

City of Madison

Problem Identification: State Street Pedestrian and Cross Traffic Analysis

1.0: Contact Information

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UW Madison Project Team	

2.0 Problem Statement (max 200 words)

Prompt: What's the problem we are trying to solve? What is actually happening? Where does the problem exist? How do you know this is a problem?

Data about pedestrian counts and traffic light cycle times for the State Street corridor are collected, but have not been analyzed together.

3.0 Impact Statement (max 100 words)

Prompt: What change would you like to see happen? What should be happening?

The pedestrian count dataset and traffic light cycle times dataset should be analyzed together from two angles in order to better understand the State Street pedestrian experience:

1. How do light cycle timings affect pedestrian traffic, if at all? Analyze pedestrian counts as a function of traffic light cycle timings.
2. What kind of light cycle timings might be most beneficial to pedestrians? Analyze the data to understand the best way to use cycle timings to accommodate the numbers and needs of pedestrians.

Note that in both analyses, seasonality, time of day, and day of week play an important role.

4.0 Service Change Statement

Prompt: What is the results you are trying to make with this project?

Current State	Future State
Data about pedestrian counts and traffic light cycle times for the State Street corridor are collected, but have not been analyzed together.	The City of Madison will better understand the relationship between pedestrian counts and traffic light cycle times in the State Street corridor to enhance future decision making regarding these modes of transportation.

5.0 Project Success Statement

Prompt: How will we know the project is successful?

In order to better understand the relationship between pedestrian counts and traffic light signal times, UW students will present findings from analyzing the pedestrian count dataset and traffic light cycle times together from two angles.

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6.0 Data Resources

The following data resources are available to support this project.

- *Pedestrian count data*
This gives hourly counts of pedestrians on State Street for a year. This data is posted to the City's Open Data Portal at <https://data-cityofmadison.opendata.arcgis.com/datasets/upper-state-st-pedestrian-counts>.
- *Light cycle timings data*
This data gives the scheduled car and pedestrian traffic signal timings for four State Street intersections. It does not record changes due to special events. For security reasons, this data should not be shared publicly. This dataset will be emailed to Tyler.