



INDIA CYCLES 4 CHANGE CHALLENGE



Guide to Site Analysis -
Step-by-Step process for gathering data
during the site visit

Intent:

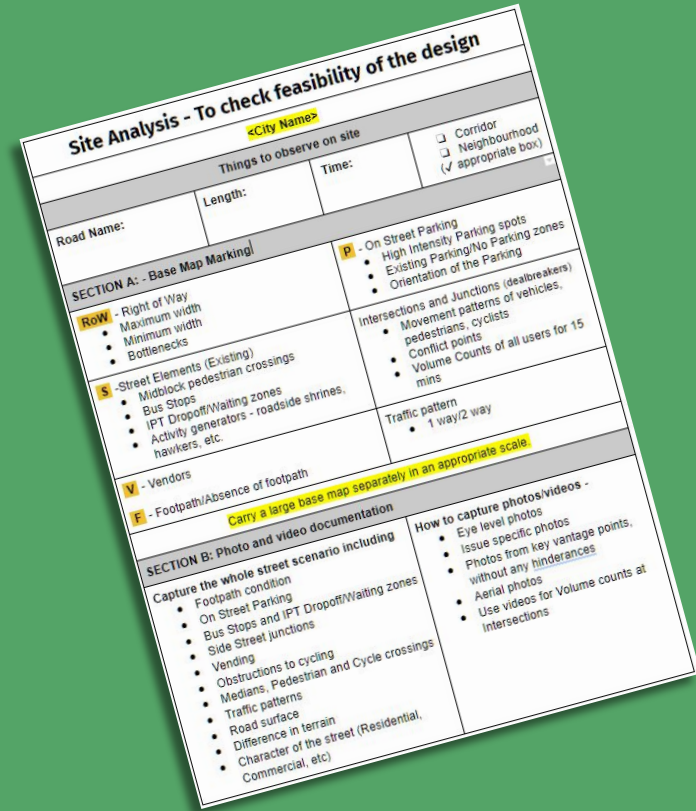
To check feasibility of the design interventions by analysing the street at the dealbreakers points of the pilot cycling corridor and neighbourhood.

The site analysis should be carried out during **peak hours, at the morning and evening.**

It should be done at all the **dealbreaker points in the corridor and neighbourhood.**

Things to carry

1. [Site Analysis Checklist](#)
2. Large map of the corridor and neighbourhood with the dealbreaker points located
3. Measuring tape/ Laser Measuring Tool
4. Pens, pads, folder
5. Camera/Phone with camera
6. Requisite permissions for the documentation



Site Analysis - To check feasibility of the design

<City Name>

Things to observe on site

Corridor Neighbourhood (✓ appropriate box)

Road Name: _____ Length: _____ Time: _____

SECTION A: - Base Map Marking!

RoW - Right of Way

- Maximum width
- Minimum width
- Bottlenecks

S - Street Elements (Existing)

- Midblock pedestrian crossings
- Bus Stops
- IPT Dropoff/Waiting zones
- Activity generators - roadside shrines, hawkers, etc.

P - On Street Parking

- High intensity Parking spots
- Existing Parking/No Parking zones
- Orientation of the Parking

Intersections and Junctions (dealbreakers)

- Movement patterns of vehicles, pedestrians, cyclists
- Conflict points
- Volume Counts of all users for 15 mins

V - Vendors

Traffic pattern

- 1 way/2 way

F - Footpath/Absence of footpath

Carry a large base map separately in an appropriate scale.

SECTION B: Photo and video documentation

Capture the whole street scenario including

- Footpath condition
- On Street Parking
- Bus Stops and IPT Dropoff/Waiting zones
- Side Street junctions
- Vending
- Obstructions to cycling
- Medians, Pedestrian and Cycle crossings
- Traffic patterns
- Road surface
- Difference in terrain
- Character of the street (Residential, Commercial, etc)

How to capture photos/videos -

- Eye level photos
- Issue specific photos
- Photos from key vantage points, without any hindrances
- Aerial photos
- Use videos for Volume counts at intersections

Part 1 : How to Document

Use **photos, videos, maps, and sketches** to capture the **current usage of the street and the various activities.**

Photo and video documentation - What to capture

Capture the whole street scenario including -

- Footpath condition
- On-Street Parking
- Bus Stops and IPT Dropoff/Waiting zones
- Side street junctions
- Vending
- Obstructions to cycling
- Medians, Pedestrian and Cycle crossings
- Traffic patterns
- Road surface
- Difference in terrain
- Character of the street (Residential, Commercial, etc.)



Photo and video documentation - How to capture

- **Take serial vision photos** of the site - photos while walking/cycling to and from either directions of the street.
- **Capture issue specific photos**
Eg: Obstructions to cycling, haphazard parking etc.
- **Identify key vantage points** without any visual hinderances.
- **Aerial photos** with the help of a **drone** or **from the terrace** of a tall building will reveal unused road space and the traffic movement at intersections.



Sections

- Use simple sketches to document the present use of the Right of Way (RoW) width occupied by street activities.

- Use labels such as -

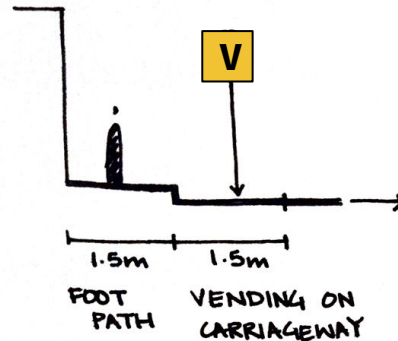
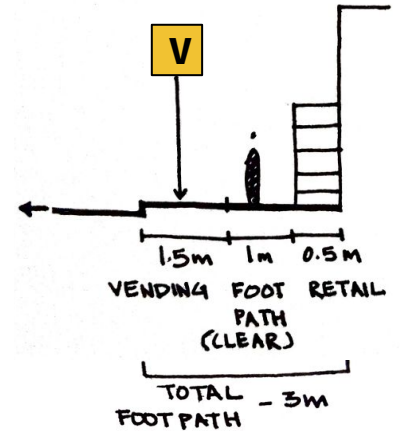
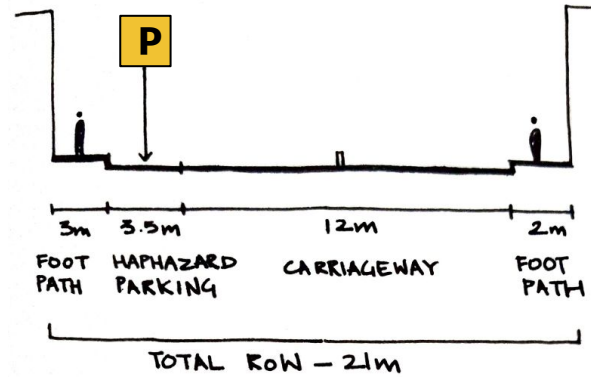
RoW - Right of Way

P - On Street Parking

F - Footpath

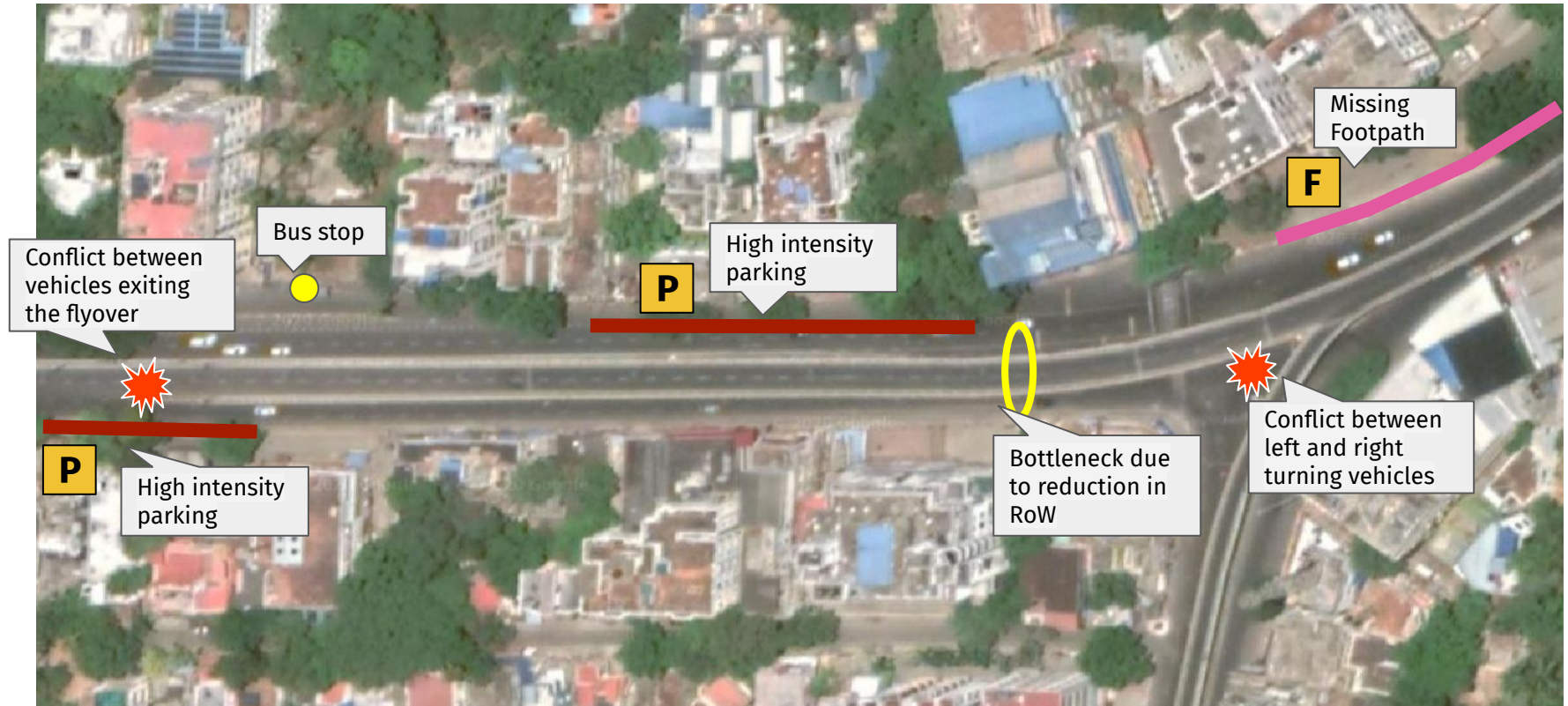
V - Vending

S - Street elements such as medians, pedestrian and cyclist crossings, bus stops



Plans

Use colours, symbols and comments to make observations on the base map.



Part 2 : Things to document

1. Right of Way width (RoW)

To measure the total width of the street that is available for all users.

- [OpenStreetMaps](#) and Google Maps can act as a starting point and as a reference.
- To verify on site, measure the **width of the street from one property edge to the other**.
- Mark the **RoW width at locations where there are significant changes**. Find the average width through the stretch, minimum width, maximum width, and width at bottlenecks.



2. Condition of the Footpath

To assess the condition of the footpath

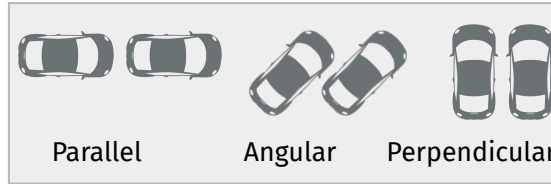
- **Observe the following** -
 - Is footpath provided
 - Is the footpath continuous and walkable?
 - Is the width sufficient for walking?
 - Are pedestrians using the footpath or carriageway?
- Map the **activities that discourage people** from using footpaths -
 - Shop extensions that reduce walking space
 - Parking
 - Vendors



3. On Street Parking Situation

To assess the existing on street parking situation.

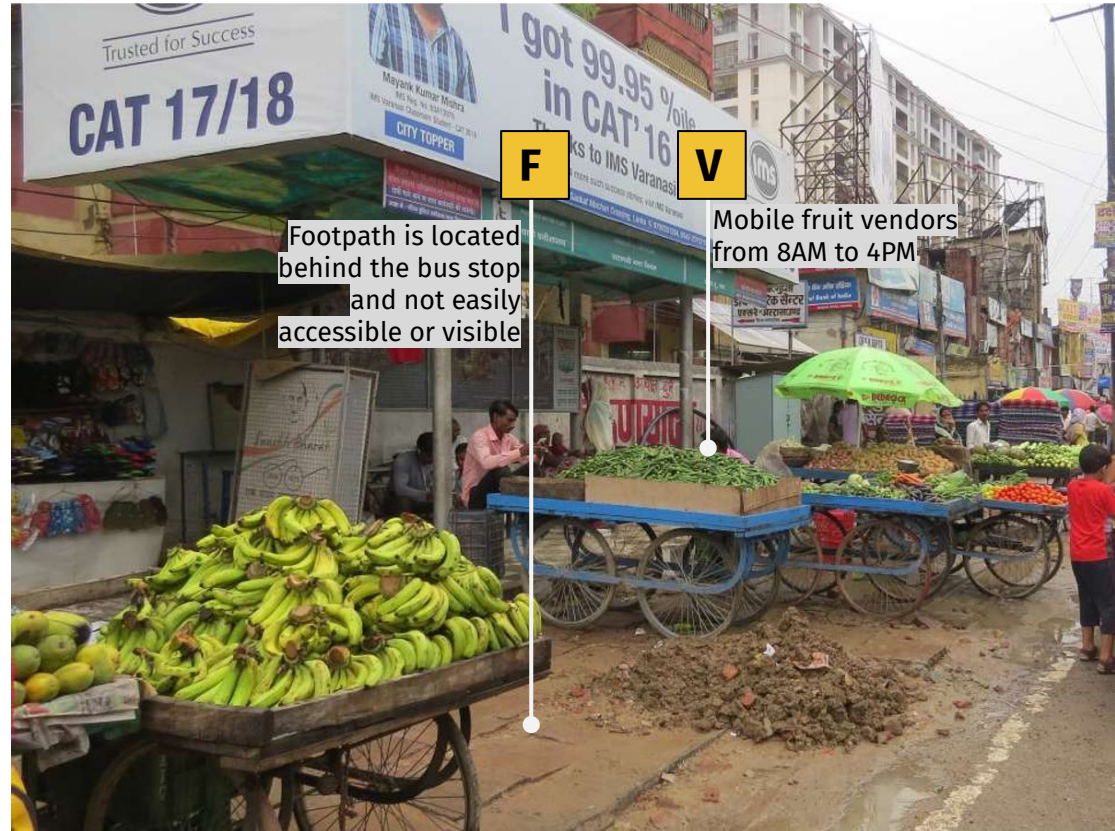
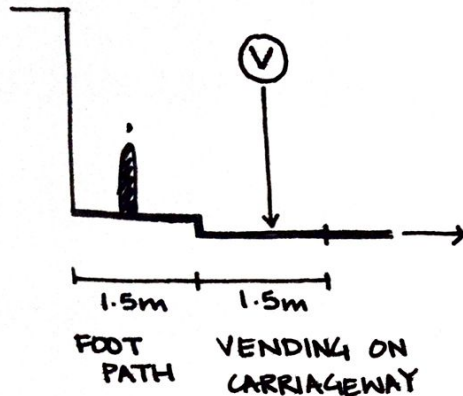
- Mark the **width occupied, existing parking & no parking zones** in the map and overall RoW.
- **Observe the following** -
 - Is there **high intensity parking**?
 - Is parking **haphazard**? - Double parking, encroached on footpaths
 - What is the **orientation**? - Parallel, Angular, Perpendicular
 - Is **cycle parking** provided?
 - Are **parking lots** in the area used to **their full potential**?



4. Vending

To assess the impact of vendors on the street and integrate them in the design.

- Map the **vendors** through sections or photographs.
- Mark the **road width occupied by the vendors** in the overall RoW width.



5. Street Elements

To identify all the street elements that will influence the design.

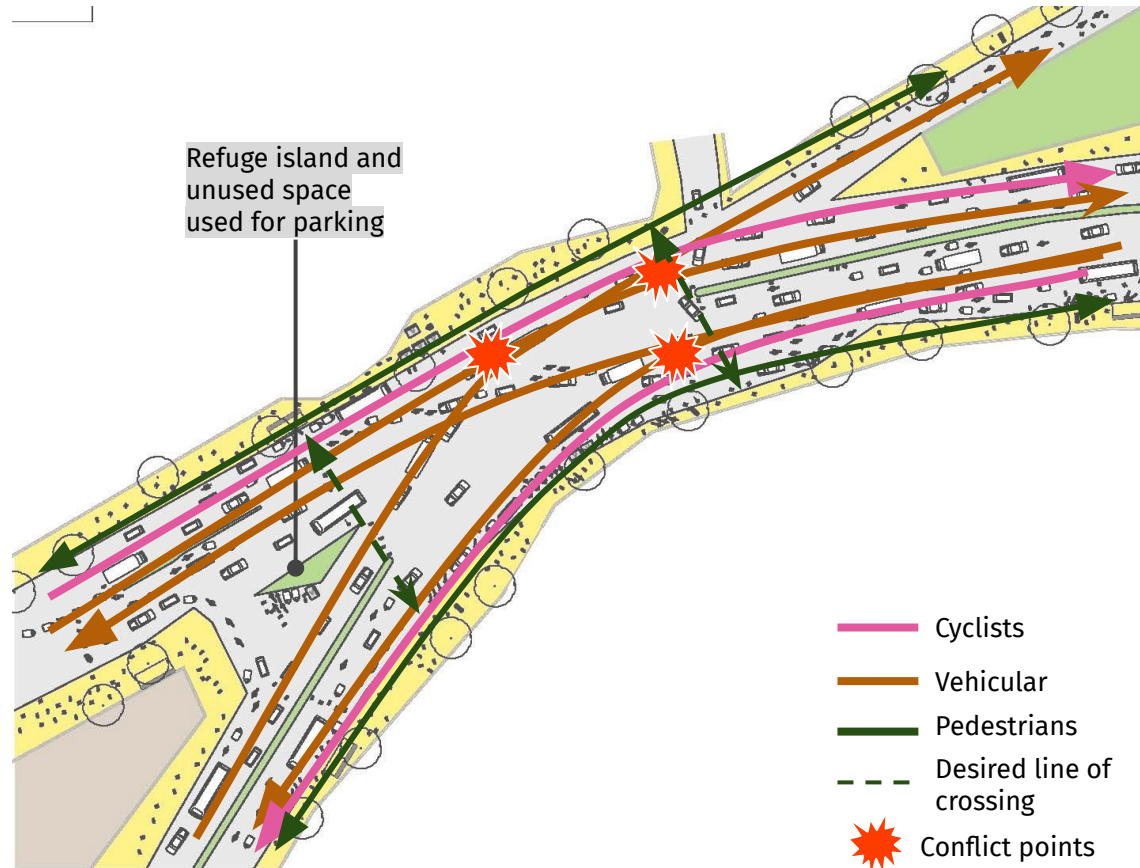
- Location of **bus stops** and **IPT** dropoff/waiting zones
- Mark existing **midblock pedestrian crossings**.
- Traffic rerouting through **temporary/permanent traffic barriers** - location and duration during day.



6. Traffic Patterns at Intersections

To identify movement patterns of different road users and conflict points at the intersection

- Mark the movement of different users and the geometry of the intersection.
- Identify **conflict points**, which mainly arise in large, unsignalized intersections.
- Observe if pedestrians and cyclists can cross the intersection safely and the **desired line of crossing**.
- Mark refuge islands and unused space at the intersection.



7. Volume counts at Intersections

To identify traffic patterns of motor vehicles, cyclists, and pedestrians

- The volume counts of **motor vehicles, cyclists, and pedestrians** should be captured, along with **signal cycles and timings**.
- The count should be taken at **peak hours** and for a **duration of 15 minutes**.
- Counts can be conducted **on site or from a video recording**.
- More details can be found in the [Better Streets, Better Cities](#) document, page 164 onwards.

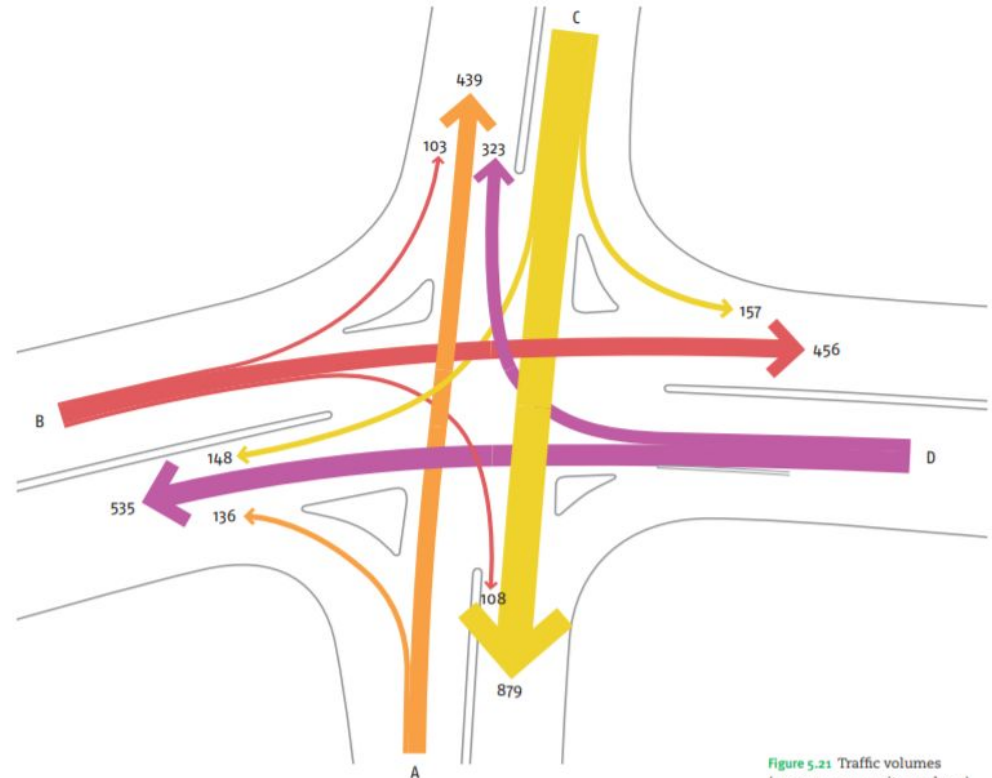


Figure 5.21 Traffic volumes (passenger car units per hour)

8. Other issues

To identify other issues that hinder the movement and sight of cyclists.

- Dustbins
- Hoardings
- Utility Infrastructure
- Garbage
- Etc.



Part 3 : Refine the design

Inferences from site analysis

Analyse all the information and make inferences about the street scenario along the corridor and neighbourhood.

An example from the corresponding photo -

- 2 carriageway lanes are provided but only **one carriageway lane is effectively used** by vehicles.
- **50% of the carriageway** is occupied by haphazard parking.
- Shop extensions on the footpath force **pedestrians to use the carriageway**, leading to **collisions with cyclists**.
- Cyclist and pedestrian **crossings are infrequent**.



Modify the design based on site conditions

- Use the site analysis to further **develop and refine your designs.**
- **Engage in discussions with the relevant stakeholders** to gather inputs, build support for the design and to resolve issues due to on-street parking.
- Coordinate with Government agencies to shift on ground utilities that serve as obstructions.

