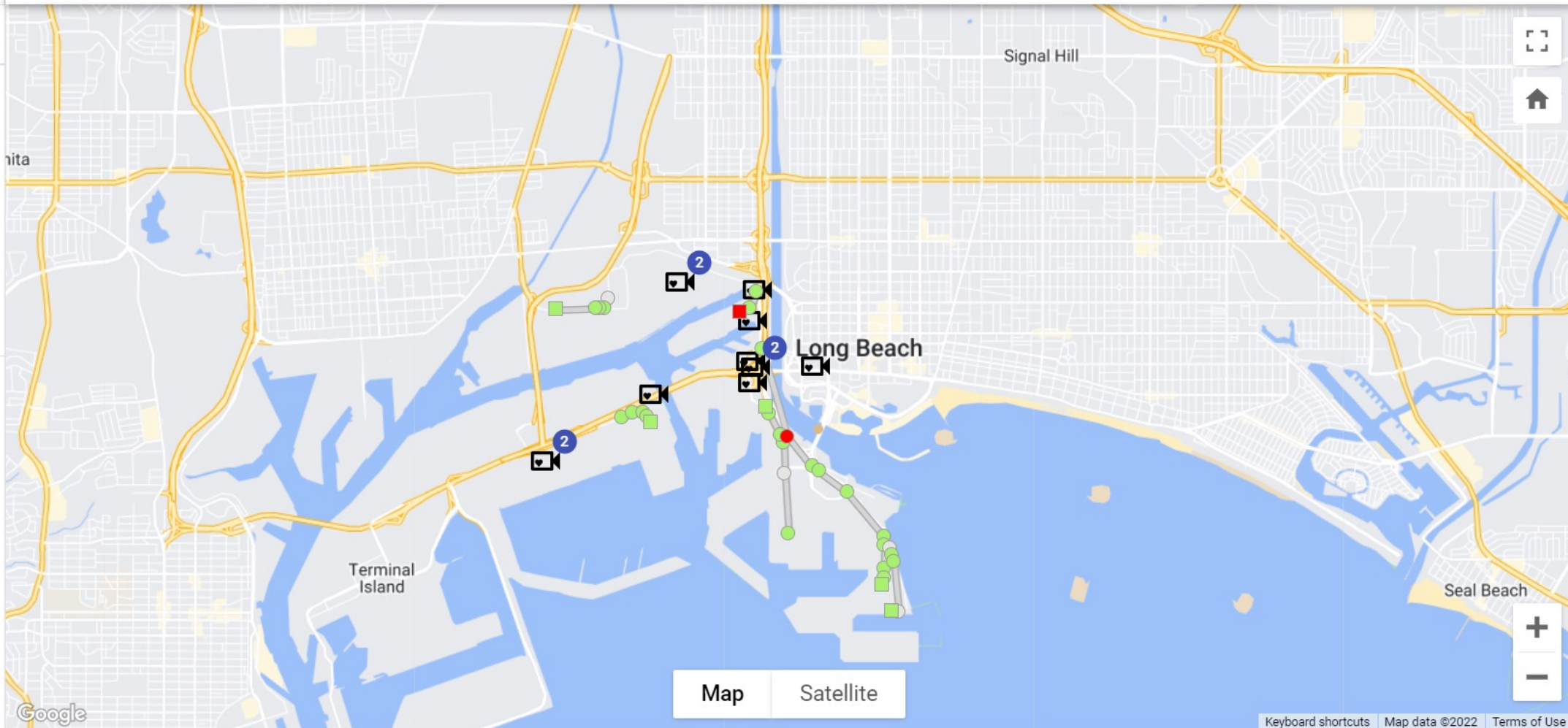
Drayage Queueing

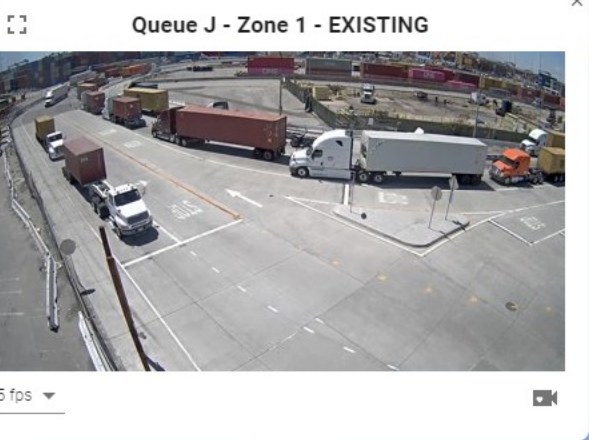
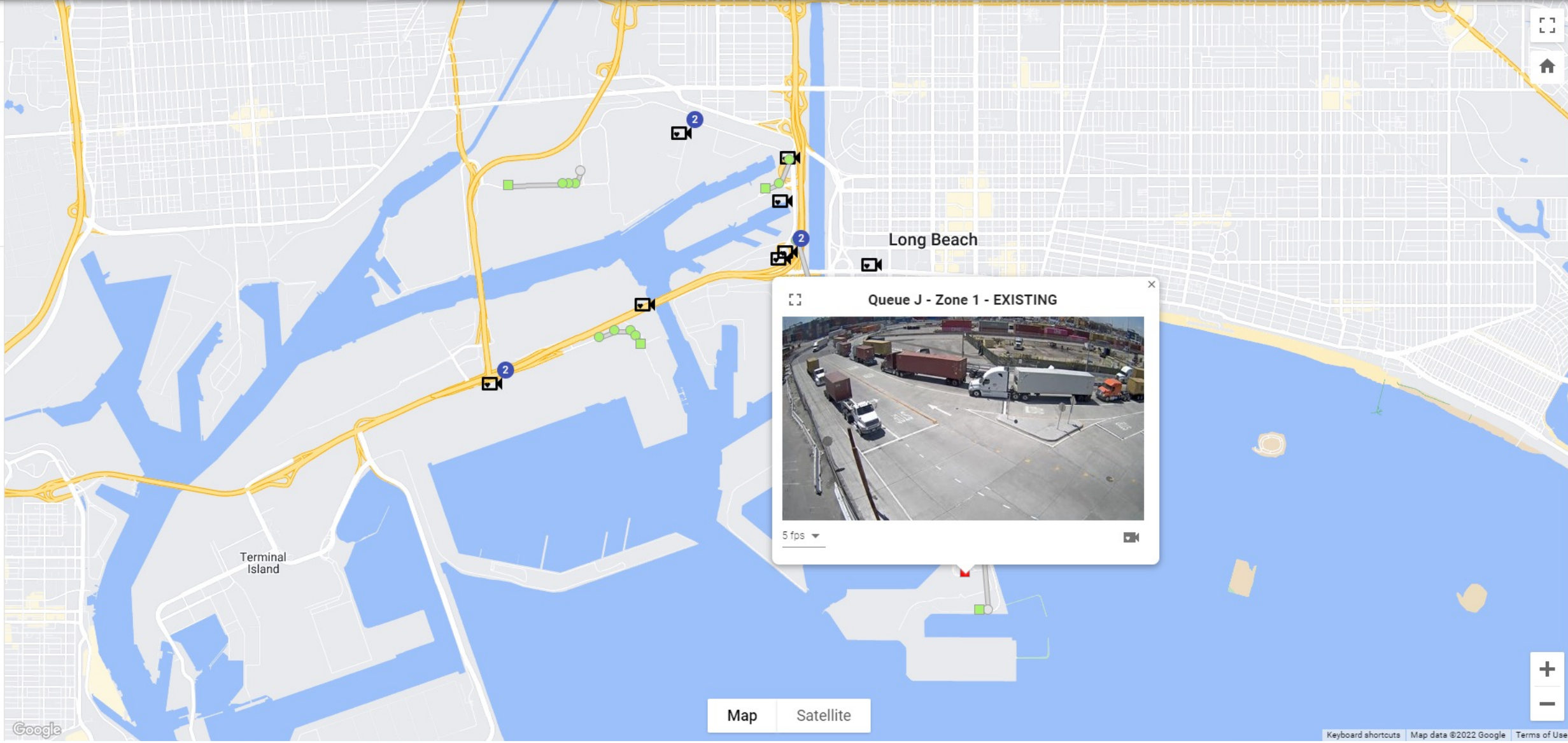
✓ Traffic Incidents

Traffic

✓ Favorite Lists

✓ Camera Sets





Map

Satellite



Port of
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THE PORT OF CHOICE

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