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

<table>
<thead>
<tr>
<th>Company</th>
<th>Full Name</th>
<th>Meeting Location</th>
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<tbody>
<tr>
<td>NDOT</td>
<td>Lee Bonner</td>
<td>Carson</td>
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<tr>
<td>NDOT</td>
<td>Mark Costa</td>
<td>Carson</td>
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<tr>
<td>NDOT</td>
<td>Murph Glover</td>
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<tr>
<td>NDOT</td>
<td>Tim Mueller</td>
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<tr>
<td>NDOT</td>
<td>Bill Story</td>
<td>Carson</td>
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<tr>
<td>NDOT</td>
<td>Bill Thompson</td>
<td>Carson</td>
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<tr>
<td>NDOT</td>
<td>Emil &quot;B.J.&quot; Almberg</td>
<td>Ely</td>
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<tr>
<td>NDOT District II</td>
<td>Richard (OJ) Oujevolk</td>
<td>Sparks</td>
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<tr>
<td>RTC of Washoe County</td>
<td>Xuan Wang</td>
<td>Sparks</td>
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<tr>
<td>Cambridge Systematics</td>
<td>Dan Andersen</td>
<td>Vegas</td>
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<td>Cast Transportation</td>
<td>Pat Locasto</td>
<td>Vegas</td>
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<td>City of Las Vegas</td>
<td>Rick Schroder</td>
<td>Vegas</td>
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<td>City of North Las Vegas</td>
<td>Curt Kroeker</td>
<td>Vegas</td>
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<td>DeLong Heavy Haul</td>
<td>Paul DeLong</td>
<td>Vegas</td>
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<td>Dielco Crane Service, Inc.</td>
<td>David Dieleman</td>
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<td>Horrocks Engineers</td>
<td>Byron Colton</td>
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<td>NDOT</td>
<td>Doug Johnson</td>
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<td>NDOT</td>
<td>Jason Love</td>
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<td>NDOT</td>
<td>Coy Peacock</td>
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<td>NDOT</td>
<td>Dwayne Wilkinson</td>
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<td>Nevada Highway Patrol</td>
<td>John Arias</td>
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<td>Nevada Trucking Association</td>
<td>Paul Enos</td>
<td>Vegas</td>
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<td>Nye County</td>
<td>Steve Rosenbaum</td>
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<td>Atkins</td>
<td>Mike Lawson</td>
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<td>ATRI</td>
<td>Alexandra Shirk</td>
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<td>Cambridge Systematics</td>
<td>Brian Stewart</td>
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<td>Cambridge Systematics</td>
<td>Mark Jensen</td>
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<td>CBRE Brokerage Services</td>
<td>JJ Peck</td>
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<td>Clark County</td>
<td>Jennifer Robinson</td>
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<tr>
<td>CPCS</td>
<td>Dike Ahanotu</td>
<td>Webinar</td>
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<tr>
<td>National Association of Truck Stop Operators (NATSO)</td>
<td>Tiffany Wlazlowski Neuman</td>
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<td>NDOT</td>
<td>Sondra Rosenberg</td>
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<td>Kim Yaeger</td>
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<td>Now Foods</td>
<td>Jim Emme</td>
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<td>Parametrix</td>
<td>Bardia Nezhati</td>
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<td></td>
<td>Mac Potter</td>
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<td>NDOT District III</td>
<td>Shaun Deforest</td>
<td>Winnemucca</td>
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<tr>
<td>NDOT District III</td>
<td>Dave Schwartz</td>
<td>Winnemucca</td>
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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.
<table>
<thead>
<tr>
<th>Time</th>
<th>Topic</th>
<th>Facilitator(s)</th>
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<tbody>
<tr>
<td>9:00</td>
<td><strong>Welcome and Introductions</strong></td>
<td>Bill Thompson, NDOT</td>
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<td>9:10</td>
<td><strong>Project Updates</strong></td>
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<td>• Freight Program Funded Projects</td>
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<td>• Hazardous Commodity Flow Study</td>
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<td>• David Willauer, Cambridge Systematics (CS)</td>
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<td>9:20</td>
<td><strong>Truck Parking Implementation Plan</strong></td>
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<td>• Truck Parking Capacity &amp; Gaps</td>
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<td>• Recommendations</td>
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<td>• Small Rural Lots</td>
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<td>• Urban P3 Lots</td>
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<td>• Specialty Lots</td>
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<td>• Truck Parking Availability System</td>
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<td>Consultant Team:</td>
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<td>• Dan Andersen, CS</td>
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<td>• Brian Stewart, CS</td>
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<td>• Byron Colton, Horrocks</td>
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<td>• Mark Jensen, CS</td>
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<td>10:20</td>
<td><strong>Open discussion</strong></td>
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<td>• Additional freight-related topics or questions</td>
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<td>• Next Meetings</td>
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<td>Bill Thompson, NDOT</td>
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$60 MILLION OVER 5 YEARS FOR FREIGHT 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)
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
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

ACCESS CONTROL GATE

20 18'x90' TRUCK SPACES

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.
- 41 overflow truck spaces.
- 8 15.5x70' RV spaces.
- 16 18x90' truck spaces.
- Access control gate.
- Maintain existing restroom facilities.
- Maintain existing automobile spaces.
Overflow Truck Parking Alternate 1

Estimated Construction Cost:

-$497,000 (without Pavement)
-$581,000 (with Pavement)
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

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<th>Rarely / Never</th>
<th>Occasionally</th>
<th>Often / Always</th>
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<tr>
<td>62.5%</td>
<td>28.1%</td>
<td>9.4%</td>
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Shipper/Receiver loading/unloading delays exceed one hour

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<th>Occasionally</th>
<th>Often / Always</th>
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<tbody>
<tr>
<td>18.5%</td>
<td>16.9%</td>
<td>64.6%</td>
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It is easy to find truck parking in Nevada for short periods of time while waiting to make a scheduled delivery

<table>
<thead>
<tr>
<th>Strongly Agree / Agree</th>
<th>Neutral</th>
<th>Strongly Disagree / Disagree</th>
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<tr>
<td>21.5%</td>
<td>41.5%</td>
<td>36.9%</td>
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Data Source: CBRE
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
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

![Map of Reno-Sparks Livestock Events Center]

- Graded, gravel lot for 100 trucks during closures
- Double paved area
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
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.
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.
TPAS Concept of Operations

In-Ground Sensors:
Two per space, detect vehicle

Loop Sensors:
Counts number of trucks in/out of site

Approach 1

Data Collector:
Aggregates data and sends off-site for processing

Relay Nodes:
Collect data from sensors

Approach 2

Dynamic Parking Capacity Sign

Available Truck Parking

511 Information

I-10 TPAS
Guadalupe Co - 2 mi
19

Kerr Co - 167 mi
5

Sutton Co - 227 mi
8
TPAS Information Dissemination

10 TPAS
Guadalupe Co - 2 mi
Kerr Co - 107 mi
Sutton Co - 227 mi

511 INFORMATION

Dynamic Parking Capacity Sign

Available Truck Parking
Guadalupe Co - 2 MI
Kerr Co - 107 MI
Sutton Co - 227 MI
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

2018

- Mar
- Apr
- May
- Jun
- Jul
- Aug
- Sep
- Oct
- Nov
- Dec

2019

- Jan
- Feb
- Mar
- Apr
- May

Task | Meeting/Deliverable
--- | ---
1. | Project Management
2. | Stakeholder Outreach and Coordination
3. | Data Collection
4. | Needs Assessments
5. | Recommendations
6. | Implementation Plan
7. | Final Report

- Meetings
- Early Action Project
- Draft Deliverable
- Final Deliverable
Contacts:

Bill Thompson  
bthompson@dot.nv.gov  
775.888.7354

Dan Andersen  
dandersen@camsys.com  
702.303.5419
Meeting Wrap-up
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