



U.S. Department of Transportation
Federal Highway Administration

Office of Operations
1200 New Jersey Avenue SE
Washington, D.C. 20590
<https://ops.fhwa.dot.gov/freight>

Workshop on the Draft Truck Parking Development Handbook

December 2021

Tiffany Julien
FHWA Office of Operations
Office of Freight Management and Operations



Disclaimer

This presentation was created and is being co-presented by both FHWA and a contractor. The views and opinions expressed in this presentation are the presenters' and do not necessarily reflect those of FHWA or U.S.DOT. The contents do not necessarily reflect the official policy of the Department of Transportation.

The U.S. Government does not endorse products or manufacturers. Trademarks or manufacturers' names appear in this presentation only because they are considered essential to the objective of the document.



Agenda

- Overview of the Truck Parking Development Handbook
- Tools for Quantifying Truck Parking Needs, Benefits, and Costs
- Strategies for Siting and Designing Truck Parking Facilities
- Examples of Encouraging and Requiring Truck Parking
- Open Discussion
- Wrap-up and Next Steps



Overview of the Truck Parking Development Handbook



Why is Truck Parking Important?

Just as the trucking industry is critical to our Nation's economic success and way of life, **SAFE, ACCESSIBLE TRUCK PARKING** is critical to truck drivers



Long-haul

Long-haul drivers are on the road days and sometimes weeks at a time traveling across the country.



Staging

Truck drivers picking up and delivering freight at manufacturing plants, warehouses and distributions centers need a place to park to await their appointment time.



30-minute break

As part of the federally mandated 30-minute break, the driver must be off duty, meaning they are no longer working and will not have to move the truck for any reason.



Emergency

Drivers may be impacted by an incident that has either closed or severely congested the roadway, and they need a place to park.



Time off

Independent drivers don't have a company facility to provide parking during time off. They are done with their work week and need a place to park their truck while off-duty.

Jason's Law Truck Parking Survey and Assessment

- Truck parking shortages are still a major problem in every state and region.
- Major freight corridors and large metro areas have the most acute shortages.
- Shortages exist at all times of day, week and year, but mostly overnight and weekdays.
- Challenges exist in funding and maintaining truck parking for public and private sector.
- Truck stop operators need business models that incorporate parking profitably.
- Local government involvement and citizen awareness needed for effective discussions and realistic plans for truck parking.



Community Impacts of Truck Parking

- What are community benefits of truck parking?
- What are community concerns related to truck parking?



Discussion of Community Impacts of Truck Parking

BENEFITS

- » Enhances roadway and driver safety
- » Reduces unauthorized parking
- » Reduces roadway maintenance costs
- » Increases competitiveness

CONCERNS

- » Noise
- » Emissions
- » Community safety
- » Trash and litter
- » Low revenue generation
- » Community perception



Purpose of the Handbook

- Presents tools and strategies for local planners and officials to integrate truck parking with freight land uses
- Provides tools for estimating truck parking generation and needs
- Identifies public benefits of truck parking and benefit cost and economic impact analyses
- Discusses factors for identifying sites and designing truck parking
- Examines attributes that ensure truck parking areas are safe
- Provides case studies of successful truck parking developments



Overview of the Handbook Contents

Section 1 Introduction

- Why should local planners and practitioners care about truck parking?
- How does the handbook assist planners?

Section 2 Quantifying Truck Parking Needs, Benefits, and Costs

- How much parking is needed in my community?
- What are the public benefits and costs of truck parking?

Section 3 Siting and Designing Truck Parking Areas

- What land use considerations are associated with freight and truck parking?
- What are the design considerations for truck parking?

Section 4 Encouraging and Requiring Truck Parking

- How can we improve land use and zoning policies?
- What are some examples of successful truck parking development?



Quantifying Truck Parking Needs, Benefits, and Costs



Truck Parking Demand

FACTORS DRIVING DEMAND FOR TRUCK PARKING

Federal Hours of Service (HOS) Regulations

Mandatory 10 hours of rest following 14 hours on duty

Required 30-minute breaks at prescribed intervals

Warehousing Logistics Inventory Management

Staging for pickup/delivery windows at factories and warehouses

Local parking for deliveries to replenish supplies and materials

Other

Local parking for deliveries to replenish supplies and materials

Unplanned parking due to breakdowns, traffic incidents or weather-related closures



Factors Generating Truck Parking Demand

**Commercial
and industrial
land use**



**Intermodal
generators**



**Through-truck
traffic**



Source: Cambridge Systematics



Commercial and Industrial Land Use

Parking Demand Considerations	Planning Implications
<ul style="list-style-type: none">• Where are these land uses located? Are they clustered or spread out?• Are deliveries and pick-ups confined to a time window?• Do sites have on-site truck parking?• Are trucks carrying oversize loads, such as heavy equipment or wind turbine blades?	<ul style="list-style-type: none">• Drivers typically want to park as close to their destination as possible.• Time limitations can result in accumulating staging demand prior to opening hours.• On-site truck parking can reduce the demand for parking in other locations, such as rest areas.• Parking spaces with a larger footprint may not be available at truck stops and rest areas. Some jurisdictions have oversize/overweight curfew hours, causing trucks to park outside of city limits in unauthorized locations.



Intermodal Generators

Parking Considerations	Planning Implications
<ul style="list-style-type: none">• Are deliveries and pick-ups confined to a time windows?• How much freight is moved to/from trucks? For existing facilities, has this volume changed since initial facility design?	<ul style="list-style-type: none">• Time limitations can result in accumulating staging demand prior to opening hours.• Growth in containerized freight on trains and larger vessels can lead to increased truck traffic.

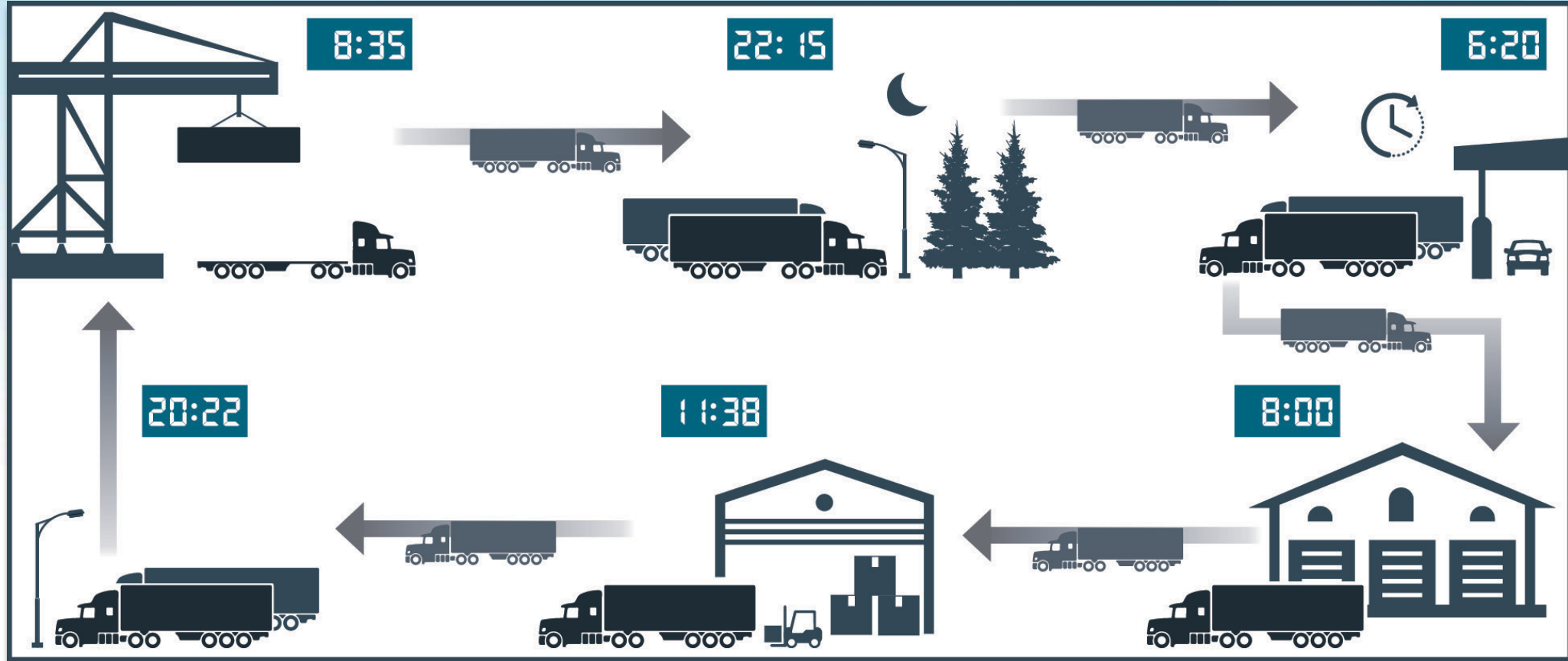


Through-Truck Traffic

Parking Considerations	Planning Implications
<ul style="list-style-type: none">• Which highways carry the greatest truck traffic?• Are there existing truck stops or rest areas along major highways?• Do nearby communities have existing truck stops or rest areas? Do they prohibit or put time limits on truck parking?	<ul style="list-style-type: none">• Corridors with the greatest truck traffic often have the greatest demand for truck parking.• Drivers seeking parking may anticipate parking availability at a location that is full upon arrival. This can lead to parking in undesignated locations.• Accommodation or restriction of truck parking in nearby communities will either alleviate or intensify demand.



Illustrative Truck Trip with Stops



Source: Cambridge Systematics



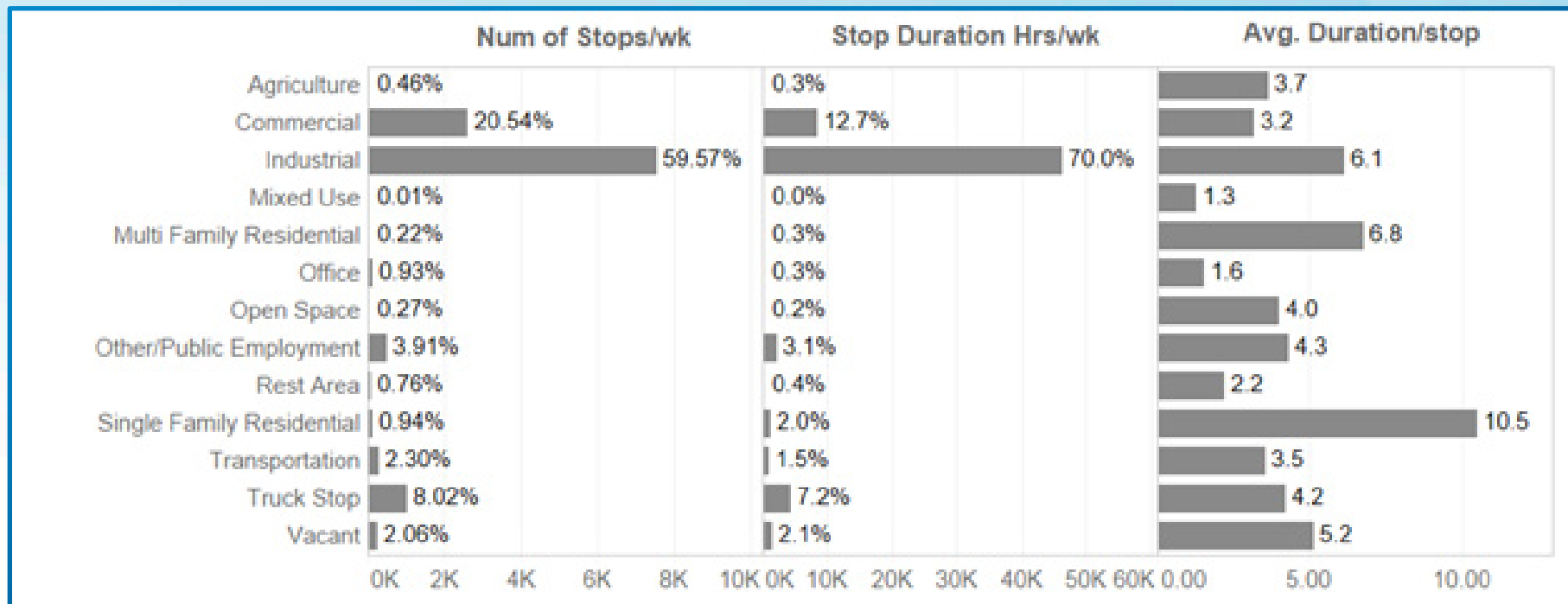
Case Studies on Truck Parking Demand Estimation

- **National Cooperative Freight Research Program (NCFRP) Research Report 37: *Using Commodity Flow Survey Microdata and Other Establishment Data to Estimate the Generation of Freight, Freight Trips, and Service Trips: Guidebook*, 2016**
- **Maricopa County Association of Governments (MAG) Truck Parking Study, 2021**
- **Winston-Salem Innovations in Local Freight Data**
- **Texas A&M Transportation Institute (TTI) Truck Trip and Truck Parking Generation Study, 2021**
 - » Houston, Dallas and San Antonio, Texas
 - » Salisbury and Hagerstown, Maryland



MAG Truck Parking Study

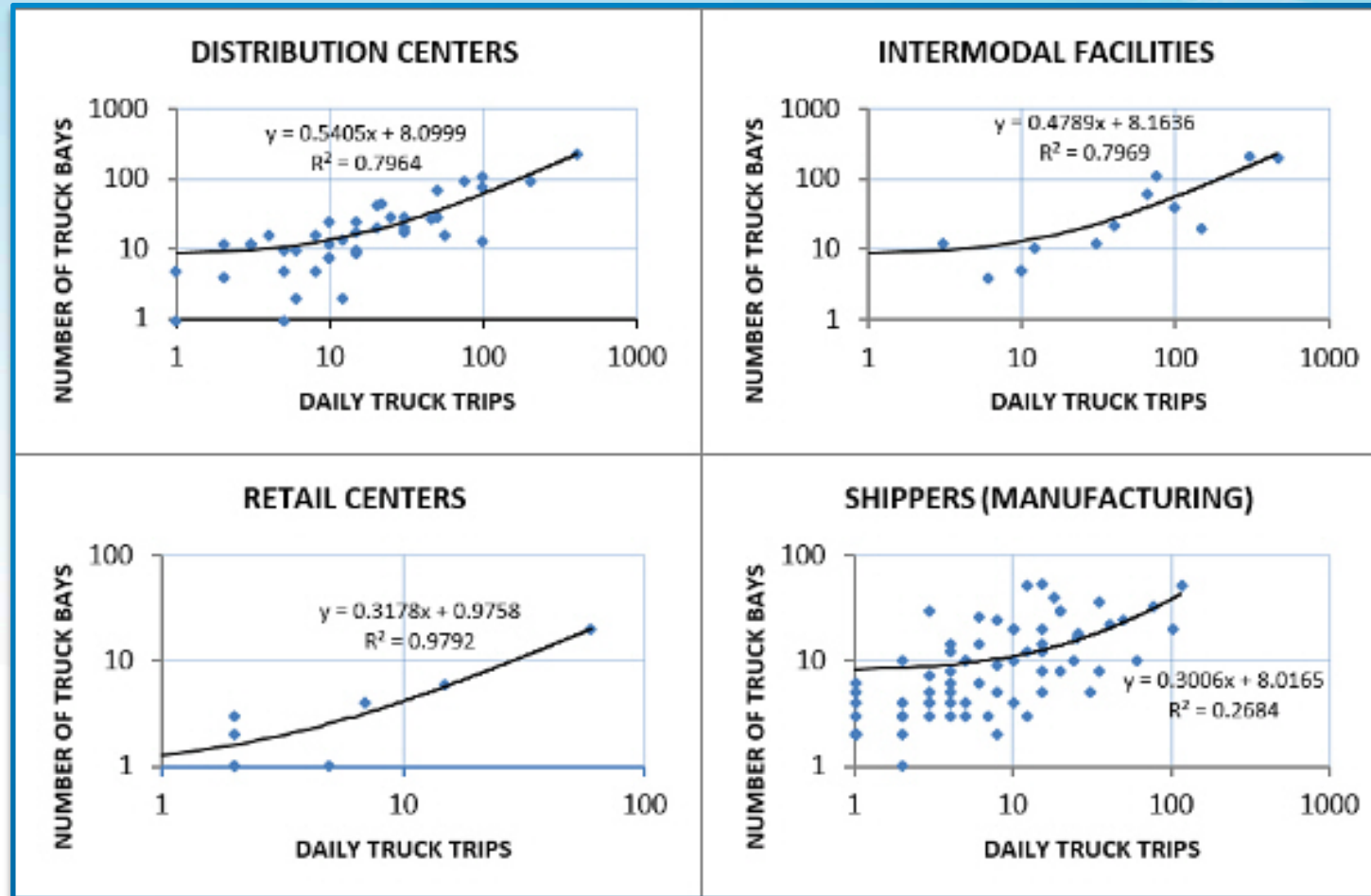
TRUCK STOP DATA BY LAND USE IN THE MARICOPA REGION



(Source: Maricopa Association of Governments, 2021.)



Winston-Salem Innovations in Local Freight Data



(Source: Winston-Salem MPO, 2016.)

TTI Truck Trip and Truck Parking Generation Study

- Port Houston, Bayport (Houston, Texas)
- Cedar Port Logistics Park (Houston Area, Texas)
- Alliance Inland Port (Dallas, Texas)
- HEB Grocery Warehouse and Distribution (San Antonio, Texas)
- Agribusiness Facility (Salisbury, Maryland)
- Rural Crossroad Industrial cluster (Hagerstown, Maryland)



TTI Truck Trip and Truck Parking Generation Study (continued)

Distance from Case Study Site	Commercial/Industrial (prior pick-up or delivery)	Near Highway (parking)	Designated Parking Lot (parking)	Possible Parking Area (parking)
Less than 20 miles	2,176	322	1,199	1,518
20-50 miles	7,910	358	777	2,374
50-150 miles	1,026	60	165	424
Longer than 150 miles	413	30	114	176

(Source: Texas A&M Transportation Institute (TTI) Truck Trip and Truck Parking Generation Study, 2021)



A New Tool to Estimate Truck Parking

- Trip generation and truck parking studies were combined to estimate parking demand based on two inputs:
 - » North American Industrial Classification System (NAICS) code
 - » Number of employees
- Primary data sources:
 - » MAG Truck Parking Study
 - » TTI case studies in Texas and Maryland

Truck Parking Estimation Tool
 Green indicates fields that the user must populate, yellow fields can be changed by the user. Blue fields represent outputs or results of the estimation tool.

Linear Model Without Intercept

1 Estimate Daily Truck Stop Generation - 2 Digit NAICS Code

2-Digit NAICS

2-Digit NAICS Code	NAICS 31-33 Manufacturing
Coefficient	0.0077
Expansion Factor	4.67
Number of Employees	0

Daily Truck Stops Generated: 0

Estimate Distance of Truck Stops (for Industrial Facilities) - Prior to and after facility

First Stop Prior to Facility by Distance

Distance	Number of Stops
Less than 20 miles	0
20-50 miles	0
50-150 Miles	0
Longer Than 150 Miles	0

First Stop After Facility by Distance

Distance	Number of Stops
Less than 20 miles	0
20-50 miles	0
50-150 Miles	0
Longer Than 150 Miles	0

2 Estimate Peak Occupancy - 2-Digit NAICS Code

2-Digit NAICS

Estimation Tool | ReadMe | Parameters - Distance | Parameters - Linear Model 1 | +

Source: Cambridge Systematics

Mentimeter Poll on Truck Parking Demand

- Goal
 - » This a helpful framework for:
 1. Estimating truck trip generation
 2. Estimating truck parking demand. (Use slider bar ranging from “strongly disagree” to “strongly agree.”)
 - Are employment numbers commonly known?
 - Are employment numbers useful?
 - » What additional information might a planner want or need?



Estimating Parking Benefits and Costs



Economic Benefits of Truck Parking

Avoided Detours

- » Fewer miles and hours driving to find parking
- » Reduced emissions
- » Less fuel consumption

Reduced Undesignated Parking

- » Improved safety
- » Reduced pavement/road shoulder damage
- » Reduced clean-up
- » Less theft

Improved Trucking Sector Performance

- » Improved productivity
- » Less driver stress/better retention
- » Lower industry costs
- » Increase economic competitiveness



Truck Parking Costs

Capital

- Right-of-way
- Construction of facilities

Operations and Maintenance

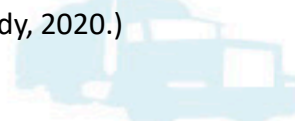
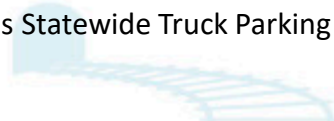
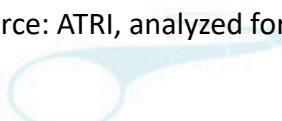
- Staffing (if required)
- Utilities
- Cleaning/Maintaining
- Consumables
- Preservation



Trucks Parked in Bell County, Texas

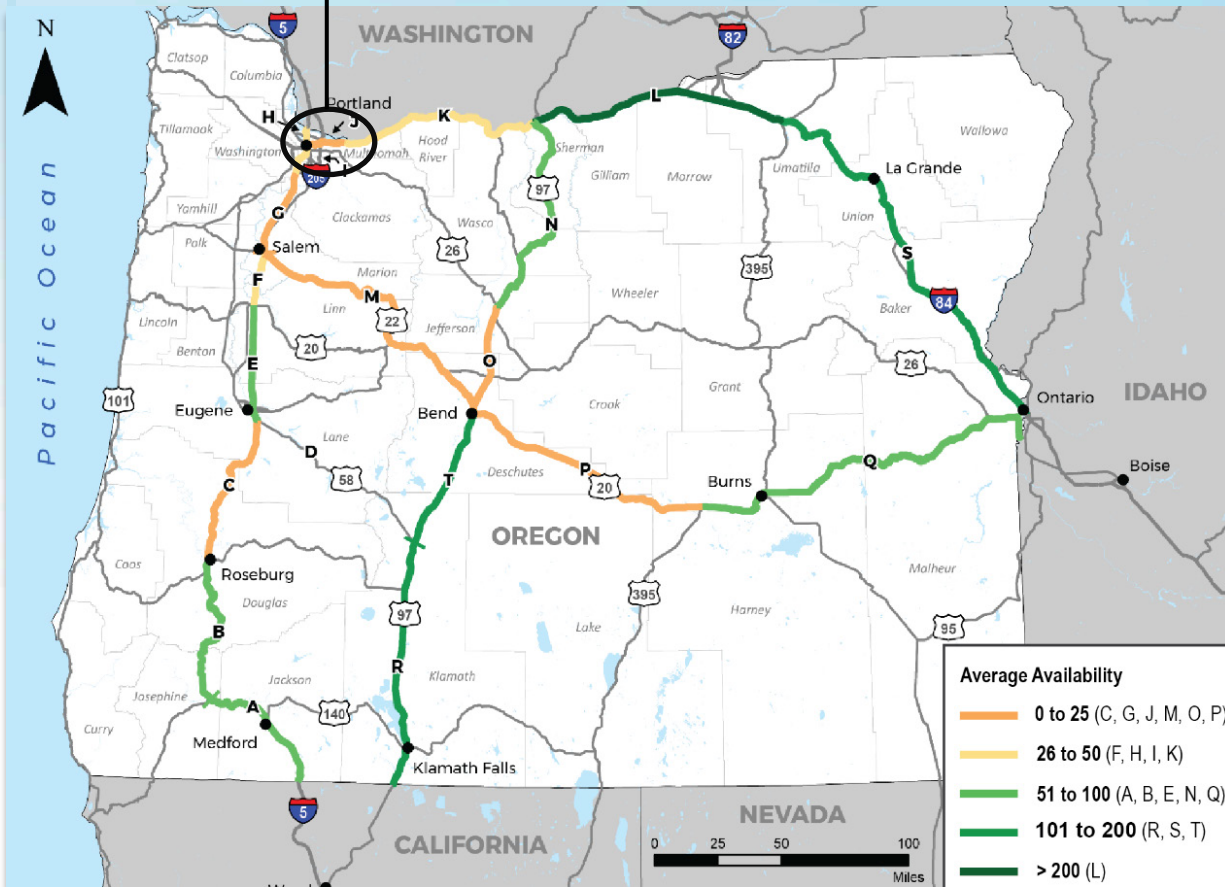


(Source: ATRI, analyzed for Texas Statewide Truck Parking Study, 2020.)



Portland Case Study: Benefit/Cost

Case study location



Result	No Discounting	3% Discounting	7% Discounting
Project Benefit	\$21,203,011	\$11,709,914	\$6,069,447
Project Cost	\$7,139,491	\$6,639,401	\$6,055,855
Net Present Value	-	\$5,070,512	\$13,592
Benefit/Cost Ratio	-	1.76	1.00

(Source: Oregon Department of Transportation, Oregon Commercial Truck Parking Study, 2019.)

Portland Case Study: Truck Parking Benefits

Trucking Costs and Productivity

29%

Avoided Pavement Deterioration

4%

Trash/Clean Up Savings

1%

Reduced Cargo Theft

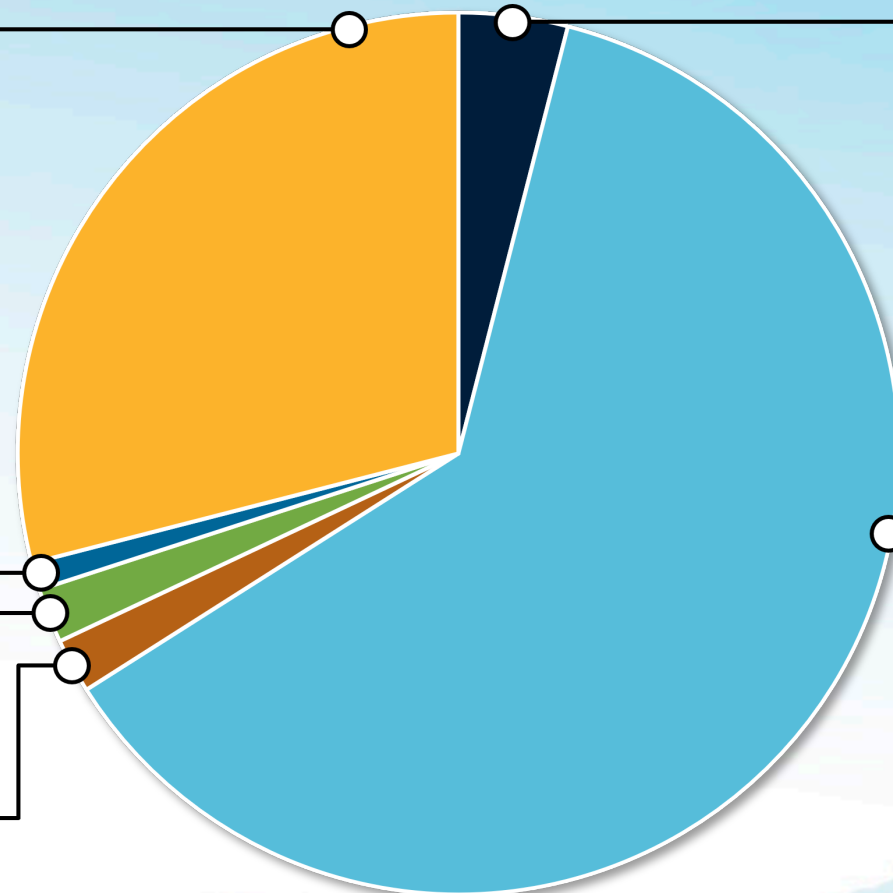
2%

Emissions Reduction

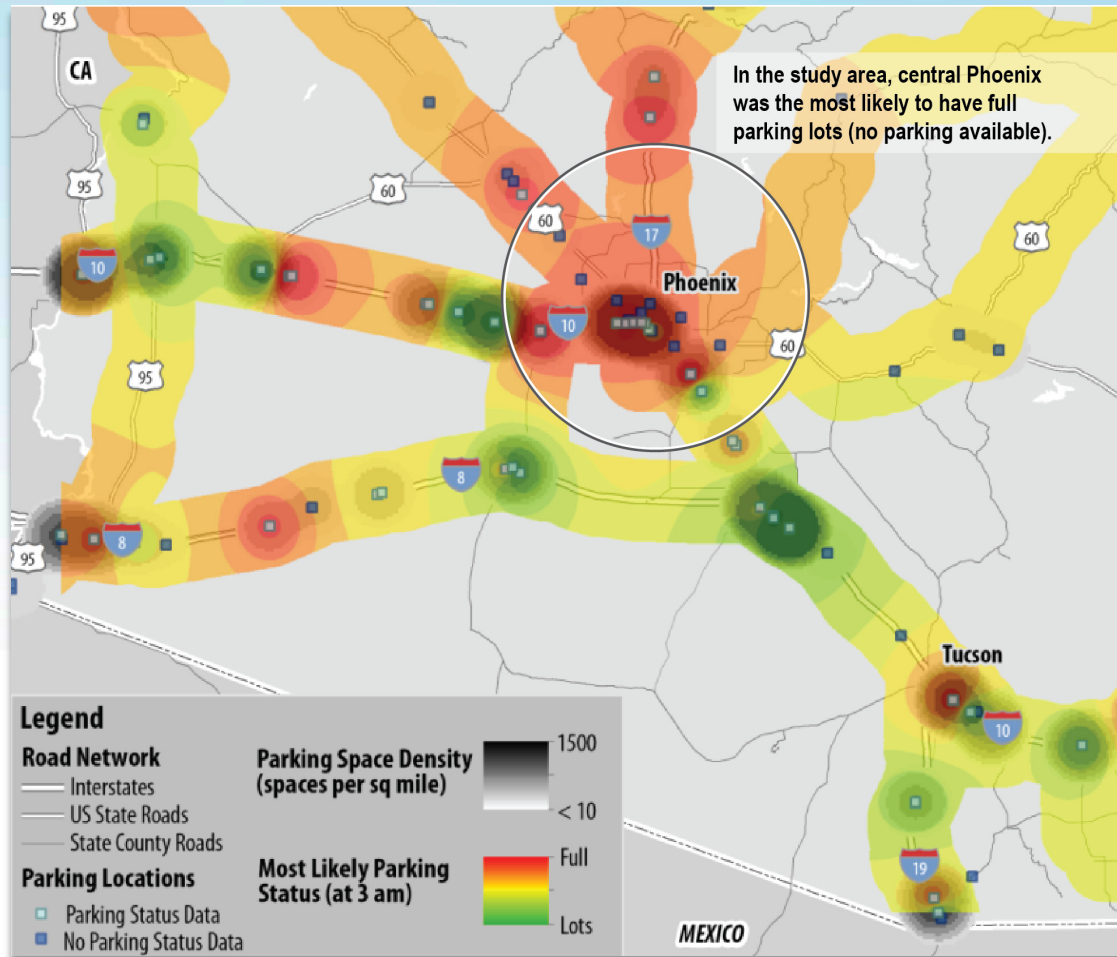
2%

Crash Reduction

62%



Phoenix Case Study: Benefit/Cost



Result	No Discounting	3% Discounting	7% Discounting
Project Benefit	\$12,095,457	\$6,650,296	\$3,409,988
Project Cost	\$3,331,763	\$3,098,387	\$2,826,066
Net Present Value	–	\$3,551,909	\$583,922
Benefit/Cost Ratio	–	2.15	1.21

(Source: MAG Truck Parking Study, 2020.)

Phoenix Case Study: Truck Parking Benefits

Trucking Costs
and Productivity

24%

Avoided Pavement
Deterioration

8%

Trash/Clean Up Savings

3%

Reduced Cargo Theft

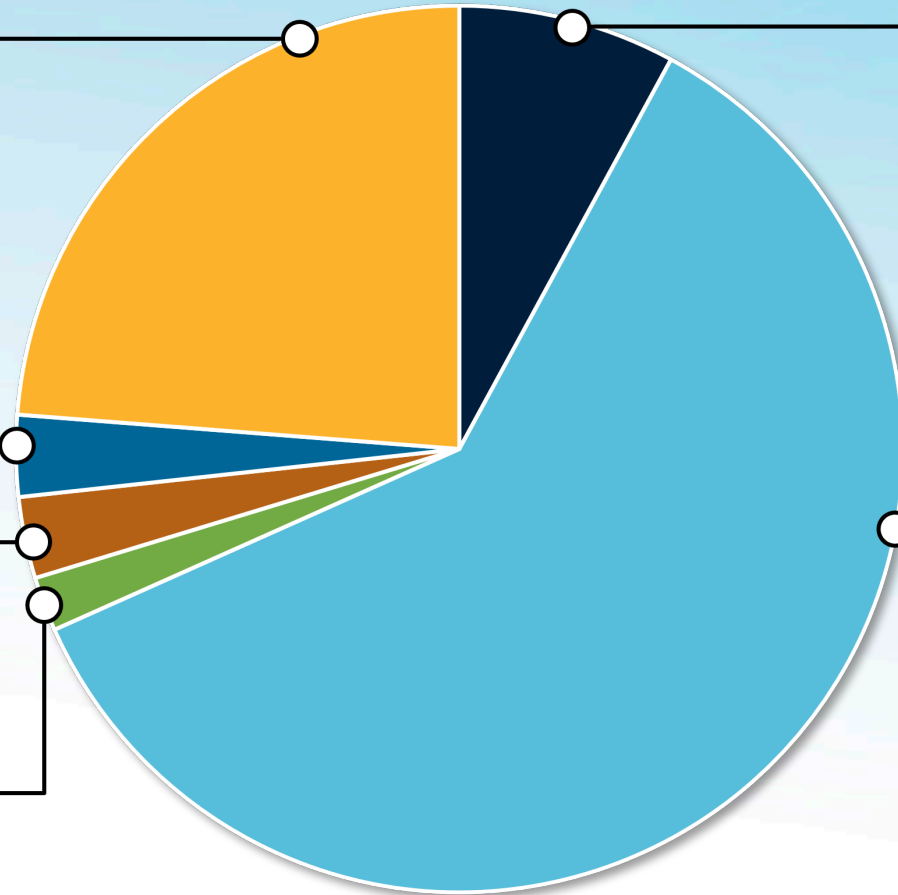
3%

Emissions Reduction

2%

Crash Reduction

60%



(Source: MAG Truck Parking Study, 2020.)

Key Takeaways from Case Studies

- Safety improvements generate more than half of the benefits in both cases
 - » Reduced collisions with trucks parked in undesignated places
 - » Reduced detours reduces exposure to crash risk
- Lower trucking costs from avoided detours and increased productivity add significant private benefit
- Distribution of benefits depends on local scenario
 - » e.g., Reducing undesignated parking leads to more pavement benefits



Mentimeter Poll on Benefit/Costs

- Are there other benefits or costs that should be considered?



Siting and Designing Truck Parking Facilities



Evaluating Your Community

- Where are existing land uses that attract truck traffic?
- Which highways in your community carry the highest levels of truck traffic?
- Where are existing truck parking facilities near or over capacity?
- Where are commercial and industrial developments expected to occur?



Case Studies in Siting Evaluation

Mid-America Freight Coalition

- Focused on major freight highways (National Highway Freight Network)
- Limited to sites within 0.25 miles of highway
- Parcels must be at least 5 acres

Illinois Center for Transportation Studies

- Major highway access was the most important factor
- Brownfield redevelopment was prioritized
- Local roadway and intersection design and operations considered
- Signal timing may need to be adjusted following development



Case Studies in Siting Evaluation, Continued

Center for Advanced Infrastructure and Transportation

- Density of population, manufacturing, warehousing, and retail examined to identify areas for further study
- Brownfield development can prevent introduction of new conflicts and externalities
- Siting decisions should consider noise and air pollution impacts to communities

Florida DOT District 6

- Focused on vacant, publicly-owned parcels
- Parcels were over 9.5 acres
- Multiple stages of screening determined high-level feasibility first, before investing in engineering and environmental study

Takeaways from Siting Studies

- Highway access and parcel size are two of the most important elements to ensure parking is utilized
- Local roadway and signal operations may need to be reviewed to accommodate additional truck turning movements
- Brownfield sites and publicly-owned sites reduce barriers to finding land
- Community impacts must be evaluated and mitigated



Mitigating Community Impacts of Freight Intensive Land Uses

- Avoid sites near residential land uses, schools, and other community amenities
- Prioritize locations directly adjacent to major highways
- Co-locate with existing industrial developments
- Choose sites with sufficient space and utilities for restrooms and trash service



Mitigating Community Impacts of Freight Intensive Land Uses (continued)

- Assess the ability of access roadways to accommodate large trucks
- Consider how truck traffic may impact other critical transportation services
- Evaluate how siting choices will positively or negatively impact the equitable distribution of transportation externalities



Mitigating Impacts on Existing Adjacent Land Uses

- Ideal siting prevents conflicting adjacent land uses
- When potential conflict exists, impacts should be mitigated



(Source: FHWA, 2021)

Mentimeter Poll on Site Design

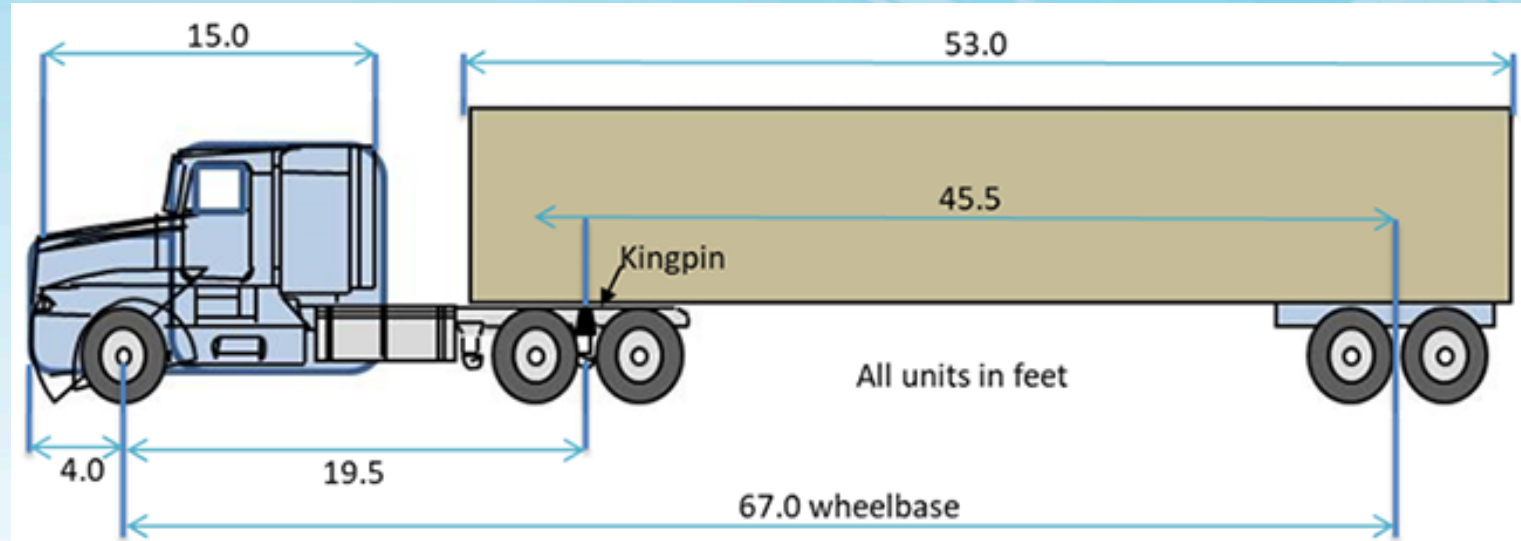
The following features are important in site design:

- » Truck traffic generation/congestion
 - » Air quality
 - » Noise emissions
 - » Light pollution from facilities
 - » Security at facilities
 - » Roadway safety
 - » Other
- Follow-up question:
 - » What best practices should we highlight to mitigate these concerns?
 - » Are there examples in your communities of successful mitigation?



Designing Truck Parking Facilities

Design Vehicle- WB-67



Design Vehicle Dimension	Measurement
Trailer Length	53 feet
Trailer and Tractor Width	8.5 feet
Tractor Nose to Kingpin	23.5 feet
Tractor Nose to Trailer Nose	20.5 feet
Kingpin to Rear Truck Centerline	45.5 feet

(Source: AASHTO A Policy on Geometric Design of Highways and Streets (Green Book), 2018)

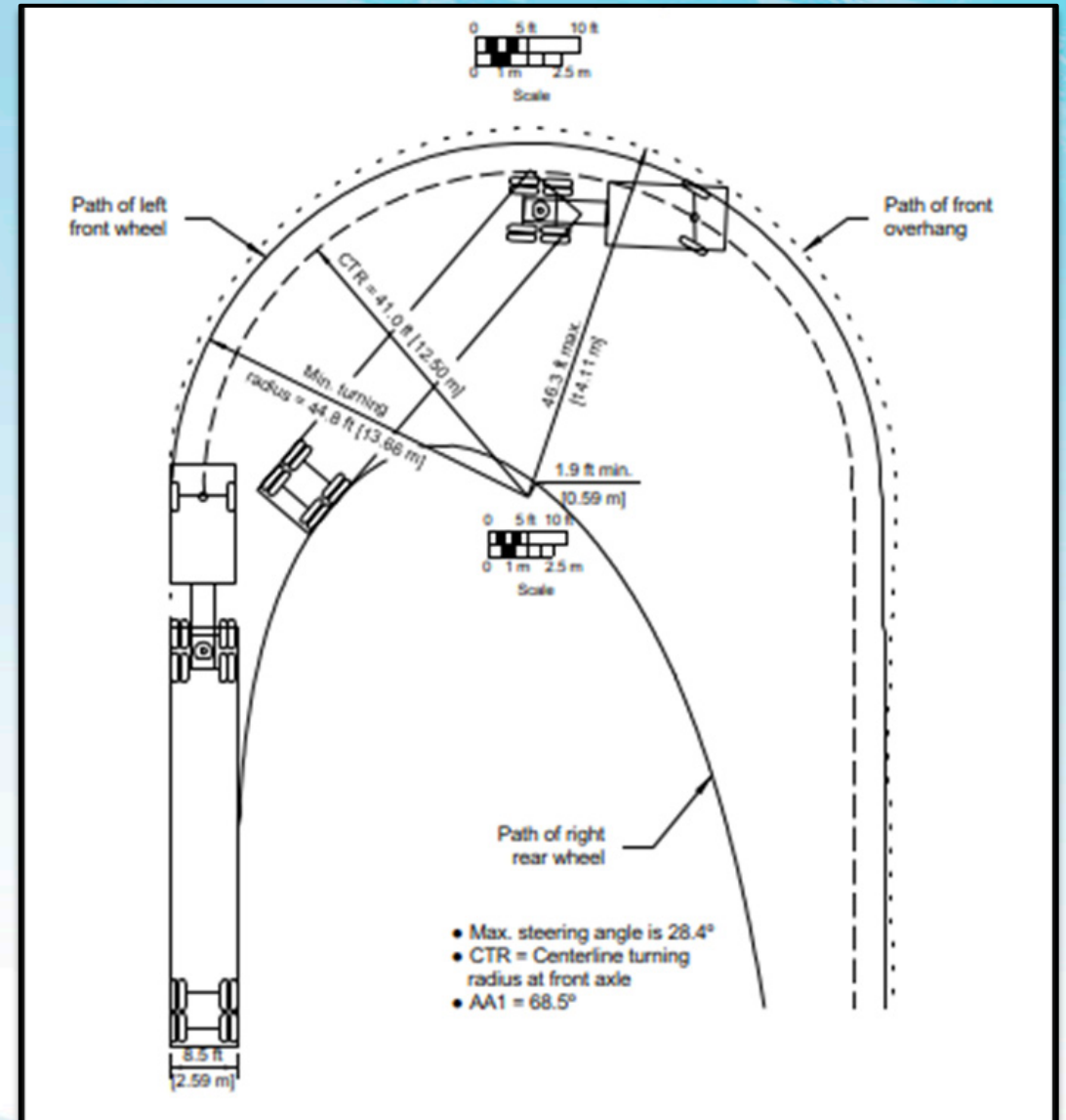
Key Design Attributes

- Turning radius
- Parking stall design
- Parking slot type
- Swept path
- Slot density
- Access, layout, and circulation



Turning Radius

Minimum diameter (or "width") of available space required for that vehicle to make a circular turn (i.e., U-turn)



(Source: AASHTO Green Book Fig 2-24, 2018.)

Parking Stall and Slot Design

Vehicle Parking Stall Standard Dimensions

Vehicle Type	Minimum Stall Width (feet)	Aisle Width (feet)	Aisle Location
1 Auto	9	5	Passenger side
2 Autos	9	5	Between stalls
1 Van	9	8	Passenger side
1 Van/1 Auto	9	8	Between stalls
1 Long Vehicle	12	8	Passenger side
2 Long Vehicles	12	8	Between stalls

(Source: California Highway Design Manual, 2020.)

Parking Slots Types:

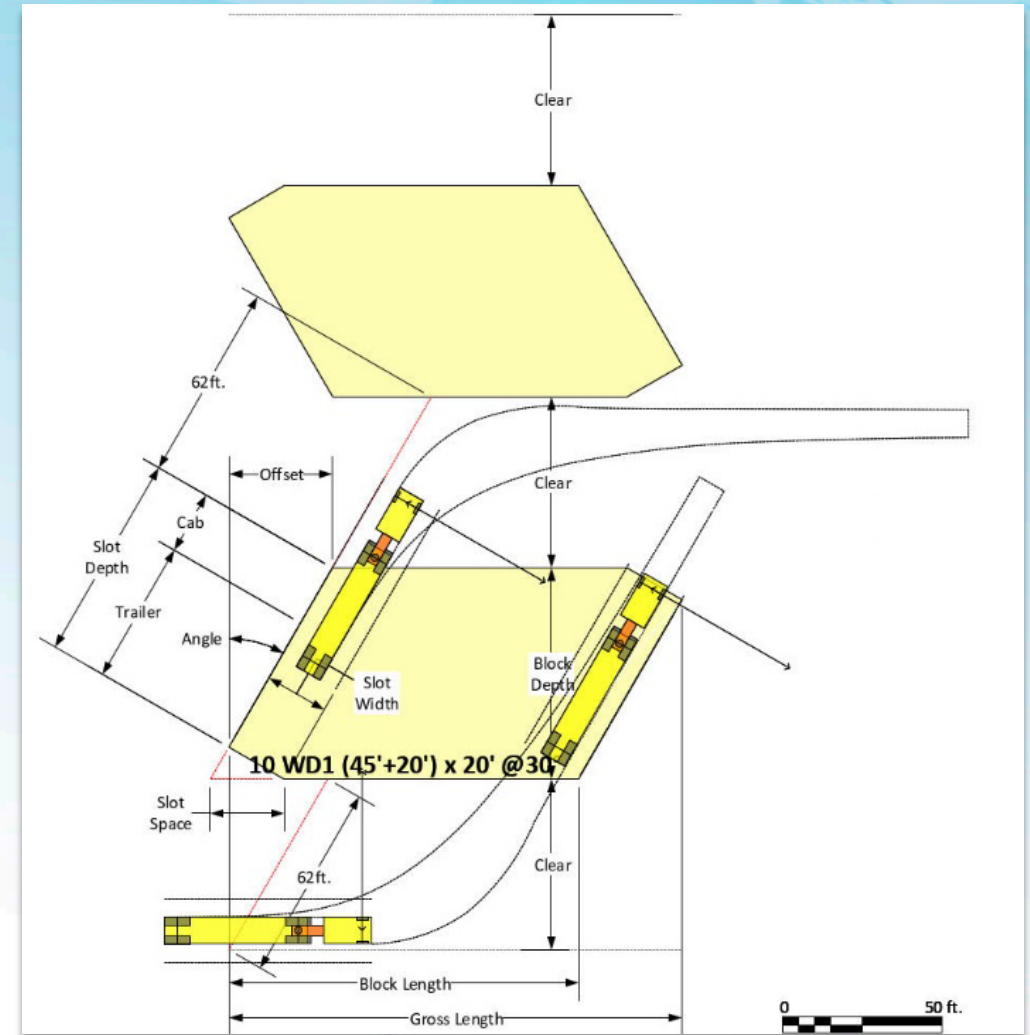
- » Straight Back-In (SBI) slots – Highest density
- » Herringbone Drive-Through (HDT) – Driver preferred



Swept Path

As trucks maneuver into and out of parking slots, their vehicles sweep out a path.

Assuming slot width of 20 feet, 62 feet is sufficient.



(Source: California Highway Design Manual, AASHTO Green Book, 2018.)

Parking Slot Density

Alternative HDT Dimensions and Density

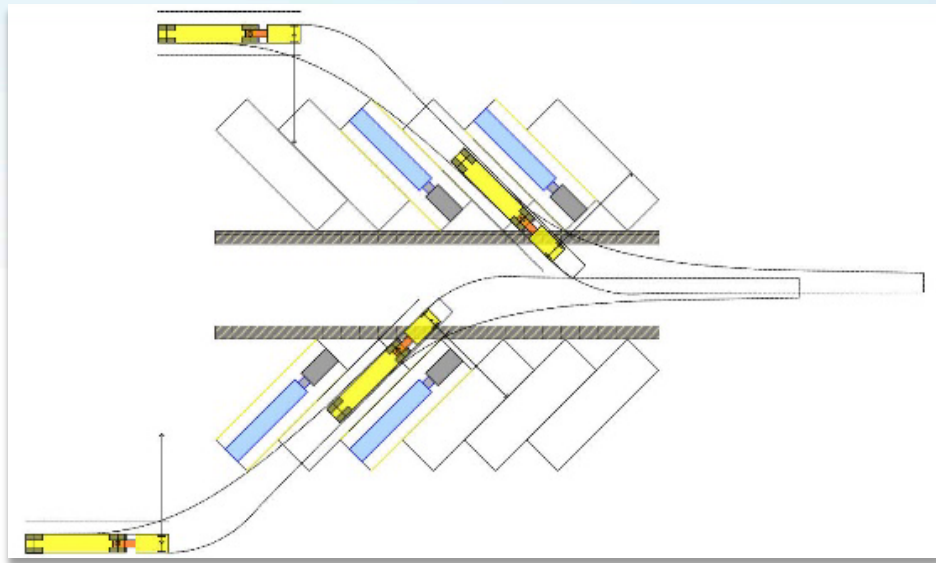
Slot Depth (Feet)	Slot Width (Feet)	Angle (Degrees)	Density (Trucks/Acre)	Relative Density	Description
74	20	45	13.5	1.00	WB-67 Herringbone
74	20	30	14.3	1.05	30 degrees
74	20	40	13.8	1.02	40 degrees
74	20	50	13.2	0.97	50 degrees
74	12	0	26.7	1.98	Straight Back-In

(Source: Federal Highway Administration, 2021.)

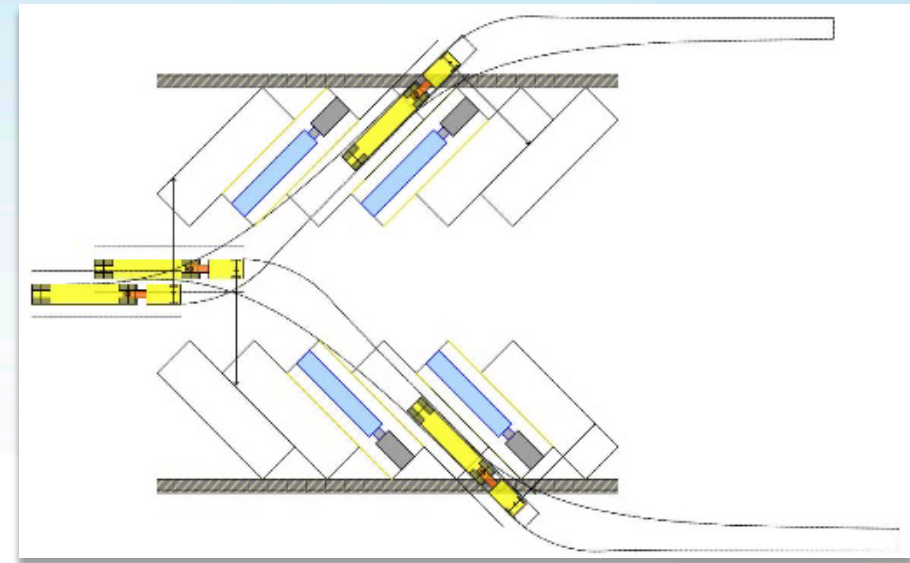


Access, Layout, and Circulation

- Access clearly marked in advance and designed for safe operations
- Marked walkways for drivers
- Circulation design should avoid requiring trucks to back out of space



Outside-In

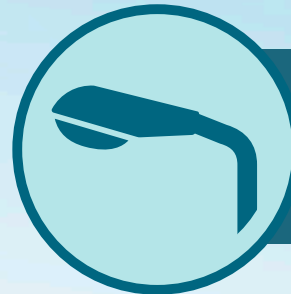


Inside-Out

Desired Safety Features of Truck Parking Facilities



**INGRESS AND EGRESS
RAMPS OF
SUFFICIENT LENGTH**



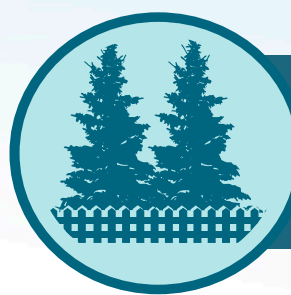
SUFFICIENT LIGHTING



**SECURITY CAMERAS
OR LOT ATTENDANTS**



**SITE DESIGN
ALLOWING EFFICIENT
FLOW OF TRAFFIC**



**FENCING OR OTHER
BARRIER SURROUNDING
THE LOT**



SECURE BATHROOMS

Source: Cambridge Systematics



Safety and Security – Access Control Options

Soft Control – Easiest to Implement

- » Signage
- » Rules and regulations
- » Enforcement

Control Recording – Supports Enforcement

- » Entry/exit records
- » Video recording

Hard Control – Most Preventative

- » Gates and fences
- » Limited access for authorized vehicles



Human Trafficking

- Safe, secure truck parking facility design also prevents human trafficking
- Many national organizations are involved in creating educational resources
 - » NATSO's *Combating Human Trafficking Toolkit*
- Employees at all levels should be educated on signs of trafficking

MORE RESOURCES AVAILABLE THROUGH:

- National Association of Truck Stop Operators (NATSO)
- Owner-Operator Independent Driver Association (OOIDA)
- Truckers Against Trafficking
- U.S. DOT Advisory Committee on Human Trafficking



Mentimeter Poll on Design Features and Safety

- Are there other design features that should be considered?
- Are there other safety and security features that should be included?



Encouraging and Requiring Truck Parking



Improving Land Use and Zoning Policies

- Incorporate truck parking into Traffic Impact Assessments (TIA):
 - » Truck trips can generate parking near the site (staging) as well as farther away (staging or rest breaks)
 - » TIAs should include parking on-site and off-site to address changing demand for parking
- Revising Ordinances and Policies:
 - » Zoning code should require minimum truck parking on-site, similar to minimum parking requirements for residents, employees, or customers
 - » Handbook proposes language options based on square footage, employees, and loading docks
 - » Implemented by Township of Upper Macungie, Pennsylvania



Example Ordinance Language 1

- Requiring parking by number of docks, square footage, **or** employees:
 - » *One 10-foot by 80-foot (10' x 80') parking space for truck staging for every two (2) loading docks. Parking shall be maintained and available for truck parking prior to or after a scheduled delivery or pickup.*
 - » *One 10-foot by 80-foot (10' x 80') parking space for truck staging based on following employment levels*

2-Digit NAICS Code	Minimum Number of Spaces per 1,000 Employees
NAICS 31-33 Manufacturing: Includes all types of products	5.0
NAICS 42 Wholesale Trade: Facilities that sell bulk goods to retailers	14
NAICS 44-45 Retail Trade: Facilities that sell goods to customers	12
NAICS 48-49 Transportation and Warehousing: Facilities providing transportation by any mode; facilities that store, warehouse, or distribute goods	771
NAICS 72 Accommodation and Restaurants: Facilities providing lodging or food service	2
Other Industries	9

Example Ordinance Language 2

- Allowing exceptions and encouraging collaboration:
 - » An applicant may seek to prove that parking permanently shared with another use or another lot with shared internal access will reduce the total amount of parking needed because the uses have different peak times of parking need or overlapping customers.
 - » Parking areas for truck staging may be shared between adjacent business. An industrial development with multiple businesses may provide a consolidated parking area for truck staging serving all uses.



Example Ordinance Language 3

- Encouraging high-quality facilities:
 - » Each off-street loading space shall have a minimum size based on the largest vehicle intended:
 - Tractor-trailer: 10 feet by 80 feet.
 - Trucks other than tractor-trailers, pickups, or vans: 10 feet by 25 feet.
 - Pickup truck or van: 9 feet by 18 feet.
 - » An appropriate means of access to a street shall be provided.
 - » Paving, grading, drainage, and lighting standards apply to loading areas.
 - » Parking shall be reserved for truck parking and shall not be utilized for storage or other use.



Case Studies of Successful Developments

On-Site Parking at Industrial Sites

- Mount Olive Pickle

Shared Truck Parking Facilities

- State freight plan findings
- Local implementations

Public-Private Partnerships

- Maryland Transportation Authority I-95 Travel Plazas

On-Site Parking at Industrial Sites

Mount Olive Pickle: Mt. Olive, North Carolina

- Signage to direct drivers to and from facilities
- Partnership with North Carolina DOT to build alternate route
- Staging area constructed adjacent to new roadway
 - » Up to 60 trucks
 - » Weigh scales, restrooms, and refrigeration hookups on site
- New road and staging area estimated at \$3 million
- Improved conditions for truck drivers and community



Barriers and Benefits of On-Site Parking

- Barriers
 - » Not commonly required today
 - » May be limited to new or re-developments
 - » State and local zoning powers and policies vary throughout nation
- Benefits
 - » Concentrates parking supply at point of staging demand
 - » Improves driver conditions → potential to become a shipper of choice
 - » Site already generates truck traffic and associated externalities



Mentimeter Poll for On-site Parking

- Are there other barriers or benefits of on-site parking?



Shared Truck Parking Facilities

- Facilities that allow trucks from multiple carriers and companies

Missouri

- Convert general purpose rest areas to truck parking
- Use weight scale sites for truck parking

Washington

- Explore parking on surplus WSDOT land, unused chain-up areas, park-and-ride lots
- Identify PPP and revenue-generating opportunities

Texas

- Encourage commercial property owners to allow truck parking on-site
- Coordinate with large landowners that could provide parking when site not in use (e.g., fairgrounds)

Shared Truck Parking Facilities

- Ports and industrial centers are common implementations:
 - » Significant staging demand and existing truck traffic
 - » Potential to provide limited parking
 - » Public or quasi-public entity often owns land

Oakland
Maritime
Support Services

Port of Seattle

Miami
International
Airport

Port of
Brownsville

Texas-Mexico
International
Bridges

City of Weed,
California

City of Fallbrook,
California

Barriers and Benefits of Shared Parking Facilities

- Barriers
 - » Private businesses and property owners may have liability concerns
 - » Security policies at land, air, and water ports may limit when and where parking can occur
 - » Suitable publicly-owned sites often need to fulfill other purposes (inspection sites, chain-up lots, weigh scales, park-and-rides)
- Benefits
 - » Increases efficiency of parking in a concentrated area
 - » Sites can be located near existing centers of truck activity
 - » Security, wayfinding, waste, and maintenance are consolidated



Mentimeter Poll on Shared Parking

- Are there other barriers or benefits of shared parking facilities?



Public-Private Partnerships

Maryland Transportation Authority (MDTA) I-95 Travel Plaza

- MDTA and Areas USA entered a 35-year agreement
- Areas USA builds and operates two new plazas:
 - » Replaces outdated plazas within 2 years
 - » Provides initial investment, reducing debt risk to MDTA
 - » Allocates funds for maintenance
 - » Generates revenue from plazas
- MDTA receives annual payments totaling over \$400 million



Barriers and Benefits of Public Private Partnerships (PPP)

- Barriers
 - » Laws prohibiting commercialization on the Interstate Highway System limit applications on some of the heaviest truck routes
 - » Public and private costs and benefits need to be identified in a proposal; PPPs may not be familiar with conducting public sector cost/benefit analyses
- Benefits
 - » Reduces public cost to develop and operate parking
 - » Distributes risk across multiple parties
 - » May provide additional amenities not typically provided at public rest areas



Mentimeter Poll on Implementation

- What environment is necessary to make implementation a success?
- How can we educate planners about the challenges in implementing difficult policies? Are there major institutional barriers for localities to include in the handbook?



Wrap-up and Next Steps

Contact:

Tiffany Julien
FHWA Office of Operations
Office of Freight Management and
Operations

Tiffany.Julien@dot.gov

202-366-9241

