**StreetLight Data Action Plan**

Delivery Date: June 15th, 2020

1. **Select Important Variables for Analysis** *(May 28th, 2020)*

In this step, variables should be identified for the index as well as the analysis of the traits of the locations. Potential variables are listed below which are included for both purposes.

Variables for Index

1. StreetLight Data Average Annual Daily Traffic (AADT) Metric
2. Crashes (injuries/fatalities) by mode
   1. Variable Attributes
      1. Crashes Involved with Pedestrians/Bicyclists
      2. Injury & Fatal Injuries

Equation Adopted From <https://safety.fhwa.dot.gov/local_rural/training/fhwasa14072/sec4.cfm>

Variables for Exploratory Analysis

1. Number of Intersecting Streets
2. Intersection Stop Type
3. Sidewalk Present
4. Bicycle Lane Present
5. Pedestrian Priority Label
6. Speed Limit
7. Functional Class Cross Street
8. Hour of Day of Crash

2. **Select an Algorithm For Analysis** *(June 2nd, 2020)*

Select an algorithm(s) for analysis to create an index using a combination of the variables selected above. This algorithm(s) will be well cited and/or be taken from an authoritative source such as FHWA. Traditional Algorithms don’t address the complexities of the interaction between vehicles, pedestrians, bicyclists, and other nonmotorists.

One option would be to adapt the current crash rate calculation provided by FHWA. This creates a crash rate for vehicles, but the adapted version would need to account for other types of traffic. Normal crashes could be considered since they are an active risk for pedestrians in the intersection, but weighting that risk would be tricky.

[Link](https://safety.fhwa.dot.gov/local_rural/training/fhwasa14072/sec4.cfm) to FHWA

3. **Curate the Data for the Analysis** *(June 10th, 2020)*

Data may need to be manipulated for the algorithm(s) and analysis. This will most likely be a spatial aggregation to each zone available.

4. **Create Index** **and** **Execute the Analysis** *(June 14th, 2020)*

Create an index using the most appropriate algorithm, and run basic analysis for the variables of interest. Produce several visualizations to help communicate the results to others.

5. **Create Material to Disseminate Findings** *(June 15th, 2020)*

Create a document and potentially a power point detailing the methodology/results of the analysis. Detail limitations in the approach and data to fully document the effort.