



Nevada Freight Advisory Committee

Meeting Summary

The FAC is made up of representatives from private sector companies and public agencies. Together, the Committee discusses topics that impact freight transport in Nevada, and provide NDOT with guidance. Meetings are held in video conference rooms across the state with a webinar link available to those not conveniently located near a meeting site. This meeting was held primarily to discuss one ongoing study: the Truck Parking Implementation Plan. Brief updates were also provided for the following studies by those listed below:

- Freight Program Funded Projects – Bill Thompson, NDOT
- Hazardous Commodity Flow Study – David Willauer, Cambridge Systematics

The date, time, and locations of the meeting are indicated below, followed by a list of participants. A summary of the discussion held on various topics is recorded below, and the complete presentation is attached at the end.

DATE: February 5, 2019
TIME: 10:00 – 11:00 am (Pacific Time)

LOCATIONS:

Carson City

NDOT HQ, Room 302
1263 S. Stewart St.

Sparks

NDOT District II
Main Conference Rooms
310 Galletti Way

Las Vegas

RTC, Room 127
600 S. Grand Central Pkwy

Tonopah

NDOT District I, Conf. Room
805 Erie Main

Elko

NDOT District III, Conf. Room
1951 Idaho St.

Winnemucca

NDOT District III, Conf. room
725 W. Fourth St.

Ely

NDOT District III, Conf. room
1401 East Aultman Street

Webinar

Meeting Participants

Company	Full Name	Meeting Location
NDOT	Lee Bonner	Carson
NDOT	Mark Costa	Carson
NDOT	Murph Glover	Carson
NDOT	Tim Mueller	Carson
NDOT	Bill Story	Carson
NDOT	Bill Thompson	Carson
NDOT	Emil "B.J." Almberg	Ely
NDOT District II	Richard (OJ) Oujevolk	Sparks
RTC of Washoe County	Xuan Wang	Sparks
Cambridge Systematics	Dan Andersen	Vegas
Cast Transportation	Pat Locasto	Vegas
City of Las Vegas	Rick Schroder	Vegas
City of North Las Vegas	Curt Kroeker	Vegas
DeLong Heavy Haul	Paul DeLong	Vegas
Dielco Crane Service, Inc.	David Dieleman	Vegas
Horrocks Engineers	Byron Colton	Vegas
NDOT	Doug Johnson	Vegas
NDOT	Jason Love	Vegas
NDOT	Coy Peacock	Vegas
NDOT	Dwayne Wilkinson	Vegas
Nevada Highway Patrol	John Arias	Vegas
Nevada Trucking Association	Paul Enos	Vegas
Nye County	Steve Rosenbaum	Vegas
Atkins	Mike Lawson	Webinar
ATRI	Alexandra Shirk	Webinar
Cambridge Systematics	Brian Stewart	Webinar
Cambridge Systematics	Mark Jensen	Webinar
CBRE Brokerage Services	JJ Peck	Webinar
Clark County	Jennifer Robinson	Webinar
CPCS	Dike Ahanotu	Webinar
National Association of Truck Stop Operators (NATSO)	Tiffany Wlazlowski Neuman	Webinar
NDOT	Sondra Rosenberg	Webinar
Nevada Trucking Association	Kim Yaeger	Webinar
Now Foods	Jim Emme	Webinar
Parametrix	Bardia Nezhati	Webinar
	Mac Potter	Webinar
NDOT District III	Shaun Deforest	Winnemucca
NDOT District III	Dave Schwartz	Winnemucca

Summary of Discussion

Hazardous Commodity Flow Study

- Is the State Emergency Response Committee involved?
 - Yes
- How were the 18 sites selected for the roadside placard surveys?
 - *They were selected based on the locations of hazardous material storage and production, and the logical routes that would be taken to those facilities.*

Truck Parking Implementation Plan

- NDOT District 2 voiced some concerns with expanding the Wadsworth Rest Area—utility issues and future widening of I-80. Requested a meeting to discuss.
- Coordinate with the Size and Weight Study to ID locations where additional parking capacity could be included at a check station.
- Trucks currently park in a vacant lot on the other side (north) of I-80 from the Trinity Rest Area.
- DMS signs are helpful and important for advising drivers of road closures and other conditions.
- The Reno Rodeo would like to construct a new rodeo complex at the Reno-Sparks Livestock Events Center
- When I-80 closes at Donner Pass, trucks try to get as close to the CA border as possible, and then line up on the freeway waiting for it to reopen. The greatest need for additional parking is off Exit 2.
- Include in the report any state and local laws or ordinances that may create obstacles to developing truck parking.
- NHP is currently using geo-fencing technology at check sites. Consider integrating a TPAS system with NHP.
- Truck stop electrification is important for emission reduction. CMAC funding and/or the VW settlement money could be options for funding, however there are difficult P3 issues that need to be ironed out. There may be some successful P3 examples somewhere in the country.
- Emergency response vehicles sometimes need to clean up spills or leaks at truck parking locations. Consider a staging area for those vehicles.



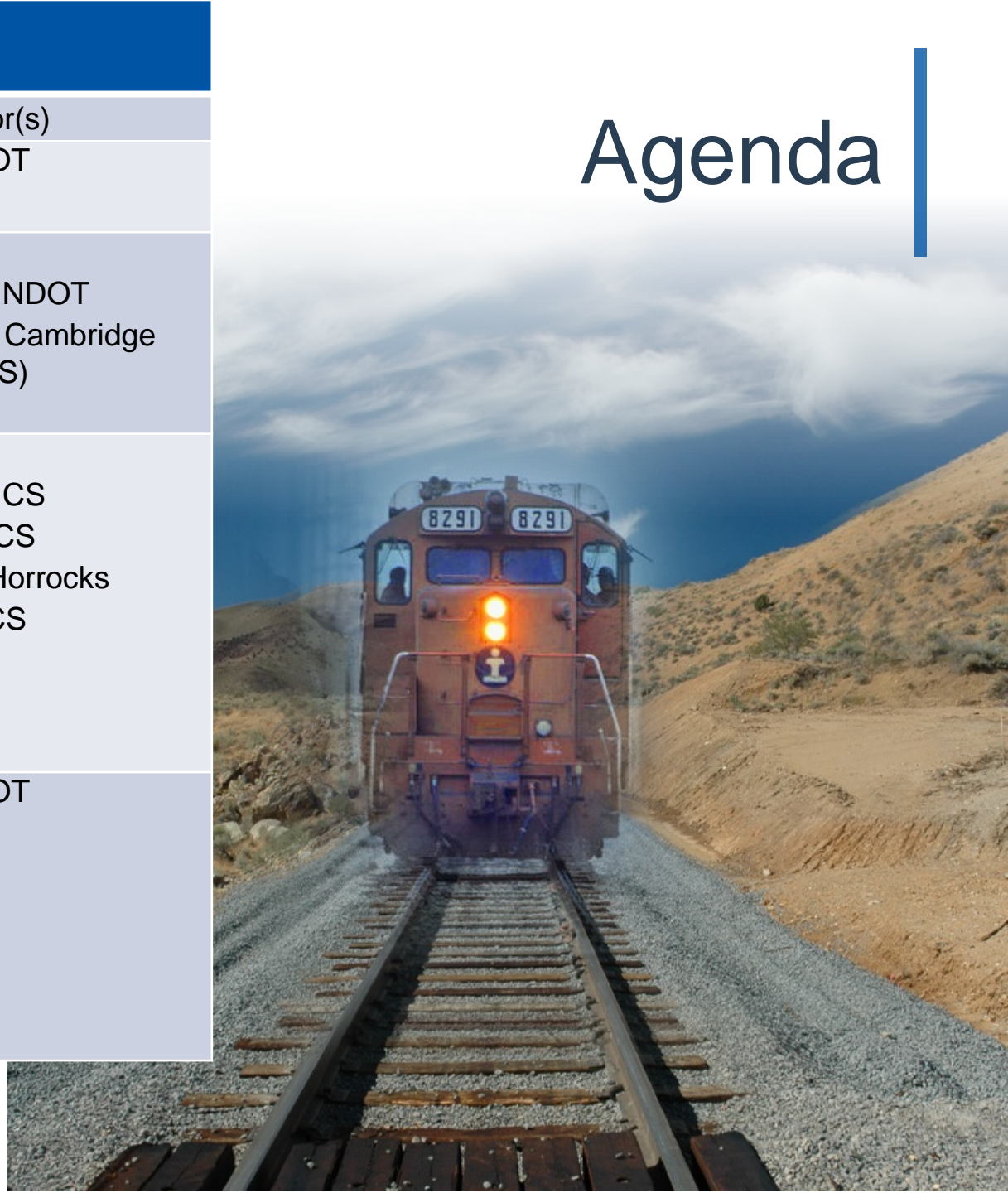
Freight Advisory Committee Meeting

February 5, 2019

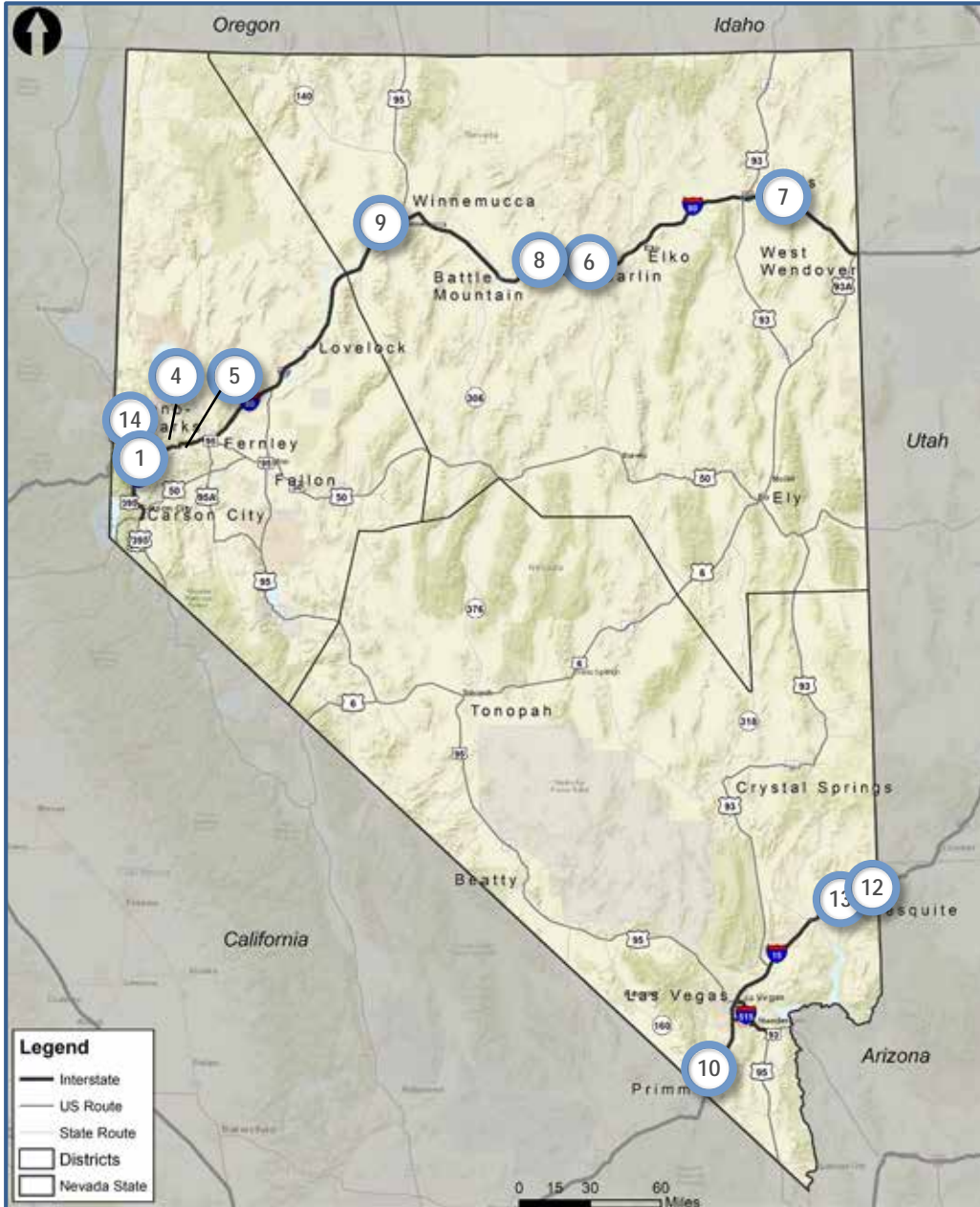
Agenda Items (with approximate times)

Time	Topic	Facilitator(s)
9:00	Welcome and Introductions	Bill Thompson, NDOT
9:10	Project Updates <ul style="list-style-type: none">Freight Program Funded ProjectsHazardous Commodity Flow Study	<ul style="list-style-type: none">Bill Thompson, NDOTDavid Willauer, Cambridge Systematics (CS)
9:20	Truck Parking Implementation Plan <ul style="list-style-type: none">Truck Parking Capacity & GapsRecommendations<ul style="list-style-type: none">Small Rural LotsUrban P3 LotsSpecialty LotsTruck Parking Availability System	Consultant Team: <ul style="list-style-type: none">Dan Andersen, CSBrian Stewart, CSByron Colton, HorrocksMark Jensen, CS
10:20	Open discussion <ul style="list-style-type: none">Additional freight-related topics or questionsNext Meetings	Bill Thompson, NDOT

Agenda



Freight Program Funded Projects



Obligated Freight Funds

- 1 \$12.9 million – NEPA Study Reno Spaghetti Bowl (2016)
- 2 \$0.5 million – **Statewide Truck Parking Study** (2018)
- 3 \$0.3 million – **Statewide HazMat Study** (2018)
- 4 \$0.7 million – I-80 Freight Corridor Study (2018)
- 5 \$6.9 million – I-80 USA Parkway Interchange Improvements (2018)

Non-Obligated Freight Funds

- 6 \$11 million – I-80 Truck Climbing Lanes, Bridge Replacement @ Emigrant Pass (2019)
- 7 \$3.5 million – I-80 Truck Climbing Lanes @ Pequop Summit (2020)
- 8 \$1.5 million – I-80 SR 306 Ramp Improvements (2020)
- 9 \$3.5 million – I-80 Exit 173 Ramp Improvements (2020)
- 10 \$1.9 million – I-15 Construct Weigh in Motion Station (2020)
- 11 \$2.4 million – Construct Truck Parking **Statewide** (2020)
- 12 \$5.9 million – I-15 MP122 – MP124 Construct Truck Climbing Lanes (2021)
- 13 \$3.5 million – I-15 Exit 100 NB, Exit 111 SB Ramp Geometric Improvements, Additional Truck Parking, and Ramp Gore Lighting (2021)
- 14 \$9.7 million – North Virginia St. Improvements (2022)

Nevada Department of Transportation Hazardous Commodity Flow Study



February 5, 2019

presented by

David Willauer, Cambridge Systematics, Inc.



Nevada Department of Transportation Truck Parking Implementation Plan

presented to
Nevada Freight Advisory Committee

presented by
Dan Andersen, Cambridge Systematics, Inc.



February 5, 2019



Project Objectives

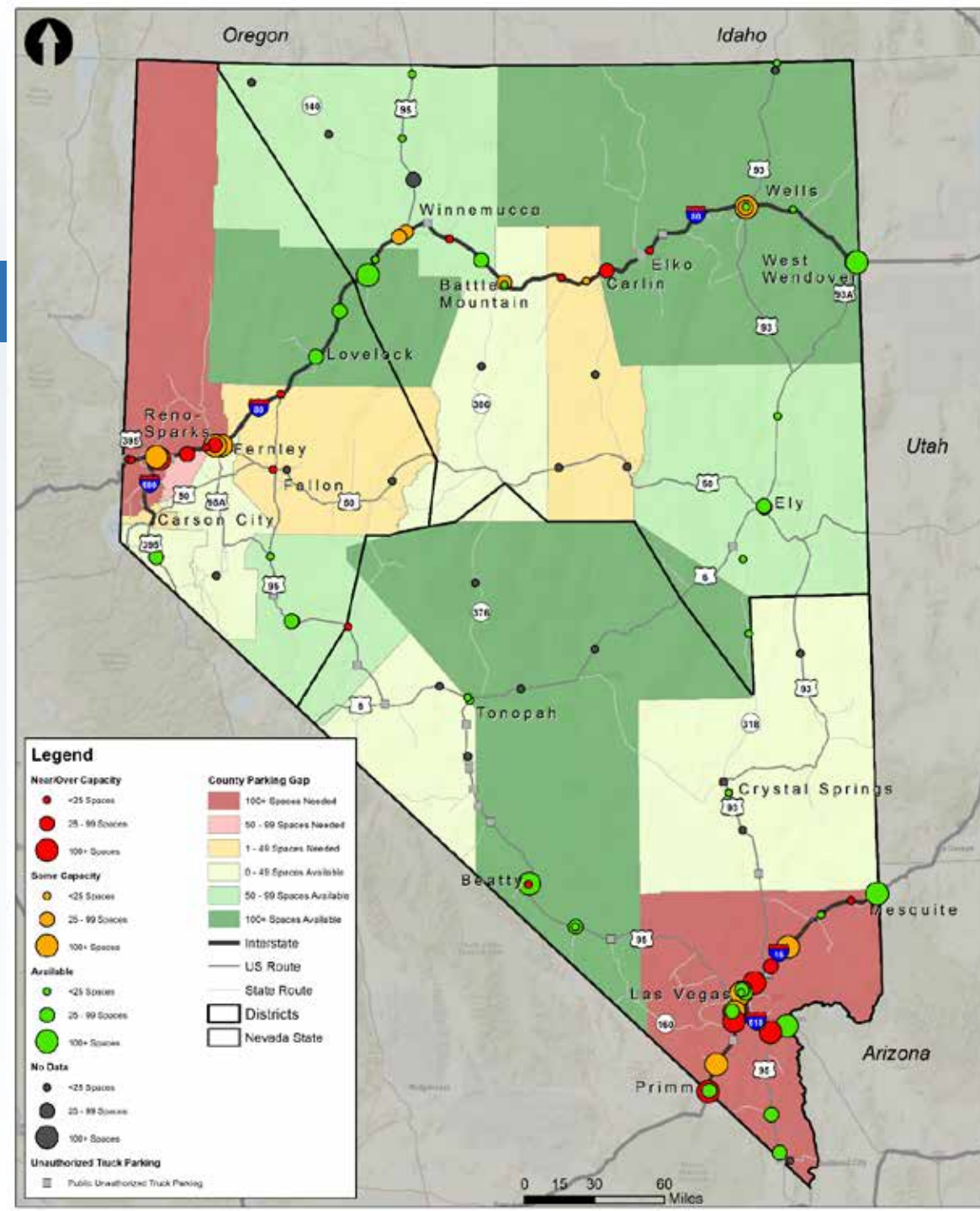
Develop an implementation plan for expanding, improving and integrating freight truck parking and communications systems

- » Once complete, these improvements will provide adequate and safe public truck parking where it's most needed, full-service private truck facilities, and real-time truck parking availability information
- » Response to rising demand, changing hours of service requirements and safety standards defined in Jason's Law



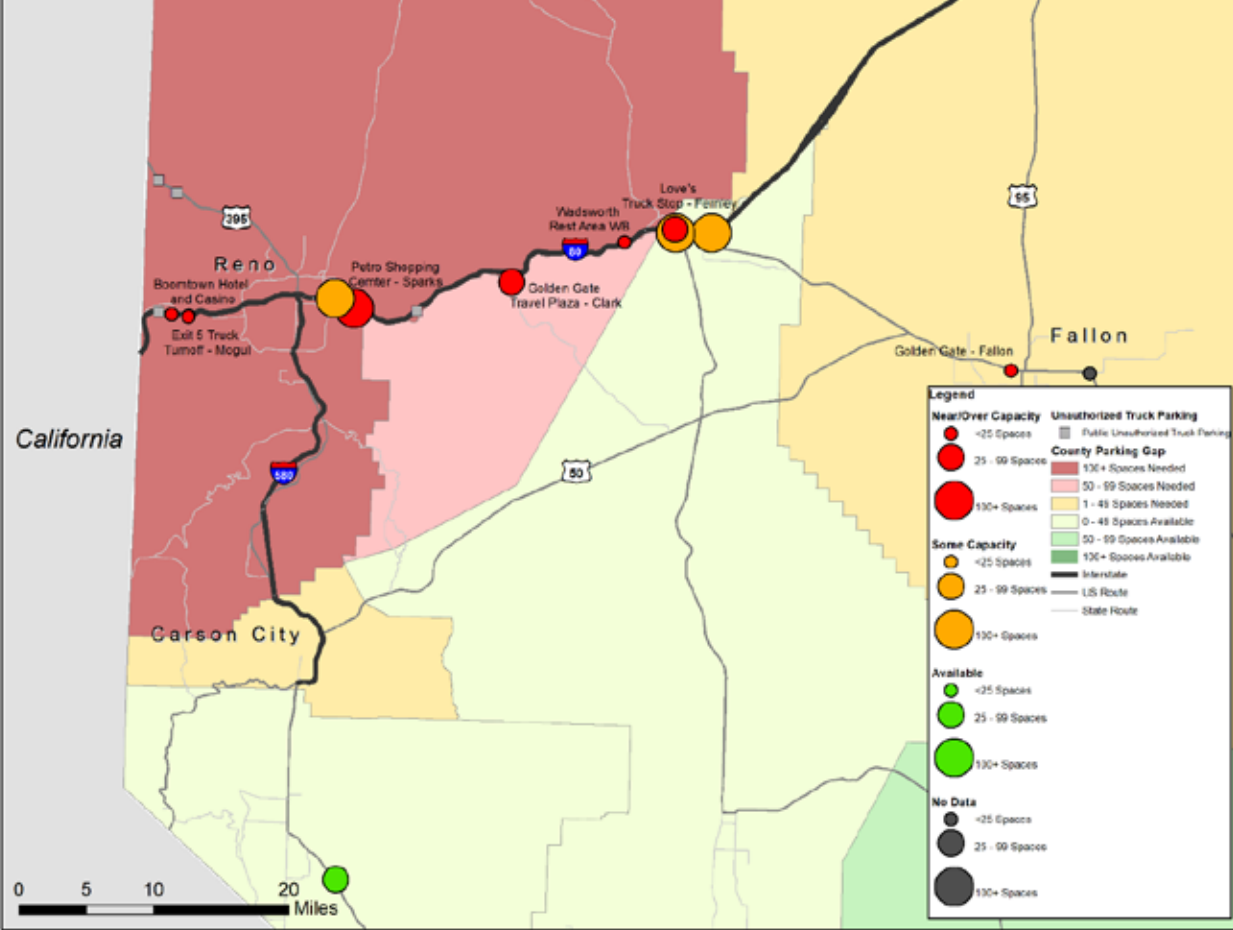
Truck Parking Capacity & Gaps

- Location specific capacity estimates derived from:
 - » ATRI utilization analysis
 - » Truck parking apps
 - » Field observations
 - » Stakeholder input

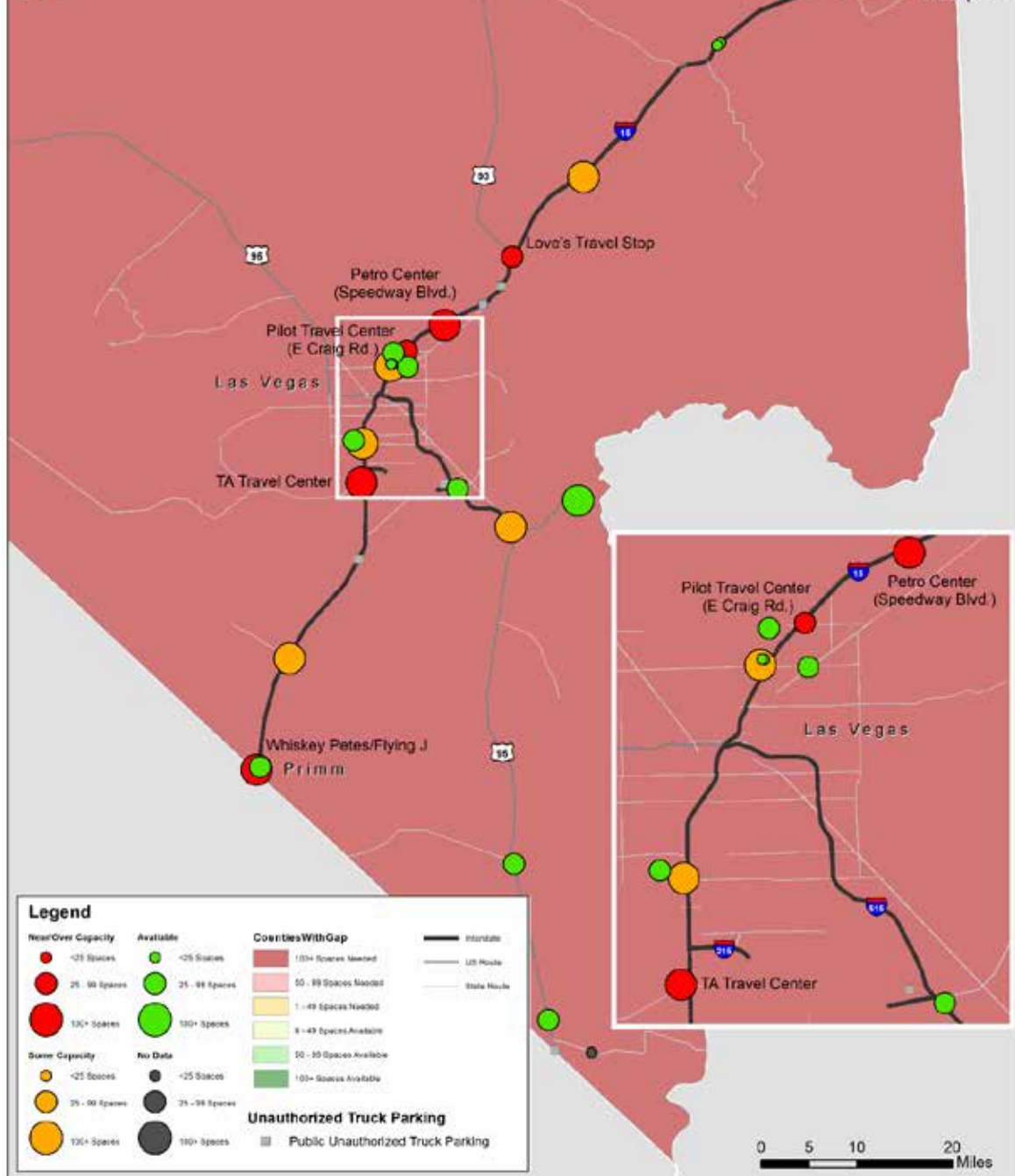




Northern Nevada

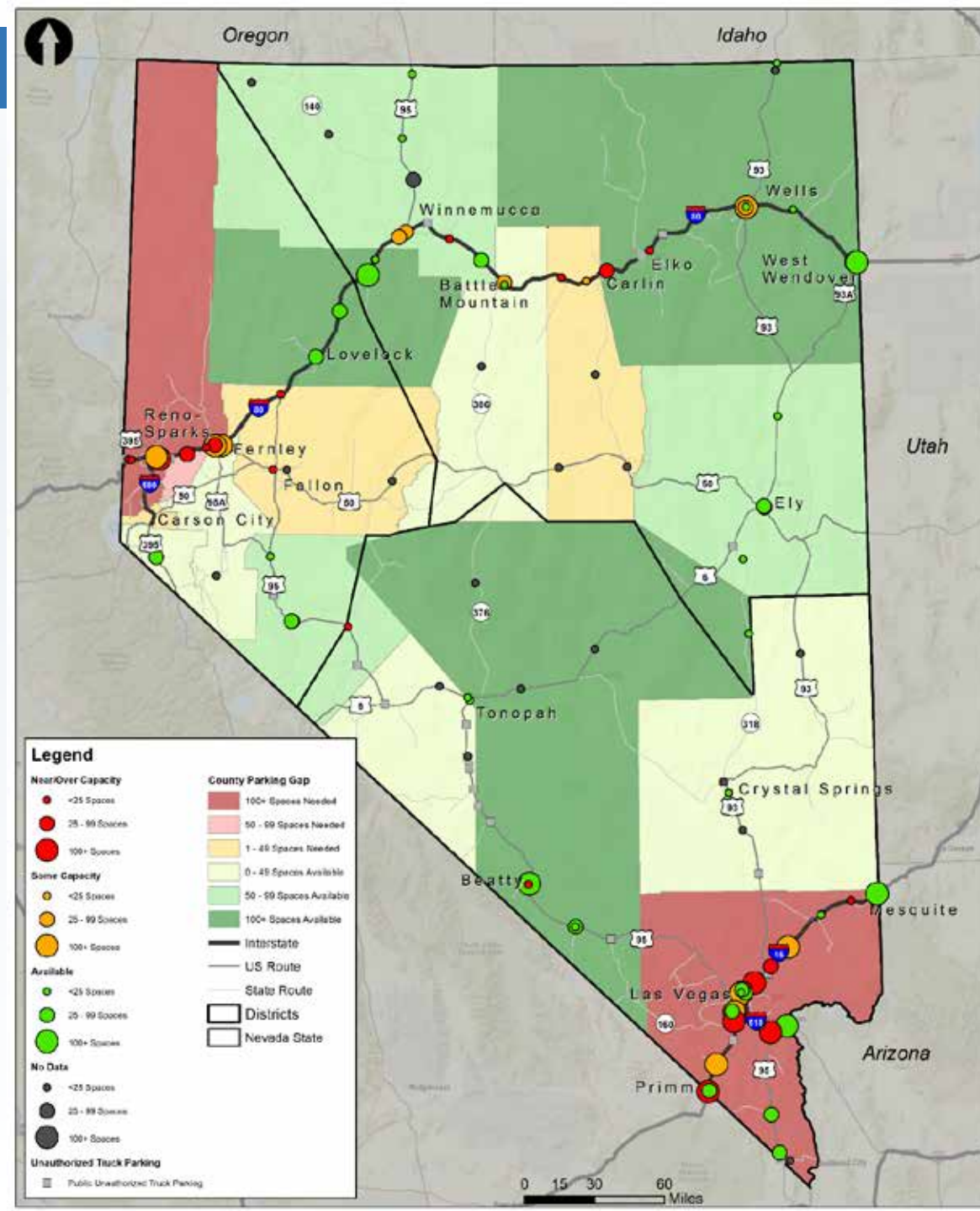


Southern Nevada



Recommendations

- Small Rural Lots
 - » Smaller public lots interspersed between large, full-service truck stops
 - » Primarily on Interstates
 - » Serve long-haul drivers
- Urban P3 Lots
 - » Large lots with basic amenities
 - » Serve long-haul, short-term staging, and long-term owner-operator
- Specialty Lots
 - » Northern winter closure lots
 - » Convention Marshalling Yard – Las Vegas
- Truck Parking Availability System (TPAS)

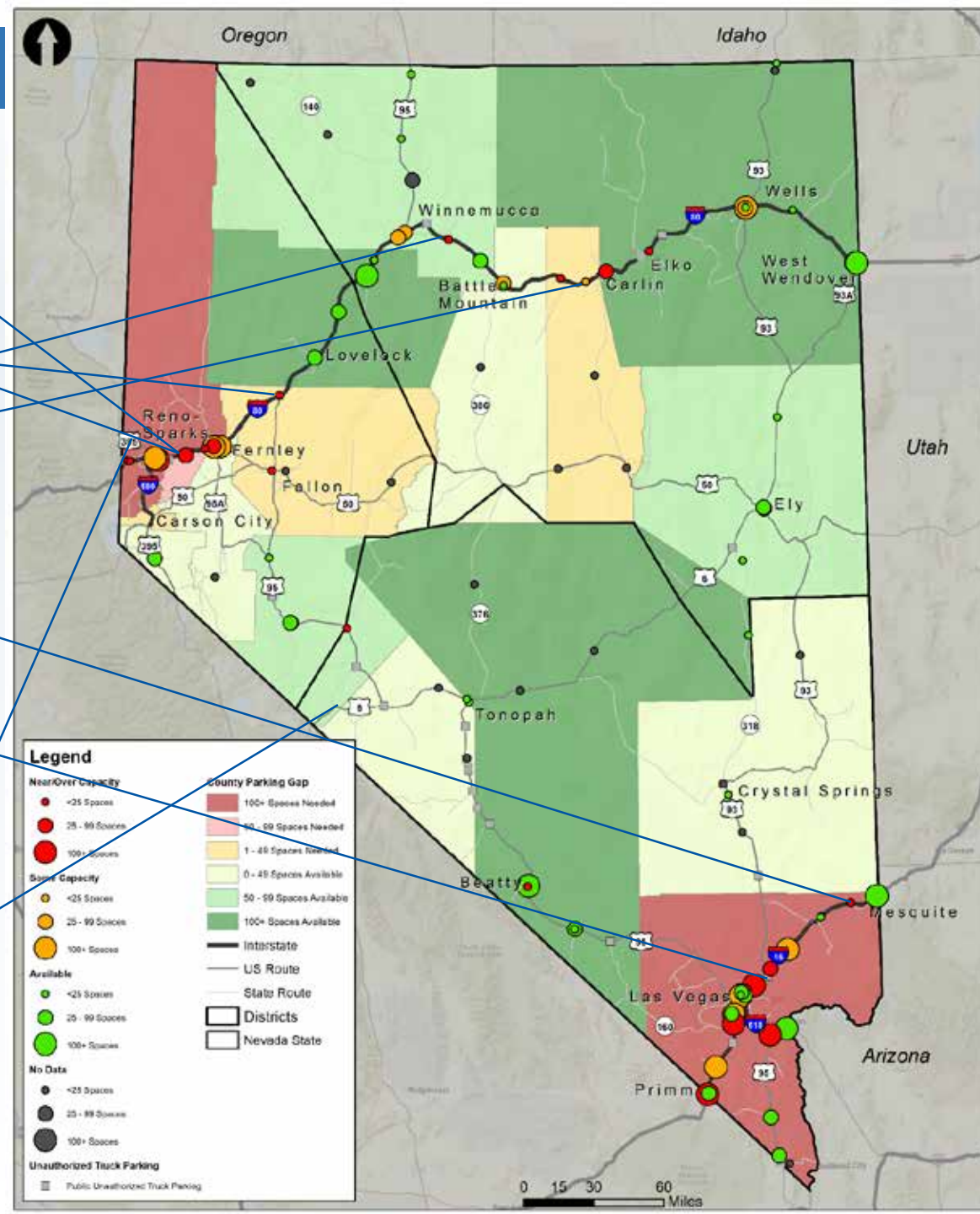


Small Rural Lots



Small Rural Lots

- Mustang Check Station – convert to parking
- Wadsworth Rest Area – expand
- Trinity/Fallon Rest Area – expand
- Golconda Summit Truck Turnout – expand
- Beowawe Rest Area – expand
- I-15 Truck Turnoffs (3 between Vegas & Mesquite) – expand and pave
- New Weigh Station on I-15 between Speedway and US 93
- Allow Parking at Chain-Up/Brake Check/Inspection Sites Areas During Off-Season
 - » Park and Ride lot: US 395 at N Virginia Ave. and White Lake Pkwy – expand
 - » Chain-up area: US 6 at SR 360 – expand



Wadsworth Rest Area
Auto Parking - 27
ADA Stalls - 3
RV Parking - 8
Truck Stalls - 8-10



**Wadsworth Rest Area w/ Truck
Parking Improvements**
Auto Parking - 27
ADA Stalls - 3
RV Parking - 8
Truck Stalls - 18

MAINTAIN EXISTING RESTROOM
FACILITIES

NDOT R/W

MAINTAIN EXISTING AUTOMOBILE
SPACES

20 18'x90' TRUCK
SPACES

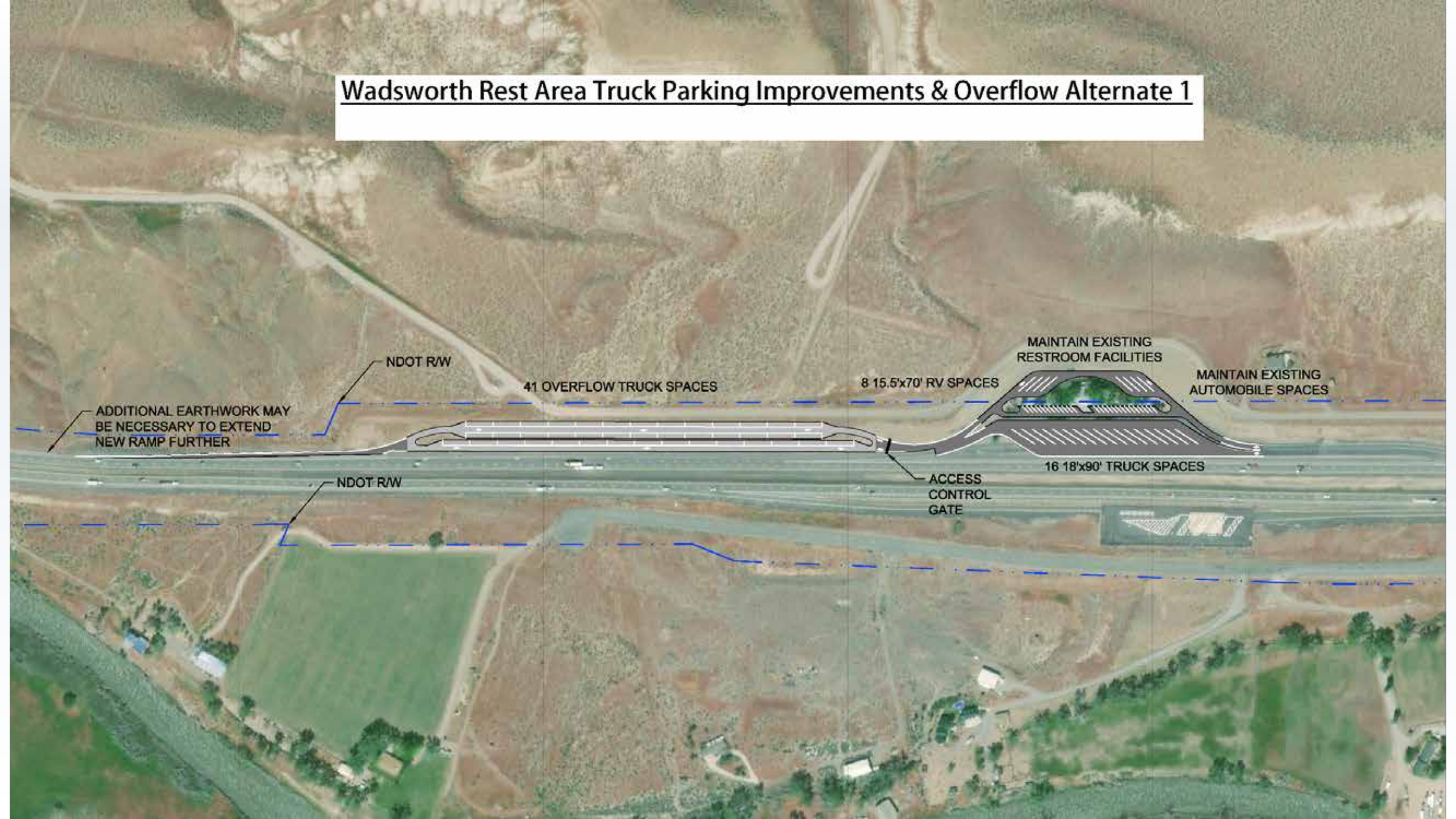
ACCESS CONTROL
GATE

NDOT R/W

**Wadsworth Rest Area w/ Truck
Parking Improvements**
Estimated Construction Cost:
\$646,000



Wadsworth Rest Area Truck Parking Improvements & Overflow Alternate 1



ADDITIONAL EARTHWORK MAY BE NECESSARY TO EXTEND NEW RAMP FURTHER

NDOT R/W

41 OVERFLOW TRUCK SPACES

8 15.5x70' RV SPACES

MAINTAIN EXISTING RESTROOM FACILITIES

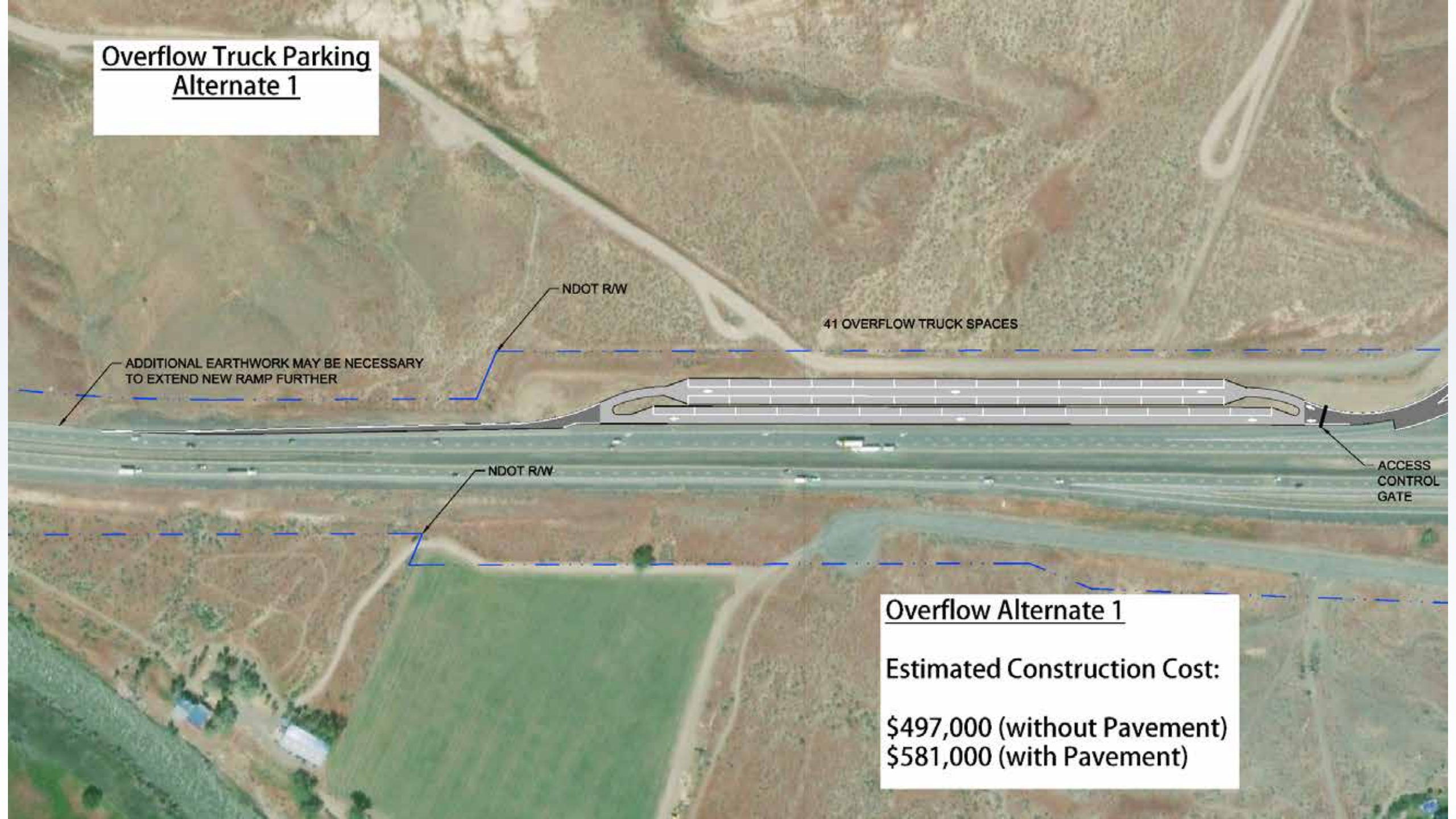
MAINTAIN EXISTING AUTOMOBILE SPACES

NDOT R/W

16 18'x90' TRUCK SPACES

ACCESS CONTROL GATE

**Overflow Truck Parking
Alternate 1**



NDOT R/W

41 OVERFLOW TRUCK SPACES

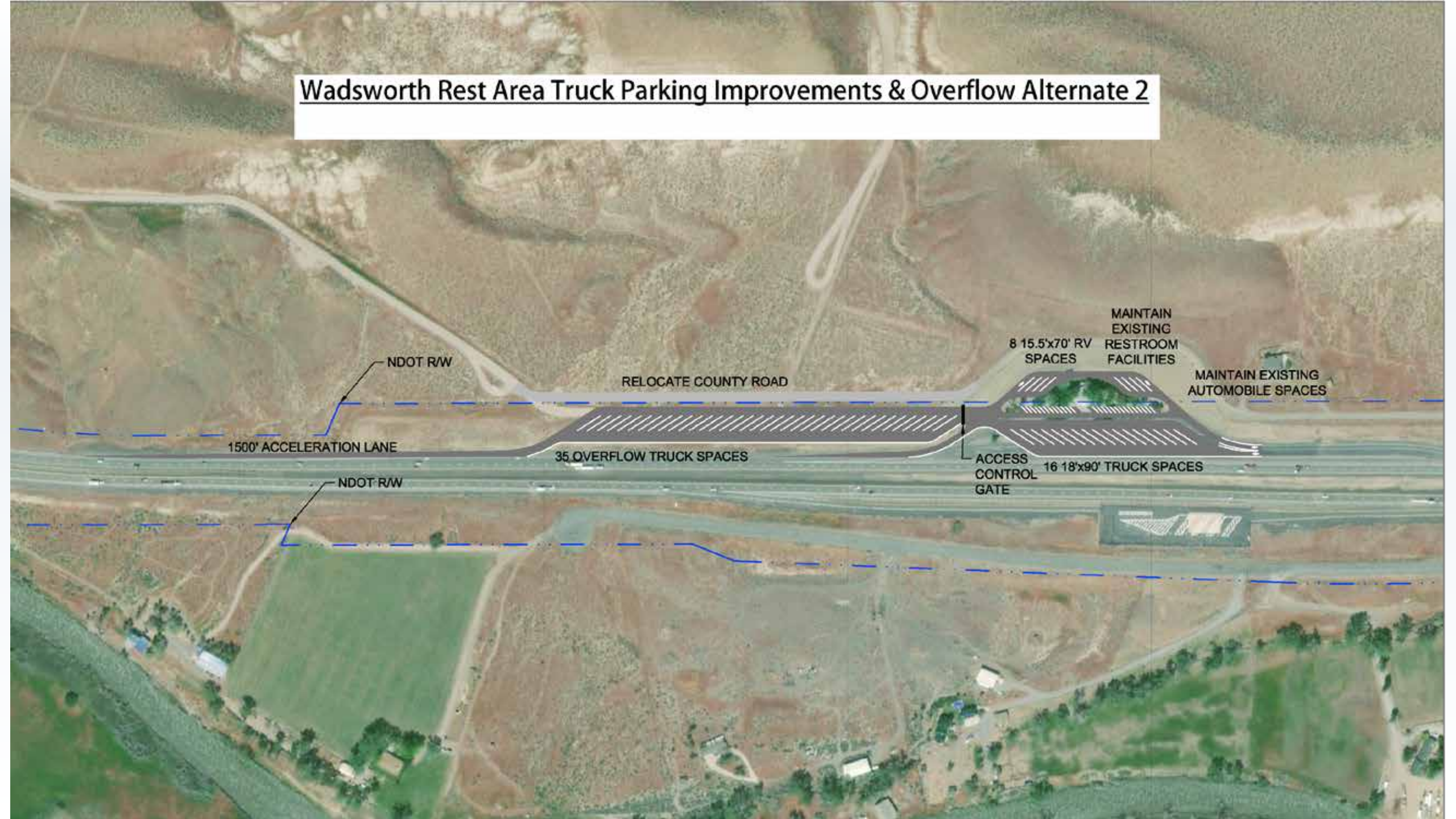
ADDITIONAL EARTHWORK MAY BE NECESSARY
TO EXTEND NEW RAMP FURTHER

NDOT R/W

ACCESS
CONTROL
GATE

Overflow Alternate 1
Estimated Construction Cost:
\$497,000 (without Pavement)
\$581,000 (with Pavement)

Wadsworth Rest Area Truck Parking Improvements & Overflow Alternate 2



NDOT R/W

RELOCATE COUNTY ROAD

1500' ACCELERATION LANE

NDOT R/W

35 OVERFLOW TRUCK SPACES

8 15.5x70' RV SPACES

MAINTAIN EXISTING RESTROOM FACILITIES

MAINTAIN EXISTING AUTOMOBILE SPACES

ACCESS CONTROL GATE

16 18x90' TRUCK SPACES

**Overflow Truck Parking
Alternate 2**



Overflow Alternate 1
Estimated Construction Cost:
\$927,000

Urban P3 Lots



Short-term Staging

Truck Driver Survey Responses

Shipper/Receiver permits on-site parking outside of appointment hours

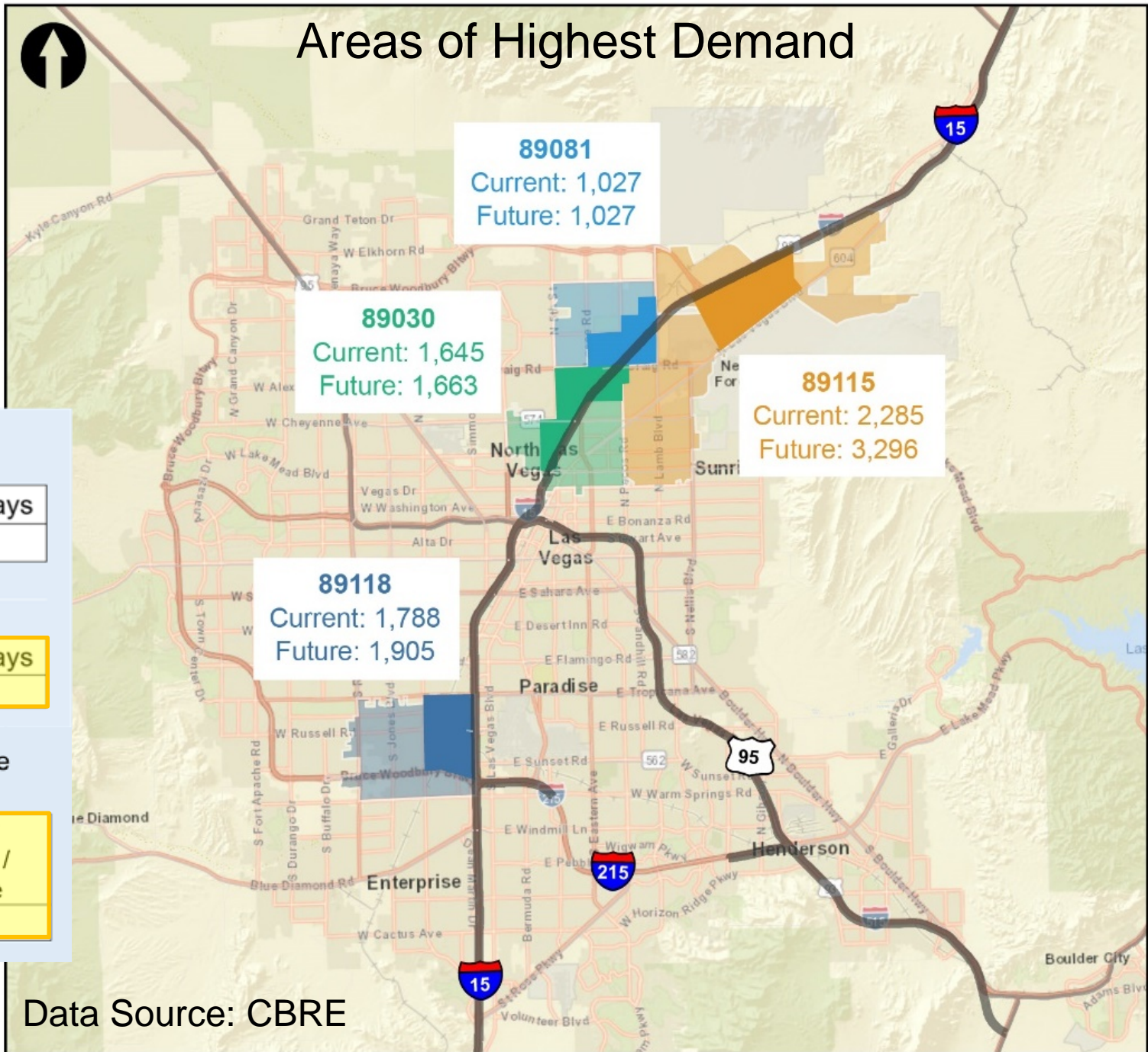
Rarely / Never	Occasionally	Often / Always
62.5%	28.1%	9.4%

Shipper/Receiver loading/unloading delays exceed one hour

Rarely / Never	Occasionally	Often / Always
18.5%	16.9%	64.6%

It is easy to find truck parking in Nevada for short periods of time while waiting to make a scheduled delivery

Strongly Agree / Agree	Neutral	Strongly Disagree / Disagree
21.5%	41.5%	36.9%

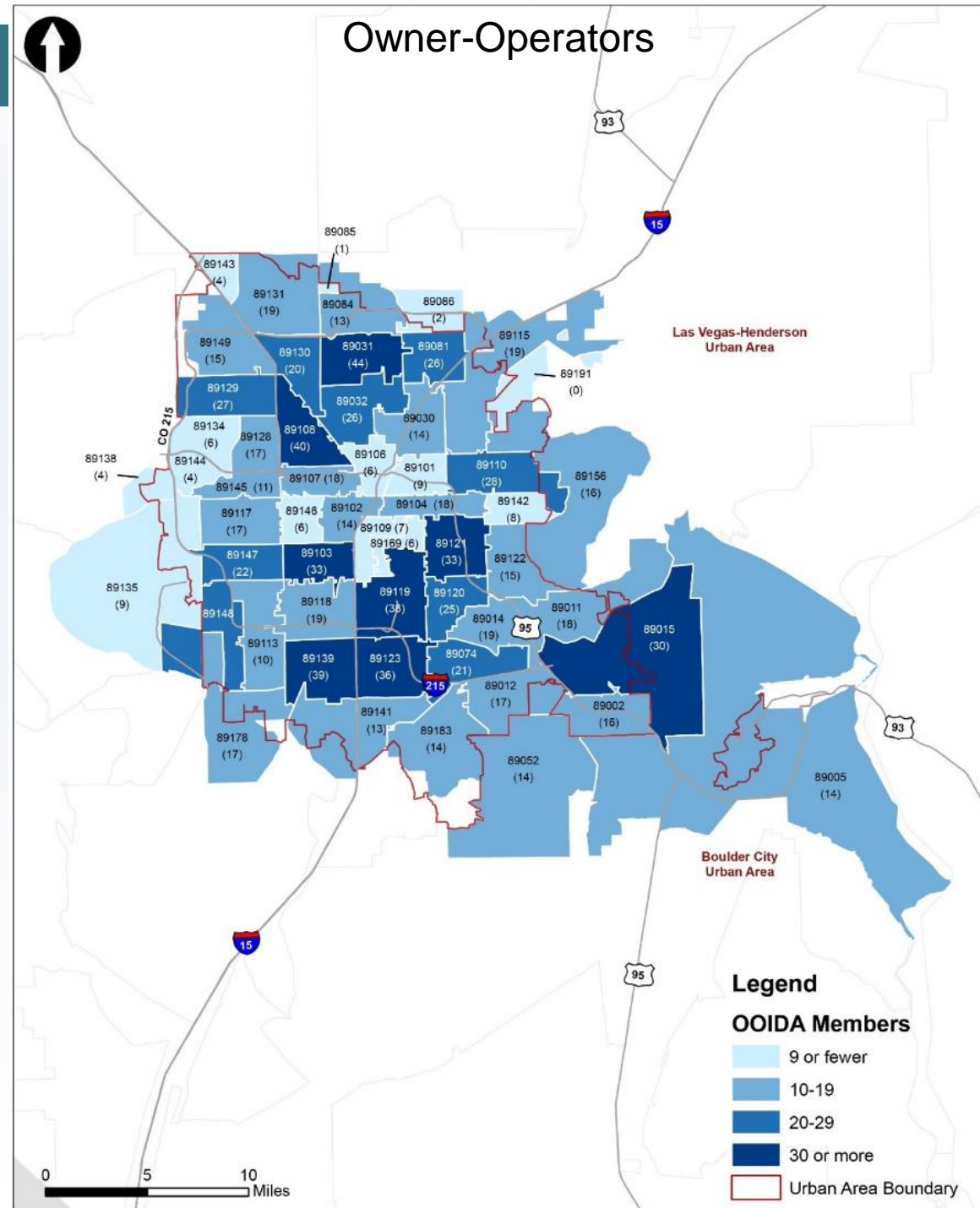


Short-term Staging: Cross-docking

- Unload and rearrange pallets so first delivery is at end of trailer
- Unload from incoming truck and load directly into outbound truck(s) with little or no storage in between
- Convoy, Uber Freight, Transfix
 - » Connect truckers to the shippers themselves
 - » Gives them a load to haul on return journeys



Long-term Parking



Support Private Sector Solutions



The Truck Depot

Source:
<https://www.truckdepotllc.com/>

- Secure lot at a modest fee
 - » Gated, fenced, security cameras
 - » Driver, truck and cargo are safe
 - » No drugs/prostitution
 - » Cross-docking, vending machines
- Public support needed
 - » Permitting support (help overcome NIMBYism)
 - » Public right-of-way or access improvements
- Cost recovery
 - » Profit sharing P3 agreement
 - » Assess loading dock fee from warehouse DCs

Specialty Lots



Winter Closures

- Reno-Sparks Livestock Events Center
 - » Explore potential for emergency use during off times
- Expansion of Wadsworth Rest Area
- Expansion of Trinity/Fallon



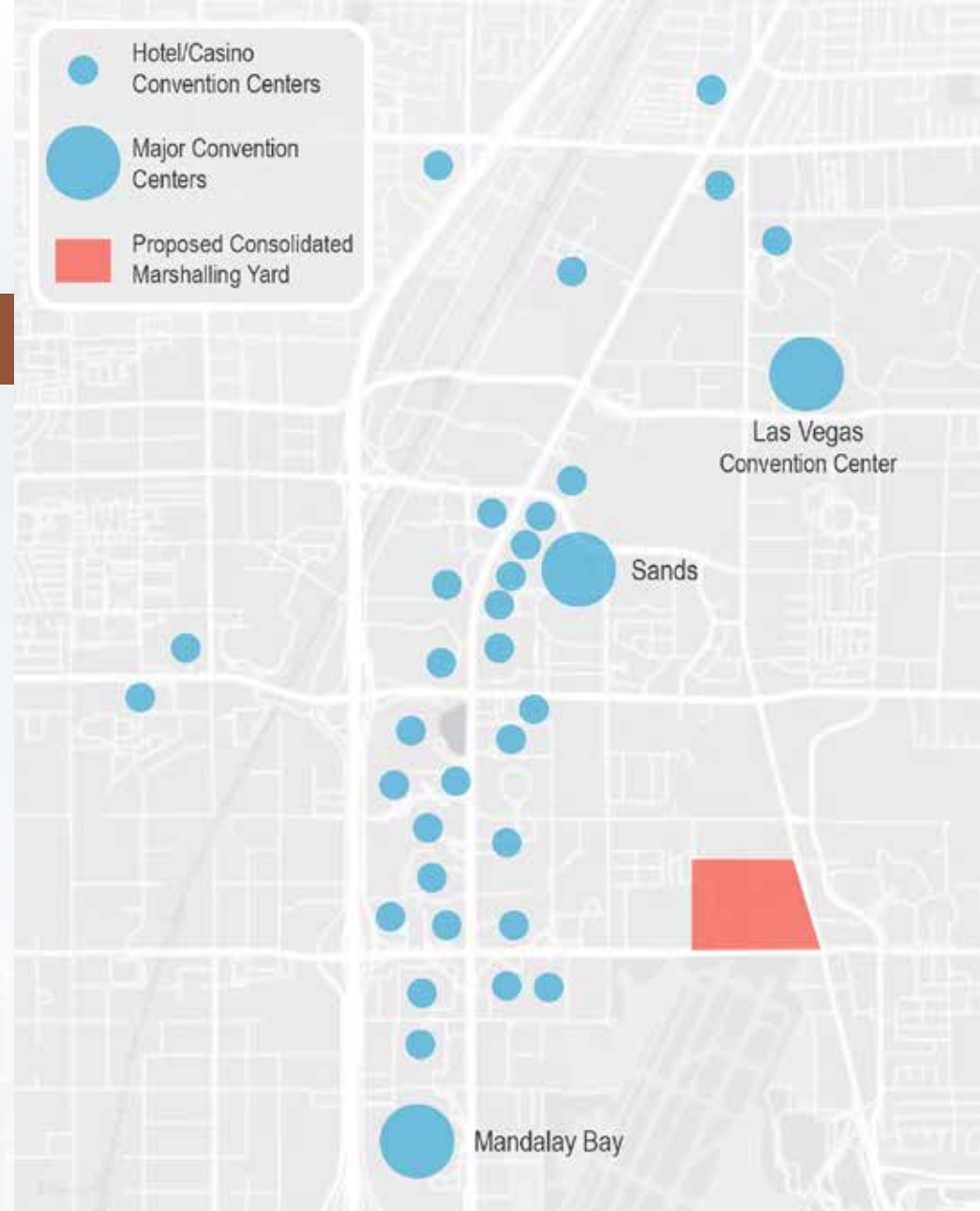
Convention Marshalling Yard – Las Vegas

Convention industry in the Southern Nevada

- » Brings in an average of \$127 million per show
- » Supports 65,000 jobs
- » 6.6 million people visited Las Vegas for a convention in 2017
 - Stay longer
 - Spend more money than leisure visitors

Current convention expansion projects will

- » Add more than 3 million square feet of meeting space
- » Add more trucks to the Resort Corridor
 - Already congested with over 4,500 truck trips per day during the peak convention season



The **McCormick Place** in **CHICAGO** has **2.6** million square feet of exhibit space with a **30** acre truck **marshalling yard**

The **Orange County Convention Center** in **ORLANDO** has **2.1** million square feet of exhibit space with **covered docks** to accommodate exhibit equipment

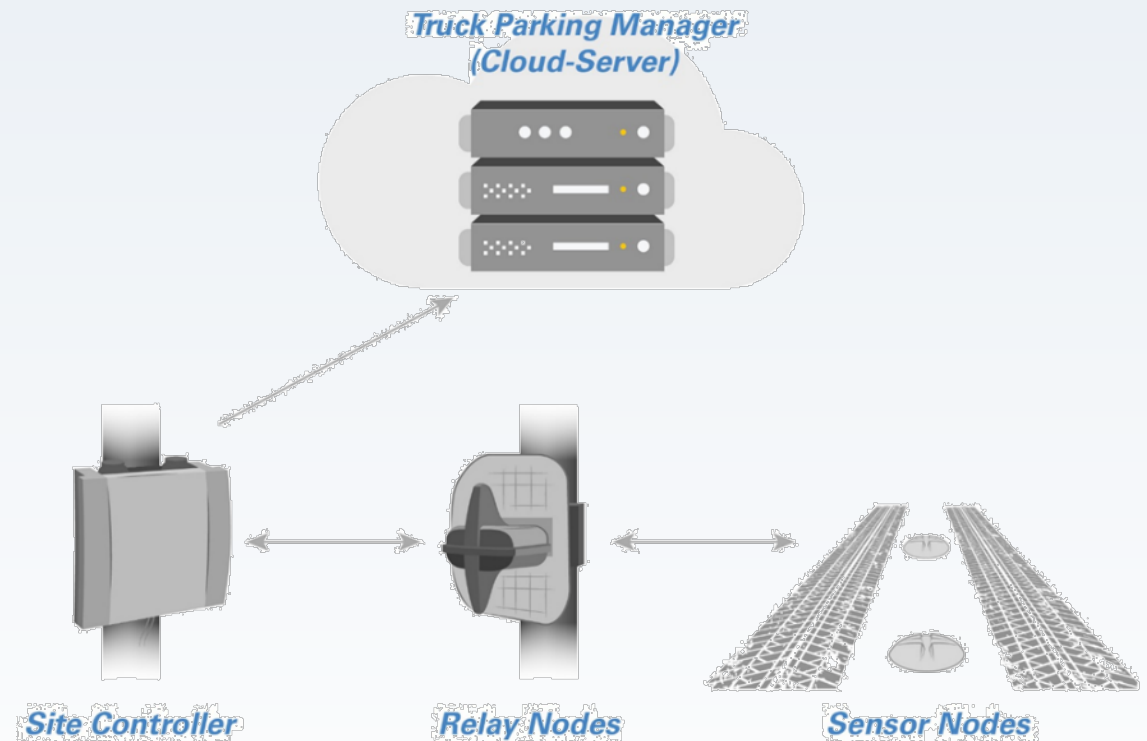
The **LAS VEGAS RESORT CORRIDOR** has **11** million square feet of exhibit space among **35** convention facilities and **no permanent space** for truck staging and trailer parking

Truck Parking Availability System (TPAS)



Truck Parking System Technology

- **In-Ground Sensor Nodes:** Wireless, lithium battery (with a life of 7 to 10 years) powered in-ground sensors to determine space occupancy. Two deployed per truck parking space to improve accuracy in detecting smaller trucks;
- **Relay Nodes:** Wireless, lithium battery powered. Attached to poles at site to collect data from sensors. The number required depends on site layout;
- **Data Collector:** Powered, one per site. Aggregates all data from relay nodes and transmits to a central location for processing; and
- **Truck Parking Management System:** Off-site. Data processing, performance and system management, and connection to information dissemination system



Dynamic Parking Capacity Signs

- Dynamic Parking Capacity Signs are the preferred communication method for drivers seeking truck parking availability information. (ATRI)
- Best practice is to locate one DPCS within 3 miles of the site and one approximately 20 to 30 miles prior to a site.
 - » Provides advanced warning of space availability to allow drivers to consider alternative plans if a location is full

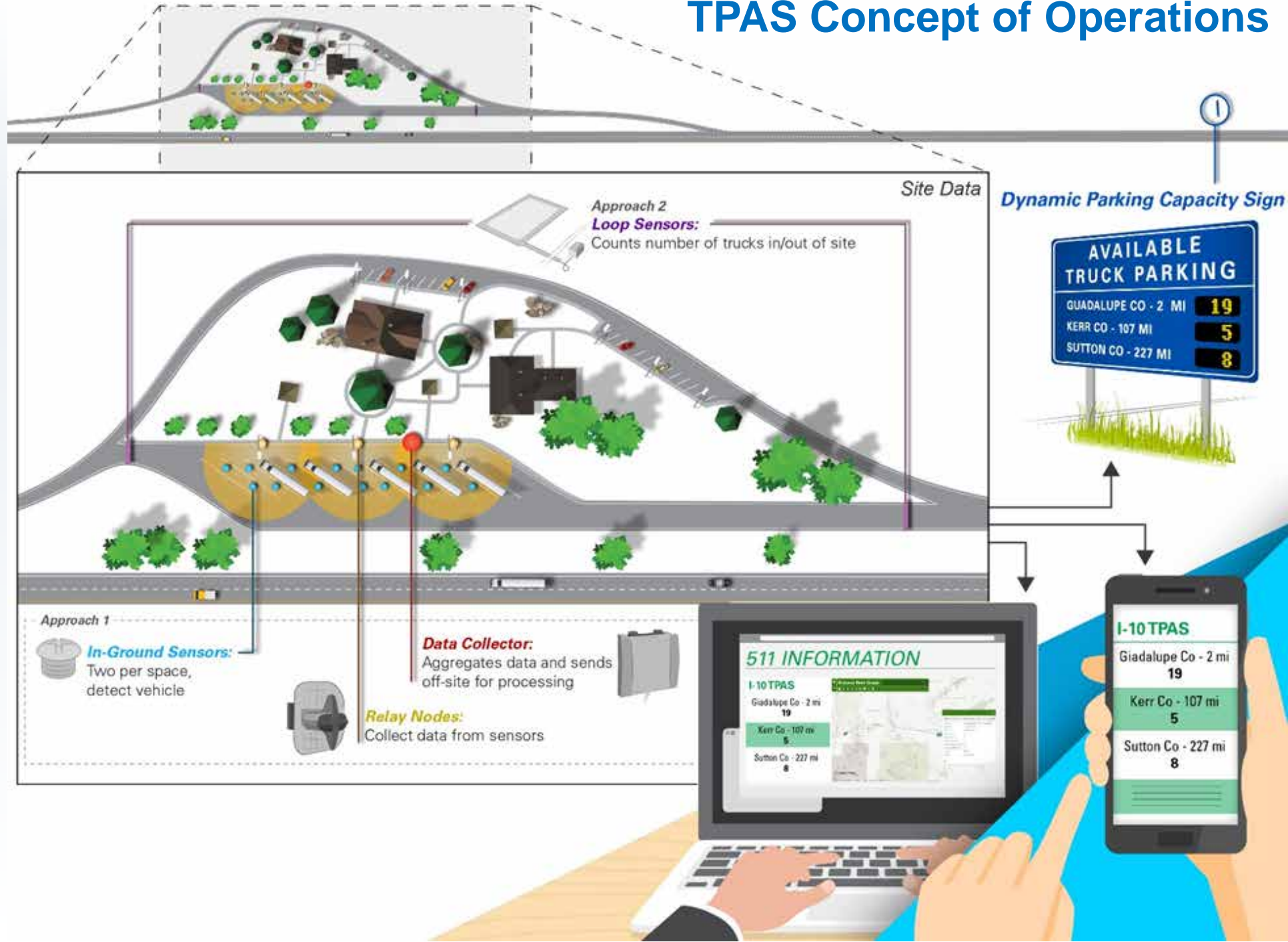


Mobile Application For Drivers

- The mobile application will automatically display any truck parking spots open in the locations along the Corridor.
- The mobile application pulls GPS coordinates from the smartphone and generates a web service request that includes geo-coding data. The request is sent to the I-10 Corridor Coalition TPAS.
- The mobile application then calculates the estimated distance to each identified facility and displays this information along with location and available spaces.
- The service could be expanded in the future to include privately owned truck stops and serve as the base for additional technology deployments in the I-10 Corridor

Application to include “hands-free” features such as audible alerts and commands to mitigate driver distraction

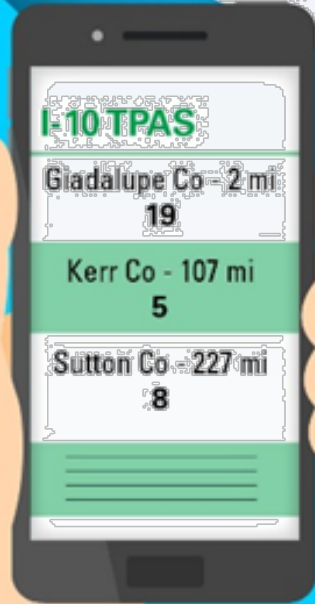
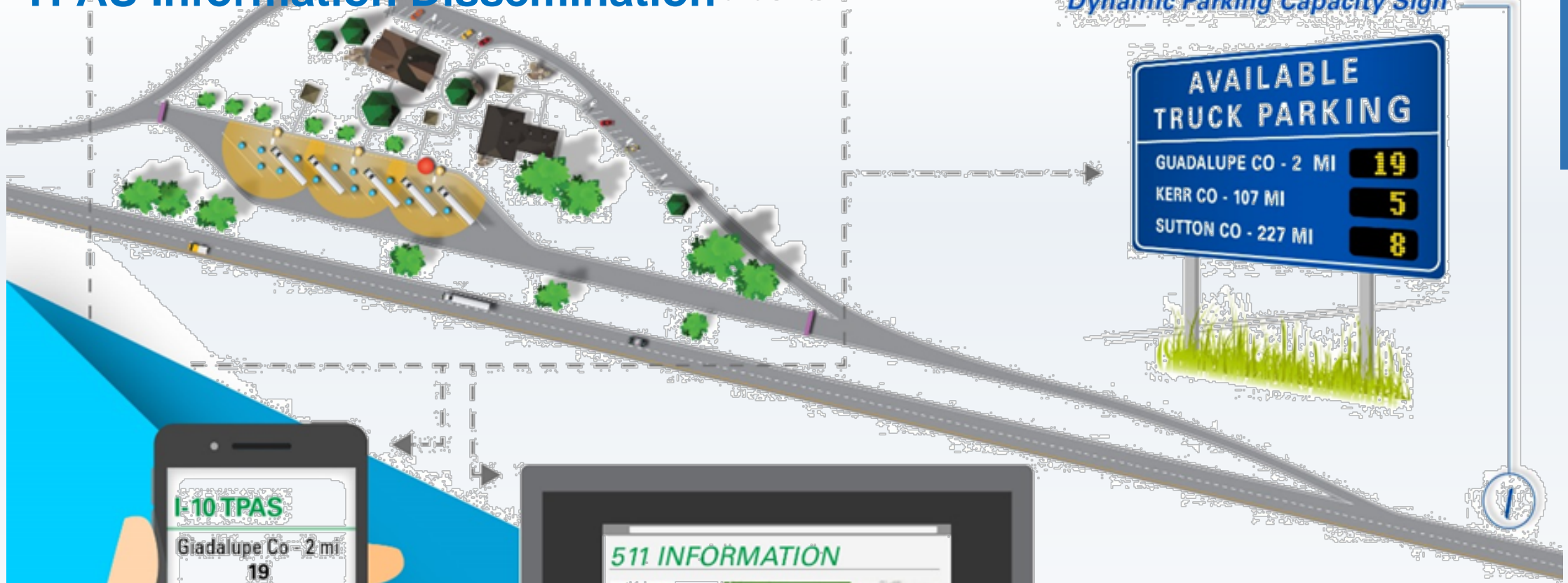
TPAS Concept of Operations



TPAS Information Dissemination

Site Data

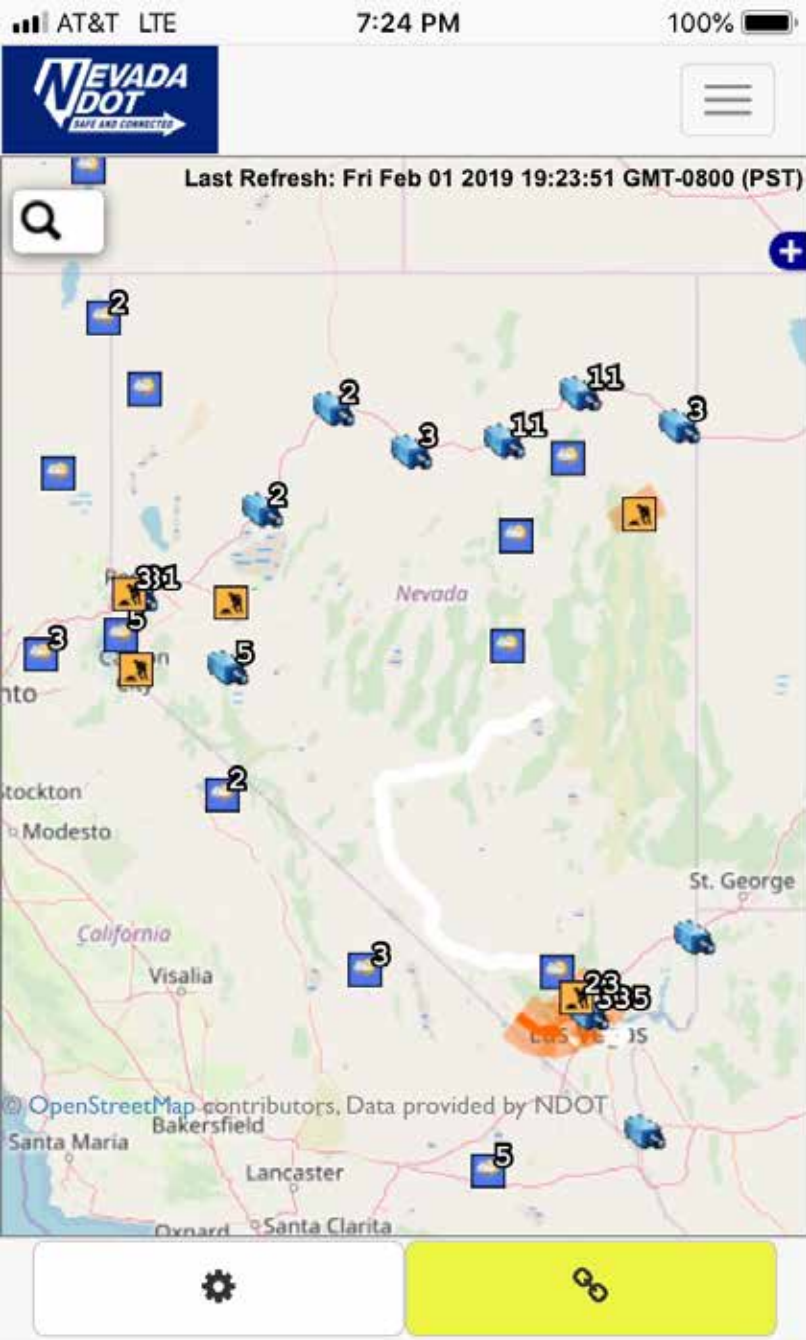
Dynamic Parking Capacity Sign



Ultimate Connectivity with Western States

- Partner with Western States Freight Coalition
 - » I-10 Connected Corridor
 - CA, AZ, NM, TX
 - » I-15 Mobility Alliance
 - CA, NV, AZ, UT
 - » American Truck Parking
 - UC Berkeley, Caltrans, FHWA, FMCSA
- Add-ons
 - » Predictive parking availability
 - » Current and predictive road/travel conditions

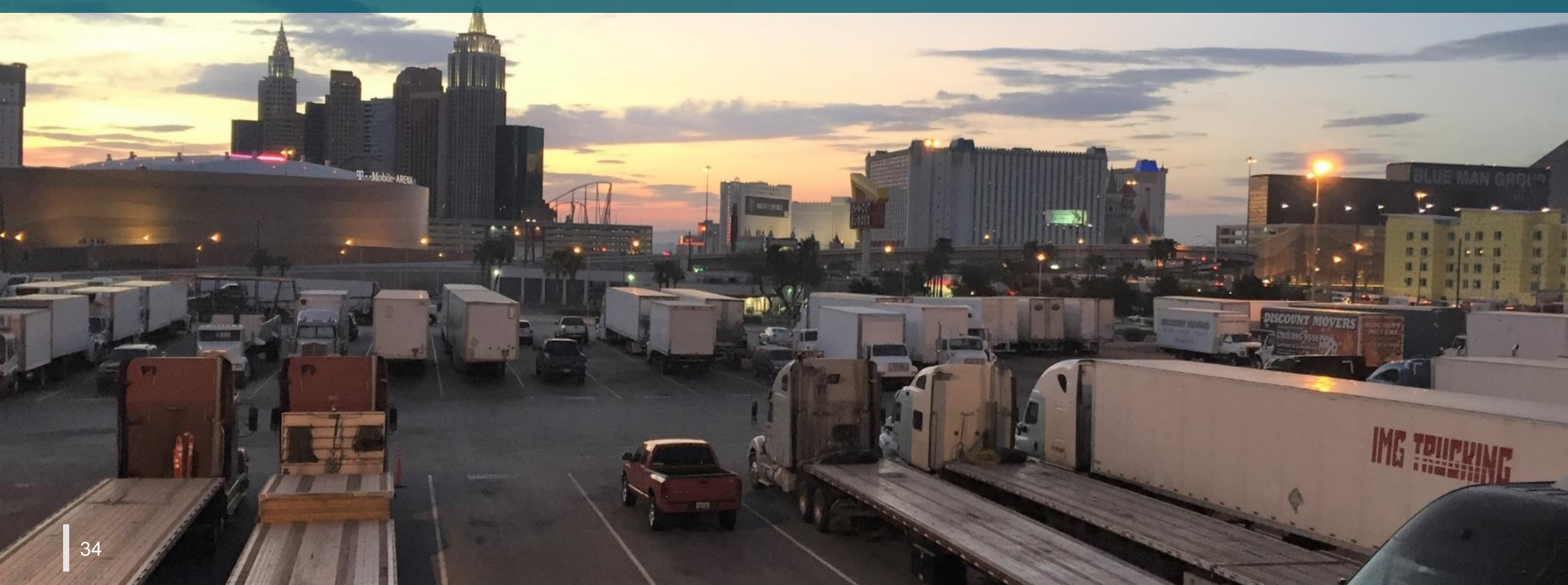




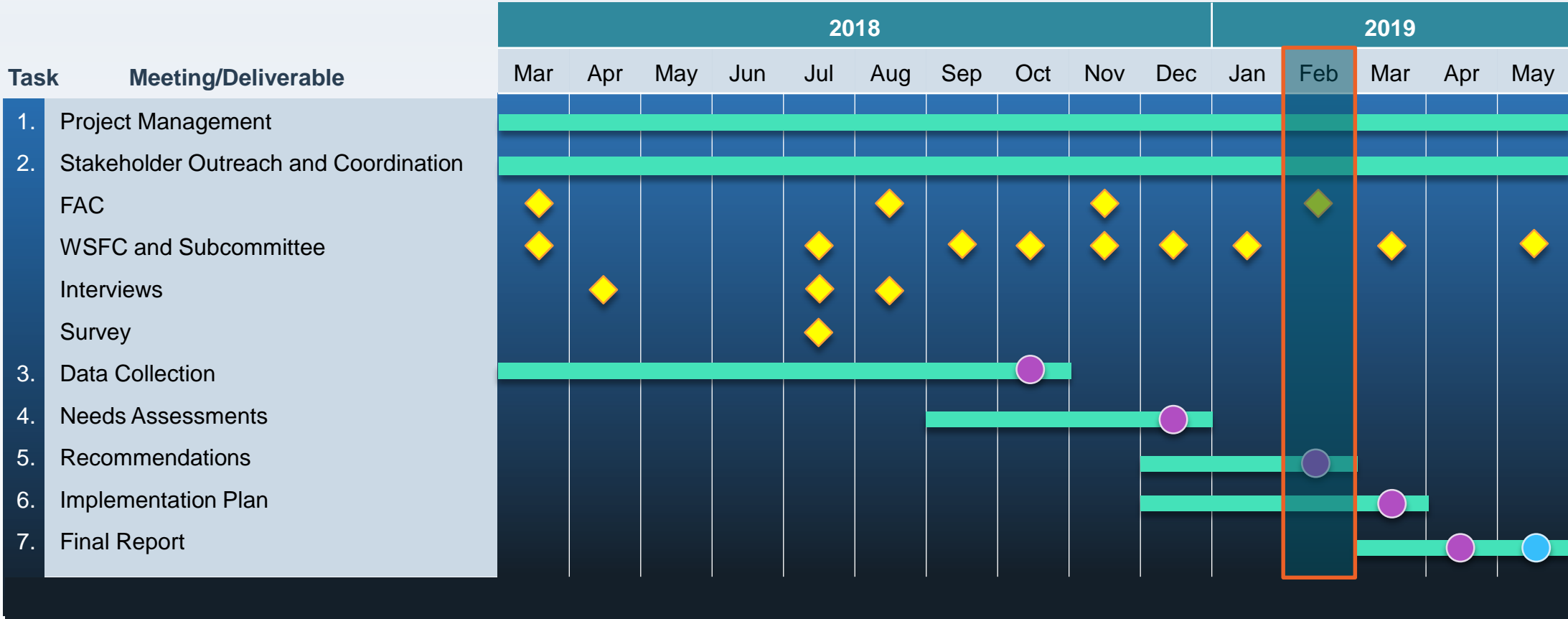
Interim Roll-out and Pilot Project in Nevada

- Install site TPAS sensors, site data collection subsystem and electronic signage with all new/renovation truck parking projects
- Data Integration System/Back Office
 - » Off-site, Truck Parking Management System
 - Data processing
 - Performance and system management
 - Connection to information dissemination system
- Potential integration with
 - » Existing state 511 and road information system platforms (e.g. I-15 Dynamic Mobility Project prototype)
 - » Advanced traveler information systems
 - » Other truck parking apps

Final Truck Parking Discussion and Next Steps



Project Schedule



♦ Meetings
 ♦ Early Action Project
 ● Draft Deliverable
 ● Final Deliverable

THANK YOU!

Contacts:

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775.888.7354



Dan Andersen
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702.303.5419



Think  Forward

Meeting Wrap-up



Open Discussion

- Participants may introduce additional freight-related topics or questions, however, discussion will be limited to a few minutes per topic, and may be tabled for a future meeting.
- Next Meeting
 - » FAC: May 7, 2019

