

Abstract

The goal of this project was to make Mandi City more attractive and navigable to tourists, visitors, and residents through the implementation of safer and more efficient traffic patterns. Traffic congestion in Mandi City is a problem that will be further exacerbated by the increase of population in years to come. We conducted qualitative interviews with local stakeholders and quantitative data from observations and calculations of traffic flow. The analysis of our data confirmed a need for traffic alleviation as both the responses of our interviewees and the results of our calculations indicated that Mandi's existing infrastructure cannot support its traffic trends. Based on the feedback of our interviewees, we generated a set of recommendations that will mitigate traffic congestion and ultimately make Mandi a safer and more pleasant place to live and grow.

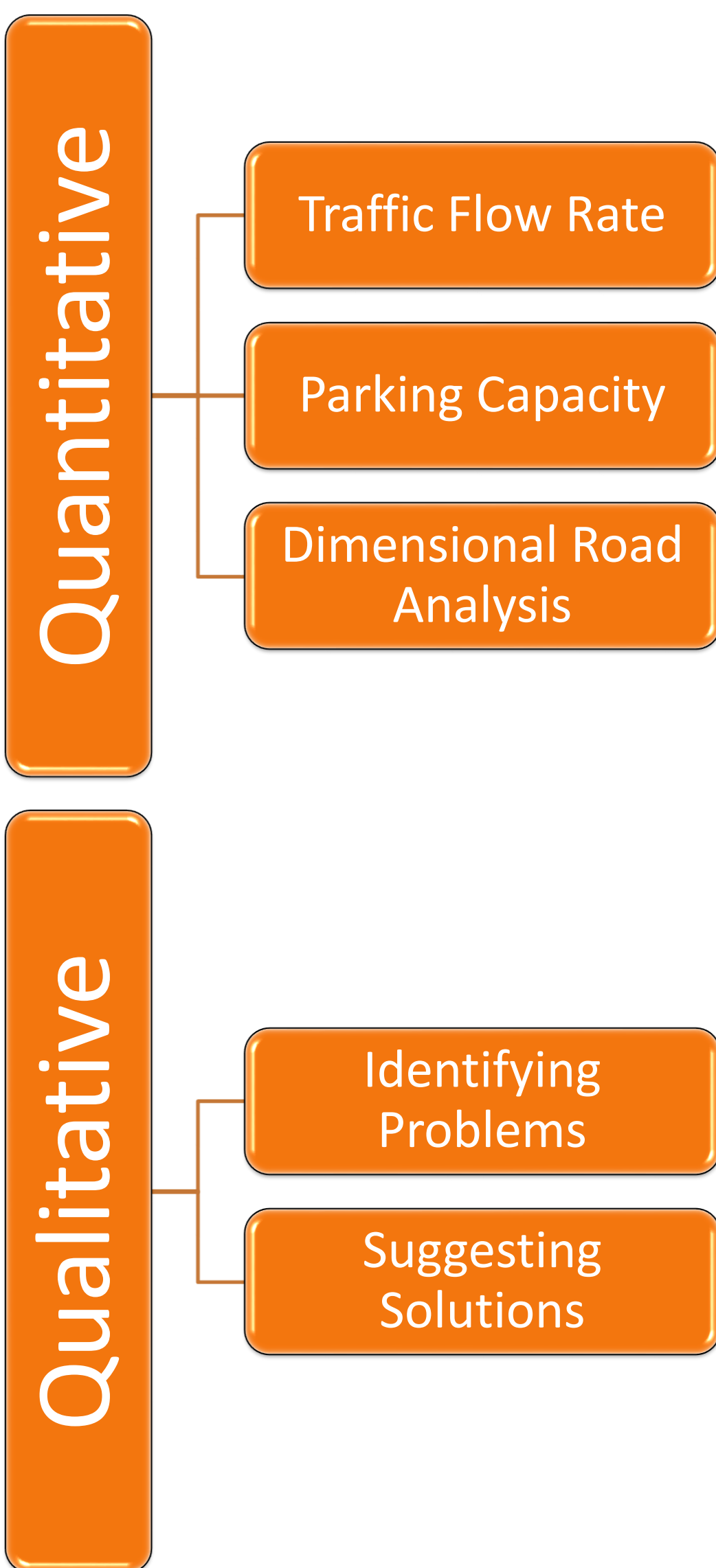


Vehicular traffic congestion



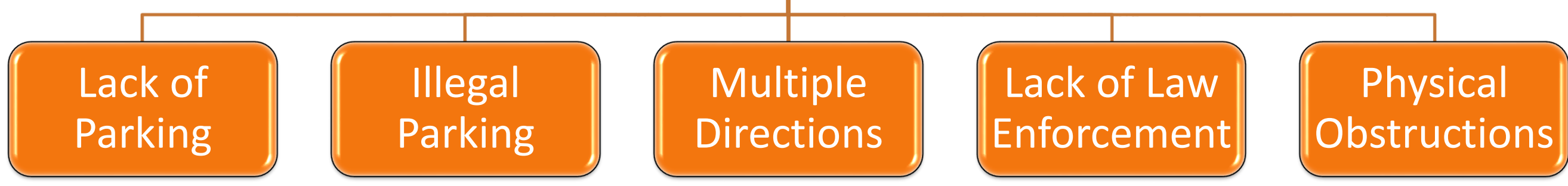
Illegally parked vehicles

Methodology



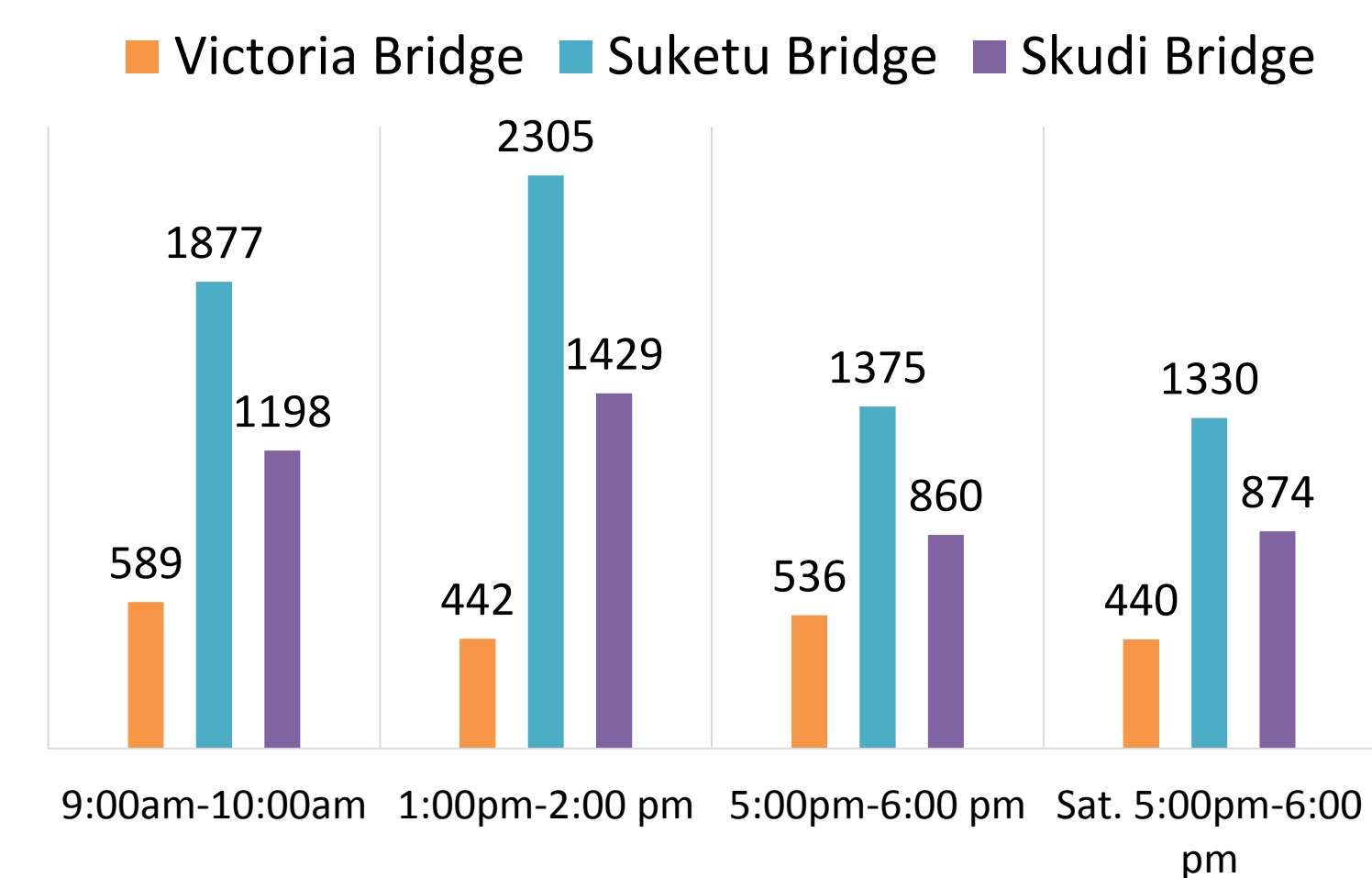
Findings

Most Commonly Identified Traffic Problems

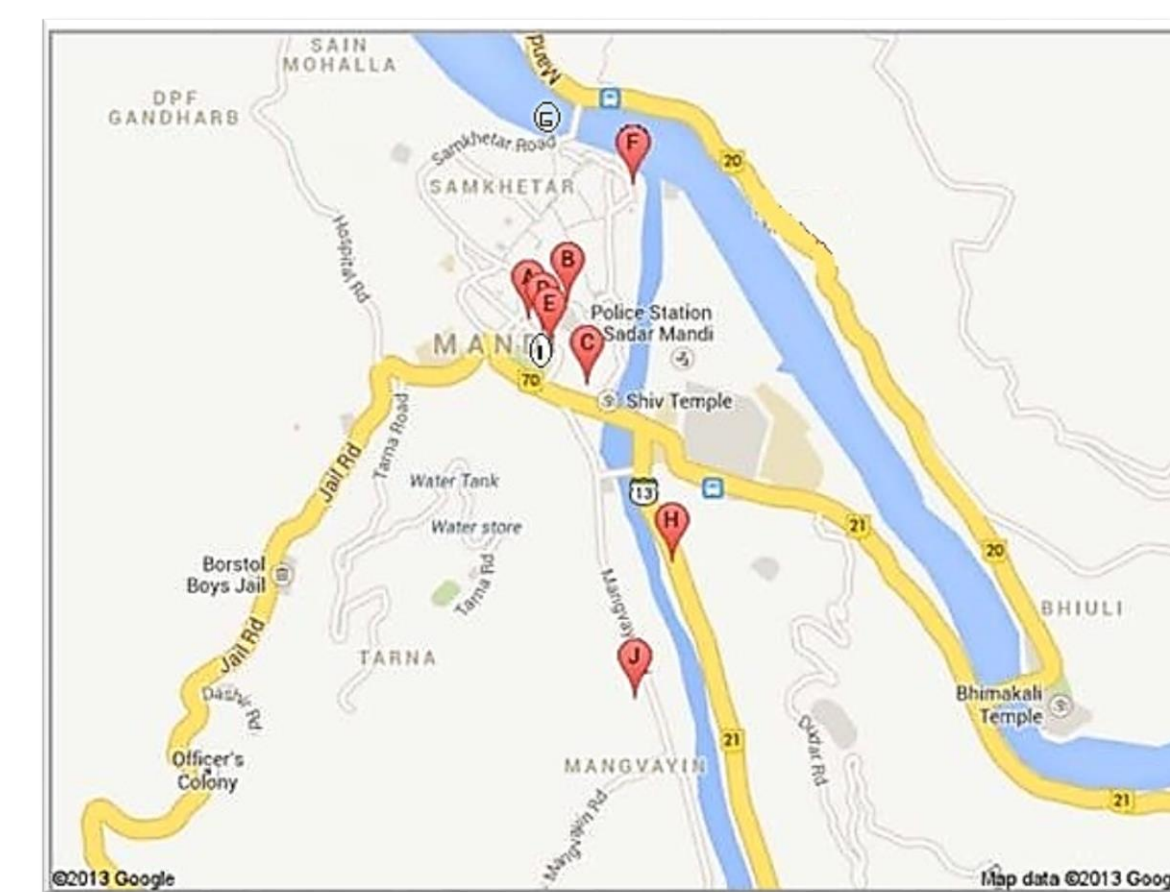


- We calculated the PCUs (Passenger Car Units) per hour in 3 key locations at 4 different time intervals, based on the vehicle size and number of vehicles

TOTAL PCU/H FLOW RATE



- Narrow and problematic roadways, as well as areas with frequent roadside parking were identified

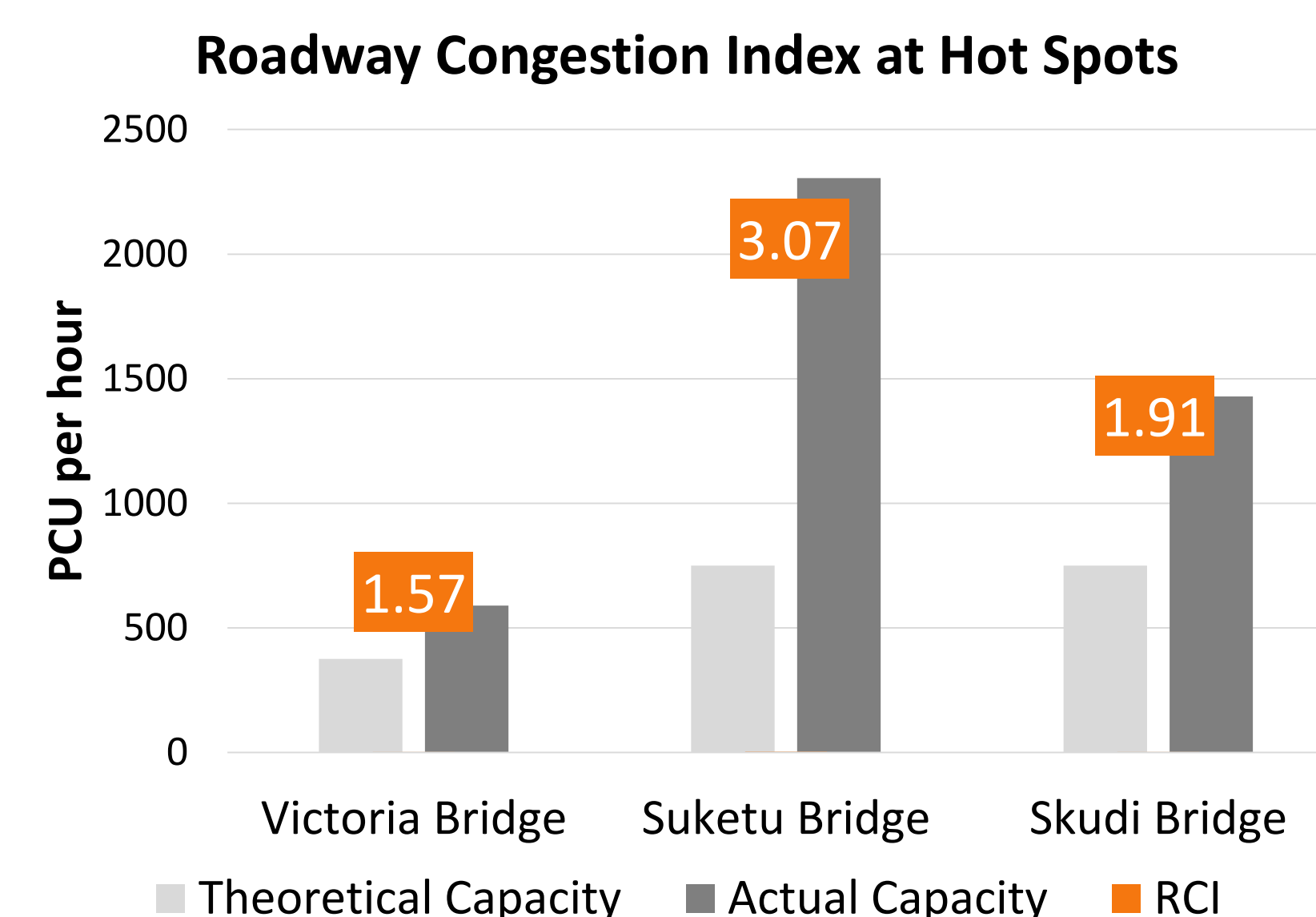


- Based on our assessment of parking facilities either in or near the center of the city we found that the total number of parking spots was 750 PCUs.

Analysis

- Using traffic flow rate data, as well as lane width data, the Road Congestion Index (RCI) was calculated for the three locations

- Network Weighted Average RCI was calculated as 2.46



Mandi City is roughly 2.5 times over capacity according to standards set by the Indian Road Congress (IRC)

Recommendations



Parking

- NH-21 Outside of the City
- Press Office Conversion
- Senior Secondary School Conversion
- Shopkeeper Parking at Indira Market
- Taxi Parking Outside of City Center

Policy

- Future Urban Planning
- Private Parking Lot Guidelines
- Traffic Law Enforcement
- All-Pedestrian Area
- Garbage Disposal



Infrastructure

- Overhead Pedestrian Bridge
- Paved Sewer Cover and Sidewalk
- Move Street Shops
- Alternate Bus Route
- Interior Development of Mandi

Recommendations and Solutions

