Delaware Truck Parking Focus Group Map Package

After developing Delaware's truck parking inventory, the Project Team proceeded with analysis of truck parking demand and impacts in the state. This packet provides a selection of maps illustrating initial results of the truck parking utilization, undesignated truck parking, and truck/trailer crash analysis in Delaware. This packet should be retained and used as a reference material for the first Truck Parking Focus Group meeting to be held on March 11, 2021.

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Truck Parking Inventory

Delaware has 12 truck parking locations that offer a total of 333 truck parking spaces. Figure 1 maps truck parking locations in Delaware, or within approximately 20 miles of the Delaware border, by number of truck parking spaces, and Figure 2 provides further detail on each truck parking location mapped.

Delaware Number of Truck Parking Locations (48) Elsmere Wilmington 76 4 95 95 95 New Castle Elsmere Wilmington Newark New Castle (1)95 **LEGEND** Middletown **Notable Cities** Capital Major City Minor City Smyrna Municipality **Truck Parking Locations** Dover Number of Parking Spaces Camden 10 or fewer 11 to 25 26 to 50 Harrington Milford 51 to 100 13 101 to 200 (1) Lewes 201 or more Georgetown Seaford (18) Roadways Interstate Millsboro Laurel 10 **US Highway** State Route Sources: FHWA, Trucker Path. Local Road Cartography by CPCS (2021).

Figure 1: Truck Parking Facilities In and Surrounding Delaware by Number of Spaces



Figure 2: Truck Parking Inventory In and Surrounding Delaware

| Title | Public/ Private | Validated Parking Spaces | State |
|-------------------------------------|--------------------|--------------------------------|-------|
| Wawa | Private | 3 | DE |
| Smyrna Rest Area | Public | 24 | DE |
| Biden Welcome Center | Public | 52 | DE |
| Royal Farms | Private | 5 | DE |
| Royal Farms | Private | 10 | DE |
| Royal Farms | Private | 15 | DE |
| Royal Farms | Private | 5 | DE |
| Christiana Truck Stop | Private | 20 | DE |
| Oasis Travel Plaza | Private | 20 | DE |
| Shore Stop #288 - BP (paid parking) | Private | 28 | DE |
| 301 Plaza | Private | 42 | DE |
| \$ Parking Delaware Truck Plaza | Private | 109 | DE |
| Wawa | Private | 9 | MD |
| Perryville Weigh Station | Public | 56 | MD |
| US-301 Bay Country Rest Area | Public | 32 | MD |
| Exxon | Private | 10 | MD |
| Aberdeen Sunoco | Private | 19 | MD |
| Pilot Travel Center #290 | Private | 24 | MD |
| Trailway Truck Terminal | Private | 30 | MD |
| Flying J Travel Center #784 | Private | 145 | MD |
| TA Elkton #19 | Private | 152 | MD |
| Flying J Travel Center #875 | Private | 222 | MD |
| SB Warwick Weigh Station | Public | 23 | MD |
| Wawa | Private | 5 | NJ |
| Wawa | Private | 7 | NJ |
| Wawa | Private | 6 | NJ |
| Wawa | Private | 6 | NJ |
| Deepwater Welcome Center | Public | 33 | NJ |
| John Fenwick Service Area 7006 | Public | 10 | NJ |
| Pilot Travel Center #253 | Private | 11 | NJ |
| Clara Barton Service Area | Public | 11 | NJ |
| Major Auto Truck Plaza | Private | 14 | NJ |



| Title | Public/ Private | Validated Parking Spaces | State |
|--|--------------------|--------------------------------|-------|
| Deepwater Truck Center | Private | 15 | NJ |
| Lukoil Truck Stop | Private | 16 | NJ |
| Sunoco Truck Stop Carneys Point | Private | 40 | NJ |
| TA Paulsboro #218 | Private | 150 | NJ |
| Flying J Travel Center #688 | Private | 240 | NJ |
| Valley Forge Travel Plaza | Public | 8 | PA |
| Rutter's #70 | Private | 8 | PA |
| Lancaster Travel Plaza | Private | 18 | PA |
| Peter J. Camiel Service Plaza | Public | 25 | PA |
| Conoco | Private | 25 | PA |
| PA Turnpike King of Prussia Rest Area | Public | 26 | PA |
| Martins Trailside Express PacPrd | Private | 30 | PA |
| Pennsylvania Welcome Center Boothwyn | Public | 8 | PA |

Truck Parking Utilization

Truck parking utilization refers to the number of trucks parked at a truck parking location relative to the number of spaces at that location during a time period. The figures on the following pages display the utilization of public and private truck parking facilities from 8 am to 9 am (Figure 3), 2 pm to 3 pm (Figure 4), 8 pm to 9 pm (Figure 5), and 2 am to 3 am (Figure 6**Error! Reference source not found.**). Areas are classified from low utilization (lots of spaces available) to high utilization (full, i.e. no spaces available), represented on a scale from green (low utilization) to yellow (medium utilization) to red (high utilization).



Truck Parking Utilization - 8am to 9am 30 76 (48) Elsmere Wilmington 95 New Castle 95 Elsmere Wilmington PA New Castle MD 40 40 Middletown **LEGEND Notable Cities** NJ Smyrna Capital **Major City** Dover Minor City 301 Camden **Truck Parking Locations Public** Private Harrington Milford No Utilization Data **Corridor Utilization** 50 Spaces Available Lewes Full Georgetown Seaford 18 Lots Millsboro Sources: Trucker Path, US Census. Laurel Cartography by CPCS (2021). 20 Miles

Figure 3: Truck Parking Utilization (8 am to 9 am)



Truck Parking Utilization - 2pm to 3pm 30 76 Wilmington 95 New Castle PA Wilmington MD Newark 40 40 Middletown **LEGEND Notable Cities** Smyrna NJ Capital Major City Dover Minor City 301 Camden **Truck Parking Locations Public** Private Harrington Milford No Utilization Data **Corridor Utilization** 50 Spaces Available Lewes Full Georgetown Seaford 18 Lots Millsboro Sources: Trucker Path, US Census. Laurel Cartography by CPCS (2021). 20 Miles

Figure 4: Truck Parking Utilization (2 pm to 3 pm)



Truck Parking Utilization - 8pm to 9pm 76 30 76 Elsmere Wilmington 95 Newark New Castle 95 Elsmere Wilmington PA 95 MD Newark New Castle 40 Middletown 301 **LEGEND Notable Cities** NJ Smyrna Capital **Major City** Dover Minor City Camden 301 **Truck Parking Locations Public** Private Harrington Milford No Utilization Data **Corridor Utilization** 13 50 (1) Spaces Available Lewes Full Georgetown Seaford 18 Lots Millsboro Sources: Trucker Path, US Census. Laurel Cartography by CPCS (2021). 20 Miles

Figure 5: Truck Parking Utilization (8 pm to 9 pm)



Truck Parking Utilization - 2am to 3am 76 30 (41) (48) 76 Elsmere Wilmington 1 95 Newark New Castle 95 Elsmere Wilmington PA 95 Newark New Castle 1 MD (1) 40 (1) 40 Middletown 301 **LEGEND Notable Cities** NJ Smyrna Capital **Major City** Dover Minor City Camden 301 **Truck Parking Locations Public** Private Harrington Milford No Utilization Data **Corridor Utilization** 13 50 (1) Spaces Available Lewes Full Georgetown Seaford 18 Lots Millsboro Sources: Trucker Path, US Census. Laurel Cartography by CPCS (2021). 20 Miles

Figure 6: Truck Parking Utilization (2 am to 3 am)



Undesignated Truck Parking

Undesignated truck parking refers to unmarked locations where trucks park. The Project Team identified, validated, and classified 22 clusters of undesignated truck parking occurring at rest areas and along roadways in Delaware.

Each cluster is classified into one of the following undesignated parking types:

- Rest Area: Occurring in areas outside of defined parking spaces at public rest areas, such as on/off ramps and areas designated for passenger vehicles.
- On/Off Ramp: Occurring on interstate and other highway on/off ramp shoulders.
- Corridor Shoulder: Occurring on interstate and other highway corridor shoulders.
- Last-Mile: Occurring on local roadways in both industrial and non-industrial areas, particularly on last-mile connectors leading to freight generators.
- Near Truck Stop: Occurring near private truck stops, but not on-site.
- **Urban:** Occurring in urban areas. This is often sporadic, and it is difficult to differentiate deliveries from undesignated truck parking due to limited space for trucks to park in concentrated numbers in urban areas.

These clusters are mapped in Figure 7, with further details for each cluster provide in Figure 8.



Undesignated Truck Parking Clusters 76 95 30 D-20 D-22 76 Elsmere 48 D Wilmington (4) (1) 2 95 Newark New Castle D-20 D-3 95 D-1 D-7 Newark D-1 D-7 D-2 D-14 D-15 New Castle D-17 PA Bear 10-15 D-14 MD 40 95 1) Bear D-8 40 Middletown **LEGEND Notable Cities** NJ Smyrna Capital Cheswold D-11 **Major City** Minor City Dover DE12 301 **Undesignated Parking Clusters** (10) Camden Rest Area Felton Frederica D-13 Last-Mile D-21 Harrington Milford Near Truck Stop 50 (1) Lewes On/Off Ramp Corridor Shoulder Seaford 18 D-19 Georgetown Urban Millsboro Laurel D-10 10 Sources: Trucker Path, INRIX, US Census. Cartography by CPCS (2021). Miles

Figure 7: Undesignated Truck Parking Clusters by Type



Figure 8: Undesignated Truck Parking Clusters

| Cluster Number | County | Total Count of Undesignated Stops | Туре | Total Duration of Undesignated Stops (Hours) | Average Stop Duration (Hours) | Percentage of Stops < 3 Hours | Percentage of Stops 3 to 8 Hours | Percentage of Stops 8+ Hours |
|-------------------|------------|--|----------------------|---|--|-------------------------------------|--|------------------------------------|
| D-1 | New Castle | 157 | Rest Area | 1128 | 7 | 29% | 15% | 57% |
| D-2 | New Castle | 43 | On/off ramp | 126 | 3 | 74% | 16% | 9% |
| D-3 | New Castle | 35 | Last-mile | 341 | 10 | 11% | 9% | 80% |
| D-4 | Kent | 27 | On/off ramp | 45 | 2 | 96% | 0% | 4% |
| D-5 | New Castle | 25 | On/off ramp | 55 | 2 | 84% | 12% | 4% |
| D-6 | New Castle | 22 | Near truck stop | 220 | 10 | 23% | 18% | 59% |
| D-7 | New Castle | 22 | Last-mile | 182 | 8 | 23% | 32% | 45% |
| D-8 | New Castle | 17 | Corridor shoulder | 45 | 3 | 82% | 6% | 12% |
| D-9 | New Castle | 17 | On/off ramp | 42 | 2 | 71% | 24% | 6% |
| D-10 | Sussex | 17 | Last-mile | 36 | 2 | 88% | 0% | 12% |
| D-11 | Kent | 16 | Corridor shoulder | 35 | 2 | 69% | 31% | 0% |
| D-12 | Kent | 15 | On/off ramp | 59 | 4 | 40% | 47% | 13% |
| D-13 | Kent | 14 | On/off ramp | 34 | 2 | 79% | 14% | 7% |
| D-14 | New Castle | 12 | Last-mile | 191 | 16 | 0% | 8% | 92% |
| D-15 | New Castle | 12 | On/off ramp | 15 | 1 | 100% | 0% | 0% |
| D-16 | New Castle | 9 | On/off ramp | 28 | 3 | 67% | 11% | 22% |
| D-17 | New Castle | 9 | Corridor shoulder | 11 | 1 | 100% | 0% | 0% |
| D-18 | Sussex | 9 | Last-mile | 55 | 6 | 44% | 11% | 44% |
| D-19 | Sussex | 8 | Corridor shoulder | 16 | 2 | 75% | 25% | 0% |
| D-20 | New Castle | 6 | Urban | 6 | 1 | 100% | 0% | 0% |
| D-21 | Kent | 6 | Corridor shoulder | 24 | 4 | 50% | 33% | 17% |
| D-22 | New Castle | 5 | Urban | 76 | 15 | 20% | 0% | 80% |

Truck Safety

An imbalance in the supply of and demand for truck parking spaces can lead to safety issues for truck drivers and other road users. As drivers become fatigued, they lose the ability to stay vigilant and appropriately time their psychomotor and cognitive responses. However, if fatigued truck drivers are unable to find safe parking for rest, they are faced with a difficult choice: continue driving, or park at an undesignated location. Figure 9 maps truck/trailer-involved crashes in Delaware between 2014 and 2019, with markers for crashes resulting in fatality. Figure 10 displays commercial vehicle parking violations in Delaware by municipality for 2019 and 2020.



Truck/Trailer Crashes 2014-2019 76 30 76 41 48 Elsmere Wilmington **1** 95 Newark New Castle Elsmere Wilmington PA 95 Bear Newark (1)MD New Castle 40 1 Bear 40 Middletown 301 Atlantic City NJ Smyrna Cheswold Dover . 301 Camden **LEGEND** (10) **Notable Cities** Felton Frederica Capital Harrington. **Major City** Milford 13 Minor City 50 **Truck Parking Locations** Lewes **Fatal Crashes** Georgetown Seaford (18) Truck/Trailer Crashes Many Laurel Millsboro Few 10 Sources: Trucker Path, DelDOT, US Census. Miles Cartography by CPCS (2021).

Figure 9: Truck/Trailer Crashes 2014-2019



Commercial Vehicle Parking Violations 2019-2020 Claymont Hockessin 76 30 (52) 76 (41) (48) Elsmere Wilmington (2) (4) 1 95 Newark New Castle Elsmere Wilmington PA 95 Newark Bear **1** MD **New Castle** Bear 40 95 40 Middletown 301 Atlantic City Smyrna NJ **LEGEND** Cheswold Municipality Dover Total Parking Violations 301 Camden No Violations 1 to 2 Felton Frederica 3 to 4 Harrington 5 to 9 Milford [13] 10 or more 50 Roadways (1) Lewes Interstate Georgetown Seaford(18) **US Highway** State Route Millsboro Laurel Local Road 10 Sources: Delaware State Police, US Census. Cartography by CPCS (2021) Miles

Figure 10: Commercial Vehicle Parking Violations by Municipality, 2019-2020

