

## 1. Overview

This document provides a guide to use the data collected as part of MnDOT Contract 1036210. A brief overview of the data is provided below:

- Number of sites: 18
- Number of pedestrian interactions observed: 3,314
- Total number of pedestrians: 4,941
- Average driver yield rate across all sites: 40.4%

## 2. Data format

This section describes how the data is formatted. All data is provided in the ped\_yielding\_data\_final.xls file. Each pedestrian crossing event is listed as a new row. The entry in each column represents a different feature of the interaction as described below.

The following interaction features are identified for each interaction:

- **Location\_ID:** numeric ID (1-18) to differentiate locations for analysis.
- **location\_name:** Intersection roads (e.g., County B. Road W and Pascal St.)
- **Date:** observation data in year, month, day format (e.g., 20210603 for June 3, 2021)
- **Time Showed Intent:** the time that the pedestrian first arrives at the intersections and indicates intent to cross presented in hour, minute, second format (e.g., 193825 for 7:38:26pm)
- **Time Started Crossing:** the time that the pedestrian begins the crossing presented in hour, minute, second format (e.g., 193825 for 7:38:26pm)
- **Time Finished Crossing:** the time that the pedestrian reaches the sidewalk on the other side of the intersection presented in hour, minute, second format (e.g., 193825 for 7:38:26pm)
- **Number of Pedestrians:** the number of pedestrians in the party
- **Yielder:** V for vehicle yields, P for pedestrian yields
- **Close Call:** 1 if the intersection is perceived as a close call, 0 if not
- **Pedestrian Origin:** letter A-D indicating which intersection corner the pedestrian originated at – see Deliverable 6 for full details
- **Pedestrian Destination:** letter A-D indicating which intersection corner the pedestrian ends at – see Deliverable 6 for full details
- **Pedestrian Stop Midway:** 1 if the pedestrian is forced to stop during the crossing to allow a vehicle to pass, 0 if the pedestrian is able to walk without having to yield to another vehicle mid-way
- **Interaction/Event Type:** A: pedestrian crossed at a comfortable pace as soon as a gap was present; B: pedestrian crossed at fast pace to utilize small gap as soon as a gap was present; C: pedestrian waited after gap was present before crossing at a comfortable

## Data description

pace; D: pedestrian waited after gap was present before crossing at fast pace; E: pedestrian did not wait for gap before crossing

- **Pedestrian type:** A: person on foot; B: person on bike; C: person on vehicle (e.g., scooter/hoverboard); D: person walking bike; E: mix of pedestrian types; F: other (see comments for entry); G: person with a dog; H: person with a stroller or small child
- **Vehicle Speed:** estimate of vehicle speed (mph)
- **Opposite Direction Yield:** 0 if no opposite direction vehicle, 1 if the vehicle traveling in the opposite direction yields, 2 if the vehicle traveling in the opposite direction does not yield
- **Following Vehicle:** 1 if there was a vehicle behind the interaction vehicle, 0 if not
- **Posted Speed:** Posted speed limit (mph)
- **Number of Lanes at Main Street:** number of lanes that the pedestrian is crossing
- **Crossing Width (Major):** pedestrian crossing distance (ft)
- **Bike Lane(s):** 0 if no bike lanes present on the major road, 1 if there are bike lanes present
- **Weather:** 0 if there is no precipitation; 1 if it is raining; 2 if it is snowing
- **Signage:** 0 if there are no signs for the crosswalk, 1 if the crosswalk is signed
- **Markings:** U for unmarked, C for continental (zebra) markings, S for standard (two solid white lines)
- **Presence of Single Family:** adjacent land use indicating presence of single family homes within a 1 block radius of the intersection, 1 for present, 0 for not present
- **Presence of Apartments:** adjacent land use indicating presence of multifamily homes within a 1 block radius of the intersection, 1 for present, 0 for not present
- **Presence of Commercial:** adjacent land use indicating presence of commercial buildings within a 1 block radius of the intersection, 1 for present, 0 for not present
- **Presence of Gas Station/Convenient Store:** adjacent land use indicating presence of a gas station or convenience store within a 1 block radius of the intersection, 1 for present, 0 for not present
- **Presence of Restaurants/Bars:** adjacent land use indicating presence of bars or restaurants within a 1 block radius of the intersection, 1 for present, 0 for not present
- **Presence of Parking Lots:** adjacent land use indicating presence of large street-facing parking lots (not on-street parking) within a 1 block radius of the intersection, 1 for present, 0 for not present
- **Lighting:** 0 for no lighting, 1 for lighting
- **Road surface:** 0 for dry, 1 for wet
- **# of bus stops near the intersection:** number of bus stops within one block of the intersection on the main road
- **Minor AADT:** annual average daily traffic on the minor road
- **Major AADT:** annual average daily traffic on the major road
- **Dist. to Nearest Park:** distance in miles to nearest park
- **Dist. to Nearest School:** distance in miles to nearest school
- **Presence of on street parking:** presence of on-street parking, 0 – no parking; 1 – one-sided parking; 2 – two-sided parking

## Data description

- **PAWS Score:** PAWS score, see <https://mndot.maps.arcgis.com/apps/View/index.html?appid=1cc55aa66d3844a98402c84673f73d14> for more details
- **Tree Cover:** 0-4 indicating the number of crossing points covered by trees
- **Comments:** a field for any additional comments as noted during data extraction

Additionally, the following are identified for each interaction for vehicles traveling in both for Direction 1 (vehicles traveling toward the camera) and Direction 2 (vehicles traveling away from the camera):

- **Is there a vehicle?:** Presence of vehicle in this direction, 1 for yes, 0 for no
- **Number of Vehicles Not Yielding:** total number of vehicles that do not yield in this direction of travel
- **Type of not yielding vehicle – vehicle 1:** type of the first not-yielding vehicle: 1 for sedan, 2 for SUV, 3 for utility vehicle (delivery/service vehicle), 4 for truck, 5 for bus
- **Type of not yielding vehicles:** list of the type of subsequent not-yielding vehicles: 1 for sedan, 2 for SUV, 3 for utility vehicle (delivery/service vehicle), 4 for truck, 5 for bus (e.g., 1, 1, 2 for sedan, sedan, bus)
- **Was There A Yielding Vehicle?:** 1 for if there was a yielding vehicle in this direction, 0 for if there was not a yielding vehicle in this direction
- **Type of yielding vehicle:** yielding vehicle: 1 for sedan, 2 for SUV, 3 for utility vehicle (delivery/service vehicle), 4 for truck, 5 for bus
- **Type of Yield:** S for a vehicle that comes to a complete stop to allow the pedestrian to cross, R for a rolling yield where the driver decreases speed but does not come to a complete stop, O for any other form of yielding (e.g., changing driving path to avoid a pedestrian), N or blank entry for a non-yielding vehicle
- **Following vehicle:** 1 if there is a vehicle behind the yielding vehicle, 0 if not

Note: cells that are left empty are either not applicable (e.g., no vehicle to report) or were not collected for that interaction technical reasons. Often, this is because a sight obstruction made it difficult to accurately assess.