PBOT
PORTLAND BUREAU OF TRANSPORTATION
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Chloe Eudaly Commissioner **Chris Warner** Director

MEMORANDUM

TO: PBOT Traffic Engineers, Traffic Engineering community

FROM: Wendy Cawley, PE, City Traffic Engineer

PUBLISH DATE: June 26, 2020
SUNSET DATE: June 25, 2021

RE: Guidance – Traffic Count & Speed Data, Collection and Analysis during pandemic

Overview

The Mayor of the City of Portland, Ted Wheeler, declared a State of Emergency to cancel or postpone all large gatherings and events, causing the closure of schools and limiting business activities, in conjunction with the "Stay Home, Stay Safe" executive order from Governor Kate Brown. This has resulted in a significant decrease in vehicular traffic volumes on streets throughout the Portland metropolitan area. Thus, collection of traffic count data by the public and private traffic engineering community will be impacted for an uncertain amount of time. As orders are lifted and businesses reopen per phased approval, traffic volumes are gradually increasing. This document offers guidance on how to collect, process, and analyze traffic data during this transition period and champion development and construction activities in our growing city.

Background

Development proposed within the limits of the City of Portland must comply with transportation criteria found in Title 17 and Title 33 of the city code. Criteria often requires traffic capacity and level of service evaluations at key intersections surrounding the development, much of which depends on peak hour or daily tube counts of vehicular traffic volumes.

PCC 17.88.050 states that a traffic study is required under the following conditions:

A. Where approval criteria for a land use review include a requirement of adequacy of transportation services and the development proposed through the review meets or exceeds the following thresholds:

1. Trip generation threshold. More than 100 new vehicle trips will be generated in the peak direction (inbound or outbound) during the site's peak traffic hour; or

2. Neighborhood traffic threshold. More than 250 new trips will be generated per day that are likely to use predominately residential Local Service Traffic Streets.

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B. Safety or operational impacts. Where the City Engineer has identified potential safety or operational concerns that may be impacted by the layout of a site or the location or size of driveways for a proposed development.

Further, 33.852 notes that the study area must be evaluated for street function, capacity, and level of service. PBOT development staff requires that traffic counts shall reflect representative traffic conditions on collector and arterial roadways, and at intersections of regional significance.

Guidance for collection of traffic volume data

1. Use historical peak hour count data within 18 months prior to emergency declaration (March 2020);
2. Inquire with City staff to determine if there is an adjustment factor that can be applied from nearby active traffic count locations;
3. If recent count data is not available, the traffic engineer may collect current traffic count data and apply an adjustment factor determined using data over the most recent two-year period prior to emergency declaration from:
   i. ODOT automatic traffic recorder stations;
   ii. ODOT annual corridor volume counts; or
   iii. City-maintained permanent count station or signalized intersection with real-time detector data collection in the vicinity and along the same corridor of the count.
4. All traffic studies shall use the current 1.5%/year background growth rate from data collection year to buildout year.

Guidance for collection of traffic speed data

PBOT has been collecting speed data at several locations during the pandemic. Initially, 85%-tile speeds were trending a few mph over pre-pandemic speeds. However, the 10+ mph over posted speeds were significantly higher than pre-pandemic speeds. This indicates that the same number of people are speeding but they are going faster than they were prior to the pandemic, likely due to fewer cars being on the roadway.

As traffic volumes continue to rise, speed data is trending closer to pre-pandemic conditions. As of the date of this memo, PBOT will consider new speed counts as usable data for traffic impact studies, speed zone investigations and other studies.

Analysis requirements for traffic data

1. PBOT Traffic Scoping forms must be completed and approved for land use actions
2. Include statement regarding reduced traffic volumes due to emergency declaration
3. Cite all data collection sources and methods, as applicable and include in report's appendix
4. Include the calculation of all adjustment factors in report's appendix

Resources

PBOT Staff: Wendy Cawley, Amanda Owings, Carlos Hernandez, Alison Tanaka, Tom Jensen
PBOT Interactive Traffic Counts:
http://pdx.maps.arcgis.com/apps/webappviewer/index.html?id=7ce8d1f5053141f1bc0f5bd7905351e6
ODOT data: https://www.oregon.gov/ODOT/Data/Pages/Traffic-Counting.aspx
PORTAL data: https://portal.its.pdx.edu/home

C: File, website, local traffic consultants