# **1. OBJECT INFORMATION**

Layer file	Freight loading and unloading private infrastructure.
Metadata Form Date:	8/28/2017

## 2. DATA SET INFORMATION

Title	Freight loading and unloading private infrastructure.
Abstract:	Location, features and pictures of private freight infrastruc- ture based on infrastructure survey.
Extent:	Capitol Hill, First Hill, Pike/Pine, 12th Ave, International District (West of I-5).
Data collection dates:	July 2017
Purpose:	Location and features of off-street urban freight infrastruc- ture in private and public buildings.
Supplemental information:	NA: Information that is not applicable to that case. Unknown: Information that was not visible from the street or alley or was not possible to measure.
Keyword(s):	Seattle, off-street freight infrastructure.

## **3. ATTRIBUTE INFORMATION**

ATTRIBUTE	CODE DOMAIN	DESCRIPTION
KEY_ID	None	Freight loading and unloading private infrastructure ID.
DATE	None	Date when the survey was taken.
TIME	None	Time when the survey was taken.
INF_TYPE	Internal loading bay access, Exterior loading dock, Exterior loading area, Undefined	Type of freight infrastructure See Section 5 Defini- tions for a further description of the categories of this variable.
ROAD_TYP	Alleyway, One way Alleyway, Street	Type of public road for vehicles from where the facili- ty may be accessed.
		<b>Street:</b> infrastructure access point is accessible from a street.
		<b>Alleyway:</b> infrastructure access point is accessible from an alleyway.
		<b>One way alleyway:</b> infrastructure access point is accessible from alleyway with a sign indicating one-way vehicular flow.
ALLEY_DIR	North, South, East, West, Northeast, Northwest, Southeast, Southwest	Traffic direction of the one-way alleyway. Otherwise, <b>"NA</b> ."
STREET	None	If ROAD_TYP = "Street,"
		name of the street from which the facility access is located.
		If ROAD_TYP = "Alleyway" or ROAD_TYP = "One way alleyway,"
		name of the street closest to where the facility access is located.
GATE	Yes, No	Indicates the need to cross a gate outside exterior building walls to access the infrastructure.
ACC_SEC	Foldable security gate, vehicle barrier, access code, personal interaction,	Type of security measure used to access the facility, and that was visible at the time of the survey.
	camera, other, none	<b>Foldable security gate:</b> Gates that control access to hallways and receiving doors without affecting ventilation or visibility.
		<b>Vehicle barrier:</b> physical barrier on the drive to of the infrastructure.
		Access code: keypad in which code must be inputted to access facility.
		<b>Personal interaction:</b> access to facility granted via interaction with a gatekeeper such as a guard or receptionist.
		Camera: surveillance cameras.
		None: no barriers to access facility.
SEC_OTHER	None	If ACC_SEC = "Other,"
		text description of the security measure specified as other.
		Otherwise, " <b>NA.</b> "

ATTRIBUTE	CODE DOMAIN	DESCRIPTION
INF_VIS	Yes, No	Indicates if there is complete or partial visibility of infrastructure. Visible or partially visible infrastructure includes
		situations with enough visibility of the infrastructure from survey location to manually record GPS location by dropping a pin on mobile data collection app.
LOAD_USE	Yes, No	Describes if there is any indication that space is ded- icated to loading or unloading goods. The Indication includes but it is not limited to pallets, signs and a parked truck.
POINT_X	In linear feet calculated with ArcGIS	X coordinate of the infrastructure access point from GIS coordinates.
		Projected Coordinate System: NAD_1983_HARN_ StatePlane_Washington_North_FIPS_4601_Feet
		Otherwise, "NA."
POINT_Y	In linear feet calculated with ArcGIS	Y coordinate of the infrastructure access point from GIS coordinates.
		Projected Coordinate System: NAD_1983_HARN_ StatePlane_Washington_North_FIPS_4601_Feet
		Otherwise, " <b>NA</b> ."
LONGITUDE	In decimal degrees calculated with ArcGIS	Longitude of the infrastructure access point from GIS coordinates.
		World Geodetic System:
		WGS 1984 Web Mercator (Auxiliary Sphere) [WGS84] coordinate system
		Otherwise, " <b>NA</b> ."
LATITUDE	In decimal degrees calculated with ArcGIS	Latitude of the infrastructure access point from GIS coordinates.
		World Geodetic System:
		WGS 1984 Web Mercator (Auxiliary Sphere) [WGS84] coordinate system
		Otherwise, "NA."
INF_LEVEL	Substructure, Superstructure, Level	If INF_VIS = "yes",
		indicates at what level the infrastructure is placed compared to the level of the street.
		Substructure indicates the infrastructure is below the level of the street. Superstructure refers to infrastructure above the level of the street. Level indicates that the infrastructure is at the level of the street.
		Otherwise, "NA."
TRK_DOOR	Yes, No	If INF_TPYE = Undefined,
		indicates if there is a vehicle door greater than 8ft. x8ft. at the surveyed location in the case of limited information regarding the preferred use of the space or visibility of infrastructure.
		Otherwise, " <b>NA</b> ."

ATTRIBUTE	CODE DOMAIN	DESCRIPTION
TRKDR_HGT	Feet	If TRK_DOOR = "Yes," height of vehicle door in case of limited information. Otherwise, "NA."
TRKDR_WTH	Feet	If TRK_DOOR = "Yes," width of vehicle door in case of limited information. Otherwise, "NA"
VH_ACC_TYP	Exit, Entrance, Entrance same as exit	If INF_TYP = "Internal loading bay access," the type of vehicle access to the internal loading bay. Otherwise, "NA."
DR_ANGLE	Perpendicular, angled to traffic flow, angled contrary to traffic flow, parallel to traffic flow, angled	If INF_TYP = "Internal loading bay access," angle between a vector perpendicular to the internal loading bay door and towards the traffic flow outside the building and a vector parallel to the traffic flow. Angled refers to cases of Internal loading bays on bi-directional roads such as bi-directional alleyways, where the Internal loading bay door angle could be contrary or to traffic flow. Otherwise, "NA."
ENT_ID	None	If VH_ACC_TYP = "Exit," KEY_ID of the corresponding Internal loading bay entrance. Otherwise, "NA."
EXT_ID	None	If VH_ACC_TYP = "Entrance," KEY_ID of the respective internal loading bay exit. Otherwise, "NA."
EN_MANEUVR	Drive-in, back-in	If VH_ACC_TYP = "Entrance" OR VH_ACC_TYP = "Entrance and exit," entrance maneuverability of trucks to enter Internal loading bay. Otherwise, "NA."
BAY_DOORS	None	If INF_TYP = "Internal loading bay access," number of doors for vehicles to access the internal loading bay and with of the same type as indicated in VH_ACC_TYP. Otherwise, "NA."
COVER	Yes, No	If INF_TYP is different to "Internal loading bay access," indicates if the infrastructure is partially or entirely covered in the case of an infrastructure not enclosed within the exterior building walls (exterior loading area or exterior loading dock). Otherwise, "NA."

ATTRIBUTE	CODE DOMAIN	DESCRIPTION
COV_HIGHT	In feet	If COVER = "Yes,"
		a measure of minimum clearance between coverture and ground of parking space in the case of infrastruc- tures different to Internal loading bays and covered.
		Otherwise, <b>"NA."</b>
CLEAR_SIGN	Yes, No	Indicates if there is any sign with maximum vertical clearance allowed to enter the infrastructure.
CLEARANCE	In feet	If CLEAR_SIGN = "Yes,"
		maximum vertical clearance allowed to enter infra- structure as indicated in clearance sign.
DR_HIGHT1	In feet	If BAY_DOORS = 1, height of door of Internal loading bay.
		If BAY_DOORS > 1,
		height of door 1 of Internal loading bay. Otherwise, <b>"NA."</b>
DR_WIDTH1	In feet	If BAY_DOORS = 1,   width of door 1 of Internal loading bay.
		If BAY_DOORS > 1,
		width of door 1 of Internal loading bay.
		Otherwise, <b>"NA"</b>
CL_DIF_YN1	Yes, No	If BAY_DOORS > 1 AND CLEAR_SIGN = "Yes,"
		indicates if there is a clearance sign specific to door 1 and different to the clearance sign of the infrastruc- ture as collected in variable CLEARANCE.
DR_CLEAR1	In feet	If CL_DIF_YN1 = "Yes,"
		maximum vertical clearance allowed at door 1 as indicated in clearance sign unique to this door.
DR_HIGHT2	In feet	BAY_DOORS > 1,
		height of door 2 of Internal loading bay.
		Otherwise, <b>"NA."</b>
DR_WIDTH2	In feet	BAY_DOORS > 1, width of door 2 of Internal loading bay.
		Otherwise, <b>"NA."</b>
CL_DIF_YN2	Yes, No	if BAY_DOORS > 1 AND CLEAR_SIGN = "Yes," indicates if there is a clearance sign specific to door 2 and different to the clearance sign of the infrastruc- ture as collected in variable CLEARANCE.
DR_CLEAR2	In feet	If CL_DIF_YN2 = "Yes,"
		maximum vertical clearance allowed at door 2 as indicated in clearance sign specific to this door.
DR_HIGHT3	In feet	If BAY_DOORS > 2, height of door 3 of Internal loading bay.
		Otherwise, <b>"NA."</b>

ATTRIBUTE	CODE DOMAIN	DESCRIPTION
DR_WIDTH3	In feet	If BAY_DOORS > 2, width of door 3 of Internal loading bay.
		Otherwise, <b>"NA."</b>
CL_DIF_YN3	Yes, No	If BAY_DOORS > 2 AND CLEAR_SIGN = "Yes,"
		indicates if there is a clearance sign specific to door 3 and different to the clearance sign of the infrastructure as collected in variable CLEARANCE.
DR_CLEAR3	In feet	If CL_DIF_YN3 = "Yes,"
		maximum vertical clearance allowed at door 3 as indicated in clearance sign specific to this door.
DOCK	Yes or No	If INF_TPY is different to "Undefined,"
		indicates the presence or not of a dock.
		Otherwise, "NA."
SPACES	None	If INF_TPYE is different to "Undefined,"
		total number of truck spaces including those with loading dock in the case that DOCK = "Yes", and without loading dock.
		Otherwise, "NA."
DK_ANGLE	Perpendicular, angled to traffic	If INF_TPYE = "Exterior loading dock,"
	flow, angled contrary to traffic flow, parallel to traffic flow, angled	the angle between a vector perpendicular to the dock and towards the traffic flow outside the building and a vector parallel to the traffic flow.
		Angled refers to cases of exterior loading docks on bi-directional roads such as bi-directional alleyways, where the dock angle could be contrary or to traffic flow.
		Otherwise, <b>"NA."</b>
IN_PLAT	Yes or No	If INF_TPYE = "Exterior loading dock" indicates if the exterior loading dock has the platform inside exte-
		rior building walls.
		Otherwise, <b>"NA."</b>
SPACES_LD	None	If DOCK = "Yes" number of truck spaces with loading dock.
		Otherwise, <b>"NA."</b>
DOCK_HEIGHT	In feet	If DOCK = "Yes," indicates the fixed height of loading dock platform.
		Otherwise, <b>"NA."</b>
DOCK_LEV	Yes or No	If DOCK = "Yes," indicates the presence or not of a dock leveler.
		Otherwise, <b>"NA."</b>
DCK_DRS	None	If IN_PLAT = "Yes," number of exterior loading docks with platform inside exterior build- ing walls and next to the one surveyed.
		Otherwise, <b>"NA."</b>
BLDG_ADDR	None	If INF_TYPE = "Undefined" OR "Not an internal loading bay,"
		indicates the address of the building.
		Otherwise, <b>"NA."</b>

### **4. PICTURES INFORMATION**

The picture database related to the infrastructure database consists of a folder with all pictures in JPG format collected in the field for each infrastructure. The pictures in the database follow a naming system that allows identifying each of the pictures corresponding to each infrastructure. The JPG files are named as follows:

### "Key ID of infrastructure\_Variable name of the picture.jpg."

Key ID variable is described in Section 3 above and consist of an integer that serves as a unique identifier of each infrastructure in the database. *Variable name of the picture* refers to each of the possible variable names of type picture that relate to a specific feature of the infrastructure as described below.

ATTRIBUTE NAME	DESCRIPTION
ALY_ST_PIC	Picture of alleyway at intersection with the street closest to the infrastructure.
GATE_PIC	If GATE = "Yes,"
	picture of the infrastructure gate outside building exterior walls.
SEC_PIC1	Picture of the access security measure as indicated in ACC_SEC.
SEC_PIC2	If selected options of ACC_SEC are greater than 1,
	picture of the access security measure as indicated in ACC_SEC.
LDUSE_PIC	If LOAD_USE = "Yes,"
	picture of the indication that the space is dedicated to loading or unloading goods.
INF_PIC1	Picture 1 of the infrastructure surveyed.
INF_PIC2	Picture 2 of the infrastructure surveyed.
TRKDR_PIC	If TRK_DOOR = "Yes,"
	picture of vehicle door in case of limited information.
BAYDRS_PIC	If BAY_DOORS > 1,
	picture of group of doors of the Internal loading bay.
CLEAR_PIC	If CLEAR_SIGN = "Yes,"
	picture of clearance sign of the infrastructure.
DOOR_PIC1	If BAY_DOORS = 1, picture of door of Internal loading bay
	If BAY_DOORS > 1, picture of door 1 of Internal loading bay
CLEAR_PIC2	If CL_DIF_YN2 = "Yes,"
	picture of clearance sign at door 2.
DOOR_PIC2	BAY_DOORS > 1, picture of door 2 of Internal loading bay.
DOOR_PIC3	If BAY_DOORS > 2, picture of door 3 of Internal loading bay.
DK_LEV_PIC	If DOCK_LEV = "Yes," picture of dock leveler.
DCK_GR_PIC	If DCK_DRS > 1,
-	picture of group of exterior loading docks with platform inside exterior building walls and next to the one surveyed.

#### 4. PICTURES INFORMATION Continued

ATTRIBUTE NAME	DESCRIPTION
DCK_PIC	If IN_PLAT = "Yes,"
	Picture of dock's door.
ADD_PIC1	Picture 1 to support observation.
ADD_PIC2	Picture 2 to support observation.
ADD_PIC3	Picture 3 to support observation.

### **5. DEFINITIONS**

## 5.1. General definitions

**Building exterior wall.** The walls of a building that separate spaces, partly or entirely unobstructed to the sky, from spaces inside the building.

**Internal loading bay.** An enclosed space inside the building with an entrance/exit point (e.g., roll-up doors, garage doors) that act as a continuation of the upper parts of the building. This space is partially or completely dedicated to unloading and loading activities. It has entrances and exits greater than 8 feet x 8 feet for commercial vehicles. Internal loading bays can have loading docks and truck parking spaces with or without access to a loading dock.

Loading dock. An elevated platform that facilities shipping and delivery operations.

**Dock leveler.** An adjustable mechanized platform built into the edge of a loading dock. The platform can be moved vertically or tilted to accommodate the handling of goods or material to or from trucks.

### 5.2. Code definitions

FAP\_TYPE code dictionary

CODE	DESCRIPTION
Internal loading bay access Point	Access point for an internal loading bay that can function as an entrance, exit or both.
Exterior loading dock	A loading dock that is located outside of building exterior wall. Exterior loading docks can be entirely open to the sky or partially or completely covered by a canopy or upper part of the building. Additionally, exterior loading docks can also include inside loading platforms, where trucks dock the cargo compartment to a dock door.
Exterior loading area	Space for loading and unloading out of the exterior building walls of a building and without a loading dock. Exterior loading zones can be unobstructed to the sky, partially or completely covered by a canopy or upper building levels
Undefined	The location that can potentially be a Internal loading bay entrance/exit. No information is available because a barrier impedes the data collection, there were not on-site signs indicating their possible use as private freight access points.