Data Analysis Project

Data Analyst: (You)

Client/Sponsor:
Citysville Department of Transportation

Purpose:

Write a brief description of why this project is happening below. Why is this project happening? What are the goals?

The goal of this project is to study traffic congestion issues within the formal city limits of Citysville. The project will identify the top 10 "hotspot" areas of traffic congestion in the city using traffic sensor data. After identifying the top 10 areas, the project will study the causes of congestion in each area, and identify recommendations for reducing congestion at each "hotspot". Each recommendation should include cost estimates, as well as an estimate of how much congestion each fix will reduce. The final deliverable will recommend the 3 most cost-effective recommendations for reducing congestion, recommending the fixes that will do the most good for the least cost.

Scope / Major Project Activities:

What are the major parts of this project? List out the high-level steps, activities, or stages of the project, and give a brief description for each.

Activity	Description
Data Collection	Collect traffic congestion sensor data from Dept of Transportation's database
Identify hotspots	Analyze DOT data to identify 10 worst hotspots for congestion.
Identify congestion causes	Study each hotspot to understand causes. This stage may require additional data gathering using sensors and/or cameras
Create congestion relief recommendations	Create recommendations for alleviating each congestion hotspot. Estimate costs for each recommendation. Estimate amount of congestion relief. Rank suggestions by relief, divided by cost.

Deliver final report	Deliver final report and recommendations to Department of Transportation.

This project does not include:

Specify the things that this project isn't responsible for doing, For instance, "this project does not involve a summation of 2019 data analysis"

- Any areas outside the city limits of Citysville, as defined by the city charter.
- Implementing any solutions or recommendations
- No traffic data older than 5 years will be considered in the project

Deliverables:

A specific list of things that your project will deliver.

Deliverable	Description/ Details
Hotspot Map	A data visualization of the most congested areas in the city limits
Recommendations and Estimates	A list of recommendations for each area.
Final Report	A final report detailing each of the 10 hotspots, including times, causes, recommendations for alleviating, and cost-benefit analysis for each hotspot.

Schedule Overview / Major Milestones:

The expected schedule for the project. This can be defined by milestones (e.g. "all data is cleaned and processed"), periods of time ("Week 1 / Week 2"), or other ways based on the needs of the project.

Milestone	Expected Completion Date	Description/Details
Data Review	*1/1/21*	*Review of all data sources from DOT completed*
Data analysis	*1/15/21*	*Initial data analysis completed*
Hotspot List	*1/22/21*	*10 worst hotspots identified*
Heatmap creation	*1//29/21*	*Heatmap visualization created*
Recommendations list	*2/28/21*	*List of recommendations for*

		each hotspot, including cost estimates and effectiveness estimates
Final report	*3/31/21*	*Final report detailing all work, analysis, methodologies, and findings.*

*Estimated date for completion:

This is my "if all goes well and I have everything I need, this is when I'll be done" date.

March 31, 2021